



# 2023 CCR ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT

## MULTI-UNIT ASH POND SYSTEM

EAGLE VALLEY GENERATING STATION

### PREPARED FOR:

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Atlas Project No. 170LF01502

**Mr. David M. Heger**  
**Senior Counsel**  
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**Indianapolis, Indiana 46204-2901**

**Re: 2023 CCR Annual Groundwater Monitoring and Corrective Action Report**  
**Indianapolis Power & Light Company d/b/a AES Indiana (AESI)**  
**Eagle Valley Generating Station – Multi-Unit Ash Pond System**  
**Martinsville, Indiana**  
**Atlas Project No. 170LF01502**

Dear Mr. Heger:

Atlas Technical Consultants LLC (Atlas) has prepared this 2023 CCR Annual Groundwater Monitoring and Corrective Action Report for the Ash Pond System at the AESI Eagle Valley Generating Station (EVGS) located outside Martinsville, Morgan County, Indiana. This report has been prepared to comply with reporting requirements described in the United States Environmental Protection Agency's (USEPA) Coal Combustion Residuals (CCR) Rule § 257.90(e). This annual report documents the status of the groundwater monitoring and corrective action program for the Ash Pond System and includes information required by § 257.90(e)(1) through § 257.90(e)(6).

Federal CCR Rule § 257.90(e)(6) specifies the following:

*A section at the beginning of the annual report that provides an overview of the current status of groundwater monitoring and corrective action programs for the CCR unit. At a minimum, the summary must specify all of the following: (i) At the start of the current annual reporting period, whether the CCR unit was operating under the detection monitoring program in § 257.94 or the assessment monitoring program in § 257.95; (ii) At the end of the current annual reporting period, whether the CCR unit was operating under the detection monitoring program in § 257.94 or the assessment monitoring program in § 257.95; (iii) If it was determined that there was a statistically significant increase over background for one or more constituents listed in appendix III to this part pursuant to § 257.94(e): (A) Identify those constituents listed in appendix III to this part and the names of the monitoring wells associated with such an increase; and (B) Provide the date when the assessment monitoring program was initiated for the CCR unit. (iv) If it was determined that there was a statistically significant level above the groundwater protection standard for one or more constituents listed in appendix IV to this part pursuant to § 257.95(g) include all of the following: (A) Identify those constituents listed in appendix IV to this part and the names of the monitoring wells associated with such an increase; (B) Provide the date when the assessment of corrective measures was initiated for the CCR unit; (C) Provide the date when the public meeting was held for the assessment of corrective measures for the CCR unit; and (D) Provide the date when the assessment of corrective measures was completed for the*

CCR unit. (v) Whether a remedy was selected pursuant to § 257.97 during the current annual reporting period, and if so, the date of remedy selection; and (vi) Whether remedial activities were initiated or are ongoing pursuant to § 257.98 during the current annual reporting period.

### Overview of 2023 Groundwater Monitoring and Corrective Action

For the duration of the 2023 reporting period, the CCR units at the EVGS – Ash Pond System were being monitored under the Assessment Monitoring Program defined in § 257.95. Pursuant to 40 CFR 257.94(e)(2), 257.94(e)(3) and 257.95(b), the facility had previously established an Assessment Monitoring Program in accordance with the requirements of § 257.95 on July 16, 2018. Therefore, evaluation of statistically significant increase over background for one or more constituents listed in Appendix III to this part pursuant to § 257.94(e) was not performed in 2023.

At the end of the 2023 reporting period, it was determined that the following Appendix IV constituents were at statistically significant levels (SSLs) above the associated groundwater protection standards (GWPS) pursuant to § 257.95(g)<sup>1</sup>. The SSLs are as follows:

Arsenic	Lithium	Molybdenum
<b>SHALLOW</b>		
MW-2S	MW-1S	
MW-11S	MW-2S	
	MW-6S	
	MW-10S	
	MW-11S	
	MW-12S	
<b>INTERMEDIATE</b>		
	MW-1I	MW-6I
	MW-2I	MW-11I
	MW-6I	
	MW-11I	
<b>DEEP</b>		
	MW-1D	MW-1D
	MW-2D	MW-6D
	MW-6D	MW-11D
	MW-11D	

The above listed SSLs are not new constituent SSLs and were previously identified. Therefore, no new SSL notification was required pursuant to § 257.94(e).

The assessment of corrective measures was initiated for the EVGS CCR regulated units on April 15, 2019 in response to SSLs of Appendix IV constituents exceeding GWPS. Pursuant to 40 CFR §257.96(a), a demonstration of need for a 60-day extension for the assessment of corrective measures was completed on July 12, 2019. The Corrective Measures Assessment (CMA) Report was completed and placed in the facility operating record on September 13, 2019 and

<sup>1</sup> SSLs provided are based on the April 2023 monitoring event, as October 2023 SSLs were not finalized in 2023.

subsequently amended on October 11, 2019. Groundwater nature and extent work is ongoing at the facility in support of characterizing the extent of the CCR impacted groundwater and further support of the CMA. Once the N&E is sufficiently completed, a public meeting will be held, a remedy will be selected pursuant to § 257.97, and implementation of the selected remedy will be initiated thereafter in accordance with § 257.98.

Federal CCR Rule § 257.90(e) specifies the following:

*For existing CCR landfills and existing CCR surface impoundments, no later than January 31, 2019, and annually thereafter, the owner or operator must prepare an annual groundwater monitoring and corrective action report. For new CCR landfills, new CCR surface impoundments, and all lateral expansions of CCR units, the owner or operator must prepare the initial annual groundwater monitoring and corrective action report no later than January 31 of the year following the calendar year a groundwater monitoring system has been established for such CCR unit as required by this subpart, and annually thereafter. For the preceding calendar year, the annual report must document the status of the groundwater monitoring and corrective action program for the CCR unit, summarize key actions completed, describe any problems encountered, discuss actions to resolve the problems, and project key activities for the upcoming year. For purposes of this section, the owner or operator has prepared the annual report when the report is placed in the facility's operating record as required by § 257.105(h)(1).*

The following key actions have been completed in 2023 to comply with 40 CFR 257.90-98:

- November 2022 laboratory analytical reports were finalized and placed in the facility operating record pursuant to 40 CFR 257.95(d)(1).
- Completed in-situ hydraulic testing of the shale bedrock at monitoring well locations MW-3D, MW-12D and MW-26D in February 2023.
- Efforts to determine the nature and extent (N&E) of the Appendix IV SSLs continued pursuant to § 257.95(g):
  - ✓ Groundwater samples were collected from the three (3) on-site N&E nested monitoring wells (MW-14, MW-15, MW-16) in November 2022;
  - ✓ AESI completed installation of nine supplemental on-site N&E monitoring wells at three nest locations (MW-24S, MW-24I, MW-24D, MW-25S, MW-25I, MW-25D, MW-26S, MW-26I, and MW-26D) to further delineate the extent of groundwater concentrations above applicable GWPS between January and February 2023. The location of nested well MW-25 was moved to AESI's southerly property boundary to minimize the distance to off-site N&E well cluster MW-17; despite attempts to obtain access from off-site property owners, access for an additional off-site N&E well nest was denied in January 2023;

- ✓ AESI completed installation of three supplemental on-site N&E monitoring wells between January and February 2023 at two locations. Monitoring well MW-3D was installed to delineate the vertical extent of constituent concentrations at the MW-3 cluster along the northwestern Ash Pond System boundary and monitoring wells MW-12I and MW-12D were installed to delineate the vertical extent of concentrations above GWPS at the MW-12S along the southern Ash Pond System boundary;
- ✓ Groundwater samples were collected from seven (7) off-site nested monitoring wells (MW-17 through MW-23) between November and December 2022 to define the lateral extent of Appendix IV constituents;
- Collected soil samples from the screen intervals of the twelve (12) new N&E monitoring wells. The analytical results will be used to evaluate geochemical conditions and the effect on the mobility of Appendix IV constituents in groundwater.
- Semi-annual assessment monitoring sampling events were conducted in 2023 as required by § 257.95(b) and § 257.95(d)(1). Pursuant to 40 CFR 257.95(b), each Appendix IV constituent was sampled in 2023. Pursuant to 40 CFR 257.95(d)(1), semi-annual sampling of each Appendix III parameter and Appendix IV constituent detected in response to 40 CFR 257.95(b) was conducted in 2023. Sampling events were performed consistent with 40 CFR 257.93(e). Subsequent SSLs evaluation of the November 2022 and April-May 2023 data were performed within 90 days of completing the sampling and analysis pursuant to § 257.93(h)(2)<sup>2</sup>.
- On-site N&E groundwater sampling events were completed at monitoring wells (MW-12I, MW-12D) in March, April, July, and October 2023; (MW-3D) in April, July, and October 2023; and (MW-24S, MW-24I, MW-24D, MW-25S, MW-25I, MW-25D, MW-26S, MW-26I, MW-26D) in March, May, July, and October 2023.
- Off-site N&E groundwater sampling events were completed in April and October 2023 to define the lateral and vertical extent of Appendix IV constituents.
- Semi-Annual Remedy Selection Progress Reports pursuant to § 257.97(a) for the period of September 13, 2022 through March 13, 2023, and for the period of March 14, 2023 through September 13, 2023 were completed and placed in the facility's operating record and posted to AESI's CCR Website.
- In April 2023, IDEM requested additional information regarding the Revised Closure and Post-Closure Plan that AESI submitted in October 2022. AESI provided initial responses in July 2023 and submitted a revised Closure & Post-Closure Plan for Ponds A, B, and C on November 17, 2023.

To report on the activities conducted during the prior calendar year and document compliance with the CCR Rule, the specific requirements listed in § 257.90(e)(1) through § 257.90(e)(5) are

<sup>2</sup> Sampling results for the November-December 2022 and April-May 2023 semi-annual assessment monitoring events are summarized in **Table 3** and **Table 6**, respectively. Please refer to Section § 257.90(e)(4) on Page 11 of this report regarding SSL evaluation results.

provided below in bold/italic type followed by a short narrative addressing how that specific requirement has been met.

***At a minimum, the annual groundwater monitoring and corrective action report must contain the following information, to the extent available:***

***§ 257.90(e)(1) A map, aerial image, or diagram showing the CCR unit and all background (or upgradient) and downgradient monitoring wells, to include the well identification numbers, that are part of the groundwater monitoring program for the CCR unit.***

AESI operates the Eagle Valley Station located approximately four miles north of Martinsville, Indiana. It is located at 4040 Blue Bluff Road. A Site Location Map is provided as **Figure 1**. A map showing the location of each CCR management unit, associated upgradient and downgradient CCR monitoring wells, in addition to N&E wells installed between 2019 and 2023, is provided as **Figure 2**.

***§ 257.90(e)(2) Identification of any monitoring wells that were installed or decommissioned during the preceding year, along with a narrative description of why those actions were taken;***

Between January and February 2023, twelve (12) N&E wells (MW-3D, MW-12I, MW-12D, MW-24S, MW-24I, MW-24D, MW-25S, MW-25I, MW-25D, MW-26S, MW-26I, MW-26D) were installed on-site to further delineate the extent of groundwater concentrations above applicable GWPS.

No monitoring equipment was abandoned during 2023.

The location of the CCR monitoring well network and N&E wells are depicted on **Figure 2**.

***§ 257.90(e)(3) In addition to all the monitoring data obtained under § 257.90 through §257.98, a summary including the number of groundwater samples that were collected for analysis for each background and downgradient well, the dates the samples were collected, and whether the sample was required by the detection monitoring or assessment monitoring programs;***

**Table 1** provides a summary of the number of samples collected at each CCR monitoring well and N&E monitoring well/piezometer, sampling dates, and designation of whether samples were required by the detection or assessment monitoring program, or N&E.

Groundwater elevation data is provided in **Table 2**.

Assessment monitoring and N&E monitoring results for the November-December 2022 semi-annual sampling event which includes the CCR groundwater monitoring system wells and on-site N&E wells (MW-14S, MW-14I, MW-14D, MW-15S, MW-15I, MW-15D, MW-16S, MW-16I, and MW-16D) and off-site N&E wells (MW-17S, MW-17I, MW-17D, MW-18S, MW-18I, MW-18D, MW-19S, MW-19I, MW-19D, MW-20I, MW-20D, MW-21S, MW-21I, MW-21D, MW-22S, MW-22I, MW-22D, MW-23S, MW-23I, and MW-23D) are summarized in **Table 3**; these results were not



finalized by the end of 2022 for inclusion in the associated 2022 Annual Report. MW-20S was dry during the November 2022 event.

Soil analytical results for samples collected from the new N&E wells in February and March 2023 are provided in **Table 4**.

Groundwater analytical results for the March 2023 new N&E wells MW-12I, MW-12D, MW-26S, MW-26I, and MW-26D, and on-site N&E wells MW-24S, MW-24I, MW-24D, MW-25S, MW-25I, and MW-25D) are summarized in **Table 5**. MW-3D was not sampled in March 2023.

Assessment monitoring and N&E monitoring results for the April 2023 semi-annual sampling event which includes new enhancement wells MW-3D, MW-12I, MW-12D, MW-26S, MW-26I, and MW-26D, on-site N&E wells MW-14S, MW-14I, MW-14D, MW-15S, MW-15I, MW-15D, MW-16S, MW-16I, MW-16D, MW-24S, MW-24I, MW-24D, MW-25S, MW-25I, and MW-25D, and off-site N&E wells MW-17S, MW-17I, MW-17D, MW-18S, MW-18I, MW-18D, MW-19S, MW-19I, MW-19D, MW-20S, MW-20I, MW-20D, MW-21S, MW-21I, MW-21D, MW-22S, MW-22I, MW-22D, MW-23S, MW-23I, and MW-23D are summarized in **Table 6**.

Groundwater analytical results for the July 2023 new N&E wells MW-3D, MW-12I, MW-12D, MW-26S, MW-26I, and MW-26D, and on-site N&E wells MW-24S, MW-24I, MW-24D, MW-25S, MW-25I, and MW-25D) are summarized in **Table 7**.

Potentiometric surface maps for the November 2022 sampling event are provided as **Figure 3** through **Figure 5**. Potentiometric surface maps for the April 2023 sampling event are provided as **Figure 6** through **Figure 8**. Potentiometric surface maps for the October 2023 sampling event are provided as **Figure 9** through **Figure 11**. Flow rate vectors are depicted on the maps. Gauging summary tables and flow velocity calculations for each event are provided as supporting documentation in **Appendix A**. Laboratory certificates of analysis are provided in **Appendix B**.

### ***Statistical Evaluation Procedures***

The statistical evaluation procedures created for the EVGS define the statistical tests to be used for this site's CCR groundwater detection monitoring system. The aforementioned evaluation methods specify statistical tests for the detection monitoring program (Appendix III parameters) and assessment monitoring program (Appendix IV parameters) described in 40 CFR 257. These evaluation methods were created to comply with the requirements of § 257.93(f).

This plan is based on the use of the commercial software DUMPStat<sup>3</sup> (Version 3.0). The DUMPStat program uses statistical tests, procedures, and testing sequences described in Statistical Methods for Groundwater Monitoring<sup>4</sup> (Gibbons et. al., 2009). The statistical methods for the EVGS CCR monitoring system are designed to be consistent with ASTM International Standard Guide for Developing Appropriate Statistical Approaches for Groundwater Detection Monitoring Programs *at*

<sup>3</sup> DUMPStat Version 3.0 was written by Robert D. Gibbons and is distributed and supported by Discerning Systems Inc.

<sup>4</sup> Gibbons, R.D., Bhaumik D. K., Aryal S., 2009, Statistical Methods for Groundwater Monitoring, Second Edition, John Wiley & Sons, Inc. New York, 374 pages.

*Waste Disposal Facilities* (D6312-17) along with federal and state guidance and are also consistent with Indiana’s regulations addressing statistical evaluation of groundwater at solid waste landfills.

At the beginning of 2023 the CCR ash pond groundwater monitoring system consisted of twenty-seven (27) monitoring wells: MW-1S, MW-1I, MW-1D, MW-2S, MW-2I, MW-2D, MW-3S, MW-3I, MW-4S, MW-4I, MW-4D, MW-6S, MW-6I, MW-6D, MW-7S, MW-8S, MW-9S, MW-9I, MW-9D, MW-10S, MW-11S, MW-11I, MW-11D, MW-12S, MW-13S, MW-13I, and MW-13D. Monitoring wells MW-13S, MW-13I, and MW-13D represented upgradient/background wells, while the remaining represented downgradient wells. The MW-1 through MW-12 series wells were installed in accordance with the requirements of Federal CCR Rule § 257.91 between September 28, 2015 and March 17, 2016, while the MW-13 nest was installed in late June-early July 2019.

As part of investigations to determine the nature & extent of the release as required by § 257.95(g)(1), several additional wells have been installed, including the MW-13 nest that is located near the southeast corner of the facility. The MW-13 through MW-16 N&E well clusters were installed to serve as facility downgradient boundary wells pursuant to § 257.95(g)(1)(iii). Subsequent water level gauging and water table mapping, however, showed that the MW-13 well cluster was not hydraulically downgradient as anticipated but was, in fact, upgradient.

The original upgradient/background wells (MW-4S, MW-4I, MW-4D, MW-8S, MW-9S, MW-9I, and MW-9D) were installed at locations that were believed to represent the quality of background groundwater and the quality of groundwater passing the waste boundary. However, based on site-specific data gathered since installation (including data variability caused by the proximity of the background wells to the multiunit boundary and the discharge canal), the wells were replaced with a new background well nest: MW-13S, MW-13I, and MW-13D. This well nest is located in the same hydrostratigraphic unit approximately 1,400 feet east of the multiunit boundary in an area of the site unaffected by a CCR unit. Due to the aforementioned data variability of the former background wells, updates to the background database were paused after May 2019. In the meantime, assessment monitoring activities continued and the data was compared to the background well data collected between April 2016 and May 2019.

The groundwater monitoring system was re-certified in December 2021 in accordance with the requirements of Federal CCR Rule § 257.91 to account for MW-13S, MW-13I, and MW-13D serving as the new upgradient/background monitoring wells for the CCR well network, replacing the original upgradient/background wells. The new background dataset has been used beginning with November 2021 semi-annual data comparisons.

Statistical levels defined in this evaluation plan depend, in part, on the values defined for certain settings in DUMPStat. The Plan is based on making interwell comparisons for each well and each parameter. The background database contains results from August 2019 through the current sampling event being evaluated. The facility used this background data for statistical comparisons to the November 2022 and April 2023 semi-annual event datasets. The minimum background sample size was set to eight (8). Under this plan, if a detection monitoring result in a compliance well exceeds a statistical limit, a statistically significant increase, or SSI, will be declared.

Semi-annual assessment monitoring sampling events were conducted in 2023 as required by § 257.95(b) and § 257.95(d)(1). Pursuant to 40 CFR 257.95(b), each Appendix IV constituent was

sampled in 2023. Pursuant to 40 CFR 257.95(d)(1), semi-annual sampling of each Appendix III parameter and Appendix IV constituent detected in response to 40 CFR 257.95(b) was conducted in 2023. All sampling events were performed consistent with 40 CFR 257.93(e). Subsequent SSL evaluation of the November 2022 and April 2023 data were performed within 90 days of completing the sampling and analysis pursuant to § 257.93(h)(2).

### 1.1 Background Data

Pursuant to 257.94(b), the monitoring well network has been sampled to establish a minimum eight background data sets prior to completion of initial statistical analyses. Groundwater samples were analysed for the Appendix III parameters: boron (total), calcium (total), chloride, fluoride, pH, sulfate, and total dissolved solids (TDS); and for the Appendix IV parameters: antimony (total), arsenic (total), barium (total), beryllium (total), cadmium (total), chromium (total), cobalt (total), fluoride, lead (total), lithium (total), mercury (total), molybdenum (total), selenium (total), thallium (total), and total radium.

Included in this Appendix are summaries of the historical data for the statistically evaluated parameters for the EVGS. Historical data from groundwater sampling events were imported into the DUMPStat database. **Appendix C, Table 1** contains groundwater quality data collected from monitoring wells MW-13S, MW-13I, and MW-13D through the current semi-annual event being evaluated.

Prediction limits based on groundwater quality reported from the background monitoring wells were calculated for each parameter and are presented in **Appendix C, Table 5**.

### 1.2 Defined Statistical Tests - Interwell Statistical Comparisons

Appendix IV assessment monitoring parameters are statistically evaluated using the appropriate upgradient versus downgradient statistical test also known as an interwell statistical comparison. To assign the appropriate upgradient versus downgradient statistical test, DUMPStat first checks the parameter concentration to determine the detection frequencies (**Appendix C, Table 3**). It then applies the Shapiro-Wilk Test of Normality for Multiple Groups to determine if the data for each parameter are normally or lognormally distributed, or if a nonparametric prediction limit must be used (**Appendix C, Table 4**). The statistics are then calculated and the prediction limits established (**Appendix C, Table 5**). DUMPStat screens the background data using Dixon's test to remove the outliers. The results of the Dixon's test are listed in **Appendix C, Table 6**. The parameters that exceed statistical limits in the downgradient monitoring wells, along with the associated historical data for those parameters, are listed in **Appendix C Table C-7**.

Among the background measurements, if the constituent fits normal/lognormal distribution, the parametric prediction limit is calculated; if the constituent does not fit normal/lognormal distribution, the non-parametric prediction limit is calculated.

As will be explained in a subsequent section, calculated prediction limits are used in the development of GWPSs for each Appendix IV constituent.

### 1.3 False Positive Rates and Statistical Power

Included in this appendix is the power curve calculated by DUMPStat for the shallow, intermediate, and deep monitoring zones at the site for this interwell monitoring plan. As indicated



in the US EPA Unified Guidance<sup>5</sup> document, as a general guide, when background is approximately normal in distribution, a statistical test should be able to detect a 3-standard deviation increase at least 55-60% of the time, and a 4-standard deviation increase with at least 80-85% probability. The calculated statistical power curve for each zone indicates general compliance with this guidance; the facility's statistical program has the annual power to detect 3- and 4-standard deviation increases above the true background mean. It is expected that the power curves will also improve as additional background data are added over time.

#### 1.4 Interwell Statistics Comparisons

Future groundwater quality results at monitoring wells MW-1S, MW-1I, MW-1D, MW-2S, MW-2I, MW-2D, MW-3S, MW-3I, MW-6S, MW-6I, MW-6D, MW-7S, MW-10S, MW-11S, MW-11I, MW-11D, and MW-12S will be statistically compared to results from monitoring wells MW-13S, MW-13I, and MW-13D.

#### 1.5 Background Sample Size

The number of background samples for Appendix IV parameters is listed in the "N" column of **Appendix C, Table 5**. The minimum background sample size is eight.

#### 1.6 Appendix IV Assessment Monitoring – Statistical Procedures to Determine GWPS Exceedances

In accordance with 257.95(a), as SSIs have previously been identified for one or more Appendix III constituents at one or more downgradient wells, an Appendix IV assessment monitoring program has been established. Prediction limits are calculated for each Appendix IV parameter. A GWPS for each Appendix IV parameter will also be established. The GWPS will be the larger of the background prediction limit, the regulatory standard (maximum contaminant level, MCL), or the USEPA Screening Level<sup>6</sup> for those Appendix IV constituents (cobalt, lithium, molybdenum) that do not have a defined MCL.

Appendix IV parameters are evaluated by calculating the lower confidence limit (LCL) on the mean of the last four reported concentrations for each Appendix IV parameter in each downgradient (compliance) well to the GWPS. This approach is discussed in technical literature (Gibbons and Coleman, 2001, Equation 19.5, p. 231)<sup>7</sup> and the US EPA Unified Guidance (2009). The 95% LCL of the mean of the last four measurements for each Appendix IV constituent will be calculated as follows:

$$LCL = \bar{x} - t_s / \sqrt{m}$$

LCL = lower confidence limit for mean;

t = one-tailed 100(1- $\alpha$ ) percentage point of Student's *t*-distribution on *m*-1 degrees of freedom;

<sup>5</sup> Statistical Analysis of Groundwater Monitoring Data at RCRA Facilities Unified Guidance, March 2009, EPA 530-R-09-007.

<sup>6</sup> USEPA Amendments to the National Minimum Criteria (Phase One, Part One), Disposal of Coal Combustion Residuals from Electric Utilities; effective August 29, 2018 (page 36444).

<sup>7</sup> Gibbons, R.D., and Coleman, D.E., 2001. Statistical Methods for Detection and Quantification of Environmental Contamination, John Wiley & Sons, 384 pp.

$m$  = number of sample measurements;

$s/\sqrt{m}$  = standard error of the mean; and

$\bar{x}$  = sample mean of  $m$  measurements.

The procedure for evaluating LCLs to the GWPS to identify if an exceedance exists is as follows.

#### **A. LCL EVALUATION OF FOUR MOST RECENT DATA RESULTS (TYPICALLY THE MOST RECENT TWO YEARS OF DATA)**

Procedurally, the first step in the analysis compares the LCL to the GWPS based on the four most recent results. During this initial step, the associated mean of the four data points is also compared to the GWPS. LCL exceedances will be identified. See step B for additional description. For non-detect data, LCL calculations utilize 1/2 the median non-detect (ND) reporting limit (RL) from the well's cumulative non-detect sample results. If RL levels changed over time, the current calculated LCL value may be larger than the most recent four ND results.

#### **B. MEAN VS. LCL QUANTITATIVE SCREENING EVALUATION**

If a condition is identified where the *mean* exceeds the GWPS but the associated *LCL* does not, a concern is that, due either to the small sample size, an elevated standard deviation due to elevated sample result variability, the determination of no LCL GWPS exceedance may represent a “false negative” condition. For these isolated situations, an additional iteration of a larger dataset (typically  $N=8$ ) is completed to determine if disagreement between the mean and LCL relative to the GWPS continues to exist. Prior to conducting the test, trend analysis was performed to verify stationality of the LCL data period. The longest data range of the most recent 5 to 8 samples that was technically appropriate to evaluate (no statistically significant trends) was utilized. If this condition could not be met, the LCL was not evaluated further.

Both the mean and LCL in this iteration are calculated based on the 8 most recent results (or alternate  $N=$  population). During the additional iteration, if both the mean and calculated LCL are determined to be above the GWPS, a preliminary exceedance may be considered valid. Conversely, if they are both below the GWPS, an exceedance is not declared. If a conflict is still present, the data would be evaluated in Step C.

#### **C. QUALITATIVE VISUAL SCREENING EVALUATION**

To better ensure that Steps A and B do not overlook a potential exceedance that exists if an even larger dataset were considered, Atlas will visually evaluate the confidence limit graphs and time series plots for these potential situations. If a dataset that meets stationality is identified, an appropriate expanded dataset for that constituent/well pair will be evaluated for an LCL exceedance. Conflicts that aren't resolved in Step B are also carried over to Step C evaluation.

Appendix III detection monitoring will continue during the completion of the Appendix IV assessment monitoring program.

**§ 257.90(e)(4) A narrative discussion of any transition between monitoring programs (e.g., the date and circumstances for transitioning from detection monitoring to assessment monitoring in addition to identifying the constituent(s) detected at a statistically significant increase over background levels);**

AESI Eagle Valley operated under the assessment monitoring program in accordance with § 257.95. No transition between monitoring programs occurred during 2023. During 2023, statistical evaluations of the November 2022 and April 2023 analytical data were performed in order to determine whether there was a SSL of a new Appendix IV constituent detected above the relevant GWPS in accordance with § 257.95(g) and 257.93(h). The evaluations were completed in June 2023 and October 2023, respectively. Based on the evaluations, it was determined that the Appendix IV constituents that exceeded the GWPS include arsenic, lithium, and molybdenum; however, these are the same constituent SSLs previously identified. Since there were no new Appendix IV constituent SSLs identified, an additional notification was not triggered pursuant to 40 CFR 257.95(g). SSLs and associated wells are summarized on Page 2.

**§ 257.90(e)(5) Other information required to be included in the annual report as specified in § 257.90 through § 257.98.**

**Table 8** summarizes the groundwater protection standards established in accordance with § 257.95(d)(2) and § 257.95(h) associated with both the November 2022 and April 2023 semi-annual assessment monitoring events.

Projected key activities for the upcoming year include the following:

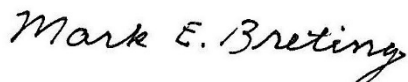
- Assessment monitoring sampling events in accordance with § 257.95 and consistent with § 257.90(e).
- Complete statistical evaluation of October 2023 analytical data to determine whether there is a SSL above GWPS for Appendix IV constituents in accordance with § 257.95(g) and 257.93(h). Perform SSL evaluations of final April 2024 assessment monitoring analytical data.
- Continue to work with IDEM to gain approval of the Closure & Post Closure Plan for Ash Ponds A, B, and C. Implementation of the Closure Plan (cap system installation) would reduce infiltration of precipitation to groundwater thereby isolating the source material.
- After delineation of groundwater impacts is determined to be complete, begin preparing estimates quantity of Appendix IV material released.
- Prepare a Nature and Extent Report which will provide a comprehensive summary of data evaluation and Conceptual Site Model (CSM).
- Develop an updated Corrective Measure Assessment for Ash Ponds A, B, and C to account for the supplemental information collected since 2019 which is sourced from additional monitoring data, groundwater N&E investigations, CSM development,

geochemical and site-specific investigations, groundwater modeling updates, and potential corrective measures evaluations.

- Conduct public meeting to discuss the results of the corrective measures assessment at least 30 days prior to the selection of remedy pursuant to § 257.96(e).
- Prepare semi-annual report(s) describing progress in selecting and designing the remedy pursuant to § 257.97(a).

We appreciate the opportunity to assist with AESI's CCR Rule groundwater monitoring program at the EVGS Ash Pond System. Please contact any of the undersigned at 317.849.4990 if you have any questions regarding this report.

Respectfully submitted,  
**Atlas Technical Consultants LLC**



Mark E. Breting, L.P.G.  
Senior Project Geologist



Robert T. Duncan, L.P.G.  
Principal Geologist

Copies: Ms. Pilar Cuadra, AES US Services, LLC  
Mr. Nicholas Williams, AES US Services, LLC

## Figures

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- Figure 2: Groundwater Monitoring System – CCR Network Wells and N&E Wells
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- Figure 4: Potentiometric Surface Map – Intermediate Zone - November 15, 2022
- Figure 5: Potentiometric Surface Map – Deep Zone - November 15, 2022
- Figure 6: Potentiometric Surface Map – Shallow Zone – April 14, 2023
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- Figure 9: Potentiometric Surface Map – Shallow Zone – October 2, 2023
- Figure 10: Potentiometric Surface Map – Intermediate Zone - October 2, 2023
- Figure 11: Potentiometric Surface Map – Deep Zone - October 2, 2023

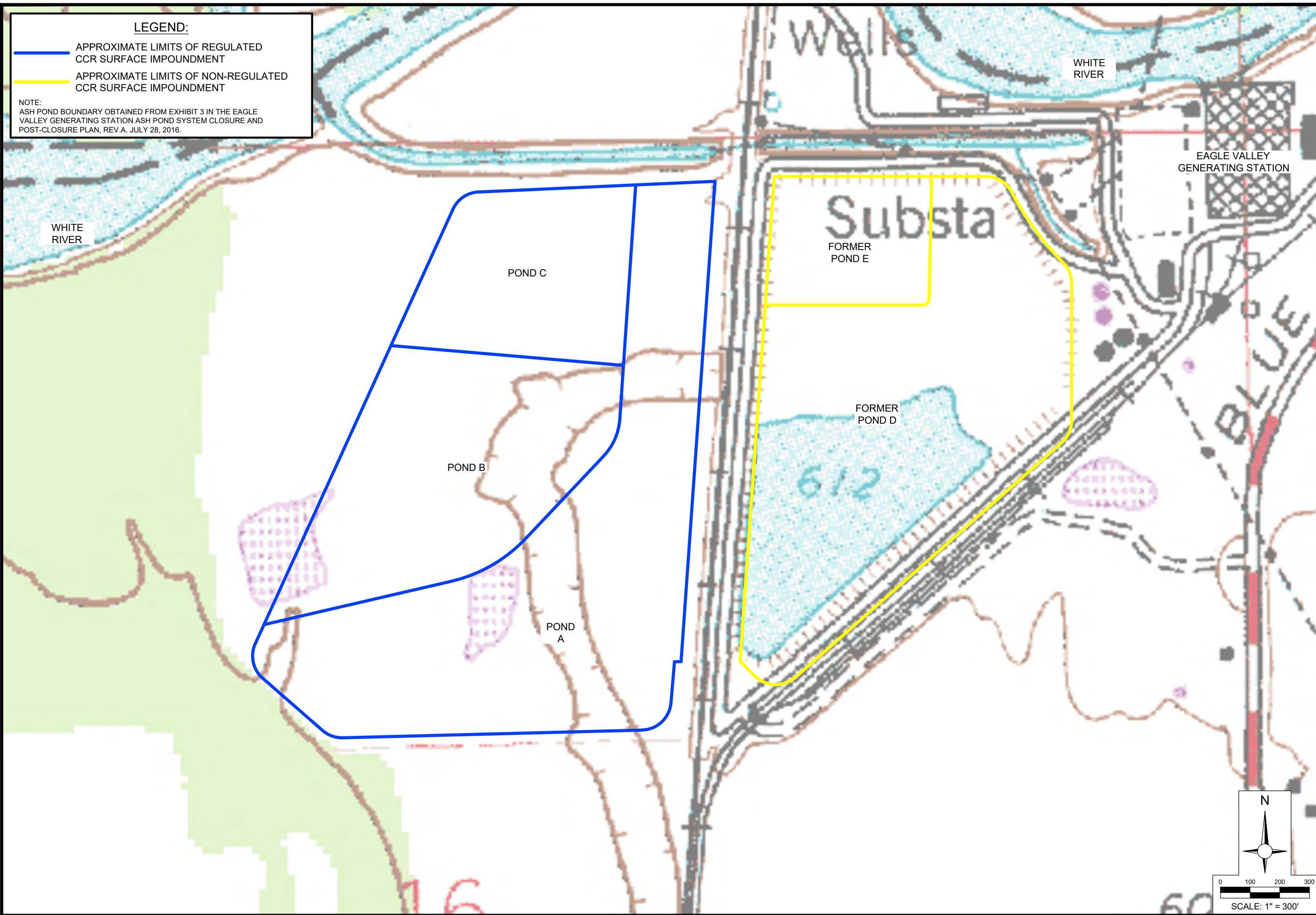


C:\USERS\PHILIP.HINES\ONEATLAS\DIGITAL\_SERVICES - FILE SERVER\2024\CAD DEPARTMENT\AES, INDIANA\EAGLE VALLEY\170LF01502\170LF01502-MW SYSTEM-A\VIC.DWG, FIG1

**LEGEND:**

- APPROXIMATE LIMITS OF REGULATED CCR SURFACE IMPOUNDMENT
- APPROXIMATE LIMITS OF NON-REGULATED CCR SURFACE IMPOUNDMENT

NOTE:  
ASH POND BOUNDARY OBTAINED FROM EXHIBIT 3 IN THE EAGLE VALLEY GENERATING STATION ASH POND SYSTEM CLOSURE AND POST-CLOSURE PLAN, REV.A. JULY 28, 2016.



**SITE LOCATION MAP**  
 AES INDIANA EAGLE VALLEY STATION  
 4040 BLUE BUFF ROAD,  
 MARTINSVILLE, INDIANA

Project Number: 170LF01520	
Date: 01/26/2024	
Drn. By: BM	Ckd. By: MB
Scale: AS SHOWN	

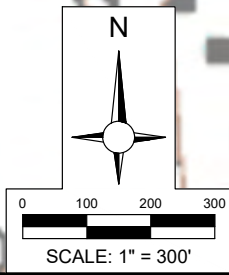


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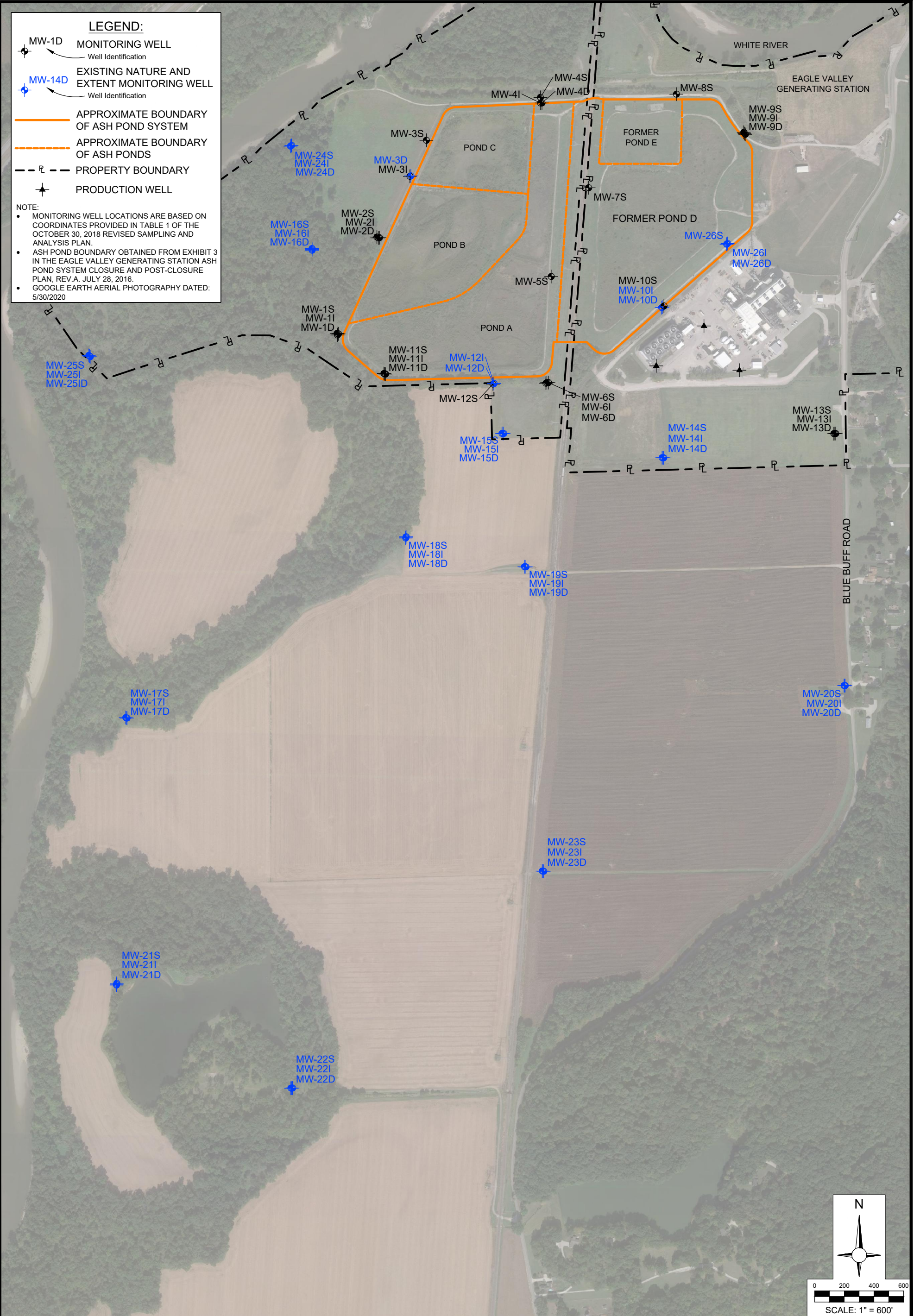


**LEGEND:**

- MW-1D MONITORING WELL  
Well Identification
- MW-14D EXISTING NATURE AND EXTENT MONITORING WELL  
Well Identification
- APPROXIMATE BOUNDARY OF ASH POND SYSTEM
- APPROXIMATE BOUNDARY OF ASH PONDS
- PROPERTY BOUNDARY
- PRODUCTION WELL

**NOTE:**

- MONITORING WELL LOCATIONS ARE BASED ON COORDINATES PROVIDED IN TABLE 1 OF THE OCTOBER 30, 2018 REVISED SAMPLING AND ANALYSIS PLAN.
- ASH POND BOUNDARY OBTAINED FROM EXHIBIT 3 IN THE EAGLE VALLEY GENERATING STATION ASH POND SYSTEM CLOSURE AND POST-CLOSURE PLAN, REV.A. JULY 28, 2016.
- GOOGLE EARTH AERIAL PHOTOGRAPHY DATED: 5/30/2020



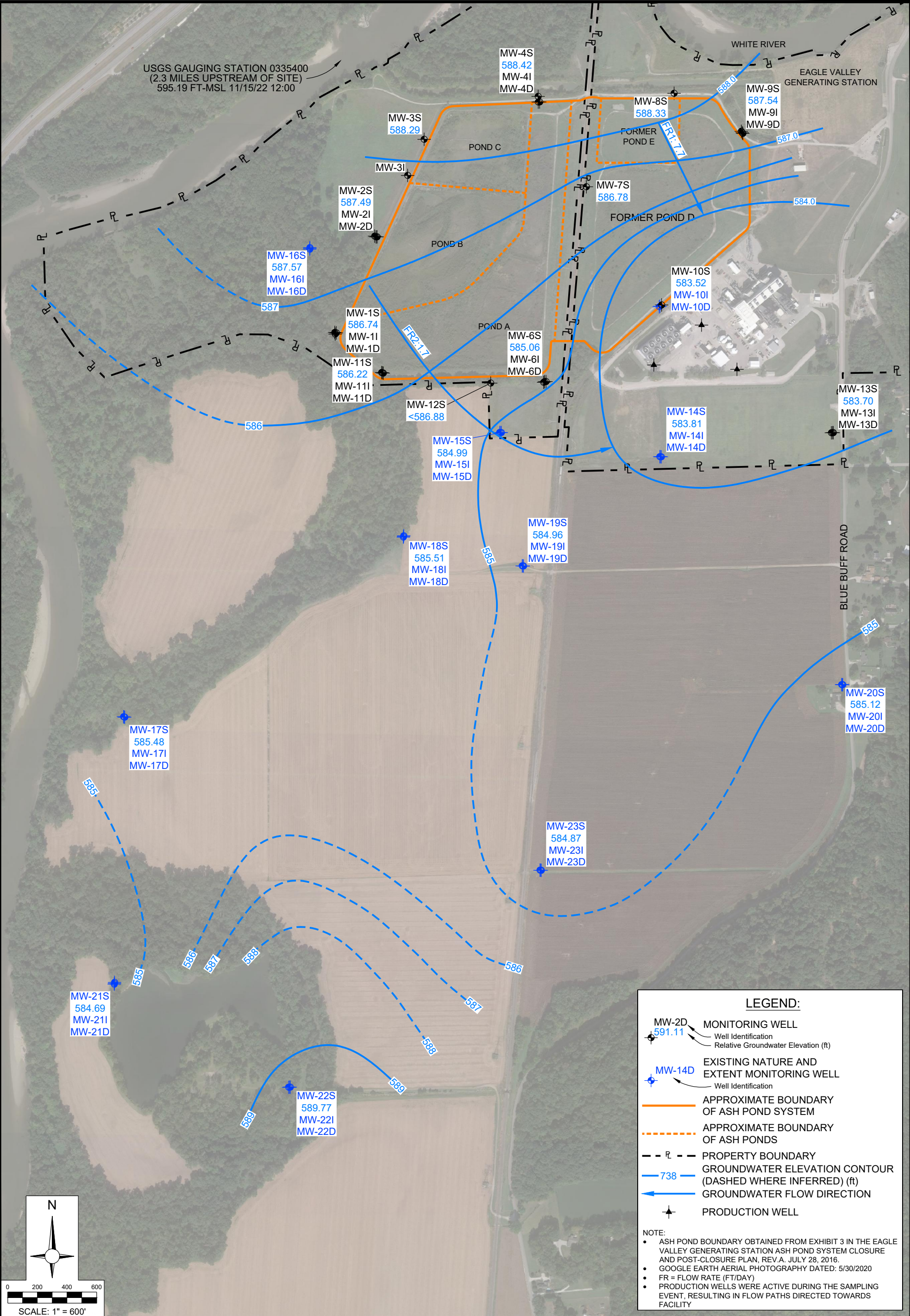
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	Scale:	AS SHOWN
	Dwn. By:	MB
	Chk. By:	MB
Date:	01/26/2024	
Project Number:	170LF01502	

**GROUNDWATER MONITORING SYSTEM  
CCR NETWORK WELLS AND NATURE & EXTENT WELLS**

AES INDIANA EAGLE VALLEY STATION  
4040 BLUE BUFF ROAD  
MARTINSVILLE, INDIANA







**LEGEND:**

- MW-2D 591.11 MONITORING WELL
- Well Identification
- Relative Groundwater Elevation (ft)
- MW-14D EXISTING NATURE AND EXTENT MONITORING WELL
- Well Identification
- APPROXIMATE BOUNDARY OF ASH POND SYSTEM
- APPROXIMATE BOUNDARY OF ASH PONDS
- PROPERTY BOUNDARY
- GROUNDWATER ELEVATION CONTOUR (DASHED WHERE INFERRED) (ft)
- GROUNDWATER FLOW DIRECTION
- PRODUCTION WELL

**NOTE:**

- ASH POND BOUNDARY OBTAINED FROM EXHIBIT 3 IN THE EAGLE VALLEY GENERATING STATION ASH POND SYSTEM CLOSURE AND POST-CLOSURE PLAN, REV.A. JULY 28, 2016.
- GOOGLE EARTH AERIAL PHOTOGRAPHY DATED: 5/30/2020
- FR = FLOW RATE (FT/DAY)
- PRODUCTION WELLS WERE ACTIVE DURING THE SAMPLING EVENT, RESULTING IN FLOW PATHS DIRECTED TOWARDS FACILITY

0 200 400 600

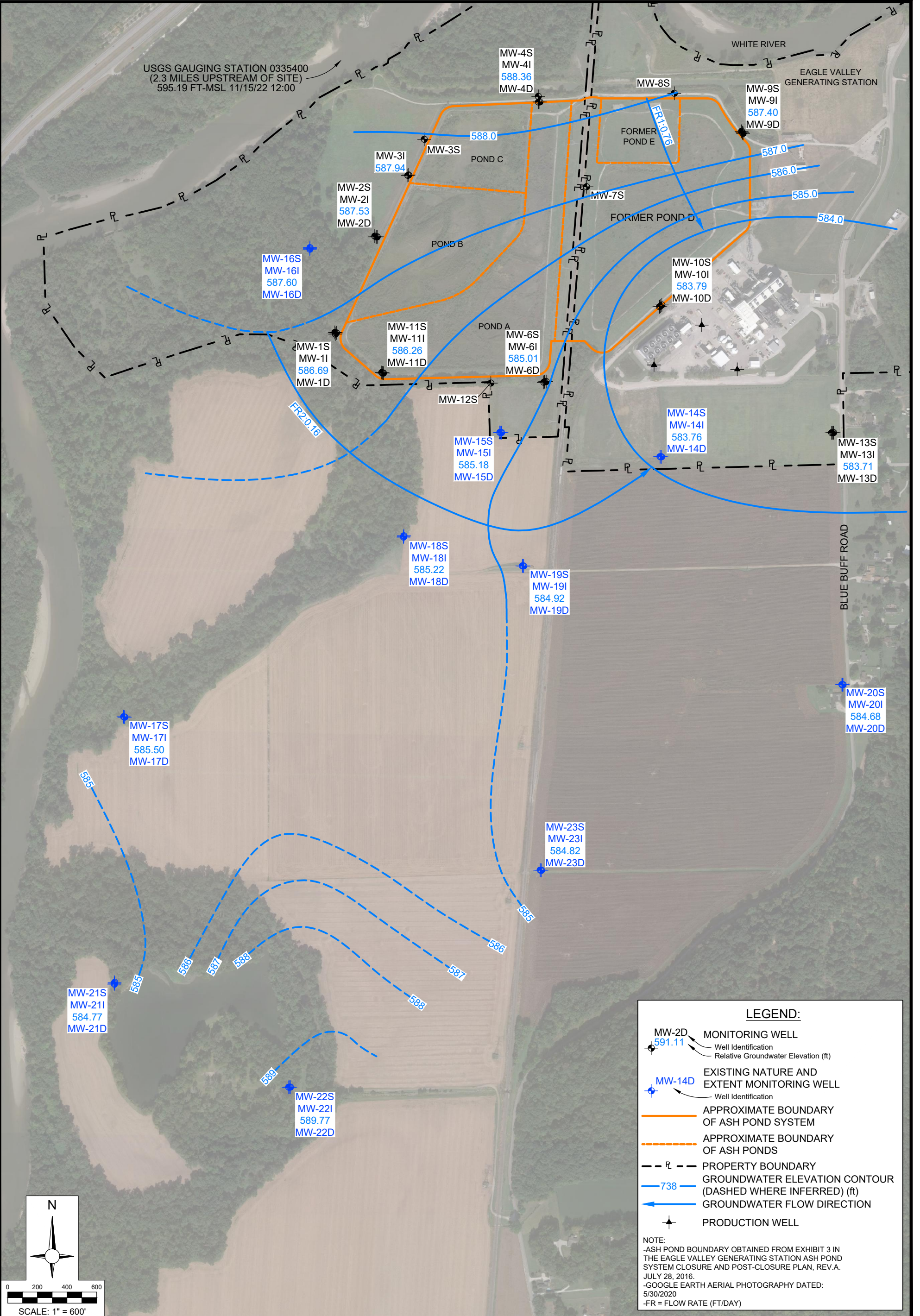
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3	Figure	AS SHOWN
	Scale	AS SHOWN
	Dn. By:	PH
	Ckd. By:	MB
Date:	01/26/2024	
Project Number:	170LF01502	

**POTENTIOMETRIC SURFACE MAP - NOVEMBER 15, 2022**  
**CCR NETWORK WELLS AND N AND E WELLS - SHALLOW ZONE**  
 AES INDIANA EAGLE VALLEY STATION  
 4040 BLUE BLUFF ROAD  
 MARTINSVILLE, INDIANA







USGS GAUGING STATION 0335400  
(2.3 MILES UPSTREAM OF SITE)  
595.19 FT-MSL 11/15/22 12:00

WHITE RIVER  
EAGLE VALLEY GENERATING STATION

FORMER POND E

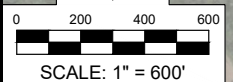
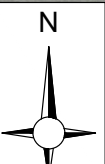
FORMER POND D

POND B

POND A

FR2.0.16

FR10.0.16



SCALE: 1" = 600'

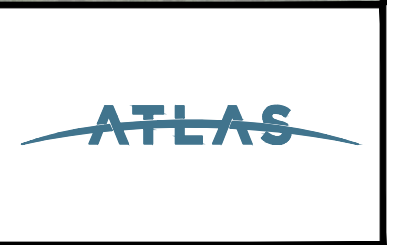
**LEGEND:**

- MW-2D 591.11 MONITORING WELL  
Well Identification  
Relative Groundwater Elevation (ft)
- MW-14D EXISTING NATURE AND EXTENT MONITORING WELL  
Well Identification
- APPROXIMATE BOUNDARY OF ASH POND SYSTEM
- APPROXIMATE BOUNDARY OF ASH PONDS
- PROPERTY BOUNDARY
- 738 GROUNDWATER ELEVATION CONTOUR (DASHED WHERE INFERRED) (ft)
- GROUNDWATER FLOW DIRECTION
- PRODUCTION WELL

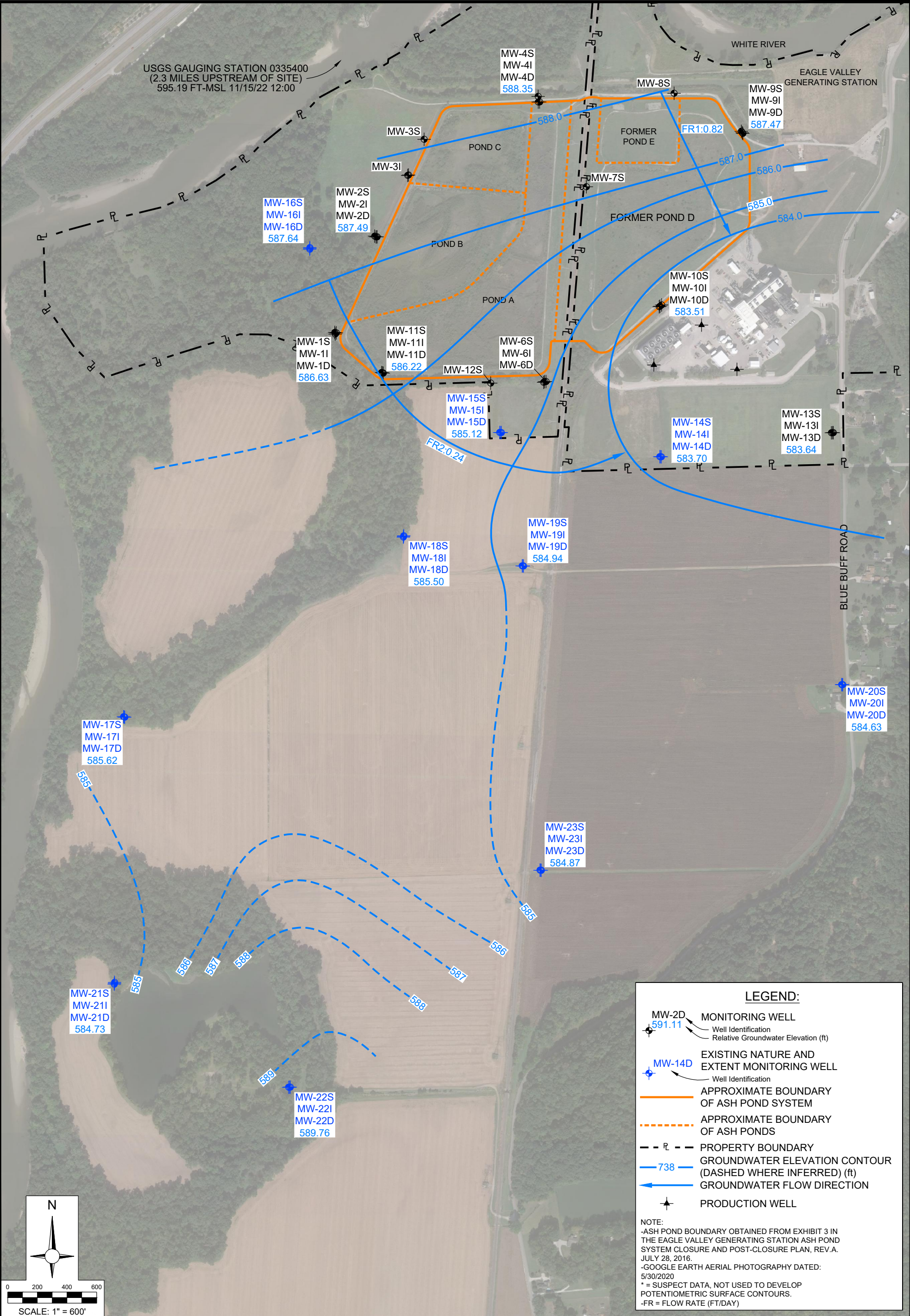
**NOTE:**  
-ASH POND BOUNDARY OBTAINED FROM EXHIBIT 3 IN THE EAGLE VALLEY GENERATING STATION ASH POND SYSTEM CLOSURE AND POST-CLOSURE PLAN, REV. A. JULY 28, 2016.  
-GOOGLE EARTH AERIAL PHOTOGRAPHY DATED: 5/30/2020  
-FR = FLOW RATE (FT/DAY)

4	Figure: AS SHOWN
	Scale: AS SHOWN
	Dn. By: PH
	Ckd. By: MB
Date: 01/26/2024	Project Number: 170LF01502

**POTENTIOMETRIC SURFACE MAP - NOVEMBER 15, 2022**  
**CCR NETWORK WELLS AND N AND E WELLS - INTERMEDIATE ZONE**  
 AES INDIANA EAGLE VALLEY STATION  
 4040 BLUE BLUFF ROAD  
 MARTINSVILLE, INDIANA







**LEGEND:**

- MW-2D 591.11 MONITORING WELL  
Well Identification  
Relative Groundwater Elevation (ft)
- MW-14D EXISTING NATURE AND EXTENT MONITORING WELL  
Well Identification
- APPROXIMATE BOUNDARY OF ASH POND SYSTEM
- APPROXIMATE BOUNDARY OF ASH PONDS
- PROPERTY BOUNDARY
- 738 GROUNDWATER ELEVATION CONTOUR (DASHED WHERE INFERRED) (ft)
- GROUNDWATER FLOW DIRECTION
- PRODUCTION WELL

**NOTE:**  
 -ASH POND BOUNDARY OBTAINED FROM EXHIBIT 3 IN THE EAGLE VALLEY GENERATING STATION ASH POND SYSTEM CLOSURE AND POST-CLOSURE PLAN, REV.A. JULY 28, 2016.  
 -GOOGLE EARTH AERIAL PHOTOGRAPHY DATED: 5/30/2020  
 \* = SUSPECT DATA, NOT USED TO DEVELOP POTENTIOMETRIC SURFACE CONTOURS.  
 -FR = FLOW RATE (FT/DAY)

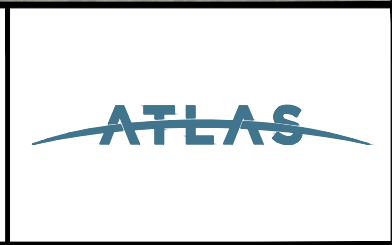
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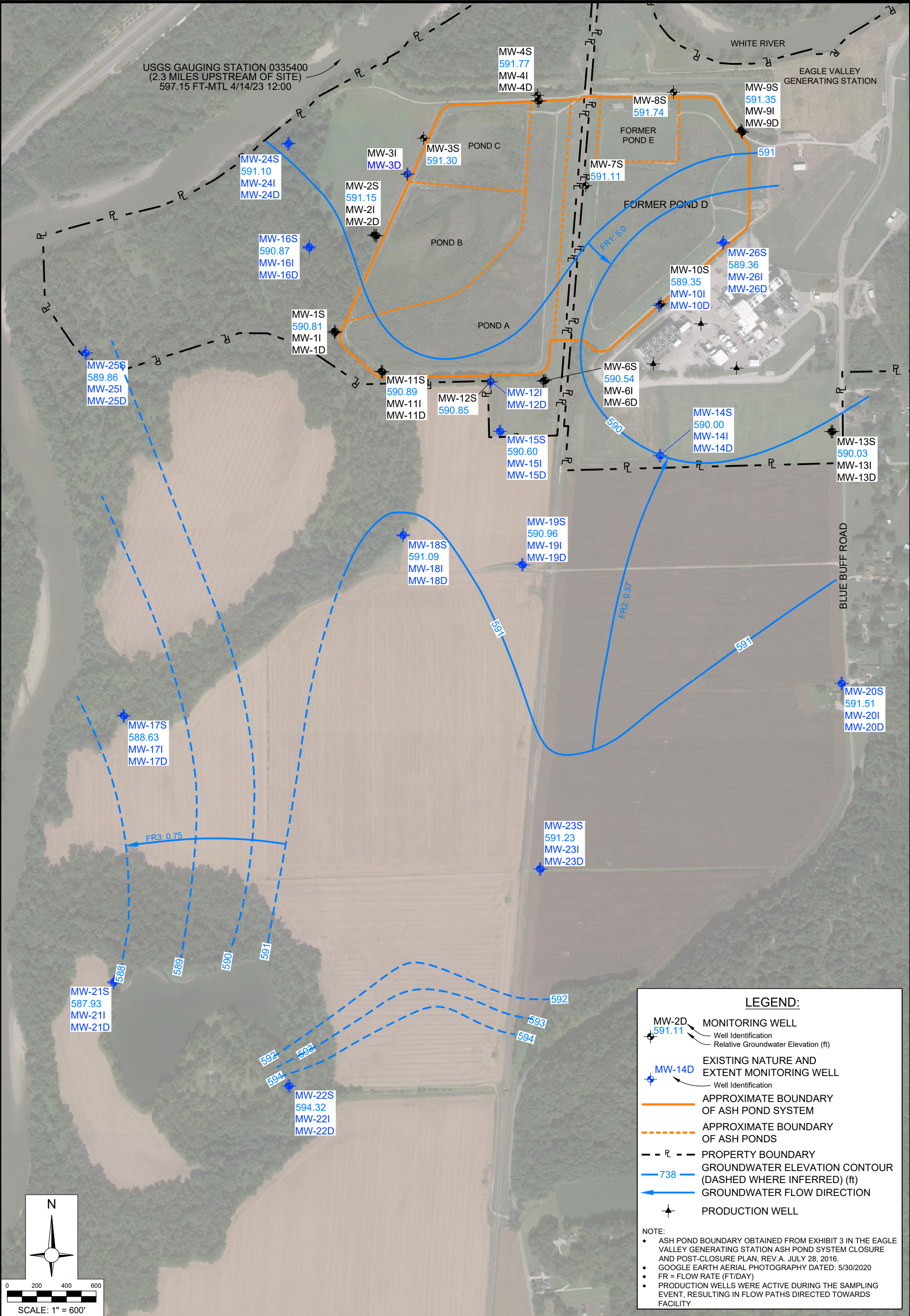
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<b>5</b>	Figure: AS SHOWN
	Scale: MB
	Dn. By: MB
	Qtd. By: MB
Date: 01/26/2024	Project Number: 170LF01502

**POTENTIOMETRIC SURFACE MAP - NOVEMBER 15, 2022**  
**CCR NETWORK WELLS AND N AND E WELLS - DEEP ZONE**  
 AES INDIANA EAGLE VALLEY STATION  
 4040 BLUE BLUFF ROAD  
 MARTINSVILLE, INDIANA





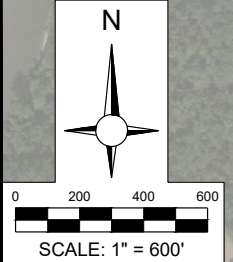


**LEGEND:**

- MW-2D  
591.11  
MONITORING WELL  
Well Identification  
Relative Groundwater Elevation (ft)
- MW-14D  
EXISTING NATURE AND EXTENT MONITORING WELL  
Well Identification
- APPROXIMATE BOUNDARY OF ASH POND SYSTEM
- APPROXIMATE BOUNDARY OF ASH PONDS
- PROPERTY BOUNDARY
- GROUNDWATER ELEVATION CONTOUR (DASHED WHERE INFERRED) (ft)
- GROUNDWATER FLOW DIRECTION
- PRODUCTION WELL

**NOTE:**

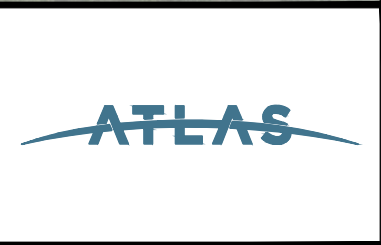
- ASH POND BOUNDARY OBTAINED FROM EXHIBIT 3 IN THE EAGLE VALLEY GENERATING STATION ASH POND SYSTEM CLOSURE AND POST-CLOSURE PLAN, REV.A. JULY 28, 2016.
- GOOGLE EARTH AERIAL PHOTOGRAPHY DATED: 5/30/2020
- FR = FLOW RATE (FT/DAY)
- PRODUCTION WELLS WERE ACTIVE DURING THE SAMPLING EVENT, RESULTING IN FLOW PATHS DIRECTED TOWARDS FACILITY



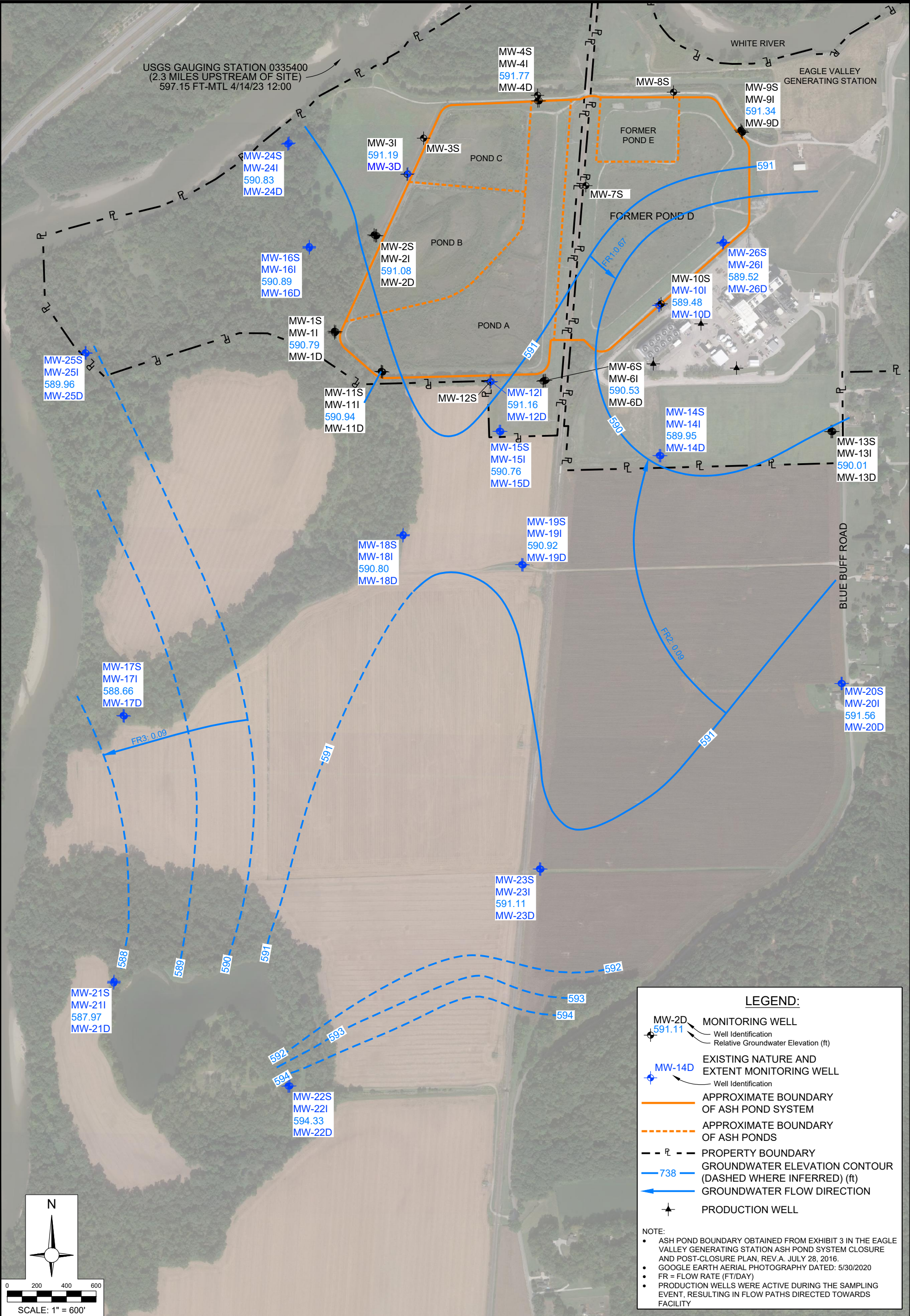
6	Date: 01/26/2024	Project Number: 170LF01502
	Dn. By: MS/AK	Ckd. By: MB
	Scale: AS SHOWN	
	Figure:	

POTENTIOMETRIC SURFACE MAP - APRIL 14, 2023  
CCR NETWORK WELLS AND N AND E WELLS - SHALLOW ZONE

AES INDIANA EAGLE VALLEY STATION  
4040 BLUE BLUFF ROAD  
MARTINSVILLE, INDIANA







**LEGEND:**

- MW-2D 591.11 MONITORING WELL  
Well Identification  
Relative Groundwater Elevation (ft)
- ◆ MW-14D EXISTING NATURE AND EXTENT MONITORING WELL  
Well Identification
- APPROXIMATE BOUNDARY OF ASH POND SYSTEM
- - - APPROXIMATE BOUNDARY OF ASH PONDS
- - R - - PROPERTY BOUNDARY
- - - 738 - - GROUNDWATER ELEVATION CONTOUR (DASHED WHERE INFERRERD) (ft)
- ← GROUNDWATER FLOW DIRECTION
- ★ PRODUCTION WELL

**NOTE:**

- ASH POND BOUNDARY OBTAINED FROM EXHIBIT 3 IN THE EAGLE VALLEY GENERATING STATION ASH POND SYSTEM CLOSURE AND POST-CLOSURE PLAN, REV.A. JULY 28, 2016.
- GOOGLE EARTH AERIAL PHOTOGRAPHY DATED: 5/30/2020
- FR = FLOW RATE (FT/DAY)
- PRODUCTION WELLS WERE ACTIVE DURING THE SAMPLING EVENT, RESULTING IN FLOW PATHS DIRECTED TOWARDS FACILITY

0 200 400 600  
SCALE: 1" = 600'

Project Number: 170LF01502	Date: 01/30/2024	Dn. By: MS/AK	Scale: AS SHOWN
Figure: 7	Cad. By: MB		

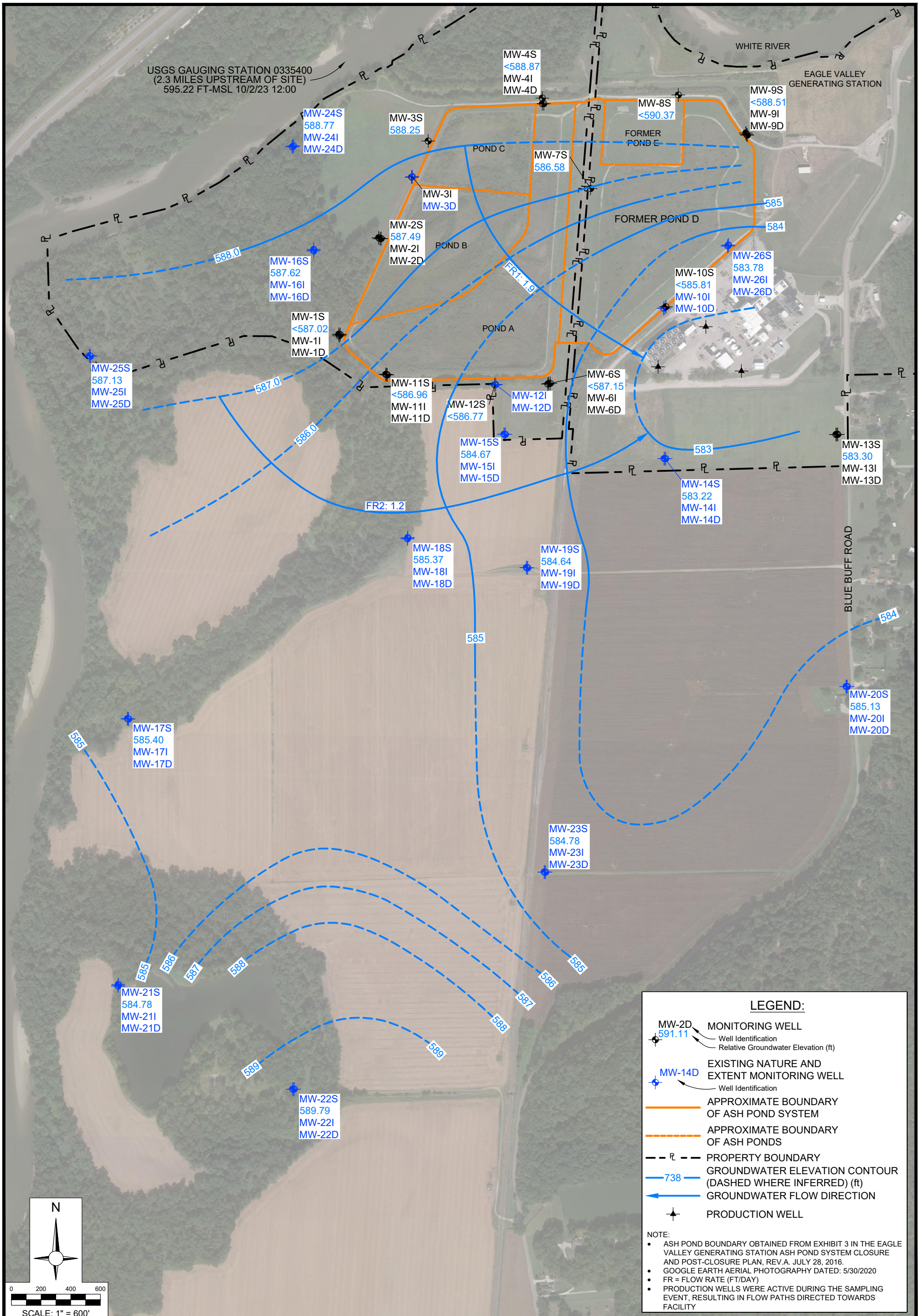
**POTENTIOMETRIC SURFACE MAP - APRIL 14, 2023**  
**CCR NETWORK WELLS AND N AND E WELLS - INTERMEDIATE ZONE**  
 AES INDIANA EAGLE VALLEY STATION  
 4040 BLUE BLUFF ROAD  
 MARTINSVILLE, INDIANA









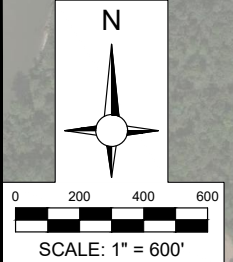


**LEGEND:**

- MW-2D** MONITORING WELL  
Well Identification  
Relative Groundwater Elevation (ft)
- MW-14D** EXISTING NATURE AND EXTENT MONITORING WELL  
Well Identification
- APPROXIMATE BOUNDARY OF ASH POND SYSTEM
- APPROXIMATE BOUNDARY OF ASH PONDS
- PROPERTY BOUNDARY
- GROUNDWATER ELEVATION CONTOUR (DASHED WHERE INFERRED) (ft)
- GROUNDWATER FLOW DIRECTION
- PRODUCTION WELL

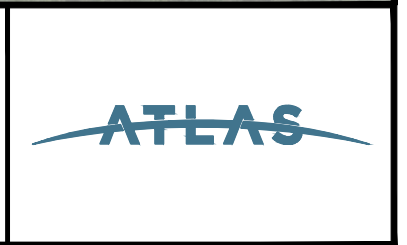
**NOTE:**

- ASH POND BOUNDARY OBTAINED FROM EXHIBIT 3 IN THE EAGLE VALLEY GENERATING STATION ASH POND SYSTEM CLOSURE AND POST-CLOSURE PLAN, REV.A. JULY 28, 2016.
- GOOGLE EARTH AERIAL PHOTOGRAPHY DATED: 5/30/2020
- FR = FLOW RATE (FT/DAY)
- PRODUCTION WELLS WERE ACTIVE DURING THE SAMPLING EVENT, RESULTING IN FLOW PATHS DIRECTED TOWARDS FACILITY



<b>9</b>	Figure: AS SHOWN
	Dn. By: MS/AK
	Scale: MB
	Ckd. By: MB
Date: 01/30/2024	Project Number: 170LF01502

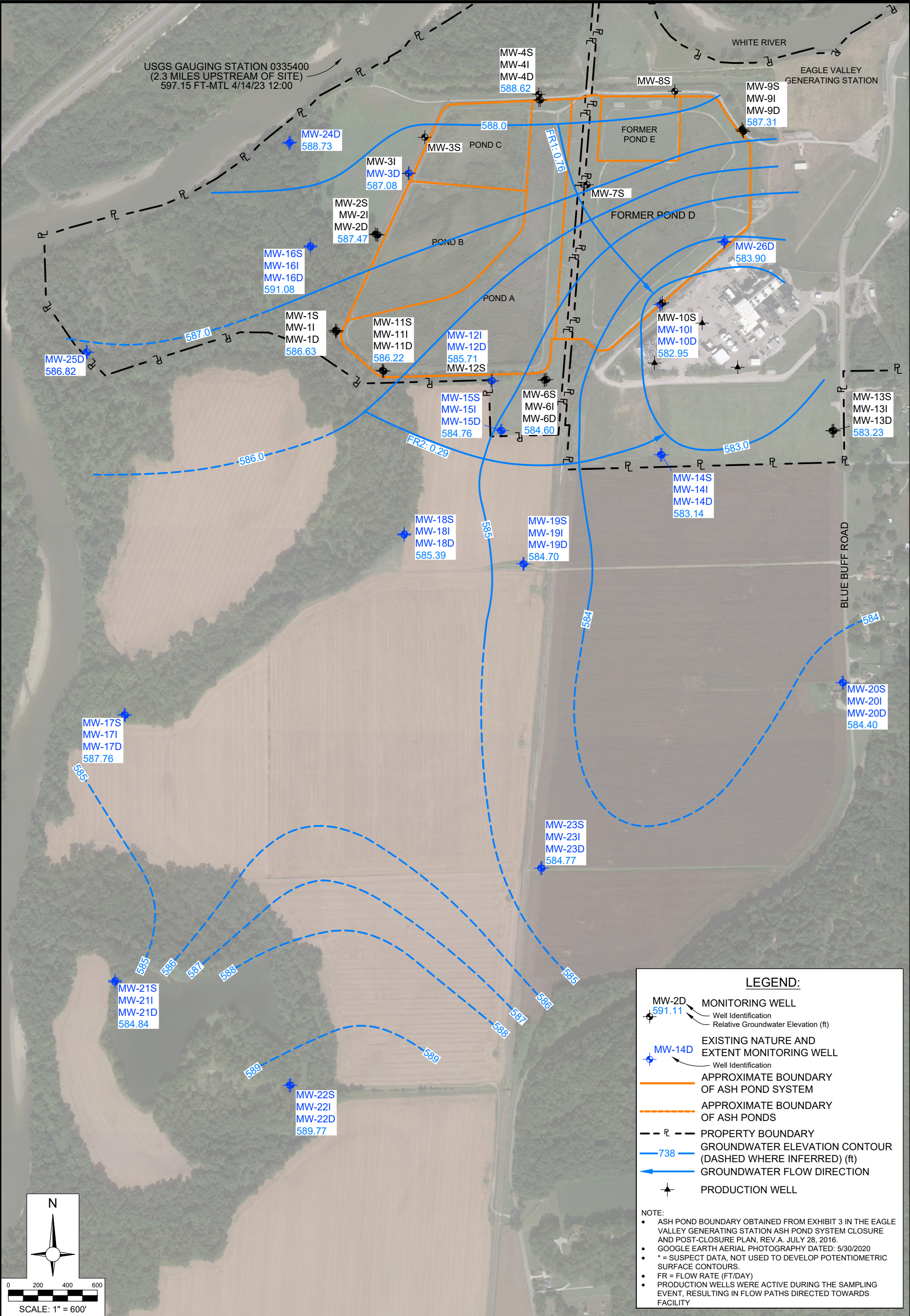
**POTENTIOMETRIC SURFACE MAP - OCTOBER 2, 2023**  
**CCR NETWORK WELLS AND N AND E WELLS - SHALLOW ZONE**  
 AES INDIANA EAGLE VALLEY STATION  
 4040 BLUE BLUFF ROAD  
 MARTINSVILLE, INDIANA











**LEGEND:**

- MW-2D** MONITORING WELL  
Well Identification  
Relative Groundwater Elevation (ft)
- MW-14D** EXISTING NATURE AND EXTENT MONITORING WELL  
Well Identification
- APPROXIMATE BOUNDARY OF ASH POND SYSTEM
- APPROXIMATE BOUNDARY OF ASH PONDS
- PROPERTY BOUNDARY
- 738** GROUNDWATER ELEVATION CONTOUR (DASHED WHERE INFERRED) (ft)
- GROUNDWATER FLOW DIRECTION
- PRODUCTION WELL

**NOTE:**

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- GOOGLE EARTH AERIAL PHOTOGRAPHY DATED: 5/30/2020
- \* = SUSPECT DATA, NOT USED TO DEVELOP POTENTIOMETRIC SURFACE CONTOURS.
- FR = FLOW RATE (FT/DAY)
- PRODUCTION WELLS WERE ACTIVE DURING THE SAMPLING EVENT, RESULTING IN FLOW PATHS DIRECTED TOWARDS FACILITY

0 200 400 600  
SCALE: 1" = 600'

Figure: AS SHOWN  
Dn. By: MS/AK  
Scale: MB  
Date: 01/30/2024  
Project Number: 170LF-01502

**POTENTIOMETRIC SURFACE MAP - OCTOBER 2, 2023**  
**CCR NETWORK WELLS AND N AND E WELLS - DEEP ZONE**  
 AES INDIANA EAGLE VALLEY STATION  
 4040 BLUE BLUFF ROAD  
 MARTINSVILLE, INDIANA





## Tables

Table 1:	Well Sampling Summary
Table 2:	Groundwater Elevation Data
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Table 4:	Summary of Soil Analytical Results – February 2023
Table 5:	Summary of Monitoring Results – March 2023
Table 6:	Summary of Monitoring Results – April 2023
Table 7:	Summary of Monitoring Results – July 2023
Table 8:	Groundwater Protection Standards Summary – November 2022 and April 2023

**Table 1**  
Well Sampling Summary  
Multiunit Ash Pond System  
AES Indiana  
Eagle Valley Generating Station  
Martinsville, Indiana  
Atlas Project No. 170LF01502

Identification	Date Installed	Upgradient/Background, Downgradient, or Nature & Extent	Number of Samples	Sample Date	Detection or Assessment Monitoring Program
MW-1S	9/29/2015	Downgradient	2	4/23/2023	Assessment
				10/11/2023	
MW-1I	3/1/2016	Downgradient	2	4/19/2023	Assessment
				10/11/2023	
MW-1D	10/1/2015	Downgradient	2	4/19/2023	Assessment
				10/11/2023	
MW-2S	9/28/2015	Downgradient	2	4/18/2023	Assessment
				10/10/2023	
MW-2I	3/7/2016	Downgradient	2	4/19/2023	Assessment
				10/10/2023	
MW-2D	3/4/2016	Downgradient	2	4/18/2023	Assessment
				10/10/2023	
MW-3S	9/28/2015	Downgradient	2	4/18/2023	Assessment
				10/9/2023	
MW-3I	3/8/2016	Downgradient	2	4/17/2023	Assessment
				10/9/2023	
MW-3D	1/17/2023	Downgradient	3	4/17/2023	Assessment
				7/6/2023	
				10/10/2023	
MW-4S	10/1/2015	Downgradient	2	4/25/2023	Assessment
				10/12/2023	
MW-4I	3/11/2016	Downgradient	2	4/26/2023	Assessment
				10/6/2023	
MW-4D	3/2/2016	Downgradient	2	4/25/2023	Assessment
				10/6/2023	
MW-6S	10/2/2015	Downgradient	1	5/1/2023	Assessment
MW-6I	3/17/2016	Downgradient	2	5/1/2023	Assessment
				10/10/2023	
MW-6D	3/8/2016	Downgradient	2	5/1/2023	Assessment
				10/10/2023	
MW-7S	10/2/2015	Downgradient	2	5/3/2023	Assessment
				10/9/2023	
MW-8S	9/29/2015	Downgradient	1	5/3/2023	Assessment
MW-9S	10/21/2015	Downgradient	1	5/8/2023	Assessment
MW-9I	3/10/2016	Downgradient	2	5/8/2023	Assessment
				10/9/2023	
MW-9D	3/10/2016	Downgradient	2	5/8/2023	Assessment
				10/9/2023	
MW-10S	10/3/2015	Downgradient	1	5/4/2023	Assessment
MW-10I	7/11/2019	Nature & Extent	2	5/8/2023	Assessment
				10/10/2023	
MW-10D	7/10/2019	Nature & Extent	2	5/4/2023	Assessment
				10/10/2023	
MW-11S	3/16/2016	Downgradient	1	5/2/2023	Assessment
MW-11I	3/16/2016	Downgradient	2	5/2/2023	Assessment
				10/9/2023	

**Table 1**  
Well Sampling Summary  
Multiunit Ash Pond System  
AES Indiana  
Eagle Valley Generating Station  
Martinsville, Indiana  
Atlas Project No. 170LF01502

Identification	Date Installed	Upgradient/Background, Downgradient, or Nature & Extent	Number of Samples	Sample Date	Detection or Assessment Monitoring Program
MW-11D	3/16/2016	Downgradient	2	5/3/2023	Assessment
				10/9/2023	
MW-12S	3/17/2016	Downgradient	2	4/27/2023	Assessment
				10/11/2023	
MW-12I	2/8/2023	Downgradient	4	3/29/2023	Assessment
				4/27/2023	
				7/6/2023	
				10/11/2023	
MW-12D	2/7/2023	Downgradient	4	3/29/2023	Assessment
				4/27/2023	
				7/6/2023	
				10/17/2023	
MW-13S	7/2/2019	Upgradient/Background	2	4/18/2023	Assessment
				10/11/2023	
MW-13I	7/1/2019	Upgradient/Background	2	4/18/2023	Assessment
				10/11/2023	
MW-13D	7/1/2019	Upgradient/Background	2	4/17/2023	Assessment
				10/11/2023	
MW-14S	7/12/2019	Nature & Extent	3	11/29/2022	Assessment
				4/27/2023	
				10/10/2023	
MW-14I	7/9/2019	Nature & Extent	3	11/29/2022	Assessment
				4/27/2023	
				10/10/2023	
MW-14D	7/3/2019	Nature & Extent	3	11/29/2022	Assessment
				4/27/2023	
				10/10/2023	
MW-15S	7/17/2019	Nature & Extent	3	11/22/2022	Assessment
				5/1/2023	
				10/12/2023	
MW-15I	7/17/2019	Nature & Extent	3	11/22/2022	Assessment
				5/1/2023	
				10/12/2023	
MW-15D	7/16/2019	Nature & Extent	3	11/22/2022	Assessment
				5/1/2023	
				10/12/2023	
MW-16S	7/23/2019	Nature & Extent	3	11/21/2022	Assessment
				4/24/2023	
				10/12/2023	
MW-16I	7/22/2019	Nature & Extent	3	11/21/2022	Assessment
				4/24/2023	
				10/12/2023	
MW-16D	7/22/2019	Nature & Extent	3	11/21/2022	Assessment
				4/24/2023	
				10/13/2023	

**Table 1**  
Well Sampling Summary  
Multiunit Ash Pond System  
AES Indiana  
Eagle Valley Generating Station  
Martinsville, Indiana  
Atlas Project No. 170LF01502

Identification	Date Installed	Upgradient/Background, Downgradient, or Nature & Extent	Number of Samples	Sample Date	Detection or Assessment Monitoring Program
MW-17S	3/16/2021	Nature & Extent	3	11/15/2022	Assessment
				4/25/2023	
				10/3/2023	
MW-17I	3/10/2021	Nature & Extent	3	11/15/2022	Assessment
				4/25/2023	
				10/3/2023	
MW-17D	3/9/2021	Nature & Extent	3	11/15/2022	Assessment
				4/25/2023	
				10/3/2023	
MW-18S	3/17/2021	Nature & Extent	3	11/16/2022	Assessment
				4/25/2023	
				10/3/2023	
MW-18I	3/17/2021	Nature & Extent	3	11/16/2022	Assessment
				4/26/2023	
				10/3/2023	
MW-18D	3/16/2021	Nature & Extent	3	11/16/2022	Assessment
				4/26/2023	
				10/3/2023	
MW-19S	3/15/2021	Nature & Extent	3	11/17/2022	Assessment
				4/26/2023	
				10/4/2023	
MW-19I	3/15/2021	Nature & Extent	3	11/17/2022	Assessment
				4/26/2023	
				10/4/2023	
MW-19D	3/12/2021	Nature & Extent	3	11/17/2022	Assessment
				4/26/2023	
				10/4/2023	
MW-20S	3/21/2022	Nature & Extent	1	5/1/2023	Assessment
MW-20I	3/21/2022	Nature & Extent	3	12/6/2022	Assessment
				5/1/2023	
				10/6/2023	
MW-20D	3/18/2022	Nature & Extent	3	12/6/2022	Assessment
				5/1/2023	
				10/6/2023	
MW-21S	8/3/2022	Nature & Extent	3	12/13/2022	Assessment
				4/20/2023	
				10/4/2023	
MW-21I	8/3/2022	Nature & Extent	3	12/13/2022	Assessment
				4/20/2023	
				10/4/2023	
MW-21D	8/2/2022	Nature & Extent	3	12/16/2022	Assessment
				4/20/2023	
				10/3/2023	
MW-22S	4/21/2022	Nature & Extent	3	12/16/2022	Assessment
				4/20/2023	
				10/4/2023	

**Table 1**  
Well Sampling Summary  
Multiunit Ash Pond System  
AES Indiana  
Eagle Valley Generating Station  
Martinsville, Indiana  
Atlas Project No. 170LF01502

Identification	Date Installed	Upgradient/Background, Downgradient, or Nature & Extent	Number of Samples	Sample Date	Detection or Assessment Monitoring Program
MW-22I	4/20/2022	Nature & Extent	3	12/16/2022	Assessment
				4/26/2023	
				10/6/2023	
MW-22D	4/20/2022	Nature & Extent	3	12/16/2022	Assessment
				4/26/2023	
				10/6/2023	
MW-23S	7/14/2022	Nature & Extent	3	12/13/2022	Assessment
				5/2/2023	
				10/4/2023	
MW-23I	7/14/2022	Nature & Extent	3	12/13/2022	Assessment
				5/2/2023	
				10/4/2023	
MW-23D	7/13/2022	Nature & Extent	3	12/13/2022	Assessment
				5/2/2023	
				10/4/2023	
MW-24S	1/23/2023	Nature & Extent	4	3/28/2023	Assessment
				5/3/2023	
				7/10/2023	
				10/17/2023	
MW-24I	1/23/2023	Nature & Extent	4	3/28/2023	Assessment
				5/3/2023	
				7/10/2023	
				10/17/2023	
MW-24D	1/19/2023	Nature & Extent	4	3/28/2023	Assessment
				5/3/2023	
				7/10/2023	
				10/13/2023	
MW-25S	3/1/2023	Nature & Extent	4	3/30/2023	Assessment
				5/3/2023	
				7/7/2023	
				10/13/2023	
MW-25I	3/1/2023	Nature & Extent	4	3/30/2023	Assessment
				5/4/2023	
				7/7/2023	
				10/12/2023	
MW-25D	2/28/2023	Nature & Extent	4	3/30/2023	Assessment
				5/4/2023	
				7/7/2023	
				10/12/2023	
MW-26S	1/26/2023	Downgradient	4	3/27/2023	Assessment
				5/4/2023	
				7/5/2023	
				10/16/2023	

**Table 1**  
 Well Sampling Summary  
 Multiunit Ash Pond System  
 AES Indiana  
 Eagle Valley Generating Station  
 Martinsville, Indiana  
 Atlas Project No. 170LF01502

Identification	Date Installed	Upgradient/Background, Downgradient, or Nature & Extent	Number of Samples	Sample Date	Detection or Assessment Monitoring Program
MW-26I	1/26/2023	Downgradient	4	3/27/2023	Assessment
				5/4/2023	
				7/5/2023	
				10/16/2023	
MW-26D	1/26/2023	Downgradient	4	3/27/2023	Assessment
				5/4/2023	
				7/5/2023	
				10/16/2023	

Notes

MW-20S was dry in November 2022 and was not sampled.

MW-6S, MW-8S, MW-9S, MW-10S, MW-11S, and MW-20S were dry in October 2023 and were not sampled.

**Table 2**  
Groundwater Elevation Data  
Multiunit Ash Pond System  
AES Indiana  
Eagle Valley Generating Station, Martinsville, Indiana  
Atlas Project No. 170LF01502

Monitoring Well Location	Gauging Date	TOC Elevation (ft-MSL)	Depth to Water (ft)	Water Elevation (ft-MSL)
MW-1S	11/15/2022	612.93	26.19	586.74
	4/14/2023		22.12	590.81
	10/2/2023		Dry to pump (25.91)	<587.02
MW-1I	11/15/2022	612.31	25.62	586.69
	4/14/2023		21.52	590.79
	10/2/2023		25.62	586.69
MW-1D	11/15/2022	612.91	26.28	586.63
	4/14/2023		22.12	590.79
	10/2/2023		26.28	586.63
MW-2S	11/15/2022	608.45	20.96	587.49
	4/14/2023		17.30	591.15
	10/2/2023		20.96	587.49
MW-2I	11/15/2022	608.93	21.40	587.53
	4/14/2023		17.85	591.08
	10/2/2023		21.47	587.46
MW-2D	11/15/2022	608.72	21.23	587.49
	4/14/2023		17.61	591.11
	10/2/2023		21.25	587.47
MW-3S	11/15/2022	610.80	22.51	588.29
	4/14/2023		19.50	591.30
	10/2/2023		22.55	588.25
MW-3I	11/15/2022	610.76	22.82	587.94
	4/14/2023		19.57	591.19
	10/2/2023		22.82	587.94
MW-3D	4/14/2023	610.28	19.99	590.29
	7/6/2023		21.88	588.40
	10/2/2023		23.20	587.08
MW-4S	11/15/2022	609.94	21.52	588.42
	4/14/2023		18.17	591.77
	10/2/2023		Dry to pump (21.07)	<588.87

**Table 2**  
Groundwater Elevation Data  
Multiunit Ash Pond System  
AES Indiana  
Eagle Valley Generating Station, Martinsville, Indiana  
Atlas Project No. 170LF01502

Monitoring Well Location	Gauging Date	TOC Elevation (ft-MSL)	Depth to Water (ft)	Water Elevation (ft-MSL)
MW-4I	11/15/2022	614.66	26.30	588.36
	4/14/2023		22.89	591.77
	10/2/2023		26.23	588.43
MW-4D	11/15/2022	614.72	26.37	588.35
	4/14/2023		23.00	591.72
	10/2/2023		26.30	588.42
MW-6S	11/15/2022	605.99	20.93	585.06
	4/14/2023		15.45	590.54
	10/2/2023		Dry to pump (18.84)	<587.15
MW-6I	11/15/2022	606.00	20.99	585.01
	4/14/2023		15.47	590.53
	10/2/2023		21.45	584.55
MW-6D	11/15/2022	604.85	19.79	585.06
	4/14/2023		14.28	590.57
	10/2/2023		20.25	584.60
MW-7S	11/15/2022	616.68	29.90	586.78
	4/14/2023		25.57	591.11
	10/2/2023		30.10	586.58
MW-8S	11/15/2022	616.67	28.34	588.33
	4/14/2023		24.93	591.74
	10/2/2023		Dry to pump (26.30)	<590.37
MW-9S	11/15/2022	617.52	29.98	587.54
	4/14/2023		26.17	591.35
	10/2/2023		Dry to pump (29.01)	<588.51
MW-9I	11/15/2022	617.06	29.66	587.40
	4/14/2023		25.72	591.34
	10/2/2023		29.75	587.31
MW-9D	11/15/2022	617.41	29.94	587.47
	4/14/2023		26.05	591.36
	10/2/2023		30.10	587.31



**Table 2**  
Groundwater Elevation Data  
Multiunit Ash Pond System  
AES Indiana  
Eagle Valley Generating Station, Martinsville, Indiana  
Atlas Project No. 170LF01502

Monitoring Well Location	Gauging Date	TOC Elevation (ft-MSL)	Depth to Water (ft)	Water Elevation (ft-MSL)
MW-10S	11/15/2022	613.70	30.18	583.52
	4/14/2023		24.35	589.35
	10/2/2023		Dry to pump (27.89)	<585.81
MW-10I	11/15/2022	613.68	29.89	583.79
	4/14/2023		24.20	589.48
	10/2/2023		30.75	582.93
MW-10D	11/15/2022	613.54	30.03	583.51
	4/14/2023		24.09	589.45
	10/2/2023		30.59	582.95
MW-11S	11/15/2022	627.29	41.07	586.22
	4/14/2023		36.40	590.89
	10/2/2023		Dry to pump (40.33)	<586.96
MW-11I	11/15/2022	627.52	41.26	586.26
	4/14/2023		36.58	590.94
	10/2/2023		41.32	586.20
MW-11D	11/15/2022	627.56	41.34	586.22
	4/14/2023		36.60	590.96
	10/2/2023		41.34	586.22
MW-12S	11/15/2022	607.26	20.38	586.88
	4/14/2023		16.41	590.85
	10/2/2023		Dry to pump (20.49)	<586.77
MW-12I	3/29/2023	607.36	14.25	593.11
	4/14/2023		16.20	591.16
	7/6/2023		20.75	586.61
	10/2/2023		21.86	585.50
MW-12D	3/29/2023	607.75	14.44	593.31
	4/14/2023		16.38	591.37
	7/6/2023		20.90	586.85
	10/2/2023		22.04	585.71

**Table 2**  
Groundwater Elevation Data  
Multiunit Ash Pond System  
AES Indiana  
Eagle Valley Generating Station, Martinsville, Indiana  
Atlas Project No. 170LF01502

Monitoring Well Location	Gauging Date	TOC Elevation (ft-MSL)	Depth to Water (ft)	Water Elevation (ft-MSL)
MW-13S	11/15/2022	606.03	22.33	583.70
	4/14/2023		16.00	590.03
	10/2/2023		22.73	583.30
MW-13I	11/15/2022	606.21	22.50	583.71
	4/14/2023		16.20	590.01
	10/2/2023		22.92	583.29
MW-13D	11/15/2022	605.86	22.22	583.64
	4/14/2023		15.92	589.94
	10/2/2023		22.63	583.23
MW-14S	11/15/2022	607.39	23.58	583.81
	4/14/2023		17.39	590.00
	10/2/2023		24.17	583.22
MW-14I	11/15/2022	607.34	23.58	583.76
	4/14/2023		17.39	589.95
	10/2/2023		24.20	583.14
MW-14D	11/15/2022	607.33	23.63	583.70
	4/14/2023		17.42	589.91
	10/2/2023		24.19	583.14
MW-15S	11/15/2022	607.50	22.51	584.99
	4/14/2023		16.90	590.60
	10/2/2023		22.83	584.67
MW-15I	11/15/2022	607.61	22.43	585.18
	4/14/2023		16.85	590.76
	10/2/2023		22.78	584.83
MW-15D	11/15/2022	607.51	22.39	585.12
	4/14/2023		16.77	590.74
	10/2/2023		22.75	584.76
MW-16S	11/15/2022	609.54	21.97	587.57
	4/14/2023		18.67	590.87
	10/2/2023		21.92	587.62
MW-16I	11/15/2022	609.53	21.93	587.60
	4/14/2023		18.64	590.89
	10/2/2023		21.90	587.63

**Table 2**  
Groundwater Elevation Data  
Multiunit Ash Pond System  
AES Indiana  
Eagle Valley Generating Station, Martinsville, Indiana  
Atlas Project No. 170LF01502

Monitoring Well Location	Gauging Date	TOC Elevation (ft-MSL)	Depth to Water (ft)	Water Elevation (ft-MSL)
MW-16D	11/15/2022	609.60	21.96	587.64
	4/14/2023		18.52	591.08
	10/2/2023		21.94	587.66
MW-17S	11/15/2022	602.20	16.72	585.48
	4/14/2023		13.57	588.63
	10/2/2023		16.80	585.40
MW-17I	11/15/2022	602.69	17.19	585.50
	4/14/2023		14.03	588.66
	10/2/2023		17.05	585.64
MW-17D	11/15/2022	602.47	16.85	585.62
	4/14/2023		13.73	588.74
	10/2/2023		16.71	585.76
MW-18S	11/15/2022	606.13	20.62	585.51
	4/14/2023		15.04	591.09
	10/2/2023		20.76	585.37
MW-18I	11/15/2022	605.82	20.60	585.22
	4/14/2023		15.02	590.80
	10/2/2023		20.73	585.09
MW-18D	11/15/2022	606.19	20.69	585.50
	4/14/2023		15.09	591.10
	10/2/2023		20.80	585.39
MW-19S	11/15/2022	602.85	17.89	584.96
	4/14/2023		11.89	590.96
	10/2/2023		18.21	584.64
MW-19I	11/15/2022	602.69	17.77	584.92
	4/14/2023		11.77	590.92
	10/2/2023		18.05	584.64
MW-19D	11/15/2022	602.67	17.73	584.94
	4/14/2023		11.69	590.98
	10/2/2023		17.97	584.70
MW-20S	11/15/2022	615.00	29.88	585.12
	4/14/2023		23.49	591.51
	10/2/2023		29.87	585.13

**Table 2**  
Groundwater Elevation Data  
Multiunit Ash Pond System  
AES Indiana  
Eagle Valley Generating Station, Martinsville, Indiana  
Atlas Project No. 170LF01502

Monitoring Well Location	Gauging Date	TOC Elevation (ft-MSL)	Depth to Water (ft)	Water Elevation (ft-MSL)
MW-20I	11/15/2022	614.63	29.95	584.68
	4/14/2023		23.07	591.56
	10/2/2023		30.17	584.46
MW-20D	11/15/2022	615.10	30.47	584.63
	4/14/2023		23.59	591.51
	10/2/2023		30.70	584.40
MW-21S	11/15/2022	601.34	16.65	584.69
	4/14/2023		13.41	587.93
	10/2/2023		16.56	584.78
MW-21I	11/15/2022	601.38	16.61	584.77
	4/14/2023		13.41	587.97
	10/2/2023		16.55	584.83
MW-21D	11/15/2022	601.33	16.60	584.73
	4/14/2023		13.44	587.89
	10/2/2023		16.49	584.84
MW-22S	11/15/2022	608.49	18.72	589.77
	4/14/2023		14.17	594.32
	10/2/2023		18.70	589.79
MW-22I	11/15/2022	608.37	18.60	589.77
	4/14/2023		14.04	594.33
	10/2/2023		18.58	589.79
MW-22D	11/15/2022	608.44	18.68	589.76
	4/14/2023		14.12	594.32
	10/2/2023		18.67	589.77
MW-23S	11/15/2022	600.74	15.87	584.87
	4/14/2023		9.51	591.23
	10/2/2023		15.96	584.78
MW-23I	11/15/2022	600.64	15.82	584.82
	4/14/2023		9.53	591.11
	10/2/2023		15.93	584.71
MW-23D	11/15/2022	600.72	15.85	584.87
	4/14/2023		9.54	591.18
	10/2/2023		15.95	584.77

**Table 2**  
Groundwater Elevation Data  
Multiunit Ash Pond System  
AES Indiana  
Eagle Valley Generating Station, Martinsville, Indiana  
Atlas Project No. 170LF01502

Monitoring Well Location	Gauging Date	TOC Elevation (ft-MSL)	Depth to Water (ft)	Water Elevation (ft-MSL)
MW-24S	3/28/2023	607.72	10.55	597.17
	4/14/2023		16.62	591.10
	7/10/2023		17.48	590.24
	10/2/2023		18.95	588.77
MW-24I	3/28/2023	607.54	10.64	596.90
	4/14/2023		16.71	590.83
	7/10/2023		17.55	589.99
	10/2/2023		19.04	588.50
MW-24D	3/28/2023	607.74	10.66	597.08
	4/14/2023		16.67	591.07
	7/10/2023		17.62	590.12
	10/2/2023		19.01	588.73
MW-25S	3/30/2023	602.88	9.25	593.63
	4/14/2023		13.02	589.86
	7/7/2023		14.55	588.33
	10/2/2023		15.75	587.13
MW-25I	3/30/2023	603.50	9.85	593.65
	4/14/2023		13.54	589.96
	7/7/2023		15.20	588.30
	10/2/2023		16.50	587.00
MW-25D	3/30/2023	603.37	9.82	593.55
	4/14/2023		13.56	589.81
	7/7/2023		15.20	588.17
	10/2/2023		16.55	586.82
MW-26S	3/27/2023	616.14	Not Gauged	-
	4/14/2023		26.78	589.36
	7/5/2023		31.33	584.81
	10/2/2023		32.36	583.78
MW-26I	3/27/2023	616.33	Not Gauged	-
	4/14/2023		26.81	589.52
	7/5/2023		31.37	584.96
	10/2/2023		32.45	583.88

**Table 2**  
 Groundwater Elevation Data  
 Multiunit Ash Pond System  
 AES Indiana  
 Eagle Valley Generating Station, Martinsville, Indiana  
 Atlas Project No. 170LF01502

Monitoring Well Location	Gauging Date	TOC Elevation (ft-MSL)	Depth to Water (ft)	Water Elevation (ft-MSL)
MW-26D	3/27/2023	616.15	Not Gauged	-
	4/14/2023		26.66	589.49
	7/5/2023		31.20	584.95
	10/2/2023		32.25	583.90

Notes:

TOC = Top of Casing

ft-MSL = feet above Mean Sea Level

**Table 3**  
**Summary of Monitoring Results - November - December 2022**  
**Multiunit Ash Pond System**  
**AES Indiana**  
**Eagle Valley Generating Station**  
**Martinsville, Indiana**  
**Atlas Project No. 170LF01502**

Well ID	Units	MW-1S	MW-1I	MW-1D	MW-2S	MW-2I
Sample Date		11/22/2022	11/22/2022	11/22/2022	11/15/2022	11/15/2022
Pace Lab ID		50331797001	50331797002	50331797003	50331240001	50331240002
<b>Static Water Elevation</b>		586.74	586.69	586.63	587.49	587.53
<b>Field Parameters</b>						
Temperature, Field	Degrees C	-	-	-	14.37	14.17
Dissolved Oxygen, Field	mg/L	0.05	0	0	0.08	0.16
Conductivity, Field	uS/cm	2,587.3	2,175.5	1,653.9	1,206.7	1,154.6
ORP, Field	mV	97.8	81	50	50	138.4
pH, Field	S.U.	6.62	7.32	7.26	6.88	7.43
Turbidity, Field	NTU	71.59	0	0.15	1.06	4.76
<b>Appendix III Constituents</b>						
Boron, Total	ug/L	1690	622	720	878	218
Calcium, Total	ug/L	171000	101000	76300	155000	107000
Chloride	mg/L	62	114	92.3	76.9	147
Fluoride	mg/L	0.2	0.32	0.38	0.14	0.24
Sulfate	mg/L	113	168	79.5	126	185
Total Dissolved Solids	mg/L	756	657	469	770	764
pH at 25 Degrees C	Std. Units	7.3	7.7	7.8	9	6.8
<b>Appendix IV Constituents</b>						
Antimony, Total	ug/L	2.7	<1	<1	<1	<1
Arsenic, Total	ug/L	8.1	<1	2.5	6.2	<1
Barium, Total	ug/L	110	81.9	63.1	97.4	109
Beryllium, Total	ug/L	#N/A	#N/A	#N/A	#N/A	#N/A
Cadmium, Total	ug/L	#N/A	#N/A	#N/A	#N/A	#N/A
Chromium, Total	ug/L	#N/A	#N/A	#N/A	#N/A	#N/A
Cobalt, Total	ug/L	#N/A	#N/A	#N/A	#N/A	#N/A
Lead, Total	ug/L	#N/A	#N/A	#N/A	#N/A	#N/A
Lithium, Total	ug/L	83.8	94.7	80.9	49.2	52.3
Mercury	ug/L	#N/A	#N/A	#N/A	#N/A	#N/A
Molybdenum, Total	ug/L	30.7	87	101	<10	59.7
Molybdenum, Dissolved	ug/L	31	86.2	104	<10	63.6
Radium-226	pCi/L	<0.212	1.01	0.444	<0.285	0.788
Radium-228	pCi/L	<0.33	0.882	<0.0575	0.413	0.793
Selenium, Total	ug/L	28	<1	<1	7.7	<1
Thallium, Total	ug/L	#N/A	#N/A	#N/A	#N/A	#N/A
Total Radium	pCi/L	<0.33	1.89	<0.502	<0.413	1.58
<b>Geochemical Constituents</b>						
Alkalinity, Total as CaCO3	mg/L	492	247	231	444	233
Alkalinity, Bicarbonate (CaCO3)	mg/L	492	247	231	444	233
Alkalinity, Carbonate (CaCO3)	mg/L	<10	<10	<10	<10	<10
Aluminum, Total	ug/L	703	<200	<200	<200	<200
Dissolved Organic Carbon	mg/L	1.4	1.4	1.4	1.8	1
Iron, Total	ug/L	1970	<100	1020	<100	297
Iron, Ferrous	mg/L	<0.2	<0.2	<0.2	<0.2	<0.2
Iron, Dissolved	ug/L	#N/A	#N/A	#N/A	#N/A	#N/A
Magnesium, Total	ug/L	45600	32400	21800	34800	31300
Manganese, Total	ug/L	163	312	352	40.1	154
Manganese, Dissolved	ug/L	43.5	305	345	23.2	161
Nitrogen, Nitrate	mg/L	0.88	<0.1	<0.1	1.1	<0.1
Nitrogen, Nitrite	mg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Phosphate as P04	mg/L	0.21	<0.15	<0.15	0.2	<0.15
Potassium, Total	ug/L	8880	9070	7640	7010	10500
Silica, Total	ug/L	18700	10100	10000	15900	12100
Sodium, Total	ug/L	60200	88400	75000	74200	103000
Sulfide	mg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Total Organic Carbon	mg/L	1	1.1	1.2	<1	<4

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**Table 3**  
**Summary of Monitoring Results - November - December 2022**  
**Multiunit Ash Pond System**  
**AES Indiana**  
**Eagle Valley Generating Station**  
**Martinsville, Indiana**  
**Atlas Project No. 170LF01502**

Well ID	Units	MW-2D	MW-3S	MW-3I	MW-4S	MW-4I
Sample Date		11/15/2022	11/16/2022	11/15/2022	11/28/2022	11/16/2022
Pace Lab ID		50331240003	50331424001	50331240004	50332043001	50331424004
<b>Static Water Elevation</b>		587.49	588.29	587.94	588.42	588.36
<b>Field Parameters</b>						
Temperature, Field	Degrees C	14.37	15.52	16.82	15.91	14.23
Dissolved Oxygen, Field	mg/L	0.13	0.18	0.21	0.17	0.16
Conductivity, Field	uS/cm	898.86	1,023.8	1,123.2	1,739.7	224.19
ORP, Field	mV	32	275.8	62.4	-79.2	58.2
pH, Field	S.U.	7.52	7.24	7.38	7.35	7.42
Turbidity, Field	NTU	0.5	0.88	0	0	0
<b>Appendix III Constituents</b>						
Boron, Total	ug/L	191	324	206	2580	147
Calcium, Total	ug/L	89200	88700	94100	318000	75300
Chloride	mg/L	105	95.5	140	237	103
Fluoride	mg/L	0.28	0.3	0.28	0.35	0.4
Sulfate	mg/L	103	137	156	815	64.6
Total Dissolved Solids	mg/L	533	610	697	1820	478
pH at 25 Degrees C	Std. Units	6.8	7.4	6.8	7.3	7.5
<b>Appendix IV Constituents</b>						
Antimony, Total	ug/L	<1	<1	<1	<1	<1
Arsenic, Total	ug/L	4.1	<1	<1	6	<1
Barium, Total	ug/L	74	81.2	84.5	87.6	70.5
Beryllium, Total	ug/L	#N/A	#N/A	#N/A	#N/A	#N/A
Cadmium, Total	ug/L	#N/A	#N/A	#N/A	#N/A	#N/A
Chromium, Total	ug/L	#N/A	#N/A	#N/A	#N/A	#N/A
Cobalt, Total	ug/L	#N/A	#N/A	#N/A	#N/A	#N/A
Lead, Total	ug/L	#N/A	#N/A	#N/A	#N/A	#N/A
Lithium, Total	ug/L	49.2	<20	21.5	65.8	<20
Mercury	ug/L	#N/A	#N/A	#N/A	#N/A	#N/A
Molybdenum, Total	ug/L	52.9	53.4	56	80.2	12.1
Molybdenum, Dissolved	ug/L	55.4	52.6	56.7	78.3	15.2
Radium-226	pCi/L	<0.292	0.226	0.506	0.189	0.461
Radium-228	pCi/L	0.533	<0.125	0.658	0.639	<0.127
Selenium, Total	ug/L	<1	1.8	<1	<1	<1
Thallium, Total	ug/L	#N/A	#N/A	#N/A	#N/A	#N/A
Total Radium	pCi/L	0.825	<0.351	1.16	0.828	0.588
<b>Geochemical Constituents</b>						
Alkalinity, Total as CaCO3	mg/L	234	262	235	341	236
Alkalinity, Bicarbonate (CaCO3)	mg/L	234	262	235	341	236
Alkalinity, Carbonate (CaCO3)	mg/L	<10	<10	<10	<10	<10
Aluminum, Total	ug/L	<200	<200	<200	<200	<200
Dissolved Organic Carbon	mg/L	1.3	1.2	2.2	<4	1.7
Iron, Total	ug/L	1010	<100	<100	<100	424
Iron, Ferrous	mg/L	<0.2	<0.2	<0.2	<0.2	<0.2
Iron, Dissolved	ug/L	#N/A	#N/A	#N/A	#N/A	#N/A
Magnesium, Total	ug/L	20600	23500	29500	74100	23500
Manganese, Total	ug/L	223	815	43.5	410	146
Manganese, Dissolved	ug/L	229	467	43.4	395	143
Nitrogen, Nitrate	mg/L	<0.1	0.23	<0.1	<0.1	<0.1
Nitrogen, Nitrite	mg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Phosphate as P04	mg/L	<0.15	<0.15	<0.15	1.8	<0.15
Potassium, Total	ug/L	8420	5700	5500	14200	3420
Silica, Total	ug/L	11200	12300	13000	21900	10200
Sodium, Total	ug/L	71500	94400	112000	205000	71600
Sulfide	mg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Total Organic Carbon	mg/L	1.2	<1	1.3	<4	1.4

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**Multiunit Ash Pond System**  
**AES Indiana**  
**Eagle Valley Generating Station**  
**Martinsville, Indiana**  
**Atlas Project No. 170LF01502**

Well ID	Units	MW-4D	MW-6S	MW-6I	MW-6D	MW-7S
Sample Date		11/21/2022	11/15/2022	11/15/2022	11/15/2022	11/16/2022
Pace Lab ID		50331805005	-	50331240007	50331240008	50331424005
<b>Static Water Elevation</b>		588.35	585.06	585.01	585.06	586.78
<b>Field Parameters</b>						
Temperature, Field	Degrees C	-		14.31	14.6	12.16
Dissolved Oxygen, Field	mg/L	0		0.09	0.81	0.85
Conductivity, Field	uS/cm	1,631.1		693.32	620.57	1,730.6
ORP, Field	mV	28.8		15.9	-37.3	290.6
pH, Field	S.U.	7.22		7.51	7.62	7.22
Turbidity, Field	NTU	3.76		0	0	9.05
<b>Appendix III Constituents</b>						
Boron, Total	ug/L	128		1830	2730	1490
Calcium, Total	ug/L	72500		102000	78000	252000
Chloride	mg/L	87.9		94.9	101	174
Fluoride	mg/L	0.38		0.29	0.18	<0.1
Sulfate	mg/L	74.3		163	90.8	527
Total Dissolved Solids	mg/L	454		607	462	1320
pH at 25 Degrees C	Std. Units	7.9		6.8	6.9	7.1
<b>Appendix IV Constituents</b>						
Antimony, Total	ug/L	<1		<1	<1	2.6
Arsenic, Total	ug/L	4.4		<1	<1	<1
Barium, Total	ug/L	69.6		67.1	63.1	100
Beryllium, Total	ug/L	#N/A		#N/A	#N/A	#N/A
Cadmium, Total	ug/L	#N/A		#N/A	#N/A	#N/A
Chromium, Total	ug/L	#N/A		#N/A	#N/A	#N/A
Cobalt, Total	ug/L	#N/A		#N/A	#N/A	#N/A
Lead, Total	ug/L	#N/A		#N/A	#N/A	#N/A
Lithium, Total	ug/L	<20		104	81.2	30.9
Mercury	ug/L	#N/A		#N/A	#N/A	#N/A
Molybdenum, Total	ug/L	12.8	DRY	191	210	42.8
Molybdenum, Dissolved	ug/L	13.5		194	208	47.2
Radium-226	pCi/L	0.378		0.84	0.416	0.508
Radium-228	pCi/L	<0.244		0.793	0.472	0.438
Selenium, Total	ug/L	<1		<1	<1	17.7
Thallium, Total	ug/L	#N/A		#N/A	#N/A	#N/A
Total Radium	pCi/L	<0.622		1.63	0.888	0.946
<b>Geochemical Constituents</b>						
Alkalinity, Total as CaCO3	mg/L	242		250	215	303
Alkalinity, Bicarbonate (CaCO3)	mg/L	242		250	215	303
Alkalinity, Carbonate (CaCO3)	mg/L	<10		<10	<10	<10
Aluminum, Total	ug/L	<200		<200	<200	<200
Dissolved Organic Carbon	mg/L	1.7		1.6	1.1	<4
Iron, Total	ug/L	1080		<100	149	329
Iron, Ferrous	mg/L	<0.2		<0.2	<0.2	<0.2
Iron, Dissolved	ug/L	#N/A		#N/A	#N/A	#N/A
Magnesium, Total	ug/L	24000		21400	15000	51200
Manganese, Total	ug/L	200		52.8	342	654
Manganese, Dissolved	ug/L	207		54.7	295	710
Nitrogen, Nitrate	mg/L	<0.1		<0.1	0.22	1.1
Nitrogen, Nitrite	mg/L	<0.1		<0.1	<0.1	<0.1
Phosphate as P04	mg/L	<0.15		<0.15	<0.15	<0.15
Potassium, Total	ug/L	3390		14800	6110	5880
Silica, Total	ug/L	11200		10700	12300	13900
Sodium, Total	ug/L	65900		82000	87600	86200
Sulfide	mg/L	<0.1		<0.1	<0.1	<0.1
Total Organic Carbon	mg/L	1.4		<1	<1	<4

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**Multiunit Ash Pond System**  
**AES Indiana**  
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**Martinsville, Indiana**  
**Atlas Project No. 170LF01502**

Well ID	Units	MW-85	MW-95	MW-9I	MW-9D	MW-10S
Sample Date		11/15/2022	11/15/2022	11/15/2022	11/15/2022	11/15/2022
Pace Lab ID		-	-	50331240006	50331240005	-
<b>Static Water Elevation</b>		588.33	587.54	587.40	587.47	583.52
<b>Field Parameters</b>						
Temperature, Field	Degrees C			17.08	14.58	
Dissolved Oxygen, Field	mg/L			0.17	0.66	
Conductivity, Field	uS/cm			1097.3	873.05	
ORP, Field	mV			87	90.7	
pH, Field	S.U.			7.79	7.36	
Turbidity, Field	NTU			0	0	
<b>Appendix III Constituents</b>						
Boron, Total	ug/L			532	<100	
Calcium, Total	ug/L			109000	124000	
Chloride	mg/L			129	45	
Fluoride	mg/L			0.28	<0.1	
Sulfate	mg/L			226	41.3	
Total Dissolved Solids	mg/L			728	498	
pH at 25 Degrees C	Std. Units			6.8	6.8	
<b>Appendix IV Constituents</b>						
Antimony, Total	ug/L			<1	<1	
Arsenic, Total	ug/L			<1	<1	
Barium, Total	ug/L			73.1	115	
Beryllium, Total	ug/L			#N/A	#N/A	
Cadmium, Total	ug/L			#N/A	#N/A	
Chromium, Total	ug/L			#N/A	#N/A	
Cobalt, Total	ug/L			#N/A	#N/A	
Lead, Total	ug/L			#N/A	#N/A	
Lithium, Total	ug/L			20.6	<20	
Mercury	ug/L			#N/A	#N/A	
Molybdenum, Total	ug/L	DRY	DRY	22.2	<10	DRY
Molybdenum, Dissolved	ug/L			23.1	<10	
Radium-226	pCi/L			<0.155	<0.19	
Radium-228	pCi/L			0.607	0.564	
Selenium, Total	ug/L			<1	<1	
Thallium, Total	ug/L			#N/A	#N/A	
Total Radium	pCi/L			<0.607	0.754	
<b>Geochemical Constituents</b>						
Alkalinity, Total as CaCO3	mg/L			216	398	
Alkalinity, Bicarbonate (CaCO3)	mg/L			216	398	
Alkalinity, Carbonate (CaCO3)	mg/L			<10	<10	
Aluminum, Total	ug/L			<200	<200	
Dissolved Organic Carbon	mg/L			2	1.9	
Iron, Total	ug/L			<100	<100	
Iron, Ferrous	mg/L			<0.2	<0.2	
Iron, Dissolved	ug/L			#N/A	#N/A	
Magnesium, Total	ug/L			31500	32400	
Manganese, Total	ug/L			325	226	
Manganese, Dissolved	ug/L			330	217	
Nitrogen, Nitrate	mg/L			<0.1	0.16	
Nitrogen, Nitrite	mg/L			<0.1	<0.1	
Phosphate as P04	mg/L			<0.15	<0.15	
Potassium, Total	ug/L			6310	2390	
Silica, Total	ug/L			9360	13800	
Sodium, Total	ug/L			97900	26900	
Sulfide	mg/L			<0.1	<0.1	
Total Organic Carbon	mg/L			1.8	1	

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**Martinsville, Indiana**  
**Atlas Project No. 170LF01502**

Well ID	Units	MW-10I	MW-10D	MW-11S	MW-11I	MW-11D
Sample Date		11/28/2022	11/28/2022	11/21/2022	11/21/2022	11/29/2022
Pace Lab ID		50332099002	50332099001	50331805001	50331805002	50332201004
<b>Static Water Elevation</b>		583.79	583.51	586.22	586.26	586.22
<b>Field Parameters</b>						
Temperature, Field	Degrees C	13.9	14.29	13.39	13.09	18.4
Dissolved Oxygen, Field	mg/L	0.02	0.04	1.47	0.17	0.04
Conductivity, Field	uS/cm	1,198.0	840.92	1,368.6	989.34	0
ORP, Field	mV	143.1	165.3	177.4	238.5	-110.5
pH, Field	S.U.	7.45	7.44	7.13	7.45	7.59
Turbidity, Field	NTU	13.62	100.52	1.84	7.38	9.08
<b>Appendix III Constituents</b>						
Boron, Total	ug/L	629	233	3780	1590	1600
Calcium, Total	ug/L	128000	93800	178000	97400	71600
Chloride	mg/L	115	84.1	51.9	74.9	98.8
Fluoride	mg/L	0.3	0.19	0.2	0.42	0.28
Sulfate	mg/L	238	81.4	216	192	98.7
Total Dissolved Solids	mg/L	710	462	878	615	498
pH at 25 Degrees C	Std. Units	7.6	7.7	7.4	7.6	7.6
<b>Appendix IV Constituents</b>						
Antimony, Total	ug/L	<1	<1	1.3	<1	<1
Arsenic, Total	ug/L	<1	1.5	49.2	1.7	5
Barium, Total	ug/L	57.3	86.6	152	73.2	57.6
Beryllium, Total	ug/L	#N/A	#N/A	#N/A	#N/A	#N/A
Cadmium, Total	ug/L	#N/A	#N/A	#N/A	#N/A	#N/A
Chromium, Total	ug/L	#N/A	#N/A	#N/A	#N/A	#N/A
Cobalt, Total	ug/L	#N/A	#N/A	#N/A	#N/A	#N/A
Lead, Total	ug/L	#N/A	#N/A	#N/A	#N/A	#N/A
Lithium, Total	ug/L	55	47.8	142	122	81.9
Mercury	ug/L	#N/A	#N/A	#N/A	#N/A	#N/A
Molybdenum, Total	ug/L	144	109	56.4	127	159
Molybdenum, Dissolved	ug/L	139	108	56.1	127	154
Radium-226	pCi/L	0.54	0.339	0.245	0.491	0.417
Radium-228	pCi/L	<0.121	0.556	0.579	<0.284	0.477
Selenium, Total	ug/L	<1	<1	13.9	<1	<1
Thallium, Total	ug/L	#N/A	#N/A	#N/A	#N/A	#N/A
Total Radium	pCi/L	<0.54	0.895	0.824	<0.491	0.894
<b>Geochemical Constituents</b>						
Alkalinity, Total as CaCO3	mg/L	246	254	551	250	225
Alkalinity, Bicarbonate (CaCO3)	mg/L	246	254	551	250	225
Alkalinity, Carbonate (CaCO3)	mg/L	<10	<10	<10	<10	<10
Aluminum, Total	ug/L	<200	888	<200	<200	<200
Dissolved Organic Carbon	mg/L	<4	1.2	1.1	1.4	1.4
Iron, Total	ug/L	320	1900	<100	420	973
Iron, Ferrous	mg/L	<0.2	<0.2	<0.2	<0.2	<0.2
Iron, Dissolved	ug/L	#N/A	#N/A	#N/A	#N/A	#N/A
Magnesium, Total	ug/L	25100	22300	57200	28500	19200
Manganese, Total	ug/L	44	113	<10	328	248
Manganese, Dissolved	ug/L	39.4	85.3	<10	316	230
Nitrogen, Nitrate	mg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Nitrogen, Nitrite	mg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Phosphate as P04	mg/L	<0.15	0.18	0.16	0.16	<0.15
Potassium, Total	ug/L	9680	7070	11800	8120	7530
Silica, Total	ug/L	10000	14700	14700	11000	11500
Sodium, Total	ug/L	95900	55900	73700	80300	89300
Sulfide	mg/L	<0.1	<0.1	<0.1	<0.1	0.23
Total Organic Carbon	mg/L	1	1.1	1.3	1	2

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**Atlas Project No. 170LF01502**

Well ID	Units	MW-12S	MW-13S	MW-13I	MW-13D	MW-14S
Sample Date		11/15/2022	11/18/2022	11/18/2022	11/18/2022	11/29/2022
Pace Lab ID		50331240009	50331581003	50331581002	50331581001	50332201001
<b>Static Water Elevation</b>		NM	583.70	583.71	583.64	583.81
<b>Field Parameters</b>						
Temperature, Field	Degrees C	14.16	13.98	12.13	11.47	21.87
Dissolved Oxygen, Field	mg/L	3.16	7.66	5.33	1.84	6.83
Conductivity, Field	uS/cm	758.26	788.8	706.28	662	0
ORP, Field	mV	81.2	106.9	23.6	-51.7	142
pH, Field	S.U.	7.35	7.27	7.6	7.56	7.31
Turbidity, Field	NTU	0	5.6	1.72	0.52	0
<b>Appendix III Constituents</b>						
Boron, Total	ug/L	13300	<100	<100	<100	178
Calcium, Total	ug/L	128000	112000	85200	80900	89200
Chloride	mg/L	43.4	26.3	52.2	50.9	2.2
Fluoride	mg/L	0.24	<0.1	<0.1	0.11	0.11
Sulfate	mg/L	214	19	21.4	34.4	5.3
Total Dissolved Solids	mg/L	760	480	413	390	373
pH at 25 Degrees C	Std. Units	6.8	7.5	7.8	7.7	7.2
<b>Appendix IV Constituents</b>						
Antimony, Total	ug/L	1.5	<1	<1	<1	<1
Arsenic, Total	ug/L	1.5	<1	<1	<1	<1
Barium, Total	ug/L	120	52.6	42.2	64.5	27.2
Beryllium, Total	ug/L	#N/A	#N/A	#N/A	#N/A	#N/A
Cadmium, Total	ug/L	#N/A	#N/A	#N/A	#N/A	#N/A
Chromium, Total	ug/L	#N/A	#N/A	#N/A	#N/A	#N/A
Cobalt, Total	ug/L	#N/A	#N/A	#N/A	#N/A	#N/A
Lead, Total	ug/L	#N/A	#N/A	#N/A	#N/A	#N/A
Lithium, Total	ug/L	138	<20	<20	<20	<20
Mercury	ug/L	#N/A	#N/A	#N/A	#N/A	#N/A
Molybdenum, Total	ug/L	36.4	<10	<10	<10	42.8
Molybdenum, Dissolved	ug/L	37	<10	<10	<10	44.3
Radium-226	pCi/L	0.219	0.192	0.0786	0.201	<0.128
Radium-228	pCi/L	0.937	<0.32	0.956	0.497	<0.212
Selenium, Total	ug/L	32.4	<1	<1	<1	<1
Thallium, Total	ug/L	#N/A	#N/A	#N/A	#N/A	#N/A
Total Radium	pCi/L	1.16	<0.192	1.03	0.698	<0.34
<b>Geochemical Constituents</b>						
Alkalinity, Total as CaCO3	mg/L	371	382	292	274	289
Alkalinity, Bicarbonate (CaCO3)	mg/L	371	382	292	274	289
Alkalinity, Carbonate (CaCO3)	mg/L	<10	<10	<10	<10	<10
Aluminum, Total	ug/L	<200	<200	<200	<200	<200
Dissolved Organic Carbon	mg/L	<1	<1	<1	<1	<1
Iron, Total	ug/L	380	<100	<100	188	<100
Iron, Ferrous	mg/L	<0.2	<0.2	<0.2	<0.2	<0.2
Iron, Dissolved	ug/L	#N/A	#N/A	#N/A	#N/A	#N/A
Magnesium, Total	ug/L	27000	28700	25100	24200	22400
Manganese, Total	ug/L	80.7	<10	<10	23.6	<10
Manganese, Dissolved	ug/L	155	<10	<10	23.2	<10
Nitrogen, Nitrate	mg/L	0.36	9	6.6	1	11.7
Nitrogen, Nitrite	mg/L	<0.1	<1	<0.5	<0.1	<1
Phosphate as P04	mg/L	<0.15	<0.15	<0.15	<0.15	<0.15
Potassium, Total	ug/L	13600	2860	2050	1490	2500
Silica, Total	ug/L	13000	14700	16700	15600	12500
Sodium, Total	ug/L	104000	16900	29600	30700	6560
Sulfide	mg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Total Organic Carbon	mg/L	<1	<1	<1	<1	<1

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Static water elevation listed for a well may have been collected on a date different than date of well sampling.

**Table 3**  
**Summary of Monitoring Results - November - December 2022**  
**Multiunit Ash Pond System**  
**AES Indiana**  
**Eagle Valley Generating Station**  
**Martinsville, Indiana**  
**Atlas Project No. 170LF01502**

Well ID	Units	MW-14I	MW-14D	MW-15S	MW-15I	MW-15D
Sample Date		11/29/2022	11/29/2022	11/22/2022	11/22/2022	11/22/2022
Pace Lab ID		50332201002	50332201003	50331773001	50331773002	50331773003
<b>Static Water Elevation</b>		583.76	583.70	584.99	585.18	585.12
<b>Field Parameters</b>						
Temperature, Field	Degrees C	16.74	16.18	15.12	14.67	14.63
Dissolved Oxygen, Field	mg/L	0.07	0.35	6.05	0.09	0.36
Conductivity, Field	uS/cm	0	0	788.97	969.49	1,115.8
ORP, Field	mV	163.2	177.4	141.9	127.8	125.4
pH, Field	S.U.	7	6.81	7.21	7.54	7.46
Turbidity, Field	NTU	0.01	4.94	1.47	0	0
<b>Appendix III Constituents</b>						
Boron, Total	ug/L	2500	1870	2950	8180	4960
Calcium, Total	ug/L	118000	161000	101000	81800	106000
Chloride	mg/L	17.6	90.4	27	89.2	121
Fluoride	mg/L	1.9	<0.1	0.39	0.45	0.21
Sulfate	mg/L	203	365	65.7	198	207
Total Dissolved Solids	mg/L	665	920	486	616	701
pH at 25 Degrees C	Std. Units	7.4	7.3	7.4	7.6	7.5
<b>Appendix IV Constituents</b>						
Antimony, Total	ug/L	<1	<1	<1	<1	<1
Arsenic, Total	ug/L	<1	<1	<1	<1	1
Barium, Total	ug/L	49.3	27.1	72.6	50	60.1
Beryllium, Total	ug/L	#N/A	#N/A	#N/A	#N/A	#N/A
Cadmium, Total	ug/L	#N/A	#N/A	#N/A	#N/A	#N/A
Chromium, Total	ug/L	#N/A	#N/A	#N/A	#N/A	#N/A
Cobalt, Total	ug/L	#N/A	#N/A	#N/A	#N/A	#N/A
Lead, Total	ug/L	#N/A	#N/A	#N/A	#N/A	#N/A
Lithium, Total	ug/L	59.5	24.4	45.1	79.6	79.7
Mercury	ug/L	#N/A	#N/A	#N/A	#N/A	#N/A
Molybdenum, Total	ug/L	78.4	16.5	83.2	361	191
Molybdenum, Dissolved	ug/L	84.5	17.3	89.3	357	198
Radium-226	pCi/L	<0.191	0.734	<0	0.925	0.451
Radium-228	pCi/L	0.511	0.503	0.762	1.1	0.495
Selenium, Total	ug/L	<1	<1	7	<1	<1
Thallium, Total	ug/L	#N/A	#N/A	#N/A	#N/A	#N/A
Total Radium	pCi/L	0.702	1.24	0.762	2.03	0.946
<b>Geochemical Constituents</b>						
Alkalinity, Total as CaCO3	mg/L	300	296	308	185	190
Alkalinity, Bicarbonate (CaCO3)	mg/L	300	296	308	185	190
Alkalinity, Carbonate (CaCO3)	mg/L	<10	<10	<10	<10	<10
Aluminum, Total	ug/L	<200	<200	<200	<200	<200
Dissolved Organic Carbon	mg/L	<1	<1	1.1	<1	<4
Iron, Total	ug/L	<100	102	<100	<100	256
Iron, Ferrous	mg/L	<0.2	<0.2	<0.2	<0.2	<0.2
Iron, Dissolved	ug/L	#N/A	#N/A	#N/A	#N/A	#N/A
Magnesium, Total	ug/L	27500	33800	24800	19000	20200
Manganese, Total	ug/L	<10	120	<10	58.6	391
Manganese, Dissolved	ug/L	<10	116	<10	57.3	394
Nitrogen, Nitrate	mg/L	1.4	<0.1	7.3	<0.1	<0.1
Nitrogen, Nitrite	mg/L	<0.1	<0.1	<0.2	<0.1	<0.1
Phosphate as P04	mg/L	<0.15	<0.15	<0.15	<0.15	<0.15
Potassium, Total	ug/L	4670	4780	6910	8770	6930
Silica, Total	ug/L	13700	15100	12400	10400	12300
Sodium, Total	ug/L	55100	88600	42200	107000	107000
Sulfide	mg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Total Organic Carbon	mg/L	<1	<1	<1	<1	<1

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**Table 3**  
**Summary of Monitoring Results - November - December 2022**  
**Multiunit Ash Pond System**  
**AES Indiana**  
**Eagle Valley Generating Station**  
**Martinsville, Indiana**  
**Atlas Project No. 170LF01502**

Well ID	Units	MW-16S	MW-16I	MW-16D	MW-17S	MW-17I
Sample Date		11/21/2022	11/21/2022	11/21/2022	11/15/2022	11/15/2022
Pace Lab ID		50331804001	50331804002	50331804003	50331216001	50331216002
<b>Static Water Elevation</b>		587.57	587.60	587.64	585.48	585.50
<b>Field Parameters</b>						
Temperature, Field	Degrees C	-	-	-	11.94	11.83
Dissolved Oxygen, Field	mg/L	0	0.13	0.57	0.12	0.79
Conductivity, Field	uS/cm	1,969.3	1,898.3	1,603.9	689.46	633.19
ORP, Field	mV	110.6	107.7	74.2	273.1	228.7
pH, Field	S.U.	7.12	7.27	7.29	7.52	7.67
Turbidity, Field	NTU	2.49	4.48	0	0.73	2.88
<b>Appendix III Constituents</b>						
Boron, Total	ug/L	412	271	176	306	393
Calcium, Total	ug/L	105000	65400	76800	97400	83400
Chloride	mg/L	135	106	98	36.3	46
Fluoride	mg/L	0.23	0.31	0.33	0.16	0.12
Sulfate	mg/L	150	98.3	82.7	27.1	28.7
Total Dissolved Solids	mg/L	675	516	469	415	388
pH at 25 Degrees C	Std. Units	7.6	7.7	7.8	7.4	7.5
<b>Appendix IV Constituents</b>						
Antimony, Total	ug/L	<1	<1	<1	<1	<1
Arsenic, Total	ug/L	<1	<1	4.2	<1	<1
Barium, Total	ug/L	95.4	67	66.4	108	52.5
Beryllium, Total	ug/L	#N/A	#N/A	#N/A	#N/A	#N/A
Cadmium, Total	ug/L	#N/A	#N/A	#N/A	#N/A	#N/A
Chromium, Total	ug/L	#N/A	#N/A	#N/A	#N/A	#N/A
Cobalt, Total	ug/L	#N/A	#N/A	#N/A	#N/A	#N/A
Lead, Total	ug/L	#N/A	#N/A	#N/A	#N/A	#N/A
Lithium, Total	ug/L	54.7	71.1	45.1	<20	<20
Mercury	ug/L	#N/A	#N/A	#N/A	#N/A	#N/A
Molybdenum, Total	ug/L	45.1	92	54.4	12.7	<10
Molybdenum, Dissolved	ug/L	45.1	101	56.4	12.3	<10
Radium-226	pCi/L	0.342	0.629	0.399	<0.278	0.0805
Radium-228	pCi/L	0.717	0.867	<0.104	<0.335	<0.153
Selenium, Total	ug/L	1.5	<1	<1	<1	<1
Thallium, Total	ug/L	#N/A	#N/A	#N/A	#N/A	#N/A
Total Radium	pCi/L	1.06	1.5	<0.503	<0.278	<0.234
<b>Geochemical Constituents</b>						
Alkalinity, Total as CaCO3	mg/L	266	242	219	318	265
Alkalinity, Bicarbonate (CaCO3)	mg/L	266	242	219	318	265
Alkalinity, Carbonate (CaCO3)	mg/L	<10	<10	<10	<10	<10
Aluminum, Total	ug/L	<200	<200	<200	<200	<200
Dissolved Organic Carbon	mg/L	1	1.2	1.2	2.4	<1
Iron, Total	ug/L	<100	<100	1050	<100	<100
Iron, Ferrrous	mg/L	<0.2	<0.2	<0.2	<0.2	<0.2
Iron, Dissolved	ug/L	#N/A	#N/A	#N/A	#N/A	#N/A
Magnesium, Total	ug/L	27800	21100	18800	22400	21200
Manganese, Total	ug/L	572	83.1	171	<10	<10
Manganese, Dissolved	ug/L	442	91.3	181	<10	<10
Nitrogen, Nitrate	mg/L	1.4	<0.1	<0.1	2	1.6
Nitrogen, Nitrite	mg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Phosphate as P04	mg/L	<0.15	<0.15	<0.15	<0.15	0.2
Potassium, Total	ug/L	8140	7180	7960	3180	2160
Silica, Total	ug/L	12600	10700	10800	11100	10200
Sodium, Total	ug/L	80600	80000	60400	30200	30400
Sulfide	mg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Total Organic Carbon	mg/L	<1	1	1.2	1.1	<1

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**Multiunit Ash Pond System**  
**AES Indiana**  
**Eagle Valley Generating Station**  
**Martinsville, Indiana**  
**Atlas Project No. 170LF01502**

Well ID	Units	MW-17D	MW-18S	MW-18I	MW-18D	MW-19S
Sample Date		11/15/2022	11/16/2022	11/16/2022	11/16/2022	11/17/2022
Pace Lab ID		50331216003	50331435003	50331435002	50331435001	50331571003
<b>Static Water Elevation</b>		585.62	585.51	585.22	585.50	584.96
<b>Field Parameters</b>						
Temperature, Field	Degrees C	12.02	12.89	11.75	11.66	14.11
Dissolved Oxygen, Field	mg/L	0.63	1.35	1.87	1.26	5.8
Conductivity, Field	uS/cm	822.19	567.9	558.67	859.63	668.73
ORP, Field	mV	-112.5	129.6	100.4	-90	252.1
pH, Field	S.U.	7.67	7.73	7.84	7.81	7.36
Turbidity, Field	NTU	16.86	2.77	0.54	1.1	5.48
<b>Appendix III Constituents</b>						
Boron, Total	ug/L	3620	158	297	3800	158
Calcium, Total	ug/L	93600	77400	70200	90500	108000
Chloride	mg/L	65.2	36.9	38.9	91.6	3.8
Fluoride	mg/L	<0.1	0.17	0.13	0.13	<0.1
Sulfate	mg/L	132	24.1	28.6	106	9.5
Total Dissolved Solids	mg/L	545	341	342	544	401
pH at 25 Degrees C	Std. Units	7.8	7.5	7.9	8	7.4
<b>Appendix IV Constituents</b>						
Antimony, Total	ug/L	<1	<1	<1	<1	<1
Arsenic, Total	ug/L	10.8	<1	<1	<1	<1
Barium, Total	ug/L	58	41.4	73.5	55.5	31.6
Beryllium, Total	ug/L	#N/A	#N/A	#N/A	#N/A	#N/A
Cadmium, Total	ug/L	#N/A	#N/A	#N/A	#N/A	#N/A
Chromium, Total	ug/L	#N/A	#N/A	#N/A	#N/A	#N/A
Cobalt, Total	ug/L	#N/A	#N/A	#N/A	#N/A	#N/A
Lead, Total	ug/L	#N/A	#N/A	#N/A	#N/A	#N/A
Lithium, Total	ug/L	40.6	21.4	45.5	93.5	<20
Mercury	ug/L	#N/A	#N/A	#N/A	#N/A	#N/A
Molybdenum, Total	ug/L	35.2	21.3	87.4	173	<10
Molybdenum, Dissolved	ug/L	34.6	22.2	91.3	175	<10
Radium-226	pCi/L	0.668	<0.196	0.632	0.418	<0.138
Radium-228	pCi/L	0.834	0.393	0.294	0.361	<0.283
Selenium, Total	ug/L	<1	<1	1	<1	<1
Thallium, Total	ug/L	#N/A	#N/A	#N/A	#N/A	#N/A
Total Radium	pCi/L	1.5	<0.393	0.926	0.779	<0.138
<b>Geochemical Constituents</b>						
Alkalinity, Total as CaCO3	mg/L	245	247	225	248	331
Alkalinity, Bicarbonate (CaCO3)	mg/L	245	247	225	248	331
Alkalinity, Carbonate (CaCO3)	mg/L	<10	<10	<10	<10	<10
Aluminum, Total	ug/L	<200	<200	<200	<200	<200
Dissolved Organic Carbon	mg/L	<1	<4	<1	<1	<1
Iron, Total	ug/L	4980	<100	<100	402	<100
Iron, Ferrous	mg/L	<0.2	<0.2	<0.2	<0.2	<0.2
Iron, Dissolved	ug/L	#N/A	#N/A	#N/A	#N/A	#N/A
Magnesium, Total	ug/L	25000	17600	15500	17700	27200
Manganese, Total	ug/L	481	<10	56.2	338	10.4
Manganese, Dissolved	ug/L	307	<10	62.6	338	<10
Nitrogen, Nitrate	mg/L	<0.1	0.7	1.3	<0.1	12.1
Nitrogen, Nitrite	mg/L	<0.1	<0.1	<0.1	<0.1	<1
Phosphate as P04	mg/L	<0.15	<0.15	<0.15	<0.15	<0.15
Potassium, Total	ug/L	3320	2620	5050	6710	2010
Silica, Total	ug/L	13200	8580	10100	11900	11500
Sodium, Total	ug/L	65800	27400	29900	77800	10200
Sulfide	mg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Total Organic Carbon	mg/L	<1	<1	<1	<1	<1

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**Atlas Project No. 170LF01502**

Well ID	Units	MW-19I	MW-19D	MW-20S	MW-20I	MW-20D
Sample Date		11/17/2022	11/17/2022	11/15/2022	12/6/2022	12/6/2022
Pace Lab ID		50331571002	50331571001	-	50332748002	50332748001
<b>Static Water Elevation</b>		584.92	585.24	585.12	584.68	584.63
<b>Field Parameters</b>						
Temperature, Field	Degrees C	13.44	13.14		12.66	12.51
Dissolved Oxygen, Field	mg/L	0.11	0.36		10.43	6.04
Conductivity, Field	uS/cm	1,073.6	1,198.6		429.4	403.67
ORP, Field	mV	-18.8	-49.6		112.8	127.2
pH, Field	S.U.	7.68	7.64		7.57	7.53
Turbidity, Field	NTU	0.29	0.83		56.07	26.05
<b>Appendix III Constituents</b>						
Boron, Total	ug/L	4780	5700		<100	<100
Calcium, Total	ug/L	120000	116000		91900	80300
Chloride	mg/L	106	143		28.1	14.1
Fluoride	mg/L	<0.1	<0.1		<0.1	<0.1
Sulfate	mg/L	242	240		25.1	27
Total Dissolved Solids	mg/L	727	794		375	325
pH at 25 Degrees C	Std. Units	7.6	7.6		7.6	7.6
<b>Appendix IV Constituents</b>						
Antimony, Total	ug/L	<1	<1		<1	<1
Arsenic, Total	ug/L	<1	<1		1.8	<1
Barium, Total	ug/L	68.4	48.4		46.6	34.1
Beryllium, Total	ug/L	#N/A	#N/A		#N/A	#N/A
Cadmium, Total	ug/L	#N/A	#N/A		#N/A	#N/A
Chromium, Total	ug/L	#N/A	#N/A		#N/A	#N/A
Cobalt, Total	ug/L	#N/A	#N/A		#N/A	#N/A
Lead, Total	ug/L	#N/A	#N/A		#N/A	#N/A
Lithium, Total	ug/L	98.7	21.7		<20	<20
Mercury	ug/L	#N/A	#N/A		#N/A	#N/A
Molybdenum, Total	ug/L	135	19.8	DRY	<10	<10
Molybdenum, Dissolved	ug/L	139	21.6		<10	<10
Radium-226	pCi/L	0.262	0.496		1.25	0.563
Radium-228	pCi/L	0.776	<0.426		0.424	0.484
Selenium, Total	ug/L	<1	<1		<1	<1
Thallium, Total	ug/L	#N/A	#N/A		#N/A	#N/A
Total Radium	pCi/L	1.04	0.922		1.67	1.05
<b>Geochemical Constituents</b>						
Alkalinity, Total as CaCO3	mg/L	251	227		268	246
Alkalinity, Bicarbonate (CaCO3)	mg/L	241	220		268	246
Alkalinity, Carbonate (CaCO3)	mg/L	10.6	<10		<10	<10
Aluminum, Total	ug/L	<200	<200		421	<200
Dissolved Organic Carbon	mg/L	<1	<4		<1	<1
Iron, Total	ug/L	<100	131		1190	385
Iron, Ferrous	mg/L	<0.2	<0.2		<0.2	<0.2
Iron, Dissolved	ug/L	#N/A	#N/A		#N/A	#N/A
Magnesium, Total	ug/L	25200	28200		25700	24000
Manganese, Total	ug/L	81	370		99.7	20.2
Manganese, Dissolved	ug/L	86.2	418		<10	10.3
Nitrogen, Nitrate	mg/L	0.24	<0.1		2.2	1.5
Nitrogen, Nitrite	mg/L	<0.1	<0.1		<0.1	<0.1
Phosphate as P04	mg/L	<0.15	<0.15		<0.15	<0.15
Potassium, Total	ug/L	7480	4030		3920	2640
Silica, Total	ug/L	13500	13300		18300	17800
Sodium, Total	ug/L	95800	98300		11700	8830
Sulfide	mg/L	<0.1	<0.1		<0.1	<0.1
Total Organic Carbon	mg/L	<1	<4		<1	<1

Notes:

- ft MSL: Elevation, feet mean sea level
- °C: Degrees celcius
- uS/cm: microsiemen per centimeter
- umhos/cm: micromhos per centimeter
- #NA: Not Analyzed
- NM: Not Measured
- NS: Not Sampled
- mV: millivolt
- Std. Units: standard units
- mg/L: milligram per liter
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Static water elevation listed for a well may have been collected on a date different than date of well sampling.



**Table 3**  
**Summary of Monitoring Results - November - December 2022**  
**Multiunit Ash Pond System**  
**AES Indiana**  
**Eagle Valley Generating Station**  
**Martinsville, Indiana**  
**Atlas Project No. 170LF01502**

Well ID	Units	MW-21S	MW-21I	MW-21D	MW-22S	MW-22I
Sample Date		12/13/2022	12/16/2022	12/16/2022	12/16/2022	12/16/2022
Pace Lab ID		50333527004	50333823001	50333823002	50333840001	50333840002
<b>Static Water Elevation</b>		584.69	584.77	584.73	589.77	589.77
<b>Field Parameters</b>						
Temperature, Field	Degrees C	19.69	15.38	15.41	12.22	11.4
Dissolved Oxygen, Field	mg/L	0.37	0.19	0.19	1.93	0.32
Conductivity, Field	uS/cm	394.48	650.59	1,048.2	416.04	331.62
ORP, Field	mV	36.3	-37.8	-155.6	123.1	74.2
pH, Field	S.U.	7.43	7.42	7.31	7.4	7.54
Turbidity, Field	NTU	1.99	0.04	13.23	8.08	34.71
<b>Appendix III Constituents</b>						
Boron, Total	ug/L	<100	<100	320	<100	<100
Calcium, Total	ug/L	75700	89500	139000	88200	82600
Chloride	mg/L	50.9	14.7	50.7	50.1	11
Fluoride	mg/L	0.19	<0.1	<0.1	0.11	<0.1
Sulfate	mg/L	35.4	42.6	246	42.9	22.2
Total Dissolved Solids	mg/L	364	385	701	427	352
pH at 25 Degrees C	Std. Units	7.7	7.4	7.6	7.6	7.6
<b>Appendix IV Constituents</b>						
Antimony, Total	ug/L	<1	<1	<1	<1	<1
Arsenic, Total	ug/L	<1	<1	1.2	<1	<1
Barium, Total	ug/L	40.8	81.6	61.4	43.6	56.4
Beryllium, Total	ug/L	#N/A	#N/A	#N/A	#N/A	#N/A
Cadmium, Total	ug/L	#N/A	#N/A	#N/A	#N/A	#N/A
Chromium, Total	ug/L	#N/A	#N/A	#N/A	#N/A	#N/A
Cobalt, Total	ug/L	#N/A	#N/A	#N/A	#N/A	#N/A
Lead, Total	ug/L	#N/A	#N/A	#N/A	#N/A	#N/A
Lithium, Total	ug/L	<20	<20	<20	<20	<20
Mercury	ug/L	#N/A	#N/A	#N/A	#N/A	#N/A
Molybdenum, Total	ug/L	<10	<10	<10	<10	<10
Molybdenum, Dissolved	ug/L	<10	<10	<10	<10	<10
Radium-226	pCi/L	<0.0497	<0.127	0.571	<0.0566	0.387
Radium-228	pCi/L	0.436	<0.281	0.942	1.26	0.656
Selenium, Total	ug/L	<1	12.4	<1	1.3	7.1
Thallium, Total	ug/L	#N/A	#N/A	#N/A	#N/A	#N/A
Total Radium	pCi/L	<0.486	<0.408	1.51	1.26	1.04
<b>Geochemical Constituents</b>						
Alkalinity, Total as CaCO3	mg/L	256	271	268	304	293
Alkalinity, Bicarbonate (CaCO3)	mg/L	256	271	268	304	293
Alkalinity, Carbonate (CaCO3)	mg/L	<10	<10	<10	<10	<10
Aluminum, Total	ug/L	<200	<200	<200	<200	<200
Dissolved Organic Carbon	mg/L	1.4	1.7	1.1	<1	<1
Iron, Total	ug/L	<100	<100	3700	191	114
Iron, Ferrous	mg/L	<0.2	<0.2	<0.2	<0.2	<0.2
Iron, Dissolved	ug/L	#N/A	#N/A	#N/A	#N/A	#N/A
Magnesium, Total	ug/L	22900	26800	32400	24300	24100
Manganese, Total	ug/L	223	108	362	524	206
Manganese, Dissolved	ug/L	203	112	368	539	226
Nitrogen, Nitrate	mg/L	0.52	6.8	<1	2.2	6.7
Nitrogen, Nitrite	mg/L	<0.1	<0.5	<1	<0.1	<0.5
Phosphate as P04	mg/L	<0.15	<0.15	<0.15	<0.15	<0.15
Potassium, Total	ug/L	3580	1860	3060	1410	1340
Silica, Total	ug/L	9920	12200	15000	10800	11900
Sodium, Total	ug/L	34000	11900	40200	29400	5460
Sulfide	mg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Total Organic Carbon	mg/L	<1	<1	<1	<1	<1

Notes:

ft MSL: Elevation, feet mean sea level  
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Static water elevation listed for a well may have been collected on a date different than date of well sampling.

**Table 3**  
**Summary of Monitoring Results - November - December 2022**  
**Multiunit Ash Pond System**  
**AES Indiana**  
**Eagle Valley Generating Station**  
**Martinsville, Indiana**  
**Atlas Project No. 170LF01502**

Well ID	Units	MW-22D	MW-23S	MW-23I	MW-23D
Sample Date		12/16/2022	12/13/2022	12/13/2022	12/13/2022
Pace Lab ID		50333840005	50333527003	50333527002	50333527001
<b>Static Water Elevation</b>		589.76	584.87	584.82	584.87
<b>Field Parameters</b>					
Temperature, Field	Degrees C	10.39	12.4	12.17	11.76
Dissolved Oxygen, Field	mg/L	0.17	4.8	0.09	4.32
Conductivity, Field	uS/cm	295.51	322.61	326.9	307.93
ORP, Field	mV	-114.7	5.1	-24	-43.3
pH, Field	S.U.	7.68	7.36	7.56	7.7
Turbidity, Field	NTU	15.68	5.94	41.1	38.88
<b>Appendix III Constituents</b>					
Boron, Total	ug/L	<100	<100	<100	<100
Calcium, Total	ug/L	72700	104000	84200	71300
Chloride	mg/L	13.8	6.3	16.1	20.4
Fluoride	mg/L	<0.1	0.12	0.11	0.13
Sulfate	mg/L	41.9	11.2	34.6	37.7
Total Dissolved Solids	mg/L	316	364	351	278
pH at 25 Degrees C	Std. Units	7.9	7.5	7.8	7.9
<b>Appendix IV Constituents</b>					
Antimony, Total	ug/L	<1	<1	<1	<1
Arsenic, Total	ug/L	2.8	<1	<1	1.1
Barium, Total	ug/L	94.4	45.4	34	50.8
Beryllium, Total	ug/L	#N/A	#N/A	#N/A	#N/A
Cadmium, Total	ug/L	#N/A	#N/A	#N/A	#N/A
Chromium, Total	ug/L	#N/A	#N/A	#N/A	#N/A
Cobalt, Total	ug/L	#N/A	#N/A	#N/A	#N/A
Lead, Total	ug/L	#N/A	#N/A	#N/A	#N/A
Lithium, Total	ug/L	<20	<20	<20	<20
Mercury	ug/L	#N/A	#N/A	#N/A	#N/A
Molybdenum, Total	ug/L	<10	<10	<10	<10
Molybdenum, Dissolved	ug/L	<10	<10	<10	<10
Radium-226	pCi/L	0.585	<0.273	<0.111	<0.0488
Radium-228	pCi/L	<0.413	<0.201	0.445	0.491
Selenium, Total	ug/L	<1	<1	4	1.9
Thallium, Total	ug/L	#N/A	#N/A	#N/A	#N/A
Total Radium	pCi/L	0.998	<0.201	<0.556	<0.491
<b>Geochemical Constituents</b>					
Alkalinity, Total as CaCO3	mg/L	244	324	252	229
Alkalinity, Bicarbonate (CaCO3)	mg/L	244	324	252	229
Alkalinity, Carbonate (CaCO3)	mg/L	<10	<10	<10	<10
Aluminum, Total	ug/L	<200	<200	<200	243
Dissolved Organic Carbon	mg/L	<1	<1	<1	1
Iron, Total	ug/L	1640	<100	321	981
Iron, Ferrous	mg/L	<0.2	<0.2	<0.2	<0.2
Iron, Dissolved	ug/L	#N/A	#N/A	#N/A	#N/A
Magnesium, Total	ug/L	22700	29800	23600	21100
Manganese, Total	ug/L	276	10.2	52	196
Manganese, Dissolved	ug/L	247	<10	38.5	176
Nitrogen, Nitrate	mg/L	0.27	7.9	8.8	0.12
Nitrogen, Nitrite	mg/L	<0.1	<1	<1	<0.1
Phosphate as P04	mg/L	<0.15	<0.15	<0.15	<0.15
Potassium, Total	ug/L	1580	<1000	1630	1820
Silica, Total	ug/L	12900	14000	15800	16000
Sodium, Total	ug/L	8600	8730	17400	14800
Sulfide	mg/L	<0.1	<0.1	<0.1	<0.1
Total Organic Carbon	mg/L	<1	<1	<1	<1

Notes:

ft MSL: Elevation, feet mean sea level  
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Static water elevation listed for a well may have been collected on a date different than date of well sampling.

**Table 4**  
 Summary of Soil Analytical Results - February 2023  
 Multiunit Ash Pond System  
 AES Indiana  
 Eagle Valley Generating Station  
 Martinsville, Indiana  
 Atlas Project No. 170LF01502

Well ID	Units	MW-3D (88-90)	MW-12I (54-56)	MW-12D (82-88)	MW-24S (38-40)	MW-24I (68-70)
Sample Date		2/2/2023	2/10/2023	2/10/2023	2/2/2023	2/2/2023
Pace Lab ID		50336667001	50337246004	50337246005	50336667002	50336667003
Arsenic, Total	mg/kg	3.8	4	3.6	5.6	2.6
Iron, Total	mg/kg	6660	7380	7560	5390	5990
Lithium, Total	mg/kg	6.6	5.7	6.6	5.4	5.7
Manganese, Total	mg/kg	293	245	464	187	191
Mean Total Organic Carbon	mg/kg	23900	33900	21500	26700	24300
Molybdenum, Total	mg/kg	1.2	2.6	1.4	1.3	1.3
Percent Moisture	%	8	10.4	6.1	8.9	7.4
pH at 25 Degrees C	Std. Units	8.3	8.6	8.5	8.4	8.2
RSD%	%	15.7	10.4	19.8	18.2	56.8
Total Organic Carbon	mg/kg	25000	34500	24700	21400	17300
Total Organic Carbon	mg/kg	25000	34500	24700	21400	17300
Total Organic Carbon	mg/kg	25000	34500	24700	21400	17300
Total Organic Carbon	mg/kg	25000	34500	24700	21400	17300

Notes:

NA: Not analyzed

Std. Units: standard units

mg/kg: milligram per kilogram

**Table 4**  
 Summary of Soil Analytical Results - February 2023  
 Multiunit Ash Pond System  
 AES Indiana  
 Eagle Valley Generating Station  
 Martinsville, Indiana  
 Atlas Project No. 170LF01502

Well ID	Units	MW-24D (98-100)	MW-25S (24-26)	MW-25I (48-50)	MW-25D (74-76)	MW-26S (34-36)
Sample Date		2/2/2023	3/15/2023	3/15/2023	3/15/2023	2/10/2023
Pace Lab ID		50336667004	50339736003	50339736002	50339736001	50337246003
Arsenic, Total	mg/kg	4.3	2.2	2.5	2.2	3.7
Iron, Total	mg/kg	7300	4900	6090	5020	5120
Lithium, Total	mg/kg	<5.3	10.9	8	10.2	<5.3
Manganese, Total	mg/kg	192	507	204	267	247
Mean Total Organic Carbon	mg/kg	13100	45600	28800	41500	21900
Molybdenum, Total	mg/kg	3.8	<1	<0.95	1	1.6
Percent Moisture	%	7	6.2	8.2	5	7.4
pH at 25 Degrees C	Std. Units	8.1	8.4	8.5	8.4	8
RSD%	%	31.7	26.2	20.5	25.1	24
Total Organic Carbon	mg/kg	8090	30600	35700	48500	28200
Total Organic Carbon	mg/kg	8090	30600	35700	48500	28200
Total Organic Carbon	mg/kg	8090	30600	35700	48500	28200
Total Organic Carbon	mg/kg	8090	30600	35700	48500	28200

Notes:

NA: Not analyzed

Std. Units: standard units

mg/kg: milligram per kilogram

**Table 4**  
 Summary of Soil Analytical Results - February 2023  
 Multiunit Ash Pond System  
 AES Indiana  
 Eagle Valley Generating Station  
 Martinsville, Indiana  
 Atlas Project No. 170LF01502

Well ID	Units	MW-26I (64-66)	MW-26D (94-96)
Sample Date		2/10/2023	2/10/2023
Pace Lab ID		50337246002	50337246001
Arsenic, Total	mg/kg	5.1	7.1
Iron, Total	mg/kg	7460	14500
Lithium, Total	mg/kg	<5.4	5.4
Manganese, Total	mg/kg	165	193
Mean Total Organic Carbon	mg/kg	18600	20200
Molybdenum, Total	mg/kg	2	1.6
Percent Moisture	%	13	7
pH at 25 Degrees C	Std. Units	8.3	9.1
RSD%	%	54.5	86.4
Total Organic Carbon	mg/kg	11500	9860
Total Organic Carbon	mg/kg	11500	9860
Total Organic Carbon	mg/kg	11500	9860
Total Organic Carbon	mg/kg	11500	9860

Notes:

NA: Not analyzed

Std. Units: standard units

mg/kg: milligram per kilogram

**Table 5**  
**Summary of Monitoring Results - March 2023**  
**Multiunit Ash Pond System**  
**AES Indiana**  
**Eagle Valley Generating Station**  
**Martinsville, Indiana**  
**Atlas Project No. 170LF01502**

Well ID	Units	MW-12I	MW-12D	MW-24S	MW-24I	MW-24D
Sample Date		3/29/2023	3/29/2023	3/28/2023	3/28/2023	3/28/2023
Pace Lab ID		50340807001	50340807002	50340680001	50340680002	50340680003
<b>Static Water Elevation</b>		593.11	593.31	597.17	596.90	597.08
<b>Field Parameters</b>						
Temperature, Field	Degrees C	13.48	12.89	9.39	11.36	8.8
Dissolved Oxygen, Field	mg/L	0.03	0.11	0.1	10.84	10.88
Conductivity, Field	uS/cm	1,719.00	1,252.00	1,316.50	0.37	0.08
ORP, Field	mV	-22.9	-46.2	-10	-24.4	-68.1
pH, Field	S.U.	6.99	7.12	7.25	7.59	7.43
Turbidity, Field	NTU	54.2	34.7	63.2	91.7	101
<b>Appendix III Constituents</b>						
Boron, Total	ug/L	2100	1660	122	130	<100
Calcium, Total	ug/L	124000	80000	63800	80600	64600
Chloride	mg/L	85.9	89.7	110	120	65.4
Fluoride	mg/L	0.33	0.27	0.41	0.31	0.3
Sulfate	mg/L	245	89.6	80.2	90.6	56.6
Total Dissolved Solids	mg/L	694	467	508	546	403
pH at 25 Degrees C	Std. Units	8.1	8	8.1	7.9	8.1
<b>Appendix IV Constituents</b>						
Antimony, Total	ug/L	<1	<1	<1	<1	<1
Arsenic, Total	ug/L	<1	3.1	1.1	2.7	2.2
Barium, Total	ug/L	82.3	57.9	69.8	92	65.5
Beryllium, Total	ug/L	<0.2	<0.2	<0.2	<0.2	<0.2
Cadmium, Total	ug/L	<0.2	<0.2	<0.2	<0.2	<0.2
Chromium, Total	ug/L	#N/A	#N/A	#N/A	#N/A	#N/A
Cobalt, Total	ug/L	<1	<1	<1	<1	1.2
Lead, Total	ug/L	<1	<1	<1	<1	1.4
Lithium, Total	ug/L	109	75.1	<20	<20	20.8
Mercury	ug/L	#N/A	#N/A	#N/A	#N/A	#N/A
Molybdenum, Total	ug/L	220	196	67.9	59.9	14.9
Molybdenum, Dissolved	ug/L	224	202	72	61.2	16.2
Radium-226	pCi/L	1	0.554	0.454	0.485	0.667
Radium-228	pCi/L	0.666	<0.394	0.685	0.765	0.696
Selenium, Total	ug/L	<1	<1	1.4	<1	<1
Thallium, Total	ug/L	<1	<1	<1	<1	<1
Total Radium	pCi/L	1.67	<0.948	1.14	1.25	1.36
<b>Geochemical Constituents</b>						
Alkalinity, Total as CaCO3	mg/L	281	225	217	240	227
Alkalinity, Bicarbonate (CaCO3)	mg/L	281	225	217	240	227
Alkalinity, Carbonate (CaCO3)	mg/L	<10	<10	<10	<10	<10
Aluminum, Total	ug/L	416	330	686	611	2620
Dissolved Organic Carbon	mg/L	1.2	1.3	1.5	1.5	1.6
Iron, Total	ug/L	#N/A	#N/A	#N/A	#N/A	#N/A
Iron, Ferrous	mg/L	#N/A	#N/A	#N/A	#N/A	#N/A
Iron, Dissolved	ug/L	#N/A	#N/A	#N/A	#N/A	#N/A
Magnesium, Total	ug/L	28300	14700	19400	25400	21000
Manganese, Total	ug/L	262	280	101	210	162
Manganese, Dissolved	ug/L	254	266	80.7	207	131
Nitrogen, Nitrate	mg/L	<0.1	<0.1	1.9	0.31	<0.1
Nitrogen, Nitrite	mg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Phosphate as P04	mg/L	<0.15	<0.15	<0.15	<0.15	<0.15
Potassium, Total	ug/L	12100	6250	4320	7280	5450
Silica, Total	ug/L	12100	12600	11600	14100	18900
Sodium, Total	ug/L	86600	78600	94900	76700	56900
Sulfide	mg/L	<0.1	<0.1	<0.1	0.061	0.027
Total Organic Carbon	mg/L	1.3	1.3	1.4	1.6	<4

Notes:

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- umhos/cm: micromhos per centimeter
- #NA: Not Analyzed
- NM: Not Measured
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**Table 5**  
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**Multiunit Ash Pond System**  
**AES Indiana**  
**Eagle Valley Generating Station**  
**Martinsville, Indiana**  
**Atlas Project No. 170LF01502**

Well ID	Units	MW-25S	MW-25I	MW-25D	MW-26S	MW-26I
Sample Date		3/30/2023	3/30/2023	3/30/2023	3/27/2023	3/27/2023
Pace Lab ID		50340959001	50340959002	50340959003	50340587001	50340587002
<b>Static Water Elevation</b>		593.63	593.65	593.55	Not Available	Not Available
<b>Field Parameters</b>						
Temperature, Field	Degrees C	12.19	12.88	11.88	16.42	15.14
Dissolved Oxygen, Field	mg/L	0	0	0.18	1.33	2.52
Conductivity, Field	uS/cm	1,238.30	1,289.10	1,277.50	4,708.20	1,669.60
ORP, Field	mV	-75.6	-119.6	-118.1	54.3	93.9
pH, Field	S.U.	7.09	7.32	7.28	6.75	7.06
Turbidity, Field	NTU	48.9	47.5	87.5	33.7	35.5
<b>Appendix III Constituents</b>						
Boron, Total	ug/L	444	1080	1710	3660	438
Calcium, Total	ug/L	90000	79800	77100	378000	108000
Chloride	mg/L	67.3	94.3	92.1	333	123
Fluoride	mg/L	0.29	0.12	0.12	0.19	0.29
Sulfate	mg/L	62.3	85.3	96.6	1090	210
Total Dissolved Solids	mg/L	473	496	506	2450	719
pH at 25 Degrees C	Std. Units	7.6	7.8	7.8	7.4	7.8
<b>Appendix IV Constituents</b>						
Antimony, Total	ug/L	<1	<1	<1	<1	<1
Arsenic, Total	ug/L	3.2	1.4	<1	1.4	<1
Barium, Total	ug/L	115	94.3	65.5	57.4	94.4
Beryllium, Total	ug/L	<0.2	<0.2	<0.2	<0.2	<0.2
Cadmium, Total	ug/L	<0.2	<0.2	<0.2	0.22	<0.2
Chromium, Total	ug/L	#N/A	#N/A	#N/A	#N/A	#N/A
Cobalt, Total	ug/L	<1	<1	<1	3.7	<1
Lead, Total	ug/L	<1	<1	<1	<1	<1
Lithium, Total	ug/L	57.9	77.6	67.9	113	<20
Mercury	ug/L	#N/A	#N/A	#N/A	#N/A	#N/A
Molybdenum, Total	ug/L	33.5	131	176	117	45.4
Molybdenum, Dissolved	ug/L	32.1	131	181	119	45.7
Radium-226	pCi/L	0.78	<0.255	0.255	0.526	<0.245
Radium-228	pCi/L	0.517	0.731	0.647	0.987	<0.315
Selenium, Total	ug/L	<1	<1	<1	<1	<1
Thallium, Total	ug/L	<1	<1	<1	<1	<1
Total Radium	pCi/L	1.3	0.986	0.902	1.51	<0.315
<b>Geochemical Constituents</b>						
Alkalinity, Total as CaCO3	mg/L	288	218	229	214	204
Alkalinity, Bicarbonate (CaCO3)	mg/L	288	218	229	214	204
Alkalinity, Carbonate (CaCO3)	mg/L	<10	<10	<10	<10	<10
Aluminum, Total	ug/L	274	462	738	622	230
Dissolved Organic Carbon	mg/L	1.3	1.3	1.4	<4	1.4
Iron, Total	ug/L	#N/A	#N/A	#N/A	#N/A	#N/A
Iron, Ferrous	mg/L	#N/A	#N/A	#N/A	#N/A	#N/A
Iron, Dissolved	ug/L	#N/A	#N/A	#N/A	#N/A	#N/A
Magnesium, Total	ug/L	25500	21200	16700	83500	32300
Manganese, Total	ug/L	643	197	138	2630	40.6
Manganese, Dissolved	ug/L	651	178	122	2800	32.6
Nitrogen, Nitrate	mg/L	<0.1	<0.1	<0.1	<0.1	0.24
Nitrogen, Nitrite	mg/L	<0.1	<0.1	<0.1	<0.1	0.13
Phosphate as P04	mg/L	<0.15	0.18	<0.15	<0.15	<0.15
Potassium, Total	ug/L	6490	6780	4410	19300	5200
Silica, Total	ug/L	11800	12800	14800	18800	12200
Sodium, Total	ug/L	50600	76000	86500	306000	97300
Sulfide	mg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Total Organic Carbon	mg/L	<4	1.3	1.4	<4	1.4

Notes:

ft MSL: Elevation, feet mean sea level

°C: Degrees celcius

uS/cm: microsiemen per centimeter

umhos/cm: micromhos per centimeter

#NA: Not Analyzed

NM: Not Measured

NS: Not Sampled

mV: millivolt

Std. Units: standard units

mg/L: milligram per liter

ug/L: microgram per liter

pCi/L: picoCurie per liter

Static water elevation listed for a well may have been collected on a date different than date of well sampling.

**Table 5**  
Summary of Monitoring Results - March 2023  
Multiunit Ash Pond System  
AES Indiana  
Eagle Valley Generating Station  
Martinsville, Indiana  
Atlas Project No. 170LF01502

Well ID	Units	MW-26D
Sample Date		3/27/2023
Pace Lab ID		50340587003
<b>Static Water Elevation</b>		Not Available
<b>Field Parameters</b>		
Temperature, Field	Degrees C	14.98
Dissolved Oxygen, Field	mg/L	0.62
Conductivity, Field	uS/cm	1,197.90
ORP, Field	mV	67.6
pH, Field	S.U.	6.78
Turbidity, Field	NTU	56.5
<b>Appendix III Constituents</b>		
Boron, Total	ug/L	122
Calcium, Total	ug/L	111000
Chloride	mg/L	40.6
Fluoride	mg/L	<0.1
Sulfate	mg/L	38
Total Dissolved Solids	mg/L	486
pH at 25 Degrees C	Std. Units	7.6
<b>Appendix IV Constituents</b>		
Antimony, Total	ug/L	<1
Arsenic, Total	ug/L	<1
Barium, Total	ug/L	111
Beryllium, Total	ug/L	<0.2
Cadmium, Total	ug/L	<0.2
Chromium, Total	ug/L	#N/A
Cobalt, Total	ug/L	<1
Lead, Total	ug/L	<1
Lithium, Total	ug/L	<20
Mercury	ug/L	#N/A
Molybdenum, Total	ug/L	27.6
Molybdenum, Dissolved	ug/L	28.7
Radium-226	pCi/L	<0.146
Radium-228	pCi/L	0.864
Selenium, Total	ug/L	<1
Thallium, Total	ug/L	<1
Total Radium	pCi/L	1.01
<b>Geochemical Constituents</b>		
Alkalinity, Total as CaCO3	mg/L	351
Alkalinity, Bicarbonate (CaCO3)	mg/L	351
Alkalinity, Carbonate (CaCO3)	mg/L	<10
Aluminum, Total	ug/L	1030
Dissolved Organic Carbon	mg/L	1.4
Iron, Total	ug/L	#N/A
Iron, Ferrous	mg/L	#N/A
Iron, Dissolved	ug/L	#N/A
Magnesium, Total	ug/L	29300
Manganese, Total	ug/L	76.3
Manganese, Dissolved	ug/L	55.6
Nitrogen, Nitrate	mg/L	<0.1
Nitrogen, Nitrite	mg/L	<0.1
Phosphate as P04	mg/L	0.21
Potassium, Total	ug/L	3490
Silica, Total	ug/L	19300
Sodium, Total	ug/L	38700
Sulfide	mg/L	<0.1
Total Organic Carbon	mg/L	1.3

Notes:  
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uS/cm: microsiemen per centimeter  
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NM: Not Measured  
NS: Not Sampled  
mV: millivolt  
Std. Units: standard units  
mg/L: milligram per liter  
ug/L: microgram per liter  
pCi/L: picoCurie per liter  
Static water elevation listed for a well may have been collected on a date different than date of well sampling.



**Table 6**  
**Summary of Monitoring Results - April-May 2023**  
**Multiunit Ash Pond System**  
**AES Indiana**  
**Eagle Valley Generating Station**  
**Martinsville, Indiana**  
**Atlas Project No. 170LF01502**

Well ID	Units	MW-1S	MW-1I	MW-1D	MW-2S	MW-2I
Sample Date		4/23/2023	4/19/2023	4/19/2023	4/18/2023	4/19/2023
Pace Lab ID		50342983001	50342601001	50342601002	50342484001	50342601005
<b>Static Water Elevation</b>		590.81	590.79	590.79	591.15	591.08
<b>Field Parameters</b>						
Temperature, Field	Degrees C	13.05	17.7	14.09	13.91	15.29
Dissolved Oxygen, Field	mg/L	1.41	9.38	0.25	2.21	0.06
Conductivity, Field	uS/cm	889.38	0.21	609.7	726.44	784.83
ORP, Field	mV	79.4	35.9	6.2	67.8	-4.4
pH, Field	S.U.	7.48	7.66	7.18	6.33	7.51
Turbidity, Field	NTU	0.6	0.22	0.03	0.69	0.14
<b>Appendix III Constituents</b>						
Boron, Total	ug/L	2660	601	538	978	257
Calcium, Total	ug/L	212000	80400	74400	169000	89900
Chloride	mg/L	32.6	89.5	102	17.9	131
Fluoride	mg/L	0.17	0.28	0.34	0.16	0.28
Sulfate	mg/L	177	95.9	87	38.8	142
Total Dissolved Solids	mg/L	840	501	480	607	649
pH at 25 Degrees C	Std. Units	7	7.9	7.9	7.3	7.8
<b>Appendix IV Constituents</b>						
Antimony, Total	ug/L	1.4	<1	<1	<1	<1
Arsenic, Total	ug/L	3.4	<1	1.7	13.9	<1
Barium, Total	ug/L	62.8	52.7	59.9	175	94.9
Beryllium, Total	ug/L	<0.2	<0.2	<0.2	<0.2	<0.2
Cadmium, Total	ug/L	<2	<2	<2	<2	<2
Chromium, Total	ug/L	<10	<10	<10	<10	<10
Cobalt, Total	ug/L	<1	<1	<1	<1	<1
Lead, Total	ug/L	<10	<10	<10	<10	<10
Lithium, Total	ug/L	64.5	87.2	88.9	38.8	47.9
Mercury	ug/L	<0.2	<0.2	<0.2	<0.2	<0.2
Molybdenum, Total	ug/L	13.5	87.9	96.6	<10	73.7
Molybdenum, Dissolved	ug/L	14.8	89.4	97.9	<10	76.9
Radium-226	pCi/L	<0.231	1.11	0.581	<0	1.24
Radium-228	pCi/L	<0.441	0.498	1.29	<0.0849	<0.134
Selenium, Total	ug/L	28.2	<1	<1	25.7	<1
Thallium, Total	ug/L	<1	<1	<1	<1	<1
Total Radium	pCi/L	<0.672	1.61	1.87	<0.0849	1.37
<b>Geochemical Constituents</b>						
Alkalinity, Total as CaCO3	mg/L	514	258	226	540	265
Alkalinity,Bicarbonate (CaCO3)	mg/L	514	258	226	540	265
Alkalinity,Carbonate (CaCO3)	mg/L	<10	<10	<10	<10	<10
Aluminum, Total	ug/L	<200	<200	<200	<200	<200
Dissolved Organic Carbon	mg/L	1.7	1.6	<4	1.6	1.4
Iron, Total	ug/L	171	<100	618	<100	<100
Iron, Ferrous	mg/L	<0.2	<0.2	0.46	<0.2	<0.2
Iron, Dissolved	ug/L	#N/A	#N/A	#N/A	#N/A	#N/A
Magnesium, Total	ug/L	42000	26400	22400	32100	27000
Manganese, Total	ug/L	14	272	320	<10	79.8
Manganese, Dissolved	ug/L	<10	247	343	<10	87.2
Nitrogen, Nitrate	mg/L	2.5	<0.1	<0.1	2.3	<0.1
Nitrogen, Nitrite	mg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Phosphate as P04	mg/L	<0.15	<0.15	<0.15	0.27	<0.15
Potassium, Total	ug/L	6480	8660	7800	5300	10300
Silica, Total	ug/L	15100	10400	9960	16000	12100
Sodium, Total	ug/L	36100	74900	71000	22200	106000
Sulfide	mg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Total Organic Carbon	mg/L	1.7	1.2	1.4	1.5	1.3

Notes:

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Static water elevation listed for a well may have been collected on a date different than date of well sampling.

**Table 6**  
**Summary of Monitoring Results - April-May 2023**  
**Multiunit Ash Pond System**  
**AES Indiana**  
**Eagle Valley Generating Station**  
**Martinsville, Indiana**  
**Atlas Project No. 170LF01502**

Well ID	Units	MW-2D	MW-3S	MW-3I	MW-3D	MW-4S
Sample Date		4/18/2023	4/18/2023	4/17/2023	4/17/2023	4/25/2023
Pace Lab ID		50342484002	50342484003	50342354002	50342354001	50343152001
<b>Static Water Elevation</b>		591.11	591.30	591.19	590.29	591.77
<b>Field Parameters</b>						
Temperature, Field	Degrees C	15.22	16.03	17.06	14.1	8.95
Dissolved Oxygen, Field	mg/L	0.11	0.3	0.63	0.05	3.63
Conductivity, Field	uS/cm	672.01	786.01	650.96	612.26	1,151.4
ORP, Field	mV	-15.4	20.2	-45.8	-148.2	164.5
pH, Field	S.U.	7.22	6.96	7.45	7.39	7.36
Turbidity, Field	NTU	0	0	11	7	0
<b>Appendix III Constituents</b>						
Boron, Total	ug/L	160	522	153	170	618
Calcium, Total	ug/L	88300	138000	63600	83300	114000
Chloride	mg/L	109	86.3	109	98.2	122
Fluoride	mg/L	0.32	0.2	0.34	0.26	0.21
Sulfate	mg/L	101	117	101	52.2	236
Total Dissolved Solids	mg/L	549	676	513	477	658
pH at 25 Degrees C	Std. Units	7.5	7.4	7.7	7.8	7.8
<b>Appendix IV Constituents</b>						
Antimony, Total	ug/L	<1	<1	<1	<1	<1
Arsenic, Total	ug/L	3.8	<1	<1	1.4	3
Barium, Total	ug/L	79	116	62.4	87.2	82.4
Beryllium, Total	ug/L	<0.2	<0.2	<0.2	<0.2	<0.2
Cadmium, Total	ug/L	<2	<2	<2	<2	<2
Chromium, Total	ug/L	<10	<10	<10	<10	<10
Cobalt, Total	ug/L	<1	<1	<1	<1	<1
Lead, Total	ug/L	<10	<10	<10	<10	<10
Lithium, Total	ug/L	47.9	<20	<20	<20	<20
Mercury	ug/L	<0.2	<0.2	<0.2	<0.2	<0.2
Molybdenum, Total	ug/L	47.6	21.1	68.1	18.3	32.7
Molybdenum, Dissolved	ug/L	46.2	20.3	68.6	19.7	34.2
Radium-226	pCi/L	<0.123	<0.116	<0.0638	0.941	<0.17
Radium-228	pCi/L	0.663	<0.276	0.848	1.16	<0.15
Selenium, Total	ug/L	<1	7.3	<1	<1	2.1
Thallium, Total	ug/L	<1	<1	<1	<1	<1
Total Radium	pCi/L	0.786	<0	0.912	2.1	<0.32
<b>Geochemical Constituents</b>						
Alkalinity, Total as CaCO3	mg/L	232	375	235	264	180
Alkalinity, Bicarbonate (CaCO3)	mg/L	232	375	235	264	180
Alkalinity, Carbonate (CaCO3)	mg/L	<10	<10	<10	<10	<10
Aluminum, Total	ug/L	<200	<200	<200	283	<200
Dissolved Organic Carbon	mg/L	1.3	2.6	1.7	1.4	2
Iron, Total	ug/L	1040	<100	<100	2150	<100
Iron, Ferrous	mg/L	0.72	<0.2	<0.2	0.82	<0.2
Iron, Dissolved	ug/L	#N/A	#N/A	#N/A	#N/A	#N/A
Magnesium, Total	ug/L	22400	29300	19100	26200	30000
Manganese, Total	ug/L	229	190	23.6	223	<10
Manganese, Dissolved	ug/L	236	108	22.9	204	<10
Nitrogen, Nitrate	mg/L	<0.1	0.98	<0.1	<0.1	1.2
Nitrogen, Nitrite	mg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Phosphate as PO4	mg/L	<0.15	<0.15	<0.15	<0.15	0.79
Potassium, Total	ug/L	8620	5440	5230	5940	5490
Silica, Total	ug/L	11300	14400	12500	14100	10900
Sodium, Total	ug/L	74200	63400	108000	67400	73600
Sulfide	mg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Total Organic Carbon	mg/L	1.5	1.4	1.4	1.2	2

Notes:

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Static water elevation listed for a well may have been collected on a date different than date of well sampling.

**Table 6**  
**Summary of Monitoring Results - April-May 2023**  
**Multiunit Ash Pond System**  
**AES Indiana**  
**Eagle Valley Generating Station**  
**Martinsville, Indiana**  
**Atlas Project No. 170LF01502**

Well ID	Units	MW-4I	MW-4D	MW-6S	MW-6I	MW-6D
Sample Date		4/26/2023	4/25/2023	5/1/2023	5/1/2023	5/1/2023
Pace Lab ID		50343223001	50343152002	50343591001	50343591002	50343591003
<b>Static Water Elevation</b>		591.77	591.72	590.54	590.53	590.57
<b>Field Parameters</b>						
Temperature, Field	Degrees C	12.72	13.27	12.46	13.89	13.67
Dissolved Oxygen, Field	mg/L	0.59	0.09	5.99	0.33	0.1
Conductivity, Field	uS/cm	929.05	600.05	966.31	1,301.4	#N/A
ORP, Field	mV	120.4	74.7	199.4	167.3	228.1
pH, Field	S.U.	7.87	7.81	7.14	7.47	7.52
Turbidity, Field	NTU	0	2	1.86	0.47	0.47
<b>Appendix III Constituents</b>						
Boron, Total	ug/L	136	132	5950	1520	2090
Calcium, Total	ug/L	74100	83900	146000	113000	73600
Chloride	mg/L	67.7	108	34.1	81.3	81.8
Fluoride	mg/L	0.31	0.3	0.25	0.32	0.22
Sulfate	mg/L	55.4	80.7	176	189	81
Total Dissolved Solids	mg/L	454	476	721	668	471
pH at 25 Degrees C	Std. Units	7	7.7	7.4	7.7	8
<b>Appendix IV Constituents</b>						
Antimony, Total	ug/L	<1	<1	1	<1	<1
Arsenic, Total	ug/L	<1	4.8	<1	<1	<1
Barium, Total	ug/L	66.4	66.4	73.1	73.8	57.9
Beryllium, Total	ug/L	<0.2	<0.2	<0.2	<0.2	<0.2
Cadmium, Total	ug/L	<2	<2	<2	<2	<2
Chromium, Total	ug/L	<10	<10	<10	<10	<10
Cobalt, Total	ug/L	<1	<1	<1	<1	<1
Lead, Total	ug/L	<10	<10	<10	<10	<10
Lithium, Total	ug/L	<20	<20	52.2	99.5	70
Mercury	ug/L	<0.2	<0.2	<0.2	<0.2	<0.2
Molybdenum, Total	ug/L	11.9	11.9	83.8	173	212
Molybdenum, Dissolved	ug/L	12.5	12.1	83.9	180	216
Radium-226	pCi/L	<0.243	0.566	<0.127	0.753	0.57
Radium-228	pCi/L	0.631	0.519	0.562	1.13	0.875
Selenium, Total	ug/L	<1	<1	36.4	<1	<1
Thallium, Total	ug/L	<1	<1	<1	<1	<1
Total Radium	pCi/L	0.874	1.09	<0.562	1.88	1.45
<b>Geochemical Constituents</b>						
Alkalinity, Total as CaCO3	mg/L	248	233	402	271	220
Alkalinity, Bicarbonate (CaCO3)	mg/L	248	233	402	271	220
Alkalinity, Carbonate (CaCO3)	mg/L	<10	<10	<10	<10	<10
Aluminum, Total	ug/L	<200	<200	<200	<200	<200
Dissolved Organic Carbon	mg/L	2.3	1.7	1.6	2.2	1.8
Iron, Total	ug/L	347	1100	<100	<100	<100
Iron, Ferrous	mg/L	<0.2	<0.2	<0.2	<0.2	<0.2
Iron, Dissolved	ug/L	#N/A	#N/A	#N/A	#N/A	#N/A
Magnesium, Total	ug/L	24100	25700	36400	24300	14300
Manganese, Total	ug/L	156	206	<10	55.9	251
Manganese, Dissolved	ug/L	152	199	<10	55.3	237
Nitrogen, Nitrate	mg/L	<0.1	<0.1	0.57	<0.1	0.25
Nitrogen, Nitrite	mg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Phosphate as PO4	mg/L	<0.15	<0.15	<0.15	<0.15	<0.15
Potassium, Total	ug/L	3730	3750	6540	15400	6390
Silica, Total	ug/L	10400	11700	12200	10600	11300
Sodium, Total	ug/L	69400	67600	61000	85700	79700
Sulfide	mg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Total Organic Carbon	mg/L	1.7	1.5	1.5	<1	<1

Notes:

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- NM: Not Measured
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- mV: millivolt
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- mg/L: milligram per liter
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**Table 6**  
**Summary of Monitoring Results - April-May 2023**  
**Multiunit Ash Pond System**  
**AES Indiana**  
**Eagle Valley Generating Station**  
**Martinsville, Indiana**  
**Atlas Project No. 170LF01502**

Well ID	Units	MW-75	MW-85	MW-95	MW-91	MW-9D
Sample Date		5/3/2023	5/3/2023	5/8/2023	5/8/2023	5/8/2023
Pace Lab ID		50343777003	50343777004	50344254001	50344254002	50344254003
<b>Static Water Elevation</b>		591.11	591.74	591.35	591.34	591.36
<b>Field Parameters</b>						
Temperature, Field	Degrees C	14.73	13.24	17.44	19.25	17.72
Dissolved Oxygen, Field	mg/L	0.41	0.1	0.44	0.13	0.16
Conductivity, Field	uS/cm	1,312.9	1,109.6	1,991.8	1,453.6	733.91
ORP, Field	mV	0.1	25.4	149.6	121.2	84.9
pH, Field	S.U.	7.04	7.56	7.71	7.81	7.38
Turbidity, Field	NTU	14.57	0.97	0.08	0	0
<b>Appendix III Constituents</b>						
Boron, Total	ug/L	2420	1320	3150	<100	1060
Calcium, Total	ug/L	251000	151000	287000	141000	167000
Chloride	mg/L	120	132	265	52.9	212
Fluoride	mg/L	<0.1	0.3	0.65	0.11	0.32
Sulfate	mg/L	439	314	877	49.4	497
Total Dissolved Solids	mg/L	1240	932	1940	541	1250
pH at 25 Degrees C	Std. Units	7.2	7.7	7.9	7.7	7.7
<b>Appendix IV Constituents</b>						
Antimony, Total	ug/L	2.9	<1	<1	<1	<1
Arsenic, Total	ug/L	<1	2.6	6	<1	<1
Barium, Total	ug/L	63.8	111	116	122	59.9
Beryllium, Total	ug/L	<0.2	<0.2	<0.2	<0.2	<0.2
Cadmium, Total	ug/L	<2	<2	<2	<2	<2
Chromium, Total	ug/L	<10	<10	<10	<10	<10
Cobalt, Total	ug/L	1.5	<1	<1	<1	1.5
Lead, Total	ug/L	<10	<10	<10	<10	<10
Lithium, Total	ug/L	37.6	46.4	89.9	<20	23
Mercury	ug/L	<0.2	<0.2	<0.2	<0.2	<0.2
Molybdenum, Total	ug/L	27.8	69.3	188	<10	19.7
Molybdenum, Dissolved	ug/L	29.2	64.2	202	<10	21.6
Radium-226	pCi/L	0.363	<0.137	0.247	0.496	0.199
Radium-228	pCi/L	<0.229	<0.22	0.267	0.468	<0.178
Selenium, Total	ug/L	22.5	<1	2.1	<1	<1
Thallium, Total	ug/L	<1	<1	<1	<1	<1
Total Radium	pCi/L	0.592	<0.22	0.514	0.964	<0.377
<b>Geochemical Constituents</b>						
Alkalinity, Total as CaCO3	mg/L	437	249	254	405	223
Alkalinity, Bicarbonate (CaCO3)	mg/L	437	249	254	405	223
Alkalinity, Carbonate (CaCO3)	mg/L	<10	<10	<10	<10	<10
Aluminum, Total	ug/L	1170	<200	<200	<200	<200
Dissolved Organic Carbon	mg/L	<4	2	<4	3.2	<4
Iron, Total	ug/L	1660	100	<100	<100	<100
Iron, Ferrous	mg/L	<0.2	<0.2	<0.2	<0.2	<0.2
Iron, Dissolved	ug/L	#N/A	#N/A	#N/A	#N/A	#N/A
Magnesium, Total	ug/L	56400	36400	70300	36100	47700
Manganese, Total	ug/L	577	12.1	59.7	272	466
Manganese, Dissolved	ug/L	409	<10	<10	273	458
Nitrogen, Nitrate	mg/L	3.2	<0.1	2.9	<0.1	1
Nitrogen, Nitrite	mg/L	<0.1	<0.1	<0.1	<0.1	0.15
Phosphate as PO4	mg/L	0.27	0.49	1.3	<0.15	<0.15
Potassium, Total	ug/L	6600	7440	16900	2440	9240
Silica, Total	ug/L	19600	17500	34500	14700	11100
Sodium, Total	ug/L	106000	118000	215000	21800	188000
Sulfide	mg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Total Organic Carbon	mg/L	1.6	1.9	<4	<1	1.9

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Static water elevation listed for a well may have been collected on a date different than date of well sampling.

**Table 6**  
**Summary of Monitoring Results - April-May 2023**  
**Multiunit Ash Pond System**  
**AES Indiana**  
**Eagle Valley Generating Station**  
**Martinsville, Indiana**  
**Atlas Project No. 170LF01502**

Well ID	Units	MW-10S	MW-10I	MW-10D	MW-11S	MW-11I
Sample Date		5/4/2023	5/8/2023	5/4/2023	5/2/2023	5/2/2023
Pace Lab ID		50343956001	50344255001	50343955001	50343666001	50343666002
<b>Static Water Elevation</b>		589.35	589.48	589.45	590.89	590.94
<b>Field Parameters</b>						
Temperature, Field	Degrees C	14.55	16.9	15.19	14.6	14
Dissolved Oxygen, Field	mg/L	3.17	0	0	10.67	10.14
Conductivity, Field	uS/cm	1,166.0	1,239.6	699.63	0.7	2.27
ORP, Field	mV	114.2	121.1	79.9	207.4	218.7
pH, Field	S.U.	7.39	7.5	7.7	7.76	7.67
Turbidity, Field	NTU	11.4	59.42	137.37	0	0
<b>Appendix III Constituents</b>						
Boron, Total	ug/L	6300	1110	209	1360	1000
Calcium, Total	ug/L	173000	195000	96300	111000	76200
Chloride	mg/L	98.8	144	86.1	39.3	101
Fluoride	mg/L	0.19	0.29	0.19	0.21	0.42
Sulfate	mg/L	409	425	100	89.7	76.5
Total Dissolved Solids	mg/L	1040	1070	524	488	479
pH at 25 Degrees C	Std. Units	7.7	7.7	7.9	7.9	8.1
<b>Appendix IV Constituents</b>						
Antimony, Total	ug/L	2.4	<1	<1	1.4	<1
Arsenic, Total	ug/L	<1	<1	1.2	59.8	1
Barium, Total	ug/L	69.5	66.2	82	77.1	51
Beryllium, Total	ug/L	<0.2	<0.2	<0.2	<0.2	<0.2
Cadmium, Total	ug/L	<2	<2	<2	<2	<2
Chromium, Total	ug/L	<10	<10	<10	<10	<10
Cobalt, Total	ug/L	<1	<1	1.2	<1	<1
Lead, Total	ug/L	<10	<10	<10	<10	<10
Lithium, Total	ug/L	88.7	48.4	49	51.4	97.4
Mercury	ug/L	<0.2	<0.2	<0.2	<0.2	<0.2
Molybdenum, Total	ug/L	55.3	125	104	56	128
Molybdenum, Dissolved	ug/L	59.9	131	107	57.1	135
Radium-226	pCi/L	0.401	<0.305	0.412	<0.0724	<0.135
Radium-228	pCi/L	0.927	0.407	0.395	<0.151	0.723
Selenium, Total	ug/L	2.2	<1	<1	11.3	<1
Thallium, Total	ug/L	<1	<1	<1	<1	<1
Total Radium	pCi/L	1.33	0.712	0.807	<0.151	0.858
<b>Geochemical Constituents</b>						
Alkalinity, Total as CaCO3	mg/L	307	246	246	310	212
Alkalinity, Bicarbonate (CaCO3)	mg/L	307	246	246	310	212
Alkalinity, Carbonate (CaCO3)	mg/L	<10	<10	<10	<10	<10
Aluminum, Total	ug/L	<200	400	741	<200	<200
Dissolved Organic Carbon	mg/L	1.8	1.6	1.5	1.4	1.4
Iron, Total	ug/L	<100	884	1740	<100	166
Iron, Ferrous	mg/L	<0.2	<0.2	<0.2	<0.2	<0.2
Iron, Dissolved	ug/L	#N/A	#N/A	#N/A	#N/A	#N/A
Magnesium, Total	ug/L	38700	39800	23100	27800	22000
Manganese, Total	ug/L	16.3	83.7	104	<10	244
Manganese, Dissolved	ug/L	<10	73.5	83.6	<10	233
Nitrogen, Nitrate	mg/L	<0.1	<0.1	<0.1	1.5	<0.1
Nitrogen, Nitrite	mg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Phosphate as PO4	mg/L	<0.15	<0.15	<0.15	0.19	<0.15
Potassium, Total	ug/L	10100	10600	7290	7390	7770
Silica, Total	ug/L	11900	11400	13600	11100	9980
Sodium, Total	ug/L	108000	118000	65000	36400	76000
Sulfide	mg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Total Organic Carbon	mg/L	1.2	1.2	1.1	1.2	1

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**Table 6**  
**Summary of Monitoring Results - April-May 2023**  
**Multiunit Ash Pond System**  
**AES Indiana**  
**Eagle Valley Generating Station**  
**Martinsville, Indiana**  
**Atlas Project No. 170LF01502**

Well ID	Units	MW-11D	MW-12S	MW-12I	MW-12D	MW-13S
Sample Date		5/3/2023	4/27/2023	4/27/2023	4/27/2023	4/18/2023
Pace Lab ID		50343777001	50343318001	50343318002	50343318003	50342484004
<b>Static Water Elevation</b>		590.96	590.85	591.16	591.37	590.03
<b>Field Parameters</b>						
Temperature, Field	Degrees C	14.72	13.67	14.67	14.41	12.97
Dissolved Oxygen, Field	mg/L	0.08	4.2	0.02	0.05	6.91
Conductivity, Field	uS/cm	620.16	1,088.7	1,231.0	903.23	481.89
ORP, Field	mV	-183.7	86	51.9	81.8	54.1
pH, Field	S.U.	7.91	7.28	7.45	7.83	7.02
Turbidity, Field	NTU	61	4.98	43.29	32	1.55
<b>Appendix III Constituents</b>						
Boron, Total	ug/L	1380	4520	2470	2110	<100
Calcium, Total	ug/L	71000	117000	122000	81500	113000
Chloride	mg/L	83	41.1	82.7	87.1	50.6
Fluoride	mg/L	0.28	0.24	0.32	0.25	<0.1
Sulfate	mg/L	75.4	146	219	83.9	15.7
Total Dissolved Solids	mg/L	450	643	739	502	493
pH at 25 Degrees C	Std. Units	7.7	7.5	7.6	7.6	7.5
<b>Appendix IV Constituents</b>						
Antimony, Total	ug/L	<1	1.5	<1	<1	<1
Arsenic, Total	ug/L	5.4	1.8	<1	2.7	<1
Barium, Total	ug/L	64.5	122	76.7	66.3	50.7
Beryllium, Total	ug/L	<0.2	<0.2	<0.2	<0.2	<0.2
Cadmium, Total	ug/L	<2	<2	<2	<2	<2
Chromium, Total	ug/L	<10	<10	<10	<10	<10
Cobalt, Total	ug/L	1.4	<1	<1	<1	<1
Lead, Total	ug/L	<10	<10	<10	<10	<10
Lithium, Total	ug/L	79.2	97.7	109	76.3	<20
Mercury	ug/L	<0.2	<0.2	<0.2	<0.2	<0.2
Molybdenum, Total	ug/L	149	35.9	225	194	<10
Molybdenum, Dissolved	ug/L	156	33.9	232	204	<10
Radium-226	pCi/L	0.571	<0.194	0.592	0.645	0.248
Radium-228	pCi/L	1.11	0.946	0.631	0.345	<0.193
Selenium, Total	ug/L	<1	8.3	<1	<1	<1
Thallium, Total	ug/L	<1	<1	<1	<1	<1
Total Radium	pCi/L	1.68	1.14	1.22	0.99	<0.441
<b>Geochemical Constituents</b>						
Alkalinity, Total as CaCO3	mg/L	253	346	272	226	360
Alkalinity, Bicarbonate (CaCO3)	mg/L	253	346	272	226	360
Alkalinity, Carbonate (CaCO3)	mg/L	<10	<10	<10	<10	<10
Aluminum, Total	ug/L	3290	<200	267	986	<200
Dissolved Organic Carbon	mg/L	2.4	<1	<4	<4	1.6
Iron, Total	ug/L	3760	157	1210	1860	<100
Iron, Ferrous	mg/L	<0.2	<0.2	<0.2	<0.2	<0.2
Iron, Dissolved	ug/L	#N/A	#N/A	#N/A	#N/A	#N/A
Magnesium, Total	ug/L	19900	25100	29100	15800	29300
Manganese, Total	ug/L	303	58	280	317	<10
Manganese, Dissolved	ug/L	245	<10	272	288	<10
Nitrogen, Nitrate	mg/L	<0.1	0.6	<0.1	<0.1	10.3
Nitrogen, Nitrite	mg/L	<0.1	<0.1	<0.1	<0.1	<0.5
Phosphate as PO4	mg/L	0.57	<0.15	<0.15	<0.15	<0.15
Potassium, Total	ug/L	8060	11400	12100	6320	3410
Silica, Total	ug/L	23300	11600	11800	15600	15300
Sodium, Total	ug/L	74600	74600	90200	84300	43300
Sulfide	mg/L	0.097	<0.1	0.028	0.025	<0.1
Total Organic Carbon	mg/L	<4	<1	<4	<4	1.2

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**Table 6**  
**Summary of Monitoring Results - April-May 2023**  
**Multiunit Ash Pond System**  
**AES Indiana**  
**Eagle Valley Generating Station**  
**Martinsville, Indiana**  
**Atlas Project No. 170LF01502**

Well ID	Units	MW-13I	MW-13D	MW-14S	MW-14I	MW-14D
Sample Date		4/18/2023	4/17/2023	4/27/2023	4/27/2023	4/27/2023
Pace Lab ID		50342484005	50342354003	50343477001	50343477002	50343477003
<b>Static Water Elevation</b>		590.01	589.94	590.00	589.95	589.91
<b>Field Parameters</b>						
Temperature, Field	Degrees C	13.29	12.35	12.58	13.62	13.61
Dissolved Oxygen, Field	mg/L	5.15	1.46	9.3	0.21	0.59
Conductivity, Field	uS/cm	375.4	376.13	558.69	1083	918.56
ORP, Field	mV	41.6	-16.1	92.8	68.9	53.2
pH, Field	S.U.	7.31	6.95	6.97	7.44	7.21
Turbidity, Field	NTU	0.54	6.43	1.66	0.54	1.35
<b>Appendix III Constituents</b>						
Boron, Total	ug/L	<100	<100	226	4000	2570
Calcium, Total	ug/L	82600	81900	88300	131000	155000
Chloride	mg/L	41.3	47.1	2.6	90.6	83.5
Fluoride	mg/L	<0.1	<0.1	0.12	<0.1	<0.1
Sulfate	mg/L	18.3	27.7	10.1	209	280
Total Dissolved Solids	mg/L	386	374	335	737	894
pH at 25 Degrees C	Std. Units	7.7	7.8	7.7	7.8	7.5
<b>Appendix IV Constituents</b>						
Antimony, Total	ug/L	<1	<1	<1	<1	<1
Arsenic, Total	ug/L	<1	<1	<1	<1	<1
Barium, Total	ug/L	37.8	59.4	24.3	53	23.3
Beryllium, Total	ug/L	<0.2	<0.2	<0.2	<0.2	<0.2
Cadmium, Total	ug/L	<2	<2	<2	<2	<2
Chromium, Total	ug/L	<10	<10	<10	<10	<10
Cobalt, Total	ug/L	<1	<1	<1	<1	<1
Lead, Total	ug/L	<10	<10	<10	<10	<10
Lithium, Total	ug/L	<20	<20	<20	75.9	30
Mercury	ug/L	<0.2	<0.2	<0.2	<0.2	<0.2
Molybdenum, Total	ug/L	<10	<10	49.4	91.9	21.1
Molybdenum, Dissolved	ug/L	<10	<10	51.1	95.6	22.8
Radium-226	pCi/L	<0.294	0.592	<0.131	<0.181	<0.13
Radium-228	pCi/L	<0.0278	1.36	0.836	1.07	1.17
Selenium, Total	ug/L	<1	1.2	<1	<1	<1
Thallium, Total	ug/L	<1	<1	<1	<1	<1
Total Radium	pCi/L	<0	1.95	0.967	1.25	1.3
<b>Geochemical Constituents</b>						
Alkalinity, Total as CaCO3	mg/L	277	276	279	272	295
Alkalinity, Bicarbonate (CaCO3)	mg/L	277	276	279	272	295
Alkalinity, Carbonate (CaCO3)	mg/L	<10	<10	<10	<10	<10
Aluminum, Total	ug/L	<200	<200	<200	<200	<200
Dissolved Organic Carbon	mg/L	1.4	1.6	<1	<1	<1
Iron, Total	ug/L	<100	<100	<100	<100	<100
Iron, Ferrous	mg/L	<0.2	<0.2	<0.2	<0.2	<0.2
Iron, Dissolved	ug/L	#N/A	#N/A	#N/A	#N/A	#N/A
Magnesium, Total	ug/L	23400	24700	22900	30900	34300
Manganese, Total	ug/L	<10	19.3	<10	<10	109
Manganese, Dissolved	ug/L	<10	17.3	<10	<10	114
Nitrogen, Nitrate	mg/L	4.6	1	9.4	<0.1	<0.1
Nitrogen, Nitrite	mg/L	<0.1	<0.1	<0.5	<0.1	<0.1
Phosphate as PO4	mg/L	<0.15	<0.15	<0.15	<0.15	<0.15
Potassium, Total	ug/L	2260	1730	1670	4580	4050
Silica, Total	ug/L	17700	16200	12100	14700	15400
Sodium, Total	ug/L	33300	33200	5710	75200	83700
Sulfide	mg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Total Organic Carbon	mg/L	<1	<1	<1	<1	<1

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**Multiunit Ash Pond System**  
**AES Indiana**  
**Eagle Valley Generating Station**  
**Martinsville, Indiana**  
**Atlas Project No. 170LF01502**

Well ID	Units	MW-15S	MW-15I	MW-15D	MW-16S	MW-16I
Sample Date		5/1/2023	5/1/2023	5/1/2023	4/24/2023	4/24/2023
Pace Lab ID		50343589001	50343589002	50343589003	50342984001	50342984002
<b>Static Water Elevation</b>		590.60	590.76	590.74	590.87	590.89
<b>Field Parameters</b>						
Temperature, Field	Degrees C	12.54	13.39	14.31	15.27	15.79
Dissolved Oxygen, Field	mg/L	9.01	0.76	0.06	0.22	0.12
Conductivity, Field	uS/cm	710.67	993.67	1,081.7	710.96	461.5
ORP, Field	mV	120.7	106.4	90.3	83.4	60.7
pH, Field	S.U.	7.65	7.53	7.76	7.12	7.78
Turbidity, Field	NTU	0.86	0	0	17.71	0
<b>Appendix III Constituents</b>						
Boron, Total	ug/L	1500	7300	4980	278	240
Calcium, Total	ug/L	93800	79300	86600	97400	78500
Chloride	mg/L	11.8	85.5	110	128	120
Fluoride	mg/L	0.27	0.38	0.24	0.28	0.32
Sulfate	mg/L	25.1	202	155	128	96.2
Total Dissolved Solids	mg/L	372	628	593	632	532
pH at 25 Degrees C	Std. Units	7.5	7.6	7.7	7.4	7.7
<b>Appendix IV Constituents</b>						
Antimony, Total	ug/L	<1	<1	<1	<1	<1
Arsenic, Total	ug/L	<1	<1	<1	<1	<1
Barium, Total	ug/L	54.7	49.9	44.9	86	70.3
Beryllium, Total	ug/L	<0.2	<0.2	<0.2	<0.2	<0.2
Cadmium, Total	ug/L	<2	<2	<2	<2	<2
Chromium, Total	ug/L	<10	<10	<10	<10	<10
Cobalt, Total	ug/L	<1	<1	<1	1.1	<1
Lead, Total	ug/L	<10	<10	<10	<10	<10
Lithium, Total	ug/L	37.4	85.6	83.9	57	71.5
Mercury	ug/L	<0.2	<0.2	<0.2	<0.2	<0.2
Molybdenum, Total	ug/L	58.6	360	204	58.4	88.7
Molybdenum, Dissolved	ug/L	58.8	370	213	54.9	89.6
Radium-226	pCi/L	0.353	0.558	0.17	<0.316	0.495
Radium-228	pCi/L	0.747	1.79	2.11	0.775	0.555
Selenium, Total	ug/L	1.9	<1	<1	<1	<1
Thallium, Total	ug/L	<1	<1	<1	<1	<1
Total Radium	pCi/L	1.1	2.35	2.28	1.09	1.05
<b>Geochemical Constituents</b>						
Alkalinity, Total as CaCO3	mg/L	323	205	196	258	213
Alkalinity, Bicarbonate (CaCO3)	mg/L	323	205	196	258	213
Alkalinity, Carbonate (CaCO3)	mg/L	<10	<10	<10	<10	<10
Aluminum, Total	ug/L	<200	<200	<200	428	<200
Dissolved Organic Carbon	mg/L	<1	<1	<1	1.3	1.4
Iron, Total	ug/L	<100	<100	145	641	<100
Iron, Ferrous	mg/L	<0.2	<0.2	<0.2	<0.2	<0.2
Iron, Dissolved	ug/L	#N/A	#N/A	#N/A	#N/A	#N/A
Magnesium, Total	ug/L	23800	19000	16800	25000	23200
Manganese, Total	ug/L	12.3	56.2	345	828	99.8
Manganese, Dissolved	ug/L	<10	59.4	367	138	94.8
Nitrogen, Nitrate	mg/L	6.8	<0.1	<0.1	0.23	<0.1
Nitrogen, Nitrite	mg/L	<0.2	<0.1	<0.1	<0.1	<0.1
Phosphate as PO4	mg/L	<0.15	<0.15	<0.15	<0.15	<0.15
Potassium, Total	ug/L	4240	9170	7050	8930	8680
Silica, Total	ug/L	11000	9960	11400	14800	11600
Sodium, Total	ug/L	22500	106000	97800	97500	79500
Sulfide	mg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Total Organic Carbon	mg/L	<1	<1	<1	1.2	1.4

Notes:

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**Table 6**  
**Summary of Monitoring Results - April-May 2023**  
**Multiunit Ash Pond System**  
**AES Indiana**  
**Eagle Valley Generating Station**  
**Martinsville, Indiana**  
**Atlas Project No. 170LF01502**

Well ID	Units	MW-16D	MW-17S	MW-17I	MW-17D	MW-18S
Sample Date		4/24/2023	4/25/2023	4/25/2023	4/25/2023	4/25/2023
Pace Lab ID		50342984003	50343102001	50343102002	50343102003	50343102004
<b>Static Water Elevation</b>		591.08	588.63	588.66	588.74	591.09
<b>Field Parameters</b>						
Temperature, Field	Degrees C	15.51	11.6	11.71	11.59	8.08
Dissolved Oxygen, Field	mg/L	0.98	0.7	0.11	0.27	9.67
Conductivity, Field	uS/cm	607.6	489.56	441.27	475.44	84.87
ORP, Field	mV	13.7	2	5.3	-60.1	38.6
pH, Field	S.U.	7.75	7.31	7.4	7.39	7.66
Turbidity, Field	NTU	11.23	1.23	1.47	47.16	2.57
<b>Appendix III Constituents</b>						
Boron, Total	ug/L	166	247	327	2260	<100
Calcium, Total	ug/L	86800	104000	84300	84200	62200
Chloride	mg/L	114	36.5	36.5	49	34.5
Fluoride	mg/L	0.33	0.16	0.14	<0.1	0.16
Sulfate	mg/L	87.3	27.1	28.4	64	23.2
Total Dissolved Solids	mg/L	524	424	384	422	279
pH at 25 Degrees C	Std. Units	7.7	7.9	8	8	8
<b>Appendix IV Constituents</b>						
Antimony, Total	ug/L	<1	<1	<1	<1	<1
Arsenic, Total	ug/L	4.1	<1	<1	7.1	<1
Barium, Total	ug/L	68	115	55.2	53	27.6
Beryllium, Total	ug/L	<0.2	<0.2	<0.2	<0.2	<0.2
Cadmium, Total	ug/L	<2	<2	<2	<2	<2
Chromium, Total	ug/L	<10	<10	<10	<10	<10
Cobalt, Total	ug/L	<1	<1	<1	<1	<1
Lead, Total	ug/L	<10	<10	<10	<10	<10
Lithium, Total	ug/L	50.7	<20	<20	41.7	<20
Mercury	ug/L	<0.2	<0.2	<0.2	<0.2	<0.2
Molybdenum, Total	ug/L	53.1	14	<10	19.1	10.9
Molybdenum, Dissolved	ug/L	53.7	15.1	<10	20.1	11.5
Radium-226	pCi/L	<0.435	<0	0.464	0.422	0.289
Radium-228	pCi/L	1.31	<0.206	0.626	0.76	<0.23
Selenium, Total	ug/L	<1	<1	<1	<1	1.1
Thallium, Total	ug/L	<1	<1	<1	<1	<1
Total Radium	pCi/L	1.75	<0.206	1.09	1.18	<0.519
<b>Geochemical Constituents</b>						
Alkalinity, Total as CaCO3	mg/L	215	325	277	256	192
Alkalinity, Bicarbonate (CaCO3)	mg/L	215	325	277	256	192
Alkalinity, Carbonate (CaCO3)	mg/L	<10	<10	<10	<10	<10
Aluminum, Total	ug/L	<200	<200	<200	<200	<200
Dissolved Organic Carbon	mg/L	1.5	1.8	1.1	<1	1.3
Iron, Total	ug/L	1170	<100	<100	2930	<100
Iron, Ferrous	mg/L	0.8	<0.2	<0.2	1.4	<0.2
Iron, Dissolved	ug/L	#N/A	#N/A	#N/A	#N/A	#N/A
Magnesium, Total	ug/L	21300	22500	21700	22900	14300
Manganese, Total	ug/L	194	<10	10.3	309	<10
Manganese, Dissolved	ug/L	195	<10	<10	266	<10
Nitrogen, Nitrate	mg/L	<0.1	1.7	1.5	<0.1	0.73
Nitrogen, Nitrite	mg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Phosphate as PO4	mg/L	<0.15	<0.15	<0.15	<0.15	<0.15
Potassium, Total	ug/L	8900	3400	2240	2860	1730
Silica, Total	ug/L	11300	12100	10800	12600	6900
Sodium, Total	ug/L	63800	26600	30500	41000	24900
Sulfide	mg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Total Organic Carbon	mg/L	1.3	1.5	1.2	<1	1.3

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**Table 6**  
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**Multiunit Ash Pond System**  
**AES Indiana**  
**Eagle Valley Generating Station**  
**Martinsville, Indiana**  
**Atlas Project No. 170LF01502**

Well ID	Units	MW-18I	MW-18D	MW-19S	MW-19I	MW-19D
Sample Date		4/26/2023	4/26/2023	4/26/2023	4/26/2023	4/26/2023
Pace Lab ID		50343174001	50343174002	50343174003	50343174004	50343174005
<b>Static Water Elevation</b>		590.80	591.10	590.96	590.92	590.98
<b>Field Parameters</b>						
Temperature, Field	Degrees C	11.07	11.72	12.25	13.57	13.67
Dissolved Oxygen, Field	mg/L	1.83	0.12	6.94	0.26	0.13
Conductivity, Field	uS/cm	648.63	1118.2	710.21	1098.1	1277.5
ORP, Field	mV	88.4	-40	46.6	58.6	5.8
pH, Field	S.U.	7.34	7.23	7.26	7.15	7.25
Turbidity, Field	NTU	0	1.47	8.87	1.44	4.3
<b>Appendix III Constituents</b>						
Boron, Total	ug/L	198	4370	208	4510	5750
Calcium, Total	ug/L	74500	105000	105000	109000	119000
Chloride	mg/L	36.3	128	6.5	89.6	134
Fluoride	mg/L	0.14	0.13	<0.1	<0.1	<0.1
Sulfate	mg/L	45.6	141	11.3	156	201
Total Dissolved Solids	mg/L	306	618	350	637	749
pH at 25 Degrees C	Std. Units	7.9	7.9	7.6	7.8	7.8
<b>Appendix IV Constituents</b>						
Antimony, Total	ug/L	<1	<1	<1	<1	<1
Arsenic, Total	ug/L	<1	1.2	<1	<1	<1
Barium, Total	ug/L	62.4	83.8	29.7	59.6	48.7
Beryllium, Total	ug/L	<0.2	<0.2	<0.2	<0.2	<0.2
Cadmium, Total	ug/L	<2	<2	<2	<2	<2
Chromium, Total	ug/L	<10	<10	<10	<10	<10
Cobalt, Total	ug/L	<1	<1	<1	<1	<1
Lead, Total	ug/L	<10	<10	<10	<10	<10
Lithium, Total	ug/L	33.4	94.8	<20	94.5	28.4
Mercury	ug/L	<0.2	<0.2	<0.2	<0.2	<0.2
Molybdenum, Total	ug/L	72.5	147	<10	137	15.2
Molybdenum, Dissolved	ug/L	74.6	148	<10	141	16.7
Radium-226	pCi/L	<0.304	0.411	<0	1.14	0.594
Radium-228	pCi/L	<0.242	0.707	<0.305	0.648	1.04
Selenium, Total	ug/L	<1	<1	<1	<1	<1
Thallium, Total	ug/L	<1	<1	<1	<1	<1
Total Radium	pCi/L	<0.546	1.12	<0.305	1.79	1.63
<b>Geochemical Constituents</b>						
Alkalinity, Total as CaCO3	mg/L	212	230	345	272	240
Alkalinity, Bicarbonate (CaCO3)	mg/L	212	230	345	272	240
Alkalinity, Carbonate (CaCO3)	mg/L	<10	<10	<10	<10	<10
Aluminum, Total	ug/L	<200	<200	<200	<200	<200
Dissolved Organic Carbon	mg/L	1	<1	1	<1	<1
Iron, Total	ug/L	<100	553	276	<100	195
Iron, Ferrous	mg/L	<0.2	<0.2	<0.2	<0.2	<0.2
Iron, Dissolved	ug/L	#N/A	#N/A	#N/A	#N/A	#N/A
Magnesium, Total	ug/L	17900	21800	28300	24300	29500
Manganese, Total	ug/L	<10	407	36.3	85	384
Manganese, Dissolved	ug/L	<10	384	<10	83.6	385
Nitrogen, Nitrate	mg/L	0.69	<0.1	8.2	<0.1	<0.1
Nitrogen, Nitrite	mg/L	<0.1	<0.1	<0.5	<0.1	<0.1
Phosphate as PO4	mg/L	<0.15	<0.15	<0.15	<0.15	<0.15
Potassium, Total	ug/L	4560	7260	1790	7160	4320
Silica, Total	ug/L	10100	13000	11800	14000	14700
Sodium, Total	ug/L	23900	92000	8770	84300	105000
Sulfide	mg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Total Organic Carbon	mg/L	1.3	<1	<1	<1	<1

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**Multiunit Ash Pond System**  
**AES Indiana**  
**Eagle Valley Generating Station**  
**Martinsville, Indiana**  
**Atlas Project No. 170LF01502**

Well ID	Units	MW-20S	MW-20I	MW-20D	MW-21S	MW-21I
Sample Date		5/1/2023	5/1/2023	5/1/2023	4/20/2023	4/20/2023
Pace Lab ID		50343595001	50343595002	50343595005	50342799001	50342799002
<b>Static Water Elevation</b>		591.51	591.56	591.51	587.93	587.97
<b>Field Parameters</b>						
Temperature, Field	Degrees C	12.52	11.92	12.09	15.11	16.07
Dissolved Oxygen, Field	mg/L	8.75	4.61	4.06	0.06	0.14
Conductivity, Field	uS/cm	553.17	586.36	521.26	335.86	362.63
ORP, Field	mV	129.3	134.5	155.3	80.3	44.3
pH, Field	S.U.	6.97	7.15	7.22	7.51	6.98
Turbidity, Field	NTU	5.83	43.7	34.8	3	14
<b>Appendix III Constituents</b>						
Boron, Total	ug/L	<100	<100	<100	<100	<100
Calcium, Total	ug/L	93800	101000	87300	53900	91500
Chloride	mg/L	7.3	32.7	21.1	63.3	19.2
Fluoride	mg/L	0.13	<0.1	<0.1	0.16	<0.1
Sulfate	mg/L	7.4	24.4	30	44.3	41.6
Total Dissolved Solids	mg/L	344	371	325	307	355
pH at 25 Degrees C	Std. Units	8	7.7	7.9	7.9	7.8
<b>Appendix IV Constituents</b>						
Antimony, Total	ug/L	<1	<1	<1	<1	<1
Arsenic, Total	ug/L	<1	2.5	4.9	<1	<1
Barium, Total	ug/L	17.9	58.4	44	20.3	80.9
Beryllium, Total	ug/L	<0.2	<0.2	<0.2	<0.2	<0.2
Cadmium, Total	ug/L	<2	<2	<2	<2	<2
Chromium, Total	ug/L	<10	<10	<10	<10	<10
Cobalt, Total	ug/L	<1	3.2	4.1	<1	<1
Lead, Total	ug/L	<10	<10	<10	<10	<10
Lithium, Total	ug/L	<20	<20	<20	<20	<20
Mercury	ug/L	<0.2	<0.2	<0.2	<0.2	<0.2
Molybdenum, Total	ug/L	<10	<10	<10	<10	<10
Molybdenum, Dissolved	ug/L	<10	<10	<10	<10	<10
Radium-226	pCi/L	<0.25	<0.189	<0.147	<0	<0.0573
Radium-228	pCi/L	0.955	0.724	0.857	0.7	0.803
Selenium, Total	ug/L	<1	<1	<1	<1	6.7
Thallium, Total	ug/L	<1	<1	<1	<1	<1
Total Radium	pCi/L	1.21	0.913	0.857	<0.7	0.86
<b>Geochemical Constituents</b>						
Alkalinity, Total as CaCO3	mg/L	263	302	261	191	276
Alkalinity, Bicarbonate (CaCO3)	mg/L	263	302	261	191	276
Alkalinity, Carbonate (CaCO3)	mg/L	<10	<10	<10	<10	<10
Aluminum, Total	ug/L	<200	788	1780	<200	<200
Dissolved Organic Carbon	mg/L	<1	<1	<1	1.8	2
Iron, Total	ug/L	218	2020	5490	<100	296
Iron, Ferrous	mg/L	<0.2	<0.2	<0.2	<0.2	<0.2
Iron, Dissolved	ug/L	#N/A	#N/A	#N/A	#N/A	#N/A
Magnesium, Total	ug/L	22200	27400	26400	19500	26700
Manganese, Total	ug/L	10.3	137	192	188	109
Manganese, Dissolved	ug/L	<10	<10	<10	105	105
Nitrogen, Nitrate	mg/L	14.6	3.1	1.6	0.27	6.5
Nitrogen, Nitrite	mg/L	<1	<0.1	<0.1	<0.1	<0.2
Phosphate as PO4	mg/L	<0.15	<0.15	<0.15	<0.15	<0.15
Potassium, Total	ug/L	1740	4710	3110	2950	1790
Silica, Total	ug/L	14600	20200	23600	4840	13500
Sodium, Total	ug/L	8710	14300	8650	46200	9870
Sulfide	mg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Total Organic Carbon	mg/L	<1	<1	<4	1.5	<1

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**Multiunit Ash Pond System**  
**AES Indiana**  
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**Atlas Project No. 170LF01502**

Well ID	Units	MW-21D	MW-22S	MW-22I	MW-22D	MW-23S
Sample Date		4/20/2023	4/20/2023	4/26/2023	4/26/2023	5/2/2023
Pace Lab ID		50342799003	50342799006	50343225001	50343225002	50343741001
<b>Static Water Elevation</b>		587.89	594.32	594.33	594.32	591.23
<b>Field Parameters</b>						
Temperature, Field	Degrees C	16.4	14.5	14.43	12.97	12.12
Dissolved Oxygen, Field	mg/L	0.15	0.14	0.33	0.12	5.96
Conductivity, Field	uS/cm	777.47	654.71	682.22	599.77	741.61
ORP, Field	mV	-96.8	25.2	53	21.5	87.5
pH, Field	S.U.	7.31	6.55	7.47	7.54	7.03
Turbidity, Field	NTU	9	7.61	82.26	85.29	13.7
<b>Appendix III Constituents</b>						
Boron, Total	ug/L	326	<100	<100	<100	<100
Calcium, Total	ug/L	152000	134000	96600	78900	101000
Chloride	mg/L	54.9	27.8	21.3	17.4	3.7
Fluoride	mg/L	<0.1	0.1	0.13	<0.1	0.11
Sulfate	mg/L	274	29.3	24.8	46.5	3.8
Total Dissolved Solids	mg/L	738	514	334	300	356
pH at 25 Degrees C	Std. Units	7.3	7	7.4	7.7	7.9
<b>Appendix IV Constituents</b>						
Antimony, Total	ug/L	<1	<1	<1	<1	<1
Arsenic, Total	ug/L	2.3	<1	<1	5	<1
Barium, Total	ug/L	44.2	42.7	60.3	105	39.3
Beryllium, Total	ug/L	<0.2	<0.2	<0.2	<0.2	<0.2
Cadmium, Total	ug/L	<2	<2	<2	<2	<2
Chromium, Total	ug/L	<10	<10	<10	<10	<10
Cobalt, Total	ug/L	<1	<1	<1	<1	<1
Lead, Total	ug/L	<10	<10	<10	<10	<10
Lithium, Total	ug/L	<20	<20	<20	<20	<20
Mercury	ug/L	<0.2	<0.2	<0.2	<0.2	<0.2
Molybdenum, Total	ug/L	<10	<10	<10	<10	<10
Molybdenum, Dissolved	ug/L	<10	<10	<10	<10	<10
Radium-226	pCi/L	<0.189	<0.0581	0.557	0.432	0.452
Radium-228	pCi/L	0.746	0.671	0.669	0.712	<0.262
Selenium, Total	ug/L	<1	2.8	5.2	<1	<1
Thallium, Total	ug/L	<1	<1	<1	<1	<1
Total Radium	pCi/L	0.935	<0.729	1.23	1.14	0.714
<b>Geochemical Constituents</b>						
Alkalinity, Total as CaCO3	mg/L	275	452	300	249	332
Alkalinity, Bicarbonate (CaCO3)	mg/L	275	452	300	249	332
Alkalinity, Carbonate (CaCO3)	mg/L	<10	<10	<10	<10	<10
Aluminum, Total	ug/L	200	<200	347	528	534
Dissolved Organic Carbon	mg/L	1.5	1.7	<1	<1	<1
Iron, Total	ug/L	3840	<100	559	2400	637
Iron, Ferrous	mg/L	<0.2	<0.2	<0.2	<0.2	<0.2
Iron, Dissolved	ug/L	#N/A	#N/A	#N/A	#N/A	#N/A
Magnesium, Total	ug/L	34800	29600	28200	24600	29600
Manganese, Total	ug/L	364	744	258	338	31.9
Manganese, Dissolved	ug/L	353	515	155	276	<10
Nitrogen, Nitrate	mg/L	<0.1	1.6	7.8	<0.1	8.9
Nitrogen, Nitrite	mg/L	<0.1	<0.1	<0.5	<0.1	<0.5
Phosphate as PO4	mg/L	<0.15	<0.15	<0.15	<0.15	<0.15
Potassium, Total	ug/L	3410	1670	1500	1810	<1000
Silica, Total	ug/L	16300	12000	15000	16000	14800
Sodium, Total	ug/L	52900	23100	6160	9260	3870
Sulfide	mg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Total Organic Carbon	mg/L	1	1.7	<1	<1	<1

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**Eagle Valley Generating Station**  
**Martinsville, Indiana**  
**Atlas Project No. 170LF01502**

Well ID	Units	MW-23I	MW-23D	MW-24S	MW-24I	MW-24D
Sample Date		5/2/2023	5/2/2023	5/3/2023	5/3/2023	5/3/2023
Pace Lab ID		50343741002	50343741003	50343776001	50343776002	50343776003
<b>Static Water Elevation</b>		591.11	591.18	591.10	590.83	591.07
<b>Field Parameters</b>						
Temperature, Field	Degrees C	12.5	12.59	12.49	13.82	13.75
Dissolved Oxygen, Field	mg/L	0.11	0.23	0.24	0.22	0.44
Conductivity, Field	uS/cm	716.16	465.35	1115.6	903.35	860.52
ORP, Field	mV	76.2	25.2	120.7	-139.8	-140.7
pH, Field	S.U.	7.21	7.31	7.24	7.62	8.25
Turbidity, Field	NTU	43.4	38.2	166	40.2	27.4
<b>Appendix III Constituents</b>						
Boron, Total	ug/L	<100	<100	135	116	<100
Calcium, Total	ug/L	87600	75600	78600	72800	66000
Chloride	mg/L	12.6	23.6	128	73.2	65.8
Fluoride	mg/L	<0.1	<0.1	0.41	0.34	0.32
Sulfate	mg/L	20.4	34.9	98.6	58.1	54.1
Total Dissolved Solids	mg/L	334	287	569	442	404
pH at 25 Degrees C	Std. Units	8	8	7.9	7.9	7.9
<b>Appendix IV Constituents</b>						
Antimony, Total	ug/L	<1	<1	<1	<1	<1
Arsenic, Total	ug/L	<1	<1	1.6	2.6	1.6
Barium, Total	ug/L	29.3	43.2	76	72.9	58.8
Beryllium, Total	ug/L	<0.2	<0.2	<0.2	<0.2	<0.2
Cadmium, Total	ug/L	<2	<2	<2	<2	<2
Chromium, Total	ug/L	<10	<10	<10	<10	<10
Cobalt, Total	ug/L	<1	<1	1.2	<1	<1
Lead, Total	ug/L	<10	<10	<10	<10	<10
Lithium, Total	ug/L	<20	<20	<20	<20	<20
Mercury	ug/L	<0.2	<0.2	<0.2	<0.2	<0.2
Molybdenum, Total	ug/L	<10	<10	62.1	52.6	15.1
Molybdenum, Dissolved	ug/L	<10	<10	64.2	55.2	17.2
Radium-226	pCi/L	0.293	<0.097	0.381	0.56	0.353
Radium-228	pCi/L	0.871	<0.351	<0.0828	<0.319	<0.147
Selenium, Total	ug/L	5.9	5.8	<1	<1	<1
Thallium, Total	ug/L	<1	<1	<1	<1	<1
Total Radium	pCi/L	1.16	<0.448	<0.464	0.879	<0.5
<b>Geochemical Constituents</b>						
Alkalinity, Total as CaCO3	mg/L	259	232	246	253	223
Alkalinity,Bicarbonate (CaCO3)	mg/L	259	232	246	253	223
Alkalinity,Carbonate (CaCO3)	mg/L	<10	<10	<10	<10	<10
Aluminum, Total	ug/L	510	368	1210	1340	1450
Dissolved Organic Carbon	mg/L	<1	1.3	1.6	1.4	1.3
Iron, Total	ug/L	657	717	2040	2930	2230
Iron, Ferrous	mg/L	<0.2	<0.2	<0.2	0.22	0.32
Iron, Dissolved	ug/L	#N/A	#N/A	#N/A	#N/A	#N/A
Magnesium, Total	ug/L	25500	23200	23500	21800	21400
Manganese, Total	ug/L	54.8	178	117	193	143
Manganese, Dissolved	ug/L	45.1	158	79.9	167	135
Nitrogen, Nitrate	mg/L	9.3	1.6	2	<0.1	0.1
Nitrogen, Nitrite	mg/L	<0.5	<0.1	0.14	<0.1	<0.1
Phosphate as PO4	mg/L	<0.15	<0.15	<0.15	<0.15	<0.15
Potassium, Total	ug/L	1620	1830	5500	7350	5140
Silica, Total	ug/L	17800	16700	16200	17300	15000
Sodium, Total	ug/L	9240	14100	121000	73400	58500
Sulfide	mg/L	<0.1	<0.1	<0.1	0.056	0.031
Total Organic Carbon	mg/L	<1	<1	1.5	1.4	1.2

Notes:

- ft MSL: Elevation, feet mean sea level
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- umhos/cm: micromhos per centimeter
- # NA: Not Analyzed
- NM: Not Measured
- NS: Not Sampled
- mV: millivolt
- Std. Units: standard units
- mg/L: milligram per liter
- ug/L: microgram per liter
- pCi/L: picoCurie per liter

Static water elevation listed for a well may have been collected on a date different than date of well sampling.

**Table 6**  
**Summary of Monitoring Results - April-May 2023**  
**Multiunit Ash Pond System**  
**AES Indiana**  
**Eagle Valley Generating Station**  
**Martinsville, Indiana**  
**Atlas Project No. 170LF01502**

Well ID	Units	MW-25S	MW-25I	MW-25D	MW-26S	MW-26I
Sample Date		5/3/2023	5/4/2023	5/4/2023	5/4/2023	5/4/2023
Pace Lab ID		50343776004	50344099001	50344099002	50344100001	50344100002
<b>Static Water Elevation</b>		589.86	589.96	589.81	589.36	589.52
<b>Field Parameters</b>						
Temperature, Field	Degrees C	13.23	13.48	13.12	18.28	16.47
Dissolved Oxygen, Field	mg/L	0.14	0.18	0.18	0.24	0.22
Conductivity, Field	uS/cm	897.72	910.52	943.62	1961.8	1752.5
ORP, Field	mV	-83.1	-111.6	-117.5	-34.9	-24
pH, Field	S.U.	7.84	7.89	7.62	7.84	7.82
Turbidity, Field	NTU	6.57	12.2	55.7	29.9	10.7
<b>Appendix III Constituents</b>						
Boron, Total	ug/L	397	1100	1900	2990	2430
Calcium, Total	ug/L	75400	78200	76600	292000	249000
Chloride	mg/L	83.4	100	147	299	250
Fluoride	mg/L	0.34	0.14	0.14	0.3	0.22
Sulfate	mg/L	62.9	83.6	89.9	854	733
Total Dissolved Solids	mg/L	471	488	457	1950	1660
pH at 25 Degrees C	Std. Units	7.9	7.6	7.6	7.4	7.7
<b>Appendix IV Constituents</b>						
Antimony, Total	ug/L	<1	<1	<1	<1	<1
Arsenic, Total	ug/L	1.2	<1	<1	2.1	<1
Barium, Total	ug/L	84.5	85	64.2	42.6	108
Beryllium, Total	ug/L	<0.2	<0.2	<0.2	<0.2	<0.2
Cadmium, Total	ug/L	<2	<2	<2	<2	<2
Chromium, Total	ug/L	<10	<10	<10	<10	<10
Cobalt, Total	ug/L	<1	<1	<1	3.3	1
Lead, Total	ug/L	<10	<10	<10	<10	<10
Lithium, Total	ug/L	61.1	83	70.1	87.6	43.9
Mercury	ug/L	<0.2	<0.2	<0.2	<0.2	<0.2
Molybdenum, Total	ug/L	66	137	180	131	67.3
Molybdenum, Dissolved	ug/L	65.8	144	184	132	68.9
Radium-226	pCi/L	0.595	<0.0621	<0.109	0.607	0.401
Radium-228	pCi/L	<0.105	0.446	<0.327	0.954	0.44
Selenium, Total	ug/L	<1	<1	<1	<1	<1
Thallium, Total	ug/L	<1	<1	<1	<1	<1
Total Radium	pCi/L	<0.595	<0.508	<0.327	1.56	0.841
<b>Geochemical Constituents</b>						
Alkalinity, Total as CaCO3	mg/L	245	232	220	212	186
Alkalinity,Bicarbonate (CaCO3)	mg/L	245	232	220	212	186
Alkalinity,Carbonate (CaCO3)	mg/L	<10	<10	<10	<10	<10
Aluminum, Total	ug/L	<200	<200	<200	360	<200
Dissolved Organic Carbon	mg/L	1.5	1.5	1.2	<4	<4
Iron, Total	ug/L	631	1330	2180	1240	289
Iron, Ferrous	mg/L	0.26	<0.2	<0.2	<0.2	<0.2
Iron, Dissolved	ug/L	#N/A	#N/A	#N/A	#N/A	#N/A
Magnesium, Total	ug/L	22000	20400	16300	69600	65000
Manganese, Total	ug/L	518	189	118	2180	109
Manganese, Dissolved	ug/L	570	195	125	2180	110
Nitrogen, Nitrate	mg/L	<0.1	<0.1	<0.1	<0.1	0.11
Nitrogen, Nitrite	mg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Phosphate as PO4	mg/L	<0.15	<0.15	<0.15	<0.15	<0.15
Potassium, Total	ug/L	6730	6800	4000	17500	8860
Silica, Total	ug/L	10400	11700	12800	17400	12600
Sodium, Total	ug/L	64700	76900	89200	253000	209000
Sulfide	mg/L	<0.1	0.076	<0.1	<0.1	<0.1
Total Organic Carbon	mg/L	<1	1.1	1.2	<4	<4

Notes:

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Static water elevation listed for a well may have been collected on a date different than date of well sampling.



**Table 6**  
**Summary of Monitoring Results - April-May 2023**  
**Multiunit Ash Pond System**  
**AES Indiana**  
**Eagle Valley Generating Station**  
**Martinsville, Indiana**  
**Atlas Project No. 170LF01502**

Well ID	Units	MW-26D
Sample Date		5/4/2023
Pace Lab ID		50344100003
<b>Static Water Elevation</b>		589.49
<b>Field Parameters</b>		
Temperature, Field	Degrees C	15.92
Dissolved Oxygen, Field	mg/L	0.25
Conductivity, Field	uS/cm	858.55
ORP, Field	mV	-61.4
pH, Field	S.U.	7.37
Turbidity, Field	NTU	36.7
<b>Appendix III Constituents</b>		
Boron, Total	ug/L	117
Calcium, Total	ug/L	107000
Chloride	mg/L	47.6
Fluoride	mg/L	<0.1
Sulfate	mg/L	43.9
Total Dissolved Solids	mg/L	454
pH at 25 Degrees C	Std. Units	7.7
<b>Appendix IV Constituents</b>		
Antimony, Total	ug/L	<1
Arsenic, Total	ug/L	1.4
Barium, Total	ug/L	106
Beryllium, Total	ug/L	<0.2
Cadmium, Total	ug/L	<2
Chromium, Total	ug/L	<10
Cobalt, Total	ug/L	<1
Lead, Total	ug/L	<10
Lithium, Total	ug/L	<20
Mercury	ug/L	<0.2
Molybdenum, Total	ug/L	29.3
Molybdenum, Dissolved	ug/L	30.5
Radium-226	pCi/L	<0.125
Radium-228	pCi/L	0.7
Selenium, Total	ug/L	<1
Thallium, Total	ug/L	<1
Total Radium	pCi/L	0.825
<b>Geochemical Constituents</b>		
Alkalinity, Total as CaCO3	mg/L	352
Alkalinity,Bicarbonate (CaCO3)	mg/L	352
Alkalinity,Carbonate (CaCO3)	mg/L	<10
Aluminum, Total	ug/L	333
Dissolved Organic Carbon	mg/L	2.5
Iron, Total	ug/L	941
Iron, Ferrous	mg/L	<0.2
Iron, Dissolved	ug/L	#N/A
Magnesium, Total	ug/L	29700
Manganese, Total	ug/L	88.6
Manganese, Dissolved	ug/L	81.6
Nitrogen, Nitrate	mg/L	<0.1
Nitrogen, Nitrite	mg/L	<0.1
Phosphate as PO4	mg/L	<0.15
Potassium, Total	ug/L	3730
Silica, Total	ug/L	16300
Sodium, Total	ug/L	39800
Sulfide	mg/L	0.076
Total Organic Carbon	mg/L	1.3

Notes:

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umhos/cm: micromhos per centimeter  
# NA: Not Analyzed  
NM: Not Measured  
NS: Not Sampled  
mV: millivolt  
Std. Units: standard units  
mg/L: milligram per liter  
ug/L: microgram per liter  
pCi/L: picoCurie per liter

Static water elevation listed for a well may have been collected on a date different than date of well sampling.

**Table 7**  
**Summary of Monitoring Results - July 2023**  
**Multiunit Ash Pond System**  
**AES Indiana**  
**Eagle Valley Generating Station**  
**Martinsville, Indiana**  
**Atlas Project No. 170LF01502**

Well ID	Units	MW-3D	MW-12I	MW-12D	MW-24S	MW-24I
Sample Date		7/6/2023	7/6/2023	7/6/2023	7/10/2023	7/10/2023
Pace Lab ID		50348745001	50348745002	50348745003	50348991001	50348991002
<b>Static Water Elevation</b>		588.40	586.61	586.85	590.24	589.99
<b>Field Parameters</b>						
Temperature, Field	Degrees C	21.4	16.59	16.12	11.66	13.41
Dissolved Oxygen, Field	mg/L	0.62	0.25	0.43	0.13	0.15
Conductivity, Field	uS/cm	885.29	1219.2	817.81	811.35	996.53
ORP, Field	mV	-147.6	-124	-147.7	-32.3	-236.1
pH, Field	S.U.	7.58	7.35	7.58	7.59	7.52
Turbidity, Field	NTU	14	46.6	54.7	10	5.55
<b>Appendix III Constituents</b>						
Boron, Total	ug/L	180	2280	1750	116	130
Calcium, Total	ug/L	88600	153000	81900	69000	86000
Chloride	mg/L	82.4	72	78.8	78.8	110
Fluoride	mg/L	0.23	0.27	0.25	0.38	0.36
Sulfate	mg/L	54.2	279	83.1	69.3	105
Total Dissolved Solids	mg/L	499	832	491	457	578
pH at 25 Degrees C	Std. Units	6.8	7.2	7.4	7.6	7.7
<b>Appendix IV Constituents</b>						
Antimony, Total	ug/L	<1	<1	<1	<1	<1
Arsenic, Total	ug/L	4.8	<1	3.1	2.1	2.1
Barium, Total	ug/L	81.8	93.5	56.9	86.8	87
Beryllium, Total	ug/L	<0.2	<0.2	<0.2	<0.2	<0.2
Cadmium, Total	ug/L	<2	<2	<2	<2	<2
Chromium, Total	ug/L	<10	<10	<10	<10	<10
Cobalt, Total	ug/L	<1	1.1	<1	<1	<1
Lead, Total	ug/L	<10	<10	<10	<10	<10
Lithium, Total	ug/L	<20	114	76.4	<20	<20
Mercury	ug/L	<0.2	<0.2	<0.2	<0.2	<0.2
Molybdenum, Total	ug/L	18.3	196	196	58.5	59
Molybdenum, Dissolved	ug/L	21.8	204	206	65.5	62.3
Radium-226	pCi/L	0.614	0.599	<0.232	<0.175	0.625
Radium-228	pCi/L	1.64	1.19	0.482	<0.302	<0.429
Selenium, Total	ug/L	<1	<1	<1	<1	<1
Thallium, Total	ug/L	<1	<1	<1	<1	<1
Total Radium	pCi/L	2.25	1.79	<0.714	<0.302	1.05
<b>Geochemical Constituents</b>						
Alkalinity, Total as CaCO3	mg/L	272	318	221	221	244
Alkalinity,Bicarbonate (CaCO3)	mg/L	272	318	221	221	244
Alkalinity,Carbonate (CaCO3)	mg/L	<10	<10	<10	<10	<10
Aluminum, Total	ug/L	689	994	<200	299	229
Dissolved Organic Carbon	mg/L	1.1	1.1	1.2	1.5	2.3
Iron, Total	ug/L	2310	1800	570	546	1580
Iron, Ferrous	mg/L	0.57	<0.2	0.2	<0.2	<0.2
Iron, Dissolved	ug/L	#N/A	#N/A	#N/A	#N/A	#N/A
Magnesium, Total	ug/L	27100	35400	14800	20900	26500
Manganese, Total	ug/L	217	362	291	76.4	206
Manganese, Dissolved	ug/L	209	311	278	65.5	184
Nitrogen, Nitrate	mg/L	<0.1	<0.1	<0.1	1.5	<0.1
Nitrogen, Nitrite	mg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Phosphate as P04	mg/L	<0.15	<0.15	<0.15	<0.15	<0.15
Potassium, Total	ug/L	5700	12800	5880	4130	6780
Silica, Total	ug/L	14400	13800	12000	9870	12000
Sodium, Total	ug/L	61800	95900	82900	77500	90500
Sulfide	mg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Total Organic Carbon	mg/L	1.4	1	1.9	1.4	2.8

Notes:

ft MSL: Elevation, feet mean sea level

°C: Degrees celcius

uS/cm: microsiemen per centimeter

umhos/cm: micromhos per centimeter

NA: Not analyzed

NM: Not Measured

NS: Not Sampled

mV: millivolt

Std. Units: standard units

mg/L: milligram per liter

ug/L: microgram per liter

pCi/L: picoCurie per liter

Static water elevation listed for a well may have been collected on a date different than date of well sampling.

**Table 7**  
**Summary of Monitoring Results - July 2023**  
**Multiunit Ash Pond System**  
**AES Indiana**  
**Eagle Valley Generating Station**  
**Martinsville, Indiana**  
**Atlas Project No. 170LF01502**

Well ID	Units	MW-24D	MW-25S	MW-25I	MW-25D	MW-26S
Sample Date		7/10/2023	7/7/2023	7/7/2023	7/7/2023	7/5/2023
Pace Lab ID		50348991005	50348805001	50348805002	50348805003	50348628001
<b>Static Water Elevation</b>		590.12	588.33	588.30	588.17	584.81
<b>Field Parameters</b>						
Temperature, Field	Degrees C	12.8	14.57	15.09	15.42	19.76
Dissolved Oxygen, Field	mg/L	0.27	0.13	0.16	0.45	0.58
Conductivity, Field	uS/cm	691.69	822.28	774.02	867.4	1401.7
ORP, Field	mV	-154.5	-114.9	-156.4	-162	-70.8
pH, Field	S.U.	7.69	7.4	7.59	7.61	7.1
Turbidity, Field	NTU	6.46	13.9	57.2	13.7	30.9
<b>Appendix III Constituents</b>						
Boron, Total	ug/L	<100	371	972	1800	2280
Calcium, Total	ug/L	66200	77800	89200	79400	236000
Chloride	mg/L	57.6	75.2	86.8	87.9	205
Fluoride	mg/L	0.3	0.28	0.1	0.1	0.3
Sulfate	mg/L	52.8	64.1	81.3	86.8	584
Total Dissolved Solids	mg/L	387	403	505	507	1570
pH at 25 Degrees C	Std. Units	7.9	7.4	7.6	7.7	6.9
<b>Appendix IV Constituents</b>						
Antimony, Total	ug/L	<1	<1	<1	<1	<1
Arsenic, Total	ug/L	1.9	<1	2.1	1.3	<1
Barium, Total	ug/L	62.7	86	90.4	61.8	33.3
Beryllium, Total	ug/L	<0.2	<0.2	<0.2	<0.2	<0.2
Cadmium, Total	ug/L	<2	<2	<2	<2	<2
Chromium, Total	ug/L	<10	<10	<10	<10	<10
Cobalt, Total	ug/L	<1	<1	1.1	<1	2.6
Lead, Total	ug/L	<10	<10	<10	<10	<10
Lithium, Total	ug/L	<20	56.8	80.9	65.9	56.3
Mercury	ug/L	<0.2	<0.2	<0.2	<0.2	<0.2
Molybdenum, Total	ug/L	14.7	68.5	130	180	117
Molybdenum, Dissolved	ug/L	15.2	70	137	189	121
Radium-226	pCi/L	<0.322	<0.12	0.805	<0.134	<0.134
Radium-228	pCi/L	0.709	0.456	1.31	1.07	1.07
Selenium, Total	ug/L	<1	<1	<1	<1	<1
Thallium, Total	ug/L	<1	<1	<1	<1	<1
Total Radium	pCi/L	1.03	<0.576	2.12	1.2	1.2
<b>Geochemical Constituents</b>						
Alkalinity, Total as CaCO3	mg/L	221	250	247	219	261
Alkalinity,Bicarbonate (CaCO3)	mg/L	221	250	247	219	261
Alkalinity,Carbonate (CaCO3)	mg/L	<10	<10	<10	<10	<10
Aluminum, Total	ug/L	699	<200	1140	681	<200
Dissolved Organic Carbon	mg/L	1.4	1	1.1	1.3	<4
Iron, Total	ug/L	1720	329	3440	2460	432
Iron, Ferrous	mg/L	<0.2	<0.2	0.23	0.58	<0.2
Iron, Dissolved	ug/L	#N/A	#N/A	#N/A	#N/A	#N/A
Magnesium, Total	ug/L	20600	22100	23100	16800	53800
Manganese, Total	ug/L	140	516	241	126	1610
Manganese, Dissolved	ug/L	134	532	193	111	1710
Nitrogen, Nitrate	mg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Nitrogen, Nitrite	mg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Phosphate as P04	mg/L	<0.15	<0.15	0.17	0.15	0.16
Potassium, Total	ug/L	4990	6390	6860	4020	12600
Silica, Total	ug/L	11700	10800	15300	14600	16200
Sodium, Total	ug/L	55100	64500	76900	88400	198000
Sulfide	mg/L	<0.1	<0.1	<0.1	0.033	<0.1
Total Organic Carbon	mg/L	1.5	1.2	<4	1.3	<4

Notes:

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uS/cm: microsiemen per centimeter

umhos/cm: micromhos per centimeter

NA: Not analyzed

NM: Not Measured

NS: Not Sampled

mV: millivolt

Std. Units: standard units

mg/L: milligram per liter

ug/L: microgram per liter

pCi/L: picoCurie per liter

Static water elevation listed for a well may have been collected on a date different than date of well sampling.

**Table 7**  
**Summary of Monitoring Results - July 2023**  
**Multiunit Ash Pond System**  
**AES Indiana**  
**Eagle Valley Generating Station**  
**Martinsville, Indiana**  
**Atlas Project No. 170LF01502**

Well ID	Units	MW-26I	MW-26D
Sample Date		7/5/2023	7/5/2023
Pace Lab ID		50348628002	50348628003
<b>Static Water Elevation</b>		584.96	584.95
<b>Field Parameters</b>			
Temperature, Field	Degrees C	19.11	19.17
Dissolved Oxygen, Field	mg/L	1.71	0.24
Conductivity, Field	uS/cm	1165	856.8
ORP, Field	mV	23	-158.1
pH, Field	S.U.	7.49	7.24
Turbidity, Field	NTU	10.2	55.7
<b>Appendix III Constituents</b>			
Boron, Total	ug/L	275	103
Calcium, Total	ug/L	101000	116000
Chloride	mg/L	134	45.5
Fluoride	mg/L	0.27	<0.1
Sulfate	mg/L	142	43.9
Total Dissolved Solids	mg/L	704	500
pH at 25 Degrees C	Std. Units	7.3	7.5
<b>Appendix IV Constituents</b>			
Antimony, Total	ug/L	<1	<1
Arsenic, Total	ug/L	<1	<1
Barium, Total	ug/L	81.1	113
Beryllium, Total	ug/L	<0.2	<0.2
Cadmium, Total	ug/L	<2	<2
Chromium, Total	ug/L	<10	<10
Cobalt, Total	ug/L	<1	<1
Lead, Total	ug/L	<10	<10
Lithium, Total	ug/L	<20	<20
Mercury	ug/L	<0.2	<0.2
Molybdenum, Total	ug/L	39.2	25.9
Molybdenum, Dissolved	ug/L	40.6	27.4
Radium-226	pCi/L	<0.473	0.881
Radium-228	pCi/L	<0.0297	<0.0215
Selenium, Total	ug/L	<1	<1
Thallium, Total	ug/L	<1	<1
Total Radium	pCi/L	<0.473	0.903
<b>Geochemical Constituents</b>			
Alkalinity, Total as CaCO3	mg/L	221	356
Alkalinity,Bicarbonate (CaCO3)	mg/L	221	356
Alkalinity,Carbonate (CaCO3)	mg/L	<10	<10
Aluminum, Total	ug/L	<200	779
Dissolved Organic Carbon	mg/L	<4	1.1
Iron, Total	ug/L	<100	1470
Iron, Ferrous	mg/L	<0.2	<0.2
Iron, Dissolved	ug/L	#N/A	#N/A
Magnesium, Total	ug/L	31400	31300
Manganese, Total	ug/L	29.8	78.6
Manganese, Dissolved	ug/L	34.3	57.5
Nitrogen, Nitrate	mg/L	1.4	<0.1
Nitrogen, Nitrite	mg/L	0.29	<0.1
Phosphate as P04	mg/L	<0.15	0.45
Potassium, Total	ug/L	5360	3590
Silica, Total	ug/L	10500	16500
Sodium, Total	ug/L	93500	33300
Sulfide	mg/L	<0.1	<0.1
Total Organic Carbon	mg/L	<4	1.6

Notes:

ft MSL: Elevation, feet mean sea level  
°C: Degrees celcius  
uS/cm: microsiemen per centimeter  
umhos/cm: micromhos per centimeter  
NA: Not analyzed  
NM: Not Measured  
NS: Not Sampled  
mV: millivolt  
Std. Units: standard units  
mg/L: milligram per liter  
ug/L: microgram per liter  
pCi/L: picoCurie per liter

Static water elevation listed for a well may have been collected on a date different than date of well sampling.

**Table 8**  
 Groundwater Protection Standards -  
 November 2022 and April 2023  
 Multiunit Ash Pond System  
 AES Indiana  
 Eagle Valley Generating Station  
 Martinsville, Indiana  
 Atlas Project No. 170LF01502

Parameter	Antimony	Arsenic	Barium	Beryllium	Cadmium	Chromium	Cobalt	Fluoride	Lead	Lithium	Mercury	Molybdenum	Selenium	Thallium	Radium 226/228 Combined
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	mg/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	pCi/L
Shallow Zone GWPS	6	10	2000	4	5	100	6	4	15	40	2	100	50	2	5
Intermediate Zone GWPS	6	10	2000	4	5	100	6	4	15	40	2	100	50	2	5
Deep Zone GWPS	6	10	2000	4	5	100	6	4	15	40	2	100	50	2	5

Notes:  
 ug/L = micrograms per liter (ppb)  
 mg/L = milligrams per liter (ppm)  
 pCi/L = picoCuries per liter  
 GWPS = Groundwater Protection Standard

## **Appendix A: Gauging Data and Groundwater Flow Rate Calculations**

**Table A-1 WATER LEVEL MEASUREMENT FORM  
AES INDIANA EAGLE VALLEY STATION, MARTINSVILLE, IN**

Location	Date	Time	DTW, from top of Reference Point	Reference Point Elevation (ft MSL)	Groundwater Elevation (MSL)	Comments
<b>MONITORING POINT LOCATIONS</b>						
MP-1	11/15/22	10:01	8.05	596.98	588.93	
MP-2	11/15/22	11:58	7.15	596.60	589.45	
MP-3	11/15/22	12:00	6.90	596.49	589.59	
<b>EXISTING MONITORING WELLS</b>						
MW-1S	11/15/22	10:25	26.19	612.93	586.74	
MW-1I	11/15/22	10:22	25.62	612.31	586.69	
MW-1D	11/15/22	10:23	26.28	612.91	586.63	
MW-2S	11/15/22	10:33	20.96	608.45	587.49	
MW-2I	11/15/22	10:30	21.40	608.93	587.53	
MW-2D	11/15/22	10:32	21.23	608.72	587.49	
MW-3S	11/15/22	10:36	22.51	610.80	588.29	
MW-3I	11/15/22	10:35	22.82	610.76	587.94	
MW-4S	11/15/22	9:52	21.52	609.94	588.42	
MW-4I	11/15/22	9:49	26.30	614.66	588.36	
MW-4D	11/15/22	9:50	26.37	614.72	588.35	
MW-6S	11/15/22	10:42	20.93	605.99	585.06	
MW-6I	11/15/22	10:41	20.99	606.00	585.01	
MW-6D	11/15/22	10:44	19.79	604.85	585.06	
MW-7S	11/15/22	9:25	29.90	616.68	586.78	
MW-8S	11/15/22	9:21	28.34	616.67	588.33	WL Below Pump
MW-9S	11/15/22	11:37	29.98	617.52	587.54	WL Below Pump
MW-9I	11/15/22	9:15	29.66	617.06	587.40	
MW-9D	11/15/22	9:17	29.94	617.41	587.47	

MW-10S	11/15/22	11:41	30.18	613.70	583.52	WL Below Pump
MW-10I	11/15/22	11:43	29.89	613.68	583.79	
MW-10D	11/15/22	11:44	30.03	613.54	583.51	
MW-11S	11/15/22	9:37	41.07	627.29	586.22	WL Below Pump
MW-11I	11/15/22	9:35	41.26	627.52	586.26	
MW-11D	11/15/22	9:33	41.34	627.56	586.22	
MW-12S	11/15/22	10:48	NM	607.26		Atlas was sampling
MW-13S	11/15/22	12:21	22.33	606.03	583.70	
MW-13I	11/15/22	12:23	22.50	606.21	583.71	
MW-13D	11/15/22	12:24	22.22	605.86	583.64	



**WATER LEVEL MEASUREMENT FORM  
AES INDIANA EAGLE VALLEY STATION, MARTINSVILLE, IN**

Location	Date	Time	DTW, from top of Reference Point	Reference Point Elevation (ft MSL)	Groundwater Elevation (MSL)	Comments
MW-14S	11/15/22	12:28	23.58	607.39	583.81	
MW-14I	11/15/22	12:29	23.58	607.34	583.76	
MW-14D	11/15/22	12:31	23.63	607.33	583.70	
MW-15S	11/15/22	10:53	22.51	607.50	584.99	
MW-15I	11/15/22	10:51	22.43	607.61	585.18	
MW-15D	11/15/22	10:50	22.39	607.51	585.12	
MW-16S	11/15/22	10:19	21.97	609.54	587.57	
MW-16I	11/15/22	10:18	21.93	609.53	587.60	
MW-16D	11/15/22	10:16	21.96	609.60	587.64	
<b>OFF-SITE MONITORING WELLS</b>						
MW-17S	11/15/22	10:36	16.72	602.20	585.48	
MW-17I	11/15/22	10:34	17.19	602.69	585.50	
MW-17D	11/15/22	10:32	16.85	602.47	585.62	



MW-18S	11/15/22	12:49	20.62	606.13	585.51	
MW-18I	11/15/22	12:50	20.60	605.82	585.22	
MW-18D	11/15/22	12:52	20.69	606.19	585.50	
MW-19S	11/15/22	12:44	17.89	602.85	584.96	
MW-19I	11/15/22	12:45	17.77	602.69	584.92	
MW-19D	11/15/22	12:41	17.73	602.97	585.24	
MW-20S	11/15/22	13:30	29.88	615.00	585.12	
MW-20I	11/15/22	13:03	29.95	614.63	584.68	
MW-20D	11/15/22	13:32	30.47	615.10	584.63	
MW-21S	11/15/22	13:16	16.65	601.34	584.69	
MW-21I	11/15/22	13:17	16.61	601.38	584.77	
MW-21D	11/15/22	13:19	16.60	601.33	584.73	
MW-22S	11/15/22	13:07	18.72	608.49	589.77	
MW-22I	11/15/22	13:08	18.60	608.37	589.77	
MW-22D	11/15/22	13:06	18.68	608.44	589.76	
MW-23S	11/15/22	14:06	15.87	600.74	584.87	
MW-23I	11/15/22	14:08	15.82	600.64	584.82	
MW-23D	11/15/22	14:10	15.85	600.72	584.87	

**Flow Rate Calculations - November 2022**  
**AES Indiana Eagle Valley Generating Station**  
**Martinsville, Indiana**  
**Atlas Project No. 170LF01502**

EVS SHALLOW ZONE FIGURE 3		EAGLE VALLEY ASH POND SYSTEM	
11/15/2022	Flow Rate Line	FR1	FR2
$\Delta H$ (ft)	Potentiometric Surface Hydraulic Head Change	4	3
$\Delta L$ (ft)	Flow Line Length	610	2070
K (hydraulic conductivity (ft/day))	(2016 C/PC Plan)	407	407
$I$ ( $\Delta H/\Delta L$ )		0.0066	0.00145
$n_e$ (porosity, dimensionless)	(2016 C/PC Plan)	0.35	0.35
$v$ (ft/day)		7.7	1.7
EVS INTERMEDIATE ZONE FIGURE 4			
11/15/2022	Flow Rate Line	FR1	FR2
$\Delta H$ (ft)	Potentiometric Surface Hydraulic Head Change	4	3
$\Delta L$ (ft)	Flow Line Length	890	3130
K (hydraulic conductivity (ft/day))	(2016 C/PC Plan)	59	59
$I$ ( $\Delta H/\Delta L$ )		0.0045	0.00096
$n_e$ (porosity, dimensionless)	(2016 C/PC Plan)	0.35	0.35
$v$ (ft/day)		0.76	0.16
EVS DEEP ZONE FIGURE 5			
11/15/2022	Flow Rate Line	FR1	FR2
$\Delta H$ (ft)	Potentiometric Surface Hydraulic Head Change	4	3
$\Delta L$ (ft)	Flow Line Length	1000	2540
K (hydraulic conductivity (ft/day))	(2016 C/PC Plan)	72	72
$I$ ( $\Delta H/\Delta L$ )		0.004	0.00118
$n_e$ (porosity, dimensionless)	(2016 C/PC Plan)	0.35	0.35
$v$ (ft/day)		0.82	0.24

Notes

1 - Average linear velocity equation from Fetter, C.W., 1980, Applied Hydrogeology: Merrill Publishing Company, 592 p.

**Table A-2**  
**Gauging Summary**  
**April 14, 2023**  
**Eagle Valley Generating Station**  
**Atlas Project No. 170LF01502**

<b>Well</b>	<b>Date</b>	<b>Time</b>	<b>DTW, from top of Reference Point</b>	<b>Reference Point Elevation (ft MSL)</b>	<b>SWE, ft MSL</b>
MW-1S	4/14/2023	12:16	22.12	612.93	590.81
MW-1I	4/14/2023	12:14	21.52	612.31	590.79
MW-1D	4/14/2023	12:15	22.12	612.91	590.79
MW-2S	4/14/2023	11:31	17.30	608.45	591.15
MW-2I	4/14/2023	11:29	17.85	608.93	591.08
MW-2D	4/14/2023	11:30	17.61	608.72	591.11
MW-3S	4/14/2023	11:17	19.50	610.80	591.30
MW-3I	4/14/2023	11:21	19.57	610.76	591.19
MW-3D	4/14/2023	11:22	19.99	610.28	590.29
MW-4S	4/14/2023	11:15	18.17	609.94	591.77
MW-4I	4/14/2023	11:13	22.89	614.66	591.77
MW-4D	4/14/2023	11:11	23.00	614.72	591.72
MW-6S	4/14/2023	10:43	15.45	605.99	590.54
MW-6I	4/14/2023	10:42	15.47	606.00	590.53
MW-6D	4/14/2023	10:45	14.28	604.85	590.57
MW-7S	4/14/2023	10:35	25.57	616.68	591.11
MW-8S	4/14/2023	10:31	24.93	616.67	591.74
MW-9S	4/14/2023	10:27	26.17	617.52	591.35
MW-9I	4/14/2023	10:29	25.72	617.06	591.34
MW-9D	4/14/2023	10:30	26.05	617.41	591.36
MW-10S	4/14/2023	10:23	24.35	613.70	589.35
MW-10I	4/14/2023	10:21	24.20	613.68	589.48
MW-10D	4/14/2023	10:20	24.09	613.54	589.45
MW-11S	4/14/2023	11:02	36.40	627.29	590.89
MW-11I	4/14/2023	11:03	36.58	627.52	590.94
MW-11D	4/14/2023	11:04	36.60	627.56	590.96
MW-12S	4/14/2023	10:45	16.41	607.26	590.85
MW-12I	4/14/2023	10:44	16.20	607.36	591.16
MW-12D	4/14/2023	10:46	16.38	607.75	591.37
MW-13S	4/14/2023	13:34	16.00	606.03	590.03
MW-13I	4/14/2023	13:33	16.20	606.21	590.01
MW-13D	4/14/2023	13:32	15.92	605.86	589.94
MW-14S	4/14/2023	13:25	17.39	607.39	590.00
MW-14I	4/14/2023	13:26	17.39	607.34	589.95
MW-14D	4/14/2023	13:27	17.42	607.33	589.91
MW-15S	4/14/2023	10:52	16.90	607.50	590.60
MW-15I	4/14/2023	10:51	16.85	607.61	590.76
MW-15D	4/14/2023	10:53	16.77	607.51	590.74
MW-16S	4/14/2023	11:51	18.67	609.54	590.87
MW-16I	4/14/2023	11:50	18.64	609.53	590.89
MW-16D	4/14/2023	11:49	18.52	609.60	591.08
MW-17S	4/14/2023	12:52	13.57	602.20	588.63
MW-17I	4/14/2023	12:53	14.03	602.69	588.66
MW-17D	4/14/2023	12:55	13.73	602.47	588.74
MW-18S	4/14/2023	12:49	15.04	606.13	591.09
MW-18I	4/14/2023	12:47	15.02	605.82	590.80
MW-18D	4/14/2023	12:46	15.09	606.19	591.10
MW-19S	4/14/2023	13:44	11.89	602.85	590.96
MW-19I	4/14/2023	13:42	11.77	602.69	590.92
MW-19D	4/14/2023	13:40	11.69	602.67	590.98
MW-20S	4/14/2023	13:49	23.49	615.00	591.51
MW-20I	4/14/2023	13:50	23.07	614.63	591.56
MW-20D	4/14/2023	13:52	23.59	615.10	591.51
MW-21S	4/14/2023	14:15	13.41	601.34	587.93
MW-21I	4/14/2023	14:16	13.41	601.38	587.97
MW-21D	4/14/2023	14:17	13.44	601.33	587.89
MW-22S	4/14/2023	14:20	14.17	608.49	594.32
MW-22I	4/14/2023	14:22	14.04	608.37	594.33
MW-22D	4/14/2023	14:24	14.12	608.44	594.32
MW-23S	4/14/2023	13:58	9.51	600.74	591.23
MW-23I	4/14/2023	14:00	9.53	600.64	591.11
MW-23D	4/14/2023	14:01	9.54	600.72	591.18
MW-24S	4/14/2023	12:29	16.62	607.72	591.10
MW-24I	4/14/2023	12:28	16.71	607.54	590.83
MW-24D	4/14/2023	12:27	16.67	607.74	591.07
MW-25S	4/14/2023	12:05	13.02	602.88	589.86
MW-25I	4/14/2023	12:07	13.54	603.50	589.96
MW-25D	4/14/2023	12:09	13.56	603.37	589.81
MW-26S	4/14/2023	10:15	26.78	616.14	589.36
MW-26I	4/14/2023	10:17	26.81	616.33	589.52
MW-26D	4/14/2023	10:18	26.66	616.15	589.49
USGS Gage Station 03354000	4/14/2023	12:00	2.30	594.85	597.15

Notes:  
DTW = Depth to water  
SWE = Static Water Elevation  
ft MSL = feet above Mean Sea Level

**Flow Rate Calculations - April 2023**  
 AES Indiana Eagle Valley Generating Station  
 Martinsville, Indiana  
 Atlas Project No. 170LF01502

EVS SHALLOW ZONE FIGURE 6		EAGLE VALLEY ASH POND SYSTEM		
4/14/2023	Flow Rate Line	FR1	FR2	FR3
$\Delta H$ (ft)	Potentiometric Surface Hydraulic Head Change	1	1	3
$\Delta L$ (ft)	Flow Line Length	230	2050	1200
K (hydraulic conductivity (ft/day))	(2016 C/PC Plan)	407	407	407
$I$ ( $\Delta H/\Delta L$ )		0.0043	0.00049	0.0025
$n_e$ (porosity, dimensionless)	(2016 C/PC Plan)	0.35	0.35	1.35
$v$ (ft/day)		5.0	0.57	0.75
EVS INTERMEDIATE ZONE FIGURE 7				
4/14/2023	Flow Rate Line	FR1	FR2	FR3
$\Delta H$ (ft)	Potentiometric Surface Hydraulic Head Change	1	1	2
$\Delta L$ (ft)	Flow Line Length	250	1900	1020
K (hydraulic conductivity (ft/day))	(2016 C/PC Plan)	59	59	59
$I$ ( $\Delta H/\Delta L$ )		0.004	0.00053	0.00196
$n_e$ (porosity, dimensionless)	(2016 C/PC Plan)	0.35	0.35	1.35
$v$ (ft/day)		0.67	0.09	0.09
EVS DEEP ZONE FIGURE 8				
4/14/2023	Flow Rate Line	FR1	FR2	FR3
$\Delta H$ (ft)	Potentiometric Surface Hydraulic Head Change	1	1	3
$\Delta L$ (ft)	Flow Line Length	270	1590	1800
K (hydraulic conductivity (ft/day))	(2016 C/PC Plan)	72	72	72
$I$ ( $\Delta H/\Delta L$ )		0.0037	0.00063	0.00167
$n_e$ (porosity, dimensionless)	(2016 C/PC Plan)	0.35	0.35	1.35
$v$ (ft/day)		0.76	0.13	0.09

Notes

1 - Average linear velocity equation from Fetter, C.W., 1980, Applied Hydrogeology: Merrill Publishing Company, 592 p.

$$v = Q/n_e A^1 = Kl/n_e$$

**Table A-3**  
Gauging Summary  
October 2, 2023  
Eagle Valley Generating Station  
Atlas Project No. 170LF01502

Well	Date	Time	DTW, from top of Reference Point	Reference Point Elevation (ft MSL)	SWE, ft MSL
MW-1S	10/2/2023	12:00	Dry to pump (25.91)	612.93	<587.02
MW-1I	10/2/2023	12:00	25.62	612.31	586.69
MW-1D	10/2/2023	12:00	26.28	612.91	586.63
MW-2S	10/2/2023	12:30	20.96	608.45	587.49
MW-2I	10/2/2023	12:30	21.47	608.93	587.46
MW-2D	10/2/2023	12:30	21.25	608.72	587.47
MW-3S	10/2/2023	12:35	22.55	610.80	588.25
MW-3I	10/2/2023	12:35	22.82	610.76	587.94
MW-3D	10/2/2023	12:35	23.20	610.28	587.08
MW-4S	10/2/2023	12:40	Dry to pump (21.07)	609.94	<588.87
MW-4I	10/2/2023	12:40	26.23	614.66	588.43
MW-4D	10/2/2023	12:40	26.30	614.72	588.42
MW-6S	10/2/2023	12:55	Dry to pump (18.84)	605.99	<587.15
MW-6I	10/2/2023	12:55	21.45	606.00	584.55
MW-6D	10/2/2023	12:55	20.25	604.85	584.60
MW-7S	10/2/2023	13:10	30.10	616.68	586.58
MW-8S	10/2/2023	13:15	Dry to pump (26.30)	616.67	<590.37
MW-9S	10/2/2023	13:20	Dry to pump (29.01)	617.52	<588.51
MW-9I	10/2/2023	13:20	29.75	617.06	587.31
MW-9D	10/2/2023	13:20	30.10	617.41	587.31
MW-10S	10/2/2023	13:25	Dry to pump (27.89)	613.70	<585.81
MW-10I	10/2/2023	13:25	30.75	613.68	582.93
MW-10D	10/2/2023	13:25	30.59	613.54	582.95
MW-11S	10/2/2023	12:50	Dry to pump (40.33)	627.29	<586.96
MW-11I	10/2/2023	12:50	41.32	627.52	586.20
MW-11D	10/2/2023	12:50	41.34	627.56	586.22
MW-12S	10/2/2023	13:00	Dry to pump (20.49)	607.26	<586.77
MW-12I	10/2/2023	13:00	21.86	607.36	585.50
MW-12D	10/2/2023	13:00	22.04	607.75	585.71
MW-13S	10/2/2023	13:40	22.73	606.03	583.30
MW-13I	10/2/2023	13:40	22.92	606.21	583.29
MW-13D	10/2/2023	13:40	22.63	605.86	583.23
MW-14S	10/2/2023	13:35	24.17	607.39	583.22
MW-14I	10/2/2023	13:35	24.20	607.34	583.14
MW-14D	10/2/2023	13:35	24.19	607.33	583.14
MW-15S	10/2/2023	13:05	22.83	607.50	584.67
MW-15I	10/2/2023	13:05	22.78	607.61	584.83
MW-15D	10/2/2023	13:05	22.75	607.51	584.76
MW-16S	10/2/2023	12:05	21.92	609.54	587.62
MW-16I	10/2/2023	12:05	21.90	609.53	587.63
MW-16D	10/2/2023	12:05	21.94	609.60	587.66
MW-17S	10/2/2023	11:10	16.80	602.20	585.40
MW-17I	10/2/2023	11:10	17.05	602.69	585.64
MW-17D	10/2/2023	11:10	16.71	602.47	585.76
MW-18S	10/2/2023	11:17	20.76	606.13	585.37
MW-18I	10/2/2023	11:17	20.73	605.82	585.09
MW-18D	10/2/2023	11:17	20.80	606.19	585.39
MW-19S	10/2/2023	11:22	18.21	602.85	584.64
MW-19I	10/2/2023	11:22	18.05	602.69	584.64
MW-19D	10/2/2023	11:22	17.97	602.67	584.70
MW-20S	10/2/2023	11:05	29.87	615.00	585.13
MW-20I	10/2/2023	11:05	30.17	614.63	584.46
MW-20D	10/2/2023	11:05	30.70	615.10	584.40
MW-21S	10/2/2023	10:40	16.56	601.34	584.78
MW-21I	10/2/2023	10:40	16.55	601.38	584.83
MW-21D	10/2/2023	10:40	16.49	601.33	584.84
MW-22S	10/2/2023	10:45	18.70	608.49	589.79
MW-22I	10/2/2023	10:45	18.58	608.37	589.79
MW-22D	10/2/2023	10:45	18.67	608.44	589.77
MW-23S	10/2/2023	10:58	15.96	600.74	584.78
MW-23I	10/2/2023	10:58	15.93	600.64	584.71
MW-23D	10/2/2023	10:58	15.95	600.72	584.77
MW-24S	10/2/2023	12:10	18.95	607.72	588.77
MW-24I	10/2/2023	12:10	19.04	607.54	588.50

**Table A-3**  
 Gauging Summary  
 October 2, 2023  
 Eagle Valley Generating Station  
 Atlas Project No. 170LF01502

Well	Date	Time	DTW, from top of Reference Point	Reference Point Elevation (ft MSL)	SWE, ft MSL
MW-24D	10/2/2023	12:10	19.01	607.74	588.73
MW-25S	10/2/2023	11:40	15.75	602.88	587.13
MW-25I	10/2/2023	11:40	16.50	603.50	587.00
MW-25D	10/2/2023	11:40	16.55	603.37	586.82
MW-26S	10/2/2023	13:30	32.36	616.14	583.78
MW-26I	10/2/2023	13:30	32.45	616.33	583.88
MW-26D	10/2/2023	13:30	32.25	616.15	583.90
USGS Gage Station 03354000	10/2/2023	12:00	0.37	594.85	595.22

Notes:

DTW = Depth to water

SWE = Static Water Elevation

ft MSL = feet above Mean Sea Level

The depths to the top of the dedicated pumps for the wells gauged as dry on October 2, 2023 were re-measured on November 16, 2023, these depths were then utilized for the calculation of minimum ("< SWE") water levels.

**Flow Rate Calculations - October 2023**  
 AES Indiana Eagle Valley Generating Station  
 Martinsville, Indiana  
 Atlas Project No. 170LF01502

EVS SHALLOW ZONE FIGURE 9		EAGLE VALLEY ASH POND SYSTEM	
10/2/2023	Flow Rate Line	FR1	FR2
$\Delta H$ (ft)	Potentiometric Surface Hydraulic Head Change	3	3
$\Delta L$ (ft)	Flow Line Length	1840	2900
K (hydraulic conductivity (ft/day))	(2016 C/PC Plan)	407	407
$I$ ( $\Delta H/\Delta L$ )		0.0016	0.00103
$n_e$ (porosity, dimensionless)	(2016 C/PC Plan)	0.35	0.35
$v$ (ft/day)		1.9	1.2
EVS INTERMEDIATE ZONE FIGURE 10			
10/2/2023	Flow Rate Line	FR1	FR2
$\Delta H$ (ft)	Potentiometric Surface Hydraulic Head Change	5	5
$\Delta L$ (ft)	Flow Line Length	1610	4640
K (hydraulic conductivity (ft/day))	(2016 C/PC Plan)	59	59
$I$ ( $\Delta H/\Delta L$ )		0.0031	0.00108
$n_e$ (porosity, dimensionless)	(2016 C/PC Plan)	0.35	0.35
$v$ (ft/day)		0.52	0.18
EVS DEEP ZONE FIGURE 11			
10/2/2023	Flow Rate Line	FR1	FR2
$\Delta H$ (ft)	Potentiometric Surface Hydraulic Head Change	5	3
$\Delta L$ (ft)	Flow Line Length	1350	2100
K (hydraulic conductivity (ft/day))	(2016 C/PC Plan)	72	72
$I$ ( $\Delta H/\Delta L$ )		0.0037	0.00143
$n_e$ (porosity, dimensionless)	(2016 C/PC Plan)	0.35	0.35
$v$ (ft/day)		0.76	0.29

Notes

1 - Average linear velocity equation from Fetter, C.W., 1980, Applied Hydrogeology: Merrill Publishing Company, 592 p.

$$v = Q/n_e A^1 = KI/n_e$$

## **Appendix B: Laboratory Certificates of Analyses**



**November 2022**

March 06, 2023

Mr. Mark Breting  
ATC Group Services  
7988 Centerpoint Drive  
Suite 100  
Indianapolis, IN 46256

RE: Project: Eagle Valley Oct 2022 P1R4  
Pace Project No.: 50331216

Dear Mr. Breting:

Enclosed are the analytical results for sample(s) received by the laboratory on November 16, 2022. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

The test results provided in this final report were generated by each of the following laboratories within the Pace Network:

- Pace Analytical Services - Indianapolis
- Pace Analytical Services - Greensburg

If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Will Statz  
will.statz@pacelabs.com  
(317)228-3105  
Project Manager

Enclosures

cc: Mr. Robert Miller, Haley & Aldrich



## REPORT OF LABORATORY ANALYSIS

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## CERTIFICATIONS

Project: Eagle Valley Oct 2022 P1R4  
Pace Project No.: 50331216

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### **Pace Analytical Services Pennsylvania**

1638 Roseytown Rd Suites 2,3&4, Greensburg, PA 15601  
ANAB DOD-ELAP Rad Accreditation #: L2417  
Alabama Certification #: 41590  
Arizona Certification #: AZ0734  
Arkansas Certification  
California Certification #: 04222CA  
Colorado Certification #: PA01547  
Connecticut Certification #: PH-0694  
Delaware Certification  
EPA Region 4 DW Rad  
Florida/TNI Certification #: E87683  
Georgia Certification #: C040  
Florida: Cert E871149 SEKS WET  
Guam Certification  
Hawaii Certification  
Idaho Certification  
Illinois Certification  
Indiana Certification  
Iowa Certification #: 391  
Kansas/TNI Certification #: E-10358  
Kentucky Certification #: KY90133  
KY WW Permit #: KY0098221  
KY WW Permit #: KY0000221  
Louisiana DHH/TNI Certification #: LA180012  
Louisiana DEQ/TNI Certification #: 4086  
Maine Certification #: 2017020  
Maryland Certification #: 308  
Massachusetts Certification #: M-PA1457  
Michigan/PADEP Certification #: 9991

Missouri Certification #: 235  
Montana Certification #: Cert0082  
Nebraska Certification #: NE-OS-29-14  
Nevada Certification #: PA014572018-1  
New Hampshire/TNI Certification #: 297617  
New Jersey/TNI Certification #: PA051  
New Mexico Certification #: PA01457  
New York/TNI Certification #: 10888  
North Carolina Certification #: 42706  
North Dakota Certification #: R-190  
Ohio EPA Rad Approval: #41249  
Oregon/TNI Certification #: PA200002-010  
Pennsylvania/TNI Certification #: 65-00282  
Puerto Rico Certification #: PA01457  
Rhode Island Certification #: 65-00282  
South Dakota Certification  
Tennessee Certification #: 02867  
Texas/TNI Certification #: T104704188-17-3  
Utah/TNI Certification #: PA014572017-9  
USDA Soil Permit #: P330-17-00091  
Vermont Dept. of Health: ID# VT-0282  
Virgin Island/PADEP Certification  
Virginia/VELAP Certification #: 460198  
Washington Certification #: C868  
West Virginia DEP Certification #: 143  
West Virginia DHHR Certification #: 9964C  
Wisconsin Approve List for Rad  
Wyoming Certification #: 8TMS-L

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### **Pace Analytical Services Indianapolis**

7726 Moller Road, Indianapolis, IN 46268  
Illinois Accreditation #: 200074  
Indiana Drinking Water Laboratory #: C-49-06  
Kansas/TNI Certification #: E-10177  
Kentucky UST Agency Interest #: 80226  
Kentucky WW Laboratory ID #: 98019  
Michigan Drinking Water Laboratory #9050

Ohio VAP Certified Laboratory #: CL0065  
Oklahoma Laboratory #: 9204  
Texas Certification #: T104704355  
Wisconsin Laboratory #: 999788130  
USDA Foreign Soil Permit #: 525-23-13-23119  
USDA Compliance Agreement #: IN-SL-22-001

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## REPORT OF LABORATORY ANALYSIS

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## SAMPLE SUMMARY

Project: Eagle Valley Oct 2022 P1R4

Pace Project No.: 50331216

Lab ID	Sample ID	Matrix	Date Collected	Date Received
50331216001	MW-17S	Water	11/15/22 11:18	11/16/22 09:50
50331216002	MW-17I	Water	11/15/22 12:22	11/16/22 09:50
50331216003	MW-17D	Water	11/15/22 13:42	11/16/22 09:50
50331216004	DUP-5	Water	11/15/22 00:00	11/16/22 09:50

## REPORT OF LABORATORY ANALYSIS

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### SAMPLE ANALYTE COUNT

Project: Eagle Valley Oct 2022 P1R4

Pace Project No.: 50331216

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
50331216001	MW-17S	EPA 9056	RMR	3	PASI-I
		EPA 6010	RAM	12	PASI-I
		EPA 6010	JPK	2	PASI-I
		EPA 6020	DMT	3	PASI-I
		EPA 903.1	GDH	1	PASI-PA
		EPA 904.0	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
		SM 2320B	TAY	3	PASI-I
		SM 2540C	MTW	1	PASI-I
		SM 4500-H+B	TRK	1	PASI-I
		SM 4500-S2-D	BEP	1	PASI-I
		HACH 8146	ZM	1	PASI-I
		EPA 353.2	OAS	2	PASI-I
		EPA 365.1	MMS	1	PASI-I
		SM 5310C	MMS	1	PASI-I
		SM 5310C	ATS	1	PASI-I
		50331216002	MW-17I	EPA 9056	RMR
EPA 6010	RAM			12	PASI-I
EPA 6010	JPK			2	PASI-I
EPA 6020	DMT			3	PASI-I
EPA 903.1	GDH			1	PASI-PA
EPA 904.0	VAL			1	PASI-PA
Total Radium Calculation	JAL			1	PASI-PA
SM 2320B	TAY			3	PASI-I
SM 2540C	MTW			1	PASI-I
SM 4500-H+B	TRK			1	PASI-I
SM 4500-S2-D	BEP			1	PASI-I
HACH 8146	ZM			1	PASI-I
EPA 353.2	OAS			2	PASI-I
EPA 365.1	MMS			1	PASI-I
SM 5310C	MMS			1	PASI-I
SM 5310C	ATS			1	PASI-I
50331216003	MW-17D			EPA 9056	RMR
		EPA 6010	RAM	12	PASI-I
		EPA 6010	JPK	2	PASI-I
		EPA 6020	DMT	3	PASI-I
		EPA 903.1	GDH	1	PASI-PA

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### SAMPLE ANALYTE COUNT

Project: Eagle Valley Oct 2022 P1R4

Pace Project No.: 50331216

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
50331216004	DUP-5	EPA 904.0	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
		SM 2320B	TAY	3	PASI-I
		SM 2540C	MTW	1	PASI-I
		SM 4500-H+B	TRK	1	PASI-I
		SM 4500-S2-D	BEP	1	PASI-I
		HACH 8146	ZM	1	PASI-I
		EPA 353.2	OAS	2	PASI-I
		EPA 365.1	MMS	1	PASI-I
		SM 5310C	MMS	1	PASI-I
		SM 5310C	ATS	1	PASI-I
		EPA 9056	RMR	3	PASI-I
		EPA 6010	RAM	12	PASI-I
		EPA 6010	JPK	2	PASI-I
		EPA 6020	DMT	3	PASI-I
		EPA 903.1	GDH	1	PASI-PA
		EPA 904.0	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
		SM 2320B	TAY	3	PASI-I
		SM 2540C	MTW	1	PASI-I
		SM 4500-H+B	TRK	1	PASI-I
		SM 4500-S2-D	BEP	1	PASI-I
		HACH 8146	ZM	1	PASI-I
		EPA 353.2	OAS	2	PASI-I
		EPA 365.1	MMS	1	PASI-I
		SM 5310C	MMS	1	PASI-I
		SM 5310C	ATS	1	PASI-I

PASI-I = Pace Analytical Services - Indianapolis

PASI-PA = Pace Analytical Services - Greensburg

### REPORT OF LABORATORY ANALYSIS

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### SUMMARY OF DETECTION

Project: Eagle Valley Oct 2022 P1R4

Pace Project No.: 50331216

Lab Sample ID	Client Sample ID	Result	Units	Report Limit	Analyzed	Qualifiers
Method	Parameters					
<b>50331216001</b>	<b>MW-17S</b>					
EPA 9056	Chloride	36.3	mg/L	2.5	11/23/22 06:19	
EPA 9056	Fluoride	0.16	mg/L	0.10	11/23/22 06:02	
EPA 9056	Sulfate	27.1	mg/L	2.5	11/23/22 06:19	
EPA 6010	Barium	108	ug/L	10.0	12/02/22 10:42	
EPA 6010	Boron	306	ug/L	100	12/02/22 10:42	
EPA 6010	Calcium	97400	ug/L	1000	12/02/22 10:42	
EPA 6010	Magnesium	22400	ug/L	1000	12/02/22 10:42	
EPA 6010	Molybdenum	12.7	ug/L	10.0	12/02/22 10:42	
EPA 6010	Potassium	3180	ug/L	1000	12/02/22 10:42	
EPA 6010	Silica	11100	ug/L	450	12/02/22 10:42	N2
EPA 6010	Sodium	30200	ug/L	1000	12/02/22 10:42	
EPA 6010	Molybdenum, Dissolved	12.3	ug/L	10.0	12/02/22 01:58	
EPA 903.1	Radium-226	0.278 ± 0.427 (0.734)	pCi/L		12/11/22 13:58	
EPA 904.0	Radium-228	C:NA T:88% -0.335 ± 0.389 (0.959) C:70% T:88%	pCi/L		12/02/22 15:25	
Total Radium Calculation	Total Radium	0.278 ± 0.816 (1.69)	pCi/L		12/12/22 17:10	
SM 2320B	Alkalinity, Total as CaCO3	318	mg/L	10.0	11/21/22 15:31	
SM 2320B	Alkalinity,Bicarbonate (CaCO3)	318	mg/L	10.0	11/21/22 15:31	
SM 2540C	Total Dissolved Solids	415	mg/L	10.0	11/21/22 08:03	
SM 4500-H+B	pH at 25 Degrees C	7.4	Std. Units	0.10	11/19/22 15:30	H3
EPA 353.2	Nitrogen, Nitrate	2.0	mg/L	0.10	11/16/22 17:23	
SM 5310C	Total Organic Carbon	1.1	mg/L	1.0	12/09/22 21:04	
SM 5310C	Dissolved Organic Carbon	2.4	mg/L	1.0	12/06/22 20:45	
<b>50331216002</b>	<b>MW-17I</b>					
EPA 9056	Chloride	46.0	mg/L	2.5	11/23/22 07:25	
EPA 9056	Fluoride	0.12	mg/L	0.10	11/23/22 06:35	
EPA 9056	Sulfate	28.7	mg/L	2.5	11/23/22 07:25	
EPA 6010	Barium	52.5	ug/L	10.0	12/02/22 10:45	
EPA 6010	Boron	393	ug/L	100	12/02/22 10:45	
EPA 6010	Calcium	83400	ug/L	1000	12/02/22 10:45	
EPA 6010	Magnesium	21200	ug/L	1000	12/02/22 10:45	
EPA 6010	Potassium	2160	ug/L	1000	12/02/22 10:45	
EPA 6010	Silica	10200	ug/L	450	12/02/22 10:45	N2
EPA 6010	Sodium	30400	ug/L	1000	12/02/22 10:45	
EPA 903.1	Radium-226	0.0805 ± 0.184 (0.109) C:NA T:91%	pCi/L		12/11/22 14:18	

### REPORT OF LABORATORY ANALYSIS

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### SUMMARY OF DETECTION

Project: Eagle Valley Oct 2022 P1R4

Pace Project No.: 50331216

Lab Sample ID	Client Sample ID	Result	Units	Report Limit	Analyzed	Qualifiers
Method	Parameters					
<b>50331216002</b>	<b>MW-17I</b>					
EPA 904.0	Radium-228	0.153 ± 0.389 (0.867) C:71% T:91%	pCi/L		12/02/22 15:26	
Total Radium Calculation	Total Radium	0.234 ± 0.573 (0.976)	pCi/L		12/12/22 17:10	
SM 2320B	Alkalinity, Total as CaCO3	265	mg/L	10.0	11/21/22 15:31	
SM 2320B	Alkalinity,Bicarbonate (CaCO3)	265	mg/L	10.0	11/21/22 15:31	
SM 2540C	Total Dissolved Solids	388	mg/L	10.0	11/21/22 08:04	
SM 4500-H+B	pH at 25 Degrees C	7.5	Std. Units	0.10	11/19/22 15:32	H3
EPA 353.2	Nitrogen, Nitrate	1.6	mg/L	0.10	11/16/22 17:30	
EPA 365.1	Phosphate as P04	0.20	mg/L	0.15	11/20/22 16:59	
<b>50331216003</b>	<b>MW-17D</b>					
EPA 9056	Chloride	65.2	mg/L	2.5	11/23/22 07:58	
EPA 9056	Sulfate	132	mg/L	2.5	11/23/22 07:58	
EPA 6010	Barium	58.0	ug/L	10.0	12/02/22 10:48	
EPA 6010	Boron	3620	ug/L	100	12/02/22 10:48	
EPA 6010	Calcium	93600	ug/L	1000	12/02/22 10:48	
EPA 6010	Iron	4980	ug/L	100	12/02/22 10:48	
EPA 6010	Lithium	40.6	ug/L	20.0	12/02/22 10:48	
EPA 6010	Magnesium	25000	ug/L	1000	12/02/22 10:48	
EPA 6010	Manganese	481	ug/L	10.0	12/02/22 10:48	
EPA 6010	Molybdenum	35.2	ug/L	10.0	12/02/22 10:48	
EPA 6010	Potassium	3320	ug/L	1000	12/02/22 10:48	
EPA 6010	Silica	13200	ug/L	450	12/02/22 10:48	N2
EPA 6010	Sodium	65800	ug/L	1000	12/02/22 10:48	
EPA 6010	Manganese, Dissolved	307	ug/L	10.0	12/02/22 02:15	
EPA 6010	Molybdenum, Dissolved	34.6	ug/L	10.0	12/02/22 02:15	
EPA 6020	Arsenic	10.8	ug/L	1.0	11/20/22 11:51	
EPA 903.1	Radium-226	0.668 ± 0.404 (0.443) C:NA T:86%	pCi/L		12/11/22 14:18	
EPA 904.0	Radium-228	0.834 ± 0.433 (0.765) C:75% T:86%	pCi/L		12/02/22 15:26	
Total Radium Calculation	Total Radium	1.50 ± 0.837 (1.21)	pCi/L		12/12/22 17:10	
SM 2320B	Alkalinity, Total as CaCO3	245	mg/L	10.0	11/21/22 15:31	
SM 2320B	Alkalinity,Bicarbonate (CaCO3)	245	mg/L	10.0	11/21/22 15:31	
SM 2540C	Total Dissolved Solids	545	mg/L	10.0	11/21/22 08:04	
SM 4500-H+B	pH at 25 Degrees C	7.8	Std. Units	0.10	11/19/22 15:33	H3
<b>50331216004</b>	<b>DUP-5</b>					
EPA 9056	Chloride	62.0	mg/L	25.0	11/23/22 08:31	

### REPORT OF LABORATORY ANALYSIS

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### SUMMARY OF DETECTION

Project: Eagle Valley Oct 2022 P1R4

Pace Project No.: 50331216

Lab Sample ID	Client Sample ID	Result	Units	Report Limit	Analyzed	Qualifiers
Method	Parameters					
<b>50331216004</b>	<b>DUP-5</b>					
EPA 9056	Sulfate	138	mg/L	25.0	11/23/22 08:31	
EPA 6010	Barium	57.0	ug/L	10.0	12/02/22 10:51	
EPA 6010	Boron	3620	ug/L	100	12/02/22 10:51	
EPA 6010	Calcium	91200	ug/L	1000	12/02/22 10:51	
EPA 6010	Iron	5010	ug/L	100	12/02/22 10:51	
EPA 6010	Lithium	42.6	ug/L	20.0	12/02/22 10:51	
EPA 6010	Magnesium	24500	ug/L	1000	12/02/22 10:51	
EPA 6010	Manganese	492	ug/L	10.0	12/02/22 10:51	
EPA 6010	Molybdenum	35.2	ug/L	10.0	12/02/22 10:51	
EPA 6010	Potassium	3230	ug/L	1000	12/02/22 10:51	
EPA 6010	Silica	13200	ug/L	450	12/02/22 10:51	N2
EPA 6010	Sodium	66200	ug/L	1000	12/02/22 10:51	
EPA 6010	Manganese, Dissolved	309	ug/L	10.0	12/02/22 02:17	
EPA 6010	Molybdenum, Dissolved	35.0	ug/L	10.0	12/02/22 02:17	
EPA 6020	Arsenic	10.9	ug/L	1.0	11/20/22 12:01	
EPA 903.1	Radium-226	0.472 ± 0.396 (0.567)	pCi/L		12/11/22 14:18	
EPA 904.0	Radium-228	C:NA T:85% 0.701 ± 0.431 (0.808)	pCi/L		12/02/22 15:26	
		C:76% T:85%				
Total Radium Calculation	Total Radium	1.17 ± 0.827 (1.38)	pCi/L		12/12/22 17:10	
SM 2320B	Alkalinity, Total as CaCO3	247	mg/L	10.0	11/21/22 15:31	
SM 2320B	Alkalinity,Bicarbonate (CaCO3)	247	mg/L	10.0	11/21/22 15:31	
SM 2540C	Total Dissolved Solids	542	mg/L	10.0	11/21/22 08:04	
SM 4500-H+B	pH at 25 Degrees C	7.7	Std. Units	0.10	11/19/22 15:34	H3

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### ANALYTICAL RESULTS

Project: Eagle Valley Oct 2022 P1R4

Pace Project No.: 50331216

Sample: MW-17S		Lab ID: 50331216001		Collected: 11/15/22 11:18		Received: 11/16/22 09:50		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>9056 IC Anions</b>		Analytical Method: EPA 9056 Pace Analytical Services - Indianapolis							
Chloride	36.3	mg/L	2.5	0.67	10		11/23/22 06:19	16887-00-6	
Fluoride	0.16	mg/L	0.10	0.017	1		11/23/22 06:02	16984-48-8	
Sulfate	27.1	mg/L	2.5	0.85	10		11/23/22 06:19	14808-79-8	
<b>6010 MET ICP</b>		Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis							
Aluminum	ND	ug/L	200	54.4	1	11/30/22 09:17	12/02/22 10:42	7429-90-5	
Barium	108	ug/L	10.0	1.3	1	11/30/22 09:17	12/02/22 10:42	7440-39-3	
Boron	306	ug/L	100	61.4	1	11/30/22 09:17	12/02/22 10:42	7440-42-8	
Calcium	97400	ug/L	1000	88.4	1	11/30/22 09:17	12/02/22 10:42	7440-70-2	
Iron	ND	ug/L	100	48.8	1	11/30/22 09:17	12/02/22 10:42	7439-89-6	
Lithium	ND	ug/L	20.0	6.2	1	11/30/22 09:17	12/02/22 10:42	7439-93-2	
Magnesium	22400	ug/L	1000	43.0	1	11/30/22 09:17	12/02/22 10:42	7439-95-4	
Manganese	ND	ug/L	10.0	5.4	1	11/30/22 09:17	12/02/22 10:42	7439-96-5	
Molybdenum	12.7	ug/L	10.0	2.0	1	11/30/22 09:17	12/02/22 10:42	7439-98-7	
Potassium	3180	ug/L	1000	200	1	11/30/22 09:17	12/02/22 10:42	7440-09-7	
Silica	11100	ug/L	450		1	11/30/22 09:17	12/02/22 10:42	7631-86-9	N2
Sodium	30200	ug/L	1000	284	1	11/30/22 09:17	12/02/22 10:42	7440-23-5	
<b>6010 MET ICP, Dissolved</b>		Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis							
Manganese, Dissolved	ND	ug/L	10.0	2.5	1	11/30/22 09:17	12/02/22 01:58	7439-96-5	
Molybdenum, Dissolved	12.3	ug/L	10.0	3.7	1	11/30/22 09:17	12/02/22 01:58	7439-98-7	
<b>6020 MET ICPMS</b>		Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis							
Antimony	ND	ug/L	1.0	0.28	1	11/18/22 08:40	11/20/22 11:23	7440-36-0	
Arsenic	ND	ug/L	1.0	0.094	1	11/18/22 08:40	11/20/22 11:23	7440-38-2	
Selenium	ND	ug/L	1.0	0.57	1	11/18/22 08:40	11/20/22 11:23	7782-49-2	
<b>2320B Alkalinity</b>		Analytical Method: SM 2320B Pace Analytical Services - Indianapolis							
Alkalinity, Total as CaCO3	318	mg/L	10.0	10.0	1		11/21/22 15:31		
Alkalinity,Bicarbonate (CaCO3)	318	mg/L	10.0	10.0	1		11/21/22 15:31		
Alkalinity,Carbonate (CaCO3)	ND	mg/L	10.0	10.0	1		11/21/22 15:31		
<b>2540C Total Dissolved Solids</b>		Analytical Method: SM 2540C Pace Analytical Services - Indianapolis							
Total Dissolved Solids	415	mg/L	10.0	10.0	1		11/21/22 08:03		
<b>4500H+ pH, Electrometric</b>		Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis							
pH at 25 Degrees C	7.4	Std. Units	0.10	0.10	1		11/19/22 15:30		H3

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### ANALYTICAL RESULTS

Project: Eagle Valley Oct 2022 P1R4

Pace Project No.: 50331216

Sample: MW-17S		Lab ID: 50331216001		Collected: 11/15/22 11:18	Received: 11/16/22 09:50	Matrix: Water			
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>4500S2D Sulfide Water</b>		Analytical Method: SM 4500-S2-D Pace Analytical Services - Indianapolis							
Sulfide	ND	mg/L	0.10	0.025	1		11/19/22 11:59	18496-25-8	
<b>Iron, Ferrous</b>		Analytical Method: HACH 8146 Pace Analytical Services - Indianapolis							
Iron, Ferrous	ND	mg/L	0.20	0.096	1		11/16/22 21:43	15438-31-0	H3,N2
<b>353.2 Nitrogen, NO2/NO3 unpres</b>		Analytical Method: EPA 353.2 Pace Analytical Services - Indianapolis							
Nitrogen, Nitrate	2.0	mg/L	0.10	0.011	1		11/16/22 17:23	14797-55-8	
Nitrogen, Nitrite	ND	mg/L	0.10	0.0040	1		11/16/22 17:23	14797-65-0	
<b>365.1 Total Phosphorus</b>		Analytical Method: EPA 365.1 Preparation Method: EPA 365.1 Pace Analytical Services - Indianapolis							
Phosphate as P04	ND	mg/L	0.15	0.15	1	11/18/22 12:30	11/20/22 16:56		
<b>5310C TOC</b>		Analytical Method: SM 5310C Pace Analytical Services - Indianapolis							
Total Organic Carbon	1.1	mg/L	1.0	0.14	1		12/09/22 21:04	7440-44-0	
<b>5310C Dissolved Organic Carbon</b>		Analytical Method: SM 5310C Pace Analytical Services - Indianapolis							
Dissolved Organic Carbon	2.4	mg/L	1.0	0.14	1		12/06/22 20:45		

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## ANALYTICAL RESULTS

Project: Eagle Valley Oct 2022 P1R4

Pace Project No.: 50331216

Sample: MW-17I		Lab ID: 50331216002		Collected: 11/15/22 12:22	Received: 11/16/22 09:50	Matrix: Water				
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual	
<b>9056 IC Anions</b>		Analytical Method: EPA 9056 Pace Analytical Services - Indianapolis								
Chloride	46.0	mg/L	2.5	0.67	10		11/23/22 07:25	16887-00-6		
Fluoride	0.12	mg/L	0.10	0.017	1		11/23/22 06:35	16984-48-8		
Sulfate	28.7	mg/L	2.5	0.85	10		11/23/22 07:25	14808-79-8		
<b>6010 MET ICP</b>		Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Aluminum	ND	ug/L	200	54.4	1	11/30/22 09:17	12/02/22 10:45	7429-90-5		
Barium	52.5	ug/L	10.0	1.3	1	11/30/22 09:17	12/02/22 10:45	7440-39-3		
Boron	393	ug/L	100	61.4	1	11/30/22 09:17	12/02/22 10:45	7440-42-8		
Calcium	83400	ug/L	1000	88.4	1	11/30/22 09:17	12/02/22 10:45	7440-70-2		
Iron	ND	ug/L	100	48.8	1	11/30/22 09:17	12/02/22 10:45	7439-89-6		
Lithium	ND	ug/L	20.0	6.2	1	11/30/22 09:17	12/02/22 10:45	7439-93-2		
Magnesium	21200	ug/L	1000	43.0	1	11/30/22 09:17	12/02/22 10:45	7439-95-4		
Manganese	ND	ug/L	10.0	5.4	1	11/30/22 09:17	12/02/22 10:45	7439-96-5		
Molybdenum	ND	ug/L	10.0	2.0	1	11/30/22 09:17	12/02/22 10:45	7439-98-7		
Potassium	2160	ug/L	1000	200	1	11/30/22 09:17	12/02/22 10:45	7440-09-7		
Silica	10200	ug/L	450		1	11/30/22 09:17	12/02/22 10:45	7631-86-9	N2	
Sodium	30400	ug/L	1000	284	1	11/30/22 09:17	12/02/22 10:45	7440-23-5		
<b>6010 MET ICP, Dissolved</b>		Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Manganese, Dissolved	ND	ug/L	10.0	2.5	1	11/30/22 09:17	12/02/22 02:13	7439-96-5		
Molybdenum, Dissolved	ND	ug/L	10.0	3.7	1	11/30/22 09:17	12/02/22 02:13	7439-98-7		
<b>6020 MET ICPMS</b>		Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis								
Antimony	ND	ug/L	1.0	0.28	1	11/18/22 08:40	11/20/22 11:26	7440-36-0		
Arsenic	ND	ug/L	1.0	0.094	1	11/18/22 08:40	11/20/22 11:26	7440-38-2		
Selenium	ND	ug/L	1.0	0.57	1	11/18/22 08:40	11/20/22 11:26	7782-49-2		
<b>2320B Alkalinity</b>		Analytical Method: SM 2320B Pace Analytical Services - Indianapolis								
Alkalinity, Total as CaCO3	265	mg/L	10.0	10.0	1		11/21/22 15:31			
Alkalinity,Bicarbonate (CaCO3)	265	mg/L	10.0	10.0	1		11/21/22 15:31			
Alkalinity,Carbonate (CaCO3)	ND	mg/L	10.0	10.0	1		11/21/22 15:31			
<b>2540C Total Dissolved Solids</b>		Analytical Method: SM 2540C Pace Analytical Services - Indianapolis								
Total Dissolved Solids	388	mg/L	10.0	10.0	1		11/21/22 08:04			
<b>4500H+ pH, Electrometric</b>		Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis								
pH at 25 Degrees C	7.5	Std. Units	0.10	0.10	1		11/19/22 15:32		H3	

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### ANALYTICAL RESULTS

Project: Eagle Valley Oct 2022 P1R4

Pace Project No.: 50331216

Sample: MW-17I		Lab ID: 50331216002		Collected: 11/15/22 12:22	Received: 11/16/22 09:50	Matrix: Water			
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>4500S2D Sulfide Water</b>		Analytical Method: SM 4500-S2-D Pace Analytical Services - Indianapolis							
Sulfide	ND	mg/L	0.10	0.025	1		11/19/22 11:59	18496-25-8	
<b>Iron, Ferrous</b>		Analytical Method: HACH 8146 Pace Analytical Services - Indianapolis							
Iron, Ferrous	ND	mg/L	0.20	0.096	1		11/16/22 21:56	15438-31-0	H3,N2
<b>353.2 Nitrogen, NO2/NO3 unpres</b>		Analytical Method: EPA 353.2 Pace Analytical Services - Indianapolis							
Nitrogen, Nitrate	1.6	mg/L	0.10	0.011	1		11/16/22 17:30	14797-55-8	
Nitrogen, Nitrite	ND	mg/L	0.10	0.0040	1		11/16/22 17:30	14797-65-0	
<b>365.1 Total Phosphorus</b>		Analytical Method: EPA 365.1 Preparation Method: EPA 365.1 Pace Analytical Services - Indianapolis							
Phosphate as P04	0.20	mg/L	0.15	0.15	1	11/18/22 12:30	11/20/22 16:59		
<b>5310C TOC</b>		Analytical Method: SM 5310C Pace Analytical Services - Indianapolis							
Total Organic Carbon	ND	mg/L	1.0	0.14	1		12/09/22 21:14	7440-44-0	
<b>5310C Dissolved Organic Carbon</b>		Analytical Method: SM 5310C Pace Analytical Services - Indianapolis							
Dissolved Organic Carbon	ND	mg/L	1.0	0.14	1		12/06/22 20:55		

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### ANALYTICAL RESULTS

Project: Eagle Valley Oct 2022 P1R4

Pace Project No.: 50331216

Sample: MW-17D      Lab ID: 50331216003      Collected: 11/15/22 13:42      Received: 11/16/22 09:50      Matrix: Water									
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>9056 IC Anions</b>									
Analytical Method: EPA 9056 Pace Analytical Services - Indianapolis									
Chloride	65.2	mg/L	2.5	0.67	10		11/23/22 07:58	16887-00-6	
Fluoride	ND	mg/L	0.10	0.017	1		11/23/22 07:41	16984-48-8	
Sulfate	132	mg/L	2.5	0.85	10		11/23/22 07:58	14808-79-8	
<b>6010 MET ICP</b>									
Analytical Method: EPA 6010      Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis									
Aluminum	ND	ug/L	200	54.4	1	11/30/22 09:17	12/02/22 10:48	7429-90-5	
Barium	58.0	ug/L	10.0	1.3	1	11/30/22 09:17	12/02/22 10:48	7440-39-3	
Boron	3620	ug/L	100	61.4	1	11/30/22 09:17	12/02/22 10:48	7440-42-8	
Calcium	93600	ug/L	1000	88.4	1	11/30/22 09:17	12/02/22 10:48	7440-70-2	
Iron	4980	ug/L	100	48.8	1	11/30/22 09:17	12/02/22 10:48	7439-89-6	
Lithium	40.6	ug/L	20.0	6.2	1	11/30/22 09:17	12/02/22 10:48	7439-93-2	
Magnesium	25000	ug/L	1000	43.0	1	11/30/22 09:17	12/02/22 10:48	7439-95-4	
Manganese	481	ug/L	10.0	5.4	1	11/30/22 09:17	12/02/22 10:48	7439-96-5	
Molybdenum	35.2	ug/L	10.0	2.0	1	11/30/22 09:17	12/02/22 10:48	7439-98-7	
Potassium	3320	ug/L	1000	200	1	11/30/22 09:17	12/02/22 10:48	7440-09-7	
Silica	13200	ug/L	450		1	11/30/22 09:17	12/02/22 10:48	7631-86-9	N2
Sodium	65800	ug/L	1000	284	1	11/30/22 09:17	12/02/22 10:48	7440-23-5	
<b>6010 MET ICP, Dissolved</b>									
Analytical Method: EPA 6010      Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis									
Manganese, Dissolved	307	ug/L	10.0	2.5	1	11/30/22 09:17	12/02/22 02:15	7439-96-5	
Molybdenum, Dissolved	34.6	ug/L	10.0	3.7	1	11/30/22 09:17	12/02/22 02:15	7439-98-7	
<b>6020 MET ICPMS</b>									
Analytical Method: EPA 6020      Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis									
Antimony	ND	ug/L	1.0	0.28	1	11/18/22 08:40	11/20/22 11:51	7440-36-0	
Arsenic	10.8	ug/L	1.0	0.094	1	11/18/22 08:40	11/20/22 11:51	7440-38-2	
Selenium	ND	ug/L	1.0	0.57	1	11/18/22 08:40	11/20/22 11:51	7782-49-2	
<b>2320B Alkalinity</b>									
Analytical Method: SM 2320B Pace Analytical Services - Indianapolis									
Alkalinity, Total as CaCO3	245	mg/L	10.0	10.0	1		11/21/22 15:31		
Alkalinity,Bicarbonate (CaCO3)	245	mg/L	10.0	10.0	1		11/21/22 15:31		
Alkalinity,Carbonate (CaCO3)	ND	mg/L	10.0	10.0	1		11/21/22 15:31		
<b>2540C Total Dissolved Solids</b>									
Analytical Method: SM 2540C Pace Analytical Services - Indianapolis									
Total Dissolved Solids	545	mg/L	10.0	10.0	1		11/21/22 08:04		
<b>4500H+ pH, Electrometric</b>									
Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis									
pH at 25 Degrees C	7.8	Std. Units	0.10	0.10	1		11/19/22 15:33		H3

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### ANALYTICAL RESULTS

Project: Eagle Valley Oct 2022 P1R4

Pace Project No.: 50331216

Sample: MW-17D		Lab ID: 50331216003		Collected: 11/15/22 13:42	Received: 11/16/22 09:50	Matrix: Water				
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual	
<b>4500S2D Sulfide Water</b>		Analytical Method: SM 4500-S2-D Pace Analytical Services - Indianapolis								
Sulfide	ND	mg/L	0.10	0.025	1		11/19/22 11:59	18496-25-8		
<b>Iron, Ferrous</b>		Analytical Method: HACH 8146 Pace Analytical Services - Indianapolis								
Iron, Ferrous	ND	mg/L	0.20	0.096	1		11/16/22 21:58	15438-31-0	H3,N2	
<b>353.2 Nitrogen, NO2/NO3 unpres</b>		Analytical Method: EPA 353.2 Pace Analytical Services - Indianapolis								
Nitrogen, Nitrate	ND	mg/L	0.10	0.011	1		11/16/22 17:49	14797-55-8		
Nitrogen, Nitrite	ND	mg/L	0.10	0.0040	1		11/16/22 17:49	14797-65-0		
<b>365.1 Total Phosphorus</b>		Analytical Method: EPA 365.1 Preparation Method: EPA 365.1 Pace Analytical Services - Indianapolis								
Phosphate as P04	ND	mg/L	0.15	0.15	1	11/18/22 12:30	11/20/22 16:59			
<b>5310C TOC</b>		Analytical Method: SM 5310C Pace Analytical Services - Indianapolis								
Total Organic Carbon	ND	mg/L	1.0	0.14	1		12/09/22 21:24	7440-44-0		
<b>5310C Dissolved Organic Carbon</b>		Analytical Method: SM 5310C Pace Analytical Services - Indianapolis								
Dissolved Organic Carbon	ND	mg/L	1.0	0.14	1		12/06/22 21:05			

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## ANALYTICAL RESULTS

Project: Eagle Valley Oct 2022 P1R4

Pace Project No.: 50331216

Sample: DUP-5      Lab ID: 50331216004      Collected: 11/15/22 00:00      Received: 11/16/22 09:50      Matrix: Water									
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>9056 IC Anions</b>									
Analytical Method: EPA 9056 Pace Analytical Services - Indianapolis									
Chloride	62.0	mg/L	25.0	6.7	100		11/23/22 08:31	16887-00-6	
Fluoride	ND	mg/L	0.10	0.017	1		11/23/22 08:14	16984-48-8	
Sulfate	138	mg/L	25.0	8.5	100		11/23/22 08:31	14808-79-8	
<b>6010 MET ICP</b>									
Analytical Method: EPA 6010      Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis									
Aluminum	ND	ug/L	200	54.4	1	11/30/22 09:17	12/02/22 10:51	7429-90-5	
Barium	57.0	ug/L	10.0	1.3	1	11/30/22 09:17	12/02/22 10:51	7440-39-3	
Boron	3620	ug/L	100	61.4	1	11/30/22 09:17	12/02/22 10:51	7440-42-8	
Calcium	91200	ug/L	1000	88.4	1	11/30/22 09:17	12/02/22 10:51	7440-70-2	
Iron	5010	ug/L	100	48.8	1	11/30/22 09:17	12/02/22 10:51	7439-89-6	
Lithium	42.6	ug/L	20.0	6.2	1	11/30/22 09:17	12/02/22 10:51	7439-93-2	
Magnesium	24500	ug/L	1000	43.0	1	11/30/22 09:17	12/02/22 10:51	7439-95-4	
Manganese	492	ug/L	10.0	5.4	1	11/30/22 09:17	12/02/22 10:51	7439-96-5	
Molybdenum	35.2	ug/L	10.0	2.0	1	11/30/22 09:17	12/02/22 10:51	7439-98-7	
Potassium	3230	ug/L	1000	200	1	11/30/22 09:17	12/02/22 10:51	7440-09-7	
Silica	13200	ug/L	450		1	11/30/22 09:17	12/02/22 10:51	7631-86-9	N2
Sodium	66200	ug/L	1000	284	1	11/30/22 09:17	12/02/22 10:51	7440-23-5	
<b>6010 MET ICP, Dissolved</b>									
Analytical Method: EPA 6010      Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis									
Manganese, Dissolved	309	ug/L	10.0	2.5	1	11/30/22 09:17	12/02/22 02:17	7439-96-5	
Molybdenum, Dissolved	35.0	ug/L	10.0	3.7	1	11/30/22 09:17	12/02/22 02:17	7439-98-7	
<b>6020 MET ICPMS</b>									
Analytical Method: EPA 6020      Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis									
Antimony	ND	ug/L	1.0	0.28	1	11/18/22 08:40	11/20/22 12:01	7440-36-0	
Arsenic	10.9	ug/L	1.0	0.094	1	11/18/22 08:40	11/20/22 12:01	7440-38-2	
Selenium	ND	ug/L	1.0	0.57	1	11/18/22 08:40	11/20/22 12:01	7782-49-2	
<b>2320B Alkalinity</b>									
Analytical Method: SM 2320B Pace Analytical Services - Indianapolis									
Alkalinity, Total as CaCO3	247	mg/L	10.0	10.0	1		11/21/22 15:31		
Alkalinity,Bicarbonate (CaCO3)	247	mg/L	10.0	10.0	1		11/21/22 15:31		
Alkalinity,Carbonate (CaCO3)	ND	mg/L	10.0	10.0	1		11/21/22 15:31		
<b>2540C Total Dissolved Solids</b>									
Analytical Method: SM 2540C Pace Analytical Services - Indianapolis									
Total Dissolved Solids	542	mg/L	10.0	10.0	1		11/21/22 08:04		
<b>4500H+ pH, Electrometric</b>									
Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis									
pH at 25 Degrees C	7.7	Std. Units	0.10	0.10	1		11/19/22 15:34		H3

## REPORT OF LABORATORY ANALYSIS

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### ANALYTICAL RESULTS

Project: Eagle Valley Oct 2022 P1R4

Pace Project No.: 50331216

Sample: DUP-5		Lab ID: 50331216004		Collected: 11/15/22 00:00	Received: 11/16/22 09:50	Matrix: Water				
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual	
<b>4500S2D Sulfide Water</b>		Analytical Method: SM 4500-S2-D Pace Analytical Services - Indianapolis								
Sulfide	ND	mg/L	0.10	0.025	1		11/19/22 11:59	18496-25-8		
<b>Iron, Ferrous</b>		Analytical Method: HACH 8146 Pace Analytical Services - Indianapolis								
Iron, Ferrous	ND	mg/L	0.20	0.096	1		11/16/22 21:41	15438-31-0	H3,N2	
<b>353.2 Nitrogen, NO2/NO3 unpres</b>		Analytical Method: EPA 353.2 Pace Analytical Services - Indianapolis								
Nitrogen, Nitrate	ND	mg/L	0.10	0.011	1		11/16/22 17:15	14797-55-8		
Nitrogen, Nitrite	ND	mg/L	0.10	0.0040	1		11/16/22 17:15	14797-65-0		
<b>365.1 Total Phosphorus</b>		Analytical Method: EPA 365.1 Preparation Method: EPA 365.1 Pace Analytical Services - Indianapolis								
Phosphate as P04	ND	mg/L	0.15	0.15	1	11/18/22 12:30	11/20/22 17:01			
<b>5310C TOC</b>		Analytical Method: SM 5310C Pace Analytical Services - Indianapolis								
Total Organic Carbon	ND	mg/L	1.0	0.14	1		12/09/22 22:01	7440-44-0		
<b>5310C Dissolved Organic Carbon</b>		Analytical Method: SM 5310C Pace Analytical Services - Indianapolis								
Dissolved Organic Carbon	ND	mg/L	4.0	0.57	4		12/07/22 21:45		D3	

### REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL DATA

Project: Eagle Valley Oct 2022 P1R4

Pace Project No.: 50331216

QC Batch:	707360	Analysis Method:	EPA 9056
QC Batch Method:	EPA 9056	Analysis Description:	9056 IC Anions
		Laboratory:	Pace Analytical Services - Indianapolis

Associated Lab Samples: 50331216001, 50331216002, 50331216003, 50331216004

METHOD BLANK: 3252103 Matrix: Water  
Associated Lab Samples: 50331216001, 50331216002, 50331216003, 50331216004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chloride	mg/L	ND	0.25	0.067	11/23/22 02:11	
Fluoride	mg/L	ND	0.10	0.017	11/23/22 02:11	
Sulfate	mg/L	ND	0.25	0.085	11/23/22 02:11	

LABORATORY CONTROL SAMPLE: 3252104

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	1.2	1.2	97	80-120	
Fluoride	mg/L	0.5	0.49	98	80-120	
Sulfate	mg/L	2.5	2.6	102	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3252105 3252106

Parameter	Units	MS		MSD		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		50331250005	Result	Spike Conc.	Spike Conc.								
Chloride	mg/L	47.8	12.5	12.5	60.6	60.6	102	102	80-120	0	15		
Fluoride	mg/L	0.32	0.5	0.5	0.82	0.82	99	99	80-120	0	15		
Sulfate	mg/L	494	250	250	745	721	100	91	80-120	3	15		

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### QUALITY CONTROL DATA

Project: Eagle Valley Oct 2022 P1R4

Pace Project No.: 50331216

QC Batch: 707794 Analysis Method: EPA 6010  
 QC Batch Method: EPA 3010 Analysis Description: 6010 MET  
 Laboratory: Pace Analytical Services - Indianapolis

Associated Lab Samples: 50331216001, 50331216002, 50331216003, 50331216004

METHOD BLANK: 3253621 Matrix: Water

Associated Lab Samples: 50331216001, 50331216002, 50331216003, 50331216004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Aluminum	ug/L	ND	200	54.4	12/02/22 09:58	
Barium	ug/L	ND	10.0	1.3	12/02/22 09:58	
Boron	ug/L	ND	100	61.4	12/02/22 09:58	
Calcium	ug/L	ND	1000	88.4	12/02/22 09:58	
Iron	ug/L	ND	100	48.8	12/02/22 09:58	
Lithium	ug/L	ND	20.0	6.2	12/02/22 09:58	
Magnesium	ug/L	ND	1000	43.0	12/02/22 09:58	
Manganese	ug/L	ND	10.0	5.4	12/02/22 09:58	
Molybdenum	ug/L	ND	10.0	2.0	12/02/22 09:58	
Potassium	ug/L	ND	1000	200	12/02/22 09:58	
Silica	ug/L	ND	450		12/02/22 09:58	N2
Sodium	ug/L	ND	1000	284	12/02/22 09:58	

LABORATORY CONTROL SAMPLE: 3253622

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Aluminum	ug/L	10000	10700	107	80-120	
Barium	ug/L	1000	999	100	80-120	
Boron	ug/L	1000	1000	100	80-120	
Calcium	ug/L	10000	10400	104	80-120	
Iron	ug/L	10000	9860	99	80-120	
Lithium	ug/L	1000	1030	103	80-120	
Magnesium	ug/L	10000	10200	102	80-120	
Manganese	ug/L	1000	978	98	80-120	
Molybdenum	ug/L	1000	1030	103	80-120	
Potassium	ug/L	10000	10400	104	80-120	
Silica	ug/L	10700	10700	100	80-120	N2
Sodium	ug/L	10000	10300	103	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3253623 3253624

Parameter	Units	50331206001		3253624		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result						
Aluminum	ug/L	ND	10000	11500	11200	115	111	75-125	3	20	
Barium	ug/L	53.9	1000	1050	1020	99	97	75-125	2	20	
Boron	ug/L	21900	1000	22600	22300	67	36	75-125	1	20	P6
Calcium	ug/L	364000	10000	440000	457000	757	928	75-125	4	20	P6

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### QUALITY CONTROL DATA

Project: Eagle Valley Oct 2022 P1R4

Pace Project No.: 50331216

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3253623 3253624												
Parameter	Units	50331206001		MS	MSD	MS		MSD		% Rec Limits	Max RPD	Qual
		Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	% Rec	% Rec				
Iron	ug/L	5160	10000	10000	14500	14000	94	88	75-125	4	20	
Lithium	ug/L	53.6	1000	1000	1110	1090	106	104	75-125	2	20	
Magnesium	ug/L	55400	10000	10000	64200	61500	88	62	75-125	4	20	P6
Manganese	ug/L	483	1000	1000	1420	1370	93	88	75-125	4	20	
Molybdenum	ug/L	552	1000	1000	1570	1530	102	97	75-125	3	20	
Potassium	ug/L	15500	10000	10000	26100	25600	106	101	75-125	2	20	
Silica	ug/L	14000	10700	10700	24800	24400	101	97	75-125	2	20	N2
Sodium	ug/L	175000	10000	10000	182000	179000	72	36	75-125	2	20	P6

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### QUALITY CONTROL DATA

Project: Eagle Valley Oct 2022 P1R4

Pace Project No.: 50331216

QC Batch:	707783	Analysis Method:	EPA 6010
QC Batch Method:	EPA 3010	Analysis Description:	6010 MET Dissolved
		Laboratory:	Pace Analytical Services - Indianapolis

Associated Lab Samples: 50331216001, 50331216002, 50331216003, 50331216004

METHOD BLANK: 3253562 Matrix: Water

Associated Lab Samples: 50331216001, 50331216002, 50331216003, 50331216004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Manganese, Dissolved	ug/L	ND	10.0	2.5	12/02/22 01:56	
Molybdenum, Dissolved	ug/L	ND	10.0	3.7	12/02/22 01:56	

LABORATORY CONTROL SAMPLE: 3253563

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Manganese, Dissolved	ug/L	1000	1030	103	80-120	
Molybdenum, Dissolved	ug/L	1000	1090	109	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3253564 3253565

Parameter	Units	50331216001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Manganese, Dissolved	ug/L	ND	1000	1000	993	995	99	99	75-125	0	20	
Molybdenum, Dissolved	ug/L	12.3	1000	1000	1080	1090	107	107	75-125	0	20	

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### QUALITY CONTROL DATA

Project: Eagle Valley Oct 2022 P1R4

Pace Project No.: 50331216

QC Batch: 707012 Analysis Method: EPA 6020  
 QC Batch Method: EPA 200.2 Analysis Description: 6020 MET  
 Laboratory: Pace Analytical Services - Indianapolis  
 Associated Lab Samples: 50331216001, 50331216002, 50331216003, 50331216004

METHOD BLANK: 3250106 Matrix: Water  
 Associated Lab Samples: 50331216001, 50331216002, 50331216003, 50331216004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Antimony	ug/L	ND	1.0	0.28	11/20/22 10:51	
Arsenic	ug/L	ND	1.0	0.094	11/20/22 10:51	
Selenium	ug/L	ND	1.0	0.57	11/20/22 10:51	

LABORATORY CONTROL SAMPLE: 3250107

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Antimony	ug/L	40	42.5	106	80-120	
Arsenic	ug/L	40	38.9	97	80-120	
Selenium	ug/L	40	39.4	99	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3250108 3250109

Parameter	Units	50331216002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Antimony	ug/L	ND	40	40	42.6	42.1	106	105	75-125	1	20	
Arsenic	ug/L	ND	40	40	39.4	38.7	98	96	75-125	2	20	
Selenium	ug/L	ND	40	40	38.3	37.8	96	94	75-125	1	20	

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### QUALITY CONTROL DATA

Project: Eagle Valley Oct 2022 P1R4

Pace Project No.: 50331216

QC Batch: 707487 Analysis Method: SM 2320B  
 QC Batch Method: SM 2320B Analysis Description: 2320B Alkalinity  
 Laboratory: Pace Analytical Services - Indianapolis  
 Associated Lab Samples: 50331216001, 50331216002, 50331216003, 50331216004

METHOD BLANK: 3252569 Matrix: Water  
 Associated Lab Samples: 50331216001, 50331216002, 50331216003, 50331216004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Alkalinity, Total as CaCO3	mg/L	ND	10.0	10.0	11/21/22 15:31	
Alkalinity,Bicarbonate (CaCO3)	mg/L	ND	10.0	10.0	11/21/22 15:31	
Alkalinity,Carbonate (CaCO3)	mg/L	ND	10.0	10.0	11/21/22 15:31	

LABORATORY CONTROL SAMPLE: 3252570

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Alkalinity, Total as CaCO3	mg/L	50	47.4	95	90-110	

SAMPLE DUPLICATE: 3252571

Parameter	Units	50331216001 Result	Dup Result	RPD	Max RPD	Qualifiers
Alkalinity, Total as CaCO3	mg/L	318	322	1	20	
Alkalinity,Bicarbonate (CaCO3)	mg/L	318	322	1	20	
Alkalinity,Carbonate (CaCO3)	mg/L	ND	ND		20	

SAMPLE DUPLICATE: 3252572

Parameter	Units	50331240002 Result	Dup Result	RPD	Max RPD	Qualifiers
Alkalinity, Total as CaCO3	mg/L	233	238	2	20	
Alkalinity,Bicarbonate (CaCO3)	mg/L	233	238	2	20	
Alkalinity,Carbonate (CaCO3)	mg/L	ND	ND		20	

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**QUALITY CONTROL DATA**

Project: Eagle Valley Oct 2022 P1R4

Pace Project No.: 50331216

QC Batch:	707432	Analysis Method:	SM 2540C
QC Batch Method:	SM 2540C	Analysis Description:	2540C Total Dissolved Solids
		Laboratory:	Pace Analytical Services - Indianapolis

Associated Lab Samples: 50331216001, 50331216002, 50331216003, 50331216004

METHOD BLANK: 3252425 Matrix: Water  
Associated Lab Samples: 50331216001, 50331216002, 50331216003, 50331216004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	ND	10.0	10.0	11/21/22 08:00	

LABORATORY CONTROL SAMPLE: 3252426

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	300	292	97	80-120	

SAMPLE DUPLICATE: 3252428

Parameter	Units	50331240007 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	607	640	5	10	

SAMPLE DUPLICATE: 3252535

Parameter	Units	50331210001 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	9400	8520	10	10	

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### QUALITY CONTROL DATA

Project: Eagle Valley Oct 2022 P1R4

Pace Project No.: 50331216

QC Batch: 707363

Analysis Method: SM 4500-H+B

QC Batch Method: SM 4500-H+B

Analysis Description: 4500H+B pH

Laboratory: Pace Analytical Services - Indianapolis

Associated Lab Samples: 50331216001, 50331216002, 50331216003, 50331216004

SAMPLE DUPLICATE: 3252129

Parameter	Units	50331215001 Result	Dup Result	RPD	Max RPD	Qualifiers
pH at 25 Degrees C	Std. Units	7.1	7.1	0	2	H3

SAMPLE DUPLICATE: 3252130

Parameter	Units	50331243001 Result	Dup Result	RPD	Max RPD	Qualifiers
pH at 25 Degrees C	Std. Units	7.0	7.0	0	2	H3

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### QUALITY CONTROL DATA

Project: Eagle Valley Oct 2022 P1R4

Pace Project No.: 50331216

QC Batch:	707330	Analysis Method:	SM 4500-S2-D
QC Batch Method:	SM 4500-S2-D	Analysis Description:	4500S2D Sulfide Water
		Laboratory:	Pace Analytical Services - Indianapolis

Associated Lab Samples: 50331216001, 50331216002, 50331216003, 50331216004

METHOD BLANK: 3251882 Matrix: Water  
Associated Lab Samples: 50331216001, 50331216002, 50331216003, 50331216004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Sulfide	mg/L	ND	0.10	0.025	11/19/22 11:59	

LABORATORY CONTROL SAMPLE: 3251883

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Sulfide	mg/L	0.5	0.53	107	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3251884 3251885

Parameter	Units	50331185005 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Sulfide	mg/L	0.091J	0.5	0.5	0.63	0.62	108	105	90-110	2	20	

MATRIX SPIKE SAMPLE: 3251886

Parameter	Units	50331216001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Sulfide	mg/L	ND	0.5	0.52	104	90-110	

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### QUALITY CONTROL DATA

Project: Eagle Valley Oct 2022 P1R4

Pace Project No.: 50331216

QC Batch:	706811	Analysis Method:	HACH 8146
QC Batch Method:	HACH 8146	Analysis Description:	Iron, Ferrous
		Laboratory:	Pace Analytical Services - Indianapolis

Associated Lab Samples: 50331216001, 50331216002, 50331216003, 50331216004

METHOD BLANK: 3249214 Matrix: Water  
Associated Lab Samples: 50331216001, 50331216002, 50331216003, 50331216004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Iron, Ferrous	mg/L	ND	0.20	0.096	11/16/22 21:40	H3,N2

LABORATORY CONTROL SAMPLE: 3249215

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Iron, Ferrous	mg/L	1	0.97	97	90-110	H3,N2

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3249216 3249217

Parameter	Units	50331216001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Iron, Ferrous	mg/L	ND	1	1	0.94	0.99	94	99	90-110	4	20	H3,N2

MATRIX SPIKE SAMPLE: 3249218

Parameter	Units	50331240001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Iron, Ferrous	mg/L	ND	1	1.1	110	90-110	H3,N2

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### QUALITY CONTROL DATA

Project: Eagle Valley Oct 2022 P1R4

Pace Project No.: 50331216

QC Batch: 706785 Analysis Method: EPA 353.2  
 QC Batch Method: EPA 353.2 Analysis Description: 353.2 Nitrate + Nitrite, Unpres.  
 Laboratory: Pace Analytical Services - Indianapolis

Associated Lab Samples: 50331216001, 50331216002, 50331216003, 50331216004

METHOD BLANK: 3248903 Matrix: Water  
 Associated Lab Samples: 50331216001, 50331216002, 50331216003, 50331216004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Nitrogen, Nitrate	mg/L	ND	0.10	0.011	11/16/22 10:31	
Nitrogen, Nitrite	mg/L	ND	0.10	0.0040	11/16/22 10:31	

LABORATORY CONTROL SAMPLE: 3248904

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Nitrogen, Nitrate	mg/L	1	1.0	100	90-110	
Nitrogen, Nitrite	mg/L	1	1.0	103	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3248905 3248906

Parameter	Units	50331206002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Nitrogen, Nitrate	mg/L	ND	1	1	1.0	1.0	101	101	90-110	0	20	
Nitrogen, Nitrite	mg/L	ND	1	1	1.0	1.0	103	103	90-110	0	20	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3248907 3248908

Parameter	Units	50331254009 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Nitrogen, Nitrate	mg/L	ND	1	1	1.0	1.0	96	95	90-110	1	20	
Nitrogen, Nitrite	mg/L	ND	1	1	1.0	1.0	100	101	90-110	1	20	

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### QUALITY CONTROL DATA

Project: Eagle Valley Oct 2022 P1R4

Pace Project No.: 50331216

QC Batch:	707057	Analysis Method:	EPA 365.1
QC Batch Method:	EPA 365.1	Analysis Description:	365.1 Total Phosphorus
		Laboratory:	Pace Analytical Services - Indianapolis
Associated Lab Samples:	50331216001, 50331216002, 50331216003, 50331216004		

METHOD BLANK:	3250465	Matrix:	Water
Associated Lab Samples:	50331216001, 50331216002, 50331216003, 50331216004		

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Phosphate as P04	mg/L	ND	0.15	0.15	11/20/22 16:47	

LABORATORY CONTROL SAMPLE:	3250466					
Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Phosphate as P04	mg/L		1.4			

MATRIX SPIKE & MATRIX SPIKE DUPLICATE:	3250467			3250468								
Parameter	Units	50331216001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Phosphate as P04	mg/L	ND			1.4	1.3					3	

MATRIX SPIKE SAMPLE:	3250469										
Parameter	Units	50331240001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers				
Phosphate as P04	mg/L		0.20			1.7					

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### REPORT OF LABORATORY ANALYSIS

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**QUALITY CONTROL DATA**

Project: Eagle Valley Oct 2022 P1R4

Pace Project No.: 50331216

QC Batch:	709750	Analysis Method:	SM 5310C
QC Batch Method:	SM 5310C	Analysis Description:	5310C Total Organic Carbon
		Laboratory:	Pace Analytical Services - Indianapolis

Associated Lab Samples: 50331216001, 50331216002, 50331216003, 50331216004

METHOD BLANK: 3261536 Matrix: Water  
Associated Lab Samples: 50331216001, 50331216002, 50331216003, 50331216004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Organic Carbon	mg/L	ND	1.0	0.14	12/09/22 17:25	

LABORATORY CONTROL SAMPLE: 3261537

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Organic Carbon	mg/L	10	9.9	99	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3261538 3261539

Parameter	Units	50331092009 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Total Organic Carbon	mg/L	1.8	10	10	10.9	10.9	91	91	80-120	0	20	

MATRIX SPIKE SAMPLE: 3261540

Parameter	Units	50331092010 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Total Organic Carbon	mg/L	ND	10	9.7	81	80-120	

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**REPORT OF LABORATORY ANALYSIS**

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### QUALITY CONTROL DATA

Project: Eagle Valley Oct 2022 P1R4

Pace Project No.: 50331216

QC Batch: 708847

Analysis Method: SM 5310C

QC Batch Method: SM 5310C

Analysis Description: 5310C Dissolved Organic Carbon

Laboratory: Pace Analytical Services - Indianapolis

Associated Lab Samples: 50331216001, 50331216002, 50331216003, 50331216004

METHOD BLANK: 3257782

Matrix: Water

Associated Lab Samples: 50331216001, 50331216002, 50331216003, 50331216004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Dissolved Organic Carbon	mg/L	ND	1.0	0.14	12/06/22 16:51	

LABORATORY CONTROL SAMPLE: 3257783

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Dissolved Organic Carbon	mg/L	10	9.7	97	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3257784 3257785

Parameter	Units	50331185004 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Dissolved Organic Carbon	mg/L	10	10	10	19.5	19.5	95	96	80-120	0	20	

MATRIX SPIKE SAMPLE: 3257786

Parameter	Units	50331185005 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Dissolved Organic Carbon	mg/L	3.8	10	13.7	99	80-120	

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### REPORT OF LABORATORY ANALYSIS

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Eagle Valley Oct 2022 P1R4

Pace Project No.: 50331216

**Sample: MW-17S**      **Lab ID: 50331216001**      Collected: 11/15/22 11:18      Received: 11/16/22 09:50      Matrix: Water  
PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	<b>0.278 ± 0.427 (0.734)</b> <b>C:NA T:88%</b>	pCi/L	12/11/22 13:58	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	<b>-0.335 ± 0.389 (0.959)</b> <b>C:70% T:88%</b>	pCi/L	12/02/22 15:25	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	<b>0.278 ± 0.816 (1.69)</b>	pCi/L	12/12/22 17:10	7440-14-4	

### REPORT OF LABORATORY ANALYSIS

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Eagle Valley Oct 2022 P1R4

Pace Project No.: 50331216

**Sample: MW-171**      **Lab ID: 50331216002**      Collected: 11/15/22 12:22      Received: 11/16/22 09:50      Matrix: Water  
PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	<b>0.0805 ± 0.184 (0.109)</b> <b>C:NA T:91%</b>	pCi/L	12/11/22 14:18	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	<b>0.153 ± 0.389 (0.867)</b> <b>C:71% T:91%</b>	pCi/L	12/02/22 15:26	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	<b>0.234 ± 0.573 (0.976)</b>	pCi/L	12/12/22 17:10	7440-14-4	

### REPORT OF LABORATORY ANALYSIS

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Eagle Valley Oct 2022 P1R4

Pace Project No.: 50331216

**Sample: MW-17D**      **Lab ID: 50331216003**      Collected: 11/15/22 13:42      Received: 11/16/22 09:50      Matrix: Water  
PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	<b>0.668 ± 0.404 (0.443)</b> <b>C:NA T:86%</b>	pCi/L	12/11/22 14:18	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	<b>0.834 ± 0.433 (0.765)</b> <b>C:75% T:86%</b>	pCi/L	12/02/22 15:26	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	<b>1.50 ± 0.837 (1.21)</b>	pCi/L	12/12/22 17:10	7440-14-4	

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Eagle Valley Oct 2022 P1R4

Pace Project No.: 50331216

**Sample: DUP-5**      **Lab ID: 50331216004**      Collected: 11/15/22 00:00      Received: 11/16/22 09:50      Matrix: Water  
PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	<b>0.472 ± 0.396 (0.567)</b> <b>C:NA T:85%</b>	pCi/L	12/11/22 14:18	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	<b>0.701 ± 0.431 (0.808)</b> <b>C:76% T:85%</b>	pCi/L	12/02/22 15:26	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	<b>1.17 ± 0.827 (1.38)</b>	pCi/L	12/12/22 17:10	7440-14-4	

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### QUALITY CONTROL - RADIOCHEMISTRY

Project: Eagle Valley Oct 2022 P1R4

Pace Project No.: 50331216

QC Batch: 548536

Analysis Method: EPA 904.0

QC Batch Method: EPA 904.0

Analysis Description: 904.0 Radium 228

Laboratory: Pace Analytical Services - Greensburg

Associated Lab Samples: 50331216001, 50331216002, 50331216003, 50331216004

METHOD BLANK: 2664841

Matrix: Water

Associated Lab Samples: 50331216001, 50331216002, 50331216003, 50331216004

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.338 ± 0.303 (0.604) C:70% T:90%	pCi/L	12/02/22 15:20	

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### QUALITY CONTROL - RADIOCHEMISTRY

Project: Eagle Valley Oct 2022 P1R4

Pace Project No.: 50331216

QC Batch: 548535

Analysis Method: EPA 903.1

QC Batch Method: EPA 903.1

Analysis Description: 903.1 Radium-226

Laboratory: Pace Analytical Services - Greensburg

Associated Lab Samples: 50331216001, 50331216002, 50331216003, 50331216004

METHOD BLANK: 2664839

Matrix: Water

Associated Lab Samples: 50331216001, 50331216002, 50331216003, 50331216004

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.000 ± 0.211 (0.430) C:NA T:90%	pCi/L	12/11/22 13:58	

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### REPORT OF LABORATORY ANALYSIS

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## QUALIFIERS

Project: Eagle Valley Oct 2022 P1R4

Pace Project No.: 50331216

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### DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Reported results are not rounded until the final step prior to reporting. Therefore, calculated parameters that are typically reported as "Total" may vary slightly from the sum of the reported component parameters.

Act - Activity

Unc - Uncertainty: SDWA = 1.96 sigma count uncertainty, all other matrices = Expanded Uncertainty (95% confidence interval).

Gamma Spec = Expanded Uncertainty (95.4% Confidence Interval)

(MDC) - Minimum Detectable Concentration

Trac - Tracer Recovery (%)

Carr - Carrier Recovery (%)

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

### ANALYTE QUALIFIERS

D3 Sample was diluted due to the presence of high levels of non-target analytes or other matrix interference.

H3 Sample was received or analysis requested beyond the recognized method holding time.

N2 The lab does not hold NELAC/TNI accreditation for this parameter but other accreditations/certifications may apply. A complete list of accreditations/certifications is available upon request.

P6 Matrix spike recovery was outside laboratory control limits due to a parent sample concentration notably higher than the spike level.

## REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Eagle Valley Oct 2022 P1R4

Pace Project No.: 50331216

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
50331216001	MW-17S	EPA 9056	707360		
50331216002	MW-17I	EPA 9056	707360		
50331216003	MW-17D	EPA 9056	707360		
50331216004	DUP-5	EPA 9056	707360		
50331216001	MW-17S	EPA 3010	707794	EPA 6010	709217
50331216002	MW-17I	EPA 3010	707794	EPA 6010	709217
50331216003	MW-17D	EPA 3010	707794	EPA 6010	709217
50331216004	DUP-5	EPA 3010	707794	EPA 6010	709217
50331216001	MW-17S	EPA 3010	707783	EPA 6010	709154
50331216002	MW-17I	EPA 3010	707783	EPA 6010	709154
50331216003	MW-17D	EPA 3010	707783	EPA 6010	709154
50331216004	DUP-5	EPA 3010	707783	EPA 6010	709154
50331216001	MW-17S	EPA 200.2	707012	EPA 6020	707253
50331216002	MW-17I	EPA 200.2	707012	EPA 6020	707253
50331216003	MW-17D	EPA 200.2	707012	EPA 6020	707253
50331216004	DUP-5	EPA 200.2	707012	EPA 6020	707253
50331216001	MW-17S	EPA 903.1	548535		
50331216002	MW-17I	EPA 903.1	548535		
50331216003	MW-17D	EPA 903.1	548535		
50331216004	DUP-5	EPA 903.1	548535		
50331216001	MW-17S	EPA 904.0	548536		
50331216002	MW-17I	EPA 904.0	548536		
50331216003	MW-17D	EPA 904.0	548536		
50331216004	DUP-5	EPA 904.0	548536		
50331216001	MW-17S	Total Radium Calculation	553209		
50331216002	MW-17I	Total Radium Calculation	553209		
50331216003	MW-17D	Total Radium Calculation	553209		
50331216004	DUP-5	Total Radium Calculation	553209		
50331216001	MW-17S	SM 2320B	707487		
50331216002	MW-17I	SM 2320B	707487		
50331216003	MW-17D	SM 2320B	707487		
50331216004	DUP-5	SM 2320B	707487		
50331216001	MW-17S	SM 2540C	707432		
50331216002	MW-17I	SM 2540C	707432		
50331216003	MW-17D	SM 2540C	707432		
50331216004	DUP-5	SM 2540C	707432		
50331216001	MW-17S	SM 4500-H+B	707363		
50331216002	MW-17I	SM 4500-H+B	707363		
50331216003	MW-17D	SM 4500-H+B	707363		
50331216004	DUP-5	SM 4500-H+B	707363		
50331216001	MW-17S	SM 4500-S2-D	707330		
50331216002	MW-17I	SM 4500-S2-D	707330		
50331216003	MW-17D	SM 4500-S2-D	707330		
50331216004	DUP-5	SM 4500-S2-D	707330		

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### QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Eagle Valley Oct 2022 P1R4

Pace Project No.: 50331216

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
50331216001	MW-17S	HACH 8146	706811		
50331216002	MW-17I	HACH 8146	706811		
50331216003	MW-17D	HACH 8146	706811		
50331216004	DUP-5	HACH 8146	706811		
50331216001	MW-17S	EPA 353.2	706785		
50331216002	MW-17I	EPA 353.2	706785		
50331216003	MW-17D	EPA 353.2	706785		
50331216004	DUP-5	EPA 353.2	706785		
50331216001	MW-17S	EPA 365.1	707057	EPA 365.1	707397
50331216002	MW-17I	EPA 365.1	707057	EPA 365.1	707397
50331216003	MW-17D	EPA 365.1	707057	EPA 365.1	707397
50331216004	DUP-5	EPA 365.1	707057	EPA 365.1	707397
50331216001	MW-17S	SM 5310C	709750		
50331216002	MW-17I	SM 5310C	709750		
50331216003	MW-17D	SM 5310C	709750		
50331216004	DUP-5	SM 5310C	709750		
50331216001	MW-17S	SM 5310C	708847		
50331216002	MW-17I	SM 5310C	708847		
50331216003	MW-17D	SM 5310C	708847		
50331216004	DUP-5	SM 5310C	708847		

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**SAMPLE CONDITION UPON RECEIPT FORM**

Date/Time and Initials of person examining contents: BS 11-10-22 1105

1. Courier:  FED EX  UPS  CLIENT  PACE  USPS  OTHER \_\_\_\_\_

2. Custody Seal on Cooler/Box Present:  Yes  No  
 (If yes) Seals Intact:  Yes  No (leave blank if no seals were present)

3. Thermometer: **1 2 3 4 5 6 A B C D E F**

4. Cooler Temperature(s): 0.4/0.4 0.6/0.6 \_\_\_\_\_  
 (Initial/Corrected) RECORD TEMPS OF ALL COOLERS RECEIVED (use Comments below to add more)

5. Packing Material:  Bubble Wrap  Bubble Bags  
 None  Other \_\_\_\_\_

6. Ice Type:  Wet  Blue  None

7. If temp. is over 6°C or under 0°C, was the PM notified?:  Yes  No  
 Cooler temp should be above freezing to 6°C

All discrepancies will be written out in the comments section below.

	Yes	No		Yes	No	N/A
USDA Regulated Soils? (HI, ID, NY, WA, OR, CA, NM, TX, OK, AR, LA, TN, AL, MS, NC, SC, GA, FL, or Puerto Rico)		✓	All containers needing acid/base preservation have been pH CHECKED?: Exceptions: VOA, coliform, LLHg, O&G, RAD CHEM, and any container with a septum cap or preserved with HCl.			
Short Hold Time Analysis (48 hours or less)? Analysis: <u>Nitrate/Nitrite</u>	✓		Circle: <u>HNO3 (&lt;2)</u> <u>H2SO4 (&lt;2)</u> NaOH (>10) <u>NaOH/ZnAc (&gt;9)</u> Any non-conformance to pH recommendations will be noted on the container count form	✓		
Time 5035A TC placed in Freezer or Short Holds To Lab			Time: <u>1129</u>	<u>Present</u>	<u>Absent</u>	<u>N/A</u>
Rush TAT Requested (4 days or less):		✓	Residual Chlorine Check (SVOC 625 Pest/PCB 608)			✓
Custody Signatures Present?	✓		Residual Chlorine Check (Total/Amenable/Free Cyanide)			✓
Containers Intact?:	✓		Headspace Wisconsin Sulfide?			✓
Sample Label (IDs/Dates/Times) Match COC?: Except TCs, which only require sample ID	✓		Headspace in VOA Vials (>6mm): See Containter Count form for details	<u>Present</u>	<u>Absent</u>	No VOA Vials Sent
Extra labels on Terracore Vials? (soils only)			Trip Blank Present?		✓	
			Trip Blank Custody Seals?:			✓

COMMENTS:

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March 06, 2023

Mr. Mark Breting  
ATC Group Services  
7988 Centerpoint Drive  
Suite 100  
Indianapolis, IN 46256

RE: Project: Eagle Valley Oct 2022 P1R1  
Pace Project No.: 50331240

Dear Mr. Breting:

Enclosed are the analytical results for sample(s) received by the laboratory on November 16, 2022. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

The test results provided in this final report were generated by each of the following laboratories within the Pace Network:

- Pace Analytical Services - Indianapolis
- Pace Analytical Services - Greensburg

If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Will Statz  
will.statz@pacelabs.com  
(317)228-3105  
Project Manager

Enclosures

cc: Mr. Robert Miller, Haley & Aldrich



## REPORT OF LABORATORY ANALYSIS

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## CERTIFICATIONS

Project: Eagle Valley Oct 2022 P1R1

Pace Project No.: 50331240

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### **Pace Analytical Services Pennsylvania**

1638 Roseytown Rd Suites 2,3&4, Greensburg, PA 15601

ANAB DOD-ELAP Rad Accreditation #: L2417

Alabama Certification #: 41590

Arizona Certification #: AZ0734

Arkansas Certification

California Certification #: 04222CA

Colorado Certification #: PA01547

Connecticut Certification #: PH-0694

Delaware Certification

EPA Region 4 DW Rad

Florida/TNI Certification #: E87683

Georgia Certification #: C040

Florida: Cert E871149 SEKS WET

Guam Certification

Hawaii Certification

Idaho Certification

Illinois Certification

Indiana Certification

Iowa Certification #: 391

Kansas/TNI Certification #: E-10358

Kentucky Certification #: KY90133

KY WW Permit #: KY0098221

KY WW Permit #: KY0000221

Louisiana DHH/TNI Certification #: LA180012

Louisiana DEQ/TNI Certification #: 4086

Maine Certification #: 2017020

Maryland Certification #: 308

Massachusetts Certification #: M-PA1457

Michigan/PADEP Certification #: 9991

Missouri Certification #: 235

Montana Certification #: Cert0082

Nebraska Certification #: NE-OS-29-14

Nevada Certification #: PA014572018-1

New Hampshire/TNI Certification #: 297617

New Jersey/TNI Certification #: PA051

New Mexico Certification #: PA01457

New York/TNI Certification #: 10888

North Carolina Certification #: 42706

North Dakota Certification #: R-190

Ohio EPA Rad Approval: #41249

Oregon/TNI Certification #: PA200002-010

Pennsylvania/TNI Certification #: 65-00282

Puerto Rico Certification #: PA01457

Rhode Island Certification #: 65-00282

South Dakota Certification

Tennessee Certification #: 02867

Texas/TNI Certification #: T104704188-17-3

Utah/TNI Certification #: PA014572017-9

USDA Soil Permit #: P330-17-00091

Vermont Dept. of Health: ID# VT-0282

Virgin Island/PADEP Certification

Virginia/VELAP Certification #: 460198

Washington Certification #: C868

West Virginia DEP Certification #: 143

West Virginia DHHR Certification #: 9964C

Wisconsin Approve List for Rad

Wyoming Certification #: 8TMS-L

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### **Pace Analytical Services Indianapolis**

7726 Moller Road, Indianapolis, IN 46268

Illinois Accreditation #: 200074

Indiana Drinking Water Laboratory #: C-49-06

Kansas/TNI Certification #: E-10177

Kentucky UST Agency Interest #: 80226

Kentucky WW Laboratory ID #: 98019

Michigan Drinking Water Laboratory #9050

Ohio VAP Certified Laboratory #: CL0065

Oklahoma Laboratory #: 9204

Texas Certification #: T104704355

Wisconsin Laboratory #: 999788130

USDA Foreign Soil Permit #: 525-23-13-23119

USDA Compliance Agreement #: IN-SL-22-001

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## REPORT OF LABORATORY ANALYSIS

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## SAMPLE SUMMARY

Project: Eagle Valley Oct 2022 P1R1

Pace Project No.: 50331240

Lab ID	Sample ID	Matrix	Date Collected	Date Received
50331240001	MW-2S	Water	11/15/22 13:25	11/16/22 09:50
50331240002	MW-2I	Water	11/15/22 11:15	11/16/22 09:50
50331240003	MW-2D	Water	11/15/22 12:20	11/16/22 09:50
50331240004	MW-3I	Water	11/15/22 14:40	11/16/22 09:50
50331240005	MW-9D	Water	11/15/22 12:16	11/16/22 09:50
50331240006	MW-9I	Water	11/15/22 13:18	11/16/22 09:50
50331240007	MW-6I	Water	11/15/22 12:35	11/16/22 09:50
50331240008	MW-6D	Water	11/15/22 11:43	11/16/22 09:50
50331240009	MW-12S	Water	11/15/22 13:46	11/16/22 09:50

## REPORT OF LABORATORY ANALYSIS

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### SAMPLE ANALYTE COUNT

Project: Eagle Valley Oct 2022 P1R1

Pace Project No.: 50331240

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory		
50331240001	MW-2S	EPA 9056	RMR	3	PASI-I		
		EPA 6010	RAM	12	PASI-I		
		EPA 6010	JPK	2	PASI-I		
		EPA 6020	DMT	3	PASI-I		
		EPA 903.1	CLM	1	PASI-PA		
		EPA 904.0	JJS1	1	PASI-PA		
		Total Radium Calculation	JAL	1	PASI-PA		
		SM 2320B	TAY	3	PASI-I		
		SM 2540C	MTW	1	PASI-I		
		SM 4500-H+B	TRK	1	PASI-I		
		SM 4500-S2-D	BEP	1	PASI-I		
		HACH 8146	ZM	1	PASI-I		
		EPA 353.2	OAS	2	PASI-I		
		EPA 365.1	MMS	1	PASI-I		
		SM 5310C	MMS	1	PASI-I		
		SM 5310C	ATS	1	PASI-I		
		50331240002	MW-2I	EPA 9056	RMR	3	PASI-I
				EPA 6010	RAM	12	PASI-I
				EPA 6010	JPK	2	PASI-I
EPA 6020	DMT			3	PASI-I		
EPA 903.1	CLM			1	PASI-PA		
EPA 904.0	JJS1			1	PASI-PA		
Total Radium Calculation	JAL			1	PASI-PA		
SM 2320B	TAY			3	PASI-I		
SM 2540C	MTW			1	PASI-I		
SM 4500-H+B	TRK			1	PASI-I		
SM 4500-S2-D	BEP			1	PASI-I		
HACH 8146	ZM			1	PASI-I		
EPA 353.2	OAS			2	PASI-I		
EPA 365.1	MMS			1	PASI-I		
SM 5310C	MMS			1	PASI-I		
SM 5310C	ATS			1	PASI-I		
50331240003	MW-2D			EPA 9056	RMR	3	PASI-I
				EPA 6010	RAM	12	PASI-I
				EPA 6010	JPK	2	PASI-I
		EPA 6020	DMT	3	PASI-I		
		EPA 903.1	CLM	1	PASI-PA		

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### SAMPLE ANALYTE COUNT

Project: Eagle Valley Oct 2022 P1R1

Pace Project No.: 50331240

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
50331240004	MW-3I	EPA 904.0	JJS1	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
		SM 2320B	TAY	3	PASI-I
		SM 2540C	MTW	1	PASI-I
		SM 4500-H+B	TRK	1	PASI-I
		SM 4500-S2-D	BEP	1	PASI-I
		HACH 8146	ZM	1	PASI-I
		EPA 353.2	OAS	2	PASI-I
		EPA 365.1	MMS	1	PASI-I
		SM 5310C	MMS	1	PASI-I
		SM 5310C	ATS	1	PASI-I
		EPA 9056	RMR	3	PASI-I
		EPA 6010	RAM	12	PASI-I
		EPA 6010	JPK	2	PASI-I
		EPA 6020	DMT	3	PASI-I
		EPA 903.1	CLM	1	PASI-PA
		EPA 904.0	JJS1	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
		SM 2320B	TAY	3	PASI-I
		SM 2540C	MTW	1	PASI-I
		SM 4500-H+B	TRK	1	PASI-I
		SM 4500-S2-D	BEP	1	PASI-I
		HACH 8146	ZM	1	PASI-I
EPA 353.2	OAS	2	PASI-I		
EPA 365.1	MMS	1	PASI-I		
SM 5310C	MMS	1	PASI-I		
SM 5310C	ATS	1	PASI-I		
50331240005	MW-9D	EPA 9056	RMR	3	PASI-I
		EPA 6010	RAM	12	PASI-I
		EPA 6010	JPK	2	PASI-I
		EPA 6020	DMT	3	PASI-I
		EPA 903.1	CLM	1	PASI-PA
		EPA 904.0	JJS1	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
		SM 2320B	TAY	3	PASI-I
		SM 2540C	MTW	1	PASI-I
		SM 4500-H+B	TRK	1	PASI-I

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### SAMPLE ANALYTE COUNT

Project: Eagle Valley Oct 2022 P1R1

Pace Project No.: 50331240

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
50331240006	MW-9I	SM 4500-S2-D	BEP	1	PASI-I
		HACH 8146	ZM	1	PASI-I
		EPA 353.2	OAS	2	PASI-I
		EPA 365.1	MMS	1	PASI-I
		SM 5310C	MMS	1	PASI-I
		SM 5310C	ATS	1	PASI-I
		EPA 9056	RMR	3	PASI-I
		EPA 6010	RAM	12	PASI-I
		EPA 6010	JPK	2	PASI-I
		EPA 6020	DMT	3	PASI-I
		EPA 903.1	CLM	1	PASI-PA
		EPA 904.0	JJS1	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
		SM 2320B	TAY	3	PASI-I
		SM 2540C	MTW	1	PASI-I
		SM 4500-H+B	TRK	1	PASI-I
		SM 4500-S2-D	BEP	1	PASI-I
		HACH 8146	ZM	1	PASI-I
		EPA 353.2	OAS	2	PASI-I
		EPA 365.1	MMS	1	PASI-I
SM 5310C	MMS	1	PASI-I		
SM 5310C	ATS	1	PASI-I		
50331240007	MW-6I	EPA 9056	RMR	3	PASI-I
		EPA 6010	RAM	12	PASI-I
		EPA 6010	JPK	2	PASI-I
		EPA 6020	DMT	3	PASI-I
		EPA 903.1	CLM	1	PASI-PA
		EPA 904.0	JJS1	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
		SM 2320B	TAY	3	PASI-I
		SM 2540C	MTW	1	PASI-I
		SM 4500-H+B	TRK	1	PASI-I
		SM 4500-S2-D	BEP	1	PASI-I
		HACH 8146	ZM	1	PASI-I
		EPA 353.2	OAS	2	PASI-I
		EPA 365.1	MMS	1	PASI-I
		SM 5310C	MMS	1	PASI-I

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### SAMPLE ANALYTE COUNT

Project: Eagle Valley Oct 2022 P1R1

Pace Project No.: 50331240

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
50331240008	MW-6D	SM 5310C	ATS	1	PASI-I
		EPA 9056	RMR	3	PASI-I
		EPA 6010	RAM	12	PASI-I
		EPA 6010	JPK	2	PASI-I
		EPA 6020	DMT	3	PASI-I
		EPA 903.1	CLM	1	PASI-PA
		EPA 904.0	JJS1	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
		SM 2320B	TAY	3	PASI-I
		SM 2540C	MTW	1	PASI-I
		SM 4500-H+B	TRK	1	PASI-I
		SM 4500-S2-D	BEP	1	PASI-I
		HACH 8146	ZM	1	PASI-I
		EPA 353.2	OAS	2	PASI-I
		EPA 365.1	MMS	1	PASI-I
		SM 5310C	MMS	1	PASI-I
50331240009	MW-12S	SM 5310C	ATS	1	PASI-I
		EPA 9056	RMR	3	PASI-I
		EPA 6010	RAM	12	PASI-I
		EPA 6010	JPK	2	PASI-I
		EPA 6020	DMT	3	PASI-I
		EPA 903.1	CLM	1	PASI-PA
		EPA 904.0	JJS1	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
		SM 2320B	TAY	3	PASI-I
		SM 2540C	MTW	1	PASI-I
		SM 4500-H+B	TRK	1	PASI-I
		SM 4500-S2-D	BEP	1	PASI-I
		HACH 8146	ZM	1	PASI-I
		EPA 353.2	OAS	2	PASI-I
		EPA 365.1	MMS	1	PASI-I
		SM 5310C	MMS	1	PASI-I
SM 5310C	ATS	1	PASI-I		

PASI-I = Pace Analytical Services - Indianapolis

PASI-PA = Pace Analytical Services - Greensburg

### REPORT OF LABORATORY ANALYSIS

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### SUMMARY OF DETECTION

Project: Eagle Valley Oct 2022 P1R1

Pace Project No.: 50331240

Lab Sample ID	Client Sample ID	Result	Units	Report Limit	Analyzed	Qualifiers
Method	Parameters					
<b>50331240001</b>	<b>MW-2S</b>					
EPA 9056	Chloride	76.9	mg/L	25.0	11/23/22 09:04	
EPA 9056	Fluoride	0.14	mg/L	0.10	11/23/22 08:47	
EPA 9056	Sulfate	126	mg/L	25.0	11/23/22 09:04	
EPA 6010	Barium	97.4	ug/L	10.0	12/02/22 10:54	
EPA 6010	Boron	878	ug/L	100	12/02/22 10:54	
EPA 6010	Calcium	155000	ug/L	1000	12/02/22 10:54	
EPA 6010	Lithium	49.2	ug/L	20.0	12/02/22 10:54	
EPA 6010	Magnesium	34800	ug/L	1000	12/02/22 10:54	
EPA 6010	Manganese	40.1	ug/L	10.0	12/02/22 10:54	
EPA 6010	Potassium	7010	ug/L	1000	12/02/22 10:54	
EPA 6010	Silica	15900	ug/L	450	12/02/22 10:54	N2
EPA 6010	Sodium	74200	ug/L	1000	12/02/22 10:54	
EPA 6010	Manganese, Dissolved	23.2	ug/L	10.0	12/02/22 02:22	
EPA 6020	Arsenic	6.2	ug/L	1.0	11/20/22 12:05	
EPA 6020	Selenium	7.7	ug/L	1.0	11/20/22 12:05	
EPA 903.1	Radium-226	-0.285 ± 0.296 (0.752)	pCi/L		12/13/22 13:30	
EPA 904.0	Radium-228	C:NA T:88% 0.413 ± 0.325 (0.639)	pCi/L		12/08/22 11:32	
		C:77% T:88%				
Total Radium Calculation	Total Radium	0.413 ± 0.621 (1.39)	pCi/L		12/13/22 16:47	
SM 2320B	Alkalinity, Total as CaCO3	444	mg/L	10.0	11/21/22 15:31	
SM 2320B	Alkalinity, Bicarbonate (CaCO3)	444	mg/L	10.0	11/21/22 15:31	
SM 2540C	Total Dissolved Solids	770	mg/L	10.0	11/21/22 08:04	
SM 4500-H+B	pH at 25 Degrees C	9.0	Std. Units	0.10	11/19/22 15:45	H3
EPA 353.2	Nitrogen, Nitrate	1.1	mg/L	0.10	11/16/22 17:42	
EPA 365.1	Phosphate as P04	0.20	mg/L	0.15	11/20/22 17:02	
SM 5310C	Dissolved Organic Carbon	1.8	mg/L	1.0	12/07/22 13:06	
<b>50331240002</b>	<b>MW-2I</b>					
EPA 9056	Chloride	147	mg/L	25.0	12/01/22 11:43	
EPA 9056	Fluoride	0.24	mg/L	0.10	11/23/22 09:20	
EPA 9056	Sulfate	185	mg/L	2.5	11/23/22 09:37	
EPA 6010	Barium	109	ug/L	10.0	12/02/22 10:57	
EPA 6010	Boron	218	ug/L	100	12/02/22 10:57	
EPA 6010	Calcium	107000	ug/L	1000	12/02/22 10:57	
EPA 6010	Iron	297	ug/L	100	12/02/22 10:57	
EPA 6010	Lithium	52.3	ug/L	20.0	12/02/22 10:57	
EPA 6010	Magnesium	31300	ug/L	1000	12/02/22 10:57	
EPA 6010	Manganese	154	ug/L	10.0	12/02/22 10:57	
EPA 6010	Molybdenum	59.7	ug/L	10.0	12/02/22 10:57	
EPA 6010	Potassium	10500	ug/L	1000	12/02/22 10:57	
EPA 6010	Silica	12100	ug/L	450	12/02/22 10:57	N2
EPA 6010	Sodium	103000	ug/L	1000	12/02/22 10:57	

### REPORT OF LABORATORY ANALYSIS

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### SUMMARY OF DETECTION

Project: Eagle Valley Oct 2022 P1R1

Pace Project No.: 50331240

Lab Sample ID	Client Sample ID	Result	Units	Report Limit	Analyzed	Qualifiers
Method	Parameters					
<b>50331240002</b>	<b>MW-2I</b>					
EPA 6010	Manganese, Dissolved	161	ug/L	10.0	12/02/22 02:24	
EPA 6010	Molybdenum, Dissolved	63.6	ug/L	10.0	12/02/22 02:24	
EPA 903.1	Radium-226	0.788 ± 0.501 (0.646)	pCi/L		12/13/22 13:30	
EPA 904.0	Radium-228	C:NA T:86% 0.793 ± 0.398 (0.690)	pCi/L		12/08/22 11:32	
Total Radium Calculation	Total Radium	C:77% T:86% 1.58 ± 0.899 (1.34)	pCi/L		12/13/22 16:47	
SM 2320B	Alkalinity, Total as CaCO3	233	mg/L	10.0	11/21/22 15:31	
SM 2320B	Alkalinity,Bicarbonate (CaCO3)	233	mg/L	10.0	11/21/22 15:31	
SM 2540C	Total Dissolved Solids	764	mg/L	20.0	11/21/22 08:04	
SM 4500-H+B	pH at 25 Degrees C	6.8	Std. Units	0.10	11/19/22 15:46	H3
SM 5310C	Dissolved Organic Carbon	1.0	mg/L	1.0	12/07/22 13:33	
<b>50331240003</b>	<b>MW-2D</b>					
EPA 9056	Chloride	105	mg/L	25.0	11/23/22 10:42	
EPA 9056	Fluoride	0.28	mg/L	0.10	11/23/22 10:26	
EPA 9056	Sulfate	103	mg/L	25.0	11/23/22 10:42	
EPA 6010	Barium	74.0	ug/L	10.0	12/02/22 11:06	
EPA 6010	Boron	191	ug/L	100	12/02/22 11:06	
EPA 6010	Calcium	89200	ug/L	1000	12/02/22 11:06	
EPA 6010	Iron	1010	ug/L	100	12/02/22 11:06	
EPA 6010	Lithium	49.2	ug/L	20.0	12/02/22 11:06	
EPA 6010	Magnesium	20600	ug/L	1000	12/02/22 11:06	
EPA 6010	Manganese	223	ug/L	10.0	12/02/22 11:06	
EPA 6010	Molybdenum	52.9	ug/L	10.0	12/02/22 11:06	
EPA 6010	Potassium	8420	ug/L	1000	12/02/22 11:06	
EPA 6010	Silica	11200	ug/L	450	12/02/22 11:06	N2
EPA 6010	Sodium	71500	ug/L	1000	12/02/22 11:06	
EPA 6010	Manganese, Dissolved	229	ug/L	10.0	12/02/22 02:31	
EPA 6010	Molybdenum, Dissolved	55.4	ug/L	10.0	12/02/22 02:31	
EPA 6020	Arsenic	4.1	ug/L	1.0	11/20/22 12:12	
EPA 903.1	Radium-226	0.292 ± 0.449 (0.773)	pCi/L		12/13/22 13:30	
EPA 904.0	Radium-228	C:NA T:90% 0.533 ± 0.313 (0.564)	pCi/L		12/08/22 11:32	
Total Radium Calculation	Total Radium	C:80% T:90% 0.825 ± 0.762 (1.34)	pCi/L		12/13/22 16:47	
SM 2320B	Alkalinity, Total as CaCO3	234	mg/L	10.0	11/21/22 15:31	

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### SUMMARY OF DETECTION

Project: Eagle Valley Oct 2022 P1R1

Pace Project No.: 50331240

Lab Sample ID	Client Sample ID	Result	Units	Report Limit	Analyzed	Qualifiers
Method	Parameters					
<b>50331240003</b>	<b>MW-2D</b>					
SM 2320B	Alkalinity,Bicarbonate (CaCO3)	234	mg/L	10.0	11/21/22 15:31	
SM 2540C	Total Dissolved Solids	533	mg/L	10.0	11/21/22 08:04	
SM 4500-H+B	pH at 25 Degrees C	6.8	Std. Units	0.10	11/19/22 15:48	H3
SM 5310C	Total Organic Carbon	1.2	mg/L	1.0	12/10/22 19:14	
SM 5310C	Dissolved Organic Carbon	1.3	mg/L	1.0	12/07/22 13:44	
<b>50331240004</b>	<b>MW-3I</b>					
EPA 9056	Chloride	140	mg/L	25.0	11/23/22 11:32	
EPA 9056	Fluoride	0.28	mg/L	0.10	11/23/22 10:59	
EPA 9056	Sulfate	156	mg/L	2.5	11/23/22 11:16	
EPA 6010	Barium	84.5	ug/L	10.0	12/02/22 11:09	
EPA 6010	Boron	206	ug/L	100	12/02/22 11:09	
EPA 6010	Calcium	94100	ug/L	1000	12/02/22 11:09	
EPA 6010	Lithium	21.5	ug/L	20.0	12/02/22 11:09	
EPA 6010	Magnesium	29500	ug/L	1000	12/02/22 11:09	
EPA 6010	Manganese	43.5	ug/L	10.0	12/02/22 11:09	
EPA 6010	Molybdenum	56.0	ug/L	10.0	12/02/22 11:09	
EPA 6010	Potassium	5500	ug/L	1000	12/02/22 11:09	
EPA 6010	Silica	13000	ug/L	450	12/02/22 11:09	N2
EPA 6010	Sodium	112000	ug/L	1000	12/02/22 11:09	
EPA 6010	Manganese, Dissolved	43.4	ug/L	10.0	12/02/22 02:33	
EPA 6010	Molybdenum, Dissolved	56.7	ug/L	10.0	12/02/22 02:33	
EPA 903.1	Radium-226	0.506 ± 0.490 (0.760)	pCi/L		12/13/22 13:30	
EPA 904.0	Radium-228	0.658 ± 0.341 (0.583)	pCi/L		12/08/22 11:32	
		C:NA T:80%				
		0.831 (1.34)				
		C:84%				
		T:80%				
Total Radium Calculation	Total Radium	1.16 ± 0.831 (1.34)	pCi/L		12/13/22 16:47	
SM 2320B	Alkalinity, Total as CaCO3	235	mg/L	10.0	11/21/22 15:31	
SM 2320B	Alkalinity,Bicarbonate (CaCO3)	235	mg/L	10.0	11/21/22 15:31	
SM 2540C	Total Dissolved Solids	697	mg/L	10.0	11/21/22 08:05	
SM 4500-H+B	pH at 25 Degrees C	6.8	Std. Units	0.10	11/19/22 15:49	H3
SM 5310C	Total Organic Carbon	1.3	mg/L	1.0	12/10/22 19:25	
SM 5310C	Dissolved Organic Carbon	2.2	mg/L	1.0	12/04/22 22:54	
<b>50331240005</b>	<b>MW-9D</b>					
EPA 9056	Chloride	45.0	mg/L	25.0	11/23/22 12:05	
EPA 9056	Sulfate	41.3	mg/L	25.0	11/23/22 12:05	
EPA 6010	Barium	115	ug/L	10.0	12/02/22 11:11	
EPA 6010	Calcium	124000	ug/L	1000	12/02/22 11:11	
EPA 6010	Magnesium	32400	ug/L	1000	12/02/22 11:11	
EPA 6010	Manganese	226	ug/L	10.0	12/02/22 11:11	
EPA 6010	Potassium	2390	ug/L	1000	12/02/22 11:11	
EPA 6010	Silica	13800	ug/L	450	12/02/22 11:11	N2

### REPORT OF LABORATORY ANALYSIS

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### SUMMARY OF DETECTION

Project: Eagle Valley Oct 2022 P1R1

Pace Project No.: 50331240

Lab Sample ID	Client Sample ID	Result	Units	Report Limit	Analyzed	Qualifiers
Method	Parameters					
<b>50331240005</b>	<b>MW-9D</b>					
EPA 6010	Sodium	26900	ug/L	1000	12/02/22 11:11	
EPA 6010	Manganese, Dissolved	217	ug/L	10.0	12/02/22 02:36	
EPA 903.1	Radium-226	0.190 ± 0.437 (0.791)	pCi/L		12/13/22 13:30	
EPA 904.0	Radium-228	C:NA T:90% 0.564 ± 0.326 (0.592)	pCi/L		12/08/22 11:32	
		C:86% T:90%				
Total Radium Calculation	Total Radium	0.754 ± 0.763 (1.38)	pCi/L		12/13/22 16:47	
SM 2320B	Alkalinity, Total as CaCO3	398	mg/L	10.0	11/21/22 15:31	
SM 2320B	Alkalinity,Bicarbonate (CaCO3)	398	mg/L	10.0	11/21/22 15:31	
SM 2540C	Total Dissolved Solids	498	mg/L	10.0	11/21/22 08:05	
SM 4500-H+B	pH at 25 Degrees C	6.8	Std. Units	0.10	11/19/22 15:50	H3
EPA 353.2	Nitrogen, Nitrate	0.16	mg/L	0.10	11/16/22 17:27	
SM 5310C	Total Organic Carbon	1.0	mg/L	1.0	12/10/22 19:35	
SM 5310C	Dissolved Organic Carbon	1.9	mg/L	1.0	12/04/22 17:43	
<b>50331240006</b>	<b>MW-9I</b>					
EPA 9056	Chloride	129	mg/L	25.0	11/23/22 12:55	
EPA 9056	Fluoride	0.28	mg/L	0.10	11/23/22 12:22	
EPA 9056	Sulfate	226	mg/L	2.5	11/23/22 12:38	
EPA 6010	Barium	73.1	ug/L	10.0	12/02/22 11:14	
EPA 6010	Boron	532	ug/L	100	12/02/22 11:14	
EPA 6010	Calcium	109000	ug/L	1000	12/02/22 11:14	
EPA 6010	Lithium	20.6	ug/L	20.0	12/02/22 11:14	
EPA 6010	Magnesium	31500	ug/L	1000	12/02/22 11:14	
EPA 6010	Manganese	325	ug/L	10.0	12/02/22 11:14	
EPA 6010	Molybdenum	22.2	ug/L	10.0	12/02/22 11:14	
EPA 6010	Potassium	6310	ug/L	1000	12/02/22 11:14	
EPA 6010	Silica	9360	ug/L	450	12/02/22 11:14	N2
EPA 6010	Sodium	97900	ug/L	1000	12/02/22 11:14	
EPA 6010	Manganese, Dissolved	330	ug/L	10.0	12/02/22 02:38	
EPA 6010	Molybdenum, Dissolved	23.1	ug/L	10.0	12/02/22 02:38	
EPA 903.1	Radium-226	-0.155 ± 0.419 (0.902)	pCi/L		12/13/22 13:30	
EPA 904.0	Radium-228	C:NA T:79% 0.607 ± 0.358 (0.651)	pCi/L		12/08/22 11:32	
		C:84% T:79%				
Total Radium Calculation	Total Radium	0.607 ± 0.777 (1.55)	pCi/L		12/13/22 16:47	
SM 2320B	Alkalinity, Total as CaCO3	216	mg/L	10.0	11/21/22 15:31	

### REPORT OF LABORATORY ANALYSIS

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### SUMMARY OF DETECTION

Project: Eagle Valley Oct 2022 P1R1

Pace Project No.: 50331240

Lab Sample ID	Client Sample ID	Result	Units	Report Limit	Analyzed	Qualifiers
Method	Parameters					
<b>50331240006</b>	<b>MW-9I</b>					
SM 2320B	Alkalinity,Bicarbonate (CaCO3)	216	mg/L	10.0	11/21/22 15:31	
SM 2540C	Total Dissolved Solids	728	mg/L	10.0	11/21/22 08:05	
SM 4500-H+B	pH at 25 Degrees C	6.8	Std. Units	0.10	11/19/22 15:52	H3
SM 5310C	Total Organic Carbon	1.8	mg/L	1.0	12/10/22 19:47	
SM 5310C	Dissolved Organic Carbon	2.0	mg/L	1.0	12/04/22 18:17	
<b>50331240007</b>	<b>MW-6I</b>					
EPA 9056	Chloride	94.9	mg/L	2.5	11/23/22 14:21	
EPA 9056	Fluoride	0.29	mg/L	0.10	11/23/22 14:04	
EPA 9056	Sulfate	163	mg/L	2.5	11/23/22 14:21	
EPA 6010	Barium	67.1	ug/L	10.0	12/02/22 11:17	
EPA 6010	Boron	1830	ug/L	100	12/02/22 11:17	
EPA 6010	Calcium	102000	ug/L	1000	12/02/22 11:17	
EPA 6010	Lithium	104	ug/L	20.0	12/02/22 11:17	
EPA 6010	Magnesium	21400	ug/L	1000	12/02/22 11:17	
EPA 6010	Manganese	52.8	ug/L	10.0	12/02/22 11:17	
EPA 6010	Molybdenum	191	ug/L	10.0	12/02/22 11:17	
EPA 6010	Potassium	14800	ug/L	1000	12/02/22 11:17	
EPA 6010	Silica	10700	ug/L	450	12/02/22 11:17	N2
EPA 6010	Sodium	82000	ug/L	1000	12/02/22 11:17	
EPA 6010	Manganese, Dissolved	54.7	ug/L	10.0	12/02/22 02:40	
EPA 6010	Molybdenum, Dissolved	194	ug/L	10.0	12/02/22 02:40	
EPA 903.1	Radium-226	0.840 ± 0.476 (0.560)	pCi/L		12/13/22 13:30	
EPA 904.0	Radium-228	0.793 ± 0.334 (0.506)	pCi/L		12/08/22 11:32	
		C:82% T:92%				
Total Radium Calculation	Total Radium	1.63 ± 0.810 (1.07)	pCi/L		12/13/22 16:47	
SM 2320B	Alkalinity, Total as CaCO3	250	mg/L	10.0	11/21/22 15:31	
SM 2320B	Alkalinity,Bicarbonate (CaCO3)	250	mg/L	10.0	11/21/22 15:31	
SM 2540C	Total Dissolved Solids	607	mg/L	10.0	11/21/22 08:05	
SM 4500-H+B	pH at 25 Degrees C	6.8	Std. Units	0.10	11/19/22 15:53	H3
SM 5310C	Dissolved Organic Carbon	1.6	mg/L	1.0	12/04/22 18:29	
<b>50331240008</b>	<b>MW-6D</b>					
EPA 9056	Chloride	101	mg/L	2.5	11/23/22 14:54	
EPA 9056	Fluoride	0.18	mg/L	0.10	11/23/22 14:37	
EPA 9056	Sulfate	90.8	mg/L	2.5	11/23/22 14:54	
EPA 6010	Barium	63.1	ug/L	10.0	12/02/22 11:20	
EPA 6010	Boron	2730	ug/L	100	12/02/22 11:20	
EPA 6010	Calcium	78000	ug/L	1000	12/02/22 11:20	
EPA 6010	Iron	149	ug/L	100	12/02/22 11:20	
EPA 6010	Lithium	81.2	ug/L	20.0	12/02/22 11:20	
EPA 6010	Magnesium	15000	ug/L	1000	12/02/22 11:20	

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### SUMMARY OF DETECTION

Project: Eagle Valley Oct 2022 P1R1

Pace Project No.: 50331240

Lab Sample ID	Client Sample ID	Result	Units	Report Limit	Analyzed	Qualifiers
Method	Parameters					
<b>50331240008</b>	<b>MW-6D</b>					
EPA 6010	Manganese	342	ug/L	10.0	12/02/22 11:20	
EPA 6010	Molybdenum	210	ug/L	10.0	12/02/22 11:20	
EPA 6010	Potassium	6110	ug/L	1000	12/02/22 11:20	
EPA 6010	Silica	12300	ug/L	450	12/02/22 11:20	N2
EPA 6010	Sodium	87600	ug/L	1000	12/02/22 11:20	
EPA 6010	Manganese, Dissolved	295	ug/L	10.0	12/02/22 02:42	
EPA 6010	Molybdenum, Dissolved	208	ug/L	10.0	12/02/22 02:42	
EPA 903.1	Radium-226	0.416 ± 0.304 (0.340)	pCi/L		12/13/22 13:45	
EPA 904.0	Radium-228	C:NA T:89% 0.472 ± 0.291 (0.527)	pCi/L		12/08/22 11:33	
		C:80% T:89%				
Total Radium Calculation	Total Radium	0.888 ± 0.595 (0.867)	pCi/L		12/13/22 16:47	
SM 2320B	Alkalinity, Total as CaCO3	215	mg/L	10.0	11/21/22 15:31	
SM 2320B	Alkalinity,Bicarbonate (CaCO3)	215	mg/L	10.0	11/21/22 15:31	
SM 2540C	Total Dissolved Solids	462	mg/L	10.0	11/21/22 08:12	
SM 4500-H+B	pH at 25 Degrees C	6.9	Std. Units	0.10	11/19/22 15:54	H3
EPA 353.2	Nitrogen, Nitrate	0.22	mg/L	0.10	11/16/22 17:25	
SM 5310C	Dissolved Organic Carbon	1.1	mg/L	1.0	12/04/22 18:40	
<b>50331240009</b>	<b>MW-12S</b>					
EPA 9056	Chloride	43.4	mg/L	25.0	11/23/22 15:27	
EPA 9056	Fluoride	0.24	mg/L	0.10	11/23/22 15:10	
EPA 9056	Sulfate	214	mg/L	25.0	11/23/22 15:27	
EPA 6010	Barium	120	ug/L	10.0	12/02/22 11:23	
EPA 6010	Boron	13300	ug/L	100	12/02/22 11:23	
EPA 6010	Calcium	128000	ug/L	1000	12/02/22 11:23	
EPA 6010	Iron	380	ug/L	100	12/02/22 11:23	
EPA 6010	Lithium	138	ug/L	20.0	12/02/22 11:23	
EPA 6010	Magnesium	27000	ug/L	1000	12/02/22 11:23	
EPA 6010	Manganese	80.7	ug/L	10.0	12/02/22 11:23	
EPA 6010	Molybdenum	36.4	ug/L	10.0	12/02/22 11:23	
EPA 6010	Potassium	13600	ug/L	1000	12/02/22 11:23	
EPA 6010	Silica	13000	ug/L	450	12/02/22 11:23	N2
EPA 6010	Sodium	104000	ug/L	1000	12/02/22 11:23	
EPA 6010	Manganese, Dissolved	155	ug/L	10.0	12/02/22 02:45	
EPA 6010	Molybdenum, Dissolved	37.0	ug/L	10.0	12/02/22 02:45	
EPA 6020	Antimony	1.5	ug/L	1.0	11/20/22 12:40	
EPA 6020	Arsenic	1.5	ug/L	1.0	11/20/22 12:40	
EPA 6020	Selenium	32.4	ug/L	1.0	11/20/22 12:40	
EPA 903.1	Radium-226	0.219 ± 0.305 (0.509)	pCi/L		12/13/22 13:45	
		C:NA T:85%				

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### SUMMARY OF DETECTION

Project: Eagle Valley Oct 2022 P1R1

Pace Project No.: 50331240

Lab Sample ID Method	Client Sample ID Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
<b>50331240009</b>	<b>MW-12S</b>					
EPA 904.0	Radium-228	0.937 ± 0.391 (0.609) C:82% T:85%	pCi/L		12/08/22 11:33	
Total Radium Calculation	Total Radium	1.16 ± 0.696 (1.12)	pCi/L		12/13/22 16:47	
SM 2320B	Alkalinity, Total as CaCO <sub>3</sub>	371	mg/L	10.0	11/21/22 15:31	
SM 2320B	Alkalinity, Bicarbonate (CaCO <sub>3</sub> )	371	mg/L	10.0	11/21/22 15:31	
SM 2540C	Total Dissolved Solids	760	mg/L	20.0	11/21/22 08:13	
SM 4500-H+B	pH at 25 Degrees C	6.8	Std. Units	0.10	11/19/22 15:55	H3
EPA 353.2	Nitrogen, Nitrate	0.36	mg/L	0.10	11/16/22 17:53	

### REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: Eagle Valley Oct 2022 P1R1

Pace Project No.: 50331240

Sample: MW-2S		Lab ID: 50331240001		Collected: 11/15/22 13:25	Received: 11/16/22 09:50	Matrix: Water				
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual	
<b>9056 IC Anions</b>		Analytical Method: EPA 9056 Pace Analytical Services - Indianapolis								
Chloride	<b>76.9</b>	mg/L	25.0	6.7	100		11/23/22 09:04	16887-00-6		
Fluoride	<b>0.14</b>	mg/L	0.10	0.017	1		11/23/22 08:47	16984-48-8		
Sulfate	<b>126</b>	mg/L	25.0	8.5	100		11/23/22 09:04	14808-79-8		
<b>6010 MET ICP</b>		Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Aluminum	ND	ug/L	200	54.4	1	11/30/22 09:17	12/02/22 10:54	7429-90-5		
Barium	<b>97.4</b>	ug/L	10.0	1.3	1	11/30/22 09:17	12/02/22 10:54	7440-39-3		
Boron	<b>878</b>	ug/L	100	61.4	1	11/30/22 09:17	12/02/22 10:54	7440-42-8		
Calcium	<b>155000</b>	ug/L	1000	88.4	1	11/30/22 09:17	12/02/22 10:54	7440-70-2		
Iron	ND	ug/L	100	48.8	1	11/30/22 09:17	12/02/22 10:54	7439-89-6		
Lithium	<b>49.2</b>	ug/L	20.0	6.2	1	11/30/22 09:17	12/02/22 10:54	7439-93-2		
Magnesium	<b>34800</b>	ug/L	1000	43.0	1	11/30/22 09:17	12/02/22 10:54	7439-95-4		
Manganese	<b>40.1</b>	ug/L	10.0	5.4	1	11/30/22 09:17	12/02/22 10:54	7439-96-5		
Molybdenum	ND	ug/L	10.0	2.0	1	11/30/22 09:17	12/02/22 10:54	7439-98-7		
Potassium	<b>7010</b>	ug/L	1000	200	1	11/30/22 09:17	12/02/22 10:54	7440-09-7		
Silica	<b>15900</b>	ug/L	450		1	11/30/22 09:17	12/02/22 10:54	7631-86-9	N2	
Sodium	<b>74200</b>	ug/L	1000	284	1	11/30/22 09:17	12/02/22 10:54	7440-23-5		
<b>6010 MET ICP, Dissolved</b>		Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Manganese, Dissolved	<b>23.2</b>	ug/L	10.0	2.5	1	11/30/22 09:17	12/02/22 02:22	7439-96-5		
Molybdenum, Dissolved	ND	ug/L	10.0	3.7	1	11/30/22 09:17	12/02/22 02:22	7439-98-7		
<b>6020 MET ICPMS</b>		Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis								
Antimony	ND	ug/L	1.0	0.28	1	11/18/22 08:40	11/20/22 12:05	7440-36-0		
Arsenic	<b>6.2</b>	ug/L	1.0	0.094	1	11/18/22 08:40	11/20/22 12:05	7440-38-2		
Selenium	<b>7.7</b>	ug/L	1.0	0.57	1	11/18/22 08:40	11/20/22 12:05	7782-49-2		
<b>2320B Alkalinity</b>		Analytical Method: SM 2320B Pace Analytical Services - Indianapolis								
Alkalinity, Total as CaCO3	<b>444</b>	mg/L	10.0	10.0	1		11/21/22 15:31			
Alkalinity,Bicarbonate (CaCO3)	<b>444</b>	mg/L	10.0	10.0	1		11/21/22 15:31			
Alkalinity,Carbonate (CaCO3)	ND	mg/L	10.0	10.0	1		11/21/22 15:31			
<b>2540C Total Dissolved Solids</b>		Analytical Method: SM 2540C Pace Analytical Services - Indianapolis								
Total Dissolved Solids	<b>770</b>	mg/L	10.0	10.0	1		11/21/22 08:04			
<b>4500H+ pH, Electrometric</b>		Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis								
pH at 25 Degrees C	<b>9.0</b>	Std. Units	0.10	0.10	1		11/19/22 15:45		H3	

## REPORT OF LABORATORY ANALYSIS

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### ANALYTICAL RESULTS

Project: Eagle Valley Oct 2022 P1R1

Pace Project No.: 50331240

Sample: MW-2S		Lab ID: 50331240001		Collected: 11/15/22 13:25	Received: 11/16/22 09:50	Matrix: Water				
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual	
<b>4500S2D Sulfide Water</b>		Analytical Method: SM 4500-S2-D Pace Analytical Services - Indianapolis								
Sulfide	ND	mg/L	0.10	0.025	1		11/19/22 12:54	18496-25-8		
<b>Iron, Ferrous</b>		Analytical Method: HACH 8146 Pace Analytical Services - Indianapolis								
Iron, Ferrous	ND	mg/L	0.20	0.096	1		11/16/22 21:57	15438-31-0	H3,N2	
<b>353.2 Nitrogen, NO2/NO3 unpres</b>		Analytical Method: EPA 353.2 Pace Analytical Services - Indianapolis								
Nitrogen, Nitrate	1.1	mg/L	0.10	0.011	1		11/16/22 17:42	14797-55-8		
Nitrogen, Nitrite	ND	mg/L	0.10	0.0040	1		11/16/22 17:42	14797-65-0		
<b>365.1 Total Phosphorus</b>		Analytical Method: EPA 365.1 Preparation Method: EPA 365.1 Pace Analytical Services - Indianapolis								
Phosphate as P04	0.20	mg/L	0.15	0.15	1	11/18/22 12:30	11/20/22 17:02			
<b>5310C TOC</b>		Analytical Method: SM 5310C Pace Analytical Services - Indianapolis								
Total Organic Carbon	ND	mg/L	1.0	0.14	1		12/09/22 23:31	7440-44-0		
<b>5310C Dissolved Organic Carbon</b>		Analytical Method: SM 5310C Pace Analytical Services - Indianapolis								
Dissolved Organic Carbon	1.8	mg/L	1.0	0.14	1		12/07/22 13:06			

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## ANALYTICAL RESULTS

Project: Eagle Valley Oct 2022 P1R1

Pace Project No.: 50331240

Sample: MW-2I		Lab ID: 50331240002		Collected: 11/15/22 11:15		Received: 11/16/22 09:50		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>9056 IC Anions</b>		Analytical Method: EPA 9056 Pace Analytical Services - Indianapolis							
Chloride	147	mg/L	25.0	6.7	100		12/01/22 11:43	16887-00-6	
Fluoride	0.24	mg/L	0.10	0.017	1		11/23/22 09:20	16984-48-8	
Sulfate	185	mg/L	2.5	0.85	10		11/23/22 09:37	14808-79-8	
<b>6010 MET ICP</b>		Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis							
Aluminum	ND	ug/L	200	54.4	1	11/30/22 09:17	12/02/22 10:57	7429-90-5	
Barium	109	ug/L	10.0	1.3	1	11/30/22 09:17	12/02/22 10:57	7440-39-3	
Boron	218	ug/L	100	61.4	1	11/30/22 09:17	12/02/22 10:57	7440-42-8	
Calcium	107000	ug/L	1000	88.4	1	11/30/22 09:17	12/02/22 10:57	7440-70-2	
Iron	297	ug/L	100	48.8	1	11/30/22 09:17	12/02/22 10:57	7439-89-6	
Lithium	52.3	ug/L	20.0	6.2	1	11/30/22 09:17	12/02/22 10:57	7439-93-2	
Magnesium	31300	ug/L	1000	43.0	1	11/30/22 09:17	12/02/22 10:57	7439-95-4	
Manganese	154	ug/L	10.0	5.4	1	11/30/22 09:17	12/02/22 10:57	7439-96-5	
Molybdenum	59.7	ug/L	10.0	2.0	1	11/30/22 09:17	12/02/22 10:57	7439-98-7	
Potassium	10500	ug/L	1000	200	1	11/30/22 09:17	12/02/22 10:57	7440-09-7	
Silica	12100	ug/L	450		1	11/30/22 09:17	12/02/22 10:57	7631-86-9	N2
Sodium	103000	ug/L	1000	284	1	11/30/22 09:17	12/02/22 10:57	7440-23-5	
<b>6010 MET ICP, Dissolved</b>		Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis							
Manganese, Dissolved	161	ug/L	10.0	2.5	1	11/30/22 09:17	12/02/22 02:24	7439-96-5	
Molybdenum, Dissolved	63.6	ug/L	10.0	3.7	1	11/30/22 09:17	12/02/22 02:24	7439-98-7	
<b>6020 MET ICPMS</b>		Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis							
Antimony	ND	ug/L	1.0	0.28	1	11/18/22 08:40	11/20/22 12:08	7440-36-0	
Arsenic	ND	ug/L	1.0	0.094	1	11/18/22 08:40	11/20/22 12:08	7440-38-2	
Selenium	ND	ug/L	1.0	0.57	1	11/18/22 08:40	11/20/22 12:08	7782-49-2	
<b>2320B Alkalinity</b>		Analytical Method: SM 2320B Pace Analytical Services - Indianapolis							
Alkalinity, Total as CaCO3	233	mg/L	10.0	10.0	1		11/21/22 15:31		
Alkalinity,Bicarbonate (CaCO3)	233	mg/L	10.0	10.0	1		11/21/22 15:31		
Alkalinity,Carbonate (CaCO3)	ND	mg/L	10.0	10.0	1		11/21/22 15:31		
<b>2540C Total Dissolved Solids</b>		Analytical Method: SM 2540C Pace Analytical Services - Indianapolis							
Total Dissolved Solids	764	mg/L	20.0	20.0	1		11/21/22 08:04		
<b>4500H+ pH, Electrometric</b>		Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis							
pH at 25 Degrees C	6.8	Std. Units	0.10	0.10	1		11/19/22 15:46		H3

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### ANALYTICAL RESULTS

Project: Eagle Valley Oct 2022 P1R1

Pace Project No.: 50331240

Sample: MW-2I		Lab ID: 50331240002		Collected: 11/15/22 11:15	Received: 11/16/22 09:50	Matrix: Water			
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>4500S2D Sulfide Water</b>		Analytical Method: SM 4500-S2-D Pace Analytical Services - Indianapolis							
Sulfide	ND	mg/L	0.10	0.025	1		11/19/22 12:54	18496-25-8	
<b>Iron, Ferrous</b>		Analytical Method: HACH 8146 Pace Analytical Services - Indianapolis							
Iron, Ferrous	ND	mg/L	0.20	0.096	1		11/16/22 21:42	15438-31-0	H3,N2
<b>353.2 Nitrogen, NO2/NO3 unpres</b>		Analytical Method: EPA 353.2 Pace Analytical Services - Indianapolis							
Nitrogen, Nitrate	ND	mg/L	0.10	0.011	1		11/16/22 17:21	14797-55-8	
Nitrogen, Nitrite	ND	mg/L	0.10	0.0040	1		11/16/22 17:21	14797-65-0	
<b>365.1 Total Phosphorus</b>		Analytical Method: EPA 365.1 Preparation Method: EPA 365.1 Pace Analytical Services - Indianapolis							
Phosphate as P04	ND	mg/L	0.15	0.15	1	11/18/22 12:30	11/20/22 17:04		
<b>5310C TOC</b>		Analytical Method: SM 5310C Pace Analytical Services - Indianapolis							
Total Organic Carbon	ND	mg/L	4.0	0.57	4		12/11/22 00:55	7440-44-0	
<b>5310C Dissolved Organic Carbon</b>		Analytical Method: SM 5310C Pace Analytical Services - Indianapolis							
Dissolved Organic Carbon	1.0	mg/L	1.0	0.14	1		12/07/22 13:33		

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## ANALYTICAL RESULTS

Project: Eagle Valley Oct 2022 P1R1

Pace Project No.: 50331240

Sample: MW-2D		Lab ID: 50331240003		Collected: 11/15/22 12:20	Received: 11/16/22 09:50	Matrix: Water			
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>9056 IC Anions</b>		Analytical Method: EPA 9056 Pace Analytical Services - Indianapolis							
Chloride	105	mg/L	25.0	6.7	100		11/23/22 10:42	16887-00-6	
Fluoride	0.28	mg/L	0.10	0.017	1		11/23/22 10:26	16984-48-8	
Sulfate	103	mg/L	25.0	8.5	100		11/23/22 10:42	14808-79-8	
<b>6010 MET ICP</b>		Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis							
Aluminum	ND	ug/L	200	54.4	1	11/30/22 09:17	12/02/22 11:06	7429-90-5	
Barium	74.0	ug/L	10.0	1.3	1	11/30/22 09:17	12/02/22 11:06	7440-39-3	
Boron	191	ug/L	100	61.4	1	11/30/22 09:17	12/02/22 11:06	7440-42-8	
Calcium	89200	ug/L	1000	88.4	1	11/30/22 09:17	12/02/22 11:06	7440-70-2	
Iron	1010	ug/L	100	48.8	1	11/30/22 09:17	12/02/22 11:06	7439-89-6	
Lithium	49.2	ug/L	20.0	6.2	1	11/30/22 09:17	12/02/22 11:06	7439-93-2	
Magnesium	20600	ug/L	1000	43.0	1	11/30/22 09:17	12/02/22 11:06	7439-95-4	
Manganese	223	ug/L	10.0	5.4	1	11/30/22 09:17	12/02/22 11:06	7439-96-5	
Molybdenum	52.9	ug/L	10.0	2.0	1	11/30/22 09:17	12/02/22 11:06	7439-98-7	
Potassium	8420	ug/L	1000	200	1	11/30/22 09:17	12/02/22 11:06	7440-09-7	
Silica	11200	ug/L	450		1	11/30/22 09:17	12/02/22 11:06	7631-86-9	N2
Sodium	71500	ug/L	1000	284	1	11/30/22 09:17	12/02/22 11:06	7440-23-5	
<b>6010 MET ICP, Dissolved</b>		Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis							
Manganese, Dissolved	229	ug/L	10.0	2.5	1	11/30/22 09:17	12/02/22 02:31	7439-96-5	
Molybdenum, Dissolved	55.4	ug/L	10.0	3.7	1	11/30/22 09:17	12/02/22 02:31	7439-98-7	
<b>6020 MET ICPMS</b>		Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis							
Antimony	ND	ug/L	1.0	0.28	1	11/18/22 08:40	11/20/22 12:12	7440-36-0	
Arsenic	4.1	ug/L	1.0	0.094	1	11/18/22 08:40	11/20/22 12:12	7440-38-2	
Selenium	ND	ug/L	1.0	0.57	1	11/18/22 08:40	11/20/22 12:12	7782-49-2	
<b>2320B Alkalinity</b>		Analytical Method: SM 2320B Pace Analytical Services - Indianapolis							
Alkalinity, Total as CaCO3	234	mg/L	10.0	10.0	1		11/21/22 15:31		
Alkalinity,Bicarbonate (CaCO3)	234	mg/L	10.0	10.0	1		11/21/22 15:31		
Alkalinity,Carbonate (CaCO3)	ND	mg/L	10.0	10.0	1		11/21/22 15:31		
<b>2540C Total Dissolved Solids</b>		Analytical Method: SM 2540C Pace Analytical Services - Indianapolis							
Total Dissolved Solids	533	mg/L	10.0	10.0	1		11/21/22 08:04		
<b>4500H+ pH, Electrometric</b>		Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis							
pH at 25 Degrees C	6.8	Std. Units	0.10	0.10	1		11/19/22 15:48		H3

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### ANALYTICAL RESULTS

Project: Eagle Valley Oct 2022 P1R1

Pace Project No.: 50331240

Sample: MW-2D		Lab ID: 50331240003		Collected: 11/15/22 12:20	Received: 11/16/22 09:50	Matrix: Water			
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>4500S2D Sulfide Water</b>		Analytical Method: SM 4500-S2-D Pace Analytical Services - Indianapolis							
Sulfide	ND	mg/L	0.10	0.025	1		11/19/22 12:54	18496-25-8	
<b>Iron, Ferrous</b>		Analytical Method: HACH 8146 Pace Analytical Services - Indianapolis							
Iron, Ferrous	ND	mg/L	0.20	0.096	1		11/16/22 21:56	15438-31-0	H3,N2
<b>353.2 Nitrogen, NO2/NO3 unpres</b>		Analytical Method: EPA 353.2 Pace Analytical Services - Indianapolis							
Nitrogen, Nitrate	ND	mg/L	0.10	0.011	1		11/16/22 17:29	14797-55-8	
Nitrogen, Nitrite	ND	mg/L	0.10	0.0040	1		11/16/22 17:29	14797-65-0	
<b>365.1 Total Phosphorus</b>		Analytical Method: EPA 365.1 Preparation Method: EPA 365.1 Pace Analytical Services - Indianapolis							
Phosphate as P04	ND	mg/L	0.15	0.15	1	11/18/22 12:30	11/20/22 17:06		
<b>5310C TOC</b>		Analytical Method: SM 5310C Pace Analytical Services - Indianapolis							
Total Organic Carbon	1.2	mg/L	1.0	0.14	1		12/10/22 19:14	7440-44-0	
<b>5310C Dissolved Organic Carbon</b>		Analytical Method: SM 5310C Pace Analytical Services - Indianapolis							
Dissolved Organic Carbon	1.3	mg/L	1.0	0.14	1		12/07/22 13:44		

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### ANALYTICAL RESULTS

Project: Eagle Valley Oct 2022 P1R1

Pace Project No.: 50331240

Sample: MW-31      Lab ID: 50331240004      Collected: 11/15/22 14:40      Received: 11/16/22 09:50      Matrix: Water									
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>9056 IC Anions</b>									
Analytical Method: EPA 9056 Pace Analytical Services - Indianapolis									
Chloride	140	mg/L	25.0	6.7	100		11/23/22 11:32	16887-00-6	
Fluoride	0.28	mg/L	0.10	0.017	1		11/23/22 10:59	16984-48-8	
Sulfate	156	mg/L	2.5	0.85	10		11/23/22 11:16	14808-79-8	
<b>6010 MET ICP</b>									
Analytical Method: EPA 6010      Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis									
Aluminum	ND	ug/L	200	54.4	1	11/30/22 09:17	12/02/22 11:09	7429-90-5	
Barium	84.5	ug/L	10.0	1.3	1	11/30/22 09:17	12/02/22 11:09	7440-39-3	
Boron	206	ug/L	100	61.4	1	11/30/22 09:17	12/02/22 11:09	7440-42-8	
Calcium	94100	ug/L	1000	88.4	1	11/30/22 09:17	12/02/22 11:09	7440-70-2	
Iron	ND	ug/L	100	48.8	1	11/30/22 09:17	12/02/22 11:09	7439-89-6	
Lithium	21.5	ug/L	20.0	6.2	1	11/30/22 09:17	12/02/22 11:09	7439-93-2	
Magnesium	29500	ug/L	1000	43.0	1	11/30/22 09:17	12/02/22 11:09	7439-95-4	
Manganese	43.5	ug/L	10.0	5.4	1	11/30/22 09:17	12/02/22 11:09	7439-96-5	
Molybdenum	56.0	ug/L	10.0	2.0	1	11/30/22 09:17	12/02/22 11:09	7439-98-7	
Potassium	5500	ug/L	1000	200	1	11/30/22 09:17	12/02/22 11:09	7440-09-7	
Silica	13000	ug/L	450		1	11/30/22 09:17	12/02/22 11:09	7631-86-9	N2
Sodium	112000	ug/L	1000	284	1	11/30/22 09:17	12/02/22 11:09	7440-23-5	
<b>6010 MET ICP, Dissolved</b>									
Analytical Method: EPA 6010      Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis									
Manganese, Dissolved	43.4	ug/L	10.0	2.5	1	11/30/22 09:17	12/02/22 02:33	7439-96-5	
Molybdenum, Dissolved	56.7	ug/L	10.0	3.7	1	11/30/22 09:17	12/02/22 02:33	7439-98-7	
<b>6020 MET ICPMS</b>									
Analytical Method: EPA 6020      Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis									
Antimony	ND	ug/L	1.0	0.28	1	11/18/22 08:40	11/20/22 12:16	7440-36-0	
Arsenic	ND	ug/L	1.0	0.094	1	11/18/22 08:40	11/20/22 12:16	7440-38-2	
Selenium	ND	ug/L	1.0	0.57	1	11/18/22 08:40	11/20/22 12:16	7782-49-2	
<b>2320B Alkalinity</b>									
Analytical Method: SM 2320B Pace Analytical Services - Indianapolis									
Alkalinity, Total as CaCO3	235	mg/L	10.0	10.0	1		11/21/22 15:31		
Alkalinity,Bicarbonate (CaCO3)	235	mg/L	10.0	10.0	1		11/21/22 15:31		
Alkalinity,Carbonate (CaCO3)	ND	mg/L	10.0	10.0	1		11/21/22 15:31		
<b>2540C Total Dissolved Solids</b>									
Analytical Method: SM 2540C Pace Analytical Services - Indianapolis									
Total Dissolved Solids	697	mg/L	10.0	10.0	1		11/21/22 08:05		
<b>4500H+ pH, Electrometric</b>									
Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis									
pH at 25 Degrees C	6.8	Std. Units	0.10	0.10	1		11/19/22 15:49		H3

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### ANALYTICAL RESULTS

Project: Eagle Valley Oct 2022 P1R1

Pace Project No.: 50331240

Sample: MW-3I		Lab ID: 50331240004		Collected: 11/15/22 14:40	Received: 11/16/22 09:50	Matrix: Water				
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual	
<b>4500S2D Sulfide Water</b>		Analytical Method: SM 4500-S2-D Pace Analytical Services - Indianapolis								
Sulfide	ND	mg/L	0.10	0.025	1		11/19/22 12:54	18496-25-8		
<b>Iron, Ferrous</b>		Analytical Method: HACH 8146 Pace Analytical Services - Indianapolis								
Iron, Ferrous	ND	mg/L	0.20	0.096	1		11/16/22 22:00	15438-31-0	H3,N2	
<b>353.2 Nitrogen, NO2/NO3 unpres</b>		Analytical Method: EPA 353.2 Pace Analytical Services - Indianapolis								
Nitrogen, Nitrate	ND	mg/L	0.10	0.011	1		11/16/22 18:04	14797-55-8		
Nitrogen, Nitrite	ND	mg/L	0.10	0.0040	1		11/16/22 18:04	14797-65-0		
<b>365.1 Total Phosphorus</b>		Analytical Method: EPA 365.1 Preparation Method: EPA 365.1 Pace Analytical Services - Indianapolis								
Phosphate as P04	ND	mg/L	0.15	0.15	1	11/18/22 12:30	11/20/22 17:06			
<b>5310C TOC</b>		Analytical Method: SM 5310C Pace Analytical Services - Indianapolis								
Total Organic Carbon	1.3	mg/L	1.0	0.14	1		12/10/22 19:25	7440-44-0		
<b>5310C Dissolved Organic Carbon</b>		Analytical Method: SM 5310C Pace Analytical Services - Indianapolis								
Dissolved Organic Carbon	2.2	mg/L	1.0	0.14	1		12/04/22 22:54			

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## ANALYTICAL RESULTS

Project: Eagle Valley Oct 2022 P1R1

Pace Project No.: 50331240

Sample: MW-9D      Lab ID: 50331240005      Collected: 11/15/22 12:16      Received: 11/16/22 09:50      Matrix: Water									
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>9056 IC Anions</b>									
Analytical Method: EPA 9056 Pace Analytical Services - Indianapolis									
Chloride	45.0	mg/L	25.0	6.7	100		11/23/22 12:05	16887-00-6	
Fluoride	ND	mg/L	0.10	0.017	1		11/23/22 11:49	16984-48-8	
Sulfate	41.3	mg/L	25.0	8.5	100		11/23/22 12:05	14808-79-8	
<b>6010 MET ICP</b>									
Analytical Method: EPA 6010      Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis									
Aluminum	ND	ug/L	200	54.4	1	11/30/22 09:17	12/02/22 11:11	7429-90-5	
Barium	115	ug/L	10.0	1.3	1	11/30/22 09:17	12/02/22 11:11	7440-39-3	
Boron	ND	ug/L	100	61.4	1	11/30/22 09:17	12/02/22 11:11	7440-42-8	
Calcium	124000	ug/L	1000	88.4	1	11/30/22 09:17	12/02/22 11:11	7440-70-2	
Iron	ND	ug/L	100	48.8	1	11/30/22 09:17	12/02/22 11:11	7439-89-6	
Lithium	ND	ug/L	20.0	6.2	1	11/30/22 09:17	12/02/22 11:11	7439-93-2	
Magnesium	32400	ug/L	1000	43.0	1	11/30/22 09:17	12/02/22 11:11	7439-95-4	
Manganese	226	ug/L	10.0	5.4	1	11/30/22 09:17	12/02/22 11:11	7439-96-5	
Molybdenum	ND	ug/L	10.0	2.0	1	11/30/22 09:17	12/02/22 11:11	7439-98-7	
Potassium	2390	ug/L	1000	200	1	11/30/22 09:17	12/02/22 11:11	7440-09-7	
Silica	13800	ug/L	450		1	11/30/22 09:17	12/02/22 11:11	7631-86-9	N2
Sodium	26900	ug/L	1000	284	1	11/30/22 09:17	12/02/22 11:11	7440-23-5	
<b>6010 MET ICP, Dissolved</b>									
Analytical Method: EPA 6010      Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis									
Manganese, Dissolved	217	ug/L	10.0	2.5	1	11/30/22 09:17	12/02/22 02:36	7439-96-5	
Molybdenum, Dissolved	ND	ug/L	10.0	3.7	1	11/30/22 09:17	12/02/22 02:36	7439-98-7	
<b>6020 MET ICPMS</b>									
Analytical Method: EPA 6020      Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis									
Antimony	ND	ug/L	1.0	0.28	1	11/18/22 08:40	11/20/22 12:26	7440-36-0	
Arsenic	ND	ug/L	1.0	0.094	1	11/18/22 08:40	11/20/22 12:26	7440-38-2	
Selenium	ND	ug/L	1.0	0.57	1	11/18/22 08:40	11/20/22 12:26	7782-49-2	
<b>2320B Alkalinity</b>									
Analytical Method: SM 2320B Pace Analytical Services - Indianapolis									
Alkalinity, Total as CaCO3	398	mg/L	10.0	10.0	1		11/21/22 15:31		
Alkalinity,Bicarbonate (CaCO3)	398	mg/L	10.0	10.0	1		11/21/22 15:31		
Alkalinity,Carbonate (CaCO3)	ND	mg/L	10.0	10.0	1		11/21/22 15:31		
<b>2540C Total Dissolved Solids</b>									
Analytical Method: SM 2540C Pace Analytical Services - Indianapolis									
Total Dissolved Solids	498	mg/L	10.0	10.0	1		11/21/22 08:05		
<b>4500H+ pH, Electrometric</b>									
Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis									
pH at 25 Degrees C	6.8	Std. Units	0.10	0.10	1		11/19/22 15:50		H3

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### ANALYTICAL RESULTS

Project: Eagle Valley Oct 2022 P1R1

Pace Project No.: 50331240

Sample: MW-9D		Lab ID: 50331240005		Collected: 11/15/22 12:16	Received: 11/16/22 09:50	Matrix: Water			
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>4500S2D Sulfide Water</b>		Analytical Method: SM 4500-S2-D Pace Analytical Services - Indianapolis							
Sulfide	ND	mg/L	0.10	0.025	1		11/19/22 12:54	18496-25-8	
<b>Iron, Ferrous</b>		Analytical Method: HACH 8146 Pace Analytical Services - Indianapolis							
Iron, Ferrous	ND	mg/L	0.20	0.096	1		11/16/22 21:56	15438-31-0	H3,N2
<b>353.2 Nitrogen, NO2/NO3 unpres</b>		Analytical Method: EPA 353.2 Pace Analytical Services - Indianapolis							
Nitrogen, Nitrate	<b>0.16</b>	mg/L	0.10	0.011	1		11/16/22 17:27	14797-55-8	
Nitrogen, Nitrite	ND	mg/L	0.10	0.0040	1		11/16/22 17:27	14797-65-0	
<b>365.1 Total Phosphorus</b>		Analytical Method: EPA 365.1 Preparation Method: EPA 365.1 Pace Analytical Services - Indianapolis							
Phosphate as P04	ND	mg/L	0.15	0.15	1	11/18/22 12:30	11/20/22 17:08		
<b>5310C TOC</b>		Analytical Method: SM 5310C Pace Analytical Services - Indianapolis							
Total Organic Carbon	<b>1.0</b>	mg/L	1.0	0.14	1		12/10/22 19:35	7440-44-0	
<b>5310C Dissolved Organic Carbon</b>		Analytical Method: SM 5310C Pace Analytical Services - Indianapolis							
Dissolved Organic Carbon	<b>1.9</b>	mg/L	1.0	0.14	1		12/04/22 17:43		

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## ANALYTICAL RESULTS

Project: Eagle Valley Oct 2022 P1R1

Pace Project No.: 50331240

Sample: MW-9I		Lab ID: 50331240006		Collected: 11/15/22 13:18		Received: 11/16/22 09:50		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>9056 IC Anions</b>		Analytical Method: EPA 9056 Pace Analytical Services - Indianapolis							
Chloride	129	mg/L	25.0	6.7	100		11/23/22 12:55	16887-00-6	
Fluoride	0.28	mg/L	0.10	0.017	1		11/23/22 12:22	16984-48-8	
Sulfate	226	mg/L	2.5	0.85	10		11/23/22 12:38	14808-79-8	
<b>6010 MET ICP</b>		Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis							
Aluminum	ND	ug/L	200	54.4	1	11/30/22 09:17	12/02/22 11:14	7429-90-5	
Barium	73.1	ug/L	10.0	1.3	1	11/30/22 09:17	12/02/22 11:14	7440-39-3	
Boron	532	ug/L	100	61.4	1	11/30/22 09:17	12/02/22 11:14	7440-42-8	
Calcium	109000	ug/L	1000	88.4	1	11/30/22 09:17	12/02/22 11:14	7440-70-2	
Iron	ND	ug/L	100	48.8	1	11/30/22 09:17	12/02/22 11:14	7439-89-6	
Lithium	20.6	ug/L	20.0	6.2	1	11/30/22 09:17	12/02/22 11:14	7439-93-2	
Magnesium	31500	ug/L	1000	43.0	1	11/30/22 09:17	12/02/22 11:14	7439-95-4	
Manganese	325	ug/L	10.0	5.4	1	11/30/22 09:17	12/02/22 11:14	7439-96-5	
Molybdenum	22.2	ug/L	10.0	2.0	1	11/30/22 09:17	12/02/22 11:14	7439-98-7	
Potassium	6310	ug/L	1000	200	1	11/30/22 09:17	12/02/22 11:14	7440-09-7	
Silica	9360	ug/L	450		1	11/30/22 09:17	12/02/22 11:14	7631-86-9	N2
Sodium	97900	ug/L	1000	284	1	11/30/22 09:17	12/02/22 11:14	7440-23-5	
<b>6010 MET ICP, Dissolved</b>		Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis							
Manganese, Dissolved	330	ug/L	10.0	2.5	1	11/30/22 09:17	12/02/22 02:38	7439-96-5	
Molybdenum, Dissolved	23.1	ug/L	10.0	3.7	1	11/30/22 09:17	12/02/22 02:38	7439-98-7	
<b>6020 MET ICPMS</b>		Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis							
Antimony	ND	ug/L	1.0	0.28	1	11/18/22 08:40	11/20/22 12:30	7440-36-0	
Arsenic	ND	ug/L	1.0	0.094	1	11/18/22 08:40	11/20/22 12:30	7440-38-2	
Selenium	ND	ug/L	1.0	0.57	1	11/18/22 08:40	11/20/22 12:30	7782-49-2	
<b>2320B Alkalinity</b>		Analytical Method: SM 2320B Pace Analytical Services - Indianapolis							
Alkalinity, Total as CaCO3	216	mg/L	10.0	10.0	1		11/21/22 15:31		
Alkalinity,Bicarbonate (CaCO3)	216	mg/L	10.0	10.0	1		11/21/22 15:31		
Alkalinity,Carbonate (CaCO3)	ND	mg/L	10.0	10.0	1		11/21/22 15:31		
<b>2540C Total Dissolved Solids</b>		Analytical Method: SM 2540C Pace Analytical Services - Indianapolis							
Total Dissolved Solids	728	mg/L	10.0	10.0	1		11/21/22 08:05		
<b>4500H+ pH, Electrometric</b>		Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis							
pH at 25 Degrees C	6.8	Std. Units	0.10	0.10	1		11/19/22 15:52		H3

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### ANALYTICAL RESULTS

Project: Eagle Valley Oct 2022 P1R1

Pace Project No.: 50331240

Sample: MW-9I		Lab ID: 50331240006		Collected: 11/15/22 13:18	Received: 11/16/22 09:50	Matrix: Water				
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual	
<b>4500S2D Sulfide Water</b>		Analytical Method: SM 4500-S2-D Pace Analytical Services - Indianapolis								
Sulfide	ND	mg/L	0.10	0.025	1		11/19/22 12:54	18496-25-8		
<b>Iron, Ferrous</b>		Analytical Method: HACH 8146 Pace Analytical Services - Indianapolis								
Iron, Ferrous	ND	mg/L	0.20	0.096	1		11/16/22 21:56	15438-31-0	H3,N2	
<b>353.2 Nitrogen, NO2/NO3 unpres</b>		Analytical Method: EPA 353.2 Pace Analytical Services - Indianapolis								
Nitrogen, Nitrate	ND	mg/L	0.10	0.011	1		11/16/22 17:40	14797-55-8		
Nitrogen, Nitrite	ND	mg/L	0.10	0.0040	1		11/16/22 17:40	14797-65-0		
<b>365.1 Total Phosphorus</b>		Analytical Method: EPA 365.1 Preparation Method: EPA 365.1 Pace Analytical Services - Indianapolis								
Phosphate as P04	ND	mg/L	0.15	0.15	1	11/18/22 12:30	11/20/22 17:08			
<b>5310C TOC</b>		Analytical Method: SM 5310C Pace Analytical Services - Indianapolis								
Total Organic Carbon	1.8	mg/L	1.0	0.14	1		12/10/22 19:47	7440-44-0		
<b>5310C Dissolved Organic Carbon</b>		Analytical Method: SM 5310C Pace Analytical Services - Indianapolis								
Dissolved Organic Carbon	2.0	mg/L	1.0	0.14	1		12/04/22 18:17			

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### ANALYTICAL RESULTS

Project: Eagle Valley Oct 2022 P1R1

Pace Project No.: 50331240

Sample: MW-6I		Lab ID: 50331240007		Collected: 11/15/22 12:35		Received: 11/16/22 09:50		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>9056 IC Anions</b>		Analytical Method: EPA 9056 Pace Analytical Services - Indianapolis							
Chloride	94.9	mg/L	2.5	0.67	10		11/23/22 14:21	16887-00-6	
Fluoride	0.29	mg/L	0.10	0.017	1		11/23/22 14:04	16984-48-8	
Sulfate	163	mg/L	2.5	0.85	10		11/23/22 14:21	14808-79-8	
<b>6010 MET ICP</b>		Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis							
Aluminum	ND	ug/L	200	54.4	1	11/30/22 09:17	12/02/22 11:17	7429-90-5	
Barium	67.1	ug/L	10.0	1.3	1	11/30/22 09:17	12/02/22 11:17	7440-39-3	
Boron	1830	ug/L	100	61.4	1	11/30/22 09:17	12/02/22 11:17	7440-42-8	
Calcium	102000	ug/L	1000	88.4	1	11/30/22 09:17	12/02/22 11:17	7440-70-2	
Iron	ND	ug/L	100	48.8	1	11/30/22 09:17	12/02/22 11:17	7439-89-6	
Lithium	104	ug/L	20.0	6.2	1	11/30/22 09:17	12/02/22 11:17	7439-93-2	
Magnesium	21400	ug/L	1000	43.0	1	11/30/22 09:17	12/02/22 11:17	7439-95-4	
Manganese	52.8	ug/L	10.0	5.4	1	11/30/22 09:17	12/02/22 11:17	7439-96-5	
Molybdenum	191	ug/L	10.0	2.0	1	11/30/22 09:17	12/02/22 11:17	7439-98-7	
Potassium	14800	ug/L	1000	200	1	11/30/22 09:17	12/02/22 11:17	7440-09-7	
Silica	10700	ug/L	450		1	11/30/22 09:17	12/02/22 11:17	7631-86-9	N2
Sodium	82000	ug/L	1000	284	1	11/30/22 09:17	12/02/22 11:17	7440-23-5	
<b>6010 MET ICP, Dissolved</b>		Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis							
Manganese, Dissolved	54.7	ug/L	10.0	2.5	1	11/30/22 09:17	12/02/22 02:40	7439-96-5	
Molybdenum, Dissolved	194	ug/L	10.0	3.7	1	11/30/22 09:17	12/02/22 02:40	7439-98-7	
<b>6020 MET ICPMS</b>		Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis							
Antimony	ND	ug/L	1.0	0.28	1	11/18/22 08:40	11/20/22 12:33	7440-36-0	
Arsenic	ND	ug/L	1.0	0.094	1	11/18/22 08:40	11/20/22 12:33	7440-38-2	
Selenium	ND	ug/L	1.0	0.57	1	11/18/22 08:40	11/20/22 12:33	7782-49-2	
<b>2320B Alkalinity</b>		Analytical Method: SM 2320B Pace Analytical Services - Indianapolis							
Alkalinity, Total as CaCO3	250	mg/L	10.0	10.0	1		11/21/22 15:31		
Alkalinity,Bicarbonate (CaCO3)	250	mg/L	10.0	10.0	1		11/21/22 15:31		
Alkalinity,Carbonate (CaCO3)	ND	mg/L	10.0	10.0	1		11/21/22 15:31		
<b>2540C Total Dissolved Solids</b>		Analytical Method: SM 2540C Pace Analytical Services - Indianapolis							
Total Dissolved Solids	607	mg/L	10.0	10.0	1		11/21/22 08:05		
<b>4500H+ pH, Electrometric</b>		Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis							
pH at 25 Degrees C	6.8	Std. Units	0.10	0.10	1		11/19/22 15:53		H3

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### ANALYTICAL RESULTS

Project: Eagle Valley Oct 2022 P1R1

Pace Project No.: 50331240

Sample: MW-6I		Lab ID: 50331240007		Collected: 11/15/22 12:35	Received: 11/16/22 09:50	Matrix: Water			
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>4500S2D Sulfide Water</b>		Analytical Method: SM 4500-S2-D Pace Analytical Services - Indianapolis							
Sulfide	ND	mg/L	0.10	0.025	1		11/19/22 12:54	18496-25-8	
<b>Iron, Ferrous</b>		Analytical Method: HACH 8146 Pace Analytical Services - Indianapolis							
Iron, Ferrous	ND	mg/L	0.20	0.096	1		11/16/22 21:56	15438-31-0	H3,N2
<b>353.2 Nitrogen, NO2/NO3 unpres</b>		Analytical Method: EPA 353.2 Pace Analytical Services - Indianapolis							
Nitrogen, Nitrate	ND	mg/L	0.10	0.011	1		11/16/22 17:32	14797-55-8	
Nitrogen, Nitrite	ND	mg/L	0.10	0.0040	1		11/16/22 17:32	14797-65-0	
<b>365.1 Total Phosphorus</b>		Analytical Method: EPA 365.1 Preparation Method: EPA 365.1 Pace Analytical Services - Indianapolis							
Phosphate as P04	ND	mg/L	0.15	0.15	1	11/18/22 12:30	11/20/22 17:09		
<b>5310C TOC</b>		Analytical Method: SM 5310C Pace Analytical Services - Indianapolis							
Total Organic Carbon	ND	mg/L	1.0	0.14	1		12/10/22 19:58	7440-44-0	
<b>5310C Dissolved Organic Carbon</b>		Analytical Method: SM 5310C Pace Analytical Services - Indianapolis							
Dissolved Organic Carbon	1.6	mg/L	1.0	0.14	1		12/04/22 18:29		

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## ANALYTICAL RESULTS

Project: Eagle Valley Oct 2022 P1R1

Pace Project No.: 50331240

Sample: MW-6D		Lab ID: 50331240008		Collected: 11/15/22 11:43	Received: 11/16/22 09:50	Matrix: Water				
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual	
<b>9056 IC Anions</b>		Analytical Method: EPA 9056 Pace Analytical Services - Indianapolis								
Chloride	101	mg/L	2.5	0.67	10		11/23/22 14:54	16887-00-6		
Fluoride	0.18	mg/L	0.10	0.017	1		11/23/22 14:37	16984-48-8		
Sulfate	90.8	mg/L	2.5	0.85	10		11/23/22 14:54	14808-79-8		
<b>6010 MET ICP</b>		Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Aluminum	ND	ug/L	200	54.4	1	11/30/22 09:17	12/02/22 11:20	7429-90-5		
Barium	63.1	ug/L	10.0	1.3	1	11/30/22 09:17	12/02/22 11:20	7440-39-3		
Boron	2730	ug/L	100	61.4	1	11/30/22 09:17	12/02/22 11:20	7440-42-8		
Calcium	78000	ug/L	1000	88.4	1	11/30/22 09:17	12/02/22 11:20	7440-70-2		
Iron	149	ug/L	100	48.8	1	11/30/22 09:17	12/02/22 11:20	7439-89-6		
Lithium	81.2	ug/L	20.0	6.2	1	11/30/22 09:17	12/02/22 11:20	7439-93-2		
Magnesium	15000	ug/L	1000	43.0	1	11/30/22 09:17	12/02/22 11:20	7439-95-4		
Manganese	342	ug/L	10.0	5.4	1	11/30/22 09:17	12/02/22 11:20	7439-96-5		
Molybdenum	210	ug/L	10.0	2.0	1	11/30/22 09:17	12/02/22 11:20	7439-98-7		
Potassium	6110	ug/L	1000	200	1	11/30/22 09:17	12/02/22 11:20	7440-09-7		
Silica	12300	ug/L	450		1	11/30/22 09:17	12/02/22 11:20	7631-86-9	N2	
Sodium	87600	ug/L	1000	284	1	11/30/22 09:17	12/02/22 11:20	7440-23-5		
<b>6010 MET ICP, Dissolved</b>		Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Manganese, Dissolved	295	ug/L	10.0	2.5	1	11/30/22 09:17	12/02/22 02:42	7439-96-5		
Molybdenum, Dissolved	208	ug/L	10.0	3.7	1	11/30/22 09:17	12/02/22 02:42	7439-98-7		
<b>6020 MET ICPMS</b>		Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis								
Antimony	ND	ug/L	1.0	0.28	1	11/18/22 08:40	11/20/22 12:37	7440-36-0		
Arsenic	ND	ug/L	1.0	0.094	1	11/18/22 08:40	11/20/22 12:37	7440-38-2		
Selenium	ND	ug/L	1.0	0.57	1	11/18/22 08:40	11/20/22 12:37	7782-49-2		
<b>2320B Alkalinity</b>		Analytical Method: SM 2320B Pace Analytical Services - Indianapolis								
Alkalinity, Total as CaCO3	215	mg/L	10.0	10.0	1		11/21/22 15:31			
Alkalinity,Bicarbonate (CaCO3)	215	mg/L	10.0	10.0	1		11/21/22 15:31			
Alkalinity,Carbonate (CaCO3)	ND	mg/L	10.0	10.0	1		11/21/22 15:31			
<b>2540C Total Dissolved Solids</b>		Analytical Method: SM 2540C Pace Analytical Services - Indianapolis								
Total Dissolved Solids	462	mg/L	10.0	10.0	1		11/21/22 08:12			
<b>4500H+ pH, Electrometric</b>		Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis								
pH at 25 Degrees C	6.9	Std. Units	0.10	0.10	1		11/19/22 15:54		H3	

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### ANALYTICAL RESULTS

Project: Eagle Valley Oct 2022 P1R1

Pace Project No.: 50331240

Sample: MW-6D		Lab ID: 50331240008		Collected: 11/15/22 11:43	Received: 11/16/22 09:50	Matrix: Water			
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>4500S2D Sulfide Water</b>		Analytical Method: SM 4500-S2-D Pace Analytical Services - Indianapolis							
Sulfide	ND	mg/L	0.10	0.025	1		11/19/22 12:54	18496-25-8	
<b>Iron, Ferrous</b>		Analytical Method: HACH 8146 Pace Analytical Services - Indianapolis							
Iron, Ferrous	ND	mg/L	0.20	0.096	1		11/16/22 21:55	15438-31-0	H3,N2
<b>353.2 Nitrogen, NO2/NO3 unpres</b>		Analytical Method: EPA 353.2 Pace Analytical Services - Indianapolis							
Nitrogen, Nitrate	<b>0.22</b>	mg/L	0.10	0.011	1		11/16/22 17:25	14797-55-8	
Nitrogen, Nitrite	ND	mg/L	0.10	0.0040	1		11/16/22 17:25	14797-65-0	
<b>365.1 Total Phosphorus</b>		Analytical Method: EPA 365.1 Preparation Method: EPA 365.1 Pace Analytical Services - Indianapolis							
Phosphate as P04	ND	mg/L	0.15	0.15	1	11/18/22 12:30	11/20/22 17:10		
<b>5310C TOC</b>		Analytical Method: SM 5310C Pace Analytical Services - Indianapolis							
Total Organic Carbon	ND	mg/L	1.0	0.14	1		12/10/22 20:09	7440-44-0	
<b>5310C Dissolved Organic Carbon</b>		Analytical Method: SM 5310C Pace Analytical Services - Indianapolis							
Dissolved Organic Carbon	<b>1.1</b>	mg/L	1.0	0.14	1		12/04/22 18:40		

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### ANALYTICAL RESULTS

Project: Eagle Valley Oct 2022 P1R1

Pace Project No.: 50331240

Sample: MW-12S		Lab ID: 50331240009		Collected: 11/15/22 13:46	Received: 11/16/22 09:50	Matrix: Water				
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual	
<b>9056 IC Anions</b>		Analytical Method: EPA 9056 Pace Analytical Services - Indianapolis								
Chloride	43.4	mg/L	25.0	6.7	100		11/23/22 15:27	16887-00-6		
Fluoride	0.24	mg/L	0.10	0.017	1		11/23/22 15:10	16984-48-8		
Sulfate	214	mg/L	25.0	8.5	100		11/23/22 15:27	14808-79-8		
<b>6010 MET ICP</b>		Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Aluminum	ND	ug/L	200	54.4	1	11/30/22 09:17	12/02/22 11:23	7429-90-5		
Barium	120	ug/L	10.0	1.3	1	11/30/22 09:17	12/02/22 11:23	7440-39-3		
Boron	13300	ug/L	100	61.4	1	11/30/22 09:17	12/02/22 11:23	7440-42-8		
Calcium	128000	ug/L	1000	88.4	1	11/30/22 09:17	12/02/22 11:23	7440-70-2		
Iron	380	ug/L	100	48.8	1	11/30/22 09:17	12/02/22 11:23	7439-89-6		
Lithium	138	ug/L	20.0	6.2	1	11/30/22 09:17	12/02/22 11:23	7439-93-2		
Magnesium	27000	ug/L	1000	43.0	1	11/30/22 09:17	12/02/22 11:23	7439-95-4		
Manganese	80.7	ug/L	10.0	5.4	1	11/30/22 09:17	12/02/22 11:23	7439-96-5		
Molybdenum	36.4	ug/L	10.0	2.0	1	11/30/22 09:17	12/02/22 11:23	7439-98-7		
Potassium	13600	ug/L	1000	200	1	11/30/22 09:17	12/02/22 11:23	7440-09-7		
Silica	13000	ug/L	450		1	11/30/22 09:17	12/02/22 11:23	7631-86-9	N2	
Sodium	104000	ug/L	1000	284	1	11/30/22 09:17	12/02/22 11:23	7440-23-5		
<b>6010 MET ICP, Dissolved</b>		Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Manganese, Dissolved	155	ug/L	10.0	2.5	1	11/30/22 09:17	12/02/22 02:45	7439-96-5		
Molybdenum, Dissolved	37.0	ug/L	10.0	3.7	1	11/30/22 09:17	12/02/22 02:45	7439-98-7		
<b>6020 MET ICPMS</b>		Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis								
Antimony	1.5	ug/L	1.0	0.28	1	11/18/22 08:40	11/20/22 12:40	7440-36-0		
Arsenic	1.5	ug/L	1.0	0.094	1	11/18/22 08:40	11/20/22 12:40	7440-38-2		
Selenium	32.4	ug/L	1.0	0.57	1	11/18/22 08:40	11/20/22 12:40	7782-49-2		
<b>2320B Alkalinity</b>		Analytical Method: SM 2320B Pace Analytical Services - Indianapolis								
Alkalinity, Total as CaCO3	371	mg/L	10.0	10.0	1		11/21/22 15:31			
Alkalinity,Bicarbonate (CaCO3)	371	mg/L	10.0	10.0	1		11/21/22 15:31			
Alkalinity,Carbonate (CaCO3)	ND	mg/L	10.0	10.0	1		11/21/22 15:31			
<b>2540C Total Dissolved Solids</b>		Analytical Method: SM 2540C Pace Analytical Services - Indianapolis								
Total Dissolved Solids	760	mg/L	20.0	20.0	1		11/21/22 08:13			
<b>4500H+ pH, Electrometric</b>		Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis								
pH at 25 Degrees C	6.8	Std. Units	0.10	0.10	1		11/19/22 15:55		H3	

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### ANALYTICAL RESULTS

Project: Eagle Valley Oct 2022 P1R1

Pace Project No.: 50331240

Sample: MW-12S		Lab ID: 50331240009		Collected: 11/15/22 13:46	Received: 11/16/22 09:50	Matrix: Water				
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual	
<b>4500S2D Sulfide Water</b>		Analytical Method: SM 4500-S2-D Pace Analytical Services - Indianapolis								
Sulfide	ND	mg/L	0.10	0.025	1		11/19/22 12:54	18496-25-8		
<b>Iron, Ferrous</b>		Analytical Method: HACH 8146 Pace Analytical Services - Indianapolis								
Iron, Ferrous	ND	mg/L	0.20	0.096	1		11/16/22 21:59	15438-31-0	H3,N2	
<b>353.2 Nitrogen, NO2/NO3 unpres</b>		Analytical Method: EPA 353.2 Pace Analytical Services - Indianapolis								
Nitrogen, Nitrate	<b>0.36</b>	mg/L	0.10	0.011	1		11/16/22 17:53	14797-55-8		
Nitrogen, Nitrite	ND	mg/L	0.10	0.0040	1		11/16/22 17:53	14797-65-0		
<b>365.1 Total Phosphorus</b>		Analytical Method: EPA 365.1 Preparation Method: EPA 365.1 Pace Analytical Services - Indianapolis								
Phosphate as P04	ND	mg/L	0.15	0.15	1	11/18/22 12:30	11/20/22 17:11			
<b>5310C TOC</b>		Analytical Method: SM 5310C Pace Analytical Services - Indianapolis								
Total Organic Carbon	ND	mg/L	1.0	0.14	1		12/10/22 20:19	7440-44-0		
<b>5310C Dissolved Organic Carbon</b>		Analytical Method: SM 5310C Pace Analytical Services - Indianapolis								
Dissolved Organic Carbon	ND	mg/L	1.0	0.14	1		12/04/22 18:50			

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**QUALITY CONTROL DATA**

Project: Eagle Valley Oct 2022 P1R1

Pace Project No.: 50331240

QC Batch:	707360	Analysis Method:	EPA 9056
QC Batch Method:	EPA 9056	Analysis Description:	9056 IC Anions
		Laboratory:	Pace Analytical Services - Indianapolis
Associated Lab Samples:	50331240001, 50331240002, 50331240003, 50331240004, 50331240005, 50331240006, 50331240007, 50331240008, 50331240009		

METHOD BLANK:	3252103	Matrix:	Water
Associated Lab Samples:	50331240001, 50331240002, 50331240003, 50331240004, 50331240005, 50331240006, 50331240007, 50331240008, 50331240009		

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chloride	mg/L	ND	0.25	0.067	11/23/22 02:11	
Fluoride	mg/L	ND	0.10	0.017	11/23/22 02:11	
Sulfate	mg/L	ND	0.25	0.085	11/23/22 02:11	

LABORATORY CONTROL SAMPLE:	3252104					
Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	1.2	1.2	97	80-120	
Fluoride	mg/L	0.5	0.49	98	80-120	
Sulfate	mg/L	2.5	2.6	102	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE:	3252105	3252106										
Parameter	Units	50331250005 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	47.8	12.5	12.5	60.6	60.6	102	102	80-120	0	15	
Fluoride	mg/L	0.32	0.5	0.5	0.82	0.82	99	99	80-120	0	15	
Sulfate	mg/L	494	250	250	745	721	100	91	80-120	3	15	

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**REPORT OF LABORATORY ANALYSIS**

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### QUALITY CONTROL DATA

Project: Eagle Valley Oct 2022 P1R1

Pace Project No.: 50331240

QC Batch:	707794	Analysis Method:	EPA 6010
QC Batch Method:	EPA 3010	Analysis Description:	6010 MET
Associated Lab Samples:		Laboratory:	Pace Analytical Services - Indianapolis
50331240001, 50331240002, 50331240003, 50331240004, 50331240005, 50331240006, 50331240007, 50331240008, 50331240009			

METHOD BLANK:	3253621	Matrix:	Water
Associated Lab Samples: 50331240001, 50331240002, 50331240003, 50331240004, 50331240005, 50331240006, 50331240007, 50331240008, 50331240009			

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Aluminum	ug/L	ND	200	54.4	12/02/22 09:58	
Barium	ug/L	ND	10.0	1.3	12/02/22 09:58	
Boron	ug/L	ND	100	61.4	12/02/22 09:58	
Calcium	ug/L	ND	1000	88.4	12/02/22 09:58	
Iron	ug/L	ND	100	48.8	12/02/22 09:58	
Lithium	ug/L	ND	20.0	6.2	12/02/22 09:58	
Magnesium	ug/L	ND	1000	43.0	12/02/22 09:58	
Manganese	ug/L	ND	10.0	5.4	12/02/22 09:58	
Molybdenum	ug/L	ND	10.0	2.0	12/02/22 09:58	
Potassium	ug/L	ND	1000	200	12/02/22 09:58	
Silica	ug/L	ND	450		12/02/22 09:58	N2
Sodium	ug/L	ND	1000	284	12/02/22 09:58	

LABORATORY CONTROL SAMPLE: 3253622

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Aluminum	ug/L	10000	10700	107	80-120	
Barium	ug/L	1000	999	100	80-120	
Boron	ug/L	1000	1000	100	80-120	
Calcium	ug/L	10000	10400	104	80-120	
Iron	ug/L	10000	9860	99	80-120	
Lithium	ug/L	1000	1030	103	80-120	
Magnesium	ug/L	10000	10200	102	80-120	
Manganese	ug/L	1000	978	98	80-120	
Molybdenum	ug/L	1000	1030	103	80-120	
Potassium	ug/L	10000	10400	104	80-120	
Silica	ug/L	10700	10700	100	80-120	N2
Sodium	ug/L	10000	10300	103	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3253623 3253624

Parameter	Units	MS		MSD		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual	
		Spike Conc.	Result	Spike Conc.	Result							
Aluminum	ug/L	ND	10000	10000	11500	11200	115	111	75-125	3	20	
Barium	ug/L	53.9	1000	1000	1050	1020	99	97	75-125	2	20	
Boron	ug/L	21900	1000	1000	22600	22300	67	36	75-125	1	20	P6

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**QUALITY CONTROL DATA**

Project: Eagle Valley Oct 2022 P1R1

Pace Project No.: 50331240

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3253623 3253624													
Parameter	Units	50331206001		MS	MSD	MS		MSD		% Rec Limits	RPD	Max RPD	Qual
		Result	Spike Conc.	Spike Conc.	Result	Result	% Rec	% Rec					
Calcium	ug/L	364000	10000	10000	440000	457000	757	928	75-125	4	20	P6	
Iron	ug/L	5160	10000	10000	14500	14000	94	88	75-125	4	20		
Lithium	ug/L	53.6	1000	1000	1110	1090	106	104	75-125	2	20		
Magnesium	ug/L	55400	10000	10000	64200	61500	88	62	75-125	4	20	P6	
Manganese	ug/L	483	1000	1000	1420	1370	93	88	75-125	4	20		
Molybdenum	ug/L	552	1000	1000	1570	1530	102	97	75-125	3	20		
Potassium	ug/L	15500	10000	10000	26100	25600	106	101	75-125	2	20		
Silica	ug/L	14000	10700	10700	24800	24400	101	97	75-125	2	20	N2	
Sodium	ug/L	175000	10000	10000	182000	179000	72	36	75-125	2	20	P6	

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### QUALITY CONTROL DATA

Project: Eagle Valley Oct 2022 P1R1

Pace Project No.: 50331240

QC Batch:	707783	Analysis Method:	EPA 6010
QC Batch Method:	EPA 3010	Analysis Description:	6010 MET Dissolved
		Laboratory:	Pace Analytical Services - Indianapolis

Associated Lab Samples: 50331240001, 50331240002, 50331240003, 50331240004, 50331240005, 50331240006, 50331240007, 50331240008, 50331240009

METHOD BLANK: 3253562 Matrix: Water

Associated Lab Samples: 50331240001, 50331240002, 50331240003, 50331240004, 50331240005, 50331240006, 50331240007, 50331240008, 50331240009

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Manganese, Dissolved	ug/L	ND	10.0	2.5	12/02/22 01:56	
Molybdenum, Dissolved	ug/L	ND	10.0	3.7	12/02/22 01:56	

LABORATORY CONTROL SAMPLE: 3253563

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Manganese, Dissolved	ug/L	1000	1030	103	80-120	
Molybdenum, Dissolved	ug/L	1000	1090	109	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3253564 3253565

Parameter	Units	MS		MSD		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		Result	Spike Conc.	Spike Conc.	Result								
Manganese, Dissolved	ug/L	ND	1000	1000	993	995	99	99	75-125	0	20		
Molybdenum, Dissolved	ug/L	12.3	1000	1000	1080	1090	107	107	75-125	0	20		

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### QUALITY CONTROL DATA

Project: Eagle Valley Oct 2022 P1R1

Pace Project No.: 50331240

QC Batch:	707012	Analysis Method:	EPA 6020
QC Batch Method:	EPA 200.2	Analysis Description:	6020 MET
		Laboratory:	Pace Analytical Services - Indianapolis
Associated Lab Samples:	50331240001, 50331240002, 50331240003, 50331240004, 50331240005, 50331240006, 50331240007, 50331240008, 50331240009		

METHOD BLANK:	3250106	Matrix:	Water
Associated Lab Samples:	50331240001, 50331240002, 50331240003, 50331240004, 50331240005, 50331240006, 50331240007, 50331240008, 50331240009		

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Antimony	ug/L	ND	1.0	0.28	11/20/22 10:51	
Arsenic	ug/L	ND	1.0	0.094	11/20/22 10:51	
Selenium	ug/L	ND	1.0	0.57	11/20/22 10:51	

LABORATORY CONTROL SAMPLE: 3250107						
Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Antimony	ug/L	40	42.5	106	80-120	
Arsenic	ug/L	40	38.9	97	80-120	
Selenium	ug/L	40	39.4	99	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3250108												3250109	
Parameter	Units	50331216002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual	
Antimony	ug/L	ND	40	40	42.6	42.1	106	105	75-125	1	20		
Arsenic	ug/L	ND	40	40	39.4	38.7	98	96	75-125	2	20		
Selenium	ug/L	ND	40	40	38.3	37.8	96	94	75-125	1	20		

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### QUALITY CONTROL DATA

Project: Eagle Valley Oct 2022 P1R1

Pace Project No.: 50331240

QC Batch:	707487	Analysis Method:	SM 2320B
QC Batch Method:	SM 2320B	Analysis Description:	2320B Alkalinity
		Laboratory:	Pace Analytical Services - Indianapolis
Associated Lab Samples:	50331240001, 50331240002, 50331240003, 50331240004, 50331240005, 50331240006, 50331240007, 50331240008, 50331240009		

METHOD BLANK:	3252569	Matrix:	Water
Associated Lab Samples:	50331240001, 50331240002, 50331240003, 50331240004, 50331240005, 50331240006, 50331240007, 50331240008, 50331240009		

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Alkalinity, Total as CaCO3	mg/L	ND	10.0	10.0	11/21/22 15:31	
Alkalinity,Bicarbonate (CaCO3)	mg/L	ND	10.0	10.0	11/21/22 15:31	
Alkalinity,Carbonate (CaCO3)	mg/L	ND	10.0	10.0	11/21/22 15:31	

LABORATORY CONTROL SAMPLE: 3252570						
Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Alkalinity, Total as CaCO3	mg/L	50	47.4	95	90-110	

SAMPLE DUPLICATE: 3252571						
Parameter	Units	50331216001 Result	Dup Result	RPD	Max RPD	Qualifiers
Alkalinity, Total as CaCO3	mg/L	318	322	1	20	
Alkalinity,Bicarbonate (CaCO3)	mg/L	318	322	1	20	
Alkalinity,Carbonate (CaCO3)	mg/L	ND	ND		20	

SAMPLE DUPLICATE: 3252572						
Parameter	Units	50331240002 Result	Dup Result	RPD	Max RPD	Qualifiers
Alkalinity, Total as CaCO3	mg/L	233	238	2	20	
Alkalinity,Bicarbonate (CaCO3)	mg/L	233	238	2	20	
Alkalinity,Carbonate (CaCO3)	mg/L	ND	ND		20	

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**QUALITY CONTROL DATA**

Project: Eagle Valley Oct 2022 P1R1

Pace Project No.: 50331240

QC Batch:	707432	Analysis Method:	SM 2540C
QC Batch Method:	SM 2540C	Analysis Description:	2540C Total Dissolved Solids
		Laboratory:	Pace Analytical Services - Indianapolis
Associated Lab Samples:	50331240001, 50331240002, 50331240003, 50331240004, 50331240005, 50331240006, 50331240007		

METHOD BLANK:	3252425	Matrix:	Water
Associated Lab Samples:	50331240001, 50331240002, 50331240003, 50331240004, 50331240005, 50331240006, 50331240007		

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	ND	10.0	10.0	11/21/22 08:00	

LABORATORY CONTROL SAMPLE:	3252426					
Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	300	292	97	80-120	

SAMPLE DUPLICATE:	3252428					
Parameter	Units	50331240007 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	607	640	5	10	

SAMPLE DUPLICATE:	3252535					
Parameter	Units	50331210001 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	9400	8520	10	10	

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### QUALITY CONTROL DATA

Project: Eagle Valley Oct 2022 P1R1  
Pace Project No.: 50331240

QC Batch: 707433      Analysis Method: SM 2540C  
QC Batch Method: SM 2540C      Analysis Description: 2540C Total Dissolved Solids  
Laboratory: Pace Analytical Services - Indianapolis  
Associated Lab Samples: 50331240008, 50331240009

METHOD BLANK: 3252429      Matrix: Water  
Associated Lab Samples: 50331240008, 50331240009

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	ND	10.0	10.0	11/21/22 08:12	

LABORATORY CONTROL SAMPLE: 3252430

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	300	295	98	80-120	

SAMPLE DUPLICATE: 3252431

Parameter	Units	50331240008 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	462	481	4	10	

SAMPLE DUPLICATE: 3252432

Parameter	Units	50331254009 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	617	623	1	10	

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### QUALITY CONTROL DATA

Project: Eagle Valley Oct 2022 P1R1

Pace Project No.: 50331240

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QC Batch:	707363	Analysis Method:	SM 4500-H+B
QC Batch Method:	SM 4500-H+B	Analysis Description:	4500H+B pH
		Laboratory:	Pace Analytical Services - Indianapolis

Associated Lab Samples: 50331240001, 50331240002, 50331240003, 50331240004, 50331240005, 50331240006, 50331240007, 50331240008, 50331240009

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SAMPLE DUPLICATE: 3252129

Parameter	Units	50331215001 Result	Dup Result	RPD	Max RPD	Qualifiers
pH at 25 Degrees C	Std. Units	7.1	7.1	0	2	H3

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SAMPLE DUPLICATE: 3252130

Parameter	Units	50331243001 Result	Dup Result	RPD	Max RPD	Qualifiers
pH at 25 Degrees C	Std. Units	7.0	7.0	0	2	H3

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**QUALITY CONTROL DATA**

Project: Eagle Valley Oct 2022 P1R1

Pace Project No.: 50331240

QC Batch:	707331	Analysis Method:	SM 4500-S2-D
QC Batch Method:	SM 4500-S2-D	Analysis Description:	4500S2D Sulfide Water
		Laboratory:	Pace Analytical Services - Indianapolis

Associated Lab Samples: 50331240001, 50331240002, 50331240003, 50331240004, 50331240005, 50331240006, 50331240007, 50331240008, 50331240009

METHOD BLANK: 3251887 Matrix: Water

Associated Lab Samples: 50331240001, 50331240002, 50331240003, 50331240004, 50331240005, 50331240006, 50331240007, 50331240008, 50331240009

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Sulfide	mg/L	ND	0.10	0.025	11/19/22 12:54	

LABORATORY CONTROL SAMPLE: 3251888

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Sulfide	mg/L	0.5	0.53	106	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3251889 3251890

Parameter	Units	50331240001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Sulfide	mg/L	ND	0.5	0.5	0.50	0.52	99	105	90-110	5	20	

MATRIX SPIKE SAMPLE: 3251891

Parameter	Units	50331358008 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Sulfide	mg/L	ND	0.5	0.49	99	90-110	

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**QUALITY CONTROL DATA**

Project: Eagle Valley Oct 2022 P1R1

Pace Project No.: 50331240

QC Batch:	706811	Analysis Method:	HACH 8146
QC Batch Method:	HACH 8146	Analysis Description:	Iron, Ferrous
		Laboratory:	Pace Analytical Services - Indianapolis
Associated Lab Samples:	50331240001, 50331240002, 50331240003, 50331240004, 50331240005, 50331240006, 50331240007, 50331240008, 50331240009		

METHOD BLANK:	3249214	Matrix:	Water
Associated Lab Samples:	50331240001, 50331240002, 50331240003, 50331240004, 50331240005, 50331240006, 50331240007, 50331240008, 50331240009		

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Iron, Ferrous	mg/L	ND	0.20	0.096	11/16/22 21:40	H3,N2

LABORATORY CONTROL SAMPLE:	3249215					
Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Iron, Ferrous	mg/L	1	0.97	97	90-110	H3,N2

MATRIX SPIKE & MATRIX SPIKE DUPLICATE:	3249216												
		MS	MSD										
Parameter	Units	50331216001 Result	Spike Conc.	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual	
Iron, Ferrous	mg/L	ND	1	1	0.94	0.99	94	99	90-110	4	20	H3,N2	

MATRIX SPIKE SAMPLE:	3249218									
Parameter	Units	50331240001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers			
Iron, Ferrous	mg/L	ND	1	1.1	110	90-110	H3,N2			

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**QUALITY CONTROL DATA**

Project: Eagle Valley Oct 2022 P1R1  
Pace Project No.: 50331240

QC Batch: 706785 Analysis Method: EPA 353.2  
QC Batch Method: EPA 353.2 Analysis Description: 353.2 Nitrate + Nitrite, Unpres.  
Laboratory: Pace Analytical Services - Indianapolis  
Associated Lab Samples: 50331240001, 50331240002, 50331240003, 50331240005, 50331240006, 50331240007, 50331240008, 50331240009

METHOD BLANK: 3248903 Matrix: Water  
Associated Lab Samples: 50331240001, 50331240002, 50331240003, 50331240005, 50331240006, 50331240007, 50331240008, 50331240009

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Nitrogen, Nitrate	mg/L	ND	0.10	0.011	11/16/22 10:31	
Nitrogen, Nitrite	mg/L	ND	0.10	0.0040	11/16/22 10:31	

LABORATORY CONTROL SAMPLE: 3248904

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Nitrogen, Nitrate	mg/L	1	1.0	100	90-110	
Nitrogen, Nitrite	mg/L	1	1.0	103	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3248905 3248906

Parameter	Units	50331206002 Result	MS		MSD		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
			Spike Conc.	MSD Spike Conc.	MS Result	MSD Result						
Nitrogen, Nitrate	mg/L	ND	1	1	1.0	1.0	101	101	90-110	0	20	
Nitrogen, Nitrite	mg/L	ND	1	1	1.0	1.0	103	103	90-110	0	20	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3248907 3248908

Parameter	Units	50331254009 Result	MS		MSD		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
			Spike Conc.	MSD Spike Conc.	MS Result	MSD Result						
Nitrogen, Nitrate	mg/L	ND	1	1	1.0	1.0	96	95	90-110	1	20	
Nitrogen, Nitrite	mg/L	ND	1	1	1.0	1.0	100	101	90-110	1	20	

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### QUALITY CONTROL DATA

Project: Eagle Valley Oct 2022 P1R1

Pace Project No.: 50331240

QC Batch: 706788	Analysis Method: EPA 353.2
QC Batch Method: EPA 353.2	Analysis Description: 353.2 Nitrate + Nitrite, Unpres.
	Laboratory: Pace Analytical Services - Indianapolis

Associated Lab Samples: 50331240004

METHOD BLANK: 3248912 Matrix: Water

Associated Lab Samples: 50331240004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Nitrogen, Nitrate	mg/L	ND	0.10	0.011	11/16/22 17:55	
Nitrogen, Nitrite	mg/L	ND	0.10	0.0040	11/16/22 17:55	

LABORATORY CONTROL SAMPLE: 3248913

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Nitrogen, Nitrate	mg/L	1	0.99	99	90-110	
Nitrogen, Nitrite	mg/L	1	1.0	105	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3248914 3248915

Parameter	Units	50331240004		3248915		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result						
Nitrogen, Nitrate	mg/L	ND	1	1	0.97	0.97	96	97	90-110	1	20
Nitrogen, Nitrite	mg/L	ND	1	1	1.0	1.0	102	101	90-110	1	20

MATRIX SPIKE SAMPLE: 3249047

Parameter	Units	50331294001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Nitrogen, Nitrate	mg/L	ND	1	0.97	97	90-110	
Nitrogen, Nitrite	mg/L	ND	1	1.0	102	90-110	

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### QUALITY CONTROL DATA

Project: Eagle Valley Oct 2022 P1R1

Pace Project No.: 50331240

QC Batch: 707057

Analysis Method: EPA 365.1

QC Batch Method: EPA 365.1

Analysis Description: 365.1 Total Phosphorus

Laboratory: Pace Analytical Services - Indianapolis

Associated Lab Samples: 50331240001, 50331240002

METHOD BLANK: 3250465

Matrix: Water

Associated Lab Samples: 50331240001, 50331240002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Phosphate as P04	mg/L	ND	0.15	0.15	11/20/22 16:47	

LABORATORY CONTROL SAMPLE: 3250466

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Phosphate as P04	mg/L		1.4			

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3250467 3250468

Parameter	Units	50331216001		3250468		% Rec Limits	RPD	Max RPD	Qual
		MS Result	MSD Spike Conc.	MS Result	MSD Spike Conc.				
Phosphate as P04	mg/L	ND		1.4	1.3			3	

MATRIX SPIKE SAMPLE: 3250469

Parameter	Units	50331240001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Phosphate as P04	mg/L		0.20		1.7		

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### QUALITY CONTROL DATA

Project: Eagle Valley Oct 2022 P1R1

Pace Project No.: 50331240

QC Batch:	707058	Analysis Method:	EPA 365.1
QC Batch Method:	EPA 365.1	Analysis Description:	365.1 Total Phosphorus
		Laboratory:	Pace Analytical Services - Indianapolis

Associated Lab Samples: 50331240003, 50331240004, 50331240005, 50331240006, 50331240007, 50331240008, 50331240009

METHOD BLANK: 3250470 Matrix: Water

Associated Lab Samples: 50331240003, 50331240004, 50331240005, 50331240006, 50331240007, 50331240008, 50331240009

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Phosphate as P04	mg/L	ND	0.15	0.15	11/20/22 17:05	

LABORATORY CONTROL SAMPLE: 3250471

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Phosphate as P04	mg/L		1.4			

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3250472 3250473

Parameter	Units	50331313001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Phosphate as P04	mg/L	1.8			3.5	3.4				3		

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**QUALITY CONTROL DATA**

Project: Eagle Valley Oct 2022 P1R1  
Pace Project No.: 50331240

QC Batch: 709751 Analysis Method: SM 5310C  
QC Batch Method: SM 5310C Analysis Description: 5310C Total Organic Carbon  
Laboratory: Pace Analytical Services - Indianapolis  
Associated Lab Samples: 50331240001, 50331240002, 50331240003, 50331240004, 50331240005, 50331240006, 50331240007, 50331240008, 50331240009

METHOD BLANK: 3261541 Matrix: Water  
Associated Lab Samples: 50331240001, 50331240002, 50331240003, 50331240004, 50331240005, 50331240006, 50331240007, 50331240008, 50331240009

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Organic Carbon	mg/L	ND	1.0	0.14	12/09/22 22:50	

LABORATORY CONTROL SAMPLE: 3261542

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Organic Carbon	mg/L	10	9.9	99	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3261543 3261544

Parameter	Units	50331477003 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Total Organic Carbon	mg/L	23.8	40	40	64.4	63.8	102	100	80-120	1	20	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3261545 3261546

Parameter	Units	50331482001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Total Organic Carbon	mg/L	23600	40000	40000	63000	63500	99	100	80-120	1	20	A3,P4

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### QUALITY CONTROL DATA

Project: Eagle Valley Oct 2022 P1R1

Pace Project No.: 50331240

QC Batch:	708847	Analysis Method:	SM 5310C
QC Batch Method:	SM 5310C	Analysis Description:	5310C Dissolved Organic Carbon
		Laboratory:	Pace Analytical Services - Indianapolis

Associated Lab Samples: 50331240001, 50331240002, 50331240003

METHOD BLANK: 3257782 Matrix: Water

Associated Lab Samples: 50331240001, 50331240002, 50331240003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Dissolved Organic Carbon	mg/L	ND	1.0	0.14	12/06/22 16:51	

LABORATORY CONTROL SAMPLE: 3257783

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Dissolved Organic Carbon	mg/L	10	9.7	97	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3257784 3257785

Parameter	Units	50331185004		50331185005		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		Result	MS Spike Conc.	MSD Spike Conc.	MS Result								
Dissolved Organic Carbon	mg/L	10	10	10	19.5	19.5	95	96	80-120	0	20		

MATRIX SPIKE SAMPLE: 3257786

Parameter	Units	50331185005 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Dissolved Organic Carbon	mg/L	3.8	10	13.7	99	80-120	

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### QUALITY CONTROL DATA

Project: Eagle Valley Oct 2022 P1R1

Pace Project No.: 50331240

QC Batch:	708848	Analysis Method:	SM 5310C
QC Batch Method:	SM 5310C	Analysis Description:	5310C Dissolved Organic Carbon
		Laboratory:	Pace Analytical Services - Indianapolis

Associated Lab Samples: 50331240004, 50331240005, 50331240006, 50331240007, 50331240008, 50331240009

METHOD BLANK: 3257788 Matrix: Water  
Associated Lab Samples: 50331240004, 50331240005, 50331240006, 50331240007, 50331240008, 50331240009

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Dissolved Organic Carbon	mg/L	ND	1.0	0.14	12/04/22 17:22	

LABORATORY CONTROL SAMPLE: 3257789

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Dissolved Organic Carbon	mg/L	10	9.9	99	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3257790 3257791

Parameter	Units	50331240005 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Dissolved Organic Carbon	mg/L	1.9	10	10	11.6	11.6	97	97	80-120	0	20	

MATRIX SPIKE SAMPLE: 3259903

Parameter	Units	50330899003 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Dissolved Organic Carbon	mg/L	2.5	10	12.2	97	80-120	

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Eagle Valley Oct 2022 P1R1

Pace Project No.: 50331240

**Sample: MW-2S**      **Lab ID: 50331240001**      Collected: 11/15/22 13:25      Received: 11/16/22 09:50      Matrix: Water  
PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	<b>-0.285 ± 0.296 (0.752)</b> <b>C:NA T:88%</b>	pCi/L	12/13/22 13:30	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	<b>0.413 ± 0.325 (0.639)</b> <b>C:77% T:88%</b>	pCi/L	12/08/22 11:32	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	<b>0.413 ± 0.621 (1.39)</b>	pCi/L	12/13/22 16:47	7440-14-4	

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Eagle Valley Oct 2022 P1R1

Pace Project No.: 50331240

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
<b>Sample: MW-21</b> <b>Lab ID: 50331240002</b> Collected: 11/15/22 11:15      Received: 11/16/22 09:50      Matrix: Water PWS:      Site ID:      Sample Type:						
Pace Analytical Services - Greensburg						
Radium-226	EPA 903.1	<b>0.788 ± 0.501 (0.646)</b> <b>C:NA T:86%</b>	pCi/L	12/13/22 13:30	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 904.0	<b>0.793 ± 0.398 (0.690)</b> <b>C:77% T:86%</b>	pCi/L	12/08/22 11:32	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	<b>1.58 ± 0.899 (1.34)</b>	pCi/L	12/13/22 16:47	7440-14-4	

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Eagle Valley Oct 2022 P1R1

Pace Project No.: 50331240

**Sample: MW-2D**      **Lab ID: 50331240003**      Collected: 11/15/22 12:20      Received: 11/16/22 09:50      Matrix: Water  
PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Radium-226	EPA 903.1	<b>0.292 ± 0.449 (0.773)</b> <b>C:NA T:90%</b>	pCi/L	12/13/22 13:30	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 904.0	<b>0.533 ± 0.313 (0.564)</b> <b>C:80% T:90%</b>	pCi/L	12/08/22 11:32	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	<b>0.825 ± 0.762 (1.34)</b>	pCi/L	12/13/22 16:47	7440-14-4	

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Eagle Valley Oct 2022 P1R1

Pace Project No.: 50331240

**Sample: MW-3I**      **Lab ID: 50331240004**      Collected: 11/15/22 14:40      Received: 11/16/22 09:50      Matrix: Water  
PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	<b>0.506 ± 0.490 (0.760)</b> <b>C:NA T:80%</b>	pCi/L	12/13/22 13:30	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	<b>0.658 ± 0.341 (0.583)</b> <b>C:84% T:80%</b>	pCi/L	12/08/22 11:32	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	<b>1.16 ± 0.831 (1.34)</b>	pCi/L	12/13/22 16:47	7440-14-4	

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Eagle Valley Oct 2022 P1R1

Pace Project No.: 50331240

**Sample: MW-9D**      **Lab ID: 50331240005**      Collected: 11/15/22 12:16      Received: 11/16/22 09:50      Matrix: Water  
PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	<b>0.190 ± 0.437 (0.791)</b> <b>C:NA T:90%</b>	pCi/L	12/13/22 13:30	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	<b>0.564 ± 0.326 (0.592)</b> <b>C:86% T:90%</b>	pCi/L	12/08/22 11:32	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	<b>0.754 ± 0.763 (1.38)</b>	pCi/L	12/13/22 16:47	7440-14-4	

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Eagle Valley Oct 2022 P1R1

Pace Project No.: 50331240

**Sample: MW-9I**      **Lab ID: 50331240006**      Collected: 11/15/22 13:18      Received: 11/16/22 09:50      Matrix: Water  
PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	<b>-0.155 ± 0.419 (0.902)</b> <b>C:NA T:79%</b>	pCi/L	12/13/22 13:30	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	<b>0.607 ± 0.358 (0.651)</b> <b>C:84% T:79%</b>	pCi/L	12/08/22 11:32	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	<b>0.607 ± 0.777 (1.55)</b>	pCi/L	12/13/22 16:47	7440-14-4	

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Eagle Valley Oct 2022 P1R1

Pace Project No.: 50331240

**Sample: MW-6I**      **Lab ID: 50331240007**      Collected: 11/15/22 12:35      Received: 11/16/22 09:50      Matrix: Water  
PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	<b>0.840 ± 0.476 (0.560)</b> <b>C:NA T:92%</b>	pCi/L	12/13/22 13:30	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	<b>0.793 ± 0.334 (0.506)</b> <b>C:82% T:92%</b>	pCi/L	12/08/22 11:32	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	<b>1.63 ± 0.810 (1.07)</b>	pCi/L	12/13/22 16:47	7440-14-4	

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Eagle Valley Oct 2022 P1R1

Pace Project No.: 50331240

**Sample: MW-6D**      **Lab ID: 50331240008**      Collected: 11/15/22 11:43      Received: 11/16/22 09:50      Matrix: Water  
PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	<b>0.416 ± 0.304 (0.340)</b> <b>C:NA T:89%</b>	pCi/L	12/13/22 13:45	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	<b>0.472 ± 0.291 (0.527)</b> <b>C:80% T:89%</b>	pCi/L	12/08/22 11:33	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	<b>0.888 ± 0.595 (0.867)</b>	pCi/L	12/13/22 16:47	7440-14-4	

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Eagle Valley Oct 2022 P1R1

Pace Project No.: 50331240

**Sample: MW-12S**      **Lab ID: 50331240009**      Collected: 11/15/22 13:46      Received: 11/16/22 09:50      Matrix: Water  
PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	<b>0.219 ± 0.305 (0.509)</b> <b>C:NA T:85%</b>	pCi/L	12/13/22 13:45	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	<b>0.937 ± 0.391 (0.609)</b> <b>C:82% T:85%</b>	pCi/L	12/08/22 11:33	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	<b>1.16 ± 0.696 (1.12)</b>	pCi/L	12/13/22 16:47	7440-14-4	

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### QUALITY CONTROL - RADIOCHEMISTRY

Project: Eagle Valley Oct 2022 P1R1

Pace Project No.: 50331240

QC Batch: 548537

Analysis Method: EPA 903.1

QC Batch Method: EPA 903.1

Analysis Description: 903.1 Radium-226

Laboratory: Pace Analytical Services - Greensburg

Associated Lab Samples: 50331240001, 50331240002, 50331240003, 50331240004, 50331240005, 50331240006, 50331240007, 50331240008, 50331240009

METHOD BLANK: 2664844

Matrix: Water

Associated Lab Samples: 50331240001, 50331240002, 50331240003, 50331240004, 50331240005, 50331240006, 50331240007, 50331240008, 50331240009

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	-0.0443 ± 0.202 (0.411) C:NA T:95%	pCi/L	12/13/22 13:30	

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## QUALIFIERS

Project: Eagle Valley Oct 2022 P1R1

Pace Project No.: 50331240

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### DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Reported results are not rounded until the final step prior to reporting. Therefore, calculated parameters that are typically reported as "Total" may vary slightly from the sum of the reported component parameters.

Act - Activity

Unc - Uncertainty: SDWA = 1.96 sigma count uncertainty, all other matrices = Expanded Uncertainty (95% confidence interval).

Gamma Spec = Expanded Uncertainty (95.4% Confidence Interval)

(MDC) - Minimum Detectable Concentration

Trac - Tracer Recovery (%)

Carr - Carrier Recovery (%)

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

### ANALYTE QUALIFIERS

A3 The sample was analyzed by serial dilution.

H3 Sample was received or analysis requested beyond the recognized method holding time.

N2 The lab does not hold NELAC/TNI accreditation for this parameter but other accreditations/certifications may apply. A complete list of accreditations/certifications is available upon request.

P4 Sample field preservation does not meet EPA or method recommendations for this analysis.

P6 Matrix spike recovery was outside laboratory control limits due to a parent sample concentration notably higher than the spike level.

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### QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Eagle Valley Oct 2022 P1R1

Pace Project No.: 50331240

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
50331240001	MW-2S	EPA 9056	707360		
50331240002	MW-2I	EPA 9056	707360		
50331240003	MW-2D	EPA 9056	707360		
50331240004	MW-3I	EPA 9056	707360		
50331240005	MW-9D	EPA 9056	707360		
50331240006	MW-9I	EPA 9056	707360		
50331240007	MW-6I	EPA 9056	707360		
50331240008	MW-6D	EPA 9056	707360		
50331240009	MW-12S	EPA 9056	707360		
50331240001	MW-2S	EPA 3010	707794	EPA 6010	709217
50331240002	MW-2I	EPA 3010	707794	EPA 6010	709217
50331240003	MW-2D	EPA 3010	707794	EPA 6010	709217
50331240004	MW-3I	EPA 3010	707794	EPA 6010	709217
50331240005	MW-9D	EPA 3010	707794	EPA 6010	709217
50331240006	MW-9I	EPA 3010	707794	EPA 6010	709217
50331240007	MW-6I	EPA 3010	707794	EPA 6010	709217
50331240008	MW-6D	EPA 3010	707794	EPA 6010	709217
50331240009	MW-12S	EPA 3010	707794	EPA 6010	709217
50331240001	MW-2S	EPA 3010	707783	EPA 6010	709154
50331240002	MW-2I	EPA 3010	707783	EPA 6010	709154
50331240003	MW-2D	EPA 3010	707783	EPA 6010	709154
50331240004	MW-3I	EPA 3010	707783	EPA 6010	709154
50331240005	MW-9D	EPA 3010	707783	EPA 6010	709154
50331240006	MW-9I	EPA 3010	707783	EPA 6010	709154
50331240007	MW-6I	EPA 3010	707783	EPA 6010	709154
50331240008	MW-6D	EPA 3010	707783	EPA 6010	709154
50331240009	MW-12S	EPA 3010	707783	EPA 6010	709154
50331240001	MW-2S	EPA 200.2	707012	EPA 6020	707253
50331240002	MW-2I	EPA 200.2	707012	EPA 6020	707253
50331240003	MW-2D	EPA 200.2	707012	EPA 6020	707253
50331240004	MW-3I	EPA 200.2	707012	EPA 6020	707253
50331240005	MW-9D	EPA 200.2	707012	EPA 6020	707253
50331240006	MW-9I	EPA 200.2	707012	EPA 6020	707253
50331240007	MW-6I	EPA 200.2	707012	EPA 6020	707253
50331240008	MW-6D	EPA 200.2	707012	EPA 6020	707253
50331240009	MW-12S	EPA 200.2	707012	EPA 6020	707253
50331240001	MW-2S	EPA 903.1	548537		
50331240002	MW-2I	EPA 903.1	548537		
50331240003	MW-2D	EPA 903.1	548537		
50331240004	MW-3I	EPA 903.1	548537		
50331240005	MW-9D	EPA 903.1	548537		
50331240006	MW-9I	EPA 903.1	548537		
50331240007	MW-6I	EPA 903.1	548537		
50331240008	MW-6D	EPA 903.1	548537		
50331240009	MW-12S	EPA 903.1	548537		
50331240001	MW-2S	EPA 904.0	548538		

### REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Eagle Valley Oct 2022 P1R1

Pace Project No.: 50331240

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
50331240002	MW-2I	EPA 904.0	548538		
50331240003	MW-2D	EPA 904.0	548538		
50331240004	MW-3I	EPA 904.0	548538		
50331240005	MW-9D	EPA 904.0	548538		
50331240006	MW-9I	EPA 904.0	548538		
50331240007	MW-6I	EPA 904.0	548538		
50331240008	MW-6D	EPA 904.0	548538		
50331240009	MW-12S	EPA 904.0	548538		
50331240001	MW-2S	Total Radium Calculation	553551		
50331240002	MW-2I	Total Radium Calculation	553551		
50331240003	MW-2D	Total Radium Calculation	553551		
50331240004	MW-3I	Total Radium Calculation	553551		
50331240005	MW-9D	Total Radium Calculation	553551		
50331240006	MW-9I	Total Radium Calculation	553551		
50331240007	MW-6I	Total Radium Calculation	553551		
50331240008	MW-6D	Total Radium Calculation	553551		
50331240009	MW-12S	Total Radium Calculation	553551		
50331240001	MW-2S	SM 2320B	707487		
50331240002	MW-2I	SM 2320B	707487		
50331240003	MW-2D	SM 2320B	707487		
50331240004	MW-3I	SM 2320B	707487		
50331240005	MW-9D	SM 2320B	707487		
50331240006	MW-9I	SM 2320B	707487		
50331240007	MW-6I	SM 2320B	707487		
50331240008	MW-6D	SM 2320B	707487		
50331240009	MW-12S	SM 2320B	707487		
50331240001	MW-2S	SM 2540C	707432		
50331240002	MW-2I	SM 2540C	707432		
50331240003	MW-2D	SM 2540C	707432		
50331240004	MW-3I	SM 2540C	707432		
50331240005	MW-9D	SM 2540C	707432		
50331240006	MW-9I	SM 2540C	707432		
50331240007	MW-6I	SM 2540C	707432		
50331240008	MW-6D	SM 2540C	707433		
50331240009	MW-12S	SM 2540C	707433		
50331240001	MW-2S	SM 4500-H+B	707363		
50331240002	MW-2I	SM 4500-H+B	707363		
50331240003	MW-2D	SM 4500-H+B	707363		
50331240004	MW-3I	SM 4500-H+B	707363		
50331240005	MW-9D	SM 4500-H+B	707363		
50331240006	MW-9I	SM 4500-H+B	707363		
50331240007	MW-6I	SM 4500-H+B	707363		
50331240008	MW-6D	SM 4500-H+B	707363		
50331240009	MW-12S	SM 4500-H+B	707363		
50331240001	MW-2S	SM 4500-S2-D	707331		
50331240002	MW-2I	SM 4500-S2-D	707331		

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### QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Eagle Valley Oct 2022 P1R1

Pace Project No.: 50331240

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
50331240003	MW-2D	SM 4500-S2-D	707331		
50331240004	MW-3I	SM 4500-S2-D	707331		
50331240005	MW-9D	SM 4500-S2-D	707331		
50331240006	MW-9I	SM 4500-S2-D	707331		
50331240007	MW-6I	SM 4500-S2-D	707331		
50331240008	MW-6D	SM 4500-S2-D	707331		
50331240009	MW-12S	SM 4500-S2-D	707331		
50331240001	MW-2S	HACH 8146	706811		
50331240002	MW-2I	HACH 8146	706811		
50331240003	MW-2D	HACH 8146	706811		
50331240004	MW-3I	HACH 8146	706811		
50331240005	MW-9D	HACH 8146	706811		
50331240006	MW-9I	HACH 8146	706811		
50331240007	MW-6I	HACH 8146	706811		
50331240008	MW-6D	HACH 8146	706811		
50331240009	MW-12S	HACH 8146	706811		
50331240001	MW-2S	EPA 353.2	706785		
50331240002	MW-2I	EPA 353.2	706785		
50331240003	MW-2D	EPA 353.2	706785		
50331240004	MW-3I	EPA 353.2	706788		
50331240005	MW-9D	EPA 353.2	706785		
50331240006	MW-9I	EPA 353.2	706785		
50331240007	MW-6I	EPA 353.2	706785		
50331240008	MW-6D	EPA 353.2	706785		
50331240009	MW-12S	EPA 353.2	706785		
50331240001	MW-2S	EPA 365.1	707057	EPA 365.1	707397
50331240002	MW-2I	EPA 365.1	707057	EPA 365.1	707397
50331240003	MW-2D	EPA 365.1	707058	EPA 365.1	707398
50331240004	MW-3I	EPA 365.1	707058	EPA 365.1	707398
50331240005	MW-9D	EPA 365.1	707058	EPA 365.1	707398
50331240006	MW-9I	EPA 365.1	707058	EPA 365.1	707398
50331240007	MW-6I	EPA 365.1	707058	EPA 365.1	707398
50331240008	MW-6D	EPA 365.1	707058	EPA 365.1	707398
50331240009	MW-12S	EPA 365.1	707058	EPA 365.1	707398
50331240001	MW-2S	SM 5310C	709751		
50331240002	MW-2I	SM 5310C	709751		
50331240003	MW-2D	SM 5310C	709751		
50331240004	MW-3I	SM 5310C	709751		
50331240005	MW-9D	SM 5310C	709751		
50331240006	MW-9I	SM 5310C	709751		
50331240007	MW-6I	SM 5310C	709751		
50331240008	MW-6D	SM 5310C	709751		
50331240009	MW-12S	SM 5310C	709751		
50331240001	MW-2S	SM 5310C	708847		
50331240002	MW-2I	SM 5310C	708847		

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### QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Eagle Valley Oct 2022 P1R1

Pace Project No.: 50331240

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
50331240003	MW-2D	SM 5310C	708847		
50331240004	MW-3I	SM 5310C	708848		
50331240005	MW-9D	SM 5310C	708848		
50331240006	MW-9I	SM 5310C	708848		
50331240007	MW-6I	SM 5310C	708848		
50331240008	MW-6D	SM 5310C	708848		
50331240009	MW-12S	SM 5310C	708848		

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**SAMPLE CONDITION UPON RECEIPT FORM**

Date/Time and Initials of person examining contents: BS 11/16/22 1115

1. Courier:  FED EX  UPS  CLIENT  PACE  USPS  OTHER \_\_\_\_\_
2. Custody Seal on Cooler/Box Present:  Yes  No  
 (If yes)Seals Intact:  Yes  No (leave blank if no seals were present)
3. Thermometer: **1 2 3 4 5 6 A B C D E F**
4. Cooler Temperature(s): 0.3/0.3 0.4/0.4 0.3/0.3 0.7/0.7  
 (Initial/Corrected) RECORD TEMPS OF ALL COOLERS RECEIVED (use Comments below to add more)

5. Packing Material:  Bubble Wrap  Bubble Bags  
 None  Other \_\_\_\_\_
6. Ice Type:  Wet  Blue  None
7. If temp. is over 6°C or under 0°C, was the PM notified?:  Yes  No  
 Cooler temp should be above freezing to 6°C

All discrepancies will be written out in the comments section below.

	Yes	No		Yes	No	N/A
USDA Regulated Soils? (HI, ID, NY, WA, OR, CA, NM, TX, OK, AR, LA, TN, AL, MS, NC, SC, GA, FL, or Puerto Rico)		✓	All containers needing acid/base preservation have been pH CHECKED?: Exceptions: VOA, coliform, LLHg, O&G, RAD CHEM, and any container with a septum cap or preserved with HCl.			
Short Hold Time Analysis (48 hours or less)? Analysis: <u>Nitrate/Nitrite</u>	✓		Circle: <u>HNO3 (&lt;2)</u> <u>H2SO4 (&lt;2)</u> NaOH (>10) <u>NaOH/ZnAc (&gt;9)</u> Any non-conformance to pH recommendations will be noted on the container count form	✓		
Time 5035A TC placed in Freezer or Short Holds To Lab		Time: <u>1445</u>	Residual Chlorine Check (SVOC 625 Pest/PCB 608)	Present	Absent	N/A ✓
Rush TAT Requested (4 days or less):		✓	Residual Chlorine Check (Total/Amenable/Free Cyanide)			✓
Custody Signatures Present?	✓		Headspace Wisconsin Sulfide?			✓
Containers Intact?:	✓		Headspace in VOA Vials (>6mm): See Containter Count form for details	Present	Absent	No VOA Vials Sent ✓
Sample Label (IDs/Dates/Times) Match COC?: Except TCs, which only require sample ID	✓		Trip Blank Present?		✓	
Extra labels on Terracore Vials? (soils only)			Trip Blank Custody Seals?:			✓

COMMENTS:  
Cooler 5 - 0.2/0.2

Sample Container Count

\*\* Place a RED dot on containers that are out of conformance \*\*

COC Line Item	WGUFU	MeOH (only) SBS DI R	VIALS			AMBER GLASS						PLASTIC							OTHER			Matrix	Nitric Red	Sulfuric Yellow	Sodium Hydroxide Green	Sodium Hydroxide/ ZnAc Black										
			DG9H	VG9H	VOA VIAL HS (>6mm)	VG9U	DG9U	VG9T	AG0U	AG1H	AG1U	AG2U	AG3S	AG3SF	AG3C	BP1U	BP1N	BP2U	BP3U	BP3N	BP3F						BP3S	BP3B	BP3Z	CG3H	CG3F	Syringe Kit	HNO3 <2	H2SO4 <2	NaOH >10	NaOH/Zn Ac >9
			1		MW-2S									✓	✓			2	1	2	1						1	1		1					WT	✓
2											✓	✓			✓	✓	✓	✓	✓	✓		✓									✓					
3											✓	✓			✓	✓	✓	✓	✓	✓		✓										✓				
4											✓	✓			✓	✓	✓	✓	✓	✓		✓										✓				
5											✓	✓			✓	✓	✓	✓	✓	✓		✓										✓				
6											✓	✓			✓	✓	✓	✓	✓	✓		✓										✓				
7											✓	✓			✓	✓	✓	✓	✓	✓		✓										✓				
8											✓	✓			✓	✓	✓	✓	✓	✓		✓										✓				
9											✓	✓			✓	✓	✓	✓	✓	✓		✓										✓				
10											✓	✓			✓	✓	✓	✓	✓	✓		✓										✓				
11											✓	✓			✓	✓	✓	✓	✓	✓		✓										✓				
12											✓	✓			✓	✓	✓	✓	✓	✓		✓										✓				

Container Codes

Glass				Plastic			
DG9H	40mL HCl amber voa vial	BG1T	1L Na Thiosulfate clear glass	BP1B	1L NaOH plastic	BP4U	125mL unpreserved plastic
DG9P	40mL TSP amber vial	BG1U	1L unpreserved glass	BP1N	1L HNO3 plastic	BP4N	125mL HNO3 plastic
DG9S	40mL H2SO4 amber vial	BG3H	250mL HCl Clear Glass	BP1S	1L H2SO4 plastic	BP4S	125mL H2SO4 plastic
DG9T	40mL Na Thio amber vial	BG3U	250mL Unpres Clear Glass	BP1U	1L unpreserved plastic	<b>Miscellaneous</b>	
DG9U	40mL unpreserved amber vial	AG0U	100mL unpres amber glass	BP1Z	1L NaOH, Zn, Ac		
VG9H	40mL HCl clear vial	AG1H	1L HCl amber glass	BP2N	500mL HNO3 plastic	Syringe Kit	LL Cr+6 sampling kit
VG9T	40mL Na Thio. clear vial	AG1S	1L H2SO4 amber glass	BP2C	500mL NaOH plastic	ZPLC	Ziploc Bag
VG9U	40mL unpreserved clear vial	AG1T	1L Na Thiosulfate amber glass	BP2S	500mL H2SO4 plastic	R	Terracore Kit
I	40mL w/hexane wipe vial	AG1U	1liter unpres amber glass	BP2U	500mL unpreserved plastic	SP5T	120mL Coliform Sodium Thiosulfate
WGKU	8oz unpreserved clear jar	AG2N	500mL HNO3 amber glass	BP2Z	500mL NaOH, Zn Ac	GN	General Container
WGFU	4oz clear soil jar	AG2S	500mL H2SO4 amber glass	BP3B	250mL NaOH plastic	U	Summa Can (air sample)
JGFU	4oz unpreserved amber wide	AG2U	500mL unpres amber glass	BP3N	250mL HNO3 plastic	WT	Water
CG3H	250mL clear glass HCl	AG3S	250mL H2SO4 amber glass	BP3F	250mL HNO3 plastic-field filtered	SL	Solid Solid
CG3F	250mL clear glass HCl, Field Filter	AG3SF	250mL H2SO4 amb glass -field filtered	BP3U	250mL unpreserved plastic	OL	Oil
BG1H	1L HCl clear glass	AG3U	250mL unpres amber glass	BP3S	250mL H2SO4 plastic	NAL	Non-aqueous liquid
BG1S	1L H2SO4 clear glass	AG3C	250mL NaOH amber glass	BP3Z	250mL NaOH, ZnAc plastic	WP	Wipe



March 06, 2023

Mr. Mark Breting  
ATC Group Services  
7988 Centerpoint Drive  
Suite 100  
Indianapolis, IN 46256

RE: Project: Eagle Valley Oct 2022 P1R1  
Pace Project No.: 50331424

Dear Mr. Breting:

Enclosed are the analytical results for sample(s) received by the laboratory on November 17, 2022. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

The test results provided in this final report were generated by each of the following laboratories within the Pace Network:

- Pace Analytical Services - Indianapolis
- Pace Analytical Services - Greensburg

If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Will Statz  
will.statz@pacelabs.com  
(317)228-3105  
Project Manager

Enclosures

cc: Mr. Robert Miller, Haley & Aldrich



## REPORT OF LABORATORY ANALYSIS

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## CERTIFICATIONS

Project: Eagle Valley Oct 2022 P1R1

Pace Project No.: 50331424

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### **Pace Analytical Services Pennsylvania**

1638 Roseytown Rd Suites 2,3&4, Greensburg, PA 15601

ANAB DOD-ELAP Rad Accreditation #: L2417

Alabama Certification #: 41590

Arizona Certification #: AZ0734

Arkansas Certification

California Certification #: 04222CA

Colorado Certification #: PA01547

Connecticut Certification #: PH-0694

Delaware Certification

EPA Region 4 DW Rad

Florida/TNI Certification #: E87683

Georgia Certification #: C040

Florida: Cert E871149 SEKS WET

Guam Certification

Hawaii Certification

Idaho Certification

Illinois Certification

Indiana Certification

Iowa Certification #: 391

Kansas/TNI Certification #: E-10358

Kentucky Certification #: KY90133

KY WW Permit #: KY0098221

KY WW Permit #: KY0000221

Louisiana DHH/TNI Certification #: LA180012

Louisiana DEQ/TNI Certification #: 4086

Maine Certification #: 2017020

Maryland Certification #: 308

Massachusetts Certification #: M-PA1457

Michigan/PADEP Certification #: 9991

Missouri Certification #: 235

Montana Certification #: Cert0082

Nebraska Certification #: NE-OS-29-14

Nevada Certification #: PA014572018-1

New Hampshire/TNI Certification #: 297617

New Jersey/TNI Certification #: PA051

New Mexico Certification #: PA01457

New York/TNI Certification #: 10888

North Carolina Certification #: 42706

North Dakota Certification #: R-190

Ohio EPA Rad Approval: #41249

Oregon/TNI Certification #: PA200002-010

Pennsylvania/TNI Certification #: 65-00282

Puerto Rico Certification #: PA01457

Rhode Island Certification #: 65-00282

South Dakota Certification

Tennessee Certification #: 02867

Texas/TNI Certification #: T104704188-17-3

Utah/TNI Certification #: PA014572017-9

USDA Soil Permit #: P330-17-00091

Vermont Dept. of Health: ID# VT-0282

Virgin Island/PADEP Certification

Virginia/VELAP Certification #: 460198

Washington Certification #: C868

West Virginia DEP Certification #: 143

West Virginia DHHR Certification #: 9964C

Wisconsin Approve List for Rad

Wyoming Certification #: 8TMS-L

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### **Pace Analytical Services Indianapolis**

7726 Moller Road, Indianapolis, IN 46268

Illinois Accreditation #: 200074

Indiana Drinking Water Laboratory #: C-49-06

Kansas/TNI Certification #: E-10177

Kentucky UST Agency Interest #: 80226

Kentucky WW Laboratory ID #: 98019

Michigan Drinking Water Laboratory #9050

Ohio VAP Certified Laboratory #: CL0065

Oklahoma Laboratory #: 9204

Texas Certification #: T104704355

Wisconsin Laboratory #: 999788130

USDA Foreign Soil Permit #: 525-23-13-23119

USDA Compliance Agreement #: IN-SL-22-001

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## REPORT OF LABORATORY ANALYSIS

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## SAMPLE SUMMARY

Project: Eagle Valley Oct 2022 P1R1

Pace Project No.: 50331424

Lab ID	Sample ID	Matrix	Date Collected	Date Received
50331424001	MW-3S	Water	11/16/22 10:15	11/17/22 15:10
50331424002	MW-3S MS	Water	11/16/22 10:15	11/17/22 15:10
50331424003	MW-3S MSD	Water	11/16/22 10:15	11/17/22 15:10
50331424004	MW-4I	Water	11/16/22 14:30	11/17/22 15:10
50331424005	MW-7S	Water	11/16/22 09:53	11/17/22 15:10

## REPORT OF LABORATORY ANALYSIS

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### SAMPLE ANALYTE COUNT

Project: Eagle Valley Oct 2022 P1R1

Pace Project No.: 50331424

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
50331424001	MW-3S	EPA 9056	RMR	3	PASI-I
		EPA 6010	JPK	12	PASI-I
		EPA 6010	JPK	2	PASI-I
		EPA 6020	DMT	3	PASI-I
		EPA 903.1	JDZ	1	PASI-PA
		EPA 904.0	ZPC	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
		SM 2320B	TAY	3	PASI-I
		SM 2540C	MTW	1	PASI-I
		SM 4500-H+B	TRK	1	PASI-I
		SM 4500-S2-D	BEP	1	PASI-I
		HACH 8146	ZM	1	PASI-I
		EPA 353.2	MMS	2	PASI-I
		EPA 365.1	MMS	1	PASI-I
		SM 5310C	ATS	1	PASI-I
		SM 5310C	ATS	1	PASI-I
		50331424002	MW-3S MS	EPA 903.1	JDZ
EPA 904.0	ZPC			1	PASI-PA
50331424003	MW-3S MSD	EPA 903.1	JDZ	1	PASI-PA
		EPA 904.0	ZPC	1	PASI-PA
50331424004	MW-4I	EPA 9056	RMR	3	PASI-I
		EPA 6010	JPK	12	PASI-I
		EPA 6010	JPK	2	PASI-I
		EPA 6020	DMT	3	PASI-I
		EPA 903.1	JDZ	1	PASI-PA
		EPA 904.0	ZPC	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
		SM 2320B	TAY	3	PASI-I
		SM 2540C	MTW	1	PASI-I
		SM 4500-H+B	TRK	1	PASI-I
		SM 4500-S2-D	BEP	1	PASI-I
		HACH 8146	ZM	1	PASI-I
		EPA 353.2	MMS	2	PASI-I
		EPA 365.1	MMS	1	PASI-I
		SM 5310C	ATS	1	PASI-I
		SM 5310C	ATS	1	PASI-I
		50331424005	MW-7S	EPA 9056	RMR

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### SAMPLE ANALYTE COUNT

Project: Eagle Valley Oct 2022 P1R1

Pace Project No.: 50331424

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
		EPA 6010	JPK	12	PASI-I
		EPA 6010	JPK	2	PASI-I
		EPA 6020	DMT	3	PASI-I
		EPA 903.1	JDZ	1	PASI-PA
		EPA 904.0	ZPC	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
		SM 2320B	TAY	3	PASI-I
		SM 2540C	MTW	1	PASI-I
		SM 4500-H+B	TRK	1	PASI-I
		SM 4500-S2-D	BEP	1	PASI-I
		HACH 8146	ZM	1	PASI-I
		EPA 353.2	MMS	2	PASI-I
		EPA 365.1	MMS	1	PASI-I
		SM 5310C	ATS	1	PASI-I
		SM 5310C	ATS	1	PASI-I

PASI-I = Pace Analytical Services - Indianapolis

PASI-PA = Pace Analytical Services - Greensburg

### REPORT OF LABORATORY ANALYSIS

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### SUMMARY OF DETECTION

Project: Eagle Valley Oct 2022 P1R1

Pace Project No.: 50331424

Lab Sample ID	Client Sample ID	Result	Units	Report Limit	Analyzed	Qualifiers
Method	Parameters					
<b>50331424001</b>	<b>MW-3S</b>					
EPA 9056	Chloride	95.5	mg/L	2.5	11/24/22 13:10	
EPA 9056	Fluoride	0.30	mg/L	0.10	11/24/22 12:53	
EPA 9056	Sulfate	137	mg/L	2.5	11/24/22 13:10	
EPA 6010	Barium	81.2	ug/L	10.0	12/02/22 20:57	
EPA 6010	Boron	324	ug/L	100	12/02/22 20:57	
EPA 6010	Calcium	88700	ug/L	1000	12/02/22 20:57	
EPA 6010	Magnesium	23500	ug/L	1000	12/02/22 20:57	
EPA 6010	Manganese	815	ug/L	10.0	12/02/22 20:57	
EPA 6010	Molybdenum	53.4	ug/L	10.0	12/02/22 20:57	
EPA 6010	Potassium	5700	ug/L	1000	12/02/22 20:57	
EPA 6010	Silica	12300	ug/L	450	12/02/22 20:57	N2
EPA 6010	Sodium	94400	ug/L	1000	12/02/22 20:57	
EPA 6010	Manganese, Dissolved	467	ug/L	10.0	12/03/22 00:21	
EPA 6010	Molybdenum, Dissolved	52.6	ug/L	10.0	12/03/22 00:21	
EPA 6020	Selenium	1.8	ug/L	1.0	11/23/22 06:31	
EPA 903.1	Radium-226	0.226 ± 0.273 (0.417)	pCi/L		12/11/22 15:30	
EPA 904.0	Radium-228	C:NA T:89% 0.125 ± 0.295 (0.659)	pCi/L		12/08/22 14:42	
		C:74% T:88%				
Total Radium Calculation	Total Radium	0.351 ± 0.568 (1.08)	pCi/L		12/12/22 15:48	
SM 2320B	Alkalinity, Total as CaCO3	262	mg/L	10.0	11/23/22 11:43	
SM 2320B	Alkalinity,Bicarbonate (CaCO3)	262	mg/L	10.0	11/23/22 11:43	
SM 2540C	Total Dissolved Solids	610	mg/L	10.0	11/22/22 08:19	
SM 4500-H+B	pH at 25 Degrees C	7.4	Std. Units	0.10	11/21/22 15:05	H3
EPA 353.2	Nitrogen, Nitrate	0.23	mg/L	0.10	11/17/22 19:15	
SM 5310C	Dissolved Organic Carbon	1.2	mg/L	1.0	12/07/22 15:59	
<b>50331424002</b>	<b>MW-3S MS</b>					
EPA 903.1	Radium-226	89.51 %REC ± NA (NA)	pCi/L		12/11/22 15:30	
EPA 904.0	Radium-228	C:NA T:NA 75.26 %REC ± NA (NA)	pCi/L		12/08/22 14:42	
		C:NA T:NA				
<b>50331424003</b>	<b>MW-3S MSD</b>					
EPA 903.1	Radium-226	68.68 %REC 26.33RPD ± NA (NA) C:NA T:NA	pCi/L		12/11/22 16:43	1d

### REPORT OF LABORATORY ANALYSIS

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### SUMMARY OF DETECTION

Project: Eagle Valley Oct 2022 P1R1

Pace Project No.: 50331424

Lab Sample ID	Client Sample ID	Result	Units	Report Limit	Analyzed	Qualifiers
Method	Parameters					
<b>50331424003</b>	<b>MW-3S MSD</b>					
EPA 904.0	Radium-228	92.17 %REC 20.20 RPD ± NA (NA) C:NA T:NA	pCi/L		12/08/22 14:42	
<b>50331424004</b>	<b>MW-4I</b>					
EPA 9056	Chloride	103	mg/L	2.5	11/24/22 15:38	
EPA 9056	Fluoride	0.40	mg/L	0.10	11/24/22 15:22	
EPA 9056	Sulfate	64.6	mg/L	2.5	11/24/22 15:38	
EPA 6010	Barium	70.5	ug/L	10.0	12/02/22 21:07	
EPA 6010	Boron	147	ug/L	100	12/02/22 21:07	
EPA 6010	Calcium	75300	ug/L	1000	12/02/22 21:07	
EPA 6010	Iron	424	ug/L	100	12/02/22 21:07	
EPA 6010	Magnesium	23500	ug/L	1000	12/02/22 21:07	
EPA 6010	Manganese	146	ug/L	10.0	12/02/22 21:07	
EPA 6010	Molybdenum	12.1	ug/L	10.0	12/02/22 21:07	
EPA 6010	Potassium	3420	ug/L	1000	12/02/22 21:07	
EPA 6010	Silica	10200	ug/L	450	12/02/22 21:07	N2
EPA 6010	Sodium	71600	ug/L	1000	12/02/22 21:07	
EPA 6010	Manganese, Dissolved	143	ug/L	10.0	12/03/22 00:32	
EPA 6010	Molybdenum, Dissolved	15.2	ug/L	10.0	12/03/22 00:32	
EPA 903.1	Radium-226	0.461 ± 0.480 (0.714) C:NA T:89%	pCi/L		12/11/22 15:47	
EPA 904.0	Radium-228	0.127 ± 0.265 (0.588) C:77% T:91%	pCi/L		12/08/22 14:42	
Total Radium Calculation	Total Radium	0.588 ± 0.745 (1.30)	pCi/L		12/12/22 15:48	
SM 2320B	Alkalinity, Total as CaCO3	236	mg/L	10.0	11/23/22 11:43	
SM 2320B	Alkalinity,Bicarbonate (CaCO3)	236	mg/L	10.0	11/23/22 11:43	
SM 2540C	Total Dissolved Solids	478	mg/L	10.0	11/22/22 08:20	
SM 4500-H+B	pH at 25 Degrees C	7.5	Std. Units	0.10	11/21/22 15:08	H3
SM 5310C	Total Organic Carbon	1.4	mg/L	1.0	12/09/22 06:03	
SM 5310C	Dissolved Organic Carbon	1.7	mg/L	1.0	12/07/22 16:33	
<b>50331424005</b>	<b>MW-7S</b>					
EPA 9056	Chloride	174	mg/L	25.0	12/01/22 17:11	
EPA 9056	Sulfate	527	mg/L	25.0	12/01/22 17:11	
EPA 6010	Barium	100	ug/L	10.0	12/02/22 21:10	
EPA 6010	Boron	1490	ug/L	100	12/02/22 21:10	
EPA 6010	Calcium	252000	ug/L	2000	12/02/22 22:03	
EPA 6010	Iron	329	ug/L	100	12/02/22 21:10	
EPA 6010	Lithium	30.9	ug/L	20.0	12/02/22 21:10	
EPA 6010	Magnesium	51200	ug/L	1000	12/02/22 21:10	
EPA 6010	Manganese	654	ug/L	10.0	12/02/22 21:10	

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### SUMMARY OF DETECTION

Project: Eagle Valley Oct 2022 P1R1

Pace Project No.: 50331424

Lab Sample ID Method	Client Sample ID Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
<b>50331424005</b>	<b>MW-7S</b>					
EPA 6010	Molybdenum	42.8	ug/L	10.0	12/02/22 21:10	
EPA 6010	Potassium	5880	ug/L	1000	12/02/22 21:10	
EPA 6010	Silica	13900	ug/L	450	12/02/22 21:10	N2
EPA 6010	Sodium	86200	ug/L	1000	12/02/22 21:10	
EPA 6010	Manganese, Dissolved	710	ug/L	10.0	12/03/22 00:34	
EPA 6010	Molybdenum, Dissolved	47.2	ug/L	10.0	12/03/22 00:34	
EPA 6020	Antimony	2.6	ug/L	1.0	11/23/22 06:59	
EPA 6020	Selenium	17.7	ug/L	1.0	11/23/22 06:59	
EPA 903.1	Radium-226	0.508 ± 0.398 (0.468)	pCi/L		12/11/22 15:47	
EPA 904.0	Radium-228	C:NA T:97% 0.438 ± 0.336 (0.660)	pCi/L		12/08/22 14:42	
		C:80% T:89%				
Total Radium Calculation	Total Radium	0.946 ± 0.734 (1.13)	pCi/L		12/12/22 15:48	
SM 2320B	Alkalinity, Total as CaCO3	303	mg/L	10.0	11/23/22 11:43	
SM 2320B	Alkalinity,Bicarbonate (CaCO3)	303	mg/L	10.0	11/23/22 11:43	
SM 2540C	Total Dissolved Solids	1320	mg/L	20.0	11/22/22 08:29	
SM 4500-H+B	pH at 25 Degrees C	7.1	Std. Units	0.10	11/21/22 15:09	H3
EPA 353.2	Nitrogen, Nitrate	1.1	mg/L	0.10	11/17/22 19:14	

### REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: Eagle Valley Oct 2022 P1R1

Pace Project No.: 50331424

Sample: MW-3S		Lab ID: 50331424001		Collected: 11/16/22 10:15	Received: 11/17/22 15:10	Matrix: Water				
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual	
<b>9056 IC Anions</b>		Analytical Method: EPA 9056 Pace Analytical Services - Indianapolis								
Chloride	95.5	mg/L	2.5	0.67	10		11/24/22 13:10	16887-00-6		
Fluoride	0.30	mg/L	0.10	0.017	1		11/24/22 12:53	16984-48-8		
Sulfate	137	mg/L	2.5	0.85	10		11/24/22 13:10	14808-79-8		
<b>6010 MET ICP</b>		Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Aluminum	ND	ug/L	200	55.4	1	12/02/22 09:05	12/02/22 20:57	7429-90-5		
Barium	81.2	ug/L	10.0	2.1	1	12/02/22 09:05	12/02/22 20:57	7440-39-3		
Boron	324	ug/L	100	37.6	1	12/02/22 09:05	12/02/22 20:57	7440-42-8		
Calcium	88700	ug/L	1000	163	1	12/02/22 09:05	12/02/22 20:57	7440-70-2		
Iron	ND	ug/L	100	48.8	1	12/02/22 09:05	12/02/22 20:57	7439-89-6		
Lithium	ND	ug/L	20.0	6.2	1	12/02/22 09:05	12/02/22 20:57	7439-93-2		
Magnesium	23500	ug/L	1000	71.8	1	12/02/22 09:05	12/02/22 20:57	7439-95-4		
Manganese	815	ug/L	10.0	2.5	1	12/02/22 09:05	12/02/22 20:57	7439-96-5		
Molybdenum	53.4	ug/L	10.0	3.7	1	12/02/22 09:05	12/02/22 20:57	7439-98-7		
Potassium	5700	ug/L	1000	281	1	12/02/22 09:05	12/02/22 20:57	7440-09-7		
Silica	12300	ug/L	450		1	12/02/22 09:05	12/02/22 20:57	7631-86-9	N2	
Sodium	94400	ug/L	1000	214	1	12/02/22 09:05	12/02/22 20:57	7440-23-5		
<b>6010 MET ICP, Dissolved</b>		Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Manganese, Dissolved	467	ug/L	10.0	2.5	1	12/01/22 08:43	12/03/22 00:21	7439-96-5		
Molybdenum, Dissolved	52.6	ug/L	10.0	3.7	1	12/01/22 08:43	12/03/22 00:21	7439-98-7		
<b>6020 MET ICPMS</b>		Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis								
Antimony	ND	ug/L	1.0	0.28	1	11/21/22 15:13	11/23/22 06:31	7440-36-0		
Arsenic	ND	ug/L	1.0	0.094	1	11/21/22 15:13	11/23/22 06:31	7440-38-2		
Selenium	1.8	ug/L	1.0	0.57	1	11/21/22 15:13	11/23/22 06:31	7782-49-2		
<b>2320B Alkalinity</b>		Analytical Method: SM 2320B Pace Analytical Services - Indianapolis								
Alkalinity, Total as CaCO3	262	mg/L	10.0	10.0	1		11/23/22 11:43			
Alkalinity,Bicarbonate (CaCO3)	262	mg/L	10.0	10.0	1		11/23/22 11:43			
Alkalinity,Carbonate (CaCO3)	ND	mg/L	10.0	10.0	1		11/23/22 11:43			
<b>2540C Total Dissolved Solids</b>		Analytical Method: SM 2540C Pace Analytical Services - Indianapolis								
Total Dissolved Solids	610	mg/L	10.0	10.0	1		11/22/22 08:19			
<b>4500H+ pH, Electrometric</b>		Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis								
pH at 25 Degrees C	7.4	Std. Units	0.10	0.10	1		11/21/22 15:05		H3	

## REPORT OF LABORATORY ANALYSIS

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### ANALYTICAL RESULTS

Project: Eagle Valley Oct 2022 P1R1

Pace Project No.: 50331424

Sample: MW-3S		Lab ID: 50331424001		Collected: 11/16/22 10:15	Received: 11/17/22 15:10	Matrix: Water				
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual	
<b>4500S2D Sulfide Water</b>		Analytical Method: SM 4500-S2-D Pace Analytical Services - Indianapolis								
Sulfide	ND	mg/L	0.10	0.025	1		11/19/22 13:53	18496-25-8		
<b>Iron, Ferrous</b>		Analytical Method: HACH 8146 Pace Analytical Services - Indianapolis								
Iron, Ferrous	ND	mg/L	0.20	0.096	1		11/28/22 18:35	15438-31-0	H3,N2	
<b>353.2 Nitrogen, NO2/NO3 unpres</b>		Analytical Method: EPA 353.2 Pace Analytical Services - Indianapolis								
Nitrogen, Nitrate	<b>0.23</b>	mg/L	0.10	0.011	1		11/17/22 19:15	14797-55-8		
Nitrogen, Nitrite	ND	mg/L	0.10	0.0040	1		11/17/22 19:15	14797-65-0		
<b>365.1 Total Phosphorus</b>		Analytical Method: EPA 365.1 Preparation Method: EPA 365.1 Pace Analytical Services - Indianapolis								
Phosphate as P04	ND	mg/L	0.15	0.15	1	11/22/22 12:30	11/25/22 12:33			
<b>5310C TOC</b>		Analytical Method: SM 5310C Pace Analytical Services - Indianapolis								
Total Organic Carbon	ND	mg/L	1.0	0.14	1		12/09/22 05:30	7440-44-0		
<b>5310C Dissolved Organic Carbon</b>		Analytical Method: SM 5310C Pace Analytical Services - Indianapolis								
Dissolved Organic Carbon	<b>1.2</b>	mg/L	1.0	0.14	1		12/07/22 15:59			

### REPORT OF LABORATORY ANALYSIS

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### ANALYTICAL RESULTS

Project: Eagle Valley Oct 2022 P1R1

Pace Project No.: 50331424

Sample: MW-4I		Lab ID: 50331424004		Collected: 11/16/22 14:30		Received: 11/17/22 15:10		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>9056 IC Anions</b>		Analytical Method: EPA 9056 Pace Analytical Services - Indianapolis							
Chloride	103	mg/L	2.5	0.67	10		11/24/22 15:38	16887-00-6	
Fluoride	0.40	mg/L	0.10	0.017	1		11/24/22 15:22	16984-48-8	
Sulfate	64.6	mg/L	2.5	0.85	10		11/24/22 15:38	14808-79-8	
<b>6010 MET ICP</b>		Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis							
Aluminum	ND	ug/L	200	55.4	1	12/02/22 09:05	12/02/22 21:07	7429-90-5	
Barium	70.5	ug/L	10.0	2.1	1	12/02/22 09:05	12/02/22 21:07	7440-39-3	
Boron	147	ug/L	100	37.6	1	12/02/22 09:05	12/02/22 21:07	7440-42-8	
Calcium	75300	ug/L	1000	163	1	12/02/22 09:05	12/02/22 21:07	7440-70-2	
Iron	424	ug/L	100	48.8	1	12/02/22 09:05	12/02/22 21:07	7439-89-6	
Lithium	ND	ug/L	20.0	6.2	1	12/02/22 09:05	12/02/22 21:07	7439-93-2	
Magnesium	23500	ug/L	1000	71.8	1	12/02/22 09:05	12/02/22 21:07	7439-95-4	
Manganese	146	ug/L	10.0	2.5	1	12/02/22 09:05	12/02/22 21:07	7439-96-5	
Molybdenum	12.1	ug/L	10.0	3.7	1	12/02/22 09:05	12/02/22 21:07	7439-98-7	
Potassium	3420	ug/L	1000	281	1	12/02/22 09:05	12/02/22 21:07	7440-09-7	
Silica	10200	ug/L	450		1	12/02/22 09:05	12/02/22 21:07	7631-86-9	N2
Sodium	71600	ug/L	1000	214	1	12/02/22 09:05	12/02/22 21:07	7440-23-5	
<b>6010 MET ICP, Dissolved</b>		Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis							
Manganese, Dissolved	143	ug/L	10.0	2.5	1	12/01/22 08:43	12/03/22 00:32	7439-96-5	
Molybdenum, Dissolved	15.2	ug/L	10.0	3.7	1	12/01/22 08:43	12/03/22 00:32	7439-98-7	
<b>6020 MET ICPMS</b>		Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis							
Antimony	ND	ug/L	1.0	0.28	1	11/21/22 15:13	11/23/22 06:56	7440-36-0	
Arsenic	ND	ug/L	1.0	0.094	1	11/21/22 15:13	11/23/22 06:56	7440-38-2	
Selenium	ND	ug/L	1.0	0.57	1	11/21/22 15:13	11/23/22 06:56	7782-49-2	
<b>2320B Alkalinity</b>		Analytical Method: SM 2320B Pace Analytical Services - Indianapolis							
Alkalinity, Total as CaCO3	236	mg/L	10.0	10.0	1		11/23/22 11:43		
Alkalinity,Bicarbonate (CaCO3)	236	mg/L	10.0	10.0	1		11/23/22 11:43		
Alkalinity,Carbonate (CaCO3)	ND	mg/L	10.0	10.0	1		11/23/22 11:43		
<b>2540C Total Dissolved Solids</b>		Analytical Method: SM 2540C Pace Analytical Services - Indianapolis							
Total Dissolved Solids	478	mg/L	10.0	10.0	1		11/22/22 08:20		
<b>4500H+ pH, Electrometric</b>		Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis							
pH at 25 Degrees C	7.5	Std. Units	0.10	0.10	1		11/21/22 15:08		H3

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### ANALYTICAL RESULTS

Project: Eagle Valley Oct 2022 P1R1

Pace Project No.: 50331424

Sample: MW-4I		Lab ID: 50331424004		Collected: 11/16/22 14:30	Received: 11/17/22 15:10	Matrix: Water				
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual	
<b>4500S2D Sulfide Water</b>		Analytical Method: SM 4500-S2-D Pace Analytical Services - Indianapolis								
Sulfide	ND	mg/L	0.10	0.025	1		11/19/22 13:53	18496-25-8		
<b>Iron, Ferrous</b>		Analytical Method: HACH 8146 Pace Analytical Services - Indianapolis								
Iron, Ferrous	ND	mg/L	0.20	0.096	1		11/28/22 18:37	15438-31-0	H3,N2	
<b>353.2 Nitrogen, NO2/NO3 unpres</b>		Analytical Method: EPA 353.2 Pace Analytical Services - Indianapolis								
Nitrogen, Nitrate	ND	mg/L	0.10	0.011	1		11/17/22 19:36	14797-55-8		
Nitrogen, Nitrite	ND	mg/L	0.10	0.0040	1		11/17/22 19:36	14797-65-0		
<b>365.1 Total Phosphorus</b>		Analytical Method: EPA 365.1 Preparation Method: EPA 365.1 Pace Analytical Services - Indianapolis								
Phosphate as P04	ND	mg/L	0.15	0.15	1	11/22/22 12:30	11/25/22 12:37			
<b>5310C TOC</b>		Analytical Method: SM 5310C Pace Analytical Services - Indianapolis								
Total Organic Carbon	1.4	mg/L	1.0	0.14	1		12/09/22 06:03	7440-44-0		
<b>5310C Dissolved Organic Carbon</b>		Analytical Method: SM 5310C Pace Analytical Services - Indianapolis								
Dissolved Organic Carbon	1.7	mg/L	1.0	0.14	1		12/07/22 16:33			

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### ANALYTICAL RESULTS

Project: Eagle Valley Oct 2022 P1R1

Pace Project No.: 50331424

Sample: MW-7S		Lab ID: 50331424005		Collected: 11/16/22 09:53	Received: 11/17/22 15:10	Matrix: Water				
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual	
<b>9056 IC Anions</b>		Analytical Method: EPA 9056 Pace Analytical Services - Indianapolis								
Chloride	174	mg/L	25.0	6.7	100		12/01/22 17:11	16887-00-6		
Fluoride	ND	mg/L	0.10	0.017	1		11/24/22 16:11	16984-48-8		
Sulfate	527	mg/L	25.0	8.5	100		12/01/22 17:11	14808-79-8		
<b>6010 MET ICP</b>		Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Aluminum	ND	ug/L	200	55.4	1	12/02/22 09:05	12/02/22 21:10	7429-90-5		
Barium	100	ug/L	10.0	2.1	1	12/02/22 09:05	12/02/22 21:10	7440-39-3		
Boron	1490	ug/L	100	37.6	1	12/02/22 09:05	12/02/22 21:10	7440-42-8		
Calcium	252000	ug/L	2000	326	2	12/02/22 09:05	12/02/22 22:03	7440-70-2		
Iron	329	ug/L	100	48.8	1	12/02/22 09:05	12/02/22 21:10	7439-89-6		
Lithium	30.9	ug/L	20.0	6.2	1	12/02/22 09:05	12/02/22 21:10	7439-93-2		
Magnesium	51200	ug/L	1000	71.8	1	12/02/22 09:05	12/02/22 21:10	7439-95-4		
Manganese	654	ug/L	10.0	2.5	1	12/02/22 09:05	12/02/22 21:10	7439-96-5		
Molybdenum	42.8	ug/L	10.0	3.7	1	12/02/22 09:05	12/02/22 21:10	7439-98-7		
Potassium	5880	ug/L	1000	281	1	12/02/22 09:05	12/02/22 21:10	7440-09-7		
Silica	13900	ug/L	450		1	12/02/22 09:05	12/02/22 21:10	7631-86-9	N2	
Sodium	86200	ug/L	1000	214	1	12/02/22 09:05	12/02/22 21:10	7440-23-5		
<b>6010 MET ICP, Dissolved</b>		Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Manganese, Dissolved	710	ug/L	10.0	2.5	1	12/01/22 08:43	12/03/22 00:34	7439-96-5		
Molybdenum, Dissolved	47.2	ug/L	10.0	3.7	1	12/01/22 08:43	12/03/22 00:34	7439-98-7		
<b>6020 MET ICPMS</b>		Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis								
Antimony	2.6	ug/L	1.0	0.28	1	11/21/22 15:13	11/23/22 06:59	7440-36-0		
Arsenic	ND	ug/L	1.0	0.094	1	11/21/22 15:13	11/23/22 06:59	7440-38-2		
Selenium	17.7	ug/L	1.0	0.57	1	11/21/22 15:13	11/23/22 06:59	7782-49-2		
<b>2320B Alkalinity</b>		Analytical Method: SM 2320B Pace Analytical Services - Indianapolis								
Alkalinity, Total as CaCO3	303	mg/L	10.0	10.0	1		11/23/22 11:43			
Alkalinity,Bicarbonate (CaCO3)	303	mg/L	10.0	10.0	1		11/23/22 11:43			
Alkalinity,Carbonate (CaCO3)	ND	mg/L	10.0	10.0	1		11/23/22 11:43			
<b>2540C Total Dissolved Solids</b>		Analytical Method: SM 2540C Pace Analytical Services - Indianapolis								
Total Dissolved Solids	1320	mg/L	20.0	20.0	1		11/22/22 08:29			
<b>4500H+ pH, Electrometric</b>		Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis								
pH at 25 Degrees C	7.1	Std. Units	0.10	0.10	1		11/21/22 15:09		H3	

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### ANALYTICAL RESULTS

Project: Eagle Valley Oct 2022 P1R1

Pace Project No.: 50331424

Sample: MW-7S		Lab ID: 50331424005		Collected: 11/16/22 09:53	Received: 11/17/22 15:10	Matrix: Water				
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual	
<b>4500S2D Sulfide Water</b>		Analytical Method: SM 4500-S2-D Pace Analytical Services - Indianapolis								
Sulfide	ND	mg/L	0.10	0.025	1		11/19/22 13:53	18496-25-8		
<b>Iron, Ferrous</b>		Analytical Method: HACH 8146 Pace Analytical Services - Indianapolis								
Iron, Ferrous	ND	mg/L	0.20	0.096	1		11/28/22 18:35	15438-31-0	H3,N2	
<b>353.2 Nitrogen, NO2/NO3 unpres</b>		Analytical Method: EPA 353.2 Pace Analytical Services - Indianapolis								
Nitrogen, Nitrate	1.1	mg/L	0.10	0.011	1		11/17/22 19:14	14797-55-8		
Nitrogen, Nitrite	ND	mg/L	0.10	0.0040	1		11/17/22 19:14	14797-65-0		
<b>365.1 Total Phosphorus</b>		Analytical Method: EPA 365.1 Preparation Method: EPA 365.1 Pace Analytical Services - Indianapolis								
Phosphate as P04	ND	mg/L	0.15	0.15	1	11/22/22 12:30	11/25/22 12:37			
<b>5310C TOC</b>		Analytical Method: SM 5310C Pace Analytical Services - Indianapolis								
Total Organic Carbon	ND	mg/L	4.0	0.57	4		12/09/22 14:29	7440-44-0	D3	
<b>5310C Dissolved Organic Carbon</b>		Analytical Method: SM 5310C Pace Analytical Services - Indianapolis								
Dissolved Organic Carbon	ND	mg/L	4.0	0.57	4		12/07/22 22:53		D3	

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### QUALITY CONTROL DATA

Project: Eagle Valley Oct 2022 P1R1

Pace Project No.: 50331424

QC Batch:	707648	Analysis Method:	EPA 9056
QC Batch Method:	EPA 9056	Analysis Description:	9056 IC Anions
		Laboratory:	Pace Analytical Services - Indianapolis

Associated Lab Samples: 50331424001, 50331424004, 50331424005

METHOD BLANK: 3253046 Matrix: Water

Associated Lab Samples: 50331424001, 50331424004, 50331424005

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chloride	mg/L	ND	0.25	0.067	11/24/22 12:20	
Fluoride	mg/L	ND	0.10	0.017	11/24/22 12:20	
Sulfate	mg/L	ND	0.25	0.085	11/24/22 12:20	

LABORATORY CONTROL SAMPLE: 3253047

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	1.2	1.2	96	80-120	
Fluoride	mg/L	0.5	0.48	96	80-120	
Sulfate	mg/L	2.5	2.4	95	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3253048 3253049

Parameter	Units	50331424001		50331424004		50331424005		% Rec	% Rec	% Rec Limits	RPD	Max RPD	Qual
		MS Result	MSD Spike Conc.	MS Result	MSD Spike Conc.	MS Result	MSD Spike Conc.						
Chloride	mg/L	95.5	12.5	12.5	113	109	138	110	80-120	3	15	M0	
Fluoride	mg/L	0.30	0.5	0.5	0.77	0.80	94	100	80-120	4	15		
Sulfate	mg/L	137	25	25	162	161	99	95	80-120	1	15		

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### QUALITY CONTROL DATA

Project: Eagle Valley Oct 2022 P1R1

Pace Project No.: 50331424

QC Batch: 708437

Analysis Method: EPA 6010

QC Batch Method: EPA 3010

Analysis Description: 6010 MET

Laboratory: Pace Analytical Services - Indianapolis

Associated Lab Samples: 50331424001, 50331424004, 50331424005

METHOD BLANK: 3256282

Matrix: Water

Associated Lab Samples: 50331424001, 50331424004, 50331424005

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Aluminum	ug/L	ND	200	55.4	12/02/22 20:54	
Barium	ug/L	ND	10.0	2.1	12/02/22 20:54	
Boron	ug/L	ND	100	37.6	12/02/22 20:54	
Calcium	ug/L	ND	1000	163	12/02/22 20:54	
Iron	ug/L	ND	100	48.8	12/02/22 20:54	
Lithium	ug/L	ND	20.0	6.2	12/02/22 20:54	
Magnesium	ug/L	ND	1000	71.8	12/02/22 20:54	
Manganese	ug/L	ND	10.0	2.5	12/02/22 20:54	
Molybdenum	ug/L	ND	10.0	3.7	12/02/22 20:54	
Potassium	ug/L	ND	1000	281	12/02/22 20:54	
Silica	ug/L	ND	450		12/02/22 20:54	N2
Sodium	ug/L	ND	1000	214	12/02/22 20:54	

LABORATORY CONTROL SAMPLE: 3256283

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Aluminum	ug/L	10000	10800	108	80-120	
Barium	ug/L	1000	1100	110	80-120	
Boron	ug/L	1000	1070	107	80-120	
Calcium	ug/L	10000	11000	110	80-120	
Iron	ug/L	10000	10600	106	80-120	
Lithium	ug/L	1000	1080	108	80-120	
Magnesium	ug/L	10000	10500	105	80-120	
Manganese	ug/L	1000	1060	106	80-120	
Molybdenum	ug/L	1000	1120	112	80-120	
Potassium	ug/L	10000	10900	109	80-120	
Silica	ug/L	10700	11200	105	80-120	N2
Sodium	ug/L	10000	11100	111	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3256284 3256285

Parameter	Units	50331424001		3256285		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result						
Aluminum	ug/L	ND	10000	10000	10600	106	106	75-125	0	20	
Barium	ug/L	81.2	1000	1000	1160	108	106	75-125	2	20	
Boron	ug/L	324	1000	1000	1440	112	110	75-125	1	20	
Calcium	ug/L	88700	10000	10000	109000	202	163	75-125	4	20	P6

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### QUALITY CONTROL DATA

Project: Eagle Valley Oct 2022 P1R1

Pace Project No.: 50331424

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3256284												3256285	
Parameter	Units	50331424001 Result	MS	MSD	MS	MSD	MS	MSD	% Rec	Max	Qual		
			Spike Conc.	Spike Conc.	Result	Result	% Rec	% Rec	Limits	RPD			
Iron	ug/L	ND	10000	10000	10400	10400	104	104	75-125	0	20		
Lithium	ug/L	ND	1000	1000	1090	1080	107	106	75-125	1	20		
Magnesium	ug/L	23500	10000	10000	36500	35400	130	119	75-125	3	20 M0		
Manganese	ug/L	815	1000	1000	1950	1900	114	109	75-125	2	20		
Molybdenum	ug/L	53.4	1000	1000	1140	1140	109	108	75-125	1	20		
Potassium	ug/L	5700	10000	10000	17400	17000	117	112	75-125	3	20		
Silica	ug/L	12300	10700	10700	24700	24100	116	110	75-125	3	20 N2		
Sodium	ug/L	94400	10000	10000	118000	112000	234	180	75-125	5	20 P6		

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3256286												3256287	
Parameter	Units	50331450008 Result	MS	MSD	MS	MSD	MS	MSD	% Rec	Max	Qual		
			Spike Conc.	Spike Conc.	Result	Result	% Rec	% Rec	Limits	RPD			
Aluminum	ug/L	1460	10000	10000	12300	13600	108	122	75-125	10	20		
Barium	ug/L	121	1000	1000	1220	1210	110	109	75-125	1	20		
Boron	ug/L	1020	1000	1000	2230	2130	122	112	75-125	5	20		
Calcium	ug/L	2430	10000	10000	13700	13400	113	110	75-125	2	20		
Iron	ug/L	983	10000	10000	11600	11400	106	105	75-125	1	20		
Lithium	ug/L	30.0	1000	1000	1120	1120	109	109	75-125	0	20		
Magnesium	ug/L	1280	10000	10000	11500	11200	102	100	75-125	2	20		
Manganese	ug/L	16.8	1000	1000	1070	1060	106	104	75-125	1	20		
Molybdenum	ug/L	23.0	1000	1000	1100	1100	108	108	75-125	0	20		
Potassium	ug/L	2060	10000	10000	13800	13700	118	117	75-125	1	20		
Silica	ug/L	12200	10700	10700	25300	26000	122	129	75-125	3	20 N2		
Sodium	ug/L	586000	10000	10000	660000	612000	746	269	75-125	7	20 E,P6		

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### QUALITY CONTROL DATA

Project: Eagle Valley Oct 2022 P1R1

Pace Project No.: 50331424

QC Batch:	708392	Analysis Method:	EPA 6010
QC Batch Method:	EPA 3010	Analysis Description:	6010 MET Dissolved
		Laboratory:	Pace Analytical Services - Indianapolis

Associated Lab Samples: 50331424001, 50331424004, 50331424005

METHOD BLANK: 3256128 Matrix: Water

Associated Lab Samples: 50331424001, 50331424004, 50331424005

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Manganese, Dissolved	ug/L	ND	10.0	2.5	12/03/22 00:08	
Molybdenum, Dissolved	ug/L	ND	10.0	3.7	12/03/22 00:08	

LABORATORY CONTROL SAMPLE: 3256129

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Manganese, Dissolved	ug/L	1000	1010	101	80-120	
Molybdenum, Dissolved	ug/L	1000	1040	104	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3256130 3256131

Parameter	Units	50331365001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Manganese, Dissolved	ug/L	111	1000	1000	1110	1110	100	100	75-125	1	20	
Molybdenum, Dissolved	ug/L	ND	1000	1000	1050	1050	105	105	75-125	0	20	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3256132 3256133

Parameter	Units	50331424001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Manganese, Dissolved	ug/L	467	1000	1000	1480	1480	102	101	75-125	0	20	
Molybdenum, Dissolved	ug/L	52.6	1000	1000	1130	1140	108	108	75-125	1	20	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3256134 3256135

Parameter	Units	50331472002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Manganese, Dissolved	ug/L	206	1000	1000	1210	1200	101	100	75-125	1	20	
Molybdenum, Dissolved	ug/L	ND	1000	1000	1050	1060	105	105	75-125	1	20	

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### QUALITY CONTROL DATA

Project: Eagle Valley Oct 2022 P1R1

Pace Project No.: 50331424

QC Batch:	707409	Analysis Method:	EPA 6020
QC Batch Method:	EPA 200.2	Analysis Description:	6020 MET
		Laboratory:	Pace Analytical Services - Indianapolis

Associated Lab Samples: 50331424001, 50331424004, 50331424005

METHOD BLANK: 3252313 Matrix: Water

Associated Lab Samples: 50331424001, 50331424004, 50331424005

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Antimony	ug/L	ND	1.0	0.28	11/23/22 05:17	
Arsenic	ug/L	ND	1.0	0.094	11/23/22 05:17	
Selenium	ug/L	ND	1.0	0.57	11/23/22 05:17	

LABORATORY CONTROL SAMPLE: 3252314

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Antimony	ug/L	40	42.3	106	80-120	
Arsenic	ug/L	40	39.0	98	80-120	
Selenium	ug/L	40	39.3	98	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3252315 3252316

Parameter	Units	50331424001		3252316		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		Result	MS Spike Conc.	MSD Spike Conc.	MS Result								
Antimony	ug/L	ND	40	40	43.5	43.4	108	108	75-125	0	20		
Arsenic	ug/L	ND	40	40	38.3	38.1	95	95	75-125	1	20		
Selenium	ug/L	1.8	40	40	40.1	39.3	96	94	75-125	2	20		

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### QUALITY CONTROL DATA

Project: Eagle Valley Oct 2022 P1R1  
Pace Project No.: 50331424

QC Batch: 707790      Analysis Method: SM 2320B  
QC Batch Method: SM 2320B      Analysis Description: 2320B Alkalinity  
Laboratory: Pace Analytical Services - Indianapolis  
Associated Lab Samples: 50331424001, 50331424004, 50331424005

METHOD BLANK: 3253608      Matrix: Water  
Associated Lab Samples: 50331424001, 50331424004, 50331424005

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Alkalinity, Total as CaCO3	mg/L	ND	10.0	10.0	11/23/22 11:43	
Alkalinity,Bicarbonate (CaCO3)	mg/L	ND	10.0	10.0	11/23/22 11:43	
Alkalinity,Carbonate (CaCO3)	mg/L	ND	10.0	10.0	11/23/22 11:43	

LABORATORY CONTROL SAMPLE: 3253609

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Alkalinity, Total as CaCO3	mg/L	50	48.1	96	90-110	

SAMPLE DUPLICATE: 3253610

Parameter	Units	50331419014 Result	Dup Result	RPD	Max RPD	Qualifiers
Alkalinity, Total as CaCO3	mg/L	183	189	3	20	
Alkalinity,Bicarbonate (CaCO3)	mg/L	183	189	3	20	
Alkalinity,Carbonate (CaCO3)	mg/L	ND	ND		20	

SAMPLE DUPLICATE: 3253611

Parameter	Units	50331424001 Result	Dup Result	RPD	Max RPD	Qualifiers
Alkalinity, Total as CaCO3	mg/L	262	266	1	20	
Alkalinity,Bicarbonate (CaCO3)	mg/L	262	266	1	20	
Alkalinity,Carbonate (CaCO3)	mg/L	ND	ND		20	

SAMPLE DUPLICATE: 3253612

Parameter	Units	50331472002 Result	Dup Result	RPD	Max RPD	Qualifiers
Alkalinity, Total as CaCO3	mg/L	499	514	3	20	
Alkalinity,Bicarbonate (CaCO3)	mg/L	499	513	3	20	
Alkalinity,Carbonate (CaCO3)	mg/L	ND	ND		20	

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### QUALITY CONTROL DATA

Project: Eagle Valley Oct 2022 P1R1

Pace Project No.: 50331424

QC Batch: 707693

Analysis Method: SM 2540C

QC Batch Method: SM 2540C

Analysis Description: 2540C Total Dissolved Solids

Laboratory: Pace Analytical Services - Indianapolis

Associated Lab Samples: 50331424001, 50331424004

METHOD BLANK: 3253224

Matrix: Water

Associated Lab Samples: 50331424001, 50331424004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	ND	10.0	10.0	11/22/22 08:13	

LABORATORY CONTROL SAMPLE: 3253225

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	300	288	96	80-120	

SAMPLE DUPLICATE: 3253226

Parameter	Units	50331419014 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	259	257	1	10	

SAMPLE DUPLICATE: 3253227

Parameter	Units	50331424001 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	610	616	1	10	

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### QUALITY CONTROL DATA

Project: Eagle Valley Oct 2022 P1R1

Pace Project No.: 50331424

QC Batch: 707694

Analysis Method: SM 2540C

QC Batch Method: SM 2540C

Analysis Description: 2540C Total Dissolved Solids

Laboratory: Pace Analytical Services - Indianapolis

Associated Lab Samples: 50331424005

METHOD BLANK: 3253228

Matrix: Water

Associated Lab Samples: 50331424005

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	ND	10.0	10.0	11/22/22 08:29	

LABORATORY CONTROL SAMPLE: 3253229

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	300	300	100	80-120	

SAMPLE DUPLICATE: 3253230

Parameter	Units	50331424005 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	1320	1300	2	10	

SAMPLE DUPLICATE: 3253231

Parameter	Units	50331472002 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	481	480	0	10	

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**QUALITY CONTROL DATA**

Project: Eagle Valley Oct 2022 P1R1

Pace Project No.: 50331424

QC Batch: 707589

Analysis Method: SM 4500-H+B

QC Batch Method: SM 4500-H+B

Analysis Description: 4500H+B pH

Laboratory: Pace Analytical Services - Indianapolis

Associated Lab Samples: 50331424001, 50331424004, 50331424005

SAMPLE DUPLICATE: 3252873

Parameter	Units	50331424001 Result	Dup Result	RPD	Max RPD	Qualifiers
pH at 25 Degrees C	Std. Units	7.4	7.4	1	2	H3

SAMPLE DUPLICATE: 3252874

Parameter	Units	50331450008 Result	Dup Result	RPD	Max RPD	Qualifiers
pH at 25 Degrees C	Std. Units	8.6	8.6	0	2	H3

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**QUALITY CONTROL DATA**

Project: Eagle Valley Oct 2022 P1R1

Pace Project No.: 50331424

QC Batch:	707332	Analysis Method:	SM 4500-S2-D
QC Batch Method:	SM 4500-S2-D	Analysis Description:	4500S2D Sulfide Water
		Laboratory:	Pace Analytical Services - Indianapolis

Associated Lab Samples: 50331424001, 50331424004, 50331424005

METHOD BLANK: 3251892 Matrix: Water  
Associated Lab Samples: 50331424001, 50331424004, 50331424005

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Sulfide	mg/L	ND	0.10	0.025	11/19/22 13:53	

LABORATORY CONTROL SAMPLE: 3251893

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Sulfide	mg/L	0.5	0.53	106	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3251894 3251895

Parameter	Units	50331365001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Sulfide	mg/L	ND	0.5	0.5	0.53	0.52	106	105	90-110	1	20	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3251896 3251897

Parameter	Units	50331424001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Sulfide	mg/L	ND	0.5	0.5	0.52	0.51	103	102	90-110	1	20	

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**REPORT OF LABORATORY ANALYSIS**

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**QUALITY CONTROL DATA**

Project: Eagle Valley Oct 2022 P1R1

Pace Project No.: 50331424

QC Batch:	708493	Analysis Method:	HACH 8146
QC Batch Method:	HACH 8146	Analysis Description:	Iron, Ferrous
		Laboratory:	Pace Analytical Services - Indianapolis

Associated Lab Samples: 50331424001, 50331424004, 50331424005

METHOD BLANK: 3256441 Matrix: Water  
Associated Lab Samples: 50331424001, 50331424004, 50331424005

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Iron, Ferrous	mg/L	ND	0.20	0.096	11/28/22 18:33	H3,N2

LABORATORY CONTROL SAMPLE: 3256442

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Iron, Ferrous	mg/L	1	1.0	102	90-110	H3,N2

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3256443 3256444

Parameter	Units	50330817022 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Iron, Ferrous	mg/L	ND	1	1	0.96	1.0	96	104	90-110	9	20	H3,N2

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3256445 3256446

Parameter	Units	50331424001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Iron, Ferrous	mg/L	ND	1	1	0.99	0.99	99	99	90-110	0	20	H3,N2

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### QUALITY CONTROL DATA

Project: Eagle Valley Oct 2022 P1R1

Pace Project No.: 50331424

QC Batch: 707029 Analysis Method: EPA 353.2  
 QC Batch Method: EPA 353.2 Analysis Description: 353.2 Nitrate + Nitrite, Unpres.  
 Laboratory: Pace Analytical Services - Indianapolis

Associated Lab Samples: 50331424001, 50331424004, 50331424005

METHOD BLANK: 3250215 Matrix: Water

Associated Lab Samples: 50331424001, 50331424004, 50331424005

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Nitrogen, Nitrate	mg/L	ND	0.10	0.011	11/17/22 19:10	
Nitrogen, Nitrite	mg/L	ND	0.10	0.0040	11/17/22 19:10	

LABORATORY CONTROL SAMPLE: 3250216

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Nitrogen, Nitrate	mg/L	1	1.0	100	90-110	
Nitrogen, Nitrite	mg/L	1	1.0	102	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3250217 3250218

Parameter	Units	50331424001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Nitrogen, Nitrate	mg/L	0.23	1	1	1.3	1.3	103	103	90-110	0	20	
Nitrogen, Nitrite	mg/L	ND	1	1	1.0	1.0	103	104	90-110	0	20	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3250219 3250220

Parameter	Units	50331365001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Nitrogen, Nitrate	mg/L	4.7	4	4	8.9	8.8	103	103	90-110	0	20	
Nitrogen, Nitrite	mg/L	ND	4	4	4.1	4.1	102	102	90-110	0	20	

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### QUALITY CONTROL DATA

Project: Eagle Valley Oct 2022 P1R1

Pace Project No.: 50331424

QC Batch: 707720

Analysis Method: EPA 365.1

QC Batch Method: EPA 365.1

Analysis Description: 365.1 Total Phosphorus

Laboratory: Pace Analytical Services - Indianapolis

Associated Lab Samples: 50331424001, 50331424004, 50331424005

METHOD BLANK: 3253313

Matrix: Water

Associated Lab Samples: 50331424001, 50331424004, 50331424005

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Phosphate as P04	mg/L	ND	0.15	0.15	11/25/22 12:20	

LABORATORY CONTROL SAMPLE: 3253314

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Phosphate as P04	mg/L		1.5			

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3253315 3253316

Parameter	Units	50331419014		3253316		% Rec	% Rec	% Rec Limits	RPD	Max RPD	Qual
		MS Result	MSD Spike Conc.	MS Result	MSD Spike Conc.						
Phosphate as P04	mg/L	0.71		2.3	2.1				8		

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3253317 3253318

Parameter	Units	50331424001		3253318		% Rec	% Rec	% Rec Limits	RPD	Max RPD	Qual
		MS Result	MSD Spike Conc.	MS Result	MSD Spike Conc.						
Phosphate as P04	mg/L	ND		1.4	1.3				7		

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### QUALITY CONTROL DATA

Project: Eagle Valley Oct 2022 P1R1

Pace Project No.: 50331424

QC Batch:	709574	Analysis Method:	SM 5310C
QC Batch Method:	SM 5310C	Analysis Description:	5310C Total Organic Carbon
		Laboratory:	Pace Analytical Services - Indianapolis

Associated Lab Samples: 50331424001, 50331424004, 50331424005

METHOD BLANK: 3260979 Matrix: Water

Associated Lab Samples: 50331424001, 50331424004, 50331424005

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Organic Carbon	mg/L	ND	1.0	0.14	12/09/22 01:24	

LABORATORY CONTROL SAMPLE: 3260980

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Organic Carbon	mg/L	10	9.9	99	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3260981 3260982

Parameter	Units	50331424001		3260982		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		Result	MS Spike Conc.	MSD Spike Conc.	MS Result						
Total Organic Carbon	mg/L	ND	10	10	10.9	10.8	100	99	80-120	1	20

MATRIX SPIKE SAMPLE: 3260983

Parameter	Units	50331424004 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Total Organic Carbon	mg/L		1.4	10	11.2	97	80-120

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**QUALITY CONTROL DATA**

Project: Eagle Valley Oct 2022 P1R1

Pace Project No.: 50331424

QC Batch:	709579	Analysis Method:	SM 5310C
QC Batch Method:	SM 5310C	Analysis Description:	5310C Dissolved Organic Carbon
		Laboratory:	Pace Analytical Services - Indianapolis

Associated Lab Samples: 50331424001, 50331424004, 50331424005

METHOD BLANK: 3261002 Matrix: Water

Associated Lab Samples: 50331424001, 50331424004, 50331424005

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Dissolved Organic Carbon	mg/L	ND	1.0	0.14	12/07/22 14:04	

LABORATORY CONTROL SAMPLE: 3261003

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Dissolved Organic Carbon	mg/L	10	10.0	100	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3261004 3261005

Parameter	Units	50331365001		3261004		3261005		% Rec Limits	RPD	Max RPD	Qual	
		MS Result	MSD Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result					MS % Rec
Dissolved Organic Carbon	mg/L	1.2	10	10	10	11.5	11.6	102	104	80-120	1	20

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3261006 3261007

Parameter	Units	50331424001		3261006		3261007		% Rec Limits	RPD	Max RPD	Qual	
		MS Result	MSD Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result					MS % Rec
Dissolved Organic Carbon	mg/L	1.2	10	10	10	11.5	11.4	104	102	80-120	1	20

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**REPORT OF LABORATORY ANALYSIS**

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Eagle Valley Oct 2022 P1R1

Pace Project No.: 50331424

**Sample: MW-3S**      **Lab ID: 50331424001**      Collected: 11/16/22 10:15      Received: 11/17/22 15:10      Matrix: Water  
PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	<b>0.226 ± 0.273 (0.417)</b> <b>C:NA T:89%</b>	pCi/L	12/11/22 15:30	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	<b>0.125 ± 0.295 (0.659)</b> <b>C:74% T:88%</b>	pCi/L	12/08/22 14:42	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	<b>0.351 ± 0.568 (1.08)</b>	pCi/L	12/12/22 15:48	7440-14-4	

### REPORT OF LABORATORY ANALYSIS

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Eagle Valley Oct 2022 P1R1

Pace Project No.: 50331424

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
<b>Sample: MW-3S MS</b> <b>Lab ID: 50331424002</b> Collected: 11/16/22 10:15      Received: 11/17/22 15:10      Matrix: Water PWS:      Site ID:      Sample Type:						
Pace Analytical Services - Greensburg						
Radium-226	EPA 903.1	<b>89.51 %REC ± NA (NA)</b> <b>C:NA T:NA</b>	pCi/L	12/11/22 15:30	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 904.0	<b>75.26 %REC ± NA (NA)</b> <b>C:NA T:NA</b>	pCi/L	12/08/22 14:42	15262-20-1	

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Eagle Valley Oct 2022 P1R1

Pace Project No.: 50331424

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Radium-226	EPA 903.1	<b>68.68 %REC 26.33RPD ±</b> <b>NA (NA)</b> <b>C:NA T:NA</b>	pCi/L	12/11/22 16:43	13982-63-3	1d
Pace Analytical Services - Greensburg						
Radium-228	EPA 904.0	<b>92.17 %REC 20.20 RPD ±</b> <b>NA (NA)</b> <b>C:NA T:NA</b>	pCi/L	12/08/22 14:42	15262-20-1	

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Eagle Valley Oct 2022 P1R1

Pace Project No.: 50331424

**Sample: MW-4I**      **Lab ID: 50331424004**      Collected: 11/16/22 14:30      Received: 11/17/22 15:10      Matrix: Water  
PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	<b>0.461 ± 0.480 (0.714)</b> <b>C:NA T:89%</b>	pCi/L	12/11/22 15:47	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	<b>0.127 ± 0.265 (0.588)</b> <b>C:77% T:91%</b>	pCi/L	12/08/22 14:42	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	<b>0.588 ± 0.745 (1.30)</b>	pCi/L	12/12/22 15:48	7440-14-4	

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Eagle Valley Oct 2022 P1R1

Pace Project No.: 50331424

**Sample: MW-7S**      **Lab ID: 50331424005**      Collected: 11/16/22 09:53      Received: 11/17/22 15:10      Matrix: Water  
PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Radium-226	EPA 903.1	<b>0.508 ± 0.398 (0.468)</b> <b>C:NA T:97%</b>	pCi/L	12/11/22 15:47	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 904.0	<b>0.438 ± 0.336 (0.660)</b> <b>C:80% T:89%</b>	pCi/L	12/08/22 14:42	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	<b>0.946 ± 0.734 (1.13)</b>	pCi/L	12/12/22 15:48	7440-14-4	

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### QUALITY CONTROL - RADIOCHEMISTRY

Project: Eagle Valley Oct 2022 P1R1

Pace Project No.: 50331424

QC Batch: 549570

Analysis Method: EPA 904.0

QC Batch Method: EPA 904.0

Analysis Description: 904.0 Radium 228

Laboratory: Pace Analytical Services - Greensburg

Associated Lab Samples: 50331424001, 50331424002, 50331424003, 50331424004, 50331424005

METHOD BLANK: 2669564

Matrix: Water

Associated Lab Samples: 50331424001, 50331424002, 50331424003, 50331424004, 50331424005

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.227 ± 0.265 (0.556) C:85% T:92%	pCi/L	12/08/22 14:42	

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## QUALIFIERS

Project: Eagle Valley Oct 2022 P1R1

Pace Project No.: 50331424

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### DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Reported results are not rounded until the final step prior to reporting. Therefore, calculated parameters that are typically reported as "Total" may vary slightly from the sum of the reported component parameters.

Act - Activity

Unc - Uncertainty: SDWA = 1.96 sigma count uncertainty, all other matrices = Expanded Uncertainty (95% confidence interval).

Gamma Spec = Expanded Uncertainty (95.4% Confidence Interval)

(MDC) - Minimum Detectable Concentration

Trac - Tracer Recovery (%)

Carr - Carrier Recovery (%)

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

### ANALYTE QUALIFIERS

- |    |   |
|----|---|
| 1d | The Matrix Spike Duplicate recovery is low and outside of the default acceptance criteria for MS recovery. Results reported based on acceptable RPD for the RQS pair.                           |
| D3 | Sample was diluted due to the presence of high levels of non-target analytes or other matrix interference.  |
| E  | Analyte concentration exceeded the calibration range. The reported result is estimated.   |
| H3 | Sample was received or analysis requested beyond the recognized method holding time.  |
| M0 | Matrix spike recovery and/or matrix spike duplicate recovery was outside laboratory control limits.   |
| N2 | The lab does not hold NELAC/TNI accreditation for this parameter but other accreditations/certifications may apply. A complete list of accreditations/certifications is available upon request. |
| P6 | Matrix spike recovery was outside laboratory control limits due to a parent sample concentration notably higher than the spike level.   |

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### QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Eagle Valley Oct 2022 P1R1

Pace Project No.: 50331424

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
50331424001	MW-3S	EPA 9056	707648		
50331424004	MW-4I	EPA 9056	707648		
50331424005	MW-7S	EPA 9056	707648		
50331424001	MW-3S	EPA 3010	708437	EPA 6010	709343
50331424004	MW-4I	EPA 3010	708437	EPA 6010	709343
50331424005	MW-7S	EPA 3010	708437	EPA 6010	709343
50331424001	MW-3S	EPA 3010	708392	EPA 6010	709345
50331424004	MW-4I	EPA 3010	708392	EPA 6010	709345
50331424005	MW-7S	EPA 3010	708392	EPA 6010	709345
50331424001	MW-3S	EPA 200.2	707409	EPA 6020	707671
50331424004	MW-4I	EPA 200.2	707409	EPA 6020	707671
50331424005	MW-7S	EPA 200.2	707409	EPA 6020	707671
50331424001	MW-3S	EPA 903.1	549569		
50331424002	MW-3S MS	EPA 903.1	549569		
50331424003	MW-3S MSD	EPA 903.1	549569		
50331424004	MW-4I	EPA 903.1	549569		
50331424005	MW-7S	EPA 903.1	549569		
50331424001	MW-3S	EPA 904.0	549570		
50331424002	MW-3S MS	EPA 904.0	549570		
50331424003	MW-3S MSD	EPA 904.0	549570		
50331424004	MW-4I	EPA 904.0	549570		
50331424005	MW-7S	EPA 904.0	549570		
50331424001	MW-3S	Total Radium Calculation	553174		
50331424004	MW-4I	Total Radium Calculation	553174		
50331424005	MW-7S	Total Radium Calculation	553174		
50331424001	MW-3S	SM 2320B	707790		
50331424004	MW-4I	SM 2320B	707790		
50331424005	MW-7S	SM 2320B	707790		
50331424001	MW-3S	SM 2540C	707693		
50331424004	MW-4I	SM 2540C	707693		
50331424005	MW-7S	SM 2540C	707694		
50331424001	MW-3S	SM 4500-H+B	707589		
50331424004	MW-4I	SM 4500-H+B	707589		
50331424005	MW-7S	SM 4500-H+B	707589		
50331424001	MW-3S	SM 4500-S2-D	707332		
50331424004	MW-4I	SM 4500-S2-D	707332		
50331424005	MW-7S	SM 4500-S2-D	707332		
50331424001	MW-3S	HACH 8146	708493		
50331424004	MW-4I	HACH 8146	708493		
50331424005	MW-7S	HACH 8146	708493		
50331424001	MW-3S	EPA 353.2	707029		
50331424004	MW-4I	EPA 353.2	707029		

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### QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Eagle Valley Oct 2022 P1R1

Pace Project No.: 50331424

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
50331424005	MW-7S	EPA 353.2	707029		
50331424001	MW-3S	EPA 365.1	707720	EPA 365.1	708223
50331424004	MW-4I	EPA 365.1	707720	EPA 365.1	708223
50331424005	MW-7S	EPA 365.1	707720	EPA 365.1	708223
50331424001	MW-3S	SM 5310C	709574		
50331424004	MW-4I	SM 5310C	709574		
50331424005	MW-7S	SM 5310C	709574		
50331424001	MW-3S	SM 5310C	709579		
50331424004	MW-4I	SM 5310C	709579		
50331424005	MW-7S	SM 5310C	709579		

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**SAMPLE CONDITION UPON RECEIPT FORM**

Date/Time and Initials of person examining contents: 11/17/22 1540 IL

1. Courier:  FED EX  UPS  CLIENT  PACE  USPS  OTHER \_\_\_\_\_

2. Custody Seal on Cooler/Box Present:  Yes  No

(If yes)Seals Intact:  Yes  No (leave blank if no seals were present)

3. Thermometer: **1 2 3 4 5 6 A B C D E F**

4. Cooler Temperature(s): 1.2/0.3 0.8/0.5 1.3/0.4    
 (Initial/Corrected) RECORD TEMPS OF ALL COOLERS RECEIVED (use Comments below to add more)

5. Packing Material:  Bubble Wrap  Bubble Bags  
 None  Other \_\_\_\_\_

6. Ice Type:  Wet  Blue  None

7. If temp. is over 6°C or under 0°C, was the PM notified?:  Yes  No  
 Cooler temp should be above freezing to 6°C

All discrepancies will be written out in the comments section below.

	Yes	No		Yes	No	N/A
USDA Regulated Soils? (HI, ID, NY, WA, OR, CA, NM, TX, OK, AR, LA, TN, AL, MS, NC, SC, GA, FL, or Puerto Rico)		/	All containers needing acid/base preservation have been pH CHECKED?: Exceptions: VOA, coliform, LLHg, O&G, RAD CHEM, and any container with a septum cap or preserved with HCl.			
Short Hold Time Analysis (48 hours or less)? Analysis:	✓		Circle: HNO3 (<3) H2SO4 (<2) NaOH (>10) NaOH/ZnAc (>9) Any non-conformance to pH recommendations will be noted on the container count form	✓		
Time 5035A TC placed in Freezer or Short Holds To Lab <i>NO<sub>2</sub>/NO<sub>3</sub></i>	Time:	1630	Residual Chlorine Check (SVOC 625 Pest/PCB 608)	Present	Absent	N/A
Rush TAT Requested (4 days or less):		/	Residual Chlorine Check (Total/Amenable/Free Cyanide)			/
Custody Signatures Present?	✓		Headspace Wisconsin Sulfide?			/
Containers Intact?:	✓		Headspace in VOA Vials (>6mm): See Containter Count form for details	Present	Absent	No VOA Vials Sent
Sample Label (IDs/Dates/Times) Match COC?: Except TCs, which only require sample ID	✓		Trip Blank Present?		/	
Extra labels on Terracore Vials? (soils only)			Trip Blank Custody Seals?:			/

COMMENTS:  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

Sample Container Count

\*\* Place a RED dot on containers that are out of conformance \*\*

COC Line Item	WGJU	MeOH (only) SBS DI R	VIALS			AMBER GLASS			PLASTIC							OTHER			Matrix	Nitric Red	Sulfuric Yellow	Sodium Hydroxide Green	Sodium Hydroxide/ ZnAc Black									
			DG9H	VG9H	VOA VIAL HS (>6mm)	VG9U	DG9U	VG9T	AG0U	AG1H	AG1U	AG2U	AG3S	AG3SF	AG3C	BP1U	BP1N	BP2U						BP3U	BP3N	BP3F	BP3S	BP3B	BP3Z	CG3H	CG3F	Syringe Kit
			HNO3 <2	H2SO4 <2	NaOH >10	NaOH/Zn Ac >9																										
1										3	3				6	3	6	3	3	3		3					WT	✓	✓		✓	
2																																
3																																
4										1↓	1↓				2↓	1↓	2↓	1↓	1↓	1↓		1↓					WT	✓	✓		✓	
5																																
6																																
7																																
8																																
9																																
10																																
11																																
12																																

Container Codes

Glass			
DG9H	40mL HCl amber voa vial	BG1T	1L Na Thiosulfate clear glass
DG9P	40mL TSP amber vial	BG1U	1L unpreserved glass
DG9S	40mL H2SO4 amber vial	BG3H	250mL HCl Clear Glass
DG9T	40mL Na Thio amber vial	BG3U	250mL Unpres Clear Glass
DG9U	40mL unpreserved amber vial	AG0U	100mL unpres amber glass
VG9H	40mL HCl clear vial	AG1H	1L HCl amber glass
VG9T	40mL Na Thio. clear vial	AG1S	1L H2SO4 amber glass
VG9U	40mL unpreserved clear vial	AG1T	1L Na Thiosulfate amber glass
I	40mL w/hexane wipe vial	AG1U	1liter unpres amber glass
WGKU	8oz unpreserved clear jar	AG2N	500mL HNO3 amber glass
WGJU	4oz clear soil jar	AG2S	500mL H2SO4 amber glass
JGFU	4oz unpreserved amber wide	AG2U	500mL unpres amber glass
CG3H	250mL clear glass HCl	AG3S	250mL H2SO4 amber glass
CG3F	250mL clear glass HCl, Field Filter	AG3SF	250mL H2SO4 amb glass -field filtered
BG1H	1L HCl clear glass	AG3U	250mL unpres amber glass
BG1S	1L H2SO4 clear glass	AG3C	250mL NaOH amber glass

Plastic	
BP4U	125mL unpreserved plastic
BP4N	125mL HNO3 plastic
BP4S	125mL H2SO4 plastic
Miscellaneous	
Syringe Kit	LL Cr+6 sampling kit
ZPLC	Ziploc Bag
R	Terracore Kit
SP5T	120mL Coliform Sodium Thiosulfate
GN	General Container
U	Summa Can (air sample)
WT	Water
SL	Solid Solid
OL:	Oil
NAL	Non-aqueous liquid
WP	Wipe

March 06, 2023

Mr. Mark Breting  
ATC Group Services  
7988 Centerpoint Drive  
Suite 100  
Indianapolis, IN 46256

RE: Project: Eagle Valley Oct 2022 P1R4  
Pace Project No.: 50331435

Dear Mr. Breting:

Enclosed are the analytical results for sample(s) received by the laboratory on November 17, 2022. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

The test results provided in this final report were generated by each of the following laboratories within the Pace Network:

- Pace Analytical Services - Indianapolis
- Pace Analytical Services - Greensburg

If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Will Statz  
will.statz@pacelabs.com  
(317)228-3105  
Project Manager

Enclosures

cc: Mr. Robert Miller, Haley & Aldrich



## REPORT OF LABORATORY ANALYSIS

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## CERTIFICATIONS

Project: Eagle Valley Oct 2022 P1R4  
Pace Project No.: 50331435

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### **Pace Analytical Services Pennsylvania**

1638 Roseytown Rd Suites 2,3&4, Greensburg, PA 15601  
ANAB DOD-ELAP Rad Accreditation #: L2417  
Alabama Certification #: 41590  
Arizona Certification #: AZ0734  
Arkansas Certification  
California Certification #: 04222CA  
Colorado Certification #: PA01547  
Connecticut Certification #: PH-0694  
Delaware Certification  
EPA Region 4 DW Rad  
Florida/TNI Certification #: E87683  
Georgia Certification #: C040  
Florida: Cert E871149 SEKS WET  
Guam Certification  
Hawaii Certification  
Idaho Certification  
Illinois Certification  
Indiana Certification  
Iowa Certification #: 391  
Kansas/TNI Certification #: E-10358  
Kentucky Certification #: KY90133  
KY WW Permit #: KY0098221  
KY WW Permit #: KY0000221  
Louisiana DHH/TNI Certification #: LA180012  
Louisiana DEQ/TNI Certification #: 4086  
Maine Certification #: 2017020  
Maryland Certification #: 308  
Massachusetts Certification #: M-PA1457  
Michigan/PADEP Certification #: 9991

Missouri Certification #: 235  
Montana Certification #: Cert0082  
Nebraska Certification #: NE-OS-29-14  
Nevada Certification #: PA014572018-1  
New Hampshire/TNI Certification #: 297617  
New Jersey/TNI Certification #: PA051  
New Mexico Certification #: PA01457  
New York/TNI Certification #: 10888  
North Carolina Certification #: 42706  
North Dakota Certification #: R-190  
Ohio EPA Rad Approval: #41249  
Oregon/TNI Certification #: PA200002-010  
Pennsylvania/TNI Certification #: 65-00282  
Puerto Rico Certification #: PA01457  
Rhode Island Certification #: 65-00282  
South Dakota Certification  
Tennessee Certification #: 02867  
Texas/TNI Certification #: T104704188-17-3  
Utah/TNI Certification #: PA014572017-9  
USDA Soil Permit #: P330-17-00091  
Vermont Dept. of Health: ID# VT-0282  
Virgin Island/PADEP Certification  
Virginia/VELAP Certification #: 460198  
Washington Certification #: C868  
West Virginia DEP Certification #: 143  
West Virginia DHHR Certification #: 9964C  
Wisconsin Approve List for Rad  
Wyoming Certification #: 8TMS-L

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### **Pace Analytical Services Indianapolis**

7726 Moller Road, Indianapolis, IN 46268  
Illinois Accreditation #: 200074  
Indiana Drinking Water Laboratory #: C-49-06  
Kansas/TNI Certification #: E-10177  
Kentucky UST Agency Interest #: 80226  
Kentucky WW Laboratory ID #: 98019  
Michigan Drinking Water Laboratory #9050

Ohio VAP Certified Laboratory #: CL0065  
Oklahoma Laboratory #: 9204  
Texas Certification #: T104704355  
Wisconsin Laboratory #: 999788130  
USDA Foreign Soil Permit #: 525-23-13-23119  
USDA Compliance Agreement #: IN-SL-22-001

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## REPORT OF LABORATORY ANALYSIS

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## SAMPLE SUMMARY

Project: Eagle Valley Oct 2022 P1R4  
Pace Project No.: 50331435

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Lab ID	Sample ID	Matrix	Date Collected	Date Received
50331435001	MW-18D	Water	11/16/22 12:04	11/17/22 15:10
50331435002	MW-18I	Water	11/16/22 13:44	11/17/22 15:10
50331435003	MW-18S	Water	11/16/22 14:26	11/17/22 15:10

## REPORT OF LABORATORY ANALYSIS

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### SAMPLE ANALYTE COUNT

Project: Eagle Valley Oct 2022 P1R4

Pace Project No.: 50331435

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory		
50331435001	MW-18D	EPA 9056	RMR	3	PASI-I		
		EPA 6010	JPK	12	PASI-I		
		EPA 6010	JPK	2	PASI-I		
		EPA 6020	DMT	3	PASI-I		
		EPA 903.1	JDZ	1	PASI-PA		
		EPA 904.0	ZPC	1	PASI-PA		
		Total Radium Calculation	JAL	1	PASI-PA		
		SM 2320B	TAY	3	PASI-I		
		SM 2540C	MTW	1	PASI-I		
		SM 4500-H+B	TRK	1	PASI-I		
		SM 4500-S2-D	BEP	1	PASI-I		
		HACH 8146	ZM	1	PASI-I		
		EPA 353.2	MMS	2	PASI-I		
		EPA 365.1	MMS	1	PASI-I		
		SM 5310C	ATS	1	PASI-I		
		SM 5310C	ATS	1	PASI-I		
		50331435002	MW-18I	EPA 9056	RMR	3	PASI-I
				EPA 6010	JPK	12	PASI-I
				EPA 6010	JPK	2	PASI-I
EPA 6020	DMT			3	PASI-I		
EPA 903.1	JDZ			1	PASI-PA		
EPA 904.0	ZPC			1	PASI-PA		
Total Radium Calculation	JAL			1	PASI-PA		
SM 2320B	TAY			3	PASI-I		
SM 2540C	MTW			1	PASI-I		
SM 4500-H+B	TRK			1	PASI-I		
SM 4500-S2-D	BEP			1	PASI-I		
HACH 8146	ZM			1	PASI-I		
EPA 353.2	MMS			2	PASI-I		
EPA 365.1	MMS			1	PASI-I		
SM 5310C	ATS			1	PASI-I		
SM 5310C	ATS			1	PASI-I		
50331435003	MW-18S			EPA 9056	RMR	3	PASI-I
				EPA 6010	JPK	12	PASI-I
				EPA 6010	JPK	2	PASI-I
		EPA 6020	DMT	3	PASI-I		
		EPA 903.1	JDZ	1	PASI-PA		

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### SAMPLE ANALYTE COUNT

Project: Eagle Valley Oct 2022 P1R4

Pace Project No.: 50331435

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
		EPA 904.0	ZPC	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
		SM 2320B	TAY	3	PASI-I
		SM 2540C	MTW	1	PASI-I
		SM 4500-H+B	TRK	1	PASI-I
		SM 4500-S2-D	BEP	1	PASI-I
		HACH 8146	ZM	1	PASI-I
		EPA 353.2	MMS	2	PASI-I
		EPA 365.1	MMS	1	PASI-I
		SM 5310C	ATS	1	PASI-I
		SM 5310C	ATS	1	PASI-I

PASI-I = Pace Analytical Services - Indianapolis

PASI-PA = Pace Analytical Services - Greensburg

### REPORT OF LABORATORY ANALYSIS

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### SUMMARY OF DETECTION

Project: Eagle Valley Oct 2022 P1R4  
Pace Project No.: 50331435

Lab Sample ID	Client Sample ID	Result	Units	Report Limit	Analyzed	Qualifiers
Method	Parameters					
<b>50331435001</b>	<b>MW-18D</b>					
EPA 9056	Chloride	91.6	mg/L	2.5	11/24/22 16:14	
EPA 9056	Fluoride	0.13	mg/L	0.10	11/24/22 15:58	
EPA 9056	Sulfate	106	mg/L	2.5	11/24/22 16:14	
EPA 6010	Barium	55.5	ug/L	10.0	12/02/22 21:12	
EPA 6010	Boron	3800	ug/L	100	12/02/22 21:12	
EPA 6010	Calcium	90500	ug/L	1000	12/02/22 21:12	
EPA 6010	Iron	402	ug/L	100	12/02/22 21:12	
EPA 6010	Lithium	93.5	ug/L	20.0	12/02/22 21:12	
EPA 6010	Magnesium	17700	ug/L	1000	12/02/22 21:12	
EPA 6010	Manganese	338	ug/L	10.0	12/02/22 21:12	
EPA 6010	Molybdenum	173	ug/L	10.0	12/02/22 21:12	
EPA 6010	Potassium	6710	ug/L	1000	12/02/22 21:12	
EPA 6010	Silica	11900	ug/L	450	12/02/22 21:12	N2
EPA 6010	Sodium	77800	ug/L	1000	12/02/22 21:12	
EPA 6010	Manganese, Dissolved	338	ug/L	10.0	12/03/22 00:36	
EPA 6010	Molybdenum, Dissolved	175	ug/L	10.0	12/03/22 00:36	
EPA 903.1	Radium-226	0.418 ± 0.581 (0.982)	pCi/L		12/12/22 15:44	
EPA 904.0	Radium-228	C:NA T:94% 0.361 ± 0.299 (0.599) C:87% T:97%	pCi/L		12/13/22 15:03	
Total Radium Calculation	Total Radium	0.779 ± 0.880 (1.58)	pCi/L		12/14/22 10:52	
SM 2320B	Alkalinity, Total as CaCO3	248	mg/L	10.0	11/23/22 11:43	
SM 2320B	Alkalinity, Bicarbonate (CaCO3)	248	mg/L	10.0	11/23/22 11:43	
SM 2540C	Total Dissolved Solids	544	mg/L	10.0	11/22/22 08:29	
SM 4500-H+B	pH at 25 Degrees C	8.0	Std. Units	0.10	11/21/22 15:11	H3
<b>50331435002</b>	<b>MW-18I</b>					
EPA 9056	Chloride	38.9	mg/L	2.5	11/24/22 17:04	
EPA 9056	Fluoride	0.13	mg/L	0.10	11/24/22 16:47	
EPA 9056	Sulfate	28.6	mg/L	2.5	11/24/22 17:04	
EPA 6010	Barium	73.5	ug/L	10.0	12/02/22 21:18	
EPA 6010	Boron	297	ug/L	100	12/02/22 21:18	
EPA 6010	Calcium	70200	ug/L	1000	12/02/22 21:18	
EPA 6010	Lithium	45.5	ug/L	20.0	12/02/22 21:18	
EPA 6010	Magnesium	15500	ug/L	1000	12/02/22 21:18	
EPA 6010	Manganese	56.2	ug/L	10.0	12/02/22 21:18	
EPA 6010	Molybdenum	87.4	ug/L	10.0	12/02/22 21:18	
EPA 6010	Potassium	5050	ug/L	1000	12/02/22 21:18	
EPA 6010	Silica	10100	ug/L	450	12/02/22 21:18	N2
EPA 6010	Sodium	29900	ug/L	1000	12/02/22 21:18	
EPA 6010	Manganese, Dissolved	62.6	ug/L	10.0	12/03/22 00:39	
EPA 6010	Molybdenum, Dissolved	91.3	ug/L	10.0	12/03/22 00:39	
EPA 6020	Selenium	1.0	ug/L	1.0	11/23/22 07:06	

### REPORT OF LABORATORY ANALYSIS

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### SUMMARY OF DETECTION

Project: Eagle Valley Oct 2022 P1R4

Pace Project No.: 50331435

Lab Sample ID	Client Sample ID	Result	Units	Report Limit	Analyzed	Qualifiers
Method	Parameters					
<b>50331435002</b>	<b>MW-18I</b>					
EPA 903.1	Radium-226	0.632 ± 0.419 (0.190)	pCi/L		12/12/22 15:44	
EPA 904.0	Radium-228	0.294 ± 0.271 (0.548) C:89% T:97%	pCi/L		12/13/22 15:03	
Total Radium Calculation	Total Radium	0.926 ± 0.690 (0.738)	pCi/L		12/14/22 10:52	
SM 2320B	Alkalinity, Total as CaCO3	225	mg/L	10.0	11/23/22 11:43	
SM 2320B	Alkalinity,Bicarbonate (CaCO3)	225	mg/L	10.0	11/23/22 11:43	
SM 2540C	Total Dissolved Solids	342	mg/L	10.0	11/22/22 08:30	
SM 4500-H+B	pH at 25 Degrees C	7.9	Std. Units	0.10	11/21/22 15:12	H3
EPA 353.2	Nitrogen, Nitrate	1.3	mg/L	0.10	11/17/22 19:32	
<b>50331435003</b>	<b>MW-18S</b>					
EPA 9056	Chloride	36.9	mg/L	2.5	11/24/22 17:37	
EPA 9056	Fluoride	0.17	mg/L	0.10	11/24/22 17:20	
EPA 9056	Sulfate	24.1	mg/L	2.5	11/24/22 17:37	
EPA 6010	Barium	41.4	ug/L	10.0	12/02/22 21:21	
EPA 6010	Boron	158	ug/L	100	12/02/22 21:21	
EPA 6010	Calcium	77400	ug/L	1000	12/02/22 21:21	
EPA 6010	Lithium	21.4	ug/L	20.0	12/02/22 21:21	
EPA 6010	Magnesium	17600	ug/L	1000	12/02/22 21:21	
EPA 6010	Molybdenum	21.3	ug/L	10.0	12/02/22 21:21	
EPA 6010	Potassium	2620	ug/L	1000	12/02/22 21:21	
EPA 6010	Silica	8580	ug/L	450	12/02/22 21:21	N2
EPA 6010	Sodium	27400	ug/L	1000	12/02/22 21:21	
EPA 6010	Molybdenum, Dissolved	22.2	ug/L	10.0	12/03/22 00:41	
EPA 903.1	Radium-226	-0.196 ± 0.385 (0.921)	pCi/L		12/12/22 15:44	
EPA 904.0	Radium-228	0.393 ± 0.267 (0.506) C:94% T:95%	pCi/L		12/13/22 15:03	
Total Radium Calculation	Total Radium	0.393 ± 0.652 (1.43)	pCi/L		12/14/22 10:52	
SM 2320B	Alkalinity, Total as CaCO3	247	mg/L	10.0	11/23/22 11:43	
SM 2320B	Alkalinity,Bicarbonate (CaCO3)	247	mg/L	10.0	11/23/22 11:43	
SM 2540C	Total Dissolved Solids	341	mg/L	10.0	11/22/22 08:30	
SM 4500-H+B	pH at 25 Degrees C	7.5	Std. Units	0.10	11/21/22 15:14	H3
EPA 353.2	Nitrogen, Nitrate	0.70	mg/L	0.10	11/17/22 19:34	

### REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: Eagle Valley Oct 2022 P1R4

Pace Project No.: 50331435

Sample: MW-18D		Lab ID: 50331435001		Collected: 11/16/22 12:04	Received: 11/17/22 15:10	Matrix: Water				
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual	
<b>9056 IC Anions</b>		Analytical Method: EPA 9056 Pace Analytical Services - Indianapolis								
Chloride	91.6	mg/L	2.5	0.67	10		11/24/22 16:14	16887-00-6		
Fluoride	0.13	mg/L	0.10	0.017	1		11/24/22 15:58	16984-48-8		
Sulfate	106	mg/L	2.5	0.85	10		11/24/22 16:14	14808-79-8		
<b>6010 MET ICP</b>		Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Aluminum	ND	ug/L	200	55.4	1	12/02/22 09:05	12/02/22 21:12	7429-90-5		
Barium	55.5	ug/L	10.0	2.1	1	12/02/22 09:05	12/02/22 21:12	7440-39-3		
Boron	3800	ug/L	100	37.6	1	12/02/22 09:05	12/02/22 21:12	7440-42-8		
Calcium	90500	ug/L	1000	163	1	12/02/22 09:05	12/02/22 21:12	7440-70-2		
Iron	402	ug/L	100	48.8	1	12/02/22 09:05	12/02/22 21:12	7439-89-6		
Lithium	93.5	ug/L	20.0	6.2	1	12/02/22 09:05	12/02/22 21:12	7439-93-2		
Magnesium	17700	ug/L	1000	71.8	1	12/02/22 09:05	12/02/22 21:12	7439-95-4		
Manganese	338	ug/L	10.0	2.5	1	12/02/22 09:05	12/02/22 21:12	7439-96-5		
Molybdenum	173	ug/L	10.0	3.7	1	12/02/22 09:05	12/02/22 21:12	7439-98-7		
Potassium	6710	ug/L	1000	281	1	12/02/22 09:05	12/02/22 21:12	7440-09-7		
Silica	11900	ug/L	450		1	12/02/22 09:05	12/02/22 21:12	7631-86-9	N2	
Sodium	77800	ug/L	1000	214	1	12/02/22 09:05	12/02/22 21:12	7440-23-5		
<b>6010 MET ICP, Dissolved</b>		Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Manganese, Dissolved	338	ug/L	10.0	2.5	1	12/01/22 08:43	12/03/22 00:36	7439-96-5		
Molybdenum, Dissolved	175	ug/L	10.0	3.7	1	12/01/22 08:43	12/03/22 00:36	7439-98-7		
<b>6020 MET ICPMS</b>		Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis								
Antimony	ND	ug/L	1.0	0.28	1	11/21/22 15:13	11/23/22 07:03	7440-36-0		
Arsenic	ND	ug/L	1.0	0.094	1	11/21/22 15:13	11/23/22 07:03	7440-38-2		
Selenium	ND	ug/L	1.0	0.57	1	11/21/22 15:13	11/23/22 07:03	7782-49-2		
<b>2320B Alkalinity</b>		Analytical Method: SM 2320B Pace Analytical Services - Indianapolis								
Alkalinity, Total as CaCO3	248	mg/L	10.0	10.0	1		11/23/22 11:43			
Alkalinity,Bicarbonate (CaCO3)	248	mg/L	10.0	10.0	1		11/23/22 11:43			
Alkalinity,Carbonate (CaCO3)	ND	mg/L	10.0	10.0	1		11/23/22 11:43			
<b>2540C Total Dissolved Solids</b>		Analytical Method: SM 2540C Pace Analytical Services - Indianapolis								
Total Dissolved Solids	544	mg/L	10.0	10.0	1		11/22/22 08:29			
<b>4500H+ pH, Electrometric</b>		Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis								
pH at 25 Degrees C	8.0	Std. Units	0.10	0.10	1		11/21/22 15:11		H3	

## REPORT OF LABORATORY ANALYSIS

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### ANALYTICAL RESULTS

Project: Eagle Valley Oct 2022 P1R4

Pace Project No.: 50331435

Sample: MW-18D		Lab ID: 50331435001		Collected: 11/16/22 12:04	Received: 11/17/22 15:10	Matrix: Water				
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual	
<b>4500S2D Sulfide Water</b>		Analytical Method: SM 4500-S2-D Pace Analytical Services - Indianapolis								
Sulfide	ND	mg/L	0.10	0.025	1		11/19/22 14:56	18496-25-8		
<b>Iron, Ferrous</b>		Analytical Method: HACH 8146 Pace Analytical Services - Indianapolis								
Iron, Ferrous	ND	mg/L	0.20	0.096	1		11/28/22 18:36	15438-31-0	H3,N2	
<b>353.2 Nitrogen, NO2/NO3 unpres</b>		Analytical Method: EPA 353.2 Pace Analytical Services - Indianapolis								
Nitrogen, Nitrate	ND	mg/L	0.10	0.011	1		11/17/22 20:03	14797-55-8		
Nitrogen, Nitrite	ND	mg/L	0.10	0.0040	1		11/17/22 20:03	14797-65-0		
<b>365.1 Total Phosphorus</b>		Analytical Method: EPA 365.1 Preparation Method: EPA 365.1 Pace Analytical Services - Indianapolis								
Phosphate as P04	ND	mg/L	0.15	0.15	1	11/22/22 12:30	11/25/22 12:38			
<b>5310C TOC</b>		Analytical Method: SM 5310C Pace Analytical Services - Indianapolis								
Total Organic Carbon	ND	mg/L	1.0	0.14	1		12/09/22 06:37	7440-44-0		
<b>5310C Dissolved Organic Carbon</b>		Analytical Method: SM 5310C Pace Analytical Services - Indianapolis								
Dissolved Organic Carbon	ND	mg/L	1.0	0.14	1		12/07/22 17:02			

### REPORT OF LABORATORY ANALYSIS

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### ANALYTICAL RESULTS

Project: Eagle Valley Oct 2022 P1R4

Pace Project No.: 50331435

Sample: MW-181      Lab ID: 50331435002      Collected: 11/16/22 13:44      Received: 11/17/22 15:10      Matrix: Water									
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>9056 IC Anions</b>									
Analytical Method: EPA 9056 Pace Analytical Services - Indianapolis									
Chloride	38.9	mg/L	2.5	0.67	10		11/24/22 17:04	16887-00-6	
Fluoride	0.13	mg/L	0.10	0.017	1		11/24/22 16:47	16984-48-8	
Sulfate	28.6	mg/L	2.5	0.85	10		11/24/22 17:04	14808-79-8	
<b>6010 MET ICP</b>									
Analytical Method: EPA 6010      Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis									
Aluminum	ND	ug/L	200	55.4	1	12/02/22 09:05	12/02/22 21:18	7429-90-5	
Barium	73.5	ug/L	10.0	2.1	1	12/02/22 09:05	12/02/22 21:18	7440-39-3	
Boron	297	ug/L	100	37.6	1	12/02/22 09:05	12/02/22 21:18	7440-42-8	
Calcium	70200	ug/L	1000	163	1	12/02/22 09:05	12/02/22 21:18	7440-70-2	
Iron	ND	ug/L	100	48.8	1	12/02/22 09:05	12/02/22 21:18	7439-89-6	
Lithium	45.5	ug/L	20.0	6.2	1	12/02/22 09:05	12/02/22 21:18	7439-93-2	
Magnesium	15500	ug/L	1000	71.8	1	12/02/22 09:05	12/02/22 21:18	7439-95-4	
Manganese	56.2	ug/L	10.0	2.5	1	12/02/22 09:05	12/02/22 21:18	7439-96-5	
Molybdenum	87.4	ug/L	10.0	3.7	1	12/02/22 09:05	12/02/22 21:18	7439-98-7	
Potassium	5050	ug/L	1000	281	1	12/02/22 09:05	12/02/22 21:18	7440-09-7	
Silica	10100	ug/L	450		1	12/02/22 09:05	12/02/22 21:18	7631-86-9	N2
Sodium	29900	ug/L	1000	214	1	12/02/22 09:05	12/02/22 21:18	7440-23-5	
<b>6010 MET ICP, Dissolved</b>									
Analytical Method: EPA 6010      Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis									
Manganese, Dissolved	62.6	ug/L	10.0	2.5	1	12/01/22 08:43	12/03/22 00:39	7439-96-5	
Molybdenum, Dissolved	91.3	ug/L	10.0	3.7	1	12/01/22 08:43	12/03/22 00:39	7439-98-7	
<b>6020 MET ICPMS</b>									
Analytical Method: EPA 6020      Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis									
Antimony	ND	ug/L	1.0	0.28	1	11/21/22 15:13	11/23/22 07:06	7440-36-0	
Arsenic	ND	ug/L	1.0	0.094	1	11/21/22 15:13	11/23/22 07:06	7440-38-2	
Selenium	1.0	ug/L	1.0	0.57	1	11/21/22 15:13	11/23/22 07:06	7782-49-2	
<b>2320B Alkalinity</b>									
Analytical Method: SM 2320B Pace Analytical Services - Indianapolis									
Alkalinity, Total as CaCO3	225	mg/L	10.0	10.0	1		11/23/22 11:43		
Alkalinity,Bicarbonate (CaCO3)	225	mg/L	10.0	10.0	1		11/23/22 11:43		
Alkalinity,Carbonate (CaCO3)	ND	mg/L	10.0	10.0	1		11/23/22 11:43		
<b>2540C Total Dissolved Solids</b>									
Analytical Method: SM 2540C Pace Analytical Services - Indianapolis									
Total Dissolved Solids	342	mg/L	10.0	10.0	1		11/22/22 08:30		
<b>4500H+ pH, Electrometric</b>									
Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis									
pH at 25 Degrees C	7.9	Std. Units	0.10	0.10	1		11/21/22 15:12		H3

### REPORT OF LABORATORY ANALYSIS

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### ANALYTICAL RESULTS

Project: Eagle Valley Oct 2022 P1R4

Pace Project No.: 50331435

Sample: MW-18I		Lab ID: 50331435002		Collected: 11/16/22 13:44	Received: 11/17/22 15:10	Matrix: Water			
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>4500S2D Sulfide Water</b>		Analytical Method: SM 4500-S2-D Pace Analytical Services - Indianapolis							
Sulfide	ND	mg/L	0.10	0.025	1		11/19/22 14:56	18496-25-8	
<b>Iron, Ferrous</b>		Analytical Method: HACH 8146 Pace Analytical Services - Indianapolis							
Iron, Ferrous	ND	mg/L	0.20	0.096	1		11/28/22 18:37	15438-31-0	H3,N2
<b>353.2 Nitrogen, NO2/NO3 unpres</b>		Analytical Method: EPA 353.2 Pace Analytical Services - Indianapolis							
Nitrogen, Nitrate	1.3	mg/L	0.10	0.011	1		11/17/22 19:32	14797-55-8	
Nitrogen, Nitrite	ND	mg/L	0.10	0.0040	1		11/17/22 19:32	14797-65-0	
<b>365.1 Total Phosphorus</b>		Analytical Method: EPA 365.1 Preparation Method: EPA 365.1 Pace Analytical Services - Indianapolis							
Phosphate as P04	ND	mg/L	0.15	0.15	1	11/22/22 12:30	11/25/22 12:38		
<b>5310C TOC</b>		Analytical Method: SM 5310C Pace Analytical Services - Indianapolis							
Total Organic Carbon	ND	mg/L	1.0	0.14	1		12/09/22 06:47	7440-44-0	
<b>5310C Dissolved Organic Carbon</b>		Analytical Method: SM 5310C Pace Analytical Services - Indianapolis							
Dissolved Organic Carbon	ND	mg/L	1.0	0.14	1		12/07/22 17:12		

### REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: Eagle Valley Oct 2022 P1R4

Pace Project No.: 50331435

Sample: MW-18S		Lab ID: 50331435003		Collected: 11/16/22 14:26		Received: 11/17/22 15:10		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>9056 IC Anions</b>		Analytical Method: EPA 9056 Pace Analytical Services - Indianapolis							
Chloride	36.9	mg/L	2.5	0.67	10		11/24/22 17:37	16887-00-6	
Fluoride	0.17	mg/L	0.10	0.017	1		11/24/22 17:20	16984-48-8	
Sulfate	24.1	mg/L	2.5	0.85	10		11/24/22 17:37	14808-79-8	
<b>6010 MET ICP</b>		Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis							
Aluminum	ND	ug/L	200	55.4	1	12/02/22 09:05	12/02/22 21:21	7429-90-5	
Barium	41.4	ug/L	10.0	2.1	1	12/02/22 09:05	12/02/22 21:21	7440-39-3	
Boron	158	ug/L	100	37.6	1	12/02/22 09:05	12/02/22 21:21	7440-42-8	
Calcium	77400	ug/L	1000	163	1	12/02/22 09:05	12/02/22 21:21	7440-70-2	
Iron	ND	ug/L	100	48.8	1	12/02/22 09:05	12/02/22 21:21	7439-89-6	
Lithium	21.4	ug/L	20.0	6.2	1	12/02/22 09:05	12/02/22 21:21	7439-93-2	
Magnesium	17600	ug/L	1000	71.8	1	12/02/22 09:05	12/02/22 21:21	7439-95-4	
Manganese	ND	ug/L	10.0	2.5	1	12/02/22 09:05	12/02/22 21:21	7439-96-5	
Molybdenum	21.3	ug/L	10.0	3.7	1	12/02/22 09:05	12/02/22 21:21	7439-98-7	
Potassium	2620	ug/L	1000	281	1	12/02/22 09:05	12/02/22 21:21	7440-09-7	
Silica	8580	ug/L	450		1	12/02/22 09:05	12/02/22 21:21	7631-86-9	N2
Sodium	27400	ug/L	1000	214	1	12/02/22 09:05	12/02/22 21:21	7440-23-5	
<b>6010 MET ICP, Dissolved</b>		Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis							
Manganese, Dissolved	ND	ug/L	10.0	2.5	1	12/01/22 08:43	12/03/22 00:41	7439-96-5	
Molybdenum, Dissolved	22.2	ug/L	10.0	3.7	1	12/01/22 08:43	12/03/22 00:41	7439-98-7	
<b>6020 MET ICPMS</b>		Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis							
Antimony	ND	ug/L	1.0	0.28	1	11/21/22 15:13	11/23/22 07:10	7440-36-0	
Arsenic	ND	ug/L	1.0	0.094	1	11/21/22 15:13	11/23/22 07:10	7440-38-2	
Selenium	ND	ug/L	1.0	0.57	1	11/21/22 15:13	11/23/22 07:10	7782-49-2	
<b>2320B Alkalinity</b>		Analytical Method: SM 2320B Pace Analytical Services - Indianapolis							
Alkalinity, Total as CaCO3	247	mg/L	10.0	10.0	1		11/23/22 11:43		
Alkalinity,Bicarbonate (CaCO3)	247	mg/L	10.0	10.0	1		11/23/22 11:43		
Alkalinity,Carbonate (CaCO3)	ND	mg/L	10.0	10.0	1		11/23/22 11:43		
<b>2540C Total Dissolved Solids</b>		Analytical Method: SM 2540C Pace Analytical Services - Indianapolis							
Total Dissolved Solids	341	mg/L	10.0	10.0	1		11/22/22 08:30		
<b>4500H+ pH, Electrometric</b>		Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis							
pH at 25 Degrees C	7.5	Std. Units	0.10	0.10	1		11/21/22 15:14		H3

## REPORT OF LABORATORY ANALYSIS

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### ANALYTICAL RESULTS

Project: Eagle Valley Oct 2022 P1R4

Pace Project No.: 50331435

Sample: MW-18S		Lab ID: 50331435003		Collected: 11/16/22 14:26		Received: 11/17/22 15:10		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>4500S2D Sulfide Water</b>									
Analytical Method: SM 4500-S2-D									
Pace Analytical Services - Indianapolis									
Sulfide	ND	mg/L	0.10	0.025	1		11/19/22 14:56	18496-25-8	
<b>Iron, Ferrous</b>									
Analytical Method: HACH 8146									
Pace Analytical Services - Indianapolis									
Iron, Ferrous	ND	mg/L	0.20	0.096	1		11/28/22 18:37	15438-31-0	H3,N2
<b>353.2 Nitrogen, NO2/NO3 unpres</b>									
Analytical Method: EPA 353.2									
Pace Analytical Services - Indianapolis									
Nitrogen, Nitrate	<b>0.70</b>	mg/L	0.10	0.011	1		11/17/22 19:34	14797-55-8	
Nitrogen, Nitrite	ND	mg/L	0.10	0.0040	1		11/17/22 19:34	14797-65-0	
<b>365.1 Total Phosphorus</b>									
Analytical Method: EPA 365.1 Preparation Method: EPA 365.1									
Pace Analytical Services - Indianapolis									
Phosphate as P04	ND	mg/L	0.15	0.15	1	11/22/22 12:30	11/25/22 12:39		
<b>5310C TOC</b>									
Analytical Method: SM 5310C									
Pace Analytical Services - Indianapolis									
Total Organic Carbon	ND	mg/L	1.0	0.14	1		12/09/22 06:57	7440-44-0	
<b>5310C Dissolved Organic Carbon</b>									
Analytical Method: SM 5310C									
Pace Analytical Services - Indianapolis									
Dissolved Organic Carbon	ND	mg/L	4.0	0.57	4		12/07/22 23:03		D3

### REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL DATA

Project: Eagle Valley Oct 2022 P1R4

Pace Project No.: 50331435

QC Batch:	707647	Analysis Method:	EPA 9056
QC Batch Method:	EPA 9056	Analysis Description:	9056 IC Anions
		Laboratory:	Pace Analytical Services - Indianapolis

Associated Lab Samples: 50331435001, 50331435002, 50331435003

METHOD BLANK: 3253042 Matrix: Water

Associated Lab Samples: 50331435001, 50331435002, 50331435003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chloride	mg/L	ND	0.25	0.067	11/24/22 12:46	
Fluoride	mg/L	ND	0.10	0.017	11/24/22 12:46	
Sulfate	mg/L	ND	0.25	0.085	11/24/22 12:46	

LABORATORY CONTROL SAMPLE: 3253043

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	1.2	1.2	97	80-120	
Fluoride	mg/L	0.5	0.46	91	80-120	
Sulfate	mg/L	2.5	2.5	100	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3253044 3253045

Parameter	Units	MS		MSD		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		50331450008 Result	Spike Conc.	Spike Conc.	Result								
Chloride	mg/L	239	125	125	451	448	170	167	80-120	1	15	M0	
Fluoride	mg/L	4.4	0.5	0.5	5.0	5.0	108	111	80-120	0	15		
Sulfate	mg/L	18.8	2.5	2.5	21.5	21.5	108	108	80-120	0	15		

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### QUALITY CONTROL DATA

Project: Eagle Valley Oct 2022 P1R4

Pace Project No.: 50331435

QC Batch: 708437 Analysis Method: EPA 6010  
 QC Batch Method: EPA 3010 Analysis Description: 6010 MET  
 Laboratory: Pace Analytical Services - Indianapolis

Associated Lab Samples: 50331435001, 50331435002, 50331435003

METHOD BLANK: 3256282 Matrix: Water

Associated Lab Samples: 50331435001, 50331435002, 50331435003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Aluminum	ug/L	ND	200	55.4	12/02/22 20:54	
Barium	ug/L	ND	10.0	2.1	12/02/22 20:54	
Boron	ug/L	ND	100	37.6	12/02/22 20:54	
Calcium	ug/L	ND	1000	163	12/02/22 20:54	
Iron	ug/L	ND	100	48.8	12/02/22 20:54	
Lithium	ug/L	ND	20.0	6.2	12/02/22 20:54	
Magnesium	ug/L	ND	1000	71.8	12/02/22 20:54	
Manganese	ug/L	ND	10.0	2.5	12/02/22 20:54	
Molybdenum	ug/L	ND	10.0	3.7	12/02/22 20:54	
Potassium	ug/L	ND	1000	281	12/02/22 20:54	
Silica	ug/L	ND	450		12/02/22 20:54	N2
Sodium	ug/L	ND	1000	214	12/02/22 20:54	

LABORATORY CONTROL SAMPLE: 3256283

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Aluminum	ug/L	10000	10800	108	80-120	
Barium	ug/L	1000	1100	110	80-120	
Boron	ug/L	1000	1070	107	80-120	
Calcium	ug/L	10000	11000	110	80-120	
Iron	ug/L	10000	10600	106	80-120	
Lithium	ug/L	1000	1080	108	80-120	
Magnesium	ug/L	10000	10500	105	80-120	
Manganese	ug/L	1000	1060	106	80-120	
Molybdenum	ug/L	1000	1120	112	80-120	
Potassium	ug/L	10000	10900	109	80-120	
Silica	ug/L	10700	11200	105	80-120	N2
Sodium	ug/L	10000	11100	111	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3256284 3256285

Parameter	Units	50331424001		3256285		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result						
Aluminum	ug/L	ND	10000	10600	10600	106	106	75-125	0	20	
Barium	ug/L	81.2	1000	1160	1140	108	106	75-125	2	20	
Boron	ug/L	324	1000	1440	1420	112	110	75-125	1	20	
Calcium	ug/L	88700	10000	109000	105000	202	163	75-125	4	20	P6

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**QUALITY CONTROL DATA**

Project: Eagle Valley Oct 2022 P1R4

Pace Project No.: 50331435

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3256284												3256285	
Parameter	Units	50331424001 Result	MS	MSD	MS	MSD	MS	MSD	% Rec	Limits	RPD	Max RPD	Qual
			Spike Conc.	Spike Conc.	Result	Result	% Rec	% Rec					
Iron	ug/L	ND	10000	10000	10400	10400	104	104	75-125	0	20		
Lithium	ug/L	ND	1000	1000	1090	1080	107	106	75-125	1	20		
Magnesium	ug/L	23500	10000	10000	36500	35400	130	119	75-125	3	20	M0	
Manganese	ug/L	815	1000	1000	1950	1900	114	109	75-125	2	20		
Molybdenum	ug/L	53.4	1000	1000	1140	1140	109	108	75-125	1	20		
Potassium	ug/L	5700	10000	10000	17400	17000	117	112	75-125	3	20		
Silica	ug/L	12300	10700	10700	24700	24100	116	110	75-125	3	20	N2	
Sodium	ug/L	94400	10000	10000	118000	112000	234	180	75-125	5	20	P6	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3256286												3256287	
Parameter	Units	50331450008 Result	MS	MSD	MS	MSD	MS	MSD	% Rec	Limits	RPD	Max RPD	Qual
			Spike Conc.	Spike Conc.	Result	Result	% Rec	% Rec					
Aluminum	ug/L	1460	10000	10000	12300	13600	108	122	75-125	10	20		
Barium	ug/L	121	1000	1000	1220	1210	110	109	75-125	1	20		
Boron	ug/L	1020	1000	1000	2230	2130	122	112	75-125	5	20		
Calcium	ug/L	2430	10000	10000	13700	13400	113	110	75-125	2	20		
Iron	ug/L	983	10000	10000	11600	11400	106	105	75-125	1	20		
Lithium	ug/L	30.0	1000	1000	1120	1120	109	109	75-125	0	20		
Magnesium	ug/L	1280	10000	10000	11500	11200	102	100	75-125	2	20		
Manganese	ug/L	16.8	1000	1000	1070	1060	106	104	75-125	1	20		
Molybdenum	ug/L	23.0	1000	1000	1100	1100	108	108	75-125	0	20		
Potassium	ug/L	2060	10000	10000	13800	13700	118	117	75-125	1	20		
Silica	ug/L	12200	10700	10700	25300	26000	122	129	75-125	3	20	N2	
Sodium	ug/L	586000	10000	10000	660000	612000	746	269	75-125	7	20	E,P6	

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### QUALITY CONTROL DATA

Project: Eagle Valley Oct 2022 P1R4

Pace Project No.: 50331435

QC Batch:	708392	Analysis Method:	EPA 6010
QC Batch Method:	EPA 3010	Analysis Description:	6010 MET Dissolved
		Laboratory:	Pace Analytical Services - Indianapolis
Associated Lab Samples:	50331435001, 50331435002, 50331435003		

METHOD BLANK: 3256128 Matrix: Water

Associated Lab Samples: 50331435001, 50331435002, 50331435003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Manganese, Dissolved	ug/L	ND	10.0	2.5	12/03/22 00:08	
Molybdenum, Dissolved	ug/L	ND	10.0	3.7	12/03/22 00:08	

LABORATORY CONTROL SAMPLE: 3256129

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Manganese, Dissolved	ug/L	1000	1010	101	80-120	
Molybdenum, Dissolved	ug/L	1000	1040	104	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3256130 3256131

Parameter	Units	50331365001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Manganese, Dissolved	ug/L	111	1000	1000	1110	1110	100	100	75-125	1	20	
Molybdenum, Dissolved	ug/L	ND	1000	1000	1050	1050	105	105	75-125	0	20	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3256132 3256133

Parameter	Units	50331424001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Manganese, Dissolved	ug/L	467	1000	1000	1480	1480	102	101	75-125	0	20	
Molybdenum, Dissolved	ug/L	52.6	1000	1000	1130	1140	108	108	75-125	1	20	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3256134 3256135

Parameter	Units	50331472002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Manganese, Dissolved	ug/L	206	1000	1000	1210	1200	101	100	75-125	1	20	
Molybdenum, Dissolved	ug/L	ND	1000	1000	1050	1060	105	105	75-125	1	20	

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### REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL DATA

Project: Eagle Valley Oct 2022 P1R4

Pace Project No.: 50331435

QC Batch:	707409	Analysis Method:	EPA 6020
QC Batch Method:	EPA 200.2	Analysis Description:	6020 MET
		Laboratory:	Pace Analytical Services - Indianapolis

Associated Lab Samples: 50331435001, 50331435002, 50331435003

METHOD BLANK: 3252313 Matrix: Water

Associated Lab Samples: 50331435001, 50331435002, 50331435003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Antimony	ug/L	ND	1.0	0.28	11/23/22 05:17	
Arsenic	ug/L	ND	1.0	0.094	11/23/22 05:17	
Selenium	ug/L	ND	1.0	0.57	11/23/22 05:17	

LABORATORY CONTROL SAMPLE: 3252314

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Antimony	ug/L	40	42.3	106	80-120	
Arsenic	ug/L	40	39.0	98	80-120	
Selenium	ug/L	40	39.3	98	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3252315 3252316

Parameter	Units	50331424001		3252315		3252316		% Rec	% Rec	% Rec Limits	RPD	Max RPD	Qual
		Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec						
Antimony	ug/L	ND	40	40	43.5	43.4	108	108	75-125	0	20		
Arsenic	ug/L	ND	40	40	38.3	38.1	95	95	75-125	1	20		
Selenium	ug/L	1.8	40	40	40.1	39.3	96	94	75-125	2	20		

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### QUALITY CONTROL DATA

Project: Eagle Valley Oct 2022 P1R4

Pace Project No.: 50331435

QC Batch:	707790	Analysis Method:	SM 2320B
QC Batch Method:	SM 2320B	Analysis Description:	2320B Alkalinity
		Laboratory:	Pace Analytical Services - Indianapolis

Associated Lab Samples: 50331435001, 50331435002, 50331435003

METHOD BLANK: 3253608 Matrix: Water

Associated Lab Samples: 50331435001, 50331435002, 50331435003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Alkalinity, Total as CaCO3	mg/L	ND	10.0	10.0	11/23/22 11:43	
Alkalinity,Bicarbonate (CaCO3)	mg/L	ND	10.0	10.0	11/23/22 11:43	
Alkalinity,Carbonate (CaCO3)	mg/L	ND	10.0	10.0	11/23/22 11:43	

LABORATORY CONTROL SAMPLE: 3253609

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Alkalinity, Total as CaCO3	mg/L	50	48.1	96	90-110	

SAMPLE DUPLICATE: 3253610

Parameter	Units	50331419014 Result	Dup Result	RPD	Max RPD	Qualifiers
Alkalinity, Total as CaCO3	mg/L	183	189	3	20	
Alkalinity,Bicarbonate (CaCO3)	mg/L	183	189	3	20	
Alkalinity,Carbonate (CaCO3)	mg/L	ND	ND		20	

SAMPLE DUPLICATE: 3253611

Parameter	Units	50331424001 Result	Dup Result	RPD	Max RPD	Qualifiers
Alkalinity, Total as CaCO3	mg/L	262	266	1	20	
Alkalinity,Bicarbonate (CaCO3)	mg/L	262	266	1	20	
Alkalinity,Carbonate (CaCO3)	mg/L	ND	ND		20	

SAMPLE DUPLICATE: 3253612

Parameter	Units	50331472002 Result	Dup Result	RPD	Max RPD	Qualifiers
Alkalinity, Total as CaCO3	mg/L	499	514	3	20	
Alkalinity,Bicarbonate (CaCO3)	mg/L	499	513	3	20	
Alkalinity,Carbonate (CaCO3)	mg/L	ND	ND		20	

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### QUALITY CONTROL DATA

Project: Eagle Valley Oct 2022 P1R4  
Pace Project No.: 50331435

QC Batch: 707694      Analysis Method: SM 2540C  
QC Batch Method: SM 2540C      Analysis Description: 2540C Total Dissolved Solids  
Laboratory: Pace Analytical Services - Indianapolis  
Associated Lab Samples: 50331435001, 50331435002, 50331435003

METHOD BLANK: 3253228      Matrix: Water  
Associated Lab Samples: 50331435001, 50331435002, 50331435003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	ND	10.0	10.0	11/22/22 08:29	

LABORATORY CONTROL SAMPLE: 3253229

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	300	300	100	80-120	

SAMPLE DUPLICATE: 3253230

Parameter	Units	50331424005 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	1320	1300	2	10	

SAMPLE DUPLICATE: 3253231

Parameter	Units	50331472002 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	481	480	0	10	

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**QUALITY CONTROL DATA**

Project: Eagle Valley Oct 2022 P1R4

Pace Project No.: 50331435

QC Batch: 707589

Analysis Method: SM 4500-H+B

QC Batch Method: SM 4500-H+B

Analysis Description: 4500H+B pH

Laboratory: Pace Analytical Services - Indianapolis

Associated Lab Samples: 50331435001, 50331435002, 50331435003

SAMPLE DUPLICATE: 3252873

Parameter	Units	50331424001 Result	Dup Result	RPD	Max RPD	Qualifiers
pH at 25 Degrees C	Std. Units	7.4	7.4	1	2	H3

SAMPLE DUPLICATE: 3252874

Parameter	Units	50331450008 Result	Dup Result	RPD	Max RPD	Qualifiers
pH at 25 Degrees C	Std. Units	8.6	8.6	0	2	H3

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**QUALITY CONTROL DATA**

Project: Eagle Valley Oct 2022 P1R4

Pace Project No.: 50331435

QC Batch:	707334	Analysis Method:	SM 4500-S2-D
QC Batch Method:	SM 4500-S2-D	Analysis Description:	4500S2D Sulfide Water
		Laboratory:	Pace Analytical Services - Indianapolis
Associated Lab Samples:	50331435001, 50331435002, 50331435003		

METHOD BLANK: 3251900 Matrix: Water

Associated Lab Samples: 50331435001, 50331435002, 50331435003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Sulfide	mg/L	ND	0.10	0.025	11/19/22 14:56	

LABORATORY CONTROL SAMPLE: 3251901

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Sulfide	mg/L	0.5	0.54	107	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3251902 3251903

Parameter	Units	50331482001		3251902		3251903		% Rec Limits	RPD	Max RPD	Qual	
		MS Result	MSD Spike Conc.	MS Result	MSD Spike Conc.	MS Result	MSD Result					
Sulfide	mg/L	ND	25	25	14.1	14.0	52	52	90-110	0	20	M3, P4

MATRIX SPIKE SAMPLE: 3251904

Parameter	Units	50331512003 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Sulfide	mg/L	ND	0.5	0.53	105	90-110	

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**QUALITY CONTROL DATA**

Project: Eagle Valley Oct 2022 P1R4  
Pace Project No.: 50331435

QC Batch: 708493 Analysis Method: HACH 8146  
QC Batch Method: HACH 8146 Analysis Description: Iron, Ferrous  
Laboratory: Pace Analytical Services - Indianapolis  
Associated Lab Samples: 50331435001, 50331435002, 50331435003

METHOD BLANK: 3256441 Matrix: Water  
Associated Lab Samples: 50331435001, 50331435002, 50331435003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Iron, Ferrous	mg/L	ND	0.20	0.096	11/28/22 18:33	H3,N2

LABORATORY CONTROL SAMPLE: 3256442

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Iron, Ferrous	mg/L	1	1.0	102	90-110	H3,N2

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3256443 3256444

Parameter	Units	50330817022		3256443		3256444		% Rec Limits	RPD	Max RPD	Qual	
		MS Result	MSD Spike Conc.	MS Result	MSD Spike Conc.	MS Result	MSD Result					
Iron, Ferrous	mg/L	ND	1	1	0.96	1.0	96	104	90-110	9	20	H3,N2

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3256445 3256446

Parameter	Units	50331424001		3256445		3256446		% Rec Limits	RPD	Max RPD	Qual	
		MS Result	MSD Spike Conc.	MS Result	MSD Spike Conc.	MS Result	MSD Result					
Iron, Ferrous	mg/L	ND	1	1	0.99	0.99	99	99	90-110	0	20	H3,N2

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**QUALITY CONTROL DATA**

Project: Eagle Valley Oct 2022 P1R4  
Pace Project No.: 50331435

QC Batch: 707029 Analysis Method: EPA 353.2  
QC Batch Method: EPA 353.2 Analysis Description: 353.2 Nitrate + Nitrite, Unpres.  
Laboratory: Pace Analytical Services - Indianapolis  
Associated Lab Samples: 50331435001, 50331435002, 50331435003

METHOD BLANK: 3250215 Matrix: Water  
Associated Lab Samples: 50331435001, 50331435002, 50331435003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Nitrogen, Nitrate	mg/L	ND	0.10	0.011	11/17/22 19:10	
Nitrogen, Nitrite	mg/L	ND	0.10	0.0040	11/17/22 19:10	

LABORATORY CONTROL SAMPLE: 3250216

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Nitrogen, Nitrate	mg/L	1	1.0	100	90-110	
Nitrogen, Nitrite	mg/L	1	1.0	102	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3250217 3250218

Parameter	Units	50331424001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Nitrogen, Nitrate	mg/L	0.23	1	1	1.3	1.3	103	103	90-110	0	20	
Nitrogen, Nitrite	mg/L	ND	1	1	1.0	1.0	103	104	90-110	0	20	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3250219 3250220

Parameter	Units	50331365001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Nitrogen, Nitrate	mg/L	4.7	4	4	8.9	8.8	103	103	90-110	0	20	
Nitrogen, Nitrite	mg/L	ND	4	4	4.1	4.1	102	102	90-110	0	20	

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### QUALITY CONTROL DATA

Project: Eagle Valley Oct 2022 P1R4

Pace Project No.: 50331435

QC Batch:	707720	Analysis Method:	EPA 365.1
QC Batch Method:	EPA 365.1	Analysis Description:	365.1 Total Phosphorus
		Laboratory:	Pace Analytical Services - Indianapolis

Associated Lab Samples: 50331435001, 50331435002, 50331435003

METHOD BLANK: 3253313 Matrix: Water

Associated Lab Samples: 50331435001, 50331435002, 50331435003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Phosphate as P04	mg/L	ND	0.15	0.15	11/25/22 12:20	

LABORATORY CONTROL SAMPLE: 3253314

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Phosphate as P04	mg/L		1.5			

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3253315 3253316

Parameter	Units	50331419014		3253316		% Rec	% Rec	% Rec Limits	RPD	Max RPD	Qual
		MS Result	MSD Spike Conc.	MS Result	MSD Spike Conc.						
Phosphate as P04	mg/L	0.71		2.3	2.1				8		

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3253317 3253318

Parameter	Units	50331424001		3253318		% Rec	% Rec	% Rec Limits	RPD	Max RPD	Qual
		MS Result	MSD Spike Conc.	MS Result	MSD Spike Conc.						
Phosphate as P04	mg/L	ND		1.4	1.3				7		

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**QUALITY CONTROL DATA**

Project: Eagle Valley Oct 2022 P1R4  
Pace Project No.: 50331435

QC Batch: 709574 Analysis Method: SM 5310C  
QC Batch Method: SM 5310C Analysis Description: 5310C Total Organic Carbon  
Laboratory: Pace Analytical Services - Indianapolis  
Associated Lab Samples: 50331435001, 50331435002, 50331435003

METHOD BLANK: 3260979 Matrix: Water  
Associated Lab Samples: 50331435001, 50331435002, 50331435003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Organic Carbon	mg/L	ND	1.0	0.14	12/09/22 01:24	

LABORATORY CONTROL SAMPLE: 3260980

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Organic Carbon	mg/L	10	9.9	99	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3260981 3260982

Parameter	Units	50331424001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Total Organic Carbon	mg/L	ND	10	10	10.9	10.8	100	99	80-120	1	20	

MATRIX SPIKE SAMPLE: 3260983

Parameter	Units	50331424004 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Total Organic Carbon	mg/L	1.4	10	11.2	97	80-120	

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### QUALITY CONTROL DATA

Project: Eagle Valley Oct 2022 P1R4

Pace Project No.: 50331435

QC Batch: 709579

Analysis Method: SM 5310C

QC Batch Method: SM 5310C

Analysis Description: 5310C Dissolved Organic Carbon

Laboratory: Pace Analytical Services - Indianapolis

Associated Lab Samples: 50331435001, 50331435002, 50331435003

METHOD BLANK: 3261002

Matrix: Water

Associated Lab Samples: 50331435001, 50331435002, 50331435003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Dissolved Organic Carbon	mg/L	ND	1.0	0.14	12/07/22 14:04	

LABORATORY CONTROL SAMPLE: 3261003

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Dissolved Organic Carbon	mg/L	10	10.0	100	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3261004 3261005

Parameter	Units	50331365001		3261004		3261005		% Rec Limits	RPD	Max RPD	Qual	
		MS Result	MSD Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result					MS % Rec
Dissolved Organic Carbon	mg/L	1.2	10	10	10	11.5	11.6	102	104	80-120	1	20

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3261006 3261007

Parameter	Units	50331424001		3261006		3261007		% Rec Limits	RPD	Max RPD	Qual	
		MS Result	MSD Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result					MS % Rec
Dissolved Organic Carbon	mg/L	1.2	10	10	10	11.5	11.4	104	102	80-120	1	20

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Eagle Valley Oct 2022 P1R4

Pace Project No.: 50331435

**Sample: MW-18D**      **Lab ID: 50331435001**      Collected: 11/16/22 12:04      Received: 11/17/22 15:10      Matrix: Water  
PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	<b>0.418 ± 0.581 (0.982)</b> <b>C:NA T:94%</b>	pCi/L	12/12/22 15:44	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	<b>0.361 ± 0.299 (0.599)</b> <b>C:87% T:97%</b>	pCi/L	12/13/22 15:03	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	<b>0.779 ± 0.880 (1.58)</b>	pCi/L	12/14/22 10:52	7440-14-4	

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Eagle Valley Oct 2022 P1R4

Pace Project No.: 50331435

**Sample: MW-181**      **Lab ID: 50331435002**      Collected: 11/16/22 13:44      Received: 11/17/22 15:10      Matrix: Water  
PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Radium-226	EPA 903.1	<b>0.632 ± 0.419 (0.190)</b> <b>C:NA T:90%</b>	pCi/L	12/12/22 15:44	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 904.0	<b>0.294 ± 0.271 (0.548)</b> <b>C:89% T:97%</b>	pCi/L	12/13/22 15:03	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	<b>0.926 ± 0.690 (0.738)</b>	pCi/L	12/14/22 10:52	7440-14-4	

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Eagle Valley Oct 2022 P1R4

Pace Project No.: 50331435

**Sample: MW-18S**      **Lab ID: 50331435003**      Collected: 11/16/22 14:26      Received: 11/17/22 15:10      Matrix: Water  
PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	<b>-0.196 ± 0.385 (0.921)</b> <b>C:NA T:98%</b>	pCi/L	12/12/22 15:44	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	<b>0.393 ± 0.267 (0.506)</b> <b>C:94% T:95%</b>	pCi/L	12/13/22 15:03	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	<b>0.393 ± 0.652 (1.43)</b>	pCi/L	12/14/22 10:52	7440-14-4	

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### QUALITY CONTROL - RADIOCHEMISTRY

Project: Eagle Valley Oct 2022 P1R4

Pace Project No.: 50331435

QC Batch: 549581

Analysis Method: EPA 903.1

QC Batch Method: EPA 903.1

Analysis Description: 903.1 Radium-226

Laboratory: Pace Analytical Services - Greensburg

Associated Lab Samples: 50331435001, 50331435002, 50331435003

METHOD BLANK: 2669575

Matrix: Water

Associated Lab Samples: 50331435001, 50331435002, 50331435003

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.103 ± 0.286 (0.554) C:NA T:99%	pCi/L	12/12/22 15:44	

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### QUALITY CONTROL - RADIOCHEMISTRY

Project: Eagle Valley Oct 2022 P1R4

Pace Project No.: 50331435

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QC Batch:	549582	Analysis Method:	EPA 904.0
QC Batch Method:	EPA 904.0	Analysis Description:	904.0 Radium 228
		Laboratory:	Pace Analytical Services - Greensburg

Associated Lab Samples: 50331435001, 50331435002, 50331435003

---

METHOD BLANK: 2669576 Matrix: Water

Associated Lab Samples: 50331435001, 50331435002, 50331435003

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.0609 ± 0.214 (0.486) C:87% T:95%	pCi/L	12/13/22 15:02	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

### REPORT OF LABORATORY ANALYSIS

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## QUALIFIERS

Project: Eagle Valley Oct 2022 P1R4

Pace Project No.: 50331435

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### DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Reported results are not rounded until the final step prior to reporting. Therefore, calculated parameters that are typically reported as "Total" may vary slightly from the sum of the reported component parameters.

Act - Activity

Unc - Uncertainty: SDWA = 1.96 sigma count uncertainty, all other matrices = Expanded Uncertainty (95% confidence interval).

Gamma Spec = Expanded Uncertainty (95.4% Confidence Interval)

(MDC) - Minimum Detectable Concentration

Trac - Tracer Recovery (%)

Carr - Carrier Recovery (%)

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

### ANALYTE QUALIFIERS

D3 Sample was diluted due to the presence of high levels of non-target analytes or other matrix interference.

E Analyte concentration exceeded the calibration range. The reported result is estimated.

H3 Sample was received or analysis requested beyond the recognized method holding time.

M0 Matrix spike recovery and/or matrix spike duplicate recovery was outside laboratory control limits.

M3 Matrix spike recovery was outside laboratory control limits due to matrix interferences.

N2 The lab does not hold NELAC/TNI accreditation for this parameter but other accreditations/certifications may apply. A complete list of accreditations/certifications is available upon request.

P4 Sample field preservation does not meet EPA or method recommendations for this analysis.

P6 Matrix spike recovery was outside laboratory control limits due to a parent sample concentration notably higher than the spike level.

## REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Eagle Valley Oct 2022 P1R4

Pace Project No.: 50331435

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
50331435001	MW-18D	EPA 9056	707647		
50331435002	MW-18I	EPA 9056	707647		
50331435003	MW-18S	EPA 9056	707647		
50331435001	MW-18D	EPA 3010	708437	EPA 6010	709343
50331435002	MW-18I	EPA 3010	708437	EPA 6010	709343
50331435003	MW-18S	EPA 3010	708437	EPA 6010	709343
50331435001	MW-18D	EPA 3010	708392	EPA 6010	709345
50331435002	MW-18I	EPA 3010	708392	EPA 6010	709345
50331435003	MW-18S	EPA 3010	708392	EPA 6010	709345
50331435001	MW-18D	EPA 200.2	707409	EPA 6020	707671
50331435002	MW-18I	EPA 200.2	707409	EPA 6020	707671
50331435003	MW-18S	EPA 200.2	707409	EPA 6020	707671
50331435001	MW-18D	EPA 903.1	549581		
50331435002	MW-18I	EPA 903.1	549581		
50331435003	MW-18S	EPA 903.1	549581		
50331435001	MW-18D	EPA 904.0	549582		
50331435002	MW-18I	EPA 904.0	549582		
50331435003	MW-18S	EPA 904.0	549582		
50331435001	MW-18D	Total Radium Calculation	553702		
50331435002	MW-18I	Total Radium Calculation	553702		
50331435003	MW-18S	Total Radium Calculation	553702		
50331435001	MW-18D	SM 2320B	707790		
50331435002	MW-18I	SM 2320B	707790		
50331435003	MW-18S	SM 2320B	707790		
50331435001	MW-18D	SM 2540C	707694		
50331435002	MW-18I	SM 2540C	707694		
50331435003	MW-18S	SM 2540C	707694		
50331435001	MW-18D	SM 4500-H+B	707589		
50331435002	MW-18I	SM 4500-H+B	707589		
50331435003	MW-18S	SM 4500-H+B	707589		
50331435001	MW-18D	SM 4500-S2-D	707334		
50331435002	MW-18I	SM 4500-S2-D	707334		
50331435003	MW-18S	SM 4500-S2-D	707334		
50331435001	MW-18D	HACH 8146	708493		
50331435002	MW-18I	HACH 8146	708493		
50331435003	MW-18S	HACH 8146	708493		
50331435001	MW-18D	EPA 353.2	707029		
50331435002	MW-18I	EPA 353.2	707029		
50331435003	MW-18S	EPA 353.2	707029		
50331435001	MW-18D	EPA 365.1	707720	EPA 365.1	708223
50331435002	MW-18I	EPA 365.1	707720	EPA 365.1	708223
50331435003	MW-18S	EPA 365.1	707720	EPA 365.1	708223

### REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Eagle Valley Oct 2022 P1R4

Pace Project No.: 50331435

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
50331435001	MW-18D	SM 5310C	709574		
50331435002	MW-18I	SM 5310C	709574		
50331435003	MW-18S	SM 5310C	709574		
50331435001	MW-18D	SM 5310C	709579		
50331435002	MW-18I	SM 5310C	709579		
50331435003	MW-18S	SM 5310C	709579		

### REPORT OF LABORATORY ANALYSIS

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**SAMPLE CONDITION UPON RECEIPT FORM**

Date/Time and Initials of person examining contents: 11/17/22 1600 LL

1. Courier:  FED EX  UPS  CLIENT  PACE  USPS  OTHER \_\_\_\_\_

2. Custody Seal on Cooler/Box Present:  Yes  No

(If yes)Seals Intact:  Yes  No (leave blank if no seals were present)

3. Thermometer: **1 2 3 4 5 6 A B C D E F**

4. Cooler Temperature(s): 1.3/0.4 1.7/0.3    
 (Initial/Corrected) RECORD TEMPS OF ALL COOLERS RECEIVED (use Comments below to add more)

5. Packing Material:  Bubble Wrap  Bubble Bags  
 None  Other \_\_\_\_\_

6. Ice Type:  Wet  Blue  None

7. If temp. is over 6°C or under 0°C, was the PM notified?:  Yes  No  
 Cooler temp should be above freezing to 6°C

All discrepancies will be written out in the comments section below.

	Yes	No		Yes	No	N/A
USDA Regulated Soils? (HI, ID, NY, WA, OR, CA, NM, TX, OK, AR, LA, TN, AL, MS, NC, SC, GA, FL, or Puerto Rico)		/	All containers needing acid/base preservation have been pH CHECKED?: Exceptions: VOA, coliform, LLHg, O&G, RAD CHEM, and any container with a septum cap or preserved with HCl.	✓		
Short Hold Time Analysis (48 hours or less)? Analysis: <u>NO<sub>2</sub> / NO<sub>3</sub></u>	✓		Circle: HNO <sub>3</sub> (<2) H <sub>2</sub> SO <sub>4</sub> (<2) NaOH (>10) NaOH/ZnAc (>9) Any non-conformance to pH recommendations will be noted on the container count form			
Time 5035A TC placed in Freezer or Short Holds To Lab			Time: <u>1654</u>	Present	Absent	N/A
Rush TAT Requested (4 days or less):		/	Residual Chlorine Check (SVOC 625 Pest/PCB 608)			/
Custody Signatures Present?	✓		Residual Chlorine Check (Total/Amenable/Free Cyanide)			/
Containers Intact?:	✓		Headspace Wisconsin Sulfide?			/
Sample Label (IDs/Dates/Times) Match COC?: Except TCs, which only require sample ID	✓		Headspace in VOA Vials (>6mm): See Container Count form for details	Present	Absent	No VOA Vials Sent
Extra labels on Terracore Vials? (soils only)			Trip Blank Present?		✓	
			Trip Blank Custody Seals?:			/

COMMENTS:



March 06, 2023

Mr. Mark Breting  
ATC Group Services  
7988 Centerpoint Drive  
Suite 100  
Indianapolis, IN 46256

RE: Project: Eagle Valley Oct 2022 P1R4  
Pace Project No.: 50331571

Dear Mr. Breting:

Enclosed are the analytical results for sample(s) received by the laboratory on November 18, 2022. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

The test results provided in this final report were generated by each of the following laboratories within the Pace Network:

- Pace Analytical Services - Indianapolis
- Pace Analytical Services - Greensburg

If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Will Statz  
will.statz@pacelabs.com  
(317)228-3105  
Project Manager

Enclosures

cc: Mr. Robert Miller, Haley & Aldrich



## REPORT OF LABORATORY ANALYSIS

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## CERTIFICATIONS

Project: Eagle Valley Oct 2022 P1R4

Pace Project No.: 50331571

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### **Pace Analytical Services Pennsylvania**

1638 Roseytown Rd Suites 2,3&4, Greensburg, PA 15601

ANAB DOD-ELAP Rad Accreditation #: L2417

Alabama Certification #: 41590

Arizona Certification #: AZ0734

Arkansas Certification

California Certification #: 04222CA

Colorado Certification #: PA01547

Connecticut Certification #: PH-0694

Delaware Certification

EPA Region 4 DW Rad

Florida/TNI Certification #: E87683

Georgia Certification #: C040

Florida: Cert E871149 SEKS WET

Guam Certification

Hawaii Certification

Idaho Certification

Illinois Certification

Indiana Certification

Iowa Certification #: 391

Kansas/TNI Certification #: E-10358

Kentucky Certification #: KY90133

KY WW Permit #: KY0098221

KY WW Permit #: KY0000221

Louisiana DHH/TNI Certification #: LA180012

Louisiana DEQ/TNI Certification #: 4086

Maine Certification #: 2017020

Maryland Certification #: 308

Massachusetts Certification #: M-PA1457

Michigan/PADEP Certification #: 9991

Missouri Certification #: 235

Montana Certification #: Cert0082

Nebraska Certification #: NE-OS-29-14

Nevada Certification #: PA014572018-1

New Hampshire/TNI Certification #: 297617

New Jersey/TNI Certification #: PA051

New Mexico Certification #: PA01457

New York/TNI Certification #: 10888

North Carolina Certification #: 42706

North Dakota Certification #: R-190

Ohio EPA Rad Approval: #41249

Oregon/TNI Certification #: PA200002-010

Pennsylvania/TNI Certification #: 65-00282

Puerto Rico Certification #: PA01457

Rhode Island Certification #: 65-00282

South Dakota Certification

Tennessee Certification #: 02867

Texas/TNI Certification #: T104704188-17-3

Utah/TNI Certification #: PA014572017-9

USDA Soil Permit #: P330-17-00091

Vermont Dept. of Health: ID# VT-0282

Virgin Island/PADEP Certification

Virginia/VELAP Certification #: 460198

Washington Certification #: C868

West Virginia DEP Certification #: 143

West Virginia DHHR Certification #: 9964C

Wisconsin Approve List for Rad

Wyoming Certification #: 8TMS-L

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### **Pace Analytical Services Indianapolis**

7726 Moller Road, Indianapolis, IN 46268

Illinois Accreditation #: 200074

Indiana Drinking Water Laboratory #: C-49-06

Kansas/TNI Certification #: E-10177

Kentucky UST Agency Interest #: 80226

Kentucky WW Laboratory ID #: 98019

Michigan Drinking Water Laboratory #9050

Ohio VAP Certified Laboratory #: CL0065

Oklahoma Laboratory #: 9204

Texas Certification #: T104704355

Wisconsin Laboratory #: 999788130

USDA Foreign Soil Permit #: 525-23-13-23119

USDA Compliance Agreement #: IN-SL-22-001

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## REPORT OF LABORATORY ANALYSIS

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## SAMPLE SUMMARY

Project: Eagle Valley Oct 2022 P1R4  
Pace Project No.: 50331571

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Lab ID	Sample ID	Matrix	Date Collected	Date Received
50331571001	MW-19D	Water	11/17/22 11:46	11/18/22 15:55
50331571002	MW-19I	Water	11/17/22 12:44	11/18/22 15:55
50331571003	MW-19S	Water	11/17/22 14:01	11/18/22 15:55

## REPORT OF LABORATORY ANALYSIS

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### SAMPLE ANALYTE COUNT

Project: Eagle Valley Oct 2022 P1R4

Pace Project No.: 50331571

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
50331571001	MW-19D	EPA 9056	RMR	3	PASI-I
		EPA 6010	MTM	12	PASI-I
		EPA 6010	DJS	2	PASI-I
		EPA 6020	DMT	3	PASI-I
		EPA 903.1	CLM	1	PASI-PA
		EPA 904.0	JJS1	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
		SM 2320B	TAY	3	PASI-I
		SM 2540C	MTW	1	PASI-I
		SM 4500-H+B	TRK	1	PASI-I
		SM 4500-S2-D	BEP	1	PASI-I
		HACH 8146	ZM	1	PASI-I
		EPA 353.2	OAS	2	PASI-I
		EPA 365.1	ZM	1	PASI-I
		SM 5310C	ATS	1	PASI-I
		SM 5310C	ATS	1	PASI-I
		50331571002	MW-19I	EPA 9056	RMR
EPA 6010	MTM			12	PASI-I
EPA 6010	DJS			2	PASI-I
EPA 6020	DMT			3	PASI-I
EPA 903.1	CLM			1	PASI-PA
EPA 904.0	JJS1			1	PASI-PA
Total Radium Calculation	JAL			1	PASI-PA
SM 2320B	TAY			3	PASI-I
SM 2540C	MTW			1	PASI-I
SM 4500-H+B	TRK			1	PASI-I
SM 4500-S2-D	BEP			1	PASI-I
HACH 8146	ZM			1	PASI-I
EPA 353.2	OAS			2	PASI-I
EPA 365.1	ZM			1	PASI-I
SM 5310C	ATS			1	PASI-I
SM 5310C	ATS			1	PASI-I
50331571003	MW-19S			EPA 9056	RMR
		EPA 6010	MTM	12	PASI-I
		EPA 6010	DJS	2	PASI-I
		EPA 6020	DMT	3	PASI-I
		EPA 903.1	CLM	1	PASI-PA

### REPORT OF LABORATORY ANALYSIS

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### SAMPLE ANALYTE COUNT

Project: Eagle Valley Oct 2022 P1R4

Pace Project No.: 50331571

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
		EPA 904.0	JJS1	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
		SM 2320B	TAY	3	PASI-I
		SM 2540C	MTW	1	PASI-I
		SM 4500-H+B	TRK	1	PASI-I
		SM 4500-S2-D	BEP	1	PASI-I
		HACH 8146	ZM	1	PASI-I
		EPA 353.2	OAS	2	PASI-I
		EPA 365.1	ZM	1	PASI-I
		SM 5310C	ATS	1	PASI-I
		SM 5310C	ATS	1	PASI-I

PASI-I = Pace Analytical Services - Indianapolis

PASI-PA = Pace Analytical Services - Greensburg

### REPORT OF LABORATORY ANALYSIS

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### SUMMARY OF DETECTION

Project: Eagle Valley Oct 2022 P1R4

Pace Project No.: 50331571

Lab Sample ID	Client Sample ID	Result	Units	Report Limit	Analyzed	Qualifiers
Method	Parameters					
<b>50331571001</b>	<b>MW-19D</b>					
EPA 9056	Chloride	143	mg/L	25.0	11/27/22 05:05	
EPA 9056	Sulfate	240	mg/L	25.0	11/27/22 05:05	
EPA 6010	Barium	48.4	ug/L	10.0	12/06/22 11:15	
EPA 6010	Boron	5700	ug/L	100	12/06/22 11:15	
EPA 6010	Calcium	116000	ug/L	1000	12/06/22 11:15	
EPA 6010	Iron	131	ug/L	100	12/06/22 11:15	
EPA 6010	Lithium	21.7	ug/L	20.0	12/06/22 11:15	
EPA 6010	Magnesium	28200	ug/L	1000	12/06/22 11:15	
EPA 6010	Manganese	370	ug/L	10.0	12/06/22 11:15	
EPA 6010	Molybdenum	19.8	ug/L	10.0	12/06/22 11:15	
EPA 6010	Potassium	4030	ug/L	1000	12/06/22 11:15	
EPA 6010	Silica	13300	ug/L	450	12/06/22 11:15	N2
EPA 6010	Sodium	98300	ug/L	1000	12/06/22 11:15	
EPA 6010	Manganese, Dissolved	418	ug/L	10.0	12/04/22 16:05	
EPA 6010	Molybdenum, Dissolved	21.6	ug/L	10.0	12/05/22 09:31	
EPA 903.1	Radium-226	0.496 ± 0.365 (0.525)	pCi/L		12/19/22 14:25	
EPA 904.0	Radium-228	C:NA T:98% 0.426 ± 0.446 (0.931)	pCi/L		12/09/22 16:08	
		C:82% T:98%				
Total Radium Calculation	Total Radium	0.922 ± 0.811 (1.46)	pCi/L		12/19/22 17:45	
SM 2320B	Alkalinity, Total as CaCO3	227	mg/L	10.0	11/24/22 16:56	
SM 2320B	Alkalinity, Bicarbonate (CaCO3)	220	mg/L	10.0	11/24/22 16:56	
SM 2540C	Total Dissolved Solids	794	mg/L	20.0	11/23/22 07:02	
SM 4500-H+B	pH at 25 Degrees C	7.6	Std. Units	0.10	11/25/22 15:13	H3
<b>50331571002</b>	<b>MW-19I</b>					
EPA 9056	Chloride	106	mg/L	2.5	11/27/22 05:35	
EPA 9056	Sulfate	242	mg/L	2.5	11/27/22 05:35	
EPA 6010	Barium	68.4	ug/L	10.0	12/06/22 13:07	
EPA 6010	Boron	4780	ug/L	100	12/06/22 13:07	
EPA 6010	Calcium	120000	ug/L	1000	12/06/22 13:07	
EPA 6010	Lithium	98.7	ug/L	20.0	12/06/22 13:07	
EPA 6010	Magnesium	25200	ug/L	1000	12/06/22 13:07	
EPA 6010	Manganese	81.0	ug/L	10.0	12/06/22 13:07	
EPA 6010	Molybdenum	135	ug/L	10.0	12/06/22 13:07	
EPA 6010	Potassium	7480	ug/L	1000	12/06/22 13:07	
EPA 6010	Silica	13500	ug/L	450	12/06/22 13:07	N2
EPA 6010	Sodium	95800	ug/L	1000	12/06/22 13:07	
EPA 6010	Manganese, Dissolved	86.2	ug/L	10.0	12/04/22 16:08	
EPA 6010	Molybdenum, Dissolved	139	ug/L	10.0	12/05/22 09:34	

### REPORT OF LABORATORY ANALYSIS

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### SUMMARY OF DETECTION

Project: Eagle Valley Oct 2022 P1R4

Pace Project No.: 50331571

Lab Sample ID	Client Sample ID	Result	Units	Report Limit	Analyzed	Qualifiers
Method	Parameters					
<b>50331571002</b>	<b>MW-19I</b>					
EPA 903.1	Radium-226	0.262 ± 0.321 (0.528)	pCi/L		12/19/22 14:52	
		C:NA T:95%				
EPA 904.0	Radium-228	0.776 ± 0.511 (0.984)	pCi/L		12/09/22 16:08	
		C:80% T:95%				
Total Radium Calculation	Total Radium	1.04 ± 0.832 (1.51)	pCi/L		12/19/22 17:45	
SM 2320B	Alkalinity, Total as CaCO3	251	mg/L	10.0	11/24/22 16:56	
SM 2320B	Alkalinity,Bicarbonate (CaCO3)	241	mg/L	10.0	11/24/22 16:56	
SM 2320B	Alkalinity,Carbonate (CaCO3)	10.6	mg/L	10.0	11/24/22 16:56	
SM 2540C	Total Dissolved Solids	727	mg/L	10.0	11/23/22 07:02	
SM 4500-H+B	pH at 25 Degrees C	7.6	Std. Units	0.10	11/25/22 16:01	H3
EPA 353.2	Nitrogen, Nitrate	0.24	mg/L	0.10	11/18/22 20:30	
<b>50331571003</b>	<b>MW-19S</b>					
EPA 9056	Chloride	3.8	mg/L	0.25	11/27/22 05:50	
EPA 9056	Sulfate	9.5	mg/L	0.25	11/27/22 05:50	
EPA 6010	Barium	31.6	ug/L	10.0	12/06/22 13:09	
EPA 6010	Boron	158	ug/L	100	12/06/22 13:09	
EPA 6010	Calcium	108000	ug/L	1000	12/06/22 13:09	
EPA 6010	Magnesium	27200	ug/L	1000	12/06/22 13:09	
EPA 6010	Manganese	10.4	ug/L	10.0	12/06/22 13:09	
EPA 6010	Potassium	2010	ug/L	1000	12/06/22 13:09	
EPA 6010	Silica	11500	ug/L	450	12/06/22 13:09	N2
EPA 6010	Sodium	10200	ug/L	1000	12/06/22 13:09	
EPA 903.1	Radium-226	0.138 ± 0.271 (0.486)	pCi/L		12/19/22 14:52	
		C:NA T:93%				
EPA 904.0	Radium-228	-0.283 ± 0.340 (0.850)	pCi/L		12/09/22 16:08	
		C:87% T:93%				
Total Radium Calculation	Total Radium	0.138 ± 0.611 (1.34)	pCi/L		12/19/22 17:45	
SM 2320B	Alkalinity, Total as CaCO3	331	mg/L	10.0	11/24/22 16:56	
SM 2320B	Alkalinity,Bicarbonate (CaCO3)	331	mg/L	10.0	11/24/22 16:56	
SM 2540C	Total Dissolved Solids	401	mg/L	10.0	11/23/22 07:02	
SM 4500-H+B	pH at 25 Degrees C	7.4	Std. Units	0.10	11/25/22 16:02	H3
EPA 353.2	Nitrogen, Nitrate	12.1	mg/L	1.0	11/18/22 22:01	

### REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: Eagle Valley Oct 2022 P1R4

Pace Project No.: 50331571

Sample: MW-19D		Lab ID: 50331571001		Collected: 11/17/22 11:46		Received: 11/18/22 15:55		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>9056 IC Anions</b>		Analytical Method: EPA 9056 Pace Analytical Services - Indianapolis							
Chloride	143	mg/L	25.0	6.7	100		11/27/22 05:05	16887-00-6	
Fluoride	ND	mg/L	0.10	0.017	1		11/27/22 04:35	16984-48-8	
Sulfate	240	mg/L	25.0	8.5	100		11/27/22 05:05	14808-79-8	
<b>6010 MET ICP</b>		Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis							
Aluminum	ND	ug/L	200	55.4	1	12/04/22 16:23	12/06/22 11:15	7429-90-5	
Barium	48.4	ug/L	10.0	2.1	1	12/04/22 16:23	12/06/22 11:15	7440-39-3	
Boron	5700	ug/L	100	37.6	1	12/04/22 16:23	12/06/22 11:15	7440-42-8	
Calcium	116000	ug/L	1000	163	1	12/04/22 16:23	12/06/22 11:15	7440-70-2	
Iron	131	ug/L	100	48.8	1	12/04/22 16:23	12/06/22 11:15	7439-89-6	
Lithium	21.7	ug/L	20.0	6.2	1	12/04/22 16:23	12/06/22 11:15	7439-93-2	
Magnesium	28200	ug/L	1000	71.8	1	12/04/22 16:23	12/06/22 11:15	7439-95-4	
Manganese	370	ug/L	10.0	2.5	1	12/04/22 16:23	12/06/22 11:15	7439-96-5	
Molybdenum	19.8	ug/L	10.0	3.7	1	12/04/22 16:23	12/06/22 11:15	7439-98-7	
Potassium	4030	ug/L	1000	281	1	12/04/22 16:23	12/06/22 11:15	7440-09-7	
Silica	13300	ug/L	450		1	12/04/22 16:23	12/06/22 11:15	7631-86-9	N2
Sodium	98300	ug/L	1000	214	1	12/04/22 16:23	12/06/22 11:15	7440-23-5	
<b>6010 MET ICP, Dissolved</b>		Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis							
Manganese, Dissolved	418	ug/L	10.0	5.4	1	12/01/22 08:43	12/04/22 16:05	7439-96-5	
Molybdenum, Dissolved	21.6	ug/L	10.0	3.7	1	12/01/22 08:43	12/05/22 09:31	7439-98-7	
<b>6020 MET ICPMS</b>		Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis							
Antimony	ND	ug/L	1.0	0.28	1	11/23/22 08:50	11/29/22 05:22	7440-36-0	
Arsenic	ND	ug/L	1.0	0.094	1	11/23/22 08:50	11/29/22 05:22	7440-38-2	
Selenium	ND	ug/L	1.0	0.57	1	11/23/22 08:50	11/29/22 05:22	7782-49-2	
<b>2320B Alkalinity</b>		Analytical Method: SM 2320B Pace Analytical Services - Indianapolis							
Alkalinity, Total as CaCO3	227	mg/L	10.0	10.0	1		11/24/22 16:56		
Alkalinity,Bicarbonate (CaCO3)	220	mg/L	10.0	10.0	1		11/24/22 16:56		
Alkalinity,Carbonate (CaCO3)	ND	mg/L	10.0	10.0	1		11/24/22 16:56		
<b>2540C Total Dissolved Solids</b>		Analytical Method: SM 2540C Pace Analytical Services - Indianapolis							
Total Dissolved Solids	794	mg/L	20.0	20.0	1		11/23/22 07:02		
<b>4500H+ pH, Electrometric</b>		Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis							
pH at 25 Degrees C	7.6	Std. Units	0.10	0.10	1		11/25/22 15:13		H3

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**ANALYTICAL RESULTS**

Project: Eagle Valley Oct 2022 P1R4  
Pace Project No.: 50331571

Sample: MW-19D      Lab ID: 50331571001      Collected: 11/17/22 11:46      Received: 11/18/22 15:55      Matrix: Water									
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>4500S2D Sulfide Water</b>									
Analytical Method: SM 4500-S2-D Pace Analytical Services - Indianapolis									
Sulfide	ND	mg/L	0.10	0.025	1		11/19/22 15:56	18496-25-8	
<b>Iron, Ferrous</b>									
Analytical Method: HACH 8146 Pace Analytical Services - Indianapolis									
Iron, Ferrous	ND	mg/L	0.20	0.096	1		11/28/22 18:38	15438-31-0	H3,N2
<b>353.2 Nitrogen, NO2/NO3 unpres</b>									
Analytical Method: EPA 353.2 Pace Analytical Services - Indianapolis									
Nitrogen, Nitrate	ND	mg/L	0.10	0.011	1		11/18/22 20:26	14797-55-8	
Nitrogen, Nitrite	ND	mg/L	0.10	0.0040	1		11/18/22 20:26	14797-65-0	
<b>365.1 Total Phosphorus</b>									
Analytical Method: EPA 365.1      Preparation Method: EPA 365.1 Pace Analytical Services - Indianapolis									
Phosphate as P04	ND	mg/L	0.15	0.15	1	11/29/22 13:00	12/01/22 10:29		
<b>5310C TOC</b>									
Analytical Method: SM 5310C Pace Analytical Services - Indianapolis									
Total Organic Carbon	ND	mg/L	4.0	0.57	4		12/12/22 12:34	7440-44-0	D3
<b>5310C Dissolved Organic Carbon</b>									
Analytical Method: SM 5310C Pace Analytical Services - Indianapolis									
Dissolved Organic Carbon	ND	mg/L	4.0	0.57	4		12/07/22 23:12		D3

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### ANALYTICAL RESULTS

Project: Eagle Valley Oct 2022 P1R4

Pace Project No.: 50331571

Sample: MW-191      Lab ID: 50331571002      Collected: 11/17/22 12:44      Received: 11/18/22 15:55      Matrix: Water									
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>9056 IC Anions</b>									
Analytical Method: EPA 9056 Pace Analytical Services - Indianapolis									
Chloride	106	mg/L	2.5	0.67	10		11/27/22 05:35	16887-00-6	
Fluoride	ND	mg/L	0.10	0.017	1		11/27/22 05:20	16984-48-8	
Sulfate	242	mg/L	2.5	0.85	10		11/27/22 05:35	14808-79-8	
<b>6010 MET ICP</b>									
Analytical Method: EPA 6010      Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis									
Aluminum	ND	ug/L	200	55.4	1	12/04/22 16:23	12/06/22 13:07	7429-90-5	
Barium	68.4	ug/L	10.0	2.1	1	12/04/22 16:23	12/06/22 13:07	7440-39-3	
Boron	4780	ug/L	100	37.6	1	12/04/22 16:23	12/06/22 13:07	7440-42-8	
Calcium	120000	ug/L	1000	163	1	12/04/22 16:23	12/06/22 13:07	7440-70-2	
Iron	ND	ug/L	100	48.8	1	12/04/22 16:23	12/06/22 13:07	7439-89-6	
Lithium	98.7	ug/L	20.0	6.2	1	12/04/22 16:23	12/06/22 13:07	7439-93-2	
Magnesium	25200	ug/L	1000	71.8	1	12/04/22 16:23	12/06/22 13:07	7439-95-4	
Manganese	81.0	ug/L	10.0	2.5	1	12/04/22 16:23	12/06/22 13:07	7439-96-5	
Molybdenum	135	ug/L	10.0	3.7	1	12/04/22 16:23	12/06/22 13:07	7439-98-7	
Potassium	7480	ug/L	1000	281	1	12/04/22 16:23	12/06/22 13:07	7440-09-7	
Silica	13500	ug/L	450		1	12/04/22 16:23	12/06/22 13:07	7631-86-9	N2
Sodium	95800	ug/L	1000	214	1	12/04/22 16:23	12/06/22 13:07	7440-23-5	
<b>6010 MET ICP, Dissolved</b>									
Analytical Method: EPA 6010      Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis									
Manganese, Dissolved	86.2	ug/L	10.0	5.4	1	12/01/22 08:43	12/04/22 16:08	7439-96-5	
Molybdenum, Dissolved	139	ug/L	10.0	3.7	1	12/01/22 08:43	12/05/22 09:34	7439-98-7	
<b>6020 MET ICPMS</b>									
Analytical Method: EPA 6020      Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis									
Antimony	ND	ug/L	1.0	0.28	1	11/23/22 08:50	11/29/22 05:26	7440-36-0	
Arsenic	ND	ug/L	1.0	0.094	1	11/23/22 08:50	11/29/22 05:26	7440-38-2	
Selenium	ND	ug/L	1.0	0.57	1	11/23/22 08:50	11/29/22 05:26	7782-49-2	
<b>2320B Alkalinity</b>									
Analytical Method: SM 2320B Pace Analytical Services - Indianapolis									
Alkalinity, Total as CaCO3	251	mg/L	10.0	10.0	1		11/24/22 16:56		
Alkalinity,Bicarbonate (CaCO3)	241	mg/L	10.0	10.0	1		11/24/22 16:56		
Alkalinity,Carbonate (CaCO3)	10.6	mg/L	10.0	10.0	1		11/24/22 16:56		
<b>2540C Total Dissolved Solids</b>									
Analytical Method: SM 2540C Pace Analytical Services - Indianapolis									
Total Dissolved Solids	727	mg/L	10.0	10.0	1		11/23/22 07:02		
<b>4500H+ pH, Electrometric</b>									
Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis									
pH at 25 Degrees C	7.6	Std. Units	0.10	0.10	1		11/25/22 16:01		H3

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### ANALYTICAL RESULTS

Project: Eagle Valley Oct 2022 P1R4

Pace Project No.: 50331571

Sample: MW-19I		Lab ID: 50331571002		Collected: 11/17/22 12:44	Received: 11/18/22 15:55	Matrix: Water			
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>4500S2D Sulfide Water</b>		Analytical Method: SM 4500-S2-D Pace Analytical Services - Indianapolis							
Sulfide	ND	mg/L	0.10	0.025	1		11/19/22 15:56	18496-25-8	
<b>Iron, Ferrous</b>		Analytical Method: HACH 8146 Pace Analytical Services - Indianapolis							
Iron, Ferrous	ND	mg/L	0.20	0.096	1		11/28/22 18:38	15438-31-0	H3,N2
<b>353.2 Nitrogen, NO2/NO3 unpres</b>		Analytical Method: EPA 353.2 Pace Analytical Services - Indianapolis							
Nitrogen, Nitrate	<b>0.24</b>	mg/L	0.10	0.011	1		11/18/22 20:30	14797-55-8	
Nitrogen, Nitrite	ND	mg/L	0.10	0.0040	1		11/18/22 20:30	14797-65-0	
<b>365.1 Total Phosphorus</b>		Analytical Method: EPA 365.1 Preparation Method: EPA 365.1 Pace Analytical Services - Indianapolis							
Phosphate as P04	ND	mg/L	0.15	0.15	1	11/29/22 13:00	12/01/22 10:32		
<b>5310C TOC</b>		Analytical Method: SM 5310C Pace Analytical Services - Indianapolis							
Total Organic Carbon	ND	mg/L	1.0	0.14	1		12/12/22 02:44	7440-44-0	
<b>5310C Dissolved Organic Carbon</b>		Analytical Method: SM 5310C Pace Analytical Services - Indianapolis							
Dissolved Organic Carbon	ND	mg/L	1.0	0.14	1		12/07/22 19:17		

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### ANALYTICAL RESULTS

Project: Eagle Valley Oct 2022 P1R4

Pace Project No.: 50331571

Sample: MW-19S      Lab ID: 50331571003      Collected: 11/17/22 14:01      Received: 11/18/22 15:55      Matrix: Water									
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>9056 IC Anions</b>									
Analytical Method: EPA 9056 Pace Analytical Services - Indianapolis									
Chloride	3.8	mg/L	0.25	0.067	1		11/27/22 05:50	16887-00-6	
Fluoride	ND	mg/L	0.10	0.017	1		11/27/22 05:50	16984-48-8	
Sulfate	9.5	mg/L	0.25	0.085	1		11/27/22 05:50	14808-79-8	
<b>6010 MET ICP</b>									
Analytical Method: EPA 6010      Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis									
Aluminum	ND	ug/L	200	55.4	1	12/04/22 16:23	12/06/22 13:09	7429-90-5	
Barium	31.6	ug/L	10.0	2.1	1	12/04/22 16:23	12/06/22 13:09	7440-39-3	
Boron	158	ug/L	100	37.6	1	12/04/22 16:23	12/06/22 13:09	7440-42-8	
Calcium	108000	ug/L	1000	163	1	12/04/22 16:23	12/06/22 13:09	7440-70-2	
Iron	ND	ug/L	100	48.8	1	12/04/22 16:23	12/06/22 13:09	7439-89-6	
Lithium	ND	ug/L	20.0	6.2	1	12/04/22 16:23	12/06/22 13:09	7439-93-2	
Magnesium	27200	ug/L	1000	71.8	1	12/04/22 16:23	12/06/22 13:09	7439-95-4	
Manganese	10.4	ug/L	10.0	2.5	1	12/04/22 16:23	12/06/22 13:09	7439-96-5	
Molybdenum	ND	ug/L	10.0	3.7	1	12/04/22 16:23	12/06/22 13:09	7439-98-7	
Potassium	2010	ug/L	1000	281	1	12/04/22 16:23	12/06/22 13:09	7440-09-7	
Silica	11500	ug/L	450		1	12/04/22 16:23	12/06/22 13:09	7631-86-9	N2
Sodium	10200	ug/L	1000	214	1	12/04/22 16:23	12/06/22 13:09	7440-23-5	
<b>6010 MET ICP, Dissolved</b>									
Analytical Method: EPA 6010      Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis									
Manganese, Dissolved	ND	ug/L	10.0	5.4	1	12/01/22 08:43	12/04/22 16:11	7439-96-5	
Molybdenum, Dissolved	ND	ug/L	10.0	2.0	1	12/01/22 08:43	12/04/22 16:11	7439-98-7	CU
<b>6020 MET ICPMS</b>									
Analytical Method: EPA 6020      Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis									
Antimony	ND	ug/L	1.0	0.28	1	11/23/22 08:50	11/29/22 05:29	7440-36-0	
Arsenic	ND	ug/L	1.0	0.094	1	11/23/22 08:50	11/29/22 05:29	7440-38-2	
Selenium	ND	ug/L	1.0	0.57	1	11/23/22 08:50	11/29/22 05:29	7782-49-2	
<b>2320B Alkalinity</b>									
Analytical Method: SM 2320B Pace Analytical Services - Indianapolis									
Alkalinity, Total as CaCO3	331	mg/L	10.0	10.0	1		11/24/22 16:56		
Alkalinity,Bicarbonate (CaCO3)	331	mg/L	10.0	10.0	1		11/24/22 16:56		
Alkalinity,Carbonate (CaCO3)	ND	mg/L	10.0	10.0	1		11/24/22 16:56		
<b>2540C Total Dissolved Solids</b>									
Analytical Method: SM 2540C Pace Analytical Services - Indianapolis									
Total Dissolved Solids	401	mg/L	10.0	10.0	1		11/23/22 07:02		
<b>4500H+ pH, Electrometric</b>									
Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis									
pH at 25 Degrees C	7.4	Std. Units	0.10	0.10	1		11/25/22 16:02		H3

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### ANALYTICAL RESULTS

Project: Eagle Valley Oct 2022 P1R4

Pace Project No.: 50331571

Sample: MW-19S		Lab ID: 50331571003		Collected: 11/17/22 14:01	Received: 11/18/22 15:55	Matrix: Water				
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual	
<b>4500S2D Sulfide Water</b>		Analytical Method: SM 4500-S2-D Pace Analytical Services - Indianapolis								
Sulfide	ND	mg/L	0.10	0.025	1		11/19/22 15:56	18496-25-8		
<b>Iron, Ferrous</b>		Analytical Method: HACH 8146 Pace Analytical Services - Indianapolis								
Iron, Ferrous	ND	mg/L	0.20	0.096	1		11/28/22 18:38	15438-31-0	H3,N2	
<b>353.2 Nitrogen, NO2/NO3 unpres</b>		Analytical Method: EPA 353.2 Pace Analytical Services - Indianapolis								
Nitrogen, Nitrate	12.1	mg/L	1.0	0.11	10		11/18/22 22:01	14797-55-8		
Nitrogen, Nitrite	ND	mg/L	1.0	0.040	10		11/18/22 22:01	14797-65-0		
<b>365.1 Total Phosphorus</b>		Analytical Method: EPA 365.1 Preparation Method: EPA 365.1 Pace Analytical Services - Indianapolis								
Phosphate as P04	ND	mg/L	0.15	0.15	1	11/29/22 13:00	12/01/22 10:33			
<b>5310C TOC</b>		Analytical Method: SM 5310C Pace Analytical Services - Indianapolis								
Total Organic Carbon	ND	mg/L	1.0	0.14	1		12/12/22 03:05	7440-44-0		
<b>5310C Dissolved Organic Carbon</b>		Analytical Method: SM 5310C Pace Analytical Services - Indianapolis								
Dissolved Organic Carbon	ND	mg/L	1.0	0.14	1		12/07/22 19:28			

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### QUALITY CONTROL DATA

Project: Eagle Valley Oct 2022 P1R4

Pace Project No.: 50331571

QC Batch: 707995 Analysis Method: EPA 9056  
 QC Batch Method: EPA 9056 Analysis Description: 9056 IC Anions  
 Laboratory: Pace Analytical Services - Indianapolis  
 Associated Lab Samples: 50331571001, 50331571002, 50331571003

METHOD BLANK: 3254636 Matrix: Water

Associated Lab Samples: 50331571001, 50331571002, 50331571003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chloride	mg/L	ND	0.25	0.067	11/28/22 12:44	
Fluoride	mg/L	ND	0.10	0.017	11/28/22 12:44	
Sulfate	mg/L	ND	0.25	0.085	11/28/22 12:44	

LABORATORY CONTROL SAMPLE: 3254637

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	1.2	1.3	105	80-120	
Fluoride	mg/L	0.5	0.52	104	80-120	
Sulfate	mg/L	2.5	2.7	108	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3254638 3254639

Parameter	Units	50331558013		3254638		3254639		% Rec	% Rec	% Rec Limits	RPD	Max RPD	Qual
		MS Result	MSD Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result						
Chloride	mg/L	10.7	10.7	1.2	1.2	13.1	13.1	196	190	80-120	1	15	
Fluoride	mg/L	0.12	0.12	0.5	0.5	0.64	0.64	104	102	80-120	1	15	
Sulfate	mg/L	1.5	1.5	2.5	2.5	4.2	4.2	110	108	80-120	1	15	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

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### QUALITY CONTROL DATA

Project: Eagle Valley Oct 2022 P1R4

Pace Project No.: 50331571

QC Batch: 708445 Analysis Method: EPA 6010  
 QC Batch Method: EPA 3010 Analysis Description: 6010 MET  
 Laboratory: Pace Analytical Services - Indianapolis

Associated Lab Samples: 50331571001, 50331571002, 50331571003

METHOD BLANK: 3256315 Matrix: Water

Associated Lab Samples: 50331571001, 50331571002, 50331571003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Aluminum	ug/L	ND	200	55.4	12/06/22 11:13	
Barium	ug/L	ND	10.0	2.1	12/06/22 11:13	
Boron	ug/L	ND	100	37.6	12/06/22 11:13	
Calcium	ug/L	ND	1000	163	12/06/22 11:13	
Iron	ug/L	ND	100	48.8	12/06/22 11:13	
Lithium	ug/L	ND	20.0	6.2	12/06/22 11:13	
Magnesium	ug/L	ND	1000	71.8	12/06/22 11:13	
Manganese	ug/L	ND	10.0	2.5	12/06/22 11:13	
Molybdenum	ug/L	ND	10.0	3.7	12/06/22 11:13	
Potassium	ug/L	ND	1000	281	12/06/22 11:13	
Silica	ug/L	ND	450		12/06/22 11:13	N2
Sodium	ug/L	ND	1000	214	12/06/22 11:13	

LABORATORY CONTROL SAMPLE: 3256316

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Aluminum	ug/L	10000	9570	96	80-120	
Barium	ug/L	1000	936	94	80-120	
Boron	ug/L	1000	973	97	80-120	
Calcium	ug/L	10000	9540	95	80-120	
Iron	ug/L	10000	9320	93	80-120	
Lithium	ug/L	1000	980	98	80-120	
Magnesium	ug/L	10000	9350	93	80-120	
Manganese	ug/L	1000	910	91	80-120	
Molybdenum	ug/L	1000	991	99	80-120	
Potassium	ug/L	10000	9520	95	80-120	
Silica	ug/L	10700	9960	93	80-120	N2
Sodium	ug/L	10000	9480	95	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3256317 3256318

Parameter	Units	MS		MSD		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual	
		50331571001 Result	Spike Conc.	Spike Conc.	MS Result							MSD Result
Aluminum	ug/L	ND	10000	10000	9890	9960	99	100	75-125	1	20	
Barium	ug/L	48.4	1000	1000	1000	1010	95	96	75-125	1	20	
Boron	ug/L	5700	1000	1000	6830	6820	113	113	75-125	0	20	
Calcium	ug/L	116000	10000	10000	126000	126000	101	105	75-125	0	20	

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**QUALITY CONTROL DATA**

Project: Eagle Valley Oct 2022 P1R4

Pace Project No.: 50331571

Parameter	Units	3256317		3256318		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		50331571001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result								
Iron	ug/L	131	10000	10000	9610	9710	95	96	75-125	1	20		
Lithium	ug/L	21.7	1000	1000	1050	1050	102	103	75-125	0	20		
Magnesium	ug/L	28200	10000	10000	38200	38300	100	101	75-125	0	20		
Manganese	ug/L	370	1000	1000	1300	1300	93	94	75-125	0	20		
Molybdenum	ug/L	19.8	1000	1000	1050	1050	103	103	75-125	0	20		
Potassium	ug/L	4030	10000	10000	14200	14200	101	101	75-125	0	20		
Silica	ug/L	13300	10700	10700	23800	23900	99	99	75-125	0	20	N2	
Sodium	ug/L	98300	10000	10000	109000	109000	109	105	75-125	0	20		

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### QUALITY CONTROL DATA

Project: Eagle Valley Oct 2022 P1R4  
Pace Project No.: 50331571

QC Batch: 708398 Analysis Method: EPA 6010  
QC Batch Method: EPA 3010 Analysis Description: 6010 MET Dissolved  
Laboratory: Pace Analytical Services - Indianapolis

Associated Lab Samples: 50331571001, 50331571002, 50331571003

METHOD BLANK: 3256153 Matrix: Water

Associated Lab Samples: 50331571001, 50331571002, 50331571003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Manganese, Dissolved	ug/L	ND	10.0	5.4	12/04/22 16:32	
Molybdenum, Dissolved	ug/L	ND	10.0	3.7	12/05/22 09:10	

LABORATORY CONTROL SAMPLE: 3256154

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Manganese, Dissolved	ug/L	1000	888	89	80-120	
Molybdenum, Dissolved	ug/L	1000	911	91	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3256155 3256156

Parameter	Units	50331482002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Manganese, Dissolved	ug/L	91.4	5000	5000	5320	4900	104	96	75-125	8	20	
Molybdenum, Dissolved	ug/L	27.1J	5000	5000	5620	5220	112	104	75-125	7	20	

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### QUALITY CONTROL DATA

Project: Eagle Valley Oct 2022 P1R4

Pace Project No.: 50331571

QC Batch: 707907 Analysis Method: EPA 6020  
 QC Batch Method: EPA 200.2 Analysis Description: 6020 MET  
 Laboratory: Pace Analytical Services - Indianapolis  
 Associated Lab Samples: 50331571001, 50331571002, 50331571003

METHOD BLANK: 3254097 Matrix: Water

Associated Lab Samples: 50331571001, 50331571002, 50331571003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Antimony	ug/L	ND	1.0	0.28	11/29/22 02:07	
Arsenic	ug/L	ND	1.0	0.094	11/29/22 02:07	
Selenium	ug/L	ND	1.0	0.57	11/29/22 02:07	

LABORATORY CONTROL SAMPLE: 3254098

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Antimony	ug/L	40	41.6	104	80-120	
Arsenic	ug/L	40	38.8	97	80-120	
Selenium	ug/L	40	38.7	97	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3254099 3254100

Parameter	Units	50331499002		3254100		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		Result	MS Spike Conc.	MSD Spike Conc.	MS Result								
Antimony	ug/L	<1.0	40	40	42.6	43.0	106	107	75-125	1	20		
Arsenic	ug/L	<1.0	40	40	38.6	38.8	96	97	75-125	1	20		
Selenium	ug/L	<1.0	40	40	36.2	36.8	90	92	75-125	2	20		

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### QUALITY CONTROL DATA

Project: Eagle Valley Oct 2022 P1R4

Pace Project No.: 50331571

QC Batch:	708044	Analysis Method:	SM 2320B
QC Batch Method:	SM 2320B	Analysis Description:	2320B Alkalinity
		Laboratory:	Pace Analytical Services - Indianapolis

Associated Lab Samples: 50331571001, 50331571002, 50331571003

METHOD BLANK: 3254838 Matrix: Water

Associated Lab Samples: 50331571001, 50331571002, 50331571003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Alkalinity, Total as CaCO3	mg/L	ND	10.0	10.0	11/24/22 16:56	
Alkalinity,Bicarbonate (CaCO3)	mg/L	ND	10.0	10.0	11/24/22 16:56	
Alkalinity,Carbonate (CaCO3)	mg/L	ND	10.0	10.0	11/24/22 16:56	

LABORATORY CONTROL SAMPLE: 3254839

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Alkalinity, Total as CaCO3	mg/L	50	48.3	97	90-110	

SAMPLE DUPLICATE: 3254840

Parameter	Units	50331602020 Result	Dup Result	RPD	Max RPD	Qualifiers
Alkalinity, Total as CaCO3	mg/L	347	354	2	20	
Alkalinity,Bicarbonate (CaCO3)	mg/L	347	354	2	20	
Alkalinity,Carbonate (CaCO3)	mg/L	ND	ND		20	

SAMPLE DUPLICATE: 3254841

Parameter	Units	50331473001 Result	Dup Result	RPD	Max RPD	Qualifiers
Alkalinity, Total as CaCO3	mg/L	400	410	2	20	
Alkalinity,Bicarbonate (CaCO3)	mg/L	400	410	2	20	
Alkalinity,Carbonate (CaCO3)	mg/L	<10.0	ND		20	

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### QUALITY CONTROL DATA

Project: Eagle Valley Oct 2022 P1R4

Pace Project No.: 50331571

QC Batch:	707959	Analysis Method:	SM 2540C
QC Batch Method:	SM 2540C	Analysis Description:	2540C Total Dissolved Solids
		Laboratory:	Pace Analytical Services - Indianapolis

Associated Lab Samples: 50331571001, 50331571002, 50331571003

METHOD BLANK: 3254453 Matrix: Water

Associated Lab Samples: 50331571001, 50331571002, 50331571003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	ND	10.0	10.0	11/23/22 06:57	

LABORATORY CONTROL SAMPLE: 3254454

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	300	275	92	80-120	

SAMPLE DUPLICATE: 3254455

Parameter	Units	50331553013 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	472	471	0	10	

SAMPLE DUPLICATE: 3254456

Parameter	Units	50331553014 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	443	445	0	10	

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**QUALITY CONTROL DATA**

Project: Eagle Valley Oct 2022 P1R4

Pace Project No.: 50331571

QC Batch: 708228

Analysis Method: SM 4500-H+B

QC Batch Method: SM 4500-H+B

Analysis Description: 4500H+B pH

Laboratory: Pace Analytical Services - Indianapolis

Associated Lab Samples: 50331571001

SAMPLE DUPLICATE: 3255613

Parameter	Units	50331553014 Result	Dup Result	RPD	Max RPD	Qualifiers
pH at 25 Degrees C	Std. Units	7.6	7.5	1	2	H3

SAMPLE DUPLICATE: 3255614

Parameter	Units	50331571001 Result	Dup Result	RPD	Max RPD	Qualifiers
pH at 25 Degrees C	Std. Units	7.6	7.6	1	2	H3

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### QUALITY CONTROL DATA

Project: Eagle Valley Oct 2022 P1R4

Pace Project No.: 50331571

QC Batch: 708235

Analysis Method: SM 4500-H+B

QC Batch Method: SM 4500-H+B

Analysis Description: 4500H+B pH

Laboratory: Pace Analytical Services - Indianapolis

Associated Lab Samples: 50331571002, 50331571003

SAMPLE DUPLICATE: 3255634

Parameter	Units	50330801005 Result	Dup Result	RPD	Max RPD	Qualifiers
pH at 25 Degrees C	Std. Units	7.4	7.3	1	2	H3

SAMPLE DUPLICATE: 3255635

Parameter	Units	50330802002 Result	Dup Result	RPD	Max RPD	Qualifiers
pH at 25 Degrees C	Std. Units	7.4	7.4	0	2	H3

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**QUALITY CONTROL DATA**

Project: Eagle Valley Oct 2022 P1R4

Pace Project No.: 50331571

QC Batch:	707336	Analysis Method:	SM 4500-S2-D
QC Batch Method:	SM 4500-S2-D	Analysis Description:	4500S2D Sulfide Water
		Laboratory:	Pace Analytical Services - Indianapolis
Associated Lab Samples:	50331571001, 50331571002, 50331571003		

METHOD BLANK: 3251905 Matrix: Water  
Associated Lab Samples: 50331571001, 50331571002, 50331571003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Sulfide	mg/L	ND	0.10	0.025	11/19/22 15:56	

LABORATORY CONTROL SAMPLE: 3251906

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Sulfide	mg/L	0.5	0.51	102	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3251907 3251908

Parameter	Units	50331571001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Sulfide	mg/L	ND	0.5	0.5	0.48	0.45	95	90	90-110	6	20	

MATRIX SPIKE SAMPLE: 3251909

Parameter	Units	50331602028 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Sulfide	mg/L	ND	0.5	0.64	129	90-110	M0

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**QUALITY CONTROL DATA**

Project: Eagle Valley Oct 2022 P1R4  
Pace Project No.: 50331571

QC Batch: 708493 Analysis Method: HACH 8146  
QC Batch Method: HACH 8146 Analysis Description: Iron, Ferrous  
Laboratory: Pace Analytical Services - Indianapolis  
Associated Lab Samples: 50331571001, 50331571002, 50331571003

METHOD BLANK: 3256441 Matrix: Water  
Associated Lab Samples: 50331571001, 50331571002, 50331571003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Iron, Ferrous	mg/L	ND	0.20	0.096	11/28/22 18:33	H3,N2

LABORATORY CONTROL SAMPLE: 3256442

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Iron, Ferrous	mg/L	1	1.0	102	90-110	H3,N2

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3256443 3256444

Parameter	Units	50330817022		3256443		3256444		% Rec	% Rec	% Rec Limits	RPD	Max RPD	Qual
		MS Result	MSD Spike Conc.	MS Result	MSD Spike Conc.	MS Result	MSD Spike Conc.						
Iron, Ferrous	mg/L	ND	1	1	1	0.96	1.0	96	104	90-110	9	20	H3,N2

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3256445 3256446

Parameter	Units	50331424001		3256445		3256446		% Rec	% Rec	% Rec Limits	RPD	Max RPD	Qual
		MS Result	MSD Spike Conc.	MS Result	MSD Spike Conc.	MS Result	MSD Spike Conc.						
Iron, Ferrous	mg/L	ND	1	1	1	0.99	0.99	99	99	90-110	0	20	H3,N2

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### QUALITY CONTROL DATA

Project: Eagle Valley Oct 2022 P1R4

Pace Project No.: 50331571

QC Batch:	707061	Analysis Method:	EPA 353.2
QC Batch Method:	EPA 353.2	Analysis Description:	353.2 Nitrate + Nitrite, Unpres.
		Laboratory:	Pace Analytical Services - Indianapolis

Associated Lab Samples: 50331571001, 50331571002, 50331571003

METHOD BLANK: 3250478 Matrix: Water

Associated Lab Samples: 50331571001, 50331571002, 50331571003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Nitrogen, Nitrate	mg/L	ND	0.10	0.011	11/18/22 08:03	
Nitrogen, Nitrite	mg/L	ND	0.10	0.0040	11/18/22 08:03	

LABORATORY CONTROL SAMPLE: 3250479

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Nitrogen, Nitrate	mg/L	1	1.0	100	90-110	
Nitrogen, Nitrite	mg/L	1	1.0	103	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3250480 3250481

Parameter	Units	50331493004 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Nitrogen, Nitrate	mg/L	1.1	1	1	2.2	2.2	104	104	90-110	0	20	
Nitrogen, Nitrite	mg/L	0.024J	1	1	1.0	1.0	101	100	90-110	0	20	

MATRIX SPIKE SAMPLE: 3251582

Parameter	Units	50331571001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Nitrogen, Nitrate	mg/L	ND	1	1.1	103	90-110	
Nitrogen, Nitrite	mg/L	ND	1	1.0	104	90-110	

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### QUALITY CONTROL DATA

Project: Eagle Valley Oct 2022 P1R4

Pace Project No.: 50331571

QC Batch: 708636

Analysis Method: EPA 365.1

QC Batch Method: EPA 365.1

Analysis Description: 365.1 Total Phosphorus

Laboratory: Pace Analytical Services - Indianapolis

Associated Lab Samples: 50331571001, 50331571002, 50331571003

METHOD BLANK: 3256885

Matrix: Water

Associated Lab Samples: 50331571001, 50331571002, 50331571003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Phosphate as P04	mg/L	ND	0.15	0.15	12/01/22 10:24	

LABORATORY CONTROL SAMPLE: 3256886

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Phosphate as P04	mg/L		1.4			

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3256887 3256888

Parameter	Units	50331571001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Phosphate as P04	mg/L	ND			1.5	1.4					3	

MATRIX SPIKE SAMPLE: 3256889

Parameter	Units	50331878001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Phosphate as P04	mg/L		0.66	2.0			

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### QUALITY CONTROL DATA

Project: Eagle Valley Oct 2022 P1R4

Pace Project No.: 50331571

QC Batch:	710165	Analysis Method:	SM 5310C
QC Batch Method:	SM 5310C	Analysis Description:	5310C Total Organic Carbon
		Laboratory:	Pace Analytical Services - Indianapolis

Associated Lab Samples: 50331571001, 50331571002, 50331571003

METHOD BLANK: 3263454 Matrix: Water

Associated Lab Samples: 50331571001, 50331571002, 50331571003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Organic Carbon	mg/L	ND	1.0	0.14	12/11/22 23:35	

LABORATORY CONTROL SAMPLE: 3263455

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Organic Carbon	mg/L	10	10.6	106	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3263456 3263457

Parameter	Units	50331803001		3263457		% Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result						
Total Organic Carbon	mg/L	ND	10	10	11.2	11.1	103	103	80-120	1	20

MATRIX SPIKE SAMPLE: 3263458

Parameter	Units	50331571002 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Total Organic Carbon	mg/L	ND	10	10.8	101	80-120	

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### QUALITY CONTROL DATA

Project: Eagle Valley Oct 2022 P1R4

Pace Project No.: 50331571

QC Batch:	709579	Analysis Method:	SM 5310C
QC Batch Method:	SM 5310C	Analysis Description:	5310C Dissolved Organic Carbon
		Laboratory:	Pace Analytical Services - Indianapolis

Associated Lab Samples: 50331571001, 50331571002, 50331571003

METHOD BLANK: 3261002 Matrix: Water

Associated Lab Samples: 50331571001, 50331571002, 50331571003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Dissolved Organic Carbon	mg/L	ND	1.0	0.14	12/07/22 14:04	

LABORATORY CONTROL SAMPLE: 3261003

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Dissolved Organic Carbon	mg/L	10	10.0	100	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3261004 3261005

Parameter	Units	50331365001		3261004		3261005		% Rec Limits	RPD	Max RPD	Qual
		MS Result	MSD Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result				
Dissolved Organic Carbon	mg/L	1.2	10	10	11.5	11.6	102	104	80-120	1	20

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3261006 3261007

Parameter	Units	50331424001		3261006		3261007		% Rec Limits	RPD	Max RPD	Qual
		MS Result	MSD Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result				
Dissolved Organic Carbon	mg/L	1.2	10	10	11.5	11.4	104	102	80-120	1	20

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Eagle Valley Oct 2022 P1R4

Pace Project No.: 50331571

**Sample: MW-19D**      **Lab ID: 50331571001**      Collected: 11/17/22 11:46      Received: 11/18/22 15:55      Matrix: Water  
PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	<b>0.496 ± 0.365 (0.525)</b> <b>C:NA T:98%</b>	pCi/L	12/19/22 14:25	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	<b>0.426 ± 0.446 (0.931)</b> <b>C:82% T:98%</b>	pCi/L	12/09/22 16:08	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	<b>0.922 ± 0.811 (1.46)</b>	pCi/L	12/19/22 17:45	7440-14-4	

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Eagle Valley Oct 2022 P1R4

Pace Project No.: 50331571

**Sample: MW-191**      **Lab ID: 50331571002**      Collected: 11/17/22 12:44      Received: 11/18/22 15:55      Matrix: Water  
PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	<b>0.262 ± 0.321 (0.528)</b> <b>C:NA T:95%</b>	pCi/L	12/19/22 14:52	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	<b>0.776 ± 0.511 (0.984)</b> <b>C:80% T:95%</b>	pCi/L	12/09/22 16:08	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	<b>1.04 ± 0.832 (1.51)</b>	pCi/L	12/19/22 17:45	7440-14-4	

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Eagle Valley Oct 2022 P1R4

Pace Project No.: 50331571

**Sample: MW-19S**      **Lab ID: 50331571003**      Collected: 11/17/22 14:01      Received: 11/18/22 15:55      Matrix: Water  
PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	<b>0.138 ± 0.271 (0.486)</b> <b>C:NA T:93%</b>	pCi/L	12/19/22 14:52	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	<b>-0.283 ± 0.340 (0.850)</b> <b>C:87% T:93%</b>	pCi/L	12/09/22 16:08	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	<b>0.138 ± 0.611 (1.34)</b>	pCi/L	12/19/22 17:45	7440-14-4	

### REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL - RADIOCHEMISTRY

Project: Eagle Valley Oct 2022 P1R4

Pace Project No.: 50331571

QC Batch: 551086

Analysis Method: EPA 903.1

QC Batch Method: EPA 903.1

Analysis Description: 903.1 Radium-226

Laboratory: Pace Analytical Services - Greensburg

Associated Lab Samples: 50331571001, 50331571002, 50331571003

METHOD BLANK: 2676271

Matrix: Water

Associated Lab Samples: 50331571001, 50331571002, 50331571003

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.000 ± 0.173 (0.352) C:NA T:93%	pCi/L	12/19/22 14:25	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

### REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL - RADIOCHEMISTRY

Project: Eagle Valley Oct 2022 P1R4

Pace Project No.: 50331571

QC Batch: 551087

Analysis Method: EPA 904.0

QC Batch Method: EPA 904.0

Analysis Description: 904.0 Radium 228

Laboratory: Pace Analytical Services - Greensburg

Associated Lab Samples: 50331571001, 50331571002, 50331571003

METHOD BLANK: 2676274

Matrix: Water

Associated Lab Samples: 50331571001, 50331571002, 50331571003

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.290 ± 0.298 (0.616) C:76% T:93%	pCi/L	12/09/22 12:59	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

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## QUALIFIERS

Project: Eagle Valley Oct 2022 P1R4

Pace Project No.: 50331571

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### DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Reported results are not rounded until the final step prior to reporting. Therefore, calculated parameters that are typically reported as "Total" may vary slightly from the sum of the reported component parameters.

Act - Activity

Unc - Uncertainty: SDWA = 1.96 sigma count uncertainty, all other matrices = Expanded Uncertainty (95% confidence interval).

Gamma Spec = Expanded Uncertainty (95.4% Confidence Interval)

(MDC) - Minimum Detectable Concentration

Trac - Tracer Recovery (%)

Carr - Carrier Recovery (%)

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

### ANALYTE QUALIFIERS

CU The continuing calibration for this analyte is above laboratory acceptance limits. Analyte was not detected above the reporting limit in any of the associated samples.

D3 Sample was diluted due to the presence of high levels of non-target analytes or other matrix interference.

H3 Sample was received or analysis requested beyond the recognized method holding time.

M0 Matrix spike recovery and/or matrix spike duplicate recovery was outside laboratory control limits.

N2 The lab does not hold NELAC/TNI accreditation for this parameter but other accreditations/certifications may apply. A complete list of accreditations/certifications is available upon request.

## REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Eagle Valley Oct 2022 P1R4  
Pace Project No.: 50331571

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
50331571001	MW-19D	EPA 9056	707995		
50331571002	MW-19I	EPA 9056	707995		
50331571003	MW-19S	EPA 9056	707995		
50331571001	MW-19D	EPA 3010	708445	EPA 6010	709724
50331571002	MW-19I	EPA 3010	708445	EPA 6010	709724
50331571003	MW-19S	EPA 3010	708445	EPA 6010	709724
50331571001	MW-19D	EPA 3010	708398	EPA 6010	709384
50331571002	MW-19I	EPA 3010	708398	EPA 6010	709384
50331571003	MW-19S	EPA 3010	708398	EPA 6010	709384
50331571001	MW-19D	EPA 200.2	707907	EPA 6020	708265
50331571002	MW-19I	EPA 200.2	707907	EPA 6020	708265
50331571003	MW-19S	EPA 200.2	707907	EPA 6020	708265
50331571001	MW-19D	EPA 903.1	551086		
50331571002	MW-19I	EPA 903.1	551086		
50331571003	MW-19S	EPA 903.1	551086		
50331571001	MW-19D	EPA 904.0	551087		
50331571002	MW-19I	EPA 904.0	551087		
50331571003	MW-19S	EPA 904.0	551087		
50331571001	MW-19D	Total Radium Calculation	554890		
50331571002	MW-19I	Total Radium Calculation	554890		
50331571003	MW-19S	Total Radium Calculation	554890		
50331571001	MW-19D	SM 2320B	708044		
50331571002	MW-19I	SM 2320B	708044		
50331571003	MW-19S	SM 2320B	708044		
50331571001	MW-19D	SM 2540C	707959		
50331571002	MW-19I	SM 2540C	707959		
50331571003	MW-19S	SM 2540C	707959		
50331571001	MW-19D	SM 4500-H+B	708228		
50331571002	MW-19I	SM 4500-H+B	708235		
50331571003	MW-19S	SM 4500-H+B	708235		
50331571001	MW-19D	SM 4500-S2-D	707336		
50331571002	MW-19I	SM 4500-S2-D	707336		
50331571003	MW-19S	SM 4500-S2-D	707336		
50331571001	MW-19D	HACH 8146	708493		
50331571002	MW-19I	HACH 8146	708493		
50331571003	MW-19S	HACH 8146	708493		
50331571001	MW-19D	EPA 353.2	707061		
50331571002	MW-19I	EPA 353.2	707061		
50331571003	MW-19S	EPA 353.2	707061		
50331571001	MW-19D	EPA 365.1	708636	EPA 365.1	709045
50331571002	MW-19I	EPA 365.1	708636	EPA 365.1	709045
50331571003	MW-19S	EPA 365.1	708636	EPA 365.1	709045

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### QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Eagle Valley Oct 2022 P1R4

Pace Project No.: 50331571

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
50331571001	MW-19D	SM 5310C	710165		
50331571002	MW-19I	SM 5310C	710165		
50331571003	MW-19S	SM 5310C	710165		
50331571001	MW-19D	SM 5310C	709579		
50331571002	MW-19I	SM 5310C	709579		
50331571003	MW-19S	SM 5310C	709579		

### REPORT OF LABORATORY ANALYSIS

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**SAMPLE CONDITION UPON RECEIPT FORM**

Date/Time and Initials of person examining contents: RC 11-8-22 10:55

1. Courier:  FED EX  UPS  CLIENT  PACE  USPS  OTHER \_\_\_\_\_

2. Custody Seal on Cooler/Box Present:  Yes  No

(If yes)Seals Intact:  Yes  No (leave blank if no seals were present)

3. Thermometer: 1 2 3 4 5 6 A B C D E F

4. Cooler Temperature(s): 1.2/0.3 1.2/0.3    
 (Initial/Corrected) RECORD TEMPS OF ALL COOLERS RECEIVED (use Comments below to add more)

5. Packing Material:  Bubble Wrap  Bubble Bags  
 None  Other \_\_\_\_\_

6. Ice Type:  Wet  Blue  None

7. If temp. is over 6°C or under 0°C, was the PM notified?:  Yes  No  
 Cooler temp should be above freezing to 6°C

All discrepancies will be written out in the comments section below.

	Yes	No		Yes	No	N/A
USDA Regulated Soils? (HI, ID, NY, WA, OR, CA, NM, TX, OK, AR, LA, TN, AL, MS, NC, SC, GA, FL, or Puerto Rico)		<input checked="" type="checkbox"/>	All containers needing acid/base preservation have been pH CHECKED?: Exceptions: VOA, coliform, LLHg, O&G, RAD CHEM, and any container with a septum cap or preserved with HCl.			
Short Hold Time Analysis (48 hours or less)? Analysis: <u>NO<sub>3</sub></u>	<input checked="" type="checkbox"/>		Circle: <u>HNO3 (&lt;2)</u> <u>H2SO4 (&lt;2)</u> NaOH (>10) <u>NaOH/ZnAc (&gt;9)</u> Any non-conformance to pH recommendations will be noted on the container count form	<input checked="" type="checkbox"/>		
Time 5035A TC placed in Freezer or Short Holds To Lab Time: <u>17:44</u>			Residual Chlorine Check (SVOC 625 Pest/PCB 608)	<u>Present</u>	<u>Absent</u>	<u>N/A</u> <input checked="" type="checkbox"/>
Rush TAT Requested (4 days or less):	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Residual Chlorine Check (Total/Amenable/Free Cyanide)			<input checked="" type="checkbox"/>
Custody Signatures Present?	<input checked="" type="checkbox"/>		Headspace Wisconsin Sulfide?			<input checked="" type="checkbox"/>
Containers Intact?:	<input checked="" type="checkbox"/>		Headspace in VOA Vials (>6mm): See Containter Count form for details	<u>Present</u>	<u>Absent</u>	No VOA Vials Sent <input checked="" type="checkbox"/>
Sample Label (IDs/Dates/Times) Match COC?: Except TCs, which only require sample ID	<input checked="" type="checkbox"/>		Trip Blank Present?		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Extra labels on Terracore Vials? (soils only)			Trip Blank Custody Seals?:			<input checked="" type="checkbox"/>

COMMENTS:



March 13, 2023

Mr. Mark Breting  
ATC Group Services  
7988 Centerpoint Drive  
Suite 100  
Indianapolis, IN 46256

RE: Project: Eagle Valley Oct 2022 P1R1  
Pace Project No.: 50331581

Dear Mr. Breting:

Enclosed are the analytical results for sample(s) received by the laboratory on November 18, 2022. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

The test results provided in this final report were generated by each of the following laboratories within the Pace Network:

- Pace Analytical Services - Indianapolis
- Pace Analytical Services - Greensburg

If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Will Statz  
will.statz@pacelabs.com  
(317)228-3105  
Project Manager

Enclosures

cc: Mr. Robert Miller, Haley & Aldrich



## REPORT OF LABORATORY ANALYSIS

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## CERTIFICATIONS

Project: Eagle Valley Oct 2022 P1R1

Pace Project No.: 50331581

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### **Pace Analytical Services Pennsylvania**

1638 Roseytown Rd Suites 2,3&4, Greensburg, PA 15601

ANAB DOD-ELAP Rad Accreditation #: L2417

Alabama Certification #: 41590

Arizona Certification #: AZ0734

Arkansas Certification

California Certification #: 04222CA

Colorado Certification #: PA01547

Connecticut Certification #: PH-0694

Delaware Certification

EPA Region 4 DW Rad

Florida/TNI Certification #: E87683

Georgia Certification #: C040

Florida: Cert E871149 SEKS WET

Guam Certification

Hawaii Certification

Idaho Certification

Illinois Certification

Indiana Certification

Iowa Certification #: 391

Kansas/TNI Certification #: E-10358

Kentucky Certification #: KY90133

KY WW Permit #: KY0098221

KY WW Permit #: KY0000221

Louisiana DHH/TNI Certification #: LA180012

Louisiana DEQ/TNI Certification #: 4086

Maine Certification #: 2017020

Maryland Certification #: 308

Massachusetts Certification #: M-PA1457

Michigan/PADEP Certification #: 9991

Missouri Certification #: 235

Montana Certification #: Cert0082

Nebraska Certification #: NE-OS-29-14

Nevada Certification #: PA014572018-1

New Hampshire/TNI Certification #: 297617

New Jersey/TNI Certification #: PA051

New Mexico Certification #: PA01457

New York/TNI Certification #: 10888

North Carolina Certification #: 42706

North Dakota Certification #: R-190

Ohio EPA Rad Approval: #41249

Oregon/TNI Certification #: PA200002-010

Pennsylvania/TNI Certification #: 65-00282

Puerto Rico Certification #: PA01457

Rhode Island Certification #: 65-00282

South Dakota Certification

Tennessee Certification #: 02867

Texas/TNI Certification #: T104704188-17-3

Utah/TNI Certification #: PA014572017-9

USDA Soil Permit #: P330-17-00091

Vermont Dept. of Health: ID# VT-0282

Virgin Island/PADEP Certification

Virginia/VELAP Certification #: 460198

Washington Certification #: C868

West Virginia DEP Certification #: 143

West Virginia DHHR Certification #: 9964C

Wisconsin Approve List for Rad

Wyoming Certification #: 8TMS-L

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### **Pace Analytical Services Indianapolis**

7726 Moller Road, Indianapolis, IN 46268

Illinois Accreditation #: 200074

Indiana Drinking Water Laboratory #: C-49-06

Kansas/TNI Certification #: E-10177

Kentucky UST Agency Interest #: 80226

Kentucky WW Laboratory ID #: 98019

Michigan Drinking Water Laboratory #9050

Ohio VAP Certified Laboratory #: CL0065

Oklahoma Laboratory #: 9204

Texas Certification #: T104704355

Wisconsin Laboratory #: 999788130

USDA Foreign Soil Permit #: 525-23-13-23119

USDA Compliance Agreement #: IN-SL-22-001

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## REPORT OF LABORATORY ANALYSIS

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## SAMPLE SUMMARY

Project: Eagle Valley Oct 2022 P1R1

Pace Project No.: 50331581

Lab ID	Sample ID	Matrix	Date Collected	Date Received
50331581001	MW-13D	Water	11/18/22 10:21	11/18/22 14:55
50331581002	MW-13I	Water	11/18/22 11:24	11/18/22 14:55
50331581003	MW-13S	Water	11/18/22 12:37	11/18/22 14:55
50331581004	DUP-1	Water	11/18/22 00:00	11/18/22 14:55

## REPORT OF LABORATORY ANALYSIS

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### SAMPLE ANALYTE COUNT

Project: Eagle Valley Oct 2022 P1R1

Pace Project No.: 50331581

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
50331581001	MW-13D	EPA 9056	ADM	3	PASI-I
		EPA 6010	DJS	12	PASI-I
		EPA 6010	JPK	2	PASI-I
		EPA 6020	DMT	3	PASI-I
		EPA 903.1	GDH	1	PASI-PA
		EPA 904.0	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
		SM 2320B	TAY	3	PASI-I
		SM 2540C	MTW	1	PASI-I
		SM 4500-H+B	TRK	1	PASI-I
		SM 4500-S2-D	BEP	1	PASI-I
		HACH 8146	ZM	1	PASI-I
		EPA 353.2	OAS	2	PASI-I
		EPA 365.1	ZM	1	PASI-I
		SM 5310C	ATS	1	PASI-I
		SM 5310C	ATS	1	PASI-I
		50331581002	MW-13I	EPA 9056	ADM
EPA 6010	DJS			12	PASI-I
EPA 6010	JPK			2	PASI-I
EPA 6020	DMT			3	PASI-I
EPA 903.1	GDH			1	PASI-PA
EPA 904.0	VAL			1	PASI-PA
Total Radium Calculation	JAL			1	PASI-PA
SM 2320B	TAY			3	PASI-I
SM 2540C	MTW			1	PASI-I
SM 4500-H+B	TRK			1	PASI-I
SM 4500-S2-D	BEP			1	PASI-I
HACH 8146	ZM			1	PASI-I
EPA 353.2	OAS			2	PASI-I
EPA 365.1	ZM			1	PASI-I
SM 5310C	ATS			1	PASI-I
SM 5310C	ATS			1	PASI-I
50331581003	MW-13S			EPA 9056	ADM
		EPA 6010	DJS	12	PASI-I
		EPA 6010	JPK	2	PASI-I
		EPA 6020	DMT	3	PASI-I
		EPA 903.1	GDH	1	PASI-PA

### REPORT OF LABORATORY ANALYSIS

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### SAMPLE ANALYTE COUNT

Project: Eagle Valley Oct 2022 P1R1

Pace Project No.: 50331581

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
		EPA 904.0	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
		SM 2320B	TAY	3	PASI-I
		SM 2540C	MTW	1	PASI-I
		SM 4500-H+B	TRK	1	PASI-I
		SM 4500-S2-D	BEP	1	PASI-I
		HACH 8146	ZM	1	PASI-I
		EPA 353.2	OAS	2	PASI-I
		EPA 365.1	ZM	1	PASI-I
		SM 5310C	ATS	1	PASI-I
		SM 5310C	ATS	1	PASI-I
50331581004	DUP-1	EPA 9056	ADM	3	PASI-I
		EPA 6010	DJS	12	PASI-I
		EPA 6010	JPK	2	PASI-I
		EPA 6020	DMT	3	PASI-I
		EPA 903.1	GDH	1	PASI-PA
		EPA 904.0	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
		SM 2320B	TAY	3	PASI-I
		SM 2540C	MTW	1	PASI-I
		SM 4500-H+B	TRK	1	PASI-I
		SM 4500-S2-D	BEP	1	PASI-I
		HACH 8146	ZM	1	PASI-I
		EPA 353.2	OAS	2	PASI-I
		EPA 365.1	ZM	1	PASI-I
		SM 5310C	ATS	1	PASI-I
		SM 5310C	ATS	1	PASI-I

PASI-I = Pace Analytical Services - Indianapolis

PASI-PA = Pace Analytical Services - Greensburg

### REPORT OF LABORATORY ANALYSIS

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### SUMMARY OF DETECTION

Project: Eagle Valley Oct 2022 P1R1

Pace Project No.: 50331581

Lab Sample ID	Client Sample ID	Result	Units	Report Limit	Analyzed	Qualifiers
Method	Parameters					
<b>50331581001</b>	<b>MW-13D</b>					
EPA 9056	Chloride	50.9	mg/L	25.0	12/02/22 06:31	
EPA 9056	Fluoride	0.11	mg/L	0.10	12/02/22 06:14	
EPA 9056	Sulfate	34.4	mg/L	25.0	12/02/22 06:31	
EPA 6010	Barium	64.5	ug/L	10.0	12/11/22 13:08	
EPA 6010	Calcium	80900	ug/L	1000	12/11/22 13:08	
EPA 6010	Iron	188	ug/L	100	12/11/22 13:08	
EPA 6010	Magnesium	24200	ug/L	1000	12/11/22 13:08	
EPA 6010	Manganese	23.6	ug/L	10.0	12/11/22 13:08	
EPA 6010	Potassium	1490	ug/L	1000	12/11/22 13:08	
EPA 6010	Silica	15600	ug/L	450	12/11/22 13:08	N2
EPA 6010	Sodium	30700	ug/L	1000	12/11/22 13:08	
EPA 6010	Manganese, Dissolved	23.2	ug/L	10.0	12/14/22 04:14	
EPA 903.1	Radium-226	0.201 ± 0.185 (0.109)	pCi/L		12/15/22 16:18	
EPA 904.0	Radium-228	C:NA T:89% 0.497 ± 0.437 (0.871)	pCi/L		12/08/22 14:47	
		C:77% T:89%				
Total Radium Calculation	Total Radium	0.698 ± 0.622 (0.980)	pCi/L		12/16/22 16:18	
SM 2320B	Alkalinity, Total as CaCO3	274	mg/L	10.0	11/24/22 12:27	
SM 2320B	Alkalinity,Bicarbonate (CaCO3)	274	mg/L	10.0	11/24/22 12:27	
SM 2540C	Total Dissolved Solids	390	mg/L	10.0	11/23/22 07:09	
SM 4500-H+B	pH at 25 Degrees C	7.7	Std. Units	0.10	12/05/22 13:42	H3
EPA 353.2	Nitrogen, Nitrate	1.0	mg/L	0.10	11/18/22 22:03	
<b>50331581002</b>	<b>MW-13I</b>					
EPA 9056	Chloride	52.2	mg/L	2.5	12/02/22 07:06	
EPA 9056	Sulfate	21.4	mg/L	0.25	12/02/22 06:48	
EPA 6010	Barium	42.2	ug/L	10.0	12/11/22 13:10	
EPA 6010	Calcium	85200	ug/L	1000	12/11/22 13:10	
EPA 6010	Magnesium	25100	ug/L	1000	12/11/22 13:10	
EPA 6010	Potassium	2050	ug/L	1000	12/11/22 13:10	
EPA 6010	Silica	16700	ug/L	450	12/11/22 13:10	N2
EPA 6010	Sodium	29600	ug/L	1000	12/11/22 13:10	
EPA 903.1	Radium-226	0.0786 ± 0.180 (0.106)	pCi/L		12/15/22 16:18	
EPA 904.0	Radium-228	C:NA T:89% 0.956 ± 0.531 (0.947)	pCi/L		12/08/22 14:47	
		C:80% T:89%				
Total Radium Calculation	Total Radium	1.03 ± 0.711 (1.05)	pCi/L		12/16/22 16:18	

### REPORT OF LABORATORY ANALYSIS

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### SUMMARY OF DETECTION

Project: Eagle Valley Oct 2022 P1R1

Pace Project No.: 50331581

Lab Sample ID Method	Client Sample ID Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
<b>50331581002</b>	<b>MW-13I</b>					
SM 2320B	Alkalinity, Total as CaCO3	292	mg/L	10.0	11/24/22 12:27	
SM 2320B	Alkalinity,Bicarbonate (CaCO3)	292	mg/L	10.0	11/24/22 12:27	
SM 2540C	Total Dissolved Solids	413	mg/L	10.0	11/23/22 07:10	
SM 4500-H+B	pH at 25 Degrees C	7.8	Std. Units	0.10	12/05/22 13:44	H3
EPA 353.2	Nitrogen, Nitrate	6.6	mg/L	0.50	11/18/22 22:05	
<b>50331581003</b>	<b>MW-13S</b>					
EPA 9056	Chloride	26.3	mg/L	25.0	12/02/22 08:15	
EPA 9056	Sulfate	19.0	mg/L	0.25	12/02/22 07:58	
EPA 6010	Barium	52.6	ug/L	10.0	12/11/22 13:12	
EPA 6010	Calcium	112000	ug/L	1000	12/11/22 13:12	
EPA 6010	Magnesium	28700	ug/L	1000	12/11/22 13:12	
EPA 6010	Potassium	2860	ug/L	1000	12/11/22 13:12	
EPA 6010	Silica	14700	ug/L	450	12/11/22 13:12	N2
EPA 6010	Sodium	16900	ug/L	1000	12/11/22 13:12	
EPA 903.1	Radium-226	0.192 ± 0.251 (0.414)	pCi/L		12/15/22 16:18	
EPA 904.0	Radium-228	C:NA T:92% -0.320 ± 0.388 (0.977)	pCi/L		12/08/22 14:47	
		C:79% T:92%				
Total Radium Calculation	Total Radium	0.192 ± 0.639 (1.39)	pCi/L		12/16/22 16:18	
SM 2320B	Alkalinity, Total as CaCO3	382	mg/L	10.0	11/24/22 12:27	
SM 2320B	Alkalinity,Bicarbonate (CaCO3)	382	mg/L	10.0	11/24/22 12:27	
SM 2540C	Total Dissolved Solids	480	mg/L	10.0	11/23/22 07:10	
SM 4500-H+B	pH at 25 Degrees C	7.5	Std. Units	0.10	12/05/22 13:46	H3
EPA 353.2	Nitrogen, Nitrate	9.0	mg/L	1.0	11/18/22 22:07	
<b>50331581004</b>	<b>DUP-1</b>					
EPA 9056	Chloride	25.5	mg/L	2.5	12/02/22 08:50	
EPA 9056	Sulfate	18.8	mg/L	0.25	12/02/22 08:32	
EPA 6010	Barium	52.2	ug/L	10.0	12/11/22 13:14	
EPA 6010	Calcium	113000	ug/L	1000	12/11/22 13:14	
EPA 6010	Magnesium	29100	ug/L	1000	12/11/22 13:14	
EPA 6010	Potassium	2880	ug/L	1000	12/11/22 13:14	
EPA 6010	Silica	15000	ug/L	450	12/11/22 13:14	N2
EPA 6010	Sodium	16900	ug/L	1000	12/11/22 13:14	
EPA 903.1	Radium-226	0.243 ± 0.276 (0.435)	pCi/L		12/15/22 16:18	
EPA 904.0	Radium-228	C:NA T:87% 1.03 ± 0.535 (0.936)	pCi/L		12/08/22 14:47	
		C:82% T:87%				

### REPORT OF LABORATORY ANALYSIS

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### SUMMARY OF DETECTION

Project: Eagle Valley Oct 2022 P1R1

Pace Project No.: 50331581

Lab Sample ID Method	Client Sample ID Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
<b>50331581004</b>	<b>DUP-1</b>					
Total Radium Calculation	Total Radium	1.27 ± 0.811 (1.37)	pCi/L		12/16/22 16:18	
SM 2320B	Alkalinity, Total as CaCO3	384	mg/L	10.0	11/24/22 12:27	
SM 2320B	Alkalinity, Bicarbonate (CaCO3)	384	mg/L	10.0	11/24/22 12:27	
SM 2540C	Total Dissolved Solids	479	mg/L	10.0	11/23/22 07:10	
SM 4500-H+B	pH at 25 Degrees C	7.4	Std. Units	0.10	12/05/22 16:29	H3
EPA 353.2	Nitrogen, Nitrate	9.0	mg/L	1.0	11/18/22 22:08	

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## ANALYTICAL RESULTS

Project: Eagle Valley Oct 2022 P1R1

Pace Project No.: 50331581

Sample: MW-13D		Lab ID: 50331581001		Collected: 11/18/22 10:21	Received: 11/18/22 14:55	Matrix: Water			
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>9056 IC Anions</b>		Analytical Method: EPA 9056 Pace Analytical Services - Indianapolis							
Chloride	50.9	mg/L	25.0	6.7	100		12/02/22 06:31	16887-00-6	
Fluoride	0.11	mg/L	0.10	0.017	1		12/02/22 06:14	16984-48-8	
Sulfate	34.4	mg/L	25.0	8.5	100		12/02/22 06:31	14808-79-8	
<b>6010 MET ICP</b>		Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis							
Aluminum	ND	ug/L	200	55.4	1	12/09/22 09:03	12/11/22 13:08	7429-90-5	
Barium	64.5	ug/L	10.0	2.1	1	12/09/22 09:03	12/11/22 13:08	7440-39-3	
Boron	ND	ug/L	100	37.6	1	12/09/22 09:03	12/11/22 13:08	7440-42-8	
Calcium	80900	ug/L	1000	163	1	12/09/22 09:03	12/11/22 13:08	7440-70-2	
Iron	188	ug/L	100	48.8	1	12/09/22 09:03	12/11/22 13:08	7439-89-6	
Lithium	ND	ug/L	20.0	6.2	1	12/09/22 09:03	12/11/22 13:08	7439-93-2	
Magnesium	24200	ug/L	1000	71.8	1	12/09/22 09:03	12/11/22 13:08	7439-95-4	
Manganese	23.6	ug/L	10.0	2.5	1	12/09/22 09:03	12/11/22 13:08	7439-96-5	
Molybdenum	ND	ug/L	10.0	3.7	1	12/09/22 09:03	12/11/22 13:08	7439-98-7	
Potassium	1490	ug/L	1000	281	1	12/09/22 09:03	12/11/22 13:08	7440-09-7	
Silica	15600	ug/L	450		1	12/09/22 09:03	12/11/22 13:08	7631-86-9	N2
Sodium	30700	ug/L	1000	214	1	12/09/22 09:03	12/11/22 13:08	7440-23-5	
<b>6010 MET ICP, Dissolved</b>		Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis							
Manganese, Dissolved	23.2	ug/L	10.0	2.5	1	12/13/22 15:51	12/14/22 04:14	7439-96-5	
Molybdenum, Dissolved	ND	ug/L	10.0	3.7	1	12/13/22 15:51	12/14/22 04:14	7439-98-7	
<b>6020 MET ICPMS</b>		Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis							
Antimony	ND	ug/L	1.0	0.28	1	11/23/22 08:50	11/29/22 05:33	7440-36-0	
Arsenic	ND	ug/L	1.0	0.094	1	11/23/22 08:50	11/29/22 05:33	7440-38-2	
Selenium	ND	ug/L	1.0	0.57	1	11/23/22 08:50	11/29/22 05:33	7782-49-2	
<b>2320B Alkalinity</b>		Analytical Method: SM 2320B Pace Analytical Services - Indianapolis							
Alkalinity, Total as CaCO3	274	mg/L	10.0	10.0	1		11/24/22 12:27		
Alkalinity,Bicarbonate (CaCO3)	274	mg/L	10.0	10.0	1		11/24/22 12:27		
Alkalinity,Carbonate (CaCO3)	ND	mg/L	10.0	10.0	1		11/24/22 12:27		
<b>2540C Total Dissolved Solids</b>		Analytical Method: SM 2540C Pace Analytical Services - Indianapolis							
Total Dissolved Solids	390	mg/L	10.0	10.0	1		11/23/22 07:09		
<b>4500H+ pH, Electrometric</b>		Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis							
pH at 25 Degrees C	7.7	Std. Units	0.10	0.10	1		12/05/22 13:42		H3

## REPORT OF LABORATORY ANALYSIS

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### ANALYTICAL RESULTS

Project: Eagle Valley Oct 2022 P1R1

Pace Project No.: 50331581

Sample: MW-13D		Lab ID: 50331581001		Collected: 11/18/22 10:21	Received: 11/18/22 14:55	Matrix: Water				
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual	
<b>4500S2D Sulfide Water</b>		Analytical Method: SM 4500-S2-D Pace Analytical Services - Indianapolis								
Sulfide	ND	mg/L	0.10	0.025	1		11/19/22 16:31	18496-25-8		
<b>Iron, Ferrous</b>		Analytical Method: HACH 8146 Pace Analytical Services - Indianapolis								
Iron, Ferrous	ND	mg/L	0.20	0.096	1		11/28/22 18:39	15438-31-0	H3,N2	
<b>353.2 Nitrogen, NO2/NO3 unpres</b>		Analytical Method: EPA 353.2 Pace Analytical Services - Indianapolis								
Nitrogen, Nitrate	<b>1.0</b>	mg/L	0.10	0.011	1		11/18/22 22:03	14797-55-8		
Nitrogen, Nitrite	ND	mg/L	0.10	0.0040	1		11/18/22 22:03	14797-65-0		
<b>365.1 Total Phosphorus</b>		Analytical Method: EPA 365.1 Preparation Method: EPA 365.1 Pace Analytical Services - Indianapolis								
Phosphate as P04	ND	mg/L	0.15	0.15	1	12/01/22 11:00	12/02/22 14:20			
<b>5310C TOC</b>		Analytical Method: SM 5310C Pace Analytical Services - Indianapolis								
Total Organic Carbon	ND	mg/L	1.0	0.14	1		12/12/22 18:09	7440-44-0		
<b>5310C Dissolved Organic Carbon</b>		Analytical Method: SM 5310C Pace Analytical Services - Indianapolis								
Dissolved Organic Carbon	ND	mg/L	1.0	0.14	1		12/12/22 23:55			

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## ANALYTICAL RESULTS

Project: Eagle Valley Oct 2022 P1R1

Pace Project No.: 50331581

Sample: MW-131		Lab ID: 50331581002		Collected: 11/18/22 11:24		Received: 11/18/22 14:55		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>9056 IC Anions</b>		Analytical Method: EPA 9056 Pace Analytical Services - Indianapolis							
Chloride	52.2	mg/L	2.5	0.67	10		12/02/22 07:06	16887-00-6	
Fluoride	ND	mg/L	0.10	0.017	1		12/02/22 06:48	16984-48-8	
Sulfate	21.4	mg/L	0.25	0.085	1		12/02/22 06:48	14808-79-8	
<b>6010 MET ICP</b>		Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis							
Aluminum	ND	ug/L	200	55.4	1	12/09/22 09:03	12/11/22 13:10	7429-90-5	
Barium	42.2	ug/L	10.0	2.1	1	12/09/22 09:03	12/11/22 13:10	7440-39-3	
Boron	ND	ug/L	100	37.6	1	12/09/22 09:03	12/11/22 13:10	7440-42-8	
Calcium	85200	ug/L	1000	163	1	12/09/22 09:03	12/11/22 13:10	7440-70-2	
Iron	ND	ug/L	100	48.8	1	12/09/22 09:03	12/11/22 13:10	7439-89-6	
Lithium	ND	ug/L	20.0	6.2	1	12/09/22 09:03	12/11/22 13:10	7439-93-2	
Magnesium	25100	ug/L	1000	71.8	1	12/09/22 09:03	12/11/22 13:10	7439-95-4	
Manganese	ND	ug/L	10.0	2.5	1	12/09/22 09:03	12/11/22 13:10	7439-96-5	
Molybdenum	ND	ug/L	10.0	3.7	1	12/09/22 09:03	12/11/22 13:10	7439-98-7	
Potassium	2050	ug/L	1000	281	1	12/09/22 09:03	12/11/22 13:10	7440-09-7	
Silica	16700	ug/L	450		1	12/09/22 09:03	12/11/22 13:10	7631-86-9	N2
Sodium	29600	ug/L	1000	214	1	12/09/22 09:03	12/11/22 13:10	7440-23-5	
<b>6010 MET ICP, Dissolved</b>		Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis							
Manganese, Dissolved	ND	ug/L	10.0	2.5	1	12/13/22 15:51	12/14/22 04:16	7439-96-5	
Molybdenum, Dissolved	ND	ug/L	10.0	3.7	1	12/13/22 15:51	12/14/22 04:16	7439-98-7	
<b>6020 MET ICPMS</b>		Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis							
Antimony	ND	ug/L	1.0	0.28	1	11/23/22 08:50	11/29/22 05:36	7440-36-0	
Arsenic	ND	ug/L	1.0	0.094	1	11/23/22 08:50	11/29/22 05:36	7440-38-2	
Selenium	ND	ug/L	1.0	0.57	1	11/23/22 08:50	11/29/22 05:36	7782-49-2	
<b>2320B Alkalinity</b>		Analytical Method: SM 2320B Pace Analytical Services - Indianapolis							
Alkalinity, Total as CaCO3	292	mg/L	10.0	10.0	1		11/24/22 12:27		
Alkalinity,Bicarbonate (CaCO3)	292	mg/L	10.0	10.0	1		11/24/22 12:27		
Alkalinity,Carbonate (CaCO3)	ND	mg/L	10.0	10.0	1		11/24/22 12:27		
<b>2540C Total Dissolved Solids</b>		Analytical Method: SM 2540C Pace Analytical Services - Indianapolis							
Total Dissolved Solids	413	mg/L	10.0	10.0	1		11/23/22 07:10		
<b>4500H+ pH, Electrometric</b>		Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis							
pH at 25 Degrees C	7.8	Std. Units	0.10	0.10	1		12/05/22 13:44		H3

## REPORT OF LABORATORY ANALYSIS

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### ANALYTICAL RESULTS

Project: Eagle Valley Oct 2022 P1R1

Pace Project No.: 50331581

Sample: MW-13I		Lab ID: 50331581002		Collected: 11/18/22 11:24	Received: 11/18/22 14:55	Matrix: Water			
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>4500S2D Sulfide Water</b>									
Analytical Method: SM 4500-S2-D									
Pace Analytical Services - Indianapolis									
Sulfide	ND	mg/L	0.10	0.025	1		11/19/22 16:31	18496-25-8	
<b>Iron, Ferrous</b>									
Analytical Method: HACH 8146									
Pace Analytical Services - Indianapolis									
Iron, Ferrous	ND	mg/L	0.20	0.096	1		11/28/22 18:39	15438-31-0	H3,N2
<b>353.2 Nitrogen, NO2/NO3 unpres</b>									
Analytical Method: EPA 353.2									
Pace Analytical Services - Indianapolis									
Nitrogen, Nitrate	<b>6.6</b>	mg/L	0.50	0.055	5		11/18/22 22:05	14797-55-8	
Nitrogen, Nitrite	ND	mg/L	0.50	0.020	5		11/18/22 22:05	14797-65-0	
<b>365.1 Total Phosphorus</b>									
Analytical Method: EPA 365.1 Preparation Method: EPA 365.1									
Pace Analytical Services - Indianapolis									
Phosphate as P04	ND	mg/L	0.15	0.15	1	12/01/22 11:00	12/02/22 14:21		
<b>5310C TOC</b>									
Analytical Method: SM 5310C									
Pace Analytical Services - Indianapolis									
Total Organic Carbon	ND	mg/L	1.0	0.14	1		12/12/22 18:23	7440-44-0	
<b>5310C Dissolved Organic Carbon</b>									
Analytical Method: SM 5310C									
Pace Analytical Services - Indianapolis									
Dissolved Organic Carbon	ND	mg/L	1.0	0.14	1		12/13/22 00:06		

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## ANALYTICAL RESULTS

Project: Eagle Valley Oct 2022 P1R1

Pace Project No.: 50331581

Sample: MW-13S		Lab ID: 50331581003		Collected: 11/18/22 12:37	Received: 11/18/22 14:55	Matrix: Water				
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual	
<b>9056 IC Anions</b>		Analytical Method: EPA 9056 Pace Analytical Services - Indianapolis								
Chloride	26.3	mg/L	25.0	6.7	100		12/02/22 08:15	16887-00-6		
Fluoride	ND	mg/L	0.10	0.017	1		12/02/22 07:58	16984-48-8		
Sulfate	19.0	mg/L	0.25	0.085	1		12/02/22 07:58	14808-79-8		
<b>6010 MET ICP</b>		Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Aluminum	ND	ug/L	200	55.4	1	12/09/22 09:03	12/11/22 13:12	7429-90-5		
Barium	52.6	ug/L	10.0	2.1	1	12/09/22 09:03	12/11/22 13:12	7440-39-3		
Boron	ND	ug/L	100	37.6	1	12/09/22 09:03	12/11/22 13:12	7440-42-8		
Calcium	112000	ug/L	1000	163	1	12/09/22 09:03	12/11/22 13:12	7440-70-2		
Iron	ND	ug/L	100	48.8	1	12/09/22 09:03	12/11/22 13:12	7439-89-6		
Lithium	ND	ug/L	20.0	6.2	1	12/09/22 09:03	12/11/22 13:12	7439-93-2		
Magnesium	28700	ug/L	1000	71.8	1	12/09/22 09:03	12/11/22 13:12	7439-95-4		
Manganese	ND	ug/L	10.0	2.5	1	12/09/22 09:03	12/11/22 13:12	7439-96-5		
Molybdenum	ND	ug/L	10.0	3.7	1	12/09/22 09:03	12/11/22 13:12	7439-98-7		
Potassium	2860	ug/L	1000	281	1	12/09/22 09:03	12/11/22 13:12	7440-09-7		
Silica	14700	ug/L	450		1	12/09/22 09:03	12/11/22 13:12	7631-86-9	N2	
Sodium	16900	ug/L	1000	214	1	12/09/22 09:03	12/11/22 13:12	7440-23-5		
<b>6010 MET ICP, Dissolved</b>		Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Manganese, Dissolved	ND	ug/L	10.0	2.5	1	12/13/22 15:51	12/14/22 04:18	7439-96-5		
Molybdenum, Dissolved	ND	ug/L	10.0	3.7	1	12/13/22 15:51	12/14/22 04:18	7439-98-7		
<b>6020 MET ICPMS</b>		Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis								
Antimony	ND	ug/L	1.0	0.28	1	11/23/22 08:50	11/29/22 05:40	7440-36-0		
Arsenic	ND	ug/L	1.0	0.094	1	11/23/22 08:50	11/29/22 05:40	7440-38-2		
Selenium	ND	ug/L	1.0	0.57	1	11/23/22 08:50	11/29/22 05:40	7782-49-2		
<b>2320B Alkalinity</b>		Analytical Method: SM 2320B Pace Analytical Services - Indianapolis								
Alkalinity, Total as CaCO3	382	mg/L	10.0	10.0	1		11/24/22 12:27			
Alkalinity,Bicarbonate (CaCO3)	382	mg/L	10.0	10.0	1		11/24/22 12:27			
Alkalinity,Carbonate (CaCO3)	ND	mg/L	10.0	10.0	1		11/24/22 12:27			
<b>2540C Total Dissolved Solids</b>		Analytical Method: SM 2540C Pace Analytical Services - Indianapolis								
Total Dissolved Solids	480	mg/L	10.0	10.0	1		11/23/22 07:10			
<b>4500H+ pH, Electrometric</b>		Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis								
pH at 25 Degrees C	7.5	Std. Units	0.10	0.10	1		12/05/22 13:46		H3	

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### ANALYTICAL RESULTS

Project: Eagle Valley Oct 2022 P1R1

Pace Project No.: 50331581

Sample: MW-13S		Lab ID: 50331581003		Collected: 11/18/22 12:37	Received: 11/18/22 14:55	Matrix: Water			
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>4500S2D Sulfide Water</b>		Analytical Method: SM 4500-S2-D Pace Analytical Services - Indianapolis							
Sulfide	ND	mg/L	0.10	0.025	1		11/19/22 16:31	18496-25-8	
<b>Iron, Ferrous</b>		Analytical Method: HACH 8146 Pace Analytical Services - Indianapolis							
Iron, Ferrous	ND	mg/L	0.20	0.096	1		11/28/22 18:40	15438-31-0	H3,N2
<b>353.2 Nitrogen, NO2/NO3 unpres</b>		Analytical Method: EPA 353.2 Pace Analytical Services - Indianapolis							
Nitrogen, Nitrate	<b>9.0</b>	mg/L	1.0	0.11	10		11/18/22 22:07	14797-55-8	
Nitrogen, Nitrite	ND	mg/L	1.0	0.040	10		11/18/22 22:07	14797-65-0	
<b>365.1 Total Phosphorus</b>		Analytical Method: EPA 365.1 Preparation Method: EPA 365.1 Pace Analytical Services - Indianapolis							
Phosphate as P04	ND	mg/L	0.15	0.15	1	12/01/22 11:00	12/02/22 14:22		
<b>5310C TOC</b>		Analytical Method: SM 5310C Pace Analytical Services - Indianapolis							
Total Organic Carbon	ND	mg/L	1.0	0.14	1		12/12/22 18:33	7440-44-0	
<b>5310C Dissolved Organic Carbon</b>		Analytical Method: SM 5310C Pace Analytical Services - Indianapolis							
Dissolved Organic Carbon	ND	mg/L	1.0	0.14	1		12/13/22 00:16		

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## ANALYTICAL RESULTS

Project: Eagle Valley Oct 2022 P1R1

Pace Project No.: 50331581

**Sample: DUP-1**      **Lab ID: 50331581004**      Collected: 11/18/22 00:00      Received: 11/18/22 14:55      Matrix: Water

Comments: • Upon receipt at the laboratory, 5 mls of nitric acid were added to the sample to meet the sample preservation requirement of pH <2 for radiochemistry analysis. The samples were preserved <2 within the required 5 days of collection.

Report									
Parameters	Results	Units	Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>9056 IC Anions</b>									
Analytical Method: EPA 9056									
Pace Analytical Services - Indianapolis									
Chloride	<b>25.5</b>	mg/L	2.5	0.67	10		12/02/22 08:50	16887-00-6	
Fluoride	ND	mg/L	0.10	0.017	1		12/02/22 08:32	16984-48-8	
Sulfate	<b>18.8</b>	mg/L	0.25	0.085	1		12/02/22 08:32	14808-79-8	
<b>6010 MET ICP</b>									
Analytical Method: EPA 6010      Preparation Method: EPA 3010									
Pace Analytical Services - Indianapolis									
Aluminum	ND	ug/L	200	55.4	1	12/09/22 09:03	12/11/22 13:14	7429-90-5	
Barium	<b>52.2</b>	ug/L	10.0	2.1	1	12/09/22 09:03	12/11/22 13:14	7440-39-3	
Boron	ND	ug/L	100	37.6	1	12/09/22 09:03	12/11/22 13:14	7440-42-8	
Calcium	<b>113000</b>	ug/L	1000	163	1	12/09/22 09:03	12/11/22 13:14	7440-70-2	
Iron	ND	ug/L	100	48.8	1	12/09/22 09:03	12/11/22 13:14	7439-89-6	
Lithium	ND	ug/L	20.0	6.2	1	12/09/22 09:03	12/11/22 13:14	7439-93-2	
Magnesium	<b>29100</b>	ug/L	1000	71.8	1	12/09/22 09:03	12/11/22 13:14	7439-95-4	
Manganese	ND	ug/L	10.0	2.5	1	12/09/22 09:03	12/11/22 13:14	7439-96-5	
Molybdenum	ND	ug/L	10.0	3.7	1	12/09/22 09:03	12/11/22 13:14	7439-98-7	
Potassium	<b>2880</b>	ug/L	1000	281	1	12/09/22 09:03	12/11/22 13:14	7440-09-7	
Silica	<b>15000</b>	ug/L	450		1	12/09/22 09:03	12/11/22 13:14	7631-86-9	N2
Sodium	<b>16900</b>	ug/L	1000	214	1	12/09/22 09:03	12/11/22 13:14	7440-23-5	
<b>6010 MET ICP, Dissolved</b>									
Analytical Method: EPA 6010      Preparation Method: EPA 3010									
Pace Analytical Services - Indianapolis									
Manganese, Dissolved	ND	ug/L	10.0	2.5	1	12/13/22 15:51	12/14/22 04:24	7439-96-5	
Molybdenum, Dissolved	ND	ug/L	10.0	3.7	1	12/13/22 15:51	12/14/22 04:24	7439-98-7	
<b>6020 MET ICPMS</b>									
Analytical Method: EPA 6020      Preparation Method: EPA 200.2									
Pace Analytical Services - Indianapolis									
Antimony	ND	ug/L	1.0	0.28	1	11/23/22 08:50	11/29/22 05:43	7440-36-0	
Arsenic	ND	ug/L	1.0	0.094	1	11/23/22 08:50	11/29/22 05:43	7440-38-2	
Selenium	ND	ug/L	1.0	0.57	1	11/23/22 08:50	11/29/22 05:43	7782-49-2	
<b>2320B Alkalinity</b>									
Analytical Method: SM 2320B									
Pace Analytical Services - Indianapolis									
Alkalinity, Total as CaCO3	<b>384</b>	mg/L	10.0	10.0	1		11/24/22 12:27		
Alkalinity,Bicarbonate (CaCO3)	<b>384</b>	mg/L	10.0	10.0	1		11/24/22 12:27		
Alkalinity,Carbonate (CaCO3)	ND	mg/L	10.0	10.0	1		11/24/22 12:27		
<b>2540C Total Dissolved Solids</b>									
Analytical Method: SM 2540C									
Pace Analytical Services - Indianapolis									
Total Dissolved Solids	<b>479</b>	mg/L	10.0	10.0	1		11/23/22 07:10		

## REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: Eagle Valley Oct 2022 P1R1

Pace Project No.: 50331581

**Sample: DUP-1**      **Lab ID: 50331581004**      Collected: 11/18/22 00:00      Received: 11/18/22 14:55      Matrix: Water

Comments: • Upon receipt at the laboratory, 5 mls of nitric acid were added to the sample to meet the sample preservation requirement of pH <2 for radiochemistry analysis. The samples were preserved <2 within the required 5 days of collection.

Parameters	Results	Units	Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>4500H+ pH, Electrometric</b>									
Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis									
pH at 25 Degrees C	7.4	Std. Units	0.10	0.10	1		12/05/22 16:29		H3
<b>4500S2D Sulfide Water</b>									
Analytical Method: SM 4500-S2-D Pace Analytical Services - Indianapolis									
Sulfide	ND	mg/L	0.10	0.025	1		11/19/22 16:31	18496-25-8	
<b>Iron, Ferrous</b>									
Analytical Method: HACH 8146 Pace Analytical Services - Indianapolis									
Iron, Ferrous	ND	mg/L	0.20	0.096	1		11/28/22 18:39	15438-31-0	H3,N2
<b>353.2 Nitrogen, NO2/NO3 unpres</b>									
Analytical Method: EPA 353.2 Pace Analytical Services - Indianapolis									
Nitrogen, Nitrate	9.0	mg/L	1.0	0.11	10		11/18/22 22:08	14797-55-8	
Nitrogen, Nitrite	ND	mg/L	1.0	0.040	10		11/18/22 22:08	14797-65-0	
<b>365.1 Total Phosphorus</b>									
Analytical Method: EPA 365.1      Preparation Method: EPA 365.1 Pace Analytical Services - Indianapolis									
Phosphate as P04	ND	mg/L	0.15	0.15	1	12/01/22 11:00	12/02/22 14:22		
<b>5310C TOC</b>									
Analytical Method: SM 5310C Pace Analytical Services - Indianapolis									
Total Organic Carbon	ND	mg/L	1.0	0.14	1		12/12/22 19:09	7440-44-0	
<b>5310C Dissolved Organic Carbon</b>									
Analytical Method: SM 5310C Pace Analytical Services - Indianapolis									
Dissolved Organic Carbon	ND	mg/L	1.0	0.14	1		12/13/22 00:26		

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### QUALITY CONTROL DATA

Project: Eagle Valley Oct 2022 P1R1  
Pace Project No.: 50331581

QC Batch: 708348 Analysis Method: EPA 9056  
QC Batch Method: EPA 9056 Analysis Description: 9056 IC Anions  
Laboratory: Pace Analytical Services - Indianapolis

Associated Lab Samples: 50331581001, 50331581002, 50331581003, 50331581004

METHOD BLANK: 3255914 Matrix: Water  
Associated Lab Samples: 50331581001, 50331581002, 50331581003, 50331581004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chloride	mg/L	ND	0.25	0.067	12/01/22 10:48	
Fluoride	mg/L	ND	0.10	0.017	12/01/22 10:48	
Sulfate	mg/L	ND	0.25	0.085	12/01/22 10:48	

LABORATORY CONTROL SAMPLE: 3255915

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	1.2	1.1	91	80-120	
Fluoride	mg/L	0.5	0.51	102	80-120	
Sulfate	mg/L	2.5	2.4	98	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3255916 3255917

Parameter	Units	MS		MSD		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		50331802004 Result	Spike Conc.	Spike Conc.	Conc.								
Chloride	mg/L	10.3	1.2	1.2	12.2	12.3	156	161	80-120	1	15	M0	
Fluoride	mg/L	ND	0.5	0.5	0.61	0.61	121	121	80-120	0	15	M0	
Sulfate	mg/L	1120	250	250	1310	1290	75	67	80-120	2	15	M0	

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### QUALITY CONTROL DATA

Project: Eagle Valley Oct 2022 P1R1

Pace Project No.: 50331581

QC Batch:	708483	Analysis Method:	EPA 6010
QC Batch Method:	EPA 3010	Analysis Description:	6010 MET
		Laboratory:	Pace Analytical Services - Indianapolis

Associated Lab Samples: 50331581001, 50331581002, 50331581003, 50331581004

METHOD BLANK: 3256431 Matrix: Water

Associated Lab Samples: 50331581001, 50331581002, 50331581003, 50331581004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Aluminum	ug/L	ND	200	55.4	12/11/22 12:09	
Barium	ug/L	ND	10.0	2.1	12/11/22 12:09	
Boron	ug/L	ND	100	37.6	12/11/22 12:09	
Calcium	ug/L	ND	1000	163	12/11/22 12:09	
Iron	ug/L	ND	100	48.8	12/11/22 12:09	
Lithium	ug/L	ND	20.0	6.2	12/11/22 12:09	
Magnesium	ug/L	ND	1000	71.8	12/11/22 12:09	
Manganese	ug/L	ND	10.0	2.5	12/11/22 12:09	
Molybdenum	ug/L	ND	10.0	3.7	12/11/22 12:09	
Potassium	ug/L	ND	1000	281	12/11/22 12:09	
Silica	ug/L	ND	450		12/11/22 12:09	N2
Sodium	ug/L	ND	1000	214	12/11/22 12:09	

LABORATORY CONTROL SAMPLE: 3256432

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Aluminum	ug/L	10000	9750	97	80-120	
Barium	ug/L	1000	996	100	80-120	
Boron	ug/L	1000	984	98	80-120	
Calcium	ug/L	10000	9900	99	80-120	
Iron	ug/L	10000	10000	100	80-120	
Lithium	ug/L	1000	973	97	80-120	
Magnesium	ug/L	10000	9600	96	80-120	
Manganese	ug/L	1000	951	95	80-120	
Molybdenum	ug/L	1000	1030	103	80-120	
Potassium	ug/L	10000	9900	99	80-120	
Silica	ug/L	10700	10700	100	80-120	N2
Sodium	ug/L	10000	9660	97	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3256433 3256434

Parameter	Units	MS		MSD		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual	
		50331953001 Result	Spike Conc.	Spike Conc.	MS Result							MSD Result
Aluminum	ug/L	616	10000	10000	10800	10600	102	100	75-125	1	20	
Barium	ug/L	155	1000	1000	1190	1170	103	101	75-125	1	20	
Boron	ug/L	213	1000	1000	1270	1260	106	105	75-125	1	20	
Calcium	ug/L	97600	10000	10000	120000	115000	223	175	75-125	4	20	P6

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### QUALITY CONTROL DATA

Project: Eagle Valley Oct 2022 P1R1

Pace Project No.: 50331581

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3256433 3256434														
Parameter	Units	50331953001		MS	MSD	3256434		% Rec	% Rec	% Rec	Limits	RPD	Max RPD	Qual
		Result	Conc.	Spike Conc.	Spike Conc.	MS Result	MSD Result							
Iron	ug/L	1920	10000	10000	10000	12200	12000	103	101	75-125	2	20		
Lithium	ug/L	ND	1000	1000	1000	1000	994	99	98	75-125	1	20		
Magnesium	ug/L	29200	10000	10000	10000	42600	41000	135	119	75-125	4	20	M0	
Manganese	ug/L	112	1000	1000	1000	1080	1060	97	95	75-125	1	20		
Molybdenum	ug/L	ND	1000	1000	1000	1050	1050	104	104	75-125	0	20		
Potassium	ug/L	2630	10000	10000	10000	13400	13100	107	104	75-125	2	20		
Silica	ug/L	22500	10700	10700	10700	37000	36300	135	129	75-125	2	20	N2	
Sodium	ug/L	44600	10000	10000	10000	59900	57700	153	131	75-125	4	20	P6	

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### QUALITY CONTROL DATA

Project: Eagle Valley Oct 2022 P1R1

Pace Project No.: 50331581

QC Batch:	710701	Analysis Method:	EPA 6010
QC Batch Method:	EPA 3010	Analysis Description:	6010 MET Dissolved
		Laboratory:	Pace Analytical Services - Indianapolis

Associated Lab Samples: 50331581001, 50331581002, 50331581003, 50331581004

METHOD BLANK: 3266111 Matrix: Water

Associated Lab Samples: 50331581001, 50331581002, 50331581003, 50331581004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Manganese, Dissolved	ug/L	ND	10.0	2.5	12/14/22 03:53	
Molybdenum, Dissolved	ug/L	ND	10.0	3.7	12/14/22 03:53	

LABORATORY CONTROL SAMPLE: 3266112

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Manganese, Dissolved	ug/L	2000	1910	95	80-120	
Molybdenum, Dissolved	ug/L	2000	2000	100	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3266113 3266114

Parameter	Units	50331512001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Manganese, Dissolved	ug/L	2060	1000	1000	3040	3080	98	101	75-125	1	20	
Molybdenum, Dissolved	ug/L	294	1000	1000	1380	1390	109	109	75-125	1	20	

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### QUALITY CONTROL DATA

Project: Eagle Valley Oct 2022 P1R1

Pace Project No.: 50331581

QC Batch: 707907 Analysis Method: EPA 6020  
 QC Batch Method: EPA 200.2 Analysis Description: 6020 MET  
 Laboratory: Pace Analytical Services - Indianapolis

Associated Lab Samples: 50331581001, 50331581002, 50331581003, 50331581004

METHOD BLANK: 3254097 Matrix: Water  
 Associated Lab Samples: 50331581001, 50331581002, 50331581003, 50331581004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Antimony	ug/L	ND	1.0	0.28	11/29/22 02:07	
Arsenic	ug/L	ND	1.0	0.094	11/29/22 02:07	
Selenium	ug/L	ND	1.0	0.57	11/29/22 02:07	

LABORATORY CONTROL SAMPLE: 3254098

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Antimony	ug/L	40	41.6	104	80-120	
Arsenic	ug/L	40	38.8	97	80-120	
Selenium	ug/L	40	38.7	97	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3254099 3254100

Parameter	Units	50331499002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Antimony	ug/L	<1.0	40	40	42.6	43.0	106	107	75-125	1	20	
Arsenic	ug/L	<1.0	40	40	38.6	38.8	96	97	75-125	1	20	
Selenium	ug/L	<1.0	40	40	36.2	36.8	90	92	75-125	2	20	

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### QUALITY CONTROL DATA

Project: Eagle Valley Oct 2022 P1R1

Pace Project No.: 50331581

QC Batch:	708045	Analysis Method:	SM 2320B
QC Batch Method:	SM 2320B	Analysis Description:	2320B Alkalinity
		Laboratory:	Pace Analytical Services - Indianapolis

Associated Lab Samples: 50331581001, 50331581002, 50331581003, 50331581004

METHOD BLANK: 3254850 Matrix: Water  
Associated Lab Samples: 50331581001, 50331581002, 50331581003, 50331581004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Alkalinity, Total as CaCO3	mg/L	ND	10.0	10.0	11/24/22 12:27	
Alkalinity,Bicarbonate (CaCO3)	mg/L	ND	10.0	10.0	11/24/22 12:27	
Alkalinity,Carbonate (CaCO3)	mg/L	ND	10.0	10.0	11/24/22 12:27	

LABORATORY CONTROL SAMPLE: 3254851

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Alkalinity, Total as CaCO3	mg/L	50	49.7	99	90-110	

SAMPLE DUPLICATE: 3254852

Parameter	Units	50331607007 Result	Dup Result	RPD	Max RPD	Qualifiers
Alkalinity, Total as CaCO3	mg/L	449	455	1	20	
Alkalinity,Bicarbonate (CaCO3)	mg/L	449	455	1	20	
Alkalinity,Carbonate (CaCO3)	mg/L	ND	ND		20	

SAMPLE DUPLICATE: 3254853

Parameter	Units	50331694006 Result	Dup Result	RPD	Max RPD	Qualifiers
Alkalinity, Total as CaCO3	mg/L	284	288	1	20	
Alkalinity,Bicarbonate (CaCO3)	mg/L	284	288	1	20	
Alkalinity,Carbonate (CaCO3)	mg/L	ND	ND		20	

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### QUALITY CONTROL DATA

Project: Eagle Valley Oct 2022 P1R1

Pace Project No.: 50331581

QC Batch: 707960

Analysis Method: SM 2540C

QC Batch Method: SM 2540C

Analysis Description: 2540C Total Dissolved Solids

Laboratory: Pace Analytical Services - Indianapolis

Associated Lab Samples: 50331581001, 50331581002, 50331581003, 50331581004

METHOD BLANK: 3254457

Matrix: Water

Associated Lab Samples: 50331581001, 50331581002, 50331581003, 50331581004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	ND	10.0	10.0	11/23/22 07:06	

LABORATORY CONTROL SAMPLE: 3254458

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	300	281	94	80-120	

SAMPLE DUPLICATE: 3254459

Parameter	Units	50331623001 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	1830	1760	4	10	

SAMPLE DUPLICATE: 3254460

Parameter	Units	50331834001 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	728	726	0	10	

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### QUALITY CONTROL DATA

Project: Eagle Valley Oct 2022 P1R1

Pace Project No.: 50331581

QC Batch: 709512

Analysis Method: SM 4500-H+B

QC Batch Method: SM 4500-H+B

Analysis Description: 4500H+B pH

Laboratory: Pace Analytical Services - Indianapolis

Associated Lab Samples: 50331581001, 50331581002, 50331581003

SAMPLE DUPLICATE: 3260777

Parameter	Units	50332371001 Result	Dup Result	RPD	Max RPD	Qualifiers
pH at 25 Degrees C	Std. Units	7.6	7.4	2	2	H3

SAMPLE DUPLICATE: 3260790

Parameter	Units	50331581003 Result	Dup Result	RPD	Max RPD	Qualifiers
pH at 25 Degrees C	Std. Units	7.5	7.5	0	2	H3

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**QUALITY CONTROL DATA**

Project: Eagle Valley Oct 2022 P1R1

Pace Project No.: 50331581

QC Batch: 709611

Analysis Method: SM 4500-H+B

QC Batch Method: SM 4500-H+B

Analysis Description: 4500H+B pH

Laboratory: Pace Analytical Services - Indianapolis

Associated Lab Samples: 50331581004

SAMPLE DUPLICATE: 3261062

Parameter	Units	50332467001 Result	Dup Result	RPD	Max RPD	Qualifiers
pH at 25 Degrees C	Std. Units	8.5	8.6	0	2	H3

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**QUALITY CONTROL DATA**

Project: Eagle Valley Oct 2022 P1R1  
Pace Project No.: 50331581

QC Batch: 707337 Analysis Method: SM 4500-S2-D  
QC Batch Method: SM 4500-S2-D Analysis Description: 4500S2D Sulfide Water  
Laboratory: Pace Analytical Services - Indianapolis  
Associated Lab Samples: 50331581001, 50331581002, 50331581003, 50331581004

METHOD BLANK: 3251910 Matrix: Water  
Associated Lab Samples: 50331581001, 50331581002, 50331581003, 50331581004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Sulfide	mg/L	ND	0.10	0.025	11/19/22 16:31	

LABORATORY CONTROL SAMPLE: 3251911

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Sulfide	mg/L	0.5	0.51	102	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3251912 3251913

Parameter	Units	50331581001		50331581003		50331581002		% Rec Limits	RPD	Max RPD	Qual
		MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec				
Sulfide	mg/L	ND	0.5	0.5	0.51	0.50	102	99	90-110	3	20

MATRIX SPIKE SAMPLE: 3251914

Parameter	Units	50331585003 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Sulfide	mg/L			0.40			M0

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### QUALITY CONTROL DATA

Project: Eagle Valley Oct 2022 P1R1

Pace Project No.: 50331581

QC Batch:	708493	Analysis Method:	HACH 8146
QC Batch Method:	HACH 8146	Analysis Description:	Iron, Ferrous
		Laboratory:	Pace Analytical Services - Indianapolis

Associated Lab Samples: 50331581001, 50331581002, 50331581003, 50331581004

METHOD BLANK: 3256441 Matrix: Water  
Associated Lab Samples: 50331581001, 50331581002, 50331581003, 50331581004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Iron, Ferrous	mg/L	ND	0.20	0.096	11/28/22 18:33	H3,N2

LABORATORY CONTROL SAMPLE: 3256442

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Iron, Ferrous	mg/L	1	1.0	102	90-110	H3,N2

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3256443 3256444

Parameter	Units	50330817022		3256443		3256444		% Rec	% Rec	% Rec	Limits	RPD	Max RPD	Qual
		MS Result	MSD Spike Conc.	MS Result	MSD Spike Conc.	MS Result	MSD Spike Conc.							
Iron, Ferrous	mg/L	ND	1	1	0.96	1.0	96	104	90-110	9	20	H3,N2		

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3256445 3256446

Parameter	Units	50331424001		3256445		3256446		% Rec	% Rec	% Rec	Limits	RPD	Max RPD	Qual
		MS Result	MSD Spike Conc.	MS Result	MSD Spike Conc.	MS Result	MSD Spike Conc.							
Iron, Ferrous	mg/L	ND	1	1	0.99	0.99	99	99	90-110	0	20	H3,N2		

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### QUALITY CONTROL DATA

Project: Eagle Valley Oct 2022 P1R1

Pace Project No.: 50331581

QC Batch: 707061 Analysis Method: EPA 353.2  
 QC Batch Method: EPA 353.2 Analysis Description: 353.2 Nitrate + Nitrite, Unpres.  
 Laboratory: Pace Analytical Services - Indianapolis  
 Associated Lab Samples: 50331581001, 50331581002, 50331581003, 50331581004

METHOD BLANK: 3250478 Matrix: Water  
 Associated Lab Samples: 50331581001, 50331581002, 50331581003, 50331581004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Nitrogen, Nitrate	mg/L	ND	0.10	0.011	11/18/22 08:03	
Nitrogen, Nitrite	mg/L	ND	0.10	0.0040	11/18/22 08:03	

LABORATORY CONTROL SAMPLE: 3250479

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Nitrogen, Nitrate	mg/L	1	1.0	100	90-110	
Nitrogen, Nitrite	mg/L	1	1.0	103	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3250480 3250481

Parameter	Units	50331493004 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Nitrogen, Nitrate	mg/L	1.1	1	1	2.2	2.2	104	104	90-110	0	20	
Nitrogen, Nitrite	mg/L	0.024J	1	1	1.0	1.0	101	100	90-110	0	20	

MATRIX SPIKE SAMPLE: 3251582

Parameter	Units	50331571001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Nitrogen, Nitrate	mg/L	ND	1	1.1	103	90-110	
Nitrogen, Nitrite	mg/L	ND	1	1.0	104	90-110	

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### QUALITY CONTROL DATA

Project: Eagle Valley Oct 2022 P1R1

Pace Project No.: 50331581

QC Batch: 708995

Analysis Method: EPA 365.1

QC Batch Method: EPA 365.1

Analysis Description: 365.1 Total Phosphorus

Laboratory: Pace Analytical Services - Indianapolis

Associated Lab Samples: 50331581001, 50331581002, 50331581003, 50331581004

METHOD BLANK: 3258331

Matrix: Water

Associated Lab Samples: 50331581001, 50331581002, 50331581003, 50331581004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Phosphate as P04	mg/L	ND	0.15	0.15	12/02/22 14:15	

LABORATORY CONTROL SAMPLE: 3258332

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Phosphate as P04	mg/L		1.5			

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3258333 3258334

Parameter	Units	50331512001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Phosphate as P04	mg/L	0.16			1.7	1.6				7		

MATRIX SPIKE SAMPLE: 3258335

Parameter	Units	50332130001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Phosphate as P04	mg/L		3.8	5.3			

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**QUALITY CONTROL DATA**

Project: Eagle Valley Oct 2022 P1R1

Pace Project No.: 50331581

QC Batch:	710347	Analysis Method:	SM 5310C
QC Batch Method:	SM 5310C	Analysis Description:	5310C Total Organic Carbon
		Laboratory:	Pace Analytical Services - Indianapolis
Associated Lab Samples:	50331581001, 50331581002, 50331581003, 50331581004		

METHOD BLANK: 3264495 Matrix: Water  
Associated Lab Samples: 50331581001, 50331581002, 50331581003, 50331581004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Organic Carbon	mg/L	ND	1.0	0.14	12/12/22 14:28	

LABORATORY CONTROL SAMPLE: 3264496

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Organic Carbon	mg/L	10	10.2	102	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3264497 3264498

Parameter	Units	50331710001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Total Organic Carbon	mg/L	2.1	10	10	11.9	12.1	98	99	80-120	1	20	

MATRIX SPIKE SAMPLE: 3264499

Parameter	Units	50331710002 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Total Organic Carbon	mg/L	2.1	10	12.2	101	80-120	

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### QUALITY CONTROL DATA

Project: Eagle Valley Oct 2022 P1R1

Pace Project No.: 50331581

QC Batch: 710348

Analysis Method: SM 5310C

QC Batch Method: SM 5310C

Analysis Description: 5310C Dissolved Organic Carbon

Laboratory: Pace Analytical Services - Indianapolis

Associated Lab Samples: 50331581001, 50331581002, 50331581003, 50331581004

METHOD BLANK: 3264504

Matrix: Water

Associated Lab Samples: 50331581001, 50331581002, 50331581003, 50331581004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Dissolved Organic Carbon	mg/L	ND	1.0	0.14	12/12/22 20:03	

LABORATORY CONTROL SAMPLE: 3264505

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Dissolved Organic Carbon	mg/L	10	10.2	102	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3264506 3264507

Parameter	Units	50332267001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Dissolved Organic Carbon	mg/L	1.8	10	10	12.1	12.2	103	104	80-120	0	20	

MATRIX SPIKE SAMPLE: 3264508

Parameter	Units	50332269001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Dissolved Organic Carbon	mg/L	2.8	10	13.2	104	80-120	

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Eagle Valley Oct 2022 P1R1

Pace Project No.: 50331581

**Sample: MW-13D**      **Lab ID: 50331581001**      Collected: 11/18/22 10:21      Received: 11/18/22 14:55      Matrix: Water  
PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	<b>0.201 ± 0.185 (0.109)</b> <b>C:NA T:89%</b>	pCi/L	12/15/22 16:18	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	<b>0.497 ± 0.437 (0.871)</b> <b>C:77% T:89%</b>	pCi/L	12/08/22 14:47	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	<b>0.698 ± 0.622 (0.980)</b>	pCi/L	12/16/22 16:18	7440-14-4	

### REPORT OF LABORATORY ANALYSIS

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Eagle Valley Oct 2022 P1R1

Pace Project No.: 50331581

**Sample: MW-131**      **Lab ID: 50331581002**      Collected: 11/18/22 11:24      Received: 11/18/22 14:55      Matrix: Water  
PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	<b>0.0786 ± 0.180 (0.106)</b> <b>C:NA T:89%</b>	pCi/L	12/15/22 16:18	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	<b>0.956 ± 0.531 (0.947)</b> <b>C:80% T:89%</b>	pCi/L	12/08/22 14:47	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	<b>1.03 ± 0.711 (1.05)</b>	pCi/L	12/16/22 16:18	7440-14-4	

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Eagle Valley Oct 2022 P1R1

Pace Project No.: 50331581

**Sample: MW-13S**      **Lab ID: 50331581003**      Collected: 11/18/22 12:37      Received: 11/18/22 14:55      Matrix: Water  
PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	<b>0.192 ± 0.251 (0.414)</b> <b>C:NA T:92%</b>	pCi/L	12/15/22 16:18	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	<b>-0.320 ± 0.388 (0.977)</b> <b>C:79% T:92%</b>	pCi/L	12/08/22 14:47	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	<b>0.192 ± 0.639 (1.39)</b>	pCi/L	12/16/22 16:18	7440-14-4	

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Eagle Valley Oct 2022 P1R1

Pace Project No.: 50331581

**Sample: DUP-1**      **Lab ID: 50331581004**      Collected: 11/18/22 00:00      Received: 11/18/22 14:55      Matrix: Water  
PWS:      Site ID:      Sample Type:

Comments: • Upon receipt at the laboratory, 5 mls of nitric acid were added to the sample to meet the sample preservation requirement of pH <2 for radiochemistry analysis. The samples were preserved <2 within the required 5 days of collection.

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	<b>0.243 ± 0.276 (0.435)</b> <b>C:NA T:87%</b>	pCi/L	12/15/22 16:18	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	<b>1.03 ± 0.535 (0.936)</b> <b>C:82% T:87%</b>	pCi/L	12/08/22 14:47	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	<b>1.27 ± 0.811 (1.37)</b>	pCi/L	12/16/22 16:18	7440-14-4	

### REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL - RADIOCHEMISTRY

Project: Eagle Valley Oct 2022 P1R1

Pace Project No.: 50331581

QC Batch: 551084

Analysis Method: EPA 904.0

QC Batch Method: EPA 904.0

Analysis Description: 904.0 Radium 228

Laboratory: Pace Analytical Services - Greensburg

Associated Lab Samples: 50331581001, 50331581002, 50331581003, 50331581004

METHOD BLANK: 2676270

Matrix: Water

Associated Lab Samples: 50331581001, 50331581002, 50331581003, 50331581004

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.110 ± 0.368 (0.831) C:75% T:84%	pCi/L	12/08/22 12:39	

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### QUALITY CONTROL - RADIOCHEMISTRY

Project: Eagle Valley Oct 2022 P1R1

Pace Project No.: 50331581

QC Batch: 551083

Analysis Method: EPA 903.1

QC Batch Method: EPA 903.1

Analysis Description: 903.1 Radium-226

Laboratory: Pace Analytical Services - Greensburg

Associated Lab Samples: 50331581001, 50331581002, 50331581003, 50331581004

METHOD BLANK: 2676269

Matrix: Water

Associated Lab Samples: 50331581001, 50331581002, 50331581003, 50331581004

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.000 ± 0.208 (0.423) C:NA T:84%	pCi/L	12/15/22 16:04	

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## QUALIFIERS

Project: Eagle Valley Oct 2022 P1R1

Pace Project No.: 50331581

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### DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Reported results are not rounded until the final step prior to reporting. Therefore, calculated parameters that are typically reported as "Total" may vary slightly from the sum of the reported component parameters.

Act - Activity

Unc - Uncertainty: SDWA = 1.96 sigma count uncertainty, all other matrices = Expanded Uncertainty (95% confidence interval).

Gamma Spec = Expanded Uncertainty (95.4% Confidence Interval)

(MDC) - Minimum Detectable Concentration

Trac - Tracer Recovery (%)

Carr - Carrier Recovery (%)

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

### ANALYTE QUALIFIERS

H3 Sample was received or analysis requested beyond the recognized method holding time.

M0 Matrix spike recovery and/or matrix spike duplicate recovery was outside laboratory control limits.

N2 The lab does not hold NELAC/TNI accreditation for this parameter but other accreditations/certifications may apply. A complete list of accreditations/certifications is available upon request.

P6 Matrix spike recovery was outside laboratory control limits due to a parent sample concentration notably higher than the spike level.

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### QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Eagle Valley Oct 2022 P1R1

Pace Project No.: 50331581

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
50331581001	MW-13D	EPA 9056	708348		
50331581002	MW-13I	EPA 9056	708348		
50331581003	MW-13S	EPA 9056	708348		
50331581004	DUP-1	EPA 9056	708348		
50331581001	MW-13D	EPA 3010	708483	EPA 6010	710474
50331581002	MW-13I	EPA 3010	708483	EPA 6010	710474
50331581003	MW-13S	EPA 3010	708483	EPA 6010	710474
50331581004	DUP-1	EPA 3010	708483	EPA 6010	710474
50331581001	MW-13D	EPA 3010	710701	EPA 6010	710942
50331581002	MW-13I	EPA 3010	710701	EPA 6010	710942
50331581003	MW-13S	EPA 3010	710701	EPA 6010	710942
50331581004	DUP-1	EPA 3010	710701	EPA 6010	710942
50331581001	MW-13D	EPA 200.2	707907	EPA 6020	708265
50331581002	MW-13I	EPA 200.2	707907	EPA 6020	708265
50331581003	MW-13S	EPA 200.2	707907	EPA 6020	708265
50331581004	DUP-1	EPA 200.2	707907	EPA 6020	708265
50331581001	MW-13D	EPA 903.1	551083		
50331581002	MW-13I	EPA 903.1	551083		
50331581003	MW-13S	EPA 903.1	551083		
50331581004	DUP-1	EPA 903.1	551083		
50331581001	MW-13D	EPA 904.0	551084		
50331581002	MW-13I	EPA 904.0	551084		
50331581003	MW-13S	EPA 904.0	551084		
50331581004	DUP-1	EPA 904.0	551084		
50331581001	MW-13D	Total Radium Calculation	554470		
50331581002	MW-13I	Total Radium Calculation	554470		
50331581003	MW-13S	Total Radium Calculation	554470		
50331581004	DUP-1	Total Radium Calculation	554470		
50331581001	MW-13D	SM 2320B	708045		
50331581002	MW-13I	SM 2320B	708045		
50331581003	MW-13S	SM 2320B	708045		
50331581004	DUP-1	SM 2320B	708045		
50331581001	MW-13D	SM 2540C	707960		
50331581002	MW-13I	SM 2540C	707960		
50331581003	MW-13S	SM 2540C	707960		
50331581004	DUP-1	SM 2540C	707960		
50331581001	MW-13D	SM 4500-H+B	709512		
50331581002	MW-13I	SM 4500-H+B	709512		
50331581003	MW-13S	SM 4500-H+B	709512		
50331581004	DUP-1	SM 4500-H+B	709611		
50331581001	MW-13D	SM 4500-S2-D	707337		
50331581002	MW-13I	SM 4500-S2-D	707337		
50331581003	MW-13S	SM 4500-S2-D	707337		

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### QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Eagle Valley Oct 2022 P1R1

Pace Project No.: 50331581

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
50331581004	DUP-1	SM 4500-S2-D	707337		
50331581001	MW-13D	HACH 8146	708493		
50331581002	MW-13I	HACH 8146	708493		
50331581003	MW-13S	HACH 8146	708493		
50331581004	DUP-1	HACH 8146	708493		
50331581001	MW-13D	EPA 353.2	707061		
50331581002	MW-13I	EPA 353.2	707061		
50331581003	MW-13S	EPA 353.2	707061		
50331581004	DUP-1	EPA 353.2	707061		
50331581001	MW-13D	EPA 365.1	708995	EPA 365.1	709315
50331581002	MW-13I	EPA 365.1	708995	EPA 365.1	709315
50331581003	MW-13S	EPA 365.1	708995	EPA 365.1	709315
50331581004	DUP-1	EPA 365.1	708995	EPA 365.1	709315
50331581001	MW-13D	SM 5310C	710347		
50331581002	MW-13I	SM 5310C	710347		
50331581003	MW-13S	SM 5310C	710347		
50331581004	DUP-1	SM 5310C	710347		
50331581001	MW-13D	SM 5310C	710348		
50331581002	MW-13I	SM 5310C	710348		
50331581003	MW-13S	SM 5310C	710348		
50331581004	DUP-1	SM 5310C	710348		

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**SAMPLE CONDITION UPON RECEIPT FORM**

Date/Time and Initials of person examining contents: RC 11-8-22 17:26

1. Courier:  FED EX  UPS  CLIENT  PACE  USPS  OTHER \_\_\_\_\_

2. Custody Seal on Cooler/Box Present:  Yes  No  
 (If yes)Seals Intact:  Yes  No (leave blank if no seals were present)

3. Thermometer: **1 2 3 4 5 6 A B C D E F**

4. Cooler Temperature(s): 0.1      
 (Initial/Corrected) RECORD TEMPS OF ALL COOLERS RECEIVED (use Comments below to add more)

5. Packing Material:  Bubble Wrap  Bubble Bags  
 None  Other \_\_\_\_\_

6. Ice Type:  Wet  Blue  None

7. If temp. is over 6°C or under 0°C, was the PM notified?:  Yes  No  
 Cooler temp should be above freezing to 6°C

All discrepancies will be written out in the comments section below.

	Yes	No		Yes	No	N/A
USDA Regulated Soils? (HI, ID, NY, WA, OR, CA, NM, TX, OK, AR, LA, TN, AL, MS, NC, SC, GA, FL, or Puerto Rico)		<input checked="" type="checkbox"/>	All containers needing acid/base preservation have been pH CHECKED?: Exceptions: VOA, coliform, LLHg, O&G, RAD CHEM, and any container with a septum cap or preserved with HCl.	<input checked="" type="checkbox"/>		
Short Hold Time Analysis (48 hours or less)? Analysis: <u>NO3</u>	<input checked="" type="checkbox"/>		Circles: <u>HNO3 (&lt;2)</u> <u>H2SO4 (&lt;2)</u> NaOH (>10) <u>NaOH/ZnAc (&gt;9)</u> Any non-conformance to pH recommendations will be noted on the container count form	<input checked="" type="checkbox"/>		
Time 5035A TC placed in Freezer or Short Holds To Lab Time: <u>18:16</u>			Residual Chlorine Check (SVOC 625 Pest/PCB 608)	<u>Present</u>	<u>Absent</u>	<u>N/A</u>
Rush TAT Requested (4 days or less):	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Residual Chlorine Check (Total/Amenable/Free Cyanide)			<input checked="" type="checkbox"/>
Custody Signatures Present?	<input checked="" type="checkbox"/>		Headspace Wisconsin Sulfide?			<input checked="" type="checkbox"/>
Containers Intact?:	<input checked="" type="checkbox"/>		Headspace in VOA Vials (>6mm): See Container Count form for details	<u>Present</u>	<u>Absent</u>	<u>No VOA Vials Sent</u>
Sample Label (IDs/Dates/Times) Match COC?: Except TCs, which only require sample ID	<input checked="" type="checkbox"/>		Trip Blank Present?		<input checked="" type="checkbox"/>	
Extra labels on Terracore Vials? (soils only)			Trip Blank Custody Seals?:			<input checked="" type="checkbox"/>

COMMENTS:

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March 06, 2023

Mr. Mark Breting  
ATC Group Services  
7988 Centerpoint Drive  
Suite 100  
Indianapolis, IN 46256

RE: Project: Eagle Valley Oct 2022 P1R2  
Pace Project No.: 50331773

Dear Mr. Breting:

Enclosed are the analytical results for sample(s) received by the laboratory on November 22, 2022. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

The test results provided in this final report were generated by each of the following laboratories within the Pace Network:

- Pace Analytical Services - Indianapolis
- Pace Analytical Services - Greensburg

If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Will Statz  
will.statz@pacelabs.com  
(317)228-3105  
Project Manager

Enclosures

cc: Mr. Robert Miller, Haley & Aldrich



## REPORT OF LABORATORY ANALYSIS

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## CERTIFICATIONS

Project: Eagle Valley Oct 2022 P1R2

Pace Project No.: 50331773

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### **Pace Analytical Services Pennsylvania**

1638 Roseytown Rd Suites 2,3&4, Greensburg, PA 15601

ANAB DOD-ELAP Rad Accreditation #: L2417

Alabama Certification #: 41590

Arizona Certification #: AZ0734

Arkansas Certification

California Certification #: 04222CA

Colorado Certification #: PA01547

Connecticut Certification #: PH-0694

Delaware Certification

EPA Region 4 DW Rad

Florida/TNI Certification #: E87683

Georgia Certification #: C040

Florida: Cert E871149 SEKS WET

Guam Certification

Hawaii Certification

Idaho Certification

Illinois Certification

Indiana Certification

Iowa Certification #: 391

Kansas/TNI Certification #: E-10358

Kentucky Certification #: KY90133

KY WW Permit #: KY0098221

KY WW Permit #: KY0000221

Louisiana DHH/TNI Certification #: LA180012

Louisiana DEQ/TNI Certification #: 4086

Maine Certification #: 2017020

Maryland Certification #: 308

Massachusetts Certification #: M-PA1457

Michigan/PADEP Certification #: 9991

Missouri Certification #: 235

Montana Certification #: Cert0082

Nebraska Certification #: NE-OS-29-14

Nevada Certification #: PA014572018-1

New Hampshire/TNI Certification #: 297617

New Jersey/TNI Certification #: PA051

New Mexico Certification #: PA01457

New York/TNI Certification #: 10888

North Carolina Certification #: 42706

North Dakota Certification #: R-190

Ohio EPA Rad Approval: #41249

Oregon/TNI Certification #: PA200002-010

Pennsylvania/TNI Certification #: 65-00282

Puerto Rico Certification #: PA01457

Rhode Island Certification #: 65-00282

South Dakota Certification

Tennessee Certification #: 02867

Texas/TNI Certification #: T104704188-17-3

Utah/TNI Certification #: PA014572017-9

USDA Soil Permit #: P330-17-00091

Vermont Dept. of Health: ID# VT-0282

Virgin Island/PADEP Certification

Virginia/VELAP Certification #: 460198

Washington Certification #: C868

West Virginia DEP Certification #: 143

West Virginia DHHR Certification #: 9964C

Wisconsin Approve List for Rad

Wyoming Certification #: 8TMS-L

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### **Pace Analytical Services Indianapolis**

7726 Moller Road, Indianapolis, IN 46268

Illinois Accreditation #: 200074

Indiana Drinking Water Laboratory #: C-49-06

Kansas/TNI Certification #: E-10177

Kentucky UST Agency Interest #: 80226

Kentucky WW Laboratory ID #: 98019

Michigan Drinking Water Laboratory #9050

Ohio VAP Certified Laboratory #: CL0065

Oklahoma Laboratory #: 9204

Texas Certification #: T104704355

Wisconsin Laboratory #: 999788130

USDA Foreign Soil Permit #: 525-23-13-23119

USDA Compliance Agreement #: IN-SL-22-001

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## REPORT OF LABORATORY ANALYSIS

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## SAMPLE SUMMARY

Project: Eagle Valley Oct 2022 P1R2  
Pace Project No.: 50331773

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Lab ID	Sample ID	Matrix	Date Collected	Date Received
50331773001	MW-15S	Water	11/22/22 11:42	11/22/22 13:35
50331773002	MW-15I	Water	11/22/22 10:53	11/22/22 13:35
50331773003	MW-15D	Water	11/22/22 10:02	11/22/22 13:35

## REPORT OF LABORATORY ANALYSIS

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### SAMPLE ANALYTE COUNT

Project: Eagle Valley Oct 2022 P1R2

Pace Project No.: 50331773

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory		
50331773001	MW-15S	EPA 9056	ADM	3	PASI-I		
		EPA 6010	JPK	12	PASI-I		
		EPA 6010	JPK	2	PASI-I		
		EPA 6020	CAW	3	PASI-I		
		EPA 903.1	JDZ	1	PASI-PA		
		EPA 904.0	ZPC	1	PASI-PA		
		Total Radium Calculation	JAL	1	PASI-PA		
		SM 2320B	TAY	3	PASI-I		
		SM 2540C	AEL	1	PASI-I		
		SM 4500-H+B	TRK	1	PASI-I		
		SM 4500-S2-D	BEP	1	PASI-I		
		HACH 8146	ZM	1	PASI-I		
		EPA 353.2	MMS	2	PASI-I		
		EPA 365.1	ZM	1	PASI-I		
		SM 5310C	ATS	1	PASI-I		
		SM 5310C	ATS	1	PASI-I		
		50331773002	MW-15I	EPA 9056	ADM	3	PASI-I
				EPA 6010	JPK	12	PASI-I
				EPA 6010	JPK	2	PASI-I
EPA 6020	CAW			3	PASI-I		
EPA 903.1	JDZ			1	PASI-PA		
EPA 904.0	ZPC			1	PASI-PA		
Total Radium Calculation	JAL			1	PASI-PA		
SM 2320B	TAY			3	PASI-I		
SM 2540C	AEL			1	PASI-I		
SM 4500-H+B	TRK			1	PASI-I		
SM 4500-S2-D	BEP			1	PASI-I		
HACH 8146	ZM			1	PASI-I		
EPA 353.2	MMS			2	PASI-I		
EPA 365.1	ZM			1	PASI-I		
SM 5310C	ATS			1	PASI-I		
SM 5310C	ATS			1	PASI-I		
50331773003	MW-15D			EPA 9056	ADM	3	PASI-I
				EPA 6010	JPK	12	PASI-I
				EPA 6010	JPK	2	PASI-I
		EPA 6020	CAW	3	PASI-I		
		EPA 903.1	JDZ	1	PASI-PA		

### REPORT OF LABORATORY ANALYSIS

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### SAMPLE ANALYTE COUNT

Project: Eagle Valley Oct 2022 P1R2

Pace Project No.: 50331773

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
		EPA 904.0	ZPC	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
		SM 2320B	TAY	3	PASI-I
		SM 2540C	AEL	1	PASI-I
		SM 4500-H+B	TRK	1	PASI-I
		SM 4500-S2-D	BEP	1	PASI-I
		HACH 8146	ZM	1	PASI-I
		EPA 353.2	MMS	2	PASI-I
		EPA 365.1	ZM	1	PASI-I
		SM 5310C	ATS	1	PASI-I
		SM 5310C	ATS	1	PASI-I

PASI-I = Pace Analytical Services - Indianapolis

PASI-PA = Pace Analytical Services - Greensburg

### REPORT OF LABORATORY ANALYSIS

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### SUMMARY OF DETECTION

Project: Eagle Valley Oct 2022 P1R2

Pace Project No.: 50331773

Lab Sample ID	Client Sample ID	Result	Units	Report Limit	Analyzed	Qualifiers
Method	Parameters					
<b>50331773001</b>	<b>MW-15S</b>					
EPA 9056	Chloride	27.0	mg/L	2.5	11/28/22 17:58	
EPA 9056	Fluoride	0.39	mg/L	0.10	11/28/22 17:41	
EPA 9056	Sulfate	65.7	mg/L	2.5	11/28/22 17:58	
EPA 6010	Barium	72.6	ug/L	10.0	12/09/22 01:34	
EPA 6010	Boron	2950	ug/L	100	12/09/22 01:34	
EPA 6010	Calcium	101000	ug/L	1000	12/09/22 01:34	
EPA 6010	Lithium	45.1	ug/L	20.0	12/09/22 01:34	
EPA 6010	Magnesium	24800	ug/L	1000	12/09/22 01:34	
EPA 6010	Molybdenum	83.2	ug/L	10.0	12/09/22 01:34	
EPA 6010	Potassium	6910	ug/L	1000	12/09/22 01:34	
EPA 6010	Silica	12400	ug/L	450	12/09/22 01:34	N2
EPA 6010	Sodium	42200	ug/L	1000	12/09/22 01:34	
EPA 6010	Molybdenum, Dissolved	89.3	ug/L	10.0	12/08/22 03:16	
EPA 6020	Selenium	7.0	ug/L	1.0	12/02/22 15:44	
EPA 903.1	Radium-226	0.000 ± 0.292 (0.633)	pCi/L		12/16/22 13:49	
EPA 904.0	Radium-228	0.762 ± 0.403 (0.715)	pCi/L		12/09/22 16:06	
		C:NA T:86%				
		0.762 ± 0.695 (1.35)	pCi/L		12/16/22 16:19	
		C:80% T:86%				
Total Radium Calculation	Total Radium	0.762 ± 0.695 (1.35)	pCi/L		12/16/22 16:19	
SM 2320B	Alkalinity, Total as CaCO3	308	mg/L	10.0	11/28/22 11:43	
SM 2320B	Alkalinity, Bicarbonate (CaCO3)	308	mg/L	10.0	11/28/22 11:43	
SM 2540C	Total Dissolved Solids	486	mg/L	10.0	11/26/22 09:03	
SM 4500-H+B	pH at 25 Degrees C	7.4	Std. Units	0.10	11/29/22 16:10	H3
EPA 353.2	Nitrogen, Nitrate	7.3	mg/L	0.20	11/22/22 19:38	
SM 5310C	Dissolved Organic Carbon	1.1	mg/L	1.0	12/07/22 19:58	
<b>50331773002</b>	<b>MW-15I</b>					
EPA 9056	Chloride	89.2	mg/L	2.5	11/28/22 18:33	
EPA 9056	Fluoride	0.45	mg/L	0.10	11/28/22 18:16	
EPA 9056	Sulfate	198	mg/L	2.5	11/28/22 18:33	
EPA 6010	Barium	50.0	ug/L	10.0	12/09/22 01:37	
EPA 6010	Boron	8180	ug/L	100	12/09/22 01:37	
EPA 6010	Calcium	81800	ug/L	1000	12/09/22 01:37	
EPA 6010	Lithium	79.6	ug/L	20.0	12/09/22 01:37	
EPA 6010	Magnesium	19000	ug/L	1000	12/09/22 01:37	
EPA 6010	Manganese	58.6	ug/L	10.0	12/09/22 01:37	
EPA 6010	Molybdenum	361	ug/L	10.0	12/09/22 01:37	
EPA 6010	Potassium	8770	ug/L	1000	12/09/22 01:37	
EPA 6010	Silica	10400	ug/L	450	12/09/22 01:37	N2
EPA 6010	Sodium	107000	ug/L	1000	12/09/22 01:37	
EPA 6010	Manganese, Dissolved	57.3	ug/L	10.0	12/08/22 03:19	
EPA 6010	Molybdenum, Dissolved	357	ug/L	10.0	12/08/22 03:19	

### REPORT OF LABORATORY ANALYSIS

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### SUMMARY OF DETECTION

Project: Eagle Valley Oct 2022 P1R2

Pace Project No.: 50331773

Lab Sample ID	Client Sample ID	Result	Units	Report Limit	Analyzed	Qualifiers
Method	Parameters					
<b>50331773002</b>	<b>MW-15I</b>					
EPA 903.1	Radium-226	0.925 ± 0.493 (0.426) C:NA T:92%	pCi/L		12/16/22 14:06	
EPA 904.0	Radium-228	1.10 ± 0.454 (0.741) C:81% T:92%	pCi/L		12/09/22 16:06	
Total Radium Calculation	Total Radium	2.03 ± 0.947 (1.17)	pCi/L		12/16/22 16:19	
SM 2320B	Alkalinity, Total as CaCO3	185	mg/L	10.0	11/28/22 11:43	
SM 2320B	Alkalinity,Bicarbonate (CaCO3)	185	mg/L	10.0	11/28/22 11:43	
SM 2540C	Total Dissolved Solids	616	mg/L	10.0	11/26/22 09:03	
SM 4500-H+B	pH at 25 Degrees C	7.6	Std. Units	0.10	11/29/22 16:14	H3
<b>50331773003</b>	<b>MW-15D</b>					
EPA 9056	Chloride	121	mg/L	25.0	12/01/22 02:00	
EPA 9056	Fluoride	0.21	mg/L	0.10	11/28/22 18:51	
EPA 9056	Sulfate	207	mg/L	2.5	11/28/22 19:08	
EPA 6010	Barium	60.1	ug/L	10.0	12/09/22 01:40	
EPA 6010	Boron	4960	ug/L	100	12/09/22 01:40	
EPA 6010	Calcium	106000	ug/L	1000	12/09/22 01:40	
EPA 6010	Iron	256	ug/L	100	12/09/22 01:40	
EPA 6010	Lithium	79.7	ug/L	20.0	12/09/22 01:40	
EPA 6010	Magnesium	20200	ug/L	1000	12/09/22 01:40	
EPA 6010	Manganese	391	ug/L	10.0	12/09/22 01:40	
EPA 6010	Molybdenum	191	ug/L	10.0	12/09/22 01:40	
EPA 6010	Potassium	6930	ug/L	1000	12/09/22 01:40	
EPA 6010	Silica	12300	ug/L	450	12/09/22 01:40	N2
EPA 6010	Sodium	107000	ug/L	1000	12/09/22 01:40	
EPA 6010	Manganese, Dissolved	394	ug/L	10.0	12/08/22 03:22	
EPA 6010	Molybdenum, Dissolved	198	ug/L	10.0	12/08/22 03:22	
EPA 6020	Arsenic	1.0	ug/L	1.0	12/01/22 04:21	
EPA 903.1	Radium-226	0.451 ± 0.386 (0.523) C:NA T:95%	pCi/L		12/16/22 14:06	
EPA 904.0	Radium-228	0.495 ± 0.342 (0.659) C:80% T:95%	pCi/L		12/09/22 16:06	
Total Radium Calculation	Total Radium	0.946 ± 0.728 (1.18)	pCi/L		12/16/22 16:19	
SM 2320B	Alkalinity, Total as CaCO3	190	mg/L	10.0	11/28/22 11:43	
SM 2320B	Alkalinity,Bicarbonate (CaCO3)	190	mg/L	10.0	11/28/22 11:43	
SM 2540C	Total Dissolved Solids	701	mg/L	10.0	11/26/22 09:04	
SM 4500-H+B	pH at 25 Degrees C	7.5	Std. Units	0.10	11/29/22 16:17	H3

### REPORT OF LABORATORY ANALYSIS

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### ANALYTICAL RESULTS

Project: Eagle Valley Oct 2022 P1R2

Pace Project No.: 50331773

Sample: MW-15S		Lab ID: 50331773001		Collected: 11/22/22 11:42		Received: 11/22/22 13:35		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>9056 IC Anions</b>		Analytical Method: EPA 9056 Pace Analytical Services - Indianapolis							
Chloride	27.0	mg/L	2.5	0.67	10		11/28/22 17:58	16887-00-6	
Fluoride	0.39	mg/L	0.10	0.017	1		11/28/22 17:41	16984-48-8	
Sulfate	65.7	mg/L	2.5	0.85	10		11/28/22 17:58	14808-79-8	
<b>6010 MET ICP</b>		Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis							
Aluminum	ND	ug/L	200	54.4	1	12/07/22 09:12	12/09/22 01:34	7429-90-5	
Barium	72.6	ug/L	10.0	1.3	1	12/07/22 09:12	12/09/22 01:34	7440-39-3	
Boron	2950	ug/L	100	61.4	1	12/07/22 09:12	12/09/22 01:34	7440-42-8	
Calcium	101000	ug/L	1000	88.4	1	12/07/22 09:12	12/09/22 01:34	7440-70-2	
Iron	ND	ug/L	100	48.8	1	12/07/22 09:12	12/09/22 01:34	7439-89-6	
Lithium	45.1	ug/L	20.0	6.2	1	12/07/22 09:12	12/09/22 01:34	7439-93-2	
Magnesium	24800	ug/L	1000	43.0	1	12/07/22 09:12	12/09/22 01:34	7439-95-4	
Manganese	ND	ug/L	10.0	5.4	1	12/07/22 09:12	12/09/22 01:34	7439-96-5	
Molybdenum	83.2	ug/L	10.0	2.0	1	12/07/22 09:12	12/09/22 01:34	7439-98-7	
Potassium	6910	ug/L	1000	200	1	12/07/22 09:12	12/09/22 01:34	7440-09-7	
Silica	12400	ug/L	450		1	12/07/22 09:12	12/09/22 01:34	7631-86-9	N2
Sodium	42200	ug/L	1000	284	1	12/07/22 09:12	12/09/22 01:34	7440-23-5	
<b>6010 MET ICP, Dissolved</b>		Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis							
Manganese, Dissolved	ND	ug/L	10.0	5.4	1	12/07/22 13:33	12/08/22 03:16	7439-96-5	
Molybdenum, Dissolved	89.3	ug/L	10.0	2.0	1	12/07/22 13:33	12/08/22 03:16	7439-98-7	
<b>6020 MET ICPMS</b>		Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis							
Antimony	ND	ug/L	1.0	0.13	1	11/29/22 15:34	12/01/22 04:13	7440-36-0	
Arsenic	ND	ug/L	1.0	0.11	1	11/29/22 15:34	12/01/22 04:13	7440-38-2	
Selenium	7.0	ug/L	1.0	0.35	1	11/29/22 15:34	12/02/22 15:44	7782-49-2	
<b>2320B Alkalinity</b>		Analytical Method: SM 2320B Pace Analytical Services - Indianapolis							
Alkalinity, Total as CaCO3	308	mg/L	10.0	10.0	1		11/28/22 11:43		
Alkalinity,Bicarbonate (CaCO3)	308	mg/L	10.0	10.0	1		11/28/22 11:43		
Alkalinity,Carbonate (CaCO3)	ND	mg/L	10.0	10.0	1		11/28/22 11:43		
<b>2540C Total Dissolved Solids</b>		Analytical Method: SM 2540C Pace Analytical Services - Indianapolis							
Total Dissolved Solids	486	mg/L	10.0	10.0	1		11/26/22 09:03		
<b>4500H+ pH, Electrometric</b>		Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis							
pH at 25 Degrees C	7.4	Std. Units	0.10	0.10	1		11/29/22 16:10		H3

### REPORT OF LABORATORY ANALYSIS

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### ANALYTICAL RESULTS

Project: Eagle Valley Oct 2022 P1R2

Pace Project No.: 50331773

Sample: MW-15S		Lab ID: 50331773001		Collected: 11/22/22 11:42	Received: 11/22/22 13:35	Matrix: Water				
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual	
<b>4500S2D Sulfide Water</b>		Analytical Method: SM 4500-S2-D Pace Analytical Services - Indianapolis								
Sulfide	ND	mg/L	0.10	0.025	1		11/23/22 11:05	18496-25-8		
<b>Iron, Ferrous</b>		Analytical Method: HACH 8146 Pace Analytical Services - Indianapolis								
Iron, Ferrous	ND	mg/L	0.20	0.096	1		11/28/22 19:07	15438-31-0	H3,N2	
<b>353.2 Nitrogen, NO2/NO3 unpres</b>		Analytical Method: EPA 353.2 Pace Analytical Services - Indianapolis								
Nitrogen, Nitrate	7.3	mg/L	0.20	0.022	2		11/22/22 19:38	14797-55-8		
Nitrogen, Nitrite	ND	mg/L	0.20	0.0080	2		11/22/22 19:38	14797-65-0		
<b>365.1 Total Phosphorus</b>		Analytical Method: EPA 365.1 Preparation Method: EPA 365.1 Pace Analytical Services - Indianapolis								
Phosphate as P04	ND	mg/L	0.15	0.15	1	11/29/22 14:30	12/01/22 10:56			
<b>5310C TOC</b>		Analytical Method: SM 5310C Pace Analytical Services - Indianapolis								
Total Organic Carbon	ND	mg/L	1.0	0.14	1		12/12/22 04:05	7440-44-0		
<b>5310C Dissolved Organic Carbon</b>		Analytical Method: SM 5310C Pace Analytical Services - Indianapolis								
Dissolved Organic Carbon	1.1	mg/L	1.0	0.14	1		12/07/22 19:58			

### REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: Eagle Valley Oct 2022 P1R2

Pace Project No.: 50331773

Sample: MW-151      Lab ID: 50331773002      Collected: 11/22/22 10:53      Received: 11/22/22 13:35      Matrix: Water									
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>9056 IC Anions</b>									
Analytical Method: EPA 9056									
Pace Analytical Services - Indianapolis									
Chloride	89.2	mg/L	2.5	0.67	10		11/28/22 18:33	16887-00-6	
Fluoride	0.45	mg/L	0.10	0.017	1		11/28/22 18:16	16984-48-8	
Sulfate	198	mg/L	2.5	0.85	10		11/28/22 18:33	14808-79-8	
<b>6010 MET ICP</b>									
Analytical Method: EPA 6010      Preparation Method: EPA 3010									
Pace Analytical Services - Indianapolis									
Aluminum	ND	ug/L	200	54.4	1	12/07/22 09:12	12/09/22 01:37	7429-90-5	
Barium	50.0	ug/L	10.0	1.3	1	12/07/22 09:12	12/09/22 01:37	7440-39-3	
Boron	8180	ug/L	100	61.4	1	12/07/22 09:12	12/09/22 01:37	7440-42-8	
Calcium	81800	ug/L	1000	88.4	1	12/07/22 09:12	12/09/22 01:37	7440-70-2	
Iron	ND	ug/L	100	48.8	1	12/07/22 09:12	12/09/22 01:37	7439-89-6	
Lithium	79.6	ug/L	20.0	6.2	1	12/07/22 09:12	12/09/22 01:37	7439-93-2	
Magnesium	19000	ug/L	1000	43.0	1	12/07/22 09:12	12/09/22 01:37	7439-95-4	
Manganese	58.6	ug/L	10.0	5.4	1	12/07/22 09:12	12/09/22 01:37	7439-96-5	
Molybdenum	361	ug/L	10.0	2.0	1	12/07/22 09:12	12/09/22 01:37	7439-98-7	
Potassium	8770	ug/L	1000	200	1	12/07/22 09:12	12/09/22 01:37	7440-09-7	
Silica	10400	ug/L	450		1	12/07/22 09:12	12/09/22 01:37	7631-86-9	N2
Sodium	107000	ug/L	1000	284	1	12/07/22 09:12	12/09/22 01:37	7440-23-5	
<b>6010 MET ICP, Dissolved</b>									
Analytical Method: EPA 6010      Preparation Method: EPA 3010									
Pace Analytical Services - Indianapolis									
Manganese, Dissolved	57.3	ug/L	10.0	5.4	1	12/07/22 13:33	12/08/22 03:19	7439-96-5	
Molybdenum, Dissolved	357	ug/L	10.0	2.0	1	12/07/22 13:33	12/08/22 03:19	7439-98-7	
<b>6020 MET ICPMS</b>									
Analytical Method: EPA 6020      Preparation Method: EPA 200.2									
Pace Analytical Services - Indianapolis									
Antimony	ND	ug/L	1.0	0.13	1	11/29/22 15:34	12/01/22 04:17	7440-36-0	
Arsenic	ND	ug/L	1.0	0.11	1	11/29/22 15:34	12/01/22 04:17	7440-38-2	
Selenium	ND	ug/L	1.0	0.35	1	11/29/22 15:34	12/02/22 15:48	7782-49-2	
<b>2320B Alkalinity</b>									
Analytical Method: SM 2320B									
Pace Analytical Services - Indianapolis									
Alkalinity, Total as CaCO3	185	mg/L	10.0	10.0	1		11/28/22 11:43		
Alkalinity,Bicarbonate (CaCO3)	185	mg/L	10.0	10.0	1		11/28/22 11:43		
Alkalinity,Carbonate (CaCO3)	ND	mg/L	10.0	10.0	1		11/28/22 11:43		
<b>2540C Total Dissolved Solids</b>									
Analytical Method: SM 2540C									
Pace Analytical Services - Indianapolis									
Total Dissolved Solids	616	mg/L	10.0	10.0	1		11/26/22 09:03		
<b>4500H+ pH, Electrometric</b>									
Analytical Method: SM 4500-H+B									
Pace Analytical Services - Indianapolis									
pH at 25 Degrees C	7.6	Std. Units	0.10	0.10	1		11/29/22 16:14		H3

## REPORT OF LABORATORY ANALYSIS

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### ANALYTICAL RESULTS

Project: Eagle Valley Oct 2022 P1R2

Pace Project No.: 50331773

Sample: MW-15I		Lab ID: 50331773002		Collected: 11/22/22 10:53	Received: 11/22/22 13:35	Matrix: Water				
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual	
<b>4500S2D Sulfide Water</b>		Analytical Method: SM 4500-S2-D Pace Analytical Services - Indianapolis								
Sulfide	ND	mg/L	0.10	0.025	1		11/23/22 11:05	18496-25-8		
<b>Iron, Ferrous</b>		Analytical Method: HACH 8146 Pace Analytical Services - Indianapolis								
Iron, Ferrous	ND	mg/L	0.20	0.096	1		11/28/22 19:07	15438-31-0	H3,N2	
<b>353.2 Nitrogen, NO2/NO3 unpres</b>		Analytical Method: EPA 353.2 Pace Analytical Services - Indianapolis								
Nitrogen, Nitrate	ND	mg/L	0.10	0.011	1		11/22/22 18:39	14797-55-8		
Nitrogen, Nitrite	ND	mg/L	0.10	0.0040	1		11/22/22 18:39	14797-65-0		
<b>365.1 Total Phosphorus</b>		Analytical Method: EPA 365.1 Preparation Method: EPA 365.1 Pace Analytical Services - Indianapolis								
Phosphate as P04	ND	mg/L	0.15	0.15	1	11/29/22 14:30	12/01/22 10:57			
<b>5310C TOC</b>		Analytical Method: SM 5310C Pace Analytical Services - Indianapolis								
Total Organic Carbon	ND	mg/L	1.0	0.14	1		12/12/22 04:15	7440-44-0		
<b>5310C Dissolved Organic Carbon</b>		Analytical Method: SM 5310C Pace Analytical Services - Indianapolis								
Dissolved Organic Carbon	ND	mg/L	1.0	0.14	1		12/07/22 20:36			

### REPORT OF LABORATORY ANALYSIS

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### ANALYTICAL RESULTS

Project: Eagle Valley Oct 2022 P1R2

Pace Project No.: 50331773

Sample: MW-15D		Lab ID: 50331773003		Collected: 11/22/22 10:02	Received: 11/22/22 13:35	Matrix: Water				
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual	
<b>9056 IC Anions</b>		Analytical Method: EPA 9056 Pace Analytical Services - Indianapolis								
Chloride	121	mg/L	25.0	6.7	100		12/01/22 02:00	16887-00-6		
Fluoride	0.21	mg/L	0.10	0.017	1		11/28/22 18:51	16984-48-8		
Sulfate	207	mg/L	2.5	0.85	10		11/28/22 19:08	14808-79-8		
<b>6010 MET ICP</b>		Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Aluminum	ND	ug/L	200	54.4	1	12/07/22 09:12	12/09/22 01:40	7429-90-5		
Barium	60.1	ug/L	10.0	1.3	1	12/07/22 09:12	12/09/22 01:40	7440-39-3		
Boron	4960	ug/L	100	61.4	1	12/07/22 09:12	12/09/22 01:40	7440-42-8		
Calcium	106000	ug/L	1000	88.4	1	12/07/22 09:12	12/09/22 01:40	7440-70-2		
Iron	256	ug/L	100	48.8	1	12/07/22 09:12	12/09/22 01:40	7439-89-6		
Lithium	79.7	ug/L	20.0	6.2	1	12/07/22 09:12	12/09/22 01:40	7439-93-2		
Magnesium	20200	ug/L	1000	43.0	1	12/07/22 09:12	12/09/22 01:40	7439-95-4		
Manganese	391	ug/L	10.0	5.4	1	12/07/22 09:12	12/09/22 01:40	7439-96-5		
Molybdenum	191	ug/L	10.0	2.0	1	12/07/22 09:12	12/09/22 01:40	7439-98-7		
Potassium	6930	ug/L	1000	200	1	12/07/22 09:12	12/09/22 01:40	7440-09-7		
Silica	12300	ug/L	450		1	12/07/22 09:12	12/09/22 01:40	7631-86-9	N2	
Sodium	107000	ug/L	1000	284	1	12/07/22 09:12	12/09/22 01:40	7440-23-5		
<b>6010 MET ICP, Dissolved</b>		Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Manganese, Dissolved	394	ug/L	10.0	5.4	1	12/07/22 13:33	12/08/22 03:22	7439-96-5		
Molybdenum, Dissolved	198	ug/L	10.0	2.0	1	12/07/22 13:33	12/08/22 03:22	7439-98-7		
<b>6020 MET ICPMS</b>		Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis								
Antimony	ND	ug/L	1.0	0.13	1	11/29/22 15:34	12/01/22 04:21	7440-36-0		
Arsenic	1.0	ug/L	1.0	0.11	1	11/29/22 15:34	12/01/22 04:21	7440-38-2		
Selenium	ND	ug/L	1.0	0.35	1	11/29/22 15:34	12/02/22 15:52	7782-49-2		
<b>2320B Alkalinity</b>		Analytical Method: SM 2320B Pace Analytical Services - Indianapolis								
Alkalinity, Total as CaCO3	190	mg/L	10.0	10.0	1		11/28/22 11:43			
Alkalinity,Bicarbonate (CaCO3)	190	mg/L	10.0	10.0	1		11/28/22 11:43			
Alkalinity,Carbonate (CaCO3)	ND	mg/L	10.0	10.0	1		11/28/22 11:43			
<b>2540C Total Dissolved Solids</b>		Analytical Method: SM 2540C Pace Analytical Services - Indianapolis								
Total Dissolved Solids	701	mg/L	10.0	10.0	1		11/26/22 09:04			
<b>4500H+ pH, Electrometric</b>		Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis								
pH at 25 Degrees C	7.5	Std. Units	0.10	0.10	1		11/29/22 16:17		H3	

### REPORT OF LABORATORY ANALYSIS

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### ANALYTICAL RESULTS

Project: Eagle Valley Oct 2022 P1R2

Pace Project No.: 50331773

Sample: MW-15D		Lab ID: 50331773003		Collected: 11/22/22 10:02	Received: 11/22/22 13:35	Matrix: Water			
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>4500S2D Sulfide Water</b>		Analytical Method: SM 4500-S2-D Pace Analytical Services - Indianapolis							
Sulfide	ND	mg/L	0.10	0.025	1		11/23/22 11:05	18496-25-8	
<b>Iron, Ferrous</b>		Analytical Method: HACH 8146 Pace Analytical Services - Indianapolis							
Iron, Ferrous	ND	mg/L	0.20	0.096	1		11/28/22 19:06	15438-31-0	H3,N2
<b>353.2 Nitrogen, NO2/NO3 unpres</b>		Analytical Method: EPA 353.2 Pace Analytical Services - Indianapolis							
Nitrogen, Nitrate	ND	mg/L	0.10	0.011	1		11/22/22 18:37	14797-55-8	
Nitrogen, Nitrite	ND	mg/L	0.10	0.0040	1		11/22/22 18:37	14797-65-0	
<b>365.1 Total Phosphorus</b>		Analytical Method: EPA 365.1 Preparation Method: EPA 365.1 Pace Analytical Services - Indianapolis							
Phosphate as P04	ND	mg/L	0.15	0.15	1	11/29/22 14:30	12/01/22 10:57		
<b>5310C TOC</b>		Analytical Method: SM 5310C Pace Analytical Services - Indianapolis							
Total Organic Carbon	ND	mg/L	1.0	0.14	1		12/12/22 04:27	7440-44-0	
<b>5310C Dissolved Organic Carbon</b>		Analytical Method: SM 5310C Pace Analytical Services - Indianapolis							
Dissolved Organic Carbon	ND	mg/L	4.0	0.57	4		12/08/22 16:56		D3

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**QUALITY CONTROL DATA**

Project: Eagle Valley Oct 2022 P1R2  
Pace Project No.: 50331773

QC Batch: 708315 Analysis Method: EPA 9056  
QC Batch Method: EPA 9056 Analysis Description: 9056 IC Anions  
Laboratory: Pace Analytical Services - Indianapolis  
Associated Lab Samples: 50331773001, 50331773002, 50331773003

METHOD BLANK: 3255811 Matrix: Water  
Associated Lab Samples: 50331773001, 50331773002, 50331773003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chloride	mg/L	ND	0.25	0.067	11/28/22 13:27	
Fluoride	mg/L	ND	0.10	0.017	11/28/22 13:27	
Sulfate	mg/L	ND	0.25	0.085	11/28/22 13:27	

LABORATORY CONTROL SAMPLE: 3255812

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	1.2	1.2	95	80-120	
Fluoride	mg/L	0.5	0.55	110	80-120	
Sulfate	mg/L	2.5	2.4	96	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3255813 3255814

Parameter	Units	50331784001		3255814		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result								
Chloride	mg/L	12.9	12.5	24.1	24.1	89	89	80-120	0	15			
Fluoride	mg/L	0.16	0.5	0.65	0.65	100	99	80-120	0	15			
Sulfate	mg/L	149	25	170	169	83	80	80-120	0	15			

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### QUALITY CONTROL DATA

Project: Eagle Valley Oct 2022 P1R2

Pace Project No.: 50331773

QC Batch: 708457 Analysis Method: EPA 6010  
 QC Batch Method: EPA 3010 Analysis Description: 6010 MET  
 Laboratory: Pace Analytical Services - Indianapolis

Associated Lab Samples: 50331773001, 50331773002, 50331773003

METHOD BLANK: 3256352 Matrix: Water

Associated Lab Samples: 50331773001, 50331773002, 50331773003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Aluminum	ug/L	ND	200	54.4	12/09/22 00:34	
Barium	ug/L	ND	10.0	1.3	12/09/22 00:34	
Boron	ug/L	ND	100	61.4	12/09/22 00:34	
Calcium	ug/L	ND	1000	88.4	12/09/22 00:34	
Iron	ug/L	ND	100	48.8	12/09/22 00:34	
Lithium	ug/L	ND	20.0	6.2	12/09/22 00:34	
Magnesium	ug/L	ND	1000	43.0	12/09/22 00:34	
Manganese	ug/L	ND	10.0	5.4	12/09/22 00:34	
Molybdenum	ug/L	ND	10.0	2.0	12/09/22 00:34	
Potassium	ug/L	ND	1000	200	12/09/22 00:34	
Silica	ug/L	ND	450		12/09/22 00:34	N2
Sodium	ug/L	ND	1000	284	12/09/22 00:34	

LABORATORY CONTROL SAMPLE: 3256353

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Aluminum	ug/L	10000	11000	110	80-120	
Barium	ug/L	1000	1090	109	80-120	
Boron	ug/L	1000	1080	108	80-120	
Calcium	ug/L	10000	10800	108	80-120	
Iron	ug/L	10000	11000	110	80-120	
Lithium	ug/L	1000	1060	106	80-120	
Magnesium	ug/L	10000	10800	108	80-120	
Manganese	ug/L	1000	1050	105	80-120	
Molybdenum	ug/L	1000	1100	110	80-120	
Potassium	ug/L	10000	10800	108	80-120	
Silica	ug/L	10700	11400	107	80-120	N2
Sodium	ug/L	10000	10700	107	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3256354 3256355

Parameter	Units	50331135004		3256355		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result						
Aluminum	ug/L	ND	10000	10000	10600	106	121	75-125	13	20	
Barium	ug/L	0.041 mg/L	1000	1000	1030	99	111	75-125	11	20	
Boron	ug/L	6.0 mg/L	1000	1000	6900	86	128	75-125	6	20	P6

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### QUALITY CONTROL DATA

Project: Eagle Valley Oct 2022 P1R2

Pace Project No.: 50331773

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3256354												3256355	
Parameter	Units	50331135004 Result	MS	MSD	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max	Qual	
			Spike Conc.	Spike Conc.							RPD		
Calcium	ug/L	400 mg/L	10000	10000	397000	414000	-30	136	75-125	4	20	P6	
Iron	ug/L	0.72 mg/L	10000	10000	10500	11700	98	110	75-125	11	20		
Lithium	ug/L	0.10 mg/L	1000	1000	1100	1230	100	113	75-125	11	20		
Magnesium	ug/L	5.7 mg/L	10000	10000	15200	16400	95	107	75-125	8	20		
Manganese	ug/L	0.48 mg/L	1000	1000	1390	1540	91	106	75-125	10	20		
Molybdenum	ug/L	0.21 mg/L	1000	1000	1200	1320	99	111	75-125	9	20		
Potassium	ug/L	20.2 mg/L	10000	10000	29800	31700	96	115	75-125	6	20		
Silica	ug/L	13.3 mg/L	10700	10700	23500	25700	96	116	75-125	9	20	N2	
Sodium	ug/L	88.4 mg/L	10000	10000	96200	102000	78	133	75-125	6	20	P6	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3256356												3256357	
Parameter	Units	50331783001 Result	MS	MSD	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max	Qual	
			Spike Conc.	Spike Conc.							RPD		
Aluminum	ug/L	207000	50000	50000	285000	336000	157	258	75-125	16	20	P6	
Barium	ug/L	1460	5000	5000	7040	7080	112	112	75-125	1	20		
Boron	ug/L	684	5000	5000	6200	6230	110	111	75-125	0	20		
Calcium	ug/L	4060000	50000	50000	4020000	4380000	-70	647	75-125	9	20	E, P6	
Iron	ug/L	528000	50000	50000	514000	624000	-29	193	75-125	20	20	P6	
Lithium	ug/L	369	5000	5000	5970	6040	112	113	75-125	1	20		
Magnesium	ug/L	1430000	50000	50000	1260000	1630000	-338	400	75-125	25	20	P6, R1	
Manganese	ug/L	14300	5000	5000	19200	20000	99	114	75-125	4	20		
Molybdenum	ug/L	235	5000	5000	5420	5400	104	103	75-125	0	20		
Potassium	ug/L	63700	50000	50000	130000	140000	132	153	75-125	8	20	M3	
Silica	ug/L	395000	53500	53500	612000	679000	407	531	75-125	10	20	N2	
Sodium	ug/L	52000	50000	50000	114000	114000	124	125	75-125	1	20		

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### QUALITY CONTROL DATA

Project: Eagle Valley Oct 2022 P1R2

Pace Project No.: 50331773

QC Batch:	708402	Analysis Method:	EPA 6010
QC Batch Method:	EPA 3010	Analysis Description:	6010 MET Dissolved
		Laboratory:	Pace Analytical Services - Indianapolis
Associated Lab Samples:	50331773001, 50331773002, 50331773003		

METHOD BLANK: 3256167 Matrix: Water  
Associated Lab Samples: 50331773001, 50331773002, 50331773003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Manganese, Dissolved	ug/L	ND	10.0	5.4	12/08/22 03:10	
Molybdenum, Dissolved	ug/L	ND	10.0	2.0	12/08/22 03:10	

LABORATORY CONTROL SAMPLE: 3256168

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Manganese, Dissolved	ug/L	1000	974	97	80-120	
Molybdenum, Dissolved	ug/L	1000	1030	103	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3256169 3256170

Parameter	Units	50331802004 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Manganese, Dissolved	ug/L	42000	1000	1000	37900	41600	-409	-38	75-125	9	20	P6
Molybdenum, Dissolved	ug/L	ND	1000	1000	1030	1030	103	103	75-125	0	20	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3256171 3256172

Parameter	Units	50331803001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Manganese, Dissolved	ug/L	2210	1000	1000	3330	3090	112	88	75-125	7	20	
Molybdenum, Dissolved	ug/L	ND	1000	1000	1030	1050	103	105	75-125	1	20	

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### QUALITY CONTROL DATA

Project: Eagle Valley Oct 2022 P1R2  
Pace Project No.: 50331773

QC Batch: 708531 Analysis Method: EPA 6020  
QC Batch Method: EPA 200.2 Analysis Description: 6020 MET  
Laboratory: Pace Analytical Services - Indianapolis

Associated Lab Samples: 50331773001, 50331773002, 50331773003

METHOD BLANK: 3256548 Matrix: Water

Associated Lab Samples: 50331773001, 50331773002, 50331773003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Antimony	ug/L	ND	1.0	0.13	12/01/22 02:57	
Arsenic	ug/L	ND	1.0	0.11	12/01/22 02:57	
Selenium	ug/L	ND	1.0	0.35	12/02/22 14:49	

LABORATORY CONTROL SAMPLE: 3256549

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Antimony	ug/L	40	40.5	101	80-120	
Arsenic	ug/L	40	38.4	96	80-120	
Selenium	ug/L	40	40.6	102	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3256550 3256551

Parameter	Units	50331803001		3256550		3256551		% Rec	% Rec	% Rec Limits	RPD	Max RPD	Qual
		Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec						
Antimony	ug/L	ND	40	40	41.4	41.1	103	103	75-125	1	20		
Arsenic	ug/L	ND	40	40	39.7	38.5	99	96	75-125	3	20		
Selenium	ug/L	1.4	40	40	41.6	39.4	100	95	75-125	5	20		

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### QUALITY CONTROL DATA

Project: Eagle Valley Oct 2022 P1R2

Pace Project No.: 50331773

QC Batch:	708313	Analysis Method:	SM 2320B
QC Batch Method:	SM 2320B	Analysis Description:	2320B Alkalinity
		Laboratory:	Pace Analytical Services - Indianapolis

Associated Lab Samples: 50331773001, 50331773002, 50331773003

METHOD BLANK: 3255803 Matrix: Water

Associated Lab Samples: 50331773001, 50331773002, 50331773003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Alkalinity, Total as CaCO3	mg/L	ND	10.0	10.0	11/28/22 11:43	
Alkalinity,Bicarbonate (CaCO3)	mg/L	ND	10.0	10.0	11/28/22 11:43	
Alkalinity,Carbonate (CaCO3)	mg/L	ND	10.0	10.0	11/28/22 11:43	

LABORATORY CONTROL SAMPLE: 3255804

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Alkalinity, Total as CaCO3	mg/L	50	48.9	98	90-110	

SAMPLE DUPLICATE: 3255805

Parameter	Units	50331821001 Result	Dup Result	RPD	Max RPD	Qualifiers
Alkalinity, Total as CaCO3	mg/L	338	342	1	20	
Alkalinity,Bicarbonate (CaCO3)	mg/L	338	342	1	20	
Alkalinity,Carbonate (CaCO3)	mg/L	ND	ND		20	

SAMPLE DUPLICATE: 3255806

Parameter	Units	50331773003 Result	Dup Result	RPD	Max RPD	Qualifiers
Alkalinity, Total as CaCO3	mg/L	190	192	1	20	
Alkalinity,Bicarbonate (CaCO3)	mg/L	190	192	1	20	
Alkalinity,Carbonate (CaCO3)	mg/L	ND	ND		20	

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**QUALITY CONTROL DATA**

Project: Eagle Valley Oct 2022 P1R2

Pace Project No.: 50331773

QC Batch: 708240

Analysis Method: SM 2540C

QC Batch Method: SM 2540C

Analysis Description: 2540C Total Dissolved Solids

Laboratory: Pace Analytical Services - Indianapolis

Associated Lab Samples: 50331773001, 50331773002, 50331773003

METHOD BLANK: 3255636

Matrix: Water

Associated Lab Samples: 50331773001, 50331773002, 50331773003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	ND	10.0	10.0	11/26/22 08:57	

LABORATORY CONTROL SAMPLE: 3255637

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	300	289	96	80-120	

SAMPLE DUPLICATE: 3255638

Parameter	Units	50331856001 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	1940	1960	1	10	

SAMPLE DUPLICATE: 3255639

Parameter	Units	50331802004 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	1770	1770	0	10	

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### QUALITY CONTROL DATA

Project: Eagle Valley Oct 2022 P1R2

Pace Project No.: 50331773

QC Batch:	708711	Analysis Method:	SM 4500-H+B
QC Batch Method:	SM 4500-H+B	Analysis Description:	4500H+B pH
		Laboratory:	Pace Analytical Services - Indianapolis

Associated Lab Samples: 50331773001, 50331773002, 50331773003

SAMPLE DUPLICATE: 3257188

Parameter	Units	50331027037 Result	Dup Result	RPD	Max RPD	Qualifiers
pH at 25 Degrees C	Std. Units	7.1	7.2	0	2	H3

SAMPLE DUPLICATE: 3257189

Parameter	Units	50331803001 Result	Dup Result	RPD	Max RPD	Qualifiers
pH at 25 Degrees C	Std. Units	7.4	7.4	0	2	H3

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**QUALITY CONTROL DATA**

Project: Eagle Valley Oct 2022 P1R2

Pace Project No.: 50331773

QC Batch:	707992	Analysis Method:	SM 4500-S2-D
QC Batch Method:	SM 4500-S2-D	Analysis Description:	4500S2D Sulfide Water
		Laboratory:	Pace Analytical Services - Indianapolis
Associated Lab Samples:	50331773001, 50331773002, 50331773003		

METHOD BLANK: 3254627 Matrix: Water  
Associated Lab Samples: 50331773001, 50331773002, 50331773003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Sulfide	mg/L	ND	0.10	0.025	11/23/22 11:05	

LABORATORY CONTROL SAMPLE: 3254628

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Sulfide	mg/L	0.5	0.48	95	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3254629 3254630

Parameter	Units	50331803001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Sulfide	mg/L	ND	0.5	0.5	0.50	0.50	101	100	90-110	1	20	

MATRIX SPIKE SAMPLE: 3254631

Parameter	Units	50331773001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Sulfide	mg/L	ND	0.5	0.53	106	90-110	

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### QUALITY CONTROL DATA

Project: Eagle Valley Oct 2022 P1R2  
Pace Project No.: 50331773

QC Batch:	708495	Analysis Method:	HACH 8146
QC Batch Method:	HACH 8146	Analysis Description:	Iron, Ferrous
		Laboratory:	Pace Analytical Services - Indianapolis

Associated Lab Samples: 50331773001, 50331773002, 50331773003

METHOD BLANK: 3256447 Matrix: Water  
Associated Lab Samples: 50331773001, 50331773002, 50331773003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Iron, Ferrous	mg/L	ND	0.20	0.096	11/28/22 19:02	H3,N2

LABORATORY CONTROL SAMPLE: 3256448

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Iron, Ferrous	mg/L	1	1.0	103	90-110	H3,N2

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3256449 3256450

Parameter	Units	50331365001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Iron, Ferrous	mg/L	ND	1	1	0.97	0.93	97	93	90-110	5	20	H3,N2

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3256451 3256452

Parameter	Units	50331803001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Iron, Ferrous	mg/L	ND	1	1	0.94	0.93	94	93	90-110	1	20	H3,N2

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### QUALITY CONTROL DATA

Project: Eagle Valley Oct 2022 P1R2

Pace Project No.: 50331773

QC Batch:	708639	Analysis Method:	EPA 365.1
QC Batch Method:	EPA 365.1	Analysis Description:	365.1 Total Phosphorus
		Laboratory:	Pace Analytical Services - Indianapolis

Associated Lab Samples: 50331773001, 50331773002, 50331773003

METHOD BLANK: 3256894 Matrix: Water

Associated Lab Samples: 50331773001, 50331773002, 50331773003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Phosphate as P04	mg/L	ND	0.15	0.15	12/01/22 10:51	

LABORATORY CONTROL SAMPLE: 3256895

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Phosphate as P04	mg/L		1.5			

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3256896 3256897

Parameter	Units	50331803001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Phosphate as P04	mg/L	ND			1.5	1.5					3	

MATRIX SPIKE SAMPLE: 3256898

Parameter	Units	50331805001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Phosphate as P04	mg/L		0.16		1.6		

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**QUALITY CONTROL DATA**

Project: Eagle Valley Oct 2022 P1R2

Pace Project No.: 50331773

QC Batch:	710165	Analysis Method:	SM 5310C
QC Batch Method:	SM 5310C	Analysis Description:	5310C Total Organic Carbon
		Laboratory:	Pace Analytical Services - Indianapolis
Associated Lab Samples:	50331773001, 50331773002, 50331773003		

METHOD BLANK: 3263454 Matrix: Water

Associated Lab Samples: 50331773001, 50331773002, 50331773003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Organic Carbon	mg/L	ND	1.0	0.14	12/11/22 23:35	

LABORATORY CONTROL SAMPLE: 3263455

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Organic Carbon	mg/L	10	10.6	106	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3263456 3263457

Parameter	Units	50331803001		3263457		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result						
Total Organic Carbon	mg/L	ND	10	10	11.2	11.1	103	103	80-120	1	20

MATRIX SPIKE SAMPLE: 3263458

Parameter	Units	50331571002 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Total Organic Carbon	mg/L	ND	10	10.8	101	80-120	

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**QUALITY CONTROL DATA**

Project: Eagle Valley Oct 2022 P1R2

Pace Project No.: 50331773

QC Batch: 709579

Analysis Method: SM 5310C

QC Batch Method: SM 5310C

Analysis Description: 5310C Dissolved Organic Carbon

Laboratory: Pace Analytical Services - Indianapolis

Associated Lab Samples: 50331773001, 50331773002

METHOD BLANK: 3261002

Matrix: Water

Associated Lab Samples: 50331773001, 50331773002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Dissolved Organic Carbon	mg/L	ND	1.0	0.14	12/07/22 14:04	

LABORATORY CONTROL SAMPLE: 3261003

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Dissolved Organic Carbon	mg/L	10	10.0	100	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3261004 3261005

Parameter	Units	50331365001		3261004		3261005		% Rec Limits	RPD	Max RPD	Qual
		MS Result	MSD Spike Conc.	MS Result	MSD Spike Conc.	MS % Rec	MSD % Rec				
Dissolved Organic Carbon	mg/L	1.2	10	11.5	10	102	104	80-120	1	20	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3261006 3261007

Parameter	Units	50331424001		3261006		3261007		% Rec Limits	RPD	Max RPD	Qual
		MS Result	MSD Spike Conc.	MS Result	MSD Spike Conc.	MS % Rec	MSD % Rec				
Dissolved Organic Carbon	mg/L	1.2	10	11.5	10	104	102	80-120	1	20	

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**QUALITY CONTROL DATA**

Project: Eagle Valley Oct 2022 P1R2  
Pace Project No.: 50331773

QC Batch: 709613      Analysis Method: SM 5310C  
QC Batch Method: SM 5310C      Analysis Description: 5310C Dissolved Organic Carbon  
Laboratory: Pace Analytical Services - Indianapolis

Associated Lab Samples: 50331773003

METHOD BLANK: 3261067      Matrix: Water  
Associated Lab Samples: 50331773003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Dissolved Organic Carbon	mg/L	ND	1.0	0.14	12/08/22 06:28	

LABORATORY CONTROL SAMPLE: 3261068

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Dissolved Organic Carbon	mg/L	10	10.6	106	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3261069      3261070

Parameter	Units	50331803001		MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		Result	Conc.										
Dissolved Organic Carbon	mg/L	ND	10	10	11.2	11.3	105	105	80-120	0	20		

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3261071      3261072

Parameter	Units	50332043001		MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		Result	Conc.										
Dissolved Organic Carbon	mg/L	ND	10	10	12.6	12.6	100	100	80-120	0	20		

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3261073      3261074

Parameter	Units	50332201003		MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		Result	Conc.										
Dissolved Organic Carbon	mg/L	ND	10	10	10.6	10.6	101	102	80-120	0	20		

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Eagle Valley Oct 2022 P1R2

Pace Project No.: 50331773

**Sample: MW-15S**      **Lab ID: 50331773001**      Collected: 11/22/22 11:42      Received: 11/22/22 13:35      Matrix: Water  
PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	<b>0.000 ± 0.292 (0.633)</b> <b>C:NA T:86%</b>	pCi/L	12/16/22 13:49	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	<b>0.762 ± 0.403 (0.715)</b> <b>C:80% T:86%</b>	pCi/L	12/09/22 16:06	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	<b>0.762 ± 0.695 (1.35)</b>	pCi/L	12/16/22 16:19	7440-14-4	

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Eagle Valley Oct 2022 P1R2

Pace Project No.: 50331773

**Sample: MW-151**      **Lab ID: 50331773002**      Collected: 11/22/22 10:53      Received: 11/22/22 13:35      Matrix: Water  
PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	<b>0.925 ± 0.493 (0.426)</b> <b>C:NA T:92%</b>	pCi/L	12/16/22 14:06	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	<b>1.10 ± 0.454 (0.741)</b> <b>C:81% T:92%</b>	pCi/L	12/09/22 16:06	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	<b>2.03 ± 0.947 (1.17)</b>	pCi/L	12/16/22 16:19	7440-14-4	

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Eagle Valley Oct 2022 P1R2

Pace Project No.: 50331773

**Sample: MW-15D**      **Lab ID: 50331773003**      Collected: 11/22/22 10:02      Received: 11/22/22 13:35      Matrix: Water  
PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	<b>0.451 ± 0.386 (0.523)</b> <b>C:NA T:95%</b>	pCi/L	12/16/22 14:06	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	<b>0.495 ± 0.342 (0.659)</b> <b>C:80% T:95%</b>	pCi/L	12/09/22 16:06	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	<b>0.946 ± 0.728 (1.18)</b>	pCi/L	12/16/22 16:19	7440-14-4	

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### QUALITY CONTROL - RADIOCHEMISTRY

Project: Eagle Valley Oct 2022 P1R2

Pace Project No.: 50331773

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QC Batch:	549587	Analysis Method:	EPA 903.1
QC Batch Method:	EPA 903.1	Analysis Description:	903.1 Radium-226
		Laboratory:	Pace Analytical Services - Greensburg

Associated Lab Samples: 50331773001, 50331773002, 50331773003

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METHOD BLANK: 2669581 Matrix: Water

Associated Lab Samples: 50331773001, 50331773002, 50331773003

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.000 ± 0.259 (0.526) C:NA T:84%	pCi/L	12/16/22 13:30	

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### QUALITY CONTROL - RADIOCHEMISTRY

Project: Eagle Valley Oct 2022 P1R2

Pace Project No.: 50331773

QC Batch: 549588

Analysis Method: EPA 904.0

QC Batch Method: EPA 904.0

Analysis Description: 904.0 Radium 228

Laboratory: Pace Analytical Services - Greensburg

Associated Lab Samples: 50331773001, 50331773002, 50331773003

METHOD BLANK: 2669582

Matrix: Water

Associated Lab Samples: 50331773001, 50331773002, 50331773003

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.424 ± 0.321 (0.629) C:83% T:84%	pCi/L	12/09/22 12:59	

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## QUALIFIERS

Project: Eagle Valley Oct 2022 P1R2

Pace Project No.: 50331773

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### DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Reported results are not rounded until the final step prior to reporting. Therefore, calculated parameters that are typically reported as "Total" may vary slightly from the sum of the reported component parameters.

Act - Activity

Unc - Uncertainty: SDWA = 1.96 sigma count uncertainty, all other matrices = Expanded Uncertainty (95% confidence interval).

Gamma Spec = Expanded Uncertainty (95.4% Confidence Interval)

(MDC) - Minimum Detectable Concentration

Trac - Tracer Recovery (%)

Carr - Carrier Recovery (%)

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

### ANALYTE QUALIFIERS

D3 Sample was diluted due to the presence of high levels of non-target analytes or other matrix interference.

E Analyte concentration exceeded the calibration range. The reported result is estimated.

H3 Sample was received or analysis requested beyond the recognized method holding time.

M3 Matrix spike recovery was outside laboratory control limits due to matrix interferences.

N2 The lab does not hold NELAC/TNI accreditation for this parameter but other accreditations/certifications may apply. A complete list of accreditations/certifications is available upon request.

P6 Matrix spike recovery was outside laboratory control limits due to a parent sample concentration notably higher than the spike level.

R1 RPD value was outside control limits.

## REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Eagle Valley Oct 2022 P1R2  
Pace Project No.: 50331773

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
50331773001	MW-15S	EPA 9056	708315		
50331773002	MW-15I	EPA 9056	708315		
50331773003	MW-15D	EPA 9056	708315		
50331773001	MW-15S	EPA 3010	708457	EPA 6010	710229
50331773002	MW-15I	EPA 3010	708457	EPA 6010	710229
50331773003	MW-15D	EPA 3010	708457	EPA 6010	710229
50331773001	MW-15S	EPA 3010	708402	EPA 6010	710055
50331773002	MW-15I	EPA 3010	708402	EPA 6010	710055
50331773003	MW-15D	EPA 3010	708402	EPA 6010	710055
50331773001	MW-15S	EPA 200.2	708531	EPA 6020	708868
50331773002	MW-15I	EPA 200.2	708531	EPA 6020	708868
50331773003	MW-15D	EPA 200.2	708531	EPA 6020	708868
50331773001	MW-15S	EPA 903.1	549587		
50331773002	MW-15I	EPA 903.1	549587		
50331773003	MW-15D	EPA 903.1	549587		
50331773001	MW-15S	EPA 904.0	549588		
50331773002	MW-15I	EPA 904.0	549588		
50331773003	MW-15D	EPA 904.0	549588		
50331773001	MW-15S	Total Radium Calculation	554475		
50331773002	MW-15I	Total Radium Calculation	554475		
50331773003	MW-15D	Total Radium Calculation	554475		
50331773001	MW-15S	SM 2320B	708313		
50331773002	MW-15I	SM 2320B	708313		
50331773003	MW-15D	SM 2320B	708313		
50331773001	MW-15S	SM 2540C	708240		
50331773002	MW-15I	SM 2540C	708240		
50331773003	MW-15D	SM 2540C	708240		
50331773001	MW-15S	SM 4500-H+B	708711		
50331773002	MW-15I	SM 4500-H+B	708711		
50331773003	MW-15D	SM 4500-H+B	708711		
50331773001	MW-15S	SM 4500-S2-D	707992		
50331773002	MW-15I	SM 4500-S2-D	707992		
50331773003	MW-15D	SM 4500-S2-D	707992		
50331773001	MW-15S	HACH 8146	708495		
50331773002	MW-15I	HACH 8146	708495		
50331773003	MW-15D	HACH 8146	708495		
50331773001	MW-15S	EPA 353.2	707883		
50331773002	MW-15I	EPA 353.2	707883		
50331773003	MW-15D	EPA 353.2	707883		
50331773001	MW-15S	EPA 365.1	708639	EPA 365.1	709048
50331773002	MW-15I	EPA 365.1	708639	EPA 365.1	709048
50331773003	MW-15D	EPA 365.1	708639	EPA 365.1	709048

### REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Eagle Valley Oct 2022 P1R2

Pace Project No.: 50331773

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
50331773001	MW-15S	SM 5310C	710165		
50331773002	MW-15I	SM 5310C	710165		
50331773003	MW-15D	SM 5310C	710165		
50331773001	MW-15S	SM 5310C	709579		
50331773002	MW-15I	SM 5310C	709579		
50331773003	MW-15D	SM 5310C	709613		

### REPORT OF LABORATORY ANALYSIS

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**SAMPLE CONDITION UPON RECEIPT FORM**

Date/Time and Initials of person examining contents: 11/22/22 1400 IL

1. Courier:  FED EX  UPS  CLIENT  PACE  USPS  OTHER \_\_\_\_\_

2. Custody Seal on Cooler/Box Present:  Yes  No  
 (If yes)Seals Intact:  Yes  No (leave blank if no seals were present)

3. Thermometer: **1 2 3 4 5 6 A B C D E F** (F)

4. Cooler Temperature(s): 0.1/0.1 1.0/1.0    
 (Initial/Corrected) RECORD TEMPS OF ALL COOLERS RECEIVED (use Comments below to add more)

5. Packing Material:  Bubble Wrap  Bubble Bags  
 None  Other \_\_\_\_\_

6. Ice Type:  Wet  Blue  None

7. If temp. is over 6°C or under 0°C, was the PM notified?:  Yes  No  
 Cooler temp should be above freezing to 6°C

All discrepancies will be written out in the comments section below.

	Yes	No		Yes	No	N/A
USDA Regulated Soils? (HI, ID, NY, WA, OR, CA, NM, TX, OK, AR, LA, TN, AL, MS, NC, SC, GA, FL, or Puerto Rico)		/	All containers needing acid/base preservation have been pH CHECKED?: Exceptions: VOA, coliform, LLHg, O&G, RAD CHEM, and any container with a septum cap or preserved with HCl.	/		
Short Hold Time Analysis (48 hours or less)? Analysis: <u>Nitrate/Nitrite 3532</u>	/	<u>11/11/22</u>	Circle: <u>HNO3 (&lt;2)</u> <u>H2SO4 (&lt;2)</u> <u>NaOH (&gt;10)</u> <u>NaOH/ZnAc (&gt;9)</u> Any non-conformance to pH recommendations will be noted on the container count form	/		
Time 5035A TC placed in Freezer or Short Holds To Lab Time: <u>1419</u>			Residual Chlorine Check (SVOC 625 Pest/PCB 608)	<u>Present</u>	<u>Absent</u>	<u>N/A</u>
Rush TAT Requested (4 days or less):		/	Residual Chlorine Check (Total/Amenable/Free Cyanide)			/
Custody Signatures Present?	/		Headspace Wisconsin Sulfide?			/
Containers Intact?:	/		Headspace in VOA Vials (>6mm): See Containter Count form for details	<u>Present</u>	<u>Absent</u>	<u>No VOA Vials Sent</u>
Sample Label (IDs/Dates/Times) Match COC?: Except TCs, which only require sample ID	/		Trip Blank Present?		/	
Extra labels on Terracore Vials? (soils only)			Trip Blank Custody Seals?:			/

COMMENTS:

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Sample Container Count

\*\* Place a RED dot on containers that are out of conformance \*\*

COC Line Item	WGUFU	MeOH (only) SBS DI	VIALS						AMBER GLASS						PLASTIC						OTHER			Matrix	Nitric Red	Sulfuric Yellow	Sodium Hydroxide Green	Sodium Hydroxide/ ZnAc Black						
			DG9H	VG9H	VOA VIAL HS (>6mm)	VG9U	DG9U	VG9T	AG0U	AG1H	AG1U	AG2U	AG3S	AG3SF	AG3C	BP1U	BP1N	BP2U	BP3U	BP3N	BP3F	BP3S	BP3B						BP3Z	CG3H	CG3F	Syringe Kit		
			R	DG9H	VG9H	VOA VIAL HS (>6mm)	VG9U	DG9U	VG9T	AG0U	AG1H	AG1U	AG2U	AG3S	AG3SF	AG3C	BP1U	BP1N	BP2U	BP3U	BP3N	BP3F	BP3S						BP3B	BP3Z	CG3H	CG3F	Syringe Kit	
1											1	1			2	1	2	1	1	1								WT	✓	✓		✓		
2																																✓		
3																																✓		
4																																		
5																																		
6																																		
7																																		
8																																		
9																																		
10																																		
11																																		
12																																		

Container Codes

Glass		
DG9H	40mL HCl amber voa vial	BG1T 1L Na Thiosulfate clear glass
DG9P	40mL TSP amber vial	BG1U 1L unpreserved glass
DG9S	40mL H2SO4 amber vial	BG3H 250mL HCl Clear Glass
DG9T	40mL Na Thio amber vial	BG3U 250mL Unpres Clear Glass
DG9U	40mL unpreserved amber vial	AG0U 100mL unpres amber glass
VG9H	40mL HCl clear vial	AG1H 1L HCl amber glass
VG9T	40mL Na Thio. clear vial	AG1S 1L H2SO4 amber glass
VG9U	40mL unpreserved clear vial	AG1T 1L Na Thiosulfate amber glass
I	40mL w/hexane wipe vial	AG1U 1liter unpres amber glass
WGKU	8oz unpreserved clear jar	AG2N 500mL HNO3 amber glass
WGFU	4oz clear soil jar	AG2S 500mL H2SO4 amber glass
JGFU	4oz unpreserved amber wide	AG2U 500mL unpres amber glass
CG3H	250mL clear glass HCl	AG3S 250mL H2SO4 amber glass
CG3F	250mL clear glass HCl, Field Filter	AG3SF 250mL H2SO4 amb glass -field filtered
BG1H	1L HCl clear glass	AG3U 250mL unpres amber glass
BG1S	1L H2SO4 clear glass	AG3C 250mL NaOH amber glass

Plastic	
BP4U	125mL unpreserved plastic
BP4N	125mL HNO3 plastic
BP4S	125mL H2SO4 plastic
Miscellaneous	
Syringe Kit	LL Cr+6 sampling kit
ZPLC	Ziploc Bag
R	Terracore Kit
SP5T	120mL Coliform Sodium Thiosulfate
GN	General Container
U	Summa Can (air sample)
WT	Water
SL	Solid Solid
OL	Oil
NAL	Non-aqueous liquid
WP	Wipe

March 06, 2023

Mr. Mark Breting  
ATC Group Services  
7988 Centerpoint Drive  
Suite 100  
Indianapolis, IN 46256

RE: Project: Eagle Valley Oct 2022 P1R1  
Pace Project No.: 50331797

Dear Mr. Breting:

Enclosed are the analytical results for sample(s) received by the laboratory on November 22, 2022. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

The test results provided in this final report were generated by each of the following laboratories within the Pace Network:

- Pace Analytical Services - Indianapolis
- Pace Analytical Services - Greensburg

If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Will Statz  
will.statz@pacelabs.com  
(317)228-3105  
Project Manager

Enclosures

cc: Mr. Robert Miller, Haley & Aldrich



## REPORT OF LABORATORY ANALYSIS

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## CERTIFICATIONS

Project: Eagle Valley Oct 2022 P1R1

Pace Project No.: 50331797

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### **Pace Analytical Services Pennsylvania**

1638 Roseytown Rd Suites 2,3&4, Greensburg, PA 15601

ANAB DOD-ELAP Rad Accreditation #: L2417

Alabama Certification #: 41590

Arizona Certification #: AZ0734

Arkansas Certification

California Certification #: 04222CA

Colorado Certification #: PA01547

Connecticut Certification #: PH-0694

Delaware Certification

EPA Region 4 DW Rad

Florida/TNI Certification #: E87683

Georgia Certification #: C040

Florida: Cert E871149 SEKS WET

Guam Certification

Hawaii Certification

Idaho Certification

Illinois Certification

Indiana Certification

Iowa Certification #: 391

Kansas/TNI Certification #: E-10358

Kentucky Certification #: KY90133

KY WW Permit #: KY0098221

KY WW Permit #: KY0000221

Louisiana DHH/TNI Certification #: LA180012

Louisiana DEQ/TNI Certification #: 4086

Maine Certification #: 2017020

Maryland Certification #: 308

Massachusetts Certification #: M-PA1457

Michigan/PADEP Certification #: 9991

Missouri Certification #: 235

Montana Certification #: Cert0082

Nebraska Certification #: NE-OS-29-14

Nevada Certification #: PA014572018-1

New Hampshire/TNI Certification #: 297617

New Jersey/TNI Certification #: PA051

New Mexico Certification #: PA01457

New York/TNI Certification #: 10888

North Carolina Certification #: 42706

North Dakota Certification #: R-190

Ohio EPA Rad Approval: #41249

Oregon/TNI Certification #: PA200002-010

Pennsylvania/TNI Certification #: 65-00282

Puerto Rico Certification #: PA01457

Rhode Island Certification #: 65-00282

South Dakota Certification

Tennessee Certification #: 02867

Texas/TNI Certification #: T104704188-17-3

Utah/TNI Certification #: PA014572017-9

USDA Soil Permit #: P330-17-00091

Vermont Dept. of Health: ID# VT-0282

Virgin Island/PADEP Certification

Virginia/VELAP Certification #: 460198

Washington Certification #: C868

West Virginia DEP Certification #: 143

West Virginia DHHR Certification #: 9964C

Wisconsin Approve List for Rad

Wyoming Certification #: 8TMS-L

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### **Pace Analytical Services Indianapolis**

7726 Moller Road, Indianapolis, IN 46268

Illinois Accreditation #: 200074

Indiana Drinking Water Laboratory #: C-49-06

Kansas/TNI Certification #: E-10177

Kentucky UST Agency Interest #: 80226

Kentucky WW Laboratory ID #: 98019

Michigan Drinking Water Laboratory #9050

Ohio VAP Certified Laboratory #: CL0065

Oklahoma Laboratory #: 9204

Texas Certification #: T104704355

Wisconsin Laboratory #: 999788130

USDA Foreign Soil Permit #: 525-23-13-23119

USDA Compliance Agreement #: IN-SL-22-001

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## REPORT OF LABORATORY ANALYSIS

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## SAMPLE SUMMARY

Project: Eagle Valley Oct 2022 P1R1

Pace Project No.: 50331797

Lab ID	Sample ID	Matrix	Date Collected	Date Received
50331797001	MW-1S	Water	11/22/22 10:35	11/22/22 15:20
50331797002	MW-1I	Water	11/22/22 12:17	11/22/22 15:20
50331797003	MW-1D	Water	11/22/22 13:21	11/22/22 15:20

## REPORT OF LABORATORY ANALYSIS

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### SAMPLE ANALYTE COUNT

Project: Eagle Valley Oct 2022 P1R1

Pace Project No.: 50331797

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
50331797001	MW-1S	EPA 9056	ADM	3	PASI-I
		EPA 6010	JPK	12	PASI-I
		EPA 6010	JPK	2	PASI-I
		EPA 6020	CAW	3	PASI-I
		EPA 903.1	GDH	1	PASI-PA
		EPA 904.0	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
		SM 2320B	TAY	3	PASI-I
		SM 2540C	AEL	1	PASI-I
		SM 4500-H+B	TRK	1	PASI-I
		SM 4500-S2-D	BEP	1	PASI-I
		HACH 8146	ZM	1	PASI-I
		EPA 353.2	MMS	2	PASI-I
		EPA 365.1	ZM	1	PASI-I
		SM 5310C	ATS	1	PASI-I
		SM 5310C	ATS	1	PASI-I
		50331797002	MW-1I	EPA 9056	ADM
EPA 6010	JPK			12	PASI-I
EPA 6010	JPK			2	PASI-I
EPA 6020	CAW			3	PASI-I
EPA 903.1	GDH			1	PASI-PA
EPA 904.0	VAL			1	PASI-PA
Total Radium Calculation	JAL			1	PASI-PA
SM 2320B	TAY			3	PASI-I
SM 2540C	AEL			1	PASI-I
SM 4500-H+B	TRK			1	PASI-I
SM 4500-S2-D	BEP			1	PASI-I
HACH 8146	ZM			1	PASI-I
EPA 353.2	MMS			2	PASI-I
EPA 365.1	ZM			1	PASI-I
SM 5310C	ATS			1	PASI-I
SM 5310C	ATS			1	PASI-I
50331797003	MW-1D			EPA 9056	ADM
		EPA 6010	JPK	12	PASI-I
		EPA 6010	JPK	2	PASI-I
		EPA 6020	CAW	3	PASI-I
		EPA 903.1	GDH	1	PASI-PA

### REPORT OF LABORATORY ANALYSIS

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### SAMPLE ANALYTE COUNT

Project: Eagle Valley Oct 2022 P1R1

Pace Project No.: 50331797

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
		EPA 904.0	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
		SM 2320B	TAY	3	PASI-I
		SM 2540C	AEL	1	PASI-I
		SM 4500-H+B	TRK	1	PASI-I
		SM 4500-S2-D	BEP	1	PASI-I
		HACH 8146	ZM	1	PASI-I
		EPA 353.2	MMS	2	PASI-I
		EPA 365.1	ZM	1	PASI-I
		SM 5310C	ATS	1	PASI-I
		SM 5310C	ATS	1	PASI-I

PASI-I = Pace Analytical Services - Indianapolis

PASI-PA = Pace Analytical Services - Greensburg

### REPORT OF LABORATORY ANALYSIS

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### SUMMARY OF DETECTION

Project: Eagle Valley Oct 2022 P1R1

Pace Project No.: 50331797

Lab Sample ID	Client Sample ID	Result	Units	Report Limit	Analyzed	Qualifiers
Method	Parameters					
<b>50331797001</b>	<b>MW-1S</b>					
EPA 9056	Chloride	62.0	mg/L	2.5	11/29/22 00:45	
EPA 9056	Fluoride	0.20	mg/L	0.10	11/29/22 00:30	
EPA 9056	Sulfate	113	mg/L	2.5	11/29/22 00:45	
EPA 6010	Aluminum	703	ug/L	200	12/09/22 01:49	
EPA 6010	Barium	110	ug/L	10.0	12/09/22 01:49	
EPA 6010	Boron	1690	ug/L	100	12/09/22 01:49	
EPA 6010	Calcium	171000	ug/L	1000	12/09/22 01:49	
EPA 6010	Iron	1970	ug/L	100	12/09/22 01:49	
EPA 6010	Lithium	83.8	ug/L	20.0	12/09/22 01:49	
EPA 6010	Magnesium	45600	ug/L	1000	12/09/22 01:49	
EPA 6010	Manganese	163	ug/L	10.0	12/09/22 01:49	
EPA 6010	Molybdenum	30.7	ug/L	10.0	12/09/22 01:49	
EPA 6010	Potassium	8880	ug/L	1000	12/09/22 01:49	
EPA 6010	Silica	18700	ug/L	450	12/09/22 01:49	N2
EPA 6010	Sodium	60200	ug/L	1000	12/09/22 01:49	
EPA 6010	Manganese, Dissolved	43.5	ug/L	10.0	12/08/22 03:25	
EPA 6010	Molybdenum, Dissolved	31.0	ug/L	10.0	12/08/22 03:25	
EPA 6020	Antimony	2.7	ug/L	1.0	12/01/22 04:25	
EPA 6020	Arsenic	8.1	ug/L	1.0	12/01/22 04:25	
EPA 6020	Selenium	28.0	ug/L	1.0	12/02/22 15:56	
EPA 903.1	Radium-226	-0.212 ± 0.301 (0.707) C:NA T:90%	pCi/L		12/15/22 16:18	
EPA 904.0	Radium-228	0.330 ± 0.495 (1.07) C:80% T:90%	pCi/L		12/08/22 14:49	
Total Radium Calculation	Total Radium	0.330 ± 0.796 (1.78)	pCi/L		12/16/22 16:18	
SM 2320B	Alkalinity, Total as CaCO3	492	mg/L	10.0	11/28/22 11:43	
SM 2320B	Alkalinity,Bicarbonate (CaCO3)	492	mg/L	10.0	11/28/22 11:43	
SM 2540C	Total Dissolved Solids	756	mg/L	20.0	11/26/22 09:04	
SM 4500-H+B	pH at 25 Degrees C	7.3	Std. Units	0.10	11/29/22 16:19	H3
EPA 353.2	Nitrogen, Nitrate	0.88	mg/L	0.10	11/22/22 18:50	
EPA 365.1	Phosphate as P04	0.21	mg/L	0.15	12/01/22 10:58	
SM 5310C	Total Organic Carbon	1.0	mg/L	1.0	12/12/22 04:37	
SM 5310C	Dissolved Organic Carbon	1.4	mg/L	1.0	12/08/22 07:01	
<b>50331797002</b>	<b>MW-1I</b>					
EPA 9056	Chloride	114	mg/L	2.5	11/29/22 01:16	
EPA 9056	Fluoride	0.32	mg/L	0.10	11/29/22 01:01	
EPA 9056	Sulfate	168	mg/L	2.5	11/29/22 01:16	
EPA 6010	Barium	81.9	ug/L	10.0	12/09/22 01:52	
EPA 6010	Boron	622	ug/L	100	12/09/22 01:52	
EPA 6010	Calcium	101000	ug/L	1000	12/09/22 01:52	
EPA 6010	Lithium	94.7	ug/L	20.0	12/09/22 01:52	
EPA 6010	Magnesium	32400	ug/L	1000	12/09/22 01:52	

### REPORT OF LABORATORY ANALYSIS

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### SUMMARY OF DETECTION

Project: Eagle Valley Oct 2022 P1R1

Pace Project No.: 50331797

Lab Sample ID	Client Sample ID	Result	Units	Report Limit	Analyzed	Qualifiers
Method	Parameters					
<b>50331797002</b>	<b>MW-1I</b>					
EPA 6010	Manganese	312	ug/L	10.0	12/09/22 01:52	
EPA 6010	Molybdenum	87.0	ug/L	10.0	12/09/22 01:52	
EPA 6010	Potassium	9070	ug/L	1000	12/09/22 01:52	
EPA 6010	Silica	10100	ug/L	450	12/09/22 01:52	N2
EPA 6010	Sodium	88400	ug/L	1000	12/09/22 01:52	
EPA 6010	Manganese, Dissolved	305	ug/L	10.0	12/08/22 03:28	
EPA 6010	Molybdenum, Dissolved	86.2	ug/L	10.0	12/08/22 03:28	
EPA 903.1	Radium-226	1.01 ± 0.507 (0.574)	pCi/L		12/15/22 16:18	
EPA 904.0	Radium-228	C:NA T:90% 0.882 ± 0.581 (1.11)	pCi/L		12/08/22 14:49	
		C:76% T:90%				
Total Radium Calculation	Total Radium	1.89 ± 1.09 (1.68)	pCi/L		12/16/22 16:18	
SM 2320B	Alkalinity, Total as CaCO3	247	mg/L	10.0	11/28/22 11:43	
SM 2320B	Alkalinity, Bicarbonate (CaCO3)	247	mg/L	10.0	11/28/22 11:43	
SM 2540C	Total Dissolved Solids	657	mg/L	10.0	11/26/22 09:04	
SM 4500-H+B	pH at 25 Degrees C	7.7	Std. Units	0.10	11/29/22 16:22	H3
SM 5310C	Total Organic Carbon	1.1	mg/L	1.0	12/12/22 04:48	
SM 5310C	Dissolved Organic Carbon	1.4	mg/L	1.0	12/08/22 07:12	
<b>50331797003</b>	<b>MW-1D</b>					
EPA 9056	Chloride	92.3	mg/L	2.5	11/29/22 01:47	
EPA 9056	Fluoride	0.38	mg/L	0.10	11/29/22 01:31	
EPA 9056	Sulfate	79.5	mg/L	2.5	11/29/22 01:47	
EPA 6010	Barium	63.1	ug/L	10.0	12/09/22 01:56	
EPA 6010	Boron	720	ug/L	100	12/09/22 01:56	
EPA 6010	Calcium	76300	ug/L	1000	12/09/22 01:56	
EPA 6010	Iron	1020	ug/L	100	12/09/22 01:56	
EPA 6010	Lithium	80.9	ug/L	20.0	12/09/22 01:56	
EPA 6010	Magnesium	21800	ug/L	1000	12/09/22 01:56	
EPA 6010	Manganese	352	ug/L	10.0	12/09/22 01:56	
EPA 6010	Molybdenum	101	ug/L	10.0	12/09/22 01:56	
EPA 6010	Potassium	7640	ug/L	1000	12/09/22 01:56	
EPA 6010	Silica	10000	ug/L	450	12/09/22 01:56	N2
EPA 6010	Sodium	75000	ug/L	1000	12/09/22 01:56	
EPA 6010	Manganese, Dissolved	345	ug/L	10.0	12/08/22 03:31	
EPA 6010	Molybdenum, Dissolved	104	ug/L	10.0	12/08/22 03:31	
EPA 6020	Arsenic	2.5	ug/L	1.0	12/01/22 04:41	
EPA 903.1	Radium-226	0.444 ± 0.444 (0.703)	pCi/L		12/15/22 16:18	
		C:NA T:90%				

### REPORT OF LABORATORY ANALYSIS

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### SUMMARY OF DETECTION

Project: Eagle Valley Oct 2022 P1R1

Pace Project No.: 50331797

Lab Sample ID Method	Client Sample ID Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
<b>50331797003</b>	<b>MW-1D</b>					
EPA 904.0	Radium-228	0.0575 ± 0.420 (0.969) C:77% T:90%	pCi/L		12/08/22 14:47	
Total Radium Calculation	Total Radium	0.502 ± 0.864 (1.67)	pCi/L		12/16/22 16:18	
SM 2320B	Alkalinity, Total as CaCO <sub>3</sub>	231	mg/L	10.0	11/28/22 11:43	
SM 2320B	Alkalinity, Bicarbonate (CaCO <sub>3</sub> )	231	mg/L	10.0	11/28/22 11:43	
SM 2540C	Total Dissolved Solids	469	mg/L	10.0	11/26/22 09:04	
SM 4500-H+B	pH at 25 Degrees C	7.8	Std. Units	0.10	11/29/22 16:28	H3
SM 5310C	Total Organic Carbon	1.2	mg/L	1.0	12/12/22 04:59	
SM 5310C	Dissolved Organic Carbon	1.4	mg/L	1.0	12/08/22 07:47	

### REPORT OF LABORATORY ANALYSIS

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### ANALYTICAL RESULTS

Project: Eagle Valley Oct 2022 P1R1

Pace Project No.: 50331797

Sample: MW-1S		Lab ID: 50331797001		Collected: 11/22/22 10:35		Received: 11/22/22 15:20		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>9056 IC Anions</b>		Analytical Method: EPA 9056 Pace Analytical Services - Indianapolis							
Chloride	62.0	mg/L	2.5	0.67	10		11/29/22 00:45	16887-00-6	
Fluoride	0.20	mg/L	0.10	0.017	1		11/29/22 00:30	16984-48-8	
Sulfate	113	mg/L	2.5	0.85	10		11/29/22 00:45	14808-79-8	
<b>6010 MET ICP</b>		Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis							
Aluminum	703	ug/L	200	54.4	1	12/07/22 09:12	12/09/22 01:49	7429-90-5	
Barium	110	ug/L	10.0	1.3	1	12/07/22 09:12	12/09/22 01:49	7440-39-3	
Boron	1690	ug/L	100	61.4	1	12/07/22 09:12	12/09/22 01:49	7440-42-8	
Calcium	171000	ug/L	1000	88.4	1	12/07/22 09:12	12/09/22 01:49	7440-70-2	
Iron	1970	ug/L	100	48.8	1	12/07/22 09:12	12/09/22 01:49	7439-89-6	
Lithium	83.8	ug/L	20.0	6.2	1	12/07/22 09:12	12/09/22 01:49	7439-93-2	
Magnesium	45600	ug/L	1000	43.0	1	12/07/22 09:12	12/09/22 01:49	7439-95-4	
Manganese	163	ug/L	10.0	5.4	1	12/07/22 09:12	12/09/22 01:49	7439-96-5	
Molybdenum	30.7	ug/L	10.0	2.0	1	12/07/22 09:12	12/09/22 01:49	7439-98-7	
Potassium	8880	ug/L	1000	200	1	12/07/22 09:12	12/09/22 01:49	7440-09-7	
Silica	18700	ug/L	450		1	12/07/22 09:12	12/09/22 01:49	7631-86-9	N2
Sodium	60200	ug/L	1000	284	1	12/07/22 09:12	12/09/22 01:49	7440-23-5	
<b>6010 MET ICP, Dissolved</b>		Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis							
Manganese, Dissolved	43.5	ug/L	10.0	5.4	1	12/07/22 13:33	12/08/22 03:25	7439-96-5	
Molybdenum, Dissolved	31.0	ug/L	10.0	2.0	1	12/07/22 13:33	12/08/22 03:25	7439-98-7	
<b>6020 MET ICPMS</b>		Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis							
Antimony	2.7	ug/L	1.0	0.13	1	11/29/22 15:34	12/01/22 04:25	7440-36-0	
Arsenic	8.1	ug/L	1.0	0.11	1	11/29/22 15:34	12/01/22 04:25	7440-38-2	
Selenium	28.0	ug/L	1.0	0.35	1	11/29/22 15:34	12/02/22 15:56	7782-49-2	
<b>2320B Alkalinity</b>		Analytical Method: SM 2320B Pace Analytical Services - Indianapolis							
Alkalinity, Total as CaCO3	492	mg/L	10.0	10.0	1		11/28/22 11:43		
Alkalinity,Bicarbonate (CaCO3)	492	mg/L	10.0	10.0	1		11/28/22 11:43		
Alkalinity,Carbonate (CaCO3)	ND	mg/L	10.0	10.0	1		11/28/22 11:43		
<b>2540C Total Dissolved Solids</b>		Analytical Method: SM 2540C Pace Analytical Services - Indianapolis							
Total Dissolved Solids	756	mg/L	20.0	20.0	1		11/26/22 09:04		
<b>4500H+ pH, Electrometric</b>		Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis							
pH at 25 Degrees C	7.3	Std. Units	0.10	0.10	1		11/29/22 16:19		H3

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### ANALYTICAL RESULTS

Project: Eagle Valley Oct 2022 P1R1

Pace Project No.: 50331797

Sample: MW-1S		Lab ID: 50331797001		Collected: 11/22/22 10:35	Received: 11/22/22 15:20	Matrix: Water			
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>4500S2D Sulfide Water</b>		Analytical Method: SM 4500-S2-D Pace Analytical Services - Indianapolis							
Sulfide	ND	mg/L	0.10	0.025	1		11/23/22 11:05	18496-25-8	
<b>Iron, Ferrous</b>		Analytical Method: HACH 8146 Pace Analytical Services - Indianapolis							
Iron, Ferrous	ND	mg/L	0.20	0.096	1		11/28/22 19:07	15438-31-0	H3,N2
<b>353.2 Nitrogen, NO2/NO3 unpres</b>		Analytical Method: EPA 353.2 Pace Analytical Services - Indianapolis							
Nitrogen, Nitrate	<b>0.88</b>	mg/L	0.10	0.011	1		11/22/22 18:50	14797-55-8	
Nitrogen, Nitrite	ND	mg/L	0.10	0.0040	1		11/22/22 18:50	14797-65-0	
<b>365.1 Total Phosphorus</b>		Analytical Method: EPA 365.1 Preparation Method: EPA 365.1 Pace Analytical Services - Indianapolis							
Phosphate as P04	<b>0.21</b>	mg/L	0.15	0.15	1	11/29/22 14:30	12/01/22 10:58		
<b>5310C TOC</b>		Analytical Method: SM 5310C Pace Analytical Services - Indianapolis							
Total Organic Carbon	<b>1.0</b>	mg/L	1.0	0.14	1		12/12/22 04:37	7440-44-0	
<b>5310C Dissolved Organic Carbon</b>		Analytical Method: SM 5310C Pace Analytical Services - Indianapolis							
Dissolved Organic Carbon	<b>1.4</b>	mg/L	1.0	0.14	1		12/08/22 07:01		

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## ANALYTICAL RESULTS

Project: Eagle Valley Oct 2022 P1R1

Pace Project No.: 50331797

Sample: MW-11		Lab ID: 50331797002		Collected: 11/22/22 12:17	Received: 11/22/22 15:20	Matrix: Water				
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual	
<b>9056 IC Anions</b>		Analytical Method: EPA 9056 Pace Analytical Services - Indianapolis								
Chloride	114	mg/L	2.5	0.67	10		11/29/22 01:16	16887-00-6		
Fluoride	0.32	mg/L	0.10	0.017	1		11/29/22 01:01	16984-48-8		
Sulfate	168	mg/L	2.5	0.85	10		11/29/22 01:16	14808-79-8		
<b>6010 MET ICP</b>		Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Aluminum	ND	ug/L	200	54.4	1	12/07/22 09:12	12/09/22 01:52	7429-90-5		
Barium	81.9	ug/L	10.0	1.3	1	12/07/22 09:12	12/09/22 01:52	7440-39-3		
Boron	622	ug/L	100	61.4	1	12/07/22 09:12	12/09/22 01:52	7440-42-8		
Calcium	101000	ug/L	1000	88.4	1	12/07/22 09:12	12/09/22 01:52	7440-70-2		
Iron	ND	ug/L	100	48.8	1	12/07/22 09:12	12/09/22 01:52	7439-89-6		
Lithium	94.7	ug/L	20.0	6.2	1	12/07/22 09:12	12/09/22 01:52	7439-93-2		
Magnesium	32400	ug/L	1000	43.0	1	12/07/22 09:12	12/09/22 01:52	7439-95-4		
Manganese	312	ug/L	10.0	5.4	1	12/07/22 09:12	12/09/22 01:52	7439-96-5		
Molybdenum	87.0	ug/L	10.0	2.0	1	12/07/22 09:12	12/09/22 01:52	7439-98-7		
Potassium	9070	ug/L	1000	200	1	12/07/22 09:12	12/09/22 01:52	7440-09-7		
Silica	10100	ug/L	450		1	12/07/22 09:12	12/09/22 01:52	7631-86-9	N2	
Sodium	88400	ug/L	1000	284	1	12/07/22 09:12	12/09/22 01:52	7440-23-5		
<b>6010 MET ICP, Dissolved</b>		Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Manganese, Dissolved	305	ug/L	10.0	5.4	1	12/07/22 13:33	12/08/22 03:28	7439-96-5		
Molybdenum, Dissolved	86.2	ug/L	10.0	2.0	1	12/07/22 13:33	12/08/22 03:28	7439-98-7		
<b>6020 MET ICPMS</b>		Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis								
Antimony	ND	ug/L	1.0	0.13	1	11/29/22 15:34	12/01/22 04:37	7440-36-0		
Arsenic	ND	ug/L	1.0	0.11	1	11/29/22 15:34	12/01/22 04:37	7440-38-2		
Selenium	ND	ug/L	1.0	0.35	1	11/29/22 15:34	12/02/22 16:08	7782-49-2		
<b>2320B Alkalinity</b>		Analytical Method: SM 2320B Pace Analytical Services - Indianapolis								
Alkalinity, Total as CaCO3	247	mg/L	10.0	10.0	1		11/28/22 11:43			
Alkalinity,Bicarbonate (CaCO3)	247	mg/L	10.0	10.0	1		11/28/22 11:43			
Alkalinity,Carbonate (CaCO3)	ND	mg/L	10.0	10.0	1		11/28/22 11:43			
<b>2540C Total Dissolved Solids</b>		Analytical Method: SM 2540C Pace Analytical Services - Indianapolis								
Total Dissolved Solids	657	mg/L	10.0	10.0	1		11/26/22 09:04			
<b>4500H+ pH, Electrometric</b>		Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis								
pH at 25 Degrees C	7.7	Std. Units	0.10	0.10	1		11/29/22 16:22		H3	

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### ANALYTICAL RESULTS

Project: Eagle Valley Oct 2022 P1R1

Pace Project No.: 50331797

Sample: MW-11		Lab ID: 50331797002		Collected: 11/22/22 12:17	Received: 11/22/22 15:20	Matrix: Water			
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>4500S2D Sulfide Water</b>		Analytical Method: SM 4500-S2-D Pace Analytical Services - Indianapolis							
Sulfide	ND	mg/L	0.10	0.025	1		11/23/22 11:05	18496-25-8	
<b>Iron, Ferrous</b>		Analytical Method: HACH 8146 Pace Analytical Services - Indianapolis							
Iron, Ferrous	ND	mg/L	0.20	0.096	1		11/28/22 19:07	15438-31-0	H3,N2
<b>353.2 Nitrogen, NO2/NO3 unpres</b>		Analytical Method: EPA 353.2 Pace Analytical Services - Indianapolis							
Nitrogen, Nitrate	ND	mg/L	0.10	0.011	1		11/22/22 18:52	14797-55-8	
Nitrogen, Nitrite	ND	mg/L	0.10	0.0040	1		11/22/22 18:52	14797-65-0	
<b>365.1 Total Phosphorus</b>		Analytical Method: EPA 365.1 Preparation Method: EPA 365.1 Pace Analytical Services - Indianapolis							
Phosphate as P04	ND	mg/L	0.15	0.15	1	11/29/22 14:30	12/01/22 10:58		
<b>5310C TOC</b>		Analytical Method: SM 5310C Pace Analytical Services - Indianapolis							
Total Organic Carbon	1.1	mg/L	1.0	0.14	1		12/12/22 04:48	7440-44-0	
<b>5310C Dissolved Organic Carbon</b>		Analytical Method: SM 5310C Pace Analytical Services - Indianapolis							
Dissolved Organic Carbon	1.4	mg/L	1.0	0.14	1		12/08/22 07:12		

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## ANALYTICAL RESULTS

Project: Eagle Valley Oct 2022 P1R1

Pace Project No.: 50331797

Sample: MW-1D		Lab ID: 50331797003		Collected: 11/22/22 13:21	Received: 11/22/22 15:20	Matrix: Water				
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual	
<b>9056 IC Anions</b>		Analytical Method: EPA 9056 Pace Analytical Services - Indianapolis								
Chloride	92.3	mg/L	2.5	0.67	10		11/29/22 01:47	16887-00-6		
Fluoride	0.38	mg/L	0.10	0.017	1		11/29/22 01:31	16984-48-8		
Sulfate	79.5	mg/L	2.5	0.85	10		11/29/22 01:47	14808-79-8		
<b>6010 MET ICP</b>		Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Aluminum	ND	ug/L	200	54.4	1	12/07/22 09:12	12/09/22 01:56	7429-90-5		
Barium	63.1	ug/L	10.0	1.3	1	12/07/22 09:12	12/09/22 01:56	7440-39-3		
Boron	720	ug/L	100	61.4	1	12/07/22 09:12	12/09/22 01:56	7440-42-8		
Calcium	76300	ug/L	1000	88.4	1	12/07/22 09:12	12/09/22 01:56	7440-70-2		
Iron	1020	ug/L	100	48.8	1	12/07/22 09:12	12/09/22 01:56	7439-89-6		
Lithium	80.9	ug/L	20.0	6.2	1	12/07/22 09:12	12/09/22 01:56	7439-93-2		
Magnesium	21800	ug/L	1000	43.0	1	12/07/22 09:12	12/09/22 01:56	7439-95-4		
Manganese	352	ug/L	10.0	5.4	1	12/07/22 09:12	12/09/22 01:56	7439-96-5		
Molybdenum	101	ug/L	10.0	2.0	1	12/07/22 09:12	12/09/22 01:56	7439-98-7		
Potassium	7640	ug/L	1000	200	1	12/07/22 09:12	12/09/22 01:56	7440-09-7		
Silica	10000	ug/L	450		1	12/07/22 09:12	12/09/22 01:56	7631-86-9	N2	
Sodium	75000	ug/L	1000	284	1	12/07/22 09:12	12/09/22 01:56	7440-23-5		
<b>6010 MET ICP, Dissolved</b>		Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Manganese, Dissolved	345	ug/L	10.0	5.4	1	12/07/22 13:33	12/08/22 03:31	7439-96-5		
Molybdenum, Dissolved	104	ug/L	10.0	2.0	1	12/07/22 13:33	12/08/22 03:31	7439-98-7		
<b>6020 MET ICPMS</b>		Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis								
Antimony	ND	ug/L	1.0	0.13	1	11/29/22 15:34	12/01/22 04:41	7440-36-0		
Arsenic	2.5	ug/L	1.0	0.11	1	11/29/22 15:34	12/01/22 04:41	7440-38-2		
Selenium	ND	ug/L	1.0	0.35	1	11/29/22 15:34	12/02/22 16:12	7782-49-2		
<b>2320B Alkalinity</b>		Analytical Method: SM 2320B Pace Analytical Services - Indianapolis								
Alkalinity, Total as CaCO3	231	mg/L	10.0	10.0	1		11/28/22 11:43			
Alkalinity,Bicarbonate (CaCO3)	231	mg/L	10.0	10.0	1		11/28/22 11:43			
Alkalinity,Carbonate (CaCO3)	ND	mg/L	10.0	10.0	1		11/28/22 11:43			
<b>2540C Total Dissolved Solids</b>		Analytical Method: SM 2540C Pace Analytical Services - Indianapolis								
Total Dissolved Solids	469	mg/L	10.0	10.0	1		11/26/22 09:04			
<b>4500H+ pH, Electrometric</b>		Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis								
pH at 25 Degrees C	7.8	Std. Units	0.10	0.10	1		11/29/22 16:28		H3	

## REPORT OF LABORATORY ANALYSIS

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### ANALYTICAL RESULTS

Project: Eagle Valley Oct 2022 P1R1

Pace Project No.: 50331797

Sample: MW-1D		Lab ID: 50331797003		Collected: 11/22/22 13:21	Received: 11/22/22 15:20	Matrix: Water				
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual	
<b>4500S2D Sulfide Water</b>		Analytical Method: SM 4500-S2-D Pace Analytical Services - Indianapolis								
Sulfide	ND	mg/L	0.10	0.025	1		11/23/22 11:05	18496-25-8		
<b>Iron, Ferrous</b>		Analytical Method: HACH 8146 Pace Analytical Services - Indianapolis								
Iron, Ferrous	ND	mg/L	0.20	0.096	1		11/28/22 19:08	15438-31-0	H3,N2	
<b>353.2 Nitrogen, NO2/NO3 unpres</b>		Analytical Method: EPA 353.2 Pace Analytical Services - Indianapolis								
Nitrogen, Nitrate	ND	mg/L	0.10	0.011	1		11/22/22 18:53	14797-55-8		
Nitrogen, Nitrite	ND	mg/L	0.10	0.0040	1		11/22/22 18:53	14797-65-0		
<b>365.1 Total Phosphorus</b>		Analytical Method: EPA 365.1 Preparation Method: EPA 365.1 Pace Analytical Services - Indianapolis								
Phosphate as P04	ND	mg/L	0.15	0.15	1	11/29/22 14:30	12/01/22 11:00			
<b>5310C TOC</b>		Analytical Method: SM 5310C Pace Analytical Services - Indianapolis								
Total Organic Carbon	1.2	mg/L	1.0	0.14	1		12/12/22 04:59	7440-44-0		
<b>5310C Dissolved Organic Carbon</b>		Analytical Method: SM 5310C Pace Analytical Services - Indianapolis								
Dissolved Organic Carbon	1.4	mg/L	1.0	0.14	1		12/08/22 07:47			

### REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL DATA

Project: Eagle Valley Oct 2022 P1R1

Pace Project No.: 50331797

QC Batch:	708315	Analysis Method:	EPA 9056
QC Batch Method:	EPA 9056	Analysis Description:	9056 IC Anions
		Laboratory:	Pace Analytical Services - Indianapolis

Associated Lab Samples: 50331797001, 50331797002, 50331797003

METHOD BLANK: 3255811 Matrix: Water

Associated Lab Samples: 50331797001, 50331797002, 50331797003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chloride	mg/L	ND	0.25	0.067	11/28/22 13:27	
Fluoride	mg/L	ND	0.10	0.017	11/28/22 13:27	
Sulfate	mg/L	ND	0.25	0.085	11/28/22 13:27	

LABORATORY CONTROL SAMPLE: 3255812

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	1.2	1.2	95	80-120	
Fluoride	mg/L	0.5	0.55	110	80-120	
Sulfate	mg/L	2.5	2.4	96	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3255813 3255814

Parameter	Units	50331784001		3255814		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result								
Chloride	mg/L	12.9	12.5	24.1	24.1	89	89	80-120	0	15			
Fluoride	mg/L	0.16	0.5	0.65	0.65	100	99	80-120	0	15			
Sulfate	mg/L	149	25	170	169	83	80	80-120	0	15			

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

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### QUALITY CONTROL DATA

Project: Eagle Valley Oct 2022 P1R1

Pace Project No.: 50331797

QC Batch: 708457 Analysis Method: EPA 6010  
 QC Batch Method: EPA 3010 Analysis Description: 6010 MET  
 Laboratory: Pace Analytical Services - Indianapolis

Associated Lab Samples: 50331797001, 50331797002, 50331797003

METHOD BLANK: 3256352 Matrix: Water

Associated Lab Samples: 50331797001, 50331797002, 50331797003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Aluminum	ug/L	ND	200	54.4	12/09/22 00:34	
Barium	ug/L	ND	10.0	1.3	12/09/22 00:34	
Boron	ug/L	ND	100	61.4	12/09/22 00:34	
Calcium	ug/L	ND	1000	88.4	12/09/22 00:34	
Iron	ug/L	ND	100	48.8	12/09/22 00:34	
Lithium	ug/L	ND	20.0	6.2	12/09/22 00:34	
Magnesium	ug/L	ND	1000	43.0	12/09/22 00:34	
Manganese	ug/L	ND	10.0	5.4	12/09/22 00:34	
Molybdenum	ug/L	ND	10.0	2.0	12/09/22 00:34	
Potassium	ug/L	ND	1000	200	12/09/22 00:34	
Silica	ug/L	ND	450		12/09/22 00:34	N2
Sodium	ug/L	ND	1000	284	12/09/22 00:34	

LABORATORY CONTROL SAMPLE: 3256353

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Aluminum	ug/L	10000	11000	110	80-120	
Barium	ug/L	1000	1090	109	80-120	
Boron	ug/L	1000	1080	108	80-120	
Calcium	ug/L	10000	10800	108	80-120	
Iron	ug/L	10000	11000	110	80-120	
Lithium	ug/L	1000	1060	106	80-120	
Magnesium	ug/L	10000	10800	108	80-120	
Manganese	ug/L	1000	1050	105	80-120	
Molybdenum	ug/L	1000	1100	110	80-120	
Potassium	ug/L	10000	10800	108	80-120	
Silica	ug/L	10700	11400	107	80-120	N2
Sodium	ug/L	10000	10700	107	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3256354 3256355

Parameter	Units	50331135004		3256355		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result						
Aluminum	ug/L	ND	10000	10000	10600	106	121	75-125	13	20	
Barium	ug/L	0.041 mg/L	1000	1000	1030	99	111	75-125	11	20	
Boron	ug/L	6.0 mg/L	1000	1000	6900	86	128	75-125	6	20	P6

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### REPORT OF LABORATORY ANALYSIS

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**QUALITY CONTROL DATA**

Project: Eagle Valley Oct 2022 P1R1

Pace Project No.: 50331797

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3256354												3256355	
Parameter	Units	50331135004 Result	MS	MSD	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max	Qual	
			Spike Conc.	Spike Conc.							RPD		
Calcium	ug/L	400 mg/L	10000	10000	397000	414000	-30	136	75-125	4	20	P6	
Iron	ug/L	0.72 mg/L	10000	10000	10500	11700	98	110	75-125	11	20		
Lithium	ug/L	0.10 mg/L	1000	1000	1100	1230	100	113	75-125	11	20		
Magnesium	ug/L	5.7 mg/L	10000	10000	15200	16400	95	107	75-125	8	20		
Manganese	ug/L	0.48 mg/L	1000	1000	1390	1540	91	106	75-125	10	20		
Molybdenum	ug/L	0.21 mg/L	1000	1000	1200	1320	99	111	75-125	9	20		
Potassium	ug/L	20.2 mg/L	10000	10000	29800	31700	96	115	75-125	6	20		
Silica	ug/L	13.3 mg/L	10700	10700	23500	25700	96	116	75-125	9	20	N2	
Sodium	ug/L	88.4 mg/L	10000	10000	96200	102000	78	133	75-125	6	20	P6	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3256356												3256357	
Parameter	Units	50331783001 Result	MS	MSD	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max	Qual	
			Spike Conc.	Spike Conc.							RPD		
Aluminum	ug/L	207000	50000	50000	285000	336000	157	258	75-125	16	20	P6	
Barium	ug/L	1460	5000	5000	7040	7080	112	112	75-125	1	20		
Boron	ug/L	684	5000	5000	6200	6230	110	111	75-125	0	20		
Calcium	ug/L	4060000	50000	50000	4020000	4380000	-70	647	75-125	9	20	E, P6	
Iron	ug/L	528000	50000	50000	514000	624000	-29	193	75-125	20	20	P6	
Lithium	ug/L	369	5000	5000	5970	6040	112	113	75-125	1	20		
Magnesium	ug/L	1430000	50000	50000	1260000	1630000	-338	400	75-125	25	20	P6, R1	
Manganese	ug/L	14300	5000	5000	19200	20000	99	114	75-125	4	20		
Molybdenum	ug/L	235	5000	5000	5420	5400	104	103	75-125	0	20		
Potassium	ug/L	63700	50000	50000	130000	140000	132	153	75-125	8	20	M3	
Silica	ug/L	395000	53500	53500	612000	679000	407	531	75-125	10	20	N2	
Sodium	ug/L	52000	50000	50000	114000	114000	124	125	75-125	1	20		

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**QUALITY CONTROL DATA**

Project: Eagle Valley Oct 2022 P1R1

Pace Project No.: 50331797

QC Batch:	708402	Analysis Method:	EPA 6010
QC Batch Method:	EPA 3010	Analysis Description:	6010 MET Dissolved
		Laboratory:	Pace Analytical Services - Indianapolis
Associated Lab Samples:	50331797001, 50331797002, 50331797003		

METHOD BLANK: 3256167 Matrix: Water  
Associated Lab Samples: 50331797001, 50331797002, 50331797003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Manganese, Dissolved	ug/L	ND	10.0	5.4	12/08/22 03:10	
Molybdenum, Dissolved	ug/L	ND	10.0	2.0	12/08/22 03:10	

LABORATORY CONTROL SAMPLE: 3256168

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Manganese, Dissolved	ug/L	1000	974	97	80-120	
Molybdenum, Dissolved	ug/L	1000	1030	103	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3256169 3256170

Parameter	Units	50331802004 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Manganese, Dissolved	ug/L	42000	1000	1000	37900	41600	-409	-38	75-125	9	20	P6
Molybdenum, Dissolved	ug/L	ND	1000	1000	1030	1030	103	103	75-125	0	20	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3256171 3256172

Parameter	Units	50331803001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Manganese, Dissolved	ug/L	2210	1000	1000	3330	3090	112	88	75-125	7	20	
Molybdenum, Dissolved	ug/L	ND	1000	1000	1030	1050	103	105	75-125	1	20	

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### QUALITY CONTROL DATA

Project: Eagle Valley Oct 2022 P1R1  
Pace Project No.: 50331797

QC Batch: 708531 Analysis Method: EPA 6020  
QC Batch Method: EPA 200.2 Analysis Description: 6020 MET  
Laboratory: Pace Analytical Services - Indianapolis

Associated Lab Samples: 50331797001, 50331797002, 50331797003

METHOD BLANK: 3256548 Matrix: Water

Associated Lab Samples: 50331797001, 50331797002, 50331797003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Antimony	ug/L	ND	1.0	0.13	12/01/22 02:57	
Arsenic	ug/L	ND	1.0	0.11	12/01/22 02:57	
Selenium	ug/L	ND	1.0	0.35	12/02/22 14:49	

LABORATORY CONTROL SAMPLE: 3256549

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Antimony	ug/L	40	40.5	101	80-120	
Arsenic	ug/L	40	38.4	96	80-120	
Selenium	ug/L	40	40.6	102	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3256550 3256551

Parameter	Units	50331803001		3256550		3256551		% Rec	% Rec	% Rec Limits	RPD	Max RPD	Qual
		Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec						
Antimony	ug/L	ND	40	40	41.4	41.1	103	103	75-125	1	20		
Arsenic	ug/L	ND	40	40	39.7	38.5	99	96	75-125	3	20		
Selenium	ug/L	1.4	40	40	41.6	39.4	100	95	75-125	5	20		

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### QUALITY CONTROL DATA

Project: Eagle Valley Oct 2022 P1R1

Pace Project No.: 50331797

QC Batch:	708313	Analysis Method:	SM 2320B
QC Batch Method:	SM 2320B	Analysis Description:	2320B Alkalinity
		Laboratory:	Pace Analytical Services - Indianapolis

Associated Lab Samples: 50331797001, 50331797002, 50331797003

METHOD BLANK: 3255803 Matrix: Water

Associated Lab Samples: 50331797001, 50331797002, 50331797003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Alkalinity, Total as CaCO3	mg/L	ND	10.0	10.0	11/28/22 11:43	
Alkalinity,Bicarbonate (CaCO3)	mg/L	ND	10.0	10.0	11/28/22 11:43	
Alkalinity,Carbonate (CaCO3)	mg/L	ND	10.0	10.0	11/28/22 11:43	

LABORATORY CONTROL SAMPLE: 3255804

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Alkalinity, Total as CaCO3	mg/L	50	48.9	98	90-110	

SAMPLE DUPLICATE: 3255805

Parameter	Units	50331821001 Result	Dup Result	RPD	Max RPD	Qualifiers
Alkalinity, Total as CaCO3	mg/L	338	342	1	20	
Alkalinity,Bicarbonate (CaCO3)	mg/L	338	342	1	20	
Alkalinity,Carbonate (CaCO3)	mg/L	ND	ND		20	

SAMPLE DUPLICATE: 3255806

Parameter	Units	50331773003 Result	Dup Result	RPD	Max RPD	Qualifiers
Alkalinity, Total as CaCO3	mg/L	190	192	1	20	
Alkalinity,Bicarbonate (CaCO3)	mg/L	190	192	1	20	
Alkalinity,Carbonate (CaCO3)	mg/L	ND	ND		20	

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### QUALITY CONTROL DATA

Project: Eagle Valley Oct 2022 P1R1

Pace Project No.: 50331797

QC Batch:	708240	Analysis Method:	SM 2540C
QC Batch Method:	SM 2540C	Analysis Description:	2540C Total Dissolved Solids
		Laboratory:	Pace Analytical Services - Indianapolis

Associated Lab Samples: 50331797001, 50331797002, 50331797003

METHOD BLANK: 3255636 Matrix: Water

Associated Lab Samples: 50331797001, 50331797002, 50331797003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	ND	10.0	10.0	11/26/22 08:57	

LABORATORY CONTROL SAMPLE: 3255637

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	300	289	96	80-120	

SAMPLE DUPLICATE: 3255638

Parameter	Units	50331856001 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	1940	1960	1	10	

SAMPLE DUPLICATE: 3255639

Parameter	Units	50331802004 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	1770	1770	0	10	

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**QUALITY CONTROL DATA**

Project: Eagle Valley Oct 2022 P1R1

Pace Project No.: 50331797

QC Batch: 708711

Analysis Method: SM 4500-H+B

QC Batch Method: SM 4500-H+B

Analysis Description: 4500H+B pH

Laboratory: Pace Analytical Services - Indianapolis

Associated Lab Samples: 50331797001, 50331797002, 50331797003

SAMPLE DUPLICATE: 3257188

Parameter	Units	50331027037 Result	Dup Result	RPD	Max RPD	Qualifiers
pH at 25 Degrees C	Std. Units	7.1	7.2	0	2	H3

SAMPLE DUPLICATE: 3257189

Parameter	Units	50331803001 Result	Dup Result	RPD	Max RPD	Qualifiers
pH at 25 Degrees C	Std. Units	7.4	7.4	0	2	H3

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### QUALITY CONTROL DATA

Project: Eagle Valley Oct 2022 P1R1

Pace Project No.: 50331797

QC Batch:	707992	Analysis Method:	SM 4500-S2-D
QC Batch Method:	SM 4500-S2-D	Analysis Description:	4500S2D Sulfide Water
		Laboratory:	Pace Analytical Services - Indianapolis
Associated Lab Samples:	50331797001, 50331797002, 50331797003		

METHOD BLANK: 3254627 Matrix: Water

Associated Lab Samples: 50331797001, 50331797002, 50331797003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Sulfide	mg/L	ND	0.10	0.025	11/23/22 11:05	

LABORATORY CONTROL SAMPLE: 3254628

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Sulfide	mg/L	0.5	0.48	95	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3254629 3254630

Parameter	Units	50331803001		3254630		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result						
Sulfide	mg/L	ND	0.5	0.5	0.50	0.50	101	100	90-110	1	20

MATRIX SPIKE SAMPLE: 3254631

Parameter	Units	50331773001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Sulfide	mg/L	ND	0.5	0.53	106	90-110	

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### QUALITY CONTROL DATA

Project: Eagle Valley Oct 2022 P1R1

Pace Project No.: 50331797

QC Batch:	708495	Analysis Method:	HACH 8146
QC Batch Method:	HACH 8146	Analysis Description:	Iron, Ferrous
		Laboratory:	Pace Analytical Services - Indianapolis
Associated Lab Samples:	50331797001, 50331797002, 50331797003		

METHOD BLANK: 3256447 Matrix: Water  
Associated Lab Samples: 50331797001, 50331797002, 50331797003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Iron, Ferrous	mg/L	ND	0.20	0.096	11/28/22 19:02	H3,N2

LABORATORY CONTROL SAMPLE: 3256448

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Iron, Ferrous	mg/L	1	1.0	103	90-110	H3,N2

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3256449 3256450

Parameter	Units	50331365001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Iron, Ferrous	mg/L	ND	1	1	0.97	0.93	97	93	90-110	5	20	H3,N2

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3256451 3256452

Parameter	Units	50331803001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Iron, Ferrous	mg/L	ND	1	1	0.94	0.93	94	93	90-110	1	20	H3,N2

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### QUALITY CONTROL DATA

Project: Eagle Valley Oct 2022 P1R1

Pace Project No.: 50331797

QC Batch:	707883	Analysis Method:	EPA 353.2
QC Batch Method:	EPA 353.2	Analysis Description:	353.2 Nitrate + Nitrite, Unpres.
		Laboratory:	Pace Analytical Services - Indianapolis

Associated Lab Samples: 50331797001, 50331797002, 50331797003

METHOD BLANK: 3254014 Matrix: Water

Associated Lab Samples: 50331797001, 50331797002, 50331797003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Nitrogen, Nitrate	mg/L	ND	0.10	0.011	11/22/22 18:22	
Nitrogen, Nitrite	mg/L	ND	0.10	0.0040	11/22/22 18:22	

LABORATORY CONTROL SAMPLE: 3254015

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Nitrogen, Nitrate	mg/L	1	0.94	94	90-110	
Nitrogen, Nitrite	mg/L	1	0.99	99	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3254016 3254017

Parameter	Units	50330817022 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Nitrogen, Nitrate	mg/L	0.031J			0.99	0.99				0	20	H3
Nitrogen, Nitrite	mg/L	ND	1	1	1.0	1.0	100	100	90-110	0	20	H3

MATRIX SPIKE SAMPLE: 3254018

Parameter	Units	50331773002 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Nitrogen, Nitrate	mg/L		ND	1	0.97	96	90-110
Nitrogen, Nitrite	mg/L		ND	1	1.0	100	90-110

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**QUALITY CONTROL DATA**

Project: Eagle Valley Oct 2022 P1R1

Pace Project No.: 50331797

QC Batch:	708639	Analysis Method:	EPA 365.1
QC Batch Method:	EPA 365.1	Analysis Description:	365.1 Total Phosphorus
		Laboratory:	Pace Analytical Services - Indianapolis
Associated Lab Samples:	50331797001, 50331797002, 50331797003		

METHOD BLANK: 3256894 Matrix: Water  
Associated Lab Samples: 50331797001, 50331797002, 50331797003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Phosphate as P04	mg/L	ND	0.15	0.15	12/01/22 10:51	

LABORATORY CONTROL SAMPLE: 3256895

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Phosphate as P04	mg/L		1.5			

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3256896 3256897

Parameter	Units	50331803001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Phosphate as P04	mg/L	ND			1.5	1.5					3	

MATRIX SPIKE SAMPLE: 3256898

Parameter	Units	50331805001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Phosphate as P04	mg/L		0.16		1.6		

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**QUALITY CONTROL DATA**

Project: Eagle Valley Oct 2022 P1R1

Pace Project No.: 50331797

QC Batch:	710165	Analysis Method:	SM 5310C
QC Batch Method:	SM 5310C	Analysis Description:	5310C Total Organic Carbon
		Laboratory:	Pace Analytical Services - Indianapolis
Associated Lab Samples:	50331797001, 50331797002, 50331797003		

METHOD BLANK: 3263454 Matrix: Water

Associated Lab Samples: 50331797001, 50331797002, 50331797003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Organic Carbon	mg/L	ND	1.0	0.14	12/11/22 23:35	

LABORATORY CONTROL SAMPLE: 3263455

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Organic Carbon	mg/L	10	10.6	106	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3263456 3263457

Parameter	Units	50331803001		3263457		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result						
Total Organic Carbon	mg/L	ND	10	10	11.2	11.1	103	103	80-120	1	20

MATRIX SPIKE SAMPLE: 3263458

Parameter	Units	50331571002 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Total Organic Carbon	mg/L	ND	10	10.8	101	80-120	

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**QUALITY CONTROL DATA**

Project: Eagle Valley Oct 2022 P1R1

Pace Project No.: 50331797

QC Batch:	709613	Analysis Method:	SM 5310C
QC Batch Method:	SM 5310C	Analysis Description:	5310C Dissolved Organic Carbon
		Laboratory:	Pace Analytical Services - Indianapolis

Associated Lab Samples: 50331797001, 50331797002, 50331797003

METHOD BLANK: 3261067 Matrix: Water  
Associated Lab Samples: 50331797001, 50331797002, 50331797003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Dissolved Organic Carbon	mg/L	ND	1.0	0.14	12/08/22 06:28	

LABORATORY CONTROL SAMPLE: 3261068

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Dissolved Organic Carbon	mg/L	10	10.6	106	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3261069 3261070

Parameter	Units	50331803001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Dissolved Organic Carbon	mg/L	ND	10	10	11.2	11.3	105	105	80-120	0	20	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3261071 3261072

Parameter	Units	50332043001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Dissolved Organic Carbon	mg/L	ND	10	10	12.6	12.6	100	100	80-120	0	20	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3261073 3261074

Parameter	Units	50332201003 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Dissolved Organic Carbon	mg/L	ND	10	10	10.6	10.6	101	102	80-120	0	20	

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Eagle Valley Oct 2022 P1R1

Pace Project No.: 50331797

**Sample: MW-1S**      **Lab ID: 50331797001**      Collected: 11/22/22 10:35      Received: 11/22/22 15:20      Matrix: Water  
PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	<b>-0.212 ± 0.301 (0.707)</b> <b>C:NA T:90%</b>	pCi/L	12/15/22 16:18	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	<b>0.330 ± 0.495 (1.07)</b> <b>C:80% T:90%</b>	pCi/L	12/08/22 14:49	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	<b>0.330 ± 0.796 (1.78)</b>	pCi/L	12/16/22 16:18	7440-14-4	

### REPORT OF LABORATORY ANALYSIS

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Eagle Valley Oct 2022 P1R1

Pace Project No.: 50331797

**Sample: MW-11**      **Lab ID: 50331797002**      Collected: 11/22/22 12:17      Received: 11/22/22 15:20      Matrix: Water  
PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	<b>1.01 ± 0.507 (0.574)</b> <b>C:NA T:90%</b>	pCi/L	12/15/22 16:18	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	<b>0.882 ± 0.581 (1.11)</b> <b>C:76% T:90%</b>	pCi/L	12/08/22 14:49	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	<b>1.89 ± 1.09 (1.68)</b>	pCi/L	12/16/22 16:18	7440-14-4	

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Eagle Valley Oct 2022 P1R1

Pace Project No.: 50331797

**Sample: MW-1D**      **Lab ID: 50331797003**      Collected: 11/22/22 13:21      Received: 11/22/22 15:20      Matrix: Water  
PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	<b>0.444 ± 0.444 (0.703)</b> <b>C:NA T:90%</b>	pCi/L	12/15/22 16:18	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	<b>0.0575 ± 0.420 (0.969)</b> <b>C:77% T:90%</b>	pCi/L	12/08/22 14:47	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	<b>0.502 ± 0.864 (1.67)</b>	pCi/L	12/16/22 16:18	7440-14-4	

### REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL - RADIOCHEMISTRY

Project: Eagle Valley Oct 2022 P1R1

Pace Project No.: 50331797

QC Batch: 551084

Analysis Method: EPA 904.0

QC Batch Method: EPA 904.0

Analysis Description: 904.0 Radium 228

Laboratory: Pace Analytical Services - Greensburg

Associated Lab Samples: 50331797001, 50331797002, 50331797003

METHOD BLANK: 2676270

Matrix: Water

Associated Lab Samples: 50331797001, 50331797002, 50331797003

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.110 ± 0.368 (0.831) C:75% T:84%	pCi/L	12/08/22 12:39	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

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### QUALITY CONTROL - RADIOCHEMISTRY

Project: Eagle Valley Oct 2022 P1R1

Pace Project No.: 50331797

QC Batch: 551083

Analysis Method: EPA 903.1

QC Batch Method: EPA 903.1

Analysis Description: 903.1 Radium-226

Laboratory: Pace Analytical Services - Greensburg

Associated Lab Samples: 50331797001, 50331797002, 50331797003

METHOD BLANK: 2676269

Matrix: Water

Associated Lab Samples: 50331797001, 50331797002, 50331797003

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.000 ± 0.208 (0.423) C:NA T:84%	pCi/L	12/15/22 16:04	

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## QUALIFIERS

Project: Eagle Valley Oct 2022 P1R1

Pace Project No.: 50331797

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### DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Reported results are not rounded until the final step prior to reporting. Therefore, calculated parameters that are typically reported as "Total" may vary slightly from the sum of the reported component parameters.

Act - Activity

Unc - Uncertainty: SDWA = 1.96 sigma count uncertainty, all other matrices = Expanded Uncertainty (95% confidence interval).

Gamma Spec = Expanded Uncertainty (95.4% Confidence Interval)

(MDC) - Minimum Detectable Concentration

Trac - Tracer Recovery (%)

Carr - Carrier Recovery (%)

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

### ANALYTE QUALIFIERS

E Analyte concentration exceeded the calibration range. The reported result is estimated.

H3 Sample was received or analysis requested beyond the recognized method holding time.

M3 Matrix spike recovery was outside laboratory control limits due to matrix interferences.

N2 The lab does not hold NELAC/TNI accreditation for this parameter but other accreditations/certifications may apply. A complete list of accreditations/certifications is available upon request.

P6 Matrix spike recovery was outside laboratory control limits due to a parent sample concentration notably higher than the spike level.

R1 RPD value was outside control limits.

## REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Eagle Valley Oct 2022 P1R1

Pace Project No.: 50331797

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
50331797001	MW-1S	EPA 9056	708315		
50331797002	MW-1I	EPA 9056	708315		
50331797003	MW-1D	EPA 9056	708315		
50331797001	MW-1S	EPA 3010	708457	EPA 6010	710229
50331797002	MW-1I	EPA 3010	708457	EPA 6010	710229
50331797003	MW-1D	EPA 3010	708457	EPA 6010	710229
50331797001	MW-1S	EPA 3010	708402	EPA 6010	710055
50331797002	MW-1I	EPA 3010	708402	EPA 6010	710055
50331797003	MW-1D	EPA 3010	708402	EPA 6010	710055
50331797001	MW-1S	EPA 200.2	708531	EPA 6020	708868
50331797002	MW-1I	EPA 200.2	708531	EPA 6020	708868
50331797003	MW-1D	EPA 200.2	708531	EPA 6020	708868
50331797001	MW-1S	EPA 903.1	551083		
50331797002	MW-1I	EPA 903.1	551083		
50331797003	MW-1D	EPA 903.1	551083		
50331797001	MW-1S	EPA 904.0	551084		
50331797002	MW-1I	EPA 904.0	551084		
50331797003	MW-1D	EPA 904.0	551084		
50331797001	MW-1S	Total Radium Calculation	554470		
50331797002	MW-1I	Total Radium Calculation	554470		
50331797003	MW-1D	Total Radium Calculation	554470		
50331797001	MW-1S	SM 2320B	708313		
50331797002	MW-1I	SM 2320B	708313		
50331797003	MW-1D	SM 2320B	708313		
50331797001	MW-1S	SM 2540C	708240		
50331797002	MW-1I	SM 2540C	708240		
50331797003	MW-1D	SM 2540C	708240		
50331797001	MW-1S	SM 4500-H+B	708711		
50331797002	MW-1I	SM 4500-H+B	708711		
50331797003	MW-1D	SM 4500-H+B	708711		
50331797001	MW-1S	SM 4500-S2-D	707992		
50331797002	MW-1I	SM 4500-S2-D	707992		
50331797003	MW-1D	SM 4500-S2-D	707992		
50331797001	MW-1S	HACH 8146	708495		
50331797002	MW-1I	HACH 8146	708495		
50331797003	MW-1D	HACH 8146	708495		
50331797001	MW-1S	EPA 353.2	707883		
50331797002	MW-1I	EPA 353.2	707883		
50331797003	MW-1D	EPA 353.2	707883		
50331797001	MW-1S	EPA 365.1	708639	EPA 365.1	709048
50331797002	MW-1I	EPA 365.1	708639	EPA 365.1	709048
50331797003	MW-1D	EPA 365.1	708639	EPA 365.1	709048

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### QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Eagle Valley Oct 2022 P1R1

Pace Project No.: 50331797

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
50331797001	MW-1S	SM 5310C	710165		
50331797002	MW-1I	SM 5310C	710165		
50331797003	MW-1D	SM 5310C	710165		
50331797001	MW-1S	SM 5310C	709613		
50331797002	MW-1I	SM 5310C	709613		
50331797003	MW-1D	SM 5310C	709613		

### REPORT OF LABORATORY ANALYSIS

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**SAMPLE CONDITION UPON RECEIPT FORM**

Date/Time and Initials of person examining contents: DMP 11/22/22 15:48

1. Courier:  FED EX  UPS  CLIENT  PACE  USPS  OTHER

2. Custody Seal on Cooler/Box Present:  Yes  No  
 (If yes)Seals Intact:  Yes  No (leave blank if no seals were present)

3. Thermometer: 1 2 3 4 5 6 A B C D E F

4. Cooler Temperature(s): 2.5°/2.6°C 1.5/1.6    
 (Initial/Corrected) RECORD TEMPS OF ALL COOLERS RECEIVED (use Comments below to add more)

5. Packing Material:  Bubble Wrap  Bubble Bags  
 None  Other Plastic Bags

6. Ice Type:  Wet  Blue  None

7. If temp. is over 6°C or under 0°C, was the PM notified?:  Yes  No  
 Cooler temp should be above freezing to 6°C

All discrepancies will be written out in the comments section below.

	Yes	No		Yes	No	N/A
USDA Regulated Soils? (HI, ID, NY, WA, OR, CA, NM, TX, OK, AR, LA, TN, AL, MS, NC, SC, GA, FL, or Puerto Rico)		<input checked="" type="checkbox"/>	All containers needing acid/base preservation have been pH CHECKED?: Exceptions: VOA, coliform, LLHg, O&G, RAD CHEM, and any container with a septum cap or preserved with HCl.			
Short Hold Time Analysis (48 hours or less)? Analysis: <u>NO3</u>	<input checked="" type="checkbox"/>		Circle: HNO3 (<2) H2SO4 (<2) NaOH (>10) NaOH/ZnAc (>9) Any non-conformance to pH recommendations will be noted on the container count form	<input checked="" type="checkbox"/>		
Time 5035A TC placed in Freezer or Short Holds To Lab Time: <u>1630</u>			Residual Chlorine Check (SVOC 625 Pest/PCB 608)	<u>Present</u>	<u>Absent</u>	<u>N/A</u>
Rush TAT Requested (4 days or less):		<input checked="" type="checkbox"/>	Residual Chlorine Check (Total/Amenable/Free Cyanide)			<input checked="" type="checkbox"/>
Custody Signatures Present?	<input checked="" type="checkbox"/>		Headspace Wisconsin Sulfide?			<input checked="" type="checkbox"/>
Containers Intact?:	<input checked="" type="checkbox"/>		Headspace in VOA Vials (>6mm): See Containter Count form for details	<u>Present</u>	<u>Absent</u>	<u>No VOA Vials Sent</u>
Sample Label (IDs/Dates/Times) Match COC?: Except TCs, which only require sample ID		<input checked="" type="checkbox"/>	Trip Blank Present?		<input checked="" type="checkbox"/>	
Extra labels on Terracore Vials? (soils only)		<u>N/A</u>	Trip Blank Custody Seals?:			<input checked="" type="checkbox"/>

COMMENTS: Rcvd 1 BP3N no ID/Date/Time grouped with MW-15 in the plastic bag together. BP3F MW-10 time absent, DMP 11/22/22



March 06, 2023

Mr. Mark Breting  
ATC Group Services  
7988 Centerpoint Drive  
Suite 100  
Indianapolis, IN 46256

RE: Project: Eagle Valley Oct 2022 P1R2  
Pace Project No.: 50331804

Dear Mr. Breting:

Enclosed are the analytical results for sample(s) received by the laboratory on November 22, 2022. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

The test results provided in this final report were generated by each of the following laboratories within the Pace Network:

- Pace Analytical Services - Indianapolis
- Pace Analytical Services - Greensburg

If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Will Statz  
will.statz@pacelabs.com  
(317)228-3105  
Project Manager

Enclosures

cc: Mr. Robert Miller, Haley & Aldrich



## REPORT OF LABORATORY ANALYSIS

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## CERTIFICATIONS

Project: Eagle Valley Oct 2022 P1R2

Pace Project No.: 50331804

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### **Pace Analytical Services Pennsylvania**

1638 Roseytown Rd Suites 2,3&4, Greensburg, PA 15601

ANAB DOD-ELAP Rad Accreditation #: L2417

Alabama Certification #: 41590

Arizona Certification #: AZ0734

Arkansas Certification

California Certification #: 04222CA

Colorado Certification #: PA01547

Connecticut Certification #: PH-0694

Delaware Certification

EPA Region 4 DW Rad

Florida/TNI Certification #: E87683

Georgia Certification #: C040

Florida: Cert E871149 SEKS WET

Guam Certification

Hawaii Certification

Idaho Certification

Illinois Certification

Indiana Certification

Iowa Certification #: 391

Kansas/TNI Certification #: E-10358

Kentucky Certification #: KY90133

KY WW Permit #: KY0098221

KY WW Permit #: KY0000221

Louisiana DHH/TNI Certification #: LA180012

Louisiana DEQ/TNI Certification #: 4086

Maine Certification #: 2017020

Maryland Certification #: 308

Massachusetts Certification #: M-PA1457

Michigan/PADEP Certification #: 9991

Missouri Certification #: 235

Montana Certification #: Cert0082

Nebraska Certification #: NE-OS-29-14

Nevada Certification #: PA014572018-1

New Hampshire/TNI Certification #: 297617

New Jersey/TNI Certification #: PA051

New Mexico Certification #: PA01457

New York/TNI Certification #: 10888

North Carolina Certification #: 42706

North Dakota Certification #: R-190

Ohio EPA Rad Approval: #41249

Oregon/TNI Certification #: PA200002-010

Pennsylvania/TNI Certification #: 65-00282

Puerto Rico Certification #: PA01457

Rhode Island Certification #: 65-00282

South Dakota Certification

Tennessee Certification #: 02867

Texas/TNI Certification #: T104704188-17-3

Utah/TNI Certification #: PA014572017-9

USDA Soil Permit #: P330-17-00091

Vermont Dept. of Health: ID# VT-0282

Virgin Island/PADEP Certification

Virginia/VELAP Certification #: 460198

Washington Certification #: C868

West Virginia DEP Certification #: 143

West Virginia DHHR Certification #: 9964C

Wisconsin Approve List for Rad

Wyoming Certification #: 8TMS-L

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### **Pace Analytical Services Indianapolis**

7726 Moller Road, Indianapolis, IN 46268

Illinois Accreditation #: 200074

Indiana Drinking Water Laboratory #: C-49-06

Kansas/TNI Certification #: E-10177

Kentucky UST Agency Interest #: 80226

Kentucky WW Laboratory ID #: 98019

Michigan Drinking Water Laboratory #9050

Ohio VAP Certified Laboratory #: CL0065

Oklahoma Laboratory #: 9204

Texas Certification #: T104704355

Wisconsin Laboratory #: 999788130

USDA Foreign Soil Permit #: 525-23-13-23119

USDA Compliance Agreement #: IN-SL-22-001

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## REPORT OF LABORATORY ANALYSIS

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## SAMPLE SUMMARY

Project: Eagle Valley Oct 2022 P1R2

Pace Project No.: 50331804

Lab ID	Sample ID	Matrix	Date Collected	Date Received
50331804001	MW-16S	Water	11/21/22 09:45	11/22/22 15:55
50331804002	MW-16I	Water	11/21/22 11:08	11/22/22 15:55
50331804003	MW-16D	Water	11/21/22 11:49	11/22/22 15:55
50331804004	DUP-4	Water	11/21/22 00:00	11/22/22 15:55

## REPORT OF LABORATORY ANALYSIS

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### SAMPLE ANALYTE COUNT

Project: Eagle Valley Oct 2022 P1R2

Pace Project No.: 50331804

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory		
50331804001	MW-16S	EPA 9056	RMR	3	PASI-I		
		EPA 6010	DJS	12	PASI-I		
		EPA 6010	JPK	2	PASI-I		
		EPA 6020	DMT	3	PASI-I		
		EPA 903.1	GDH	1	PASI-PA		
		EPA 904.0	VAL	1	PASI-PA		
		Total Radium Calculation	JAL	1	PASI-PA		
		SM 2320B	TAY	3	PASI-I		
		SM 2540C	AEL	1	PASI-I		
		SM 4500-H+B	TRK	1	PASI-I		
		SM 4500-S2-D	BEP	1	PASI-I		
		HACH 8146	ZM	1	PASI-I		
		EPA 353.2	MMS	2	PASI-I		
		EPA 365.1	ZM	1	PASI-I		
		SM 5310C	ATS	1	PASI-I		
		SM 5310C	ATS	1	PASI-I		
		50331804002	MW-16I	EPA 9056	RMR	3	PASI-I
				EPA 6010	DJS	12	PASI-I
				EPA 6010	JPK	2	PASI-I
EPA 6020	DMT			3	PASI-I		
EPA 903.1	GDH			1	PASI-PA		
EPA 904.0	VAL			1	PASI-PA		
Total Radium Calculation	JAL			1	PASI-PA		
SM 2320B	TAY			3	PASI-I		
SM 2540C	AEL			1	PASI-I		
SM 4500-H+B	TRK			1	PASI-I		
SM 4500-S2-D	BEP			1	PASI-I		
HACH 8146	ZM			1	PASI-I		
EPA 353.2	MMS			2	PASI-I		
EPA 365.1	ZM			1	PASI-I		
SM 5310C	ATS			1	PASI-I		
SM 5310C	ATS			1	PASI-I		
50331804003	MW-16D			EPA 9056	RMR	3	PASI-I
				EPA 6010	DJS	12	PASI-I
				EPA 6010	JPK	2	PASI-I
		EPA 6020	DMT	3	PASI-I		
		EPA 903.1	GDH	1	PASI-PA		

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### SAMPLE ANALYTE COUNT

Project: Eagle Valley Oct 2022 P1R2

Pace Project No.: 50331804

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
		EPA 904.0	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
		SM 2320B	TAY	3	PASI-I
		SM 2540C	AEL	1	PASI-I
		SM 4500-H+B	TRK	1	PASI-I
		SM 4500-S2-D	BEP	1	PASI-I
		HACH 8146	ZM	1	PASI-I
		EPA 353.2	MMS	2	PASI-I
		EPA 365.1	ZM	1	PASI-I
		SM 5310C	ATS	1	PASI-I
		SM 5310C	ATS	1	PASI-I
50331804004	DUP-4	EPA 9056	RMR	3	PASI-I
		EPA 6010	DJS	12	PASI-I
		EPA 6010	JPK	2	PASI-I
		EPA 6020	DMT	3	PASI-I
		EPA 903.1	GDH	1	PASI-PA
		EPA 904.0	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
		SM 2320B	TAY	3	PASI-I
		SM 2540C	AEL	1	PASI-I
		SM 4500-H+B	TRK	1	PASI-I
		SM 4500-S2-D	BEP	1	PASI-I
		HACH 8146	ZM	1	PASI-I
		EPA 353.2	MMS	2	PASI-I
		EPA 365.1	ZM	1	PASI-I
		SM 5310C	ATS	1	PASI-I
		SM 5310C	ATS	1	PASI-I

PASI-I = Pace Analytical Services - Indianapolis

PASI-PA = Pace Analytical Services - Greensburg

### REPORT OF LABORATORY ANALYSIS

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### SUMMARY OF DETECTION

Project: Eagle Valley Oct 2022 P1R2

Pace Project No.: 50331804

Lab Sample ID	Client Sample ID	Result	Units	Report Limit	Analyzed	Qualifiers
Method	Parameters					
<b>50331804001</b>	<b>MW-16S</b>					
EPA 9056	Chloride	135	mg/L	25.0	12/01/22 17:44	
EPA 9056	Fluoride	0.23	mg/L	0.10	12/01/22 06:30	
EPA 9056	Sulfate	150	mg/L	2.5	12/01/22 06:46	
EPA 6010	Barium	95.4	ug/L	10.0	12/11/22 13:17	
EPA 6010	Boron	412	ug/L	100	12/11/22 13:17	
EPA 6010	Calcium	105000	ug/L	1000	12/11/22 13:17	
EPA 6010	Lithium	54.7	ug/L	20.0	12/11/22 13:17	
EPA 6010	Magnesium	27800	ug/L	1000	12/11/22 13:17	
EPA 6010	Manganese	572	ug/L	10.0	12/11/22 13:17	
EPA 6010	Molybdenum	45.1	ug/L	10.0	12/11/22 13:17	
EPA 6010	Potassium	8140	ug/L	1000	12/11/22 13:17	
EPA 6010	Silica	12600	ug/L	450	12/11/22 13:17	N2
EPA 6010	Sodium	80600	ug/L	1000	12/11/22 13:17	
EPA 6010	Manganese, Dissolved	442	ug/L	10.0	12/19/22 23:43	
EPA 6010	Molybdenum, Dissolved	45.1	ug/L	10.0	12/19/22 23:43	
EPA 6020	Selenium	1.5	ug/L	1.0	12/01/22 12:11	
EPA 903.1	Radium-226	0.342 ± 0.227 (0.103)	pCi/L		12/15/22 16:04	
EPA 904.0	Radium-228	C:NA T:88% 0.717 ± 0.537 (1.06)	pCi/L		12/08/22 14:48	
		C:81% T:88%				
Total Radium Calculation	Total Radium	1.06 ± 0.764 (1.16)	pCi/L		12/16/22 16:18	
SM 2320B	Alkalinity, Total as CaCO3	266	mg/L	10.0	11/25/22 12:02	
SM 2320B	Alkalinity, Bicarbonate (CaCO3)	266	mg/L	10.0	11/25/22 12:02	
SM 2540C	Total Dissolved Solids	675	mg/L	10.0	11/26/22 15:18	
SM 4500-H+B	pH at 25 Degrees C	7.6	Std. Units	0.10	12/05/22 16:30	H3
EPA 353.2	Nitrogen, Nitrate	1.4	mg/L	0.10	11/22/22 19:01	
SM 5310C	Dissolved Organic Carbon	1.0	mg/L	1.0	12/13/22 00:37	
<b>50331804002</b>	<b>MW-16I</b>					
EPA 9056	Chloride	106	mg/L	2.5	12/01/22 07:19	
EPA 9056	Fluoride	0.31	mg/L	0.10	12/01/22 07:03	
EPA 9056	Sulfate	98.3	mg/L	2.5	12/01/22 07:19	
EPA 6010	Barium	67.0	ug/L	10.0	12/11/22 13:19	
EPA 6010	Boron	271	ug/L	100	12/11/22 13:19	
EPA 6010	Calcium	65400	ug/L	1000	12/11/22 13:19	
EPA 6010	Lithium	71.1	ug/L	20.0	12/11/22 13:19	
EPA 6010	Magnesium	21100	ug/L	1000	12/11/22 13:19	
EPA 6010	Manganese	83.1	ug/L	10.0	12/11/22 13:19	
EPA 6010	Molybdenum	92.0	ug/L	10.0	12/11/22 13:19	
EPA 6010	Potassium	7180	ug/L	1000	12/11/22 13:19	
EPA 6010	Silica	10700	ug/L	450	12/11/22 13:19	N2
EPA 6010	Sodium	80000	ug/L	1000	12/11/22 13:19	
EPA 6010	Manganese, Dissolved	91.3	ug/L	10.0	12/19/22 23:59	

### REPORT OF LABORATORY ANALYSIS

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### SUMMARY OF DETECTION

Project: Eagle Valley Oct 2022 P1R2

Pace Project No.: 50331804

Lab Sample ID	Client Sample ID	Result	Units	Report Limit	Analyzed	Qualifiers
Method	Parameters					
<b>50331804002</b>	<b>MW-16I</b>					
EPA 6010	Molybdenum, Dissolved	101	ug/L	10.0	12/19/22 23:59	
EPA 903.1	Radium-226	0.629 ± 0.533 (0.806) C:NA T:88%	pCi/L		12/15/22 16:04	
EPA 904.0	Radium-228	0.867 ± 0.571 (1.09) C:75% T:88%	pCi/L		12/08/22 14:49	
Total Radium Calculation	Total Radium	1.50 ± 1.10 (1.90)	pCi/L		12/16/22 16:18	
SM 2320B	Alkalinity, Total as CaCO3	242	mg/L	10.0	11/25/22 12:02	
SM 2320B	Alkalinity,Bicarbonate (CaCO3)	242	mg/L	10.0	11/25/22 12:02	
SM 2540C	Total Dissolved Solids	516	mg/L	10.0	11/26/22 15:19	
SM 4500-H+B	pH at 25 Degrees C	7.7	Std. Units	0.10	12/05/22 16:32	H3
SM 5310C	Total Organic Carbon	1.0	mg/L	1.0	12/12/22 19:31	
SM 5310C	Dissolved Organic Carbon	1.2	mg/L	1.0	12/13/22 00:48	
<b>50331804003</b>	<b>MW-16D</b>					
EPA 9056	Chloride	98.0	mg/L	2.5	12/01/22 07:52	
EPA 9056	Fluoride	0.33	mg/L	0.10	12/01/22 07:36	
EPA 9056	Sulfate	82.7	mg/L	2.5	12/01/22 07:52	
EPA 6010	Barium	66.4	ug/L	10.0	12/11/22 13:21	
EPA 6010	Boron	176	ug/L	100	12/11/22 13:21	
EPA 6010	Calcium	76800	ug/L	1000	12/11/22 13:21	
EPA 6010	Iron	1050	ug/L	100	12/11/22 13:21	
EPA 6010	Lithium	45.1	ug/L	20.0	12/11/22 13:21	
EPA 6010	Magnesium	18800	ug/L	1000	12/11/22 13:21	
EPA 6010	Manganese	171	ug/L	10.0	12/11/22 13:21	
EPA 6010	Molybdenum	54.4	ug/L	10.0	12/11/22 13:21	
EPA 6010	Potassium	7960	ug/L	1000	12/11/22 13:21	
EPA 6010	Silica	10800	ug/L	450	12/11/22 13:21	N2
EPA 6010	Sodium	60400	ug/L	1000	12/11/22 13:21	
EPA 6010	Manganese, Dissolved	181	ug/L	10.0	12/20/22 00:01	
EPA 6010	Molybdenum, Dissolved	56.4	ug/L	10.0	12/20/22 00:01	
EPA 6020	Arsenic	4.2	ug/L	1.0	12/01/22 12:18	
EPA 903.1	Radium-226	0.399 ± 0.353 (0.523) C:NA T:86%	pCi/L		12/15/22 16:04	
EPA 904.0	Radium-228	0.104 ± 0.469 (1.07) C:81% T:86%	pCi/L		12/08/22 14:49	
Total Radium Calculation	Total Radium	0.503 ± 0.822 (1.59)	pCi/L		12/16/22 16:18	
SM 2320B	Alkalinity, Total as CaCO3	219	mg/L	10.0	11/25/22 12:02	
SM 2320B	Alkalinity,Bicarbonate (CaCO3)	219	mg/L	10.0	11/25/22 12:02	

### REPORT OF LABORATORY ANALYSIS

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### SUMMARY OF DETECTION

Project: Eagle Valley Oct 2022 P1R2

Pace Project No.: 50331804

Lab Sample ID Method	Client Sample ID Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
<b>50331804003</b>	<b>MW-16D</b>					
SM 2540C	Total Dissolved Solids	469	mg/L	10.0	11/26/22 15:19	
SM 4500-H+B	pH at 25 Degrees C	7.8	Std. Units	0.10	12/05/22 16:33	H3
SM 5310C	Total Organic Carbon	1.2	mg/L	1.0	12/12/22 19:42	
SM 5310C	Dissolved Organic Carbon	1.2	mg/L	1.0	12/13/22 00:59	
<b>50331804004</b>	<b>DUP-4</b>					
EPA 9056	Chloride	97.8	mg/L	2.5	12/01/22 17:59	
EPA 9056	Fluoride	0.33	mg/L	0.10	12/01/22 08:09	
EPA 9056	Sulfate	82.1	mg/L	2.5	12/01/22 17:59	
EPA 6010	Barium	65.4	ug/L	10.0	12/11/22 13:32	
EPA 6010	Boron	174	ug/L	100	12/11/22 13:32	
EPA 6010	Calcium	75600	ug/L	1000	12/11/22 13:32	
EPA 6010	Iron	1040	ug/L	100	12/11/22 13:32	
EPA 6010	Lithium	47.2	ug/L	20.0	12/11/22 13:32	
EPA 6010	Magnesium	18700	ug/L	1000	12/11/22 13:32	
EPA 6010	Manganese	170	ug/L	10.0	12/11/22 13:32	
EPA 6010	Molybdenum	53.5	ug/L	10.0	12/11/22 13:32	
EPA 6010	Potassium	7760	ug/L	1000	12/11/22 13:32	
EPA 6010	Silica	10700	ug/L	450	12/11/22 13:32	N2
EPA 6010	Sodium	59400	ug/L	1000	12/11/22 13:32	
EPA 6010	Manganese, Dissolved	178	ug/L	10.0	12/20/22 00:03	
EPA 6010	Molybdenum, Dissolved	54.4	ug/L	10.0	12/20/22 00:03	
EPA 6020	Arsenic	4.3	ug/L	1.0	12/01/22 12:22	
EPA 903.1	Radium-226	0.592 ± 0.485 (0.722)	pCi/L		12/15/22 16:04	
EPA 904.0	Radium-228	0.790 ± 0.610 (1.21)	pCi/L		12/08/22 14:49	
		C:NA T:89% C:75% T:89%				
Total Radium Calculation	Total Radium	1.38 ± 1.10 (1.93)	pCi/L		12/16/22 16:18	
SM 2320B	Alkalinity, Total as CaCO3	220	mg/L	10.0	11/25/22 12:02	
SM 2320B	Alkalinity,Bicarbonate (CaCO3)	220	mg/L	10.0	11/25/22 12:02	
SM 2540C	Total Dissolved Solids	468	mg/L	10.0	11/26/22 15:19	
SM 4500-H+B	pH at 25 Degrees C	7.7	Std. Units	0.10	12/05/22 16:34	H3
SM 5310C	Total Organic Carbon	1.4	mg/L	1.0	12/12/22 19:53	
SM 5310C	Dissolved Organic Carbon	1.2	mg/L	1.0	12/13/22 01:10	

### REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: Eagle Valley Oct 2022 P1R2

Pace Project No.: 50331804

Sample: MW-16S		Lab ID: 50331804001		Collected: 11/21/22 09:45	Received: 11/22/22 15:55	Matrix: Water				
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual	
<b>9056 IC Anions</b>		Analytical Method: EPA 9056 Pace Analytical Services - Indianapolis								
Chloride	135	mg/L	25.0	6.7	100		12/01/22 17:44	16887-00-6		
Fluoride	0.23	mg/L	0.10	0.017	1		12/01/22 06:30	16984-48-8		
Sulfate	150	mg/L	2.5	0.85	10		12/01/22 06:46	14808-79-8		
<b>6010 MET ICP</b>		Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Aluminum	ND	ug/L	200	55.4	1	12/09/22 09:03	12/11/22 13:17	7429-90-5		
Barium	95.4	ug/L	10.0	2.1	1	12/09/22 09:03	12/11/22 13:17	7440-39-3		
Boron	412	ug/L	100	37.6	1	12/09/22 09:03	12/11/22 13:17	7440-42-8		
Calcium	105000	ug/L	1000	163	1	12/09/22 09:03	12/11/22 13:17	7440-70-2		
Iron	ND	ug/L	100	48.8	1	12/09/22 09:03	12/11/22 13:17	7439-89-6		
Lithium	54.7	ug/L	20.0	6.2	1	12/09/22 09:03	12/11/22 13:17	7439-93-2		
Magnesium	27800	ug/L	1000	71.8	1	12/09/22 09:03	12/11/22 13:17	7439-95-4		
Manganese	572	ug/L	10.0	2.5	1	12/09/22 09:03	12/11/22 13:17	7439-96-5		
Molybdenum	45.1	ug/L	10.0	3.7	1	12/09/22 09:03	12/11/22 13:17	7439-98-7		
Potassium	8140	ug/L	1000	281	1	12/09/22 09:03	12/11/22 13:17	7440-09-7		
Silica	12600	ug/L	450		1	12/09/22 09:03	12/11/22 13:17	7631-86-9	N2	
Sodium	80600	ug/L	1000	214	1	12/09/22 09:03	12/11/22 13:17	7440-23-5		
<b>6010 MET ICP, Dissolved</b>		Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Manganese, Dissolved	442	ug/L	10.0	2.5	1	12/15/22 09:26	12/19/22 23:43	7439-96-5		
Molybdenum, Dissolved	45.1	ug/L	10.0	3.7	1	12/15/22 09:26	12/19/22 23:43	7439-98-7		
<b>6020 MET ICPMS</b>		Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis								
Antimony	ND	ug/L	1.0	0.28	1	11/30/22 15:55	12/01/22 12:11	7440-36-0		
Arsenic	ND	ug/L	1.0	0.094	1	11/30/22 15:55	12/01/22 12:11	7440-38-2		
Selenium	1.5	ug/L	1.0	0.57	1	11/30/22 15:55	12/01/22 12:11	7782-49-2		
<b>2320B Alkalinity</b>		Analytical Method: SM 2320B Pace Analytical Services - Indianapolis								
Alkalinity, Total as CaCO3	266	mg/L	10.0	10.0	1		11/25/22 12:02			
Alkalinity,Bicarbonate (CaCO3)	266	mg/L	10.0	10.0	1		11/25/22 12:02			
Alkalinity,Carbonate (CaCO3)	ND	mg/L	10.0	10.0	1		11/25/22 12:02			
<b>2540C Total Dissolved Solids</b>		Analytical Method: SM 2540C Pace Analytical Services - Indianapolis								
Total Dissolved Solids	675	mg/L	10.0	10.0	1		11/26/22 15:18			
<b>4500H+ pH, Electrometric</b>		Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis								
pH at 25 Degrees C	7.6	Std. Units	0.10	0.10	1		12/05/22 16:30		H3	

## REPORT OF LABORATORY ANALYSIS

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### ANALYTICAL RESULTS

Project: Eagle Valley Oct 2022 P1R2

Pace Project No.: 50331804

Sample: MW-16S		Lab ID: 50331804001		Collected: 11/21/22 09:45	Received: 11/22/22 15:55	Matrix: Water				
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual	
<b>4500S2D Sulfide Water</b>		Analytical Method: SM 4500-S2-D Pace Analytical Services - Indianapolis								
Sulfide	ND	mg/L	0.10	0.025	1		11/23/22 10:20	18496-25-8		
<b>Iron, Ferrous</b>		Analytical Method: HACH 8146 Pace Analytical Services - Indianapolis								
Iron, Ferrous	ND	mg/L	0.20	0.096	1		11/28/22 19:03	15438-31-0	H3,N2	
<b>353.2 Nitrogen, NO2/NO3 unpres</b>		Analytical Method: EPA 353.2 Pace Analytical Services - Indianapolis								
Nitrogen, Nitrate	1.4	mg/L	0.10	0.011	1		11/22/22 19:01	14797-55-8		
Nitrogen, Nitrite	ND	mg/L	0.10	0.0040	1		11/22/22 19:01	14797-65-0		
<b>365.1 Total Phosphorus</b>		Analytical Method: EPA 365.1 Preparation Method: EPA 365.1 Pace Analytical Services - Indianapolis								
Phosphate as P04	ND	mg/L	0.15	0.15	1	12/02/22 10:00	12/02/22 16:27			
<b>5310C TOC</b>		Analytical Method: SM 5310C Pace Analytical Services - Indianapolis								
Total Organic Carbon	ND	mg/L	1.0	0.14	1		12/12/22 19:20	7440-44-0		
<b>5310C Dissolved Organic Carbon</b>		Analytical Method: SM 5310C Pace Analytical Services - Indianapolis								
Dissolved Organic Carbon	1.0	mg/L	1.0	0.14	1		12/13/22 00:37			

### REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: Eagle Valley Oct 2022 P1R2

Pace Project No.: 50331804

Sample: MW-16I		Lab ID: 50331804002		Collected: 11/21/22 11:08		Received: 11/22/22 15:55		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>9056 IC Anions</b>		Analytical Method: EPA 9056 Pace Analytical Services - Indianapolis							
Chloride	106	mg/L	2.5	0.67	10		12/01/22 07:19	16887-00-6	
Fluoride	0.31	mg/L	0.10	0.017	1		12/01/22 07:03	16984-48-8	
Sulfate	98.3	mg/L	2.5	0.85	10		12/01/22 07:19	14808-79-8	
<b>6010 MET ICP</b>		Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis							
Aluminum	ND	ug/L	200	55.4	1	12/09/22 09:03	12/11/22 13:19	7429-90-5	
Barium	67.0	ug/L	10.0	2.1	1	12/09/22 09:03	12/11/22 13:19	7440-39-3	
Boron	271	ug/L	100	37.6	1	12/09/22 09:03	12/11/22 13:19	7440-42-8	
Calcium	65400	ug/L	1000	163	1	12/09/22 09:03	12/11/22 13:19	7440-70-2	
Iron	ND	ug/L	100	48.8	1	12/09/22 09:03	12/11/22 13:19	7439-89-6	
Lithium	71.1	ug/L	20.0	6.2	1	12/09/22 09:03	12/11/22 13:19	7439-93-2	
Magnesium	21100	ug/L	1000	71.8	1	12/09/22 09:03	12/11/22 13:19	7439-95-4	
Manganese	83.1	ug/L	10.0	2.5	1	12/09/22 09:03	12/11/22 13:19	7439-96-5	
Molybdenum	92.0	ug/L	10.0	3.7	1	12/09/22 09:03	12/11/22 13:19	7439-98-7	
Potassium	7180	ug/L	1000	281	1	12/09/22 09:03	12/11/22 13:19	7440-09-7	
Silica	10700	ug/L	450		1	12/09/22 09:03	12/11/22 13:19	7631-86-9	N2
Sodium	80000	ug/L	1000	214	1	12/09/22 09:03	12/11/22 13:19	7440-23-5	
<b>6010 MET ICP, Dissolved</b>		Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis							
Manganese, Dissolved	91.3	ug/L	10.0	2.5	1	12/15/22 09:26	12/19/22 23:59	7439-96-5	
Molybdenum, Dissolved	101	ug/L	10.0	3.7	1	12/15/22 09:26	12/19/22 23:59	7439-98-7	
<b>6020 MET ICPMS</b>		Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis							
Antimony	ND	ug/L	1.0	0.28	1	11/30/22 15:55	12/01/22 12:15	7440-36-0	
Arsenic	ND	ug/L	1.0	0.094	1	11/30/22 15:55	12/01/22 12:15	7440-38-2	
Selenium	ND	ug/L	1.0	0.57	1	11/30/22 15:55	12/01/22 12:15	7782-49-2	
<b>2320B Alkalinity</b>		Analytical Method: SM 2320B Pace Analytical Services - Indianapolis							
Alkalinity, Total as CaCO3	242	mg/L	10.0	10.0	1		11/25/22 12:02		
Alkalinity,Bicarbonate (CaCO3)	242	mg/L	10.0	10.0	1		11/25/22 12:02		
Alkalinity,Carbonate (CaCO3)	ND	mg/L	10.0	10.0	1		11/25/22 12:02		
<b>2540C Total Dissolved Solids</b>		Analytical Method: SM 2540C Pace Analytical Services - Indianapolis							
Total Dissolved Solids	516	mg/L	10.0	10.0	1		11/26/22 15:19		
<b>4500H+ pH, Electrometric</b>		Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis							
pH at 25 Degrees C	7.7	Std. Units	0.10	0.10	1		12/05/22 16:32		H3

## REPORT OF LABORATORY ANALYSIS

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### ANALYTICAL RESULTS

Project: Eagle Valley Oct 2022 P1R2

Pace Project No.: 50331804

Sample: MW-16I		Lab ID: 50331804002		Collected: 11/21/22 11:08	Received: 11/22/22 15:55	Matrix: Water				
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual	
<b>4500S2D Sulfide Water</b>		Analytical Method: SM 4500-S2-D Pace Analytical Services - Indianapolis								
Sulfide	ND	mg/L	0.10	0.025	1		11/23/22 10:20	18496-25-8		
<b>Iron, Ferrous</b>		Analytical Method: HACH 8146 Pace Analytical Services - Indianapolis								
Iron, Ferrous	ND	mg/L	0.20	0.096	1		11/28/22 19:03	15438-31-0	H3,N2	
<b>353.2 Nitrogen, NO2/NO3 unpres</b>		Analytical Method: EPA 353.2 Pace Analytical Services - Indianapolis								
Nitrogen, Nitrate	ND	mg/L	0.10	0.011	1		11/22/22 19:06	14797-55-8		
Nitrogen, Nitrite	ND	mg/L	0.10	0.0040	1		11/22/22 19:06	14797-65-0		
<b>365.1 Total Phosphorus</b>		Analytical Method: EPA 365.1 Preparation Method: EPA 365.1 Pace Analytical Services - Indianapolis								
Phosphate as P04	ND	mg/L	0.15	0.15	1	12/02/22 10:00	12/02/22 16:30			
<b>5310C TOC</b>		Analytical Method: SM 5310C Pace Analytical Services - Indianapolis								
Total Organic Carbon	1.0	mg/L	1.0	0.14	1		12/12/22 19:31	7440-44-0		
<b>5310C Dissolved Organic Carbon</b>		Analytical Method: SM 5310C Pace Analytical Services - Indianapolis								
Dissolved Organic Carbon	1.2	mg/L	1.0	0.14	1		12/13/22 00:48			

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## ANALYTICAL RESULTS

Project: Eagle Valley Oct 2022 P1R2

Pace Project No.: 50331804

Sample: MW-16D	Lab ID: 50331804003	Collected: 11/21/22 11:49	Received: 11/22/22 15:55	Matrix: Water					
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>9056 IC Anions</b>									
Analytical Method: EPA 9056									
Pace Analytical Services - Indianapolis									
Chloride	98.0	mg/L	2.5	0.67	10		12/01/22 07:52	16887-00-6	
Fluoride	0.33	mg/L	0.10	0.017	1		12/01/22 07:36	16984-48-8	
Sulfate	82.7	mg/L	2.5	0.85	10		12/01/22 07:52	14808-79-8	
<b>6010 MET ICP</b>									
Analytical Method: EPA 6010 Preparation Method: EPA 3010									
Pace Analytical Services - Indianapolis									
Aluminum	ND	ug/L	200	55.4	1	12/09/22 09:03	12/11/22 13:21	7429-90-5	
Barium	66.4	ug/L	10.0	2.1	1	12/09/22 09:03	12/11/22 13:21	7440-39-3	
Boron	176	ug/L	100	37.6	1	12/09/22 09:03	12/11/22 13:21	7440-42-8	
Calcium	76800	ug/L	1000	163	1	12/09/22 09:03	12/11/22 13:21	7440-70-2	
Iron	1050	ug/L	100	48.8	1	12/09/22 09:03	12/11/22 13:21	7439-89-6	
Lithium	45.1	ug/L	20.0	6.2	1	12/09/22 09:03	12/11/22 13:21	7439-93-2	
Magnesium	18800	ug/L	1000	71.8	1	12/09/22 09:03	12/11/22 13:21	7439-95-4	
Manganese	171	ug/L	10.0	2.5	1	12/09/22 09:03	12/11/22 13:21	7439-96-5	
Molybdenum	54.4	ug/L	10.0	3.7	1	12/09/22 09:03	12/11/22 13:21	7439-98-7	
Potassium	7960	ug/L	1000	281	1	12/09/22 09:03	12/11/22 13:21	7440-09-7	
Silica	10800	ug/L	450		1	12/09/22 09:03	12/11/22 13:21	7631-86-9	N2
Sodium	60400	ug/L	1000	214	1	12/09/22 09:03	12/11/22 13:21	7440-23-5	
<b>6010 MET ICP, Dissolved</b>									
Analytical Method: EPA 6010 Preparation Method: EPA 3010									
Pace Analytical Services - Indianapolis									
Manganese, Dissolved	181	ug/L	10.0	2.5	1	12/15/22 09:26	12/20/22 00:01	7439-96-5	
Molybdenum, Dissolved	56.4	ug/L	10.0	3.7	1	12/15/22 09:26	12/20/22 00:01	7439-98-7	
<b>6020 MET ICPMS</b>									
Analytical Method: EPA 6020 Preparation Method: EPA 200.2									
Pace Analytical Services - Indianapolis									
Antimony	ND	ug/L	1.0	0.28	1	11/30/22 15:55	12/01/22 12:18	7440-36-0	
Arsenic	4.2	ug/L	1.0	0.094	1	11/30/22 15:55	12/01/22 12:18	7440-38-2	
Selenium	ND	ug/L	1.0	0.57	1	11/30/22 15:55	12/01/22 12:18	7782-49-2	
<b>2320B Alkalinity</b>									
Analytical Method: SM 2320B									
Pace Analytical Services - Indianapolis									
Alkalinity, Total as CaCO3	219	mg/L	10.0	10.0	1		11/25/22 12:02		
Alkalinity,Bicarbonate (CaCO3)	219	mg/L	10.0	10.0	1		11/25/22 12:02		
Alkalinity,Carbonate (CaCO3)	ND	mg/L	10.0	10.0	1		11/25/22 12:02		
<b>2540C Total Dissolved Solids</b>									
Analytical Method: SM 2540C									
Pace Analytical Services - Indianapolis									
Total Dissolved Solids	469	mg/L	10.0	10.0	1		11/26/22 15:19		
<b>4500H+ pH, Electrometric</b>									
Analytical Method: SM 4500-H+B									
Pace Analytical Services - Indianapolis									
pH at 25 Degrees C	7.8	Std. Units	0.10	0.10	1		12/05/22 16:33		H3

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### ANALYTICAL RESULTS

Project: Eagle Valley Oct 2022 P1R2

Pace Project No.: 50331804

Sample: MW-16D		Lab ID: 50331804003		Collected: 11/21/22 11:49	Received: 11/22/22 15:55	Matrix: Water				
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual	
<b>4500S2D Sulfide Water</b>		Analytical Method: SM 4500-S2-D Pace Analytical Services - Indianapolis								
Sulfide	ND	mg/L	0.10	0.025	1		11/23/22 10:20	18496-25-8		
<b>Iron, Ferrous</b>		Analytical Method: HACH 8146 Pace Analytical Services - Indianapolis								
Iron, Ferrous	ND	mg/L	0.20	0.096	1		11/28/22 19:04	15438-31-0	H3,N2	
<b>353.2 Nitrogen, NO2/NO3 unpres</b>		Analytical Method: EPA 353.2 Pace Analytical Services - Indianapolis								
Nitrogen, Nitrate	ND	mg/L	0.10	0.011	1		11/22/22 19:08	14797-55-8		
Nitrogen, Nitrite	ND	mg/L	0.10	0.0040	1		11/22/22 19:08	14797-65-0		
<b>365.1 Total Phosphorus</b>		Analytical Method: EPA 365.1 Preparation Method: EPA 365.1 Pace Analytical Services - Indianapolis								
Phosphate as P04	ND	mg/L	0.15	0.15	1	12/02/22 10:00	12/02/22 16:30			
<b>5310C TOC</b>		Analytical Method: SM 5310C Pace Analytical Services - Indianapolis								
Total Organic Carbon	1.2	mg/L	1.0	0.14	1		12/12/22 19:42	7440-44-0		
<b>5310C Dissolved Organic Carbon</b>		Analytical Method: SM 5310C Pace Analytical Services - Indianapolis								
Dissolved Organic Carbon	1.2	mg/L	1.0	0.14	1		12/13/22 00:59			

### REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: Eagle Valley Oct 2022 P1R2

Pace Project No.: 50331804

Sample: DUP-4		Lab ID: 50331804004		Collected: 11/21/22 00:00	Received: 11/22/22 15:55	Matrix: Water				
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual	
<b>9056 IC Anions</b>		Analytical Method: EPA 9056 Pace Analytical Services - Indianapolis								
Chloride	97.8	mg/L	2.5	0.67	10		12/01/22 17:59	16887-00-6		
Fluoride	0.33	mg/L	0.10	0.017	1		12/01/22 08:09	16984-48-8		
Sulfate	82.1	mg/L	2.5	0.85	10		12/01/22 17:59	14808-79-8		
<b>6010 MET ICP</b>		Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Aluminum	ND	ug/L	200	55.4	1	12/09/22 09:03	12/11/22 13:32	7429-90-5		
Barium	65.4	ug/L	10.0	2.1	1	12/09/22 09:03	12/11/22 13:32	7440-39-3		
Boron	174	ug/L	100	37.6	1	12/09/22 09:03	12/11/22 13:32	7440-42-8		
Calcium	75600	ug/L	1000	163	1	12/09/22 09:03	12/11/22 13:32	7440-70-2		
Iron	1040	ug/L	100	48.8	1	12/09/22 09:03	12/11/22 13:32	7439-89-6		
Lithium	47.2	ug/L	20.0	6.2	1	12/09/22 09:03	12/11/22 13:32	7439-93-2		
Magnesium	18700	ug/L	1000	71.8	1	12/09/22 09:03	12/11/22 13:32	7439-95-4		
Manganese	170	ug/L	10.0	2.5	1	12/09/22 09:03	12/11/22 13:32	7439-96-5		
Molybdenum	53.5	ug/L	10.0	3.7	1	12/09/22 09:03	12/11/22 13:32	7439-98-7		
Potassium	7760	ug/L	1000	281	1	12/09/22 09:03	12/11/22 13:32	7440-09-7		
Silica	10700	ug/L	450		1	12/09/22 09:03	12/11/22 13:32	7631-86-9	N2	
Sodium	59400	ug/L	1000	214	1	12/09/22 09:03	12/11/22 13:32	7440-23-5		
<b>6010 MET ICP, Dissolved</b>		Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Manganese, Dissolved	178	ug/L	10.0	2.5	1	12/15/22 09:26	12/20/22 00:03	7439-96-5		
Molybdenum, Dissolved	54.4	ug/L	10.0	3.7	1	12/15/22 09:26	12/20/22 00:03	7439-98-7		
<b>6020 MET ICPMS</b>		Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis								
Antimony	ND	ug/L	1.0	0.28	1	11/30/22 15:55	12/01/22 12:22	7440-36-0		
Arsenic	4.3	ug/L	1.0	0.094	1	11/30/22 15:55	12/01/22 12:22	7440-38-2		
Selenium	ND	ug/L	1.0	0.57	1	11/30/22 15:55	12/01/22 12:22	7782-49-2		
<b>2320B Alkalinity</b>		Analytical Method: SM 2320B Pace Analytical Services - Indianapolis								
Alkalinity, Total as CaCO3	220	mg/L	10.0	10.0	1		11/25/22 12:02			
Alkalinity,Bicarbonate (CaCO3)	220	mg/L	10.0	10.0	1		11/25/22 12:02			
Alkalinity,Carbonate (CaCO3)	ND	mg/L	10.0	10.0	1		11/25/22 12:02			
<b>2540C Total Dissolved Solids</b>		Analytical Method: SM 2540C Pace Analytical Services - Indianapolis								
Total Dissolved Solids	468	mg/L	10.0	10.0	1		11/26/22 15:19			
<b>4500H+ pH, Electrometric</b>		Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis								
pH at 25 Degrees C	7.7	Std. Units	0.10	0.10	1		12/05/22 16:34		H3	

## REPORT OF LABORATORY ANALYSIS

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### ANALYTICAL RESULTS

Project: Eagle Valley Oct 2022 P1R2

Pace Project No.: 50331804

Sample: DUP-4		Lab ID: 50331804004		Collected: 11/21/22 00:00	Received: 11/22/22 15:55	Matrix: Water			
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>4500S2D Sulfide Water</b>		Analytical Method: SM 4500-S2-D Pace Analytical Services - Indianapolis							
Sulfide	ND	mg/L	0.10	0.025	1		11/23/22 10:20	18496-25-8	
<b>Iron, Ferrous</b>		Analytical Method: HACH 8146 Pace Analytical Services - Indianapolis							
Iron, Ferrous	ND	mg/L	0.20	0.096	1		11/28/22 18:40	15438-31-0	H3,N2
<b>353.2 Nitrogen, NO2/NO3 unpres</b>		Analytical Method: EPA 353.2 Pace Analytical Services - Indianapolis							
Nitrogen, Nitrate	ND	mg/L	0.10	0.011	1		11/22/22 19:10	14797-55-8	
Nitrogen, Nitrite	ND	mg/L	0.10	0.0040	1		11/22/22 19:10	14797-65-0	
<b>365.1 Total Phosphorus</b>		Analytical Method: EPA 365.1 Preparation Method: EPA 365.1 Pace Analytical Services - Indianapolis							
Phosphate as P04	ND	mg/L	0.15	0.15	1	12/02/22 10:00	12/02/22 16:31		
<b>5310C TOC</b>		Analytical Method: SM 5310C Pace Analytical Services - Indianapolis							
Total Organic Carbon	1.4	mg/L	1.0	0.14	1		12/12/22 19:53	7440-44-0	
<b>5310C Dissolved Organic Carbon</b>		Analytical Method: SM 5310C Pace Analytical Services - Indianapolis							
Dissolved Organic Carbon	1.2	mg/L	1.0	0.14	1		12/13/22 01:10		

### REPORT OF LABORATORY ANALYSIS

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**QUALITY CONTROL DATA**

Project: Eagle Valley Oct 2022 P1R2  
Pace Project No.: 50331804

QC Batch: 708469 Analysis Method: EPA 9056  
QC Batch Method: EPA 9056 Analysis Description: 9056 IC Anions  
Laboratory: Pace Analytical Services - Indianapolis  
Associated Lab Samples: 50331804001, 50331804002, 50331804003, 50331804004

METHOD BLANK: 3256385 Matrix: Water  
Associated Lab Samples: 50331804001, 50331804002, 50331804003, 50331804004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chloride	mg/L	ND	0.25	0.067	11/30/22 14:40	
Fluoride	mg/L	ND	0.10	0.017	11/30/22 14:40	
Sulfate	mg/L	ND	0.25	0.085	11/30/22 14:40	

LABORATORY CONTROL SAMPLE: 3256386

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	1.2	1.2	95	80-120	
Fluoride	mg/L	0.5	0.47	93	80-120	
Sulfate	mg/L	2.5	2.5	102	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3256387 3256388

Parameter	Units	50331803001		MS		MSD		% Rec	% Rec	% Rec	Limits	RPD	Max RPD	Qual
		Result	Conc.	Spike Conc.	Conc.	Result	Result							
Chloride	mg/L	11.2	1.2	1.2	1.2	12.7	12.7	118	119	119	80-120	0	15	
Fluoride	mg/L	ND	0.5	0.5	0.5	0.61	0.60	105	105	105	80-120	1	15	
Sulfate	mg/L	24.9	2.5	2.5	2.5	27.7	27.7	113	113	113	80-120	0	15	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3256389 3256390

Parameter	Units	50331135004		MS		MSD		% Rec	% Rec	% Rec	Limits	RPD	Max RPD	Qual
		Result	Conc.	Spike Conc.	Conc.	Result	Result							
Chloride	mg/L	17.3	12.5	12.5	12.5	29.4	29.6	97	98	98	80-120	0	15	
Fluoride	mg/L	ND	0.5	0.5	0.5	0.48	0.46	93	90	90	80-120	4	15	
Sulfate	mg/L	1080	250	250	250	1400	1430	127	142	142	80-120	3	15 M0	

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### QUALITY CONTROL DATA

Project: Eagle Valley Oct 2022 P1R2

Pace Project No.: 50331804

QC Batch: 708483 Analysis Method: EPA 6010  
 QC Batch Method: EPA 3010 Analysis Description: 6010 MET  
 Laboratory: Pace Analytical Services - Indianapolis

Associated Lab Samples: 50331804001, 50331804002, 50331804003, 50331804004

METHOD BLANK: 3256431 Matrix: Water

Associated Lab Samples: 50331804001, 50331804002, 50331804003, 50331804004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Aluminum	ug/L	ND	200	55.4	12/11/22 12:09	
Barium	ug/L	ND	10.0	2.1	12/11/22 12:09	
Boron	ug/L	ND	100	37.6	12/11/22 12:09	
Calcium	ug/L	ND	1000	163	12/11/22 12:09	
Iron	ug/L	ND	100	48.8	12/11/22 12:09	
Lithium	ug/L	ND	20.0	6.2	12/11/22 12:09	
Magnesium	ug/L	ND	1000	71.8	12/11/22 12:09	
Manganese	ug/L	ND	10.0	2.5	12/11/22 12:09	
Molybdenum	ug/L	ND	10.0	3.7	12/11/22 12:09	
Potassium	ug/L	ND	1000	281	12/11/22 12:09	
Silica	ug/L	ND	450		12/11/22 12:09	N2
Sodium	ug/L	ND	1000	214	12/11/22 12:09	

LABORATORY CONTROL SAMPLE: 3256432

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Aluminum	ug/L	10000	9750	97	80-120	
Barium	ug/L	1000	996	100	80-120	
Boron	ug/L	1000	984	98	80-120	
Calcium	ug/L	10000	9900	99	80-120	
Iron	ug/L	10000	10000	100	80-120	
Lithium	ug/L	1000	973	97	80-120	
Magnesium	ug/L	10000	9600	96	80-120	
Manganese	ug/L	1000	951	95	80-120	
Molybdenum	ug/L	1000	1030	103	80-120	
Potassium	ug/L	10000	9900	99	80-120	
Silica	ug/L	10700	10700	100	80-120	N2
Sodium	ug/L	10000	9660	97	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3256433 3256434

Parameter	Units	MS		MSD		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual	
		50331953001 Result	Spike Conc.	Spike Conc.	MS Result							MSD Result
Aluminum	ug/L	616	10000	10000	10800	10600	102	100	75-125	1	20	
Barium	ug/L	155	1000	1000	1190	1170	103	101	75-125	1	20	
Boron	ug/L	213	1000	1000	1270	1260	106	105	75-125	1	20	
Calcium	ug/L	97600	10000	10000	120000	115000	223	175	75-125	4	20	P6

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### QUALITY CONTROL DATA

Project: Eagle Valley Oct 2022 P1R2

Pace Project No.: 50331804

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3256433 3256434												
Parameter	Units	50331953001		MS	MSD	3256434		% Rec	% Rec	% Rec	Max	Qual
		Result	Conc.	Spike	Conc.	MS	MSD					
Iron	ug/L	1920	10000	10000	12200	12000	103	101	75-125	2	20	
Lithium	ug/L	ND	1000	1000	1000	994	99	98	75-125	1	20	
Magnesium	ug/L	29200	10000	10000	42600	41000	135	119	75-125	4	20	M0
Manganese	ug/L	112	1000	1000	1080	1060	97	95	75-125	1	20	
Molybdenum	ug/L	ND	1000	1000	1050	1050	104	104	75-125	0	20	
Potassium	ug/L	2630	10000	10000	13400	13100	107	104	75-125	2	20	
Silica	ug/L	22500	10700	10700	37000	36300	135	129	75-125	2	20	N2
Sodium	ug/L	44600	10000	10000	59900	57700	153	131	75-125	4	20	P6

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**QUALITY CONTROL DATA**

Project: Eagle Valley Oct 2022 P1R2

Pace Project No.: 50331804

QC Batch: 710707 Analysis Method: EPA 6010  
 QC Batch Method: EPA 3010 Analysis Description: 6010 MET Dissolved  
 Laboratory: Pace Analytical Services - Indianapolis

Associated Lab Samples: 50331804001, 50331804002, 50331804003, 50331804004

METHOD BLANK: 3266129 Matrix: Water

Associated Lab Samples: 50331804001, 50331804002, 50331804003, 50331804004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Manganese, Dissolved	ug/L	ND	10.0	2.5	12/19/22 23:41	
Molybdenum, Dissolved	ug/L	ND	10.0	3.7	12/19/22 23:41	

LABORATORY CONTROL SAMPLE: 3266130

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Manganese, Dissolved	ug/L	1000	990	99	80-120	
Molybdenum, Dissolved	ug/L	1000	1070	107	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3266131 3266132

Parameter	Units	50331804001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Manganese, Dissolved	ug/L	442	1000	1000	1460	1480	102	104	75-125	1	20	
Molybdenum, Dissolved	ug/L	45.1	1000	1000	1140	1180	110	113	75-125	3	20	

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### QUALITY CONTROL DATA

Project: Eagle Valley Oct 2022 P1R2

Pace Project No.: 50331804

QC Batch:	708720	Analysis Method:	EPA 6020
QC Batch Method:	EPA 200.2	Analysis Description:	6020 MET
		Laboratory:	Pace Analytical Services - Indianapolis

Associated Lab Samples: 50331804001, 50331804002, 50331804003, 50331804004

METHOD BLANK: 3257223 Matrix: Water  
Associated Lab Samples: 50331804001, 50331804002, 50331804003, 50331804004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Antimony	ug/L	ND	1.0	0.28	12/01/22 10:25	
Arsenic	ug/L	ND	1.0	0.094	12/01/22 10:25	
Selenium	ug/L	ND	1.0	0.57	12/01/22 10:25	

LABORATORY CONTROL SAMPLE: 3257224

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Antimony	ug/L	40	41.4	103	80-120	
Arsenic	ug/L	40	38.4	96	80-120	
Selenium	ug/L	40	40.2	101	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3257225 3257226

Parameter	Units	50331135004		3257225		3257226		% Rec	% Rec	% Rec Limits	RPD	Max RPD	Qual
		Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec						
Antimony	ug/L	ND	40	40	41.4	41.2	103	103	75-125	1	20		
Arsenic	ug/L	0.0064 mg/L	40	40	44.8	44.5	96	95	75-125	1	20		
Selenium	ug/L	ND	40	40	41.0	40.6	102	101	75-125	1	20		

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### QUALITY CONTROL DATA

Project: Eagle Valley Oct 2022 P1R2

Pace Project No.: 50331804

QC Batch: 708215

Analysis Method: SM 2320B

QC Batch Method: SM 2320B

Analysis Description: 2320B Alkalinity

Laboratory: Pace Analytical Services - Indianapolis

Associated Lab Samples: 50331804001, 50331804002, 50331804003, 50331804004

METHOD BLANK: 3255594

Matrix: Water

Associated Lab Samples: 50331804001, 50331804002, 50331804003, 50331804004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Alkalinity, Total as CaCO <sub>3</sub>	mg/L	ND	10.0	10.0	11/25/22 12:02	
Alkalinity,Bicarbonate (CaCO <sub>3</sub> )	mg/L	ND	10.0	10.0	11/25/22 12:02	
Alkalinity,Carbonate (CaCO <sub>3</sub> )	mg/L	ND	10.0	10.0	11/25/22 12:02	

LABORATORY CONTROL SAMPLE: 3255595

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Alkalinity, Total as CaCO <sub>3</sub>	mg/L	50	48.5	97	90-110	

SAMPLE DUPLICATE: 3255596

Parameter	Units	50331804001 Result	Dup Result	RPD	Max RPD	Qualifiers
Alkalinity, Total as CaCO <sub>3</sub>	mg/L	266	271	2	20	
Alkalinity,Bicarbonate (CaCO <sub>3</sub> )	mg/L	266	271	2	20	
Alkalinity,Carbonate (CaCO <sub>3</sub> )	mg/L	ND	ND		20	

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### QUALITY CONTROL DATA

Project: Eagle Valley Oct 2022 P1R2

Pace Project No.: 50331804

QC Batch: 708252      Analysis Method: SM 2540C  
 QC Batch Method: SM 2540C      Analysis Description: 2540C Total Dissolved Solids  
    Laboratory: Pace Analytical Services - Indianapolis  
 Associated Lab Samples: 50331804001, 50331804002, 50331804003, 50331804004

METHOD BLANK: 3255680      Matrix: Water  
 Associated Lab Samples: 50331804001, 50331804002, 50331804003, 50331804004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	ND	10.0	10.0	11/26/22 15:13	

LABORATORY CONTROL SAMPLE: 3255681

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	300	289	96	80-120	

SAMPLE DUPLICATE: 3255682

Parameter	Units	50331923004 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	1340	1320	2	10	

SAMPLE DUPLICATE: 3255683

Parameter	Units	50331805001 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	878	876	0	10	

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**QUALITY CONTROL DATA**

Project: Eagle Valley Oct 2022 P1R2

Pace Project No.: 50331804

QC Batch: 709611

Analysis Method: SM 4500-H+B

QC Batch Method: SM 4500-H+B

Analysis Description: 4500H+B pH

Laboratory: Pace Analytical Services - Indianapolis

Associated Lab Samples: 50331804001, 50331804002, 50331804003, 50331804004

SAMPLE DUPLICATE: 3261062

Parameter	Units	50332467001 Result	Dup Result	RPD	Max RPD	Qualifiers
pH at 25 Degrees C	Std. Units	8.5	8.6	0	2	H3

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### QUALITY CONTROL DATA

Project: Eagle Valley Oct 2022 P1R2

Pace Project No.: 50331804

QC Batch: 707991 Analysis Method: SM 4500-S2-D  
 QC Batch Method: SM 4500-S2-D Analysis Description: 4500S2D Sulfide Water  
 Laboratory: Pace Analytical Services - Indianapolis  
 Associated Lab Samples: 50331804001, 50331804002, 50331804003, 50331804004

METHOD BLANK: 3254620 Matrix: Water  
 Associated Lab Samples: 50331804001, 50331804002, 50331804003, 50331804004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Sulfide	mg/L	ND	0.10	0.025	11/23/22 10:20	

LABORATORY CONTROL SAMPLE: 3254621

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Sulfide	mg/L	0.5	0.48	96	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3254622 3254623

Parameter	Units	50330817022		50330817023		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result						
Sulfide	mg/L	0.029J	0.5	0.5	0.48	0.46	89	85	90-110	4	20 H3,M3

MATRIX SPIKE SAMPLE: 3254624

Parameter	Units	50331804001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Sulfide	mg/L	ND	0.5	0.44	89	90-110	M0

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### QUALITY CONTROL DATA

Project: Eagle Valley Oct 2022 P1R2  
Pace Project No.: 50331804

QC Batch: 708493	Analysis Method: HACH 8146
QC Batch Method: HACH 8146	Analysis Description: Iron, Ferrous
	Laboratory: Pace Analytical Services - Indianapolis

Associated Lab Samples: 50331804004

METHOD BLANK: 3256441 Matrix: Water

Associated Lab Samples: 50331804004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Iron, Ferrous	mg/L	ND	0.20	0.096	11/28/22 18:33	H3,N2

LABORATORY CONTROL SAMPLE: 3256442

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Iron, Ferrous	mg/L	1	1.0	102	90-110	H3,N2

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3256443 3256444

Parameter	Units	50330817022		3256443		3256444		% Rec Limits	RPD	Max RPD	Qual
		MS Result	MSD Spike Conc.	MS Result	MSD Spike Conc.	MS % Rec	MSD % Rec				
Iron, Ferrous	mg/L	ND	1	1	0.96	1.0	96	104	9	20	H3,N2

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3256445 3256446

Parameter	Units	50331424001		3256445		3256446		% Rec Limits	RPD	Max RPD	Qual
		MS Result	MSD Spike Conc.	MS Result	MSD Spike Conc.	MS % Rec	MSD % Rec				
Iron, Ferrous	mg/L	ND	1	1	0.99	0.99	99	99	0	20	H3,N2

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### QUALITY CONTROL DATA

Project: Eagle Valley Oct 2022 P1R2

Pace Project No.: 50331804

QC Batch:	708495	Analysis Method:	HACH 8146
QC Batch Method:	HACH 8146	Analysis Description:	Iron, Ferrous
		Laboratory:	Pace Analytical Services - Indianapolis

Associated Lab Samples: 50331804001, 50331804002, 50331804003

METHOD BLANK: 3256447 Matrix: Water

Associated Lab Samples: 50331804001, 50331804002, 50331804003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Iron, Ferrous	mg/L	ND	0.20	0.096	11/28/22 19:02	H3,N2

LABORATORY CONTROL SAMPLE: 3256448

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Iron, Ferrous	mg/L	1	1.0	103	90-110	H3,N2

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3256449 3256450

Parameter	Units	50331365001		3256450		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual	
		MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result							
Iron, Ferrous	mg/L	ND	1	1	0.97	0.93	97	93	90-110	5	20	H3,N2

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3256451 3256452

Parameter	Units	50331803001		3256452		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual	
		MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result							
Iron, Ferrous	mg/L	ND	1	1	0.94	0.93	94	93	90-110	1	20	H3,N2

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### QUALITY CONTROL DATA

Project: Eagle Valley Oct 2022 P1R2

Pace Project No.: 50331804

QC Batch:	707883	Analysis Method:	EPA 353.2
QC Batch Method:	EPA 353.2	Analysis Description:	353.2 Nitrate + Nitrite, Unpres.
		Laboratory:	Pace Analytical Services - Indianapolis

Associated Lab Samples: 50331804001, 50331804002, 50331804003, 50331804004

METHOD BLANK: 3254014 Matrix: Water  
Associated Lab Samples: 50331804001, 50331804002, 50331804003, 50331804004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Nitrogen, Nitrate	mg/L	ND	0.10	0.011	11/22/22 18:22	
Nitrogen, Nitrite	mg/L	ND	0.10	0.0040	11/22/22 18:22	

LABORATORY CONTROL SAMPLE: 3254015

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Nitrogen, Nitrate	mg/L	1	0.94	94	90-110	
Nitrogen, Nitrite	mg/L	1	0.99	99	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3254016 3254017

Parameter	Units	50330817022 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Nitrogen, Nitrate	mg/L	0.031J			0.99	0.99				0	20	H3
Nitrogen, Nitrite	mg/L	ND	1	1	1.0	1.0	100	100	90-110	0	20	H3

MATRIX SPIKE SAMPLE: 3254018

Parameter	Units	50331773002 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Nitrogen, Nitrate	mg/L		ND	1	0.97	96	90-110
Nitrogen, Nitrite	mg/L		ND	1	1.0	100	90-110

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**QUALITY CONTROL DATA**

Project: Eagle Valley Oct 2022 P1R2

Pace Project No.: 50331804

QC Batch: 709207

Analysis Method: EPA 365.1

QC Batch Method: EPA 365.1

Analysis Description: 365.1 Total Phosphorus

Laboratory: Pace Analytical Services - Indianapolis

Associated Lab Samples: 50331804001, 50331804002, 50331804003, 50331804004

METHOD BLANK: 3259221

Matrix: Water

Associated Lab Samples: 50331804001, 50331804002, 50331804003, 50331804004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Phosphate as P04	mg/L	ND	0.15	0.15	12/02/22 16:26	

LABORATORY CONTROL SAMPLE: 3259222

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Phosphate as P04	mg/L		1.4			

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3259223 3259224

Parameter	Units	50331804001		50331804002		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result						
Phosphate as P04	mg/L	ND		1.5	1.5				1		

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**QUALITY CONTROL DATA**

Project: Eagle Valley Oct 2022 P1R2

Pace Project No.: 50331804

QC Batch:	710347	Analysis Method:	SM 5310C
QC Batch Method:	SM 5310C	Analysis Description:	5310C Total Organic Carbon
		Laboratory:	Pace Analytical Services - Indianapolis

Associated Lab Samples: 50331804001, 50331804002, 50331804003, 50331804004

METHOD BLANK: 3264495 Matrix: Water  
Associated Lab Samples: 50331804001, 50331804002, 50331804003, 50331804004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Organic Carbon	mg/L	ND	1.0	0.14	12/12/22 14:28	

LABORATORY CONTROL SAMPLE: 3264496

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Organic Carbon	mg/L	10	10.2	102	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3264497 3264498

Parameter	Units	50331710001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Total Organic Carbon	mg/L	2.1	10	10	11.9	12.1	98	99	80-120	1	20	

MATRIX SPIKE SAMPLE: 3264499

Parameter	Units	50331710002 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Total Organic Carbon	mg/L	2.1	10	12.2	101	80-120	

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**QUALITY CONTROL DATA**

Project: Eagle Valley Oct 2022 P1R2

Pace Project No.: 50331804

QC Batch:	710348	Analysis Method:	SM 5310C
QC Batch Method:	SM 5310C	Analysis Description:	5310C Dissolved Organic Carbon
		Laboratory:	Pace Analytical Services - Indianapolis
Associated Lab Samples:	50331804001, 50331804002, 50331804003, 50331804004		

METHOD BLANK:	3264504	Matrix:	Water
Associated Lab Samples:	50331804001, 50331804002, 50331804003, 50331804004		

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Dissolved Organic Carbon	mg/L	ND	1.0	0.14	12/12/22 20:03	

LABORATORY CONTROL SAMPLE: 3264505						
Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Dissolved Organic Carbon	mg/L	10	10.2	102	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3264506												3264507	
Parameter	Units	50332267001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual	
Dissolved Organic Carbon	mg/L	1.8	10	10	12.1	12.2	103	104	80-120	0	20		

MATRIX SPIKE SAMPLE: 3264508											
Parameter	Units	50332269001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers				
Dissolved Organic Carbon	mg/L	2.8	10	13.2	104	80-120					

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Eagle Valley Oct 2022 P1R2

Pace Project No.: 50331804

**Sample: MW-16S**      **Lab ID: 50331804001**      Collected: 11/21/22 09:45      Received: 11/22/22 15:55      Matrix: Water  
PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	<b>0.342 ± 0.227 (0.103)</b> <b>C:NA T:88%</b>	pCi/L	12/15/22 16:04	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	<b>0.717 ± 0.537 (1.06)</b> <b>C:81% T:88%</b>	pCi/L	12/08/22 14:48	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	<b>1.06 ± 0.764 (1.16)</b>	pCi/L	12/16/22 16:18	7440-14-4	

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Eagle Valley Oct 2022 P1R2

Pace Project No.: 50331804

**Sample: MW-161**      **Lab ID: 50331804002**      Collected: 11/21/22 11:08      Received: 11/22/22 15:55      Matrix: Water  
PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	<b>0.629 ± 0.533 (0.806)</b> <b>C:NA T:88%</b>	pCi/L	12/15/22 16:04	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	<b>0.867 ± 0.571 (1.09)</b> <b>C:75% T:88%</b>	pCi/L	12/08/22 14:49	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	<b>1.50 ± 1.10 (1.90)</b>	pCi/L	12/16/22 16:18	7440-14-4	

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Eagle Valley Oct 2022 P1R2

Pace Project No.: 50331804

**Sample: MW-16D**      **Lab ID: 50331804003**      Collected: 11/21/22 11:49      Received: 11/22/22 15:55      Matrix: Water  
PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	<b>0.399 ± 0.353 (0.523)</b> <b>C:NA T:86%</b>	pCi/L	12/15/22 16:04	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	<b>0.104 ± 0.469 (1.07)</b> <b>C:81% T:86%</b>	pCi/L	12/08/22 14:49	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	<b>0.503 ± 0.822 (1.59)</b>	pCi/L	12/16/22 16:18	7440-14-4	

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Eagle Valley Oct 2022 P1R2

Pace Project No.: 50331804

**Sample: DUP-4**      **Lab ID: 50331804004**      Collected: 11/21/22 00:00      Received: 11/22/22 15:55      Matrix: Water  
PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	<b>0.592 ± 0.485 (0.722)</b> <b>C:NA T:89%</b>	pCi/L	12/15/22 16:04	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	<b>0.790 ± 0.610 (1.21)</b> <b>C:75% T:89%</b>	pCi/L	12/08/22 14:49	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	<b>1.38 ± 1.10 (1.93)</b>	pCi/L	12/16/22 16:18	7440-14-4	

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**QUALITY CONTROL - RADIOCHEMISTRY**

Project: Eagle Valley Oct 2022 P1R2

Pace Project No.: 50331804

QC Batch: 551084

Analysis Method: EPA 904.0

QC Batch Method: EPA 904.0

Analysis Description: 904.0 Radium 228

Laboratory: Pace Analytical Services - Greensburg

Associated Lab Samples: 50331804001, 50331804002, 50331804003, 50331804004

METHOD BLANK: 2676270

Matrix: Water

Associated Lab Samples: 50331804001, 50331804002, 50331804003, 50331804004

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.110 ± 0.368 (0.831) C:75% T:84%	pCi/L	12/08/22 12:39	

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### QUALITY CONTROL - RADIOCHEMISTRY

Project: Eagle Valley Oct 2022 P1R2

Pace Project No.: 50331804

QC Batch: 551083

Analysis Method: EPA 903.1

QC Batch Method: EPA 903.1

Analysis Description: 903.1 Radium-226

Laboratory: Pace Analytical Services - Greensburg

Associated Lab Samples: 50331804001, 50331804002, 50331804003, 50331804004

METHOD BLANK: 2676269

Matrix: Water

Associated Lab Samples: 50331804001, 50331804002, 50331804003, 50331804004

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.000 ± 0.208 (0.423) C:NA T:84%	pCi/L	12/15/22 16:04	

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## QUALIFIERS

Project: Eagle Valley Oct 2022 P1R2

Pace Project No.: 50331804

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### DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Reported results are not rounded until the final step prior to reporting. Therefore, calculated parameters that are typically reported as "Total" may vary slightly from the sum of the reported component parameters.

Act - Activity

Unc - Uncertainty: SDWA = 1.96 sigma count uncertainty, all other matrices = Expanded Uncertainty (95% confidence interval).

Gamma Spec = Expanded Uncertainty (95.4% Confidence Interval)

(MDC) - Minimum Detectable Concentration

Trac - Tracer Recovery (%)

Carr - Carrier Recovery (%)

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

### ANALYTE QUALIFIERS

H3 Sample was received or analysis requested beyond the recognized method holding time.

M0 Matrix spike recovery and/or matrix spike duplicate recovery was outside laboratory control limits.

M3 Matrix spike recovery was outside laboratory control limits due to matrix interferences.

N2 The lab does not hold NELAC/TNI accreditation for this parameter but other accreditations/certifications may apply. A complete list of accreditations/certifications is available upon request.

P6 Matrix spike recovery was outside laboratory control limits due to a parent sample concentration notably higher than the spike level.

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### QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Eagle Valley Oct 2022 P1R2

Pace Project No.: 50331804

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
50331804001	MW-16S	EPA 9056	708469		
50331804002	MW-16I	EPA 9056	708469		
50331804003	MW-16D	EPA 9056	708469		
50331804004	DUP-4	EPA 9056	708469		
50331804001	MW-16S	EPA 3010	708483	EPA 6010	710474
50331804002	MW-16I	EPA 3010	708483	EPA 6010	710474
50331804003	MW-16D	EPA 3010	708483	EPA 6010	710474
50331804004	DUP-4	EPA 3010	708483	EPA 6010	710474
50331804001	MW-16S	EPA 3010	710707	EPA 6010	711833
50331804002	MW-16I	EPA 3010	710707	EPA 6010	711833
50331804003	MW-16D	EPA 3010	710707	EPA 6010	711833
50331804004	DUP-4	EPA 3010	710707	EPA 6010	711833
50331804001	MW-16S	EPA 200.2	708720	EPA 6020	708967
50331804002	MW-16I	EPA 200.2	708720	EPA 6020	708967
50331804003	MW-16D	EPA 200.2	708720	EPA 6020	708967
50331804004	DUP-4	EPA 200.2	708720	EPA 6020	708967
50331804001	MW-16S	EPA 903.1	551083		
50331804002	MW-16I	EPA 903.1	551083		
50331804003	MW-16D	EPA 903.1	551083		
50331804004	DUP-4	EPA 903.1	551083		
50331804001	MW-16S	EPA 904.0	551084		
50331804002	MW-16I	EPA 904.0	551084		
50331804003	MW-16D	EPA 904.0	551084		
50331804004	DUP-4	EPA 904.0	551084		
50331804001	MW-16S	Total Radium Calculation	554470		
50331804002	MW-16I	Total Radium Calculation	554470		
50331804003	MW-16D	Total Radium Calculation	554470		
50331804004	DUP-4	Total Radium Calculation	554470		
50331804001	MW-16S	SM 2320B	708215		
50331804002	MW-16I	SM 2320B	708215		
50331804003	MW-16D	SM 2320B	708215		
50331804004	DUP-4	SM 2320B	708215		
50331804001	MW-16S	SM 2540C	708252		
50331804002	MW-16I	SM 2540C	708252		
50331804003	MW-16D	SM 2540C	708252		
50331804004	DUP-4	SM 2540C	708252		
50331804001	MW-16S	SM 4500-H+B	709611		
50331804002	MW-16I	SM 4500-H+B	709611		
50331804003	MW-16D	SM 4500-H+B	709611		
50331804004	DUP-4	SM 4500-H+B	709611		
50331804001	MW-16S	SM 4500-S2-D	707991		
50331804002	MW-16I	SM 4500-S2-D	707991		
50331804003	MW-16D	SM 4500-S2-D	707991		
50331804004	DUP-4	SM 4500-S2-D	707991		

### REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Eagle Valley Oct 2022 P1R2

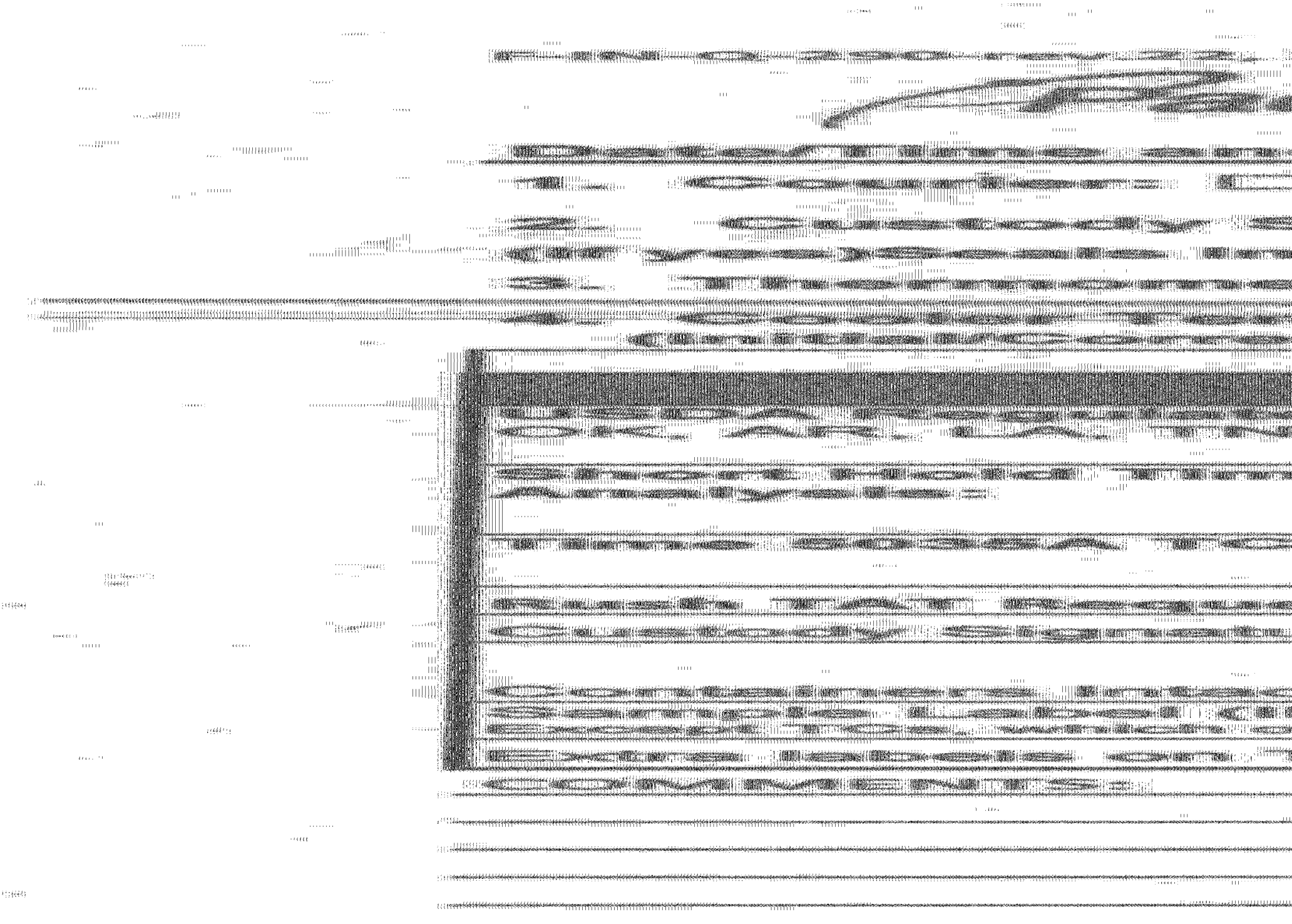
Pace Project No.: 50331804

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
50331804001	MW-16S	HACH 8146	708495		
50331804002	MW-16I	HACH 8146	708495		
50331804003	MW-16D	HACH 8146	708495		
50331804004	DUP-4	HACH 8146	708493		
50331804001	MW-16S	EPA 353.2	707883		
50331804002	MW-16I	EPA 353.2	707883		
50331804003	MW-16D	EPA 353.2	707883		
50331804004	DUP-4	EPA 353.2	707883		
50331804001	MW-16S	EPA 365.1	709207	EPA 365.1	709318
50331804002	MW-16I	EPA 365.1	709207	EPA 365.1	709318
50331804003	MW-16D	EPA 365.1	709207	EPA 365.1	709318
50331804004	DUP-4	EPA 365.1	709207	EPA 365.1	709318
50331804001	MW-16S	SM 5310C	710347		
50331804002	MW-16I	SM 5310C	710347		
50331804003	MW-16D	SM 5310C	710347		
50331804004	DUP-4	SM 5310C	710347		
50331804001	MW-16S	SM 5310C	710348		
50331804002	MW-16I	SM 5310C	710348		
50331804003	MW-16D	SM 5310C	710348		
50331804004	DUP-4	SM 5310C	710348		

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March 06, 2023

Mr. Mark Breting  
ATC Group Services  
7988 Centerpoint Drive  
Suite 100  
Indianapolis, IN 46256

RE: Project: Eagle Valley Oct 2022 P1R1  
Pace Project No.: 50331805

Dear Mr. Breting:

Enclosed are the analytical results for sample(s) received by the laboratory on November 22, 2022. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

The test results provided in this final report were generated by each of the following laboratories within the Pace Network:

- Pace Analytical Services - Indianapolis
- Pace Analytical Services - Greensburg

If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Will Statz  
will.statz@pacelabs.com  
(317)228-3105  
Project Manager

Enclosures

cc: Mr. Robert Miller, Haley & Aldrich



## REPORT OF LABORATORY ANALYSIS

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## CERTIFICATIONS

Project: Eagle Valley Oct 2022 P1R1

Pace Project No.: 50331805

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### **Pace Analytical Services Pennsylvania**

1638 Roseytown Rd Suites 2,3&4, Greensburg, PA 15601

ANAB DOD-ELAP Rad Accreditation #: L2417

Alabama Certification #: 41590

Arizona Certification #: AZ0734

Arkansas Certification

California Certification #: 04222CA

Colorado Certification #: PA01547

Connecticut Certification #: PH-0694

Delaware Certification

EPA Region 4 DW Rad

Florida/TNI Certification #: E87683

Georgia Certification #: C040

Guam Certification

Florida: Cert E871149 SEKS WET

Hawaii Certification

Idaho Certification

Illinois Certification

Indiana Certification

Iowa Certification #: 391

Kansas/TNI Certification #: E-10358

Kentucky Certification #: KY90133

KY WW Permit #: KY0098221

KY WW Permit #: KY0000221

Louisiana DHH/TNI Certification #: LA180012

Louisiana DEQ/TNI Certification #: 4086

Maine Certification #: 2017020

Maryland Certification #: 308

Massachusetts Certification #: M-PA1457

Michigan/PADEP Certification #: 9991

Missouri Certification #: 235

Montana Certification #: Cert0082

Nebraska Certification #: NE-OS-29-14

Nevada Certification #: PA014572018-1

New Hampshire/TNI Certification #: 297617

New Jersey/TNI Certification #: PA051

New Mexico Certification #: PA01457

New York/TNI Certification #: 10888

North Carolina Certification #: 42706

North Dakota Certification #: R-190

Ohio EPA Rad Approval: #41249

Oregon/TNI Certification #: PA200002-010

Pennsylvania/TNI Certification #: 65-00282

Puerto Rico Certification #: PA01457

Rhode Island Certification #: 65-00282

South Dakota Certification

Tennessee Certification #: 02867

Texas/TNI Certification #: T104704188-17-3

Utah/TNI Certification #: PA014572017-9

USDA Soil Permit #: P330-17-00091

Vermont Dept. of Health: ID# VT-0282

Virgin Island/PADEP Certification

Virginia/VELAP Certification #: 460198

Washington Certification #: C868

West Virginia DEP Certification #: 143

West Virginia DHHR Certification #: 9964C

Wisconsin Approve List for Rad

Wyoming Certification #: 8TMS-L

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### **Pace Analytical Services Indianapolis**

7726 Moller Road, Indianapolis, IN 46268

Illinois Accreditation #: 200074

Indiana Drinking Water Laboratory #: C-49-06

Kansas/TNI Certification #: E-10177

Kentucky UST Agency Interest #: 80226

Kentucky WW Laboratory ID #: 98019

Michigan Drinking Water Laboratory #9050

Ohio VAP Certified Laboratory #: CL0065

Oklahoma Laboratory #: 9204

Texas Certification #: T104704355

Wisconsin Laboratory #: 999788130

USDA Foreign Soil Permit #: 525-23-13-23119

USDA Compliance Agreement #: IN-SL-22-001

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## REPORT OF LABORATORY ANALYSIS

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## SAMPLE SUMMARY

Project: Eagle Valley Oct 2022 P1R1

Pace Project No.: 50331805

Lab ID	Sample ID	Matrix	Date Collected	Date Received
50331805001	MW-11S	Water	11/21/22 11:32	11/22/22 15:55
50331805002	MW-11I	Water	11/21/22 10:34	11/22/22 15:55
50331805003	DUP-2	Water	11/21/22 08:00	11/22/22 15:55
50331805004	FB-1	Water	11/21/22 12:30	11/22/22 15:55
50331805005	MW-4D	Water	11/21/22 13:57	11/22/22 15:55
50331805006	FB-2	Water	11/21/22 14:45	11/22/22 15:55

## REPORT OF LABORATORY ANALYSIS

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### SAMPLE ANALYTE COUNT

Project: Eagle Valley Oct 2022 P1R1

Pace Project No.: 50331805

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory		
50331805001	MW-11S	EPA 9056	ADM	3	PASI-I		
		EPA 6010	RAM	12	PASI-I		
		EPA 6010	JPK	2	PASI-I		
		EPA 6020	CAW	3	PASI-I		
		EPA 903.1	GDH	1	PASI-PA		
		EPA 904.0	VAL	1	PASI-PA		
		Total Radium Calculation	JAL	1	PASI-PA		
		SM 2320B	TAY	3	PASI-I		
		SM 2540C	AEL	1	PASI-I		
		SM 4500-H+B	TRK	1	PASI-I		
		SM 4500-S2-D	BEP	1	PASI-I		
		HACH 8146	ZM	1	PASI-I		
		EPA 353.2	MMS	2	PASI-I		
		EPA 365.1	ZM	1	PASI-I		
		SM 5310C	ATS	1	PASI-I		
		SM 5310C	ATS	1	PASI-I		
		50331805002	MW-11I	EPA 9056	ADM	3	PASI-I
				EPA 6010	RAM	12	PASI-I
EPA 6010	JPK			2	PASI-I		
EPA 6020	CAW			3	PASI-I		
EPA 903.1	GDH			1	PASI-PA		
EPA 904.0	VAL			1	PASI-PA		
Total Radium Calculation	JAL			1	PASI-PA		
SM 2320B	TAY			3	PASI-I		
SM 2540C	AEL			1	PASI-I		
SM 4500-H+B	TRK			1	PASI-I		
SM 4500-S2-D	BEP			1	PASI-I		
HACH 8146	ZM			1	PASI-I		
EPA 353.2	MMS			2	PASI-I		
EPA 365.1	ZM			1	PASI-I		
SM 5310C	ATS			1	PASI-I		
SM 5310C	ATS			1	PASI-I		
50331805003	DUP-2			EPA 9056	ADM	3	PASI-I
				EPA 6010	RAM	12	PASI-I
		EPA 6010	JPK	2	PASI-I		
		EPA 6020	CAW	3	PASI-I		
		EPA 903.1	GDH	1	PASI-PA		

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### SAMPLE ANALYTE COUNT

Project: Eagle Valley Oct 2022 P1R1

Pace Project No.: 50331805

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
50331805004	FB-1	EPA 904.0	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
		SM 2320B	TAY	3	PASI-I
		SM 2540C	AEL	1	PASI-I
		SM 4500-H+B	TRK	1	PASI-I
		SM 4500-S2-D	BEP	1	PASI-I
		HACH 8146	ZM	1	PASI-I
		EPA 353.2	MMS	2	PASI-I
		EPA 365.1	ZM	1	PASI-I
		SM 5310C	ATS	1	PASI-I
		SM 5310C	ATS	1	PASI-I
		EPA 9056	ADM	3	PASI-I
		EPA 6010	RAM	12	PASI-I
		EPA 6020	CAW	3	PASI-I
		EPA 903.1	GDH	1	PASI-PA
		EPA 904.0	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
		SM 2320B	TAY	3	PASI-I
		SM 2540C	AEL	1	PASI-I
		50331805005	MW-4D	SM 4500-H+B	TRK
SM 4500-S2-D	BEP			1	PASI-I
HACH 8146	ZM			1	PASI-I
EPA 353.2	MMS			2	PASI-I
EPA 365.1	ZM			1	PASI-I
SM 5310C	ATS			1	PASI-I
EPA 9056	ADM			3	PASI-I
EPA 6010	RAM			12	PASI-I
EPA 6010	JPK			2	PASI-I
EPA 6020	CAW			3	PASI-I
EPA 903.1	GDH			1	PASI-PA
EPA 904.0	VAL			1	PASI-PA
Total Radium Calculation	JAL			1	PASI-PA
SM 2320B	TAY			3	PASI-I
SM 2540C	AEL			1	PASI-I
SM 4500-H+B	TRK	1	PASI-I		
SM 4500-S2-D	BEP	1	PASI-I		
HACH 8146	ZM	1	PASI-I		

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### SAMPLE ANALYTE COUNT

Project: Eagle Valley Oct 2022 P1R1

Pace Project No.: 50331805

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
		EPA 353.2	MMS	2	PASI-I
		EPA 365.1	ZM	1	PASI-I
		SM 5310C	ATS	1	PASI-I
		SM 5310C	ATS	1	PASI-I
50331805006	FB-2	EPA 9056	ADM	3	PASI-I
		EPA 6010	RAM	12	PASI-I
		EPA 6020	CAW	3	PASI-I
		EPA 903.1	GDH	1	PASI-PA
		EPA 904.0	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
		SM 2320B	TAY	3	PASI-I
		SM 2540C	AEL	1	PASI-I
		SM 4500-H+B	TRK	1	PASI-I
		SM 4500-S2-D	BEP	1	PASI-I
		HACH 8146	ZM	1	PASI-I
		EPA 353.2	MMS	2	PASI-I
		EPA 365.1	ZM	1	PASI-I
		SM 5310C	ATS	1	PASI-I

PASI-I = Pace Analytical Services - Indianapolis

PASI-PA = Pace Analytical Services - Greensburg

### REPORT OF LABORATORY ANALYSIS

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### SUMMARY OF DETECTION

Project: Eagle Valley Oct 2022 P1R1

Pace Project No.: 50331805

Lab Sample ID	Client Sample ID	Result	Units	Report Limit	Analyzed	Qualifiers
Method	Parameters					
<b>50331805001</b>	<b>MW-11S</b>					
EPA 9056	Chloride	51.9	mg/L	2.5	12/01/22 21:51	
EPA 9056	Fluoride	0.20	mg/L	0.10	12/01/22 21:33	
EPA 9056	Sulfate	216	mg/L	2.5	12/01/22 21:51	
EPA 6010	Barium	152	ug/L	10.0	12/09/22 11:11	
EPA 6010	Boron	3780	ug/L	100	12/09/22 11:11	
EPA 6010	Calcium	178000	ug/L	1000	12/09/22 11:11	
EPA 6010	Lithium	142	ug/L	20.0	12/09/22 11:11	
EPA 6010	Magnesium	57200	ug/L	1000	12/09/22 11:11	
EPA 6010	Molybdenum	56.4	ug/L	10.0	12/09/22 11:11	
EPA 6010	Potassium	11800	ug/L	1000	12/09/22 11:11	
EPA 6010	Silica	14700	ug/L	450	12/09/22 11:11	N2
EPA 6010	Sodium	73700	ug/L	1000	12/09/22 11:11	
EPA 6010	Molybdenum, Dissolved	56.1	ug/L	10.0	12/08/22 04:33	
EPA 6020	Antimony	1.3	ug/L	1.0	12/01/22 04:45	
EPA 6020	Arsenic	49.2	ug/L	1.0	12/01/22 04:45	
EPA 6020	Selenium	13.9	ug/L	1.0	12/02/22 16:16	
EPA 903.1	Radium-226	0.245 ± 0.279 (0.440)	pCi/L		12/15/22 16:18	
EPA 904.0	Radium-228	C:NA T:87% 0.579 ± 0.477 (0.948)	pCi/L		12/08/22 14:48	
		C:80% T:87%				
Total Radium Calculation	Total Radium	0.824 ± 0.756 (1.39)	pCi/L		12/16/22 16:18	
SM 2320B	Alkalinity, Total as CaCO3	551	mg/L	10.0	11/25/22 12:02	
SM 2320B	Alkalinity, Bicarbonate (CaCO3)	551	mg/L	10.0	11/25/22 12:02	
SM 2540C	Total Dissolved Solids	878	mg/L	20.0	11/26/22 15:19	
SM 4500-H+B	pH at 25 Degrees C	7.4	Std. Units	0.10	11/29/22 16:35	H3
EPA 365.1	Phosphate as P04	0.16	mg/L	0.15	12/01/22 11:03	
SM 5310C	Total Organic Carbon	1.3	mg/L	1.0	12/12/22 09:34	
SM 5310C	Dissolved Organic Carbon	1.1	mg/L	1.0	12/08/22 08:29	
<b>50331805002</b>	<b>MW-11I</b>					
EPA 9056	Chloride	74.9	mg/L	2.5	12/01/22 22:25	
EPA 9056	Fluoride	0.42	mg/L	0.10	12/01/22 22:08	
EPA 9056	Sulfate	192	mg/L	2.5	12/01/22 22:25	
EPA 6010	Barium	73.2	ug/L	10.0	12/09/22 11:13	
EPA 6010	Boron	1590	ug/L	100	12/09/22 11:13	
EPA 6010	Calcium	97400	ug/L	1000	12/09/22 11:13	
EPA 6010	Iron	420	ug/L	100	12/09/22 11:13	
EPA 6010	Lithium	122	ug/L	20.0	12/09/22 11:13	
EPA 6010	Magnesium	28500	ug/L	1000	12/09/22 11:13	
EPA 6010	Manganese	328	ug/L	10.0	12/09/22 11:13	
EPA 6010	Molybdenum	127	ug/L	10.0	12/09/22 11:13	
EPA 6010	Potassium	8120	ug/L	1000	12/09/22 11:13	
EPA 6010	Silica	11000	ug/L	450	12/09/22 11:13	N2

### REPORT OF LABORATORY ANALYSIS

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### SUMMARY OF DETECTION

Project: Eagle Valley Oct 2022 P1R1

Pace Project No.: 50331805

Lab Sample ID	Client Sample ID	Result	Units	Report Limit	Analyzed	Qualifiers
Method	Parameters					
<b>50331805002</b>	<b>MW-11I</b>					
EPA 6010	Sodium	80300	ug/L	1000	12/09/22 11:13	
EPA 6010	Manganese, Dissolved	316	ug/L	10.0	12/08/22 04:36	
EPA 6010	Molybdenum, Dissolved	127	ug/L	10.0	12/08/22 04:36	
EPA 6020	Arsenic	1.7	ug/L	1.0	12/01/22 04:49	
EPA 903.1	Radium-226	0.491 ± 0.458 (0.708)	pCi/L		12/15/22 16:31	
EPA 904.0	Radium-228	C:NA T:90% -0.284 ± 0.494 (1.22)	pCi/L		12/08/22 14:48	
		C:67% T:90%				
Total Radium Calculation	Total Radium	0.491 ± 0.952 (1.93)	pCi/L		12/16/22 16:18	
SM 2320B	Alkalinity, Total as CaCO3	250	mg/L	10.0	11/25/22 12:02	
SM 2320B	Alkalinity, Bicarbonate (CaCO3)	250	mg/L	10.0	11/25/22 12:02	
SM 2540C	Total Dissolved Solids	615	mg/L	10.0	11/26/22 15:20	
SM 4500-H+B	pH at 25 Degrees C	7.6	Std. Units	0.10	11/29/22 16:37	H3
EPA 365.1	Phosphate as P04	0.16	mg/L	0.15	12/01/22 11:04	
SM 5310C	Total Organic Carbon	1.0	mg/L	1.0	12/12/22 09:44	
SM 5310C	Dissolved Organic Carbon	1.4	mg/L	1.0	12/08/22 08:40	
<b>50331805003</b>	<b>DUP-2</b>					
EPA 9056	Chloride	51.6	mg/L	2.5	12/01/22 23:00	
EPA 9056	Fluoride	0.18	mg/L	0.10	12/01/22 22:43	
EPA 9056	Sulfate	216	mg/L	2.5	12/01/22 23:00	
EPA 6010	Barium	150	ug/L	10.0	12/09/22 11:15	
EPA 6010	Boron	3710	ug/L	100	12/09/22 11:15	
EPA 6010	Calcium	176000	ug/L	1000	12/09/22 11:15	
EPA 6010	Lithium	138	ug/L	20.0	12/09/22 11:15	
EPA 6010	Magnesium	56100	ug/L	1000	12/09/22 11:15	
EPA 6010	Molybdenum	55.4	ug/L	10.0	12/09/22 11:15	
EPA 6010	Potassium	11600	ug/L	1000	12/09/22 11:15	
EPA 6010	Silica	14500	ug/L	450	12/09/22 11:15	N2
EPA 6010	Sodium	73100	ug/L	1000	12/09/22 11:15	
EPA 6010	Molybdenum, Dissolved	55.3	ug/L	10.0	12/08/22 04:39	
EPA 6020	Antimony	1.3	ug/L	1.0	12/01/22 05:01	
EPA 6020	Arsenic	50.5	ug/L	1.0	12/01/22 05:01	
EPA 6020	Selenium	13.6	ug/L	1.0	12/02/22 16:32	
EPA 903.1	Radium-226	0.210 ± 0.274 (0.453)	pCi/L		12/15/22 16:31	
EPA 904.0	Radium-228	C:NA T:90% 0.833 ± 0.611 (1.21)	pCi/L		12/08/22 14:48	
		C:78% T:90%				

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### SUMMARY OF DETECTION

Project: Eagle Valley Oct 2022 P1R1

Pace Project No.: 50331805

Lab Sample ID	Client Sample ID	Result	Units	Report Limit	Analyzed	Qualifiers
Method	Parameters					
<b>50331805003</b>	<b>DUP-2</b>					
Total Radium Calculation	Total Radium	1.04 ± 0.885 (1.66)	pCi/L		12/16/22 16:18	
SM 2320B	Alkalinity, Total as CaCO3	550	mg/L	10.0	11/28/22 11:43	
SM 2320B	Alkalinity,Bicarbonate (CaCO3)	550	mg/L	10.0	11/28/22 11:43	
SM 2540C	Total Dissolved Solids	886	mg/L	20.0	11/26/22 15:20	
SM 4500-H+B	pH at 25 Degrees C	7.5	Std. Units	0.10	11/29/22 16:38	H3
EPA 365.1	Phosphate as P04	0.25	mg/L	0.15	12/01/22 11:04	
SM 5310C	Total Organic Carbon	1.2	mg/L	1.0	12/12/22 09:54	
SM 5310C	Dissolved Organic Carbon	2.1	mg/L	1.0	12/08/22 08:51	
<b>50331805004</b>	<b>FB-1</b>					
EPA 903.1	Radium-226	-0.176 ± 0.244 (0.619) C:NA T:79%	pCi/L		12/15/22 16:31	
EPA 904.0	Radium-228	-0.0412 ± 0.592 (1.37) C:75% T:79%	pCi/L		12/08/22 14:48	
Total Radium Calculation	Total Radium	0.000 ± 0.836 (1.99)	pCi/L		12/16/22 16:18	
SM 4500-H+B	pH at 25 Degrees C	7.5	Std. Units	0.10	11/29/22 16:39	H3
<b>50331805005</b>	<b>MW-4D</b>					
EPA 9056	Chloride	87.9	mg/L	2.5	12/02/22 00:09	
EPA 9056	Fluoride	0.38	mg/L	0.10	12/01/22 23:52	
EPA 9056	Sulfate	74.3	mg/L	2.5	12/02/22 00:09	
EPA 6010	Barium	69.6	ug/L	10.0	12/09/22 11:19	
EPA 6010	Boron	128	ug/L	100	12/09/22 11:19	
EPA 6010	Calcium	72500	ug/L	1000	12/09/22 11:19	
EPA 6010	Iron	1080	ug/L	100	12/09/22 11:19	
EPA 6010	Magnesium	24000	ug/L	1000	12/09/22 11:19	
EPA 6010	Manganese	200	ug/L	10.0	12/09/22 11:19	
EPA 6010	Molybdenum	12.8	ug/L	10.0	12/09/22 11:19	
EPA 6010	Potassium	3390	ug/L	1000	12/09/22 11:19	
EPA 6010	Silica	11200	ug/L	450	12/09/22 11:19	N2
EPA 6010	Sodium	65900	ug/L	1000	12/09/22 11:19	
EPA 6010	Manganese, Dissolved	207	ug/L	10.0	12/08/22 04:42	
EPA 6010	Molybdenum, Dissolved	13.5	ug/L	10.0	12/08/22 04:42	
EPA 6020	Arsenic	4.4	ug/L	1.0	12/01/22 05:09	
EPA 903.1	Radium-226	0.378 ± 0.260 (0.278) C:NA T:93%	pCi/L		12/15/22 16:31	
EPA 904.0	Radium-228	0.244 ± 0.535 (1.18) C:74% T:93%	pCi/L		12/08/22 14:48	

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### SUMMARY OF DETECTION

Project: Eagle Valley Oct 2022 P1R1

Pace Project No.: 50331805

Lab Sample ID Method	Client Sample ID Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
<b>50331805005</b>	<b>MW-4D</b>					
Total Radium Calculation	Total Radium	0.622 ± 0.795 (1.46)	pCi/L		12/16/22 16:18	
SM 2320B	Alkalinity, Total as CaCO3	242	mg/L	10.0	11/28/22 11:43	
SM 2320B	Alkalinity,Bicarbonate (CaCO3)	242	mg/L	10.0	11/28/22 11:43	
SM 2540C	Total Dissolved Solids	454	mg/L	10.5	11/26/22 15:21	
SM 4500-H+B	pH at 25 Degrees C	7.9	Std. Units	0.10	11/29/22 16:41	H3
SM 5310C	Total Organic Carbon	1.4	mg/L	1.0	12/12/22 10:14	
SM 5310C	Dissolved Organic Carbon	1.7	mg/L	1.0	12/08/22 09:02	
<b>50331805006</b>	<b>FB-2</b>					
EPA 903.1	Radium-226	0.000 ± 0.235 (0.508)	pCi/L		12/15/22 16:31	
EPA 904.0	Radium-228	C:NA T:82% 1.02 ± 0.622 (1.17)	pCi/L		12/08/22 14:48	
Total Radium Calculation	Total Radium	C:81% T:82% 1.02 ± 0.857 (1.68)	pCi/L		12/16/22 16:18	
SM 4500-H+B	pH at 25 Degrees C	5.8	Std. Units	0.10	11/29/22 16:43	H3

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### ANALYTICAL RESULTS

Project: Eagle Valley Oct 2022 P1R1

Pace Project No.: 50331805

Sample: MW-11S		Lab ID: 50331805001		Collected: 11/21/22 11:32		Received: 11/22/22 15:55		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>9056 IC Anions</b>		Analytical Method: EPA 9056 Pace Analytical Services - Indianapolis							
Chloride	51.9	mg/L	2.5	0.67	10		12/01/22 21:51	16887-00-6	
Fluoride	0.20	mg/L	0.10	0.017	1		12/01/22 21:33	16984-48-8	
Sulfate	216	mg/L	2.5	0.85	10		12/01/22 21:51	14808-79-8	
<b>6010 MET ICP</b>		Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis							
Aluminum	ND	ug/L	200	55.4	1	12/07/22 08:50	12/09/22 11:11	7429-90-5	
Barium	152	ug/L	10.0	2.1	1	12/07/22 08:50	12/09/22 11:11	7440-39-3	
Boron	3780	ug/L	100	37.6	1	12/07/22 08:50	12/09/22 11:11	7440-42-8	
Calcium	178000	ug/L	1000	163	1	12/07/22 08:50	12/09/22 11:11	7440-70-2	
Iron	ND	ug/L	100	48.8	1	12/07/22 08:50	12/09/22 11:11	7439-89-6	
Lithium	142	ug/L	20.0	6.2	1	12/07/22 08:50	12/09/22 11:11	7439-93-2	
Magnesium	57200	ug/L	1000	71.8	1	12/07/22 08:50	12/09/22 11:11	7439-95-4	
Manganese	ND	ug/L	10.0	2.5	1	12/07/22 08:50	12/09/22 11:11	7439-96-5	
Molybdenum	56.4	ug/L	10.0	3.7	1	12/07/22 08:50	12/09/22 11:11	7439-98-7	
Potassium	11800	ug/L	1000	281	1	12/07/22 08:50	12/09/22 11:11	7440-09-7	
Silica	14700	ug/L	450		1	12/07/22 08:50	12/09/22 11:11	7631-86-9	N2
Sodium	73700	ug/L	1000	214	1	12/07/22 08:50	12/09/22 11:11	7440-23-5	
<b>6010 MET ICP, Dissolved</b>		Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis							
Manganese, Dissolved	ND	ug/L	10.0	5.4	1	12/07/22 13:33	12/08/22 04:33	7439-96-5	
Molybdenum, Dissolved	56.1	ug/L	10.0	2.0	1	12/07/22 13:33	12/08/22 04:33	7439-98-7	
<b>6020 MET ICPMS</b>		Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis							
Antimony	1.3	ug/L	1.0	0.13	1	11/29/22 15:34	12/01/22 04:45	7440-36-0	
Arsenic	49.2	ug/L	1.0	0.11	1	11/29/22 15:34	12/01/22 04:45	7440-38-2	
Selenium	13.9	ug/L	1.0	0.35	1	11/29/22 15:34	12/02/22 16:16	7782-49-2	
<b>2320B Alkalinity</b>		Analytical Method: SM 2320B Pace Analytical Services - Indianapolis							
Alkalinity, Total as CaCO3	551	mg/L	10.0	10.0	1		11/25/22 12:02		
Alkalinity,Bicarbonate (CaCO3)	551	mg/L	10.0	10.0	1		11/25/22 12:02		
Alkalinity,Carbonate (CaCO3)	ND	mg/L	10.0	10.0	1		11/25/22 12:02		
<b>2540C Total Dissolved Solids</b>		Analytical Method: SM 2540C Pace Analytical Services - Indianapolis							
Total Dissolved Solids	878	mg/L	20.0	20.0	1		11/26/22 15:19		
<b>4500H+ pH, Electrometric</b>		Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis							
pH at 25 Degrees C	7.4	Std. Units	0.10	0.10	1		11/29/22 16:35		H3

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### ANALYTICAL RESULTS

Project: Eagle Valley Oct 2022 P1R1

Pace Project No.: 50331805

Sample: MW-11S		Lab ID: 50331805001		Collected: 11/21/22 11:32	Received: 11/22/22 15:55	Matrix: Water				
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual	
<b>4500S2D Sulfide Water</b>		Analytical Method: SM 4500-S2-D Pace Analytical Services - Indianapolis								
Sulfide	ND	mg/L	0.10	0.025	1		11/23/22 10:20	18496-25-8		
<b>Iron, Ferrous</b>		Analytical Method: HACH 8146 Pace Analytical Services - Indianapolis								
Iron, Ferrous	ND	mg/L	0.20	0.096	1		11/28/22 19:03	15438-31-0	H3,N2	
<b>353.2 Nitrogen, NO2/NO3 unpres</b>		Analytical Method: EPA 353.2 Pace Analytical Services - Indianapolis								
Nitrogen, Nitrate	ND	mg/L	0.10	0.011	1		11/22/22 19:12	14797-55-8		
Nitrogen, Nitrite	ND	mg/L	0.10	0.0040	1		11/22/22 19:12	14797-65-0		
<b>365.1 Total Phosphorus</b>		Analytical Method: EPA 365.1 Preparation Method: EPA 365.1 Pace Analytical Services - Indianapolis								
Phosphate as P04	0.16	mg/L	0.15	0.15	1	11/29/22 14:30	12/01/22 11:03			
<b>5310C TOC</b>		Analytical Method: SM 5310C Pace Analytical Services - Indianapolis								
Total Organic Carbon	1.3	mg/L	1.0	0.14	1		12/12/22 09:34	7440-44-0		
<b>5310C Dissolved Organic Carbon</b>		Analytical Method: SM 5310C Pace Analytical Services - Indianapolis								
Dissolved Organic Carbon	1.1	mg/L	1.0	0.14	1		12/08/22 08:29			

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## ANALYTICAL RESULTS

Project: Eagle Valley Oct 2022 P1R1

Pace Project No.: 50331805

Sample: MW-111      Lab ID: 50331805002      Collected: 11/21/22 10:34      Received: 11/22/22 15:55      Matrix: Water									
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>9056 IC Anions</b>									
Analytical Method: EPA 9056									
Pace Analytical Services - Indianapolis									
Chloride	74.9	mg/L	2.5	0.67	10		12/01/22 22:25	16887-00-6	
Fluoride	0.42	mg/L	0.10	0.017	1		12/01/22 22:08	16984-48-8	
Sulfate	192	mg/L	2.5	0.85	10		12/01/22 22:25	14808-79-8	
<b>6010 MET ICP</b>									
Analytical Method: EPA 6010      Preparation Method: EPA 3010									
Pace Analytical Services - Indianapolis									
Aluminum	ND	ug/L	200	55.4	1	12/07/22 08:50	12/09/22 11:13	7429-90-5	
Barium	73.2	ug/L	10.0	2.1	1	12/07/22 08:50	12/09/22 11:13	7440-39-3	
Boron	1590	ug/L	100	37.6	1	12/07/22 08:50	12/09/22 11:13	7440-42-8	
Calcium	97400	ug/L	1000	163	1	12/07/22 08:50	12/09/22 11:13	7440-70-2	
Iron	420	ug/L	100	48.8	1	12/07/22 08:50	12/09/22 11:13	7439-89-6	
Lithium	122	ug/L	20.0	6.2	1	12/07/22 08:50	12/09/22 11:13	7439-93-2	
Magnesium	28500	ug/L	1000	71.8	1	12/07/22 08:50	12/09/22 11:13	7439-95-4	
Manganese	328	ug/L	10.0	2.5	1	12/07/22 08:50	12/09/22 11:13	7439-96-5	
Molybdenum	127	ug/L	10.0	3.7	1	12/07/22 08:50	12/09/22 11:13	7439-98-7	
Potassium	8120	ug/L	1000	281	1	12/07/22 08:50	12/09/22 11:13	7440-09-7	
Silica	11000	ug/L	450		1	12/07/22 08:50	12/09/22 11:13	7631-86-9	N2
Sodium	80300	ug/L	1000	214	1	12/07/22 08:50	12/09/22 11:13	7440-23-5	
<b>6010 MET ICP, Dissolved</b>									
Analytical Method: EPA 6010      Preparation Method: EPA 3010									
Pace Analytical Services - Indianapolis									
Manganese, Dissolved	316	ug/L	10.0	5.4	1	12/07/22 13:33	12/08/22 04:36	7439-96-5	
Molybdenum, Dissolved	127	ug/L	10.0	2.0	1	12/07/22 13:33	12/08/22 04:36	7439-98-7	
<b>6020 MET ICPMS</b>									
Analytical Method: EPA 6020      Preparation Method: EPA 200.2									
Pace Analytical Services - Indianapolis									
Antimony	ND	ug/L	1.0	0.13	1	11/29/22 15:34	12/01/22 04:49	7440-36-0	
Arsenic	1.7	ug/L	1.0	0.11	1	11/29/22 15:34	12/01/22 04:49	7440-38-2	
Selenium	ND	ug/L	1.0	0.35	1	11/29/22 15:34	12/02/22 16:20	7782-49-2	
<b>2320B Alkalinity</b>									
Analytical Method: SM 2320B									
Pace Analytical Services - Indianapolis									
Alkalinity, Total as CaCO3	250	mg/L	10.0	10.0	1		11/25/22 12:02		
Alkalinity,Bicarbonate (CaCO3)	250	mg/L	10.0	10.0	1		11/25/22 12:02		
Alkalinity,Carbonate (CaCO3)	ND	mg/L	10.0	10.0	1		11/25/22 12:02		
<b>2540C Total Dissolved Solids</b>									
Analytical Method: SM 2540C									
Pace Analytical Services - Indianapolis									
Total Dissolved Solids	615	mg/L	10.0	10.0	1		11/26/22 15:20		
<b>4500H+ pH, Electrometric</b>									
Analytical Method: SM 4500-H+B									
Pace Analytical Services - Indianapolis									
pH at 25 Degrees C	7.6	Std. Units	0.10	0.10	1		11/29/22 16:37		H3

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### ANALYTICAL RESULTS

Project: Eagle Valley Oct 2022 P1R1

Pace Project No.: 50331805

Sample: MW-111		Lab ID: 50331805002		Collected: 11/21/22 10:34	Received: 11/22/22 15:55	Matrix: Water			
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>4500S2D Sulfide Water</b>		Analytical Method: SM 4500-S2-D Pace Analytical Services - Indianapolis							
Sulfide	ND	mg/L	0.10	0.025	1		11/23/22 10:20	18496-25-8	
<b>Iron, Ferrous</b>		Analytical Method: HACH 8146 Pace Analytical Services - Indianapolis							
Iron, Ferrous	ND	mg/L	0.20	0.096	1		11/28/22 19:03	15438-31-0	H3,N2
<b>353.2 Nitrogen, NO2/NO3 unpres</b>		Analytical Method: EPA 353.2 Pace Analytical Services - Indianapolis							
Nitrogen, Nitrate	ND	mg/L	0.10	0.011	1		11/22/22 19:14	14797-55-8	
Nitrogen, Nitrite	ND	mg/L	0.10	0.0040	1		11/22/22 19:14	14797-65-0	
<b>365.1 Total Phosphorus</b>		Analytical Method: EPA 365.1 Preparation Method: EPA 365.1 Pace Analytical Services - Indianapolis							
Phosphate as P04	<b>0.16</b>	mg/L	0.15	0.15	1	11/29/22 14:30	12/01/22 11:04		
<b>5310C TOC</b>		Analytical Method: SM 5310C Pace Analytical Services - Indianapolis							
Total Organic Carbon	<b>1.0</b>	mg/L	1.0	0.14	1		12/12/22 09:44	7440-44-0	
<b>5310C Dissolved Organic Carbon</b>		Analytical Method: SM 5310C Pace Analytical Services - Indianapolis							
Dissolved Organic Carbon	<b>1.4</b>	mg/L	1.0	0.14	1		12/08/22 08:40		

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## ANALYTICAL RESULTS

Project: Eagle Valley Oct 2022 P1R1

Pace Project No.: 50331805

Sample: DUP-2		Lab ID: 50331805003		Collected: 11/21/22 08:00		Received: 11/22/22 15:55		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>9056 IC Anions</b>		Analytical Method: EPA 9056 Pace Analytical Services - Indianapolis							
Chloride	51.6	mg/L	2.5	0.67	10		12/01/22 23:00	16887-00-6	
Fluoride	0.18	mg/L	0.10	0.017	1		12/01/22 22:43	16984-48-8	
Sulfate	216	mg/L	2.5	0.85	10		12/01/22 23:00	14808-79-8	
<b>6010 MET ICP</b>		Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis							
Aluminum	ND	ug/L	200	55.4	1	12/07/22 08:50	12/09/22 11:15	7429-90-5	
Barium	150	ug/L	10.0	2.1	1	12/07/22 08:50	12/09/22 11:15	7440-39-3	
Boron	3710	ug/L	100	37.6	1	12/07/22 08:50	12/09/22 11:15	7440-42-8	
Calcium	176000	ug/L	1000	163	1	12/07/22 08:50	12/09/22 11:15	7440-70-2	
Iron	ND	ug/L	100	48.8	1	12/07/22 08:50	12/09/22 11:15	7439-89-6	
Lithium	138	ug/L	20.0	6.2	1	12/07/22 08:50	12/09/22 11:15	7439-93-2	
Magnesium	56100	ug/L	1000	71.8	1	12/07/22 08:50	12/09/22 11:15	7439-95-4	
Manganese	ND	ug/L	10.0	2.5	1	12/07/22 08:50	12/09/22 11:15	7439-96-5	
Molybdenum	55.4	ug/L	10.0	3.7	1	12/07/22 08:50	12/09/22 11:15	7439-98-7	
Potassium	11600	ug/L	1000	281	1	12/07/22 08:50	12/09/22 11:15	7440-09-7	
Silica	14500	ug/L	450		1	12/07/22 08:50	12/09/22 11:15	7631-86-9	N2
Sodium	73100	ug/L	1000	214	1	12/07/22 08:50	12/09/22 11:15	7440-23-5	
<b>6010 MET ICP, Dissolved</b>		Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis							
Manganese, Dissolved	ND	ug/L	10.0	5.4	1	12/07/22 13:33	12/08/22 04:39	7439-96-5	
Molybdenum, Dissolved	55.3	ug/L	10.0	2.0	1	12/07/22 13:33	12/08/22 04:39	7439-98-7	
<b>6020 MET ICPMS</b>		Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis							
Antimony	1.3	ug/L	1.0	0.13	1	11/29/22 15:34	12/01/22 05:01	7440-36-0	
Arsenic	50.5	ug/L	1.0	0.11	1	11/29/22 15:34	12/01/22 05:01	7440-38-2	
Selenium	13.6	ug/L	1.0	0.35	1	11/29/22 15:34	12/02/22 16:32	7782-49-2	
<b>2320B Alkalinity</b>		Analytical Method: SM 2320B Pace Analytical Services - Indianapolis							
Alkalinity, Total as CaCO3	550	mg/L	10.0	10.0	1		11/28/22 11:43		
Alkalinity,Bicarbonate (CaCO3)	550	mg/L	10.0	10.0	1		11/28/22 11:43		
Alkalinity,Carbonate (CaCO3)	ND	mg/L	10.0	10.0	1		11/28/22 11:43		
<b>2540C Total Dissolved Solids</b>		Analytical Method: SM 2540C Pace Analytical Services - Indianapolis							
Total Dissolved Solids	886	mg/L	20.0	20.0	1		11/26/22 15:20		
<b>4500H+ pH, Electrometric</b>		Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis							
pH at 25 Degrees C	7.5	Std. Units	0.10	0.10	1		11/29/22 16:38		H3

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### ANALYTICAL RESULTS

Project: Eagle Valley Oct 2022 P1R1

Pace Project No.: 50331805

Sample: DUP-2		Lab ID: 50331805003		Collected: 11/21/22 08:00	Received: 11/22/22 15:55	Matrix: Water			
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>4500S2D Sulfide Water</b>		Analytical Method: SM 4500-S2-D Pace Analytical Services - Indianapolis							
Sulfide	ND	mg/L	0.10	0.025	1		11/23/22 10:20	18496-25-8	
<b>Iron, Ferrous</b>		Analytical Method: HACH 8146 Pace Analytical Services - Indianapolis							
Iron, Ferrous	ND	mg/L	0.20	0.096	1		11/28/22 18:40	15438-31-0	H3,N2
<b>353.2 Nitrogen, NO2/NO3 unpres</b>		Analytical Method: EPA 353.2 Pace Analytical Services - Indianapolis							
Nitrogen, Nitrate	ND	mg/L	0.10	0.011	1		11/22/22 19:16	14797-55-8	
Nitrogen, Nitrite	ND	mg/L	0.10	0.0040	1		11/22/22 19:16	14797-65-0	
<b>365.1 Total Phosphorus</b>		Analytical Method: EPA 365.1 Preparation Method: EPA 365.1 Pace Analytical Services - Indianapolis							
Phosphate as P04	0.25	mg/L	0.15	0.15	1	11/29/22 14:30	12/01/22 11:04		
<b>5310C TOC</b>		Analytical Method: SM 5310C Pace Analytical Services - Indianapolis							
Total Organic Carbon	1.2	mg/L	1.0	0.14	1		12/12/22 09:54	7440-44-0	
<b>5310C Dissolved Organic Carbon</b>		Analytical Method: SM 5310C Pace Analytical Services - Indianapolis							
Dissolved Organic Carbon	2.1	mg/L	1.0	0.14	1		12/08/22 08:51		

### REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: Eagle Valley Oct 2022 P1R1

Pace Project No.: 50331805

Sample: FB-1		Lab ID: 50331805004		Collected: 11/21/22 12:30	Received: 11/22/22 15:55	Matrix: Water				
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual	
<b>9056 IC Anions</b>		Analytical Method: EPA 9056 Pace Analytical Services - Indianapolis								
Chloride	ND	mg/L	0.25	0.067	1		12/01/22 23:35	16887-00-6		
Fluoride	ND	mg/L	0.10	0.017	1		12/01/22 23:35	16984-48-8		
Sulfate	ND	mg/L	0.25	0.085	1		12/01/22 23:35	14808-79-8		
<b>6010 MET ICP</b>		Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Aluminum	ND	ug/L	200	55.4	1	12/07/22 08:50	12/09/22 11:17	7429-90-5		
Barium	ND	ug/L	10.0	2.1	1	12/07/22 08:50	12/09/22 11:17	7440-39-3		
Boron	ND	ug/L	100	37.6	1	12/07/22 08:50	12/09/22 11:17	7440-42-8		
Calcium	ND	ug/L	1000	163	1	12/07/22 08:50	12/09/22 11:17	7440-70-2		
Iron	ND	ug/L	100	48.8	1	12/07/22 08:50	12/09/22 11:17	7439-89-6		
Lithium	ND	ug/L	20.0	6.2	1	12/07/22 08:50	12/09/22 11:17	7439-93-2		
Magnesium	ND	ug/L	1000	71.8	1	12/07/22 08:50	12/09/22 11:17	7439-95-4		
Manganese	ND	ug/L	10.0	2.5	1	12/07/22 08:50	12/09/22 11:17	7439-96-5		
Molybdenum	ND	ug/L	10.0	3.7	1	12/07/22 08:50	12/09/22 11:17	7439-98-7		
Potassium	ND	ug/L	1000	281	1	12/07/22 08:50	12/09/22 11:17	7440-09-7		
Silica	ND	ug/L	450		1	12/07/22 08:50	12/09/22 11:17	7631-86-9	N2	
Sodium	ND	ug/L	1000	214	1	12/07/22 08:50	12/09/22 11:17	7440-23-5		
<b>6020 MET ICPMS</b>		Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis								
Antimony	ND	ug/L	1.0	0.13	1	11/29/22 15:34	12/01/22 05:05	7440-36-0		
Arsenic	ND	ug/L	1.0	0.11	1	11/29/22 15:34	12/01/22 05:05	7440-38-2		
Selenium	ND	ug/L	1.0	0.35	1	11/29/22 15:34	12/02/22 16:36	7782-49-2		
<b>2320B Alkalinity</b>		Analytical Method: SM 2320B Pace Analytical Services - Indianapolis								
Alkalinity, Total as CaCO3	ND	mg/L	10.0	10.0	1		11/28/22 11:43			
Alkalinity,Bicarbonate (CaCO3)	ND	mg/L	10.0	10.0	1		11/28/22 11:43			
Alkalinity,Carbonate (CaCO3)	ND	mg/L	10.0	10.0	1		11/28/22 11:43			
<b>2540C Total Dissolved Solids</b>		Analytical Method: SM 2540C Pace Analytical Services - Indianapolis								
Total Dissolved Solids	ND	mg/L	10.0	10.0	1		11/26/22 15:21		PL	
<b>4500H+ pH, Electrometric</b>		Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis								
pH at 25 Degrees C	7.5	Std. Units	0.10	0.10	1		11/29/22 16:39		H3	
<b>4500S2D Sulfide Water</b>		Analytical Method: SM 4500-S2-D Pace Analytical Services - Indianapolis								
Sulfide	ND	mg/L	0.10	0.025	1		11/23/22 10:20	18496-25-8		

## REPORT OF LABORATORY ANALYSIS

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### ANALYTICAL RESULTS

Project: Eagle Valley Oct 2022 P1R1

Pace Project No.: 50331805

Sample: <b>FB-1</b>		Lab ID: <b>50331805004</b>		Collected: 11/21/22 12:30	Received: 11/22/22 15:55	Matrix: Water			
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>Iron, Ferrous</b>		Analytical Method: HACH 8146 Pace Analytical Services - Indianapolis							
Iron, Ferrous	ND	mg/L	0.20	0.096	1		11/28/22 19:04	15438-31-0	H3,N2
<b>353.2 Nitrogen, NO2/NO3 unpres</b>		Analytical Method: EPA 353.2 Pace Analytical Services - Indianapolis							
Nitrogen, Nitrate	ND	mg/L	0.10	0.011	1		11/22/22 19:21	14797-55-8	
Nitrogen, Nitrite	ND	mg/L	0.10	0.0040	1		11/22/22 19:21	14797-65-0	
<b>365.1 Total Phosphorus</b>		Analytical Method: EPA 365.1 Preparation Method: EPA 365.1 Pace Analytical Services - Indianapolis							
Phosphate as P04	ND	mg/L	0.15	0.15	1	11/29/22 14:30	12/01/22 11:05		
<b>5310C TOC</b>		Analytical Method: SM 5310C Pace Analytical Services - Indianapolis							
Total Organic Carbon	ND	mg/L	1.0	0.14	1		12/12/22 10:04	7440-44-0	

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## ANALYTICAL RESULTS

Project: Eagle Valley Oct 2022 P1R1

Pace Project No.: 50331805

Sample: MW-4D		Lab ID: 50331805005		Collected: 11/21/22 13:57	Received: 11/22/22 15:55	Matrix: Water				
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual	
<b>9056 IC Anions</b>		Analytical Method: EPA 9056 Pace Analytical Services - Indianapolis								
Chloride	87.9	mg/L	2.5	0.67	10		12/02/22 00:09	16887-00-6		
Fluoride	0.38	mg/L	0.10	0.017	1		12/01/22 23:52	16984-48-8		
Sulfate	74.3	mg/L	2.5	0.85	10		12/02/22 00:09	14808-79-8		
<b>6010 MET ICP</b>		Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Aluminum	ND	ug/L	200	55.4	1	12/07/22 08:50	12/09/22 11:19	7429-90-5		
Barium	69.6	ug/L	10.0	2.1	1	12/07/22 08:50	12/09/22 11:19	7440-39-3		
Boron	128	ug/L	100	37.6	1	12/07/22 08:50	12/09/22 11:19	7440-42-8		
Calcium	72500	ug/L	1000	163	1	12/07/22 08:50	12/09/22 11:19	7440-70-2		
Iron	1080	ug/L	100	48.8	1	12/07/22 08:50	12/09/22 11:19	7439-89-6		
Lithium	ND	ug/L	20.0	6.2	1	12/07/22 08:50	12/09/22 11:19	7439-93-2		
Magnesium	24000	ug/L	1000	71.8	1	12/07/22 08:50	12/09/22 11:19	7439-95-4		
Manganese	200	ug/L	10.0	2.5	1	12/07/22 08:50	12/09/22 11:19	7439-96-5		
Molybdenum	12.8	ug/L	10.0	3.7	1	12/07/22 08:50	12/09/22 11:19	7439-98-7		
Potassium	3390	ug/L	1000	281	1	12/07/22 08:50	12/09/22 11:19	7440-09-7		
Silica	11200	ug/L	450		1	12/07/22 08:50	12/09/22 11:19	7631-86-9	N2	
Sodium	65900	ug/L	1000	214	1	12/07/22 08:50	12/09/22 11:19	7440-23-5		
<b>6010 MET ICP, Dissolved</b>		Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Manganese, Dissolved	207	ug/L	10.0	5.4	1	12/07/22 13:33	12/08/22 04:42	7439-96-5		
Molybdenum, Dissolved	13.5	ug/L	10.0	2.0	1	12/07/22 13:33	12/08/22 04:42	7439-98-7		
<b>6020 MET ICPMS</b>		Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis								
Antimony	ND	ug/L	1.0	0.13	1	11/29/22 15:34	12/01/22 05:09	7440-36-0		
Arsenic	4.4	ug/L	1.0	0.11	1	11/29/22 15:34	12/01/22 05:09	7440-38-2		
Selenium	ND	ug/L	1.0	0.35	1	11/29/22 15:34	12/02/22 16:40	7782-49-2		
<b>2320B Alkalinity</b>		Analytical Method: SM 2320B Pace Analytical Services - Indianapolis								
Alkalinity, Total as CaCO3	242	mg/L	10.0	10.0	1		11/28/22 11:43			
Alkalinity,Bicarbonate (CaCO3)	242	mg/L	10.0	10.0	1		11/28/22 11:43			
Alkalinity,Carbonate (CaCO3)	ND	mg/L	10.0	10.0	1		11/28/22 11:43			
<b>2540C Total Dissolved Solids</b>		Analytical Method: SM 2540C Pace Analytical Services - Indianapolis								
Total Dissolved Solids	454	mg/L	10.5	10.5	1		11/26/22 15:21			
<b>4500H+ pH, Electrometric</b>		Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis								
pH at 25 Degrees C	7.9	Std. Units	0.10	0.10	1		11/29/22 16:41		H3	

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### ANALYTICAL RESULTS

Project: Eagle Valley Oct 2022 P1R1

Pace Project No.: 50331805

Sample: MW-4D		Lab ID: 50331805005		Collected: 11/21/22 13:57	Received: 11/22/22 15:55	Matrix: Water				
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual	
<b>4500S2D Sulfide Water</b>		Analytical Method: SM 4500-S2-D Pace Analytical Services - Indianapolis								
Sulfide	ND	mg/L	0.10	0.025	1		11/23/22 10:20	18496-25-8		
<b>Iron, Ferrous</b>		Analytical Method: HACH 8146 Pace Analytical Services - Indianapolis								
Iron, Ferrous	ND	mg/L	0.20	0.096	1		11/28/22 19:05	15438-31-0	H3,N2	
<b>353.2 Nitrogen, NO2/NO3 unpres</b>		Analytical Method: EPA 353.2 Pace Analytical Services - Indianapolis								
Nitrogen, Nitrate	ND	mg/L	0.10	0.011	1		11/22/22 19:23	14797-55-8		
Nitrogen, Nitrite	ND	mg/L	0.10	0.0040	1		11/22/22 19:23	14797-65-0		
<b>365.1 Total Phosphorus</b>		Analytical Method: EPA 365.1 Preparation Method: EPA 365.1 Pace Analytical Services - Indianapolis								
Phosphate as P04	ND	mg/L	0.15	0.15	1	11/29/22 14:30	12/01/22 11:05			
<b>5310C TOC</b>		Analytical Method: SM 5310C Pace Analytical Services - Indianapolis								
Total Organic Carbon	1.4	mg/L	1.0	0.14	1		12/12/22 10:14	7440-44-0		
<b>5310C Dissolved Organic Carbon</b>		Analytical Method: SM 5310C Pace Analytical Services - Indianapolis								
Dissolved Organic Carbon	1.7	mg/L	1.0	0.14	1		12/08/22 09:02			

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### ANALYTICAL RESULTS

Project: Eagle Valley Oct 2022 P1R1

Pace Project No.: 50331805

Sample: <b>FB-2</b>		Lab ID: <b>50331805006</b>		Collected: 11/21/22 14:45	Received: 11/22/22 15:55	Matrix: Water				
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual	
<b>9056 IC Anions</b>		Analytical Method: EPA 9056 Pace Analytical Services - Indianapolis								
Chloride	ND	mg/L	0.25	0.067	1		12/02/22 01:01	16887-00-6		
Fluoride	ND	mg/L	0.10	0.017	1		12/02/22 01:01	16984-48-8		
Sulfate	ND	mg/L	0.25	0.085	1		12/02/22 01:01	14808-79-8		
<b>6010 MET ICP</b>		Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Aluminum	ND	ug/L	200	55.4	1	12/07/22 08:50	12/09/22 11:23	7429-90-5		
Barium	ND	ug/L	10.0	2.1	1	12/07/22 08:50	12/09/22 11:23	7440-39-3		
Boron	ND	ug/L	100	37.6	1	12/07/22 08:50	12/09/22 11:23	7440-42-8		
Calcium	ND	ug/L	1000	163	1	12/07/22 08:50	12/09/22 11:23	7440-70-2		
Iron	ND	ug/L	100	48.8	1	12/07/22 08:50	12/09/22 11:23	7439-89-6		
Lithium	ND	ug/L	20.0	6.2	1	12/07/22 08:50	12/09/22 11:23	7439-93-2		
Magnesium	ND	ug/L	1000	71.8	1	12/07/22 08:50	12/09/22 11:23	7439-95-4		
Manganese	ND	ug/L	10.0	2.5	1	12/07/22 08:50	12/09/22 11:23	7439-96-5		
Molybdenum	ND	ug/L	10.0	3.7	1	12/07/22 08:50	12/09/22 11:23	7439-98-7		
Potassium	ND	ug/L	1000	281	1	12/07/22 08:50	12/09/22 11:23	7440-09-7		
Silica	ND	ug/L	450		1	12/07/22 08:50	12/09/22 11:23	7631-86-9	N2	
Sodium	ND	ug/L	1000	214	1	12/07/22 08:50	12/09/22 11:23	7440-23-5		
<b>6020 MET ICPMS</b>		Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis								
Antimony	ND	ug/L	1.0	0.13	1	11/29/22 15:34	12/01/22 05:13	7440-36-0		
Arsenic	ND	ug/L	1.0	0.11	1	11/29/22 15:34	12/01/22 05:13	7440-38-2		
Selenium	ND	ug/L	1.0	0.35	1	11/29/22 15:34	12/02/22 16:44	7782-49-2		
<b>2320B Alkalinity</b>		Analytical Method: SM 2320B Pace Analytical Services - Indianapolis								
Alkalinity, Total as CaCO3	ND	mg/L	10.0	10.0	1		11/28/22 11:43			
Alkalinity,Bicarbonate (CaCO3)	ND	mg/L	10.0	10.0	1		11/28/22 11:43			
Alkalinity,Carbonate (CaCO3)	ND	mg/L	10.0	10.0	1		11/28/22 11:43			
<b>2540C Total Dissolved Solids</b>		Analytical Method: SM 2540C Pace Analytical Services - Indianapolis								
Total Dissolved Solids	ND	mg/L	10.0	10.0	1		11/26/22 15:22		PL	
<b>4500H+ pH, Electrometric</b>		Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis								
pH at 25 Degrees C	<b>5.8</b>	Std. Units	0.10	0.10	1		11/29/22 16:43		H3	
<b>4500S2D Sulfide Water</b>		Analytical Method: SM 4500-S2-D Pace Analytical Services - Indianapolis								
Sulfide	ND	mg/L	0.10	0.025	1		11/23/22 10:20	18496-25-8		

### REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: Eagle Valley Oct 2022 P1R1

Pace Project No.: 50331805

Sample: <b>FB-2</b>		Lab ID: <b>50331805006</b>		Collected: 11/21/22 14:45	Received: 11/22/22 15:55	Matrix: Water				
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual	
<b>Iron, Ferrous</b>		Analytical Method: HACH 8146 Pace Analytical Services - Indianapolis								
Iron, Ferrous	ND	mg/L	0.20	0.096	1		11/28/22 19:05	15438-31-0	H3,N2	
<b>353.2 Nitrogen, NO2/NO3 unpres</b>		Analytical Method: EPA 353.2 Pace Analytical Services - Indianapolis								
Nitrogen, Nitrate	ND	mg/L	0.10	0.011	1		11/22/22 19:29	14797-55-8		
Nitrogen, Nitrite	ND	mg/L	0.10	0.0040	1		11/22/22 19:29	14797-65-0		
<b>365.1 Total Phosphorus</b>		Analytical Method: EPA 365.1 Preparation Method: EPA 365.1 Pace Analytical Services - Indianapolis								
Phosphate as P04	ND	mg/L	0.15	0.15	1	11/29/22 14:30	12/01/22 11:08			
<b>5310C TOC</b>		Analytical Method: SM 5310C Pace Analytical Services - Indianapolis								
Total Organic Carbon	ND	mg/L	1.0	0.14	1		12/12/22 10:50	7440-44-0		

## REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL DATA

Project: Eagle Valley Oct 2022 P1R1  
Pace Project No.: 50331805

QC Batch: 708348 Analysis Method: EPA 9056  
QC Batch Method: EPA 9056 Analysis Description: 9056 IC Anions  
Laboratory: Pace Analytical Services - Indianapolis

Associated Lab Samples: 50331805001, 50331805002, 50331805003, 50331805004, 50331805005, 50331805006

METHOD BLANK: 3255914 Matrix: Water  
Associated Lab Samples: 50331805001, 50331805002, 50331805003, 50331805004, 50331805005, 50331805006

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chloride	mg/L	ND	0.25	0.067	12/01/22 10:48	
Fluoride	mg/L	ND	0.10	0.017	12/01/22 10:48	
Sulfate	mg/L	ND	0.25	0.085	12/01/22 10:48	

LABORATORY CONTROL SAMPLE: 3255915

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	1.2	1.1	91	80-120	
Fluoride	mg/L	0.5	0.51	102	80-120	
Sulfate	mg/L	2.5	2.4	98	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3255916 3255917

Parameter	Units	50331802004 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	10.3	1.2	1.2	12.2	12.3	156	161	80-120	1	15	M0
Fluoride	mg/L	ND	0.5	0.5	0.61	0.61	121	121	80-120	0	15	M0
Sulfate	mg/L	1120	250	250	1310	1290	75	67	80-120	2	15	M0

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### QUALITY CONTROL DATA

Project: Eagle Valley Oct 2022 P1R1

Pace Project No.: 50331805

QC Batch: 708458

Analysis Method: EPA 6010

QC Batch Method: EPA 3010

Analysis Description: 6010 MET

Laboratory: Pace Analytical Services - Indianapolis

Associated Lab Samples: 50331805001, 50331805002, 50331805003, 50331805004, 50331805005, 50331805006

METHOD BLANK: 3256358

Matrix: Water

Associated Lab Samples: 50331805001, 50331805002, 50331805003, 50331805004, 50331805005, 50331805006

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Aluminum	ug/L	ND	200	55.4	12/09/22 10:14	
Barium	ug/L	ND	10.0	2.1	12/09/22 10:14	
Boron	ug/L	ND	100	37.6	12/09/22 10:14	
Calcium	ug/L	ND	1000	163	12/09/22 10:14	
Iron	ug/L	ND	100	48.8	12/09/22 10:14	
Lithium	ug/L	ND	20.0	6.2	12/09/22 10:14	
Magnesium	ug/L	ND	1000	71.8	12/09/22 10:14	
Manganese	ug/L	ND	10.0	2.5	12/09/22 10:14	
Molybdenum	ug/L	ND	10.0	3.7	12/09/22 10:14	
Potassium	ug/L	ND	1000	281	12/09/22 10:14	
Silica	ug/L	ND	450		12/09/22 10:14	N2
Sodium	ug/L	ND	1000	214	12/09/22 10:14	

LABORATORY CONTROL SAMPLE: 3256359

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Aluminum	ug/L	10000	10700	107	80-120	
Barium	ug/L	1000	1060	106	80-120	
Boron	ug/L	1000	1070	107	80-120	
Calcium	ug/L	10000	10700	107	80-120	
Iron	ug/L	10000	11000	110	80-120	
Lithium	ug/L	1000	1040	104	80-120	
Magnesium	ug/L	10000	10400	104	80-120	
Manganese	ug/L	1000	1040	104	80-120	
Molybdenum	ug/L	1000	1100	110	80-120	
Potassium	ug/L	10000	10400	104	80-120	
Silica	ug/L	10700	11200	104	80-120	N2
Sodium	ug/L	10000	10400	104	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3256360 3256361

Parameter	Units	MS		MSD		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		50331803001 Result	Spike Conc.	Spike Conc.	MS Result						
Aluminum	ug/L	ND	10000	10000	10200	10400	102	104	75-125	2	20
Barium	ug/L	90.8	1000	1000	1150	1180	106	109	75-125	3	20
Boron	ug/L	ND	1000	1000	1160	1200	107	111	75-125	4	20
Calcium	ug/L	155000	10000	10000	169000	169000	142	141	75-125	0	20 P6

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**QUALITY CONTROL DATA**

Project: Eagle Valley Oct 2022 P1R1

Pace Project No.: 50331805

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3256360 3256361											
Parameter	Units	50331803001 Result	MS	MSD	MS	MSD	MS	MSD	% Rec	Max	Qual
			Spike Conc.	Spike Conc.	Result	Result	% Rec	% Rec	Limits	RPD	
Iron	ug/L	ND	10000	10000	10500	10800	105	108	75-125	3	20
Lithium	ug/L	ND	1000	1000	1060	1100	106	110	75-125	3	20
Magnesium	ug/L	29800	10000	10000	40600	41400	109	116	75-125	2	20
Manganese	ug/L	2380	1000	1000	3450	3480	106	110	75-125	1	20
Molybdenum	ug/L	ND	1000	1000	1080	1110	108	111	75-125	2	20
Potassium	ug/L	ND	10000	10000	11200	11600	105	108	75-125	3	20
Silica	ug/L	13400	10700	10700	24900	25600	107	113	75-125	3	20 N2
Sodium	ug/L	6180	10000	10000	16700	16600	105	105	75-125	0	20

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**REPORT OF LABORATORY ANALYSIS**

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### QUALITY CONTROL DATA

Project: Eagle Valley Oct 2022 P1R1

Pace Project No.: 50331805

QC Batch:	708402	Analysis Method:	EPA 6010
QC Batch Method:	EPA 3010	Analysis Description:	6010 MET Dissolved
		Laboratory:	Pace Analytical Services - Indianapolis

Associated Lab Samples: 50331805001, 50331805002, 50331805003, 50331805005

METHOD BLANK: 3256167 Matrix: Water

Associated Lab Samples: 50331805001, 50331805002, 50331805003, 50331805005

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Manganese, Dissolved	ug/L	ND	10.0	5.4	12/08/22 03:10	
Molybdenum, Dissolved	ug/L	ND	10.0	2.0	12/08/22 03:10	

LABORATORY CONTROL SAMPLE: 3256168

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Manganese, Dissolved	ug/L	1000	974	97	80-120	
Molybdenum, Dissolved	ug/L	1000	1030	103	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3256169 3256170

Parameter	Units	50331802004 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Manganese, Dissolved	ug/L	42000	1000	1000	37900	41600	-409	-38	75-125	9	20	P6
Molybdenum, Dissolved	ug/L	ND	1000	1000	1030	1030	103	103	75-125	0	20	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3256171 3256172

Parameter	Units	50331803001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Manganese, Dissolved	ug/L	2210	1000	1000	3330	3090	112	88	75-125	7	20	
Molybdenum, Dissolved	ug/L	ND	1000	1000	1030	1050	103	105	75-125	1	20	

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### QUALITY CONTROL DATA

Project: Eagle Valley Oct 2022 P1R1

Pace Project No.: 50331805

QC Batch:	708531	Analysis Method:	EPA 6020
QC Batch Method:	EPA 200.2	Analysis Description:	6020 MET
		Laboratory:	Pace Analytical Services - Indianapolis

Associated Lab Samples: 50331805001, 50331805002, 50331805003, 50331805004, 50331805005, 50331805006

METHOD BLANK: 3256548 Matrix: Water  
Associated Lab Samples: 50331805001, 50331805002, 50331805003, 50331805004, 50331805005, 50331805006

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Antimony	ug/L	ND	1.0	0.13	12/01/22 02:57	
Arsenic	ug/L	ND	1.0	0.11	12/01/22 02:57	
Selenium	ug/L	ND	1.0	0.35	12/02/22 14:49	

LABORATORY CONTROL SAMPLE: 3256549

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Antimony	ug/L	40	40.5	101	80-120	
Arsenic	ug/L	40	38.4	96	80-120	
Selenium	ug/L	40	40.6	102	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3256550 3256551

Parameter	Units	50331803001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Antimony	ug/L	ND	40	40	41.4	41.1	103	103	75-125	1	20	
Arsenic	ug/L	ND	40	40	39.7	38.5	99	96	75-125	3	20	
Selenium	ug/L	1.4	40	40	41.6	39.4	100	95	75-125	5	20	

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### QUALITY CONTROL DATA

Project: Eagle Valley Oct 2022 P1R1

Pace Project No.: 50331805

QC Batch: 708215

Analysis Method: SM 2320B

QC Batch Method: SM 2320B

Analysis Description: 2320B Alkalinity

Laboratory: Pace Analytical Services - Indianapolis

Associated Lab Samples: 50331805001, 50331805002

METHOD BLANK: 3255594

Matrix: Water

Associated Lab Samples: 50331805001, 50331805002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Alkalinity, Total as CaCO <sub>3</sub>	mg/L	ND	10.0	10.0	11/25/22 12:02	
Alkalinity,Bicarbonate (CaCO <sub>3</sub> )	mg/L	ND	10.0	10.0	11/25/22 12:02	
Alkalinity,Carbonate (CaCO <sub>3</sub> )	mg/L	ND	10.0	10.0	11/25/22 12:02	

LABORATORY CONTROL SAMPLE: 3255595

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Alkalinity, Total as CaCO <sub>3</sub>	mg/L	50	48.5	97	90-110	

SAMPLE DUPLICATE: 3255596

Parameter	Units	50331804001 Result	Dup Result	RPD	Max RPD	Qualifiers
Alkalinity, Total as CaCO <sub>3</sub>	mg/L	266	271	2	20	
Alkalinity,Bicarbonate (CaCO <sub>3</sub> )	mg/L	266	271	2	20	
Alkalinity,Carbonate (CaCO <sub>3</sub> )	mg/L	ND	ND		20	

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### QUALITY CONTROL DATA

Project: Eagle Valley Oct 2022 P1R1

Pace Project No.: 50331805

QC Batch: 708313 Analysis Method: SM 2320B  
 QC Batch Method: SM 2320B Analysis Description: 2320B Alkalinity  
 Laboratory: Pace Analytical Services - Indianapolis  
 Associated Lab Samples: 50331805003, 50331805004, 50331805005, 50331805006

METHOD BLANK: 3255803 Matrix: Water  
 Associated Lab Samples: 50331805003, 50331805004, 50331805005, 50331805006

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Alkalinity, Total as CaCO3	mg/L	ND	10.0	10.0	11/28/22 11:43	
Alkalinity,Bicarbonate (CaCO3)	mg/L	ND	10.0	10.0	11/28/22 11:43	
Alkalinity,Carbonate (CaCO3)	mg/L	ND	10.0	10.0	11/28/22 11:43	

LABORATORY CONTROL SAMPLE: 3255804

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Alkalinity, Total as CaCO3	mg/L	50	48.9	98	90-110	

SAMPLE DUPLICATE: 3255805

Parameter	Units	50331821001 Result	Dup Result	RPD	Max RPD	Qualifiers
Alkalinity, Total as CaCO3	mg/L	338	342	1	20	
Alkalinity,Bicarbonate (CaCO3)	mg/L	338	342	1	20	
Alkalinity,Carbonate (CaCO3)	mg/L	ND	ND		20	

SAMPLE DUPLICATE: 3255806

Parameter	Units	50331773003 Result	Dup Result	RPD	Max RPD	Qualifiers
Alkalinity, Total as CaCO3	mg/L	190	192	1	20	
Alkalinity,Bicarbonate (CaCO3)	mg/L	190	192	1	20	
Alkalinity,Carbonate (CaCO3)	mg/L	ND	ND		20	

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**QUALITY CONTROL DATA**

Project: Eagle Valley Oct 2022 P1R1

Pace Project No.: 50331805

QC Batch:	708252	Analysis Method:	SM 2540C
QC Batch Method:	SM 2540C	Analysis Description:	2540C Total Dissolved Solids
		Laboratory:	Pace Analytical Services - Indianapolis

Associated Lab Samples: 50331805001, 50331805002, 50331805003, 50331805004, 50331805005, 50331805006

METHOD BLANK: 3255680 Matrix: Water

Associated Lab Samples: 50331805001, 50331805002, 50331805003, 50331805004, 50331805005, 50331805006

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	ND	10.0	10.0	11/26/22 15:13	

LABORATORY CONTROL SAMPLE: 3255681

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	300	289	96	80-120	

SAMPLE DUPLICATE: 3255682

Parameter	Units	50331923004 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	1340	1320	2	10	

SAMPLE DUPLICATE: 3255683

Parameter	Units	50331805001 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	878	876	0	10	

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### QUALITY CONTROL DATA

Project: Eagle Valley Oct 2022 P1R1

Pace Project No.: 50331805

QC Batch: 708711

Analysis Method: SM 4500-H+B

QC Batch Method: SM 4500-H+B

Analysis Description: 4500H+B pH

Laboratory: Pace Analytical Services - Indianapolis

Associated Lab Samples: 50331805001, 50331805002, 50331805003, 50331805004, 50331805005, 50331805006

SAMPLE DUPLICATE: 3257188

Parameter	Units	50331027037 Result	Dup Result	RPD	Max RPD	Qualifiers
pH at 25 Degrees C	Std. Units	7.1	7.2	0	2	H3

SAMPLE DUPLICATE: 3257189

Parameter	Units	50331803001 Result	Dup Result	RPD	Max RPD	Qualifiers
pH at 25 Degrees C	Std. Units	7.4	7.4	0	2	H3

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**QUALITY CONTROL DATA**

Project: Eagle Valley Oct 2022 P1R1

Pace Project No.: 50331805

QC Batch:	707991	Analysis Method:	SM 4500-S2-D
QC Batch Method:	SM 4500-S2-D	Analysis Description:	4500S2D Sulfide Water
		Laboratory:	Pace Analytical Services - Indianapolis

Associated Lab Samples: 50331805001, 50331805002, 50331805003, 50331805004, 50331805005, 50331805006

METHOD BLANK: 3254620 Matrix: Water  
Associated Lab Samples: 50331805001, 50331805002, 50331805003, 50331805004, 50331805005, 50331805006

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Sulfide	mg/L	ND	0.10	0.025	11/23/22 10:20	

LABORATORY CONTROL SAMPLE: 3254621

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Sulfide	mg/L	0.5	0.48	96	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3254622 3254623

Parameter	Units	50330817022 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Sulfide	mg/L	0.029J	0.5	0.5	0.48	0.46	89	85	90-110	4	20	H3,M3

MATRIX SPIKE SAMPLE: 3254624

Parameter	Units	50331804001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Sulfide	mg/L	ND	0.5	0.44	89	90-110	M0

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### QUALITY CONTROL DATA

Project: Eagle Valley Oct 2022 P1R1  
Pace Project No.: 50331805

QC Batch: 708493	Analysis Method: HACH 8146
QC Batch Method: HACH 8146	Analysis Description: Iron, Ferrous
	Laboratory: Pace Analytical Services - Indianapolis

Associated Lab Samples: 50331805003

METHOD BLANK: 3256441 Matrix: Water

Associated Lab Samples: 50331805003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Iron, Ferrous	mg/L	ND	0.20	0.096	11/28/22 18:33	H3,N2

LABORATORY CONTROL SAMPLE: 3256442

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Iron, Ferrous	mg/L	1	1.0	102	90-110	H3,N2

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3256443 3256444

Parameter	Units	50330817022		3256443		3256444		% Rec Limits	RPD	Max RPD	Qual
		MS Result	MSD Spike Conc.	MS Result	MSD Spike Conc.	MS % Rec	MSD % Rec				
Iron, Ferrous	mg/L	ND	1	1	0.96	1.0	96	104	9	20	H3,N2

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3256445 3256446

Parameter	Units	50331424001		3256445		3256446		% Rec Limits	RPD	Max RPD	Qual
		MS Result	MSD Spike Conc.	MS Result	MSD Spike Conc.	MS % Rec	MSD % Rec				
Iron, Ferrous	mg/L	ND	1	1	0.99	0.99	99	99	0	20	H3,N2

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### QUALITY CONTROL DATA

Project: Eagle Valley Oct 2022 P1R1

Pace Project No.: 50331805

QC Batch:	708495	Analysis Method:	HACH 8146
QC Batch Method:	HACH 8146	Analysis Description:	Iron, Ferrous
		Laboratory:	Pace Analytical Services - Indianapolis

Associated Lab Samples: 50331805001, 50331805002, 50331805004, 50331805005, 50331805006

METHOD BLANK: 3256447 Matrix: Water  
Associated Lab Samples: 50331805001, 50331805002, 50331805004, 50331805005, 50331805006

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Iron, Ferrous	mg/L	ND	0.20	0.096	11/28/22 19:02	H3,N2

LABORATORY CONTROL SAMPLE: 3256448

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Iron, Ferrous	mg/L	1	1.0	103	90-110	H3,N2

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3256449 3256450

Parameter	Units	50331365001		3256450		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual	
		MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result							
Iron, Ferrous	mg/L	ND	1	1	0.97	0.93	97	93	90-110	5	20	H3,N2

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3256451 3256452

Parameter	Units	50331803001		3256452		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual	
		MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result							
Iron, Ferrous	mg/L	ND	1	1	0.94	0.93	94	93	90-110	1	20	H3,N2

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### QUALITY CONTROL DATA

Project: Eagle Valley Oct 2022 P1R1

Pace Project No.: 50331805

QC Batch:	707883	Analysis Method:	EPA 353.2
QC Batch Method:	EPA 353.2	Analysis Description:	353.2 Nitrate + Nitrite, Unpres.
		Laboratory:	Pace Analytical Services - Indianapolis

Associated Lab Samples: 50331805001, 50331805002, 50331805003

METHOD BLANK: 3254014 Matrix: Water

Associated Lab Samples: 50331805001, 50331805002, 50331805003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Nitrogen, Nitrate	mg/L	ND	0.10	0.011	11/22/22 18:22	
Nitrogen, Nitrite	mg/L	ND	0.10	0.0040	11/22/22 18:22	

LABORATORY CONTROL SAMPLE: 3254015

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Nitrogen, Nitrate	mg/L	1	0.94	94	90-110	
Nitrogen, Nitrite	mg/L	1	0.99	99	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3254016 3254017

Parameter	Units	50330817022 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Nitrogen, Nitrate	mg/L	0.031J			0.99	0.99				0	20	H3
Nitrogen, Nitrite	mg/L	ND	1	1	1.0	1.0	100	100	90-110	0	20	H3

MATRIX SPIKE SAMPLE: 3254018

Parameter	Units	50331773002 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Nitrogen, Nitrate	mg/L		ND	1	0.97	96	90-110
Nitrogen, Nitrite	mg/L		ND	1	1.0	100	90-110

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### QUALITY CONTROL DATA

Project: Eagle Valley Oct 2022 P1R1

Pace Project No.: 50331805

QC Batch:	707908	Analysis Method:	EPA 353.2
QC Batch Method:	EPA 353.2	Analysis Description:	353.2 Nitrate + Nitrite, Unpres.
		Laboratory:	Pace Analytical Services - Indianapolis

Associated Lab Samples: 50331805004, 50331805005, 50331805006

METHOD BLANK: 3254101 Matrix: Water

Associated Lab Samples: 50331805004, 50331805005, 50331805006

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Nitrogen, Nitrate	mg/L	ND	0.10	0.011	11/22/22 19:40	
Nitrogen, Nitrite	mg/L	ND	0.10	0.0040	11/22/22 19:40	

LABORATORY CONTROL SAMPLE: 3254102

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Nitrogen, Nitrate	mg/L	1	0.96	96	90-110	
Nitrogen, Nitrite	mg/L	1	1.0	101	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3254103 3254104

Parameter	Units	50331803001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Nitrogen, Nitrate	mg/L	1.3	1	1	2.3	2.3	104	104	90-110	0	20	
Nitrogen, Nitrite	mg/L	ND	1	1	1.0	1.0	101	101	90-110	0	20	

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### QUALITY CONTROL DATA

Project: Eagle Valley Oct 2022 P1R1

Pace Project No.: 50331805

QC Batch:	708639	Analysis Method:	EPA 365.1
QC Batch Method:	EPA 365.1	Analysis Description:	365.1 Total Phosphorus
		Laboratory:	Pace Analytical Services - Indianapolis

Associated Lab Samples: 50331805001, 50331805002, 50331805003, 50331805004, 50331805005, 50331805006

METHOD BLANK: 3256894 Matrix: Water  
Associated Lab Samples: 50331805001, 50331805002, 50331805003, 50331805004, 50331805005, 50331805006

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Phosphate as P04	mg/L	ND	0.15	0.15	12/01/22 10:51	

LABORATORY CONTROL SAMPLE: 3256895

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Phosphate as P04	mg/L		1.5			

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3256896 3256897

Parameter	Units	50331803001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Phosphate as P04	mg/L	ND			1.5	1.5					3	

MATRIX SPIKE SAMPLE: 3256898

Parameter	Units	50331805001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Phosphate as P04	mg/L		0.16			1.6	

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### QUALITY CONTROL DATA

Project: Eagle Valley Oct 2022 P1R1

Pace Project No.: 50331805

QC Batch: 710166 Analysis Method: SM 5310C  
 QC Batch Method: SM 5310C Analysis Description: 5310C Total Organic Carbon  
 Laboratory: Pace Analytical Services - Indianapolis

Associated Lab Samples: 50331805001, 50331805002, 50331805003, 50331805004, 50331805005, 50331805006

METHOD BLANK: 3263463 Matrix: Water  
 Associated Lab Samples: 50331805001, 50331805002, 50331805003, 50331805004, 50331805005, 50331805006

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Organic Carbon	mg/L	ND	1.0	0.14	12/12/22 05:09	

LABORATORY CONTROL SAMPLE: 3263464

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Organic Carbon	mg/L	10	10.6	106	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3263466 3263467

Parameter	Units	50331834001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Total Organic Carbon	mg/L	1.1	10	10	11.2	11.2	101	102	80-120	0	20	

MATRIX SPIKE SAMPLE: 3263468

Parameter	Units	50331834004 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Total Organic Carbon	mg/L	1.3	10	11.3	100	80-120	

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**QUALITY CONTROL DATA**

Project: Eagle Valley Oct 2022 P1R1

Pace Project No.: 50331805

QC Batch:	709613	Analysis Method:	SM 5310C
QC Batch Method:	SM 5310C	Analysis Description:	5310C Dissolved Organic Carbon
		Laboratory:	Pace Analytical Services - Indianapolis

Associated Lab Samples: 50331805001, 50331805002, 50331805003, 50331805005

METHOD BLANK: 3261067 Matrix: Water  
Associated Lab Samples: 50331805001, 50331805002, 50331805003, 50331805005

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Dissolved Organic Carbon	mg/L	ND	1.0	0.14	12/08/22 06:28	

LABORATORY CONTROL SAMPLE: 3261068

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Dissolved Organic Carbon	mg/L	10	10.6	106	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3261069 3261070

Parameter	Units	50331803001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Dissolved Organic Carbon	mg/L	ND	10	10	11.2	11.3	105	105	80-120	0	20	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3261071 3261072

Parameter	Units	50332043001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Dissolved Organic Carbon	mg/L	ND	10	10	12.6	12.6	100	100	80-120	0	20	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3261073 3261074

Parameter	Units	50332201003 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Dissolved Organic Carbon	mg/L	ND	10	10	10.6	10.6	101	102	80-120	0	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

**REPORT OF LABORATORY ANALYSIS**

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Eagle Valley Oct 2022 P1R1

Pace Project No.: 50331805

**Sample: MW-11S**      **Lab ID: 50331805001**      Collected: 11/21/22 11:32      Received: 11/22/22 15:55      Matrix: Water  
PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	<b>0.245 ± 0.279 (0.440)</b> <b>C:NA T:87%</b>	pCi/L	12/15/22 16:18	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	<b>0.579 ± 0.477 (0.948)</b> <b>C:80% T:87%</b>	pCi/L	12/08/22 14:48	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	<b>0.824 ± 0.756 (1.39)</b>	pCi/L	12/16/22 16:18	7440-14-4	

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Eagle Valley Oct 2022 P1R1

Pace Project No.: 50331805

**Sample: MW-111**      **Lab ID: 50331805002**      Collected: 11/21/22 10:34      Received: 11/22/22 15:55      Matrix: Water  
PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	<b>0.491 ± 0.458 (0.708)</b> <b>C:NA T:90%</b>	pCi/L	12/15/22 16:31	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	<b>-0.284 ± 0.494 (1.22)</b> <b>C:67% T:90%</b>	pCi/L	12/08/22 14:48	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	<b>0.491 ± 0.952 (1.93)</b>	pCi/L	12/16/22 16:18	7440-14-4	

### REPORT OF LABORATORY ANALYSIS

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Eagle Valley Oct 2022 P1R1

Pace Project No.: 50331805

**Sample: DUP-2**      **Lab ID: 50331805003**      Collected: 11/21/22 08:00      Received: 11/22/22 15:55      Matrix: Water  
PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	<b>0.210 ± 0.274 (0.453)</b> <b>C:NA T:90%</b>	pCi/L	12/15/22 16:31	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	<b>0.833 ± 0.611 (1.21)</b> <b>C:78% T:90%</b>	pCi/L	12/08/22 14:48	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	<b>1.04 ± 0.885 (1.66)</b>	pCi/L	12/16/22 16:18	7440-14-4	

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Eagle Valley Oct 2022 P1R1

Pace Project No.: 50331805

**Sample: FB-1**      **Lab ID: 50331805004**      Collected: 11/21/22 12:30      Received: 11/22/22 15:55      Matrix: Water  
PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	<b>-0.176 ± 0.244 (0.619)</b> <b>C:NA T:79%</b>	pCi/L	12/15/22 16:31	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	<b>-0.0412 ± 0.592 (1.37)</b> <b>C:75% T:79%</b>	pCi/L	12/08/22 14:48	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	<b>0.000 ± 0.836 (1.99)</b>	pCi/L	12/16/22 16:18	7440-14-4	

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Eagle Valley Oct 2022 P1R1

Pace Project No.: 50331805

**Sample: MW-4D**      **Lab ID: 50331805005**      Collected: 11/21/22 13:57      Received: 11/22/22 15:55      Matrix: Water  
PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	<b>0.378 ± 0.260 (0.278)</b> <b>C:NA T:93%</b>	pCi/L	12/15/22 16:31	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	<b>0.244 ± 0.535 (1.18)</b> <b>C:74% T:93%</b>	pCi/L	12/08/22 14:48	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	<b>0.622 ± 0.795 (1.46)</b>	pCi/L	12/16/22 16:18	7440-14-4	

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Eagle Valley Oct 2022 P1R1

Pace Project No.: 50331805

**Sample: FB-2**      **Lab ID: 50331805006**      Collected: 11/21/22 14:45      Received: 11/22/22 15:55      Matrix: Water  
PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Radium-226	EPA 903.1	<b>0.000 ± 0.235 (0.508)</b> <b>C:NA T:82%</b>	pCi/L	12/15/22 16:31	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 904.0	<b>1.02 ± 0.622 (1.17)</b> <b>C:81% T:82%</b>	pCi/L	12/08/22 14:48	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	<b>1.02 ± 0.857 (1.68)</b>	pCi/L	12/16/22 16:18	7440-14-4	

### REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL - RADIOCHEMISTRY

Project: Eagle Valley Oct 2022 P1R1

Pace Project No.: 50331805

QC Batch: 551084

Analysis Method: EPA 904.0

QC Batch Method: EPA 904.0

Analysis Description: 904.0 Radium 228

Laboratory: Pace Analytical Services - Greensburg

Associated Lab Samples: 50331805001, 50331805002, 50331805003, 50331805004, 50331805005, 50331805006

METHOD BLANK: 2676270

Matrix: Water

Associated Lab Samples: 50331805001, 50331805002, 50331805003, 50331805004, 50331805005, 50331805006

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.110 ± 0.368 (0.831) C:75% T:84%	pCi/L	12/08/22 12:39	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

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## QUALIFIERS

Project: Eagle Valley Oct 2022 P1R1

Pace Project No.: 50331805

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### DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Reported results are not rounded until the final step prior to reporting. Therefore, calculated parameters that are typically reported as "Total" may vary slightly from the sum of the reported component parameters.

Act - Activity

Unc - Uncertainty: SDWA = 1.96 sigma count uncertainty, all other matrices = Expanded Uncertainty (95% confidence interval).

Gamma Spec = Expanded Uncertainty (95.4% Confidence Interval)

(MDC) - Minimum Detectable Concentration

Trac - Tracer Recovery (%)

Carr - Carrier Recovery (%)

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

### ANALYTE QUALIFIERS

H3 Sample was received or analysis requested beyond the recognized method holding time.

M0 Matrix spike recovery and/or matrix spike duplicate recovery was outside laboratory control limits.

M3 Matrix spike recovery was outside laboratory control limits due to matrix interferences.

N2 The lab does not hold NELAC/TNI accreditation for this parameter but other accreditations/certifications may apply. A complete list of accreditations/certifications is available upon request.

P6 Matrix spike recovery was outside laboratory control limits due to a parent sample concentration notably higher than the spike level.

PL The minimum mass of dried residue of 2.5 mg could not be obtained using the routine sample volume of 100 mL.

## REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Eagle Valley Oct 2022 P1R1

Pace Project No.: 50331805

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
50331805001	MW-11S	EPA 9056	708348		
50331805002	MW-11I	EPA 9056	708348		
50331805003	DUP-2	EPA 9056	708348		
50331805004	FB-1	EPA 9056	708348		
50331805005	MW-4D	EPA 9056	708348		
50331805006	FB-2	EPA 9056	708348		
50331805001	MW-11S	EPA 3010	708458	EPA 6010	710286
50331805002	MW-11I	EPA 3010	708458	EPA 6010	710286
50331805003	DUP-2	EPA 3010	708458	EPA 6010	710286
50331805004	FB-1	EPA 3010	708458	EPA 6010	710286
50331805005	MW-4D	EPA 3010	708458	EPA 6010	710286
50331805006	FB-2	EPA 3010	708458	EPA 6010	710286
50331805001	MW-11S	EPA 3010	708402	EPA 6010	710055
50331805002	MW-11I	EPA 3010	708402	EPA 6010	710055
50331805003	DUP-2	EPA 3010	708402	EPA 6010	710055
50331805005	MW-4D	EPA 3010	708402	EPA 6010	710055
50331805001	MW-11S	EPA 200.2	708531	EPA 6020	708868
50331805002	MW-11I	EPA 200.2	708531	EPA 6020	708868
50331805003	DUP-2	EPA 200.2	708531	EPA 6020	708868
50331805004	FB-1	EPA 200.2	708531	EPA 6020	708868
50331805005	MW-4D	EPA 200.2	708531	EPA 6020	708868
50331805006	FB-2	EPA 200.2	708531	EPA 6020	708868
50331805001	MW-11S	EPA 903.1	551083		
50331805002	MW-11I	EPA 903.1	551083		
50331805003	DUP-2	EPA 903.1	551083		
50331805004	FB-1	EPA 903.1	551083		
50331805005	MW-4D	EPA 903.1	551083		
50331805006	FB-2	EPA 903.1	551083		
50331805001	MW-11S	EPA 904.0	551084		
50331805002	MW-11I	EPA 904.0	551084		
50331805003	DUP-2	EPA 904.0	551084		
50331805004	FB-1	EPA 904.0	551084		
50331805005	MW-4D	EPA 904.0	551084		
50331805006	FB-2	EPA 904.0	551084		
50331805001	MW-11S	Total Radium Calculation	554470		
50331805002	MW-11I	Total Radium Calculation	554470		
50331805003	DUP-2	Total Radium Calculation	554470		
50331805004	FB-1	Total Radium Calculation	554470		
50331805005	MW-4D	Total Radium Calculation	554470		
50331805006	FB-2	Total Radium Calculation	554470		
50331805001	MW-11S	SM 2320B	708215		
50331805002	MW-11I	SM 2320B	708215		
50331805003	DUP-2	SM 2320B	708313		
50331805004	FB-1	SM 2320B	708313		
50331805005	MW-4D	SM 2320B	708313		

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### QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Eagle Valley Oct 2022 P1R1

Pace Project No.: 50331805

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
50331805006	FB-2	SM 2320B	708313		
50331805001	MW-11S	SM 2540C	708252		
50331805002	MW-11I	SM 2540C	708252		
50331805003	DUP-2	SM 2540C	708252		
50331805004	FB-1	SM 2540C	708252		
50331805005	MW-4D	SM 2540C	708252		
50331805006	FB-2	SM 2540C	708252		
50331805001	MW-11S	SM 4500-H+B	708711		
50331805002	MW-11I	SM 4500-H+B	708711		
50331805003	DUP-2	SM 4500-H+B	708711		
50331805004	FB-1	SM 4500-H+B	708711		
50331805005	MW-4D	SM 4500-H+B	708711		
50331805006	FB-2	SM 4500-H+B	708711		
50331805001	MW-11S	SM 4500-S2-D	707991		
50331805002	MW-11I	SM 4500-S2-D	707991		
50331805003	DUP-2	SM 4500-S2-D	707991		
50331805004	FB-1	SM 4500-S2-D	707991		
50331805005	MW-4D	SM 4500-S2-D	707991		
50331805006	FB-2	SM 4500-S2-D	707991		
50331805001	MW-11S	HACH 8146	708495		
50331805002	MW-11I	HACH 8146	708495		
50331805003	DUP-2	HACH 8146	708493		
50331805004	FB-1	HACH 8146	708495		
50331805005	MW-4D	HACH 8146	708495		
50331805006	FB-2	HACH 8146	708495		
50331805001	MW-11S	EPA 353.2	707883		
50331805002	MW-11I	EPA 353.2	707883		
50331805003	DUP-2	EPA 353.2	707883		
50331805004	FB-1	EPA 353.2	707908		
50331805005	MW-4D	EPA 353.2	707908		
50331805006	FB-2	EPA 353.2	707908		
50331805001	MW-11S	EPA 365.1	708639	EPA 365.1	709048
50331805002	MW-11I	EPA 365.1	708639	EPA 365.1	709048
50331805003	DUP-2	EPA 365.1	708639	EPA 365.1	709048
50331805004	FB-1	EPA 365.1	708639	EPA 365.1	709048
50331805005	MW-4D	EPA 365.1	708639	EPA 365.1	709048
50331805006	FB-2	EPA 365.1	708639	EPA 365.1	709048
50331805001	MW-11S	SM 5310C	710166		
50331805002	MW-11I	SM 5310C	710166		
50331805003	DUP-2	SM 5310C	710166		
50331805004	FB-1	SM 5310C	710166		
50331805005	MW-4D	SM 5310C	710166		
50331805006	FB-2	SM 5310C	710166		

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### QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Eagle Valley Oct 2022 P1R1

Pace Project No.: 50331805

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
50331805001	MW-11S	SM 5310C	709613		
50331805002	MW-11I	SM 5310C	709613		
50331805003	DUP-2	SM 5310C	709613		
50331805005	MW-4D	SM 5310C	709613		

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**SAMPLE CONDITION UPON RECEIPT FORM**

Date/Time and Initials of person examining contents: 11/22/22 11:30 LL

1. Courier:  FED EX  UPS  CLIENT  PACE  USPS  OTHER

2. Custody Seal on Cooler/Box Present:  Yes  No

(If yes)Seals Intact:  Yes  No (leave blank if no seals were present)

3. Thermometer: **1 2 3 4 5 6 A B C D E (F)**

4. Cooler Temperature(s): 0.5/0.5 0.6/0.6 0.6/0.6

(Initial/Corrected) RECORD TEMPS OF ALL COOLERS RECEIVED (use Comments below to add more)

5. Packing Material:  Bubble Wrap  Bubble Bags  
 None  Other

6. Ice Type:  Wet  Blue  None

7. If temp. is over 6°C or under 0°C, was the PM notified?:  Yes  No

Cooler temp should be above freezing to 6°C

All discrepancies will be written out in the comments section below.

	Yes	No		Yes	No	N/A
USDA Regulated Soils? (HI, ID, NY, WA, OR, CA, NM, TX, OK, AR, LA, TN, AL, MS, NC, SC, GA, FL, or Puerto Rico)		<input checked="" type="checkbox"/>	All containers needing acid/base preservation have been pH CHECKED?: Exceptions: VOA, coliform, LLHg, O&G, RAD CHEM, and any container with a septum cap or preserved with HCl.			
Short Hold Time Analysis (48 hours or less)? Analysis: <u>Nitrate/Nitrite 3532</u>	<input checked="" type="checkbox"/>		Circle: <u>HNO3 (&lt;2)</u> <u>H2SO4 (&lt;2)</u> NaOH (>10) <u>NaOH/ZnAc (&gt;9)</u> Any non-conformance to pH recommendations will be noted on the container count form	<input checked="" type="checkbox"/>		
Time 5035A TC placed in Freezer or Short Holds To Lab Time: <u>1728</u>			Residual Chlorine Check (SVOC 625 Pest/PCB 608)	<u>Present</u>	<u>Absent</u>	<u>N/A</u>
Rush TAT Requested (4 days or less):		<input checked="" type="checkbox"/>	Residual Chlorine Check (Total/Amenable/Free Cyanide)			<input checked="" type="checkbox"/>
Custody Signatures Present?	<input checked="" type="checkbox"/>		Headspace Wisconsin Sulfide?			<input checked="" type="checkbox"/>
Containers Intact?:	<input checked="" type="checkbox"/>		Headspace in VOA Vials (>6mm): See Containter Count form for details	<u>Present</u>	<u>Absent</u>	<u>No VOA Vials Sent</u>
Sample Label (IDs/Dates/Times) Match COC?: Except TCs, which only require sample ID	<input checked="" type="checkbox"/>		Trip Blank Present?		<input checked="" type="checkbox"/>	
Extra labels on Terracore Vials? (soils only)			Trip Blank Custody Seals?:			<input checked="" type="checkbox"/>

COMMENTS:



March 06, 2023

Mr. Mark Breting  
ATC Group Services  
7988 Centerpoint Drive  
Suite 100  
Indianapolis, IN 46256

RE: Project: Eagle Valley Oct 2022 P1R1  
Pace Project No.: 50332043

Dear Mr. Breting:

Enclosed are the analytical results for sample(s) received by the laboratory on November 28, 2022. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

The test results provided in this final report were generated by each of the following laboratories within the Pace Network:

- Pace Analytical Services - Indianapolis
- Pace Analytical Services - Greensburg

If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Will Statz  
will.statz@pacelabs.com  
(317)228-3105  
Project Manager

Enclosures

cc: Mr. Robert Miller, Haley & Aldrich



## REPORT OF LABORATORY ANALYSIS

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## CERTIFICATIONS

Project: Eagle Valley Oct 2022 P1R1

Pace Project No.: 50332043

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### Pace Analytical Services Pennsylvania

1638 Roseytown Rd Suites 2,3&4, Greensburg, PA 15601

ANAB DOD-ELAP Rad Accreditation #: L2417

Alabama Certification #: 41590

Arizona Certification #: AZ0734

Arkansas Certification

California Certification #: 04222CA

Colorado Certification #: PA01547

Connecticut Certification #: PH-0694

Delaware Certification

EPA Region 4 DW Rad

Florida/TNI Certification #: E87683

Georgia Certification #: C040

Florida: Cert E871149 SEKS WET

Guam Certification

Hawaii Certification

Idaho Certification

Illinois Certification

Indiana Certification

Iowa Certification #: 391

Kansas/TNI Certification #: E-10358

Kentucky Certification #: KY90133

KY WW Permit #: KY0098221

KY WW Permit #: KY0000221

Louisiana DHH/TNI Certification #: LA180012

Louisiana DEQ/TNI Certification #: 4086

Maine Certification #: 2017020

Maryland Certification #: 308

Massachusetts Certification #: M-PA1457

Michigan/PADEP Certification #: 9991

Missouri Certification #: 235

Montana Certification #: Cert0082

Nebraska Certification #: NE-OS-29-14

Nevada Certification #: PA014572018-1

New Hampshire/TNI Certification #: 297617

New Jersey/TNI Certification #: PA051

New Mexico Certification #: PA01457

New York/TNI Certification #: 10888

North Carolina Certification #: 42706

North Dakota Certification #: R-190

Ohio EPA Rad Approval: #41249

Oregon/TNI Certification #: PA200002-010

Pennsylvania/TNI Certification #: 65-00282

Puerto Rico Certification #: PA01457

Rhode Island Certification #: 65-00282

South Dakota Certification

Tennessee Certification #: 02867

Texas/TNI Certification #: T104704188-17-3

Utah/TNI Certification #: PA014572017-9

USDA Soil Permit #: P330-17-00091

Vermont Dept. of Health: ID# VT-0282

Virgin Island/PADEP Certification

Virginia/VELAP Certification #: 460198

Washington Certification #: C868

West Virginia DEP Certification #: 143

West Virginia DHHR Certification #: 9964C

Wisconsin Approve List for Rad

Wyoming Certification #: 8TMS-L

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### Pace Analytical Services Indianapolis

7726 Moller Road, Indianapolis, IN 46268

Illinois Accreditation #: 200074

Indiana Drinking Water Laboratory #: C-49-06

Kansas/TNI Certification #: E-10177

Kentucky UST Agency Interest #: 80226

Kentucky WW Laboratory ID #: 98019

Michigan Drinking Water Laboratory #9050

Ohio VAP Certified Laboratory #: CL0065

Oklahoma Laboratory #: 9204

Texas Certification #: T104704355

Wisconsin Laboratory #: 999788130

USDA Foreign Soil Permit #: 525-23-13-23119

USDA Compliance Agreement #: IN-SL-22-001

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## REPORT OF LABORATORY ANALYSIS

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## SAMPLE SUMMARY

Project: Eagle Valley Oct 2022 P1R1

Pace Project No.: 50332043

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Lab ID	Sample ID	Matrix	Date Collected	Date Received
50332043001	MW-4S	Water	11/28/22 13:40	11/28/22 17:35
50332043002	MW-4S MS	Water	11/28/22 13:40	11/28/22 17:35
50332043003	MW-4S MSD	Water	11/28/22 13:40	11/28/22 17:35

## REPORT OF LABORATORY ANALYSIS

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### SAMPLE ANALYTE COUNT

Project: Eagle Valley Oct 2022 P1R1

Pace Project No.: 50332043

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
50332043001	MW-4S	EPA 9056	ADM	3	PASI-I
		EPA 6010	DJS	12	PASI-I
		EPA 6010	JPK	2	PASI-I
		EPA 6020	DMT	3	PASI-I
		EPA 903.1	CLM	1	PASI-PA
		EPA 904.0	JJS1	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
		SM 2320B	TAY	3	PASI-I
		SM 2540C	AEL	1	PASI-I
		SM 4500-H+B	TRK	1	PASI-I
		SM 4500-S2-D	BEP	1	PASI-I
		HACH 8146	ZM	1	PASI-I
		EPA 353.2	MMS	2	PASI-I
		EPA 365.1	ZM	1	PASI-I
		SM 5310C	ATS	1	PASI-I
		SM 5310C	ATS	1	PASI-I
50332043002	MW-4S MS	EPA 903.1	CLM	1	PASI-PA
		EPA 904.0	JJS1	1	PASI-PA
50332043003	MW-4S MSD	EPA 903.1	CLM	1	PASI-PA
		EPA 904.0	JJS1	1	PASI-PA

PASI-I = Pace Analytical Services - Indianapolis

PASI-PA = Pace Analytical Services - Greensburg

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### SUMMARY OF DETECTION

Project: Eagle Valley Oct 2022 P1R1

Pace Project No.: 50332043

Lab Sample ID	Client Sample ID	Result	Units	Report Limit	Analyzed	Qualifiers
Method	Parameters					
<b>50332043001</b>	<b>MW-4S</b>					
EPA 9056	Chloride	237	mg/L	25.0	12/01/22 22:46	
EPA 9056	Fluoride	0.35	mg/L	0.10	12/01/22 22:11	
EPA 9056	Sulfate	815	mg/L	25.0	12/01/22 22:46	
EPA 6010	Barium	87.6	ug/L	10.0	12/12/22 11:05	
EPA 6010	Boron	2580	ug/L	100	12/12/22 11:05	
EPA 6010	Calcium	318000	ug/L	3000	12/12/22 12:22	
EPA 6010	Lithium	65.8	ug/L	20.0	12/12/22 11:05	
EPA 6010	Magnesium	74100	ug/L	1000	12/12/22 11:05	
EPA 6010	Manganese	410	ug/L	10.0	12/12/22 11:05	
EPA 6010	Molybdenum	80.2	ug/L	10.0	12/12/22 11:05	
EPA 6010	Potassium	14200	ug/L	1000	12/12/22 11:05	
EPA 6010	Silica	21900	ug/L	450	12/12/22 11:05	N2
EPA 6010	Sodium	205000	ug/L	3000	12/12/22 12:22	
EPA 6010	Manganese, Dissolved	395	ug/L	10.0	12/13/22 03:10	
EPA 6010	Molybdenum, Dissolved	78.3	ug/L	10.0	12/13/22 03:10	
EPA 6020	Arsenic	6.0	ug/L	1.0	12/01/22 03:26	
EPA 903.1	Radium-226	0.189 ± 0.224 (0.352)	pCi/L		12/19/22 15:07	
EPA 904.0	Radium-228	C:NA T:89% 0.639 ± 0.534 (1.08)	pCi/L		12/09/22 16:09	
		C:81% T:89%				
Total Radium Calculation	Total Radium	0.828 ± 0.758 (1.43)	pCi/L		12/19/22 17:45	
SM 2320B	Alkalinity, Total as CaCO3	341	mg/L	10.0	11/30/22 12:50	
SM 2320B	Alkalinity, Bicarbonate (CaCO3)	341	mg/L	10.0	11/30/22 12:50	
SM 2540C	Total Dissolved Solids	1820	mg/L	40.0	11/29/22 11:52	
SM 4500-H+B	pH at 25 Degrees C	7.3	Std. Units	0.10	12/02/22 12:18	H3
EPA 365.1	Phosphate as P04	1.8	mg/L	0.15	12/02/22 14:07	
<b>50332043002</b>	<b>MW-4S MS</b>					
EPA 903.1	Radium-226	80.80 %REC ± NA (NA)	pCi/L		12/19/22 16:27	
EPA 904.0	Radium-228	C:NA T:NA 90.66 %REC ± NA (NA)	pCi/L		12/09/22 16:09	
		C:NA T:NA				
<b>50332043003</b>	<b>MW-4S MSD</b>					
EPA 903.1	Radium-226	100.27 %REC 21.50RPD ± NA (NA)	pCi/L		12/19/22 16:38	
		C:NA T:NA				

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### SUMMARY OF DETECTION

Project: Eagle Valley Oct 2022 P1R1

Pace Project No.: 50332043

Lab Sample ID Method	Client Sample ID Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
<b>50332043003</b>	<b>MW-4S MSD</b>					
EPA 904.0	Radium-228	69.93 %REC 25.81RPD ± NA (NA) C:NA T:NA	pCi/L		12/09/22 16:10	

### REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: Eagle Valley Oct 2022 P1R1

Pace Project No.: 50332043

Sample: MW-4S		Lab ID: 50332043001		Collected: 11/28/22 13:40	Received: 11/28/22 17:35	Matrix: Water				
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual	
<b>9056 IC Anions</b>		Analytical Method: EPA 9056 Pace Analytical Services - Indianapolis								
Chloride	<b>237</b>	mg/L	25.0	6.7	100		12/01/22 22:46	16887-00-6		
Fluoride	<b>0.35</b>	mg/L	0.10	0.017	1		12/01/22 22:11	16984-48-8		
Sulfate	<b>815</b>	mg/L	25.0	8.5	100		12/01/22 22:46	14808-79-8		
<b>6010 MET ICP</b>		Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Aluminum	ND	ug/L	200	54.4	1	12/08/22 09:14	12/12/22 11:05	7429-90-5		
Barium	<b>87.6</b>	ug/L	10.0	1.3	1	12/08/22 09:14	12/12/22 11:05	7440-39-3		
Boron	<b>2580</b>	ug/L	100	61.4	1	12/08/22 09:14	12/12/22 11:05	7440-42-8		
Calcium	<b>318000</b>	ug/L	3000	265	3	12/08/22 09:14	12/12/22 12:22	7440-70-2		
Iron	ND	ug/L	100	48.8	1	12/08/22 09:14	12/12/22 11:05	7439-89-6		
Lithium	<b>65.8</b>	ug/L	20.0	6.2	1	12/08/22 09:14	12/12/22 11:05	7439-93-2		
Magnesium	<b>74100</b>	ug/L	1000	43.0	1	12/08/22 09:14	12/12/22 11:05	7439-95-4		
Manganese	<b>410</b>	ug/L	10.0	5.4	1	12/08/22 09:14	12/12/22 11:05	7439-96-5		
Molybdenum	<b>80.2</b>	ug/L	10.0	2.0	1	12/08/22 09:14	12/12/22 11:05	7439-98-7		
Potassium	<b>14200</b>	ug/L	1000	200	1	12/08/22 09:14	12/12/22 11:05	7440-09-7		
Silica	<b>21900</b>	ug/L	450		1	12/08/22 09:14	12/12/22 11:05	7631-86-9	N2	
Sodium	<b>205000</b>	ug/L	3000	852	3	12/08/22 09:14	12/12/22 12:22	7440-23-5		
<b>6010 MET ICP, Dissolved</b>		Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Manganese, Dissolved	<b>395</b>	ug/L	10.0	2.5	1	12/12/22 09:50	12/13/22 03:10	7439-96-5		
Molybdenum, Dissolved	<b>78.3</b>	ug/L	10.0	3.7	1	12/12/22 09:50	12/13/22 03:10	7439-98-7		
<b>6020 MET ICPMS</b>		Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis								
Antimony	ND	ug/L	1.0	0.28	1	11/30/22 15:55	12/01/22 03:26	7440-36-0		
Arsenic	<b>6.0</b>	ug/L	1.0	0.094	1	11/30/22 15:55	12/01/22 03:26	7440-38-2		
Selenium	ND	ug/L	1.0	0.57	1	11/30/22 15:55	12/01/22 03:26	7782-49-2		
<b>2320B Alkalinity</b>		Analytical Method: SM 2320B Pace Analytical Services - Indianapolis								
Alkalinity, Total as CaCO3	<b>341</b>	mg/L	10.0	10.0	1		11/30/22 12:50			
Alkalinity,Bicarbonate (CaCO3)	<b>341</b>	mg/L	10.0	10.0	1		11/30/22 12:50			
Alkalinity,Carbonate (CaCO3)	ND	mg/L	10.0	10.0	1		11/30/22 12:50			
<b>2540C Total Dissolved Solids</b>		Analytical Method: SM 2540C Pace Analytical Services - Indianapolis								
Total Dissolved Solids	<b>1820</b>	mg/L	40.0	40.0	1		11/29/22 11:52			
<b>4500H+ pH, Electrometric</b>		Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis								
pH at 25 Degrees C	<b>7.3</b>	Std. Units	0.10	0.10	1		12/02/22 12:18		H3	

## REPORT OF LABORATORY ANALYSIS

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### ANALYTICAL RESULTS

Project: Eagle Valley Oct 2022 P1R1

Pace Project No.: 50332043

Sample: MW-4S		Lab ID: 50332043001		Collected: 11/28/22 13:40	Received: 11/28/22 17:35	Matrix: Water			
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>4500S2D Sulfide Water</b>		Analytical Method: SM 4500-S2-D Pace Analytical Services - Indianapolis							
Sulfide	ND	mg/L	0.10	0.025	1		11/30/22 10:23	18496-25-8	
<b>Iron, Ferrous</b>		Analytical Method: HACH 8146 Pace Analytical Services - Indianapolis							
Iron, Ferrous	ND	mg/L	0.20	0.096	1		12/05/22 16:38	15438-31-0	H3,N2
<b>353.2 Nitrogen, NO2/NO3 unpres</b>		Analytical Method: EPA 353.2 Pace Analytical Services - Indianapolis							
Nitrogen, Nitrate	ND	mg/L	0.10	0.011	1		11/29/22 18:34	14797-55-8	
Nitrogen, Nitrite	ND	mg/L	0.10	0.0040	1		11/29/22 18:34	14797-65-0	
<b>365.1 Total Phosphorus</b>		Analytical Method: EPA 365.1 Preparation Method: EPA 365.1 Pace Analytical Services - Indianapolis							
Phosphate as P04	1.8	mg/L	0.15	0.15	1	12/01/22 09:30	12/02/22 14:07		
<b>5310C TOC</b>		Analytical Method: SM 5310C Pace Analytical Services - Indianapolis							
Total Organic Carbon	ND	mg/L	4.0	0.57	4		12/14/22 13:58	7440-44-0	D3
<b>5310C Dissolved Organic Carbon</b>		Analytical Method: SM 5310C Pace Analytical Services - Indianapolis							
Dissolved Organic Carbon	ND	mg/L	4.0	0.57	4		12/08/22 17:06		D3

### REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL DATA

Project: Eagle Valley Oct 2022 P1R1

Pace Project No.: 50332043

QC Batch: 709075

Analysis Method: EPA 9056

QC Batch Method: EPA 9056

Analysis Description: 9056 IC Anions

Laboratory: Pace Analytical Services - Indianapolis

Associated Lab Samples: 50332043001

METHOD BLANK: 3258644

Matrix: Water

Associated Lab Samples: 50332043001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chloride	mg/L	ND	0.25	0.067	12/01/22 16:07	
Fluoride	mg/L	ND	0.10	0.017	12/01/22 16:07	
Sulfate	mg/L	ND	0.25	0.085	12/01/22 16:07	

LABORATORY CONTROL SAMPLE: 3258645

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	1.2	1.3	102	80-120	
Fluoride	mg/L	0.5	0.54	108	80-120	
Sulfate	mg/L	2.5	2.4	94	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3258646 3258647

Parameter	Units	MS		MSD		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		50332043001	Result	Spike Conc.	Spike Conc.								
Chloride	mg/L	237	125	125	351	351	91	91	80-120	0	15		
Fluoride	mg/L	0.35	0.5	0.5	0.86	0.87	103	104	80-120	0	15		
Sulfate	mg/L	815	250	250	1020	1030	84	84	80-120	0	15		

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### REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL DATA

Project: Eagle Valley Oct 2022 P1R1

Pace Project No.: 50332043

QC Batch: 709554

Analysis Method: EPA 6010

QC Batch Method: EPA 3010

Analysis Description: 6010 MET

Laboratory: Pace Analytical Services - Indianapolis

Associated Lab Samples: 50332043001

METHOD BLANK: 3260892

Matrix: Water

Associated Lab Samples: 50332043001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Aluminum	ug/L	ND	200	54.4	12/12/22 09:45	
Barium	ug/L	ND	10.0	1.3	12/12/22 09:45	
Boron	ug/L	ND	100	61.4	12/12/22 09:45	
Calcium	ug/L	ND	1000	88.4	12/12/22 09:45	
Iron	ug/L	ND	100	48.8	12/12/22 09:45	
Lithium	ug/L	ND	20.0	6.2	12/12/22 09:45	
Magnesium	ug/L	ND	1000	43.0	12/12/22 09:45	
Manganese	ug/L	ND	10.0	5.4	12/12/22 09:45	
Molybdenum	ug/L	ND	10.0	2.0	12/12/22 09:45	
Potassium	ug/L	ND	1000	200	12/12/22 09:45	
Silica	ug/L	ND	450		12/12/22 09:45	N2
Sodium	ug/L	ND	1000	284	12/12/22 09:45	

LABORATORY CONTROL SAMPLE: 3260893

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Aluminum	ug/L	10000	10400	104	80-120	
Barium	ug/L	1000	989	99	80-120	
Boron	ug/L	1000	977	98	80-120	
Calcium	ug/L	10000	10200	102	80-120	
Iron	ug/L	10000	9930	99	80-120	
Lithium	ug/L	1000	1000	100	80-120	
Magnesium	ug/L	10000	9580	96	80-120	
Manganese	ug/L	1000	992	99	80-120	
Molybdenum	ug/L	1000	1060	106	80-120	
Potassium	ug/L	10000	10200	102	80-120	
Silica	ug/L	10700	10700	100	80-120	N2
Sodium	ug/L	10000	10200	102	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3260894 3260895

Parameter	Units	50332043001		3260895		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result						
Aluminum	ug/L	ND	10000	11400	11800	114	118	75-125	4	20	
Barium	ug/L	87.6	1000	1060	1110	97	102	75-125	5	20	
Boron	ug/L	2580	1000	3630	3680	105	110	75-125	2	20	
Calcium	ug/L	318000	10000	325000	329000	63	108	75-125	1	20	P6

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### QUALITY CONTROL DATA

Project: Eagle Valley Oct 2022 P1R1

Pace Project No.: 50332043

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3260894												3260895	
Parameter	Units	50332043001 Result	MS	MSD	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual	
			Spike Conc.	Spike Conc.									
Iron	ug/L	ND	10000	10000	9490	9880	95	99	75-125	4	20		
Lithium	ug/L	65.8	1000	1000	1080	1120	101	106	75-125	4	20		
Magnesium	ug/L	74100	10000	10000	83100	84200	90	101	75-125	1	20		
Manganese	ug/L	410	1000	1000	1350	1400	94	99	75-125	3	20		
Molybdenum	ug/L	80.2	1000	1000	1120	1170	104	109	75-125	4	20		
Potassium	ug/L	14200	10000	10000	25000	25700	107	114	75-125	3	20		
Silica	ug/L	21900	10700	10700	32900	33500	103	108	75-125	2	20	N2	
Sodium	ug/L	205000	10000	10000	214000	218000	85	126	75-125	2	20	P6	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3260896												3260897	
Parameter	Units	50332050004 Result	MS	MSD	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual	
			Spike Conc.	Spike Conc.									
Aluminum	ug/L	15000	50000	50000	84000	75200	138	120	75-125	11	20	M0	
Barium	ug/L	373	5000	5000	5720	5420	107	101	75-125	5	20		
Boron	ug/L	ND	5000	5000	5460	5380	108	107	75-125	1	20		
Calcium	ug/L	2100000	50000	50000	2670000	1920000	1150	-350	75-125	33	20	E, P6, R1	
Iron	ug/L	1340000	50000	50000	1760000	1230000	827	-218	75-125	35	20	P6, R1	
Lithium	ug/L	ND	5000	5000	5510	5300	110	106	75-125	4	20		
Magnesium	ug/L	267000	50000	50000	390000	288000	246	42	75-125	30	20	P6, R1	
Manganese	ug/L	4520	5000	5000	10800	8920	125	88	75-125	19	20		
Molybdenum	ug/L	ND	5000	5000	5470	5360	109	107	75-125	2	20		
Potassium	ug/L	7450	50000	50000	70200	64400	126	114	75-125	9	20	M0	
Silica	ug/L	70500	53500	53500	170000	138000	186	126	75-125	21	20	N2	
Sodium	ug/L	158000	50000	50000	262000	192000	208	69	75-125	31	20	M3, R1	

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**QUALITY CONTROL DATA**

Project: Eagle Valley Oct 2022 P1R1

Pace Project No.: 50332043

QC Batch: 709544

Analysis Method: EPA 6010

QC Batch Method: EPA 3010

Analysis Description: 6010 MET Dissolved

Laboratory: Pace Analytical Services - Indianapolis

Associated Lab Samples: 50332043001

METHOD BLANK: 3260864

Matrix: Water

Associated Lab Samples: 50332043001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Manganese, Dissolved	ug/L	ND	10.0	2.5	12/13/22 02:17	
Molybdenum, Dissolved	ug/L	ND	10.0	3.7	12/13/22 02:17	

LABORATORY CONTROL SAMPLE: 3260865

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Manganese, Dissolved	ug/L	1000	982	98	80-120	
Molybdenum, Dissolved	ug/L	1000	1020	102	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3260866 3260867

Parameter	Units	50330270007 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Manganese, Dissolved	ug/L	386	1000	1000	1370	1360	98	97	75-125	1	20	
Molybdenum, Dissolved	ug/L	ND	1000	1000	1050	1040	105	104	75-125	1	20	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3260868 3260869

Parameter	Units	50332043001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Manganese, Dissolved	ug/L	395	1000	1000	1350	1380	95	98	75-125	2	20	
Molybdenum, Dissolved	ug/L	78.3	1000	1000	1100	1140	102	106	75-125	3	20	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3260870 3260871

Parameter	Units	50332183003 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Manganese, Dissolved	ug/L	0.044 mg/L	1000	1000	1020	996	98	95	75-125	2	20	
Molybdenum, Dissolved	ug/L	ND	1000	1000	1050	1020	105	102	75-125	3	20	

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### QUALITY CONTROL DATA

Project: Eagle Valley Oct 2022 P1R1

Pace Project No.: 50332043

QC Batch: 708719

Analysis Method: EPA 6020

QC Batch Method: EPA 200.2

Analysis Description: 6020 MET

Laboratory: Pace Analytical Services - Indianapolis

Associated Lab Samples: 50332043001

METHOD BLANK: 3257218

Matrix: Water

Associated Lab Samples: 50332043001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Antimony	ug/L	ND	1.0	0.28	12/01/22 02:33	
Arsenic	ug/L	ND	1.0	0.094	12/01/22 02:33	
Selenium	ug/L	ND	1.0	0.57	12/01/22 02:33	

LABORATORY CONTROL SAMPLE: 3257219

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Antimony	ug/L	40	42.1	105	80-120	
Arsenic	ug/L	40	38.8	97	80-120	
Selenium	ug/L	40	39.0	97	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3257220 3257221

Parameter	Units	50332043001		3257220		3257221		% Rec	% Rec	% Rec Limits	RPD	Max RPD	Qual
		Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec						
Antimony	ug/L	ND	40	40	42.5	43.0	106	107	75-125	1	20		
Arsenic	ug/L	6.0	40	40	44.9	44.9	97	97	75-125	0	20		
Selenium	ug/L	ND	40	40	38.9	38.7	96	95	75-125	0	20		

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### QUALITY CONTROL DATA

Project: Eagle Valley Oct 2022 P1R1

Pace Project No.: 50332043

QC Batch: 708786

Analysis Method: SM 2320B

QC Batch Method: SM 2320B

Analysis Description: 2320B Alkalinity

Laboratory: Pace Analytical Services - Indianapolis

Associated Lab Samples: 50332043001

METHOD BLANK: 3257517

Matrix: Water

Associated Lab Samples: 50332043001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Alkalinity, Total as CaCO <sub>3</sub>	mg/L	ND	10.0	10.0	11/30/22 12:50	
Alkalinity,Bicarbonate (CaCO <sub>3</sub> )	mg/L	ND	10.0	10.0	11/30/22 12:50	
Alkalinity,Carbonate (CaCO <sub>3</sub> )	mg/L	ND	10.0	10.0	11/30/22 12:50	

LABORATORY CONTROL SAMPLE: 3257518

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Alkalinity, Total as CaCO <sub>3</sub>	mg/L	50	49.6	99	90-110	

SAMPLE DUPLICATE: 3257520

Parameter	Units	50332043001 Result	Dup Result	RPD	Max RPD	Qualifiers
Alkalinity, Total as CaCO <sub>3</sub>	mg/L	341	347	2	20	
Alkalinity,Bicarbonate (CaCO <sub>3</sub> )	mg/L	341	347	2	20	
Alkalinity,Carbonate (CaCO <sub>3</sub> )	mg/L	ND	ND		20	

SAMPLE DUPLICATE: 3257672

Parameter	Units	50332099002 Result	Dup Result	RPD	Max RPD	Qualifiers
Alkalinity, Total as CaCO <sub>3</sub>	mg/L	246	245	0	20	
Alkalinity,Bicarbonate (CaCO <sub>3</sub> )	mg/L	246	245	0	20	
Alkalinity,Carbonate (CaCO <sub>3</sub> )	mg/L	ND	ND		20	

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**QUALITY CONTROL DATA**

Project: Eagle Valley Oct 2022 P1R1

Pace Project No.: 50332043

QC Batch: 708633

Analysis Method: SM 2540C

QC Batch Method: SM 2540C

Analysis Description: 2540C Total Dissolved Solids

Laboratory: Pace Analytical Services - Indianapolis

Associated Lab Samples: 50332043001

METHOD BLANK: 3256877

Matrix: Water

Associated Lab Samples: 50332043001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	ND	10.0	10.0	11/29/22 11:50	

LABORATORY CONTROL SAMPLE: 3256878

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	300	263	88	80-120	

SAMPLE DUPLICATE: 3256879

Parameter	Units	50331991003 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	647	652	1	10	

SAMPLE DUPLICATE: 3256880

Parameter	Units	50332043001 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	1820	1820	0	10	

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### QUALITY CONTROL DATA

Project: Eagle Valley Oct 2022 P1R1

Pace Project No.: 50332043

QC Batch: 709260

Analysis Method: SM 4500-H+B

QC Batch Method: SM 4500-H+B

Analysis Description: 4500H+B pH

Laboratory: Pace Analytical Services - Indianapolis

Associated Lab Samples: 50332043001

SAMPLE DUPLICATE: 3259412

Parameter	Units	50332043001 Result	Dup Result	RPD	Max RPD	Qualifiers
pH at 25 Degrees C	Std. Units	7.3	7.2	0	2	H3

SAMPLE DUPLICATE: 3259413

Parameter	Units	50332201003 Result	Dup Result	RPD	Max RPD	Qualifiers
pH at 25 Degrees C	Std. Units	7.3	7.3	1	2	H3

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**QUALITY CONTROL DATA**

Project: Eagle Valley Oct 2022 P1R1

Pace Project No.: 50332043

QC Batch: 708791

Analysis Method: SM 4500-S2-D

QC Batch Method: SM 4500-S2-D

Analysis Description: 4500S2D Sulfide Water

Laboratory: Pace Analytical Services - Indianapolis

Associated Lab Samples: 50332043001

METHOD BLANK: 3257535

Matrix: Water

Associated Lab Samples: 50332043001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Sulfide	mg/L	ND	0.10	0.025	11/30/22 10:23	

LABORATORY CONTROL SAMPLE: 3257536

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Sulfide	mg/L	0.5	0.53	105	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3257537 3257538

Parameter	Units	50332050004		MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		Result	Conc.										
Sulfide	mg/L	ND	0.5	0.5	0.50	0.48	89	85	90-110	3	20	H3,M3	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3257539 3257540

Parameter	Units	50332043001		MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		Result	Conc.										
Sulfide	mg/L	ND	0.5	0.5	0.54	0.55	107	111	90-110	3	20	M0	

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### QUALITY CONTROL DATA

Project: Eagle Valley Oct 2022 P1R1

Pace Project No.: 50332043

QC Batch: 709548

Analysis Method: HACH 8146

QC Batch Method: HACH 8146

Analysis Description: Iron, Ferrous

Laboratory: Pace Analytical Services - Indianapolis

Associated Lab Samples: 50332043001

METHOD BLANK: 3260880

Matrix: Water

Associated Lab Samples: 50332043001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Iron, Ferrous	mg/L	ND	0.20	0.096	12/05/22 16:38	H3,N2

LABORATORY CONTROL SAMPLE: 3260881

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Iron, Ferrous	mg/L	1	0.99	99	90-110	H3,N2

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3260882 3260883

Parameter	Units	50332043001		3260882		3260883		% Rec Limits	RPD	Max RPD	Qual	
		MS Result	MSD Result	MS Result	MSD Result	MS Result	MSD Result					
Iron, Ferrous	mg/L	ND	1	1	0.97	1.0	97	104	90-110	7	20	H3,N2

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3260884 3260885

Parameter	Units	50332201003		3260884		3260885		% Rec Limits	RPD	Max RPD	Qual	
		MS Result	MSD Result	MS Result	MSD Result	MS Result	MSD Result					
Iron, Ferrous	mg/L	ND	1	1	1.0	0.99	99	96	90-110	3	20	H3,N2

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### QUALITY CONTROL DATA

Project: Eagle Valley Oct 2022 P1R1

Pace Project No.: 50332043

QC Batch: 708729	Analysis Method: EPA 353.2
QC Batch Method: EPA 353.2	Analysis Description: 353.2 Nitrate + Nitrite, Unpres.
	Laboratory: Pace Analytical Services - Indianapolis

Associated Lab Samples: 50332043001

METHOD BLANK: 3257264 Matrix: Water

Associated Lab Samples: 50332043001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Nitrogen, Nitrate	mg/L	ND	0.10	0.011	11/29/22 18:00	
Nitrogen, Nitrite	mg/L	ND	0.10	0.0040	11/29/22 18:00	

LABORATORY CONTROL SAMPLE: 3257265

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Nitrogen, Nitrate	mg/L	1	1.0	100	90-110	
Nitrogen, Nitrite	mg/L	1	1.0	103	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3257266 3257267

Parameter	Units	50332050004 Result	MS		MSD		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
			Spike Conc.	MS Result	Spike Conc.	MSD Result						
Nitrogen, Nitrate	mg/L	ND	10	10	9.6	9.6	96	96	90-110	0	20	H3
Nitrogen, Nitrite	mg/L	ND	10	10	10	10	100	100	90-110	0	20	H3

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3257268 3257269

Parameter	Units	50332043001 Result	MS		MSD		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
			Spike Conc.	MS Result	Spike Conc.	MSD Result						
Nitrogen, Nitrate	mg/L	ND	1	1	0.98	0.98	94	94	90-110	0	20	
Nitrogen, Nitrite	mg/L	ND	1	1	1.0	1.0	100	101	90-110	0	20	

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### QUALITY CONTROL DATA

Project: Eagle Valley Oct 2022 P1R1

Pace Project No.: 50332043

QC Batch: 708993

Analysis Method: EPA 365.1

QC Batch Method: EPA 365.1

Analysis Description: 365.1 Total Phosphorus

Laboratory: Pace Analytical Services - Indianapolis

Associated Lab Samples: 50332043001

METHOD BLANK: 3258317

Matrix: Water

Associated Lab Samples: 50332043001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Phosphate as P04	mg/L	ND	0.15	0.15	12/02/22 14:05	

LABORATORY CONTROL SAMPLE: 3258318

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Phosphate as P04	mg/L		1.5			

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3258319 3258320

Parameter	Units	50332043001		3258320		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result						
Phosphate as P04	mg/L	1.8		3.3	3.2					3	

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### QUALITY CONTROL DATA

Project: Eagle Valley Oct 2022 P1R1

Pace Project No.: 50332043

QC Batch: 710593	Analysis Method: SM 5310C
QC Batch Method: SM 5310C	Analysis Description: 5310C Total Organic Carbon
	Laboratory: Pace Analytical Services - Indianapolis

Associated Lab Samples: 50332043001

METHOD BLANK: 3265763 Matrix: Water

Associated Lab Samples: 50332043001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Organic Carbon	mg/L	ND	1.0	0.14	12/13/22 17:05	

LABORATORY CONTROL SAMPLE: 3265764

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Organic Carbon	mg/L	10	10.2	102	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3265765 3265766

Parameter	Units	50332043001		3265765		3265766		% Rec Limits	RPD	Max RPD	Qual
		MS Result	MSD Spike Conc.	MS Result	MSD Spike Conc.	MS % Rec	MSD % Rec				
Total Organic Carbon	mg/L	ND	10	10	12.3	12.2	102	101	80-120	1	20

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3265767 3265768

Parameter	Units	50332050004		3265767		3265768		% Rec Limits	RPD	Max RPD	Qual
		MS Result	MSD Spike Conc.	MS Result	MSD Spike Conc.	MS % Rec	MSD % Rec				
Total Organic Carbon	mg/L	275	1000	1000	1300	1300	103	102	80-120	1	20

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**QUALITY CONTROL DATA**

Project: Eagle Valley Oct 2022 P1R1  
Pace Project No.: 50332043

QC Batch: 709613 Analysis Method: SM 5310C  
QC Batch Method: SM 5310C Analysis Description: 5310C Dissolved Organic Carbon  
Laboratory: Pace Analytical Services - Indianapolis  
Associated Lab Samples: 50332043001

METHOD BLANK: 3261067 Matrix: Water  
Associated Lab Samples: 50332043001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Dissolved Organic Carbon	mg/L	ND	1.0	0.14	12/08/22 06:28	

LABORATORY CONTROL SAMPLE: 3261068

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Dissolved Organic Carbon	mg/L	10	10.6	106	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3261069 3261070

Parameter	Units	50331803001		MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		Result	Conc.										
Dissolved Organic Carbon	mg/L	ND	10	10	11.2	11.3	105	105	80-120	0	20		

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3261071 3261072

Parameter	Units	50332043001		MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		Result	Conc.										
Dissolved Organic Carbon	mg/L	ND	10	10	12.6	12.6	100	100	80-120	0	20		

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3261073 3261074

Parameter	Units	50332201003		MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		Result	Conc.										
Dissolved Organic Carbon	mg/L	ND	10	10	10.6	10.6	101	102	80-120	0	20		

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Eagle Valley Oct 2022 P1R1

Pace Project No.: 50332043

**Sample: MW-4S**      **Lab ID: 50332043001**      Collected: 11/28/22 13:40      Received: 11/28/22 17:35      Matrix: Water  
PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	<b>0.189 ± 0.224 (0.352)</b> <b>C:NA T:89%</b>	pCi/L	12/19/22 15:07	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	<b>0.639 ± 0.534 (1.08)</b> <b>C:81% T:89%</b>	pCi/L	12/09/22 16:09	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	<b>0.828 ± 0.758 (1.43)</b>	pCi/L	12/19/22 17:45	7440-14-4	

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Eagle Valley Oct 2022 P1R1

Pace Project No.: 50332043

**Sample: MW-4S MS**      **Lab ID: 50332043002**      Collected: 11/28/22 13:40      Received: 11/28/22 17:35      Matrix: Water  
PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	<b>80.80 %REC ± NA (NA)</b> <b>C:NA T:NA</b>	pCi/L	12/19/22 16:27	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	<b>90.66 %REC ± NA (NA)</b> <b>C:NA T:NA</b>	pCi/L	12/09/22 16:09	15262-20-1	

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Eagle Valley Oct 2022 P1R1

Pace Project No.: 50332043

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Radium-226	EPA 903.1	<b>100.27 %REC 21.50RPD ±</b> <b>NA (NA)</b> <b>C:NA T:NA</b>	pCi/L	12/19/22 16:38	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 904.0	<b>69.93 %REC 25.81RPD ±</b> <b>NA (NA)</b> <b>C:NA T:NA</b>	pCi/L	12/09/22 16:10	15262-20-1	

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**QUALITY CONTROL - RADIOCHEMISTRY**

Project: Eagle Valley Oct 2022 P1R1

Pace Project No.: 50332043

QC Batch: 551086

Analysis Method: EPA 903.1

QC Batch Method: EPA 903.1

Analysis Description: 903.1 Radium-226

Laboratory: Pace Analytical Services - Greensburg

Associated Lab Samples: 50332043001, 50332043002, 50332043003

METHOD BLANK: 2676271

Matrix: Water

Associated Lab Samples: 50332043001, 50332043002, 50332043003

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.000 ± 0.173 (0.352) C:NA T:93%	pCi/L	12/19/22 14:25	

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### QUALITY CONTROL - RADIOCHEMISTRY

Project: Eagle Valley Oct 2022 P1R1

Pace Project No.: 50332043

QC Batch: 551087

Analysis Method: EPA 904.0

QC Batch Method: EPA 904.0

Analysis Description: 904.0 Radium 228

Laboratory: Pace Analytical Services - Greensburg

Associated Lab Samples: 50332043001, 50332043002, 50332043003

METHOD BLANK: 2676274

Matrix: Water

Associated Lab Samples: 50332043001, 50332043002, 50332043003

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.290 ± 0.298 (0.616) C:76% T:93%	pCi/L	12/09/22 12:59	

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## QUALIFIERS

Project: Eagle Valley Oct 2022 P1R1

Pace Project No.: 50332043

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### DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Reported results are not rounded until the final step prior to reporting. Therefore, calculated parameters that are typically reported as "Total" may vary slightly from the sum of the reported component parameters.

Act - Activity

Unc - Uncertainty: SDWA = 1.96 sigma count uncertainty, all other matrices = Expanded Uncertainty (95% confidence interval).

Gamma Spec = Expanded Uncertainty (95.4% Confidence Interval)

(MDC) - Minimum Detectable Concentration

Trac - Tracer Recovery (%)

Carr - Carrier Recovery (%)

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

### ANALYTE QUALIFIERS

D3 Sample was diluted due to the presence of high levels of non-target analytes or other matrix interference.

E Analyte concentration exceeded the calibration range. The reported result is estimated.

H3 Sample was received or analysis requested beyond the recognized method holding time.

M0 Matrix spike recovery and/or matrix spike duplicate recovery was outside laboratory control limits.

M3 Matrix spike recovery was outside laboratory control limits due to matrix interferences.

N2 The lab does not hold NELAC/TNI accreditation for this parameter but other accreditations/certifications may apply. A complete list of accreditations/certifications is available upon request.

P6 Matrix spike recovery was outside laboratory control limits due to a parent sample concentration notably higher than the spike level.

R1 RPD value was outside control limits.

## REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Eagle Valley Oct 2022 P1R1

Pace Project No.: 50332043

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
50332043001	MW-4S	EPA 9056	709075		
50332043001	MW-4S	EPA 3010	709554	EPA 6010	710531
50332043001	MW-4S	EPA 3010	709544	EPA 6010	710741
50332043001	MW-4S	EPA 200.2	708719	EPA 6020	708965
50332043001	MW-4S	EPA 903.1	551086		
50332043002	MW-4S MS	EPA 903.1	551086		
50332043003	MW-4S MSD	EPA 903.1	551086		
50332043001	MW-4S	EPA 904.0	551087		
50332043002	MW-4S MS	EPA 904.0	551087		
50332043003	MW-4S MSD	EPA 904.0	551087		
50332043001	MW-4S	Total Radium Calculation	554890		
50332043001	MW-4S	SM 2320B	708786		
50332043001	MW-4S	SM 2540C	708633		
50332043001	MW-4S	SM 4500-H+B	709260		
50332043001	MW-4S	SM 4500-S2-D	708791		
50332043001	MW-4S	HACH 8146	709548		
50332043001	MW-4S	EPA 353.2	708729		
50332043001	MW-4S	EPA 365.1	708993	EPA 365.1	709314
50332043001	MW-4S	SM 5310C	710593		
50332043001	MW-4S	SM 5310C	709613		

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**SAMPLE CONDITION UPON RECEIPT FORM**

Date/Time and Initials of person examining contents: DD 11/28/22 1841

1. Courier:  FED EX  UPS  CLIENT  PACE  USPS  OTHER \_\_\_\_\_
2. Custody Seal on Cooler/Box Present:  Yes  No  
 (If yes)Seals Intact:  Yes  No <sup>DD 11/28/22</sup> (leave blank if no seals were present)
3. Thermometer: **1 2 3 4 5 6 A B C D E F**
4. Cooler Temperature(s):      
 (Initial/Corrected) RECORD TEMPS OF ALL COOLERS RECEIVED (use Comments below to add more)

5. Packing Material:  Bubble Wrap  Bubble Bags  
 None  Other \_\_\_\_\_
6. Ice Type:  Wet  Blue  None
7. If temp. is over 6°C or under 0°C, was the PM notified?:  Yes  No  
 Cooler temp should be above freezing to 6°C

All discrepancies will be written out in the comments section below.

	Yes	No		Yes	No	N/A
USDA Regulated Soils? (HI, ID, NY, WA, OR, CA, NM, TX, OK, AR, LA, TN, AL, MS, NC, SC, GA, FL, or Puerto Rico)			All containers needing acid/base preservation have been pH CHECKED?: Exceptions: VOA, coliform, LLHg, O&G, RAD CHEM, and any container with a septum cap or preserved with HCl.			
Short Hold Time Analysis (48 hours or less)? Analysis: <u>Nitrates</u>	<input checked="" type="checkbox"/>		Circle: <u>HNO3 (&lt;2)</u> <u>H2SO4 (&lt;2)</u> <u>NaOH (&gt;10)</u> NaOH/ZnAc (>9) Any non-conformance to pH recommendations will be noted on the container count form	<input checked="" type="checkbox"/>		
Time 5035A TC placed in Freezer or Short Holds To Lab Time: <u>11/29/22 0854</u>			Residual Chlorine Check (SVOC 625 Pest/PCB 608)	<u>Present</u>	<u>Absent</u>	<u>N/A</u>
Rush TAT Requested (4 days or less):		<input checked="" type="checkbox"/>	Residual Chlorine Check (Total/Amenable/Free Cyanide)		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Custody Signatures Present?	<input checked="" type="checkbox"/>		Headspace Wisconsin Sulfide?			<input checked="" type="checkbox"/>
Containers Intact?:	<input checked="" type="checkbox"/>		Headspace in VOA Vials (>6mm): See Container Count form for details	<u>Present</u>	<u>Absent</u>	<u>No VOA Vials Sent</u>
Sample Label (IDs/Dates/Times) Match COC?: Except TCs, which only require sample ID	<input checked="" type="checkbox"/>		Trip Blank Present?		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Extra labels on Terracore Vials? (soils only)			Trip Blank Custody Seals?:			<input checked="" type="checkbox"/>

COMMENTS: Received an extra sample labeled: 78 FeO2 (BP3U) (DD 11/28/22)

Sample Container Count

\*\* Place a RED dot on containers that are out of conformance \*\*

COC Line Item	WGFU	VIALS							AMBER GLASS						PLASTIC							OTHER			Matrix																				
		MeOH (only)	SBS	DI	R	DG9H	VG9H	VOA VIAL HS (>6mm)	VG9U	DG9U	VG9T	AG0U	AG1H	AG1U	AG2U	AG3S	AG3SF	AG3C	BP1U	BP1N	BP2U	BP3U	BP3N	BP3F		BP3S	BP3B	BP3Z	CG3H	CG3F	Syringe Kit	HNO3 <2	H2SO4 <2	NaOH >10	NaOH/Zn Ac >9										
																																				Nitric	Sulfuric	Sodium Hydroxide	Sodium Hydroxide/ ZnAc						
Red	Yellow	Green	Black																																										
1															1	1			2	1	2	1	1	1		1									WT	✓	✓		✓						
2															↓	↓			↓	↓	↓	↓	↓	↓		↓										↓			↓						
3															↓	↓			↓	↓	↓	↓	↓	↓		↓												↓			↓				
4																				1																			↓						
5																																													
6																																													
7																																													
8																																													
9																																													
10																																													
11																																													
12																																													

Container Codes

Glass				Plastic			
DG9H	40mL HCl amber voa vial	BG1T	1L Na Thiosulfate clear glass	BP1B	1L NaOH plastic	BP4U	125mL unpreserved plastic
DG9P	40mL TSP amber vial	BG1U	1L unpreserved glass	BP1N	1L HNO3 plastic	BP4N	125mL HNO3 plastic
DG9S	40mL H2SO4 amber vial	BG3H	250mL HCl Clear Glass	BP1S	1L H2SO4 plastic	BP4S	125mL H2SO4 plastic
DG9T	40mL Na Thio amber vial	BG3U	250mL Unpres Clear Glass	BP1U	1L unpreserved plastic	<b>Miscellaneous</b>	
DG9U	40mL unpreserved amber vial	AG0U	100mL unpres amber glass	BP1Z	1L NaOH, Zn, Ac		
VG9H	40mL HCl clear vial	AG1H	1L HCl amber glass	BP2N	500mL HNO3 plastic	Syringe Kit	LL Cr+6 sampling kit
VG9T	40mL Na Thio. clear vial	AG1S	1L H2SO4 amber glass	BP2C	500mL NaOH plastic	ZPLC	Ziploc Bag
VG9U	40mL unpreserved clear vial	AG1T	1L Na Thiosulfate amber glass	BP2S	500mL H2SO4 plastic	R	Terracore Kit
I	40mL w/hexane wipe vial	AG1U	1liter unpres amber glass	BP2U	500mL unpreserved plastic	SP5T	120mL Coliform Sodium Thiosulfate
WGKU	8oz unpreserved clear jar	AG2N	500mL HNO3 amber glass	BP2Z	500mL NaOH, Zn Ac	GN	General Container
WGFU	4oz clear soil jar	AG2S	500mL H2SO4 amber glass	BP3B	250mL NaOH plastic	U	Summa Can (air sample)
JGFU	4oz unpreserved amber wide	AG2U	500mL unpres amber glass	BP3N	250mL HNO3 plastic	WT	Water
CG3H	250mL clear glass HCl	AG3S	250mL H2SO4 amber glass	BP3F	250mL HNO3 plastic-field filtered	SL	Solid Solid
CG3F	250mL clear glass HCl, Field Filter	AG3SF	250mL H2SO4 amb glass -field filtered	BP3U	250mL unpreserved plastic	OL	Oil
BG1H	1L HCl clear glass	AG3U	250mL unpres amber glass	BP3S	250mL H2SO4 plastic	NAL	Non-aqueous liquid
BG1S	1L H2SO4 clear glass	AG3C	250mL NaOH amber glass	BP3Z	250mL NaOH, ZnAc plastic	WP	Wipe

March 06, 2023

Mr. Mark Breting  
ATC Group Services  
7988 Centerpoint Drive  
Suite 100  
Indianapolis, IN 46256

RE: Project: Eagle Valley Oct 2022 P1R3  
Pace Project No.: 50332099

Dear Mr. Breting:

Enclosed are the analytical results for sample(s) received by the laboratory on November 29, 2022. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

The test results provided in this final report were generated by each of the following laboratories within the Pace Network:

- Pace Analytical Services - Indianapolis
- Pace Analytical Services - Greensburg

If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Will Statz  
will.statz@pacelabs.com  
(317)228-3105  
Project Manager

Enclosures

cc: Mr. Robert Miller, Haley & Aldrich



## REPORT OF LABORATORY ANALYSIS

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## CERTIFICATIONS

Project: Eagle Valley Oct 2022 P1R3

Pace Project No.: 50332099

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### **Pace Analytical Services Pennsylvania**

1638 Roseytown Rd Suites 2,3&4, Greensburg, PA 15601

ANAB DOD-ELAP Rad Accreditation #: L2417

Alabama Certification #: 41590

Arizona Certification #: AZ0734

Arkansas Certification

California Certification #: 04222CA

Colorado Certification #: PA01547

Connecticut Certification #: PH-0694

Delaware Certification

EPA Region 4 DW Rad

Florida/TNI Certification #: E87683

Georgia Certification #: C040

Florida: Cert E871149 SEKS WET

Guam Certification

Hawaii Certification

Idaho Certification

Illinois Certification

Indiana Certification

Iowa Certification #: 391

Kansas/TNI Certification #: E-10358

Kentucky Certification #: KY90133

KY WW Permit #: KY0098221

KY WW Permit #: KY0000221

Louisiana DHH/TNI Certification #: LA180012

Louisiana DEQ/TNI Certification #: 4086

Maine Certification #: 2017020

Maryland Certification #: 308

Massachusetts Certification #: M-PA1457

Michigan/PADEP Certification #: 9991

Missouri Certification #: 235

Montana Certification #: Cert0082

Nebraska Certification #: NE-OS-29-14

Nevada Certification #: PA014572018-1

New Hampshire/TNI Certification #: 297617

New Jersey/TNI Certification #: PA051

New Mexico Certification #: PA01457

New York/TNI Certification #: 10888

North Carolina Certification #: 42706

North Dakota Certification #: R-190

Ohio EPA Rad Approval: #41249

Oregon/TNI Certification #: PA200002-010

Pennsylvania/TNI Certification #: 65-00282

Puerto Rico Certification #: PA01457

Rhode Island Certification #: 65-00282

South Dakota Certification

Tennessee Certification #: 02867

Texas/TNI Certification #: T104704188-17-3

Utah/TNI Certification #: PA014572017-9

USDA Soil Permit #: P330-17-00091

Vermont Dept. of Health: ID# VT-0282

Virgin Island/PADEP Certification

Virginia/VELAP Certification #: 460198

Washington Certification #: C868

West Virginia DEP Certification #: 143

West Virginia DHHR Certification #: 9964C

Wisconsin Approve List for Rad

Wyoming Certification #: 8TMS-L

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### **Pace Analytical Services Indianapolis**

7726 Moller Road, Indianapolis, IN 46268

Illinois Accreditation #: 200074

Indiana Drinking Water Laboratory #: C-49-06

Kansas/TNI Certification #: E-10177

Kentucky UST Agency Interest #: 80226

Kentucky WW Laboratory ID #: 98019

Michigan Drinking Water Laboratory #9050

Ohio VAP Certified Laboratory #: CL0065

Oklahoma Laboratory #: 9204

Texas Certification #: T104704355

Wisconsin Laboratory #: 999788130

USDA Foreign Soil Permit #: 525-23-13-23119

USDA Compliance Agreement #: IN-SL-22-001

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## REPORT OF LABORATORY ANALYSIS

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## SAMPLE SUMMARY

Project: Eagle Valley Oct 2022 P1R3  
Pace Project No.: 50332099

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Lab ID	Sample ID	Matrix	Date Collected	Date Received
50332099001	MW-10D	Water	11/28/22 13:15	11/29/22 14:40
50332099002	MW-10I	Water	11/28/22 17:15	11/29/22 14:40

## REPORT OF LABORATORY ANALYSIS

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### SAMPLE ANALYTE COUNT

Project: Eagle Valley Oct 2022 P1R3

Pace Project No.: 50332099

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory		
50332099001	MW-10D	EPA 9056	RMR	3	PASI-I		
		EPA 6010	JPK	12	PASI-I		
		EPA 6010	JPK	2	PASI-I		
		EPA 6020	DMT	3	PASI-I		
		EPA 903.1	CLM	1	PASI-PA		
		EPA 904.0	JJS1	1	PASI-PA		
		Total Radium Calculation	JAL	1	PASI-PA		
		SM 2320B	TAY	3	PASI-I		
		SM 2540C	MTW	1	PASI-I		
		SM 4500-H+B	TRK	1	PASI-I		
		SM 4500-S2-D	BEP	1	PASI-I		
		HACH 8146	ZM	1	PASI-I		
		EPA 353.2	MMS	2	PASI-I		
		EPA 365.1	ZM	1	PASI-I		
		SM 5310C	ATS	1	PASI-I		
		SM 5310C	ATS	1	PASI-I		
		50332099002	MW-10I	EPA 9056	RMR	3	PASI-I
				EPA 6010	JPK	12	PASI-I
				EPA 6010	JPK	2	PASI-I
EPA 6020	DMT			3	PASI-I		
EPA 903.1	CLM			1	PASI-PA		
EPA 904.0	JJS1			1	PASI-PA		
Total Radium Calculation	JAL			1	PASI-PA		
SM 2320B	TAY			3	PASI-I		
SM 2540C	MTW			1	PASI-I		
SM 4500-H+B	TRK			1	PASI-I		
SM 4500-S2-D	BEP			1	PASI-I		
HACH 8146	ZM			1	PASI-I		
EPA 353.2	MMS			2	PASI-I		
EPA 365.1	ZM			1	PASI-I		
SM 5310C	ATS			1	PASI-I		
SM 5310C	ATS			1	PASI-I		

PASI-I = Pace Analytical Services - Indianapolis

PASI-PA = Pace Analytical Services - Greensburg

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### SUMMARY OF DETECTION

Project: Eagle Valley Oct 2022 P1R3

Pace Project No.: 50332099

Lab Sample ID	Client Sample ID	Result	Units	Report Limit	Analyzed	Qualifiers
Method	Parameters					
<b>50332099001</b>	<b>MW-10D</b>					
EPA 9056	Chloride	84.1	mg/L	25.0	12/05/22 19:38	
EPA 9056	Fluoride	0.19	mg/L	0.10	12/05/22 19:21	
EPA 9056	Sulfate	81.4	mg/L	25.0	12/05/22 19:38	
EPA 6010	Aluminum	888	ug/L	200	12/13/22 01:18	
EPA 6010	Barium	86.6	ug/L	10.0	12/13/22 01:18	
EPA 6010	Boron	233	ug/L	100	12/13/22 01:18	
EPA 6010	Calcium	93800	ug/L	1000	12/13/22 01:18	
EPA 6010	Iron	1900	ug/L	100	12/13/22 01:18	
EPA 6010	Lithium	47.8	ug/L	20.0	12/13/22 01:18	
EPA 6010	Magnesium	22300	ug/L	1000	12/13/22 01:18	
EPA 6010	Manganese	113	ug/L	10.0	12/13/22 01:18	
EPA 6010	Molybdenum	109	ug/L	10.0	12/13/22 01:18	
EPA 6010	Potassium	7070	ug/L	1000	12/13/22 01:18	
EPA 6010	Silica	14700	ug/L	450	12/13/22 01:18	N2
EPA 6010	Sodium	55900	ug/L	1000	12/13/22 01:18	
EPA 6010	Manganese, Dissolved	85.3	ug/L	10.0	12/12/22 23:31	
EPA 6010	Molybdenum, Dissolved	108	ug/L	10.0	12/12/22 23:31	
EPA 6020	Arsenic	1.5	ug/L	1.0	12/01/22 11:57	
EPA 903.1	Radium-226	0.339 ± 0.386 (0.628)	pCi/L		12/19/22 14:52	
EPA 904.0	Radium-228	C:NA T:93% 0.556 ± 0.403 (0.779)	pCi/L		12/09/22 16:09	
		C:83% T:93%				
Total Radium Calculation	Total Radium	0.895 ± 0.789 (1.41)	pCi/L		12/19/22 17:45	
SM 2320B	Alkalinity, Total as CaCO3	254	mg/L	10.0	11/30/22 12:50	
SM 2320B	Alkalinity,Bicarbonate (CaCO3)	254	mg/L	10.0	11/30/22 12:50	
SM 2540C	Total Dissolved Solids	462	mg/L	10.0	11/30/22 08:53	
SM 4500-H+B	pH at 25 Degrees C	7.7	Std. Units	0.10	12/02/22 12:23	H3
EPA 365.1	Phosphate as P04	0.18	mg/L	0.15	12/02/22 14:14	
SM 5310C	Total Organic Carbon	1.1	mg/L	1.0	12/14/22 22:28	
SM 5310C	Dissolved Organic Carbon	1.2	mg/L	1.0	12/08/22 10:21	
<b>50332099002</b>	<b>MW-10I</b>					
EPA 9056	Chloride	115	mg/L	25.0	12/05/22 20:11	
EPA 9056	Fluoride	0.30	mg/L	0.10	12/05/22 19:54	
EPA 9056	Sulfate	238	mg/L	25.0	12/05/22 20:11	
EPA 6010	Barium	57.3	ug/L	10.0	12/13/22 01:20	
EPA 6010	Boron	629	ug/L	100	12/13/22 01:20	
EPA 6010	Calcium	128000	ug/L	1000	12/13/22 01:20	
EPA 6010	Iron	320	ug/L	100	12/13/22 01:20	
EPA 6010	Lithium	55.0	ug/L	20.0	12/13/22 01:20	
EPA 6010	Magnesium	25100	ug/L	1000	12/13/22 01:20	
EPA 6010	Manganese	44.0	ug/L	10.0	12/13/22 01:20	
EPA 6010	Molybdenum	144	ug/L	10.0	12/13/22 01:20	

### REPORT OF LABORATORY ANALYSIS

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### SUMMARY OF DETECTION

Project: Eagle Valley Oct 2022 P1R3

Pace Project No.: 50332099

Lab Sample ID Method	Client Sample ID Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
<b>50332099002</b>	<b>MW-10I</b>					
EPA 6010	Potassium	9680	ug/L	1000	12/13/22 01:20	
EPA 6010	Silica	10000	ug/L	450	12/13/22 01:20	N2
EPA 6010	Sodium	95900	ug/L	1000	12/13/22 01:20	
EPA 6010	Manganese, Dissolved	39.4	ug/L	10.0	12/12/22 23:33	
EPA 6010	Molybdenum, Dissolved	139	ug/L	10.0	12/12/22 23:33	
EPA 903.1	Radium-226	0.540 ± 0.412 (0.586)	pCi/L		12/19/22 15:07	
EPA 904.0	Radium-228	-0.121 ± 0.368 (0.890) C:84% T:90%	pCi/L		12/09/22 16:09	
Total Radium Calculation	Total Radium	0.540 ± 0.780 (1.48)	pCi/L		12/19/22 17:45	
SM 2320B	Alkalinity, Total as CaCO3	246	mg/L	10.0	11/30/22 12:50	
SM 2320B	Alkalinity, Bicarbonate (CaCO3)	246	mg/L	10.0	11/30/22 12:50	
SM 2540C	Total Dissolved Solids	710	mg/L	20.0	11/30/22 08:53	
SM 4500-H+B	pH at 25 Degrees C	7.6	Std. Units	0.10	12/02/22 12:26	H3
SM 5310C	Total Organic Carbon	1.0	mg/L	1.0	12/14/22 22:39	

### REPORT OF LABORATORY ANALYSIS

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### ANALYTICAL RESULTS

Project: Eagle Valley Oct 2022 P1R3

Pace Project No.: 50332099

Sample: MW-10D		Lab ID: 50332099001		Collected: 11/28/22 13:15		Received: 11/29/22 14:40		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>9056 IC Anions</b>		Analytical Method: EPA 9056 Pace Analytical Services - Indianapolis							
Chloride	84.1	mg/L	25.0	6.7	100		12/05/22 19:38	16887-00-6	
Fluoride	0.19	mg/L	0.10	0.017	1		12/05/22 19:21	16984-48-8	
Sulfate	81.4	mg/L	25.0	8.5	100		12/05/22 19:38	14808-79-8	
<b>6010 MET ICP</b>		Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis							
Aluminum	888	ug/L	200	55.4	1	12/11/22 09:45	12/13/22 01:18	7429-90-5	
Barium	86.6	ug/L	10.0	2.1	1	12/11/22 09:45	12/13/22 01:18	7440-39-3	
Boron	233	ug/L	100	37.6	1	12/11/22 09:45	12/13/22 01:18	7440-42-8	
Calcium	93800	ug/L	1000	163	1	12/11/22 09:45	12/13/22 01:18	7440-70-2	
Iron	1900	ug/L	100	48.8	1	12/11/22 09:45	12/13/22 01:18	7439-89-6	
Lithium	47.8	ug/L	20.0	6.2	1	12/11/22 09:45	12/13/22 01:18	7439-93-2	
Magnesium	22300	ug/L	1000	71.8	1	12/11/22 09:45	12/13/22 01:18	7439-95-4	
Manganese	113	ug/L	10.0	2.5	1	12/11/22 09:45	12/13/22 01:18	7439-96-5	
Molybdenum	109	ug/L	10.0	3.7	1	12/11/22 09:45	12/13/22 01:18	7439-98-7	
Potassium	7070	ug/L	1000	281	1	12/11/22 09:45	12/13/22 01:18	7440-09-7	
Silica	14700	ug/L	450		1	12/11/22 09:45	12/13/22 01:18	7631-86-9	N2
Sodium	55900	ug/L	1000	214	1	12/11/22 09:45	12/13/22 01:18	7440-23-5	
<b>6010 MET ICP, Dissolved</b>		Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis							
Manganese, Dissolved	85.3	ug/L	10.0	2.5	1	12/11/22 09:48	12/12/22 23:31	7439-96-5	
Molybdenum, Dissolved	108	ug/L	10.0	3.7	1	12/11/22 09:48	12/12/22 23:31	7439-98-7	
<b>6020 MET ICPMS</b>		Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis							
Antimony	ND	ug/L	1.0	0.28	1	11/30/22 15:55	12/01/22 11:57	7440-36-0	
Arsenic	1.5	ug/L	1.0	0.094	1	11/30/22 15:55	12/01/22 11:57	7440-38-2	
Selenium	ND	ug/L	1.0	0.57	1	11/30/22 15:55	12/01/22 11:57	7782-49-2	
<b>2320B Alkalinity</b>		Analytical Method: SM 2320B Pace Analytical Services - Indianapolis							
Alkalinity, Total as CaCO3	254	mg/L	10.0	10.0	1		11/30/22 12:50		
Alkalinity,Bicarbonate (CaCO3)	254	mg/L	10.0	10.0	1		11/30/22 12:50		
Alkalinity,Carbonate (CaCO3)	ND	mg/L	10.0	10.0	1		11/30/22 12:50		
<b>2540C Total Dissolved Solids</b>		Analytical Method: SM 2540C Pace Analytical Services - Indianapolis							
Total Dissolved Solids	462	mg/L	10.0	10.0	1		11/30/22 08:53		
<b>4500H+ pH, Electrometric</b>		Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis							
pH at 25 Degrees C	7.7	Std. Units	0.10	0.10	1		12/02/22 12:23		H3

### REPORT OF LABORATORY ANALYSIS

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### ANALYTICAL RESULTS

Project: Eagle Valley Oct 2022 P1R3

Pace Project No.: 50332099

Sample: MW-10D		Lab ID: 50332099001		Collected: 11/28/22 13:15	Received: 11/29/22 14:40	Matrix: Water				
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual	
<b>4500S2D Sulfide Water</b>		Analytical Method: SM 4500-S2-D Pace Analytical Services - Indianapolis								
Sulfide	ND	mg/L	0.10	0.025	1		11/30/22 10:23	18496-25-8		
<b>Iron, Ferrous</b>		Analytical Method: HACH 8146 Pace Analytical Services - Indianapolis								
Iron, Ferrous	ND	mg/L	0.20	0.096	1		12/05/22 16:38	15438-31-0	H3,N2	
<b>353.2 Nitrogen, NO2/NO3 unpres</b>		Analytical Method: EPA 353.2 Pace Analytical Services - Indianapolis								
Nitrogen, Nitrate	ND	mg/L	0.10	0.011	1		11/29/22 18:32	14797-55-8		
Nitrogen, Nitrite	ND	mg/L	0.10	0.0040	1		11/29/22 18:32	14797-65-0		
<b>365.1 Total Phosphorus</b>		Analytical Method: EPA 365.1 Preparation Method: EPA 365.1 Pace Analytical Services - Indianapolis								
Phosphate as P04	<b>0.18</b>	mg/L	0.15	0.15	1	12/01/22 09:30	12/02/22 14:14			
<b>5310C TOC</b>		Analytical Method: SM 5310C Pace Analytical Services - Indianapolis								
Total Organic Carbon	<b>1.1</b>	mg/L	1.0	0.14	1		12/14/22 22:28	7440-44-0		
<b>5310C Dissolved Organic Carbon</b>		Analytical Method: SM 5310C Pace Analytical Services - Indianapolis								
Dissolved Organic Carbon	<b>1.2</b>	mg/L	1.0	0.14	1		12/08/22 10:21			

### REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: Eagle Valley Oct 2022 P1R3

Pace Project No.: 50332099

Sample: MW-10I		Lab ID: 50332099002		Collected: 11/28/22 17:15		Received: 11/29/22 14:40		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>9056 IC Anions</b>		Analytical Method: EPA 9056 Pace Analytical Services - Indianapolis							
Chloride	115	mg/L	25.0	6.7	100		12/05/22 20:11	16887-00-6	
Fluoride	0.30	mg/L	0.10	0.017	1		12/05/22 19:54	16984-48-8	
Sulfate	238	mg/L	25.0	8.5	100		12/05/22 20:11	14808-79-8	
<b>6010 MET ICP</b>		Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis							
Aluminum	ND	ug/L	200	55.4	1	12/11/22 09:45	12/13/22 01:20	7429-90-5	
Barium	57.3	ug/L	10.0	2.1	1	12/11/22 09:45	12/13/22 01:20	7440-39-3	
Boron	629	ug/L	100	37.6	1	12/11/22 09:45	12/13/22 01:20	7440-42-8	
Calcium	128000	ug/L	1000	163	1	12/11/22 09:45	12/13/22 01:20	7440-70-2	
Iron	320	ug/L	100	48.8	1	12/11/22 09:45	12/13/22 01:20	7439-89-6	
Lithium	55.0	ug/L	20.0	6.2	1	12/11/22 09:45	12/13/22 01:20	7439-93-2	
Magnesium	25100	ug/L	1000	71.8	1	12/11/22 09:45	12/13/22 01:20	7439-95-4	
Manganese	44.0	ug/L	10.0	2.5	1	12/11/22 09:45	12/13/22 01:20	7439-96-5	
Molybdenum	144	ug/L	10.0	3.7	1	12/11/22 09:45	12/13/22 01:20	7439-98-7	
Potassium	9680	ug/L	1000	281	1	12/11/22 09:45	12/13/22 01:20	7440-09-7	
Silica	10000	ug/L	450		1	12/11/22 09:45	12/13/22 01:20	7631-86-9	N2
Sodium	95900	ug/L	1000	214	1	12/11/22 09:45	12/13/22 01:20	7440-23-5	
<b>6010 MET ICP, Dissolved</b>		Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis							
Manganese, Dissolved	39.4	ug/L	10.0	2.5	1	12/11/22 09:48	12/12/22 23:33	7439-96-5	
Molybdenum, Dissolved	139	ug/L	10.0	3.7	1	12/11/22 09:48	12/12/22 23:33	7439-98-7	
<b>6020 MET ICPMS</b>		Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis							
Antimony	ND	ug/L	1.0	0.28	1	11/30/22 15:55	12/01/22 12:01	7440-36-0	
Arsenic	ND	ug/L	1.0	0.094	1	11/30/22 15:55	12/01/22 12:01	7440-38-2	
Selenium	ND	ug/L	1.0	0.57	1	11/30/22 15:55	12/01/22 12:01	7782-49-2	
<b>2320B Alkalinity</b>		Analytical Method: SM 2320B Pace Analytical Services - Indianapolis							
Alkalinity, Total as CaCO3	246	mg/L	10.0	10.0	1		11/30/22 12:50		
Alkalinity,Bicarbonate (CaCO3)	246	mg/L	10.0	10.0	1		11/30/22 12:50		
Alkalinity,Carbonate (CaCO3)	ND	mg/L	10.0	10.0	1		11/30/22 12:50		
<b>2540C Total Dissolved Solids</b>		Analytical Method: SM 2540C Pace Analytical Services - Indianapolis							
Total Dissolved Solids	710	mg/L	20.0	20.0	1		11/30/22 08:53		
<b>4500H+ pH, Electrometric</b>		Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis							
pH at 25 Degrees C	7.6	Std. Units	0.10	0.10	1		12/02/22 12:26		H3

## REPORT OF LABORATORY ANALYSIS

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### ANALYTICAL RESULTS

Project: Eagle Valley Oct 2022 P1R3

Pace Project No.: 50332099

Sample: MW-101		Lab ID: 50332099002		Collected: 11/28/22 17:15	Received: 11/29/22 14:40	Matrix: Water				
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual	
<b>4500S2D Sulfide Water</b>		Analytical Method: SM 4500-S2-D Pace Analytical Services - Indianapolis								
Sulfide	ND	mg/L	0.10	0.025	1		11/30/22 10:23	18496-25-8		
<b>Iron, Ferrous</b>		Analytical Method: HACH 8146 Pace Analytical Services - Indianapolis								
Iron, Ferrous	ND	mg/L	0.20	0.096	1		12/05/22 16:40	15438-31-0	H3,N2	
<b>353.2 Nitrogen, NO2/NO3 unpres</b>		Analytical Method: EPA 353.2 Pace Analytical Services - Indianapolis								
Nitrogen, Nitrate	ND	mg/L	0.10	0.011	1		11/29/22 18:49	14797-55-8		
Nitrogen, Nitrite	ND	mg/L	0.10	0.0040	1		11/29/22 18:49	14797-65-0		
<b>365.1 Total Phosphorus</b>		Analytical Method: EPA 365.1 Preparation Method: EPA 365.1 Pace Analytical Services - Indianapolis								
Phosphate as P04	ND	mg/L	0.15	0.15	1	12/01/22 09:30	12/02/22 14:14			
<b>5310C TOC</b>		Analytical Method: SM 5310C Pace Analytical Services - Indianapolis								
Total Organic Carbon	1.0	mg/L	1.0	0.14	1		12/14/22 22:39	7440-44-0		
<b>5310C Dissolved Organic Carbon</b>		Analytical Method: SM 5310C Pace Analytical Services - Indianapolis								
Dissolved Organic Carbon	ND	mg/L	4.0	0.57	4		12/08/22 17:16		D3	

### REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL DATA

Project: Eagle Valley Oct 2022 P1R3

Pace Project No.: 50332099

QC Batch: 709077

Analysis Method: EPA 9056

QC Batch Method: EPA 9056

Analysis Description: 9056 IC Anions

Laboratory: Pace Analytical Services - Indianapolis

Associated Lab Samples: 50332099001, 50332099002

METHOD BLANK: 3258667

Matrix: Water

Associated Lab Samples: 50332099001, 50332099002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chloride	mg/L	ND	0.25	0.067	12/05/22 12:38	
Fluoride	mg/L	ND	0.10	0.017	12/05/22 12:38	
Sulfate	mg/L	ND	0.25	0.085	12/05/22 12:38	

LABORATORY CONTROL SAMPLE: 3258668

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	1.2	1.2	94	80-120	
Fluoride	mg/L	0.5	0.46	92	80-120	
Sulfate	mg/L	2.5	2.5	102	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3258669 3258670

Parameter	Units	50332183003		3258669		3258670		% Rec	% Rec	% Rec Limits	RPD	Max RPD	Qual
		Result	MS Spike Conc.	MS Spike Conc.	MS Result	MSD Result	MS % Rec						
Chloride	mg/L	9.7	1.2	1.2	10.7	10.6	79	75	80-120	0	15	M0	
Fluoride	mg/L	0.21	0.5	0.5	0.68	0.68	94	94	80-120	0	15		
Sulfate	mg/L	22.1	2.5	2.5	24.4	24.3	93	91	80-120	0	15		

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### QUALITY CONTROL DATA

Project: Eagle Valley Oct 2022 P1R3

Pace Project No.: 50332099

QC Batch: 709557

Analysis Method: EPA 6010

QC Batch Method: EPA 3010

Analysis Description: 6010 MET

Laboratory: Pace Analytical Services - Indianapolis

Associated Lab Samples: 50332099001, 50332099002

METHOD BLANK: 3260908

Matrix: Water

Associated Lab Samples: 50332099001, 50332099002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Aluminum	ug/L	ND	200	55.4	12/13/22 01:11	
Barium	ug/L	ND	10.0	2.1	12/13/22 01:11	
Boron	ug/L	ND	100	37.6	12/13/22 01:11	
Calcium	ug/L	ND	1000	163	12/13/22 01:11	
Iron	ug/L	ND	100	48.8	12/13/22 01:11	
Lithium	ug/L	ND	20.0	6.2	12/13/22 01:11	
Magnesium	ug/L	ND	1000	71.8	12/13/22 01:11	
Manganese	ug/L	ND	10.0	2.5	12/13/22 01:11	
Molybdenum	ug/L	ND	10.0	3.7	12/13/22 01:11	
Potassium	ug/L	ND	1000	281	12/13/22 01:11	
Silica	ug/L	ND	450		12/13/22 01:11	N2
Sodium	ug/L	ND	1000	214	12/13/22 01:11	

LABORATORY CONTROL SAMPLE: 3260909

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Aluminum	ug/L	10000	10900	109	80-120	
Barium	ug/L	1000	1060	106	80-120	
Boron	ug/L	1000	1030	103	80-120	
Calcium	ug/L	10000	10600	106	80-120	
Iron	ug/L	10000	10500	105	80-120	
Lithium	ug/L	1000	1040	104	80-120	
Magnesium	ug/L	10000	10100	101	80-120	
Manganese	ug/L	1000	1030	103	80-120	
Molybdenum	ug/L	1000	1090	109	80-120	
Potassium	ug/L	10000	10800	108	80-120	
Silica	ug/L	10700	11000	103	80-120	N2
Sodium	ug/L	10000	10600	106	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3260910 3260911

Parameter	Units	50332116002 Result	MS		MSD		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
			Spike Conc.	MS Result	MSD Result							
Aluminum	ug/L	<0.20 mg/L	10000	11000	10800	110	108	75-125	2	20		
Barium	ug/L	0.11 mg/L	1000	1180	1160	107	105	75-125	2	20		
Boron	ug/L	<0.10 mg/L	1000	1120	1110	106	105	75-125	1	20		

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**QUALITY CONTROL DATA**

Project: Eagle Valley Oct 2022 P1R3

Pace Project No.: 50332099

Parameter	Units	50332116002		3260910		3260911		% Rec	% Rec	% Rec	Limits	RPD	Max RPD	Qual
		Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec							
Calcium	ug/L	87.3 mg/L	10000	10000	99900	102000	126	147	75-125	2	20	P6		
Iron	ug/L	2.2 mg/L	10000	10000	12700	12600	105	104	75-125	1	20			
Lithium	ug/L	<0.020 mg/L	1000	1000	1050	1030	105	103	75-125	2	20			
Magnesium	ug/L	22.7 mg/L	10000	10000	33400	33600	106	109	75-125	1	20			
Manganese	ug/L	0.11 mg/L	1000	1000	1130	1130	102	102	75-125	0	20			
Molybdenum	ug/L	<0.010 mg/L	1000	1000	1090	1070	109	107	75-125	2	20			
Potassium	ug/L	3.9 mg/L	10000	10000	15100	14800	112	109	75-125	2	20			
Silica	ug/L	13.2 mg/L	10700	10700	24600	24900	107	109	75-125	1	20	N2		
Sodium	ug/L	13.6 mg/L	10000	10000	24400	24400	108	108	75-125	0	20			

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### QUALITY CONTROL DATA

Project: Eagle Valley Oct 2022 P1R3

Pace Project No.: 50332099

QC Batch: 710290

Analysis Method: EPA 6010

QC Batch Method: EPA 3010

Analysis Description: 6010 MET Dissolved

Laboratory: Pace Analytical Services - Indianapolis

Associated Lab Samples: 50332099001, 50332099002

METHOD BLANK: 3264221

Matrix: Water

Associated Lab Samples: 50332099001, 50332099002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Manganese, Dissolved	ug/L	ND	10.0	2.5	12/12/22 23:27	
Molybdenum, Dissolved	ug/L	ND	10.0	3.7	12/12/22 23:27	

LABORATORY CONTROL SAMPLE: 3264222

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Manganese, Dissolved	ug/L	1000	922	92	80-120	
Molybdenum, Dissolved	ug/L	1000	982	98	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3264223 3264224

Parameter	Units	50332050004 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Manganese, Dissolved	ug/L	10.0	1000	1000	1020	1020	101	101	75-125	0	20	
Molybdenum, Dissolved	ug/L	ND	1000	1000	1090	1090	109	109	75-125	0	20	

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### QUALITY CONTROL DATA

Project: Eagle Valley Oct 2022 P1R3

Pace Project No.: 50332099

QC Batch: 708720

Analysis Method: EPA 6020

QC Batch Method: EPA 200.2

Analysis Description: 6020 MET

Laboratory: Pace Analytical Services - Indianapolis

Associated Lab Samples: 50332099001, 50332099002

METHOD BLANK: 3257223

Matrix: Water

Associated Lab Samples: 50332099001, 50332099002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Antimony	ug/L	ND	1.0	0.28	12/01/22 10:25	
Arsenic	ug/L	ND	1.0	0.094	12/01/22 10:25	
Selenium	ug/L	ND	1.0	0.57	12/01/22 10:25	

LABORATORY CONTROL SAMPLE: 3257224

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Antimony	ug/L	40	41.4	103	80-120	
Arsenic	ug/L	40	38.4	96	80-120	
Selenium	ug/L	40	40.2	101	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3257225 3257226

Parameter	Units	50331135004		3257225		3257226		% Rec	% Rec	% Rec Limits	RPD	Max RPD	Qual
		Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec						
Antimony	ug/L	ND	40	40	41.4	41.2	103	103	75-125	1	20		
Arsenic	ug/L	0.0064 mg/L	40	40	44.8	44.5	96	95	75-125	1	20		
Selenium	ug/L	ND	40	40	41.0	40.6	102	101	75-125	1	20		

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### QUALITY CONTROL DATA

Project: Eagle Valley Oct 2022 P1R3

Pace Project No.: 50332099

QC Batch: 708786

Analysis Method: SM 2320B

QC Batch Method: SM 2320B

Analysis Description: 2320B Alkalinity

Laboratory: Pace Analytical Services - Indianapolis

Associated Lab Samples: 50332099001, 50332099002

METHOD BLANK: 3257517

Matrix: Water

Associated Lab Samples: 50332099001, 50332099002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Alkalinity, Total as CaCO3	mg/L	ND	10.0	10.0	11/30/22 12:50	
Alkalinity,Bicarbonate (CaCO3)	mg/L	ND	10.0	10.0	11/30/22 12:50	
Alkalinity,Carbonate (CaCO3)	mg/L	ND	10.0	10.0	11/30/22 12:50	

LABORATORY CONTROL SAMPLE: 3257518

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Alkalinity, Total as CaCO3	mg/L	50	49.6	99	90-110	

SAMPLE DUPLICATE: 3257520

Parameter	Units	50332043001 Result	Dup Result	RPD	Max RPD	Qualifiers
Alkalinity, Total as CaCO3	mg/L	341	347	2	20	
Alkalinity,Bicarbonate (CaCO3)	mg/L	341	347	2	20	
Alkalinity,Carbonate (CaCO3)	mg/L	ND	ND		20	

SAMPLE DUPLICATE: 3257672

Parameter	Units	50332099002 Result	Dup Result	RPD	Max RPD	Qualifiers
Alkalinity, Total as CaCO3	mg/L	246	245	0	20	
Alkalinity,Bicarbonate (CaCO3)	mg/L	246	245	0	20	
Alkalinity,Carbonate (CaCO3)	mg/L	ND	ND		20	

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**QUALITY CONTROL DATA**

Project: Eagle Valley Oct 2022 P1R3

Pace Project No.: 50332099

QC Batch:	708789	Analysis Method:	SM 2540C
QC Batch Method:	SM 2540C	Analysis Description:	2540C Total Dissolved Solids
		Laboratory:	Pace Analytical Services - Indianapolis

Associated Lab Samples: 50332099001, 50332099002

METHOD BLANK: 3257531 Matrix: Water  
Associated Lab Samples: 50332099001, 50332099002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	ND	10.0	10.0	11/30/22 08:49	

LABORATORY CONTROL SAMPLE: 3257532

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	300	267	89	80-120	

SAMPLE DUPLICATE: 3257533

Parameter	Units	50332068001 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	497	495	0	10	

SAMPLE DUPLICATE: 3257581

Parameter	Units	50332068004 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	626	632	1	10	

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**REPORT OF LABORATORY ANALYSIS**

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**QUALITY CONTROL DATA**

Project: Eagle Valley Oct 2022 P1R3

Pace Project No.: 50332099

QC Batch: 709260

Analysis Method: SM 4500-H+B

QC Batch Method: SM 4500-H+B

Analysis Description: 4500H+B pH

Laboratory: Pace Analytical Services - Indianapolis

Associated Lab Samples: 50332099001, 50332099002

SAMPLE DUPLICATE: 3259412

Parameter	Units	50332043001 Result	Dup Result	RPD	Max RPD	Qualifiers
pH at 25 Degrees C	Std. Units	7.3	7.2	0	2	H3

SAMPLE DUPLICATE: 3259413

Parameter	Units	50332201003 Result	Dup Result	RPD	Max RPD	Qualifiers
pH at 25 Degrees C	Std. Units	7.3	7.3	1	2	H3

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### QUALITY CONTROL DATA

Project: Eagle Valley Oct 2022 P1R3  
Pace Project No.: 50332099

QC Batch: 708791 Analysis Method: SM 4500-S2-D  
QC Batch Method: SM 4500-S2-D Analysis Description: 4500S2D Sulfide Water  
Laboratory: Pace Analytical Services - Indianapolis

Associated Lab Samples: 50332099001, 50332099002

METHOD BLANK: 3257535 Matrix: Water

Associated Lab Samples: 50332099001, 50332099002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Sulfide	mg/L	ND	0.10	0.025	11/30/22 10:23	

LABORATORY CONTROL SAMPLE: 3257536

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Sulfide	mg/L	0.5	0.53	105	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3257537 3257538

Parameter	Units	50332050004		3257537		3257538		% Rec Limits	RPD	Max RPD	Qual	
		MS Result	MSD Spike Conc.	MS Result	MSD Spike Conc.	MS Result	MSD Spike Conc.					
Sulfide	mg/L	ND	0.5	0.5	0.50	0.48	89	85	90-110	3	20	H3,M3

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3257539 3257540

Parameter	Units	50332043001		3257539		3257540		% Rec Limits	RPD	Max RPD	Qual	
		MS Result	MSD Spike Conc.	MS Result	MSD Spike Conc.	MS Result	MSD Spike Conc.					
Sulfide	mg/L	ND	0.5	0.5	0.54	0.55	107	111	90-110	3	20	M0

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### QUALITY CONTROL DATA

Project: Eagle Valley Oct 2022 P1R3

Pace Project No.: 50332099

QC Batch: 709548	Analysis Method: HACH 8146
QC Batch Method: HACH 8146	Analysis Description: Iron, Ferrous
	Laboratory: Pace Analytical Services - Indianapolis

Associated Lab Samples: 50332099001, 50332099002

METHOD BLANK: 3260880 Matrix: Water

Associated Lab Samples: 50332099001, 50332099002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Iron, Ferrous	mg/L	ND	0.20	0.096	12/05/22 16:38	H3,N2

LABORATORY CONTROL SAMPLE: 3260881

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Iron, Ferrous	mg/L	1	0.99	99	90-110	H3,N2

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3260882 3260883

Parameter	Units	50332043001		3260882		3260883		% Rec	% Rec	% Rec	Limits	RPD	Max RPD	Qual
		MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS Result	MSD Result							
Iron, Ferrous	mg/L	ND	1	1	0.97	1.0	97	104	90-110	7	20	H3,N2		

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3260884 3260885

Parameter	Units	50332201003		3260884		3260885		% Rec	% Rec	% Rec	Limits	RPD	Max RPD	Qual
		MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS Result	MSD Result							
Iron, Ferrous	mg/L	ND	1	1	1.0	0.99	99	96	90-110	3	20	H3,N2		

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### QUALITY CONTROL DATA

Project: Eagle Valley Oct 2022 P1R3  
Pace Project No.: 50332099

QC Batch: 708729      Analysis Method: EPA 353.2  
QC Batch Method: EPA 353.2      Analysis Description: 353.2 Nitrate + Nitrite, Unpres.  
Laboratory: Pace Analytical Services - Indianapolis

Associated Lab Samples: 50332099001, 50332099002

METHOD BLANK: 3257264      Matrix: Water

Associated Lab Samples: 50332099001, 50332099002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Nitrogen, Nitrate	mg/L	ND	0.10	0.011	11/29/22 18:00	
Nitrogen, Nitrite	mg/L	ND	0.10	0.0040	11/29/22 18:00	

LABORATORY CONTROL SAMPLE: 3257265

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Nitrogen, Nitrate	mg/L	1	1.0	100	90-110	
Nitrogen, Nitrite	mg/L	1	1.0	103	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3257266      3257267

Parameter	Units	50332050004 Result	MS		MSD		% Rec		% Rec Limits	RPD	Max RPD	Qual
			Spike Conc.	Spike Conc.	Result	Result	% Rec	% Rec				
Nitrogen, Nitrate	mg/L	ND	10	10	9.6	9.6	96	96	90-110	0	20	H3
Nitrogen, Nitrite	mg/L	ND	10	10	10	10	100	100	90-110	0	20	H3

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3257268      3257269

Parameter	Units	50332043001 Result	MS		MSD		% Rec		% Rec Limits	RPD	Max RPD	Qual
			Spike Conc.	Spike Conc.	Result	Result	% Rec	% Rec				
Nitrogen, Nitrate	mg/L	ND	1	1	0.98	0.98	94	94	90-110	0	20	
Nitrogen, Nitrite	mg/L	ND	1	1	1.0	1.0	100	101	90-110	0	20	

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### QUALITY CONTROL DATA

Project: Eagle Valley Oct 2022 P1R3

Pace Project No.: 50332099

QC Batch: 708993

Analysis Method: EPA 365.1

QC Batch Method: EPA 365.1

Analysis Description: 365.1 Total Phosphorus

Laboratory: Pace Analytical Services - Indianapolis

Associated Lab Samples: 50332099001, 50332099002

METHOD BLANK: 3258317

Matrix: Water

Associated Lab Samples: 50332099001, 50332099002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Phosphate as P04	mg/L	ND	0.15	0.15	12/02/22 14:05	

LABORATORY CONTROL SAMPLE: 3258318

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Phosphate as P04	mg/L		1.5			

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3258319 3258320

Parameter	Units	50332043001		50332043002		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result						
Phosphate as P04	mg/L	1.8		3.3	3.2					3	

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**QUALITY CONTROL DATA**

Project: Eagle Valley Oct 2022 P1R3

Pace Project No.: 50332099

QC Batch:	710596	Analysis Method:	SM 5310C
QC Batch Method:	SM 5310C	Analysis Description:	5310C Total Organic Carbon
		Laboratory:	Pace Analytical Services - Indianapolis

Associated Lab Samples: 50332099001, 50332099002

METHOD BLANK: 3265775 Matrix: Water

Associated Lab Samples: 50332099001, 50332099002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Organic Carbon	mg/L	ND	1.0	0.14	12/14/22 16:14	

LABORATORY CONTROL SAMPLE: 3265776

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Organic Carbon	mg/L	10	10.4	104	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3265777 3265778

Parameter	Units	50332051008		3265777		3265778		% Rec Limits	RPD	Max RPD	Qual	
		MS Result	MSD Spike Conc.	MS Result	MSD Spike Conc.	MS Result	MSD Result					
Total Organic Carbon	mg/L	2.4	10	10	10	12.6	12.7	103	103	80-120	0	20

MATRIX SPIKE SAMPLE: 3265779

Parameter	Units	50332051009 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Total Organic Carbon	mg/L	2.3	10	12.6	103	80-120	

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**REPORT OF LABORATORY ANALYSIS**

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### QUALITY CONTROL DATA

Project: Eagle Valley Oct 2022 P1R3

Pace Project No.: 50332099

QC Batch:	709613	Analysis Method:	SM 5310C
QC Batch Method:	SM 5310C	Analysis Description:	5310C Dissolved Organic Carbon
		Laboratory:	Pace Analytical Services - Indianapolis

Associated Lab Samples: 50332099001, 50332099002

METHOD BLANK:	3261067	Matrix:	Water
Associated Lab Samples:	50332099001, 50332099002		

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Dissolved Organic Carbon	mg/L	ND	1.0	0.14	12/08/22 06:28	

LABORATORY CONTROL SAMPLE: 3261068						
Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Dissolved Organic Carbon	mg/L	10	10.6	106	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3261069												3261070	
Parameter	Units	50331803001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual	
Dissolved Organic Carbon	mg/L	ND	10	10	11.2	11.3	105	105	80-120	0	20		

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3261071												3261072	
Parameter	Units	50332043001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual	
Dissolved Organic Carbon	mg/L	ND	10	10	12.6	12.6	100	100	80-120	0	20		

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3261073												3261074	
Parameter	Units	50332201003 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual	
Dissolved Organic Carbon	mg/L	ND	10	10	10.6	10.6	101	102	80-120	0	20		

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### REPORT OF LABORATORY ANALYSIS

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Eagle Valley Oct 2022 P1R3

Pace Project No.: 50332099

**Sample: MW-10D**      **Lab ID: 50332099001**      Collected: 11/28/22 13:15      Received: 11/29/22 14:40      Matrix: Water  
PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Radium-226	EPA 903.1	<b>0.339 ± 0.386 (0.628)</b> <b>C:NA T:93%</b>	pCi/L	12/19/22 14:52	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 904.0	<b>0.556 ± 0.403 (0.779)</b> <b>C:83% T:93%</b>	pCi/L	12/09/22 16:09	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	<b>0.895 ± 0.789 (1.41)</b>	pCi/L	12/19/22 17:45	7440-14-4	

### REPORT OF LABORATORY ANALYSIS

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Eagle Valley Oct 2022 P1R3

Pace Project No.: 50332099

**Sample: MW-101**      **Lab ID: 50332099002**      Collected: 11/28/22 17:15      Received: 11/29/22 14:40      Matrix: Water  
PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	<b>0.540 ± 0.412 (0.586)</b> <b>C:NA T:90%</b>	pCi/L	12/19/22 15:07	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	<b>-0.121 ± 0.368 (0.890)</b> <b>C:84% T:90%</b>	pCi/L	12/09/22 16:09	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	<b>0.540 ± 0.780 (1.48)</b>	pCi/L	12/19/22 17:45	7440-14-4	

### REPORT OF LABORATORY ANALYSIS

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**QUALITY CONTROL - RADIOCHEMISTRY**

Project: Eagle Valley Oct 2022 P1R3

Pace Project No.: 50332099

QC Batch: 551086

Analysis Method: EPA 903.1

QC Batch Method: EPA 903.1

Analysis Description: 903.1 Radium-226

Laboratory: Pace Analytical Services - Greensburg

Associated Lab Samples: 50332099001, 50332099002

METHOD BLANK: 2676271

Matrix: Water

Associated Lab Samples: 50332099001, 50332099002

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.000 ± 0.173 (0.352) C:NA T:93%	pCi/L	12/19/22 14:25	

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### QUALITY CONTROL - RADIOCHEMISTRY

Project: Eagle Valley Oct 2022 P1R3

Pace Project No.: 50332099

QC Batch: 551087

Analysis Method: EPA 904.0

QC Batch Method: EPA 904.0

Analysis Description: 904.0 Radium 228

Laboratory: Pace Analytical Services - Greensburg

Associated Lab Samples: 50332099001, 50332099002

METHOD BLANK: 2676274

Matrix: Water

Associated Lab Samples: 50332099001, 50332099002

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.290 ± 0.298 (0.616) C:76% T:93%	pCi/L	12/09/22 12:59	

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## QUALIFIERS

Project: Eagle Valley Oct 2022 P1R3

Pace Project No.: 50332099

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### DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Reported results are not rounded until the final step prior to reporting. Therefore, calculated parameters that are typically reported as "Total" may vary slightly from the sum of the reported component parameters.

Act - Activity

Unc - Uncertainty: SDWA = 1.96 sigma count uncertainty, all other matrices = Expanded Uncertainty (95% confidence interval).

Gamma Spec = Expanded Uncertainty (95.4% Confidence Interval)

(MDC) - Minimum Detectable Concentration

Trac - Tracer Recovery (%)

Carr - Carrier Recovery (%)

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

### ANALYTE QUALIFIERS

D3 Sample was diluted due to the presence of high levels of non-target analytes or other matrix interference.

H3 Sample was received or analysis requested beyond the recognized method holding time.

M0 Matrix spike recovery and/or matrix spike duplicate recovery was outside laboratory control limits.

M3 Matrix spike recovery was outside laboratory control limits due to matrix interferences.

N2 The lab does not hold NELAC/TNI accreditation for this parameter but other accreditations/certifications may apply. A complete list of accreditations/certifications is available upon request.

P6 Matrix spike recovery was outside laboratory control limits due to a parent sample concentration notably higher than the spike level.

## REPORT OF LABORATORY ANALYSIS

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**QUALITY CONTROL DATA CROSS REFERENCE TABLE**

Project: Eagle Valley Oct 2022 P1R3  
Pace Project No.: 50332099

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
50332099001	MW-10D	EPA 9056	709077		
50332099002	MW-10I	EPA 9056	709077		
50332099001	MW-10D	EPA 3010	709557	EPA 6010	710740
50332099002	MW-10I	EPA 3010	709557	EPA 6010	710740
50332099001	MW-10D	EPA 3010	710290	EPA 6010	710734
50332099002	MW-10I	EPA 3010	710290	EPA 6010	710734
50332099001	MW-10D	EPA 200.2	708720	EPA 6020	708967
50332099002	MW-10I	EPA 200.2	708720	EPA 6020	708967
50332099001	MW-10D	EPA 903.1	551086		
50332099002	MW-10I	EPA 903.1	551086		
50332099001	MW-10D	EPA 904.0	551087		
50332099002	MW-10I	EPA 904.0	551087		
50332099001	MW-10D	Total Radium Calculation	554890		
50332099002	MW-10I	Total Radium Calculation	554890		
50332099001	MW-10D	SM 2320B	708786		
50332099002	MW-10I	SM 2320B	708786		
50332099001	MW-10D	SM 2540C	708789		
50332099002	MW-10I	SM 2540C	708789		
50332099001	MW-10D	SM 4500-H+B	709260		
50332099002	MW-10I	SM 4500-H+B	709260		
50332099001	MW-10D	SM 4500-S2-D	708791		
50332099002	MW-10I	SM 4500-S2-D	708791		
50332099001	MW-10D	HACH 8146	709548		
50332099002	MW-10I	HACH 8146	709548		
50332099001	MW-10D	EPA 353.2	708729		
50332099002	MW-10I	EPA 353.2	708729		
50332099001	MW-10D	EPA 365.1	708993	EPA 365.1	709314
50332099002	MW-10I	EPA 365.1	708993	EPA 365.1	709314
50332099001	MW-10D	SM 5310C	710596		
50332099002	MW-10I	SM 5310C	710596		
50332099001	MW-10D	SM 5310C	709613		
50332099002	MW-10I	SM 5310C	709613		

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**SAMPLE CONDITION UPON RECEIPT FORM**

Date/Time and Initials of person examining contents: RC 11-29-22 15:08

1. Courier:  FED EX  UPS  CLIENT  PACE  USPS  OTHER \_\_\_\_\_

2. Custody Seal on Cooler/Box Present:  Yes  No  
 (If yes)Seals Intact:  Yes  No (leave blank if no seals were present)

3. Thermometer: 1 2 3 4 5 6 A B C D E F

4. Cooler Temperature(s): 3.6/3.6     
 (Initial/Corrected) RECORD TEMPS OF ALL COOLERS RECEIVED (use Comments below to add more)

5. Packing Material:  Bubble Wrap  Bubble Bags  
 None  Other \_\_\_\_\_

6. Ice Type:  Wet  Blue  None

7. If temp. is over 6°C or under 0°C, was the PM notified?:  Yes  No  
 Cooler temp should be above freezing to 6°C

All discrepancies will be written out in the comments section below.

	Yes	No		Yes	No	N/A
USDA Regulated Soils? (HI, ID, NY, WA, OR,CA, NM, TX, OK, AR, LA, TN, AL, MS, NC, SC, GA, FL, or Puerto Rico)		<input checked="" type="checkbox"/>	All containers needing acid/base preservation have been pH CHECKED?: Exceptions: VOA, coliform, LLHg, O&G, RAD CHEM, and any container with a septum cap or preserved with HCl.			
Short Hold Time Analysis (48 hours or less)? Analysis: <u>NO3</u>	<input checked="" type="checkbox"/>		Circle: <u>HNO3 (&lt;2)</u> <u>H2SO4 (&lt;2)</u> <u>NaOH (&gt;10)</u> <u>NaOH/ZnAc (&gt;9)</u> Any non-conformance to pH recommendations will be noted on the container count form <u>AL</u>	<input checked="" type="checkbox"/>		
Time 5035A TC placed in Freezer or Short Holds To Lab Time: <u>1532</u>			Residual Chlorine Check (SVOC 625 Pest/PCB 608)	<u>Present</u>	<u>Absent</u>	<u>N/A</u>
Rush TAT Requested (4 days or less):		<input checked="" type="checkbox"/>	Residual Chlorine Check (Total/Amenable/Free Cyanide)			<input checked="" type="checkbox"/>
Custody Signatures Present?	<input checked="" type="checkbox"/>		Headspace Wisconsin Sulfide?			<input checked="" type="checkbox"/>
Containers Intact?:	<input checked="" type="checkbox"/>		Headspace in VOA Vials (>6mm): See Containter Count form for details	<u>Present</u>	<u>Absent</u>	<u>No VOA Vials Sent</u>
Sample Label (IDs/Dates/Times) Match COC?: Except TCs, which only require sample ID	<input checked="" type="checkbox"/>		Trip Blank Present?		<input checked="" type="checkbox"/>	
Extra labels on Terracore Vials? (soils only)			Trip Blank Custody Seals?:			<input checked="" type="checkbox"/>

COMMENTS:

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Sample Container Count

\*\* Place a RED dot on containers that are out of conformance \*\*

COC Line Item	WGUFU	MeOH (only) SBS DI	VIALS							AMBER GLASS							PLASTIC							OTHER			Matrix	Nitric Red	Sulfuric Yellow	Sodium Hydroxide Green	Sodium Hydroxide/ ZnAc Black						
			R	DG9H	VG9H	VOA VIAL HS (>6mm)	VG9U	DG9U	VG9T	AG0U	AG1H	AG1U	AG2U	AG3S	AG3SF	AG3C	BP1U	BP1N	BP2U	BP3U	BP3N	BP3F	BP3S	BP3B	BP3Z	CG3H						CG3F	Syringe Kit	HNO3	H2SO4	NaOH	NaOH/Zn Ac
				<2	<2	>10	>9																														
1												1	1					2	1	2	1	1	1							WT	✓	✓		✓			
2												1	1					1	1	1	1	1	1							1	1	2		1			
3																																					
4																																					
5																																					
6																																					
7																																					
8																																					
9																																					
10																																					
11																																					
12																																					

Container Codes

**Glass**

**Plastic**

DG9H	40mL HCl amber voa vial	BG1T	1L Na Thiosulfate clear glass	BP1B	1L NaOH plastic
DG9P	40mL TSP amber vial	BG1U	1L unpreserved glass	BP1N	1L HNO3 plastic
DG9S	40mL H2SO4 amber vial	BG3H	250mL HCl Clear Glass	BP1S	1L H2SO4 plastic
DG9T	40mL Na Thio amber vial	BG3U	250mL Unpres Clear Glass	BP1U	1L unpreserved plastic
DG9U	40mL unpreserved amber vial	AG0U	100mL unpres amber glass	BP1Z	1L NaOH, Zn, Ac
VG9H	40mL HCl clear vial	AG1H	1L HCl amber glass	BP2N	500mL HNO3 plastic
VG9T	40mL Na Thio. clear vial	AG1S	1L H2SO4 amber glass	BP2C	500mL NaOH plastic
VG9U	40mL unpreserved clear vial	AG1T	1L Na Thiosulfate amber glass	BP2S	500mL H2SO4 plastic
I	40mL w/hexane wipe vial	AG1U	1liter unpres amber glass	BP2U	500mL unpreserved plastic
WGKU	8oz unpreserved clear jar	AG2N	500mL HNO3 amber glass	BP2Z	500mL NaOH, Zn Ac
WGUFU	4oz clear soil jar	AG2S	500mL H2SO4 amber glass	BP3B	250mL NaOH plastic
JGUFU	4oz unpreserved amber wide	AG2U	500mL unpres amber glass	BP3N	250mL HNO3 plastic
CG3H	250mL clear glass HCl	AG3S	250mL H2SO4 amber glass	BP3F	250mL HNO3 plastic-field filtered
CG3F	250mL clear glass HCl, Field Filter	AG3SF	250mL H2SO4 amb glass -field filtered	BP3U	250mL unpreserved plastic
BG1H	1L HCl clear glass	AG3U	250mL unpres amber glass	BP3S	250mL H2SO4 plastic
BG1S	1L H2SO4 clear glass	AG3C	250mL NaOH amber glass	BP3Z	250mL NaOH, ZnAc plastic

BP4U	125mL unpreserved plastic
BP4N	125mL HNO3 plastic
BP4S	125mL H2SO4 plastic
Miscellaneous	
Syringe Kit	LL Cr+6 sampling kit
ZPLC	Ziploc Bag
R	Terracore Kit
SP5T	120mL Coliform Sodium Thiosulfate
GN	General Container
U	Summa Can (air sample)
WT	Water
SL	Solid Solid
OL:	Oil
NAL	Non-aqueous liquid
WP	Wipe



# Pace Container Order #1004277

## Addresses

### Order By :

Company Atlas Indianapolis  
 Contact Breting, Mark  
 Email mark.breting@atcgs.com  
 Address 7988 Centerpoint Drive  
 Address 2 Suite 100  
 City Indianapolis  
 State IN Zip 46256  
 Phone NONE

### Ship To :

Company Atlas Indianapolis  
 Contact Breting, Mark  
 Email mark.breting@atcgs.com  
 Address 7988 Centerpoint Drive  
 Address 2 Suite 100  
 City Indianapolis  
 State IN Zip 46256  
 Phone NONE

### Return To:

Company Pace Analytical Indianapolis  
 Contact Putt, Hayden  
 Email hayden.putt@pacelabs.com  
 Address 7726 Moller Road  
 Address 2  
 City Indianapolis  
 State IN Zip 46268  
 Phone (317)228-3145

## Info

**Project Name** Eagle Valley Profile 1 Report 3      **Due Date** 10/28/2022      **Profile** 10498/26      **Quote**  
**Project Manager** Putt, Hayden      **Return Date**      **Carrier** Pace Courier      **Location** IN

### Trip Blanks

Include Trip Blanks

### Bottle Labels

Blank  
 Pre-Printed No Sample IDs  
 Pre-Printed With Sample IDs

### Bottles

Boxed Cases  
 Individually Wrapped  
 Grouped By Sample ID/Matrix

### Return Shipping Labels

No Shipper  
 With Shipper

### Misc

Sampling Instructions       Extra Bubble Wrap  
 Custody Seal       Short Hold/Rush Stickers  
 Temp. Blanks       DI Water   
 Coolers   
 Syringes        USDA Regulated Soils

### COC Options

Number of Blanks   
 Pre-Printed

# of Samples	Matrix	Test	Container	Total	# of	Lot #	Notes
2	WT	IN TDS 2540C	250mL plastic, unpres	2	✓ 0		2 - 250 unpr
2	WT	IN Chloride, Fluoride, Sulfate by IC	250mL plastic, unpres	2	✓ 0		1 - 250 HNO3
2	WT	IN Metals, Total	250mL plastic, HNO3	2	✓ 0		2 - 1L HNO3
2	WT	IN Rad226/Rad228	2- 1L plastic, HNO3	4	✓ 0		1-750-HNO3 FF
2	WT	IN Metals, Field Filtered	250mL plastic, HNO3 +FF labels	2	✓ 0		1-250-Amber H2SO4 FF
2	WT	IN TOC by 5310 WTOC	250mL AMBER GLASS, H2SO4	2	✓ 0		1 - " "
2	WT	IN DOC, Field Filtered 5310C	250mL AMBER GLASS, H2SO4 +FF labels	2	✓ 0		1 - 250 Zinc
2	WT	IN Sulfide 4500S2D	250mL plastic, NaOH and Zinc Acetate	2	✓ 0		1-750 H2 Sulf
2	WT	IN Phosphorus, Total 365.1	250mL plastic, H2SO4	2	✓ 0		

## Hazard Shipping Placard In Place : NO

## LAB USE:

Sample receiving hours are typically 8am-5pm, but may differ by location. Please check with your Pace Project Manager.

**Ship Date :** 10/27/2022

Pace Analytical reserves the right to return hazardous, toxic, or radioactive samples to you.

**Prepared By:** DD

Pace Analytical reserves the right to charge for unused bottles, as well as cost associated with sample storage/disposal.

**Verified By:** BS

Payment term are net 30 days.

Please include the proposal number on the chain of custody to insure proper billing.

## Sample

## CLIENT USE (Optional):

**Date Rec'd:**

**Received By:** Page 34 of 35

**Verified By:**

# Pace Container Order #1004277

<b>Order By :</b> Company Atlas Indianapolis Contact Breting, Mark Email mark.breting@atcgs.com Address 7988 Centerpoint Drive Address 2 Suite 100 City Indianapolis State IN Zip 46256 Phone NONE	<b>Ship To :</b> Company Atlas Indianapolis Contact Breting, Mark Email mark.breting@atcgs.com Address 7988 Centerpoint Drive Address 2 Suite 100 City Indianapolis State IN Zip 46256 Phone NONE	<b>Return To:</b> Company Pace Analytical Indianapolis Contact Putt, Hayden Email hayden.putt@pacelabs.com Address 7726 Moller Road Address 2 City Indianapolis State IN Zip 46268 Phone (317)228-3145
--	---	--

<b>Info</b>			
<b>Project Name</b> Eagle Valley Profile 1 Report 3	<b>Due Date</b> 10/28/2022	<b>Profile</b> 10498/26	<b>Quote</b>
<b>Project Manager</b> Putt, Hayden	<b>Return Date</b>	<b>Carrier</b> Pace Courier	<b>Location</b> IN

**Trip Blanks**

Include Trip Blanks

**Bottle Labels**

Blank

Pre-Printed No Sample IDs

Pre-Printed With Sample IDs

**Bottles**

Boxed Cases

Individually Wrapped

Grouped By Sample ID/Matrix

**Return Shipping Labels**

No Shipper

With Shipper

**Misc**

Sampling Instructions

Custody Seal

Temp. Blanks

Coolers

Syringes

Extra Bubble Wrap

Short Hold/Rush Stickers

DI Water

USDA Regulated Soils

**COC Options**

Number of Blanks

Pre-Printed

# of Samples	Matrix	Test	Container	Total	# of	Lot #	Notes
2	WT	IN Alkalinity/pH/NO3-353.2/Cond	500mL plastic, unpres	2	✓ 0		

**Hazard Shipping Placard In Place : NO**

Sample receiving hours are typically 8am-5pm, but may differ by location. Please check with your Pace Project Manager.

Pace Analytical reserves the right to return hazardous, toxic, or radioactive samples to you.

Pace Analytical reserves the right to charge for unused bottles, as well as cost associated with sample storage/disposal.

Payment term are net 30 days.

Please include the proposal number on the chain of custody to insure proper billing.

**LAB USE:**

**Ship Date :** 10/27/2022

**Prepared By:** DD

**Verified By:** *BS*

**Tracking Num:**

**Sample**

**CLIENT USE (Optional):**

**Date Rec'd:**

**Received By:**

**Verified By:**

**Internal**

Place labels in bag with COC.

March 06, 2023

Mr. Mark Breting  
ATC Group Services  
7988 Centerpoint Drive  
Suite 100  
Indianapolis, IN 46256

RE: Project: Eagle Valley Oct 2022 P1R3  
Pace Project No.: 50332201

Dear Mr. Breting:

Enclosed are the analytical results for sample(s) received by the laboratory on November 30, 2022. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

The test results provided in this final report were generated by each of the following laboratories within the Pace Network:

- Pace Analytical Services - Indianapolis
- Pace Analytical Services - Greensburg

If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Will Statz  
will.statz@pacelabs.com  
(317)228-3105  
Project Manager

Enclosures

cc: Mr. Robert Miller, Haley & Aldrich



## REPORT OF LABORATORY ANALYSIS

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## CERTIFICATIONS

Project: Eagle Valley Oct 2022 P1R3

Pace Project No.: 50332201

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### **Pace Analytical Services Pennsylvania**

1638 Roseytown Rd Suites 2,3&4, Greensburg, PA 15601

ANAB DOD-ELAP Rad Accreditation #: L2417

Alabama Certification #: 41590

Arizona Certification #: AZ0734

Arkansas Certification

California Certification #: 04222CA

Colorado Certification #: PA01547

Connecticut Certification #: PH-0694

Delaware Certification

EPA Region 4 DW Rad

Florida/TNI Certification #: E87683

Georgia Certification #: C040

Florida: Cert E871149 SEKS WET

Guam Certification

Hawaii Certification

Idaho Certification

Illinois Certification

Indiana Certification

Iowa Certification #: 391

Kansas/TNI Certification #: E-10358

Kentucky Certification #: KY90133

KY WW Permit #: KY0098221

KY WW Permit #: KY0000221

Louisiana DHH/TNI Certification #: LA180012

Louisiana DEQ/TNI Certification #: 4086

Maine Certification #: 2017020

Maryland Certification #: 308

Massachusetts Certification #: M-PA1457

Michigan/PADEP Certification #: 9991

Missouri Certification #: 235

Montana Certification #: Cert0082

Nebraska Certification #: NE-OS-29-14

Nevada Certification #: PA014572018-1

New Hampshire/TNI Certification #: 297617

New Jersey/TNI Certification #: PA051

New Mexico Certification #: PA01457

New York/TNI Certification #: 10888

North Carolina Certification #: 42706

North Dakota Certification #: R-190

Ohio EPA Rad Approval: #41249

Oregon/TNI Certification #: PA200002-010

Pennsylvania/TNI Certification #: 65-00282

Puerto Rico Certification #: PA01457

Rhode Island Certification #: 65-00282

South Dakota Certification

Tennessee Certification #: 02867

Texas/TNI Certification #: T104704188-17-3

Utah/TNI Certification #: PA014572017-9

USDA Soil Permit #: P330-17-00091

Vermont Dept. of Health: ID# VT-0282

Virgin Island/PADEP Certification

Virginia/VELAP Certification #: 460198

Washington Certification #: C868

West Virginia DEP Certification #: 143

West Virginia DHHR Certification #: 9964C

Wisconsin Approve List for Rad

Wyoming Certification #: 8TMS-L

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### **Pace Analytical Services Indianapolis**

7726 Moller Road, Indianapolis, IN 46268

Illinois Accreditation #: 200074

Indiana Drinking Water Laboratory #: C-49-06

Kansas/TNI Certification #: E-10177

Kentucky UST Agency Interest #: 80226

Kentucky WW Laboratory ID #: 98019

Michigan Drinking Water Laboratory #9050

Ohio VAP Certified Laboratory #: CL0065

Oklahoma Laboratory #: 9204

Texas Certification #: T104704355

Wisconsin Laboratory #: 999788130

USDA Foreign Soil Permit #: 525-23-13-23119

USDA Compliance Agreement #: IN-SL-22-001

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## REPORT OF LABORATORY ANALYSIS

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## SAMPLE SUMMARY

Project: Eagle Valley Oct 2022 P1R3

Pace Project No.: 50332201

Lab ID	Sample ID	Matrix	Date Collected	Date Received
50332201001	MW-14S	Water	11/29/22 12:15	11/30/22 15:15
50332201002	MW-14I	Water	11/29/22 10:55	11/30/22 15:15
50332201003	MW-14D	Water	11/29/22 10:00	11/30/22 15:15
50332201004	MW-11D	Water	11/29/22 14:55	11/30/22 15:15
50332201005	DUP-3	Water	11/29/22 08:00	11/30/22 15:15
50332201006	MW-14D RAD MS	Water	11/29/22 10:00	11/30/22 15:15
50332201007	MW-14D RAD MSD	Water	11/29/22 10:00	11/30/22 15:15

## REPORT OF LABORATORY ANALYSIS

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### SAMPLE ANALYTE COUNT

Project: Eagle Valley Oct 2022 P1R3

Pace Project No.: 50332201

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
50332201001	MW-14S	EPA 9056	ADM	3	PASI-I
		EPA 6010	DJS	12	PASI-I
		EPA 6010	MTM	2	PASI-I
		EPA 6020	DMT	3	PASI-I
		EPA 903.1	JDZ	1	PASI-PA
		EPA 904.0	ZPC	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
		SM 2320B	TAY	3	PASI-I
		SM 2540C	MTW	1	PASI-I
		SM 4500-H+B	TRK	1	PASI-I
		SM 4500-S2-D	BEP	1	PASI-I
		HACH 8146	ZM	1	PASI-I
		EPA 353.2	OAS	2	PASI-I
		EPA 365.1	ZM	1	PASI-I
		SM 5310C	ATS	1	PASI-I
		SM 5310C	ATS	1	PASI-I
		50332201002	MW-14I	EPA 9056	ADM, RMR
EPA 6010	DJS			12	PASI-I
EPA 6010	MTM			2	PASI-I
EPA 6020	DMT			3	PASI-I
EPA 903.1	JDZ			1	PASI-PA
EPA 904.0	ZPC			1	PASI-PA
Total Radium Calculation	JAL			1	PASI-PA
SM 2320B	TAY			3	PASI-I
SM 2540C	MTW			1	PASI-I
SM 4500-H+B	TRK			1	PASI-I
SM 4500-S2-D	BEP			1	PASI-I
HACH 8146	ZM			1	PASI-I
EPA 353.2	OAS			2	PASI-I
EPA 365.1	ZM			1	PASI-I
SM 5310C	ATS			1	PASI-I
SM 5310C	ATS			1	PASI-I
50332201003	MW-14D			EPA 9056	ADM
		EPA 6010	DJS	12	PASI-I
		EPA 6010	MTM	2	PASI-I
		EPA 6020	DMT	3	PASI-I
		EPA 903.1	JDZ	1	PASI-PA

### REPORT OF LABORATORY ANALYSIS

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### SAMPLE ANALYTE COUNT

Project: Eagle Valley Oct 2022 P1R3

Pace Project No.: 50332201

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
50332201004	MW-11D	EPA 904.0	ZPC	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
		SM 2320B	TAY	3	PASI-I
		SM 2540C	MTW	1	PASI-I
		SM 4500-H+B	TRK	1	PASI-I
		SM 4500-S2-D	BEP	1	PASI-I
		HACH 8146	ZM	1	PASI-I
		EPA 353.2	OAS	2	PASI-I
		EPA 365.1	ZM	1	PASI-I
		SM 5310C	ATS	1	PASI-I
		SM 5310C	ATS	1	PASI-I
		EPA 9056	ADM	3	PASI-I
		EPA 6010	DJS	12	PASI-I
		EPA 6010	MTM	2	PASI-I
		EPA 6020	DMT	3	PASI-I
		EPA 903.1	JDZ	1	PASI-PA
		EPA 904.0	ZPC	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
		SM 2320B	TAY	3	PASI-I
		SM 2540C	MTW	1	PASI-I
SM 4500-H+B	TRK	1	PASI-I		
SM 4500-S2-D	BEP	1	PASI-I		
HACH 8146	ZM	1	PASI-I		
EPA 353.2	OAS	2	PASI-I		
EPA 365.1	ZM	1	PASI-I		
SM 5310C	ATS	1	PASI-I		
SM 5310C	ATS	1	PASI-I		
50332201005	DUP-3	EPA 9056	ADM	3	PASI-I
		EPA 6010	DJS	12	PASI-I
		EPA 6010	MTM	2	PASI-I
		EPA 6020	DMT	3	PASI-I
		EPA 903.1	JDZ	1	PASI-PA
		EPA 904.0	ZPC	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
		SM 2320B	TAY	3	PASI-I
		SM 2540C	MTW	1	PASI-I
		SM 4500-H+B	TRK	1	PASI-I

### REPORT OF LABORATORY ANALYSIS

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### SAMPLE ANALYTE COUNT

Project: Eagle Valley Oct 2022 P1R3

Pace Project No.: 50332201

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
		SM 4500-S2-D	BEP	1	PASI-I
		HACH 8146	ZM	1	PASI-I
		EPA 353.2	OAS	2	PASI-I
		EPA 365.1	ZM	1	PASI-I
		SM 5310C	ATS	1	PASI-I
		SM 5310C	ATS	1	PASI-I
50332201006	MW-14D RAD MS	EPA 903.1	JDZ	1	PASI-PA
		EPA 904.0	ZPC	1	PASI-PA
50332201007	MW-14D RAD MSD	EPA 903.1	JDZ	1	PASI-PA
		EPA 904.0	ZPC	1	PASI-PA

PASI-I = Pace Analytical Services - Indianapolis

PASI-PA = Pace Analytical Services - Greensburg

### REPORT OF LABORATORY ANALYSIS

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### SUMMARY OF DETECTION

Project: Eagle Valley Oct 2022 P1R3

Pace Project No.: 50332201

Lab Sample ID	Client Sample ID	Result	Units	Report Limit	Analyzed	Qualifiers
Method	Parameters					
<b>50332201001</b>	<b>MW-14S</b>					
EPA 9056	Chloride	2.2	mg/L	0.25	12/09/22 13:30	
EPA 9056	Fluoride	0.11	mg/L	0.10	12/09/22 13:30	
EPA 9056	Sulfate	5.3	mg/L	0.25	12/09/22 13:30	
EPA 6010	Barium	27.2	ug/L	10.0	12/13/22 17:50	
EPA 6010	Boron	178	ug/L	100	12/13/22 17:50	
EPA 6010	Calcium	89200	ug/L	1000	12/13/22 17:50	
EPA 6010	Magnesium	22400	ug/L	1000	12/13/22 17:50	
EPA 6010	Molybdenum	42.8	ug/L	10.0	12/13/22 17:50	
EPA 6010	Potassium	2500	ug/L	1000	12/13/22 17:50	
EPA 6010	Silica	12500	ug/L	450	12/13/22 17:50	N2
EPA 6010	Sodium	6560	ug/L	1000	12/13/22 17:50	
EPA 6010	Molybdenum, Dissolved	44.3	ug/L	10.0	12/13/22 15:40	
EPA 903.1	Radium-226	0.128 ± 0.222 (0.398)	pCi/L		12/21/22 16:53	
EPA 904.0	Radium-228	C:NA T:92% 0.212 ± 0.328 (0.711)	pCi/L		12/15/22 16:11	
		C:85% T:92%				
Total Radium Calculation	Total Radium	0.340 ± 0.550 (1.11)	pCi/L		12/22/22 13:15	
SM 2320B	Alkalinity, Total as CaCO3	289	mg/L	10.0	12/01/22 15:34	
SM 2320B	Alkalinity,Bicarbonate (CaCO3)	289	mg/L	10.0	12/01/22 15:34	
SM 2540C	Total Dissolved Solids	373	mg/L	10.0	12/02/22 08:54	
SM 4500-H+B	pH at 25 Degrees C	7.2	Std. Units	0.10	12/02/22 12:46	H3
EPA 353.2	Nitrogen, Nitrate	11.7	mg/L	1.0	11/30/22 20:37	
<b>50332201002</b>	<b>MW-14I</b>					
EPA 9056	Chloride	17.6	mg/L	2.5	12/09/22 14:10	
EPA 9056	Fluoride	1.9	mg/L	1.0	12/09/22 14:10	
EPA 9056	Sulfate	203	mg/L	25.0	12/06/22 20:38	
EPA 6010	Barium	49.3	ug/L	10.0	12/13/22 17:53	
EPA 6010	Boron	2500	ug/L	100	12/13/22 17:53	
EPA 6010	Calcium	118000	ug/L	1000	12/13/22 17:53	
EPA 6010	Lithium	59.5	ug/L	20.0	12/13/22 17:53	
EPA 6010	Magnesium	27500	ug/L	1000	12/13/22 17:53	
EPA 6010	Molybdenum	78.4	ug/L	10.0	12/13/22 17:53	
EPA 6010	Potassium	4670	ug/L	1000	12/13/22 17:53	
EPA 6010	Silica	13700	ug/L	450	12/13/22 17:53	N2
EPA 6010	Sodium	55100	ug/L	1000	12/13/22 17:53	
EPA 6010	Molybdenum, Dissolved	84.5	ug/L	10.0	12/13/22 15:42	
EPA 903.1	Radium-226	0.191 ± 0.296 (0.513)	pCi/L		12/21/22 16:53	
		C:NA T:88%				

### REPORT OF LABORATORY ANALYSIS

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### SUMMARY OF DETECTION

Project: Eagle Valley Oct 2022 P1R3

Pace Project No.: 50332201

Lab Sample ID	Client Sample ID	Result	Units	Report Limit	Analyzed	Qualifiers
Method	Parameters					
<b>50332201002</b>	<b>MW-14I</b>					
EPA 904.0	Radium-228	0.511 ± 0.413 (0.831) C:83% T:88%	pCi/L		12/15/22 16:11	
Total Radium Calculation	Total Radium	0.702 ± 0.709 (1.34)	pCi/L		12/22/22 13:15	
SM 2320B	Alkalinity, Total as CaCO3	300	mg/L	10.0	12/02/22 11:21	
SM 2320B	Alkalinity,Bicarbonate (CaCO3)	300	mg/L	10.0	12/02/22 11:21	
SM 2540C	Total Dissolved Solids	665	mg/L	10.0	12/02/22 08:54	
SM 4500-H+B	pH at 25 Degrees C	7.4	Std. Units	0.10	12/02/22 12:47	H3
EPA 353.2	Nitrogen, Nitrate	1.4	mg/L	0.10	11/30/22 20:13	
<b>50332201003</b>	<b>MW-14D</b>					
EPA 9056	Chloride	90.4	mg/L	2.5	12/09/22 14:30	
EPA 9056	Sulfate	365	mg/L	25.0	12/09/22 14:46	
EPA 6010	Barium	27.1	ug/L	10.0	12/13/22 17:57	
EPA 6010	Boron	1870	ug/L	100	12/13/22 17:57	
EPA 6010	Calcium	161000	ug/L	1000	12/13/22 17:57	
EPA 6010	Iron	102	ug/L	100	12/13/22 17:57	
EPA 6010	Lithium	24.4	ug/L	20.0	12/13/22 17:57	
EPA 6010	Magnesium	33800	ug/L	1000	12/13/22 17:57	
EPA 6010	Manganese	120	ug/L	10.0	12/13/22 17:57	
EPA 6010	Molybdenum	16.5	ug/L	10.0	12/13/22 17:57	
EPA 6010	Potassium	4780	ug/L	1000	12/13/22 17:57	
EPA 6010	Silica	15100	ug/L	450	12/13/22 17:57	N2
EPA 6010	Sodium	88600	ug/L	1000	12/13/22 17:57	
EPA 6010	Manganese, Dissolved	116	ug/L	10.0	12/13/22 15:45	
EPA 6010	Molybdenum, Dissolved	17.3	ug/L	10.0	12/13/22 15:45	
EPA 903.1	Radium-226	0.734 ± 0.370 (0.124) C:NA T:86%	pCi/L		12/21/22 16:53	
EPA 904.0	Radium-228	0.503 ± 0.345 (0.655) C:86% T:86%	pCi/L		12/15/22 16:11	
Total Radium Calculation	Total Radium	1.24 ± 0.715 (0.779)	pCi/L		12/22/22 13:15	
SM 2320B	Alkalinity, Total as CaCO3	296	mg/L	10.0	12/02/22 11:21	
SM 2320B	Alkalinity,Bicarbonate (CaCO3)	296	mg/L	10.0	12/02/22 11:21	
SM 2540C	Total Dissolved Solids	920	mg/L	20.0	12/02/22 08:54	
SM 4500-H+B	pH at 25 Degrees C	7.3	Std. Units	0.10	12/02/22 12:49	H3
<b>50332201004</b>	<b>MW-11D</b>					
EPA 9056	Chloride	98.8	mg/L	2.5	12/09/22 15:19	
EPA 9056	Fluoride	0.28	mg/L	0.10	12/09/22 15:03	
EPA 9056	Sulfate	98.7	mg/L	2.5	12/09/22 15:19	

### REPORT OF LABORATORY ANALYSIS

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### SUMMARY OF DETECTION

Project: Eagle Valley Oct 2022 P1R3

Pace Project No.: 50332201

Lab Sample ID	Client Sample ID	Result	Units	Report Limit	Analyzed	Qualifiers
Method	Parameters					
<b>50332201004</b>	<b>MW-11D</b>					
EPA 6010	Barium	57.6	ug/L	10.0	12/13/22 18:19	
EPA 6010	Boron	1600	ug/L	100	12/13/22 18:19	
EPA 6010	Calcium	71600	ug/L	1000	12/13/22 18:19	
EPA 6010	Iron	973	ug/L	100	12/13/22 18:19	
EPA 6010	Lithium	81.9	ug/L	20.0	12/13/22 18:19	
EPA 6010	Magnesium	19200	ug/L	1000	12/13/22 18:19	
EPA 6010	Manganese	248	ug/L	10.0	12/13/22 18:19	
EPA 6010	Molybdenum	159	ug/L	10.0	12/13/22 18:19	
EPA 6010	Potassium	7530	ug/L	1000	12/13/22 18:19	
EPA 6010	Silica	11500	ug/L	450	12/13/22 18:19	N2
EPA 6010	Sodium	89300	ug/L	1000	12/13/22 18:19	
EPA 6010	Manganese, Dissolved	230	ug/L	10.0	12/13/22 16:00	
EPA 6010	Molybdenum, Dissolved	154	ug/L	10.0	12/13/22 16:00	
EPA 6020	Arsenic	5.0	ug/L	1.0	12/05/22 03:20	
EPA 903.1	Radium-226	0.417 ± 0.436 (0.683)	pCi/L		12/21/22 16:53	
EPA 904.0	Radium-228	C:NA T:91% 0.477 ± 0.433 (0.890)	pCi/L		12/15/22 16:12	
		C:82% T:91%				
Total Radium Calculation	Total Radium	0.894 ± 0.869 (1.57)	pCi/L		12/22/22 13:15	
SM 2320B	Alkalinity, Total as CaCO3	225	mg/L	10.0	12/02/22 11:21	
SM 2320B	Alkalinity, Bicarbonate (CaCO3)	225	mg/L	10.0	12/02/22 11:21	
SM 2540C	Total Dissolved Solids	498	mg/L	10.0	12/02/22 08:55	
SM 4500-H+B	pH at 25 Degrees C	7.6	Std. Units	0.10	12/02/22 12:53	H3
SM 4500-S2-D	Sulfide	0.23	mg/L	0.10	12/02/22 14:22	
SM 5310C	Total Organic Carbon	2.0	mg/L	1.0	12/15/22 23:27	
SM 5310C	Dissolved Organic Carbon	1.4	mg/L	1.0	12/08/22 14:28	
<b>50332201005</b>	<b>DUP-3</b>					
EPA 9056	Chloride	90.0	mg/L	2.5	12/06/22 21:34	
EPA 9056	Fluoride	0.30	mg/L	0.10	12/06/22 21:17	
EPA 9056	Sulfate	93.1	mg/L	2.5	12/06/22 21:34	
EPA 6010	Barium	57.7	ug/L	10.0	12/13/22 18:22	
EPA 6010	Boron	1510	ug/L	100	12/13/22 18:22	
EPA 6010	Calcium	68800	ug/L	1000	12/13/22 18:22	
EPA 6010	Iron	1050	ug/L	100	12/13/22 18:22	
EPA 6010	Lithium	76.3	ug/L	20.0	12/13/22 18:22	
EPA 6010	Magnesium	18600	ug/L	1000	12/13/22 18:22	
EPA 6010	Manganese	240	ug/L	10.0	12/13/22 18:22	
EPA 6010	Molybdenum	150	ug/L	10.0	12/13/22 18:22	
EPA 6010	Potassium	7230	ug/L	1000	12/13/22 18:22	
EPA 6010	Silica	11200	ug/L	450	12/13/22 18:22	N2
EPA 6010	Sodium	85600	ug/L	1000	12/13/22 18:22	
EPA 6010	Manganese, Dissolved	238	ug/L	10.0	12/13/22 16:02	

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### SUMMARY OF DETECTION

Project: Eagle Valley Oct 2022 P1R3

Pace Project No.: 50332201

Lab Sample ID Method	Client Sample ID Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
<b>50332201005</b>	<b>DUP-3</b>					
EPA 6010	Molybdenum, Dissolved	161	ug/L	10.0	12/13/22 16:02	
EPA 6020	Arsenic	5.2	ug/L	1.0	12/05/22 03:24	
EPA 903.1	Radium-226	0.188 ± 0.391 (0.705) C:NA T:84%	pCi/L		12/21/22 16:53	
EPA 904.0	Radium-228	0.0681 ± 0.351 (0.801) C:82% T:84%	pCi/L		12/15/22 16:12	
Total Radium Calculation	Total Radium	0.256 ± 0.742 (1.51)	pCi/L		12/22/22 13:15	
SM 2320B	Alkalinity, Total as CaCO3	222	mg/L	10.0	12/02/22 11:21	
SM 2320B	Alkalinity,Bicarbonate (CaCO3)	222	mg/L	10.0	12/02/22 11:21	
SM 2540C	Total Dissolved Solids	490	mg/L	10.0	12/02/22 08:55	
SM 4500-H+B	pH at 25 Degrees C	7.7	Std. Units	0.10	12/02/22 12:54	H3
SM 4500-S2-D	Sulfide	0.34	mg/L	0.10	12/02/22 14:22	
EPA 365.1	Phosphate as P04	0.22	mg/L	0.15	12/02/22 14:42	
SM 5310C	Total Organic Carbon	2.6	mg/L	2.0	12/15/22 23:48	
<b>50332201006</b>	<b>MW-14D RAD MS</b>					
EPA 903.1	Radium-226	75.75 %REC ± NA (NA) C:NA T:NA	pCi/L		12/21/22 16:53	
EPA 904.0	Radium-228	96.52 %REC ± NA (NA) C:NA T:NA	pCi/L		12/15/22 16:11	
<b>50332201007</b>	<b>MW-14D RAD MSD</b>					
EPA 903.1	Radium-226	67.71 %REC 11.17RPD ± NA (NA) C:NA T:NA	pCi/L		12/21/22 16:53	1d
EPA 904.0	Radium-228	115.64 %REC 18.02 RPD ± NA (NA) C:NA T:NA	pCi/L		12/15/22 16:12	

### REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: Eagle Valley Oct 2022 P1R3

Pace Project No.: 50332201

Sample: MW-14S      Lab ID: 50332201001      Collected: 11/29/22 12:15      Received: 11/30/22 15:15      Matrix: Water									
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>9056 IC Anions</b>									
Analytical Method: EPA 9056									
Pace Analytical Services - Indianapolis									
Chloride	2.2	mg/L	0.25	0.067	1		12/09/22 13:30	16887-00-6	
Fluoride	0.11	mg/L	0.10	0.017	1		12/09/22 13:30	16984-48-8	
Sulfate	5.3	mg/L	0.25	0.085	1		12/09/22 13:30	14808-79-8	
<b>6010 MET ICP</b>									
Analytical Method: EPA 6010      Preparation Method: EPA 3010									
Pace Analytical Services - Indianapolis									
Aluminum	ND	ug/L	200	54.4	1	12/12/22 10:01	12/13/22 17:50	7429-90-5	
Barium	27.2	ug/L	10.0	1.3	1	12/12/22 10:01	12/13/22 17:50	7440-39-3	
Boron	178	ug/L	100	61.4	1	12/12/22 10:01	12/13/22 17:50	7440-42-8	
Calcium	89200	ug/L	1000	88.4	1	12/12/22 10:01	12/13/22 17:50	7440-70-2	
Iron	ND	ug/L	100	48.8	1	12/12/22 10:01	12/13/22 17:50	7439-89-6	
Lithium	ND	ug/L	20.0	6.2	1	12/12/22 10:01	12/13/22 17:50	7439-93-2	
Magnesium	22400	ug/L	1000	43.0	1	12/12/22 10:01	12/13/22 17:50	7439-95-4	
Manganese	ND	ug/L	10.0	5.4	1	12/12/22 10:01	12/13/22 17:50	7439-96-5	
Molybdenum	42.8	ug/L	10.0	2.0	1	12/12/22 10:01	12/13/22 17:50	7439-98-7	
Potassium	2500	ug/L	1000	200	1	12/12/22 10:01	12/13/22 17:50	7440-09-7	
Silica	12500	ug/L	450		1	12/12/22 10:01	12/13/22 17:50	7631-86-9	N2
Sodium	6560	ug/L	1000	284	1	12/12/22 10:01	12/13/22 17:50	7440-23-5	
<b>6010 MET ICP, Dissolved</b>									
Analytical Method: EPA 6010      Preparation Method: EPA 3010									
Pace Analytical Services - Indianapolis									
Manganese, Dissolved	ND	ug/L	10.0	2.5	1	12/12/22 10:01	12/13/22 15:40	7439-96-5	
Molybdenum, Dissolved	44.3	ug/L	10.0	3.7	1	12/12/22 10:01	12/13/22 15:40	7439-98-7	
<b>6020 MET ICPMS</b>									
Analytical Method: EPA 6020      Preparation Method: EPA 200.2									
Pace Analytical Services - Indianapolis									
Antimony	ND	ug/L	1.0	0.28	1	12/01/22 15:00	12/05/22 02:55	7440-36-0	
Arsenic	ND	ug/L	1.0	0.094	1	12/01/22 15:00	12/05/22 02:55	7440-38-2	
Selenium	ND	ug/L	1.0	0.57	1	12/01/22 15:00	12/05/22 02:55	7782-49-2	
<b>2320B Alkalinity</b>									
Analytical Method: SM 2320B									
Pace Analytical Services - Indianapolis									
Alkalinity, Total as CaCO3	289	mg/L	10.0	10.0	1		12/01/22 15:34		
Alkalinity,Bicarbonate (CaCO3)	289	mg/L	10.0	10.0	1		12/01/22 15:34		
Alkalinity,Carbonate (CaCO3)	ND	mg/L	10.0	10.0	1		12/01/22 15:34		
<b>2540C Total Dissolved Solids</b>									
Analytical Method: SM 2540C									
Pace Analytical Services - Indianapolis									
Total Dissolved Solids	373	mg/L	10.0	10.0	1		12/02/22 08:54		
<b>4500H+ pH, Electrometric</b>									
Analytical Method: SM 4500-H+B									
Pace Analytical Services - Indianapolis									
pH at 25 Degrees C	7.2	Std. Units	0.10	0.10	1		12/02/22 12:46		H3

## REPORT OF LABORATORY ANALYSIS

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### ANALYTICAL RESULTS

Project: Eagle Valley Oct 2022 P1R3

Pace Project No.: 50332201

Sample: MW-14S		Lab ID: 50332201001		Collected: 11/29/22 12:15	Received: 11/30/22 15:15	Matrix: Water				
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual	
<b>4500S2D Sulfide Water</b>		Analytical Method: SM 4500-S2-D Pace Analytical Services - Indianapolis								
Sulfide	ND	mg/L	0.10	0.025	1		12/02/22 14:22	18496-25-8		
<b>Iron, Ferrous</b>		Analytical Method: HACH 8146 Pace Analytical Services - Indianapolis								
Iron, Ferrous	ND	mg/L	0.20	0.096	1		12/05/22 16:43	15438-31-0	H3,N2	
<b>353.2 Nitrogen, NO2/NO3 unpres</b>		Analytical Method: EPA 353.2 Pace Analytical Services - Indianapolis								
Nitrogen, Nitrate	11.7	mg/L	1.0	0.11	10		11/30/22 20:37	14797-55-8		
Nitrogen, Nitrite	ND	mg/L	1.0	0.040	10		11/30/22 20:37	14797-65-0		
<b>365.1 Total Phosphorus</b>		Analytical Method: EPA 365.1 Preparation Method: EPA 365.1 Pace Analytical Services - Indianapolis								
Phosphate as P04	ND	mg/L	0.15	0.15	1	12/01/22 11:00	12/02/22 14:39			
<b>5310C TOC</b>		Analytical Method: SM 5310C Pace Analytical Services - Indianapolis								
Total Organic Carbon	ND	mg/L	1.0	0.14	1		12/15/22 22:34	7440-44-0		
<b>5310C Dissolved Organic Carbon</b>		Analytical Method: SM 5310C Pace Analytical Services - Indianapolis								
Dissolved Organic Carbon	ND	mg/L	1.0	0.14	1		12/08/22 11:16			

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### ANALYTICAL RESULTS

Project: Eagle Valley Oct 2022 P1R3

Pace Project No.: 50332201

Sample: MW-14I		Lab ID: 50332201002		Collected: 11/29/22 10:55	Received: 11/30/22 15:15	Matrix: Water				
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual	
<b>9056 IC Anions</b>		Analytical Method: EPA 9056 Pace Analytical Services - Indianapolis								
Chloride	17.6	mg/L	2.5	0.67	10		12/09/22 14:10	16887-00-6		
Fluoride	1.9	mg/L	1.0	0.17	10		12/09/22 14:10	16984-48-8		
Sulfate	203	mg/L	25.0	8.5	100		12/06/22 20:38	14808-79-8		
<b>6010 MET ICP</b>		Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Aluminum	ND	ug/L	200	54.4	1	12/12/22 10:01	12/13/22 17:53	7429-90-5		
Barium	49.3	ug/L	10.0	1.3	1	12/12/22 10:01	12/13/22 17:53	7440-39-3		
Boron	2500	ug/L	100	61.4	1	12/12/22 10:01	12/13/22 17:53	7440-42-8		
Calcium	118000	ug/L	1000	88.4	1	12/12/22 10:01	12/13/22 17:53	7440-70-2		
Iron	ND	ug/L	100	48.8	1	12/12/22 10:01	12/13/22 17:53	7439-89-6		
Lithium	59.5	ug/L	20.0	6.2	1	12/12/22 10:01	12/13/22 17:53	7439-93-2		
Magnesium	27500	ug/L	1000	43.0	1	12/12/22 10:01	12/13/22 17:53	7439-95-4		
Manganese	ND	ug/L	10.0	5.4	1	12/12/22 10:01	12/13/22 17:53	7439-96-5		
Molybdenum	78.4	ug/L	10.0	2.0	1	12/12/22 10:01	12/13/22 17:53	7439-98-7		
Potassium	4670	ug/L	1000	200	1	12/12/22 10:01	12/13/22 17:53	7440-09-7		
Silica	13700	ug/L	450		1	12/12/22 10:01	12/13/22 17:53	7631-86-9	N2	
Sodium	55100	ug/L	1000	284	1	12/12/22 10:01	12/13/22 17:53	7440-23-5		
<b>6010 MET ICP, Dissolved</b>		Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Manganese, Dissolved	ND	ug/L	10.0	2.5	1	12/12/22 10:01	12/13/22 15:42	7439-96-5		
Molybdenum, Dissolved	84.5	ug/L	10.0	3.7	1	12/12/22 10:01	12/13/22 15:42	7439-98-7		
<b>6020 MET ICPMS</b>		Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis								
Antimony	ND	ug/L	1.0	0.28	1	12/01/22 15:00	12/05/22 02:59	7440-36-0		
Arsenic	ND	ug/L	1.0	0.094	1	12/01/22 15:00	12/05/22 02:59	7440-38-2		
Selenium	ND	ug/L	1.0	0.57	1	12/01/22 15:00	12/05/22 02:59	7782-49-2		
<b>2320B Alkalinity</b>		Analytical Method: SM 2320B Pace Analytical Services - Indianapolis								
Alkalinity, Total as CaCO3	300	mg/L	10.0	10.0	1		12/02/22 11:21			
Alkalinity,Bicarbonate (CaCO3)	300	mg/L	10.0	10.0	1		12/02/22 11:21			
Alkalinity,Carbonate (CaCO3)	ND	mg/L	10.0	10.0	1		12/02/22 11:21			
<b>2540C Total Dissolved Solids</b>		Analytical Method: SM 2540C Pace Analytical Services - Indianapolis								
Total Dissolved Solids	665	mg/L	10.0	10.0	1		12/02/22 08:54			
<b>4500H+ pH, Electrometric</b>		Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis								
pH at 25 Degrees C	7.4	Std. Units	0.10	0.10	1		12/02/22 12:47		H3	

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### ANALYTICAL RESULTS

Project: Eagle Valley Oct 2022 P1R3

Pace Project No.: 50332201

Sample: MW-14I		Lab ID: 50332201002		Collected: 11/29/22 10:55	Received: 11/30/22 15:15	Matrix: Water				
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual	
<b>4500S2D Sulfide Water</b>		Analytical Method: SM 4500-S2-D Pace Analytical Services - Indianapolis								
Sulfide	ND	mg/L	0.10	0.025	1		12/02/22 14:22	18496-25-8		
<b>Iron, Ferrous</b>		Analytical Method: HACH 8146 Pace Analytical Services - Indianapolis								
Iron, Ferrous	ND	mg/L	0.20	0.096	1		12/05/22 16:42	15438-31-0	H3,N2	
<b>353.2 Nitrogen, NO2/NO3 unpres</b>		Analytical Method: EPA 353.2 Pace Analytical Services - Indianapolis								
Nitrogen, Nitrate	1.4	mg/L	0.10	0.011	1		11/30/22 20:13	14797-55-8		
Nitrogen, Nitrite	ND	mg/L	0.10	0.0040	1		11/30/22 20:13	14797-65-0		
<b>365.1 Total Phosphorus</b>		Analytical Method: EPA 365.1 Preparation Method: EPA 365.1 Pace Analytical Services - Indianapolis								
Phosphate as P04	ND	mg/L	0.15	0.15	1	12/01/22 11:00	12/02/22 14:39			
<b>5310C TOC</b>		Analytical Method: SM 5310C Pace Analytical Services - Indianapolis								
Total Organic Carbon	ND	mg/L	1.0	0.14	1		12/15/22 22:44	7440-44-0		
<b>5310C Dissolved Organic Carbon</b>		Analytical Method: SM 5310C Pace Analytical Services - Indianapolis								
Dissolved Organic Carbon	ND	mg/L	1.0	0.14	1		12/08/22 11:27			

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## ANALYTICAL RESULTS

Project: Eagle Valley Oct 2022 P1R3

Pace Project No.: 50332201

Sample: MW-14D		Lab ID: 50332201003		Collected: 11/29/22 10:00	Received: 11/30/22 15:15	Matrix: Water				
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual	
<b>9056 IC Anions</b>		Analytical Method: EPA 9056 Pace Analytical Services - Indianapolis								
Chloride	90.4	mg/L	2.5	0.67	10		12/09/22 14:30	16887-00-6		
Fluoride	ND	mg/L	0.10	0.017	1		12/09/22 14:15	16984-48-8		
Sulfate	365	mg/L	25.0	8.5	100		12/09/22 14:46	14808-79-8		
<b>6010 MET ICP</b>		Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Aluminum	ND	ug/L	200	54.4	1	12/12/22 10:01	12/13/22 17:57	7429-90-5		
Barium	27.1	ug/L	10.0	1.3	1	12/12/22 10:01	12/13/22 17:57	7440-39-3		
Boron	1870	ug/L	100	61.4	1	12/12/22 10:01	12/13/22 17:57	7440-42-8		
Calcium	161000	ug/L	1000	88.4	1	12/12/22 10:01	12/13/22 17:57	7440-70-2		
Iron	102	ug/L	100	48.8	1	12/12/22 10:01	12/13/22 17:57	7439-89-6		
Lithium	24.4	ug/L	20.0	6.2	1	12/12/22 10:01	12/13/22 17:57	7439-93-2		
Magnesium	33800	ug/L	1000	43.0	1	12/12/22 10:01	12/13/22 17:57	7439-95-4		
Manganese	120	ug/L	10.0	5.4	1	12/12/22 10:01	12/13/22 17:57	7439-96-5		
Molybdenum	16.5	ug/L	10.0	2.0	1	12/12/22 10:01	12/13/22 17:57	7439-98-7		
Potassium	4780	ug/L	1000	200	1	12/12/22 10:01	12/13/22 17:57	7440-09-7		
Silica	15100	ug/L	450		1	12/12/22 10:01	12/13/22 17:57	7631-86-9	N2	
Sodium	88600	ug/L	1000	284	1	12/12/22 10:01	12/13/22 17:57	7440-23-5		
<b>6010 MET ICP, Dissolved</b>		Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Manganese, Dissolved	116	ug/L	10.0	2.5	1	12/12/22 10:01	12/13/22 15:45	7439-96-5		
Molybdenum, Dissolved	17.3	ug/L	10.0	3.7	1	12/12/22 10:01	12/13/22 15:45	7439-98-7		
<b>6020 MET ICPMS</b>		Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis								
Antimony	ND	ug/L	1.0	0.28	1	12/01/22 15:00	12/05/22 03:02	7440-36-0		
Arsenic	ND	ug/L	1.0	0.094	1	12/01/22 15:00	12/05/22 03:02	7440-38-2		
Selenium	ND	ug/L	1.0	0.57	1	12/01/22 15:00	12/05/22 03:02	7782-49-2		
<b>2320B Alkalinity</b>		Analytical Method: SM 2320B Pace Analytical Services - Indianapolis								
Alkalinity, Total as CaCO3	296	mg/L	10.0	10.0	1		12/02/22 11:21			
Alkalinity,Bicarbonate (CaCO3)	296	mg/L	10.0	10.0	1		12/02/22 11:21			
Alkalinity,Carbonate (CaCO3)	ND	mg/L	10.0	10.0	1		12/02/22 11:21			
<b>2540C Total Dissolved Solids</b>		Analytical Method: SM 2540C Pace Analytical Services - Indianapolis								
Total Dissolved Solids	920	mg/L	20.0	20.0	1		12/02/22 08:54			
<b>4500H+ pH, Electrometric</b>		Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis								
pH at 25 Degrees C	7.3	Std. Units	0.10	0.10	1		12/02/22 12:49		H3	

## REPORT OF LABORATORY ANALYSIS

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### ANALYTICAL RESULTS

Project: Eagle Valley Oct 2022 P1R3

Pace Project No.: 50332201

Sample: MW-14D		Lab ID: 50332201003		Collected: 11/29/22 10:00	Received: 11/30/22 15:15	Matrix: Water				
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual	
<b>4500S2D Sulfide Water</b>		Analytical Method: SM 4500-S2-D Pace Analytical Services - Indianapolis								
Sulfide	ND	mg/L	0.10	0.025	1		12/02/22 14:22	18496-25-8		
<b>Iron, Ferrous</b>		Analytical Method: HACH 8146 Pace Analytical Services - Indianapolis								
Iron, Ferrous	ND	mg/L	0.20	0.096	1		12/05/22 16:41	15438-31-0	H3,N2	
<b>353.2 Nitrogen, NO2/NO3 unpres</b>		Analytical Method: EPA 353.2 Pace Analytical Services - Indianapolis								
Nitrogen, Nitrate	ND	mg/L	0.10	0.011	1		11/30/22 20:00	14797-55-8		
Nitrogen, Nitrite	ND	mg/L	0.10	0.0040	1		11/30/22 20:00	14797-65-0		
<b>365.1 Total Phosphorus</b>		Analytical Method: EPA 365.1 Preparation Method: EPA 365.1 Pace Analytical Services - Indianapolis								
Phosphate as P04	ND	mg/L	0.15	0.15	1	12/01/22 11:00	12/02/22 14:40			
<b>5310C TOC</b>		Analytical Method: SM 5310C Pace Analytical Services - Indianapolis								
Total Organic Carbon	ND	mg/L	1.0	0.14	1		12/15/22 22:54	7440-44-0		
<b>5310C Dissolved Organic Carbon</b>		Analytical Method: SM 5310C Pace Analytical Services - Indianapolis								
Dissolved Organic Carbon	ND	mg/L	1.0	0.14	1		12/08/22 12:45			

### REPORT OF LABORATORY ANALYSIS

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### ANALYTICAL RESULTS

Project: Eagle Valley Oct 2022 P1R3

Pace Project No.: 50332201

Sample: MW-11D      Lab ID: 50332201004      Collected: 11/29/22 14:55      Received: 11/30/22 15:15      Matrix: Water									
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>9056 IC Anions</b>									
Analytical Method: EPA 9056 Pace Analytical Services - Indianapolis									
Chloride	98.8	mg/L	2.5	0.67	10		12/09/22 15:19	16887-00-6	
Fluoride	0.28	mg/L	0.10	0.017	1		12/09/22 15:03	16984-48-8	
Sulfate	98.7	mg/L	2.5	0.85	10		12/09/22 15:19	14808-79-8	
<b>6010 MET ICP</b>									
Analytical Method: EPA 6010      Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis									
Aluminum	ND	ug/L	200	54.4	1	12/12/22 10:01	12/13/22 18:19	7429-90-5	
Barium	57.6	ug/L	10.0	1.3	1	12/12/22 10:01	12/13/22 18:19	7440-39-3	
Boron	1600	ug/L	100	61.4	1	12/12/22 10:01	12/13/22 18:19	7440-42-8	
Calcium	71600	ug/L	1000	88.4	1	12/12/22 10:01	12/13/22 18:19	7440-70-2	
Iron	973	ug/L	100	48.8	1	12/12/22 10:01	12/13/22 18:19	7439-89-6	
Lithium	81.9	ug/L	20.0	6.2	1	12/12/22 10:01	12/13/22 18:19	7439-93-2	
Magnesium	19200	ug/L	1000	43.0	1	12/12/22 10:01	12/13/22 18:19	7439-95-4	
Manganese	248	ug/L	10.0	5.4	1	12/12/22 10:01	12/13/22 18:19	7439-96-5	
Molybdenum	159	ug/L	10.0	2.0	1	12/12/22 10:01	12/13/22 18:19	7439-98-7	
Potassium	7530	ug/L	1000	200	1	12/12/22 10:01	12/13/22 18:19	7440-09-7	
Silica	11500	ug/L	450		1	12/12/22 10:01	12/13/22 18:19	7631-86-9	N2
Sodium	89300	ug/L	1000	284	1	12/12/22 10:01	12/13/22 18:19	7440-23-5	
<b>6010 MET ICP, Dissolved</b>									
Analytical Method: EPA 6010      Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis									
Manganese, Dissolved	230	ug/L	10.0	2.5	1	12/12/22 10:01	12/13/22 16:00	7439-96-5	
Molybdenum, Dissolved	154	ug/L	10.0	3.7	1	12/12/22 10:01	12/13/22 16:00	7439-98-7	
<b>6020 MET ICPMS</b>									
Analytical Method: EPA 6020      Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis									
Antimony	ND	ug/L	1.0	0.28	1	12/01/22 15:00	12/05/22 03:20	7440-36-0	
Arsenic	5.0	ug/L	1.0	0.094	1	12/01/22 15:00	12/05/22 03:20	7440-38-2	
Selenium	ND	ug/L	1.0	0.57	1	12/01/22 15:00	12/05/22 03:20	7782-49-2	
<b>2320B Alkalinity</b>									
Analytical Method: SM 2320B Pace Analytical Services - Indianapolis									
Alkalinity, Total as CaCO3	225	mg/L	10.0	10.0	1		12/02/22 11:21		
Alkalinity,Bicarbonate (CaCO3)	225	mg/L	10.0	10.0	1		12/02/22 11:21		
Alkalinity,Carbonate (CaCO3)	ND	mg/L	10.0	10.0	1		12/02/22 11:21		
<b>2540C Total Dissolved Solids</b>									
Analytical Method: SM 2540C Pace Analytical Services - Indianapolis									
Total Dissolved Solids	498	mg/L	10.0	10.0	1		12/02/22 08:55		
<b>4500H+ pH, Electrometric</b>									
Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis									
pH at 25 Degrees C	7.6	Std. Units	0.10	0.10	1		12/02/22 12:53		H3

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### ANALYTICAL RESULTS

Project: Eagle Valley Oct 2022 P1R3

Pace Project No.: 50332201

Sample: MW-11D		Lab ID: 50332201004		Collected: 11/29/22 14:55		Received: 11/30/22 15:15		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>4500S2D Sulfide Water</b>									
Analytical Method: SM 4500-S2-D									
Pace Analytical Services - Indianapolis									
Sulfide	0.23	mg/L	0.10	0.025	1		12/02/22 14:22	18496-25-8	
<b>Iron, Ferrous</b>									
Analytical Method: HACH 8146									
Pace Analytical Services - Indianapolis									
Iron, Ferrous	ND	mg/L	0.20	0.096	1		12/05/22 16:43	15438-31-0	H3,N2
<b>353.2 Nitrogen, NO2/NO3 unpres</b>									
Analytical Method: EPA 353.2									
Pace Analytical Services - Indianapolis									
Nitrogen, Nitrate	ND	mg/L	0.10	0.011	1		11/30/22 20:26	14797-55-8	
Nitrogen, Nitrite	ND	mg/L	0.10	0.0040	1		11/30/22 20:26	14797-65-0	
<b>365.1 Total Phosphorus</b>									
Analytical Method: EPA 365.1 Preparation Method: EPA 365.1									
Pace Analytical Services - Indianapolis									
Phosphate as P04	ND	mg/L	0.15	0.15	1	12/01/22 11:00	12/02/22 14:41		
<b>5310C TOC</b>									
Analytical Method: SM 5310C									
Pace Analytical Services - Indianapolis									
Total Organic Carbon	2.0	mg/L	1.0	0.14	1		12/15/22 23:27	7440-44-0	
<b>5310C Dissolved Organic Carbon</b>									
Analytical Method: SM 5310C									
Pace Analytical Services - Indianapolis									
Dissolved Organic Carbon	1.4	mg/L	1.0	0.14	1		12/08/22 14:28		

### REPORT OF LABORATORY ANALYSIS

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### ANALYTICAL RESULTS

Project: Eagle Valley Oct 2022 P1R3

Pace Project No.: 50332201

Sample: DUP-3		Lab ID: 50332201005		Collected: 11/29/22 08:00	Received: 11/30/22 15:15	Matrix: Water			
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>9056 IC Anions</b>		Analytical Method: EPA 9056 Pace Analytical Services - Indianapolis							
Chloride	90.0	mg/L	2.5	0.67	10		12/06/22 21:34	16887-00-6	
Fluoride	0.30	mg/L	0.10	0.017	1		12/06/22 21:17	16984-48-8	
Sulfate	93.1	mg/L	2.5	0.85	10		12/06/22 21:34	14808-79-8	
<b>6010 MET ICP</b>		Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis							
Aluminum	ND	ug/L	200	54.4	1	12/12/22 10:01	12/13/22 18:22	7429-90-5	
Barium	57.7	ug/L	10.0	1.3	1	12/12/22 10:01	12/13/22 18:22	7440-39-3	
Boron	1510	ug/L	100	61.4	1	12/12/22 10:01	12/13/22 18:22	7440-42-8	
Calcium	68800	ug/L	1000	88.4	1	12/12/22 10:01	12/13/22 18:22	7440-70-2	
Iron	1050	ug/L	100	48.8	1	12/12/22 10:01	12/13/22 18:22	7439-89-6	
Lithium	76.3	ug/L	20.0	6.2	1	12/12/22 10:01	12/13/22 18:22	7439-93-2	
Magnesium	18600	ug/L	1000	43.0	1	12/12/22 10:01	12/13/22 18:22	7439-95-4	
Manganese	240	ug/L	10.0	5.4	1	12/12/22 10:01	12/13/22 18:22	7439-96-5	
Molybdenum	150	ug/L	10.0	2.0	1	12/12/22 10:01	12/13/22 18:22	7439-98-7	
Potassium	7230	ug/L	1000	200	1	12/12/22 10:01	12/13/22 18:22	7440-09-7	
Silica	11200	ug/L	450		1	12/12/22 10:01	12/13/22 18:22	7631-86-9	N2
Sodium	85600	ug/L	1000	284	1	12/12/22 10:01	12/13/22 18:22	7440-23-5	
<b>6010 MET ICP, Dissolved</b>		Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis							
Manganese, Dissolved	238	ug/L	10.0	2.5	1	12/12/22 10:01	12/13/22 16:02	7439-96-5	
Molybdenum, Dissolved	161	ug/L	10.0	3.7	1	12/12/22 10:01	12/13/22 16:02	7439-98-7	
<b>6020 MET ICPMS</b>		Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis							
Antimony	ND	ug/L	1.0	0.28	1	12/01/22 15:00	12/05/22 03:24	7440-36-0	
Arsenic	5.2	ug/L	1.0	0.094	1	12/01/22 15:00	12/05/22 03:24	7440-38-2	
Selenium	ND	ug/L	1.0	0.57	1	12/01/22 15:00	12/05/22 03:24	7782-49-2	
<b>2320B Alkalinity</b>		Analytical Method: SM 2320B Pace Analytical Services - Indianapolis							
Alkalinity, Total as CaCO3	222	mg/L	10.0	10.0	1		12/02/22 11:21		
Alkalinity,Bicarbonate (CaCO3)	222	mg/L	10.0	10.0	1		12/02/22 11:21		
Alkalinity,Carbonate (CaCO3)	ND	mg/L	10.0	10.0	1		12/02/22 11:21		
<b>2540C Total Dissolved Solids</b>		Analytical Method: SM 2540C Pace Analytical Services - Indianapolis							
Total Dissolved Solids	490	mg/L	10.0	10.0	1		12/02/22 08:55		
<b>4500H+ pH, Electrometric</b>		Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis							
pH at 25 Degrees C	7.7	Std. Units	0.10	0.10	1		12/02/22 12:54		H3

### REPORT OF LABORATORY ANALYSIS

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### ANALYTICAL RESULTS

Project: Eagle Valley Oct 2022 P1R3

Pace Project No.: 50332201

Sample: DUP-3		Lab ID: 50332201005		Collected: 11/29/22 08:00	Received: 11/30/22 15:15	Matrix: Water			
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>4500S2D Sulfide Water</b>		Analytical Method: SM 4500-S2-D Pace Analytical Services - Indianapolis							
Sulfide	<b>0.34</b>	mg/L	0.10	0.025	1		12/02/22 14:22	18496-25-8	
<b>Iron, Ferrous</b>		Analytical Method: HACH 8146 Pace Analytical Services - Indianapolis							
Iron, Ferrous	ND	mg/L	0.20	0.096	1		12/05/22 16:40	15438-31-0	H3,N2
<b>353.2 Nitrogen, NO2/NO3 unpres</b>		Analytical Method: EPA 353.2 Pace Analytical Services - Indianapolis							
Nitrogen, Nitrate	ND	mg/L	0.10	0.011	1		11/30/22 19:54	14797-55-8	
Nitrogen, Nitrite	ND	mg/L	0.10	0.0040	1		11/30/22 19:54	14797-65-0	
<b>365.1 Total Phosphorus</b>		Analytical Method: EPA 365.1 Preparation Method: EPA 365.1 Pace Analytical Services - Indianapolis							
Phosphate as P04	<b>0.22</b>	mg/L	0.15	0.15	1	12/01/22 11:00	12/02/22 14:42		
<b>5310C TOC</b>		Analytical Method: SM 5310C Pace Analytical Services - Indianapolis							
Total Organic Carbon	<b>2.6</b>	mg/L	2.0	0.28	2		12/15/22 23:48	7440-44-0	
<b>5310C Dissolved Organic Carbon</b>		Analytical Method: SM 5310C Pace Analytical Services - Indianapolis							
Dissolved Organic Carbon	ND	mg/L	4.0	0.57	4		12/07/22 21:55		D3

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### QUALITY CONTROL DATA

Project: Eagle Valley Oct 2022 P1R3

Pace Project No.: 50332201

QC Batch: 709091 Analysis Method: EPA 9056  
 QC Batch Method: EPA 9056 Analysis Description: 9056 IC Anions  
 Laboratory: Pace Analytical Services - Indianapolis

Associated Lab Samples: 50332201001, 50332201002, 50332201003, 50332201004

METHOD BLANK: 3258752 Matrix: Water  
 Associated Lab Samples: 50332201001, 50332201002, 50332201003, 50332201004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chloride	mg/L	ND	0.25	0.067	12/06/22 07:56	
Fluoride	mg/L	ND	0.10	0.017	12/06/22 07:56	
Sulfate	mg/L	ND	0.25	0.085	12/06/22 07:56	

LABORATORY CONTROL SAMPLE: 3258753

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	1.2	1.2	96	80-120	
Fluoride	mg/L	0.5	0.47	95	80-120	
Sulfate	mg/L	2.5	2.4	97	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3258754 3258755

Parameter	Units	50332201003 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	90.4	12.5	12.5	107	105	129	119	80-120	1	15	M0
Fluoride	mg/L	ND	0.5	0.5	0.55	0.57	100	103	80-120	2	15	
Sulfate	mg/L	365	250	250	608	608	98	97	80-120	0	15	

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### QUALITY CONTROL DATA

Project: Eagle Valley Oct 2022 P1R3

Pace Project No.: 50332201

QC Batch: 709685	Analysis Method: EPA 9056
QC Batch Method: EPA 9056	Analysis Description: 9056 IC Anions
	Laboratory: Pace Analytical Services - Indianapolis

Associated Lab Samples: 50332201005

METHOD BLANK: 3261318 Matrix: Water

Associated Lab Samples: 50332201005

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chloride	mg/L	ND	0.25	0.067	12/06/22 12:54	
Fluoride	mg/L	ND	0.10	0.017	12/06/22 12:54	
Sulfate	mg/L	ND	0.25	0.085	12/06/22 12:54	

LABORATORY CONTROL SAMPLE: 3261319

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	1.2	1.2	93	80-120	
Fluoride	mg/L	0.5	0.50	99	80-120	
Sulfate	mg/L	2.5	2.5	99	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3261320 3261321

Parameter	Units	50332536001		3261320		3261321		% Rec	% Rec	% Rec Limits	RPD	Max RPD	Qual
		Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec						
Chloride	mg/L	24.4	12.5	12.5	38.1	38.2	110	111	80-120	0	15		
Fluoride	mg/L	ND	0.5	0.5	0.62	0.63	105	106	80-120	0	15		
Sulfate	mg/L	131	25	25	161	160	116	114	80-120	0	15		

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### QUALITY CONTROL DATA

Project: Eagle Valley Oct 2022 P1R3

Pace Project No.: 50332201

QC Batch: 709560 Analysis Method: EPA 6010  
 QC Batch Method: EPA 3010 Analysis Description: 6010 MET  
 Laboratory: Pace Analytical Services - Indianapolis

Associated Lab Samples: 50332201001, 50332201002, 50332201003, 50332201004, 50332201005

METHOD BLANK: 3260916 Matrix: Water

Associated Lab Samples: 50332201001, 50332201002, 50332201003, 50332201004, 50332201005

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Aluminum	ug/L	ND	200	54.4	12/13/22 16:42	
Barium	ug/L	ND	10.0	1.3	12/13/22 16:42	
Boron	ug/L	ND	100	61.4	12/13/22 16:42	
Calcium	ug/L	ND	1000	88.4	12/13/22 16:42	
Iron	ug/L	ND	100	48.8	12/13/22 16:42	
Lithium	ug/L	ND	20.0	6.2	12/13/22 16:42	
Magnesium	ug/L	ND	1000	43.0	12/13/22 16:42	
Manganese	ug/L	ND	10.0	5.4	12/13/22 16:42	
Molybdenum	ug/L	ND	10.0	2.0	12/13/22 16:42	
Potassium	ug/L	ND	1000	200	12/13/22 16:42	
Silica	ug/L	ND	450		12/13/22 16:42	N2
Sodium	ug/L	ND	1000	284	12/13/22 16:42	

LABORATORY CONTROL SAMPLE: 3260917

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Aluminum	ug/L	10000	10200	102	80-120	
Barium	ug/L	1000	1040	104	80-120	
Boron	ug/L	1000	994	99	80-120	
Calcium	ug/L	10000	10000	100	80-120	
Iron	ug/L	10000	9770	98	80-120	
Lithium	ug/L	1000	1070	107	80-120	
Magnesium	ug/L	10000	9480	95	80-120	
Manganese	ug/L	1000	988	99	80-120	
Molybdenum	ug/L	1000	1040	104	80-120	
Potassium	ug/L	10000	10800	108	80-120	
Silica	ug/L	10700	10800	101	80-120	N2
Sodium	ug/L	10000	11000	110	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3260918 3260919

Parameter	Units	MS		MSD		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual	
		50332201003 Result	Spike Conc.	Spike Conc.	MS Result							MSD Result
Aluminum	ug/L	ND	10000	10000	10300	10500	102	104	75-125	2	20	
Barium	ug/L	27.1	1000	1000	1050	1060	102	103	75-125	1	20	
Boron	ug/L	1870	1000	1000	2890	2920	102	105	75-125	1	20	
Calcium	ug/L	161000	10000	10000	171000	173000	100	122	75-125	1	20	

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### QUALITY CONTROL DATA

Project: Eagle Valley Oct 2022 P1R3

Pace Project No.: 50332201

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3260918 3260919														
Parameter	Units	50332201003		MS	MSD	3260919		% Rec	% Rec	% Rec	Limits	RPD	Max RPD	Qual
		Result	Conc.	Spike Conc.	Spike Conc.	MS Result	MSD Result							
Iron	ug/L	102	10000	10000	10000	9650	9800	95	97	75-125	2	20		
Lithium	ug/L	24.4	1000	1000	1000	1120	1140	109	111	75-125	2	20		
Magnesium	ug/L	33800	10000	10000	10000	43600	44200	98	104	75-125	1	20		
Manganese	ug/L	120	1000	1000	1000	1090	1100	97	99	75-125	2	20		
Molybdenum	ug/L	16.5	1000	1000	1000	1040	1060	103	104	75-125	1	20		
Potassium	ug/L	4780	10000	10000	10000	15900	16000	111	113	75-125	1	20		
Silica	ug/L	15100	10700	10700	10700	25800	26100	100	104	75-125	1	20	N2	
Sodium	ug/L	88600	10000	10000	10000	99600	101000	110	120	75-125	1	20		

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### QUALITY CONTROL DATA

Project: Eagle Valley Oct 2022 P1R3  
Pace Project No.: 50332201

QC Batch: 709546 Analysis Method: EPA 6010  
QC Batch Method: EPA 3010 Analysis Description: 6010 MET Dissolved  
Laboratory: Pace Analytical Services - Indianapolis

Associated Lab Samples: 50332201001, 50332201002, 50332201003, 50332201004, 50332201005

METHOD BLANK: 3260872 Matrix: Water  
Associated Lab Samples: 50332201001, 50332201002, 50332201003, 50332201004, 50332201005

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Manganese, Dissolved	ug/L	ND	10.0	2.5	12/13/22 15:36	
Molybdenum, Dissolved	ug/L	ND	10.0	3.7	12/13/22 15:36	

LABORATORY CONTROL SAMPLE: 3260873

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Manganese, Dissolved	ug/L	1000	1030	103	80-120	
Molybdenum, Dissolved	ug/L	1000	1080	108	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3260874 3260875

Parameter	Units	50332201003 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Manganese, Dissolved	ug/L	116	1000	1000	1090	1100	97	99	75-125	1	20	
Molybdenum, Dissolved	ug/L	17.3	1000	1000	1080	1090	107	108	75-125	1	20	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3260876 3260877

Parameter	Units	50332226008 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Manganese, Dissolved	ug/L	583	1000	1000	1520	1570	93	99	75-125	4	20	
Molybdenum, Dissolved	ug/L	ND	1000	1000	1060	1090	105	108	75-125	3	20	

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### QUALITY CONTROL DATA

Project: Eagle Valley Oct 2022 P1R3

Pace Project No.: 50332201

QC Batch:	708949	Analysis Method:	EPA 6020
QC Batch Method:	EPA 200.2	Analysis Description:	6020 MET
		Laboratory:	Pace Analytical Services - Indianapolis

Associated Lab Samples: 50332201001, 50332201002, 50332201003, 50332201004, 50332201005

METHOD BLANK: 3258219 Matrix: Water  
Associated Lab Samples: 50332201001, 50332201002, 50332201003, 50332201004, 50332201005

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Antimony	ug/L	ND	1.0	0.28	12/02/22 09:55	
Arsenic	ug/L	ND	1.0	0.094	12/02/22 09:55	
Selenium	ug/L	ND	1.0	0.57	12/02/22 09:55	

LABORATORY CONTROL SAMPLE: 3258220

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Antimony	ug/L	40	41.2	103	80-120	
Arsenic	ug/L	40	38.8	97	80-120	
Selenium	ug/L	40	40.5	101	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3258221 3258222

Parameter	Units	50332183003 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Antimony	ug/L	ND	40	40	36.9	37.0	92	92	75-125	0	20	CC
Arsenic	ug/L	ND	40	40	34.2	34.3	82	82	75-125	1	20	
Selenium	ug/L	ND	40	40	33.3	33.3	82	82	75-125	0	20	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3258223 3258224

Parameter	Units	50332201003 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Antimony	ug/L	ND	40	40	42.6	42.8	106	107	75-125	0	20	
Arsenic	ug/L	ND	40	40	39.3	39.1	98	97	75-125	1	20	
Selenium	ug/L	ND	40	40	38.3	38.1	96	95	75-125	0	20	

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### QUALITY CONTROL DATA

Project: Eagle Valley Oct 2022 P1R3

Pace Project No.: 50332201

QC Batch: 709035

Analysis Method: SM 2320B

QC Batch Method: SM 2320B

Analysis Description: 2320B Alkalinity

Laboratory: Pace Analytical Services - Indianapolis

Associated Lab Samples: 50332201001

METHOD BLANK: 3258510

Matrix: Water

Associated Lab Samples: 50332201001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Alkalinity, Total as CaCO3	mg/L	ND	10.0	10.0	12/01/22 15:34	
Alkalinity,Bicarbonate (CaCO3)	mg/L	ND	10.0	10.0	12/01/22 15:34	
Alkalinity,Carbonate (CaCO3)	mg/L	ND	10.0	10.0	12/01/22 15:34	

LABORATORY CONTROL SAMPLE: 3258511

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Alkalinity, Total as CaCO3	mg/L	50	47.1	94	90-110	

SAMPLE DUPLICATE: 3258512

Parameter	Units	50332189008 Result	Dup Result	RPD	Max RPD	Qualifiers
Alkalinity, Total as CaCO3	mg/L	147	148	1	20	
Alkalinity,Bicarbonate (CaCO3)	mg/L	147	148	1	20	
Alkalinity,Carbonate (CaCO3)	mg/L	ND	ND		20	

SAMPLE DUPLICATE: 3258513

Parameter	Units	50332198008 Result	Dup Result	RPD	Max RPD	Qualifiers
Alkalinity, Total as CaCO3	mg/L	59.0	59.3	1	20	
Alkalinity,Bicarbonate (CaCO3)	mg/L	59.0	59.3	1	20	
Alkalinity,Carbonate (CaCO3)	mg/L	ND	ND		20	

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### QUALITY CONTROL DATA

Project: Eagle Valley Oct 2022 P1R3

Pace Project No.: 50332201

QC Batch: 709182 Analysis Method: SM 2320B  
 QC Batch Method: SM 2320B Analysis Description: 2320B Alkalinity  
 Laboratory: Pace Analytical Services - Indianapolis  
 Associated Lab Samples: 50332201002, 50332201003, 50332201004, 50332201005

METHOD BLANK: 3259149 Matrix: Water  
 Associated Lab Samples: 50332201002, 50332201003, 50332201004, 50332201005

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Alkalinity, Total as CaCO3	mg/L	ND	10.0	10.0	12/02/22 11:21	
Alkalinity,Bicarbonate (CaCO3)	mg/L	ND	10.0	10.0	12/02/22 11:21	
Alkalinity,Carbonate (CaCO3)	mg/L	ND	10.0	10.0	12/02/22 11:21	

LABORATORY CONTROL SAMPLE: 3259150

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Alkalinity, Total as CaCO3	mg/L	50	47.9	96	90-110	

SAMPLE DUPLICATE: 3259151

Parameter	Units	50332201003 Result	Dup Result	RPD	Max RPD	Qualifiers
Alkalinity, Total as CaCO3	mg/L	296	300	1	20	
Alkalinity,Bicarbonate (CaCO3)	mg/L	296	300	1	20	
Alkalinity,Carbonate (CaCO3)	mg/L	ND	ND		20	

SAMPLE DUPLICATE: 3259152

Parameter	Units	50332202005 Result	Dup Result	RPD	Max RPD	Qualifiers
Alkalinity, Total as CaCO3	mg/L	65.6	66.7	2	20	
Alkalinity,Bicarbonate (CaCO3)	mg/L	65.6	66.7	2	20	
Alkalinity,Carbonate (CaCO3)	mg/L	ND	ND		20	

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### QUALITY CONTROL DATA

Project: Eagle Valley Oct 2022 P1R3

Pace Project No.: 50332201

QC Batch:	709179	Analysis Method:	SM 2540C
QC Batch Method:	SM 2540C	Analysis Description:	2540C Total Dissolved Solids
		Laboratory:	Pace Analytical Services - Indianapolis

Associated Lab Samples: 50332201001, 50332201002, 50332201003, 50332201004, 50332201005

METHOD BLANK: 3259140 Matrix: Water  
Associated Lab Samples: 50332201001, 50332201002, 50332201003, 50332201004, 50332201005

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	ND	10.0	10.0	12/02/22 08:48	

LABORATORY CONTROL SAMPLE: 3259141

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	300	291	97	80-120	

SAMPLE DUPLICATE: 3259142

Parameter	Units	50332198005 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	2990	2950	1	10	

SAMPLE DUPLICATE: 3259143

Parameter	Units	50332201003 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	920	914	1	10	

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### QUALITY CONTROL DATA

Project: Eagle Valley Oct 2022 P1R3

Pace Project No.: 50332201

QC Batch: 709260

Analysis Method: SM 4500-H+B

QC Batch Method: SM 4500-H+B

Analysis Description: 4500H+B pH

Laboratory: Pace Analytical Services - Indianapolis

Associated Lab Samples: 50332201001, 50332201002, 50332201003, 50332201004, 50332201005

SAMPLE DUPLICATE: 3259412

Parameter	Units	50332043001 Result	Dup Result	RPD	Max RPD	Qualifiers
pH at 25 Degrees C	Std. Units	7.3	7.2	0	2	H3

SAMPLE DUPLICATE: 3259413

Parameter	Units	50332201003 Result	Dup Result	RPD	Max RPD	Qualifiers
pH at 25 Degrees C	Std. Units	7.3	7.3	1	2	H3

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**QUALITY CONTROL DATA**

Project: Eagle Valley Oct 2022 P1R3

Pace Project No.: 50332201

QC Batch: 709211 Analysis Method: SM 4500-S2-D  
 QC Batch Method: SM 4500-S2-D Analysis Description: 4500S2D Sulfide Water  
 Laboratory: Pace Analytical Services - Indianapolis  
 Associated Lab Samples: 50332201001, 50332201002, 50332201003, 50332201004, 50332201005

METHOD BLANK: 3259246 Matrix: Water  
 Associated Lab Samples: 50332201001, 50332201002, 50332201003, 50332201004, 50332201005

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Sulfide	mg/L	ND	0.10	0.025	12/02/22 14:22	

LABORATORY CONTROL SAMPLE: 3259247

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Sulfide	mg/L	0.5	0.54	109	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3259248 3259249

Parameter	Units	50332201003 Result	MS	MSD	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
			Spike Conc.	Spike Conc.								
Sulfide	mg/L	ND	0.5	0.5	0.53	0.52	106	103	90-110	3	20	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3259250 3259251

Parameter	Units	50332226008 Result	MS	MSD	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
			Spike Conc.	Spike Conc.								
Sulfide	mg/L	ND	0.5	0.5	0.54	0.54	106	106	90-110	0	20	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3259252 3259253

Parameter	Units	50332344008 Result	MS	MSD	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
			Spike Conc.	Spike Conc.								
Sulfide	mg/L	ND	0.5	0.5	0.52	0.52	99	101	90-110	2	20	

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### QUALITY CONTROL DATA

Project: Eagle Valley Oct 2022 P1R3

Pace Project No.: 50332201

QC Batch:	709548	Analysis Method:	HACH 8146
QC Batch Method:	HACH 8146	Analysis Description:	Iron, Ferrous
		Laboratory:	Pace Analytical Services - Indianapolis
Associated Lab Samples:	50332201001, 50332201002, 50332201003, 50332201004, 50332201005		

METHOD BLANK:	3260880	Matrix:	Water
Associated Lab Samples:	50332201001, 50332201002, 50332201003, 50332201004, 50332201005		

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Iron, Ferrous	mg/L	ND	0.20	0.096	12/05/22 16:38	H3,N2

LABORATORY CONTROL SAMPLE: 3260881						
Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Iron, Ferrous	mg/L	1	0.99	99	90-110	H3,N2

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3260882												3260883	
Parameter	Units	50332043001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual	
Iron, Ferrous	mg/L	ND	1	1	0.97	1.0	97	104	90-110	7	20	H3,N2	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3260884												3260885	
Parameter	Units	50332201003 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual	
Iron, Ferrous	mg/L	ND	1	1	1.0	0.99	99	96	90-110	3	20	H3,N2	

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**QUALITY CONTROL DATA**

Project: Eagle Valley Oct 2022 P1R3

Pace Project No.: 50332201

QC Batch:	708946	Analysis Method:	EPA 353.2
QC Batch Method:	EPA 353.2	Analysis Description:	353.2 Nitrate + Nitrite, Unpres.
		Laboratory:	Pace Analytical Services - Indianapolis

Associated Lab Samples: 50332201001, 50332201002, 50332201003, 50332201004, 50332201005

METHOD BLANK: 3258175 Matrix: Water  
Associated Lab Samples: 50332201001, 50332201002, 50332201003, 50332201004, 50332201005

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Nitrogen, Nitrate	mg/L	ND	0.10	0.011	11/30/22 19:49	
Nitrogen, Nitrite	mg/L	ND	0.10	0.0040	11/30/22 19:49	

LABORATORY CONTROL SAMPLE: 3258176

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Nitrogen, Nitrate	mg/L	1	0.98	98	90-110	
Nitrogen, Nitrite	mg/L	1	1.0	102	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3258177 3258178

Parameter	Units	50332201003 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Nitrogen, Nitrate	mg/L	ND	1	1	0.95	0.95	94	94	90-110	0	20	
Nitrogen, Nitrite	mg/L	ND	1	1	1.0	1.0	100	101	90-110	0	20	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3258179 3258180

Parameter	Units	50332183003 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Nitrogen, Nitrate	mg/L	0.27	1	1	1.2	1.2	95	95	90-110	0	20	
Nitrogen, Nitrite	mg/L	ND	1	1	1.0	1.0	100	100	90-110	0	20	

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**QUALITY CONTROL DATA**

Project: Eagle Valley Oct 2022 P1R3

Pace Project No.: 50332201

QC Batch: 708996

Analysis Method: EPA 365.1

QC Batch Method: EPA 365.1

Analysis Description: 365.1 Total Phosphorus

Laboratory: Pace Analytical Services - Indianapolis

Associated Lab Samples: 50332201001, 50332201002, 50332201003, 50332201004, 50332201005

METHOD BLANK: 3258341

Matrix: Water

Associated Lab Samples: 50332201001, 50332201002, 50332201003, 50332201004, 50332201005

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Phosphate as P04	mg/L	ND	0.15	0.15	12/02/22 14:34	

LABORATORY CONTROL SAMPLE: 3258342

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Phosphate as P04	mg/L		1.4			

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3258343 3258344

Parameter	Units	50332150005		3258344		% Rec	% Rec	% Rec Limits	RPD	Max RPD	Qual
		MS Result	MSD Spike Conc.	MS Result	MSD Spike Conc.						
Phosphate as P04	mg/L	0.31		1.7	1.7				2		

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3258345 3258346

Parameter	Units	50332201003		3258346		% Rec	% Rec	% Rec Limits	RPD	Max RPD	Qual
		MS Result	MSD Spike Conc.	MS Result	MSD Spike Conc.						
Phosphate as P04	mg/L	ND		1.4	1.4				0		

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### QUALITY CONTROL DATA

Project: Eagle Valley Oct 2022 P1R3

Pace Project No.: 50332201

QC Batch: 710827

Analysis Method: SM 5310C

QC Batch Method: SM 5310C

Analysis Description: 5310C Total Organic Carbon

Laboratory: Pace Analytical Services - Indianapolis

Associated Lab Samples: 50332201001, 50332201002, 50332201003, 50332201004, 50332201005

METHOD BLANK: 3266612

Matrix: Water

Associated Lab Samples: 50332201001, 50332201002, 50332201003, 50332201004, 50332201005

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Organic Carbon	mg/L	ND	1.0	0.14	12/15/22 17:31	

LABORATORY CONTROL SAMPLE: 3266613

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Organic Carbon	mg/L	10	10.0	100	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3266614 3266615

Parameter	Units	50332201003 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Total Organic Carbon	mg/L	ND	10	10	10.7	10.8	101	102	80-120	1	20	

MATRIX SPIKE SAMPLE: 3266616

Parameter	Units	50332201004 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Total Organic Carbon	mg/L		2.0	20	22.3	102	80-120

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### QUALITY CONTROL DATA

Project: Eagle Valley Oct 2022 P1R3

Pace Project No.: 50332201

QC Batch: 708847	Analysis Method: SM 5310C
QC Batch Method: SM 5310C	Analysis Description: 5310C Dissolved Organic Carbon
	Laboratory: Pace Analytical Services - Indianapolis

Associated Lab Samples: 50332201005

METHOD BLANK: 3257782 Matrix: Water

Associated Lab Samples: 50332201005

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Dissolved Organic Carbon	mg/L	ND	1.0	0.14	12/06/22 16:51	

LABORATORY CONTROL SAMPLE: 3257783

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Dissolved Organic Carbon	mg/L	10	9.7	97	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3257784 3257785

Parameter	Units	50331185004		3257785		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result						
Dissolved Organic Carbon	mg/L	10	10	19.5	19.5	95	96	80-120	0	20	

MATRIX SPIKE SAMPLE: 3257786

Parameter	Units	50331185005 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Dissolved Organic Carbon	mg/L	3.8	10	13.7	99	80-120	

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**QUALITY CONTROL DATA**

Project: Eagle Valley Oct 2022 P1R3

Pace Project No.: 50332201

QC Batch:	709613	Analysis Method:	SM 5310C
QC Batch Method:	SM 5310C	Analysis Description:	5310C Dissolved Organic Carbon
		Laboratory:	Pace Analytical Services - Indianapolis
Associated Lab Samples:	50332201001, 50332201002, 50332201003, 50332201004		

METHOD BLANK: 3261067 Matrix: Water  
Associated Lab Samples: 50332201001, 50332201002, 50332201003, 50332201004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Dissolved Organic Carbon	mg/L	ND	1.0	0.14	12/08/22 06:28	

LABORATORY CONTROL SAMPLE: 3261068

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Dissolved Organic Carbon	mg/L	10	10.6	106	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3261069 3261070

Parameter	Units	50331803001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Dissolved Organic Carbon	mg/L	ND	10	10	11.2	11.3	105	105	80-120	0	20	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3261071 3261072

Parameter	Units	50332043001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Dissolved Organic Carbon	mg/L	ND	10	10	12.6	12.6	100	100	80-120	0	20	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3261073 3261074

Parameter	Units	50332201003 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Dissolved Organic Carbon	mg/L	ND	10	10	10.6	10.6	101	102	80-120	0	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

**REPORT OF LABORATORY ANALYSIS**

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Eagle Valley Oct 2022 P1R3

Pace Project No.: 50332201

**Sample: MW-14S**      **Lab ID: 50332201001**      Collected: 11/29/22 12:15      Received: 11/30/22 15:15      Matrix: Water  
PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	<b>0.128 ± 0.222 (0.398)</b> <b>C:NA T:92%</b>	pCi/L	12/21/22 16:53	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	<b>0.212 ± 0.328 (0.711)</b> <b>C:85% T:92%</b>	pCi/L	12/15/22 16:11	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	<b>0.340 ± 0.550 (1.11)</b>	pCi/L	12/22/22 13:15	7440-14-4	

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Eagle Valley Oct 2022 P1R3

Pace Project No.: 50332201

**Sample: MW-141**      **Lab ID: 50332201002**      Collected: 11/29/22 10:55      Received: 11/30/22 15:15      Matrix: Water  
PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Radium-226	EPA 903.1	<b>0.191 ± 0.296 (0.513)</b> <b>C:NA T:88%</b>	pCi/L	12/21/22 16:53	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 904.0	<b>0.511 ± 0.413 (0.831)</b> <b>C:83% T:88%</b>	pCi/L	12/15/22 16:11	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	<b>0.702 ± 0.709 (1.34)</b>	pCi/L	12/22/22 13:15	7440-14-4	

### REPORT OF LABORATORY ANALYSIS

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Eagle Valley Oct 2022 P1R3

Pace Project No.: 50332201

**Sample: MW-14D**      **Lab ID: 50332201003**      Collected: 11/29/22 10:00      Received: 11/30/22 15:15      Matrix: Water  
PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	<b>0.734 ± 0.370 (0.124)</b> <b>C:NA T:86%</b>	pCi/L	12/21/22 16:53	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	<b>0.503 ± 0.345 (0.655)</b> <b>C:86% T:86%</b>	pCi/L	12/15/22 16:11	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	<b>1.24 ± 0.715 (0.779)</b>	pCi/L	12/22/22 13:15	7440-14-4	

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Eagle Valley Oct 2022 P1R3

Pace Project No.: 50332201

**Sample: MW-11D**      **Lab ID: 50332201004**      Collected: 11/29/22 14:55      Received: 11/30/22 15:15      Matrix: Water  
PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	<b>0.417 ± 0.436 (0.683)</b> <b>C:NA T:91%</b>	pCi/L	12/21/22 16:53	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	<b>0.477 ± 0.433 (0.890)</b> <b>C:82% T:91%</b>	pCi/L	12/15/22 16:12	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	<b>0.894 ± 0.869 (1.57)</b>	pCi/L	12/22/22 13:15	7440-14-4	

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Eagle Valley Oct 2022 P1R3

Pace Project No.: 50332201

**Sample: DUP-3**      **Lab ID: 50332201005**      Collected: 11/29/22 08:00      Received: 11/30/22 15:15      Matrix: Water  
PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	<b>0.188 ± 0.391 (0.705)</b> <b>C:NA T:84%</b>	pCi/L	12/21/22 16:53	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	<b>0.0681 ± 0.351 (0.801)</b> <b>C:82% T:84%</b>	pCi/L	12/15/22 16:12	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	<b>0.256 ± 0.742 (1.51)</b>	pCi/L	12/22/22 13:15	7440-14-4	

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Eagle Valley Oct 2022 P1R3

Pace Project No.: 50332201

**Sample: MW-14D RAD MS**      **Lab ID: 50332201006**      Collected: 11/29/22 10:00      Received: 11/30/22 15:15      Matrix: Water  
PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	<b>75.75 %REC ± NA (NA)</b> <b>C:NA T:NA</b>	pCi/L	12/21/22 16:53	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	<b>96.52 %REC ± NA (NA)</b> <b>C:NA T:NA</b>	pCi/L	12/15/22 16:11	15262-20-1	

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Eagle Valley Oct 2022 P1R3

Pace Project No.: 50332201

**Sample: MW-14D RAD MSD**      **Lab ID: 50332201007**      Collected: 11/29/22 10:00      Received: 11/30/22 15:15      Matrix: Water  
PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Radium-226	EPA 903.1	<b>67.71 %REC 11.17RPD ±</b> <b>NA (NA)</b> <b>C:NA T:NA</b>	pCi/L	12/21/22 16:53	13982-63-3	1d
Pace Analytical Services - Greensburg						
Radium-228	EPA 904.0	<b>115.64 %REC 18.02 RPD ±</b> <b>NA (NA)</b> <b>C:NA T:NA</b>	pCi/L	12/15/22 16:12	15262-20-1	

### REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL - RADIOCHEMISTRY

Project: Eagle Valley Oct 2022 P1R3

Pace Project No.: 50332201

QC Batch: 551107

Analysis Method: EPA 903.1

QC Batch Method: EPA 903.1

Analysis Description: 903.1 Radium-226

Laboratory: Pace Analytical Services - Greensburg

Associated Lab Samples: 50332201001, 50332201002, 50332201003, 50332201004, 50332201005, 50332201006, 50332201007

METHOD BLANK: 2676334

Matrix: Water

Associated Lab Samples: 50332201001, 50332201002, 50332201003, 50332201004, 50332201005, 50332201006, 50332201007

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.170 ± 0.334 (0.610) C:NA T:78%	pCi/L	12/21/22 16:38	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

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## QUALIFIERS

Project: Eagle Valley Oct 2022 P1R3

Pace Project No.: 50332201

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### DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Reported results are not rounded until the final step prior to reporting. Therefore, calculated parameters that are typically reported as "Total" may vary slightly from the sum of the reported component parameters.

Act - Activity

Unc - Uncertainty: SDWA = 1.96 sigma count uncertainty, all other matrices = Expanded Uncertainty (95% confidence interval).

Gamma Spec = Expanded Uncertainty (95.4% Confidence Interval)

(MDC) - Minimum Detectable Concentration

Trac - Tracer Recovery (%)

Carr - Carrier Recovery (%)

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

### ANALYTE QUALIFIERS

- |    |   |
|----|---|
| 1d | The MSD recovery is low and outside of the default acceptance criteria for MS recovery. Results reported based on acceptable RPD for the RQS set.   |
| CC | The continuing calibration for this compound is outside of method control limits. The result is estimated.  |
| D3 | Sample was diluted due to the presence of high levels of non-target analytes or other matrix interference.  |
| H3 | Sample was received or analysis requested beyond the recognized method holding time.  |
| M0 | Matrix spike recovery and/or matrix spike duplicate recovery was outside laboratory control limits.   |
| N2 | The lab does not hold NELAC/TNI accreditation for this parameter but other accreditations/certifications may apply. A complete list of accreditations/certifications is available upon request. |

## REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Eagle Valley Oct 2022 P1R3  
Pace Project No.: 50332201

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
50332201001	MW-14S	EPA 9056	709091		
50332201002	MW-14I	EPA 9056	709091		
50332201003	MW-14D	EPA 9056	709091		
50332201004	MW-11D	EPA 9056	709091		
50332201005	DUP-3	EPA 9056	709685		
50332201001	MW-14S	EPA 3010	709560	EPA 6010	710895
50332201002	MW-14I	EPA 3010	709560	EPA 6010	710895
50332201003	MW-14D	EPA 3010	709560	EPA 6010	710895
50332201004	MW-11D	EPA 3010	709560	EPA 6010	710895
50332201005	DUP-3	EPA 3010	709560	EPA 6010	710895
50332201001	MW-14S	EPA 3010	709546	EPA 6010	710876
50332201002	MW-14I	EPA 3010	709546	EPA 6010	710876
50332201003	MW-14D	EPA 3010	709546	EPA 6010	710876
50332201004	MW-11D	EPA 3010	709546	EPA 6010	710876
50332201005	DUP-3	EPA 3010	709546	EPA 6010	710876
50332201001	MW-14S	EPA 200.2	708949	EPA 6020	709158
50332201002	MW-14I	EPA 200.2	708949	EPA 6020	709158
50332201003	MW-14D	EPA 200.2	708949	EPA 6020	709158
50332201004	MW-11D	EPA 200.2	708949	EPA 6020	709158
50332201005	DUP-3	EPA 200.2	708949	EPA 6020	709158
50332201001	MW-14S	EPA 903.1	551107		
50332201002	MW-14I	EPA 903.1	551107		
50332201003	MW-14D	EPA 903.1	551107		
50332201004	MW-11D	EPA 903.1	551107		
50332201005	DUP-3	EPA 903.1	551107		
50332201006	MW-14D RAD MS	EPA 903.1	551107		
50332201007	MW-14D RAD MSD	EPA 903.1	551107		
50332201001	MW-14S	EPA 904.0	551108		
50332201002	MW-14I	EPA 904.0	551108		
50332201003	MW-14D	EPA 904.0	551108		
50332201004	MW-11D	EPA 904.0	551108		
50332201005	DUP-3	EPA 904.0	551108		
50332201006	MW-14D RAD MS	EPA 904.0	551108		
50332201007	MW-14D RAD MSD	EPA 904.0	551108		
50332201001	MW-14S	Total Radium Calculation	555811		
50332201002	MW-14I	Total Radium Calculation	555811		
50332201003	MW-14D	Total Radium Calculation	555811		
50332201004	MW-11D	Total Radium Calculation	555811		
50332201005	DUP-3	Total Radium Calculation	555811		
50332201001	MW-14S	SM 2320B	709035		
50332201002	MW-14I	SM 2320B	709182		
50332201003	MW-14D	SM 2320B	709182		
50332201004	MW-11D	SM 2320B	709182		
50332201005	DUP-3	SM 2320B	709182		

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### QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Eagle Valley Oct 2022 P1R3

Pace Project No.: 50332201

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
50332201001	MW-14S	SM 2540C	709179		
50332201002	MW-14I	SM 2540C	709179		
50332201003	MW-14D	SM 2540C	709179		
50332201004	MW-11D	SM 2540C	709179		
50332201005	DUP-3	SM 2540C	709179		
50332201001	MW-14S	SM 4500-H+B	709260		
50332201002	MW-14I	SM 4500-H+B	709260		
50332201003	MW-14D	SM 4500-H+B	709260		
50332201004	MW-11D	SM 4500-H+B	709260		
50332201005	DUP-3	SM 4500-H+B	709260		
50332201001	MW-14S	SM 4500-S2-D	709211		
50332201002	MW-14I	SM 4500-S2-D	709211		
50332201003	MW-14D	SM 4500-S2-D	709211		
50332201004	MW-11D	SM 4500-S2-D	709211		
50332201005	DUP-3	SM 4500-S2-D	709211		
50332201001	MW-14S	HACH 8146	709548		
50332201002	MW-14I	HACH 8146	709548		
50332201003	MW-14D	HACH 8146	709548		
50332201004	MW-11D	HACH 8146	709548		
50332201005	DUP-3	HACH 8146	709548		
50332201001	MW-14S	EPA 353.2	708946		
50332201002	MW-14I	EPA 353.2	708946		
50332201003	MW-14D	EPA 353.2	708946		
50332201004	MW-11D	EPA 353.2	708946		
50332201005	DUP-3	EPA 353.2	708946		
50332201001	MW-14S	EPA 365.1	708996	EPA 365.1	709316
50332201002	MW-14I	EPA 365.1	708996	EPA 365.1	709316
50332201003	MW-14D	EPA 365.1	708996	EPA 365.1	709316
50332201004	MW-11D	EPA 365.1	708996	EPA 365.1	709316
50332201005	DUP-3	EPA 365.1	708996	EPA 365.1	709316
50332201001	MW-14S	SM 5310C	710827		
50332201002	MW-14I	SM 5310C	710827		
50332201003	MW-14D	SM 5310C	710827		
50332201004	MW-11D	SM 5310C	710827		
50332201005	DUP-3	SM 5310C	710827		
50332201001	MW-14S	SM 5310C	709613		
50332201002	MW-14I	SM 5310C	709613		
50332201003	MW-14D	SM 5310C	709613		
50332201004	MW-11D	SM 5310C	709613		
50332201005	DUP-3	SM 5310C	708847		

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**SAMPLE CONDITION UPON RECEIPT FORM**

Date/Time and Initials of person examining contents: mcs 1113012 11619

1. Courier:  FED EX  UPS  CLIENT  PACE  USPS  OTHER \_\_\_\_\_

2. Custody Seal on Cooler/Box Present:  Yes  No  
 (If yes)Seals Intact:  Yes  No (leave blank if no seals were present)

3. Thermometer: **1 2 3 4 5 6 A B C D E F** (F)

4. Cooler Temperature(s): 0.6/0.6 0.9/0.9 1.1/1.1 \_\_\_\_\_  
 (Initial/Corrected) RECORD TEMPS OF ALL COOLERS RECEIVED (use Comments below to add more)

5. Packing Material:  Bubble Wrap  Bubble Bags  
 None  Other \_\_\_\_\_

6. Ice Type:  Wet  Blue  None

7. If temp. is over 6°C or under 0°C, was the PM notified?:  Yes  No  
 Cooler temp should be above freezing to 6°C

All discrepancies will be written out in the comments section below.

	Yes	No		Yes	No	N/A
USDA Regulated Soils? (HI, ID, NY, WA, OR,CA, NM, TX, OK, AR, LA, TN, AL, MS, NC, SC, GA, FL, or Puerto Rico)		/	All containers needing acid/base preservation have been pH CHECKED?: Exceptions: VOA, coliform, LLHg, O&G, RAD CHEM, and any container with a septum cap or preserved with HCl.			
Short Hold Time Analysis (48 hours or less)? Analysis: <u>N02 / N03</u>	/		Circle: HNO3 (<2) H2SO4 (<2) NaOH (>10) NaOH/ZnAc (>9) Any non-conformance to pH recommendations will be noted on the container count form	✓		
Time 5035A TC placed in Freezer or Short Holds To Lab Time: <u>1715</u>			Residual Chlorine Check (SVOC 625 Pest/PCB 608)	Present	Absent	N/A
Rush TAT Requested (4 days or less):		/	Residual Chlorine Check (Total/Amenable/Free Cyanide)			/
Custody Signatures Present?	/		Headspace Wisconsin Sulfide?			/
Containers Intact?:	/		Headspace in VOA Vials (>6mm): See Containter Count form for details	Present	Absent	No VOA Vials Sent
Sample Label (IDs/Dates/Times) Match COC?: Except TCs, which only require sample ID	/		Trip Blank Present?		/	
Extra labels on Terracore Vials? (soils only)			Trip Blank Custody Seals?:			/

COMMENTS:

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Sample Container Count

\*\* Place a RED dot on containers that are out of conformance \*\*

COC Line Item	WGFLU	MeOH (only)	VIALS						AMBER GLASS						PLASTIC						OTHER				Matrix	Nitric	Sulfuric	Sodium Hydroxide	Sodium Hydroxide/ZnAc						
		SBS	DG9H	VG9H	VOA VIAL HS (>6mm)	VG9U	DG9U	VG9T	AG0U	AG1H	AG1U	AG2U	AG3S	AG3SF	AG3C	BP1U	BP1N	BP2U	BP3U	BP3N	BP3F	BP3S	BP3B	BP3Z		CG3H	CG3F	Syringe Kit	Red	Yellow	Green	Black			
		DI	R																																
1												1	1			2	1	2	1	1	1										3	✓	✓		✓
2												↓	↓			↓	↓	↓	↓	↓	↓														
3												3	3			6	3	6	3	3	3														
4												1	1			2	1	2	1	1	1														
5												↓	↓			↓	↓	↓	↓	↓	↓														
6																																			
7																																			
8																																			
9																																			
10																																			
11																																			
12																																			

Container Codes

Glass				Plastic			
DG9H	40mL HCl amber voa vial	BG1T	1L Na Thiosulfate clear glass	BP1B	1L NaOH plastic	BP4U	125mL unpreserved plastic
DG9P	40mL TSP amber vial	BG1U	1L unpreserved glass	BP1N	1L HNO3 plastic	BP4N	125mL HNO3 plastic
DG9S	40mL H2SO4 amber vial	BG3H	250mL HCl Clear Glass	BP1S	1L H2SO4 plastic	BP4S	125mL H2SO4 plastic
DG9T	40mL Na Thio amber vial	BG3U	250mL Unpres Clear Glass	BP1U	1L unpreserved plastic	<b>Miscellaneous</b>	
DG9U	40mL unpreserved amber vial	AG0U	100mL unpres amber glass	BP1Z	1L NaOH, Zn, Ac		
VG9H	40mL HCl clear vial	AG1H	1L HCl amber glass	BP2N	500mL HNO3 plastic	Syringe Kit	LL Cr+6 sampling kit
VG9T	40mL Na Thio. clear vial	AG1S	1L H2SO4 amber glass	BP2C	500mL NaOH plastic	ZPLC	Ziploc Bag
VG9U	40mL unpreserved clear vial	AG1T	1L Na Thiosulfate amber glass	BP2S	500mL H2SO4 plastic	R	Terracore Kit
I	40mL w/hexane wipe vial	AG1U	1liter unpres amber glass	BP2U	500mL unpreserved plastic	SP5T	120mL Coliform Sodium Thiosulfate
WGKU	8oz unpreserved clear jar	AG2N	500mL HNO3 amber glass	BP2Z	500mL NaOH, Zn Ac	GN	General Container
WGFU	4oz clear soil jar	AG2S	500mL H2SO4 amber glass	BP3B	250mL NaOH plastic	U	Summa Can (air sample)
JGFU	4oz unpreserved amber wide	AG2U	500mL unpres amber glass	BP3N	250mL HNO3 plastic	WT	Water
CG3H	250mL clear glass HCl	AG3S	250mL H2SO4 amber glass	BP3F	250mL HNO3 plastic-field filtered	SL	Solid Solid
CG3F	250mL clear glass HCl, Field Filter	AG3SF	250mL H2SO4 amb glass -field filtered	BP3U	250mL unpreserved plastic	OL:	Oil
BG1H	1L HCl clear glass	AG3U	250mL unpres amber glass	BP3S	250mL H2SO4 plastic	NAL	Non-aqueous liquid
BG1S	1L H2SO4 clear glass	AG3C	250mL NaOH amber glass	BP3Z	250mL NaOH, ZnAc plastic	WP	Wipe

March 06, 2023

Mr. Mark Breting  
ATC Group Services  
7988 Centerpoint Drive  
Suite 100  
Indianapolis, IN 46256

RE: Project: Eagle Valley Oct 2022 P1R4  
Pace Project No.: 50332748

Dear Mr. Breting:

Enclosed are the analytical results for sample(s) received by the laboratory on December 07, 2022. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

The test results provided in this final report were generated by each of the following laboratories within the Pace Network:

- Pace Analytical Services - Indianapolis
- Pace Analytical Services - Greensburg

If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Will Statz  
will.statz@pacelabs.com  
(317)228-3105  
Project Manager

Enclosures

cc: Mr. Robert Miller, Haley & Aldrich



## REPORT OF LABORATORY ANALYSIS

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## CERTIFICATIONS

Project: Eagle Valley Oct 2022 P1R4

Pace Project No.: 50332748

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### **Pace Analytical Services Pennsylvania**

1638 Roseytown Rd Suites 2,3&4, Greensburg, PA 15601

ANAB DOD-ELAP Rad Accreditation #: L2417

Alabama Certification #: 41590

Arizona Certification #: AZ0734

Arkansas Certification

California Certification #: 04222CA

Colorado Certification #: PA01547

Connecticut Certification #: PH-0694

Delaware Certification

EPA Region 4 DW Rad

Florida/TNI Certification #: E87683

Georgia Certification #: C040

Florida: Cert E871149 SEKS WET

Guam Certification

Hawaii Certification

Idaho Certification

Illinois Certification

Indiana Certification

Iowa Certification #: 391

Kansas/TNI Certification #: E-10358

Kentucky Certification #: KY90133

KY WW Permit #: KY0098221

KY WW Permit #: KY0000221

Louisiana DHH/TNI Certification #: LA180012

Louisiana DEQ/TNI Certification #: 4086

Maine Certification #: 2017020

Maryland Certification #: 308

Massachusetts Certification #: M-PA1457

Michigan/PADEP Certification #: 9991

Missouri Certification #: 235

Montana Certification #: Cert0082

Nebraska Certification #: NE-OS-29-14

Nevada Certification #: PA014572018-1

New Hampshire/TNI Certification #: 297617

New Jersey/TNI Certification #: PA051

New Mexico Certification #: PA01457

New York/TNI Certification #: 10888

North Carolina Certification #: 42706

North Dakota Certification #: R-190

Ohio EPA Rad Approval: #41249

Oregon/TNI Certification #: PA200002-010

Pennsylvania/TNI Certification #: 65-00282

Puerto Rico Certification #: PA01457

Rhode Island Certification #: 65-00282

South Dakota Certification

Tennessee Certification #: 02867

Texas/TNI Certification #: T104704188-17-3

Utah/TNI Certification #: PA014572017-9

USDA Soil Permit #: P330-17-00091

Vermont Dept. of Health: ID# VT-0282

Virgin Island/PADEP Certification

Virginia/VELAP Certification #: 460198

Washington Certification #: C868

West Virginia DEP Certification #: 143

West Virginia DHHR Certification #: 9964C

Wisconsin Approve List for Rad

Wyoming Certification #: 8TMS-L

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### **Pace Analytical Services Indianapolis**

7726 Moller Road, Indianapolis, IN 46268

Illinois Accreditation #: 200074

Indiana Drinking Water Laboratory #: C-49-06

Kansas/TNI Certification #: E-10177

Kentucky UST Agency Interest #: 80226

Kentucky WW Laboratory ID #: 98019

Michigan Drinking Water Laboratory #9050

Ohio VAP Certified Laboratory #: CL0065

Oklahoma Laboratory #: 9204

Texas Certification #: T104704355

Wisconsin Laboratory #: 999788130

USDA Foreign Soil Permit #: 525-23-13-23119

USDA Compliance Agreement #: IN-SL-22-001

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## REPORT OF LABORATORY ANALYSIS

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## SAMPLE SUMMARY

Project: Eagle Valley Oct 2022 P1R4

Pace Project No.: 50332748

Lab ID	Sample ID	Matrix	Date Collected	Date Received
50332748001	MW-20D	Water	12/06/22 11:43	12/07/22 15:50
50332748002	MW-20I	Water	12/06/22 13:58	12/07/22 15:50
50332748003	DUP-6	Water	12/06/22 00:00	12/07/22 15:50

## REPORT OF LABORATORY ANALYSIS

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### SAMPLE ANALYTE COUNT

Project: Eagle Valley Oct 2022 P1R4

Pace Project No.: 50332748

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
50332748001	MW-20D	EPA 9056	RMR	3	PASI-I
		EPA 6010	MTM	12	PASI-I
		EPA 6010	JPK	2	PASI-I
		EPA 6020	DMT	3	PASI-I
		EPA 903.1	JDZ	1	PASI-PA
		EPA 904.0	ZPC	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
		SM 2320B	TAY	3	PASI-I
		SM 2540C	MTW	1	PASI-I
		SM 4500-H+B	LHZ	1	PASI-I
		SM 4500-S2-D	BEP	1	PASI-I
		HACH 8146	ZM	1	PASI-I
		EPA 353.2	MMS	2	PASI-I
		EPA 365.1	MMS	1	PASI-I
		SM 5310C	ATS	1	PASI-I
		SM 5310C	ATS	1	PASI-I
		50332748002	MW-20I	EPA 9056	RMR
EPA 6010	MTM			12	PASI-I
EPA 6010	JPK			2	PASI-I
EPA 6020	DMT			3	PASI-I
EPA 903.1	JDZ			1	PASI-PA
EPA 904.0	ZPC			1	PASI-PA
Total Radium Calculation	JAL			1	PASI-PA
SM 2320B	TAY			3	PASI-I
SM 2540C	MTW			1	PASI-I
SM 4500-H+B	LHZ			1	PASI-I
SM 4500-S2-D	BEP			1	PASI-I
HACH 8146	ZM			1	PASI-I
EPA 353.2	MMS			2	PASI-I
EPA 365.1	MMS			1	PASI-I
SM 5310C	ATS			1	PASI-I
SM 5310C	ATS			1	PASI-I
50332748003	DUP-6			EPA 9056	RMR
		EPA 6010	MTM	12	PASI-I
		EPA 6010	JPK	2	PASI-I
		EPA 6020	DMT	3	PASI-I
		EPA 903.1	JDZ	1	PASI-PA

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### SAMPLE ANALYTE COUNT

Project: Eagle Valley Oct 2022 P1R4

Pace Project No.: 50332748

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
		EPA 904.0	ZPC	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
		SM 2320B	TAY	3	PASI-I
		SM 2540C	MTW	1	PASI-I
		SM 4500-H+B	LHZ	1	PASI-I
		SM 4500-S2-D	BEP	1	PASI-I
		HACH 8146	ZM	1	PASI-I
		EPA 353.2	MMS	2	PASI-I
		EPA 365.1	MMS	1	PASI-I
		SM 5310C	ATS	1	PASI-I
		SM 5310C	ATS	1	PASI-I

PASI-I = Pace Analytical Services - Indianapolis

PASI-PA = Pace Analytical Services - Greensburg

### REPORT OF LABORATORY ANALYSIS

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### SUMMARY OF DETECTION

Project: Eagle Valley Oct 2022 P1R4

Pace Project No.: 50332748

Lab Sample ID	Client Sample ID	Result	Units	Report Limit	Analyzed	Qualifiers
Method	Parameters					
<b>50332748001</b>	<b>MW-20D</b>					
EPA 9056	Chloride	14.1	mg/L	2.5	12/09/22 00:38	
EPA 9056	Sulfate	27.0	mg/L	2.5	12/09/22 00:38	
EPA 6010	Barium	34.1	ug/L	10.0	12/21/22 13:14	
EPA 6010	Calcium	80300	ug/L	1000	12/21/22 13:14	
EPA 6010	Iron	385	ug/L	100	12/21/22 13:14	
EPA 6010	Magnesium	24000	ug/L	1000	12/21/22 13:14	
EPA 6010	Manganese	20.2	ug/L	10.0	12/21/22 13:14	
EPA 6010	Potassium	2640	ug/L	1000	12/21/22 13:14	
EPA 6010	Silica	17800	ug/L	450	12/21/22 13:14	N2
EPA 6010	Sodium	8830	ug/L	1000	12/21/22 13:14	
EPA 6010	Manganese, Dissolved	10.3	ug/L	10.0	12/20/22 00:05	
EPA 903.1	Radium-226	0.563 ± 0.422 (0.218)	pCi/L		12/23/22 16:41	
		C:NA T:88%				
EPA 904.0	Radium-228	0.484 ± 0.325 (0.615)	pCi/L		12/23/22 14:51	
		C:81%				
		T:95%				
Total Radium Calculation	Total Radium	1.05 ± 0.747 (0.833)	pCi/L		12/30/22 11:33	
SM 2320B	Alkalinity, Total as CaCO3	246	mg/L	10.0	12/15/22 12:08	
SM 2320B	Alkalinity,Bicarbonate (CaCO3)	246	mg/L	10.0	12/15/22 12:08	
SM 2540C	Total Dissolved Solids	325	mg/L	10.0	12/09/22 09:07	
SM 4500-H+B	pH at 25 Degrees C	7.6	Std. Units	0.10	12/19/22 12:01	H3
EPA 353.2	Nitrogen, Nitrate	1.5	mg/L	0.10	12/07/22 21:31	
<b>50332748002</b>	<b>MW-20I</b>					
EPA 9056	Chloride	28.1	mg/L	2.5	12/09/22 01:11	
EPA 9056	Sulfate	25.1	mg/L	2.5	12/09/22 01:11	
EPA 6010	Aluminum	421	ug/L	200	12/21/22 13:17	
EPA 6010	Barium	46.6	ug/L	10.0	12/21/22 13:17	
EPA 6010	Calcium	91900	ug/L	1000	12/21/22 13:17	
EPA 6010	Iron	1190	ug/L	100	12/21/22 13:17	
EPA 6010	Magnesium	25700	ug/L	1000	12/21/22 13:17	
EPA 6010	Manganese	99.7	ug/L	10.0	12/21/22 13:17	
EPA 6010	Potassium	3920	ug/L	1000	12/21/22 13:17	
EPA 6010	Silica	18300	ug/L	450	12/21/22 13:17	N2
EPA 6010	Sodium	11700	ug/L	1000	12/21/22 13:17	
EPA 6020	Arsenic	1.8	ug/L	1.0	12/09/22 11:04	
EPA 903.1	Radium-226	1.25 ± 0.697 (0.261)	pCi/L		12/23/22 16:41	
		C:NA T:93%				
EPA 904.0	Radium-228	0.424 ± 0.304 (0.578)	pCi/L		12/23/22 14:51	
		C:80%				
		T:90%				

### REPORT OF LABORATORY ANALYSIS

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### SUMMARY OF DETECTION

Project: Eagle Valley Oct 2022 P1R4

Pace Project No.: 50332748

Lab Sample ID	Client Sample ID	Result	Units	Report Limit	Analyzed	Qualifiers
Method	Parameters					
<b>50332748002</b>	<b>MW-20I</b>					
Total Radium Calculation	Total Radium	1.67 ± 1.00 (0.839)	pCi/L		12/30/22 11:33	
SM 2320B	Alkalinity, Total as CaCO3	268	mg/L	10.0	12/15/22 12:08	
SM 2320B	Alkalinity,Bicarbonate (CaCO3)	268	mg/L	10.0	12/15/22 12:08	
SM 2540C	Total Dissolved Solids	375	mg/L	10.0	12/09/22 09:07	
SM 4500-H+B	pH at 25 Degrees C	7.6	Std. Units	0.10	12/19/22 12:03	H3
EPA 353.2	Nitrogen, Nitrate	2.2	mg/L	0.10	12/07/22 21:38	
<b>50332748003</b>	<b>DUP-6</b>					
EPA 9056	Chloride	13.4	mg/L	2.5	12/09/22 02:17	
EPA 9056	Sulfate	25.7	mg/L	2.5	12/09/22 02:17	
EPA 6010	Barium	33.8	ug/L	10.0	12/21/22 13:19	
EPA 6010	Calcium	78700	ug/L	1000	12/21/22 13:19	
EPA 6010	Iron	398	ug/L	100	12/21/22 13:19	
EPA 6010	Magnesium	23700	ug/L	1000	12/21/22 13:19	
EPA 6010	Manganese	20.4	ug/L	10.0	12/21/22 13:19	
EPA 6010	Potassium	2540	ug/L	1000	12/21/22 13:19	
EPA 6010	Silica	17700	ug/L	450	12/21/22 13:19	N2
EPA 6010	Sodium	8750	ug/L	1000	12/21/22 13:19	
EPA 903.1	Radium-226	0.390 ± 0.358 (0.211)	pCi/L		12/23/22 16:41	
EPA 904.0	Radium-228	C:NA T:93% 0.916 ± 0.391 (0.599)	pCi/L		12/23/22 14:51	
Total Radium Calculation	Total Radium	C:81% T:83% 1.31 ± 0.749 (0.810)	pCi/L		12/30/22 11:33	
SM 2320B	Alkalinity, Total as CaCO3	250	mg/L	10.0	12/15/22 12:08	
SM 2320B	Alkalinity,Bicarbonate (CaCO3)	250	mg/L	10.0	12/15/22 12:08	
SM 2540C	Total Dissolved Solids	326	mg/L	10.0	12/09/22 09:07	
SM 4500-H+B	pH at 25 Degrees C	7.8	Std. Units	0.10	12/19/22 12:05	H3
EPA 353.2	Nitrogen, Nitrate	1.5	mg/L	0.10	12/07/22 21:12	

### REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: Eagle Valley Oct 2022 P1R4

Pace Project No.: 50332748

Sample: MW-20D		Lab ID: 50332748001		Collected: 12/06/22 11:43		Received: 12/07/22 15:50		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>9056 IC Anions</b>		Analytical Method: EPA 9056 Pace Analytical Services - Indianapolis							
Chloride	14.1	mg/L	2.5	0.67	10		12/09/22 00:38	16887-00-6	
Fluoride	ND	mg/L	0.10	0.017	1		12/09/22 00:21	16984-48-8	
Sulfate	27.0	mg/L	2.5	0.85	10		12/09/22 00:38	14808-79-8	
<b>6010 MET ICP</b>		Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis							
Aluminum	ND	ug/L	200	55.4	1	12/14/22 16:08	12/21/22 13:14	7429-90-5	
Barium	34.1	ug/L	10.0	2.1	1	12/14/22 16:08	12/21/22 13:14	7440-39-3	
Boron	ND	ug/L	100	37.6	1	12/14/22 16:08	12/21/22 13:14	7440-42-8	
Calcium	80300	ug/L	1000	163	1	12/14/22 16:08	12/21/22 13:14	7440-70-2	
Iron	385	ug/L	100	48.8	1	12/14/22 16:08	12/21/22 13:14	7439-89-6	
Lithium	ND	ug/L	20.0	6.2	1	12/14/22 16:08	12/21/22 13:14	7439-93-2	
Magnesium	24000	ug/L	1000	71.8	1	12/14/22 16:08	12/21/22 13:14	7439-95-4	
Manganese	20.2	ug/L	10.0	2.5	1	12/14/22 16:08	12/21/22 13:14	7439-96-5	
Molybdenum	ND	ug/L	10.0	3.7	1	12/14/22 16:08	12/21/22 13:14	7439-98-7	
Potassium	2640	ug/L	1000	281	1	12/14/22 16:08	12/21/22 13:14	7440-09-7	
Silica	17800	ug/L	450		1	12/14/22 16:08	12/21/22 13:14	7631-86-9	N2
Sodium	8830	ug/L	1000	214	1	12/14/22 16:08	12/21/22 13:14	7440-23-5	
<b>6010 MET ICP, Dissolved</b>		Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis							
Manganese, Dissolved	10.3	ug/L	10.0	2.5	1	12/15/22 09:26	12/20/22 00:05	7439-96-5	
Molybdenum, Dissolved	ND	ug/L	10.0	3.7	1	12/15/22 09:26	12/20/22 00:05	7439-98-7	
<b>6020 MET ICPMS</b>		Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis							
Antimony	ND	ug/L	1.0	0.075	1	12/08/22 15:30	12/09/22 10:59	7440-36-0	
Arsenic	ND	ug/L	1.0	0.17	1	12/08/22 15:30	12/09/22 10:59	7440-38-2	
Selenium	ND	ug/L	1.0	0.33	1	12/08/22 15:30	12/09/22 10:59	7782-49-2	
<b>2320B Alkalinity</b>		Analytical Method: SM 2320B Pace Analytical Services - Indianapolis							
Alkalinity, Total as CaCO3	246	mg/L	10.0	10.0	1		12/15/22 12:08		
Alkalinity,Bicarbonate (CaCO3)	246	mg/L	10.0	10.0	1		12/15/22 12:08		
Alkalinity,Carbonate (CaCO3)	ND	mg/L	10.0	10.0	1		12/15/22 12:08		
<b>2540C Total Dissolved Solids</b>		Analytical Method: SM 2540C Pace Analytical Services - Indianapolis							
Total Dissolved Solids	325	mg/L	10.0	10.0	1		12/09/22 09:07		
<b>4500H+ pH, Electrometric</b>		Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis							
pH at 25 Degrees C	7.6	Std. Units	0.10	0.10	1		12/19/22 12:01		H3

## REPORT OF LABORATORY ANALYSIS

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### ANALYTICAL RESULTS

Project: Eagle Valley Oct 2022 P1R4

Pace Project No.: 50332748

Sample: MW-20D		Lab ID: 50332748001		Collected: 12/06/22 11:43	Received: 12/07/22 15:50	Matrix: Water				
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual	
<b>4500S2D Sulfide Water</b>		Analytical Method: SM 4500-S2-D Pace Analytical Services - Indianapolis								
Sulfide	ND	mg/L	0.10	0.025	1		12/09/22 12:18	18496-25-8		
<b>Iron, Ferrous</b>		Analytical Method: HACH 8146 Pace Analytical Services - Indianapolis								
Iron, Ferrous	ND	mg/L	0.20	0.096	1		12/14/22 14:09	15438-31-0	H3,N2	
<b>353.2 Nitrogen, NO2/NO3 unpres</b>		Analytical Method: EPA 353.2 Pace Analytical Services - Indianapolis								
Nitrogen, Nitrate	1.5	mg/L	0.10	0.011	1		12/07/22 21:31	14797-55-8		
Nitrogen, Nitrite	ND	mg/L	0.10	0.0040	1		12/07/22 21:31	14797-65-0		
<b>365.1 Total Phosphorus</b>		Analytical Method: EPA 365.1 Preparation Method: EPA 365.1 Pace Analytical Services - Indianapolis								
Phosphate as P04	ND	mg/L	0.15	0.15	1	12/16/22 10:00	12/16/22 17:04			
<b>5310C TOC</b>		Analytical Method: SM 5310C Pace Analytical Services - Indianapolis								
Total Organic Carbon	ND	mg/L	1.0	0.14	1		12/21/22 01:45	7440-44-0		
<b>5310C Dissolved Organic Carbon</b>		Analytical Method: SM 5310C Pace Analytical Services - Indianapolis								
Dissolved Organic Carbon	ND	mg/L	1.0	0.14	1		12/19/22 23:06			

### REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: Eagle Valley Oct 2022 P1R4

Pace Project No.: 50332748

Sample: MW-201		Lab ID: 50332748002		Collected: 12/06/22 13:58		Received: 12/07/22 15:50		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>9056 IC Anions</b>		Analytical Method: EPA 9056 Pace Analytical Services - Indianapolis							
Chloride	28.1	mg/L	2.5	0.67	10		12/09/22 01:11	16887-00-6	
Fluoride	ND	mg/L	0.10	0.017	1		12/09/22 00:54	16984-48-8	
Sulfate	25.1	mg/L	2.5	0.85	10		12/09/22 01:11	14808-79-8	
<b>6010 MET ICP</b>		Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis							
Aluminum	421	ug/L	200	55.4	1	12/14/22 16:08	12/21/22 13:17	7429-90-5	
Barium	46.6	ug/L	10.0	2.1	1	12/14/22 16:08	12/21/22 13:17	7440-39-3	
Boron	ND	ug/L	100	37.6	1	12/14/22 16:08	12/21/22 13:17	7440-42-8	
Calcium	91900	ug/L	1000	163	1	12/14/22 16:08	12/21/22 13:17	7440-70-2	
Iron	1190	ug/L	100	48.8	1	12/14/22 16:08	12/21/22 13:17	7439-89-6	
Lithium	ND	ug/L	20.0	6.2	1	12/14/22 16:08	12/21/22 13:17	7439-93-2	
Magnesium	25700	ug/L	1000	71.8	1	12/14/22 16:08	12/21/22 13:17	7439-95-4	
Manganese	99.7	ug/L	10.0	2.5	1	12/14/22 16:08	12/21/22 13:17	7439-96-5	
Molybdenum	ND	ug/L	10.0	3.7	1	12/14/22 16:08	12/21/22 13:17	7439-98-7	
Potassium	3920	ug/L	1000	281	1	12/14/22 16:08	12/21/22 13:17	7440-09-7	
Silica	18300	ug/L	450		1	12/14/22 16:08	12/21/22 13:17	7631-86-9	N2
Sodium	11700	ug/L	1000	214	1	12/14/22 16:08	12/21/22 13:17	7440-23-5	
<b>6010 MET ICP, Dissolved</b>		Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis							
Manganese, Dissolved	ND	ug/L	10.0	2.5	1	12/15/22 09:26	12/20/22 00:08	7439-96-5	
Molybdenum, Dissolved	ND	ug/L	10.0	3.7	1	12/15/22 09:26	12/20/22 00:08	7439-98-7	
<b>6020 MET ICPMS</b>		Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis							
Antimony	ND	ug/L	1.0	0.075	1	12/08/22 15:30	12/09/22 11:04	7440-36-0	
Arsenic	1.8	ug/L	1.0	0.17	1	12/08/22 15:30	12/09/22 11:04	7440-38-2	
Selenium	ND	ug/L	1.0	0.33	1	12/08/22 15:30	12/09/22 11:04	7782-49-2	
<b>2320B Alkalinity</b>		Analytical Method: SM 2320B Pace Analytical Services - Indianapolis							
Alkalinity, Total as CaCO3	268	mg/L	10.0	10.0	1		12/15/22 12:08		
Alkalinity,Bicarbonate (CaCO3)	268	mg/L	10.0	10.0	1		12/15/22 12:08		
Alkalinity,Carbonate (CaCO3)	ND	mg/L	10.0	10.0	1		12/15/22 12:08		
<b>2540C Total Dissolved Solids</b>		Analytical Method: SM 2540C Pace Analytical Services - Indianapolis							
Total Dissolved Solids	375	mg/L	10.0	10.0	1		12/09/22 09:07		
<b>4500H+ pH, Electrometric</b>		Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis							
pH at 25 Degrees C	7.6	Std. Units	0.10	0.10	1		12/19/22 12:03		H3

## REPORT OF LABORATORY ANALYSIS

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### ANALYTICAL RESULTS

Project: Eagle Valley Oct 2022 P1R4

Pace Project No.: 50332748

Sample: MW-20I		Lab ID: 50332748002		Collected: 12/06/22 13:58	Received: 12/07/22 15:50	Matrix: Water				
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual	
<b>4500S2D Sulfide Water</b>		Analytical Method: SM 4500-S2-D Pace Analytical Services - Indianapolis								
Sulfide	ND	mg/L	0.10	0.025	1		12/09/22 12:18	18496-25-8		
<b>Iron, Ferrous</b>		Analytical Method: HACH 8146 Pace Analytical Services - Indianapolis								
Iron, Ferrous	ND	mg/L	0.20	0.096	1		12/14/22 14:11	15438-31-0	H3,N2	
<b>353.2 Nitrogen, NO2/NO3 unpres</b>		Analytical Method: EPA 353.2 Pace Analytical Services - Indianapolis								
Nitrogen, Nitrate	2.2	mg/L	0.10	0.011	1		12/07/22 21:38	14797-55-8		
Nitrogen, Nitrite	ND	mg/L	0.10	0.0040	1		12/07/22 21:38	14797-65-0		
<b>365.1 Total Phosphorus</b>		Analytical Method: EPA 365.1 Preparation Method: EPA 365.1 Pace Analytical Services - Indianapolis								
Phosphate as P04	ND	mg/L	0.15	0.15	1	12/16/22 10:00	12/16/22 17:04			
<b>5310C TOC</b>		Analytical Method: SM 5310C Pace Analytical Services - Indianapolis								
Total Organic Carbon	ND	mg/L	1.0	0.14	1		12/21/22 01:55	7440-44-0		
<b>5310C Dissolved Organic Carbon</b>		Analytical Method: SM 5310C Pace Analytical Services - Indianapolis								
Dissolved Organic Carbon	ND	mg/L	1.0	0.14	1		12/19/22 23:16			

### REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: Eagle Valley Oct 2022 P1R4

Pace Project No.: 50332748

Sample: DUP-6		Lab ID: 50332748003		Collected: 12/06/22 00:00	Received: 12/07/22 15:50	Matrix: Water				
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual	
<b>9056 IC Anions</b>		Analytical Method: EPA 9056 Pace Analytical Services - Indianapolis								
Chloride	13.4	mg/L	2.5	0.67	10		12/09/22 02:17	16887-00-6		
Fluoride	ND	mg/L	0.10	0.017	1		12/09/22 02:00	16984-48-8		
Sulfate	25.7	mg/L	2.5	0.85	10		12/09/22 02:17	14808-79-8		
<b>6010 MET ICP</b>		Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Aluminum	ND	ug/L	200	55.4	1	12/14/22 16:08	12/21/22 13:19	7429-90-5		
Barium	33.8	ug/L	10.0	2.1	1	12/14/22 16:08	12/21/22 13:19	7440-39-3		
Boron	ND	ug/L	100	37.6	1	12/14/22 16:08	12/21/22 13:19	7440-42-8		
Calcium	78700	ug/L	1000	163	1	12/14/22 16:08	12/21/22 13:19	7440-70-2		
Iron	398	ug/L	100	48.8	1	12/14/22 16:08	12/21/22 13:19	7439-89-6		
Lithium	ND	ug/L	20.0	6.2	1	12/14/22 16:08	12/21/22 13:19	7439-93-2		
Magnesium	23700	ug/L	1000	71.8	1	12/14/22 16:08	12/21/22 13:19	7439-95-4		
Manganese	20.4	ug/L	10.0	2.5	1	12/14/22 16:08	12/21/22 13:19	7439-96-5		
Molybdenum	ND	ug/L	10.0	3.7	1	12/14/22 16:08	12/21/22 13:19	7439-98-7		
Potassium	2540	ug/L	1000	281	1	12/14/22 16:08	12/21/22 13:19	7440-09-7		
Silica	17700	ug/L	450		1	12/14/22 16:08	12/21/22 13:19	7631-86-9	N2	
Sodium	8750	ug/L	1000	214	1	12/14/22 16:08	12/21/22 13:19	7440-23-5		
<b>6010 MET ICP, Dissolved</b>		Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Manganese, Dissolved	ND	ug/L	10.0	2.5	1	12/15/22 09:26	12/20/22 00:10	7439-96-5		
Molybdenum, Dissolved	ND	ug/L	10.0	3.7	1	12/15/22 09:26	12/20/22 00:10	7439-98-7		
<b>6020 MET ICPMS</b>		Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis								
Antimony	ND	ug/L	1.0	0.075	1	12/08/22 15:30	12/09/22 11:09	7440-36-0		
Arsenic	ND	ug/L	1.0	0.17	1	12/08/22 15:30	12/09/22 11:09	7440-38-2		
Selenium	ND	ug/L	1.0	0.33	1	12/08/22 15:30	12/09/22 11:09	7782-49-2		
<b>2320B Alkalinity</b>		Analytical Method: SM 2320B Pace Analytical Services - Indianapolis								
Alkalinity, Total as CaCO3	250	mg/L	10.0	10.0	1		12/15/22 12:08			
Alkalinity,Bicarbonate (CaCO3)	250	mg/L	10.0	10.0	1		12/15/22 12:08			
Alkalinity,Carbonate (CaCO3)	ND	mg/L	10.0	10.0	1		12/15/22 12:08			
<b>2540C Total Dissolved Solids</b>		Analytical Method: SM 2540C Pace Analytical Services - Indianapolis								
Total Dissolved Solids	326	mg/L	10.0	10.0	1		12/09/22 09:07			
<b>4500H+ pH, Electrometric</b>		Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis								
pH at 25 Degrees C	7.8	Std. Units	0.10	0.10	1		12/19/22 12:05		H3	

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### ANALYTICAL RESULTS

Project: Eagle Valley Oct 2022 P1R4

Pace Project No.: 50332748

Sample: DUP-6      Lab ID: 50332748003      Collected: 12/06/22 00:00      Received: 12/07/22 15:50      Matrix: Water									
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>4500S2D Sulfide Water</b>									
Analytical Method: SM 4500-S2-D Pace Analytical Services - Indianapolis									
Sulfide	ND	mg/L	0.10	0.025	1		12/09/22 12:18	18496-25-8	
<b>Iron, Ferrous</b>									
Analytical Method: HACH 8146 Pace Analytical Services - Indianapolis									
Iron, Ferrous	ND	mg/L	0.20	0.096	1		12/14/22 14:08	15438-31-0	H3,N2
<b>353.2 Nitrogen, NO2/NO3 unpres</b>									
Analytical Method: EPA 353.2 Pace Analytical Services - Indianapolis									
Nitrogen, Nitrate	1.5	mg/L	0.10	0.011	1		12/07/22 21:12	14797-55-8	
Nitrogen, Nitrite	ND	mg/L	0.10	0.0040	1		12/07/22 21:12	14797-65-0	
<b>365.1 Total Phosphorus</b>									
Analytical Method: EPA 365.1      Preparation Method: EPA 365.1 Pace Analytical Services - Indianapolis									
Phosphate as P04	ND	mg/L	0.15	0.15	1	12/16/22 10:00	12/16/22 17:06		
<b>5310C TOC</b>									
Analytical Method: SM 5310C Pace Analytical Services - Indianapolis									
Total Organic Carbon	ND	mg/L	1.0	0.14	1		12/21/22 02:05	7440-44-0	
<b>5310C Dissolved Organic Carbon</b>									
Analytical Method: SM 5310C Pace Analytical Services - Indianapolis									
Dissolved Organic Carbon	ND	mg/L	1.0	0.14	1		12/19/22 23:26		

### REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL DATA

Project: Eagle Valley Oct 2022 P1R4

Pace Project No.: 50332748

QC Batch:	710164	Analysis Method:	EPA 9056
QC Batch Method:	EPA 9056	Analysis Description:	9056 IC Anions
		Laboratory:	Pace Analytical Services - Indianapolis

Associated Lab Samples: 50332748001, 50332748002, 50332748003

METHOD BLANK: 3263449 Matrix: Water

Associated Lab Samples: 50332748001, 50332748002, 50332748003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chloride	mg/L	ND	0.25	0.067	12/08/22 16:40	
Fluoride	mg/L	ND	0.10	0.017	12/08/22 16:40	
Sulfate	mg/L	ND	0.25	0.085	12/08/22 16:40	

LABORATORY CONTROL SAMPLE: 3263450

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	1.2	1.2	94	80-120	
Fluoride	mg/L	0.5	0.50	100	80-120	
Sulfate	mg/L	2.5	2.5	99	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3263451 3263452

Parameter	Units	50332675001		3263451		3263452		% Rec	% Rec	% Rec Limits	RPD	Max RPD	Qual
		Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec						
Chloride	mg/L	23.4	12.5	12.5	35.3	35.5	96	97	80-120	0	15		
Fluoride	mg/L	<0.10	0.5	0.5	0.56	0.56	96	96	80-120	0	15		
Sulfate	mg/L	17.3	2.5	2.5	19.7	20.1	95	112	80-120	2	15		

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### QUALITY CONTROL DATA

Project: Eagle Valley Oct 2022 P1R4

Pace Project No.: 50332748

QC Batch: 710718

Analysis Method: EPA 6010

QC Batch Method: EPA 3010

Analysis Description: 6010 MET

Laboratory: Pace Analytical Services - Indianapolis

Associated Lab Samples: 50332748001, 50332748002, 50332748003

METHOD BLANK: 3266180

Matrix: Water

Associated Lab Samples: 50332748001, 50332748002, 50332748003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Aluminum	ug/L	ND	200	55.4	12/21/22 12:48	
Barium	ug/L	ND	10.0	2.1	12/21/22 12:48	
Boron	ug/L	ND	100	37.6	12/21/22 12:48	
Calcium	ug/L	ND	1000	163	12/21/22 12:48	
Iron	ug/L	ND	100	48.8	12/21/22 12:48	
Lithium	ug/L	ND	20.0	6.2	12/21/22 12:48	
Magnesium	ug/L	ND	1000	71.8	12/21/22 12:48	
Manganese	ug/L	ND	10.0	2.5	12/21/22 12:48	
Molybdenum	ug/L	ND	10.0	3.7	12/21/22 12:48	
Potassium	ug/L	ND	1000	281	12/21/22 12:48	
Silica	ug/L	ND	450		12/21/22 12:48	N2
Sodium	ug/L	ND	1000	214	12/21/22 12:48	

LABORATORY CONTROL SAMPLE: 3266181

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Aluminum	ug/L	10000	10400	104	80-120	
Barium	ug/L	1000	1020	102	80-120	
Boron	ug/L	1000	1020	102	80-120	
Calcium	ug/L	10000	10500	105	80-120	
Iron	ug/L	10000	10300	103	80-120	
Lithium	ug/L	1000	1060	106	80-120	
Magnesium	ug/L	10000	10100	101	80-120	
Manganese	ug/L	1000	1020	102	80-120	
Molybdenum	ug/L	1000	1070	107	80-120	
Potassium	ug/L	10000	10200	102	80-120	
Silica	ug/L	10700	10800	101	80-120	N2
Sodium	ug/L	10000	10700	107	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3266182 3266183

Parameter	Units	50332692012		3266183		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result						
Aluminum	ug/L	ND	10000	10000	10800	10700	108	107	75-125	1	20
Barium	ug/L	0.020 mg/L	1000	1000	1070	1050	105	103	75-125	2	20
Boron	ug/L	ND	1000	1000	1110	1110	106	106	75-125	0	20

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### QUALITY CONTROL DATA

Project: Eagle Valley Oct 2022 P1R4

Pace Project No.: 50332748

Parameter	Units	50332692012		3266182		3266183		% Rec	% Rec	% Rec	Limits	RPD	Max RPD	Qual
		Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec							
Calcium	ug/L	109 mg/L	10000	10000	119000	118000	98	88	75-125	1	20			
Iron	ug/L	0.52 mg/L	10000	10000	10800	10700	103	102	75-125	1	20			
Lithium	ug/L	ND	1000	1000	1130	1120	111	110	75-125	1	20			
Magnesium	ug/L	61.5 mg/L	10000	10000	71400	71600	99	101	75-125	0	20			
Manganese	ug/L	0.028 mg/L	1000	1000	1050	1030	102	100	75-125	1	20			
Molybdenum	ug/L	ND	1000	1000	1110	1100	111	110	75-125	1	20			
Potassium	ug/L	3.2 mg/L	10000	10000	14100	14000	109	108	75-125	0	20			
Silica	ug/L	15.0 mg/L	10700	10700	26100	26200	103	104	75-125	0	20	N2		
Sodium	ug/L	94.0 mg/L	10000	10000	104000	104000	96	104	75-125	1	20			

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**QUALITY CONTROL DATA**

Project: Eagle Valley Oct 2022 P1R4

Pace Project No.: 50332748

QC Batch:	710707	Analysis Method:	EPA 6010
QC Batch Method:	EPA 3010	Analysis Description:	6010 MET Dissolved
		Laboratory:	Pace Analytical Services - Indianapolis

Associated Lab Samples: 50332748001, 50332748002, 50332748003

METHOD BLANK: 3266129 Matrix: Water  
Associated Lab Samples: 50332748001, 50332748002, 50332748003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Manganese, Dissolved	ug/L	ND	10.0	2.5	12/19/22 23:41	
Molybdenum, Dissolved	ug/L	ND	10.0	3.7	12/19/22 23:41	

LABORATORY CONTROL SAMPLE: 3266130

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Manganese, Dissolved	ug/L	1000	990	99	80-120	
Molybdenum, Dissolved	ug/L	1000	1070	107	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3266131 3266132

Parameter	Units	50331804001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Manganese, Dissolved	ug/L	442	1000	1000	1460	1480	102	104	75-125	1	20	
Molybdenum, Dissolved	ug/L	45.1	1000	1000	1140	1180	110	113	75-125	3	20	

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### QUALITY CONTROL DATA

Project: Eagle Valley Oct 2022 P1R4  
Pace Project No.: 50332748

QC Batch: 710088 Analysis Method: EPA 6020  
QC Batch Method: EPA 200.2 Analysis Description: 6020 MET  
Laboratory: Pace Analytical Services - Indianapolis

Associated Lab Samples: 50332748001, 50332748002, 50332748003

METHOD BLANK: 3263131 Matrix: Water

Associated Lab Samples: 50332748001, 50332748002, 50332748003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Antimony	ug/L	ND	1.0	0.075	12/09/22 09:18	
Arsenic	ug/L	ND	1.0	0.17	12/09/22 09:18	
Selenium	ug/L	ND	1.0	0.33	12/09/22 09:18	

LABORATORY CONTROL SAMPLE: 3263132

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Antimony	ug/L	40	39.6	99	80-120	
Arsenic	ug/L	40	38.6	97	80-120	
Selenium	ug/L	40	38.7	97	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3263133 3263134

Parameter	Units	50332675003		3263133		3263134		% Rec	% Rec	% Rec Limits	RPD	Max RPD	Qual
		Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec						
Antimony	ug/L	<1.0	40	40	39.9	49.0	99	122	75-125	20	20		
Arsenic	ug/L	<1.0	40	40	38.8	38.6	97	96	75-125	0	20		
Selenium	ug/L	<1.0	40	40	39.5	37.5	99	94	75-125	5	20		

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### QUALITY CONTROL DATA

Project: Eagle Valley Oct 2022 P1R4

Pace Project No.: 50332748

QC Batch:	711180	Analysis Method:	SM 2320B
QC Batch Method:	SM 2320B	Analysis Description:	2320B Alkalinity
		Laboratory:	Pace Analytical Services - Indianapolis

Associated Lab Samples: 50332748001, 50332748002, 50332748003

METHOD BLANK: 3268410 Matrix: Water

Associated Lab Samples: 50332748001, 50332748002, 50332748003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Alkalinity, Total as CaCO3	mg/L	ND	10.0	10.0	12/15/22 12:08	
Alkalinity,Bicarbonate (CaCO3)	mg/L	ND	10.0	10.0	12/15/22 12:08	
Alkalinity,Carbonate (CaCO3)	mg/L	ND	10.0	10.0	12/15/22 12:08	

LABORATORY CONTROL SAMPLE: 3268411

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Alkalinity, Total as CaCO3	mg/L	50	49.4	99	90-110	

SAMPLE DUPLICATE: 3268412

Parameter	Units	50332675003 Result	Dup Result	RPD	Max RPD	Qualifiers
Alkalinity, Total as CaCO3	mg/L	76.9	82.8	7	20	
Alkalinity,Bicarbonate (CaCO3)	mg/L	76.9	82.8	7	20	
Alkalinity,Carbonate (CaCO3)	mg/L	<10.0	ND		20	

SAMPLE DUPLICATE: 3268413

Parameter	Units	50332748003 Result	Dup Result	RPD	Max RPD	Qualifiers
Alkalinity, Total as CaCO3	mg/L	250	254	1	20	
Alkalinity,Bicarbonate (CaCO3)	mg/L	250	254	1	20	
Alkalinity,Carbonate (CaCO3)	mg/L	ND	ND		20	

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### QUALITY CONTROL DATA

Project: Eagle Valley Oct 2022 P1R4

Pace Project No.: 50332748

QC Batch:	710260	Analysis Method:	SM 2540C
QC Batch Method:	SM 2540C	Analysis Description:	2540C Total Dissolved Solids
		Laboratory:	Pace Analytical Services - Indianapolis
Associated Lab Samples:	50332748001, 50332748002, 50332748003		

METHOD BLANK: 3264111 Matrix: Water

Associated Lab Samples: 50332748001, 50332748002, 50332748003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	ND	10.0	10.0	12/09/22 09:03	

LABORATORY CONTROL SAMPLE: 3264112

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	300	277	92	80-120	

SAMPLE DUPLICATE: 3264113

Parameter	Units	50332715001 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	1010	988	2	10	

SAMPLE DUPLICATE: 3264114

Parameter	Units	50332804001 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	3370	3340	1	10	

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### QUALITY CONTROL DATA

Project: Eagle Valley Oct 2022 P1R4

Pace Project No.: 50332748

QC Batch: 711702

Analysis Method: SM 4500-H+B

QC Batch Method: SM 4500-H+B

Analysis Description: 4500H+B pH

Laboratory: Pace Analytical Services - Indianapolis

Associated Lab Samples: 50332748001, 50332748002, 50332748003

SAMPLE DUPLICATE: 3271503

Parameter	Units	50333807001 Result	Dup Result	RPD	Max RPD	Qualifiers
pH at 25 Degrees C	Std. Units	6.9	6.9	1	2	H3

SAMPLE DUPLICATE: 3271504

Parameter	Units	50332748003 Result	Dup Result	RPD	Max RPD	Qualifiers
pH at 25 Degrees C	Std. Units	7.8	7.8	1	2	H3

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**QUALITY CONTROL DATA**

Project: Eagle Valley Oct 2022 P1R4

Pace Project No.: 50332748

QC Batch:	710272	Analysis Method:	SM 4500-S2-D
QC Batch Method:	SM 4500-S2-D	Analysis Description:	4500S2D Sulfide Water
		Laboratory:	Pace Analytical Services - Indianapolis
Associated Lab Samples:	50332748001, 50332748002, 50332748003		

METHOD BLANK: 3264150 Matrix: Water

Associated Lab Samples: 50332748001, 50332748002, 50332748003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Sulfide	mg/L	ND	0.10	0.025	12/09/22 12:18	

LABORATORY CONTROL SAMPLE: 3264151

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Sulfide	mg/L	0.5	0.50	101	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3264152 3264153

Parameter	Units	50332748001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Sulfide	mg/L	ND	0.5	0.5	0.57	0.56	113	112	90-110	1	20	M3

MATRIX SPIKE SAMPLE: 3264154

Parameter	Units	50332886001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Sulfide	mg/L	ND	0.5	0.47	94	90-110	

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**QUALITY CONTROL DATA**

Project: Eagle Valley Oct 2022 P1R4  
Pace Project No.: 50332748

QC Batch: 711044	Analysis Method: HACH 8146
QC Batch Method: HACH 8146	Analysis Description: Iron, Ferrous
	Laboratory: Pace Analytical Services - Indianapolis

Associated Lab Samples: 50332748001, 50332748002, 50332748003

METHOD BLANK: 3267608 Matrix: Water  
Associated Lab Samples: 50332748001, 50332748002, 50332748003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Iron, Ferrous	mg/L	ND	0.20	0.096	12/14/22 14:07	H3,N2

LABORATORY CONTROL SAMPLE: 3267609

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Iron, Ferrous	mg/L	1	0.99	99	90-110	H3,N2

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3267610 3267611

Parameter	Units	50333068001		3267611		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual	
		MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result							
Iron, Ferrous	mg/L	ND	1	1	1.1	1.1	106	107	90-110	1	20	H3,N2

MATRIX SPIKE SAMPLE: 3267612

Parameter	Units	50332748001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Iron, Ferrous	mg/L	ND	1	1.0	100	90-110	H3,N2

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### QUALITY CONTROL DATA

Project: Eagle Valley Oct 2022 P1R4

Pace Project No.: 50332748

QC Batch: 710031 Analysis Method: EPA 353.2  
 QC Batch Method: EPA 353.2 Analysis Description: 353.2 Nitrate + Nitrite, Unpres.  
 Laboratory: Pace Analytical Services - Indianapolis  
 Associated Lab Samples: 50332748001, 50332748002, 50332748003

METHOD BLANK: 3263014 Matrix: Water  
 Associated Lab Samples: 50332748001, 50332748002, 50332748003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Nitrogen, Nitrate	mg/L	ND	0.10	0.011	12/07/22 21:06	
Nitrogen, Nitrite	mg/L	ND	0.10	0.0040	12/07/22 21:06	

LABORATORY CONTROL SAMPLE: 3263015

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Nitrogen, Nitrate	mg/L	1	1.0	100	90-110	
Nitrogen, Nitrite	mg/L	1	1.0	103	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3263016 3263017

Parameter	Units	50332641001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Nitrogen, Nitrate	mg/L	1.6	1	1	2.6	2.6	98	98	90-110	0	20	
Nitrogen, Nitrite	mg/L	ND	1	1	1.0	1.0	103	104	90-110	0	20	

MATRIX SPIKE SAMPLE: 3263018

Parameter	Units	50332748002 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Nitrogen, Nitrate	mg/L	2.2	1	3.1	92	90-110	
Nitrogen, Nitrite	mg/L	ND	1	1.0	102	90-110	

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**QUALITY CONTROL DATA**

Project: Eagle Valley Oct 2022 P1R4

Pace Project No.: 50332748

QC Batch: 710881

Analysis Method: EPA 365.1

QC Batch Method: EPA 365.1

Analysis Description: 365.1 Total Phosphorus

Laboratory: Pace Analytical Services - Indianapolis

Associated Lab Samples: 50332748001, 50332748002, 50332748003

METHOD BLANK: 3266839

Matrix: Water

Associated Lab Samples: 50332748001, 50332748002, 50332748003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Phosphate as P04	mg/L	ND	0.15	0.15	12/16/22 16:52	

LABORATORY CONTROL SAMPLE: 3266840

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Phosphate as P04	mg/L		1.4			

MATRIX SPIKE SAMPLE: 3266843

Parameter	Units	50332714001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Phosphate as P04	mg/L	8.0		20.9			

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3269537 3269538

Parameter	Units	50332513002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Phosphate as P04	mg/L	2.8			4.3	4.3				0		

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### QUALITY CONTROL DATA

Project: Eagle Valley Oct 2022 P1R4

Pace Project No.: 50332748

QC Batch:	711125	Analysis Method:	SM 5310C
QC Batch Method:	SM 5310C	Analysis Description:	5310C Total Organic Carbon
		Laboratory:	Pace Analytical Services - Indianapolis

Associated Lab Samples: 50332748001, 50332748002, 50332748003

METHOD BLANK: 3268031 Matrix: Water

Associated Lab Samples: 50332748001, 50332748002, 50332748003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Organic Carbon	mg/L	ND	1.0	0.14	12/20/22 21:24	

LABORATORY CONTROL SAMPLE: 3268032

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Organic Carbon	mg/L	10	10.4	104	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3268033 3268034

Parameter	Units	50332692008 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Total Organic Carbon	mg/L	3.5	10	10	13.8	13.8	103	103	80-120	0	20	

MATRIX SPIKE SAMPLE: 3268035

Parameter	Units	50332692009 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Total Organic Carbon	mg/L	3.7	10	14.2	106	80-120	

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### QUALITY CONTROL DATA

Project: Eagle Valley Oct 2022 P1R4

Pace Project No.: 50332748

QC Batch:	710831	Analysis Method:	SM 5310C
QC Batch Method:	SM 5310C	Analysis Description:	5310C Dissolved Organic Carbon
		Laboratory:	Pace Analytical Services - Indianapolis

Associated Lab Samples: 50332748001, 50332748002, 50332748003

METHOD BLANK: 3266632 Matrix: Water

Associated Lab Samples: 50332748001, 50332748002, 50332748003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Dissolved Organic Carbon	mg/L	ND	1.0	0.14	12/17/22 08:59	

LABORATORY CONTROL SAMPLE: 3266633

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Dissolved Organic Carbon	mg/L	10	10.9	109	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3266634 3266635

Parameter	Units	50332406004		50332406005		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		MS Spike Conc.	MSD Spike Conc.	MS Spike Conc.	MSD Spike Conc.								
Dissolved Organic Carbon	mg/L	1.2	40	40	40.6	41.1	98	100	80-120	1	20		

MATRIX SPIKE SAMPLE: 3266636

Parameter	Units	50332406005 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Dissolved Organic Carbon	mg/L	1.2	40	41.0	100	80-120	

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### REPORT OF LABORATORY ANALYSIS

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Eagle Valley Oct 2022 P1R4

Pace Project No.: 50332748

**Sample: MW-20D**      **Lab ID: 50332748001**      Collected: 12/06/22 11:43      Received: 12/07/22 15:50      Matrix: Water  
PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	<b>0.563 ± 0.422 (0.218)</b> <b>C:NA T:88%</b>	pCi/L	12/23/22 16:41	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	<b>0.484 ± 0.325 (0.615)</b> <b>C:81% T:95%</b>	pCi/L	12/23/22 14:51	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	<b>1.05 ± 0.747 (0.833)</b>	pCi/L	12/30/22 11:33	7440-14-4	

### REPORT OF LABORATORY ANALYSIS

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Eagle Valley Oct 2022 P1R4

Pace Project No.: 50332748

**Sample: MW-20I**      **Lab ID: 50332748002**      Collected: 12/06/22 13:58      Received: 12/07/22 15:50      Matrix: Water  
PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	<b>1.25 ± 0.697 (0.261)</b> <b>C:NA T:93%</b>	pCi/L	12/23/22 16:41	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	<b>0.424 ± 0.304 (0.578)</b> <b>C:80% T:90%</b>	pCi/L	12/23/22 14:51	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	<b>1.67 ± 1.00 (0.839)</b>	pCi/L	12/30/22 11:33	7440-14-4	

### REPORT OF LABORATORY ANALYSIS

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Eagle Valley Oct 2022 P1R4

Pace Project No.: 50332748

**Sample: DUP-6**      **Lab ID: 50332748003**      Collected: 12/06/22 00:00      Received: 12/07/22 15:50      Matrix: Water  
PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	<b>0.390 ± 0.358 (0.211)</b> <b>C:NA T:93%</b>	pCi/L	12/23/22 16:41	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	<b>0.916 ± 0.391 (0.599)</b> <b>C:81% T:83%</b>	pCi/L	12/23/22 14:51	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	<b>1.31 ± 0.749 (0.810)</b>	pCi/L	12/30/22 11:33	7440-14-4	

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### QUALITY CONTROL - RADIOCHEMISTRY

Project: Eagle Valley Oct 2022 P1R4

Pace Project No.: 50332748

QC Batch: 553357

Analysis Method: EPA 903.1

QC Batch Method: EPA 903.1

Analysis Description: 903.1 Radium-226

Laboratory: Pace Analytical Services - Greensburg

Associated Lab Samples: 50332748001, 50332748002, 50332748003

METHOD BLANK: 2687999

Matrix: Water

Associated Lab Samples: 50332748001, 50332748002, 50332748003

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.000 ± 0.318 (0.712) C:NA T:92%	pCi/L	12/23/22 16:27	

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### QUALITY CONTROL - RADIOCHEMISTRY

Project: Eagle Valley Oct 2022 P1R4

Pace Project No.: 50332748

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QC Batch:	553359	Analysis Method:	EPA 904.0
QC Batch Method:	EPA 904.0	Analysis Description:	904.0 Radium 228
		Laboratory:	Pace Analytical Services - Greensburg

Associated Lab Samples: 50332748001, 50332748002, 50332748003

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METHOD BLANK: 2688001 Matrix: Water

Associated Lab Samples: 50332748001, 50332748002, 50332748003

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.175 ± 0.336 (0.738) C:77% T:82%	pCi/L	12/23/22 11:48	

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## QUALIFIERS

Project: Eagle Valley Oct 2022 P1R4

Pace Project No.: 50332748

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### DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Reported results are not rounded until the final step prior to reporting. Therefore, calculated parameters that are typically reported as "Total" may vary slightly from the sum of the reported component parameters.

Act - Activity

Unc - Uncertainty: SDWA = 1.96 sigma count uncertainty, all other matrices = Expanded Uncertainty (95% confidence interval).

Gamma Spec = Expanded Uncertainty (95.4% Confidence Interval)

(MDC) - Minimum Detectable Concentration

Trac - Tracer Recovery (%)

Carr - Carrier Recovery (%)

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

### ANALYTE QUALIFIERS

H3 Sample was received or analysis requested beyond the recognized method holding time.

M3 Matrix spike recovery was outside laboratory control limits due to matrix interferences.

N2 The lab does not hold NELAC/TNI accreditation for this parameter but other accreditations/certifications may apply. A complete list of accreditations/certifications is available upon request.

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### QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Eagle Valley Oct 2022 P1R4

Pace Project No.: 50332748

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
50332748001	MW-20D	EPA 9056	710164		
50332748002	MW-20I	EPA 9056	710164		
50332748003	DUP-6	EPA 9056	710164		
50332748001	MW-20D	EPA 3010	710718	EPA 6010	712032
50332748002	MW-20I	EPA 3010	710718	EPA 6010	712032
50332748003	DUP-6	EPA 3010	710718	EPA 6010	712032
50332748001	MW-20D	EPA 3010	710707	EPA 6010	711833
50332748002	MW-20I	EPA 3010	710707	EPA 6010	711833
50332748003	DUP-6	EPA 3010	710707	EPA 6010	711833
50332748001	MW-20D	EPA 200.2	710088	EPA 6020	710232
50332748002	MW-20I	EPA 200.2	710088	EPA 6020	710232
50332748003	DUP-6	EPA 200.2	710088	EPA 6020	710232
50332748001	MW-20D	EPA 903.1	553357		
50332748002	MW-20I	EPA 903.1	553357		
50332748003	DUP-6	EPA 903.1	553357		
50332748001	MW-20D	EPA 904.0	553359		
50332748002	MW-20I	EPA 904.0	553359		
50332748003	DUP-6	EPA 904.0	553359		
50332748001	MW-20D	Total Radium Calculation	557145		
50332748002	MW-20I	Total Radium Calculation	557145		
50332748003	DUP-6	Total Radium Calculation	557145		
50332748001	MW-20D	SM 2320B	711180		
50332748002	MW-20I	SM 2320B	711180		
50332748003	DUP-6	SM 2320B	711180		
50332748001	MW-20D	SM 2540C	710260		
50332748002	MW-20I	SM 2540C	710260		
50332748003	DUP-6	SM 2540C	710260		
50332748001	MW-20D	SM 4500-H+B	711702		
50332748002	MW-20I	SM 4500-H+B	711702		
50332748003	DUP-6	SM 4500-H+B	711702		
50332748001	MW-20D	SM 4500-S2-D	710272		
50332748002	MW-20I	SM 4500-S2-D	710272		
50332748003	DUP-6	SM 4500-S2-D	710272		
50332748001	MW-20D	HACH 8146	711044		
50332748002	MW-20I	HACH 8146	711044		
50332748003	DUP-6	HACH 8146	711044		
50332748001	MW-20D	EPA 353.2	710031		
50332748002	MW-20I	EPA 353.2	710031		
50332748003	DUP-6	EPA 353.2	710031		
50332748001	MW-20D	EPA 365.1	710881	EPA 365.1	711505
50332748002	MW-20I	EPA 365.1	710881	EPA 365.1	711505
50332748003	DUP-6	EPA 365.1	710881	EPA 365.1	711505

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### QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Eagle Valley Oct 2022 P1R4

Pace Project No.: 50332748

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
50332748001	MW-20D	SM 5310C	711125		
50332748002	MW-20I	SM 5310C	711125		
50332748003	DUP-6	SM 5310C	711125		
50332748001	MW-20D	SM 5310C	710831		
50332748002	MW-20I	SM 5310C	710831		
50332748003	DUP-6	SM 5310C	710831		

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**SAMPLE CONDITION UPON RECEIPT FORM**

Date/Time and Initials of person examining contents: MR 12/2/22 1610

1. Courier:  FED EX  UPS  CLIENT  PACE  USPS  OTHER \_\_\_\_\_
2. Custody Seal on Cooler/Box Present:  Yes  No  
 (If yes)Seals Intact:  Yes  No (leave blank if no seals were present)
3. Thermometer: **1 2 3 4 5 6 A B C D E F** F
4. Cooler Temperature(s): 3.4/3.4 3.0/2.0    
 (Initial/Corrected) RECORD TEMPS OF ALL COOLERS RECEIVED (use Comments below to add more)

5. Packing Material:  Bubble Wrap  Bubble Bags  
 None  Other \_\_\_\_\_
6. Ice Type:  Wet  Blue  None
7. If temp. is over 6°C or under 0°C, was the PM notified?:  Yes  No  
 Cooler temp should be above freezing to 6°C

All discrepancies will be written out in the comments section below.

	Yes	No		Yes	No	N/A
USDA Regulated Soils? (HI, ID, NY, WA, OR,CA, NM, TX, OK, AR, LA, TN, AL, MS, NC, SC, GA, FL, or Puerto Rico)		<input checked="" type="checkbox"/>	All containers needing acid/base preservation have been pH CHECKED?: Exceptions: VOA, coliform, LLHg, O&G, RAD CHEM, and any container with a septum cap or preserved with HCl.			
Short Hold Time Analysis (48 hours or less)? Analysis: <u>AN 3</u>	<input checked="" type="checkbox"/>		Circle: <u>HNO3 (&gt;2)</u> <u>H2SO4 (&lt;2)</u> NaOH (>10) <u>NaOH/ZnAc (&gt;9)</u> Any non-conformance to pH recommendations will be noted on the container count form	<input checked="" type="checkbox"/>		
Time 5035A TC placed in Freezer or Short Holds To Lab Time: <u>1618</u>			Residual Chlorine Check (SVOC 625 Pest/PCB 608)	<u>Present</u>	<u>Absent</u>	<u>N/A</u>
Rush TAT Requested (4 days or less):		<input checked="" type="checkbox"/>	Residual Chlorine Check (Total/Amenable/Free Cyanide)			<u>Present</u>
Custody Signatures Present?	<input checked="" type="checkbox"/>		Headspace Wisconsin Sulfide?			<u>Present</u>
Containers Intact?:	<input checked="" type="checkbox"/>		Headspace in VOA Vials (>6mm): See Containter Count form for details	<u>Present</u>	<u>Absent</u>	<u>No VOA Vials Sent</u>
Sample Label (IDs/Dates/Times) Match COC?: Except TCs, which only require sample ID	<input checked="" type="checkbox"/>		Trip Blank Present?		<u>Present</u>	
Extra labels on Terracore Vials? (soils only)			Trip Blank Custody Seals?:		<u>Present</u>	

COMMENTS:

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March 06, 2023

Mr. Mark Breting  
ATC Group Services  
7988 Centerpoint Drive  
Suite 100  
Indianapolis, IN 46256

RE: Project: Eagle Valley Oct2022 P1R4  
Pace Project No.: 50333527

Dear Mr. Breting:

Enclosed are the analytical results for sample(s) received by the laboratory on December 14, 2022. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

The test results provided in this final report were generated by each of the following laboratories within the Pace Network:

- Pace Analytical Services - Indianapolis
- Pace Analytical Services - Greensburg

If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Will Statz  
will.statz@pacelabs.com  
(317)228-3105  
Project Manager

Enclosures

cc: Mr. Robert Miller, Haley & Aldrich



## REPORT OF LABORATORY ANALYSIS

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## CERTIFICATIONS

Project: Eagle Valley Oct2022 P1R4

Pace Project No.: 50333527

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### **Pace Analytical Services Pennsylvania**

1638 Roseytown Rd Suites 2,3&4, Greensburg, PA 15601

ANAB DOD-ELAP Rad Accreditation #: L2417

Alabama Certification #: 41590

Arizona Certification #: AZ0734

Arkansas Certification

California Certification #: 04222CA

Colorado Certification #: PA01547

Connecticut Certification #: PH-0694

Delaware Certification

EPA Region 4 DW Rad

Florida/TNI Certification #: E87683

Georgia Certification #: C040

Florida: Cert E871149 SEKS WET

Guam Certification

Hawaii Certification

Idaho Certification

Illinois Certification

Indiana Certification

Iowa Certification #: 391

Kansas/TNI Certification #: E-10358

Kentucky Certification #: KY90133

KY WW Permit #: KY0098221

KY WW Permit #: KY0000221

Louisiana DHH/TNI Certification #: LA180012

Louisiana DEQ/TNI Certification #: 4086

Maine Certification #: 2017020

Maryland Certification #: 308

Massachusetts Certification #: M-PA1457

Michigan/PADEP Certification #: 9991

Missouri Certification #: 235

Montana Certification #: Cert0082

Nebraska Certification #: NE-OS-29-14

Nevada Certification #: PA014572018-1

New Hampshire/TNI Certification #: 297617

New Jersey/TNI Certification #: PA051

New Mexico Certification #: PA01457

New York/TNI Certification #: 10888

North Carolina Certification #: 42706

North Dakota Certification #: R-190

Ohio EPA Rad Approval: #41249

Oregon/TNI Certification #: PA200002-010

Pennsylvania/TNI Certification #: 65-00282

Puerto Rico Certification #: PA01457

Rhode Island Certification #: 65-00282

South Dakota Certification

Tennessee Certification #: 02867

Texas/TNI Certification #: T104704188-17-3

Utah/TNI Certification #: PA014572017-9

USDA Soil Permit #: P330-17-00091

Vermont Dept. of Health: ID# VT-0282

Virgin Island/PADEP Certification

Virginia/VELAP Certification #: 460198

Washington Certification #: C868

West Virginia DEP Certification #: 143

West Virginia DHHR Certification #: 9964C

Wisconsin Approve List for Rad

Wyoming Certification #: 8TMS-L

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### **Pace Analytical Services Indianapolis**

7726 Moller Road, Indianapolis, IN 46268

Illinois Accreditation #: 200074

Indiana Drinking Water Laboratory #: C-49-06

Kansas/TNI Certification #: E-10177

Kentucky UST Agency Interest #: 80226

Kentucky WW Laboratory ID #: 98019

Michigan Drinking Water Laboratory #9050

Ohio VAP Certified Laboratory #: CL0065

Oklahoma Laboratory #: 9204

Texas Certification #: T104704355

Wisconsin Laboratory #: 999788130

USDA Foreign Soil Permit #: 525-23-13-23119

USDA Compliance Agreement #: IN-SL-22-001

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## REPORT OF LABORATORY ANALYSIS

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## SAMPLE SUMMARY

Project: Eagle Valley Oct2022 P1R4

Pace Project No.: 50333527

Lab ID	Sample ID	Matrix	Date Collected	Date Received
50333527001	MW-23D	Water	12/13/22 10:54	12/14/22 15:40
50333527002	MW-23I	Water	12/13/22 12:06	12/14/22 15:40
50333527003	MW-23S	Water	12/13/22 13:13	12/14/22 15:40
50333527004	MW-21S	Water	12/13/22 15:45	12/14/22 15:40
50333527005	FIELD BLANK 4	Water	12/13/22 15:16	12/14/22 15:40
50333527006	DUP-7	Water	12/13/22 00:00	12/14/22 15:40

## REPORT OF LABORATORY ANALYSIS

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### SAMPLE ANALYTE COUNT

Project: Eagle Valley Oct2022 P1R4

Pace Project No.: 50333527

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory		
50333527001	MW-23D	EPA 9056	RMR	3	PASI-I		
		EPA 6010	JPK	12	PASI-I		
		EPA 6010	MTM	2	PASI-I		
		EPA 6020	DMT	3	PASI-I		
		EPA 903.1	CLM	1	PASI-PA		
		EPA 904.0	ZPC	1	PASI-PA		
		Total Radium Calculation	JAL	1	PASI-PA		
		SM 2320B	TAY	3	PASI-I		
		SM 2540C	MTW	1	PASI-I		
		SM 4500-H+B	TRK	1	PASI-I		
		SM 4500-S2-D	BEP	1	PASI-I		
		HACH 8146	ZM	1	PASI-I		
		EPA 353.2	OAS	2	PASI-I		
		EPA 365.1	MMS	1	PASI-I		
		SM 5310C	ATS	1	PASI-I		
		SM 5310C	ATS	1	PASI-I		
		50333527002	MW-23I	EPA 9056	RMR	3	PASI-I
				EPA 6010	MTM	12	PASI-I
				EPA 6010	MTM	2	PASI-I
EPA 6020	DMT			3	PASI-I		
EPA 903.1	CLM			1	PASI-PA		
EPA 904.0	ZPC			1	PASI-PA		
Total Radium Calculation	JAL			1	PASI-PA		
SM 2320B	TAY			3	PASI-I		
SM 2540C	MTW			1	PASI-I		
SM 4500-H+B	TRK			1	PASI-I		
SM 4500-S2-D	BEP			1	PASI-I		
HACH 8146	ZM			1	PASI-I		
EPA 353.2	OAS			2	PASI-I		
EPA 365.1	MMS			1	PASI-I		
SM 5310C	ATS			1	PASI-I		
SM 5310C	ATS			1	PASI-I		
50333527003	MW-23S			EPA 9056	RMR	3	PASI-I
				EPA 6010	MTM	12	PASI-I
				EPA 6010	MTM	2	PASI-I
		EPA 6020	DMT	3	PASI-I		
		EPA 903.1	CLM	1	PASI-PA		

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### SAMPLE ANALYTE COUNT

Project: Eagle Valley Oct2022 P1R4

Pace Project No.: 50333527

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
50333527004	MW-21S	EPA 904.0	ZPC	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
		SM 2320B	TAY	3	PASI-I
		SM 2540C	MTW	1	PASI-I
		SM 4500-H+B	TRK	1	PASI-I
		SM 4500-S2-D	BEP	1	PASI-I
		HACH 8146	ZM	1	PASI-I
		EPA 353.2	OAS	2	PASI-I
		EPA 365.1	MMS	1	PASI-I
		SM 5310C	ATS	1	PASI-I
		SM 5310C	ATS	1	PASI-I
		EPA 9056	RMR	3	PASI-I
		EPA 6010	MTM	12	PASI-I
		EPA 6010	MTM	2	PASI-I
		EPA 6020	DMT	3	PASI-I
		EPA 903.1	CLM	1	PASI-PA
		EPA 904.0	ZPC	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
		SM 2320B	TAY	3	PASI-I
		SM 2540C	MTW	1	PASI-I
		SM 4500-H+B	TRK	1	PASI-I
		SM 4500-S2-D	BEP	1	PASI-I
		HACH 8146	ZM	1	PASI-I
EPA 353.2	OAS	2	PASI-I		
EPA 365.1	MMS	1	PASI-I		
SM 5310C	ATS	1	PASI-I		
SM 5310C	ATS	1	PASI-I		
50333527005	FIELD BLANK 4	EPA 9056	RMR	3	PASI-I
		EPA 6010	MTM	12	PASI-I
		EPA 6020	DMT	3	PASI-I
		EPA 903.1	CLM	1	PASI-PA
		EPA 904.0	ZPC	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
		SM 2320B	TAY	3	PASI-I
		SM 2540C	MTW	1	PASI-I
		SM 4500-H+B	TRK	1	PASI-I
		HACH 8146	ZM	1	PASI-I

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### SAMPLE ANALYTE COUNT

Project: Eagle Valley Oct2022 P1R4

Pace Project No.: 50333527

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
50333527006	DUP-7	EPA 353.2	OAS	2	PASI-I
		EPA 365.1	MMS	1	PASI-I
		SM 5310C	ATS	1	PASI-I
		EPA 9056	RMR	3	PASI-I
		EPA 6010	MTM	12	PASI-I
		EPA 6010	MTM	2	PASI-I
		EPA 6020	DMT	3	PASI-I
		EPA 903.1	CLM	1	PASI-PA
		EPA 904.0	ZPC	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
		SM 2320B	TAY	3	PASI-I
		SM 2540C	MTW	1	PASI-I
		SM 4500-H+B	TRK	1	PASI-I
		SM 4500-S2-D	BEP	1	PASI-I
		HACH 8146	ZM	1	PASI-I
		EPA 353.2	OAS	2	PASI-I
		EPA 365.1	MMS	1	PASI-I
		SM 5310C	ATS	1	PASI-I
		SM 5310C	ATS	1	PASI-I

PASI-I = Pace Analytical Services - Indianapolis

PASI-PA = Pace Analytical Services - Greensburg

### REPORT OF LABORATORY ANALYSIS

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### SUMMARY OF DETECTION

Project: Eagle Valley Oct2022 P1R4

Pace Project No.: 50333527

Lab Sample ID	Client Sample ID	Result	Units	Report Limit	Analyzed	Qualifiers
Method	Parameters					
<b>50333527001</b>	<b>MW-23D</b>					
EPA 9056	Chloride	20.4	mg/L	2.5	12/15/22 13:05	
EPA 9056	Fluoride	0.13	mg/L	0.10	12/15/22 12:48	
EPA 9056	Sulfate	37.7	mg/L	2.5	12/15/22 13:05	
EPA 6010	Aluminum	243	ug/L	200	12/29/22 00:53	
EPA 6010	Barium	50.8	ug/L	10.0	12/29/22 00:53	
EPA 6010	Calcium	71300	ug/L	1000	12/29/22 00:53	
EPA 6010	Iron	981	ug/L	100	12/29/22 00:53	
EPA 6010	Magnesium	21100	ug/L	1000	12/29/22 00:53	
EPA 6010	Manganese	196	ug/L	10.0	12/29/22 00:53	
EPA 6010	Potassium	1820	ug/L	1000	12/29/22 00:53	
EPA 6010	Silica	16000	ug/L	450	12/29/22 00:53	N2
EPA 6010	Sodium	14800	ug/L	1000	12/29/22 00:53	
EPA 6010	Manganese, Dissolved	176	ug/L	10.0	12/28/22 14:43	
EPA 6020	Arsenic	1.1	ug/L	1.0	12/16/22 09:35	
EPA 6020	Selenium	1.9	ug/L	1.0	12/16/22 09:35	
EPA 903.1	Radium-226	-0.0488 ± 0.370 (0.774)	pCi/L		01/06/23 14:00	
EPA 904.0	Radium-228	0.491 ± 0.287 (0.519) C:95% T:92%	pCi/L		01/04/23 14:54	
Total Radium Calculation	Total Radium	0.491 ± 0.657 (1.29)	pCi/L		01/09/23 10:46	
SM 2320B	Alkalinity, Total as CaCO3	229	mg/L	10.0	12/21/22 14:18	
SM 2320B	Alkalinity, Bicarbonate (CaCO3)	229	mg/L	10.0	12/21/22 14:18	
SM 2540C	Total Dissolved Solids	278	mg/L	10.0	12/15/22 09:11	
SM 4500-H+B	pH at 25 Degrees C	7.9	Std. Units	0.10	12/22/22 15:22	H3
EPA 353.2	Nitrogen, Nitrate	0.12	mg/L	0.10	12/14/22 17:45	
SM 5310C	Dissolved Organic Carbon	1.0	mg/L	1.0	12/23/22 12:33	
<b>50333527002</b>	<b>MW-23I</b>					
EPA 9056	Chloride	16.1	mg/L	2.5	12/15/22 14:44	
EPA 9056	Fluoride	0.11	mg/L	0.10	12/15/22 14:27	
EPA 9056	Sulfate	34.6	mg/L	2.5	12/15/22 14:44	
EPA 6010	Barium	34.0	ug/L	10.0	12/28/22 13:18	
EPA 6010	Calcium	84200	ug/L	1000	12/28/22 13:18	
EPA 6010	Iron	321	ug/L	100	12/28/22 13:18	
EPA 6010	Magnesium	23600	ug/L	1000	12/28/22 13:18	
EPA 6010	Manganese	52.0	ug/L	10.0	12/28/22 13:18	
EPA 6010	Potassium	1630	ug/L	1000	12/28/22 13:18	
EPA 6010	Silica	15800	ug/L	450	12/28/22 13:18	N2
EPA 6010	Sodium	17400	ug/L	1000	12/28/22 13:18	
EPA 6010	Manganese, Dissolved	38.5	ug/L	10.0	12/28/22 14:56	
EPA 6020	Selenium	4.0	ug/L	1.0	12/16/22 09:39	

### REPORT OF LABORATORY ANALYSIS

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### SUMMARY OF DETECTION

Project: Eagle Valley Oct2022 P1R4

Pace Project No.: 50333527

Lab Sample ID	Client Sample ID	Result	Units	Report Limit	Analyzed	Qualifiers
Method	Parameters					
<b>50333527002</b>	<b>MW-23I</b>					
EPA 903.1	Radium-226	0.111 ± 0.406 (0.780)	pCi/L		01/06/23 14:00	
EPA 904.0	Radium-228	0.445 ± 0.277 (0.508)	pCi/L		01/04/23 14:54	
		C:NA T:96%				
		C:92%				
		T:90%				
Total Radium Calculation	Total Radium	0.556 ± 0.683 (1.29)	pCi/L		01/09/23 10:46	
SM 2320B	Alkalinity, Total as CaCO3	252	mg/L	10.0	12/21/22 14:18	
SM 2320B	Alkalinity,Bicarbonate (CaCO3)	252	mg/L	10.0	12/21/22 14:18	
SM 2540C	Total Dissolved Solids	351	mg/L	10.0	12/15/22 09:11	
SM 4500-H+B	pH at 25 Degrees C	7.8	Std. Units	0.10	12/22/22 15:25	H3
EPA 353.2	Nitrogen, Nitrate	8.8	mg/L	1.0	12/14/22 18:10	
<b>50333527003</b>	<b>MW-23S</b>					
EPA 9056	Chloride	6.3	mg/L	0.25	12/16/22 12:17	
EPA 9056	Fluoride	0.12	mg/L	0.10	12/16/22 12:17	
EPA 9056	Sulfate	11.2	mg/L	0.25	12/16/22 12:17	
EPA 6010	Barium	45.4	ug/L	10.0	12/28/22 13:21	
EPA 6010	Calcium	104000	ug/L	1000	12/28/22 13:21	
EPA 6010	Magnesium	29800	ug/L	1000	12/28/22 13:21	
EPA 6010	Manganese	10.2	ug/L	10.0	12/28/22 13:21	
EPA 6010	Silica	14000	ug/L	450	12/28/22 13:21	N2
EPA 6010	Sodium	8730	ug/L	1000	12/28/22 13:21	
EPA 903.1	Radium-226	-0.273 ± 0.416 (0.953)	pCi/L		01/06/23 14:00	
EPA 904.0	Radium-228	0.201 ± 0.270 (0.577)	pCi/L		01/04/23 14:54	
		C:NA T:99%				
		C:95%				
		T:86%				
Total Radium Calculation	Total Radium	0.201 ± 0.686 (1.53)	pCi/L		01/09/23 10:46	
SM 2320B	Alkalinity, Total as CaCO3	324	mg/L	10.0	12/21/22 14:18	
SM 2320B	Alkalinity,Bicarbonate (CaCO3)	324	mg/L	10.0	12/21/22 14:18	
SM 2540C	Total Dissolved Solids	364	mg/L	10.0	12/15/22 09:12	
SM 4500-H+B	pH at 25 Degrees C	7.5	Std. Units	0.10	12/22/22 15:26	H3
EPA 353.2	Nitrogen, Nitrate	7.9	mg/L	1.0	12/14/22 18:00	
<b>50333527004</b>	<b>MW-21S</b>					
EPA 9056	Chloride	50.9	mg/L	2.5	12/16/22 12:47	
EPA 9056	Fluoride	0.19	mg/L	0.10	12/16/22 12:32	
EPA 9056	Sulfate	35.4	mg/L	2.5	12/16/22 12:47	
EPA 6010	Barium	40.8	ug/L	10.0	12/28/22 13:23	
EPA 6010	Calcium	75700	ug/L	1000	12/28/22 13:23	

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### SUMMARY OF DETECTION

Project: Eagle Valley Oct2022 P1R4

Pace Project No.: 50333527

Lab Sample ID Method	Client Sample ID Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
<b>50333527004</b>	<b>MW-21S</b>					
EPA 6010	Magnesium	22900	ug/L	1000	12/28/22 13:23	
EPA 6010	Manganese	223	ug/L	10.0	12/28/22 13:23	
EPA 6010	Potassium	3580	ug/L	1000	12/28/22 13:23	
EPA 6010	Silica	9920	ug/L	450	12/28/22 13:23	N2
EPA 6010	Sodium	34000	ug/L	1000	12/28/22 13:23	
EPA 6010	Manganese, Dissolved	203	ug/L	10.0	12/28/22 15:01	
EPA 903.1	Radium-226	0.0497 ± 0.425 (0.828)	pCi/L		01/06/23 14:00	
EPA 904.0	Radium-228	C:NA T:92% 0.436 ± 0.325 (0.633)	pCi/L		01/04/23 14:54	
		C:92% T:82%				
Total Radium Calculation	Total Radium	0.486 ± 0.750 (1.46)	pCi/L		01/09/23 10:46	
SM 2320B	Alkalinity, Total as CaCO3	256	mg/L	10.0	12/21/22 14:18	
SM 2320B	Alkalinity,Bicarbonate (CaCO3)	256	mg/L	10.0	12/21/22 14:18	
SM 2540C	Total Dissolved Solids	364	mg/L	10.0	12/15/22 09:12	
SM 4500-H+B	pH at 25 Degrees C	7.7	Std. Units	0.10	12/22/22 15:28	H3
EPA 353.2	Nitrogen, Nitrate	0.52	mg/L	0.10	12/14/22 18:06	
SM 5310C	Dissolved Organic Carbon	1.4	mg/L	1.0	12/23/22 13:04	
<b>50333527005</b>	<b>FIELD BLANK 4</b>					
EPA 903.1	Radium-226	0.295 ± 0.410 (0.692)	pCi/L		01/06/23 14:00	
EPA 904.0	Radium-228	C:NA T:94% 0.670 ± 0.345 (0.603)	pCi/L		01/04/23 14:54	
		C:94% T:85%				
Total Radium Calculation	Total Radium	0.965 ± 0.755 (1.30)	pCi/L		01/09/23 10:46	
SM 4500-H+B	pH at 25 Degrees C	5.6	Std. Units	0.10	12/22/22 15:30	H3
<b>50333527006</b>	<b>DUP-7</b>					
EPA 9056	Chloride	6.4	mg/L	0.25	12/16/22 13:19	
EPA 9056	Fluoride	0.11	mg/L	0.10	12/16/22 13:19	
EPA 9056	Sulfate	11.3	mg/L	0.25	12/16/22 13:19	
EPA 6010	Barium	43.4	ug/L	10.0	12/28/22 13:28	
EPA 6010	Calcium	97900	ug/L	1000	12/28/22 13:28	
EPA 6010	Magnesium	28200	ug/L	1000	12/28/22 13:28	
EPA 6010	Silica	13200	ug/L	450	12/28/22 13:28	N2
EPA 6010	Sodium	8220	ug/L	1000	12/28/22 13:28	

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### SUMMARY OF DETECTION

Project: Eagle Valley Oct2022 P1R4

Pace Project No.: 50333527

Lab Sample ID Method	Client Sample ID Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
<b>50333527006</b>	<b>DUP-7</b>					
EPA 903.1	Radium-226	0.488 ± 0.416 (0.584) C:NA T:92%	pCi/L		01/06/23 14:19	
EPA 904.0	Radium-228	-0.0450 ± 0.244 (0.584) C:93% T:86%	pCi/L		01/04/23 14:54	
Total Radium Calculation	Total Radium	0.488 ± 0.660 (1.17)	pCi/L		01/09/23 10:46	
SM 2320B	Alkalinity, Total as CaCO3	324	mg/L	10.0	12/21/22 14:18	
SM 2320B	Alkalinity,Bicarbonate (CaCO3)	324	mg/L	10.0	12/21/22 14:18	
SM 2540C	Total Dissolved Solids	363	mg/L	10.0	12/15/22 09:14	
SM 4500-H+B	pH at 25 Degrees C	7.5	Std. Units	0.10	12/22/22 15:31	H3
EPA 353.2	Nitrogen, Nitrate	7.8	mg/L	1.0	12/14/22 18:08	

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### ANALYTICAL RESULTS

Project: Eagle Valley Oct2022 P1R4

Pace Project No.: 50333527

Sample: MW-23D		Lab ID: 50333527001		Collected: 12/13/22 10:54		Received: 12/14/22 15:40		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>9056 IC Anions</b>		Analytical Method: EPA 9056 Pace Analytical Services - Indianapolis							
Chloride	20.4	mg/L	2.5	0.67	10		12/15/22 13:05	16887-00-6	
Fluoride	0.13	mg/L	0.10	0.017	1		12/15/22 12:48	16984-48-8	
Sulfate	37.7	mg/L	2.5	0.85	10		12/15/22 13:05	14808-79-8	
<b>6010 MET ICP</b>		Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis							
Aluminum	243	ug/L	200	55.4	1	12/27/22 08:40	12/29/22 00:53	7429-90-5	
Barium	50.8	ug/L	10.0	2.1	1	12/27/22 08:40	12/29/22 00:53	7440-39-3	
Boron	ND	ug/L	100	37.6	1	12/27/22 08:40	12/29/22 00:53	7440-42-8	
Calcium	71300	ug/L	1000	163	1	12/27/22 08:40	12/29/22 00:53	7440-70-2	
Iron	981	ug/L	100	48.8	1	12/27/22 08:40	12/29/22 00:53	7439-89-6	
Lithium	ND	ug/L	20.0	6.2	1	12/27/22 08:40	12/29/22 00:53	7439-93-2	
Magnesium	21100	ug/L	1000	71.8	1	12/27/22 08:40	12/29/22 00:53	7439-95-4	
Manganese	196	ug/L	10.0	2.5	1	12/27/22 08:40	12/29/22 00:53	7439-96-5	
Molybdenum	ND	ug/L	10.0	3.7	1	12/27/22 08:40	12/29/22 00:53	7439-98-7	
Potassium	1820	ug/L	1000	281	1	12/27/22 08:40	12/29/22 00:53	7440-09-7	
Silica	16000	ug/L	450		1	12/27/22 08:40	12/29/22 00:53	7631-86-9	N2
Sodium	14800	ug/L	1000	214	1	12/27/22 08:40	12/29/22 00:53	7440-23-5	
<b>6010 MET ICP, Dissolved</b>		Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis							
Manganese, Dissolved	176	ug/L	10.0	2.5	1	12/22/22 08:35	12/28/22 14:43	7439-96-5	
Molybdenum, Dissolved	ND	ug/L	10.0	3.7	1	12/22/22 08:35	12/28/22 14:43	7439-98-7	
<b>6020 MET ICPMS</b>		Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis							
Antimony	ND	ug/L	1.0	0.28	1	12/15/22 15:00	12/16/22 09:35	7440-36-0	
Arsenic	1.1	ug/L	1.0	0.094	1	12/15/22 15:00	12/16/22 09:35	7440-38-2	
Selenium	1.9	ug/L	1.0	0.57	1	12/15/22 15:00	12/16/22 09:35	7782-49-2	
<b>2320B Alkalinity</b>		Analytical Method: SM 2320B Pace Analytical Services - Indianapolis							
Alkalinity, Total as CaCO3	229	mg/L	10.0	10.0	1		12/21/22 14:18		
Alkalinity,Bicarbonate (CaCO3)	229	mg/L	10.0	10.0	1		12/21/22 14:18		
Alkalinity,Carbonate (CaCO3)	ND	mg/L	10.0	10.0	1		12/21/22 14:18		
<b>2540C Total Dissolved Solids</b>		Analytical Method: SM 2540C Pace Analytical Services - Indianapolis							
Total Dissolved Solids	278	mg/L	10.0	10.0	1		12/15/22 09:11		
<b>4500H+ pH, Electrometric</b>		Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis							
pH at 25 Degrees C	7.9	Std. Units	0.10	0.10	1		12/22/22 15:22		H3

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### ANALYTICAL RESULTS

Project: Eagle Valley Oct2022 P1R4

Pace Project No.: 50333527

Sample: MW-23D		Lab ID: 50333527001		Collected: 12/13/22 10:54	Received: 12/14/22 15:40	Matrix: Water			
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>4500S2D Sulfide Water</b>		Analytical Method: SM 4500-S2-D Pace Analytical Services - Indianapolis							
Sulfide	ND	mg/L	0.10	0.025	1		12/19/22 16:08	18496-25-8	
<b>Iron, Ferrous</b>		Analytical Method: HACH 8146 Pace Analytical Services - Indianapolis							
Iron, Ferrous	ND	mg/L	0.20	0.096	1		12/27/22 15:39	15438-31-0	H3,N2
<b>353.2 Nitrogen, NO2/NO3 unpres</b>		Analytical Method: EPA 353.2 Pace Analytical Services - Indianapolis							
Nitrogen, Nitrate	<b>0.12</b>	mg/L	0.10	0.011	1		12/14/22 17:45	14797-55-8	
Nitrogen, Nitrite	ND	mg/L	0.10	0.0040	1		12/14/22 17:45	14797-65-0	
<b>365.1 Total Phosphorus</b>		Analytical Method: EPA 365.1 Preparation Method: EPA 365.1 Pace Analytical Services - Indianapolis							
Phosphate as P04	ND	mg/L	0.15	0.15	1	12/19/22 11:30	12/19/22 16:42		
<b>5310C TOC</b>		Analytical Method: SM 5310C Pace Analytical Services - Indianapolis							
Total Organic Carbon	ND	mg/L	1.0	0.14	1		12/27/22 20:30	7440-44-0	
<b>5310C Dissolved Organic Carbon</b>		Analytical Method: SM 5310C Pace Analytical Services - Indianapolis							
Dissolved Organic Carbon	<b>1.0</b>	mg/L	1.0	0.14	1		12/23/22 12:33		

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### ANALYTICAL RESULTS

Project: Eagle Valley Oct2022 P1R4

Pace Project No.: 50333527

Sample: MW-23I		Lab ID: 50333527002		Collected: 12/13/22 12:06		Received: 12/14/22 15:40		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>9056 IC Anions</b>		Analytical Method: EPA 9056 Pace Analytical Services - Indianapolis							
Chloride	16.1	mg/L	2.5	0.67	10		12/15/22 14:44	16887-00-6	
Fluoride	0.11	mg/L	0.10	0.017	1		12/15/22 14:27	16984-48-8	
Sulfate	34.6	mg/L	2.5	0.85	10		12/15/22 14:44	14808-79-8	
<b>6010 MET ICP</b>		Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis							
Aluminum	ND	ug/L	200	55.4	1	12/21/22 15:53	12/28/22 13:18	7429-90-5	
Barium	34.0	ug/L	10.0	2.1	1	12/21/22 15:53	12/28/22 13:18	7440-39-3	
Boron	ND	ug/L	100	37.6	1	12/21/22 15:53	12/28/22 13:18	7440-42-8	
Calcium	84200	ug/L	1000	163	1	12/21/22 15:53	12/28/22 13:18	7440-70-2	
Iron	321	ug/L	100	48.8	1	12/21/22 15:53	12/28/22 13:18	7439-89-6	
Lithium	ND	ug/L	20.0	6.2	1	12/21/22 15:53	12/28/22 13:18	7439-93-2	
Magnesium	23600	ug/L	1000	71.8	1	12/21/22 15:53	12/28/22 13:18	7439-95-4	
Manganese	52.0	ug/L	10.0	2.5	1	12/21/22 15:53	12/28/22 13:18	7439-96-5	
Molybdenum	ND	ug/L	10.0	3.7	1	12/21/22 15:53	12/28/22 13:18	7439-98-7	
Potassium	1630	ug/L	1000	281	1	12/21/22 15:53	12/28/22 13:18	7440-09-7	
Silica	15800	ug/L	450		1	12/21/22 15:53	12/28/22 13:18	7631-86-9	N2
Sodium	17400	ug/L	1000	214	1	12/21/22 15:53	12/28/22 13:18	7440-23-5	
<b>6010 MET ICP, Dissolved</b>		Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis							
Manganese, Dissolved	38.5	ug/L	10.0	2.5	1	12/22/22 08:35	12/28/22 14:56	7439-96-5	
Molybdenum, Dissolved	ND	ug/L	10.0	3.7	1	12/22/22 08:35	12/28/22 14:56	7439-98-7	
<b>6020 MET ICPMS</b>		Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis							
Antimony	ND	ug/L	1.0	0.28	1	12/15/22 15:00	12/16/22 09:39	7440-36-0	
Arsenic	ND	ug/L	1.0	0.094	1	12/15/22 15:00	12/16/22 09:39	7440-38-2	
Selenium	4.0	ug/L	1.0	0.57	1	12/15/22 15:00	12/16/22 09:39	7782-49-2	
<b>2320B Alkalinity</b>		Analytical Method: SM 2320B Pace Analytical Services - Indianapolis							
Alkalinity, Total as CaCO3	252	mg/L	10.0	10.0	1		12/21/22 14:18		
Alkalinity,Bicarbonate (CaCO3)	252	mg/L	10.0	10.0	1		12/21/22 14:18		
Alkalinity,Carbonate (CaCO3)	ND	mg/L	10.0	10.0	1		12/21/22 14:18		
<b>2540C Total Dissolved Solids</b>		Analytical Method: SM 2540C Pace Analytical Services - Indianapolis							
Total Dissolved Solids	351	mg/L	10.0	10.0	1		12/15/22 09:11		
<b>4500H+ pH, Electrometric</b>		Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis							
pH at 25 Degrees C	7.8	Std. Units	0.10	0.10	1		12/22/22 15:25		H3

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### ANALYTICAL RESULTS

Project: Eagle Valley Oct2022 P1R4

Pace Project No.: 50333527

Sample: MW-23I		Lab ID: 50333527002		Collected: 12/13/22 12:06	Received: 12/14/22 15:40	Matrix: Water				
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual	
<b>4500S2D Sulfide Water</b>		Analytical Method: SM 4500-S2-D Pace Analytical Services - Indianapolis								
Sulfide	ND	mg/L	0.10	0.025	1		12/19/22 16:08	18496-25-8		
<b>Iron, Ferrous</b>		Analytical Method: HACH 8146 Pace Analytical Services - Indianapolis								
Iron, Ferrous	ND	mg/L	0.20	0.096	1		12/27/22 15:50	15438-31-0	H3,N2	
<b>353.2 Nitrogen, NO2/NO3 unpres</b>		Analytical Method: EPA 353.2 Pace Analytical Services - Indianapolis								
Nitrogen, Nitrate	<b>8.8</b>	mg/L	1.0	0.11	10		12/14/22 18:10	14797-55-8		
Nitrogen, Nitrite	ND	mg/L	1.0	0.040	10		12/14/22 18:10	14797-65-0		
<b>365.1 Total Phosphorus</b>		Analytical Method: EPA 365.1 Preparation Method: EPA 365.1 Pace Analytical Services - Indianapolis								
Phosphate as P04	ND	mg/L	0.15	0.15	1	12/19/22 11:30	12/19/22 16:44			
<b>5310C TOC</b>		Analytical Method: SM 5310C Pace Analytical Services - Indianapolis								
Total Organic Carbon	ND	mg/L	1.0	0.14	1		12/27/22 21:02	7440-44-0		
<b>5310C Dissolved Organic Carbon</b>		Analytical Method: SM 5310C Pace Analytical Services - Indianapolis								
Dissolved Organic Carbon	ND	mg/L	1.0	0.14	1		12/23/22 12:43			

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## ANALYTICAL RESULTS

Project: Eagle Valley Oct2022 P1R4

Pace Project No.: 50333527

Sample: MW-23S		Lab ID: 50333527003		Collected: 12/13/22 13:13	Received: 12/14/22 15:40	Matrix: Water				
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual	
<b>9056 IC Anions</b>		Analytical Method: EPA 9056 Pace Analytical Services - Indianapolis								
Chloride	6.3	mg/L	0.25	0.067	1		12/16/22 12:17	16887-00-6		
Fluoride	0.12	mg/L	0.10	0.017	1		12/16/22 12:17	16984-48-8		
Sulfate	11.2	mg/L	0.25	0.085	1		12/16/22 12:17	14808-79-8		
<b>6010 MET ICP</b>		Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Aluminum	ND	ug/L	200	55.4	1	12/21/22 15:53	12/28/22 13:21	7429-90-5		
Barium	45.4	ug/L	10.0	2.1	1	12/21/22 15:53	12/28/22 13:21	7440-39-3		
Boron	ND	ug/L	100	37.6	1	12/21/22 15:53	12/28/22 13:21	7440-42-8		
Calcium	104000	ug/L	1000	163	1	12/21/22 15:53	12/28/22 13:21	7440-70-2		
Iron	ND	ug/L	100	48.8	1	12/21/22 15:53	12/28/22 13:21	7439-89-6		
Lithium	ND	ug/L	20.0	6.2	1	12/21/22 15:53	12/28/22 13:21	7439-93-2		
Magnesium	29800	ug/L	1000	71.8	1	12/21/22 15:53	12/28/22 13:21	7439-95-4		
Manganese	10.2	ug/L	10.0	2.5	1	12/21/22 15:53	12/28/22 13:21	7439-96-5		
Molybdenum	ND	ug/L	10.0	3.7	1	12/21/22 15:53	12/28/22 13:21	7439-98-7		
Potassium	ND	ug/L	1000	281	1	12/21/22 15:53	12/28/22 13:21	7440-09-7		
Silica	14000	ug/L	450		1	12/21/22 15:53	12/28/22 13:21	7631-86-9	N2	
Sodium	8730	ug/L	1000	214	1	12/21/22 15:53	12/28/22 13:21	7440-23-5		
<b>6010 MET ICP, Dissolved</b>		Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Manganese, Dissolved	ND	ug/L	10.0	2.5	1	12/22/22 08:35	12/28/22 14:58	7439-96-5		
Molybdenum, Dissolved	ND	ug/L	10.0	3.7	1	12/22/22 08:35	12/28/22 14:58	7439-98-7		
<b>6020 MET ICPMS</b>		Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis								
Antimony	ND	ug/L	1.0	0.28	1	12/15/22 15:00	12/16/22 09:49	7440-36-0		
Arsenic	ND	ug/L	1.0	0.094	1	12/15/22 15:00	12/16/22 09:49	7440-38-2		
Selenium	ND	ug/L	1.0	0.57	1	12/15/22 15:00	12/16/22 09:49	7782-49-2		
<b>2320B Alkalinity</b>		Analytical Method: SM 2320B Pace Analytical Services - Indianapolis								
Alkalinity, Total as CaCO3	324	mg/L	10.0	10.0	1		12/21/22 14:18			
Alkalinity,Bicarbonate (CaCO3)	324	mg/L	10.0	10.0	1		12/21/22 14:18			
Alkalinity,Carbonate (CaCO3)	ND	mg/L	10.0	10.0	1		12/21/22 14:18			
<b>2540C Total Dissolved Solids</b>		Analytical Method: SM 2540C Pace Analytical Services - Indianapolis								
Total Dissolved Solids	364	mg/L	10.0	10.0	1		12/15/22 09:12			
<b>4500H+ pH, Electrometric</b>		Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis								
pH at 25 Degrees C	7.5	Std. Units	0.10	0.10	1		12/22/22 15:26		H3	

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### ANALYTICAL RESULTS

Project: Eagle Valley Oct2022 P1R4

Pace Project No.: 50333527

Sample: MW-23S		Lab ID: 50333527003		Collected: 12/13/22 13:13	Received: 12/14/22 15:40	Matrix: Water			
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>4500S2D Sulfide Water</b>		Analytical Method: SM 4500-S2-D Pace Analytical Services - Indianapolis							
Sulfide	ND	mg/L	0.10	0.025	1		12/19/22 16:08	18496-25-8	
<b>Iron, Ferrous</b>		Analytical Method: HACH 8146 Pace Analytical Services - Indianapolis							
Iron, Ferrous	ND	mg/L	0.20	0.096	1		12/27/22 15:50	15438-31-0	H3,N2
<b>353.2 Nitrogen, NO2/NO3 unpres</b>		Analytical Method: EPA 353.2 Pace Analytical Services - Indianapolis							
Nitrogen, Nitrate	7.9	mg/L	1.0	0.11	10		12/14/22 18:00	14797-55-8	
Nitrogen, Nitrite	ND	mg/L	1.0	0.040	10		12/14/22 18:00	14797-65-0	
<b>365.1 Total Phosphorus</b>		Analytical Method: EPA 365.1 Preparation Method: EPA 365.1 Pace Analytical Services - Indianapolis							
Phosphate as P04	ND	mg/L	0.15	0.15	1	12/19/22 11:30	12/19/22 16:44		
<b>5310C TOC</b>		Analytical Method: SM 5310C Pace Analytical Services - Indianapolis							
Total Organic Carbon	ND	mg/L	1.0	0.14	1		12/27/22 21:22	7440-44-0	
<b>5310C Dissolved Organic Carbon</b>		Analytical Method: SM 5310C Pace Analytical Services - Indianapolis							
Dissolved Organic Carbon	ND	mg/L	1.0	0.14	1		12/23/22 12:53		

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## ANALYTICAL RESULTS

Project: Eagle Valley Oct2022 P1R4

Pace Project No.: 50333527

Sample: MW-21S		Lab ID: 50333527004		Collected: 12/13/22 15:45	Received: 12/14/22 15:40	Matrix: Water				
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual	
<b>9056 IC Anions</b>		Analytical Method: EPA 9056 Pace Analytical Services - Indianapolis								
Chloride	50.9	mg/L	2.5	0.67	10		12/16/22 12:47	16887-00-6		
Fluoride	0.19	mg/L	0.10	0.017	1		12/16/22 12:32	16984-48-8		
Sulfate	35.4	mg/L	2.5	0.85	10		12/16/22 12:47	14808-79-8		
<b>6010 MET ICP</b>		Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Aluminum	ND	ug/L	200	55.4	1	12/21/22 15:53	12/28/22 13:23	7429-90-5		
Barium	40.8	ug/L	10.0	2.1	1	12/21/22 15:53	12/28/22 13:23	7440-39-3		
Boron	ND	ug/L	100	37.6	1	12/21/22 15:53	12/28/22 13:23	7440-42-8		
Calcium	75700	ug/L	1000	163	1	12/21/22 15:53	12/28/22 13:23	7440-70-2		
Iron	ND	ug/L	100	48.8	1	12/21/22 15:53	12/28/22 13:23	7439-89-6		
Lithium	ND	ug/L	20.0	6.2	1	12/21/22 15:53	12/28/22 13:23	7439-93-2		
Magnesium	22900	ug/L	1000	71.8	1	12/21/22 15:53	12/28/22 13:23	7439-95-4		
Manganese	223	ug/L	10.0	2.5	1	12/21/22 15:53	12/28/22 13:23	7439-96-5		
Molybdenum	ND	ug/L	10.0	3.7	1	12/21/22 15:53	12/28/22 13:23	7439-98-7		
Potassium	3580	ug/L	1000	281	1	12/21/22 15:53	12/28/22 13:23	7440-09-7		
Silica	9920	ug/L	450		1	12/21/22 15:53	12/28/22 13:23	7631-86-9	N2	
Sodium	34000	ug/L	1000	214	1	12/21/22 15:53	12/28/22 13:23	7440-23-5		
<b>6010 MET ICP, Dissolved</b>		Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Manganese, Dissolved	203	ug/L	10.0	2.5	1	12/22/22 08:35	12/28/22 15:01	7439-96-5		
Molybdenum, Dissolved	ND	ug/L	10.0	3.7	1	12/22/22 08:35	12/28/22 15:01	7439-98-7		
<b>6020 MET ICPMS</b>		Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis								
Antimony	ND	ug/L	1.0	0.28	1	12/15/22 15:00	12/16/22 09:53	7440-36-0		
Arsenic	ND	ug/L	1.0	0.094	1	12/15/22 15:00	12/16/22 09:53	7440-38-2		
Selenium	ND	ug/L	1.0	0.57	1	12/15/22 15:00	12/16/22 09:53	7782-49-2		
<b>2320B Alkalinity</b>		Analytical Method: SM 2320B Pace Analytical Services - Indianapolis								
Alkalinity, Total as CaCO3	256	mg/L	10.0	10.0	1		12/21/22 14:18			
Alkalinity,Bicarbonate (CaCO3)	256	mg/L	10.0	10.0	1		12/21/22 14:18			
Alkalinity,Carbonate (CaCO3)	ND	mg/L	10.0	10.0	1		12/21/22 14:18			
<b>2540C Total Dissolved Solids</b>		Analytical Method: SM 2540C Pace Analytical Services - Indianapolis								
Total Dissolved Solids	364	mg/L	10.0	10.0	1		12/15/22 09:12			
<b>4500H+ pH, Electrometric</b>		Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis								
pH at 25 Degrees C	7.7	Std. Units	0.10	0.10	1		12/22/22 15:28		H3	

## REPORT OF LABORATORY ANALYSIS

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### ANALYTICAL RESULTS

Project: Eagle Valley Oct2022 P1R4

Pace Project No.: 50333527

Sample: MW-21S		Lab ID: 50333527004		Collected: 12/13/22 15:45	Received: 12/14/22 15:40	Matrix: Water				
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual	
<b>4500S2D Sulfide Water</b>		Analytical Method: SM 4500-S2-D Pace Analytical Services - Indianapolis								
Sulfide	ND	mg/L	0.10	0.025	1		12/19/22 16:08	18496-25-8		
<b>Iron, Ferrous</b>		Analytical Method: HACH 8146 Pace Analytical Services - Indianapolis								
Iron, Ferrous	ND	mg/L	0.20	0.096	1		12/27/22 15:58	15438-31-0	H3,N2	
<b>353.2 Nitrogen, NO2/NO3 unpres</b>		Analytical Method: EPA 353.2 Pace Analytical Services - Indianapolis								
Nitrogen, Nitrate	<b>0.52</b>	mg/L	0.10	0.011	1		12/14/22 18:06	14797-55-8		
Nitrogen, Nitrite	ND	mg/L	0.10	0.0040	1		12/14/22 18:06	14797-65-0		
<b>365.1 Total Phosphorus</b>		Analytical Method: EPA 365.1 Preparation Method: EPA 365.1 Pace Analytical Services - Indianapolis								
Phosphate as P04	ND	mg/L	0.15	0.15	1	12/19/22 11:30	12/19/22 16:45			
<b>5310C TOC</b>		Analytical Method: SM 5310C Pace Analytical Services - Indianapolis								
Total Organic Carbon	ND	mg/L	1.0	0.14	1		12/27/22 21:32	7440-44-0		
<b>5310C Dissolved Organic Carbon</b>		Analytical Method: SM 5310C Pace Analytical Services - Indianapolis								
Dissolved Organic Carbon	<b>1.4</b>	mg/L	1.0	0.14	1		12/23/22 13:04			

### REPORT OF LABORATORY ANALYSIS

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### ANALYTICAL RESULTS

Project: Eagle Valley Oct2022 P1R4

Pace Project No.: 50333527

Sample: FIELD BLANK 4		Lab ID: 50333527005		Collected: 12/13/22 15:16	Received: 12/14/22 15:40	Matrix: Water				
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual	
<b>9056 IC Anions</b>		Analytical Method: EPA 9056 Pace Analytical Services - Indianapolis								
Chloride	ND	mg/L	0.25	0.067	1		12/16/22 13:02	16887-00-6		
Fluoride	ND	mg/L	0.10	0.017	1		12/16/22 13:02	16984-48-8		
Sulfate	ND	mg/L	0.25	0.085	1		12/16/22 13:02	14808-79-8		
<b>6010 MET ICP</b>		Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Aluminum	ND	ug/L	200	55.4	1	12/21/22 15:53	12/28/22 13:26	7429-90-5		
Barium	ND	ug/L	10.0	2.1	1	12/21/22 15:53	12/28/22 13:26	7440-39-3		
Boron	ND	ug/L	100	37.6	1	12/21/22 15:53	12/28/22 13:26	7440-42-8		
Calcium	ND	ug/L	1000	163	1	12/21/22 15:53	12/28/22 13:26	7440-70-2		
Iron	ND	ug/L	100	48.8	1	12/21/22 15:53	12/28/22 13:26	7439-89-6		
Lithium	ND	ug/L	20.0	6.2	1	12/21/22 15:53	12/28/22 13:26	7439-93-2		
Magnesium	ND	ug/L	1000	71.8	1	12/21/22 15:53	12/28/22 13:26	7439-95-4		
Manganese	ND	ug/L	10.0	2.5	1	12/21/22 15:53	12/28/22 13:26	7439-96-5		
Molybdenum	ND	ug/L	10.0	3.7	1	12/21/22 15:53	12/28/22 13:26	7439-98-7		
Potassium	ND	ug/L	1000	281	1	12/21/22 15:53	12/28/22 13:26	7440-09-7		
Silica	ND	ug/L	450		1	12/21/22 15:53	12/28/22 13:26	7631-86-9	N2	
Sodium	ND	ug/L	1000	214	1	12/21/22 15:53	12/28/22 13:26	7440-23-5		
<b>6020 MET ICPMS</b>		Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis								
Antimony	ND	ug/L	1.0	0.28	1	12/15/22 15:00	12/16/22 09:56	7440-36-0		
Arsenic	ND	ug/L	1.0	0.094	1	12/15/22 15:00	12/16/22 09:56	7440-38-2		
Selenium	ND	ug/L	1.0	0.57	1	12/15/22 15:00	12/16/22 09:56	7782-49-2		
<b>2320B Alkalinity</b>		Analytical Method: SM 2320B Pace Analytical Services - Indianapolis								
Alkalinity, Total as CaCO3	ND	mg/L	10.0	10.0	1		12/21/22 14:18			
Alkalinity,Bicarbonate (CaCO3)	ND	mg/L	10.0	10.0	1		12/21/22 14:18			
Alkalinity,Carbonate (CaCO3)	ND	mg/L	10.0	10.0	1		12/21/22 14:18			
<b>2540C Total Dissolved Solids</b>		Analytical Method: SM 2540C Pace Analytical Services - Indianapolis								
Total Dissolved Solids	ND	mg/L	10.0	10.0	1		12/15/22 09:12		PL	
<b>4500H+ pH, Electrometric</b>		Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis								
pH at 25 Degrees C	5.6	Std. Units	0.10	0.10	1		12/22/22 15:30		H3	
<b>Iron, Ferrous</b>		Analytical Method: HACH 8146 Pace Analytical Services - Indianapolis								
Iron, Ferrous	ND	mg/L	0.20	0.096	1		12/27/22 15:51	15438-31-0	H3,N2	

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## ANALYTICAL RESULTS

Project: Eagle Valley Oct2022 P1R4

Pace Project No.: 50333527

Sample: FIELD BLANK 4		Lab ID: 50333527005		Collected: 12/13/22 15:16	Received: 12/14/22 15:40	Matrix: Water			
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>353.2 Nitrogen, NO2/NO3 unpres</b>		Analytical Method: EPA 353.2 Pace Analytical Services - Indianapolis							
Nitrogen, Nitrate	ND	mg/L	0.10	0.011	1		12/14/22 17:55	14797-55-8	
Nitrogen, Nitrite	ND	mg/L	0.10	0.0040	1		12/14/22 17:55	14797-65-0	
<b>365.1 Total Phosphorus</b>		Analytical Method: EPA 365.1 Preparation Method: EPA 365.1 Pace Analytical Services - Indianapolis							
Phosphate as P04	ND	mg/L	0.15	0.15	1	12/19/22 11:30	12/19/22 16:45		
<b>5310C TOC</b>		Analytical Method: SM 5310C Pace Analytical Services - Indianapolis							
Total Organic Carbon	ND	mg/L	1.0	0.14	1		12/27/22 21:42	7440-44-0	

## REPORT OF LABORATORY ANALYSIS

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### ANALYTICAL RESULTS

Project: Eagle Valley Oct2022 P1R4

Pace Project No.: 50333527

Sample: DUP-7	Lab ID: 50333527006	Collected: 12/13/22 00:00	Received: 12/14/22 15:40	Matrix: Water					
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>9056 IC Anions</b>									
Analytical Method: EPA 9056									
Pace Analytical Services - Indianapolis									
Chloride	6.4	mg/L	0.25	0.067	1		12/16/22 13:19	16887-00-6	
Fluoride	0.11	mg/L	0.10	0.017	1		12/16/22 13:19	16984-48-8	
Sulfate	11.3	mg/L	0.25	0.085	1		12/16/22 13:19	14808-79-8	
<b>6010 MET ICP</b>									
Analytical Method: EPA 6010 Preparation Method: EPA 3010									
Pace Analytical Services - Indianapolis									
Aluminum	ND	ug/L	200	55.4	1	12/21/22 15:53	12/28/22 13:28	7429-90-5	
Barium	43.4	ug/L	10.0	2.1	1	12/21/22 15:53	12/28/22 13:28	7440-39-3	
Boron	ND	ug/L	100	37.6	1	12/21/22 15:53	12/28/22 13:28	7440-42-8	
Calcium	97900	ug/L	1000	163	1	12/21/22 15:53	12/28/22 13:28	7440-70-2	
Iron	ND	ug/L	100	48.8	1	12/21/22 15:53	12/28/22 13:28	7439-89-6	
Lithium	ND	ug/L	20.0	6.2	1	12/21/22 15:53	12/28/22 13:28	7439-93-2	
Magnesium	28200	ug/L	1000	71.8	1	12/21/22 15:53	12/28/22 13:28	7439-95-4	
Manganese	ND	ug/L	10.0	2.5	1	12/21/22 15:53	12/28/22 13:28	7439-96-5	
Molybdenum	ND	ug/L	10.0	3.7	1	12/21/22 15:53	12/28/22 13:28	7439-98-7	
Potassium	ND	ug/L	1000	281	1	12/21/22 15:53	12/28/22 13:28	7440-09-7	
Silica	13200	ug/L	450		1	12/21/22 15:53	12/28/22 13:28	7631-86-9	N2
Sodium	8220	ug/L	1000	214	1	12/21/22 15:53	12/28/22 13:28	7440-23-5	
<b>6010 MET ICP, Dissolved</b>									
Analytical Method: EPA 6010 Preparation Method: EPA 3010									
Pace Analytical Services - Indianapolis									
Manganese, Dissolved	ND	ug/L	10.0	2.5	1	12/22/22 08:35	12/28/22 15:03	7439-96-5	
Molybdenum, Dissolved	ND	ug/L	10.0	3.7	1	12/22/22 08:35	12/28/22 15:03	7439-98-7	
<b>6020 MET ICPMS</b>									
Analytical Method: EPA 6020 Preparation Method: EPA 200.2									
Pace Analytical Services - Indianapolis									
Antimony	ND	ug/L	1.0	0.28	1	12/15/22 15:00	12/16/22 10:00	7440-36-0	
Arsenic	ND	ug/L	1.0	0.094	1	12/15/22 15:00	12/16/22 10:00	7440-38-2	
Selenium	ND	ug/L	1.0	0.57	1	12/15/22 15:00	12/16/22 10:00	7782-49-2	
<b>2320B Alkalinity</b>									
Analytical Method: SM 2320B									
Pace Analytical Services - Indianapolis									
Alkalinity, Total as CaCO3	324	mg/L	10.0	10.0	1		12/21/22 14:18		
Alkalinity,Bicarbonate (CaCO3)	324	mg/L	10.0	10.0	1		12/21/22 14:18		
Alkalinity,Carbonate (CaCO3)	ND	mg/L	10.0	10.0	1		12/21/22 14:18		
<b>2540C Total Dissolved Solids</b>									
Analytical Method: SM 2540C									
Pace Analytical Services - Indianapolis									
Total Dissolved Solids	363	mg/L	10.0	10.0	1		12/15/22 09:14		
<b>4500H+ pH, Electrometric</b>									
Analytical Method: SM 4500-H+B									
Pace Analytical Services - Indianapolis									
pH at 25 Degrees C	7.5	Std. Units	0.10	0.10	1		12/22/22 15:31		H3

### REPORT OF LABORATORY ANALYSIS

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### ANALYTICAL RESULTS

Project: Eagle Valley Oct2022 P1R4

Pace Project No.: 50333527

Sample: DUP-7		Lab ID: 50333527006		Collected: 12/13/22 00:00	Received: 12/14/22 15:40	Matrix: Water				
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual	
<b>4500S2D Sulfide Water</b>		Analytical Method: SM 4500-S2-D Pace Analytical Services - Indianapolis								
Sulfide	ND	mg/L	0.10	0.025	1		12/19/22 16:08	18496-25-8		
<b>Iron, Ferrous</b>		Analytical Method: HACH 8146 Pace Analytical Services - Indianapolis								
Iron, Ferrous	ND	mg/L	0.20	0.096	1		12/27/22 15:39	15438-31-0	H3,N2	
<b>353.2 Nitrogen, NO2/NO3 unpres</b>		Analytical Method: EPA 353.2 Pace Analytical Services - Indianapolis								
Nitrogen, Nitrate	7.8	mg/L	1.0	0.11	10		12/14/22 18:08	14797-55-8		
Nitrogen, Nitrite	ND	mg/L	1.0	0.040	10		12/14/22 18:08	14797-65-0		
<b>365.1 Total Phosphorus</b>		Analytical Method: EPA 365.1 Preparation Method: EPA 365.1 Pace Analytical Services - Indianapolis								
Phosphate as P04	ND	mg/L	0.15	0.15	1	12/19/22 11:30	12/19/22 16:46			
<b>5310C TOC</b>		Analytical Method: SM 5310C Pace Analytical Services - Indianapolis								
Total Organic Carbon	ND	mg/L	1.0	0.14	1		12/27/22 21:51	7440-44-0		
<b>5310C Dissolved Organic Carbon</b>		Analytical Method: SM 5310C Pace Analytical Services - Indianapolis								
Dissolved Organic Carbon	ND	mg/L	1.0	0.14	1		12/23/22 13:13			

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### QUALITY CONTROL DATA

Project: Eagle Valley Oct2022 P1R4

Pace Project No.: 50333527

QC Batch:	711227	Analysis Method:	EPA 9056
QC Batch Method:	EPA 9056	Analysis Description:	9056 IC Anions
		Laboratory:	Pace Analytical Services - Indianapolis

Associated Lab Samples: 50333527001, 50333527002, 50333527003, 50333527004, 50333527005, 50333527006

METHOD BLANK: 3268594 Matrix: Water  
Associated Lab Samples: 50333527001, 50333527002, 50333527003, 50333527004, 50333527005, 50333527006

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chloride	mg/L	ND	0.25	0.067	12/15/22 10:26	
Fluoride	mg/L	ND	0.10	0.017	12/15/22 10:26	
Sulfate	mg/L	ND	0.25	0.085	12/15/22 10:26	

LABORATORY CONTROL SAMPLE: 3268595

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	1.2	1.2	99	80-120	
Fluoride	mg/L	0.5	0.50	100	80-120	
Sulfate	mg/L	2.5	2.7	107	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3268596 3268597

Parameter	Units	50333527001		50333527001		50333527001		50333527001		% Rec Limits	RPD	Max RPD	Qual
		MS Result	MSD Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec				
Chloride	mg/L	20.4	12.5	12.5	33.7	33.2	106	102	102	80-120	2	15	
Fluoride	mg/L	0.13	0.5	0.5	0.64	0.64	102	102	102	80-120	0	15	
Sulfate	mg/L	37.7	25	25	65.6	65.0	112	109	109	80-120	1	15	

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### QUALITY CONTROL DATA

Project: Eagle Valley Oct2022 P1R4

Pace Project No.: 50333527

QC Batch: 711714

Analysis Method: EPA 6010

QC Batch Method: EPA 3010

Analysis Description: 6010 MET

Laboratory: Pace Analytical Services - Indianapolis

Associated Lab Samples: 50333527001

METHOD BLANK: 3271539

Matrix: Water

Associated Lab Samples: 50333527001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Aluminum	ug/L	ND	200	55.4	12/29/22 00:23	
Barium	ug/L	ND	10.0	2.1	12/29/22 00:23	
Boron	ug/L	ND	100	37.6	12/29/22 00:23	
Calcium	ug/L	ND	1000	163	12/29/22 00:23	
Iron	ug/L	ND	100	48.8	12/29/22 00:23	
Lithium	ug/L	ND	20.0	6.2	12/29/22 00:23	
Magnesium	ug/L	ND	1000	71.8	12/29/22 00:23	
Manganese	ug/L	ND	10.0	2.5	12/29/22 00:23	
Molybdenum	ug/L	ND	10.0	3.7	12/29/22 00:23	
Potassium	ug/L	ND	1000	281	12/29/22 00:23	
Silica	ug/L	ND	450		12/29/22 00:23	N2
Sodium	ug/L	ND	1000	214	12/29/22 00:23	

LABORATORY CONTROL SAMPLE: 3271540

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Aluminum	ug/L	10000	10800	108	80-120	
Barium	ug/L	1000	1080	108	80-120	
Boron	ug/L	1000	1020	102	80-120	
Calcium	ug/L	10000	10800	108	80-120	
Iron	ug/L	10000	10600	106	80-120	
Lithium	ug/L	1000	1060	106	80-120	
Magnesium	ug/L	10000	9990	100	80-120	
Manganese	ug/L	1000	1030	103	80-120	
Molybdenum	ug/L	1000	1100	110	80-120	
Potassium	ug/L	10000	10800	108	80-120	
Silica	ug/L	10700	11000	103	80-120	N2
Sodium	ug/L	10000	10900	109	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3271541 3271542

Parameter	Units	MS		MSD		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		50333521001 Result	Spike Conc.	Spike Conc.	MS Result						
Aluminum	ug/L	ND	10000	10000	10900	10900	109	109	75-125	0	20
Barium	ug/L	0.29 mg/L	1000	1000	1330	1330	104	104	75-125	0	20
Boron	ug/L	ND	1000	1000	1080	1080	106	106	75-125	0	20
Calcium	ug/L	138 mg/L	10000	10000	144000	146000	60	86	75-125	2	20 P6

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**QUALITY CONTROL DATA**

Project: Eagle Valley Oct2022 P1R4

Pace Project No.: 50333527

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3271541 3271542											
Parameter	Units	50333521001 Result	MS	MSD	MS	MSD	MS	MSD	% Rec	Max	Qual
			Spike Conc.	Spike Conc.	Result	Result	% Rec	% Rec	Limits	RPD	
Iron	ug/L	3.5 mg/L	10000	10000	13900	14000	104	104	75-125	1	20
Lithium	ug/L	ND	1000	1000	1070	1070	106	106	75-125	0	20
Magnesium	ug/L	42.1 mg/L	10000	10000	51000	51700	89	96	75-125	1	20
Manganese	ug/L	0.11 mg/L	1000	1000	1140	1150	103	103	75-125	0	20
Molybdenum	ug/L	ND	1000	1000	1100	1110	110	110	75-125	1	20
Potassium	ug/L	1.9 mg/L	10000	10000	12600	12600	107	108	75-125	0	20
Silica	ug/L	17.8 mg/L	10700	10700	28400	28700	99	102	75-125	1	20 N2
Sodium	ug/L	6.7 mg/L	10000	10000	17100	17200	104	106	75-125	1	20

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3271543 3271544											
Parameter	Units	50333543009 Result	MS	MSD	MS	MSD	MS	MSD	% Rec	Max	Qual
			Spike Conc.	Spike Conc.	Result	Result	% Rec	% Rec	Limits	RPD	
Aluminum	ug/L	ND	10000	10000	10700	10400	105	102	75-125	3	20
Barium	ug/L	98.9	1000	1000	1170	1140	107	104	75-125	2	20
Boron	ug/L	125	1000	1000	1170	1140	104	101	75-125	3	20
Calcium	ug/L	140000	10000	10000	152000	147000	116	69	75-125	3	20 P6
Iron	ug/L	213	10000	10000	10400	10100	102	99	75-125	3	20
Lithium	ug/L	ND	1000	1000	1080	1060	107	105	75-125	2	20
Magnesium	ug/L	61700	10000	10000	71100	69600	94	79	75-125	2	20
Manganese	ug/L	1640	1000	1000	2640	2580	99	93	75-125	2	20
Molybdenum	ug/L	ND	1000	1000	1110	1070	110	107	75-125	3	20
Potassium	ug/L	1480	10000	10000	12500	12200	110	107	75-125	2	20
Silica	ug/L	16800	10700	10700	27700	27100	102	97	75-125	2	20 N2
Sodium	ug/L	59000	10000	10000	69900	68800	109	98	75-125	2	20

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### QUALITY CONTROL DATA

Project: Eagle Valley Oct2022 P1R4

Pace Project No.: 50333527

QC Batch:	711720	Analysis Method:	EPA 6010
QC Batch Method:	EPA 3010	Analysis Description:	6010 MET
		Laboratory:	Pace Analytical Services - Indianapolis

Associated Lab Samples: 50333527002, 50333527003, 50333527004, 50333527005, 50333527006

METHOD BLANK: 3271556 Matrix: Water

Associated Lab Samples: 50333527002, 50333527003, 50333527004, 50333527005, 50333527006

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Aluminum	ug/L	ND	200	55.4	12/28/22 13:13	
Barium	ug/L	ND	10.0	2.1	12/28/22 13:13	
Boron	ug/L	ND	100	37.6	12/28/22 13:13	
Calcium	ug/L	ND	1000	163	12/28/22 13:13	
Iron	ug/L	ND	100	48.8	12/28/22 13:13	
Lithium	ug/L	ND	20.0	6.2	12/28/22 13:13	
Magnesium	ug/L	ND	1000	71.8	12/28/22 13:13	
Manganese	ug/L	ND	10.0	2.5	12/28/22 13:13	
Molybdenum	ug/L	ND	10.0	3.7	12/28/22 13:13	
Potassium	ug/L	ND	1000	281	12/28/22 13:13	
Silica	ug/L	ND	450		12/28/22 13:13	N2
Sodium	ug/L	ND	1000	214	12/28/22 13:13	

LABORATORY CONTROL SAMPLE: 3271557

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Aluminum	ug/L	10000	10200	102	80-120	
Barium	ug/L	1000	1060	106	80-120	
Boron	ug/L	1000	1040	104	80-120	
Calcium	ug/L	10000	10500	105	80-120	
Iron	ug/L	10000	10400	104	80-120	
Lithium	ug/L	1000	1090	109	80-120	
Magnesium	ug/L	10000	10300	103	80-120	
Manganese	ug/L	1000	1020	102	80-120	
Molybdenum	ug/L	1000	1090	109	80-120	
Potassium	ug/L	10000	10600	106	80-120	
Silica	ug/L	10700	11000	103	80-120	N2
Sodium	ug/L	10000	10600	106	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3271558 3271559

Parameter	Units	50333545001		3271559		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual	
		MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result							
Aluminum	ug/L	ND	10000	10000	10200	9830	102	98	75-125	4	20	
Barium	ug/L	112	1000	1000	1160	1120	105	101	75-125	4	20	
Boron	ug/L	306	1000	1000	1420	1380	112	107	75-125	3	20	
Calcium	ug/L	98000	10000	10000	112000	109000	138	110	75-125	3	20	P6

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### QUALITY CONTROL DATA

Project: Eagle Valley Oct2022 P1R4

Pace Project No.: 50333527

Parameter	Units	3271558		3271559		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		50333545001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result								
Iron	ug/L	ND	10000	10000	10400	10000	104	100	75-125	4	20		
Lithium	ug/L	ND	1000	1000	1110	1070	110	107	75-125	3	20		
Magnesium	ug/L	29000	10000	10000	40400	39300	114	103	75-125	3	20		
Manganese	ug/L	14.9	1000	1000	1030	992	102	98	75-125	4	20		
Molybdenum	ug/L	ND	1000	1000	1100	1070	110	106	75-125	3	20		
Potassium	ug/L	1950	10000	10000	12900	12500	110	105	75-125	3	20		
Silica	ug/L	12700	10700	10700	24600	23800	112	104	75-125	3	20	N2	
Sodium	ug/L	96600	10000	10000	111000	109000	147	121	75-125	2	20	P6	

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**QUALITY CONTROL DATA**

Project: Eagle Valley Oct2022 P1R4

Pace Project No.: 50333527

QC Batch:	711686	Analysis Method:	EPA 6010
QC Batch Method:	EPA 3010	Analysis Description:	6010 MET Dissolved
		Laboratory:	Pace Analytical Services - Indianapolis

Associated Lab Samples: 50333527001, 50333527002, 50333527003, 50333527004, 50333527006

METHOD BLANK: 3271463 Matrix: Water  
Associated Lab Samples: 50333527001, 50333527002, 50333527003, 50333527004, 50333527006

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Manganese, Dissolved	ug/L	ND	10.0	2.5	12/28/22 14:31	
Molybdenum, Dissolved	ug/L	ND	10.0	3.7	12/28/22 14:31	

LABORATORY CONTROL SAMPLE: 3271464

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Manganese, Dissolved	ug/L	1000	958	96	80-120	
Molybdenum, Dissolved	ug/L	1000	1010	101	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3271465 3271466

Parameter	Units	50333527001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Manganese, Dissolved	ug/L	176	1000	1000	1180	1160	101	98	75-125	2	20	
Molybdenum, Dissolved	ug/L	ND	1000	1000	1060	1070	105	106	75-125	0	20	

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### QUALITY CONTROL DATA

Project: Eagle Valley Oct2022 P1R4

Pace Project No.: 50333527

QC Batch: 711131 Analysis Method: EPA 6020  
 QC Batch Method: EPA 200.2 Analysis Description: 6020 MET  
 Laboratory: Pace Analytical Services - Indianapolis

Associated Lab Samples: 50333527001, 50333527002, 50333527003, 50333527004, 50333527005, 50333527006

METHOD BLANK: 3268072 Matrix: Water  
 Associated Lab Samples: 50333527001, 50333527002, 50333527003, 50333527004, 50333527005, 50333527006

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Antimony	ug/L	ND	1.0	0.28	12/16/22 07:53	
Arsenic	ug/L	ND	1.0	0.094	12/16/22 07:53	
Selenium	ug/L	ND	1.0	0.57	12/16/22 07:53	

LABORATORY CONTROL SAMPLE: 3268073

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Antimony	ug/L	40	41.9	105	80-120	
Arsenic	ug/L	40	38.4	96	80-120	
Selenium	ug/L	40	40.6	101	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3268074 3268075

Parameter	Units	50333521001		3268074		3268075		% Rec	% Rec	% Rec Limits	RPD	Max RPD	Qual
		Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec						
Antimony	ug/L	ND	40	40	42.9	42.8	107	107	75-125	0	20		
Arsenic	ug/L	0.0023 mg/L	40	40	41.0	40.9	97	96	75-125	0	20		
Selenium	ug/L	ND	40	40	40.2	39.8	101	100	75-125	1	20		

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3268076 3268077

Parameter	Units	50333374002		3268076		3268077		% Rec	% Rec	% Rec Limits	RPD	Max RPD	Qual
		Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec						
Antimony	ug/L	<0.28	40	40	42.6	42.1	106	105	75-125	1	20		
Arsenic	ug/L	10.9	40	40	49.0	49.4	95	96	75-125	1	20		
Selenium	ug/L	<0.57	40	40	38.0	38.3	95	96	75-125	1	20		

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### QUALITY CONTROL DATA

Project: Eagle Valley Oct2022 P1R4

Pace Project No.: 50333527

QC Batch: 712036 Analysis Method: SM 2320B  
 QC Batch Method: SM 2320B Analysis Description: 2320B Alkalinity  
 Laboratory: Pace Analytical Services - Indianapolis  
 Associated Lab Samples: 50333527001, 50333527002, 50333527003, 50333527004, 50333527005, 50333527006

METHOD BLANK: 3272762 Matrix: Water  
 Associated Lab Samples: 50333527001, 50333527002, 50333527003, 50333527004, 50333527005, 50333527006

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Alkalinity, Total as CaCO3	mg/L	ND	10.0	10.0	12/21/22 14:18	
Alkalinity,Bicarbonate (CaCO3)	mg/L	ND	10.0	10.0	12/21/22 14:18	
Alkalinity,Carbonate (CaCO3)	mg/L	ND	10.0	10.0	12/21/22 14:18	

LABORATORY CONTROL SAMPLE: 3272763

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Alkalinity, Total as CaCO3	mg/L	50	50.8	102	90-110	

SAMPLE DUPLICATE: 3272764

Parameter	Units	50333521001 Result	Dup Result	RPD	Max RPD	Qualifiers
Alkalinity, Total as CaCO3	mg/L	349	358	3	20	
Alkalinity,Bicarbonate (CaCO3)	mg/L	349	358	3	20	
Alkalinity,Carbonate (CaCO3)	mg/L	ND	ND		20	

SAMPLE DUPLICATE: 3272765

Parameter	Units	50333527002 Result	Dup Result	RPD	Max RPD	Qualifiers
Alkalinity, Total as CaCO3	mg/L	252	254	1	20	
Alkalinity,Bicarbonate (CaCO3)	mg/L	252	254	1	20	
Alkalinity,Carbonate (CaCO3)	mg/L	ND	ND		20	

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### QUALITY CONTROL DATA

Project: Eagle Valley Oct2022 P1R4

Pace Project No.: 50333527

QC Batch: 711185 Analysis Method: SM 2540C  
 QC Batch Method: SM 2540C Analysis Description: 2540C Total Dissolved Solids  
 Laboratory: Pace Analytical Services - Indianapolis

Associated Lab Samples: 50333527001, 50333527002, 50333527003, 50333527004, 50333527005, 50333527006

METHOD BLANK: 3268422 Matrix: Water  
 Associated Lab Samples: 50333527001, 50333527002, 50333527003, 50333527004, 50333527005, 50333527006

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	ND	10.0	10.0	12/15/22 09:10	

LABORATORY CONTROL SAMPLE: 3268423

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	300	262	87	80-120	

SAMPLE DUPLICATE: 3268424

Parameter	Units	50333527001 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	278	283	2	10	

SAMPLE DUPLICATE: 3268425

Parameter	Units	50333546005 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	615	601	2	10	

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**QUALITY CONTROL DATA**

Project: Eagle Valley Oct2022 P1R4

Pace Project No.: 50333527

QC Batch: 712295

Analysis Method: SM 4500-H+B

QC Batch Method: SM 4500-H+B

Analysis Description: 4500H+B pH

Laboratory: Pace Analytical Services - Indianapolis

Associated Lab Samples: 50333527001, 50333527002, 50333527003, 50333527004, 50333527005, 50333527006

SAMPLE DUPLICATE: 3273971

Parameter	Units	50333521001 Result	Dup Result	RPD	Max RPD	Qualifiers
pH at 25 Degrees C	Std. Units	7.7	7.6	1	2	H3

SAMPLE DUPLICATE: 3273972

Parameter	Units	50334122005 Result	Dup Result	RPD	Max RPD	Qualifiers
pH at 25 Degrees C	Std. Units	7.3	7.4	1	2	H3

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**QUALITY CONTROL DATA**

Project: Eagle Valley Oct2022 P1R4

Pace Project No.: 50333527

QC Batch:	711755	Analysis Method:	SM 4500-S2-D
QC Batch Method:	SM 4500-S2-D	Analysis Description:	4500S2D Sulfide Water
		Laboratory:	Pace Analytical Services - Indianapolis
Associated Lab Samples:	50333527001, 50333527002, 50333527003, 50333527004, 50333527006		

METHOD BLANK:	3271673	Matrix:	Water
Associated Lab Samples:	50333527001, 50333527002, 50333527003, 50333527004, 50333527006		

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Sulfide	mg/L	ND	0.10	0.025	12/19/22 16:08	

LABORATORY CONTROL SAMPLE: 3271674						
Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Sulfide	mg/L	0.5	0.52	105	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3271675												3271676	
Parameter	Units	50333527001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual	
Sulfide	mg/L	ND	0.5	0.5	0.54	0.54	105	105	90-110	0	20		

MATRIX SPIKE SAMPLE: 3271677											
Parameter	Units	50333522003 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers				
Sulfide	mg/L	ND	0.5	0.54	106	90-110					

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### QUALITY CONTROL DATA

Project: Eagle Valley Oct2022 P1R4

Pace Project No.: 50333527

QC Batch:	712635	Analysis Method:	HACH 8146
QC Batch Method:	HACH 8146	Analysis Description:	Iron, Ferrous
		Laboratory:	Pace Analytical Services - Indianapolis
Associated Lab Samples:	50333527001, 50333527002, 50333527003, 50333527004, 50333527005, 50333527006		

METHOD BLANK:	3275384	Matrix:	Water
Associated Lab Samples:	50333527001, 50333527002, 50333527003, 50333527004, 50333527005, 50333527006		

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Iron, Ferrous	mg/L	ND	0.20	0.096	12/27/22 15:38	H3,N2

LABORATORY CONTROL SAMPLE: 3275385						
Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Iron, Ferrous	mg/L	1	0.97	97	90-110	H3,N2

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3275386												3275387	
Parameter	Units	50333823002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual	
Iron, Ferrous	mg/L	ND	1	1	1.0	1.0	100	100	90-110	0	20	H3,N2	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3275388												3275389	
Parameter	Units	50333840002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual	
Iron, Ferrous	mg/L	ND	1	1	1.0	1.0	99	100	90-110	1	20	H3,N2	

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### QUALITY CONTROL DATA

Project: Eagle Valley Oct2022 P1R4

Pace Project No.: 50333527

QC Batch: 711117 Analysis Method: EPA 353.2  
 QC Batch Method: EPA 353.2 Analysis Description: 353.2 Nitrate + Nitrite, Unpres.  
 Laboratory: Pace Analytical Services - Indianapolis

Associated Lab Samples: 50333527001, 50333527002, 50333527003, 50333527004, 50333527005, 50333527006

METHOD BLANK: 3268003 Matrix: Water  
 Associated Lab Samples: 50333527001, 50333527002, 50333527003, 50333527004, 50333527005, 50333527006

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Nitrogen, Nitrate	mg/L	ND	0.10	0.011	12/14/22 17:21	
Nitrogen, Nitrite	mg/L	ND	0.10	0.0040	12/14/22 17:21	

LABORATORY CONTROL SAMPLE: 3268004

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Nitrogen, Nitrate	mg/L	1	0.98	98	90-110	
Nitrogen, Nitrite	mg/L	1	1.0	103	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3268005 3268006

Parameter	Units	50333521001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Nitrogen, Nitrate	mg/L	ND	1	1	0.95	0.94	94	94	90-110	0	20	
Nitrogen, Nitrite	mg/L	ND	1	1	0.99	0.99	99	99	90-110	0	20	

MATRIX SPIKE SAMPLE: 3268094

Parameter	Units	50333527001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Nitrogen, Nitrate	mg/L	0.12	1	1.1	97	90-110	
Nitrogen, Nitrite	mg/L	ND	1	1.0	100	90-110	

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### QUALITY CONTROL DATA

Project: Eagle Valley Oct2022 P1R4

Pace Project No.: 50333527

QC Batch:	711683	Analysis Method:	EPA 365.1
QC Batch Method:	EPA 365.1	Analysis Description:	365.1 Total Phosphorus
		Laboratory:	Pace Analytical Services - Indianapolis

Associated Lab Samples: 50333527001, 50333527002, 50333527003, 50333527004, 50333527005, 50333527006

METHOD BLANK: 3271448 Matrix: Water  
Associated Lab Samples: 50333527001, 50333527002, 50333527003, 50333527004, 50333527005, 50333527006

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Phosphate as P04	mg/L	ND	0.15	0.15	12/19/22 16:39	

LABORATORY CONTROL SAMPLE: 3271449

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Phosphate as P04	mg/L		1.4			

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3271450 3271451

Parameter	Units	50333527001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Phosphate as P04	mg/L	ND			1.5	1.5				1		

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### QUALITY CONTROL DATA

Project: Eagle Valley Oct2022 P1R4

Pace Project No.: 50333527

QC Batch:	711477	Analysis Method:	SM 5310C
QC Batch Method:	SM 5310C	Analysis Description:	5310C Total Organic Carbon
		Laboratory:	Pace Analytical Services - Indianapolis

Associated Lab Samples: 50333527001, 50333527002, 50333527003, 50333527004, 50333527005, 50333527006

METHOD BLANK: 3269928 Matrix: Water  
Associated Lab Samples: 50333527001, 50333527002, 50333527003, 50333527004, 50333527005, 50333527006

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Organic Carbon	mg/L	ND	1.0	0.14	12/27/22 18:01	

LABORATORY CONTROL SAMPLE: 3269929

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Organic Carbon	mg/L	10	10.7	107	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3269930 3269931

Parameter	Units	50333527001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Total Organic Carbon	mg/L	ND	10	10	11.1	11.1	108	107	80-120	0	20	

MATRIX SPIKE SAMPLE: 3269932

Parameter	Units	50333527002 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Total Organic Carbon	mg/L	ND	10	10.9	106	80-120	

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### QUALITY CONTROL DATA

Project: Eagle Valley Oct2022 P1R4

Pace Project No.: 50333527

QC Batch: 712325

Analysis Method: SM 5310C

QC Batch Method: SM 5310C

Analysis Description: 5310C Dissolved Organic Carbon

Laboratory: Pace Analytical Services - Indianapolis

Associated Lab Samples: 50333527001, 50333527002, 50333527003, 50333527004, 50333527006

METHOD BLANK: 3274115

Matrix: Water

Associated Lab Samples: 50333527001, 50333527002, 50333527003, 50333527004, 50333527006

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Dissolved Organic Carbon	mg/L	ND	1.0	0.14	12/23/22 11:39	

LABORATORY CONTROL SAMPLE: 3274116

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Dissolved Organic Carbon	mg/L	10	10.2	102	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3274117 3274118

Parameter	Units	3274117		3274118		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual	
		50332887001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result							MSD Result
Dissolved Organic Carbon	mg/L	1.9	10	10	11.8	11.8	99	99	80-120	0	20	

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Eagle Valley Oct2022 P1R4

Pace Project No.: 50333527

**Sample: MW-23D**      **Lab ID: 50333527001**      Collected: 12/13/22 10:54      Received: 12/14/22 15:40      Matrix: Water  
PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	<b>-0.0488 ± 0.370 (0.774)</b> <b>C:NA T:98%</b>	pCi/L	01/06/23 14:00	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	<b>0.491 ± 0.287 (0.519)</b> <b>C:95% T:92%</b>	pCi/L	01/04/23 14:54	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	<b>0.491 ± 0.657 (1.29)</b>	pCi/L	01/09/23 10:46	7440-14-4	

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Eagle Valley Oct2022 P1R4

Pace Project No.: 50333527

**Sample: MW-231**      **Lab ID: 50333527002**      Collected: 12/13/22 12:06      Received: 12/14/22 15:40      Matrix: Water  
PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Radium-226	EPA 903.1	<b>0.111 ± 0.406 (0.780)</b> <b>C:NA T:96%</b>	pCi/L	01/06/23 14:00	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 904.0	<b>0.445 ± 0.277 (0.508)</b> <b>C:92% T:90%</b>	pCi/L	01/04/23 14:54	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	<b>0.556 ± 0.683 (1.29)</b>	pCi/L	01/09/23 10:46	7440-14-4	

### REPORT OF LABORATORY ANALYSIS

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Eagle Valley Oct2022 P1R4

Pace Project No.: 50333527

**Sample: MW-23S**      **Lab ID: 50333527003**      Collected: 12/13/22 13:13      Received: 12/14/22 15:40      Matrix: Water  
PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	<b>-0.273 ± 0.416 (0.953)</b> <b>C:NA T:99%</b>	pCi/L	01/06/23 14:00	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	<b>0.201 ± 0.270 (0.577)</b> <b>C:95% T:86%</b>	pCi/L	01/04/23 14:54	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	<b>0.201 ± 0.686 (1.53)</b>	pCi/L	01/09/23 10:46	7440-14-4	

### REPORT OF LABORATORY ANALYSIS

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Eagle Valley Oct2022 P1R4

Pace Project No.: 50333527

**Sample: MW-21S**      **Lab ID: 50333527004**      Collected: 12/13/22 15:45      Received: 12/14/22 15:40      Matrix: Water  
PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	<b>0.0497 ± 0.425 (0.828)</b> <b>C:NA T:92%</b>	pCi/L	01/06/23 14:00	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	<b>0.436 ± 0.325 (0.633)</b> <b>C:92% T:82%</b>	pCi/L	01/04/23 14:54	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	<b>0.486 ± 0.750 (1.46)</b>	pCi/L	01/09/23 10:46	7440-14-4	

### REPORT OF LABORATORY ANALYSIS

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Eagle Valley Oct2022 P1R4

Pace Project No.: 50333527

**Sample: FIELD BLANK 4**      **Lab ID: 50333527005**      Collected: 12/13/22 15:16      Received: 12/14/22 15:40      Matrix: Water  
PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	<b>0.295 ± 0.410 (0.692)</b> <b>C:NA T:94%</b>	pCi/L	01/06/23 14:00	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	<b>0.670 ± 0.345 (0.603)</b> <b>C:94% T:85%</b>	pCi/L	01/04/23 14:54	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	<b>0.965 ± 0.755 (1.30)</b>	pCi/L	01/09/23 10:46	7440-14-4	

### REPORT OF LABORATORY ANALYSIS

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Eagle Valley Oct2022 P1R4

Pace Project No.: 50333527

**Sample: DUP-7**      **Lab ID: 50333527006**      Collected: 12/13/22 00:00      Received: 12/14/22 15:40      Matrix: Water  
PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	<b>0.488 ± 0.416 (0.584)</b> <b>C:NA T:92%</b>	pCi/L	01/06/23 14:19	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	<b>-0.0450 ± 0.244 (0.584)</b> <b>C:93% T:86%</b>	pCi/L	01/04/23 14:54	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	<b>0.488 ± 0.660 (1.17)</b>	pCi/L	01/09/23 10:46	7440-14-4	

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### QUALITY CONTROL - RADIOCHEMISTRY

Project: Eagle Valley Oct2022 P1R4

Pace Project No.: 50333527

QC Batch: 555154

Analysis Method: EPA 903.1

QC Batch Method: EPA 903.1

Analysis Description: 903.1 Radium-226

Laboratory: Pace Analytical Services - Greensburg

Associated Lab Samples: 50333527001, 50333527002, 50333527003, 50333527004, 50333527005, 50333527006

METHOD BLANK: 2697248

Matrix: Water

Associated Lab Samples: 50333527001, 50333527002, 50333527003, 50333527004, 50333527005, 50333527006

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.0421 ± 0.192 (0.114) C:NA T:88%	pCi/L	01/06/23 13:38	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

### REPORT OF LABORATORY ANALYSIS

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## QUALIFIERS

Project: Eagle Valley Oct2022 P1R4

Pace Project No.: 50333527

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### DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Reported results are not rounded until the final step prior to reporting. Therefore, calculated parameters that are typically reported as "Total" may vary slightly from the sum of the reported component parameters.

Act - Activity

Unc - Uncertainty: SDWA = 1.96 sigma count uncertainty, all other matrices = Expanded Uncertainty (95% confidence interval).

Gamma Spec = Expanded Uncertainty (95.4% Confidence Interval)

(MDC) - Minimum Detectable Concentration

Trac - Tracer Recovery (%)

Carr - Carrier Recovery (%)

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

### ANALYTE QUALIFIERS

H3 Sample was received or analysis requested beyond the recognized method holding time.

N2 The lab does not hold NELAC/TNI accreditation for this parameter but other accreditations/certifications may apply. A complete list of accreditations/certifications is available upon request.

P6 Matrix spike recovery was outside laboratory control limits due to a parent sample concentration notably higher than the spike level.

PL The minimum mass of dried residue of 2.5 mg could not be obtained using the routine sample volume of 100 mL.

## REPORT OF LABORATORY ANALYSIS

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**QUALITY CONTROL DATA CROSS REFERENCE TABLE**

Project: Eagle Valley Oct2022 P1R4

Pace Project No.: 50333527

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
50333527001	MW-23D	EPA 9056	711227		
50333527002	MW-23I	EPA 9056	711227		
50333527003	MW-23S	EPA 9056	711227		
50333527004	MW-21S	EPA 9056	711227		
50333527005	FIELD BLANK 4	EPA 9056	711227		
50333527006	DUP-7	EPA 9056	711227		
50333527001	MW-23D	EPA 3010	711714	EPA 6010	712898
50333527002	MW-23I	EPA 3010	711720	EPA 6010	712800
50333527003	MW-23S	EPA 3010	711720	EPA 6010	712800
50333527004	MW-21S	EPA 3010	711720	EPA 6010	712800
50333527005	FIELD BLANK 4	EPA 3010	711720	EPA 6010	712800
50333527006	DUP-7	EPA 3010	711720	EPA 6010	712800
50333527001	MW-23D	EPA 3010	711686	EPA 6010	712812
50333527002	MW-23I	EPA 3010	711686	EPA 6010	712812
50333527003	MW-23S	EPA 3010	711686	EPA 6010	712812
50333527004	MW-21S	EPA 3010	711686	EPA 6010	712812
50333527006	DUP-7	EPA 3010	711686	EPA 6010	712812
50333527001	MW-23D	EPA 200.2	711131	EPA 6020	711375
50333527002	MW-23I	EPA 200.2	711131	EPA 6020	711375
50333527003	MW-23S	EPA 200.2	711131	EPA 6020	711375
50333527004	MW-21S	EPA 200.2	711131	EPA 6020	711375
50333527005	FIELD BLANK 4	EPA 200.2	711131	EPA 6020	711375
50333527006	DUP-7	EPA 200.2	711131	EPA 6020	711375
50333527001	MW-23D	EPA 903.1	555154		
50333527002	MW-23I	EPA 903.1	555154		
50333527003	MW-23S	EPA 903.1	555154		
50333527004	MW-21S	EPA 903.1	555154		
50333527005	FIELD BLANK 4	EPA 903.1	555154		
50333527006	DUP-7	EPA 903.1	555154		
50333527001	MW-23D	EPA 904.0	555155		
50333527002	MW-23I	EPA 904.0	555155		
50333527003	MW-23S	EPA 904.0	555155		
50333527004	MW-21S	EPA 904.0	555155		
50333527005	FIELD BLANK 4	EPA 904.0	555155		
50333527006	DUP-7	EPA 904.0	555155		
50333527001	MW-23D	Total Radium Calculation	558746		
50333527002	MW-23I	Total Radium Calculation	558746		
50333527003	MW-23S	Total Radium Calculation	558746		
50333527004	MW-21S	Total Radium Calculation	558746		
50333527005	FIELD BLANK 4	Total Radium Calculation	558746		
50333527006	DUP-7	Total Radium Calculation	558746		
50333527001	MW-23D	SM 2320B	712036		
50333527002	MW-23I	SM 2320B	712036		
50333527003	MW-23S	SM 2320B	712036		
50333527004	MW-21S	SM 2320B	712036		

**REPORT OF LABORATORY ANALYSIS**

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### QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Eagle Valley Oct2022 P1R4

Pace Project No.: 50333527

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
50333527005	FIELD BLANK 4	SM 2320B	712036		
50333527006	DUP-7	SM 2320B	712036		
50333527001	MW-23D	SM 2540C	711185		
50333527002	MW-23I	SM 2540C	711185		
50333527003	MW-23S	SM 2540C	711185		
50333527004	MW-21S	SM 2540C	711185		
50333527005	FIELD BLANK 4	SM 2540C	711185		
50333527006	DUP-7	SM 2540C	711185		
50333527001	MW-23D	SM 4500-H+B	712295		
50333527002	MW-23I	SM 4500-H+B	712295		
50333527003	MW-23S	SM 4500-H+B	712295		
50333527004	MW-21S	SM 4500-H+B	712295		
50333527005	FIELD BLANK 4	SM 4500-H+B	712295		
50333527006	DUP-7	SM 4500-H+B	712295		
50333527001	MW-23D	SM 4500-S2-D	711755		
50333527002	MW-23I	SM 4500-S2-D	711755		
50333527003	MW-23S	SM 4500-S2-D	711755		
50333527004	MW-21S	SM 4500-S2-D	711755		
50333527006	DUP-7	SM 4500-S2-D	711755		
50333527001	MW-23D	HACH 8146	712635		
50333527002	MW-23I	HACH 8146	712635		
50333527003	MW-23S	HACH 8146	712635		
50333527004	MW-21S	HACH 8146	712635		
50333527005	FIELD BLANK 4	HACH 8146	712635		
50333527006	DUP-7	HACH 8146	712635		
50333527001	MW-23D	EPA 353.2	711117		
50333527002	MW-23I	EPA 353.2	711117		
50333527003	MW-23S	EPA 353.2	711117		
50333527004	MW-21S	EPA 353.2	711117		
50333527005	FIELD BLANK 4	EPA 353.2	711117		
50333527006	DUP-7	EPA 353.2	711117		
50333527001	MW-23D	EPA 365.1	711683	EPA 365.1	711785
50333527002	MW-23I	EPA 365.1	711683	EPA 365.1	711785
50333527003	MW-23S	EPA 365.1	711683	EPA 365.1	711785
50333527004	MW-21S	EPA 365.1	711683	EPA 365.1	711785
50333527005	FIELD BLANK 4	EPA 365.1	711683	EPA 365.1	711785
50333527006	DUP-7	EPA 365.1	711683	EPA 365.1	711785
50333527001	MW-23D	SM 5310C	711477		
50333527002	MW-23I	SM 5310C	711477		
50333527003	MW-23S	SM 5310C	711477		
50333527004	MW-21S	SM 5310C	711477		
50333527005	FIELD BLANK 4	SM 5310C	711477		
50333527006	DUP-7	SM 5310C	711477		
50333527001	MW-23D	SM 5310C	712325		
50333527002	MW-23I	SM 5310C	712325		

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**QUALITY CONTROL DATA CROSS REFERENCE TABLE**

Project: Eagle Valley Oct2022 P1R4  
Pace Project No.: 50333527

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
50333527003	MW-23S	SM 5310C	712325		
50333527004	MW-21S	SM 5310C	712325		
50333527006	DUP-7	SM 5310C	712325		

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**SAMPLE CONDITION UPON RECEIPT FORM**

Date/Time and Initials of person examining contents: BS 12/14/22 1610

1. Courier:  FED EX  UPS  CLIENT  PACE  USPS  OTHER \_\_\_\_\_

2. Custody Seal on Cooler/Box Present:  Yes  No  
 (If yes)Seals Intact:  Yes  No (leave blank if no seals were present)

3. Thermometer: **1 2 3 4 5 6 A B C D E F**

4. Cooler Temperature(s): 0.410.4 0.510.5 0.410.4 \_\_\_\_\_  
 (Initial/Corrected) RECORD TEMPS OF ALL COOLERS RECEIVED (use Comments below to add more)

5. Packing Material:  Bubble Wrap  Bubble Bags  
 None  Other \_\_\_\_\_

6. Ice Type:  Wet  Blue  None

7. If temp. is over 6°C or under 0°C, was the PM notified?:  Yes  No  
 Cooler temp should be above freezing to 6°C

All discrepancies will be written out in the comments section below.

	Yes	No		Yes	No	N/A
USDA Regulated Soils? (HI, ID, NY, WA, OR, CA, NM, TX, OK, AR, LA, TN, AL, MS, NC, SC, GA, FL, or Puerto Rico)		✓	All containers needing acid/base preservation have been pH CHECKED?: Exceptions: VOA, coliform, LLHg, O&G, RAD CHEM, and any container with a septum cap or preserved with HCl.			
Short Hold Time Analysis (48 hours or less)? Analysis: <u>Nitrate/Nitrite</u>	✓		Circle: <u>HNO3 (&lt;2)</u> <u>H2SO4 (&lt;2)</u> <u>NaOH (&gt;10)</u> <u>NaOH/ZnAc (&gt;9)</u> Any non-conformance to pH recommendations will be noted on the container count form	✓		
Time 5035A TC placed in Freezer or Short Holds To Lab	Time:			Present	Absent	N/A
		✓	Residual Chlorine Check (SVOC 625 Pest/PCB 608)			✓
Rush TAT Requested (4 days or less):		✓	Residual Chlorine Check (Total/Amenable/Free Cyanide)			✓
Custody Signatures Present?	✓		Headspace Wisconsin Sulfide?			✓
Containers Intact?:	✓		Headspace in VOA Vials (>6mm): See Containter Count form for details	Present	Absent	No VOA Vials Sent ✓
Sample Label (IDs/Dates/Times) Match COC?: Except TCs, which only require sample ID	✓		Trip Blank Present?		✓	
Extra labels on Terracore Vials? (soils only)			Trip Blank Custody Seals?:			✓

COMMENTS:  
Received empty BP3Z container for Field Blank 4. Container has filled out label on it.  
BS 12/14/22





March 06, 2023

Mr. Mark Breting  
ATC Group Services  
7988 Centerpoint Drive  
Suite 100  
Indianapolis, IN 46256

RE: Project: Eagle Valley Oct 2022 P1R4  
Pace Project No.: 50333823

Dear Mr. Breting:

Enclosed are the analytical results for sample(s) received by the laboratory on December 16, 2022. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

The test results provided in this final report were generated by each of the following laboratories within the Pace Network:

- Pace Analytical Services - Indianapolis
- Pace Analytical Services - Greensburg

If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Will Statz  
will.statz@pacelabs.com  
(317)228-3105  
Project Manager

Enclosures

cc: Mr. Robert Miller, Haley & Aldrich

## **REPORT OF LABORATORY ANALYSIS**

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## CERTIFICATIONS

Project: Eagle Valley Oct 2022 P1R4

Pace Project No.: 50333823

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### **Pace Analytical Services Pennsylvania**

1638 Roseytown Rd Suites 2,3&4, Greensburg, PA 15601

ANAB DOD-ELAP Rad Accreditation #: L2417

Alabama Certification #: 41590

Arizona Certification #: AZ0734

Arkansas Certification

California Certification #: 04222CA

Colorado Certification #: PA01547

Connecticut Certification #: PH-0694

Delaware Certification

EPA Region 4 DW Rad

Florida/TNI Certification #: E87683

Georgia Certification #: C040

Florida: Cert E871149 SEKS WET

Guam Certification

Hawaii Certification

Idaho Certification

Illinois Certification

Indiana Certification

Iowa Certification #: 391

Kansas/TNI Certification #: E-10358

Kentucky Certification #: KY90133

KY WW Permit #: KY0098221

KY WW Permit #: KY0000221

Louisiana DHH/TNI Certification #: LA180012

Louisiana DEQ/TNI Certification #: 4086

Maine Certification #: 2017020

Maryland Certification #: 308

Massachusetts Certification #: M-PA1457

Michigan/PADEP Certification #: 9991

Missouri Certification #: 235

Montana Certification #: Cert0082

Nebraska Certification #: NE-OS-29-14

Nevada Certification #: PA014572018-1

New Hampshire/TNI Certification #: 297617

New Jersey/TNI Certification #: PA051

New Mexico Certification #: PA01457

New York/TNI Certification #: 10888

North Carolina Certification #: 42706

North Dakota Certification #: R-190

Ohio EPA Rad Approval: #41249

Oregon/TNI Certification #: PA200002-010

Pennsylvania/TNI Certification #: 65-00282

Puerto Rico Certification #: PA01457

Rhode Island Certification #: 65-00282

South Dakota Certification

Tennessee Certification #: 02867

Texas/TNI Certification #: T104704188-17-3

Utah/TNI Certification #: PA014572017-9

USDA Soil Permit #: P330-17-00091

Vermont Dept. of Health: ID# VT-0282

Virgin Island/PADEP Certification

Virginia/VELAP Certification #: 460198

Washington Certification #: C868

West Virginia DEP Certification #: 143

West Virginia DHHR Certification #: 9964C

Wisconsin Approve List for Rad

Wyoming Certification #: 8TMS-L

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### **Pace Analytical Services Indianapolis**

7726 Moller Road, Indianapolis, IN 46268

Illinois Accreditation #: 200074

Indiana Drinking Water Laboratory #: C-49-06

Kansas/TNI Certification #: E-10177

Kentucky UST Agency Interest #: 80226

Kentucky WW Laboratory ID #: 98019

Michigan Drinking Water Laboratory #9050

Ohio VAP Certified Laboratory #: CL0065

Oklahoma Laboratory #: 9204

Texas Certification #: T104704355

Wisconsin Laboratory #: 999788130

USDA Foreign Soil Permit #: 525-23-13-23119

USDA Compliance Agreement #: IN-SL-22-001

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## REPORT OF LABORATORY ANALYSIS

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## SAMPLE SUMMARY

Project: Eagle Valley Oct 2022 P1R4  
Pace Project No.: 50333823

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Lab ID	Sample ID	Matrix	Date Collected	Date Received
50333823001	MW-21I	Water	12/16/22 13:40	12/16/22 16:00
50333823002	MW-21D	Water	12/16/22 11:10	12/16/22 16:00
50333823003	MW-21D MS	Water	12/16/22 11:10	12/16/22 16:00
50333823004	MW-21D MSD	Water	12/16/22 11:10	12/16/22 16:00

## REPORT OF LABORATORY ANALYSIS

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### SAMPLE ANALYTE COUNT

Project: Eagle Valley Oct 2022 P1R4

Pace Project No.: 50333823

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
50333823001	MW-21I	EPA 9056	RMR	3	PASI-I
		EPA 6010	MTM	12	PASI-I
		EPA 6010	RAM	2	PASI-I
		EPA 6020	DMT	3	PASI-I
		EPA 903.1	GDH	1	PASI-PA
		EPA 904.0	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
		SM 2320B	TAY	3	PASI-I
		SM 2540C	MTW	1	PASI-I
		SM 4500-H+B	LHZ	1	PASI-I
		SM 4500-S2-D	BEP	1	PASI-I
		HACH 8146	ZM	1	PASI-I
		EPA 353.2	OAS	2	PASI-I
		EPA 365.1	ZM	1	PASI-I
		SM 5310C	ATS	1	PASI-I
		SM 5310C	ATS	1	PASI-I
		50333823002	MW-21D	EPA 9056	RMR
EPA 6010	MTM			12	PASI-I
EPA 6010	RAM			2	PASI-I
EPA 6020	DMT			3	PASI-I
EPA 903.1	GDH			1	PASI-PA
EPA 904.0	VAL			1	PASI-PA
Total Radium Calculation	JAL			1	PASI-PA
SM 2320B	TAY			3	PASI-I
SM 2540C	MTW			1	PASI-I
SM 4500-H+B	LHZ			1	PASI-I
SM 4500-S2-D	BEP			1	PASI-I
HACH 8146	ZM			1	PASI-I
EPA 353.2	OAS			2	PASI-I
EPA 365.1	ZM			1	PASI-I
SM 5310C	ATS			1	PASI-I
SM 5310C	ATS			1	PASI-I
50333823003	MW-21D MS			EPA 903.1	GDH
		EPA 904.0	VAL	1	PASI-PA
50333823004	MW-21D MSD	EPA 903.1	GDH	1	PASI-PA
		EPA 904.0	VAL	1	PASI-PA

### REPORT OF LABORATORY ANALYSIS

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### SAMPLE ANALYTE COUNT

Project: Eagle Valley Oct 2022 P1R4

Pace Project No.: 50333823

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
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PASI-I = Pace Analytical Services - Indianapolis

PASI-PA = Pace Analytical Services - Greensburg

### REPORT OF LABORATORY ANALYSIS

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### SUMMARY OF DETECTION

Project: Eagle Valley Oct 2022 P1R4

Pace Project No.: 50333823

Lab Sample ID	Client Sample ID	Result	Units	Report Limit	Analyzed	Qualifiers
Method	Parameters					
<b>50333823001</b>	<b>MW-21I</b>					
EPA 9056	Chloride	14.7	mg/L	2.5	12/28/22 15:15	
EPA 9056	Sulfate	42.6	mg/L	2.5	12/28/22 15:15	
EPA 6010	Barium	81.6	ug/L	10.0	12/31/22 16:41	
EPA 6010	Calcium	89500	ug/L	1000	12/31/22 16:41	
EPA 6010	Magnesium	26800	ug/L	1000	12/31/22 16:41	
EPA 6010	Manganese	108	ug/L	10.0	12/31/22 16:41	
EPA 6010	Potassium	1860	ug/L	1000	12/31/22 16:41	
EPA 6010	Silica	12200	ug/L	450	12/31/22 16:41	N2
EPA 6010	Sodium	11900	ug/L	1000	12/31/22 16:41	
EPA 6010	Manganese, Dissolved	112	ug/L	10.0	01/03/23 15:00	
EPA 6020	Selenium	12.4	ug/L	1.0	12/20/22 10:34	
EPA 903.1	Radium-226	0.127 ± 0.290 (0.468)	pCi/L		01/06/23 16:33	
		C:NA T:95%				
EPA 904.0	Radium-228	0.281 ± 0.317 (0.662)	pCi/L		01/05/23 15:34	
		C:81%				
		T:87%				
Total Radium Calculation	Total Radium	0.408 ± 0.607 (1.13)	pCi/L		01/09/23 10:32	
SM 2320B	Alkalinity, Total as CaCO3	271	mg/L	10.0	12/27/22 12:25	
SM 2320B	Alkalinity, Bicarbonate (CaCO3)	271	mg/L	10.0	12/27/22 12:25	
SM 2540C	Total Dissolved Solids	385	mg/L	10.0	12/21/22 09:06	
SM 4500-H+B	pH at 25 Degrees C	7.4	Std. Units	0.10	12/30/22 12:59	H3
EPA 353.2	Nitrogen, Nitrate	6.8	mg/L	0.50	12/16/22 19:08	
SM 5310C	Dissolved Organic Carbon	1.7	mg/L	1.0	12/28/22 17:33	
<b>50333823002</b>	<b>MW-21D</b>					
EPA 9056	Chloride	50.7	mg/L	2.5	12/28/22 15:30	
EPA 9056	Sulfate	246	mg/L	25.0	12/28/22 15:45	
EPA 6010	Barium	61.4	ug/L	10.0	12/31/22 16:44	
EPA 6010	Boron	320	ug/L	100	12/31/22 16:44	
EPA 6010	Calcium	139000	ug/L	1000	12/31/22 16:44	
EPA 6010	Iron	3700	ug/L	100	12/31/22 16:44	
EPA 6010	Magnesium	32400	ug/L	1000	12/31/22 16:44	
EPA 6010	Manganese	362	ug/L	10.0	12/31/22 16:44	
EPA 6010	Potassium	3060	ug/L	1000	12/31/22 16:44	
EPA 6010	Silica	15000	ug/L	450	12/31/22 16:44	N2
EPA 6010	Sodium	40200	ug/L	1000	12/31/22 16:44	
EPA 6010	Manganese, Dissolved	368	ug/L	10.0	01/03/23 15:03	
EPA 6020	Arsenic	1.2	ug/L	1.0	12/20/22 10:38	
EPA 903.1	Radium-226	0.571 ± 0.327 (0.300)	pCi/L		01/06/23 16:33	
		C:NA T:94%				

### REPORT OF LABORATORY ANALYSIS

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### SUMMARY OF DETECTION

Project: Eagle Valley Oct 2022 P1R4

Pace Project No.: 50333823

Lab Sample ID Method	Client Sample ID Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
<b>50333823002</b>	<b>MW-21D</b>					
EPA 904.0	Radium-228	0.942 ± 0.396 (0.607) C:81% T:85%	pCi/L		01/05/23 15:34	
Total Radium Calculation	Total Radium	1.51 ± 0.723 (0.907)	pCi/L		01/09/23 10:32	
SM 2320B	Alkalinity, Total as CaCO3	268	mg/L	10.0	12/27/22 12:25	
SM 2320B	Alkalinity,Bicarbonate (CaCO3)	268	mg/L	10.0	12/27/22 12:25	
SM 2540C	Total Dissolved Solids	701	mg/L	10.0	12/21/22 09:07	
SM 4500-H+B	pH at 25 Degrees C	7.6	Std. Units	0.10	12/30/22 13:01	H3
SM 5310C	Dissolved Organic Carbon	1.1	mg/L	1.0	12/28/22 17:44	
<b>50333823003</b>	<b>MW-21D MS</b>					
EPA 903.1	Radium-226	113.61 %REC ± NA (NA) C:NA T:NA	pCi/L		01/06/23 17:21	
EPA 904.0	Radium-228	80.64 %REC ± NA (NA) C:NA T:NA	pCi/L		01/05/23 15:34	
<b>50333823004</b>	<b>MW-21D MSD</b>					
EPA 903.1	Radium-226	133.09 %REC 15.79RPD ± NA (NA) C:NA T:NA	pCi/L		01/06/23 17:21	
EPA 904.0	Radium-228	101.64 %REC 23.04RPD ± NA (NA) C:NA T:NA	pCi/L		01/05/23 15:34	

### REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: Eagle Valley Oct 2022 P1R4

Pace Project No.: 50333823

Sample: MW-211		Lab ID: 50333823001		Collected: 12/16/22 13:40	Received: 12/16/22 16:00	Matrix: Water				
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual	
<b>9056 IC Anions</b>		Analytical Method: EPA 9056 Pace Analytical Services - Indianapolis								
Chloride	14.7	mg/L	2.5	0.67	10		12/28/22 15:15	16887-00-6		
Fluoride	ND	mg/L	0.10	0.017	1		12/22/22 21:11	16984-48-8		
Sulfate	42.6	mg/L	2.5	0.85	10		12/28/22 15:15	14808-79-8		
<b>6010 MET ICP</b>		Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Aluminum	ND	ug/L	200	55.4	1	12/28/22 09:06	12/31/22 16:41	7429-90-5		
Barium	81.6	ug/L	10.0	2.1	1	12/28/22 09:06	12/31/22 16:41	7440-39-3		
Boron	ND	ug/L	100	37.6	1	12/28/22 09:06	12/31/22 16:41	7440-42-8		
Calcium	89500	ug/L	1000	163	1	12/28/22 09:06	12/31/22 16:41	7440-70-2		
Iron	ND	ug/L	100	48.8	1	12/28/22 09:06	12/31/22 16:41	7439-89-6		
Lithium	ND	ug/L	20.0	6.2	1	12/28/22 09:06	12/31/22 16:41	7439-93-2		
Magnesium	26800	ug/L	1000	71.8	1	12/28/22 09:06	12/31/22 16:41	7439-95-4		
Manganese	108	ug/L	10.0	2.5	1	12/28/22 09:06	12/31/22 16:41	7439-96-5		
Molybdenum	ND	ug/L	10.0	3.7	1	12/28/22 09:06	12/31/22 16:41	7439-98-7		
Potassium	1860	ug/L	1000	281	1	12/28/22 09:06	12/31/22 16:41	7440-09-7		
Silica	12200	ug/L	450		1	12/28/22 09:06	12/31/22 16:41	7631-86-9	N2	
Sodium	11900	ug/L	1000	214	1	12/28/22 09:06	12/31/22 16:41	7440-23-5		
<b>6010 MET ICP, Dissolved</b>		Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Manganese, Dissolved	112	ug/L	10.0	2.5	1	12/28/22 09:06	01/03/23 15:00	7439-96-5		
Molybdenum, Dissolved	ND	ug/L	10.0	3.7	1	12/28/22 09:06	01/03/23 15:00	7439-98-7		
<b>6020 MET ICPMS</b>		Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis								
Antimony	ND	ug/L	1.0	0.080	1	12/19/22 15:40	12/20/22 10:34	7440-36-0		
Arsenic	ND	ug/L	1.0	0.12	1	12/19/22 15:40	12/20/22 10:34	7440-38-2		
Selenium	12.4	ug/L	1.0	0.19	1	12/19/22 15:40	12/20/22 10:34	7782-49-2		
<b>2320B Alkalinity</b>		Analytical Method: SM 2320B Pace Analytical Services - Indianapolis								
Alkalinity, Total as CaCO3	271	mg/L	10.0	10.0	1		12/27/22 12:25			
Alkalinity,Bicarbonate (CaCO3)	271	mg/L	10.0	10.0	1		12/27/22 12:25			
Alkalinity,Carbonate (CaCO3)	ND	mg/L	10.0	10.0	1		12/27/22 12:25			
<b>2540C Total Dissolved Solids</b>		Analytical Method: SM 2540C Pace Analytical Services - Indianapolis								
Total Dissolved Solids	385	mg/L	10.0	10.0	1		12/21/22 09:06			
<b>4500H+ pH, Electrometric</b>		Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis								
pH at 25 Degrees C	7.4	Std. Units	0.10	0.10	1		12/30/22 12:59		H3	

## REPORT OF LABORATORY ANALYSIS

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### ANALYTICAL RESULTS

Project: Eagle Valley Oct 2022 P1R4

Pace Project No.: 50333823

Sample: MW-211		Lab ID: 50333823001		Collected: 12/16/22 13:40	Received: 12/16/22 16:00	Matrix: Water				
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual	
<b>4500S2D Sulfide Water</b>		Analytical Method: SM 4500-S2-D Pace Analytical Services - Indianapolis								
Sulfide	ND	mg/L	0.10	0.025	1		12/19/22 16:26	18496-25-8		
<b>Iron, Ferrous</b>		Analytical Method: HACH 8146 Pace Analytical Services - Indianapolis								
Iron, Ferrous	ND	mg/L	0.20	0.096	1		12/27/22 16:08	15438-31-0	H3,N2	
<b>353.2 Nitrogen, NO2/NO3 unpres</b>		Analytical Method: EPA 353.2 Pace Analytical Services - Indianapolis								
Nitrogen, Nitrate	<b>6.8</b>	mg/L	0.50	0.055	5		12/16/22 19:08	14797-55-8		
Nitrogen, Nitrite	ND	mg/L	0.50	0.020	5		12/16/22 19:08	14797-65-0		
<b>365.1 Total Phosphorus</b>		Analytical Method: EPA 365.1 Preparation Method: EPA 365.1 Pace Analytical Services - Indianapolis								
Phosphate as P04	ND	mg/L	0.15	0.15	1	12/27/22 12:30	12/28/22 19:12			
<b>5310C TOC</b>		Analytical Method: SM 5310C Pace Analytical Services - Indianapolis								
Total Organic Carbon	ND	mg/L	1.0	0.14	1		12/23/22 19:21	7440-44-0		
<b>5310C Dissolved Organic Carbon</b>		Analytical Method: SM 5310C Pace Analytical Services - Indianapolis								
Dissolved Organic Carbon	<b>1.7</b>	mg/L	1.0	0.14	1		12/28/22 17:33			

### REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: Eagle Valley Oct 2022 P1R4

Pace Project No.: 50333823

Sample: MW-21D		Lab ID: 50333823002		Collected: 12/16/22 11:10	Received: 12/16/22 16:00	Matrix: Water				
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual	
<b>9056 IC Anions</b>		Analytical Method: EPA 9056 Pace Analytical Services - Indianapolis								
Chloride	50.7	mg/L	2.5	0.67	10		12/28/22 15:30	16887-00-6		
Fluoride	ND	mg/L	0.10	0.017	1		12/22/22 22:00	16984-48-8		
Sulfate	246	mg/L	25.0	8.5	100		12/28/22 15:45	14808-79-8		
<b>6010 MET ICP</b>		Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Aluminum	ND	ug/L	200	55.4	1	12/28/22 09:06	12/31/22 16:44	7429-90-5		
Barium	61.4	ug/L	10.0	2.1	1	12/28/22 09:06	12/31/22 16:44	7440-39-3		
Boron	320	ug/L	100	37.6	1	12/28/22 09:06	12/31/22 16:44	7440-42-8		
Calcium	139000	ug/L	1000	163	1	12/28/22 09:06	12/31/22 16:44	7440-70-2		
Iron	3700	ug/L	100	48.8	1	12/28/22 09:06	12/31/22 16:44	7439-89-6		
Lithium	ND	ug/L	20.0	6.2	1	12/28/22 09:06	12/31/22 16:44	7439-93-2		
Magnesium	32400	ug/L	1000	71.8	1	12/28/22 09:06	12/31/22 16:44	7439-95-4		
Manganese	362	ug/L	10.0	2.5	1	12/28/22 09:06	12/31/22 16:44	7439-96-5		
Molybdenum	ND	ug/L	10.0	3.7	1	12/28/22 09:06	12/31/22 16:44	7439-98-7		
Potassium	3060	ug/L	1000	281	1	12/28/22 09:06	12/31/22 16:44	7440-09-7		
Silica	15000	ug/L	450		1	12/28/22 09:06	12/31/22 16:44	7631-86-9	N2	
Sodium	40200	ug/L	1000	214	1	12/28/22 09:06	12/31/22 16:44	7440-23-5		
<b>6010 MET ICP, Dissolved</b>		Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Manganese, Dissolved	368	ug/L	10.0	2.5	1	12/28/22 09:06	01/03/23 15:03	7439-96-5		
Molybdenum, Dissolved	ND	ug/L	10.0	3.7	1	12/28/22 09:06	01/03/23 15:03	7439-98-7		
<b>6020 MET ICPMS</b>		Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis								
Antimony	ND	ug/L	1.0	0.080	1	12/19/22 15:40	12/20/22 10:38	7440-36-0		
Arsenic	1.2	ug/L	1.0	0.12	1	12/19/22 15:40	12/20/22 10:38	7440-38-2		
Selenium	ND	ug/L	1.0	0.19	1	12/19/22 15:40	12/20/22 10:38	7782-49-2		
<b>2320B Alkalinity</b>		Analytical Method: SM 2320B Pace Analytical Services - Indianapolis								
Alkalinity, Total as CaCO3	268	mg/L	10.0	10.0	1		12/27/22 12:25			
Alkalinity,Bicarbonate (CaCO3)	268	mg/L	10.0	10.0	1		12/27/22 12:25			
Alkalinity,Carbonate (CaCO3)	ND	mg/L	10.0	10.0	1		12/27/22 12:25			
<b>2540C Total Dissolved Solids</b>		Analytical Method: SM 2540C Pace Analytical Services - Indianapolis								
Total Dissolved Solids	701	mg/L	10.0	10.0	1		12/21/22 09:07			
<b>4500H+ pH, Electrometric</b>		Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis								
pH at 25 Degrees C	7.6	Std. Units	0.10	0.10	1		12/30/22 13:01		H3	

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### ANALYTICAL RESULTS

Project: Eagle Valley Oct 2022 P1R4

Pace Project No.: 50333823

Sample: MW-21D		Lab ID: 50333823002		Collected: 12/16/22 11:10	Received: 12/16/22 16:00	Matrix: Water				
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual	
<b>4500S2D Sulfide Water</b>		Analytical Method: SM 4500-S2-D Pace Analytical Services - Indianapolis								
Sulfide	ND	mg/L	0.10	0.025	1		12/19/22 16:26	18496-25-8		
<b>Iron, Ferrous</b>		Analytical Method: HACH 8146 Pace Analytical Services - Indianapolis								
Iron, Ferrous	ND	mg/L	0.20	0.096	1		12/27/22 15:59	15438-31-0	H3,N2	
<b>353.2 Nitrogen, NO2/NO3 unpres</b>		Analytical Method: EPA 353.2 Pace Analytical Services - Indianapolis								
Nitrogen, Nitrate	ND	mg/L	1.0	0.11	10		12/16/22 19:10	14797-55-8	D3	
Nitrogen, Nitrite	ND	mg/L	1.0	0.040	10		12/16/22 19:10	14797-65-0	D3	
<b>365.1 Total Phosphorus</b>		Analytical Method: EPA 365.1 Preparation Method: EPA 365.1 Pace Analytical Services - Indianapolis								
Phosphate as P04	ND	mg/L	0.15	0.15	1	12/27/22 12:30	12/28/22 19:12			
<b>5310C TOC</b>		Analytical Method: SM 5310C Pace Analytical Services - Indianapolis								
Total Organic Carbon	ND	mg/L	1.0	0.14	1		12/23/22 21:04	7440-44-0		
<b>5310C Dissolved Organic Carbon</b>		Analytical Method: SM 5310C Pace Analytical Services - Indianapolis								
Dissolved Organic Carbon	1.1	mg/L	1.0	0.14	1		12/28/22 17:44			

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**QUALITY CONTROL DATA**

Project: Eagle Valley Oct 2022 P1R4

Pace Project No.: 50333823

QC Batch:	712183	Analysis Method:	EPA 9056
QC Batch Method:	EPA 9056	Analysis Description:	9056 IC Anions
		Laboratory:	Pace Analytical Services - Indianapolis

Associated Lab Samples: 50333823001, 50333823002

METHOD BLANK: 3273457 Matrix: Water

Associated Lab Samples: 50333823001, 50333823002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chloride	mg/L	ND	0.25	0.067	12/22/22 10:44	
Fluoride	mg/L	ND	0.10	0.017	12/22/22 10:44	
Sulfate	mg/L	ND	0.25	0.085	12/22/22 10:44	

LABORATORY CONTROL SAMPLE: 3273458

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	1.2	1.1	91	80-120	
Fluoride	mg/L	0.5	0.49	98	80-120	
Sulfate	mg/L	2.5	2.5	99	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3273459 3273460

Parameter	Units	50333823002		MS	MSD	MS	MSD	% Rec	% Rec	% Rec	Max	Qual
		Result	Conc.	Spike Conc.	Spike Conc.	Result	Result	% Rec	% Rec	Limits	RPD	
Chloride	mg/L	50.7	12.5	12.5	61.7	61.4	88	86	80-120	0	15	
Fluoride	mg/L	ND	0.5	0.5	0.55	0.56	98	100	80-120	2	15	
Sulfate	mg/L	246	250	250	492	495	98	100	80-120	1	15	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3273461 3273462

Parameter	Units	50333840002		MS	MSD	MS	MSD	% Rec	% Rec	% Rec	Max	Qual
		Result	Conc.	Spike Conc.	Spike Conc.	Result	Result	% Rec	% Rec	Limits	RPD	
Chloride	mg/L	11.0	12.5	12.5	22.4	22.4	91	92	80-120	0	15	
Fluoride	mg/L	ND	0.5	0.5	0.56	0.56	97	98	80-120	1	15	
Sulfate	mg/L	22.2	2.5	2.5	24.8	24.8	104	104	80-120	0	15	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

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### QUALITY CONTROL DATA

Project: Eagle Valley Oct 2022 P1R4

Pace Project No.: 50333823

QC Batch: 712563

Analysis Method: EPA 6010

QC Batch Method: EPA 3010

Analysis Description: 6010 MET

Laboratory: Pace Analytical Services - Indianapolis

Associated Lab Samples: 50333823001, 50333823002

METHOD BLANK: 3275168

Matrix: Water

Associated Lab Samples: 50333823001, 50333823002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Aluminum	ug/L	ND	200	55.4	12/31/22 15:37	
Barium	ug/L	ND	10.0	2.1	12/31/22 15:37	
Boron	ug/L	ND	100	37.6	12/31/22 15:37	
Calcium	ug/L	ND	1000	163	12/31/22 15:37	
Iron	ug/L	ND	100	48.8	12/31/22 15:37	
Lithium	ug/L	ND	20.0	6.2	12/31/22 15:37	
Magnesium	ug/L	ND	1000	71.8	12/31/22 15:37	
Manganese	ug/L	ND	10.0	2.5	12/31/22 15:37	
Molybdenum	ug/L	ND	10.0	3.7	12/31/22 15:37	
Potassium	ug/L	ND	1000	281	12/31/22 15:37	
Silica	ug/L	ND	450		12/31/22 15:37	N2
Sodium	ug/L	ND	1000	214	12/31/22 15:37	

LABORATORY CONTROL SAMPLE: 3275169

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Aluminum	ug/L	10000	10000	100	80-120	
Barium	ug/L	1000	1020	102	80-120	
Boron	ug/L	1000	1030	103	80-120	
Calcium	ug/L	10000	10200	102	80-120	
Iron	ug/L	10000	9780	98	80-120	
Lithium	ug/L	1000	1040	104	80-120	
Magnesium	ug/L	10000	10100	101	80-120	
Manganese	ug/L	1000	977	98	80-120	
Molybdenum	ug/L	1000	1040	104	80-120	
Potassium	ug/L	10000	10300	103	80-120	
Silica	ug/L	10700	10400	97	80-120	N2
Sodium	ug/L	10000	10100	101	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3275170 3275171

Parameter	Units	50333823002		3275171		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result						
Aluminum	ug/L	ND	10000	10000	10400	9930	103	99	75-125	5	20
Barium	ug/L	61.4	1000	1000	1090	1060	103	100	75-125	3	20
Boron	ug/L	320	1000	1000	1420	1380	110	106	75-125	3	20
Calcium	ug/L	139000	10000	10000	147000	150000	85	107	75-125	1	20

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### QUALITY CONTROL DATA

Project: Eagle Valley Oct 2022 P1R4

Pace Project No.: 50333823

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3275170												3275171	
Parameter	Units	50333823002 Result	MS		MSD		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual	
			Spike Conc.	MS Conc.	MS Result	MSD Result							
Iron	ug/L	3700	10000	10000	13500	13200	98	95	75-125	3	20		
Lithium	ug/L	ND	1000	1000	1090	1060	108	105	75-125	3	20		
Magnesium	ug/L	32400	10000	10000	42500	42600	101	101	75-125	0	20		
Manganese	ug/L	362	1000	1000	1350	1320	99	95	75-125	3	20		
Molybdenum	ug/L	ND	1000	1000	1080	1050	108	105	75-125	3	20		
Potassium	ug/L	3060	10000	10000	13600	13400	105	103	75-125	2	20		
Silica	ug/L	15000	10700	10700	25700	25600	100	98	75-125	1	20	N2	
Sodium	ug/L	40200	10000	10000	49300	49800	90	96	75-125	1	20		

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### QUALITY CONTROL DATA

Project: Eagle Valley Oct 2022 P1R4

Pace Project No.: 50333823

QC Batch: 712548	Analysis Method: EPA 6010
QC Batch Method: EPA 3010	Analysis Description: 6010 MET Dissolved
	Laboratory: Pace Analytical Services - Indianapolis

Associated Lab Samples: 50333823001, 50333823002

METHOD BLANK: 3275124 Matrix: Water

Associated Lab Samples: 50333823001, 50333823002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Manganese, Dissolved	ug/L	ND	10.0	2.5	01/03/23 14:01	
Molybdenum, Dissolved	ug/L	ND	10.0	3.7	01/03/23 14:01	

LABORATORY CONTROL SAMPLE: 3275125

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Manganese, Dissolved	ug/L	1000	992	99	80-120	
Molybdenum, Dissolved	ug/L	1000	1070	107	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3275126 3275127

Parameter	Units	50333823002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Manganese, Dissolved	ug/L	368	1000	1000	1390	1390	102	102	75-125	0	20	
Molybdenum, Dissolved	ug/L	ND	1000	1000	1100	1100	110	110	75-125	0	20	

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### QUALITY CONTROL DATA

Project: Eagle Valley Oct 2022 P1R4

Pace Project No.: 50333823

QC Batch:	711603	Analysis Method:	EPA 6020
QC Batch Method:	EPA 200.2	Analysis Description:	6020 MET
		Laboratory:	Pace Analytical Services - Indianapolis

Associated Lab Samples: 50333823001, 50333823002

METHOD BLANK: 3271138 Matrix: Water

Associated Lab Samples: 50333823001, 50333823002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Antimony	ug/L	ND	1.0	0.080	12/20/22 09:16	
Arsenic	ug/L	ND	1.0	0.12	12/20/22 09:16	
Selenium	ug/L	ND	1.0	0.19	12/20/22 09:16	

LABORATORY CONTROL SAMPLE: 3271139

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Antimony	ug/L	40	41.5	104	80-120	
Arsenic	ug/L	40	39.0	98	80-120	
Selenium	ug/L	40	39.7	99	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3271140 3271141

Parameter	Units	50333691010		MS		MSD		% Rec	% Rec	% Rec Limits	RPD	Max RPD	Qual
		Result	Conc.	Spike Conc.	Spike Conc.	Result	Result						
Antimony	ug/L	<0.080	40	40	40	42.3	42.6	106	106	75-125	1	20	
Arsenic	ug/L	11.5	40	40	40	49.7	50.3	95	97	75-125	1	20	
Selenium	ug/L	<0.19	40	40	40	16.1	17.6	40	44	75-125	9	20 M3	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3271142 3271143

Parameter	Units	50333823002		MS		MSD		% Rec	% Rec	% Rec Limits	RPD	Max RPD	Qual
		Result	Conc.	Spike Conc.	Spike Conc.	Result	Result						
Antimony	ug/L	ND	40	40	40	43.0	42.9	107	106	75-125	0	20	
Arsenic	ug/L	1.2	40	40	40	39.6	40.0	96	97	75-125	1	20	
Selenium	ug/L	ND	40	40	40	39.7	39.2	99	98	75-125	1	20	

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### QUALITY CONTROL DATA

Project: Eagle Valley Oct 2022 P1R4

Pace Project No.: 50333823

QC Batch: 712512

Analysis Method: SM 2320B

QC Batch Method: SM 2320B

Analysis Description: 2320B Alkalinity

Laboratory: Pace Analytical Services - Indianapolis

Associated Lab Samples: 50333823001, 50333823002

METHOD BLANK: 3274956

Matrix: Water

Associated Lab Samples: 50333823001, 50333823002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Alkalinity, Total as CaCO <sub>3</sub>	mg/L	ND	10.0	10.0	12/27/22 12:25	
Alkalinity,Bicarbonate (CaCO <sub>3</sub> )	mg/L	ND	10.0	10.0	12/27/22 12:25	
Alkalinity,Carbonate (CaCO <sub>3</sub> )	mg/L	ND	10.0	10.0	12/27/22 12:25	

LABORATORY CONTROL SAMPLE: 3274957

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Alkalinity, Total as CaCO <sub>3</sub>	mg/L	50	51.9	104	90-110	

SAMPLE DUPLICATE: 3274958

Parameter	Units	50333823002 Result	Dup Result	RPD	Max RPD	Qualifiers
Alkalinity, Total as CaCO <sub>3</sub>	mg/L	268	271	1	20	
Alkalinity,Bicarbonate (CaCO <sub>3</sub> )	mg/L	268	271	1	20	
Alkalinity,Carbonate (CaCO <sub>3</sub> )	mg/L	ND	ND		20	

SAMPLE DUPLICATE: 3274959

Parameter	Units	50333840002 Result	Dup Result	RPD	Max RPD	Qualifiers
Alkalinity, Total as CaCO <sub>3</sub>	mg/L	293	298	2	20	
Alkalinity,Bicarbonate (CaCO <sub>3</sub> )	mg/L	293	298	2	20	
Alkalinity,Carbonate (CaCO <sub>3</sub> )	mg/L	ND	ND		20	

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### QUALITY CONTROL DATA

Project: Eagle Valley Oct 2022 P1R4

Pace Project No.: 50333823

QC Batch:	712030	Analysis Method:	SM 2540C
QC Batch Method:	SM 2540C	Analysis Description:	2540C Total Dissolved Solids
		Laboratory:	Pace Analytical Services - Indianapolis

Associated Lab Samples: 50333823001, 50333823002

METHOD BLANK: 3272744 Matrix: Water

Associated Lab Samples: 50333823001, 50333823002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	ND	10.0	10.0	12/21/22 09:02	

LABORATORY CONTROL SAMPLE: 3272745

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	300	289	96	80-120	

SAMPLE DUPLICATE: 3272746

Parameter	Units	50333785010 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	571	579	1	10	

SAMPLE DUPLICATE: 3272747

Parameter	Units	50333823002 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	701	716	2	10	

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**QUALITY CONTROL DATA**

Project: Eagle Valley Oct 2022 P1R4

Pace Project No.: 50333823

QC Batch: 713140

Analysis Method: SM 4500-H+B

QC Batch Method: SM 4500-H+B

Analysis Description: 4500H+B pH

Laboratory: Pace Analytical Services - Indianapolis

Associated Lab Samples: 50333823001, 50333823002

SAMPLE DUPLICATE: 3276895

Parameter	Units	50333823002 Result	Dup Result	RPD	Max RPD	Qualifiers
pH at 25 Degrees C	Std. Units	7.6	7.6	1	2	H3

SAMPLE DUPLICATE: 3276896

Parameter	Units	50333840002 Result	Dup Result	RPD	Max RPD	Qualifiers
pH at 25 Degrees C	Std. Units	7.6	7.6	0	2	H3

SAMPLE DUPLICATE: 3276897

Parameter	Units	50333999002 Result	Dup Result	RPD	Max RPD	Qualifiers
pH at 25 Degrees C	Std. Units	7.5	7.5	0	2	H3

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**QUALITY CONTROL DATA**

Project: Eagle Valley Oct 2022 P1R4

Pace Project No.: 50333823

QC Batch: 711756	Analysis Method: SM 4500-S2-D
QC Batch Method: SM 4500-S2-D	Analysis Description: 4500S2D Sulfide Water
	Laboratory: Pace Analytical Services - Indianapolis

Associated Lab Samples: 50333823001, 50333823002

METHOD BLANK: 3271678 Matrix: Water

Associated Lab Samples: 50333823001, 50333823002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Sulfide	mg/L	ND	0.10	0.025	12/19/22 16:26	

LABORATORY CONTROL SAMPLE: 3271679

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Sulfide	mg/L	0.5	0.55	109	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3271680 3271681

Parameter	Units	50333637002 Result	MS		MSD		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
			Spike Conc.	MS Result	MSD Result							
Sulfide	mg/L	ND	0.5	0.48	0.48	95	96	90-110	1	20		

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3271682 3271683

Parameter	Units	50333823002 Result	MS		MSD		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
			Spike Conc.	MS Result	MSD Result							
Sulfide	mg/L	ND	0.5	0.53	0.54	101	103	90-110	2	20		

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3271684 3271685

Parameter	Units	50333840002 Result	MS		MSD		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
			Spike Conc.	MS Result	MSD Result							
Sulfide	mg/L	ND	0.5	0.52	0.54	103	106	90-110	3	20		

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**QUALITY CONTROL DATA**

Project: Eagle Valley Oct 2022 P1R4

Pace Project No.: 50333823

QC Batch:	712635	Analysis Method:	HACH 8146
QC Batch Method:	HACH 8146	Analysis Description:	Iron, Ferrous
		Laboratory:	Pace Analytical Services - Indianapolis

Associated Lab Samples: 50333823001, 50333823002

METHOD BLANK: 3275384 Matrix: Water

Associated Lab Samples: 50333823001, 50333823002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Iron, Ferrous	mg/L	ND	0.20	0.096	12/27/22 15:38	H3,N2

LABORATORY CONTROL SAMPLE: 3275385

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Iron, Ferrous	mg/L	1	0.97	97	90-110	H3,N2

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3275386 3275387

Parameter	Units	50333823002		3275387		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual	
		MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result							
Iron, Ferrous	mg/L	ND	1	1	1.0	1.0	100	100	90-110	0	20	H3,N2

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3275388 3275389

Parameter	Units	50333840002		3275389		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual	
		MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result							
Iron, Ferrous	mg/L	ND	1	1	1.0	1.0	99	100	90-110	1	20	H3,N2

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**QUALITY CONTROL DATA**

Project: Eagle Valley Oct 2022 P1R4

Pace Project No.: 50333823

QC Batch:	711525	Analysis Method:	EPA 353.2
QC Batch Method:	EPA 353.2	Analysis Description:	353.2 Nitrate + Nitrite, Unpres.
		Laboratory:	Pace Analytical Services - Indianapolis

Associated Lab Samples: 50333823001, 50333823002

METHOD BLANK: 3270232 Matrix: Water

Associated Lab Samples: 50333823001, 50333823002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Nitrogen, Nitrate	mg/L	ND	0.10	0.011	12/16/22 18:22	
Nitrogen, Nitrite	mg/L	ND	0.10	0.0040	12/16/22 18:22	

LABORATORY CONTROL SAMPLE: 3270233

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Nitrogen, Nitrate	mg/L	1	0.97	97	90-110	
Nitrogen, Nitrite	mg/L	1	1.0	104	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3270234 3270235

Parameter	Units	50333785010 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Nitrogen, Nitrate	mg/L	ND	1	1	.89J	.9J	86	86	90-110		20	
Nitrogen, Nitrite	mg/L	ND	1	1	.99J	ND	99	99	90-110		20	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3270465 3270466

Parameter	Units	50333823002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Nitrogen, Nitrate	mg/L	ND	10	10	9.3	9.3	93	93	90-110	0	20	
Nitrogen, Nitrite	mg/L	ND	10	10	10.1	10.1	101	101	90-110	0	20	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3270504 3270505

Parameter	Units	50333840002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Nitrogen, Nitrate	mg/L	6.7	1	1	7.8	7.7	116	104	90-110	1	20	
Nitrogen, Nitrite	mg/L	ND	1	1	1.0	1.0	97	97	90-110	1	20	

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### QUALITY CONTROL DATA

Project: Eagle Valley Oct 2022 P1R4

Pace Project No.: 50333823

QC Batch: 712521	Analysis Method: EPA 365.1
QC Batch Method: EPA 365.1	Analysis Description: 365.1 Total Phosphorus
	Laboratory: Pace Analytical Services - Indianapolis

Associated Lab Samples: 50333823001, 50333823002

METHOD BLANK: 3275001 Matrix: Water

Associated Lab Samples: 50333823001, 50333823002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Phosphate as P04	mg/L	ND	0.15	0.15	12/28/22 19:07	

LABORATORY CONTROL SAMPLE: 3275002

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Phosphate as P04	mg/L		1.6			

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3275003 3275004

Parameter	Units	50333823002		3275004		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result						
Phosphate as P04	mg/L	ND		1.4	1.4				1		

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### QUALITY CONTROL DATA

Project: Eagle Valley Oct 2022 P1R4

Pace Project No.: 50333823

QC Batch: 712329	Analysis Method: SM 5310C
QC Batch Method: SM 5310C	Analysis Description: 5310C Total Organic Carbon
	Laboratory: Pace Analytical Services - Indianapolis

Associated Lab Samples: 50333823001

METHOD BLANK: 3274143 Matrix: Water

Associated Lab Samples: 50333823001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Organic Carbon	mg/L	ND	1.0	0.14	12/23/22 14:19	

LABORATORY CONTROL SAMPLE: 3274144

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Organic Carbon	mg/L	10	10.1	101	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3274145 3274146

Parameter	Units	50333676005 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Total Organic Carbon	mg/L	4.4	10	10	14.5	15.1	101	107	80-120	4	20	

MATRIX SPIKE SAMPLE: 3274147

Parameter	Units	50333676006 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Total Organic Carbon	mg/L	5.4	10	15.8	104	80-120	

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### QUALITY CONTROL DATA

Project: Eagle Valley Oct 2022 P1R4

Pace Project No.: 50333823

QC Batch: 712330

Analysis Method: SM 5310C

QC Batch Method: SM 5310C

Analysis Description: 5310C Total Organic Carbon

Laboratory: Pace Analytical Services - Indianapolis

Associated Lab Samples: 50333823002

METHOD BLANK: 3274159

Matrix: Water

Associated Lab Samples: 50333823002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Organic Carbon	mg/L	ND	1.0	0.14	12/23/22 20:23	

LABORATORY CONTROL SAMPLE: 3274160

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Organic Carbon	mg/L	10	10.1	101	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3274161 3274162

Parameter	Units	50333823002		3274161		3274162		% Rec Limits	RPD	Max RPD	Qual	
		MS Result	MS Spike Conc.	MS Result	MS Spike Conc.	MS Result	MS Spike Conc.					% Rec
Total Organic Carbon	mg/L	ND	10	10	10.5	10.5	97	98	80-120	0	20	

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### QUALITY CONTROL DATA

Project: Eagle Valley Oct 2022 P1R4

Pace Project No.: 50333823

QC Batch: 712447

Analysis Method: SM 5310C

QC Batch Method: SM 5310C

Analysis Description: 5310C Dissolved Organic Carbon

Laboratory: Pace Analytical Services - Indianapolis

Associated Lab Samples: 50333823001, 50333823002

METHOD BLANK: 3274832

Matrix: Water

Associated Lab Samples: 50333823001, 50333823002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Dissolved Organic Carbon	mg/L	ND	1.0	0.14	12/28/22 16:49	

LABORATORY CONTROL SAMPLE: 3274833

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Dissolved Organic Carbon	mg/L	10	10.2	102	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3274834 3274835

Parameter	Units	3274834		3274835		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		50333823002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result						
Dissolved Organic Carbon	mg/L	1.1	10	10	11.1	11.1	100	99	80-120	0	20

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

### REPORT OF LABORATORY ANALYSIS

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Eagle Valley Oct 2022 P1R4

Pace Project No.: 50333823

**Sample: MW-211**      **Lab ID: 50333823001**      Collected: 12/16/22 13:40      Received: 12/16/22 16:00      Matrix: Water  
PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	<b>0.127 ± 0.290 (0.468)</b> <b>C:NA T:95%</b>	pCi/L	01/06/23 16:33	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	<b>0.281 ± 0.317 (0.662)</b> <b>C:81% T:87%</b>	pCi/L	01/05/23 15:34	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	<b>0.408 ± 0.607 (1.13)</b>	pCi/L	01/09/23 10:32	7440-14-4	

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Eagle Valley Oct 2022 P1R4

Pace Project No.: 50333823

**Sample: MW-21D**      **Lab ID: 50333823002**      Collected: 12/16/22 11:10      Received: 12/16/22 16:00      Matrix: Water  
PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Radium-226	EPA 903.1	<b>0.571 ± 0.327 (0.300)</b> <b>C:NA T:94%</b>	pCi/L	01/06/23 16:33	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 904.0	<b>0.942 ± 0.396 (0.607)</b> <b>C:81% T:85%</b>	pCi/L	01/05/23 15:34	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	<b>1.51 ± 0.723 (0.907)</b>	pCi/L	01/09/23 10:32	7440-14-4	

### REPORT OF LABORATORY ANALYSIS

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Eagle Valley Oct 2022 P1R4

Pace Project No.: 50333823

**Sample: MW-21D MS**      **Lab ID: 50333823003**      Collected: 12/16/22 11:10      Received: 12/16/22 16:00      Matrix: Water  
PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	<b>113.61 %REC ± NA (NA)</b> <b>C:NA T:NA</b>	pCi/L	01/06/23 17:21	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	<b>80.64 %REC ± NA (NA)</b> <b>C:NA T:NA</b>	pCi/L	01/05/23 15:34	15262-20-1	

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**ANALYTICAL RESULTS - RADIOCHEMISTRY**

Project: Eagle Valley Oct 2022 P1R4

Pace Project No.: 50333823

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Radium-226	EPA 903.1	<b>133.09 %REC 15.79RPD ±</b> <b>NA (NA)</b> <b>C:NA T:NA</b>	pCi/L	01/06/23 17:21	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 904.0	<b>101.64 %REC 23.04RPD ±</b> <b>NA (NA)</b> <b>C:NA T:NA</b>	pCi/L	01/05/23 15:34	15262-20-1	

**REPORT OF LABORATORY ANALYSIS**

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### QUALITY CONTROL - RADIOCHEMISTRY

Project: Eagle Valley Oct 2022 P1R4

Pace Project No.: 50333823

QC Batch: 556153

Analysis Method: EPA 904.0

QC Batch Method: EPA 904.0

Analysis Description: 904.0 Radium 228

Laboratory: Pace Analytical Services - Greensburg

Associated Lab Samples: 50333823001, 50333823002, 50333823003, 50333823004

METHOD BLANK: 2702083

Matrix: Water

Associated Lab Samples: 50333823001, 50333823002, 50333823003, 50333823004

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.0608 ± 0.293 (0.672) C:81% T:81%	pCi/L	01/05/23 15:35	

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### QUALITY CONTROL - RADIOCHEMISTRY

Project: Eagle Valley Oct 2022 P1R4

Pace Project No.: 50333823

QC Batch: 556152

Analysis Method: EPA 903.1

QC Batch Method: EPA 903.1

Analysis Description: 903.1 Radium-226

Laboratory: Pace Analytical Services - Greensburg

Associated Lab Samples: 50333823001, 50333823002, 50333823003, 50333823004

METHOD BLANK: 2702082

Matrix: Water

Associated Lab Samples: 50333823001, 50333823002, 50333823003, 50333823004

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.249 ± 0.294 (0.462) C:NA T:85%	pCi/L	01/06/23 16:33	

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## QUALIFIERS

Project: Eagle Valley Oct 2022 P1R4

Pace Project No.: 50333823

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### DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Reported results are not rounded until the final step prior to reporting. Therefore, calculated parameters that are typically reported as "Total" may vary slightly from the sum of the reported component parameters.

Act - Activity

Unc - Uncertainty: SDWA = 1.96 sigma count uncertainty, all other matrices = Expanded Uncertainty (95% confidence interval).

Gamma Spec = Expanded Uncertainty (95.4% Confidence Interval)

(MDC) - Minimum Detectable Concentration

Trac - Tracer Recovery (%)

Carr - Carrier Recovery (%)

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

### ANALYTE QUALIFIERS

D3 Sample was diluted due to the presence of high levels of non-target analytes or other matrix interference.

H3 Sample was received or analysis requested beyond the recognized method holding time.

M3 Matrix spike recovery was outside laboratory control limits due to matrix interferences.

N2 The lab does not hold NELAC/TNI accreditation for this parameter but other accreditations/certifications may apply. A complete list of accreditations/certifications is available upon request.

## REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Eagle Valley Oct 2022 P1R4

Pace Project No.: 50333823

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
50333823001	MW-21I	EPA 9056	712183		
50333823002	MW-21D	EPA 9056	712183		
50333823001	MW-21I	EPA 3010	712563	EPA 6010	713227
50333823002	MW-21D	EPA 3010	712563	EPA 6010	713227
50333823001	MW-21I	EPA 3010	712548	EPA 6010	713314
50333823002	MW-21D	EPA 3010	712548	EPA 6010	713314
50333823001	MW-21I	EPA 200.2	711603	EPA 6020	711839
50333823002	MW-21D	EPA 200.2	711603	EPA 6020	711839
50333823001	MW-21I	EPA 903.1	556152		
50333823002	MW-21D	EPA 903.1	556152		
50333823003	MW-21D MS	EPA 903.1	556152		
50333823004	MW-21D MSD	EPA 903.1	556152		
50333823001	MW-21I	EPA 904.0	556153		
50333823002	MW-21D	EPA 904.0	556153		
50333823003	MW-21D MS	EPA 904.0	556153		
50333823004	MW-21D MSD	EPA 904.0	556153		
50333823001	MW-21I	Total Radium Calculation	558734		
50333823002	MW-21D	Total Radium Calculation	558734		
50333823001	MW-21I	SM 2320B	712512		
50333823002	MW-21D	SM 2320B	712512		
50333823001	MW-21I	SM 2540C	712030		
50333823002	MW-21D	SM 2540C	712030		
50333823001	MW-21I	SM 4500-H+B	713140		
50333823002	MW-21D	SM 4500-H+B	713140		
50333823001	MW-21I	SM 4500-S2-D	711756		
50333823002	MW-21D	SM 4500-S2-D	711756		
50333823001	MW-21I	HACH 8146	712635		
50333823002	MW-21D	HACH 8146	712635		
50333823001	MW-21I	EPA 353.2	711525		
50333823002	MW-21D	EPA 353.2	711525		
50333823001	MW-21I	EPA 365.1	712521	EPA 365.1	712942
50333823002	MW-21D	EPA 365.1	712521	EPA 365.1	712942
50333823001	MW-21I	SM 5310C	712329		
50333823002	MW-21D	SM 5310C	712330		
50333823001	MW-21I	SM 5310C	712447		
50333823002	MW-21D	SM 5310C	712447		

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**SAMPLE CONDITION UPON RECEIPT FORM**

Date/Time and Initials of person examining contents: DD 12/16/22 1607

1. Courier:  FED EX  UPS  CLIENT  PACE  USPS  OTHER \_\_\_\_\_
2. Custody Seal on Cooler/Box Present:  Yes  No  
 (If yes)Seals Intact:  Yes  No (leave blank if no seals were present)
3. Thermometer: **1 2 3 4 5 6 A B C D E F**
4. Cooler Temperature(s): 1.9/1.0 1.3/0.4    
 (Initial/Corrected) RECORD TEMPS OF ALL COOLERS RECEIVED (use Comments below to add more)

5. Packing Material:  Bubble Wrap  Bubble Bags  
 None  Other \_\_\_\_\_
6. Ice Type:  Wet  Blue  None
7. If temp. is over 6°C or under 0°C, was the PM notified?:  Yes  No  
 Cooler temp should be above freezing to 6°C

All discrepancies will be written out in the comments section below.

	Yes	No		Yes	No	N/A
USDA Regulated Soils? (HI, ID, NY, WA, OR,CA, NM, TX, OK, AR, LA, TN, AL, MS, NC, SC, GA, FL, or Puerto Rico)			All containers needing acid/base preservation have been pH CHECKED?: Exceptions: VOA, coliform, LLHg, O&G, RAD CHEM, and any container with a septum cap or preserved with HCl.			
Short Hold Time Analysis (48 hours or less)? Analysis: <u>N. frate</u>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/> <u>DD 12/16/22</u>	Circle: <u>HNO3 (&lt;2)</u> <u>H2SO4 (&lt;2)</u> NaOH (>10) <u>NaOH/ZnAc (&gt;9)</u> Any non-conformance to pH recommendations will be noted on the container count form	<input checked="" type="checkbox"/>		
Time 5035A TC placed in Freezer or Short Holds To Lab Time: <u>16:40</u>			Residual Chlorine Check (SVOC 625 Pest/PCB 608)	<u>Present</u>	<u>Absent</u>	<u>N/A</u>
Rush TAT Requested (4 days or less):			Residual Chlorine Check (Total/Amenable/Free Cyanide)		<input checked="" type="checkbox"/>	
Custody Signatures Present?	<input checked="" type="checkbox"/>		Headspace Wisconsin Sulfide?			<input checked="" type="checkbox"/>
Containers Intact?:	<input checked="" type="checkbox"/>		Headspace in VOA Vials (>6mm): See Containter Count form for details	<u>Present</u>	<u>Absent</u>	<u>No VOA Vials Sent</u>
Sample Label (IDs/Dates/Times) Match COC?: Except TCs, which only require sample ID	<input checked="" type="checkbox"/>		Trip Blank Present?			<input checked="" type="checkbox"/>
Extra labels on Terracore Vials? (soils only)			Trip Blank Custody Seals?:			<input checked="" type="checkbox"/>

COMMENTS: MS and MSD time on container is 1110 not 1340 as listed on COC (DD 12/16/22)

### Sample Container Count

\*\* Place a RED dot on containers that are out of conformance \*\*

COC Line Item	WGFU	MeOH (only) SBS DI R	VIALS						AMBER GLASS						PLASTIC						OTHER			Matrix	Nitric Red	Sulfuric Yellow	Sodium Hydroxide Green	Sodium Hydroxide/ ZnAc Black				
			DG9H	VG9H	VOA VIAL HS (>6mm)	VG9U	DG9U	VG9T	AG0U	AG1H	AG1U	AG2U	AG3S	AG3SF	AG3C	BP1U	BP1N	BP2U	BP3U	BP3N	BP3F	BP3S	BP3B						BP3Z	CG3H	CG3F	Syringe Kit
			HNO3 <2	H2SO4 <2	NaOH >10	NaOH/Zn Ac >9																										
1										/	/			2	2	1	2	1	1	1								WT	✓	✓		✓
2																																
3																																
4										3	3			6	3	6	3	3	3	3		3						WT	✓	✓		✓
5																																
6																																
7																																
8																																
9																																
10																																
11																																
12																																

Container Codes

### Glass

DG9H	40mL HCl amber voa vial	BG1T	1L Na Thiosulfate clear glass
DG9P	40mL TSP amber vial	BG1U	1L unpreserved glass
DG9S	40mL H2SO4 amber vial	BG3H	250mL HCl Clear Glass
DG9T	40mL Na Thio amber vial	BG3U	250mL Unpres Clear Glass
DG9U	40mL unpreserved amber vial	AG0U	100mL unpres amber glass
VG9H	40mL HCl clear vial	AG1H	1L HCl amber glass
VG9T	40mL Na Thio. clear vial	AG1S	1L H2SO4 amber glass
VG9U	40mL unpreserved clear vial	AG1T	1L Na Thiosulfate amber glass
I	40mL w/hexane wipe vial	AG1U	1liter unpres amber glass
WGKU	8oz unpreserved clear jar	AG2N	500mL HNO3 amber glass
WGFU	4oz clear soil jar	AG2S	500mL H2SO4 amber glass
JGFU	4oz unpreserved amber wide	AG2U	500mL unpres amber glass
CG3H	250mL clear glass HCl	AG3S	250mL H2SO4 amber glass
CG3F	250mL clear glass HCl, Field Filter	AG3SF	250mL H2SO4 amb glass -field filtered
BG1H	1L HCl clear glass	AG3U	250mL unpres amber glass
BG1S	1L H2SO4 clear glass	AG3C	250mL NaOH amber glass

### Plastic

BP4U	125mL unpreserved plastic
BP4N	125mL HNO3 plastic
BP4S	125mL H2SO4 plastic
Miscellaneous	
Syringe Kit	LL Cr+6 sampling kit
ZPLC	Ziploc Bag
R	Terracore Kit
SP5T	120mL Coliform Sodium Thiosulfate
GN	General Container
U	Summa Can (air sample)
WT	Water
SL	Solid Solid
OL:	Oil
NAL	Non-aqueous liquid
WP	Wipe

March 06, 2023

Mr. Mark Breting  
ATC Group Services  
7988 Centerpoint Drive  
Suite 100  
Indianapolis, IN 46256

RE: Project: Eagle Valley Oct 2022 P1R4  
Pace Project No.: 50333840

Dear Mr. Breting:

Enclosed are the analytical results for sample(s) received by the laboratory on December 16, 2022. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

The test results provided in this final report were generated by each of the following laboratories within the Pace Network:

- Pace Analytical Services - Indianapolis
- Pace Analytical Services - Greensburg

If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Will Statz  
will.statz@pacelabs.com  
(317)228-3105  
Project Manager

Enclosures

cc: Mr. Robert Miller, Haley & Aldrich



## REPORT OF LABORATORY ANALYSIS

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## CERTIFICATIONS

Project: Eagle Valley Oct 2022 P1R4

Pace Project No.: 50333840

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### **Pace Analytical Services Pennsylvania**

1638 Roseytown Rd Suites 2,3&4, Greensburg, PA 15601

ANAB DOD-ELAP Rad Accreditation #: L2417

Alabama Certification #: 41590

Arizona Certification #: AZ0734

Arkansas Certification

California Certification #: 04222CA

Colorado Certification #: PA01547

Connecticut Certification #: PH-0694

Delaware Certification

EPA Region 4 DW Rad

Florida/TNI Certification #: E87683

Georgia Certification #: C040

Florida: Cert E871149 SEKS WET

Guam Certification

Hawaii Certification

Idaho Certification

Illinois Certification

Indiana Certification

Iowa Certification #: 391

Kansas/TNI Certification #: E-10358

Kentucky Certification #: KY90133

KY WW Permit #: KY0098221

KY WW Permit #: KY0000221

Louisiana DHH/TNI Certification #: LA180012

Louisiana DEQ/TNI Certification #: 4086

Maine Certification #: 2017020

Maryland Certification #: 308

Massachusetts Certification #: M-PA1457

Michigan/PADEP Certification #: 9991

Missouri Certification #: 235

Montana Certification #: Cert0082

Nebraska Certification #: NE-OS-29-14

Nevada Certification #: PA014572018-1

New Hampshire/TNI Certification #: 297617

New Jersey/TNI Certification #: PA051

New Mexico Certification #: PA01457

New York/TNI Certification #: 10888

North Carolina Certification #: 42706

North Dakota Certification #: R-190

Ohio EPA Rad Approval: #41249

Oregon/TNI Certification #: PA200002-010

Pennsylvania/TNI Certification #: 65-00282

Puerto Rico Certification #: PA01457

Rhode Island Certification #: 65-00282

South Dakota Certification

Tennessee Certification #: 02867

Texas/TNI Certification #: T104704188-17-3

Utah/TNI Certification #: PA014572017-9

USDA Soil Permit #: P330-17-00091

Vermont Dept. of Health: ID# VT-0282

Virgin Island/PADEP Certification

Virginia/VELAP Certification #: 460198

Washington Certification #: C868

West Virginia DEP Certification #: 143

West Virginia DHHR Certification #: 9964C

Wisconsin Approve List for Rad

Wyoming Certification #: 8TMS-L

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### **Pace Analytical Services Indianapolis**

7726 Moller Road, Indianapolis, IN 46268

Illinois Accreditation #: 200074

Indiana Drinking Water Laboratory #: C-49-06

Kansas/TNI Certification #: E-10177

Kentucky UST Agency Interest #: 80226

Kentucky WW Laboratory ID #: 98019

Michigan Drinking Water Laboratory #9050

Ohio VAP Certified Laboratory #: CL0065

Oklahoma Laboratory #: 9204

Texas Certification #: T104704355

Wisconsin Laboratory #: 999788130

USDA Foreign Soil Permit #: 525-23-13-23119

USDA Compliance Agreement #: IN-SL-22-001

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## REPORT OF LABORATORY ANALYSIS

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## SAMPLE SUMMARY

Project: Eagle Valley Oct 2022 P1R4

Pace Project No.: 50333840

Lab ID	Sample ID	Matrix	Date Collected	Date Received
50333840001	MW-22S	Water	12/16/22 09:19	12/16/22 17:15
50333840002	MW-22I	Water	12/16/22 11:16	12/16/22 17:15
50333840003	MW-22I MS	Water	12/16/22 11:16	12/16/22 17:15
50333840004	MW-22I MSD	Water	12/16/22 11:16	12/16/22 17:15
50333840005	MW-22D	Water	12/16/22 14:13	12/16/22 17:15

## REPORT OF LABORATORY ANALYSIS

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### SAMPLE ANALYTE COUNT

Project: Eagle Valley Oct 2022 P1R4

Pace Project No.: 50333840

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
50333840001	MW-22S	EPA 9056	RMR	3	PASI-I
		EPA 6010	DJS	12	PASI-I
		EPA 6010	MTM	2	PASI-I
		EPA 6020	DMT	3	PASI-I
		EPA 903.1	GDH	1	PASI-PA
		EPA 904.0	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
		SM 2320B	TAY	3	PASI-I
		SM 2540C	MTW	1	PASI-I
		SM 4500-H+B	LHZ	1	PASI-I
		SM 4500-S2-D	BEP	1	PASI-I
		HACH 8146	ZM	1	PASI-I
		EPA 353.2	OAS	2	PASI-I
		EPA 365.1	ZM	1	PASI-I
		SM 5310C	ATS	1	PASI-I
		SM 5310C	ATS	1	PASI-I
		50333840002	MW-22I	EPA 9056	RMR
EPA 6010	DJS			12	PASI-I
EPA 6010	MTM			2	PASI-I
EPA 6020	DMT			3	PASI-I
EPA 903.1	GDH			1	PASI-PA
EPA 904.0	VAL			1	PASI-PA
Total Radium Calculation	JAL			1	PASI-PA
SM 2320B	TAY			3	PASI-I
SM 2540C	MTW			1	PASI-I
SM 4500-H+B	LHZ			1	PASI-I
SM 4500-S2-D	BEP			1	PASI-I
HACH 8146	ZM			1	PASI-I
EPA 353.2	OAS			2	PASI-I
EPA 365.1	ZM			1	PASI-I
SM 5310C	ATS			1	PASI-I
SM 5310C	ATS			1	PASI-I
50333840003	MW-22I MS			EPA 903.1	GDH
		EPA 904.0	VAL	1	PASI-PA
50333840004	MW-22I MSD	EPA 903.1	GDH	1	PASI-PA
		EPA 904.0	VAL	1	PASI-PA
50333840005	MW-22D	EPA 9056	RMR	3	PASI-I

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### SAMPLE ANALYTE COUNT

Project: Eagle Valley Oct 2022 P1R4

Pace Project No.: 50333840

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
		EPA 6010	DJS	12	PASI-I
		EPA 6010	MTM	2	PASI-I
		EPA 6020	DMT	3	PASI-I
		EPA 903.1	GDH	1	PASI-PA
		EPA 904.0	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
		SM 2320B	TAY	3	PASI-I
		SM 2540C	MTW	1	PASI-I
		SM 4500-H+B	LHZ	1	PASI-I
		SM 4500-S2-D	BEP	1	PASI-I
		HACH 8146	ZM	1	PASI-I
		EPA 353.2	OAS	2	PASI-I
		EPA 365.1	ZM	1	PASI-I
		SM 5310C	ATS	1	PASI-I
		SM 5310C	ATS	1	PASI-I

PASI-I = Pace Analytical Services - Indianapolis

PASI-PA = Pace Analytical Services - Greensburg

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### SUMMARY OF DETECTION

Project: Eagle Valley Oct 2022 P1R4

Pace Project No.: 50333840

Lab Sample ID	Client Sample ID	Result	Units	Report Limit	Analyzed	Qualifiers
Method	Parameters					
<b>50333840001</b>	<b>MW-22S</b>					
EPA 9056	Chloride	50.1	mg/L	2.5	12/23/22 01:15	
EPA 9056	Fluoride	0.11	mg/L	0.10	12/23/22 01:00	
EPA 9056	Sulfate	42.9	mg/L	2.5	12/23/22 01:15	
EPA 6010	Barium	43.6	ug/L	10.0	01/05/23 12:07	
EPA 6010	Calcium	88200	ug/L	1000	01/05/23 12:07	
EPA 6010	Iron	191	ug/L	100	01/05/23 12:07	
EPA 6010	Magnesium	24300	ug/L	1000	01/05/23 12:07	
EPA 6010	Manganese	524	ug/L	10.0	01/05/23 12:07	
EPA 6010	Potassium	1410	ug/L	1000	01/05/23 12:07	
EPA 6010	Silica	10800	ug/L	450	01/05/23 12:07	N2
EPA 6010	Sodium	29400	ug/L	1000	01/05/23 12:07	
EPA 6010	Manganese, Dissolved	539	ug/L	10.0	01/05/23 10:46	
EPA 6020	Selenium	1.3	ug/L	1.0	12/21/22 09:31	
EPA 903.1	Radium-226	-0.0566 ± 0.333 (0.743) C:NA T:94%	pCi/L		01/06/23 16:33	
EPA 904.0	Radium-228	1.26 ± 0.510 (0.834) C:82% T:85%	pCi/L		01/05/23 15:34	
Total Radium Calculation	Total Radium	1.26 ± 0.843 (1.58)	pCi/L		01/09/23 10:32	
SM 2320B	Alkalinity, Total as CaCO3	304	mg/L	10.0	12/27/22 12:25	
SM 2320B	Alkalinity, Bicarbonate (CaCO3)	304	mg/L	10.0	12/27/22 12:25	
SM 2540C	Total Dissolved Solids	427	mg/L	10.0	12/21/22 09:25	
SM 4500-H+B	pH at 25 Degrees C	7.6	Std. Units	0.10	12/30/22 13:05	H3
EPA 353.2	Nitrogen, Nitrate	2.2	mg/L	0.10	12/16/22 19:32	
<b>50333840002</b>	<b>MW-22I</b>					
EPA 9056	Chloride	11.0	mg/L	2.5	12/23/22 01:45	
EPA 9056	Sulfate	22.2	mg/L	0.25	12/23/22 01:30	
EPA 6010	Barium	56.4	ug/L	10.0	01/05/23 12:10	
EPA 6010	Calcium	82600	ug/L	1000	01/05/23 12:10	
EPA 6010	Iron	114	ug/L	100	01/05/23 12:10	
EPA 6010	Magnesium	24100	ug/L	1000	01/05/23 12:10	
EPA 6010	Manganese	206	ug/L	10.0	01/05/23 12:10	
EPA 6010	Potassium	1340	ug/L	1000	01/05/23 12:10	
EPA 6010	Silica	11900	ug/L	450	01/05/23 12:10	N2
EPA 6010	Sodium	5460	ug/L	1000	01/05/23 12:10	
EPA 6010	Manganese, Dissolved	226	ug/L	10.0	01/05/23 10:49	
EPA 6020	Selenium	7.1	ug/L	1.0	12/21/22 04:56	
EPA 903.1	Radium-226	0.387 ± 0.303 (0.356) C:NA T:90%	pCi/L		01/06/23 16:50	

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### SUMMARY OF DETECTION

Project: Eagle Valley Oct 2022 P1R4

Pace Project No.: 50333840

Lab Sample ID	Client Sample ID	Result	Units	Report Limit	Analyzed	Qualifiers
Method	Parameters					
<b>50333840002</b>	<b>MW-22I</b>					
EPA 904.0	Radium-228	0.656 ± 0.441 (0.853) C:78% T:83%	pCi/L		01/05/23 15:34	
Total Radium Calculation	Total Radium	1.04 ± 0.744 (1.21)	pCi/L		01/09/23 10:32	
SM 2320B	Alkalinity, Total as CaCO3	293	mg/L	10.0	12/27/22 12:25	
SM 2320B	Alkalinity,Bicarbonate (CaCO3)	293	mg/L	10.0	12/27/22 12:25	
SM 2540C	Total Dissolved Solids	352	mg/L	10.0	12/21/22 09:25	
SM 4500-H+B	pH at 25 Degrees C	7.6	Std. Units	0.10	12/30/22 13:06	H3
EPA 353.2	Nitrogen, Nitrate	6.7	mg/L	0.50	12/16/22 19:45	
<b>50333840003</b>	<b>MW-22I MS</b>					
EPA 903.1	Radium-226	79.38 %REC ± NA (NA) C:NA T:NA	pCi/L		01/06/23 16:50	
EPA 904.0	Radium-228	101.44 %REC ± NA (NA) C:NA T:NA	pCi/L		01/05/23 15:34	
<b>50333840004</b>	<b>MW-22I MSD</b>					
EPA 903.1	Radium-226	85.29 %REC 7.18RPD ± NA (NA) C:NA T:NA	pCi/L		01/06/23 16:50	
EPA 904.0	Radium-228	108.10 %REC 6.36RPD ± NA (NA) C:NA T:NA	pCi/L		01/05/23 15:35	
<b>50333840005</b>	<b>MW-22D</b>					
EPA 9056	Chloride	13.8	mg/L	2.5	12/28/22 09:54	
EPA 9056	Sulfate	41.9	mg/L	2.5	12/28/22 09:54	
EPA 6010	Barium	94.4	ug/L	10.0	01/05/23 12:19	
EPA 6010	Calcium	72700	ug/L	1000	01/05/23 12:19	
EPA 6010	Iron	1640	ug/L	100	01/05/23 12:19	
EPA 6010	Magnesium	22700	ug/L	1000	01/05/23 12:19	
EPA 6010	Manganese	276	ug/L	10.0	01/05/23 12:19	
EPA 6010	Potassium	1580	ug/L	1000	01/05/23 12:19	
EPA 6010	Silica	12900	ug/L	450	01/05/23 12:19	N2
EPA 6010	Sodium	8600	ug/L	1000	01/05/23 12:19	
EPA 6010	Manganese, Dissolved	247	ug/L	10.0	01/05/23 10:56	
EPA 6020	Arsenic	2.8	ug/L	1.0	12/21/22 09:42	
EPA 903.1	Radium-226	0.585 ± 0.460 (0.639) C:NA T:97%	pCi/L		01/06/23 16:50	

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### SUMMARY OF DETECTION

Project: Eagle Valley Oct 2022 P1R4

Pace Project No.: 50333840

Lab Sample ID Method	Client Sample ID Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
<b>50333840005</b>	<b>MW-22D</b>					
EPA 904.0	Radium-228	0.413 ± 0.395 (0.811) C:76% T:82%	pCi/L		01/05/23 15:35	
Total Radium Calculation	Total Radium	0.998 ± 0.855 (1.45)	pCi/L		01/09/23 10:32	
SM 2320B	Alkalinity, Total as CaCO <sub>3</sub>	244	mg/L	10.0	12/27/22 12:25	
SM 2320B	Alkalinity, Bicarbonate (CaCO <sub>3</sub> )	244	mg/L	10.0	12/27/22 12:25	
SM 2540C	Total Dissolved Solids	316	mg/L	10.0	12/21/22 09:26	
SM 4500-H+B	pH at 25 Degrees C	7.9	Std. Units	0.10	12/30/22 13:09	H3
EPA 353.2	Nitrogen, Nitrate	0.27	mg/L	0.10	12/16/22 19:51	

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### ANALYTICAL RESULTS

Project: Eagle Valley Oct 2022 P1R4

Pace Project No.: 50333840

Sample: MW-22S		Lab ID: 50333840001		Collected: 12/16/22 09:19		Received: 12/16/22 17:15		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>9056 IC Anions</b>		Analytical Method: EPA 9056 Pace Analytical Services - Indianapolis							
Chloride	50.1	mg/L	2.5	0.67	10		12/23/22 01:15	16887-00-6	
Fluoride	0.11	mg/L	0.10	0.017	1		12/23/22 01:00	16984-48-8	
Sulfate	42.9	mg/L	2.5	0.85	10		12/23/22 01:15	14808-79-8	
<b>6010 MET ICP</b>		Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis							
Aluminum	ND	ug/L	200	54.4	1	12/30/22 15:44	01/05/23 12:07	7429-90-5	
Barium	43.6	ug/L	10.0	1.3	1	12/30/22 15:44	01/05/23 12:07	7440-39-3	
Boron	ND	ug/L	100	61.4	1	12/30/22 15:44	01/05/23 12:07	7440-42-8	
Calcium	88200	ug/L	1000	88.4	1	12/30/22 15:44	01/05/23 12:07	7440-70-2	
Iron	191	ug/L	100	48.8	1	12/30/22 15:44	01/05/23 12:07	7439-89-6	
Lithium	ND	ug/L	20.0	6.2	1	12/30/22 15:44	01/05/23 12:07	7439-93-2	
Magnesium	24300	ug/L	1000	43.0	1	12/30/22 15:44	01/05/23 12:07	7439-95-4	
Manganese	524	ug/L	10.0	5.4	1	12/30/22 15:44	01/05/23 12:07	7439-96-5	
Molybdenum	ND	ug/L	10.0	2.0	1	12/30/22 15:44	01/05/23 12:07	7439-98-7	
Potassium	1410	ug/L	1000	200	1	12/30/22 15:44	01/05/23 12:07	7440-09-7	
Silica	10800	ug/L	450		1	12/30/22 15:44	01/05/23 12:07	7631-86-9	N2
Sodium	29400	ug/L	1000	284	1	12/30/22 15:44	01/05/23 12:07	7440-23-5	
<b>6010 MET ICP, Dissolved</b>		Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis							
Manganese, Dissolved	539	ug/L	10.0	2.5	1	12/30/22 15:44	01/05/23 10:46	7439-96-5	
Molybdenum, Dissolved	ND	ug/L	10.0	3.7	1	12/30/22 15:44	01/05/23 10:46	7439-98-7	
<b>6020 MET ICPMS</b>		Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis							
Antimony	ND	ug/L	1.0	0.080	1	12/20/22 15:00	12/21/22 09:31	7440-36-0	
Arsenic	ND	ug/L	1.0	0.12	1	12/20/22 15:00	12/21/22 09:31	7440-38-2	
Selenium	1.3	ug/L	1.0	0.19	1	12/20/22 15:00	12/21/22 09:31	7782-49-2	
<b>2320B Alkalinity</b>		Analytical Method: SM 2320B Pace Analytical Services - Indianapolis							
Alkalinity, Total as CaCO3	304	mg/L	10.0	10.0	1		12/27/22 12:25		
Alkalinity,Bicarbonate (CaCO3)	304	mg/L	10.0	10.0	1		12/27/22 12:25		
Alkalinity,Carbonate (CaCO3)	ND	mg/L	10.0	10.0	1		12/27/22 12:25		
<b>2540C Total Dissolved Solids</b>		Analytical Method: SM 2540C Pace Analytical Services - Indianapolis							
Total Dissolved Solids	427	mg/L	10.0	10.0	1		12/21/22 09:25		
<b>4500H+ pH, Electrometric</b>		Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis							
pH at 25 Degrees C	7.6	Std. Units	0.10	0.10	1		12/30/22 13:05		H3

### REPORT OF LABORATORY ANALYSIS

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### ANALYTICAL RESULTS

Project: Eagle Valley Oct 2022 P1R4

Pace Project No.: 50333840

Sample: MW-22S		Lab ID: 50333840001		Collected: 12/16/22 09:19	Received: 12/16/22 17:15	Matrix: Water				
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual	
<b>4500S2D Sulfide Water</b>		Analytical Method: SM 4500-S2-D Pace Analytical Services - Indianapolis								
Sulfide	ND	mg/L	0.10	0.025	1		12/19/22 16:26	18496-25-8		
<b>Iron, Ferrous</b>		Analytical Method: HACH 8146 Pace Analytical Services - Indianapolis								
Iron, Ferrous	ND	mg/L	0.20	0.096	1		12/27/22 15:58	15438-31-0	H3,N2	
<b>353.2 Nitrogen, NO2/NO3 unpres</b>		Analytical Method: EPA 353.2 Pace Analytical Services - Indianapolis								
Nitrogen, Nitrate	2.2	mg/L	0.10	0.011	1		12/16/22 19:32	14797-55-8		
Nitrogen, Nitrite	ND	mg/L	0.10	0.0040	1		12/16/22 19:32	14797-65-0		
<b>365.1 Total Phosphorus</b>		Analytical Method: EPA 365.1 Preparation Method: EPA 365.1 Pace Analytical Services - Indianapolis								
Phosphate as P04	ND	mg/L	0.15	0.15	1	12/27/22 14:00	12/28/22 19:26			
<b>5310C TOC</b>		Analytical Method: SM 5310C Pace Analytical Services - Indianapolis								
Total Organic Carbon	ND	mg/L	1.0	0.14	1		12/28/22 23:54	7440-44-0		
<b>5310C Dissolved Organic Carbon</b>		Analytical Method: SM 5310C Pace Analytical Services - Indianapolis								
Dissolved Organic Carbon	ND	mg/L	1.0	0.14	1		12/28/22 18:16			

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## ANALYTICAL RESULTS

Project: Eagle Valley Oct 2022 P1R4

Pace Project No.: 50333840

Sample: MW-221      Lab ID: 50333840002      Collected: 12/16/22 11:16      Received: 12/16/22 17:15      Matrix: Water									
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>9056 IC Anions</b>									
Analytical Method: EPA 9056									
Pace Analytical Services - Indianapolis									
Chloride	11.0	mg/L	2.5	0.67	10		12/23/22 01:45	16887-00-6	
Fluoride	ND	mg/L	0.10	0.017	1		12/23/22 01:30	16984-48-8	
Sulfate	22.2	mg/L	0.25	0.085	1		12/23/22 01:30	14808-79-8	
<b>6010 MET ICP</b>									
Analytical Method: EPA 6010      Preparation Method: EPA 3010									
Pace Analytical Services - Indianapolis									
Aluminum	ND	ug/L	200	54.4	1	12/30/22 15:44	01/05/23 12:10	7429-90-5	
Barium	56.4	ug/L	10.0	1.3	1	12/30/22 15:44	01/05/23 12:10	7440-39-3	
Boron	ND	ug/L	100	61.4	1	12/30/22 15:44	01/05/23 12:10	7440-42-8	
Calcium	82600	ug/L	1000	88.4	1	12/30/22 15:44	01/05/23 12:10	7440-70-2	
Iron	114	ug/L	100	48.8	1	12/30/22 15:44	01/05/23 12:10	7439-89-6	
Lithium	ND	ug/L	20.0	6.2	1	12/30/22 15:44	01/05/23 12:10	7439-93-2	
Magnesium	24100	ug/L	1000	43.0	1	12/30/22 15:44	01/05/23 12:10	7439-95-4	
Manganese	206	ug/L	10.0	5.4	1	12/30/22 15:44	01/05/23 12:10	7439-96-5	
Molybdenum	ND	ug/L	10.0	2.0	1	12/30/22 15:44	01/05/23 12:10	7439-98-7	
Potassium	1340	ug/L	1000	200	1	12/30/22 15:44	01/05/23 12:10	7440-09-7	
Silica	11900	ug/L	450		1	12/30/22 15:44	01/05/23 12:10	7631-86-9	N2
Sodium	5460	ug/L	1000	284	1	12/30/22 15:44	01/05/23 12:10	7440-23-5	
<b>6010 MET ICP, Dissolved</b>									
Analytical Method: EPA 6010      Preparation Method: EPA 3010									
Pace Analytical Services - Indianapolis									
Manganese, Dissolved	226	ug/L	10.0	2.5	1	12/30/22 15:44	01/05/23 10:49	7439-96-5	
Molybdenum, Dissolved	ND	ug/L	10.0	3.7	1	12/30/22 15:44	01/05/23 10:49	7439-98-7	
<b>6020 MET ICPMS</b>									
Analytical Method: EPA 6020      Preparation Method: EPA 200.2									
Pace Analytical Services - Indianapolis									
Antimony	ND	ug/L	1.0	0.080	1	12/20/22 15:00	12/21/22 04:56	7440-36-0	
Arsenic	ND	ug/L	1.0	0.12	1	12/20/22 15:00	12/21/22 04:56	7440-38-2	
Selenium	7.1	ug/L	1.0	0.19	1	12/20/22 15:00	12/21/22 04:56	7782-49-2	
<b>2320B Alkalinity</b>									
Analytical Method: SM 2320B									
Pace Analytical Services - Indianapolis									
Alkalinity, Total as CaCO3	293	mg/L	10.0	10.0	1		12/27/22 12:25		
Alkalinity,Bicarbonate (CaCO3)	293	mg/L	10.0	10.0	1		12/27/22 12:25		
Alkalinity,Carbonate (CaCO3)	ND	mg/L	10.0	10.0	1		12/27/22 12:25		
<b>2540C Total Dissolved Solids</b>									
Analytical Method: SM 2540C									
Pace Analytical Services - Indianapolis									
Total Dissolved Solids	352	mg/L	10.0	10.0	1		12/21/22 09:25		
<b>4500H+ pH, Electrometric</b>									
Analytical Method: SM 4500-H+B									
Pace Analytical Services - Indianapolis									
pH at 25 Degrees C	7.6	Std. Units	0.10	0.10	1		12/30/22 13:06		H3

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## ANALYTICAL RESULTS

Project: Eagle Valley Oct 2022 P1R4

Pace Project No.: 50333840

Sample: MW-22I		Lab ID: 50333840002		Collected: 12/16/22 11:16	Received: 12/16/22 17:15	Matrix: Water				
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual	
<b>4500S2D Sulfide Water</b>		Analytical Method: SM 4500-S2-D Pace Analytical Services - Indianapolis								
Sulfide	ND	mg/L	0.10	0.025	1		12/19/22 16:26	18496-25-8		
<b>Iron, Ferrous</b>		Analytical Method: HACH 8146 Pace Analytical Services - Indianapolis								
Iron, Ferrous	ND	mg/L	0.20	0.096	1		12/27/22 16:07	15438-31-0	H3,N2	
<b>353.2 Nitrogen, NO2/NO3 unpres</b>		Analytical Method: EPA 353.2 Pace Analytical Services - Indianapolis								
Nitrogen, Nitrate	<b>6.7</b>	mg/L	0.50	0.055	5		12/16/22 19:45	14797-55-8		
Nitrogen, Nitrite	ND	mg/L	0.50	0.020	5		12/16/22 19:45	14797-65-0		
<b>365.1 Total Phosphorus</b>		Analytical Method: EPA 365.1 Preparation Method: EPA 365.1 Pace Analytical Services - Indianapolis								
Phosphate as P04	ND	mg/L	0.15	0.15	1	12/27/22 14:00	12/28/22 19:27			
<b>5310C TOC</b>		Analytical Method: SM 5310C Pace Analytical Services - Indianapolis								
Total Organic Carbon	ND	mg/L	1.0	0.14	1		12/29/22 00:24	7440-44-0		
<b>5310C Dissolved Organic Carbon</b>		Analytical Method: SM 5310C Pace Analytical Services - Indianapolis								
Dissolved Organic Carbon	ND	mg/L	1.0	0.14	1		12/30/22 20:47			

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### ANALYTICAL RESULTS

Project: Eagle Valley Oct 2022 P1R4

Pace Project No.: 50333840

**Sample: MW-22D**      **Lab ID: 50333840005**      Collected: 12/16/22 14:13      Received: 12/16/22 17:15      Matrix: Water

Comments: • Upon receipt at the laboratory, 5 mls of nitric acid were added to the sample to meet the sample preservation requirement of pH <2 for radiochemistry analysis. The samples were preserved <2 within the required 5 days of collection.

Report									
Parameters	Results	Units	Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>9056 IC Anions</b>									
Analytical Method: EPA 9056									
Pace Analytical Services - Indianapolis									
Chloride	13.8	mg/L	2.5	0.67	10		12/28/22 09:54	16887-00-6	
Fluoride	ND	mg/L	0.10	0.017	1		12/20/22 03:20	16984-48-8	
Sulfate	41.9	mg/L	2.5	0.85	10		12/28/22 09:54	14808-79-8	
<b>6010 MET ICP</b>									
Analytical Method: EPA 6010      Preparation Method: EPA 3010									
Pace Analytical Services - Indianapolis									
Aluminum	ND	ug/L	200	54.4	1	12/30/22 15:44	01/05/23 12:19	7429-90-5	
Barium	94.4	ug/L	10.0	1.3	1	12/30/22 15:44	01/05/23 12:19	7440-39-3	
Boron	ND	ug/L	100	61.4	1	12/30/22 15:44	01/05/23 12:19	7440-42-8	
Calcium	72700	ug/L	1000	88.4	1	12/30/22 15:44	01/05/23 12:19	7440-70-2	
Iron	1640	ug/L	100	48.8	1	12/30/22 15:44	01/05/23 12:19	7439-89-6	
Lithium	ND	ug/L	20.0	6.2	1	12/30/22 15:44	01/05/23 12:19	7439-93-2	
Magnesium	22700	ug/L	1000	43.0	1	12/30/22 15:44	01/05/23 12:19	7439-95-4	
Manganese	276	ug/L	10.0	5.4	1	12/30/22 15:44	01/05/23 12:19	7439-96-5	
Molybdenum	ND	ug/L	10.0	2.0	1	12/30/22 15:44	01/05/23 12:19	7439-98-7	
Potassium	1580	ug/L	1000	200	1	12/30/22 15:44	01/05/23 12:19	7440-09-7	
Silica	12900	ug/L	450		1	12/30/22 15:44	01/05/23 12:19	7631-86-9	N2
Sodium	8600	ug/L	1000	284	1	12/30/22 15:44	01/05/23 12:19	7440-23-5	
<b>6010 MET ICP, Dissolved</b>									
Analytical Method: EPA 6010      Preparation Method: EPA 3010									
Pace Analytical Services - Indianapolis									
Manganese, Dissolved	247	ug/L	10.0	2.5	1	12/30/22 15:44	01/05/23 10:56	7439-96-5	
Molybdenum, Dissolved	ND	ug/L	10.0	3.7	1	12/30/22 15:44	01/05/23 10:56	7439-98-7	
<b>6020 MET ICPMS</b>									
Analytical Method: EPA 6020      Preparation Method: EPA 200.2									
Pace Analytical Services - Indianapolis									
Antimony	ND	ug/L	1.0	0.080	1	12/20/22 15:00	12/21/22 09:42	7440-36-0	
Arsenic	2.8	ug/L	1.0	0.12	1	12/20/22 15:00	12/21/22 09:42	7440-38-2	
Selenium	ND	ug/L	1.0	0.19	1	12/20/22 15:00	12/21/22 09:42	7782-49-2	
<b>2320B Alkalinity</b>									
Analytical Method: SM 2320B									
Pace Analytical Services - Indianapolis									
Alkalinity, Total as CaCO3	244	mg/L	10.0	10.0	1		12/27/22 12:25		
Alkalinity,Bicarbonate (CaCO3)	244	mg/L	10.0	10.0	1		12/27/22 12:25		
Alkalinity,Carbonate (CaCO3)	ND	mg/L	10.0	10.0	1		12/27/22 12:25		
<b>2540C Total Dissolved Solids</b>									
Analytical Method: SM 2540C									
Pace Analytical Services - Indianapolis									
Total Dissolved Solids	316	mg/L	10.0	10.0	1		12/21/22 09:26		

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## ANALYTICAL RESULTS

Project: Eagle Valley Oct 2022 P1R4

Pace Project No.: 50333840

**Sample: MW-22D**      **Lab ID: 50333840005**      Collected: 12/16/22 14:13      Received: 12/16/22 17:15      Matrix: Water

Comments: • Upon receipt at the laboratory, 5 mls of nitric acid were added to the sample to meet the sample preservation requirement of pH <2 for radiochemistry analysis. The samples were preserved <2 within the required 5 days of collection.

Parameters	Results	Units	Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>4500H+ pH, Electrometric</b>									
Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis									
pH at 25 Degrees C	7.9	Std. Units	0.10	0.10	1		12/30/22 13:09		H3
<b>4500S2D Sulfide Water</b>									
Analytical Method: SM 4500-S2-D Pace Analytical Services - Indianapolis									
Sulfide	ND	mg/L	0.10	0.025	1		12/19/22 16:26	18496-25-8	
<b>Iron, Ferrous</b>									
Analytical Method: HACH 8146 Pace Analytical Services - Indianapolis									
Iron, Ferrous	ND	mg/L	0.20	0.096	1		12/27/22 16:08	15438-31-0	H3,N2
<b>353.2 Nitrogen, NO2/NO3 unpres</b>									
Analytical Method: EPA 353.2 Pace Analytical Services - Indianapolis									
Nitrogen, Nitrate	0.27	mg/L	0.10	0.011	1		12/16/22 19:51	14797-55-8	
Nitrogen, Nitrite	ND	mg/L	0.10	0.0040	1		12/16/22 19:51	14797-65-0	
<b>365.1 Total Phosphorus</b>									
Analytical Method: EPA 365.1      Preparation Method: EPA 365.1 Pace Analytical Services - Indianapolis									
Phosphate as P04	ND	mg/L	0.15	0.15	1	12/27/22 14:00	12/28/22 19:29		
<b>5310C TOC</b>									
Analytical Method: SM 5310C Pace Analytical Services - Indianapolis									
Total Organic Carbon	ND	mg/L	1.0	0.14	1		12/29/22 00:55	7440-44-0	
<b>5310C Dissolved Organic Carbon</b>									
Analytical Method: SM 5310C Pace Analytical Services - Indianapolis									
Dissolved Organic Carbon	ND	mg/L	1.0	0.14	1		12/28/22 18:26		

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### QUALITY CONTROL DATA

Project: Eagle Valley Oct 2022 P1R4  
Pace Project No.: 50333840

QC Batch: 711663	Analysis Method: EPA 9056
QC Batch Method: EPA 9056	Analysis Description: 9056 IC Anions
	Laboratory: Pace Analytical Services - Indianapolis

Associated Lab Samples: 50333840005

METHOD BLANK: 3271357 Matrix: Water

Associated Lab Samples: 50333840005

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chloride	mg/L	ND	0.25	0.067	12/19/22 10:21	
Fluoride	mg/L	ND	0.10	0.017	12/19/22 10:21	
Sulfate	mg/L	ND	0.25	0.085	12/19/22 10:21	

LABORATORY CONTROL SAMPLE: 3271358

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	1.2	1.2	99	80-120	
Fluoride	mg/L	0.5	0.50	100	80-120	
Sulfate	mg/L	2.5	2.7	109	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3271359 3271360

Parameter	Units	50333521001		MS		MSD		% Rec	% Rec	% Rec Limits	RPD	Max RPD	Qual
		Result	Conc.	Spike Conc.	Spike Conc.	Result	Result						
Chloride	mg/L	19.4	12.5	12.5	32.9	32.7	108	107	80-120	0	15		
Fluoride	mg/L	0.15	0.5	0.5	0.67	0.68	103	105	80-120	1	15		
Sulfate	mg/L	167	25	25	197	196	119	117	80-120	0	15		

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### QUALITY CONTROL DATA

Project: Eagle Valley Oct 2022 P1R4

Pace Project No.: 50333840

QC Batch:	712183	Analysis Method:	EPA 9056
QC Batch Method:	EPA 9056	Analysis Description:	9056 IC Anions
		Laboratory:	Pace Analytical Services - Indianapolis

Associated Lab Samples: 50333840001, 50333840002

METHOD BLANK: 3273457 Matrix: Water

Associated Lab Samples: 50333840001, 50333840002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chloride	mg/L	ND	0.25	0.067	12/22/22 10:44	
Fluoride	mg/L	ND	0.10	0.017	12/22/22 10:44	
Sulfate	mg/L	ND	0.25	0.085	12/22/22 10:44	

LABORATORY CONTROL SAMPLE: 3273458

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	1.2	1.1	91	80-120	
Fluoride	mg/L	0.5	0.49	98	80-120	
Sulfate	mg/L	2.5	2.5	99	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3273459 3273460

Parameter	Units	50333823002		MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		Result	Conc.	Conc.	Result	Result	% Rec	% Rec	Limits	RPD	RPD	Qual	
Chloride	mg/L	50.7	12.5	12.5	61.7	61.4	88	86	80-120	0	15		
Fluoride	mg/L	ND	0.5	0.5	0.55	0.56	98	100	80-120	2	15		
Sulfate	mg/L	246	250	250	492	495	98	100	80-120	1	15		

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3273461 3273462

Parameter	Units	50333840002		MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		Result	Conc.	Conc.	Result	Result	% Rec	% Rec	Limits	RPD	RPD	Qual	
Chloride	mg/L	11.0	12.5	12.5	22.4	22.4	91	92	80-120	0	15		
Fluoride	mg/L	ND	0.5	0.5	0.56	0.56	97	98	80-120	1	15		
Sulfate	mg/L	22.2	2.5	2.5	24.8	24.8	104	104	80-120	0	15		

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### QUALITY CONTROL DATA

Project: Eagle Valley Oct 2022 P1R4

Pace Project No.: 50333840

QC Batch: 713047 Analysis Method: EPA 6010  
 QC Batch Method: EPA 3010 Analysis Description: 6010 MET  
 Laboratory: Pace Analytical Services - Indianapolis

Associated Lab Samples: 50333840001, 50333840002, 50333840005

METHOD BLANK: 3276655 Matrix: Water

Associated Lab Samples: 50333840001, 50333840002, 50333840005

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Aluminum	ug/L	ND	200	54.4	01/05/23 11:22	
Barium	ug/L	ND	10.0	1.3	01/05/23 11:22	
Boron	ug/L	ND	100	61.4	01/05/23 11:22	
Calcium	ug/L	ND	1000	88.4	01/05/23 11:22	
Iron	ug/L	ND	100	48.8	01/05/23 11:22	
Lithium	ug/L	ND	20.0	6.2	01/05/23 11:22	
Magnesium	ug/L	ND	1000	43.0	01/05/23 11:22	
Manganese	ug/L	ND	10.0	5.4	01/05/23 11:22	
Molybdenum	ug/L	ND	10.0	2.0	01/05/23 11:22	
Potassium	ug/L	ND	1000	200	01/05/23 11:22	
Silica	ug/L	ND	450		01/05/23 11:22	N2
Sodium	ug/L	ND	1000	284	01/05/23 11:22	

LABORATORY CONTROL SAMPLE: 3276656

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Aluminum	ug/L	10000	10700	107	80-120	
Barium	ug/L	1000	1050	105	80-120	
Boron	ug/L	1000	1050	105	80-120	
Calcium	ug/L	10000	10900	109	80-120	
Iron	ug/L	10000	10700	107	80-120	
Lithium	ug/L	1000	1060	106	80-120	
Magnesium	ug/L	10000	10700	107	80-120	
Manganese	ug/L	1000	1040	104	80-120	
Molybdenum	ug/L	1000	1080	108	80-120	
Potassium	ug/L	10000	10600	106	80-120	
Silica	ug/L	10700	11000	102	80-120	N2
Sodium	ug/L	10000	10400	104	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3276657 3276658

Parameter	Units	50333840002		3276658		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result						
Aluminum	ug/L	ND	10000	11400	11000	114	109	75-125	4	20	
Barium	ug/L	56.4	1000	1170	1120	112	106	75-125	5	20	
Boron	ug/L	ND	1000	1170	1120	113	108	75-125	4	20	
Calcium	ug/L	82600	10000	120000	107000	374	243	75-125	12	20	P6

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### QUALITY CONTROL DATA

Project: Eagle Valley Oct 2022 P1R4

Pace Project No.: 50333840

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3276657												3276658	
Parameter	Units	50333840002		MS	MSD	MS	MSD	MS	MSD	% Rec	Max	Qual	
		Result	Conc.	Spike	Conc.	Result	Result	% Rec	% Rec	Limits	RPD		
Iron	ug/L	114	10000	10000	10000	10900	10400	108	103	75-125	5	20	
Lithium	ug/L	ND	1000	1000	1000	1160	1110	115	110	75-125	4	20	
Magnesium	ug/L	24100	10000	10000	10000	42900	38900	188	148	75-125	10	20 M3	
Manganese	ug/L	206	1000	1000	1000	1320	1240	112	104	75-125	6	20	
Molybdenum	ug/L	ND	1000	1000	1000	1120	1070	111	107	75-125	4	20	
Potassium	ug/L	1340	10000	10000	10000	13000	12300	116	110	75-125	5	20	
Silica	ug/L	11900	10700	10700	10700	26800	24900	140	122	75-125	8	20 N2	
Sodium	ug/L	5460	10000	10000	10000	18200	17100	127	116	75-125	6	20 M0	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3276659												3276660	
Parameter	Units	50333999002		MS	MSD	MS	MSD	MS	MSD	% Rec	Max	Qual	
		Result	Conc.	Spike	Conc.	Result	Result	% Rec	% Rec	Limits	RPD		
Aluminum	ug/L	ND	10000	10000	10000	11300	11200	113	112	75-125	1	20	
Barium	ug/L	0.12 mg/L	1000	1000	1000	1220	1210	110	109	75-125	1	20	
Boron	ug/L	ND	1000	1000	1000	1150	1130	109	107	75-125	2	20	
Calcium	ug/L	83.3 mg/L	10000	10000	10000	102000	101000	182	174	75-125	1	20 P6	
Iron	ug/L	0.11 mg/L	10000	10000	10000	10700	10500	106	104	75-125	2	20	
Lithium	ug/L	ND	1000	1000	1000	1140	1120	113	111	75-125	2	20	
Magnesium	ug/L	28.2 mg/L	10000	10000	10000	41500	41200	133	130	75-125	1	20 M0,P6	
Manganese	ug/L	0.015 mg/L	1000	1000	1000	1050	1050	103	103	75-125	0	20	
Molybdenum	ug/L	ND	1000	1000	1000	1100	1090	110	109	75-125	1	20	
Potassium	ug/L	1.4 mg/L	10000	10000	10000	12500	12600	110	112	75-125	1	20	
Silica	ug/L	12.2 mg/L	10700	10700	10700	25100	25100	121	120	75-125	0	20 N2	
Sodium	ug/L	2.0 mg/L	10000	10000	10000	13100	14200	110	122	75-125	8	20	

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### QUALITY CONTROL DATA

Project: Eagle Valley Oct 2022 P1R4  
Pace Project No.: 50333840

QC Batch: 712987 Analysis Method: EPA 6010  
QC Batch Method: EPA 3010 Analysis Description: 6010 MET Dissolved  
Laboratory: Pace Analytical Services - Indianapolis

Associated Lab Samples: 50333840001, 50333840002, 50333840005

METHOD BLANK: 3276427 Matrix: Water

Associated Lab Samples: 50333840001, 50333840002, 50333840005

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Manganese, Dissolved	ug/L	ND	10.0	2.5	01/05/23 10:18	
Molybdenum, Dissolved	ug/L	ND	10.0	3.7	01/05/23 10:18	

LABORATORY CONTROL SAMPLE: 3276428

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Manganese, Dissolved	ug/L	1000	1010	101	80-120	
Molybdenum, Dissolved	ug/L	1000	1080	108	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3276429 3276430

Parameter	Units	50333510004 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Manganese, Dissolved	ug/L	256	1000	1000	1240	1220	98	97	75-125	1	20	
Molybdenum, Dissolved	ug/L	27.4	1000	1000	1080	1070	105	104	75-125	1	20	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3276431 3276432

Parameter	Units	50333840002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Manganese, Dissolved	ug/L	226	1000	1000	1210	1180	99	96	75-125	3	20	
Molybdenum, Dissolved	ug/L	ND	1000	1000	1080	1060	108	106	75-125	2	20	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3276433 3276434

Parameter	Units	50333999002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Manganese, Dissolved	ug/L	0.012 mg/L	1000	1000	949	986	94	97	75-125	4	20	
Molybdenum, Dissolved	ug/L	ND	1000	1000	1040	1060	103	106	75-125	2	20	

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### QUALITY CONTROL DATA

Project: Eagle Valley Oct 2022 P1R4

Pace Project No.: 50333840

QC Batch:	711860	Analysis Method:	EPA 6020
QC Batch Method:	EPA 200.2	Analysis Description:	6020 MET
		Laboratory:	Pace Analytical Services - Indianapolis

Associated Lab Samples: 50333840001, 50333840002, 50333840005

METHOD BLANK: 3271992 Matrix: Water

Associated Lab Samples: 50333840001, 50333840002, 50333840005

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Antimony	ug/L	ND	1.0	0.080	12/21/22 04:23	
Arsenic	ug/L	ND	1.0	0.12	12/21/22 04:23	
Selenium	ug/L	ND	1.0	0.19	12/21/22 04:23	

LABORATORY CONTROL SAMPLE: 3271993

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Antimony	ug/L	40	42.2	105	80-120	
Arsenic	ug/L	40	39.5	99	80-120	
Selenium	ug/L	40	40.0	100	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3271994 3271995

Parameter	Units	50333840002		3271994		3271995		% Rec	% Rec	% Rec Limits	RPD	Max RPD	Qual
		Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec						
Antimony	ug/L	ND	40	40	42.7	42.7	106	106	75-125	0	20		
Arsenic	ug/L	ND	40	40	39.0	39.0	97	97	75-125	0	20		
Selenium	ug/L	7.1	40	40	44.9	45.3	94	96	75-125	1	20		

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### QUALITY CONTROL DATA

Project: Eagle Valley Oct 2022 P1R4

Pace Project No.: 50333840

QC Batch:	712512	Analysis Method:	SM 2320B
QC Batch Method:	SM 2320B	Analysis Description:	2320B Alkalinity
		Laboratory:	Pace Analytical Services - Indianapolis

Associated Lab Samples: 50333840001, 50333840002, 50333840005

METHOD BLANK: 3274956 Matrix: Water

Associated Lab Samples: 50333840001, 50333840002, 50333840005

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Alkalinity, Total as CaCO3	mg/L	ND	10.0	10.0	12/27/22 12:25	
Alkalinity,Bicarbonate (CaCO3)	mg/L	ND	10.0	10.0	12/27/22 12:25	
Alkalinity,Carbonate (CaCO3)	mg/L	ND	10.0	10.0	12/27/22 12:25	

LABORATORY CONTROL SAMPLE: 3274957

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Alkalinity, Total as CaCO3	mg/L	50	51.9	104	90-110	

SAMPLE DUPLICATE: 3274958

Parameter	Units	50333823002 Result	Dup Result	RPD	Max RPD	Qualifiers
Alkalinity, Total as CaCO3	mg/L	268	271	1	20	
Alkalinity,Bicarbonate (CaCO3)	mg/L	268	271	1	20	
Alkalinity,Carbonate (CaCO3)	mg/L	ND	ND		20	

SAMPLE DUPLICATE: 3274959

Parameter	Units	50333840002 Result	Dup Result	RPD	Max RPD	Qualifiers
Alkalinity, Total as CaCO3	mg/L	293	298	2	20	
Alkalinity,Bicarbonate (CaCO3)	mg/L	293	298	2	20	
Alkalinity,Carbonate (CaCO3)	mg/L	ND	ND		20	

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### QUALITY CONTROL DATA

Project: Eagle Valley Oct 2022 P1R4

Pace Project No.: 50333840

QC Batch:	712031	Analysis Method:	SM 2540C
QC Batch Method:	SM 2540C	Analysis Description:	2540C Total Dissolved Solids
		Laboratory:	Pace Analytical Services - Indianapolis

Associated Lab Samples: 50333840001, 50333840002, 50333840005

METHOD BLANK: 3272748 Matrix: Water

Associated Lab Samples: 50333840001, 50333840002, 50333840005

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	ND	10.0	10.0	12/21/22 09:25	

LABORATORY CONTROL SAMPLE: 3272749

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	300	296	99	80-120	

SAMPLE DUPLICATE: 3272750

Parameter	Units	50333840002 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	352	353	0	10	

SAMPLE DUPLICATE: 3272751

Parameter	Units	50333999002 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	304	324	6	10	

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**QUALITY CONTROL DATA**

Project: Eagle Valley Oct 2022 P1R4

Pace Project No.: 50333840

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QC Batch:	713140	Analysis Method:	SM 4500-H+B
QC Batch Method:	SM 4500-H+B	Analysis Description:	4500H+B pH
		Laboratory:	Pace Analytical Services - Indianapolis

Associated Lab Samples: 50333840001, 50333840002, 50333840005

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SAMPLE DUPLICATE: 3276895

Parameter	Units	50333823002 Result	Dup Result	RPD	Max RPD	Qualifiers
pH at 25 Degrees C	Std. Units	7.6	7.6	1	2	H3

---

SAMPLE DUPLICATE: 3276896

Parameter	Units	50333840002 Result	Dup Result	RPD	Max RPD	Qualifiers
pH at 25 Degrees C	Std. Units	7.6	7.6	0	2	H3

---

SAMPLE DUPLICATE: 3276897

Parameter	Units	50333999002 Result	Dup Result	RPD	Max RPD	Qualifiers
pH at 25 Degrees C	Std. Units	7.5	7.5	0	2	H3

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**REPORT OF LABORATORY ANALYSIS**

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**QUALITY CONTROL DATA**

Project: Eagle Valley Oct 2022 P1R4

Pace Project No.: 50333840

QC Batch:	711756	Analysis Method:	SM 4500-S2-D
QC Batch Method:	SM 4500-S2-D	Analysis Description:	4500S2D Sulfide Water
		Laboratory:	Pace Analytical Services - Indianapolis

Associated Lab Samples: 50333840001, 50333840002, 50333840005

METHOD BLANK: 3271678 Matrix: Water  
Associated Lab Samples: 50333840001, 50333840002, 50333840005

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Sulfide	mg/L	ND	0.10	0.025	12/19/22 16:26	

LABORATORY CONTROL SAMPLE: 3271679

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Sulfide	mg/L	0.5	0.55	109	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3271680 3271681

Parameter	Units	50333637002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Sulfide	mg/L	ND	0.5	0.5	0.48	0.48	95	96	90-110	1	20	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3271682 3271683

Parameter	Units	50333823002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Sulfide	mg/L	ND	0.5	0.5	0.53	0.54	101	103	90-110	2	20	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3271684 3271685

Parameter	Units	50333840002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Sulfide	mg/L	ND	0.5	0.5	0.52	0.54	103	106	90-110	3	20	

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### QUALITY CONTROL DATA

Project: Eagle Valley Oct 2022 P1R4

Pace Project No.: 50333840

QC Batch:	712635	Analysis Method:	HACH 8146
QC Batch Method:	HACH 8146	Analysis Description:	Iron, Ferrous
		Laboratory:	Pace Analytical Services - Indianapolis
Associated Lab Samples:	50333840001, 50333840002, 50333840005		

METHOD BLANK: 3275384 Matrix: Water

Associated Lab Samples: 50333840001, 50333840002, 50333840005

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Iron, Ferrous	mg/L	ND	0.20	0.096	12/27/22 15:38	H3,N2

LABORATORY CONTROL SAMPLE: 3275385

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Iron, Ferrous	mg/L	1	0.97	97	90-110	H3,N2

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3275386 3275387

Parameter	Units	50333823002		3275387		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual	
		Result	MS Spike Conc.	MSD Spike Conc.	MS Result							MSD Result
Iron, Ferrous	mg/L	ND	1	1	1.0	1.0	100	100	90-110	0	20	H3,N2

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3275388 3275389

Parameter	Units	50333840002		3275389		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual	
		Result	MS Spike Conc.	MSD Spike Conc.	MS Result							MSD Result
Iron, Ferrous	mg/L	ND	1	1	1.0	1.0	99	100	90-110	1	20	H3,N2

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### QUALITY CONTROL DATA

Project: Eagle Valley Oct 2022 P1R4

Pace Project No.: 50333840

QC Batch:	711525	Analysis Method:	EPA 353.2
QC Batch Method:	EPA 353.2	Analysis Description:	353.2 Nitrate + Nitrite, Unpres.
		Laboratory:	Pace Analytical Services - Indianapolis

Associated Lab Samples: 50333840001, 50333840002, 50333840005

METHOD BLANK: 3270232 Matrix: Water

Associated Lab Samples: 50333840001, 50333840002, 50333840005

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Nitrogen, Nitrate	mg/L	ND	0.10	0.011	12/16/22 18:22	
Nitrogen, Nitrite	mg/L	ND	0.10	0.0040	12/16/22 18:22	

LABORATORY CONTROL SAMPLE: 3270233

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Nitrogen, Nitrate	mg/L	1	0.97	97	90-110	
Nitrogen, Nitrite	mg/L	1	1.0	104	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3270234 3270235

Parameter	Units	50333785010 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Nitrogen, Nitrate	mg/L	ND	1	1	.89J	.9J	86	86	90-110		20	
Nitrogen, Nitrite	mg/L	ND	1	1	.99J	ND	99	99	90-110		20	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3270465 3270466

Parameter	Units	50333823002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Nitrogen, Nitrate	mg/L	ND	10	10	9.3	9.3	93	93	90-110	0	20	
Nitrogen, Nitrite	mg/L	ND	10	10	10.1	10.1	101	101	90-110	0	20	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3270504 3270505

Parameter	Units	50333840002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Nitrogen, Nitrate	mg/L	6.7	1	1	7.8	7.7	116	104	90-110	1	20	
Nitrogen, Nitrite	mg/L	ND	1	1	1.0	1.0	97	97	90-110	1	20	

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### QUALITY CONTROL DATA

Project: Eagle Valley Oct 2022 P1R4

Pace Project No.: 50333840

QC Batch:	712522	Analysis Method:	EPA 365.1
QC Batch Method:	EPA 365.1	Analysis Description:	365.1 Total Phosphorus
		Laboratory:	Pace Analytical Services - Indianapolis
Associated Lab Samples:	50333840001, 50333840002, 50333840005		

METHOD BLANK: 3275005 Matrix: Water

Associated Lab Samples: 50333840001, 50333840002, 50333840005

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Phosphate as P04	mg/L	ND	0.15	0.15	12/28/22 19:17	

LABORATORY CONTROL SAMPLE: 3275006

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Phosphate as P04	mg/L		1.4			

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3275007 3275008

Parameter	Units	50333840002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Phosphate as P04	mg/L	ND			1.4	1.3				7		

MATRIX SPIKE SAMPLE: 3275009

Parameter	Units	50333976001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Phosphate as P04	mg/L		3.1	4.5			

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### QUALITY CONTROL DATA

Project: Eagle Valley Oct 2022 P1R4

Pace Project No.: 50333840

QC Batch:	712448	Analysis Method:	SM 5310C
QC Batch Method:	SM 5310C	Analysis Description:	5310C Total Organic Carbon
		Laboratory:	Pace Analytical Services - Indianapolis

Associated Lab Samples: 50333840001, 50333840002, 50333840005

METHOD BLANK: 3274836 Matrix: Water

Associated Lab Samples: 50333840001, 50333840002, 50333840005

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Organic Carbon	mg/L	ND	1.0	0.14	12/28/22 20:11	

LABORATORY CONTROL SAMPLE: 3274837

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Organic Carbon	mg/L	10	10.1	101	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3274838 3274839

Parameter	Units	50333840002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Total Organic Carbon	mg/L	ND	10	10	10.3	10.4	99	100	80-120	1	20	

MATRIX SPIKE SAMPLE: 3274840

Parameter	Units	50333983001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Total Organic Carbon	mg/L	1.8	10	11.9	102	80-120	

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### QUALITY CONTROL DATA

Project: Eagle Valley Oct 2022 P1R4

Pace Project No.: 50333840

QC Batch: 712447

Analysis Method: SM 5310C

QC Batch Method: SM 5310C

Analysis Description: 5310C Dissolved Organic Carbon

Laboratory: Pace Analytical Services - Indianapolis

Associated Lab Samples: 50333840001, 50333840005

METHOD BLANK: 3274832

Matrix: Water

Associated Lab Samples: 50333840001, 50333840005

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Dissolved Organic Carbon	mg/L	ND	1.0	0.14	12/28/22 16:49	

LABORATORY CONTROL SAMPLE: 3274833

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Dissolved Organic Carbon	mg/L	10	10.2	102	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3274834 3274835

Parameter	Units	50333823002		3274834		3274835		% Rec Limits	RPD	Max RPD	Qual
		MS Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec				
Dissolved Organic Carbon	mg/L	1.1	10	10	11.1	11.1	100	99	80-120	0	20

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### QUALITY CONTROL DATA

Project: Eagle Valley Oct 2022 P1R4  
Pace Project No.: 50333840

QC Batch: 712865	Analysis Method: SM 5310C
QC Batch Method: SM 5310C	Analysis Description: 5310C Dissolved Organic Carbon
	Laboratory: Pace Analytical Services - Indianapolis

Associated Lab Samples: 50333840002

METHOD BLANK: 3276060 Matrix: Water

Associated Lab Samples: 50333840002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Dissolved Organic Carbon	mg/L	ND	1.0	0.14	12/30/22 20:27	

LABORATORY CONTROL SAMPLE: 3276061

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Dissolved Organic Carbon	mg/L	10	10.0	100	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3276062 3276063

Parameter	Units	50333840002		3276063		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		MS Result	MSD Spike Conc.	MS Result	MSD Spike Conc.						
Dissolved Organic Carbon	mg/L	ND	10	10.5	10.6	100	102	80-120	1	20	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3276064 3276065

Parameter	Units	50334118001		3276065		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		MS Result	MSD Spike Conc.	MS Result	MSD Spike Conc.						
Dissolved Organic Carbon	mg/L	2.5	10	12.8	12.7	103	102	80-120	1	20	

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### REPORT OF LABORATORY ANALYSIS

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Eagle Valley Oct 2022 P1R4

Pace Project No.: 50333840

**Sample: MW-22S**      **Lab ID: 50333840001**      Collected: 12/16/22 09:19      Received: 12/16/22 17:15      Matrix: Water  
PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	<b>-0.0566 ± 0.333 (0.743)</b> <b>C:NA T:94%</b>	pCi/L	01/06/23 16:33	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	<b>1.26 ± 0.510 (0.834)</b> <b>C:82% T:85%</b>	pCi/L	01/05/23 15:34	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	<b>1.26 ± 0.843 (1.58)</b>	pCi/L	01/09/23 10:32	7440-14-4	

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Eagle Valley Oct 2022 P1R4

Pace Project No.: 50333840

**Sample: MW-221**      **Lab ID: 50333840002**      Collected: 12/16/22 11:16      Received: 12/16/22 17:15      Matrix: Water  
PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Radium-226	EPA 903.1	<b>0.387 ± 0.303 (0.356)</b> <b>C:NA T:90%</b>	pCi/L	01/06/23 16:50	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 904.0	<b>0.656 ± 0.441 (0.853)</b> <b>C:78% T:83%</b>	pCi/L	01/05/23 15:34	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	<b>1.04 ± 0.744 (1.21)</b>	pCi/L	01/09/23 10:32	7440-14-4	

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Eagle Valley Oct 2022 P1R4

Pace Project No.: 50333840

**Sample: MW-22I MS**      **Lab ID: 50333840003**      Collected: 12/16/22 11:16      Received: 12/16/22 17:15      Matrix: Water  
PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	<b>79.38 %REC ± NA (NA)</b> <b>C:NA T:NA</b>	pCi/L	01/06/23 16:50	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	<b>101.44 %REC ± NA (NA)</b> <b>C:NA T:NA</b>	pCi/L	01/05/23 15:34	15262-20-1	

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Eagle Valley Oct 2022 P1R4

Pace Project No.: 50333840

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Radium-226	EPA 903.1	<b>85.29 %REC 7.18RPD ± NA</b> <b>(NA)</b> <b>C:NA T:NA</b>	pCi/L	01/06/23 16:50	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 904.0	<b>108.10 %REC 6.36RPD ±</b> <b>NA (NA)</b> <b>C:NA T:NA</b>	pCi/L	01/05/23 15:35	15262-20-1	

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Eagle Valley Oct 2022 P1R4

Pace Project No.: 50333840

**Sample: MW-22D**      **Lab ID: 50333840005**      Collected: 12/16/22 14:13      Received: 12/16/22 17:15      Matrix: Water  
PWS:      Site ID:      Sample Type:

Comments: • Upon receipt at the laboratory, 5 mls of nitric acid were added to the sample to meet the sample preservation requirement of pH <2 for radiochemistry analysis. The samples were preserved <2 within the required 5 days of collection.

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	<b>0.585 ± 0.460 (0.639)</b> <b>C:NA T:97%</b>	pCi/L	01/06/23 16:50	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	<b>0.413 ± 0.395 (0.811)</b> <b>C:76% T:82%</b>	pCi/L	01/05/23 15:35	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	<b>0.998 ± 0.855 (1.45)</b>	pCi/L	01/09/23 10:32	7440-14-4	

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### QUALITY CONTROL - RADIOCHEMISTRY

Project: Eagle Valley Oct 2022 P1R4

Pace Project No.: 50333840

QC Batch: 556153

Analysis Method: EPA 904.0

QC Batch Method: EPA 904.0

Analysis Description: 904.0 Radium 228

Laboratory: Pace Analytical Services - Greensburg

Associated Lab Samples: 50333840001, 50333840002, 50333840003, 50333840004, 50333840005

METHOD BLANK: 2702083

Matrix: Water

Associated Lab Samples: 50333840001, 50333840002, 50333840003, 50333840004, 50333840005

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.0608 ± 0.293 (0.672) C:81% T:81%	pCi/L	01/05/23 15:35	

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### QUALITY CONTROL - RADIOCHEMISTRY

Project: Eagle Valley Oct 2022 P1R4

Pace Project No.: 50333840

QC Batch: 556152

Analysis Method: EPA 903.1

QC Batch Method: EPA 903.1

Analysis Description: 903.1 Radium-226

Laboratory: Pace Analytical Services - Greensburg

Associated Lab Samples: 50333840001, 50333840002, 50333840003, 50333840004, 50333840005

METHOD BLANK: 2702082

Matrix: Water

Associated Lab Samples: 50333840001, 50333840002, 50333840003, 50333840004, 50333840005

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.249 ± 0.294 (0.462) C:NA T:85%	pCi/L	01/06/23 16:33	

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## QUALIFIERS

Project: Eagle Valley Oct 2022 P1R4

Pace Project No.: 50333840

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### DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Reported results are not rounded until the final step prior to reporting. Therefore, calculated parameters that are typically reported as "Total" may vary slightly from the sum of the reported component parameters.

Act - Activity

Unc - Uncertainty: SDWA = 1.96 sigma count uncertainty, all other matrices = Expanded Uncertainty (95% confidence interval).

Gamma Spec = Expanded Uncertainty (95.4% Confidence Interval)

(MDC) - Minimum Detectable Concentration

Trac - Tracer Recovery (%)

Carr - Carrier Recovery (%)

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

### ANALYTE QUALIFIERS

H3 Sample was received or analysis requested beyond the recognized method holding time.

M0 Matrix spike recovery and/or matrix spike duplicate recovery was outside laboratory control limits.

M3 Matrix spike recovery was outside laboratory control limits due to matrix interferences.

N2 The lab does not hold NELAC/TNI accreditation for this parameter but other accreditations/certifications may apply. A complete list of accreditations/certifications is available upon request.

P6 Matrix spike recovery was outside laboratory control limits due to a parent sample concentration notably higher than the spike level.

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### QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Eagle Valley Oct 2022 P1R4

Pace Project No.: 50333840

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
50333840001	MW-22S	EPA 9056	712183		
50333840002	MW-22I	EPA 9056	712183		
50333840005	MW-22D	EPA 9056	711663		
50333840001	MW-22S	EPA 3010	713047	EPA 6010	713563
50333840002	MW-22I	EPA 3010	713047	EPA 6010	713563
50333840005	MW-22D	EPA 3010	713047	EPA 6010	713563
50333840001	MW-22S	EPA 3010	712987	EPA 6010	713577
50333840002	MW-22I	EPA 3010	712987	EPA 6010	713577
50333840005	MW-22D	EPA 3010	712987	EPA 6010	713577
50333840001	MW-22S	EPA 200.2	711860	EPA 6020	712007
50333840002	MW-22I	EPA 200.2	711860	EPA 6020	712007
50333840005	MW-22D	EPA 200.2	711860	EPA 6020	712007
50333840001	MW-22S	EPA 903.1	556152		
50333840002	MW-22I	EPA 903.1	556152		
50333840003	MW-22I MS	EPA 903.1	556152		
50333840004	MW-22I MSD	EPA 903.1	556152		
50333840005	MW-22D	EPA 903.1	556152		
50333840001	MW-22S	EPA 904.0	556153		
50333840002	MW-22I	EPA 904.0	556153		
50333840003	MW-22I MS	EPA 904.0	556153		
50333840004	MW-22I MSD	EPA 904.0	556153		
50333840005	MW-22D	EPA 904.0	556153		
50333840001	MW-22S	Total Radium Calculation	558734		
50333840002	MW-22I	Total Radium Calculation	558734		
50333840005	MW-22D	Total Radium Calculation	558734		
50333840001	MW-22S	SM 2320B	712512		
50333840002	MW-22I	SM 2320B	712512		
50333840005	MW-22D	SM 2320B	712512		
50333840001	MW-22S	SM 2540C	712031		
50333840002	MW-22I	SM 2540C	712031		
50333840005	MW-22D	SM 2540C	712031		
50333840001	MW-22S	SM 4500-H+B	713140		
50333840002	MW-22I	SM 4500-H+B	713140		
50333840005	MW-22D	SM 4500-H+B	713140		
50333840001	MW-22S	SM 4500-S2-D	711756		
50333840002	MW-22I	SM 4500-S2-D	711756		
50333840005	MW-22D	SM 4500-S2-D	711756		
50333840001	MW-22S	HACH 8146	712635		
50333840002	MW-22I	HACH 8146	712635		
50333840005	MW-22D	HACH 8146	712635		
50333840001	MW-22S	EPA 353.2	711525		
50333840002	MW-22I	EPA 353.2	711525		

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### QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Eagle Valley Oct 2022 P1R4

Pace Project No.: 50333840

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
50333840005	MW-22D	EPA 353.2	711525		
50333840001	MW-22S	EPA 365.1	712522	EPA 365.1	712944
50333840002	MW-22I	EPA 365.1	712522	EPA 365.1	712944
50333840005	MW-22D	EPA 365.1	712522	EPA 365.1	712944
50333840001	MW-22S	SM 5310C	712448		
50333840002	MW-22I	SM 5310C	712448		
50333840005	MW-22D	SM 5310C	712448		
50333840001	MW-22S	SM 5310C	712447		
50333840002	MW-22I	SM 5310C	712865		
50333840005	MW-22D	SM 5310C	712447		

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**SAMPLE CONDITION UPON RECEIPT FORM**

Date/Time and Initials of person examining contents: DMP 12/16/22 1751

1. Courier:  FED EX  UPS  CLIENT  PACE  USPS  OTHER \_\_\_\_\_

2. Custody Seal on Cooler/Box Present:  Yes  No  
 (If yes)Seals Intact:  Yes  No (leave blank if no seals were present)

3. Thermometer: 1 2 3 4 5 6 A B C D E F

4. Cooler Temperature(s): 1.2°/1.3° C 1.5°/1.6° C    
 (Initial/Corrected) RECORD TEMPS OF ALL COOLERS RECEIVED (use Comments below to add more)

5. Packing Material:  Bubble Wrap  Bubble Bags  
 None  Other Plastic Bags

6. Ice Type:  Wet  Blue  None

7. If temp. is over 6°C or under 0°C, was the PM notified?:  Yes  No  
 Cooler temp should be above freezing to 6°C

All discrepancies will be written out in the comments section below.

	Yes	No		Yes	No	N/A
USDA Regulated Soils? (HI, ID, NY, WA, OR, CA, NM, TX, OK, AR, LA, TN, AL, MS, NC, SC, GA, FL, or Puerto Rico)		/	All containers needing acid/base preservation have been pH CHECKED?: Exceptions: VOA, coliform, LLHg, O&G, RAD CHEM, and any container with a septum cap or preserved with HCl.			
Short Hold Time Analysis (48 hours or less)? Analysis: <u>NO<sub>3</sub></u>	/		Circle: <u>HNO3 (&lt;2)</u> <u>H2SO4 (&lt;2)</u> <u>NaOH (&gt;10)</u> <u>NaOH/ZnAc (&gt;9)</u> Any non-conformance to pH recommendations will be noted on the container count form	/		
Time 5035A TC placed in Freezer or Short Holds To Lab	Time:		Residual Chlorine Check (SVOC 625 Pest/PCB 608)	<u>Present</u>	<u>Absent</u>	<u>N/A</u>
Rush TAT Requested (4 days or less):		/	Residual Chlorine Check (Total/Amenable/Free Cyanide)			/
Custody Signatures Present?	/		Headspace Wisconsin Sulfide?			/
Containers Intact?:	/		Headspace in VOA Vials (>6mm): See Container Count form for details	<u>Present</u>	<u>Absent</u>	<u>No VOA Vials Sent</u>
Sample Label (IDs/Dates/Times) Match COC?: Except TCs, which only require sample ID	/		Trip Blank Present?		/	
Extra labels on Terracore Vials? (soils only)		<u>N/A</u>	Trip Blank Custody Seals?:			/

COMMENTS:

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Sample Container Count

\*\* Place a RED dot on containers that are out of conformance \*\*

COC Line Item	WGUFU	MeOH (only)	VIALS						AMBER GLASS						PLASTIC						OTHER			Matrix	Nitric	Sulfuric	Sodium Hydroxide	Sodium Hydroxide/ZnAc							
		SBS	DG9H	VG9H	VOA VIAL HS (>6mm)	VG9U	DG9U	VG9T	AG0U	AG1H	AG1U	AG2U	AG3S	AG3SF	AG3C	BP1U	BP1N	BP2U	BP3U	BP3N	BP3F	BP3S	BP3B		BP3Z	CG3H	CG3F	Syringe Kit	Red	Yellow	Green	Black			
		DI	R																																
1												1	1			2	1	2	1	1	1		1								WT	/	/		/
2												3	3			2	3	6	3	3	3		3											/	
3																2		MW-22I				MS													
4																2		MW-22I				MSD													
5												1	1			2	1	2	1	1	1		1												/
6																																			
7																																			
8																																			
9																																			
10																																			
11																																			
12																																			

Container Codes

Glass				Plastic			
DG9H	40mL HCl amber voa vial	BG1T	1L Na Thiosulfate clear glass	BP1B	1L NaOH plastic	BP4U	125mL unpreserved plastic
DG9P	40mL TSP amber vial	BG1U	1L unpreserved glass	BP1N	1L HNO3 plastic	BP4N	125mL HNO3 plastic
DG9S	40mL H2SO4 amber vial	BG3H	250mL HCl Clear Glass	BP1S	1L H2SO4 plastic	BP4S	125mL H2SO4 plastic
DG9T	40mL Na Thio amber vial	BG3U	250mL Unpres Clear Glass	BP1U	1L unpreserved plastic	<b>Miscellaneous</b>	
DG9U	40mL unpreserved amber vial	AG0U	100mL unpres amber glass	BP1Z	1L NaOH, Zn, Ac		
VG9H	40mL HCl clear vial	AG1H	1L HCl amber glass	BP2N	500mL HNO3 plastic	Syringe Kit	LL Cr+6 sampling kit
VG9T	40mL Na Thio. clear vial	AG1S	1L H2SO4 amber glass	BP2C	500mL NaOH plastic	ZPLC	Ziploc Bag
VG9U	40mL unpreserved clear vial	AG1T	1L Na Thiosulfate amber glass	BP2S	500mL H2SO4 plastic	R	Terracore Kit
I	40mL w/hexane wipe vial	AG1U	1liter unpres amber glass	BP2U	500mL unpreserved plastic	SP5T	120mL Coliform Sodium Thiosulfate
WGKU	8oz unpreserved clear jar	AG2N	500mL HNO3 amber glass	BP2Z	500mL NaOH, Zn Ac	GN	General Container
WGUFU	4oz clear soil jar	AG2S	500mL H2SO4 amber glass	BP3B	250mL NaOH plastic	U	Summa Can (air sample)
JGFU	4oz unpreserved amber wide	AG2U	500mL unpres amber glass	BP3N	250mL HNO3 plastic	WT	Water
CG3H	250mL clear glass HCl	AG3S	250mL H2SO4 amber glass	BP3F	250mL HNO3 plastic-field filtered	SL	Solid Solid
CG3F	250mL clear glass HCl, Field Filter	AG3SF	250mL H2SO4 amb glass -field filtered	BP3U	250mL unpreserved plastic	OL:	Oil
BG1H	1L HCl clear glass	AG3U	250mL unpres amber glass	BP3S	250mL H2SO4 plastic	NAL	Non-aqueous liquid
BG1S	1L H2SO4 clear glass	AG3C	250mL NaOH amber glass	BP3Z	250mL NaOH, ZnAc plastic	WP	Wipe

**February 2023 (Soil)**



July 12, 2023

Mr. Mark Breting  
ATC Group Services  
7988 Centerpoint Drive  
Suite 100  
Indianapolis, IN 46256

RE: Project: Eagle Valley N&E 2023  
Pace Project No.: 50336667

Dear Mr. Breting:

Enclosed are the analytical results for sample(s) received by the laboratory on February 02, 2023. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

The test results provided in this final report were generated by each of the following laboratories within the Pace Network:

- Pace Analytical Services - Green Bay
- Pace Analytical Services - Indianapolis

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Will Statz  
will.statz@pacelabs.com  
(317)228-3105  
Project Manager

Enclosures

cc: Mr. Robert Miller, Haley & Aldrich



## REPORT OF LABORATORY ANALYSIS

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## CERTIFICATIONS

Project: Eagle Valley N&E 2023

Pace Project No.: 50336667

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### Pace Analytical Services Green Bay

1241 Bellevue Street, Green Bay, WI 54302

Florida/NELAP Certification #: E87948

Illinois Certification #: 200050

Kentucky UST Certification #: 82

Louisiana Certification #: 04168

Minnesota Certification #: 055-999-334

New York Certification #: 12064

North Dakota Certification #: R-150

South Carolina Certification #: 83006001

Texas Certification #: T104704529-21-8

Virginia VELAP Certification ID: 11873

Wisconsin Certification #: 405132750

Wisconsin DATCP Certification #: 105-444

USDA Soil Permit #: P330-21-00008

Federal Fish & Wildlife Permit #: 51774A

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### Pace Analytical Services Indianapolis

7726 Moller Road, Indianapolis, IN 46268

Illinois Accreditation #: 200074

Indiana Drinking Water Laboratory #: C-49-06

Kansas/TNI Certification #: E-10177

Kentucky UST Agency Interest #: 80226

Kentucky WW Laboratory ID #: 98019

Michigan Drinking Water Laboratory #9050

Ohio VAP Certified Laboratory #: CL0065

Oklahoma Laboratory #: 9204

Texas Certification #: T104704355

Wisconsin Laboratory #: 999788130

USDA Foreign Soil Permit #: 525-23-13-23119

USDA Compliance Agreement #: IN-SL-22-001

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## REPORT OF LABORATORY ANALYSIS

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### SAMPLE SUMMARY

Project: Eagle Valley N&E 2023  
Pace Project No.: 50336667

Lab ID	Sample ID	Matrix	Date Collected	Date Received
50336667001	MW-3D (88-90)	Solid	02/02/23 10:25	02/02/23 15:15
50336667002	MW-24S (38-40)	Solid	02/02/23 10:45	02/02/23 15:15
50336667003	MW-24I (68-70)	Solid	02/02/23 10:58	02/02/23 15:15
50336667004	MW-24D (98-100)	Solid	02/02/23 11:10	02/02/23 15:15

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### SAMPLE ANALYTE COUNT

Project: Eagle Valley N&E 2023

Pace Project No.: 50336667

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
50336667001	MW-3D (88-90)	EPA 6010	RAM	5	PASI-I
		SM 2540G	DAW	1	PASI-I
		EPA 9045	BMS	1	PASI-I
		EPA 9060	TJJ	6	PASI-G
50336667002	MW-24S (38-40)	EPA 6010	RAM	5	PASI-I
		SM 2540G	DAW	1	PASI-I
		EPA 9045	BMS	1	PASI-I
		EPA 9060	TJJ	6	PASI-G
50336667003	MW-24I (68-70)	EPA 6010	RAM	5	PASI-I
		SM 2540G	DAW	1	PASI-I
		EPA 9045	BMS	1	PASI-I
		EPA 9060	TJJ	6	PASI-G
50336667004	MW-24D (98-100)	EPA 6010	RAM	5	PASI-I
		SM 2540G	DAW	1	PASI-I
		EPA 9045	BMS	1	PASI-I
		EPA 9060	TJJ	6	PASI-G

PASI-G = Pace Analytical Services - Green Bay

PASI-I = Pace Analytical Services - Indianapolis

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## SUMMARY OF DETECTION

Project: Eagle Valley N&amp;E 2023

Pace Project No.: 50336667

Lab Sample ID	Client Sample ID	Result	Units	Report Limit	Analyzed	Qualifiers
Method	Parameters					
<b>50336667001</b>	<b>MW-3D (88-90)</b>					
EPA 6010	Arsenic	3.8	mg/kg	1.0	02/08/23 13:25	
EPA 6010	Iron	6660	mg/kg	51.7	02/08/23 13:25	
EPA 6010	Lithium	6.6	mg/kg	5.2	02/08/23 13:25	N2
EPA 6010	Manganese	293	mg/kg	1.0	02/08/23 13:25	
EPA 6010	Molybdenum	1.2	mg/kg	1.0	02/08/23 13:25	
SM 2540G	Percent Moisture	8.0	%	0.10	02/06/23 18:24	N2
EPA 9045	pH at 25 Degrees C	8.3	Std. Units	0.10	02/10/23 13:19	H3
EPA 9060	Total Organic Carbon	25000	mg/kg	2080	02/09/23 04:54	
EPA 9060	Total Organic Carbon	25500	mg/kg	2050	02/09/23 05:01	
EPA 9060	Total Organic Carbon	26600	mg/kg	2100	02/09/23 05:08	
EPA 9060	Total Organic Carbon	18300	mg/kg	2050	02/09/23 05:15	
EPA 9060	Mean Total Organic Carbon	23900	mg/kg	2070	02/09/23 04:54	
EPA 9060	RSD%	15.7	%		02/09/23 04:54	
<b>50336667002</b>	<b>MW-24S (38-40)</b>					
EPA 6010	Arsenic	5.6	mg/kg	1.0	02/08/23 13:29	
EPA 6010	Iron	5390	mg/kg	52.2	02/08/23 13:29	
EPA 6010	Lithium	5.4	mg/kg	5.2	02/08/23 13:29	N2
EPA 6010	Manganese	187	mg/kg	1.0	02/08/23 13:29	
EPA 6010	Molybdenum	1.3	mg/kg	1.0	02/08/23 13:29	
SM 2540G	Percent Moisture	8.9	%	0.10	02/06/23 18:24	N2
EPA 9045	pH at 25 Degrees C	8.4	Std. Units	0.10	02/10/23 13:19	H3
EPA 9060	Total Organic Carbon	25200	mg/kg	2930	02/09/23 05:21	
EPA 9060	Total Organic Carbon	27300	mg/kg	2910	02/09/23 05:29	
EPA 9060	Total Organic Carbon	21400	mg/kg	2900	02/09/23 05:35	
EPA 9060	Total Organic Carbon	33000	mg/kg	2990	02/09/23 05:41	
EPA 9060	Mean Total Organic Carbon	26700	mg/kg	2930	02/09/23 05:21	
EPA 9060	RSD%	18.2	%		02/09/23 05:21	
<b>50336667003</b>	<b>MW-24I (68-70)</b>					
EPA 6010	Arsenic	2.6	mg/kg	1.0	02/08/23 13:54	
EPA 6010	Iron	5990	mg/kg	50.8	02/08/23 13:54	
EPA 6010	Lithium	5.7	mg/kg	5.1	02/08/23 13:54	N2
EPA 6010	Manganese	191	mg/kg	1.0	02/08/23 13:54	
EPA 6010	Molybdenum	1.3	mg/kg	1.0	02/08/23 13:54	
SM 2540G	Percent Moisture	7.4	%	0.10	02/06/23 18:24	N2
EPA 9045	pH at 25 Degrees C	8.2	Std. Units	0.10	02/10/23 13:21	H3
EPA 9060	Total Organic Carbon	12800	mg/kg	2280	02/09/23 06:54	
EPA 9060	Total Organic Carbon	17300	mg/kg	2240	02/09/23 07:01	
EPA 9060	Total Organic Carbon	23100	mg/kg	2260	02/09/23 07:09	
EPA 9060	Total Organic Carbon	44000	mg/kg	2320	02/09/23 07:15	
EPA 9060	Mean Total Organic Carbon	24300	mg/kg	2270	02/09/23 06:54	
EPA 9060	RSD%	56.8	%		02/09/23 06:54	1d
<b>50336667004</b>	<b>MW-24D (98-100)</b>					
EPA 6010	Arsenic	4.3	mg/kg	1.1	02/08/23 13:57	
EPA 6010	Iron	7300	mg/kg	52.6	02/08/23 13:57	
EPA 6010	Manganese	192	mg/kg	1.1	02/08/23 13:57	
EPA 6010	Molybdenum	3.8	mg/kg	1.1	02/08/23 13:57	

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### SUMMARY OF DETECTION

Project: Eagle Valley N&E 2023

Pace Project No.: 50336667

Lab Sample ID Method	Client Sample ID Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
<b>50336667004</b>	<b>MW-24D (98-100)</b>					
SM 2540G	Percent Moisture	7.0	%	0.10	02/06/23 18:25	N2
EPA 9045	pH at 25 Degrees C	8.1	Std. Units	0.10	02/10/23 13:23	H3
EPA 9060	Total Organic Carbon	17400	mg/kg	2470	02/09/23 07:23	
EPA 9060	Total Organic Carbon	15300	mg/kg	2470	02/09/23 07:29	
EPA 9060	Total Organic Carbon	11400	mg/kg	2480	02/09/23 07:36	
EPA 9060	Total Organic Carbon	8090	mg/kg	2450	02/09/23 07:42	
EPA 9060	Mean Total Organic Carbon	13100	mg/kg	2470	02/09/23 07:23	
EPA 9060	RSD%	31.7	%		02/09/23 07:23	

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### ANALYTICAL RESULTS

Project: Eagle Valley N&E 2023

Pace Project No.: 50336667

**Sample: MW-3D (88-90)**      **Lab ID: 50336667001**      Collected: 02/02/23 10:25      Received: 02/02/23 15:15      Matrix: Solid

*Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.*

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>6010 MET ICP</b>									
Analytical Method: EPA 6010    Preparation Method: EPA 3050									
Pace Analytical Services - Indianapolis									
Arsenic	<b>3.8</b>	mg/kg	1.0	0.17	1	02/07/23 15:46	02/08/23 13:25	7440-38-2	
Iron	<b>6660</b>	mg/kg	51.7	13.1	1	02/07/23 15:46	02/08/23 13:25	7439-89-6	
Lithium	<b>6.6</b>	mg/kg	5.2	0.35	1	02/07/23 15:46	02/08/23 13:25	7439-93-2	N2
Manganese	<b>293</b>	mg/kg	1.0	0.69	1	02/07/23 15:46	02/08/23 13:25	7439-96-5	
Molybdenum	<b>1.2</b>	mg/kg	1.0	0.061	1	02/07/23 15:46	02/08/23 13:25	7439-98-7	
<b>Percent Moisture</b>									
Analytical Method: SM 2540G									
Pace Analytical Services - Indianapolis									
Percent Moisture	<b>8.0</b>	%	0.10	0.10	1		02/06/23 18:24		N2
<b>9045 pH Soil</b>									
Analytical Method: EPA 9045									
Pace Analytical Services - Indianapolis									
pH at 25 Degrees C	<b>8.3</b>	Std. Units	0.10	0.10	1		02/10/23 13:19		H3
<b>Total Organic Carbon Quad</b>									
Analytical Method: EPA 9060									
Pace Analytical Services - Green Bay									
Total Organic Carbon	<b>25000</b>	mg/kg	2080	672	1		02/09/23 04:54	7440-44-0	
Total Organic Carbon	<b>25500</b>	mg/kg	2050	662	1		02/09/23 05:01	7440-44-0	
Total Organic Carbon	<b>26600</b>	mg/kg	2100	680	1		02/09/23 05:08	7440-44-0	
Total Organic Carbon	<b>18300</b>	mg/kg	2050	663	1		02/09/23 05:15	7440-44-0	
Mean Total Organic Carbon	<b>23900</b>	mg/kg	2070	669	1		02/09/23 04:54	7440-44-0	
<b>Surrogates</b>									
RSD%	<b>15.7</b>	%			1		02/09/23 04:54		

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### ANALYTICAL RESULTS

Project: Eagle Valley N&E 2023

Pace Project No.: 50336667

**Sample: MW-24S (38-40)**      **Lab ID: 50336667002**      Collected: 02/02/23 10:45      Received: 02/02/23 15:15      Matrix: Solid

*Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.*

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>6010 MET ICP</b>									
Analytical Method: EPA 6010    Preparation Method: EPA 3050									
Pace Analytical Services - Indianapolis									
Arsenic	5.6	mg/kg	1.0	0.17	1	02/07/23 15:46	02/08/23 13:29	7440-38-2	
Iron	5390	mg/kg	52.2	13.3	1	02/07/23 15:46	02/08/23 13:29	7439-89-6	
Lithium	5.4	mg/kg	5.2	0.35	1	02/07/23 15:46	02/08/23 13:29	7439-93-2	N2
Manganese	187	mg/kg	1.0	0.69	1	02/07/23 15:46	02/08/23 13:29	7439-96-5	
Molybdenum	1.3	mg/kg	1.0	0.062	1	02/07/23 15:46	02/08/23 13:29	7439-98-7	
<b>Percent Moisture</b>									
Analytical Method: SM 2540G									
Pace Analytical Services - Indianapolis									
Percent Moisture	8.9	%	0.10	0.10	1		02/06/23 18:24		N2
<b>9045 pH Soil</b>									
Analytical Method: EPA 9045									
Pace Analytical Services - Indianapolis									
pH at 25 Degrees C	8.4	Std. Units	0.10	0.10	1		02/10/23 13:19		H3
<b>Total Organic Carbon Quad</b>									
Analytical Method: EPA 9060									
Pace Analytical Services - Green Bay									
Total Organic Carbon	25200	mg/kg	2930	948	1		02/09/23 05:21	7440-44-0	
Total Organic Carbon	27300	mg/kg	2910	940	1		02/09/23 05:29	7440-44-0	
Total Organic Carbon	21400	mg/kg	2900	937	1		02/09/23 05:35	7440-44-0	
Total Organic Carbon	33000	mg/kg	2990	967	1		02/09/23 05:41	7440-44-0	
Mean Total Organic Carbon	26700	mg/kg	2930	948	1		02/09/23 05:21	7440-44-0	
<b>Surrogates</b>									
RSD%	18.2	%			1		02/09/23 05:21		

### REPORT OF LABORATORY ANALYSIS

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### ANALYTICAL RESULTS

Project: Eagle Valley N&E 2023

Pace Project No.: 50336667

**Sample: MW-24I (68-70)**      **Lab ID: 50336667003**      Collected: 02/02/23 10:58      Received: 02/02/23 15:15      Matrix: Solid

*Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.*

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>6010 MET ICP</b>									
Analytical Method: EPA 6010    Preparation Method: EPA 3050									
Pace Analytical Services - Indianapolis									
Arsenic	<b>2.6</b>	mg/kg	1.0	0.17	1	02/07/23 15:46	02/08/23 13:54	7440-38-2	
Iron	<b>5990</b>	mg/kg	50.8	12.9	1	02/07/23 15:46	02/08/23 13:54	7439-89-6	
Lithium	<b>5.7</b>	mg/kg	5.1	0.34	1	02/07/23 15:46	02/08/23 13:54	7439-93-2	N2
Manganese	<b>191</b>	mg/kg	1.0	0.68	1	02/07/23 15:46	02/08/23 13:54	7439-96-5	
Molybdenum	<b>1.3</b>	mg/kg	1.0	0.060	1	02/07/23 15:46	02/08/23 13:54	7439-98-7	
<b>Percent Moisture</b>									
Analytical Method: SM 2540G									
Pace Analytical Services - Indianapolis									
Percent Moisture	<b>7.4</b>	%	0.10	0.10	1		02/06/23 18:24		N2
<b>9045 pH Soil</b>									
Analytical Method: EPA 9045									
Pace Analytical Services - Indianapolis									
pH at 25 Degrees C	<b>8.2</b>	Std. Units	0.10	0.10	1		02/10/23 13:21		H3
<b>Total Organic Carbon Quad</b>									
Analytical Method: EPA 9060									
Pace Analytical Services - Green Bay									
Total Organic Carbon	<b>12800</b>	mg/kg	2280	736	1		02/09/23 06:54	7440-44-0	
Total Organic Carbon	<b>17300</b>	mg/kg	2240	724	1		02/09/23 07:01	7440-44-0	
Total Organic Carbon	<b>23100</b>	mg/kg	2260	731	1		02/09/23 07:09	7440-44-0	
Total Organic Carbon	<b>44000</b>	mg/kg	2320	749	1		02/09/23 07:15	7440-44-0	
Mean Total Organic Carbon	<b>24300</b>	mg/kg	2270	735	1		02/09/23 06:54	7440-44-0	
<b>Surrogates</b>									
RSD%	<b>56.8</b>	%			1		02/09/23 06:54		1d

### REPORT OF LABORATORY ANALYSIS

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**ANALYTICAL RESULTS**

Project: Eagle Valley N&E 2023

Pace Project No.: 50336667

**Sample: MW-24D (98-100)**      **Lab ID: 50336667004**      Collected: 02/02/23 11:10      Received: 02/02/23 15:15      Matrix: Solid

*Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.*

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>6010 MET ICP</b>									
Analytical Method: EPA 6010    Preparation Method: EPA 3050									
Pace Analytical Services - Indianapolis									
Arsenic	<b>4.3</b>	mg/kg	1.1	0.17	1	02/07/23 15:46	02/08/23 13:57	7440-38-2	
Iron	<b>7300</b>	mg/kg	52.6	13.4	1	02/07/23 15:46	02/08/23 13:57	7439-89-6	
Lithium	ND	mg/kg	5.3	0.36	1	02/07/23 15:46	02/08/23 13:57	7439-93-2	N2
Manganese	<b>192</b>	mg/kg	1.1	0.70	1	02/07/23 15:46	02/08/23 13:57	7439-96-5	
Molybdenum	<b>3.8</b>	mg/kg	1.1	0.062	1	02/07/23 15:46	02/08/23 13:57	7439-98-7	
<b>Percent Moisture</b>									
Analytical Method: SM 2540G									
Pace Analytical Services - Indianapolis									
Percent Moisture	<b>7.0</b>	%	0.10	0.10	1		02/06/23 18:25		N2
<b>9045 pH Soil</b>									
Analytical Method: EPA 9045									
Pace Analytical Services - Indianapolis									
pH at 25 Degrees C	<b>8.1</b>	Std. Units	0.10	0.10	1		02/10/23 13:23		H3
<b>Total Organic Carbon Quad</b>									
Analytical Method: EPA 9060									
Pace Analytical Services - Green Bay									
Total Organic Carbon	<b>17400</b>	mg/kg	2470	800	1		02/09/23 07:23	7440-44-0	
Total Organic Carbon	<b>15300</b>	mg/kg	2470	798	1		02/09/23 07:29	7440-44-0	
Total Organic Carbon	<b>11400</b>	mg/kg	2480	800	1		02/09/23 07:36	7440-44-0	
Total Organic Carbon	<b>8090</b>	mg/kg	2450	792	1		02/09/23 07:42	7440-44-0	
Mean Total Organic Carbon	<b>13100</b>	mg/kg	2470	798	1		02/09/23 07:23	7440-44-0	
<b>Surrogates</b>									
RSD%	<b>31.7</b>	%			1		02/09/23 07:23		

**REPORT OF LABORATORY ANALYSIS**

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**QUALITY CONTROL DATA**

Project: Eagle Valley N&E 2023

Pace Project No.: 50336667

QC Batch:	717353	Analysis Method:	EPA 6010
QC Batch Method:	EPA 3050	Analysis Description:	6010 MET
		Laboratory:	Pace Analytical Services - Indianapolis

Associated Lab Samples: 50336667001, 50336667002, 50336667003, 50336667004

METHOD BLANK: 3293459 Matrix: Solid

Associated Lab Samples: 50336667001, 50336667002, 50336667003, 50336667004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Arsenic	mg/kg	ND	1.0	0.17	02/08/23 13:21	
Iron	mg/kg	ND	50.0	12.7	02/08/23 13:21	
Lithium	mg/kg	ND	5.0	0.34	02/08/23 13:21	N2
Manganese	mg/kg	ND	1.0	0.66	02/08/23 13:21	
Molybdenum	mg/kg	ND	1.0	0.059	02/08/23 13:21	

LABORATORY CONTROL SAMPLE: 3293460

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Arsenic	mg/kg	50	52.3	105	80-120	
Iron	mg/kg	500	566	113	80-120	
Lithium	mg/kg	50	51.7	103	80-120	N2
Manganese	mg/kg	50	49.9	100	80-120	
Molybdenum	mg/kg	50	53.2	106	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3293461 3293462

Parameter	Units	MS		MSD		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual	
		Spike Conc.	Result	Spike Conc.	Result							
Arsenic	mg/kg	3.5	53.8	53.9	52.5	51.9	91	90	75-125	1	20	
Iron	mg/kg	41600	538	539	39400	29300	-423	-2280	75-125	29	20	E,P6, R1
Lithium	mg/kg	19.9	53.8	53.9	83.5	81.9	118	115	75-125	2	20	N2
Manganese	mg/kg	528	53.8	53.9	1110	439	1070	-165	75-125	86	20	E,P6, R1
Molybdenum	mg/kg	ND	53.8	53.9	46.1	45.9	85	85	75-125	0	20	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3293463 3293464

Parameter	Units	MS		MSD		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual	
		Spike Conc.	Result	Spike Conc.	Result							
Arsenic	mg/kg	5.6	51.9	52	75.0	62.4	134	109	75-125	18	20	M0
Iron	mg/kg	5390	519	520	13400	5840	1540	86	75-125	79	20	P6,R1
Lithium	mg/kg	5.4	51.9	52	60.7	63.1	106	111	75-125	4	20	N2
Manganese	mg/kg	187	51.9	52	244	248	108	116	75-125	2	20	
Molybdenum	mg/kg	1.3	51.9	52	51.8	51.2	97	96	75-125	1	20	

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### QUALITY CONTROL DATA

Project: Eagle Valley N&E 2023

Pace Project No.: 50336667

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QC Batch:	717559	Analysis Method:	SM 2540G
QC Batch Method:	SM 2540G	Analysis Description:	Dry Weight/Percent Moisture
		Laboratory:	Pace Analytical Services - Indianapolis

Associated Lab Samples: 50336667001, 50336667002, 50336667003, 50336667004

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SAMPLE DUPLICATE: 3294199

Parameter	Units	50336667002 Result	Dup Result	RPD	Max RPD	Qualifiers
Percent Moisture	%	8.9	9.3	5	5	N2

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SAMPLE DUPLICATE: 3294200

Parameter	Units	50336681001 Result	Dup Result	RPD	Max RPD	Qualifiers
Percent Moisture	%	22.9	23.3	2	5	N2

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QUALITY CONTROL DATA

Project: Eagle Valley N&E 2023

Pace Project No.: 50336667

QC Batch:	717977	Analysis Method:	EPA 9045
QC Batch Method:	EPA 9045	Analysis Description:	9045 pH
		Laboratory:	Pace Analytical Services - Indianapolis

Associated Lab Samples: 50336667001, 50336667002, 50336667003, 50336667004

SAMPLE DUPLICATE: 3296001

Parameter	Units	50336127001 Result	Dup Result	RPD	Max RPD	Qualifiers
pH at 25 Degrees C	Std. Units	6.3	6.3	1	2	H3

SAMPLE DUPLICATE: 3296002

Parameter	Units	50336667002 Result	Dup Result	RPD	Max RPD	Qualifiers
pH at 25 Degrees C	Std. Units	8.4	8.4	0	2	H3

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**QUALITY CONTROL DATA**

Project: Eagle Valley N&E 2023

Pace Project No.: 50336667

QC Batch:	437358	Analysis Method:	EPA 9060
QC Batch Method:	EPA 9060	Analysis Description:	9060 TOC Average
		Laboratory:	Pace Analytical Services - Green Bay

Associated Lab Samples: 50336667001, 50336667002, 50336667003, 50336667004

METHOD BLANK: 2514235 Matrix: Solid  
 Associated Lab Samples: 50336667001, 50336667002, 50336667003, 50336667004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Mean Total Organic Carbon	mg/kg	ND	600	194	02/09/23 03:42	

LABORATORY CONTROL SAMPLE: 2514236

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mean Total Organic Carbon	mg/kg	120000	122000	102	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2514237 2514238

Parameter	Units	2514237		2514238		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		50336667002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result						
Mean Total Organic Carbon	mg/kg	26700	29000	29000	64100	63000	129	125	50-152	2	20

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

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## QUALIFIERS

Project: Eagle Valley N&E 2023

Pace Project No.: 50336667

### DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Reported results are not rounded until the final step prior to reporting. Therefore, calculated parameters that are typically reported as "Total" may vary slightly from the sum of the reported component parameters.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

### ANALYTE QUALIFIERS

1d % RSD > 40

E Analyte concentration exceeded the calibration range. The reported result is estimated.

H3 Sample was received or analysis requested beyond the recognized method holding time.

M0 Matrix spike recovery and/or matrix spike duplicate recovery was outside laboratory control limits.

N2 The lab does not hold NELAC/TNI accreditation for this parameter but other accreditations/certifications may apply. A complete list of accreditations/certifications is available upon request.

P6 Matrix spike recovery was outside laboratory control limits due to a parent sample concentration notably higher than the spike level.

R1 RPD value was outside control limits.

## REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Eagle Valley N&E 2023

Pace Project No.: 50336667

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
50336667001	MW-3D (88-90)	EPA 3050	717353	EPA 6010	717841
50336667002	MW-24S (38-40)	EPA 3050	717353	EPA 6010	717841
50336667003	MW-24I (68-70)	EPA 3050	717353	EPA 6010	717841
50336667004	MW-24D (98-100)	EPA 3050	717353	EPA 6010	717841
50336667001	MW-3D (88-90)	SM 2540G	717559		
50336667002	MW-24S (38-40)	SM 2540G	717559		
50336667003	MW-24I (68-70)	SM 2540G	717559		
50336667004	MW-24D (98-100)	SM 2540G	717559		
50336667001	MW-3D (88-90)	EPA 9045	717977		
50336667002	MW-24S (38-40)	EPA 9045	717977		
50336667003	MW-24I (68-70)	EPA 9045	717977		
50336667004	MW-24D (98-100)	EPA 9045	717977		
50336667001	MW-3D (88-90)	EPA 9060	437358		
50336667001	MW-3D (88-90)	EPA 9060	437360		
50336667002	MW-24S (38-40)	EPA 9060	437358		
50336667002	MW-24S (38-40)	EPA 9060	437360		
50336667003	MW-24I (68-70)	EPA 9060	437358		
50336667003	MW-24I (68-70)	EPA 9060	437360		
50336667004	MW-24D (98-100)	EPA 9060	437358		
50336667004	MW-24D (98-100)	EPA 9060	437360		

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**SAMPLE CONDITION UPON RECEIPT FORM**

Date/Time and Initials of person examining contents: DMP 02/03/23 0913

1. Courier:  FED EX  UPS  CLIENT  PACE  USPS  OTHER \_\_\_\_\_

2. Custody Seal on Cooler/Box Present:  Yes  No  
 (If yes)Seals Intact:  Yes  No (leave blank if no seals were present)

3. Thermometer: 1 2 3 4 5 6 A B C D E F

4. Cooler Temperature(s): 0.5°/0.5°C     
 (Initial/Corrected) RECORD TEMPS OF ALL COOLERS RECEIVED (use Comments below to add more)

5. Packing Material:  Bubble Wrap  Bubble Bags  
 None  Other Plastic

6. Ice Type:  Wet  Blue  None

7. If temp. is over 6°C or under 0°C, was the PM notified?:  Yes  No  
 Cooler temp should be above freezing to 6°C

All discrepancies will be written out in the comments section below.

	Yes	No		Yes	No	N/A
USDA Regulated Soils? (HI, ID, NY, WA, OR, CA, NM, TX, OK, AR, LA, TN, AL, MS, NC, SC, GA, FL, or Puerto Rico)		<input checked="" type="checkbox"/>	All containers needing acid/base preservation have been pH CHECKED?: Exceptions: VOA, coliform, LLHg, O&G, RAD CHEM, and any container with a septum cap or preserved with HCl.			
Short Hold Time Analysis (48 hours or less)? Analysis:		<input checked="" type="checkbox"/>	Circle: HNO3 (<2) H2SO4 (<2) NaOH (>10) NaOH/ZnAc (>9) Any non-conformance to pH recommendations will be noted on the container count form			<input checked="" type="checkbox"/>
Time 5035A TC placed in Freezer or Short Holds To Lab	Time:		Residual Chlorine Check (SVOC 625 Pest/PCB 608)	<u>Present</u>	<u>Absent</u>	<u>N/A</u>
Rush TAT Requested (4 days or less):		<input checked="" type="checkbox"/>	Residual Chlorine Check (Total/Amenable/Free Cyanide)			<input checked="" type="checkbox"/>
Custody Signatures Present?	<input checked="" type="checkbox"/>		Headspace Wisconsin Sulfide?			<input checked="" type="checkbox"/>
Containers Intact?:	<input checked="" type="checkbox"/>		Headspace in VOA Vials (>6mm): See Containter Count form for details	<u>Present</u>	<u>Absent</u>	<u>No VOA Vials Sent</u>
Sample Label (IDs/Dates/Times) Match COC?: Except TCs, which only require sample ID	<input checked="" type="checkbox"/>		Trip Blank Present?		<input checked="" type="checkbox"/>	
Extra labels on Terracore Vials? (soils only)		<u>N/A</u>	Trip Blank Custody Seals?:			<input checked="" type="checkbox"/>

COMMENTS:

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March 09, 2023

Mr. Mark Breting  
ATC Group Services  
7988 Centerpoint Drive  
Suite 100  
Indianapolis, IN 46256

RE: Project: Eagle Valley N&E  
Pace Project No.: 50337246

Dear Mr. Breting:

Enclosed are the analytical results for sample(s) received by the laboratory on February 10, 2023. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

The test results provided in this final report were generated by each of the following laboratories within the Pace Network:

- Pace Analytical Services - Green Bay
- Pace Analytical Services - Indianapolis

If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Will Statz  
will.statz@pacelabs.com  
(317)228-3105  
Project Manager

Enclosures

cc: Mr. Robert Miller, Haley & Aldrich



## REPORT OF LABORATORY ANALYSIS

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## CERTIFICATIONS

Project: Eagle Valley N&E

Pace Project No.: 50337246

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### **Pace Analytical Services Green Bay**

1241 Bellevue Street, Green Bay, WI 54302

Florida/NELAP Certification #: E87948

Illinois Certification #: 200050

Kentucky UST Certification #: 82

Louisiana Certification #: 04168

Minnesota Certification #: 055-999-334

New York Certification #: 12064

North Dakota Certification #: R-150

South Carolina Certification #: 83006001

Texas Certification #: T104704529-21-8

Virginia VELAP Certification ID: 11873

Wisconsin Certification #: 405132750

Wisconsin DATCP Certification #: 105-444

USDA Soil Permit #: P330-21-00008

Federal Fish & Wildlife Permit #: 51774A

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### **Pace Analytical Services Indianapolis**

7726 Moller Road, Indianapolis, IN 46268

Illinois Accreditation #: 200074

Indiana Drinking Water Laboratory #: C-49-06

Kansas/TNI Certification #: E-10177

Kentucky UST Agency Interest #: 80226

Kentucky WW Laboratory ID #: 98019

Michigan Drinking Water Laboratory #9050

Ohio VAP Certified Laboratory #: CL0065

Oklahoma Laboratory #: 9204

Texas Certification #: T104704355

Wisconsin Laboratory #: 999788130

USDA Foreign Soil Permit #: 525-23-13-23119

USDA Compliance Agreement #: IN-SL-22-001

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## REPORT OF LABORATORY ANALYSIS

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## SAMPLE SUMMARY

Project: Eagle Valley N&E

Pace Project No.: 50337246

Lab ID	Sample ID	Matrix	Date Collected	Date Received
50337246001	MW-26D (94-96)	Solid	02/10/23 11:08	02/10/23 15:55
50337246002	MW-26I (64-66)	Solid	02/10/23 11:17	02/10/23 15:55
50337246003	MW-26S (34-36)	Solid	02/10/23 11:25	02/10/23 15:55
50337246004	MW-12I (54-56)	Solid	02/10/23 11:50	02/10/23 15:55
50337246005	MW-12D (82-88)	Solid	02/10/23 11:38	02/10/23 15:55
50337246006	DUP-1	Solid	02/10/23 08:00	02/10/23 15:55

## REPORT OF LABORATORY ANALYSIS

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### SAMPLE ANALYTE COUNT

Project: Eagle Valley N&E

Pace Project No.: 50337246

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
50337246001	MW-26D (94-96)	EPA 6010	DJS	5	PASI-I
		SM 2540G	QAK	1	PASI-I
		EPA 9045	BMS	1	PASI-I
		EPA 9060	TJJ	6	PASI-G
50337246002	MW-26I (64-66)	EPA 6010	DJS	5	PASI-I
		SM 2540G	QAK	1	PASI-I
		EPA 9045	BMS	1	PASI-I
		EPA 9060	TJJ	6	PASI-G
50337246003	MW-26S (34-36)	EPA 6010	DJS	5	PASI-I
		SM 2540G	QAK	1	PASI-I
		EPA 9045	BMS	1	PASI-I
		EPA 9060	TJJ	6	PASI-G
50337246004	MW-12I (54-56)	EPA 6010	DJS	5	PASI-I
		SM 2540G	QAK	1	PASI-I
		EPA 9045	BMS	1	PASI-I
		EPA 9060	TJJ	6	PASI-G
50337246005	MW-12D (82-88)	EPA 6010	DJS	5	PASI-I
		SM 2540G	QAK	1	PASI-I
		EPA 9045	BMS	1	PASI-I
		EPA 9060	TJJ	6	PASI-G
50337246006	DUP-1	EPA 6010	DJS	5	PASI-I
		SM 2540G	QAK	1	PASI-I
		EPA 9045	BMS	1	PASI-I
		EPA 9060	TJJ	6	PASI-G

PASI-G = Pace Analytical Services - Green Bay

PASI-I = Pace Analytical Services - Indianapolis

### REPORT OF LABORATORY ANALYSIS

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### SUMMARY OF DETECTION

Project: Eagle Valley N&E

Pace Project No.: 50337246

Lab Sample ID	Client Sample ID	Result	Units	Report Limit	Analyzed	Qualifiers
Method	Parameters					
<b>50337246001</b>	<b>MW-26D (94-96)</b>					
EPA 6010	Arsenic	7.1	mg/kg	0.93	02/17/23 14:31	
EPA 6010	Iron	14500	mg/kg	46.5	02/17/23 14:31	
EPA 6010	Lithium	5.4	mg/kg	4.7	02/17/23 14:31	N2
EPA 6010	Manganese	193	mg/kg	0.93	02/17/23 14:31	
EPA 6010	Molybdenum	1.6	mg/kg	0.93	02/17/23 14:31	
SM 2540G	Percent Moisture	7.0	%	0.10	02/15/23 15:03	N2
EPA 9045	pH at 25 Degrees C	9.1	Std. Units	0.10	02/18/23 13:45	H3
EPA 9060	Total Organic Carbon	5420	mg/kg	1980	02/22/23 01:59	
EPA 9060	Total Organic Carbon	44400	mg/kg	2020	02/22/23 02:06	
EPA 9060	Total Organic Carbon	21000	mg/kg	1960	02/22/23 02:13	
EPA 9060	Total Organic Carbon	9860	mg/kg	1990	02/22/23 02:19	
EPA 9060	Mean Total Organic Carbon	20200	mg/kg	1980	02/22/23 01:59	
EPA 9060	RSD%	86.4	%		02/22/23 01:59	1d
<b>50337246002</b>	<b>MW-26I (64-66)</b>					
EPA 6010	Arsenic	5.1	mg/kg	1.1	02/17/23 14:35	
EPA 6010	Iron	7460	mg/kg	54.5	02/17/23 14:35	
EPA 6010	Manganese	165	mg/kg	1.1	02/17/23 14:35	
EPA 6010	Molybdenum	2.0	mg/kg	1.1	02/17/23 14:35	
SM 2540G	Percent Moisture	13.0	%	0.10	02/15/23 15:03	N2
EPA 9045	pH at 25 Degrees C	8.3	Std. Units	0.10	02/18/23 13:46	H3
EPA 9060	Total Organic Carbon	11500	mg/kg	2560	02/22/23 02:26	
EPA 9060	Total Organic Carbon	32800	mg/kg	2650	02/22/23 02:34	
EPA 9060	Total Organic Carbon	11100	mg/kg	2610	02/22/23 02:42	
EPA 9060	Total Organic Carbon	19000	mg/kg	2650	02/22/23 02:49	
EPA 9060	Mean Total Organic Carbon	18600	mg/kg	2620	02/22/23 02:26	
EPA 9060	RSD%	54.5	%		02/22/23 02:26	1d
<b>50337246003</b>	<b>MW-26S (34-36)</b>					
EPA 6010	Arsenic	3.7	mg/kg	1.1	02/17/23 14:39	
EPA 6010	Iron	5120	mg/kg	52.8	02/17/23 14:39	
EPA 6010	Manganese	247	mg/kg	1.1	02/17/23 14:39	
EPA 6010	Molybdenum	1.6	mg/kg	1.1	02/17/23 14:39	
SM 2540G	Percent Moisture	7.4	%	0.10	02/15/23 13:42	N2
EPA 9045	pH at 25 Degrees C	8.0	Std. Units	0.10	02/18/23 13:46	H3
EPA 9060	Total Organic Carbon	19100	mg/kg	2450	02/22/23 02:58	
EPA 9060	Total Organic Carbon	23800	mg/kg	2460	02/22/23 03:06	
EPA 9060	Total Organic Carbon	16300	mg/kg	2460	02/22/23 03:13	
EPA 9060	Total Organic Carbon	28200	mg/kg	2470	02/22/23 03:22	
EPA 9060	Mean Total Organic Carbon	21900	mg/kg	2460	02/22/23 02:58	
EPA 9060	RSD%	24.0	%		02/22/23 02:58	
<b>50337246004</b>	<b>MW-12I (54-56)</b>					
EPA 6010	Arsenic	4.0	mg/kg	1.1	02/17/23 14:43	
EPA 6010	Iron	7380	mg/kg	54.2	02/17/23 14:43	
EPA 6010	Lithium	5.7	mg/kg	5.4	02/17/23 14:43	N2
EPA 6010	Manganese	245	mg/kg	1.1	02/17/23 14:43	
EPA 6010	Molybdenum	2.6	mg/kg	1.1	02/17/23 14:43	
SM 2540G	Percent Moisture	10.4	%	0.10	02/15/23 13:42	N2

### REPORT OF LABORATORY ANALYSIS

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### SUMMARY OF DETECTION

Project: Eagle Valley N&E

Pace Project No.: 50337246

Lab Sample ID Method	Client Sample ID Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
<b>50337246004</b>	<b>MW-12I (54-56)</b>					
EPA 9045	pH at 25 Degrees C	8.6	Std. Units	0.10	02/18/23 13:47	H3
EPA 9060	Total Organic Carbon	34500	mg/kg	2620	02/22/23 03:29	
EPA 9060	Total Organic Carbon	38700	mg/kg	2670	02/22/23 03:37	
EPA 9060	Total Organic Carbon	31000	mg/kg	2610	02/22/23 03:44	
EPA 9060	Total Organic Carbon	31500	mg/kg	2620	02/22/23 03:52	
EPA 9060	Mean Total Organic Carbon	33900	mg/kg	2630	02/22/23 03:29	
EPA 9060	RSD%	10.4	%		02/22/23 03:29	
<b>50337246005</b>	<b>MW-12D (82-88)</b>					
EPA 6010	Arsenic	3.6	mg/kg	0.91	02/17/23 14:46	
EPA 6010	Iron	7560	mg/kg	45.3	02/17/23 14:46	
EPA 6010	Lithium	6.6	mg/kg	4.5	02/17/23 14:46	N2
EPA 6010	Manganese	464	mg/kg	0.91	02/17/23 14:46	
EPA 6010	Molybdenum	1.4	mg/kg	0.91	02/17/23 14:46	
SM 2540G	Percent Moisture	6.1	%	0.10	02/15/23 13:42	N2
EPA 9045	pH at 25 Degrees C	8.5	Std. Units	0.10	02/18/23 13:55	H3
EPA 9060	Total Organic Carbon	24700	mg/kg	2470	02/22/23 03:59	
EPA 9060	Total Organic Carbon	23500	mg/kg	2460	02/22/23 04:07	
EPA 9060	Total Organic Carbon	15200	mg/kg	2500	02/22/23 04:15	
EPA 9060	Total Organic Carbon	22700	mg/kg	2550	02/22/23 04:21	
EPA 9060	Mean Total Organic Carbon	21500	mg/kg	2490	02/22/23 03:59	
EPA 9060	RSD%	19.8	%		02/22/23 03:59	
<b>50337246006</b>	<b>DUP-1</b>					
EPA 6010	Arsenic	5.4	mg/kg	0.97	02/17/23 14:50	
EPA 6010	Iron	7990	mg/kg	48.4	02/17/23 14:50	
EPA 6010	Lithium	5.2	mg/kg	4.8	02/17/23 14:50	N2
EPA 6010	Manganese	199	mg/kg	0.97	02/17/23 14:50	
EPA 6010	Molybdenum	1.9	mg/kg	0.97	02/17/23 14:50	
SM 2540G	Percent Moisture	12.7	%	0.10	02/15/23 13:43	N2
EPA 9045	pH at 25 Degrees C	8.2	Std. Units	0.10	02/18/23 13:54	H3
EPA 9060	Total Organic Carbon	16800	mg/kg	2150	02/22/23 04:30	
EPA 9060	Total Organic Carbon	15100	mg/kg	2110	02/22/23 04:39	
EPA 9060	Total Organic Carbon	17100	mg/kg	2130	02/22/23 04:47	
EPA 9060	Total Organic Carbon	20100	mg/kg	2120	02/22/23 04:55	
EPA 9060	Mean Total Organic Carbon	17300	mg/kg	2130	02/22/23 04:30	
EPA 9060	RSD%	12.1	%		02/22/23 04:30	

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## ANALYTICAL RESULTS

Project: Eagle Valley N&E

Pace Project No.: 50337246

**Sample: MW-26D (94-96)**      **Lab ID: 50337246001**      Collected: 02/10/23 11:08      Received: 02/10/23 15:55      Matrix: Solid

*Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.*

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>6010 MET ICP</b>									
Analytical Method: EPA 6010    Preparation Method: EPA 3050									
Pace Analytical Services - Indianapolis									
Arsenic	7.1	mg/kg	0.93	0.15	1	02/16/23 08:40	02/17/23 14:31	7440-38-2	
Iron	14500	mg/kg	46.5	11.8	1	02/16/23 08:40	02/17/23 14:31	7439-89-6	
Lithium	5.4	mg/kg	4.7	0.32	1	02/16/23 08:40	02/17/23 14:31	7439-93-2	N2
Manganese	193	mg/kg	0.93	0.62	1	02/16/23 08:40	02/17/23 14:31	7439-96-5	
Molybdenum	1.6	mg/kg	0.93	0.055	1	02/16/23 08:40	02/17/23 14:31	7439-98-7	
<b>Percent Moisture</b>									
Analytical Method: SM 2540G									
Pace Analytical Services - Indianapolis									
Percent Moisture	7.0	%	0.10	0.10	1		02/15/23 15:03		N2
<b>9045 pH Soil</b>									
Analytical Method: EPA 9045									
Pace Analytical Services - Indianapolis									
pH at 25 Degrees C	9.1	Std. Units	0.10	0.10	1		02/18/23 13:45		H3
<b>Total Organic Carbon Quad</b>									
Analytical Method: EPA 9060									
Pace Analytical Services - Green Bay									
Total Organic Carbon	5420	mg/kg	1980	639	1		02/22/23 01:59	7440-44-0	
Total Organic Carbon	44400	mg/kg	2020	652	1		02/22/23 02:06	7440-44-0	
Total Organic Carbon	21000	mg/kg	1960	633	1		02/22/23 02:13	7440-44-0	
Total Organic Carbon	9860	mg/kg	1990	643	1		02/22/23 02:19	7440-44-0	
Mean Total Organic Carbon	20200	mg/kg	1980	642	1		02/22/23 01:59	7440-44-0	
<b>Surrogates</b>									
RSD%	86.4	%			1		02/22/23 01:59		1d

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### ANALYTICAL RESULTS

Project: Eagle Valley N&E

Pace Project No.: 50337246

**Sample: MW-26I (64-66)**      **Lab ID: 50337246002**      Collected: 02/10/23 11:17      Received: 02/10/23 15:55      Matrix: Solid

*Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.*

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>6010 MET ICP</b>									
Analytical Method: EPA 6010    Preparation Method: EPA 3050									
Pace Analytical Services - Indianapolis									
Arsenic	5.1	mg/kg	1.1	0.18	1	02/16/23 08:40	02/17/23 14:35	7440-38-2	
Iron	7460	mg/kg	54.5	13.8	1	02/16/23 08:40	02/17/23 14:35	7439-89-6	
Lithium	ND	mg/kg	5.4	0.37	1	02/16/23 08:40	02/17/23 14:35	7439-93-2	N2
Manganese	165	mg/kg	1.1	0.72	1	02/16/23 08:40	02/17/23 14:35	7439-96-5	
Molybdenum	2.0	mg/kg	1.1	0.064	1	02/16/23 08:40	02/17/23 14:35	7439-98-7	
<b>Percent Moisture</b>									
Analytical Method: SM 2540G									
Pace Analytical Services - Indianapolis									
Percent Moisture	13.0	%	0.10	0.10	1		02/15/23 15:03		N2
<b>9045 pH Soil</b>									
Analytical Method: EPA 9045									
Pace Analytical Services - Indianapolis									
pH at 25 Degrees C	8.3	Std. Units	0.10	0.10	1		02/18/23 13:46		H3
<b>Total Organic Carbon Quad</b>									
Analytical Method: EPA 9060									
Pace Analytical Services - Green Bay									
Total Organic Carbon	11500	mg/kg	2560	828	1		02/22/23 02:26	7440-44-0	
Total Organic Carbon	32800	mg/kg	2650	857	1		02/22/23 02:34	7440-44-0	
Total Organic Carbon	11100	mg/kg	2610	845	1		02/22/23 02:42	7440-44-0	
Total Organic Carbon	19000	mg/kg	2650	857	1		02/22/23 02:49	7440-44-0	
Mean Total Organic Carbon	18600	mg/kg	2620	847	1		02/22/23 02:26	7440-44-0	
<b>Surrogates</b>									
RSD%	54.5	%			1		02/22/23 02:26		1d

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## ANALYTICAL RESULTS

Project: Eagle Valley N&E

Pace Project No.: 50337246

**Sample: MW-26S (34-36)**      **Lab ID: 50337246003**      Collected: 02/10/23 11:25      Received: 02/10/23 15:55      Matrix: Solid

*Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.*

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>6010 MET ICP</b>									
Analytical Method: EPA 6010    Preparation Method: EPA 3050									
Pace Analytical Services - Indianapolis									
Arsenic	3.7	mg/kg	1.1	0.18	1	02/16/23 08:40	02/17/23 14:39	7440-38-2	
Iron	5120	mg/kg	52.8	13.4	1	02/16/23 08:40	02/17/23 14:39	7439-89-6	
Lithium	ND	mg/kg	5.3	0.36	1	02/16/23 08:40	02/17/23 14:39	7439-93-2	N2
Manganese	247	mg/kg	1.1	0.70	1	02/16/23 08:40	02/17/23 14:39	7439-96-5	
Molybdenum	1.6	mg/kg	1.1	0.062	1	02/16/23 08:40	02/17/23 14:39	7439-98-7	
<b>Percent Moisture</b>									
Analytical Method: SM 2540G									
Pace Analytical Services - Indianapolis									
Percent Moisture	7.4	%	0.10	0.10	1		02/15/23 13:42		N2
<b>9045 pH Soil</b>									
Analytical Method: EPA 9045									
Pace Analytical Services - Indianapolis									
pH at 25 Degrees C	8.0	Std. Units	0.10	0.10	1		02/18/23 13:46		H3
<b>Total Organic Carbon Quad</b>									
Analytical Method: EPA 9060									
Pace Analytical Services - Green Bay									
Total Organic Carbon	19100	mg/kg	2450	792	1		02/22/23 02:58	7440-44-0	
Total Organic Carbon	23800	mg/kg	2460	795	1		02/22/23 03:06	7440-44-0	
Total Organic Carbon	16300	mg/kg	2460	796	1		02/22/23 03:13	7440-44-0	
Total Organic Carbon	28200	mg/kg	2470	798	1		02/22/23 03:22	7440-44-0	
Mean Total Organic Carbon	21900	mg/kg	2460	795	1		02/22/23 02:58	7440-44-0	
<b>Surrogates</b>									
RSD%	24.0	%			1		02/22/23 02:58		

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### ANALYTICAL RESULTS

Project: Eagle Valley N&E

Pace Project No.: 50337246

**Sample: MW-12I (54-56)**      **Lab ID: 50337246004**      Collected: 02/10/23 11:50      Received: 02/10/23 15:55      Matrix: Solid

*Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.*

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>6010 MET ICP</b>									
Analytical Method: EPA 6010    Preparation Method: EPA 3050									
Pace Analytical Services - Indianapolis									
Arsenic	<b>4.0</b>	mg/kg	1.1	0.18	1	02/16/23 08:40	02/17/23 14:43	7440-38-2	
Iron	<b>7380</b>	mg/kg	54.2	13.8	1	02/16/23 08:40	02/17/23 14:43	7439-89-6	
Lithium	<b>5.7</b>	mg/kg	5.4	0.37	1	02/16/23 08:40	02/17/23 14:43	7439-93-2	N2
Manganese	<b>245</b>	mg/kg	1.1	0.72	1	02/16/23 08:40	02/17/23 14:43	7439-96-5	
Molybdenum	<b>2.6</b>	mg/kg	1.1	0.064	1	02/16/23 08:40	02/17/23 14:43	7439-98-7	
<b>Percent Moisture</b>									
Analytical Method: SM 2540G									
Pace Analytical Services - Indianapolis									
Percent Moisture	<b>10.4</b>	%	0.10	0.10	1		02/15/23 13:42		N2
<b>9045 pH Soil</b>									
Analytical Method: EPA 9045									
Pace Analytical Services - Indianapolis									
pH at 25 Degrees C	<b>8.6</b>	Std. Units	0.10	0.10	1		02/18/23 13:47		H3
<b>Total Organic Carbon Quad</b>									
Analytical Method: EPA 9060									
Pace Analytical Services - Green Bay									
Total Organic Carbon	<b>34500</b>	mg/kg	2620	846	1		02/22/23 03:29	7440-44-0	
Total Organic Carbon	<b>38700</b>	mg/kg	2670	863	1		02/22/23 03:37	7440-44-0	
Total Organic Carbon	<b>31000</b>	mg/kg	2610	843	1		02/22/23 03:44	7440-44-0	
Total Organic Carbon	<b>31500</b>	mg/kg	2620	846	1		02/22/23 03:52	7440-44-0	
Mean Total Organic Carbon	<b>33900</b>	mg/kg	2630	849	1		02/22/23 03:29	7440-44-0	
<b>Surrogates</b>									
RSD%	<b>10.4</b>	%			1		02/22/23 03:29		

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## ANALYTICAL RESULTS

Project: Eagle Valley N&E

Pace Project No.: 50337246

**Sample: MW-12D (82-88)**      **Lab ID: 50337246005**      Collected: 02/10/23 11:38      Received: 02/10/23 15:55      Matrix: Solid

*Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.*

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>6010 MET ICP</b>									
Analytical Method: EPA 6010    Preparation Method: EPA 3050									
Pace Analytical Services - Indianapolis									
Arsenic	3.6	mg/kg	0.91	0.15	1	02/16/23 08:40	02/17/23 14:46	7440-38-2	
Iron	7560	mg/kg	45.3	11.5	1	02/16/23 08:40	02/17/23 14:46	7439-89-6	
Lithium	6.6	mg/kg	4.5	0.31	1	02/16/23 08:40	02/17/23 14:46	7439-93-2	N2
Manganese	464	mg/kg	0.91	0.60	1	02/16/23 08:40	02/17/23 14:46	7439-96-5	
Molybdenum	1.4	mg/kg	0.91	0.053	1	02/16/23 08:40	02/17/23 14:46	7439-98-7	
<b>Percent Moisture</b>									
Analytical Method: SM 2540G									
Pace Analytical Services - Indianapolis									
Percent Moisture	6.1	%	0.10	0.10	1		02/15/23 13:42		N2
<b>9045 pH Soil</b>									
Analytical Method: EPA 9045									
Pace Analytical Services - Indianapolis									
pH at 25 Degrees C	8.5	Std. Units	0.10	0.10	1		02/18/23 13:55		H3
<b>Total Organic Carbon Quad</b>									
Analytical Method: EPA 9060									
Pace Analytical Services - Green Bay									
Total Organic Carbon	24700	mg/kg	2470	799	1		02/22/23 03:59	7440-44-0	
Total Organic Carbon	23500	mg/kg	2460	795	1		02/22/23 04:07	7440-44-0	
Total Organic Carbon	15200	mg/kg	2500	809	1		02/22/23 04:15	7440-44-0	
Total Organic Carbon	22700	mg/kg	2550	823	1		02/22/23 04:21	7440-44-0	
Mean Total Organic Carbon	21500	mg/kg	2490	807	1		02/22/23 03:59	7440-44-0	
<b>Surrogates</b>									
RSD%	19.8	%			1		02/22/23 03:59		

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## ANALYTICAL RESULTS

Project: Eagle Valley N&E

Pace Project No.: 50337246

**Sample: DUP-1**      **Lab ID: 50337246006**      Collected: 02/10/23 08:00      Received: 02/10/23 15:55      Matrix: Solid

*Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.*

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>6010 MET ICP</b>									
Analytical Method: EPA 6010    Preparation Method: EPA 3050									
Pace Analytical Services - Indianapolis									
Arsenic	<b>5.4</b>	mg/kg	0.97	0.16	1	02/16/23 08:40	02/17/23 14:50	7440-38-2	
Iron	<b>7990</b>	mg/kg	48.4	12.3	1	02/16/23 08:40	02/17/23 14:50	7439-89-6	
Lithium	<b>5.2</b>	mg/kg	4.8	0.33	1	02/16/23 08:40	02/17/23 14:50	7439-93-2	N2
Manganese	<b>199</b>	mg/kg	0.97	0.64	1	02/16/23 08:40	02/17/23 14:50	7439-96-5	
Molybdenum	<b>1.9</b>	mg/kg	0.97	0.057	1	02/16/23 08:40	02/17/23 14:50	7439-98-7	
<b>Percent Moisture</b>									
Analytical Method: SM 2540G									
Pace Analytical Services - Indianapolis									
Percent Moisture	<b>12.7</b>	%	0.10	0.10	1		02/15/23 13:43		N2
<b>9045 pH Soil</b>									
Analytical Method: EPA 9045									
Pace Analytical Services - Indianapolis									
pH at 25 Degrees C	<b>8.2</b>	Std. Units	0.10	0.10	1		02/18/23 13:54		H3
<b>Total Organic Carbon Quad</b>									
Analytical Method: EPA 9060									
Pace Analytical Services - Green Bay									
Total Organic Carbon	<b>16800</b>	mg/kg	2150	694	1		02/22/23 04:30	7440-44-0	
Total Organic Carbon	<b>15100</b>	mg/kg	2110	683	1		02/22/23 04:39	7440-44-0	
Total Organic Carbon	<b>17100</b>	mg/kg	2130	690	1		02/22/23 04:47	7440-44-0	
Total Organic Carbon	<b>20100</b>	mg/kg	2120	686	1		02/22/23 04:55	7440-44-0	
Mean Total Organic Carbon	<b>17300</b>	mg/kg	2130	688	1		02/22/23 04:30	7440-44-0	
<b>Surrogates</b>									
RSD%	<b>12.1</b>	%			1		02/22/23 04:30		

## REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL DATA

Project: Eagle Valley N&E

Pace Project No.: 50337246

QC Batch:	718521	Analysis Method:	EPA 6010
QC Batch Method:	EPA 3050	Analysis Description:	6010 MET
		Laboratory:	Pace Analytical Services - Indianapolis

Associated Lab Samples: 50337246001, 50337246002, 50337246003, 50337246004, 50337246005, 50337246006

METHOD BLANK: 3298625 Matrix: Solid  
Associated Lab Samples: 50337246001, 50337246002, 50337246003, 50337246004, 50337246005, 50337246006

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Arsenic	mg/kg	ND	1.0	0.17	02/17/23 12:29	
Iron	mg/kg	ND	50.0	12.7	02/17/23 12:29	
Lithium	mg/kg	ND	5.0	0.34	02/17/23 12:29	N2
Manganese	mg/kg	ND	1.0	0.66	02/17/23 12:29	
Molybdenum	mg/kg	ND	1.0	0.059	02/17/23 12:29	

LABORATORY CONTROL SAMPLE: 3298626

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Arsenic	mg/kg	50	51.0	102	80-120	
Iron	mg/kg	500	482	96	80-120	
Lithium	mg/kg	50	40.9	82	80-120	N2
Manganese	mg/kg	50	47.8	96	80-120	
Molybdenum	mg/kg	50	53.4	107	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3298627 3298628

Parameter	Units	MS		MSD		MS		MSD		% Rec Limits	RPD	Max RPD	Qual
		50336626010	Spike Conc.	Spike Conc.	Result	Result	% Rec	% Rec					
Arsenic	mg/kg	ND	205	245	156	193	75	78	75-125	21	20	R1	
Iron	mg/kg	15000	2050	2450	14600	18500	-19	143	75-125	23	20	P6, R1	
Lithium	mg/kg	ND	205	245	232	277	110	111	75-125	18	20	N2	
Manganese	mg/kg	164	205	245	368	403	100	98	75-125	9	20		
Molybdenum	mg/kg	ND	205	245	178	216	86	88	75-125	19	20		

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### REPORT OF LABORATORY ANALYSIS

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**QUALITY CONTROL DATA**

Project: Eagle Valley N&E

Pace Project No.: 50337246

QC Batch: 718734

Analysis Method: SM 2540G

QC Batch Method: SM 2540G

Analysis Description: Dry Weight/Percent Moisture

Laboratory: Pace Analytical Services - Indianapolis

Associated Lab Samples: 50337246001, 50337246002

SAMPLE DUPLICATE: 3299748

Parameter	Units	50336626010 Result	Dup Result	RPD	Max RPD	Qualifiers
Percent Moisture	%	1.4	1.4	1	5	N2

SAMPLE DUPLICATE: 3299749

Parameter	Units	50337195001 Result	Dup Result	RPD	Max RPD	Qualifiers
Percent Moisture	%	19.1	18.2	5	5	N2

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**QUALITY CONTROL DATA**

Project: Eagle Valley N&E

Pace Project No.: 50337246

QC Batch: 718737

Analysis Method: SM 2540G

QC Batch Method: SM 2540G

Analysis Description: Dry Weight/Percent Moisture

Laboratory: Pace Analytical Services - Indianapolis

Associated Lab Samples: 50337246003, 50337246004, 50337246005, 50337246006

SAMPLE DUPLICATE: 3299486

Parameter	Units	50337103013 Result	Dup Result	RPD	Max RPD	Qualifiers
Percent Moisture	%	14.9	14.8	1	5	N2

SAMPLE DUPLICATE: 3299487

Parameter	Units	50337103014 Result	Dup Result	RPD	Max RPD	Qualifiers
Percent Moisture	%	10.3	8.1	25	5	N2,R1

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### QUALITY CONTROL DATA

Project: Eagle Valley N&E

Pace Project No.: 50337246

QC Batch: 719323

Analysis Method: EPA 9045

QC Batch Method: EPA 9045

Analysis Description: 9045 pH

Laboratory: Pace Analytical Services - Indianapolis

Associated Lab Samples: 50337246001, 50337246002, 50337246003, 50337246004

SAMPLE DUPLICATE: 3302465

Parameter	Units	50337078001 Result	Dup Result	RPD	Max RPD	Qualifiers
pH at 25 Degrees C	Std. Units	8.4	8.4	0	2	H3

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### QUALITY CONTROL DATA

Project: Eagle Valley N&E

Pace Project No.: 50337246

QC Batch: 719325

Analysis Method: EPA 9045

QC Batch Method: EPA 9045

Analysis Description: 9045 pH

Laboratory: Pace Analytical Services - Indianapolis

Associated Lab Samples: 50337246005, 50337246006

SAMPLE DUPLICATE: 3302466

Parameter	Units	50336864001 Result	Dup Result	RPD	Max RPD	Qualifiers
pH at 25 Degrees C	Std. Units	7.7	7.8	0	2	H3

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### REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL DATA

Project: Eagle Valley N&E

Pace Project No.: 50337246

QC Batch: 438247

Analysis Method: EPA 9060

QC Batch Method: EPA 9060

Analysis Description: 9060 TOC Average

Laboratory: Pace Analytical Services - Green Bay

Associated Lab Samples: 50337246001, 50337246002, 50337246003, 50337246004, 50337246005, 50337246006

METHOD BLANK: 2518773

Matrix: Solid

Associated Lab Samples: 50337246001, 50337246002, 50337246003, 50337246004, 50337246005, 50337246006

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Mean Total Organic Carbon	mg/kg	ND	600	194	02/21/23 08:12	

LABORATORY CONTROL SAMPLE: 2518774

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mean Total Organic Carbon	mg/kg	120000	117000	97	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2518775 2518776

Parameter	Units	2518775		2518776		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		92650838001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result						
Mean Total Organic Carbon	mg/kg	2020	9980	9920	12500	11800	105	99	50-152	6	20

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## QUALIFIERS

Project: Eagle Valley N&E

Pace Project No.: 50337246

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### DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Reported results are not rounded until the final step prior to reporting. Therefore, calculated parameters that are typically reported as "Total" may vary slightly from the sum of the reported component parameters.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

### ANALYTE QUALIFIERS

1d % RSD > 40

H3 Sample was received or analysis requested beyond the recognized method holding time.

N2 The lab does not hold NELAC/TNI accreditation for this parameter but other accreditations/certifications may apply. A complete list of accreditations/certifications is available upon request.

P6 Matrix spike recovery was outside laboratory control limits due to a parent sample concentration notably higher than the spike level.

R1 RPD value was outside control limits.

## REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Eagle Valley N&E

Pace Project No.: 50337246

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
50337246001	MW-26D (94-96)	EPA 3050	718521	EPA 6010	719123
50337246002	MW-26I (64-66)	EPA 3050	718521	EPA 6010	719123
50337246003	MW-26S (34-36)	EPA 3050	718521	EPA 6010	719123
50337246004	MW-12I (54-56)	EPA 3050	718521	EPA 6010	719123
50337246005	MW-12D (82-88)	EPA 3050	718521	EPA 6010	719123
50337246006	DUP-1	EPA 3050	718521	EPA 6010	719123
50337246001	MW-26D (94-96)	SM 2540G	718734		
50337246002	MW-26I (64-66)	SM 2540G	718734		
50337246003	MW-26S (34-36)	SM 2540G	718737		
50337246004	MW-12I (54-56)	SM 2540G	718737		
50337246005	MW-12D (82-88)	SM 2540G	718737		
50337246006	DUP-1	SM 2540G	718737		
50337246001	MW-26D (94-96)	EPA 9045	719323		
50337246002	MW-26I (64-66)	EPA 9045	719323		
50337246003	MW-26S (34-36)	EPA 9045	719323		
50337246004	MW-12I (54-56)	EPA 9045	719323		
50337246005	MW-12D (82-88)	EPA 9045	719325		
50337246006	DUP-1	EPA 9045	719325		
50337246001	MW-26D (94-96)	EPA 9060	438247		
50337246001	MW-26D (94-96)	EPA 9060	438248		
50337246002	MW-26I (64-66)	EPA 9060	438247		
50337246002	MW-26I (64-66)	EPA 9060	438248		
50337246003	MW-26S (34-36)	EPA 9060	438247		
50337246003	MW-26S (34-36)	EPA 9060	438248		
50337246004	MW-12I (54-56)	EPA 9060	438247		
50337246004	MW-12I (54-56)	EPA 9060	438248		
50337246005	MW-12D (82-88)	EPA 9060	438247		
50337246005	MW-12D (82-88)	EPA 9060	438248		
50337246006	DUP-1	EPA 9060	438247		
50337246006	DUP-1	EPA 9060	438248		

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**SAMPLE CONDITION UPON RECEIPT FORM**

Date/Time and Initials of person examining contents: 7/10/23 1612-MW

1. Courier:  FED EX  UPS  CLIENT  PACE  USPS  OTHER \_\_\_\_\_
2. Custody Seal on Cooler/Box Present:  Yes  No  
 (If yes)Seals Intact:  Yes  No (leave blank if no seals were present)
3. Thermometer: 1 2 3 4 5 6 A B C D E F
4. Cooler Temperature(s): 1.5/1.6     
 (Initial/Corrected) RECORD TEMPS OF ALL COOLERS RECEIVED (use Comments below to add more)

5. Packing Material:  Bubble Wrap  Bubble Bags  
 None  Other Ziploc
6. Ice Type:  Wet  Blue  None
7. If temp. is over 6°C or under 0°C, was the PM notified?:  Yes  No  
 Cooler temp should be above freezing to 6°C

All discrepancies will be written out in the comments section below.

	Yes	No		Yes	No	N/A
USDA Regulated Soils? (HI, ID, NY, WA, OR,CA, NM, TX, OK, AR, LA, TN, AL, MS, NC, SC, GA, FL, or Puerto Rico)		<input checked="" type="checkbox"/>	All containers needing acid/base preservation have been pH CHECKED?: Exceptions: VOA, coliform, LLHg, O&G, RAD CHEM, and any container with a septum cap or preserved with HCl.			
Short Hold Time Analysis (48 hours or less)? Analysis:		<input checked="" type="checkbox"/>	Circle: HNO3 (<2) H2SO4 (<2) NaOH (>10) NaOH/ZnAc (>9) Any non-conformance to pH recommendations will be noted on the container count form			<input checked="" type="checkbox"/>
Time 5035A TC placed in Freezer or Short Holds To Lab	Time:		Residual Chlorine Check (SVOC 625 Pest/PCB 608)	<u>Present</u>	<u>Absent</u>	<u>N/A</u>
Rush TAT Requested (4 days or less):	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Residual Chlorine Check (Total/Amenable/Free Cyanide)			<input checked="" type="checkbox"/>
Custody Signatures Present?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Headspace Wisconsin Sulfide?			<input checked="" type="checkbox"/>
Containers Intact?:	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Headspace in VOA Vials (>6mm): See Container Count form for details	<u>Present</u>	<u>Absent</u>	<u>No VOA Vials Sent</u>
Sample Label (IDs/Dates/Times) Match COC?: Except TCs, which only require sample ID	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Trip Blank Present?			<input checked="" type="checkbox"/>
Extra labels on Terracore Vials? (soils only)			Trip Blank Custody Seals?:			<input checked="" type="checkbox"/>

COMMENTS:

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March 23, 2023

Mr. Mark Breting  
ATC Group Services  
7988 Centerpoint Drive  
Suite 100  
Indianapolis, IN 46256

RE: Project: Eagle Valley N&E 2023  
Pace Project No.: 50339736

Dear Mr. Breting:

Enclosed are the analytical results for sample(s) received by the laboratory on March 15, 2023. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

The test results provided in this final report were generated by each of the following laboratories within the Pace Network:

- Pace Analytical Services - Green Bay
- Pace Analytical Services - Indianapolis

If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Will Statz  
will.statz@pacelabs.com  
(317)228-3105  
Project Manager

Enclosures

cc: Mr. Robert Miller, Haley & Aldrich



## REPORT OF LABORATORY ANALYSIS

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## CERTIFICATIONS

Project: Eagle Valley N&E 2023

Pace Project No.: 50339736

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### **Pace Analytical Services Green Bay**

1241 Bellevue Street, Green Bay, WI 54302

Florida/NELAP Certification #: E87948

Illinois Certification #: 200050

Kentucky UST Certification #: 82

Louisiana Certification #: 04168

Minnesota Certification #: 055-999-334

New York Certification #: 12064

North Dakota Certification #: R-150

South Carolina Certification #: 83006001

Texas Certification #: T104704529-21-8

Virginia VELAP Certification ID: 11873

Wisconsin Certification #: 405132750

Wisconsin DATCP Certification #: 105-444

USDA Soil Permit #: P330-21-00008

Federal Fish & Wildlife Permit #: 51774A

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### **Pace Analytical Services Indianapolis**

7726 Moller Road, Indianapolis, IN 46268

Illinois Accreditation #: 200074

Indiana Drinking Water Laboratory #: C-49-06

Kansas/TNI Certification #: E-10177

Kentucky UST Agency Interest #: 80226

Kentucky WW Laboratory ID #: 98019

Michigan Drinking Water Laboratory #9050

Ohio VAP Certified Laboratory #: CL0065

Oklahoma Laboratory #: 9204

Texas Certification #: T104704355

Wisconsin Laboratory #: 999788130

USDA Foreign Soil Permit #: 525-23-13-23119

USDA Compliance Agreement #: IN-SL-22-001

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## REPORT OF LABORATORY ANALYSIS

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## SAMPLE SUMMARY

Project: Eagle Valley N&E 2023

Pace Project No.: 50339736

Lab ID	Sample ID	Matrix	Date Collected	Date Received
50339736001	MW-25D (74-76)	Solid	03/15/23 11:50	03/15/23 15:25
50339736002	MW-25I (48-50)	Solid	03/15/23 12:04	03/15/23 15:25
50339736003	MW-25S (24-26)	Solid	03/15/23 12:20	03/15/23 15:25
50339736004	DUP-2	Solid	03/15/23 08:00	03/15/23 15:25

## REPORT OF LABORATORY ANALYSIS

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### SAMPLE ANALYTE COUNT

Project: Eagle Valley N&E 2023

Pace Project No.: 50339736

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
50339736001	MW-25D (74-76)	EPA 6010	MTM	5	PASI-I
		SM 2540G	QAK	1	PASI-I
		EPA 9045	BMS	1	PASI-I
		EPA 9060	TJJ	6	PASI-G
50339736002	MW-25I (48-50)	EPA 6010	MTM	5	PASI-I
		SM 2540G	QAK	1	PASI-I
		EPA 9045	BMS	1	PASI-I
		EPA 9060	TJJ	6	PASI-G
50339736003	MW-25S (24-26)	EPA 6010	MTM	5	PASI-I
		SM 2540G	QAK	1	PASI-I
		EPA 9045	BMS	1	PASI-I
		EPA 9060	TJJ	6	PASI-G
50339736004	DUP-2	EPA 6010	MTM	5	PASI-I
		SM 2540G	QAK	1	PASI-I
		EPA 9045	BMS	1	PASI-I
		EPA 9060	TJJ	6	PASI-G

PASI-G = Pace Analytical Services - Green Bay

PASI-I = Pace Analytical Services - Indianapolis

### REPORT OF LABORATORY ANALYSIS

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### SUMMARY OF DETECTION

Project: Eagle Valley N&E 2023

Pace Project No.: 50339736

Lab Sample ID	Client Sample ID	Result	Units	Report Limit	Analyzed	Qualifiers
Method	Parameters					
<b>50339736001</b>	<b>MW-25D (74-76)</b>					
EPA 6010	Arsenic	2.2	mg/kg	0.92	03/21/23 16:34	
EPA 6010	Iron	5020	mg/kg	46.2	03/21/23 16:34	
EPA 6010	Lithium	10.2	mg/kg	4.6	03/21/23 16:34	N2
EPA 6010	Manganese	267	mg/kg	0.92	03/21/23 16:34	
EPA 6010	Molybdenum	1.0	mg/kg	0.92	03/21/23 16:34	
SM 2540G	Percent Moisture	5.0	%	0.10	03/18/23 10:19	N2
EPA 9045	pH at 25 Degrees C	8.4	Std. Units	0.10	03/23/23 09:49	H3
EPA 9060	Total Organic Carbon	49900	mg/kg	2750	03/22/23 04:23	
EPA 9060	Total Organic Carbon	27200	mg/kg	2820	03/22/23 04:29	
EPA 9060	Total Organic Carbon	40400	mg/kg	2750	03/22/23 04:34	
EPA 9060	Total Organic Carbon	48500	mg/kg	2850	03/22/23 04:41	
EPA 9060	Mean Total Organic Carbon	41500	mg/kg	2790	03/22/23 04:23	
EPA 9060	RSD%	25.1	%		03/22/23 04:23	
<b>50339736002</b>	<b>MW-25I (48-50)</b>					
EPA 6010	Arsenic	2.5	mg/kg	0.95	03/21/23 16:37	
EPA 6010	Iron	6090	mg/kg	47.3	03/21/23 16:37	
EPA 6010	Lithium	8.0	mg/kg	4.7	03/21/23 16:37	N2
EPA 6010	Manganese	204	mg/kg	0.95	03/21/23 16:37	
SM 2540G	Percent Moisture	8.2	%	0.10	03/18/23 10:19	N2
EPA 9045	pH at 25 Degrees C	8.5	Std. Units	0.10	03/23/23 09:51	H3
EPA 9060	Total Organic Carbon	24800	mg/kg	2160	03/22/23 05:42	
EPA 9060	Total Organic Carbon	35700	mg/kg	2160	03/22/23 05:50	
EPA 9060	Total Organic Carbon	23100	mg/kg	2120	03/22/23 05:59	
EPA 9060	Total Organic Carbon	31700	mg/kg	2180	03/22/23 06:07	
EPA 9060	Mean Total Organic Carbon	28800	mg/kg	2150	03/22/23 05:42	
EPA 9060	RSD%	20.5	%		03/22/23 05:42	
<b>50339736003</b>	<b>MW-25S (24-26)</b>					
EPA 6010	Arsenic	2.2	mg/kg	1.0	03/21/23 16:41	
EPA 6010	Iron	4900	mg/kg	52.0	03/21/23 16:41	
EPA 6010	Lithium	10.9	mg/kg	5.2	03/21/23 16:41	N2
EPA 6010	Manganese	507	mg/kg	1.0	03/21/23 16:41	
SM 2540G	Percent Moisture	6.2	%	0.10	03/18/23 11:45	N2
EPA 9045	pH at 25 Degrees C	8.4	Std. Units	0.10	03/23/23 09:52	H3
EPA 9060	Total Organic Carbon	56500	mg/kg	1930	03/22/23 06:14	
EPA 9060	Total Organic Carbon	41400	mg/kg	1900	03/22/23 06:20	
EPA 9060	Total Organic Carbon	30600	mg/kg	1900	03/22/23 06:28	
EPA 9060	Total Organic Carbon	53800	mg/kg	1900	03/22/23 06:35	
EPA 9060	Mean Total Organic Carbon	45600	mg/kg	1910	03/22/23 06:14	
EPA 9060	RSD%	26.2	%		03/22/23 06:14	
<b>50339736004</b>	<b>DUP-2</b>					
EPA 6010	Arsenic	3.3	mg/kg	0.96	03/21/23 16:44	
EPA 6010	Iron	6510	mg/kg	47.9	03/21/23 16:44	
EPA 6010	Lithium	10.1	mg/kg	4.8	03/21/23 16:44	N2
EPA 6010	Manganese	571	mg/kg	0.96	03/21/23 16:44	
EPA 6010	Molybdenum	1.0	mg/kg	0.96	03/21/23 16:44	
SM 2540G	Percent Moisture	5.4	%	0.10	03/18/23 11:45	N2

### REPORT OF LABORATORY ANALYSIS

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### SUMMARY OF DETECTION

Project: Eagle Valley N&E 2023

Pace Project No.: 50339736

Lab Sample ID Method	Client Sample ID Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
<b>50339736004</b>	<b>DUP-2</b>					
EPA 9045	pH at 25 Degrees C	8.5	Std. Units	0.10	03/23/23 09:54	H3
EPA 9060	Total Organic Carbon	25100	mg/kg	2280	03/22/23 06:42	
EPA 9060	Total Organic Carbon	28800	mg/kg	2290	03/22/23 06:48	
EPA 9060	Total Organic Carbon	46800	mg/kg	2280	03/22/23 06:56	
EPA 9060	Total Organic Carbon	55000	mg/kg	2270	03/22/23 07:03	
EPA 9060	Mean Total Organic Carbon	38900	mg/kg	2280	03/22/23 06:42	
EPA 9060	RSD%	36.7	%		03/22/23 06:42	

### REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: Eagle Valley N&E 2023

Pace Project No.: 50339736

**Sample: MW-25D (74-76)**      **Lab ID: 50339736001**      Collected: 03/15/23 11:50      Received: 03/15/23 15:25      Matrix: Solid

*Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.*

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>6010 MET ICP</b>									
Analytical Method: EPA 6010    Preparation Method: EPA 3050									
Pace Analytical Services - Indianapolis									
Arsenic	<b>2.2</b>	mg/kg	0.92	0.16	1	03/16/23 17:47	03/21/23 16:34	7440-38-2	
Iron	<b>5020</b>	mg/kg	46.2	11.8	1	03/16/23 17:47	03/21/23 16:34	7439-89-6	
Lithium	<b>10.2</b>	mg/kg	4.6	0.19	1	03/16/23 17:47	03/21/23 16:34	7439-93-2	N2
Manganese	<b>267</b>	mg/kg	0.92	0.48	1	03/16/23 17:47	03/21/23 16:34	7439-96-5	
Molybdenum	<b>1.0</b>	mg/kg	0.92	0.069	1	03/16/23 17:47	03/21/23 16:34	7439-98-7	
<b>Percent Moisture</b>									
Analytical Method: SM 2540G									
Pace Analytical Services - Indianapolis									
Percent Moisture	<b>5.0</b>	%	0.10	0.10	1		03/18/23 10:19		N2
<b>9045 pH Soil</b>									
Analytical Method: EPA 9045									
Pace Analytical Services - Indianapolis									
pH at 25 Degrees C	<b>8.4</b>	Std. Units	0.10	0.10	1		03/23/23 09:49		H3
<b>Total Organic Carbon Quad</b>									
Analytical Method: EPA 9060									
Pace Analytical Services - Green Bay									
Total Organic Carbon	<b>49900</b>	mg/kg	2750	889	1		03/22/23 04:23	7440-44-0	
Total Organic Carbon	<b>27200</b>	mg/kg	2820	910	1		03/22/23 04:29	7440-44-0	
Total Organic Carbon	<b>40400</b>	mg/kg	2750	889	1		03/22/23 04:34	7440-44-0	
Total Organic Carbon	<b>48500</b>	mg/kg	2850	920	1		03/22/23 04:41	7440-44-0	
Mean Total Organic Carbon	<b>41500</b>	mg/kg	2790	902	1		03/22/23 04:23	7440-44-0	
<b>Surrogates</b>									
RSD%	<b>25.1</b>	%			1		03/22/23 04:23		

## REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: Eagle Valley N&E 2023

Pace Project No.: 50339736

**Sample: MW-25I (48-50)**      **Lab ID: 50339736002**      Collected: 03/15/23 12:04      Received: 03/15/23 15:25      Matrix: Solid

*Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.*

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>6010 MET ICP</b>									
Analytical Method: EPA 6010    Preparation Method: EPA 3050									
Pace Analytical Services - Indianapolis									
Arsenic	2.5	mg/kg	0.95	0.16	1	03/16/23 17:47	03/21/23 16:37	7440-38-2	
Iron	6090	mg/kg	47.3	12.1	1	03/16/23 17:47	03/21/23 16:37	7439-89-6	
Lithium	8.0	mg/kg	4.7	0.20	1	03/16/23 17:47	03/21/23 16:37	7439-93-2	N2
Manganese	204	mg/kg	0.95	0.49	1	03/16/23 17:47	03/21/23 16:37	7439-96-5	
Molybdenum	ND	mg/kg	0.95	0.071	1	03/16/23 17:47	03/21/23 16:37	7439-98-7	
<b>Percent Moisture</b>									
Analytical Method: SM 2540G									
Pace Analytical Services - Indianapolis									
Percent Moisture	8.2	%	0.10	0.10	1		03/18/23 10:19		N2
<b>9045 pH Soil</b>									
Analytical Method: EPA 9045									
Pace Analytical Services - Indianapolis									
pH at 25 Degrees C	8.5	Std. Units	0.10	0.10	1		03/23/23 09:51		H3
<b>Total Organic Carbon Quad</b>									
Analytical Method: EPA 9060									
Pace Analytical Services - Green Bay									
Total Organic Carbon	24800	mg/kg	2160	698	1		03/22/23 05:42	7440-44-0	
Total Organic Carbon	35700	mg/kg	2160	697	1		03/22/23 05:50	7440-44-0	
Total Organic Carbon	23100	mg/kg	2120	684	1		03/22/23 05:59	7440-44-0	
Total Organic Carbon	31700	mg/kg	2180	705	1		03/22/23 06:07	7440-44-0	
Mean Total Organic Carbon	28800	mg/kg	2150	696	1		03/22/23 05:42	7440-44-0	
<b>Surrogates</b>									
RSD%	20.5	%			1		03/22/23 05:42		

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## ANALYTICAL RESULTS

Project: Eagle Valley N&E 2023

Pace Project No.: 50339736

**Sample: MW-25S (24-26)**      **Lab ID: 50339736003**      Collected: 03/15/23 12:20      Received: 03/15/23 15:25      Matrix: Solid

*Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.*

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>6010 MET ICP</b>									
Analytical Method: EPA 6010    Preparation Method: EPA 3050									
Pace Analytical Services - Indianapolis									
Arsenic	<b>2.2</b>	mg/kg	1.0	0.18	1	03/16/23 17:47	03/21/23 16:41	7440-38-2	
Iron	<b>4900</b>	mg/kg	52.0	13.3	1	03/16/23 17:47	03/21/23 16:41	7439-89-6	
Lithium	<b>10.9</b>	mg/kg	5.2	0.22	1	03/16/23 17:47	03/21/23 16:41	7439-93-2	N2
Manganese	<b>507</b>	mg/kg	1.0	0.54	1	03/16/23 17:47	03/21/23 16:41	7439-96-5	
Molybdenum	ND	mg/kg	1.0	0.078	1	03/16/23 17:47	03/21/23 16:41	7439-98-7	
<b>Percent Moisture</b>									
Analytical Method: SM 2540G									
Pace Analytical Services - Indianapolis									
Percent Moisture	<b>6.2</b>	%	0.10	0.10	1		03/18/23 11:45		N2
<b>9045 pH Soil</b>									
Analytical Method: EPA 9045									
Pace Analytical Services - Indianapolis									
pH at 25 Degrees C	<b>8.4</b>	Std. Units	0.10	0.10	1		03/23/23 09:52		H3
<b>Total Organic Carbon Quad</b>									
Analytical Method: EPA 9060									
Pace Analytical Services - Green Bay									
Total Organic Carbon	<b>56500</b>	mg/kg	1930	625	1		03/22/23 06:14	7440-44-0	
Total Organic Carbon	<b>41400</b>	mg/kg	1900	613	1		03/22/23 06:20	7440-44-0	
Total Organic Carbon	<b>30600</b>	mg/kg	1900	616	1		03/22/23 06:28	7440-44-0	
Total Organic Carbon	<b>53800</b>	mg/kg	1900	614	1		03/22/23 06:35	7440-44-0	
Mean Total Organic Carbon	<b>45600</b>	mg/kg	1910	617	1		03/22/23 06:14	7440-44-0	
<b>Surrogates</b>									
RSD%	<b>26.2</b>	%			1		03/22/23 06:14		

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### ANALYTICAL RESULTS

Project: Eagle Valley N&E 2023

Pace Project No.: 50339736

**Sample: DUP-2**      **Lab ID: 50339736004**      Collected: 03/15/23 08:00      Received: 03/15/23 15:25      Matrix: Solid

*Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.*

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>6010 MET ICP</b>									
Analytical Method: EPA 6010    Preparation Method: EPA 3050									
Pace Analytical Services - Indianapolis									
Arsenic	<b>3.3</b>	mg/kg	0.96	0.16	1	03/16/23 17:47	03/21/23 16:44	7440-38-2	
Iron	<b>6510</b>	mg/kg	47.9	12.3	1	03/16/23 17:47	03/21/23 16:44	7439-89-6	
Lithium	<b>10.1</b>	mg/kg	4.8	0.20	1	03/16/23 17:47	03/21/23 16:44	7439-93-2	N2
Manganese	<b>571</b>	mg/kg	0.96	0.49	1	03/16/23 17:47	03/21/23 16:44	7439-96-5	
Molybdenum	<b>1.0</b>	mg/kg	0.96	0.072	1	03/16/23 17:47	03/21/23 16:44	7439-98-7	
<b>Percent Moisture</b>									
Analytical Method: SM 2540G									
Pace Analytical Services - Indianapolis									
Percent Moisture	<b>5.4</b>	%	0.10	0.10	1		03/18/23 11:45		N2
<b>9045 pH Soil</b>									
Analytical Method: EPA 9045									
Pace Analytical Services - Indianapolis									
pH at 25 Degrees C	<b>8.5</b>	Std. Units	0.10	0.10	1		03/23/23 09:54		H3
<b>Total Organic Carbon Quad</b>									
Analytical Method: EPA 9060									
Pace Analytical Services - Green Bay									
Total Organic Carbon	<b>25100</b>	mg/kg	2280	738	1		03/22/23 06:42	7440-44-0	
Total Organic Carbon	<b>28800</b>	mg/kg	2290	740	1		03/22/23 06:48	7440-44-0	
Total Organic Carbon	<b>46800</b>	mg/kg	2280	736	1		03/22/23 06:56	7440-44-0	
Total Organic Carbon	<b>55000</b>	mg/kg	2270	733	1		03/22/23 07:03	7440-44-0	
Mean Total Organic Carbon	<b>38900</b>	mg/kg	2280	737	1		03/22/23 06:42	7440-44-0	
<b>Surrogates</b>									
RSD%	<b>36.7</b>	%			1		03/22/23 06:42		

### REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL DATA

Project: Eagle Valley N&E 2023

Pace Project No.: 50339736

QC Batch:	722991	Analysis Method:	EPA 6010
QC Batch Method:	EPA 3050	Analysis Description:	6010 MET
		Laboratory:	Pace Analytical Services - Indianapolis

Associated Lab Samples: 50339736001, 50339736002, 50339736003, 50339736004

METHOD BLANK: 3317764 Matrix: Solid

Associated Lab Samples: 50339736001, 50339736002, 50339736003, 50339736004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Arsenic	mg/kg	ND	1.0	0.17	03/21/23 15:04	
Iron	mg/kg	ND	50.0	12.8	03/21/23 15:04	
Lithium	mg/kg	ND	5.0	0.21	03/21/23 15:04	N2
Manganese	mg/kg	ND	1.0	0.52	03/21/23 15:04	
Molybdenum	mg/kg	ND	1.0	0.075	03/21/23 15:04	

LABORATORY CONTROL SAMPLE: 3317765

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Arsenic	mg/kg	50	54.0	108	80-120	
Iron	mg/kg	500	564	113	80-120	
Lithium	mg/kg	50	56.0	112	80-120	N2
Manganese	mg/kg	50	52.0	104	80-120	
Molybdenum	mg/kg	50	55.6	111	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3317766 3317767

Parameter	Units	MS		MSD		MS		MSD		% Rec Limits	RPD	Max RPD	Qual
		50339125001 Result	Spike Conc.	Spike Conc.	Result	Result	% Rec	% Rec					
Arsenic	mg/kg	<6.8	345	370	381	412	109	110	110	75-125	8	20	
Iron	mg/kg	1300	3450	3700	5080	5260	110	107	107	75-125	3	20	
Lithium	mg/kg	<33.8	345	370	402	427	114	113	113	75-125	6	20	N2
Manganese	mg/kg	625	345	370	1000	1000	110	102	102	75-125	0	20	
Molybdenum	mg/kg	<6.8	345	370	378	407	109	109	109	75-125	7	20	

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### QUALITY CONTROL DATA

Project: Eagle Valley N&E 2023

Pace Project No.: 50339736

QC Batch: 723694

Analysis Method: SM 2540G

QC Batch Method: SM 2540G

Analysis Description: Dry Weight/Percent Moisture

Laboratory: Pace Analytical Services - Indianapolis

Associated Lab Samples: 50339736001, 50339736002

SAMPLE DUPLICATE: 3321351

Parameter	Units	50339736002 Result	Dup Result	RPD	Max RPD	Qualifiers
Percent Moisture	%	8.2	9.0	9	5	N2,R1

SAMPLE DUPLICATE: 3321361

Parameter	Units	50339736001 Result	Dup Result	RPD	Max RPD	Qualifiers
Percent Moisture	%	5.0	5.0	0	5	N2

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### QUALITY CONTROL DATA

Project: Eagle Valley N&E 2023

Pace Project No.: 50339736

QC Batch: 723695

Analysis Method: SM 2540G

QC Batch Method: SM 2540G

Analysis Description: Dry Weight/Percent Moisture

Laboratory: Pace Analytical Services - Indianapolis

Associated Lab Samples: 50339736003, 50339736004

SAMPLE DUPLICATE: 3321352

Parameter	Units	50339459001 Result	Dup Result	RPD	Max RPD	Qualifiers
Percent Moisture	%	16.1	15.6	3	5	N2

SAMPLE DUPLICATE: 3321353

Parameter	Units	50339744003 Result	Dup Result	RPD	Max RPD	Qualifiers
Percent Moisture	%	11.2	11.3	1	5	N2

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### QUALITY CONTROL DATA

Project: Eagle Valley N&E 2023

Pace Project No.: 50339736

QC Batch: 723821

Analysis Method: EPA 9045

QC Batch Method: EPA 9045

Analysis Description: 9045 pH

Laboratory: Pace Analytical Services - Indianapolis

Associated Lab Samples: 50339736001, 50339736002, 50339736003, 50339736004

SAMPLE DUPLICATE: 3321757

Parameter	Units	50339633001 Result	Dup Result	RPD	Max RPD	Qualifiers
pH at 25 Degrees C	Std. Units	8.8	8.9	0	2	H3

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### QUALITY CONTROL DATA

Project: Eagle Valley N&E 2023

Pace Project No.: 50339736

QC Batch:	440382	Analysis Method:	EPA 9060
QC Batch Method:	EPA 9060	Analysis Description:	9060 TOC Average
		Laboratory:	Pace Analytical Services - Green Bay

Associated Lab Samples: 50339736001, 50339736002, 50339736003, 50339736004

METHOD BLANK: 2529303 Matrix: Solid  
Associated Lab Samples: 50339736001, 50339736002, 50339736003, 50339736004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Mean Total Organic Carbon	mg/kg	ND	600	194	03/22/23 03:40	

LABORATORY CONTROL SAMPLE: 2529304

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mean Total Organic Carbon	mg/kg	120000	121000	101	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2529305 2529306

Parameter	Units	50339736001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Mean Total Organic Carbon	mg/kg	41500	28200	28400	60200	67100	66	90	50-152	11	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

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## QUALIFIERS

Project: Eagle Valley N&E 2023

Pace Project No.: 50339736

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### DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Reported results are not rounded until the final step prior to reporting. Therefore, calculated parameters that are typically reported as "Total" may vary slightly from the sum of the reported component parameters.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

### ANALYTE QUALIFIERS

H3 Sample was received or analysis requested beyond the recognized method holding time.

N2 The lab does not hold NELAC/TNI accreditation for this parameter but other accreditations/certifications may apply. A complete list of accreditations/certifications is available upon request.

R1 RPD value was outside control limits.

## REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Eagle Valley N&E 2023

Pace Project No.: 50339736

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
50339736001	MW-25D (74-76)	EPA 3050	722991	EPA 6010	724083
50339736002	MW-25I (48-50)	EPA 3050	722991	EPA 6010	724083
50339736003	MW-25S (24-26)	EPA 3050	722991	EPA 6010	724083
50339736004	DUP-2	EPA 3050	722991	EPA 6010	724083
50339736001	MW-25D (74-76)	SM 2540G	723694		
50339736002	MW-25I (48-50)	SM 2540G	723694		
50339736003	MW-25S (24-26)	SM 2540G	723695		
50339736004	DUP-2	SM 2540G	723695		
50339736001	MW-25D (74-76)	EPA 9045	723821		
50339736002	MW-25I (48-50)	EPA 9045	723821		
50339736003	MW-25S (24-26)	EPA 9045	723821		
50339736004	DUP-2	EPA 9045	723821		
50339736001	MW-25D (74-76)	EPA 9060	440382		
50339736001	MW-25D (74-76)	EPA 9060	440383		
50339736002	MW-25I (48-50)	EPA 9060	440382		
50339736002	MW-25I (48-50)	EPA 9060	440383		
50339736003	MW-25S (24-26)	EPA 9060	440382		
50339736003	MW-25S (24-26)	EPA 9060	440383		
50339736004	DUP-2	EPA 9060	440382		
50339736004	DUP-2	EPA 9060	440383		

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**SAMPLE CONDITION UPON RECEIPT FORM**

Date/Time and Initials of person examining contents: 3/15/23 15:35 TH

- 1. Courier:  FED EX  UPS  CLIENT  PACE  USPS  OTHER
- 2. Custody Seal on Cooler/Box Present:  Yes  No  
(If yes)Seals Intact:  Yes  No (leave blank if no seals were present)
- 3. Thermometer: 1 2 3 4 5 6 A B C D E F
- 4. Cooler Temperature(s): 1.0/1.0     
(Initial/Corrected) RECORD TEMPS OF ALL COOLERS RECEIVED (use Comments below to add more)

- 5. Packing Material:  Bubble Wrap  Bubble Bags  
 None  Other Plastic Bag
- 6. Ice Type:  Wet  Blue  None
- 7. If temp. is over 6°C or under 0°C, was the PM notified?:  Yes  No  
Cooler temp should be above freezing to 6°C

All discrepancies will be written out in the comments section below.

	Yes	No		Yes	No	N/A
USDA Regulated Soils? (HI, ID, NY, WA, OR, CA, NM, TX, OK, AR, LA, TN, AL, MS, NC, SC, GA, FL, or Puerto Rico)		<input checked="" type="checkbox"/>	All containers needing acid/base preservation have been pH CHECKED?: Exceptions: VOA, coliform, LLHg, O&G, RAD CHEM, and any container with a septum cap or preserved with HCl.			<input checked="" type="checkbox"/>
Short Hold Time Analysis (48 hours or less)? Analysis:		<input checked="" type="checkbox"/>	Circle: HNO3 (<2) H2SO4 (<2) NaOH (>10) NaOH/ZnAc (>9) Any non-conformance to pH recommendations will be noted on the container count form			<input checked="" type="checkbox"/>
Time 5035A TC placed in Freezer or Short Holds To Lab			Time:	Present	Absent	N/A
Rush TAT Requested (4 days or less):	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Residual Chlorine Check (SVOC 625 Pest/PCB 608)			<input checked="" type="checkbox"/>
Custody Signatures Present?	<input checked="" type="checkbox"/>		Residual Chlorine Check (Total/Amenable/Free Cyanide)			<input checked="" type="checkbox"/>
Containers Intact?:	<input checked="" type="checkbox"/>		Headspace Wisconsin Sulfide?			<input checked="" type="checkbox"/>
Sample Label (IDs/Dates/Times) Match COC?: Except TCs, which only require sample ID	<input checked="" type="checkbox"/>		Headspace in VOA Vials (>6mm): See Container Count form for details	Present	Absent	No VOA Vials Sent <input checked="" type="checkbox"/>
Extra labels on Terracore Vials? (soils only)			Trip Blank Present?			
			Trip Blank Custody Seals?:			<input checked="" type="checkbox"/>

COMMENTS:

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**March 2023**

April 17, 2023

Mr. Mark Breting  
ATC Group Services  
7988 Centerpoint Drive  
Suite 100  
Indianapolis, IN 46256

RE: Project: Eagle Valley N&E 2023  
Pace Project No.: 50340587

Dear Mr. Breting:

Enclosed are the analytical results for sample(s) received by the laboratory on March 28, 2023. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

The test results provided in this final report were generated by each of the following laboratories within the Pace Network:

- Pace Analytical Services - Indianapolis
- Pace Analytical Services - Greensburg

If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Will Statz  
will.statz@pacelabs.com  
(317)228-3105  
Project Manager

Enclosures

cc: Mr. Robert Miller, Haley & Aldrich



## REPORT OF LABORATORY ANALYSIS

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## CERTIFICATIONS

Project: Eagle Valley N&E 2023

Pace Project No.: 50340587

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### **Pace Analytical Services Pennsylvania**

1638 Roseytown Rd Suites 2,3&4, Greensburg, PA 15601

ANAB DOD-ELAP Rad Accreditation #: L2417

Alabama Certification #: 41590

Arizona Certification #: AZ0734

Arkansas Certification

California Certification #: 04222CA

Colorado Certification #: PA01547

Connecticut Certification #: PH-0694

Delaware Certification

EPA Region 4 DW Rad

Florida/TNI Certification #: E87683

Georgia Certification #: C040

Florida: Cert E871149 SEKS WET

Guam Certification

Hawaii Certification

Idaho Certification

Illinois Certification

Indiana Certification

Iowa Certification #: 391

Kansas/TNI Certification #: E-10358

Kentucky Certification #: KY90133

KY WW Permit #: KY0098221

KY WW Permit #: KY0000221

Louisiana DHH/TNI Certification #: LA180012

Louisiana DEQ/TNI Certification #: 4086

Maine Certification #: 2017020

Maryland Certification #: 308

Massachusetts Certification #: M-PA1457

Michigan/PADEP Certification #: 9991

Missouri Certification #: 235

Montana Certification #: Cert0082

Nebraska Certification #: NE-OS-29-14

Nevada Certification #: PA014572018-1

New Hampshire/TNI Certification #: 297617

New Jersey/TNI Certification #: PA051

New Mexico Certification #: PA01457

New York/TNI Certification #: 10888

North Carolina Certification #: 42706

North Dakota Certification #: R-190

Ohio EPA Rad Approval: #41249

Oregon/TNI Certification #: PA200002-010

Pennsylvania/TNI Certification #: 65-00282

Puerto Rico Certification #: PA01457

Rhode Island Certification #: 65-00282

South Dakota Certification

Tennessee Certification #: 02867

Texas/TNI Certification #: T104704188-17-3

Utah/TNI Certification #: PA014572017-9

USDA Soil Permit #: P330-17-00091

Vermont Dept. of Health: ID# VT-0282

Virgin Island/PADEP Certification

Virginia/VELAP Certification #: 460198

Washington Certification #: C868

West Virginia DEP Certification #: 143

West Virginia DHHR Certification #: 9964C

Wisconsin Approve List for Rad

Wyoming Certification #: 8TMS-L

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### **Pace Analytical Services Indianapolis**

7726 Moller Road, Indianapolis, IN 46268

Illinois Accreditation #: 200074

Indiana Drinking Water Laboratory #: C-49-06

Kansas/TNI Certification #: E-10177

Kentucky UST Agency Interest #: 80226

Kentucky WW Laboratory ID #: 98019

Michigan Drinking Water Laboratory #9050

Ohio VAP Certified Laboratory #: CL0065

Oklahoma Laboratory #: 9204

Texas Certification #: T104704355

Wisconsin Laboratory #: 999788130

USDA Foreign Soil Permit #: 525-23-13-23119

USDA Compliance Agreement #: IN-SL-22-001

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## REPORT OF LABORATORY ANALYSIS

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## SAMPLE SUMMARY

Project: Eagle Valley N&E 2023

Pace Project No.: 50340587

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Lab ID	Sample ID	Matrix	Date Collected	Date Received
50340587001	MW-26S	Water	03/27/23 14:15	03/28/23 07:50
50340587002	MW-26I	Water	03/27/23 13:10	03/28/23 07:50
50340587003	MW-26D	Water	03/27/23 12:00	03/28/23 07:50

## REPORT OF LABORATORY ANALYSIS

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### SAMPLE ANALYTE COUNT

Project: Eagle Valley N&E 2023

Pace Project No.: 50340587

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
50340587001	MW-26S	EPA 9056	ADM	3	PASI-I
		EPA 6010	FRW	9	PASI-I
		EPA 6010	RAM	2	PASI-I
		EPA 6020	CAW	10	PASI-I
		EPA 903.1	JDZ	1	PASI-PA
		EPA 904.0	ZPC	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
		SM 2320B	DAW	3	PASI-I
		SM 2540C	AEL	1	PASI-I
		SM 4500-CI G	BEP	1	PASI-I
		SM 4500-H+B	BMS	1	PASI-I
		SM 4500-S2-D	BEP	1	PASI-I
		EPA 353.2	OAS	2	PASI-I
		EPA 365.1	YAM	1	PASI-I
		SM 5310C	ATS	1	PASI-I
		SM 5310C	ATS	1	PASI-I
		50340587002	MW-26I	EPA 9056	ADM
EPA 6010	FRW			9	PASI-I
EPA 6010	RAM			2	PASI-I
EPA 6020	CAW			10	PASI-I
EPA 903.1	JDZ			1	PASI-PA
EPA 904.0	ZPC			1	PASI-PA
Total Radium Calculation	JAL			1	PASI-PA
SM 2320B	DAW			3	PASI-I
SM 2540C	AEL			1	PASI-I
SM 4500-CI G	BEP			1	PASI-I
SM 4500-H+B	BMS			1	PASI-I
SM 4500-S2-D	BEP			1	PASI-I
EPA 353.2	OAS			2	PASI-I
EPA 365.1	YAM			1	PASI-I
SM 5310C	ATS			1	PASI-I
SM 5310C	ATS			1	PASI-I
50340587003	MW-26D			EPA 9056	ADM
		EPA 6010	FRW	9	PASI-I
		EPA 6010	RAM	2	PASI-I
		EPA 6020	CAW	10	PASI-I
		EPA 903.1	JDZ	1	PASI-PA

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### SAMPLE ANALYTE COUNT

Project: Eagle Valley N&E 2023

Pace Project No.: 50340587

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
		EPA 904.0	ZPC	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
		SM 2320B	DAW	3	PASI-I
		SM 2540C	AEL	1	PASI-I
		SM 4500-CI G	BEP	1	PASI-I
		SM 4500-H+B	BMS	1	PASI-I
		SM 4500-S2-D	BEP	1	PASI-I
		EPA 353.2	OAS	2	PASI-I
		EPA 365.1	YAM	1	PASI-I
		SM 5310C	ATS	1	PASI-I
		SM 5310C	ATS	1	PASI-I

PASI-I = Pace Analytical Services - Indianapolis

PASI-PA = Pace Analytical Services - Greensburg

### REPORT OF LABORATORY ANALYSIS

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### SUMMARY OF DETECTION

Project: Eagle Valley N&E 2023

Pace Project No.: 50340587

Lab Sample ID	Client Sample ID	Result	Units	Report Limit	Analyzed	Qualifiers
Method	Parameters					
<b>50340587001</b>	<b>MW-26S</b>					
EPA 9056	Chloride	333	mg/L	25.0	03/30/23 20:28	
EPA 9056	Fluoride	0.19	mg/L	0.10	03/30/23 19:57	
EPA 9056	Sulfate	1090	mg/L	25.0	03/30/23 20:28	
EPA 6010	Aluminum	622	ug/L	200	03/31/23 17:40	
EPA 6010	Boron	3660	ug/L	100	03/31/23 17:40	
EPA 6010	Calcium	378000	ug/L	5000	03/31/23 17:58	
EPA 6010	Lithium	113	ug/L	20.0	03/31/23 17:40	
EPA 6010	Magnesium	83500	ug/L	1000	03/31/23 17:40	
EPA 6010	Manganese	2630	ug/L	10.0	03/31/23 17:40	
EPA 6010	Potassium	19300	ug/L	1000	03/31/23 17:40	
EPA 6010	Silica	18800	ug/L	450	03/31/23 17:40	N2
EPA 6010	Sodium	306000	ug/L	5000	03/31/23 17:58	
EPA 6010	Manganese, Dissolved	2800	ug/L	10.0	03/30/23 17:41	
EPA 6010	Molybdenum, Dissolved	119	ug/L	10.0	03/30/23 17:41	
EPA 6020	Arsenic	1.4	ug/L	1.0	03/30/23 18:26	
EPA 6020	Barium	57.4	ug/L	1.0	03/30/23 18:26	
EPA 6020	Cadmium	0.22	ug/L	0.20	03/30/23 18:26	
EPA 6020	Cobalt	3.7	ug/L	1.0	03/30/23 18:26	
EPA 6020	Molybdenum	117	ug/L	1.0	03/30/23 18:26	
EPA 903.1	Radium-226	0.526 ± 0.509 (0.789) C:NA T:93%	pCi/L		04/15/23 14:14	
EPA 904.0	Radium-228	0.987 ± 0.439 (0.745) C:79% T:93%	pCi/L		04/10/23 11:26	
Total Radium Calculation	Total Radium	1.51 ± 0.948 (1.53)	pCi/L		04/17/23 16:00	
SM 2320B	Alkalinity, Total as CaCO3	214	mg/L	10.0	03/29/23 01:34	
SM 2320B	Alkalinity, Bicarbonate (CaCO3)	214	mg/L	10.0	03/29/23 01:34	
SM 2540C	Total Dissolved Solids	2450	mg/L	40.0	03/30/23 08:52	
SM 4500-H+B	pH at 25 Degrees C	7.4	Std. Units	0.10	03/31/23 12:20	H3
<b>50340587002</b>	<b>MW-26I</b>					
EPA 9056	Chloride	123	mg/L	25.0	03/30/23 21:45	
EPA 9056	Fluoride	0.29	mg/L	0.10	03/30/23 21:14	
EPA 9056	Sulfate	210	mg/L	2.5	03/30/23 21:30	
EPA 6010	Aluminum	230	ug/L	200	03/31/23 17:45	
EPA 6010	Boron	438	ug/L	100	03/31/23 17:45	
EPA 6010	Calcium	108000	ug/L	1000	03/31/23 17:45	
EPA 6010	Magnesium	32300	ug/L	1000	03/31/23 17:45	
EPA 6010	Manganese	40.6	ug/L	10.0	03/31/23 17:45	
EPA 6010	Potassium	5200	ug/L	1000	03/31/23 17:45	
EPA 6010	Silica	12200	ug/L	450	03/31/23 17:45	N2
EPA 6010	Sodium	97300	ug/L	1000	03/31/23 17:45	
EPA 6010	Manganese, Dissolved	32.6	ug/L	10.0	03/30/23 17:46	
EPA 6010	Molybdenum, Dissolved	45.7	ug/L	10.0	03/30/23 17:46	

### REPORT OF LABORATORY ANALYSIS

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### SUMMARY OF DETECTION

Project: Eagle Valley N&E 2023

Pace Project No.: 50340587

Lab Sample ID	Client Sample ID	Result	Units	Report Limit	Analyzed	Qualifiers
Method	Parameters					
<b>50340587002</b>	<b>MW-26I</b>					
EPA 6020	Barium	94.4	ug/L	1.0	03/30/23 18:29	
EPA 6020	Molybdenum	45.4	ug/L	1.0	03/30/23 18:29	
EPA 903.1	Radium-226	-0.245 ± 0.538 (1.15) C:NA T:86%	pCi/L		04/15/23 14:14	
EPA 904.0	Radium-228	0.315 ± 0.381 (0.809) C:80% T:86%	pCi/L		04/10/23 11:26	
Total Radium Calculation	Total Radium	0.315 ± 0.919 (1.96)	pCi/L		04/17/23 16:00	
SM 2320B	Alkalinity, Total as CaCO3	204	mg/L	10.0	03/29/23 01:34	
SM 2320B	Alkalinity,Bicarbonate (CaCO3)	204	mg/L	10.0	03/29/23 01:34	
SM 2540C	Total Dissolved Solids	719	mg/L	10.0	03/30/23 08:52	
SM 4500-H+B	pH at 25 Degrees C	7.8	Std. Units	0.10	03/31/23 12:19	H3
EPA 353.2	Nitrogen, Nitrate	0.24	mg/L	0.10	03/29/23 10:07	
EPA 353.2	Nitrogen, Nitrite	0.13	mg/L	0.10	03/29/23 10:07	
SM 5310C	Total Organic Carbon	1.4	mg/L	1.0	03/30/23 17:25	
SM 5310C	Dissolved Organic Carbon	1.4	mg/L	1.0	03/30/23 22:52	
<b>50340587003</b>	<b>MW-26D</b>					
EPA 9056	Chloride	40.6	mg/L	2.5	03/30/23 22:16	
EPA 9056	Sulfate	38.0	mg/L	2.5	03/30/23 22:16	
EPA 6010	Aluminum	1030	ug/L	200	03/31/23 17:53	
EPA 6010	Boron	122	ug/L	100	03/31/23 17:53	
EPA 6010	Calcium	111000	ug/L	1000	03/31/23 17:53	
EPA 6010	Magnesium	29300	ug/L	1000	03/31/23 17:53	
EPA 6010	Manganese	76.3	ug/L	10.0	03/31/23 17:53	
EPA 6010	Potassium	3490	ug/L	1000	03/31/23 17:53	
EPA 6010	Silica	19300	ug/L	450	03/31/23 17:53	N2
EPA 6010	Sodium	38700	ug/L	1000	03/31/23 17:53	
EPA 6010	Manganese, Dissolved	55.6	ug/L	10.0	03/30/23 17:50	
EPA 6010	Molybdenum, Dissolved	28.7	ug/L	10.0	03/30/23 17:50	
EPA 6020	Barium	111	ug/L	1.0	03/30/23 18:32	
EPA 6020	Molybdenum	27.6	ug/L	1.0	03/30/23 18:32	
EPA 903.1	Radium-226	0.146 ± 0.515 (0.949) C:NA T:95%	pCi/L		04/15/23 14:14	
EPA 904.0	Radium-228	0.864 ± 0.399 (0.678) C:78% T:95%	pCi/L		04/10/23 11:26	
Total Radium Calculation	Total Radium	1.01 ± 0.914 (1.63)	pCi/L		04/17/23 16:00	
SM 2320B	Alkalinity, Total as CaCO3	351	mg/L	10.0	03/29/23 01:34	

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### SUMMARY OF DETECTION

Project: Eagle Valley N&E 2023

Pace Project No.: 50340587

Lab Sample ID Method	Client Sample ID Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
<b>50340587003</b>	<b>MW-26D</b>					
SM 2320B	Alkalinity,Bicarbonate (CaCO3)	351	mg/L	10.0	03/29/23 01:34	
SM 2540C	Total Dissolved Solids	486	mg/L	10.0	03/30/23 08:53	
SM 4500-H+B	pH at 25 Degrees C	7.6	Std. Units	0.10	03/31/23 12:18	H3
EPA 365.1	Phosphate as P04	0.21	mg/L	0.15	04/03/23 18:36	
SM 5310C	Total Organic Carbon	1.3	mg/L	1.0	03/30/23 18:08	
SM 5310C	Dissolved Organic Carbon	1.4	mg/L	1.0	03/30/23 23:03	

### REPORT OF LABORATORY ANALYSIS

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### ANALYTICAL RESULTS

Project: Eagle Valley N&E 2023

Pace Project No.: 50340587

Sample: MW-26S		Lab ID: 50340587001		Collected: 03/27/23 14:15		Received: 03/28/23 07:50		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>9056 IC Anions</b>		Analytical Method: EPA 9056 Pace Analytical Services - Indianapolis							
Chloride	333	mg/L	25.0	6.7	100		03/30/23 20:28	16887-00-6	
Fluoride	0.19	mg/L	0.10	0.017	1		03/30/23 19:57	16984-48-8	
Sulfate	1090	mg/L	25.0	8.5	100		03/30/23 20:28	14808-79-8	
<b>6010 MET ICP</b>		Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis							
Aluminum	622	ug/L	200	54.4	1	03/28/23 15:48	03/31/23 17:40	7429-90-5	
Boron	3660	ug/L	100	61.4	1	03/28/23 15:48	03/31/23 17:40	7440-42-8	
Calcium	378000	ug/L	5000	442	5	03/28/23 15:48	03/31/23 17:58	7440-70-2	
Lithium	113	ug/L	20.0	6.2	1	03/28/23 15:48	03/31/23 17:40	7439-93-2	
Magnesium	83500	ug/L	1000	43.0	1	03/28/23 15:48	03/31/23 17:40	7439-95-4	
Manganese	2630	ug/L	10.0	5.4	1	03/28/23 15:48	03/31/23 17:40	7439-96-5	
Potassium	19300	ug/L	1000	200	1	03/28/23 15:48	03/31/23 17:40	7440-09-7	
Silica	18800	ug/L	450		1	03/28/23 15:48	03/31/23 17:40	7631-86-9	N2
Sodium	306000	ug/L	5000	1420	5	03/28/23 15:48	03/31/23 17:58	7440-23-5	
<b>6010 MET ICP, Dissolved</b>		Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis							
Manganese, Dissolved	2800	ug/L	10.0	5.4	1	03/29/23 08:14	03/30/23 17:41	7439-96-5	
Molybdenum, Dissolved	119	ug/L	10.0	2.0	1	03/29/23 08:14	03/30/23 17:41	7439-98-7	
<b>6020 MET ICPMS</b>		Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis							
Antimony	ND	ug/L	1.0	0.036	1	03/30/23 07:40	03/30/23 18:26	7440-36-0	
Arsenic	1.4	ug/L	1.0	0.053	1	03/30/23 07:40	03/30/23 18:26	7440-38-2	
Barium	57.4	ug/L	1.0	0.051	1	03/30/23 07:40	03/30/23 18:26	7440-39-3	
Beryllium	ND	ug/L	0.20	0.028	1	03/30/23 07:40	03/30/23 18:26	7440-41-7	
Cadmium	0.22	ug/L	0.20	0.0090	1	03/30/23 07:40	03/30/23 18:26	7440-43-9	
Cobalt	3.7	ug/L	1.0	0.032	1	03/30/23 07:40	03/30/23 18:26	7440-48-4	
Lead	ND	ug/L	1.0	0.034	1	03/30/23 07:40	03/30/23 18:26	7439-92-1	
Molybdenum	117	ug/L	1.0	0.048	1	03/30/23 07:40	03/30/23 18:26	7439-98-7	
Selenium	ND	ug/L	1.0	0.23	1	03/30/23 07:40	03/30/23 18:26	7782-49-2	
Thallium	ND	ug/L	1.0	0.033	1	03/30/23 07:40	03/30/23 18:26	7440-28-0	
<b>2320B Alkalinity</b>		Analytical Method: SM 2320B Pace Analytical Services - Indianapolis							
Alkalinity, Total as CaCO3	214	mg/L	10.0	10.0	1		03/29/23 01:34		
Alkalinity,Bicarbonate (CaCO3)	214	mg/L	10.0	10.0	1		03/29/23 01:34		
Alkalinity,Carbonate (CaCO3)	ND	mg/L	10.0	10.0	1		03/29/23 01:34		
<b>2540C Total Dissolved Solids</b>		Analytical Method: SM 2540C Pace Analytical Services - Indianapolis							
Total Dissolved Solids	2450	mg/L	40.0	40.0	1		03/30/23 08:52		

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### ANALYTICAL RESULTS

Project: Eagle Valley N&E 2023

Pace Project No.: 50340587

Sample: MW-26S		Lab ID: 50340587001		Collected: 03/27/23 14:15		Received: 03/28/23 07:50		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>4500CL G Chlorine, Residual</b>		Analytical Method: SM 4500-Cl G Pace Analytical Services - Indianapolis							
Chlorine, Total Residual	ND	mg/L	0.10	0.034	1		03/30/23 16:29	7782-50-5	H3
<b>4500H+ pH, Electrometric</b>		Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis							
pH at 25 Degrees C	7.4	Std. Units	0.10	0.10	1		03/31/23 12:20		H3
<b>4500S2D Sulfide Water</b>		Analytical Method: SM 4500-S2-D Pace Analytical Services - Indianapolis							
Sulfide	ND	mg/L	0.10	0.025	1		03/30/23 14:08	18496-25-8	
<b>353.2 Nitrogen, NO2/NO3 unpres</b>		Analytical Method: EPA 353.2 Pace Analytical Services - Indianapolis							
Nitrogen, Nitrate	ND	mg/L	0.10	0.011	1		03/29/23 10:13	14797-55-8	
Nitrogen, Nitrite	ND	mg/L	0.10	0.0040	1		03/29/23 10:13	14797-65-0	
<b>365.1 Total Phosphorus</b>		Analytical Method: EPA 365.1 Preparation Method: EPA 365.1 Pace Analytical Services - Indianapolis							
Phosphate as P04	ND	mg/L	0.15	0.15	1	03/31/23 10:30	04/03/23 18:34		
<b>5310C TOC</b>		Analytical Method: SM 5310C Pace Analytical Services - Indianapolis							
Total Organic Carbon	ND	mg/L	4.0	0.94	4		03/31/23 11:58	7440-44-0	D3
<b>5310C Dissolved Organic Carbon</b>		Analytical Method: SM 5310C Pace Analytical Services - Indianapolis							
Dissolved Organic Carbon	ND	mg/L	4.0	0.94	4		03/31/23 12:23		D3

### REPORT OF LABORATORY ANALYSIS

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### ANALYTICAL RESULTS

Project: Eagle Valley N&E 2023

Pace Project No.: 50340587

Sample: MW-261		Lab ID: 50340587002		Collected: 03/27/23 13:10		Received: 03/28/23 07:50		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>9056 IC Anions</b>		Analytical Method: EPA 9056 Pace Analytical Services - Indianapolis							
Chloride	123	mg/L	25.0	6.7	100		03/30/23 21:45	16887-00-6	
Fluoride	0.29	mg/L	0.10	0.017	1		03/30/23 21:14	16984-48-8	
Sulfate	210	mg/L	2.5	0.85	10		03/30/23 21:30	14808-79-8	
<b>6010 MET ICP</b>		Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis							
Aluminum	230	ug/L	200	54.4	1	03/28/23 15:48	03/31/23 17:45	7429-90-5	
Boron	438	ug/L	100	61.4	1	03/28/23 15:48	03/31/23 17:45	7440-42-8	
Calcium	108000	ug/L	1000	88.4	1	03/28/23 15:48	03/31/23 17:45	7440-70-2	
Lithium	ND	ug/L	20.0	6.2	1	03/28/23 15:48	03/31/23 17:45	7439-93-2	
Magnesium	32300	ug/L	1000	43.0	1	03/28/23 15:48	03/31/23 17:45	7439-95-4	
Manganese	40.6	ug/L	10.0	5.4	1	03/28/23 15:48	03/31/23 17:45	7439-96-5	
Potassium	5200	ug/L	1000	200	1	03/28/23 15:48	03/31/23 17:45	7440-09-7	
Silica	12200	ug/L	450		1	03/28/23 15:48	03/31/23 17:45	7631-86-9	N2
Sodium	97300	ug/L	1000	284	1	03/28/23 15:48	03/31/23 17:45	7440-23-5	
<b>6010 MET ICP, Dissolved</b>		Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis							
Manganese, Dissolved	32.6	ug/L	10.0	5.4	1	03/29/23 08:14	03/30/23 17:46	7439-96-5	
Molybdenum, Dissolved	45.7	ug/L	10.0	2.0	1	03/29/23 08:14	03/30/23 17:46	7439-98-7	
<b>6020 MET ICPMS</b>		Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis							
Antimony	ND	ug/L	1.0	0.036	1	03/30/23 07:40	03/30/23 18:29	7440-36-0	
Arsenic	ND	ug/L	1.0	0.053	1	03/30/23 07:40	03/30/23 18:29	7440-38-2	
Barium	94.4	ug/L	1.0	0.051	1	03/30/23 07:40	03/30/23 18:29	7440-39-3	
Beryllium	ND	ug/L	0.20	0.028	1	03/30/23 07:40	03/30/23 18:29	7440-41-7	
Cadmium	ND	ug/L	0.20	0.0090	1	03/30/23 07:40	03/30/23 18:29	7440-43-9	
Cobalt	ND	ug/L	1.0	0.032	1	03/30/23 07:40	03/30/23 18:29	7440-48-4	
Lead	ND	ug/L	1.0	0.034	1	03/30/23 07:40	03/30/23 18:29	7439-92-1	
Molybdenum	45.4	ug/L	1.0	0.048	1	03/30/23 07:40	03/30/23 18:29	7439-98-7	
Selenium	ND	ug/L	1.0	0.23	1	03/30/23 07:40	03/30/23 18:29	7782-49-2	
Thallium	ND	ug/L	1.0	0.033	1	03/30/23 07:40	03/30/23 18:29	7440-28-0	
<b>2320B Alkalinity</b>		Analytical Method: SM 2320B Pace Analytical Services - Indianapolis							
Alkalinity, Total as CaCO3	204	mg/L	10.0	10.0	1		03/29/23 01:34		
Alkalinity,Bicarbonate (CaCO3)	204	mg/L	10.0	10.0	1		03/29/23 01:34		
Alkalinity,Carbonate (CaCO3)	ND	mg/L	10.0	10.0	1		03/29/23 01:34		
<b>2540C Total Dissolved Solids</b>		Analytical Method: SM 2540C Pace Analytical Services - Indianapolis							
Total Dissolved Solids	719	mg/L	10.0	10.0	1		03/30/23 08:52		

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## ANALYTICAL RESULTS

Project: Eagle Valley N&E 2023

Pace Project No.: 50340587

Sample: MW-26I		Lab ID: 50340587002		Collected: 03/27/23 13:10		Received: 03/28/23 07:50		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>4500CL G Chlorine, Residual</b>		Analytical Method: SM 4500-Cl G Pace Analytical Services - Indianapolis							
Chlorine, Total Residual	ND	mg/L	0.10	0.034	1		03/30/23 16:29	7782-50-5	H3
<b>4500H+ pH, Electrometric</b>		Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis							
pH at 25 Degrees C	7.8	Std. Units	0.10	0.10	1		03/31/23 12:19		H3
<b>4500S2D Sulfide Water</b>		Analytical Method: SM 4500-S2-D Pace Analytical Services - Indianapolis							
Sulfide	ND	mg/L	0.10	0.025	1		03/30/23 14:08	18496-25-8	
<b>353.2 Nitrogen, NO2/NO3 unpres</b>		Analytical Method: EPA 353.2 Pace Analytical Services - Indianapolis							
Nitrogen, Nitrate	0.24	mg/L	0.10	0.011	1		03/29/23 10:07	14797-55-8	
Nitrogen, Nitrite	0.13	mg/L	0.10	0.0040	1		03/29/23 10:07	14797-65-0	
<b>365.1 Total Phosphorus</b>		Analytical Method: EPA 365.1 Preparation Method: EPA 365.1 Pace Analytical Services - Indianapolis							
Phosphate as P04	ND	mg/L	0.15	0.15	1	03/31/23 10:30	04/03/23 18:35		
<b>5310C TOC</b>		Analytical Method: SM 5310C Pace Analytical Services - Indianapolis							
Total Organic Carbon	1.4	mg/L	1.0	0.24	1		03/30/23 17:25	7440-44-0	
<b>5310C Dissolved Organic Carbon</b>		Analytical Method: SM 5310C Pace Analytical Services - Indianapolis							
Dissolved Organic Carbon	1.4	mg/L	1.0	0.24	1		03/30/23 22:52		

## REPORT OF LABORATORY ANALYSIS

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### ANALYTICAL RESULTS

Project: Eagle Valley N&E 2023

Pace Project No.: 50340587

Sample: MW-26D		Lab ID: 50340587003		Collected: 03/27/23 12:00		Received: 03/28/23 07:50		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>9056 IC Anions</b>		Analytical Method: EPA 9056 Pace Analytical Services - Indianapolis							
Chloride	40.6	mg/L	2.5	0.67	10		03/30/23 22:16	16887-00-6	
Fluoride	ND	mg/L	0.10	0.017	1		03/30/23 22:01	16984-48-8	
Sulfate	38.0	mg/L	2.5	0.85	10		03/30/23 22:16	14808-79-8	
<b>6010 MET ICP</b>		Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis							
Aluminum	1030	ug/L	200	54.4	1	03/28/23 15:48	03/31/23 17:53	7429-90-5	
Boron	122	ug/L	100	61.4	1	03/28/23 15:48	03/31/23 17:53	7440-42-8	
Calcium	111000	ug/L	1000	88.4	1	03/28/23 15:48	03/31/23 17:53	7440-70-2	
Lithium	ND	ug/L	20.0	6.2	1	03/28/23 15:48	03/31/23 17:53	7439-93-2	
Magnesium	29300	ug/L	1000	43.0	1	03/28/23 15:48	03/31/23 17:53	7439-95-4	
Manganese	76.3	ug/L	10.0	5.4	1	03/28/23 15:48	03/31/23 17:53	7439-96-5	
Potassium	3490	ug/L	1000	200	1	03/28/23 15:48	03/31/23 17:53	7440-09-7	
Silica	19300	ug/L	450		1	03/28/23 15:48	03/31/23 17:53	7631-86-9	N2
Sodium	38700	ug/L	1000	284	1	03/28/23 15:48	03/31/23 17:53	7440-23-5	
<b>6010 MET ICP, Dissolved</b>		Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis							
Manganese, Dissolved	55.6	ug/L	10.0	5.4	1	03/29/23 08:14	03/30/23 17:50	7439-96-5	
Molybdenum, Dissolved	28.7	ug/L	10.0	2.0	1	03/29/23 08:14	03/30/23 17:50	7439-98-7	
<b>6020 MET ICPMS</b>		Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis							
Antimony	ND	ug/L	1.0	0.036	1	03/30/23 07:40	03/30/23 18:32	7440-36-0	
Arsenic	ND	ug/L	1.0	0.053	1	03/30/23 07:40	03/30/23 18:32	7440-38-2	
Barium	111	ug/L	1.0	0.051	1	03/30/23 07:40	03/30/23 18:32	7440-39-3	
Beryllium	ND	ug/L	0.20	0.028	1	03/30/23 07:40	03/30/23 18:32	7440-41-7	
Cadmium	ND	ug/L	0.20	0.0090	1	03/30/23 07:40	03/30/23 18:32	7440-43-9	
Cobalt	ND	ug/L	1.0	0.032	1	03/30/23 07:40	03/30/23 18:32	7440-48-4	
Lead	ND	ug/L	1.0	0.034	1	03/30/23 07:40	03/30/23 18:32	7439-92-1	
Molybdenum	27.6	ug/L	1.0	0.048	1	03/30/23 07:40	03/30/23 18:32	7439-98-7	
Selenium	ND	ug/L	1.0	0.23	1	03/30/23 07:40	03/30/23 18:32	7782-49-2	
Thallium	ND	ug/L	1.0	0.033	1	03/30/23 07:40	03/30/23 18:32	7440-28-0	
<b>2320B Alkalinity</b>		Analytical Method: SM 2320B Pace Analytical Services - Indianapolis							
Alkalinity, Total as CaCO3	351	mg/L	10.0	10.0	1		03/29/23 01:34		
Alkalinity,Bicarbonate (CaCO3)	351	mg/L	10.0	10.0	1		03/29/23 01:34		
Alkalinity,Carbonate (CaCO3)	ND	mg/L	10.0	10.0	1		03/29/23 01:34		
<b>2540C Total Dissolved Solids</b>		Analytical Method: SM 2540C Pace Analytical Services - Indianapolis							
Total Dissolved Solids	486	mg/L	10.0	10.0	1		03/30/23 08:53		

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### ANALYTICAL RESULTS

Project: Eagle Valley N&E 2023

Pace Project No.: 50340587

Sample: MW-26D		Lab ID: 50340587003		Collected: 03/27/23 12:00	Received: 03/28/23 07:50	Matrix: Water				
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual	
<b>4500CL G Chlorine, Residual</b>		Analytical Method: SM 4500-Cl G Pace Analytical Services - Indianapolis								
Chlorine, Total Residual	ND	mg/L	0.10	0.034	1		03/30/23 16:27	7782-50-5	H3	
<b>4500H+ pH, Electrometric</b>		Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis								
pH at 25 Degrees C	7.6	Std. Units	0.10	0.10	1		03/31/23 12:18		H3	
<b>4500S2D Sulfide Water</b>		Analytical Method: SM 4500-S2-D Pace Analytical Services - Indianapolis								
Sulfide	ND	mg/L	0.10	0.025	1		03/30/23 14:08	18496-25-8		
<b>353.2 Nitrogen, NO2/NO3 unpres</b>		Analytical Method: EPA 353.2 Pace Analytical Services - Indianapolis								
Nitrogen, Nitrate	ND	mg/L	0.10	0.011	1		03/29/23 10:03	14797-55-8		
Nitrogen, Nitrite	ND	mg/L	0.10	0.0040	1		03/29/23 10:03	14797-65-0		
<b>365.1 Total Phosphorus</b>		Analytical Method: EPA 365.1 Preparation Method: EPA 365.1 Pace Analytical Services - Indianapolis								
Phosphate as P04	0.21	mg/L	0.15	0.15	1	03/31/23 10:30	04/03/23 18:36			
<b>5310C TOC</b>		Analytical Method: SM 5310C Pace Analytical Services - Indianapolis								
Total Organic Carbon	1.3	mg/L	1.0	0.24	1		03/30/23 18:08	7440-44-0		
<b>5310C Dissolved Organic Carbon</b>		Analytical Method: SM 5310C Pace Analytical Services - Indianapolis								
Dissolved Organic Carbon	1.4	mg/L	1.0	0.24	1		03/30/23 23:03			

### REPORT OF LABORATORY ANALYSIS

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**QUALITY CONTROL DATA**

Project: Eagle Valley N&E 2023

Pace Project No.: 50340587

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QC Batch:	725100	Analysis Method:	EPA 9056
QC Batch Method:	EPA 9056	Analysis Description:	9056 IC Anions
		Laboratory:	Pace Analytical Services - Indianapolis

Associated Lab Samples: 50340587001, 50340587002, 50340587003

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METHOD BLANK: 3327144 Matrix: Water

Associated Lab Samples: 50340587001, 50340587002, 50340587003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chloride	mg/L	ND	0.25	0.067	03/29/23 17:37	
Fluoride	mg/L	ND	0.10	0.017	03/29/23 17:37	
Sulfate	mg/L	ND	0.25	0.085	03/29/23 17:37	

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LABORATORY CONTROL SAMPLE: 3327145

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	2.5	2.3	91	80-120	
Fluoride	mg/L	1	0.93	93	80-120	
Sulfate	mg/L	5	4.7	94	80-120	

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MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3327146 3327147

Parameter	Units	MS		MSD		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		50340510004 Result	Spike Conc.	Spike Conc.	Result								
Chloride	mg/L	17.6	12.5	12.5	28.9	29.3	90	93	80-120	1	15		
Fluoride	mg/L	0.096J	0.5	0.5	0.62	0.60	104	102	80-120	2	15		
Sulfate	mg/L	219	25	25	245	237	103	71	80-120	3	15	M0	

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**QUALITY CONTROL DATA**

Project: Eagle Valley N&E 2023  
Pace Project No.: 50340587

QC Batch: 725138 Analysis Method: EPA 6010  
QC Batch Method: EPA 3010 Analysis Description: 6010 MET  
Laboratory: Pace Analytical Services - Indianapolis  
Associated Lab Samples: 50340587001, 50340587002, 50340587003

METHOD BLANK: 3327341 Matrix: Water  
Associated Lab Samples: 50340587001, 50340587002, 50340587003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Aluminum	ug/L	ND	200	54.4	03/31/23 15:45	
Boron	ug/L	ND	100	61.4	03/31/23 15:45	
Calcium	ug/L	ND	1000	88.4	03/31/23 15:45	
Lithium	ug/L	ND	20.0	6.2	03/31/23 15:45	
Magnesium	ug/L	ND	1000	43.0	03/31/23 15:45	
Manganese	ug/L	ND	10.0	5.4	03/31/23 15:45	
Potassium	ug/L	ND	1000	200	03/31/23 15:45	
Silica	ug/L	ND	450		03/31/23 15:45	N2
Sodium	ug/L	ND	1000	284	03/31/23 15:45	

LABORATORY CONTROL SAMPLE: 3327342

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Aluminum	ug/L	10000	9440	94	80-120	
Boron	ug/L	1000	941	94	80-120	
Calcium	ug/L	10000	9660	97	80-120	
Lithium	ug/L	1000	954	95	80-120	
Magnesium	ug/L	10000	9340	93	80-120	
Manganese	ug/L	1000	922	92	80-120	
Potassium	ug/L	10000	9260	93	80-120	
Silica	ug/L	10700	10100	94	80-120	N2
Sodium	ug/L	10000	9780	98	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3327343 3327344

Parameter	Units	MS		MSD		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual	
		50340467003 Result	Spike Conc.	Spike Conc.	Result							Result
Aluminum	ug/L	ND	10000	10000	9770	10600	97	105	75-125	8	20	
Boron	ug/L	279	1000	1000	1200	1290	93	101	75-125	7	20	
Calcium	ug/L	91100	10000	10000	97700	103000	66	121	75-125	5	20	P6
Lithium	ug/L	ND	1000	1000	992	1070	98	106	75-125	8	20	
Magnesium	ug/L	23400	10000	10000	31700	33500	84	102	75-125	6	20	
Manganese	ug/L	120	1000	1000	1030	1100	91	98	75-125	7	20	
Potassium	ug/L	3050	10000	10000	12400	13400	94	104	75-125	8	20	
Silica	ug/L	13600	10700	10700	23500	25100	93	108	75-125	7	20	N2
Sodium	ug/L	70100	10000	10000	77700	82400	76	123	75-125	6	20	

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**QUALITY CONTROL DATA**

Project: Eagle Valley N&E 2023

Pace Project No.: 50340587

QC Batch:	725218	Analysis Method:	EPA 6010
QC Batch Method:	EPA 3010	Analysis Description:	6010 MET Dissolved
		Laboratory:	Pace Analytical Services - Indianapolis
Associated Lab Samples:	50340587001, 50340587002, 50340587003		

METHOD BLANK: 3327759 Matrix: Water  
Associated Lab Samples: 50340587001, 50340587002, 50340587003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Manganese, Dissolved	ug/L	ND	10.0	5.4	03/30/23 16:40	
Molybdenum, Dissolved	ug/L	ND	10.0	2.0	03/30/23 16:40	

LABORATORY CONTROL SAMPLE: 3327760

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Manganese, Dissolved	ug/L	1000	1050	105	80-120	
Molybdenum, Dissolved	ug/L	1000	1000	100	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3327761 3327762

Parameter	Units	50340467003 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Manganese, Dissolved	ug/L	125	1000	1000	1150	1160	103	103	75-125	0	20	
Molybdenum, Dissolved	ug/L	ND	1000	1000	1000	998	99	99	75-125	0	20	

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### QUALITY CONTROL DATA

Project: Eagle Valley N&E 2023

Pace Project No.: 50340587

QC Batch:	725246	Analysis Method:	EPA 6020
QC Batch Method:	EPA 200.2	Analysis Description:	6020 MET
		Laboratory:	Pace Analytical Services - Indianapolis

Associated Lab Samples: 50340587001, 50340587002, 50340587003

METHOD BLANK: 3327977 Matrix: Water

Associated Lab Samples: 50340587001, 50340587002, 50340587003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Antimony	ug/L	ND	1.0	0.036	03/30/23 17:38	
Arsenic	ug/L	ND	1.0	0.053	03/30/23 17:38	
Barium	ug/L	ND	1.0	0.051	03/30/23 17:38	
Beryllium	ug/L	ND	0.20	0.028	03/30/23 17:38	
Cadmium	ug/L	ND	0.20	0.0090	03/30/23 17:38	
Cobalt	ug/L	ND	1.0	0.032	03/30/23 17:38	
Lead	ug/L	ND	1.0	0.034	03/30/23 17:38	
Molybdenum	ug/L	ND	1.0	0.048	03/30/23 17:38	
Selenium	ug/L	ND	1.0	0.23	03/30/23 17:38	
Thallium	ug/L	ND	1.0	0.033	03/30/23 17:38	

LABORATORY CONTROL SAMPLE: 3327978

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Antimony	ug/L	40	41.2	103	80-120	
Arsenic	ug/L	40	37.1	93	80-120	
Barium	ug/L	40	40.5	101	80-120	
Beryllium	ug/L	40	38.5	96	80-120	
Cadmium	ug/L	40	38.5	96	80-120	
Cobalt	ug/L	40	39.8	99	80-120	
Lead	ug/L	40	40.3	101	80-120	
Molybdenum	ug/L	40	41.3	103	80-120	
Selenium	ug/L	40	39.4	98	80-120	
Thallium	ug/L	40	41.1	103	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3327979 3327980

Parameter	Units	MS		MSD		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual	
		50340312002 Result	Spike Conc.	Spike Conc.	Result							Result
Antimony	ug/L	ND	40	40	42.0	42.0	105	105	75-125	0	20	
Arsenic	ug/L	ND	40	40	40.1	39.7	93	92	75-125	1	20	
Barium	ug/L	46.3	40	40	89.7	89.7	108	108	75-125	0	20	
Beryllium	ug/L	ND	40	40	38.3	38.7	96	97	75-125	1	20	
Cadmium	ug/L	ND	40	40	37.9	38.1	95	95	75-125	0	20	
Cobalt	ug/L	ND	40	40	37.4	37.9	93	94	75-125	1	20	
Lead	ug/L	ND	40	40	40.9	40.8	102	102	75-125	0	20	
Molybdenum	ug/L	4.1	40	40	45.6	45.6	104	104	75-125	0	20	

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### QUALITY CONTROL DATA

Project: Eagle Valley N&E 2023

Pace Project No.: 50340587

Parameter	Units	50340312002		3327979		3327980		% Rec	% Rec	% Rec	Limits	RPD	Max RPD	Qual
		Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec							
Selenium	ug/L	ND	40	40	38.7	38.6	96	96	75-125	0	20			
Thallium	ug/L	ND	40	40	42.2	41.8	105	104	75-125	1	20			

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### QUALITY CONTROL DATA

Project: Eagle Valley N&E 2023

Pace Project No.: 50340587

QC Batch:	725226	Analysis Method:	SM 2320B
QC Batch Method:	SM 2320B	Analysis Description:	2320B Alkalinity
		Laboratory:	Pace Analytical Services - Indianapolis

Associated Lab Samples: 50340587001, 50340587002, 50340587003

METHOD BLANK: 3327865 Matrix: Water

Associated Lab Samples: 50340587001, 50340587002, 50340587003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Alkalinity, Total as CaCO3	mg/L	ND	10.0	10.0	03/29/23 01:34	
Alkalinity,Bicarbonate (CaCO3)	mg/L	ND	10.0	10.0	03/29/23 01:34	
Alkalinity,Carbonate (CaCO3)	mg/L	ND	10.0	10.0	03/29/23 01:34	

LABORATORY CONTROL SAMPLE: 3327866

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Alkalinity, Total as CaCO3	mg/L	50	49.0	98	90-110	

SAMPLE DUPLICATE: 3327871

Parameter	Units	50340634015 Result	Dup Result	RPD	Max RPD	Qualifiers
Alkalinity, Total as CaCO3	mg/L	ND	ND		20	
Alkalinity,Bicarbonate (CaCO3)	mg/L	ND	ND		20	
Alkalinity,Carbonate (CaCO3)	mg/L	ND	ND		20	

SAMPLE DUPLICATE: 3327936

Parameter	Units	50340634003 Result	Dup Result	RPD	Max RPD	Qualifiers
Alkalinity, Total as CaCO3	mg/L	234	232	1	20	
Alkalinity,Bicarbonate (CaCO3)	mg/L	234	232	1	20	
Alkalinity,Carbonate (CaCO3)	mg/L	ND	ND		20	

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**QUALITY CONTROL DATA**

Project: Eagle Valley N&E 2023

Pace Project No.: 50340587

QC Batch:	725461	Analysis Method:	SM 2540C
QC Batch Method:	SM 2540C	Analysis Description:	2540C Total Dissolved Solids
		Laboratory:	Pace Analytical Services - Indianapolis
Associated Lab Samples:	50340587001, 50340587002, 50340587003		

METHOD BLANK: 3329189 Matrix: Water

Associated Lab Samples: 50340587001, 50340587002, 50340587003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	ND	10.0	10.0	03/30/23 08:46	

LABORATORY CONTROL SAMPLE: 3329190

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	300	307	102	80-120	

SAMPLE DUPLICATE: 3329191

Parameter	Units	50340510004 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	806	796	1	10	

SAMPLE DUPLICATE: 3329192

Parameter	Units	50340520001 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	2870	2930	2	10	

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### QUALITY CONTROL DATA

Project: Eagle Valley N&E 2023

Pace Project No.: 50340587

QC Batch: 725577	Analysis Method: SM 4500-Cl G
QC Batch Method: SM 4500-Cl G	Analysis Description: 4500CL G Chlorine, Total Residual
	Laboratory: Pace Analytical Services - Indianapolis

Associated Lab Samples: 50340587001, 50340587002, 50340587003

METHOD BLANK: 3329626 Matrix: Water

Associated Lab Samples: 50340587001, 50340587002, 50340587003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chlorine, Total Residual	mg/L	ND	0.10	0.034	03/30/23 16:26	H3

LABORATORY CONTROL SAMPLE: 3329627

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chlorine, Total Residual	mg/L	1	1.1	109	90-110	H3

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3329628 3329629

Parameter	Units	50340587003		3329629		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual	
		MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result							
Chlorine, Total Residual	mg/L	ND	1	1	1.1	1.2	113	115	90-110	1	20	H3,M3

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### QUALITY CONTROL DATA

Project: Eagle Valley N&E 2023

Pace Project No.: 50340587

QC Batch:	725730	Analysis Method:	SM 4500-H+B
QC Batch Method:	SM 4500-H+B	Analysis Description:	4500H+B pH
		Laboratory:	Pace Analytical Services - Indianapolis

Associated Lab Samples: 50340587001, 50340587002, 50340587003

SAMPLE DUPLICATE: 3330555

Parameter	Units	50340088001 Result	Dup Result	RPD	Max RPD	Qualifiers
pH at 25 Degrees C	Std. Units	7.4	7.4	0	2	H3

SAMPLE DUPLICATE: 3330556

Parameter	Units	50340105003 Result	Dup Result	RPD	Max RPD	Qualifiers
pH at 25 Degrees C	Std. Units	7.8	7.8	0	2	H3

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### QUALITY CONTROL DATA

Project: Eagle Valley N&E 2023

Pace Project No.: 50340587

QC Batch:	725548	Analysis Method:	SM 4500-S2-D
QC Batch Method:	SM 4500-S2-D	Analysis Description:	4500S2D Sulfide Water
		Laboratory:	Pace Analytical Services - Indianapolis

Associated Lab Samples: 50340587001, 50340587002, 50340587003

METHOD BLANK: 3329516 Matrix: Water

Associated Lab Samples: 50340587001, 50340587002, 50340587003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Sulfide	mg/L	ND	0.10	0.025	03/30/23 14:08	

LABORATORY CONTROL SAMPLE: 3329517

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Sulfide	mg/L	0.5	0.55	109	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3329518 3329519

Parameter	Units	50340467003		50340467003		50340467003		% Rec Limits	RPD	Max RPD	Qual
		MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec				
Sulfide	mg/L	ND	0.5	0.5	0.57	0.57	114	115	90-110	1	20 M3

MATRIX SPIKE SAMPLE: 3329520

Parameter	Units	50340587001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Sulfide	mg/L	ND	0.5	0.37	74	90-110	M0

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### QUALITY CONTROL DATA

Project: Eagle Valley N&E 2023

Pace Project No.: 50340587

QC Batch:	725259	Analysis Method:	EPA 353.2
QC Batch Method:	EPA 353.2	Analysis Description:	353.2 Nitrate + Nitrite, Unpres.
		Laboratory:	Pace Analytical Services - Indianapolis
Associated Lab Samples:	50340587001, 50340587002, 50340587003		

METHOD BLANK: 3328013 Matrix: Water  
Associated Lab Samples: 50340587001, 50340587002, 50340587003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Nitrogen, Nitrate	mg/L	ND	0.10	0.011	03/29/23 09:56	
Nitrogen, Nitrite	mg/L	ND	0.10	0.0040	03/29/23 09:56	

LABORATORY CONTROL SAMPLE: 3328014

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Nitrogen, Nitrate	mg/L	1	1.0	101	90-110	
Nitrogen, Nitrite	mg/L	1	1.1	106	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3328015 3328016

Parameter	Units	50340634026 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Nitrogen, Nitrate	mg/L	20100	10000	10000	30500	30200	104	101	90-110	1	20	
Nitrogen, Nitrite	mg/L	ND	10000	10000	10200	10200	102	101	90-110	0	20	

MATRIX SPIKE SAMPLE: 3328017

Parameter	Units	50340634009 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Nitrogen, Nitrate	mg/L	23300	10000	33700	104	90-110	
Nitrogen, Nitrite	mg/L	ND	10000	10500	105	90-110	

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### QUALITY CONTROL DATA

Project: Eagle Valley N&E 2023

Pace Project No.: 50340587

QC Batch:	725721	Analysis Method:	EPA 365.1
QC Batch Method:	EPA 365.1	Analysis Description:	365.1 Total Phosphorus
		Laboratory:	Pace Analytical Services - Indianapolis

Associated Lab Samples: 50340587001, 50340587002, 50340587003

METHOD BLANK: 3330521 Matrix: Water

Associated Lab Samples: 50340587001, 50340587002, 50340587003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Phosphate as P04	mg/L	ND	0.15	0.15	04/03/23 18:33	

LABORATORY CONTROL SAMPLE: 3330522

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Phosphate as P04	mg/L		1.5			

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3330523 3330524

Parameter	Units	50340587002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Phosphate as P04	mg/L	ND			1.5	1.6					6	

MATRIX SPIKE SAMPLE: 3330525

Parameter	Units	50340826010 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Phosphate as P04	mg/L		0.62		1.9		

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### QUALITY CONTROL DATA

Project: Eagle Valley N&E 2023

Pace Project No.: 50340587

QC Batch:	725540	Analysis Method:	SM 5310C
QC Batch Method:	SM 5310C	Analysis Description:	5310C Total Organic Carbon
		Laboratory:	Pace Analytical Services - Indianapolis

Associated Lab Samples: 50340587001, 50340587002, 50340587003

METHOD BLANK: 3329482 Matrix: Water

Associated Lab Samples: 50340587001, 50340587002, 50340587003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Organic Carbon	mg/L	ND	1.0	0.24	03/30/23 15:41	

LABORATORY CONTROL SAMPLE: 3329483

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Organic Carbon	mg/L	10	10.2	102	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3329484 3329485

Parameter	Units	50340587001		50340587002		50340587003		% Rec Limits	RPD	Max RPD	Qual
		MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec				
Total Organic Carbon	mg/L	ND	10	10	12.0	12.1	96	97	80-120	1	20

MATRIX SPIKE SAMPLE: 3329486

Parameter	Units	50340587002 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Total Organic Carbon	mg/L	1.4	10	11.4	99	80-120	

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### QUALITY CONTROL DATA

Project: Eagle Valley N&E 2023

Pace Project No.: 50340587

QC Batch:	725541	Analysis Method:	SM 5310C
QC Batch Method:	SM 5310C	Analysis Description:	5310C Dissolved Organic Carbon
		Laboratory:	Pace Analytical Services - Indianapolis

Associated Lab Samples: 50340587001, 50340587002, 50340587003

METHOD BLANK: 3329489 Matrix: Water

Associated Lab Samples: 50340587001, 50340587002, 50340587003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Dissolved Organic Carbon	mg/L	ND	1.0	0.24	03/30/23 21:26	

LABORATORY CONTROL SAMPLE: 3329490

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Dissolved Organic Carbon	mg/L	10	10.0	100	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3329491 3329492

Parameter	Units	50340587001		3329492		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual	
		MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result							
Dissolved Organic Carbon	mg/L	ND	10	10	12.4	12.5	97	98	80-120	0	20	

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Eagle Valley N&E 2023

Pace Project No.: 50340587

**Sample: MW-26S**      **Lab ID: 50340587001**      Collected: 03/27/23 14:15      Received: 03/28/23 07:50      Matrix: Water  
PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	<b>0.526 ± 0.509 (0.789)</b> <b>C:NA T:93%</b>	pCi/L	04/15/23 14:14	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	<b>0.987 ± 0.439 (0.745)</b> <b>C:79% T:93%</b>	pCi/L	04/10/23 11:26	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	<b>1.51 ± 0.948 (1.53)</b>	pCi/L	04/17/23 16:00	7440-14-4	

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Eagle Valley N&E 2023

Pace Project No.: 50340587

**Sample: MW-26I**      **Lab ID: 50340587002**      Collected: 03/27/23 13:10      Received: 03/28/23 07:50      Matrix: Water  
PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	<b>-0.245 ± 0.538 (1.15)</b> <b>C:NA T:86%</b>	pCi/L	04/15/23 14:14	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	<b>0.315 ± 0.381 (0.809)</b> <b>C:80% T:86%</b>	pCi/L	04/10/23 11:26	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	<b>0.315 ± 0.919 (1.96)</b>	pCi/L	04/17/23 16:00	7440-14-4	

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Eagle Valley N&E 2023

Pace Project No.: 50340587

**Sample: MW-26D**      **Lab ID: 50340587003**      Collected: 03/27/23 12:00      Received: 03/28/23 07:50      Matrix: Water  
PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	<b>0.146 ± 0.515 (0.949)</b> <b>C:NA T:95%</b>	pCi/L	04/15/23 14:14	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	<b>0.864 ± 0.399 (0.678)</b> <b>C:78% T:95%</b>	pCi/L	04/10/23 11:26	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	<b>1.01 ± 0.914 (1.63)</b>	pCi/L	04/17/23 16:00	7440-14-4	

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### QUALITY CONTROL - RADIOCHEMISTRY

Project: Eagle Valley N&E 2023

Pace Project No.: 50340587

QC Batch: 577950

Analysis Method: EPA 904.0

QC Batch Method: EPA 904.0

Analysis Description: 904.0 Radium 228

Laboratory: Pace Analytical Services - Greensburg

Associated Lab Samples: 50340587001, 50340587002, 50340587003

METHOD BLANK: 2806234

Matrix: Water

Associated Lab Samples: 50340587001, 50340587002, 50340587003

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.231 ± 0.332 (0.713) C:77% T:84%	pCi/L	04/10/23 11:25	

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### QUALITY CONTROL - RADIOCHEMISTRY

Project: Eagle Valley N&E 2023

Pace Project No.: 50340587

QC Batch: 577949

Analysis Method: EPA 903.1

QC Batch Method: EPA 903.1

Analysis Description: 903.1 Radium-226

Laboratory: Pace Analytical Services - Greensburg

Associated Lab Samples: 50340587001, 50340587002, 50340587003

METHOD BLANK: 2806233

Matrix: Water

Associated Lab Samples: 50340587001, 50340587002, 50340587003

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.0555 ± 0.253 (0.515) C:NA T:84%	pCi/L	04/15/23 14:14	

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## QUALIFIERS

Project: Eagle Valley N&E 2023

Pace Project No.: 50340587

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### DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Reported results are not rounded until the final step prior to reporting. Therefore, calculated parameters that are typically reported as "Total" may vary slightly from the sum of the reported component parameters.

Act - Activity

Unc - Uncertainty: SDWA = 1.96 sigma count uncertainty, all other matrices = Expanded Uncertainty (95% confidence interval).

Gamma Spec = Expanded Uncertainty (95.4% Confidence Interval)

(MDC) - Minimum Detectable Concentration

Trac - Tracer Recovery (%)

Carr - Carrier Recovery (%)

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

### ANALYTE QUALIFIERS

D3 Sample was diluted due to the presence of high levels of non-target analytes or other matrix interference.

H3 Sample was received or analysis requested beyond the recognized method holding time.

M0 Matrix spike recovery and/or matrix spike duplicate recovery was outside laboratory control limits.

M3 Matrix spike recovery was outside laboratory control limits due to matrix interferences.

N2 The lab does not hold NELAC/TNI accreditation for this parameter but other accreditations/certifications may apply. A complete list of accreditations/certifications is available upon request.

P6 Matrix spike recovery was outside laboratory control limits due to a parent sample concentration notably higher than the spike level.

## REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Eagle Valley N&E 2023

Pace Project No.: 50340587

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
50340587001	MW-26S	EPA 9056	725100		
50340587002	MW-26I	EPA 9056	725100		
50340587003	MW-26D	EPA 9056	725100		
50340587001	MW-26S	EPA 3010	725138	EPA 6010	725825
50340587002	MW-26I	EPA 3010	725138	EPA 6010	725825
50340587003	MW-26D	EPA 3010	725138	EPA 6010	725825
50340587001	MW-26S	EPA 3010	725218	EPA 6010	725579
50340587002	MW-26I	EPA 3010	725218	EPA 6010	725579
50340587003	MW-26D	EPA 3010	725218	EPA 6010	725579
50340587001	MW-26S	EPA 200.2	725246	EPA 6020	725528
50340587002	MW-26I	EPA 200.2	725246	EPA 6020	725528
50340587003	MW-26D	EPA 200.2	725246	EPA 6020	725528
50340587001	MW-26S	EPA 903.1	577949		
50340587002	MW-26I	EPA 903.1	577949		
50340587003	MW-26D	EPA 903.1	577949		
50340587001	MW-26S	EPA 904.0	577950		
50340587002	MW-26I	EPA 904.0	577950		
50340587003	MW-26D	EPA 904.0	577950		
50340587001	MW-26S	Total Radium Calculation	581519		
50340587002	MW-26I	Total Radium Calculation	581519		
50340587003	MW-26D	Total Radium Calculation	581519		
50340587001	MW-26S	SM 2320B	725226		
50340587002	MW-26I	SM 2320B	725226		
50340587003	MW-26D	SM 2320B	725226		
50340587001	MW-26S	SM 2540C	725461		
50340587002	MW-26I	SM 2540C	725461		
50340587003	MW-26D	SM 2540C	725461		
50340587001	MW-26S	SM 4500-CI G	725577		
50340587002	MW-26I	SM 4500-CI G	725577		
50340587003	MW-26D	SM 4500-CI G	725577		
50340587001	MW-26S	SM 4500-H+B	725730		
50340587002	MW-26I	SM 4500-H+B	725730		
50340587003	MW-26D	SM 4500-H+B	725730		
50340587001	MW-26S	SM 4500-S2-D	725548		
50340587002	MW-26I	SM 4500-S2-D	725548		
50340587003	MW-26D	SM 4500-S2-D	725548		
50340587001	MW-26S	EPA 353.2	725259		
50340587002	MW-26I	EPA 353.2	725259		
50340587003	MW-26D	EPA 353.2	725259		
50340587001	MW-26S	EPA 365.1	725721	EPA 365.1	726290
50340587002	MW-26I	EPA 365.1	725721	EPA 365.1	726290
50340587003	MW-26D	EPA 365.1	725721	EPA 365.1	726290

### REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Eagle Valley N&E 2023

Pace Project No.: 50340587

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
50340587001	MW-26S	SM 5310C	725540		
50340587002	MW-26I	SM 5310C	725540		
50340587003	MW-26D	SM 5310C	725540		
50340587001	MW-26S	SM 5310C	725541		
50340587002	MW-26I	SM 5310C	725541		
50340587003	MW-26D	SM 5310C	725541		

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**SAMPLE CONDITION UPON RECEIPT FORM**

Date/Time and Initials of person examining contents: MCS 3128123 IOIS

1. Courier:  FED EX  UPS  CLIENT  PACE  USPS  OTHER

2. Custody Seal on Cooler/Box Present:  Yes  No

(If yes)Seals Intact:  Yes  No (leave blank if no seals were present)

3. Thermometer: **1 2 3 4 5 6 A B C D E F**

4. Cooler Temperature(s): 1.0/1.0

(Initial/Corrected) RECORD TEMPS OF ALL COOLERS RECEIVED (use Comments below to add more)

5. Packing Material:  Bubble Wrap  Bubble Bags  
 None  Other \_\_\_\_\_

6. Ice Type:  Wet  Blue  None

7. If temp. is over 6°C or under 0°C, was the PM notified?:  Yes  No  
 Cooler temp should be above freezing to 6°C

All discrepancies will be written out in the comments section below.

	Yes	No		Yes	No	N/A
USDA Regulated Soils? (HI, ID, NY, WA, OR, CA, NM, TX, OK, AR, LA, TN, AL, MS, NC, SC, GA, FL, or Puerto Rico)		/	All containers needing acid/base preservation have been pH CHECKED?: Exceptions: VOA, coliform, LLHg, O&G, RAD CHEM, and any container with a septum cap or preserved with HCl.			
Short Hold Time Analysis (48 hours or less)? Analysis: <u>NO2/NO3</u>	/		Circle: HNO3 (<2) H2SO4 (<2) NaOH (>10) NaOH/ZnAc (>9) Any non-conformance to pH recommendations will be noted on the container count form	✓		
Time 5035A TC placed in Freezer or Short Holds To Lab Time: <u>10:50</u>			Residual Chlorine Check (SVOC 625 Pest/PCB 608)	Present	Absent	N/A
Rush TAT Requested (4 days or less):		/	Residual Chlorine Check (Total/Amenable/Free Cyanide)			/
Custody Signatures Present?	/		Headspace Wisconsin Sulfide?			/
Containers Intact?:	/		Headspace in VOA Vials (>6mm): See Container Count form for details	Present	Absent	No VOA Vials Sent
Sample Label (IDs/Dates/Times) Match COC?: Except TCs, which only require sample ID	/		Trip Blank Present?		/	
Extra labels on Terracore Vials? (soils only)			Trip Blank Custody Seals?:			/

COMMENTS:  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_



April 17, 2023

Mr. Mark Breting  
ATC Group Services  
7988 Centerpoint Drive  
Suite 100  
Indianapolis, IN 46256

RE: Project: Eagle Valley N&E 2023  
Pace Project No.: 50340680

Dear Mr. Breting:

Enclosed are the analytical results for sample(s) received by the laboratory on March 29, 2023. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

The test results provided in this final report were generated by each of the following laboratories within the Pace Network:

- Pace Analytical Services - Indianapolis
- Pace Analytical Services - Greensburg

If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Will Statz  
will.statz@pacelabs.com  
(317)228-3105  
Project Manager

Enclosures

cc: Mr. Robert Miller, Haley & Aldrich



## REPORT OF LABORATORY ANALYSIS

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## CERTIFICATIONS

Project: Eagle Valley N&E 2023  
Pace Project No.: 50340680

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### **Pace Analytical Services Pennsylvania**

1638 Roseytown Rd Suites 2,3&4, Greensburg, PA 15601  
ANAB DOD-ELAP Rad Accreditation #: L2417  
Alabama Certification #: 41590  
Arizona Certification #: AZ0734  
Arkansas Certification  
California Certification #: 04222CA  
Colorado Certification #: PA01547  
Connecticut Certification #: PH-0694  
Delaware Certification  
EPA Region 4 DW Rad  
Florida/TNI Certification #: E87683  
Georgia Certification #: C040  
Florida: Cert E871149 SEKS WET  
Guam Certification  
Hawaii Certification  
Idaho Certification  
Illinois Certification  
Indiana Certification  
Iowa Certification #: 391  
Kansas/TNI Certification #: E-10358  
Kentucky Certification #: KY90133  
KY WW Permit #: KY0098221  
KY WW Permit #: KY0000221  
Louisiana DHH/TNI Certification #: LA180012  
Louisiana DEQ/TNI Certification #: 4086  
Maine Certification #: 2017020  
Maryland Certification #: 308  
Massachusetts Certification #: M-PA1457  
Michigan/PADEP Certification #: 9991

Missouri Certification #: 235  
Montana Certification #: Cert0082  
Nebraska Certification #: NE-OS-29-14  
Nevada Certification #: PA014572018-1  
New Hampshire/TNI Certification #: 297617  
New Jersey/TNI Certification #: PA051  
New Mexico Certification #: PA01457  
New York/TNI Certification #: 10888  
North Carolina Certification #: 42706  
North Dakota Certification #: R-190  
Ohio EPA Rad Approval: #41249  
Oregon/TNI Certification #: PA200002-010  
Pennsylvania/TNI Certification #: 65-00282  
Puerto Rico Certification #: PA01457  
Rhode Island Certification #: 65-00282  
South Dakota Certification  
Tennessee Certification #: 02867  
Texas/TNI Certification #: T104704188-17-3  
Utah/TNI Certification #: PA014572017-9  
USDA Soil Permit #: P330-17-00091  
Vermont Dept. of Health: ID# VT-0282  
Virgin Island/PADEP Certification  
Virginia/VELAP Certification #: 460198  
Washington Certification #: C868  
West Virginia DEP Certification #: 143  
West Virginia DHHR Certification #: 9964C  
Wisconsin Approve List for Rad  
Wyoming Certification #: 8TMS-L

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### **Pace Analytical Services Indianapolis**

7726 Moller Road, Indianapolis, IN 46268  
Illinois Accreditation #: 200074  
Indiana Drinking Water Laboratory #: C-49-06  
Kansas/TNI Certification #: E-10177  
Kentucky UST Agency Interest #: 80226  
Kentucky WW Laboratory ID #: 98019  
Michigan Drinking Water Laboratory #9050

Ohio VAP Certified Laboratory #: CL0065  
Oklahoma Laboratory #: 9204  
Texas Certification #: T104704355  
Wisconsin Laboratory #: 999788130  
USDA Foreign Soil Permit #: 525-23-13-23119  
USDA Compliance Agreement #: IN-SL-22-001

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## REPORT OF LABORATORY ANALYSIS

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## SAMPLE SUMMARY

Project: Eagle Valley N&E 2023

Pace Project No.: 50340680

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Lab ID	Sample ID	Matrix	Date Collected	Date Received
50340680001	MW-24S	Water	03/28/23 13:40	03/29/23 08:00
50340680002	MW-24I	Water	03/28/23 12:40	03/29/23 08:00
50340680003	MW-24D	Water	03/28/23 11:35	03/29/23 08:00

## REPORT OF LABORATORY ANALYSIS

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### SAMPLE ANALYTE COUNT

Project: Eagle Valley N&E 2023

Pace Project No.: 50340680

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory		
50340680001	MW-24S	EPA 9056	ADM	3	PASI-I		
		EPA 6010	JPK	9	PASI-I		
		EPA 6010	FRW	2	PASI-I		
		EPA 6020	DMT	10	PASI-I		
		EPA 903.1	JDZ	1	PASI-PA		
		EPA 904.0	ZPC	1	PASI-PA		
		Total Radium Calculation	JAL	1	PASI-PA		
		SM 2320B	DAW	3	PASI-I		
		SM 2540C	TRK	1	PASI-I		
		SM 4500-CI G	BEP	1	PASI-I		
		SM 4500-H+B	BMS	1	PASI-I		
		SM 4500-S2-D	BEP	1	PASI-I		
		EPA 353.2	OAS	2	PASI-I		
		EPA 365.1	YAM	1	PASI-I		
		SM 5310C	ATS	1	PASI-I		
		SM 5310C	ATS	1	PASI-I		
		50340680002	MW-24I	EPA 9056	ADM	3	PASI-I
				EPA 6010	JPK	9	PASI-I
EPA 6010	FRW			2	PASI-I		
EPA 6020	DMT			10	PASI-I		
EPA 903.1	JDZ			1	PASI-PA		
EPA 904.0	ZPC			1	PASI-PA		
Total Radium Calculation	JAL			1	PASI-PA		
SM 2320B	DAW			3	PASI-I		
SM 2540C	TRK			1	PASI-I		
SM 4500-CI G	BEP			1	PASI-I		
SM 4500-H+B	BMS			1	PASI-I		
SM 4500-S2-D	BEP			1	PASI-I		
EPA 353.2	OAS			2	PASI-I		
EPA 365.1	YAM			1	PASI-I		
SM 5310C	ATS			1	PASI-I		
SM 5310C	ATS			1	PASI-I		
50340680003	MW-24D			EPA 9056	ADM	3	PASI-I
				EPA 6010	JPK	9	PASI-I
		EPA 6010	FRW	2	PASI-I		
		EPA 6020	DMT	10	PASI-I		
		EPA 903.1	JDZ	1	PASI-PA		

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### SAMPLE ANALYTE COUNT

Project: Eagle Valley N&E 2023

Pace Project No.: 50340680

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
		EPA 904.0	ZPC	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
		SM 2320B	DAW	3	PASI-I
		SM 2540C	TRK	1	PASI-I
		SM 4500-CI G	BEP	1	PASI-I
		SM 4500-H+B	BMS	1	PASI-I
		SM 4500-S2-D	BEP	1	PASI-I
		EPA 353.2	OAS	2	PASI-I
		EPA 365.1	YAM	1	PASI-I
		SM 5310C	ATS	1	PASI-I
		SM 5310C	ATS	1	PASI-I

PASI-I = Pace Analytical Services - Indianapolis

PASI-PA = Pace Analytical Services - Greensburg

### REPORT OF LABORATORY ANALYSIS

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### SUMMARY OF DETECTION

Project: Eagle Valley N&E 2023

Pace Project No.: 50340680

Lab Sample ID	Client Sample ID	Result	Units	Report Limit	Analyzed	Qualifiers
Method	Parameters					
<b>50340680001</b>	<b>MW-24S</b>					
EPA 9056	Chloride	110	mg/L	2.5	04/04/23 17:45	
EPA 9056	Fluoride	0.41	mg/L	0.10	03/31/23 22:12	
EPA 9056	Sulfate	80.2	mg/L	2.5	04/04/23 17:45	
EPA 6010	Aluminum	686	ug/L	200	04/02/23 00:19	
EPA 6010	Boron	122	ug/L	100	04/02/23 00:19	
EPA 6010	Calcium	63800	ug/L	1000	04/02/23 00:19	
EPA 6010	Magnesium	19400	ug/L	1000	04/02/23 00:19	
EPA 6010	Manganese	101	ug/L	10.0	04/02/23 00:19	
EPA 6010	Potassium	4320	ug/L	1000	04/02/23 00:19	
EPA 6010	Silica	11600	ug/L	450	04/02/23 00:19	N2
EPA 6010	Sodium	94900	ug/L	1000	04/02/23 00:19	
EPA 6010	Manganese, Dissolved	80.7	ug/L	10.0	04/03/23 16:06	
EPA 6010	Molybdenum, Dissolved	72.0	ug/L	10.0	04/03/23 16:06	
EPA 6020	Arsenic	1.1	ug/L	1.0	04/03/23 03:59	
EPA 6020	Barium	69.8	ug/L	1.0	04/03/23 03:59	
EPA 6020	Molybdenum	67.9	ug/L	1.0	04/03/23 03:59	
EPA 6020	Selenium	1.4	ug/L	1.0	04/03/23 03:59	
EPA 903.1	Radium-226	0.454 ± 0.389 (0.527)	pCi/L		04/15/23 14:14	
EPA 904.0	Radium-228	C:NA T:89% 0.685 ± 0.424 (0.805)	pCi/L		04/10/23 11:25	
		C:77% T:89%				
Total Radium Calculation	Total Radium	1.14 ± 0.813 (1.33)	pCi/L		04/17/23 16:00	
SM 2320B	Alkalinity, Total as CaCO3	217	mg/L	10.0	03/29/23 22:42	
SM 2320B	Alkalinity,Bicarbonate (CaCO3)	217	mg/L	10.0	03/29/23 22:42	
SM 2540C	Total Dissolved Solids	508	mg/L	10.0	03/31/23 15:26	
SM 4500-H+B	pH at 25 Degrees C	8.1	Std. Units	0.10	03/31/23 12:23	H3
EPA 353.2	Nitrogen, Nitrate	1.9	mg/L	0.10	03/29/23 12:59	
SM 5310C	Total Organic Carbon	1.4	mg/L	1.0	03/30/23 18:19	
SM 5310C	Dissolved Organic Carbon	1.5	mg/L	1.0	03/30/23 23:14	
<b>50340680002</b>	<b>MW-24I</b>					
EPA 9056	Chloride	120	mg/L	2.5	03/31/23 22:43	
EPA 9056	Fluoride	0.31	mg/L	0.10	03/31/23 22:28	
EPA 9056	Sulfate	90.6	mg/L	2.5	03/31/23 22:43	
EPA 6010	Aluminum	611	ug/L	200	04/02/23 00:23	
EPA 6010	Boron	130	ug/L	100	04/02/23 00:23	
EPA 6010	Calcium	80600	ug/L	1000	04/02/23 00:23	
EPA 6010	Magnesium	25400	ug/L	1000	04/02/23 00:23	
EPA 6010	Manganese	210	ug/L	10.0	04/02/23 00:23	
EPA 6010	Potassium	7280	ug/L	1000	04/02/23 00:23	
EPA 6010	Silica	14100	ug/L	450	04/02/23 00:23	N2
EPA 6010	Sodium	76700	ug/L	1000	04/02/23 00:23	
EPA 6010	Manganese, Dissolved	207	ug/L	10.0	04/03/23 16:11	

### REPORT OF LABORATORY ANALYSIS

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### SUMMARY OF DETECTION

Project: Eagle Valley N&E 2023

Pace Project No.: 50340680

Lab Sample ID	Client Sample ID	Result	Units	Report Limit	Analyzed	Qualifiers
Method	Parameters					
<b>50340680002</b>	<b>MW-24I</b>					
EPA 6010	Molybdenum, Dissolved	61.2	ug/L	10.0	04/03/23 16:11	
EPA 6020	Arsenic	2.7	ug/L	1.0	04/03/23 04:02	
EPA 6020	Barium	92.0	ug/L	1.0	04/03/23 04:02	
EPA 6020	Molybdenum	59.9	ug/L	1.0	04/03/23 04:02	
EPA 903.1	Radium-226	0.485 ± 0.479 (0.729)	pCi/L		04/15/23 14:14	
EPA 904.0	Radium-228	C:NA T:87% 0.765 ± 0.391 (0.690)	pCi/L		04/10/23 11:25	
		C:81% T:87%				
Total Radium Calculation	Total Radium	1.25 ± 0.870 (1.42)	pCi/L		04/17/23 16:00	
SM 2320B	Alkalinity, Total as CaCO3	240	mg/L	10.0	03/29/23 22:42	
SM 2320B	Alkalinity,Bicarbonate (CaCO3)	240	mg/L	10.0	03/29/23 22:42	
SM 2540C	Total Dissolved Solids	546	mg/L	10.0	03/31/23 15:27	
SM 4500-H+B	pH at 25 Degrees C	7.9	Std. Units	0.10	03/31/23 12:22	H3
SM 4500-S2-D	Sulfide	0.061J	mg/L	0.10	03/30/23 14:08	
EPA 353.2	Nitrogen, Nitrate	0.31	mg/L	0.10	03/29/23 13:01	
SM 5310C	Total Organic Carbon	1.6	mg/L	1.0	03/30/23 18:30	
SM 5310C	Dissolved Organic Carbon	1.5	mg/L	1.0	03/30/23 23:26	
<b>50340680003</b>	<b>MW-24D</b>					
EPA 9056	Chloride	65.4	mg/L	2.5	03/31/23 23:30	
EPA 9056	Fluoride	0.30	mg/L	0.10	03/31/23 23:14	
EPA 9056	Sulfate	56.6	mg/L	2.5	03/31/23 23:30	
EPA 6010	Aluminum	2620	ug/L	200	04/02/23 00:27	
EPA 6010	Calcium	64600	ug/L	1000	04/02/23 00:27	
EPA 6010	Lithium	20.8	ug/L	20.0	04/02/23 00:27	
EPA 6010	Magnesium	21000	ug/L	1000	04/02/23 00:27	
EPA 6010	Manganese	162	ug/L	10.0	04/02/23 00:27	
EPA 6010	Potassium	5450	ug/L	1000	04/02/23 00:27	
EPA 6010	Silica	18900	ug/L	450	04/02/23 00:27	N2
EPA 6010	Sodium	56900	ug/L	1000	04/02/23 00:27	
EPA 6010	Manganese, Dissolved	131	ug/L	10.0	04/03/23 16:24	
EPA 6010	Molybdenum, Dissolved	16.2	ug/L	10.0	04/03/23 16:24	
EPA 6020	Arsenic	2.2	ug/L	1.0	04/03/23 04:05	
EPA 6020	Barium	65.5	ug/L	1.0	04/03/23 04:05	
EPA 6020	Cobalt	1.2	ug/L	1.0	04/03/23 04:05	
EPA 6020	Lead	1.4	ug/L	1.0	04/03/23 04:05	
EPA 6020	Molybdenum	14.9	ug/L	1.0	04/03/23 04:05	
EPA 903.1	Radium-226	0.667 ± 0.509 (0.724)	pCi/L		04/15/23 14:14	
		C:NA T:91%				

### REPORT OF LABORATORY ANALYSIS

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### SUMMARY OF DETECTION

Project: Eagle Valley N&E 2023

Pace Project No.: 50340680

Lab Sample ID Method	Client Sample ID Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
<b>50340680003</b>	<b>MW-24D</b>					
EPA 904.0	Radium-228	0.696 ± 0.386 (0.707) C:82% T:91%	pCi/L		04/10/23 11:25	
Total Radium Calculation	Total Radium	1.36 ± 0.895 (1.43)	pCi/L		04/17/23 16:00	
SM 2320B	Alkalinity, Total as CaCO <sub>3</sub>	227	mg/L	10.0	03/29/23 22:42	
SM 2320B	Alkalinity, Bicarbonate (CaCO <sub>3</sub> )	227	mg/L	10.0	03/29/23 22:42	
SM 2540C	Total Dissolved Solids	403	mg/L	10.0	03/31/23 15:27	
SM 4500-H+B	pH at 25 Degrees C	8.1	Std. Units	0.10	04/01/23 12:33	H3
SM 4500-S2-D	Sulfide	0.027J	mg/L	0.10	03/30/23 14:08	
SM 5310C	Dissolved Organic Carbon	1.6	mg/L	1.0	03/30/23 23:37	

### REPORT OF LABORATORY ANALYSIS

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### ANALYTICAL RESULTS

Project: Eagle Valley N&E 2023

Pace Project No.: 50340680

Sample: MW-24S		Lab ID: 50340680001		Collected: 03/28/23 13:40		Received: 03/29/23 08:00		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>9056 IC Anions</b>		Analytical Method: EPA 9056 Pace Analytical Services - Indianapolis							
Chloride	110	mg/L	2.5	0.67	10		04/04/23 17:45	16887-00-6	
Fluoride	0.41	mg/L	0.10	0.017	1		03/31/23 22:12	16984-48-8	
Sulfate	80.2	mg/L	2.5	0.85	10		04/04/23 17:45	14808-79-8	
<b>6010 MET ICP</b>		Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis							
Aluminum	686	ug/L	200	55.4	1	04/01/23 08:04	04/02/23 00:19	7429-90-5	
Boron	122	ug/L	100	37.6	1	04/01/23 08:04	04/02/23 00:19	7440-42-8	
Calcium	63800	ug/L	1000	163	1	04/01/23 08:04	04/02/23 00:19	7440-70-2	
Lithium	ND	ug/L	20.0	6.2	1	04/01/23 08:04	04/02/23 00:19	7439-93-2	
Magnesium	19400	ug/L	1000	71.8	1	04/01/23 08:04	04/02/23 00:19	7439-95-4	
Manganese	101	ug/L	10.0	2.5	1	04/01/23 08:04	04/02/23 00:19	7439-96-5	
Potassium	4320	ug/L	1000	281	1	04/01/23 08:04	04/02/23 00:19	7440-09-7	
Silica	11600	ug/L	450		1	04/01/23 08:04	04/02/23 00:19	7631-86-9	N2
Sodium	94900	ug/L	1000	214	1	04/01/23 08:04	04/02/23 00:19	7440-23-5	
<b>6010 MET ICP, Dissolved</b>		Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis							
Manganese, Dissolved	80.7	ug/L	10.0	5.4	1	03/31/23 16:45	04/03/23 16:06	7439-96-5	
Molybdenum, Dissolved	72.0	ug/L	10.0	2.0	1	03/31/23 16:45	04/03/23 16:06	7439-98-7	
<b>6020 MET ICPMS</b>		Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis							
Antimony	ND	ug/L	1.0	0.080	1	04/01/23 07:15	04/03/23 03:59	7440-36-0	
Arsenic	1.1	ug/L	1.0	0.12	1	04/01/23 07:15	04/03/23 03:59	7440-38-2	
Barium	69.8	ug/L	1.0	0.065	1	04/01/23 07:15	04/03/23 03:59	7440-39-3	
Beryllium	ND	ug/L	0.20	0.026	1	04/01/23 07:15	04/03/23 03:59	7440-41-7	
Cadmium	ND	ug/L	0.20	0.016	1	04/01/23 07:15	04/03/23 03:59	7440-43-9	
Cobalt	ND	ug/L	1.0	0.071	1	04/01/23 07:15	04/03/23 03:59	7440-48-4	
Lead	ND	ug/L	1.0	0.068	1	04/01/23 07:15	04/03/23 03:59	7439-92-1	
Molybdenum	67.9	ug/L	1.0	0.074	1	04/01/23 07:15	04/03/23 03:59	7439-98-7	
Selenium	1.4	ug/L	1.0	0.19	1	04/01/23 07:15	04/03/23 03:59	7782-49-2	
Thallium	ND	ug/L	1.0	0.060	1	04/01/23 07:15	04/03/23 03:59	7440-28-0	
<b>2320B Alkalinity</b>		Analytical Method: SM 2320B Pace Analytical Services - Indianapolis							
Alkalinity, Total as CaCO3	217	mg/L	10.0	10.0	1		03/29/23 22:42		
Alkalinity,Bicarbonate (CaCO3)	217	mg/L	10.0	10.0	1		03/29/23 22:42		
Alkalinity,Carbonate (CaCO3)	ND	mg/L	10.0	10.0	1		03/29/23 22:42		
<b>2540C Total Dissolved Solids</b>		Analytical Method: SM 2540C Pace Analytical Services - Indianapolis							
Total Dissolved Solids	508	mg/L	10.0	10.0	1		03/31/23 15:26		

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### ANALYTICAL RESULTS

Project: Eagle Valley N&E 2023

Pace Project No.: 50340680

Sample: MW-24S		Lab ID: 50340680001		Collected: 03/28/23 13:40		Received: 03/29/23 08:00		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>4500CL G Chlorine, Residual</b>		Analytical Method: SM 4500-Cl G Pace Analytical Services - Indianapolis							
Chlorine, Total Residual	ND	mg/L	0.10	0.034	1		03/30/23 16:29	7782-50-5	H3
<b>4500H+ pH, Electrometric</b>		Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis							
pH at 25 Degrees C	8.1	Std. Units	0.10	0.10	1		03/31/23 12:23		H3
<b>4500S2D Sulfide Water</b>		Analytical Method: SM 4500-S2-D Pace Analytical Services - Indianapolis							
Sulfide	ND	mg/L	0.10	0.025	1		03/30/23 14:08	18496-25-8	
<b>353.2 Nitrogen, NO2/NO3 unpres</b>		Analytical Method: EPA 353.2 Pace Analytical Services - Indianapolis							
Nitrogen, Nitrate	1.9	mg/L	0.10	0.011	1		03/29/23 12:59	14797-55-8	
Nitrogen, Nitrite	ND	mg/L	0.10	0.0040	1		03/29/23 12:59	14797-65-0	
<b>365.1 Total Phosphorus</b>		Analytical Method: EPA 365.1 Preparation Method: EPA 365.1 Pace Analytical Services - Indianapolis							
Phosphate as P04	ND	mg/L	0.15	0.15	1	03/31/23 10:30	04/03/23 18:38		
<b>5310C TOC</b>		Analytical Method: SM 5310C Pace Analytical Services - Indianapolis							
Total Organic Carbon	1.4	mg/L	1.0	0.24	1		03/30/23 18:19	7440-44-0	
<b>5310C Dissolved Organic Carbon</b>		Analytical Method: SM 5310C Pace Analytical Services - Indianapolis							
Dissolved Organic Carbon	1.5	mg/L	1.0	0.24	1		03/30/23 23:14		

### REPORT OF LABORATORY ANALYSIS

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### ANALYTICAL RESULTS

Project: Eagle Valley N&E 2023

Pace Project No.: 50340680

Sample: MW-241		Lab ID: 50340680002		Collected: 03/28/23 12:40		Received: 03/29/23 08:00		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>9056 IC Anions</b>		Analytical Method: EPA 9056 Pace Analytical Services - Indianapolis							
Chloride	120	mg/L	2.5	0.67	10		03/31/23 22:43	16887-00-6	
Fluoride	0.31	mg/L	0.10	0.017	1		03/31/23 22:28	16984-48-8	
Sulfate	90.6	mg/L	2.5	0.85	10		03/31/23 22:43	14808-79-8	
<b>6010 MET ICP</b>		Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis							
Aluminum	611	ug/L	200	55.4	1	04/01/23 08:04	04/02/23 00:23	7429-90-5	
Boron	130	ug/L	100	37.6	1	04/01/23 08:04	04/02/23 00:23	7440-42-8	
Calcium	80600	ug/L	1000	163	1	04/01/23 08:04	04/02/23 00:23	7440-70-2	
Lithium	ND	ug/L	20.0	6.2	1	04/01/23 08:04	04/02/23 00:23	7439-93-2	
Magnesium	25400	ug/L	1000	71.8	1	04/01/23 08:04	04/02/23 00:23	7439-95-4	
Manganese	210	ug/L	10.0	2.5	1	04/01/23 08:04	04/02/23 00:23	7439-96-5	
Potassium	7280	ug/L	1000	281	1	04/01/23 08:04	04/02/23 00:23	7440-09-7	
Silica	14100	ug/L	450		1	04/01/23 08:04	04/02/23 00:23	7631-86-9	N2
Sodium	76700	ug/L	1000	214	1	04/01/23 08:04	04/02/23 00:23	7440-23-5	
<b>6010 MET ICP, Dissolved</b>		Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis							
Manganese, Dissolved	207	ug/L	10.0	5.4	1	03/31/23 16:45	04/03/23 16:11	7439-96-5	
Molybdenum, Dissolved	61.2	ug/L	10.0	2.0	1	03/31/23 16:45	04/03/23 16:11	7439-98-7	
<b>6020 MET ICPMS</b>		Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis							
Antimony	ND	ug/L	1.0	0.080	1	04/01/23 07:15	04/03/23 04:02	7440-36-0	
Arsenic	2.7	ug/L	1.0	0.12	1	04/01/23 07:15	04/03/23 04:02	7440-38-2	
Barium	92.0	ug/L	1.0	0.065	1	04/01/23 07:15	04/03/23 04:02	7440-39-3	
Beryllium	ND	ug/L	0.20	0.026	1	04/01/23 07:15	04/03/23 04:02	7440-41-7	
Cadmium	ND	ug/L	0.20	0.016	1	04/01/23 07:15	04/03/23 04:02	7440-43-9	
Cobalt	ND	ug/L	1.0	0.071	1	04/01/23 07:15	04/03/23 04:02	7440-48-4	
Lead	ND	ug/L	1.0	0.068	1	04/01/23 07:15	04/03/23 04:02	7439-92-1	
Molybdenum	59.9	ug/L	1.0	0.074	1	04/01/23 07:15	04/03/23 04:02	7439-98-7	
Selenium	ND	ug/L	1.0	0.19	1	04/01/23 07:15	04/03/23 04:02	7782-49-2	
Thallium	ND	ug/L	1.0	0.060	1	04/01/23 07:15	04/03/23 04:02	7440-28-0	
<b>2320B Alkalinity</b>		Analytical Method: SM 2320B Pace Analytical Services - Indianapolis							
Alkalinity, Total as CaCO3	240	mg/L	10.0	10.0	1		03/29/23 22:42		
Alkalinity,Bicarbonate (CaCO3)	240	mg/L	10.0	10.0	1		03/29/23 22:42		
Alkalinity,Carbonate (CaCO3)	ND	mg/L	10.0	10.0	1		03/29/23 22:42		
<b>2540C Total Dissolved Solids</b>		Analytical Method: SM 2540C Pace Analytical Services - Indianapolis							
Total Dissolved Solids	546	mg/L	10.0	10.0	1		03/31/23 15:27		

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## ANALYTICAL RESULTS

Project: Eagle Valley N&E 2023

Pace Project No.: 50340680

Sample: MW-24I		Lab ID: 50340680002		Collected: 03/28/23 12:40	Received: 03/29/23 08:00	Matrix: Water				
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual	
<b>4500CL G Chlorine, Residual</b>		Analytical Method: SM 4500-Cl G Pace Analytical Services - Indianapolis								
Chlorine, Total Residual	ND	mg/L	0.10	0.034	1		03/30/23 16:29	7782-50-5	H3	
<b>4500H+ pH, Electrometric</b>		Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis								
pH at 25 Degrees C	7.9	Std. Units	0.10	0.10	1		03/31/23 12:22		H3	
<b>4500S2D Sulfide Water</b>		Analytical Method: SM 4500-S2-D Pace Analytical Services - Indianapolis								
Sulfide	0.061J	mg/L	0.10	0.025	1		03/30/23 14:08	18496-25-8		
<b>353.2 Nitrogen, NO2/NO3 unpres</b>		Analytical Method: EPA 353.2 Pace Analytical Services - Indianapolis								
Nitrogen, Nitrate	0.31	mg/L	0.10	0.011	1		03/29/23 13:01	14797-55-8		
Nitrogen, Nitrite	ND	mg/L	0.10	0.0040	1		03/29/23 13:01	14797-65-0		
<b>365.1 Total Phosphorus</b>		Analytical Method: EPA 365.1 Preparation Method: EPA 365.1 Pace Analytical Services - Indianapolis								
Phosphate as P04	ND	mg/L	0.15	0.15	1	03/31/23 10:30	04/03/23 18:40			
<b>5310C TOC</b>		Analytical Method: SM 5310C Pace Analytical Services - Indianapolis								
Total Organic Carbon	1.6	mg/L	1.0	0.24	1		03/30/23 18:30	7440-44-0		
<b>5310C Dissolved Organic Carbon</b>		Analytical Method: SM 5310C Pace Analytical Services - Indianapolis								
Dissolved Organic Carbon	1.5	mg/L	1.0	0.24	1		03/30/23 23:26			

## REPORT OF LABORATORY ANALYSIS

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### ANALYTICAL RESULTS

Project: Eagle Valley N&E 2023

Pace Project No.: 50340680

Sample: MW-24D		Lab ID: 50340680003		Collected: 03/28/23 11:35		Received: 03/29/23 08:00		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>9056 IC Anions</b>		Analytical Method: EPA 9056 Pace Analytical Services - Indianapolis							
Chloride	65.4	mg/L	2.5	0.67	10		03/31/23 23:30	16887-00-6	
Fluoride	0.30	mg/L	0.10	0.017	1		03/31/23 23:14	16984-48-8	
Sulfate	56.6	mg/L	2.5	0.85	10		03/31/23 23:30	14808-79-8	
<b>6010 MET ICP</b>		Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis							
Aluminum	2620	ug/L	200	55.4	1	04/01/23 08:04	04/02/23 00:27	7429-90-5	
Boron	ND	ug/L	100	37.6	1	04/01/23 08:04	04/02/23 00:27	7440-42-8	
Calcium	64600	ug/L	1000	163	1	04/01/23 08:04	04/02/23 00:27	7440-70-2	
Lithium	20.8	ug/L	20.0	6.2	1	04/01/23 08:04	04/02/23 00:27	7439-93-2	
Magnesium	21000	ug/L	1000	71.8	1	04/01/23 08:04	04/02/23 00:27	7439-95-4	
Manganese	162	ug/L	10.0	2.5	1	04/01/23 08:04	04/02/23 00:27	7439-96-5	
Potassium	5450	ug/L	1000	281	1	04/01/23 08:04	04/02/23 00:27	7440-09-7	
Silica	18900	ug/L	450		1	04/01/23 08:04	04/02/23 00:27	7631-86-9	N2
Sodium	56900	ug/L	1000	214	1	04/01/23 08:04	04/02/23 00:27	7440-23-5	
<b>6010 MET ICP, Dissolved</b>		Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis							
Manganese, Dissolved	131	ug/L	10.0	5.4	1	03/31/23 16:45	04/03/23 16:24	7439-96-5	
Molybdenum, Dissolved	16.2	ug/L	10.0	2.0	1	03/31/23 16:45	04/03/23 16:24	7439-98-7	
<b>6020 MET ICPMS</b>		Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis							
Antimony	ND	ug/L	1.0	0.080	1	04/01/23 07:15	04/03/23 04:05	7440-36-0	
Arsenic	2.2	ug/L	1.0	0.12	1	04/01/23 07:15	04/03/23 04:05	7440-38-2	
Barium	65.5	ug/L	1.0	0.065	1	04/01/23 07:15	04/03/23 04:05	7440-39-3	
Beryllium	ND	ug/L	0.20	0.026	1	04/01/23 07:15	04/03/23 04:05	7440-41-7	
Cadmium	ND	ug/L	0.20	0.016	1	04/01/23 07:15	04/03/23 04:05	7440-43-9	
Cobalt	1.2	ug/L	1.0	0.071	1	04/01/23 07:15	04/03/23 04:05	7440-48-4	
Lead	1.4	ug/L	1.0	0.068	1	04/01/23 07:15	04/03/23 04:05	7439-92-1	
Molybdenum	14.9	ug/L	1.0	0.074	1	04/01/23 07:15	04/03/23 04:05	7439-98-7	
Selenium	ND	ug/L	1.0	0.19	1	04/01/23 07:15	04/03/23 04:05	7782-49-2	
Thallium	ND	ug/L	1.0	0.060	1	04/01/23 07:15	04/03/23 04:05	7440-28-0	
<b>2320B Alkalinity</b>		Analytical Method: SM 2320B Pace Analytical Services - Indianapolis							
Alkalinity, Total as CaCO3	227	mg/L	10.0	10.0	1		03/29/23 22:42		
Alkalinity,Bicarbonate (CaCO3)	227	mg/L	10.0	10.0	1		03/29/23 22:42		
Alkalinity,Carbonate (CaCO3)	ND	mg/L	10.0	10.0	1		03/29/23 22:42		
<b>2540C Total Dissolved Solids</b>		Analytical Method: SM 2540C Pace Analytical Services - Indianapolis							
Total Dissolved Solids	403	mg/L	10.0	10.0	1		03/31/23 15:27		

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## ANALYTICAL RESULTS

Project: Eagle Valley N&E 2023

Pace Project No.: 50340680

Sample: MW-24D		Lab ID: 50340680003		Collected: 03/28/23 11:35	Received: 03/29/23 08:00	Matrix: Water				
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual	
<b>4500CL G Chlorine, Residual</b>		Analytical Method: SM 4500-Cl G Pace Analytical Services - Indianapolis								
Chlorine, Total Residual	ND	mg/L	0.10	0.034	1		03/30/23 16:29	7782-50-5	H3	
<b>4500H+ pH, Electrometric</b>		Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis								
pH at 25 Degrees C	8.1	Std. Units	0.10	0.10	1		04/01/23 12:33		H3	
<b>4500S2D Sulfide Water</b>		Analytical Method: SM 4500-S2-D Pace Analytical Services - Indianapolis								
Sulfide	0.027J	mg/L	0.10	0.025	1		03/30/23 14:08	18496-25-8		
<b>353.2 Nitrogen, NO2/NO3 unpres</b>		Analytical Method: EPA 353.2 Pace Analytical Services - Indianapolis								
Nitrogen, Nitrate	ND	mg/L	0.10	0.011	1		03/29/23 13:03	14797-55-8		
Nitrogen, Nitrite	ND	mg/L	0.10	0.0040	1		03/29/23 13:03	14797-65-0		
<b>365.1 Total Phosphorus</b>		Analytical Method: EPA 365.1 Preparation Method: EPA 365.1 Pace Analytical Services - Indianapolis								
Phosphate as P04	ND	mg/L	0.15	0.15	1	03/31/23 10:30	04/03/23 18:40			
<b>5310C TOC</b>		Analytical Method: SM 5310C Pace Analytical Services - Indianapolis								
Total Organic Carbon	ND	mg/L	4.0	0.94	4		03/30/23 18:41	7440-44-0	D3	
<b>5310C Dissolved Organic Carbon</b>		Analytical Method: SM 5310C Pace Analytical Services - Indianapolis								
Dissolved Organic Carbon	1.6	mg/L	1.0	0.24	1		03/30/23 23:37			

## REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL DATA

Project: Eagle Valley N&E 2023

Pace Project No.: 50340680

QC Batch:	725751	Analysis Method:	EPA 9056
QC Batch Method:	EPA 9056	Analysis Description:	9056 IC Anions
		Laboratory:	Pace Analytical Services - Indianapolis

Associated Lab Samples: 50340680001, 50340680002, 50340680003

METHOD BLANK: 3330640 Matrix: Water

Associated Lab Samples: 50340680001, 50340680002, 50340680003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chloride	mg/L	ND	0.25	0.067	03/31/23 12:46	
Fluoride	mg/L	ND	0.10	0.017	03/31/23 12:46	
Sulfate	mg/L	ND	0.25	0.085	03/31/23 12:46	

LABORATORY CONTROL SAMPLE: 3330641

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	1.2	1.2	95	80-120	
Fluoride	mg/L	0.5	0.50	100	80-120	
Sulfate	mg/L	2.5	2.4	97	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3330642 3330643

Parameter	Units	50340927004		3330643		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		Result	MS Spike Conc.	MSD Spike Conc.	MS Result								
Chloride	mg/L	6.8	1.2	1.2	7.9	7.9	83	82	80-120	0	15		
Fluoride	mg/L	0.058J	0.5	0.5	0.52	0.52	92	92	80-120	0	15		
Sulfate	mg/L	8.4	2.5	2.5	10.8	10.7	95	92	80-120	1	15		

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### QUALITY CONTROL DATA

Project: Eagle Valley N&E 2023

Pace Project No.: 50340680

QC Batch:	725422	Analysis Method:	EPA 6010
QC Batch Method:	EPA 3010	Analysis Description:	6010 MET
		Laboratory:	Pace Analytical Services - Indianapolis

Associated Lab Samples: 50340680001, 50340680002, 50340680003

METHOD BLANK: 3328718 Matrix: Water

Associated Lab Samples: 50340680001, 50340680002, 50340680003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Aluminum	ug/L	ND	200	55.4	04/02/23 00:12	
Boron	ug/L	ND	100	37.6	04/02/23 00:12	
Calcium	ug/L	ND	1000	163	04/02/23 00:12	
Lithium	ug/L	ND	20.0	6.2	04/02/23 00:12	
Magnesium	ug/L	ND	1000	71.8	04/02/23 00:12	
Manganese	ug/L	ND	10.0	2.5	04/02/23 00:12	
Potassium	ug/L	ND	1000	281	04/02/23 00:12	
Silica	ug/L	ND	450		04/02/23 00:12	N2
Sodium	ug/L	ND	1000	214	04/02/23 00:12	

LABORATORY CONTROL SAMPLE: 3328719

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Aluminum	ug/L	10000	9840	98	80-120	
Boron	ug/L	1000	970	97	80-120	
Calcium	ug/L	10000	9500	95	80-120	
Lithium	ug/L	1000	985	99	80-120	
Magnesium	ug/L	10000	9610	96	80-120	
Manganese	ug/L	1000	930	93	80-120	
Potassium	ug/L	10000	9850	98	80-120	
Silica	ug/L	10700	10400	97	80-120	N2
Sodium	ug/L	10000	9410	94	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3328720 3328721

Parameter	Units	MS		MSD		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		50340671001 Result	Spike Conc.	Spike Conc.	Result						
Aluminum	ug/L	351	10000	10000	10500	10300	101	100	75-125	2	20
Boron	ug/L	251	1000	1000	1260	1240	101	98	75-125	2	20
Calcium	ug/L	164000	10000	10000	174000	164000	96	-1	75-125	6	20 P6
Lithium	ug/L	45.0	1000	1000	1090	1090	104	105	75-125	0	20
Magnesium	ug/L	93000	10000	10000	103000	97200	97	42	75-125	5	20 P6
Manganese	ug/L	33.6	1000	1000	987	948	95	91	75-125	4	20
Potassium	ug/L	11200	10000	10000	21700	21500	104	103	75-125	1	20
Silica	ug/L	14500	10700	10700	25100	24400	99	92	75-125	3	20 N2
Sodium	ug/L	35200	10000	10000	44300	43600	91	84	75-125	2	20

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### QUALITY CONTROL DATA

Project: Eagle Valley N&E 2023

Pace Project No.: 50340680

QC Batch:	725662	Analysis Method:	EPA 6010
QC Batch Method:	EPA 3010	Analysis Description:	6010 MET Dissolved
		Laboratory:	Pace Analytical Services - Indianapolis

Associated Lab Samples: 50340680001, 50340680002, 50340680003

METHOD BLANK: 3330121 Matrix: Water

Associated Lab Samples: 50340680001, 50340680002, 50340680003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Manganese, Dissolved	ug/L	ND	10.0	5.4	04/03/23 11:59	
Molybdenum, Dissolved	ug/L	ND	10.0	2.0	04/03/23 11:59	

LABORATORY CONTROL SAMPLE: 3330122

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Manganese, Dissolved	ug/L	2000	1990	99	80-120	
Molybdenum, Dissolved	ug/L	2000	1970	98	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3330123 3330124

Parameter	Units	50340360005 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Manganese, Dissolved	ug/L	4600	1000	1000	5750	5410	115	81	75-125	6	20	
Molybdenum, Dissolved	ug/L	ND	1000	1000	1070	997	106	99	75-125	7	20	

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### QUALITY CONTROL DATA

Project: Eagle Valley N&E 2023

Pace Project No.: 50340680

QC Batch: 725684

Analysis Method: EPA 6020

QC Batch Method: EPA 200.2

Analysis Description: 6020 MET

Laboratory: Pace Analytical Services - Indianapolis

Associated Lab Samples: 50340680001, 50340680002, 50340680003

METHOD BLANK: 3330194

Matrix: Water

Associated Lab Samples: 50340680001, 50340680002, 50340680003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Antimony	ug/L	ND	1.0	0.080	04/03/23 03:52	
Arsenic	ug/L	ND	1.0	0.12	04/03/23 03:52	
Barium	ug/L	ND	1.0	0.065	04/03/23 03:52	
Beryllium	ug/L	ND	0.20	0.026	04/03/23 03:52	
Cadmium	ug/L	ND	0.20	0.016	04/03/23 03:52	
Cobalt	ug/L	ND	1.0	0.071	04/03/23 03:52	
Lead	ug/L	ND	1.0	0.068	04/03/23 03:52	
Molybdenum	ug/L	ND	1.0	0.074	04/03/23 03:52	
Selenium	ug/L	ND	1.0	0.19	04/03/23 03:52	
Thallium	ug/L	ND	1.0	0.060	04/03/23 03:52	

LABORATORY CONTROL SAMPLE: 3330195

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Antimony	ug/L	40	42.1	105	80-120	
Arsenic	ug/L	40	38.2	95	80-120	
Barium	ug/L	40	39.7	99	80-120	
Beryllium	ug/L	40	40.7	102	80-120	
Cadmium	ug/L	40	40.4	101	80-120	
Cobalt	ug/L	40	40.7	102	80-120	
Lead	ug/L	40	41.4	103	80-120	
Molybdenum	ug/L	40	41.0	102	80-120	
Selenium	ug/L	40	40.2	100	80-120	
Thallium	ug/L	40	41.6	104	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3330196 3330197

Parameter	Units	MS		MSD		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		50340548003 Result	Spike Conc.	Spike Conc.	Result						
Antimony	ug/L	0.90	40	40	41.5	43.3	102	106	75-125	4	20
Arsenic	ug/L	2.4	40	40	39.7	40.1	93	94	75-125	1	20
Barium	ug/L	141	40	40	179	178	96	93	75-125	1	20
Beryllium	ug/L	ND	40	40	39.9	40.0	100	100	75-125	0	20
Cadmium	ug/L	ND	40	40	37.6	37.8	94	94	75-125	0	20
Cobalt	ug/L	1.2	40	40	38.7	39.3	94	95	75-125	1	20
Lead	ug/L	ND	40	40	40.4	41.4	101	103	75-125	2	20
Molybdenum	ug/L	23.8	40	40	63.8	66.2	100	106	75-125	4	20

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### QUALITY CONTROL DATA

Project: Eagle Valley N&E 2023

Pace Project No.: 50340680

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3330196 3330197											
Parameter	Units	50340548003		MS	MSD	MS	MSD	MS	MSD	% Rec	Max
		Result	Spike Conc.	Spike Conc.	Result	Result	% Rec	% Rec	Limits	RPD	RPD
Selenium	ug/L	1.1	40	40	39.5	40.8	96	99	75-125	3	20
Thallium	ug/L	0.10	40	40	40.9	41.6	102	104	75-125	2	20

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### QUALITY CONTROL DATA

Project: Eagle Valley N&E 2023

Pace Project No.: 50340680

QC Batch:	725433	Analysis Method:	SM 2320B
QC Batch Method:	SM 2320B	Analysis Description:	2320B Alkalinity
		Laboratory:	Pace Analytical Services - Indianapolis

Associated Lab Samples: 50340680001, 50340680002, 50340680003

METHOD BLANK: 3328878 Matrix: Water

Associated Lab Samples: 50340680001, 50340680002, 50340680003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Alkalinity, Total as CaCO3	mg/L	ND	10.0	10.0	03/29/23 22:42	
Alkalinity,Bicarbonate (CaCO3)	mg/L	ND	10.0	10.0	03/29/23 22:42	
Alkalinity,Carbonate (CaCO3)	mg/L	ND	10.0	10.0	03/29/23 22:42	

LABORATORY CONTROL SAMPLE: 3328879

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Alkalinity, Total as CaCO3	mg/L	50	48.7	97	90-110	

SAMPLE DUPLICATE: 3328880

Parameter	Units	50340680001 Result	Dup Result	RPD	Max RPD	Qualifiers
Alkalinity, Total as CaCO3	mg/L	217	219	1	20	
Alkalinity,Bicarbonate (CaCO3)	mg/L	217	219	1	20	
Alkalinity,Carbonate (CaCO3)	mg/L	ND	ND		20	

SAMPLE DUPLICATE: 3328881

Parameter	Units	50340658006 Result	Dup Result	RPD	Max RPD	Qualifiers
Alkalinity, Total as CaCO3	mg/L	298	303	2	20	
Alkalinity,Bicarbonate (CaCO3)	mg/L	298	303	2	20	
Alkalinity,Carbonate (CaCO3)	mg/L	ND	ND		20	

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### QUALITY CONTROL DATA

Project: Eagle Valley N&E 2023

Pace Project No.: 50340680

QC Batch:	725767	Analysis Method:	SM 2540C
QC Batch Method:	SM 2540C	Analysis Description:	2540C Total Dissolved Solids
		Laboratory:	Pace Analytical Services - Indianapolis

Associated Lab Samples: 50340680001, 50340680002, 50340680003

METHOD BLANK: 3330702 Matrix: Water

Associated Lab Samples: 50340680001, 50340680002, 50340680003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	ND	10.0	10.0	03/31/23 15:20	

LABORATORY CONTROL SAMPLE: 3330703

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	300	275	92	80-120	

SAMPLE DUPLICATE: 3330704

Parameter	Units	50340651002 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	478	474	1	10	

SAMPLE DUPLICATE: 3330705

Parameter	Units	50340658006 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	613	606	1	10	

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### QUALITY CONTROL DATA

Project: Eagle Valley N&E 2023

Pace Project No.: 50340680

QC Batch:	725577	Analysis Method:	SM 4500-Cl G
QC Batch Method:	SM 4500-Cl G	Analysis Description:	4500CL G Chlorine, Total Residual
		Laboratory:	Pace Analytical Services - Indianapolis
Associated Lab Samples:	50340680001, 50340680002, 50340680003		

METHOD BLANK: 3329626 Matrix: Water

Associated Lab Samples: 50340680001, 50340680002, 50340680003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chlorine, Total Residual	mg/L	ND	0.10	0.034	03/30/23 16:26	H3

LABORATORY CONTROL SAMPLE: 3329627

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chlorine, Total Residual	mg/L	1	1.1	109	90-110	H3

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3329628 3329629

Parameter	Units	50340587003		3329629		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual	
		MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result							
Chlorine, Total Residual	mg/L	ND	1	1	1.1	1.2	113	115	90-110	1	20	H3,M3

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### QUALITY CONTROL DATA

Project: Eagle Valley N&E 2023

Pace Project No.: 50340680

QC Batch: 725730

Analysis Method: SM 4500-H+B

QC Batch Method: SM 4500-H+B

Analysis Description: 4500H+B pH

Laboratory: Pace Analytical Services - Indianapolis

Associated Lab Samples: 50340680001, 50340680002

SAMPLE DUPLICATE: 3330555

Parameter	Units	50340088001 Result	Dup Result	RPD	Max RPD	Qualifiers
pH at 25 Degrees C	Std. Units	7.4	7.4	0	2	H3

SAMPLE DUPLICATE: 3330556

Parameter	Units	50340105003 Result	Dup Result	RPD	Max RPD	Qualifiers
pH at 25 Degrees C	Std. Units	7.8	7.8	0	2	H3

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### QUALITY CONTROL DATA

Project: Eagle Valley N&E 2023

Pace Project No.: 50340680

QC Batch: 725731

Analysis Method: SM 4500-H+B

QC Batch Method: SM 4500-H+B

Analysis Description: 4500H+B pH

Laboratory: Pace Analytical Services - Indianapolis

Associated Lab Samples: 50340680003

SAMPLE DUPLICATE: 3330557

Parameter	Units	50340406002 Result	Dup Result	RPD	Max RPD	Qualifiers
pH at 25 Degrees C	Std. Units	9.4	9.4	0	2	H3

SAMPLE DUPLICATE: 3330558

Parameter	Units	50340411002 Result	Dup Result	RPD	Max RPD	Qualifiers
pH at 25 Degrees C	Std. Units	7.9	7.9	0	2	H3

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**QUALITY CONTROL DATA**

Project: Eagle Valley N&E 2023

Pace Project No.: 50340680

QC Batch:	725548	Analysis Method:	SM 4500-S2-D
QC Batch Method:	SM 4500-S2-D	Analysis Description:	4500S2D Sulfide Water
		Laboratory:	Pace Analytical Services - Indianapolis
Associated Lab Samples:	50340680001, 50340680002, 50340680003		

METHOD BLANK: 3329516 Matrix: Water  
Associated Lab Samples: 50340680001, 50340680002, 50340680003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Sulfide	mg/L	ND	0.10	0.025	03/30/23 14:08	

LABORATORY CONTROL SAMPLE: 3329517

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Sulfide	mg/L	0.5	0.55	109	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3329518 3329519

Parameter	Units	50340467003 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Sulfide	mg/L	ND	0.5	0.5	0.57	0.57	114	115	90-110	1	20	M3

MATRIX SPIKE SAMPLE: 3329520

Parameter	Units	50340587001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Sulfide	mg/L	ND	0.5	0.37	74	90-110	M0

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### QUALITY CONTROL DATA

Project: Eagle Valley N&E 2023

Pace Project No.: 50340680

QC Batch:	725260	Analysis Method:	EPA 353.2
QC Batch Method:	EPA 353.2	Analysis Description:	353.2 Nitrate + Nitrite, Unpres.
		Laboratory:	Pace Analytical Services - Indianapolis

Associated Lab Samples: 50340680001, 50340680002, 50340680003

METHOD BLANK: 3328018 Matrix: Water

Associated Lab Samples: 50340680001, 50340680002, 50340680003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Nitrogen, Nitrate	mg/L	ND	0.10	0.011	03/29/23 12:50	
Nitrogen, Nitrite	mg/L	ND	0.10	0.0040	03/29/23 12:50	

LABORATORY CONTROL SAMPLE: 3328019

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Nitrogen, Nitrate	mg/L	1	1.1	106	90-110	
Nitrogen, Nitrite	mg/L	1	1.1	105	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3328020 3328021

Parameter	Units	50340632001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Nitrogen, Nitrate	mg/L	3.8	10	10	14.4	14.5	106	106	90-110	0	20	
Nitrogen, Nitrite	mg/L	ND	10	10	10.2	10.2	102	102	90-110	0	20	

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### QUALITY CONTROL DATA

Project: Eagle Valley N&E 2023

Pace Project No.: 50340680

QC Batch:	725721	Analysis Method:	EPA 365.1
QC Batch Method:	EPA 365.1	Analysis Description:	365.1 Total Phosphorus
		Laboratory:	Pace Analytical Services - Indianapolis

Associated Lab Samples: 50340680001, 50340680002, 50340680003

METHOD BLANK: 3330521 Matrix: Water

Associated Lab Samples: 50340680001, 50340680002, 50340680003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Phosphate as P04	mg/L	ND	0.15	0.15	04/03/23 18:33	

LABORATORY CONTROL SAMPLE: 3330522

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Phosphate as P04	mg/L		1.5			

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3330523 3330524

Parameter	Units	50340587002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Phosphate as P04	mg/L	ND			1.5	1.6					6	

MATRIX SPIKE SAMPLE: 3330525

Parameter	Units	50340826010 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Phosphate as P04	mg/L		0.62		1.9		

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### QUALITY CONTROL DATA

Project: Eagle Valley N&E 2023

Pace Project No.: 50340680

QC Batch:	725540	Analysis Method:	SM 5310C
QC Batch Method:	SM 5310C	Analysis Description:	5310C Total Organic Carbon
		Laboratory:	Pace Analytical Services - Indianapolis

Associated Lab Samples: 50340680001, 50340680002, 50340680003

METHOD BLANK: 3329482 Matrix: Water

Associated Lab Samples: 50340680001, 50340680002, 50340680003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Organic Carbon	mg/L	ND	1.0	0.24	03/30/23 15:41	

LABORATORY CONTROL SAMPLE: 3329483

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Organic Carbon	mg/L	10	10.2	102	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3329484 3329485

Parameter	Units	50340587001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Total Organic Carbon	mg/L	ND	10	10	12.0	12.1	96	97	80-120	1	20	

MATRIX SPIKE SAMPLE: 3329486

Parameter	Units	50340587002 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Total Organic Carbon	mg/L	1.4	10	11.4	99	80-120	

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### QUALITY CONTROL DATA

Project: Eagle Valley N&E 2023

Pace Project No.: 50340680

QC Batch:	725541	Analysis Method:	SM 5310C
QC Batch Method:	SM 5310C	Analysis Description:	5310C Dissolved Organic Carbon
		Laboratory:	Pace Analytical Services - Indianapolis

Associated Lab Samples: 50340680001, 50340680002, 50340680003

METHOD BLANK: 3329489 Matrix: Water

Associated Lab Samples: 50340680001, 50340680002, 50340680003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Dissolved Organic Carbon	mg/L	ND	1.0	0.24	03/30/23 21:26	

LABORATORY CONTROL SAMPLE: 3329490

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Dissolved Organic Carbon	mg/L	10	10.0	100	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3329491 3329492

Parameter	Units	3329491		3329492		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual	
		50340587001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result							MSD Result
Dissolved Organic Carbon	mg/L	ND	10	10	12.4	12.5	97	98	80-120	0	20	

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Eagle Valley N&E 2023

Pace Project No.: 50340680

**Sample: MW-24S**      **Lab ID: 50340680001**      Collected: 03/28/23 13:40      Received: 03/29/23 08:00      Matrix: Water  
PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Radium-226	EPA 903.1	<b>0.454 ± 0.389 (0.527)</b> <b>C:NA T:89%</b>	pCi/L	04/15/23 14:14	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 904.0	<b>0.685 ± 0.424 (0.805)</b> <b>C:77% T:89%</b>	pCi/L	04/10/23 11:25	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	<b>1.14 ± 0.813 (1.33)</b>	pCi/L	04/17/23 16:00	7440-14-4	

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Eagle Valley N&E 2023

Pace Project No.: 50340680

**Sample: MW-24I**      **Lab ID: 50340680002**      Collected: 03/28/23 12:40      Received: 03/29/23 08:00      Matrix: Water  
PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	<b>0.485 ± 0.479 (0.729)</b> <b>C:NA T:87%</b>	pCi/L	04/15/23 14:14	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	<b>0.765 ± 0.391 (0.690)</b> <b>C:81% T:87%</b>	pCi/L	04/10/23 11:25	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	<b>1.25 ± 0.870 (1.42)</b>	pCi/L	04/17/23 16:00	7440-14-4	

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Eagle Valley N&E 2023

Pace Project No.: 50340680

**Sample: MW-24D**      **Lab ID: 50340680003**      Collected: 03/28/23 11:35      Received: 03/29/23 08:00      Matrix: Water  
PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	<b>0.667 ± 0.509 (0.724)</b> <b>C:NA T:91%</b>	pCi/L	04/15/23 14:14	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	<b>0.696 ± 0.386 (0.707)</b> <b>C:82% T:91%</b>	pCi/L	04/10/23 11:25	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	<b>1.36 ± 0.895 (1.43)</b>	pCi/L	04/17/23 16:00	7440-14-4	

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### QUALITY CONTROL - RADIOCHEMISTRY

Project: Eagle Valley N&E 2023

Pace Project No.: 50340680

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QC Batch:	577950	Analysis Method:	EPA 904.0
QC Batch Method:	EPA 904.0	Analysis Description:	904.0 Radium 228
		Laboratory:	Pace Analytical Services - Greensburg

Associated Lab Samples: 50340680001, 50340680002, 50340680003

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METHOD BLANK: 2806234 Matrix: Water

Associated Lab Samples: 50340680001, 50340680002, 50340680003

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.231 ± 0.332 (0.713) C:77% T:84%	pCi/L	04/10/23 11:25	

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### REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL - RADIOCHEMISTRY

Project: Eagle Valley N&E 2023

Pace Project No.: 50340680

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QC Batch:	577949	Analysis Method:	EPA 903.1
QC Batch Method:	EPA 903.1	Analysis Description:	903.1 Radium-226
		Laboratory:	Pace Analytical Services - Greensburg

Associated Lab Samples: 50340680001, 50340680002, 50340680003

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METHOD BLANK: 2806233 Matrix: Water

Associated Lab Samples: 50340680001, 50340680002, 50340680003

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.0555 ± 0.253 (0.515) C:NA T:84%	pCi/L	04/15/23 14:14	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

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## QUALIFIERS

Project: Eagle Valley N&E 2023

Pace Project No.: 50340680

### DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Reported results are not rounded until the final step prior to reporting. Therefore, calculated parameters that are typically reported as "Total" may vary slightly from the sum of the reported component parameters.

Act - Activity

Unc - Uncertainty: SDWA = 1.96 sigma count uncertainty, all other matrices = Expanded Uncertainty (95% confidence interval).

Gamma Spec = Expanded Uncertainty (95.4% Confidence Interval)

(MDC) - Minimum Detectable Concentration

Trac - Tracer Recovery (%)

Carr - Carrier Recovery (%)

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

### ANALYTE QUALIFIERS

D3 Sample was diluted due to the presence of high levels of non-target analytes or other matrix interference.

H3 Sample was received or analysis requested beyond the recognized method holding time.

M0 Matrix spike recovery and/or matrix spike duplicate recovery was outside laboratory control limits.

M3 Matrix spike recovery was outside laboratory control limits due to matrix interferences.

N2 The lab does not hold NELAC/TNI accreditation for this parameter but other accreditations/certifications may apply. A complete list of accreditations/certifications is available upon request.

P6 Matrix spike recovery was outside laboratory control limits due to a parent sample concentration notably higher than the spike level.

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### QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Eagle Valley N&E 2023  
Pace Project No.: 50340680

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
50340680001	MW-24S	EPA 9056	725751		
50340680002	MW-24I	EPA 9056	725751		
50340680003	MW-24D	EPA 9056	725751		
50340680001	MW-24S	EPA 3010	725422	EPA 6010	725940
50340680002	MW-24I	EPA 3010	725422	EPA 6010	725940
50340680003	MW-24D	EPA 3010	725422	EPA 6010	725940
50340680001	MW-24S	EPA 3010	725662	EPA 6010	726065
50340680002	MW-24I	EPA 3010	725662	EPA 6010	726065
50340680003	MW-24D	EPA 3010	725662	EPA 6010	726065
50340680001	MW-24S	EPA 200.2	725684	EPA 6020	725983
50340680002	MW-24I	EPA 200.2	725684	EPA 6020	725983
50340680003	MW-24D	EPA 200.2	725684	EPA 6020	725983
50340680001	MW-24S	EPA 903.1	577949		
50340680002	MW-24I	EPA 903.1	577949		
50340680003	MW-24D	EPA 903.1	577949		
50340680001	MW-24S	EPA 904.0	577950		
50340680002	MW-24I	EPA 904.0	577950		
50340680003	MW-24D	EPA 904.0	577950		
50340680001	MW-24S	Total Radium Calculation	581519		
50340680002	MW-24I	Total Radium Calculation	581519		
50340680003	MW-24D	Total Radium Calculation	581519		
50340680001	MW-24S	SM 2320B	725433		
50340680002	MW-24I	SM 2320B	725433		
50340680003	MW-24D	SM 2320B	725433		
50340680001	MW-24S	SM 2540C	725767		
50340680002	MW-24I	SM 2540C	725767		
50340680003	MW-24D	SM 2540C	725767		
50340680001	MW-24S	SM 4500-CI G	725577		
50340680002	MW-24I	SM 4500-CI G	725577		
50340680003	MW-24D	SM 4500-CI G	725577		
50340680001	MW-24S	SM 4500-H+B	725730		
50340680002	MW-24I	SM 4500-H+B	725730		
50340680003	MW-24D	SM 4500-H+B	725731		
50340680001	MW-24S	SM 4500-S2-D	725548		
50340680002	MW-24I	SM 4500-S2-D	725548		
50340680003	MW-24D	SM 4500-S2-D	725548		
50340680001	MW-24S	EPA 353.2	725260		
50340680002	MW-24I	EPA 353.2	725260		
50340680003	MW-24D	EPA 353.2	725260		
50340680001	MW-24S	EPA 365.1	725721	EPA 365.1	726290
50340680002	MW-24I	EPA 365.1	725721	EPA 365.1	726290
50340680003	MW-24D	EPA 365.1	725721	EPA 365.1	726290

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**QUALITY CONTROL DATA CROSS REFERENCE TABLE**

Project: Eagle Valley N&E 2023  
Pace Project No.: 50340680

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
50340680001	MW-24S	SM 5310C	725540		
50340680002	MW-24I	SM 5310C	725540		
50340680003	MW-24D	SM 5310C	725540		
50340680001	MW-24S	SM 5310C	725541		
50340680002	MW-24I	SM 5310C	725541		
50340680003	MW-24D	SM 5310C	725541		

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**SAMPLE CONDITION UPON RECEIPT FORM**

Date/Time and Initials of person examining contents: MCS 3/29/23 1034

1. Courier:  FED EX  UPS  CLIENT  PACE  USPS  OTHER \_\_\_\_\_

2. Custody Seal on Cooler/Box Present:  Yes  No  
 (If yes)Seals Intact:  Yes  No (leave blank if no seals were present)

3. Thermometer: 1 2 3 4 5 6 A B C D E F

4. Cooler Temperature(s): 1.2/1.3     
 (Initial/Corrected) RECORD TEMPS OF ALL COOLERS RECEIVED (use Comments below to add more)

5. Packing Material:  Bubble Wrap  Bubble Bags  
 None  Other \_\_\_\_\_

6. Ice Type:  Wet  Blue  None

7. If temp. is over 6°C or under 0°C, was the PM notified?:  Yes  No  
 Cooler temp should be above freezing to 6°C

All discrepancies will be written out in the comments section below.

	Yes	No		Yes	No	N/A
USDA Regulated Soils? (HI, ID, NY, WA, OR, CA, NM, TX, OK, AR, LA, TN, AL, MS, NC, SC, GA, FL, or Puerto Rico)		<input checked="" type="checkbox"/>	All containers needing acid/base preservation have been pH CHECKED?: Exceptions: VOA, coliform, LLHg, O&G, RAD CHEM, and any container with a septum cap or preserved with HCl.			
Short Hold Time Analysis (48 hours or less)? Analysis: <u>N02   N03</u>	<input checked="" type="checkbox"/>		Circle: <u>HNO3</u> (>2) <u>H2SO4</u> (<2) NaOH (>10) <u>NaOH/ZnAc</u> (>9) Any non-conformance to pH recommendations will be noted on the container count form	<input checked="" type="checkbox"/>		
Time 5035A TC placed in Freezer or Short Holds To Lab Time: <u>11:25</u>			Residual Chlorine Check (SVOC 625 Pest/PCB 608)	<u>Present</u>	<u>Absent</u>	<u>N/A</u>
Rush TAT Requested (4 days or less):		<input checked="" type="checkbox"/>	Residual Chlorine Check (Total/Amenable/Free Cyanide)			<input checked="" type="checkbox"/>
Custody Signatures Present?	<input checked="" type="checkbox"/>		Headspace Wisconsin Sulfide?			<input checked="" type="checkbox"/>
Containers Intact?:	<input checked="" type="checkbox"/>		Headspace in VOA Vials (>6mm): See Containter Count form for details	<u>Present</u>	<u>Absent</u>	<u>No VOA Vials Sent</u>
Sample Label (IDs/Dates/Times) Match COC?: Except TCs, which only require sample ID	<input checked="" type="checkbox"/>		Trip Blank Present?		<input checked="" type="checkbox"/>	
Extra labels on Terracore Vials? (soils only)			Trip Blank Custody Seals?:			<input checked="" type="checkbox"/>

COMMENTS:

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April 20, 2023

Mr. Mark Breting  
ATC Group Services  
7988 Centerpoint Drive  
Suite 100  
Indianapolis, IN 46256

RE: Project: Eagle Valley N&E 2023  
Pace Project No.: 50340807

Dear Mr. Breting:

Enclosed are the analytical results for sample(s) received by the laboratory on March 30, 2023. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

The test results provided in this final report were generated by each of the following laboratories within the Pace Network:

- Pace Analytical Services - Indianapolis
- Pace Analytical Services - Greensburg

If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Will Statz  
will.statz@pacelabs.com  
(317)228-3105  
Project Manager

Enclosures

cc: Mr. Robert Miller, Haley & Aldrich



## REPORT OF LABORATORY ANALYSIS

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## CERTIFICATIONS

Project: Eagle Valley N&E 2023

Pace Project No.: 50340807

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### **Pace Analytical Services Pennsylvania**

1638 Roseytown Rd Suites 2,3&4, Greensburg, PA 15601

ANAB DOD-ELAP Rad Accreditation #: L2417

Alabama Certification #: 41590

Arizona Certification #: AZ0734

Arkansas Certification

California Certification #: 04222CA

Colorado Certification #: PA01547

Connecticut Certification #: PH-0694

Delaware Certification

EPA Region 4 DW Rad

Florida/TNI Certification #: E87683

Georgia Certification #: C040

Florida: Cert E871149 SEKS WET

Guam Certification

Hawaii Certification

Idaho Certification

Illinois Certification

Indiana Certification

Iowa Certification #: 391

Kansas/TNI Certification #: E-10358

Kentucky Certification #: KY90133

KY WW Permit #: KY0098221

KY WW Permit #: KY0000221

Louisiana DHH/TNI Certification #: LA180012

Louisiana DEQ/TNI Certification #: 4086

Maine Certification #: 2017020

Maryland Certification #: 308

Massachusetts Certification #: M-PA1457

Michigan/PADEP Certification #: 9991

Missouri Certification #: 235

Montana Certification #: Cert0082

Nebraska Certification #: NE-OS-29-14

Nevada Certification #: PA014572018-1

New Hampshire/TNI Certification #: 297617

New Jersey/TNI Certification #: PA051

New Mexico Certification #: PA01457

New York/TNI Certification #: 10888

North Carolina Certification #: 42706

North Dakota Certification #: R-190

Ohio EPA Rad Approval: #41249

Oregon/TNI Certification #: PA200002-010

Pennsylvania/TNI Certification #: 65-00282

Puerto Rico Certification #: PA01457

Rhode Island Certification #: 65-00282

South Dakota Certification

Tennessee Certification #: 02867

Texas/TNI Certification #: T104704188-17-3

Utah/TNI Certification #: PA014572017-9

USDA Soil Permit #: P330-17-00091

Vermont Dept. of Health: ID# VT-0282

Virgin Island/PADEP Certification

Virginia/VELAP Certification #: 460198

Washington Certification #: C868

West Virginia DEP Certification #: 143

West Virginia DHHR Certification #: 9964C

Wisconsin Approve List for Rad

Wyoming Certification #: 8TMS-L

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### **Pace Analytical Services Indianapolis**

7726 Moller Road, Indianapolis, IN 46268

Illinois Accreditation #: 200074

Indiana Drinking Water Laboratory #: C-49-06

Kansas/TNI Certification #: E-10177

Kentucky UST Agency Interest #: 80226

Kentucky WW Laboratory ID #: 98019

Michigan Drinking Water Laboratory #9050

Ohio VAP Certified Laboratory #: CL0065

Oklahoma Laboratory #: 9204

Texas Certification #: T104704355

Wisconsin Laboratory #: 999788130

USDA Foreign Soil Permit #: 525-23-13-23119

USDA Compliance Agreement #: IN-SL-22-001

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## REPORT OF LABORATORY ANALYSIS

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## SAMPLE SUMMARY

Project: Eagle Valley N&E 2023  
Pace Project No.: 50340807

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Lab ID	Sample ID	Matrix	Date Collected	Date Received
50340807001	MW-12I	Water	03/29/23 11:00	03/30/23 08:00
50340807002	MW-12D	Water	03/29/23 10:00	03/30/23 08:00

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### SAMPLE ANALYTE COUNT

Project: Eagle Valley N&E 2023

Pace Project No.: 50340807

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory		
50340807001	MW-12I	EPA 9056	ADM	3	PASI-I		
		EPA 6010	FRW	9	PASI-I		
		EPA 6010	FRW	2	PASI-I		
		EPA 6020	DMT	10	PASI-I		
		EPA 903.1	JDZ	1	PASI-PA		
		EPA 904.0	ZPC	1	PASI-PA		
		Total Radium Calculation	LAL	1	PASI-PA		
		SM 2320B	DAW	3	PASI-I		
		SM 2540C	AEL	1	PASI-I		
		SM 4500-CI G	BEP	1	PASI-I		
		SM 4500-H+B	BMS	1	PASI-I		
		SM 4500-S2-D	BEP	1	PASI-I		
		EPA 353.2	MMS	2	PASI-I		
		EPA 365.1	YAM	1	PASI-I		
		SM 5310C	ATS	1	PASI-I		
		SM 5310C	ATS	1	PASI-I		
		50340807002	MW-12D	EPA 9056	ADM	3	PASI-I
				EPA 6010	FRW	9	PASI-I
				EPA 6010	FRW	2	PASI-I
EPA 6020	DMT			10	PASI-I		
EPA 903.1	JDZ			1	PASI-PA		
EPA 904.0	ZPC			1	PASI-PA		
Total Radium Calculation	LAL			1	PASI-PA		
SM 2320B	DAW			3	PASI-I		
SM 2540C	AEL			1	PASI-I		
SM 4500-CI G	BEP			1	PASI-I		
SM 4500-H+B	BMS			1	PASI-I		
SM 4500-S2-D	BEP			1	PASI-I		
EPA 353.2	MMS			2	PASI-I		
EPA 365.1	YAM			1	PASI-I		
SM 5310C	ATS			1	PASI-I		
SM 5310C	ATS			1	PASI-I		

PASI-I = Pace Analytical Services - Indianapolis

PASI-PA = Pace Analytical Services - Greensburg

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### SUMMARY OF DETECTION

Project: Eagle Valley N&E 2023

Pace Project No.: 50340807

Lab Sample ID	Client Sample ID	Result	Units	Report Limit	Analyzed	Qualifiers
Method	Parameters					
<b>50340807001</b>	<b>MW-12I</b>					
EPA 9056	Chloride	85.9	mg/L	2.5	04/01/23 00:16	
EPA 9056	Fluoride	0.33	mg/L	0.10	04/01/23 00:01	
EPA 9056	Sulfate	245	mg/L	2.5	04/01/23 00:16	
EPA 6010	Aluminum	416	ug/L	200	04/06/23 10:45	
EPA 6010	Boron	2100	ug/L	100	04/06/23 10:45	
EPA 6010	Calcium	124000	ug/L	1000	04/06/23 10:45	
EPA 6010	Lithium	109	ug/L	20.0	04/06/23 10:45	
EPA 6010	Magnesium	28300	ug/L	1000	04/06/23 10:45	
EPA 6010	Manganese	262	ug/L	10.0	04/06/23 10:45	
EPA 6010	Potassium	12100	ug/L	1000	04/06/23 10:45	
EPA 6010	Silica	12100	ug/L	450	04/06/23 10:45	N2
EPA 6010	Sodium	86600	ug/L	1000	04/06/23 10:45	
EPA 6010	Manganese, Dissolved	254	ug/L	10.0	04/06/23 10:13	
EPA 6010	Molybdenum, Dissolved	224	ug/L	10.0	04/06/23 10:13	
EPA 6020	Barium	82.3	ug/L	1.0	04/03/23 05:41	
EPA 6020	Molybdenum	220	ug/L	2.0	04/03/23 06:51	
EPA 903.1	Radium-226	1.00 ± 0.562 (0.582)	pCi/L		04/15/23 14:41	
EPA 904.0	Radium-228	C:NA T:79% 0.666 ± 0.440 (0.823) C:67% T:79%	pCi/L		04/10/23 11:57	
Total Radium Calculation	Total Radium	1.67 ± 1.00 (1.41)	pCi/L		04/19/23 16:59	
SM 2320B	Alkalinity, Total as CaCO3	281	mg/L	10.0	03/31/23 00:40	
SM 2320B	Alkalinity, Bicarbonate (CaCO3)	281	mg/L	10.0	03/31/23 00:40	
SM 2540C	Total Dissolved Solids	694	mg/L	20.0	04/01/23 12:13	
SM 4500-H+B	pH at 25 Degrees C	8.1	Std. Units	0.10	04/01/23 12:36	H3
SM 5310C	Total Organic Carbon	1.3	mg/L	1.0	04/04/23 16:05	
SM 5310C	Dissolved Organic Carbon	1.2	mg/L	1.0	04/04/23 21:42	
<b>50340807002</b>	<b>MW-12D</b>					
EPA 9056	Chloride	89.7	mg/L	2.5	04/04/23 18:15	
EPA 9056	Fluoride	0.27	mg/L	0.10	04/01/23 01:18	
EPA 9056	Sulfate	89.6	mg/L	2.5	04/04/23 18:15	
EPA 6010	Aluminum	330	ug/L	200	04/06/23 10:48	
EPA 6010	Boron	1660	ug/L	100	04/06/23 10:48	
EPA 6010	Calcium	80000	ug/L	1000	04/06/23 10:48	
EPA 6010	Lithium	75.1	ug/L	20.0	04/06/23 10:48	
EPA 6010	Magnesium	14700	ug/L	1000	04/06/23 10:48	
EPA 6010	Manganese	280	ug/L	10.0	04/06/23 10:48	
EPA 6010	Potassium	6250	ug/L	1000	04/06/23 10:48	
EPA 6010	Silica	12600	ug/L	450	04/06/23 10:48	N2
EPA 6010	Sodium	78600	ug/L	1000	04/06/23 10:48	
EPA 6010	Manganese, Dissolved	266	ug/L	10.0	04/06/23 10:28	
EPA 6010	Molybdenum, Dissolved	202	ug/L	10.0	04/06/23 10:28	

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### SUMMARY OF DETECTION

Project: Eagle Valley N&E 2023

Pace Project No.: 50340807

Lab Sample ID Method	Client Sample ID Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
<b>50340807002</b>	<b>MW-12D</b>					
EPA 6020	Arsenic	3.1	ug/L	1.0	04/03/23 05:51	
EPA 6020	Barium	57.9	ug/L	1.0	04/03/23 05:51	
EPA 6020	Molybdenum	196	ug/L	1.0	04/03/23 05:51	
EPA 903.1	Radium-226	0.554 ± 0.607 (0.977)	pCi/L		04/15/23 14:41	
EPA 904.0	Radium-228	C:NA T:86% 0.394 ± 0.654 (1.42)	pCi/L		04/10/23 14:32	
		C:65% T:86%				
Total Radium Calculation	Total Radium	0.948 ± 1.26 (2.40)	pCi/L		04/19/23 16:59	
SM 2320B	Alkalinity, Total as CaCO3	225	mg/L	10.0	03/31/23 00:40	
SM 2320B	Alkalinity,Bicarbonate (CaCO3)	225	mg/L	10.0	03/31/23 00:40	
SM 2540C	Total Dissolved Solids	467	mg/L	10.0	04/01/23 12:13	
SM 4500-H+B	pH at 25 Degrees C	8.0	Std. Units	0.10	04/01/23 12:33	H3
SM 5310C	Total Organic Carbon	1.3	mg/L	1.0	04/04/23 16:16	
SM 5310C	Dissolved Organic Carbon	1.3	mg/L	1.0	04/04/23 21:54	

### REPORT OF LABORATORY ANALYSIS

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### ANALYTICAL RESULTS

Project: Eagle Valley N&E 2023

Pace Project No.: 50340807

Sample: MW-12I		Lab ID: 50340807001		Collected: 03/29/23 11:00		Received: 03/30/23 08:00		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>9056 IC Anions</b>		Analytical Method: EPA 9056 Pace Analytical Services - Indianapolis							
Chloride	85.9	mg/L	2.5	0.67	10		04/01/23 00:16	16887-00-6	
Fluoride	0.33	mg/L	0.10	0.017	1		04/01/23 00:01	16984-48-8	
Sulfate	245	mg/L	2.5	0.85	10		04/01/23 00:16	14808-79-8	
<b>6010 MET ICP</b>		Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis							
Aluminum	416	ug/L	200	54.4	1	04/05/23 16:07	04/06/23 10:45	7429-90-5	
Boron	2100	ug/L	100	61.4	1	04/05/23 16:07	04/06/23 10:45	7440-42-8	
Calcium	124000	ug/L	1000	88.4	1	04/05/23 16:07	04/06/23 10:45	7440-70-2	
Lithium	109	ug/L	20.0	6.2	1	04/05/23 16:07	04/06/23 10:45	7439-93-2	
Magnesium	28300	ug/L	1000	43.0	1	04/05/23 16:07	04/06/23 10:45	7439-95-4	
Manganese	262	ug/L	10.0	5.4	1	04/05/23 16:07	04/06/23 10:45	7439-96-5	
Potassium	12100	ug/L	1000	200	1	04/05/23 16:07	04/06/23 10:45	7440-09-7	
Silica	12100	ug/L	450		1	04/05/23 16:07	04/06/23 10:45	7631-86-9	N2
Sodium	86600	ug/L	1000	284	1	04/05/23 16:07	04/06/23 10:45	7440-23-5	
<b>6010 MET ICP, Dissolved</b>		Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis							
Manganese, Dissolved	254	ug/L	10.0	5.4	1	04/05/23 16:35	04/06/23 10:13	7439-96-5	
Molybdenum, Dissolved	224	ug/L	10.0	2.0	1	04/05/23 16:35	04/06/23 10:13	7439-98-7	
<b>6020 MET ICPMS</b>		Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis							
Antimony	ND	ug/L	1.0	0.080	1	04/01/23 07:15	04/03/23 05:41	7440-36-0	
Arsenic	ND	ug/L	1.0	0.12	1	04/01/23 07:15	04/03/23 05:41	7440-38-2	
Barium	82.3	ug/L	1.0	0.065	1	04/01/23 07:15	04/03/23 05:41	7440-39-3	
Beryllium	ND	ug/L	0.20	0.026	1	04/01/23 07:15	04/03/23 05:41	7440-41-7	
Cadmium	ND	ug/L	0.20	0.016	1	04/01/23 07:15	04/03/23 05:41	7440-43-9	
Cobalt	ND	ug/L	1.0	0.071	1	04/01/23 07:15	04/03/23 05:41	7440-48-4	
Lead	ND	ug/L	1.0	0.068	1	04/01/23 07:15	04/03/23 05:41	7439-92-1	
Molybdenum	220	ug/L	2.0	0.15	2	04/01/23 07:15	04/03/23 06:51	7439-98-7	
Selenium	ND	ug/L	1.0	0.19	1	04/01/23 07:15	04/03/23 05:41	7782-49-2	
Thallium	ND	ug/L	1.0	0.060	1	04/01/23 07:15	04/03/23 05:41	7440-28-0	
<b>2320B Alkalinity</b>		Analytical Method: SM 2320B Pace Analytical Services - Indianapolis							
Alkalinity, Total as CaCO3	281	mg/L	10.0	10.0	1		03/31/23 00:40		
Alkalinity,Bicarbonate (CaCO3)	281	mg/L	10.0	10.0	1		03/31/23 00:40		
Alkalinity,Carbonate (CaCO3)	ND	mg/L	10.0	10.0	1		03/31/23 00:40		
<b>2540C Total Dissolved Solids</b>		Analytical Method: SM 2540C Pace Analytical Services - Indianapolis							
Total Dissolved Solids	694	mg/L	20.0	20.0	1		04/01/23 12:13		

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## ANALYTICAL RESULTS

Project: Eagle Valley N&E 2023

Pace Project No.: 50340807

Sample: MW-12I		Lab ID: 50340807001		Collected: 03/29/23 11:00	Received: 03/30/23 08:00	Matrix: Water				
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual	
<b>4500CL G Chlorine, Residual</b>		Analytical Method: SM 4500-Cl G Pace Analytical Services - Indianapolis								
Chlorine, Total Residual	ND	mg/L	0.10	0.034	1		03/30/23 16:31	7782-50-5	H3	
<b>4500H+ pH, Electrometric</b>		Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis								
pH at 25 Degrees C	8.1	Std. Units	0.10	0.10	1		04/01/23 12:36		H3	
<b>4500S2D Sulfide Water</b>		Analytical Method: SM 4500-S2-D Pace Analytical Services - Indianapolis								
Sulfide	ND	mg/L	0.10	0.025	1		03/30/23 14:08	18496-25-8		
<b>353.2 Nitrogen, NO2/NO3 unpres</b>		Analytical Method: EPA 353.2 Pace Analytical Services - Indianapolis								
Nitrogen, Nitrate	ND	mg/L	0.10	0.011	1		03/30/23 18:56	14797-55-8		
Nitrogen, Nitrite	ND	mg/L	0.10	0.0040	1		03/30/23 18:56	14797-65-0		
<b>365.1 Total Phosphorus</b>		Analytical Method: EPA 365.1 Preparation Method: EPA 365.1 Pace Analytical Services - Indianapolis								
Phosphate as P04	ND	mg/L	0.15	0.15	1	03/31/23 10:30	04/03/23 18:41			
<b>5310C TOC</b>		Analytical Method: SM 5310C Pace Analytical Services - Indianapolis								
Total Organic Carbon	1.3	mg/L	1.0	0.24	1		04/04/23 16:05	7440-44-0		
<b>5310C Dissolved Organic Carbon</b>		Analytical Method: SM 5310C Pace Analytical Services - Indianapolis								
Dissolved Organic Carbon	1.2	mg/L	1.0	0.24	1		04/04/23 21:42			

## REPORT OF LABORATORY ANALYSIS

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### ANALYTICAL RESULTS

Project: Eagle Valley N&E 2023

Pace Project No.: 50340807

**Sample: MW-12D**      **Lab ID: 50340807002**      Collected: 03/29/23 10:00      Received: 03/30/23 08:00      Matrix: Water

Parameters	Results	Units	Report			Prepared	Analyzed	CAS No.	Qual
			Limit	MDL	DF				
<b>9056 IC Anions</b>									
Analytical Method: EPA 9056									
Pace Analytical Services - Indianapolis									
Chloride	89.7	mg/L	2.5	0.67	10		04/04/23 18:15	16887-00-6	
Fluoride	0.27	mg/L	0.10	0.017	1		04/01/23 01:18	16984-48-8	
Sulfate	89.6	mg/L	2.5	0.85	10		04/04/23 18:15	14808-79-8	
<b>6010 MET ICP</b>									
Analytical Method: EPA 6010      Preparation Method: EPA 3010									
Pace Analytical Services - Indianapolis									
Aluminum	330	ug/L	200	54.4	1	04/05/23 16:07	04/06/23 10:48	7429-90-5	
Boron	1660	ug/L	100	61.4	1	04/05/23 16:07	04/06/23 10:48	7440-42-8	
Calcium	80000	ug/L	1000	88.4	1	04/05/23 16:07	04/06/23 10:48	7440-70-2	
Lithium	75.1	ug/L	20.0	6.2	1	04/05/23 16:07	04/06/23 10:48	7439-93-2	
Magnesium	14700	ug/L	1000	43.0	1	04/05/23 16:07	04/06/23 10:48	7439-95-4	
Manganese	280	ug/L	10.0	5.4	1	04/05/23 16:07	04/06/23 10:48	7439-96-5	
Potassium	6250	ug/L	1000	200	1	04/05/23 16:07	04/06/23 10:48	7440-09-7	
Silica	12600	ug/L	450		1	04/05/23 16:07	04/06/23 10:48	7631-86-9	N2
Sodium	78600	ug/L	1000	284	1	04/05/23 16:07	04/06/23 10:48	7440-23-5	
<b>6010 MET ICP, Dissolved</b>									
Analytical Method: EPA 6010      Preparation Method: EPA 3010									
Pace Analytical Services - Indianapolis									
Manganese, Dissolved	266	ug/L	10.0	5.4	1	04/05/23 16:35	04/06/23 10:28	7439-96-5	
Molybdenum, Dissolved	202	ug/L	10.0	2.0	1	04/05/23 16:35	04/06/23 10:28	7439-98-7	
<b>6020 MET ICPMS</b>									
Analytical Method: EPA 6020      Preparation Method: EPA 200.2									
Pace Analytical Services - Indianapolis									
Antimony	ND	ug/L	1.0	0.080	1	04/01/23 07:15	04/03/23 05:51	7440-36-0	
Arsenic	3.1	ug/L	1.0	0.12	1	04/01/23 07:15	04/03/23 05:51	7440-38-2	
Barium	57.9	ug/L	1.0	0.065	1	04/01/23 07:15	04/03/23 05:51	7440-39-3	
Beryllium	ND	ug/L	0.20	0.026	1	04/01/23 07:15	04/03/23 05:51	7440-41-7	
Cadmium	ND	ug/L	0.20	0.016	1	04/01/23 07:15	04/03/23 05:51	7440-43-9	
Cobalt	ND	ug/L	1.0	0.071	1	04/01/23 07:15	04/03/23 05:51	7440-48-4	
Lead	ND	ug/L	1.0	0.068	1	04/01/23 07:15	04/03/23 05:51	7439-92-1	
Molybdenum	196	ug/L	1.0	0.074	1	04/01/23 07:15	04/03/23 05:51	7439-98-7	
Selenium	ND	ug/L	1.0	0.19	1	04/01/23 07:15	04/03/23 05:51	7782-49-2	
Thallium	ND	ug/L	1.0	0.060	1	04/01/23 07:15	04/03/23 05:51	7440-28-0	
<b>2320B Alkalinity</b>									
Analytical Method: SM 2320B									
Pace Analytical Services - Indianapolis									
Alkalinity, Total as CaCO3	225	mg/L	10.0	10.0	1		03/31/23 00:40		
Alkalinity,Bicarbonate (CaCO3)	225	mg/L	10.0	10.0	1		03/31/23 00:40		
Alkalinity,Carbonate (CaCO3)	ND	mg/L	10.0	10.0	1		03/31/23 00:40		
<b>2540C Total Dissolved Solids</b>									
Analytical Method: SM 2540C									
Pace Analytical Services - Indianapolis									
Total Dissolved Solids	467	mg/L	10.0	10.0	1		04/01/23 12:13		

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### ANALYTICAL RESULTS

Project: Eagle Valley N&E 2023

Pace Project No.: 50340807

Sample: MW-12D		Lab ID: 50340807002		Collected: 03/29/23 10:00	Received: 03/30/23 08:00	Matrix: Water				
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual	
<b>4500CL G Chlorine, Residual</b>		Analytical Method: SM 4500-Cl G Pace Analytical Services - Indianapolis								
Chlorine, Total Residual	ND	mg/L	0.10	0.034	1		03/30/23 16:31	7782-50-5	H3	
<b>4500H+ pH, Electrometric</b>		Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis								
pH at 25 Degrees C	8.0	Std. Units	0.10	0.10	1		04/01/23 12:33		H3	
<b>4500S2D Sulfide Water</b>		Analytical Method: SM 4500-S2-D Pace Analytical Services - Indianapolis								
Sulfide	ND	mg/L	0.10	0.025	1		03/30/23 14:08	18496-25-8		
<b>353.2 Nitrogen, NO2/NO3 unpres</b>		Analytical Method: EPA 353.2 Pace Analytical Services - Indianapolis								
Nitrogen, Nitrate	ND	mg/L	0.10	0.011	1		03/30/23 18:48	14797-55-8		
Nitrogen, Nitrite	ND	mg/L	0.10	0.0040	1		03/30/23 18:48	14797-65-0		
<b>365.1 Total Phosphorus</b>		Analytical Method: EPA 365.1 Preparation Method: EPA 365.1 Pace Analytical Services - Indianapolis								
Phosphate as P04	ND	mg/L	0.15	0.15	1	03/31/23 10:30	04/03/23 18:41			
<b>5310C TOC</b>		Analytical Method: SM 5310C Pace Analytical Services - Indianapolis								
Total Organic Carbon	1.3	mg/L	1.0	0.24	1		04/04/23 16:16	7440-44-0		
<b>5310C Dissolved Organic Carbon</b>		Analytical Method: SM 5310C Pace Analytical Services - Indianapolis								
Dissolved Organic Carbon	1.3	mg/L	1.0	0.24	1		04/04/23 21:54			

### REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL DATA

Project: Eagle Valley N&E 2023

Pace Project No.: 50340807

QC Batch:	725751	Analysis Method:	EPA 9056
QC Batch Method:	EPA 9056	Analysis Description:	9056 IC Anions
		Laboratory:	Pace Analytical Services - Indianapolis

Associated Lab Samples: 50340807001, 50340807002

METHOD BLANK: 3330640 Matrix: Water

Associated Lab Samples: 50340807001, 50340807002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chloride	mg/L	ND	0.25	0.067	03/31/23 12:46	
Fluoride	mg/L	ND	0.10	0.017	03/31/23 12:46	
Sulfate	mg/L	ND	0.25	0.085	03/31/23 12:46	

LABORATORY CONTROL SAMPLE: 3330641

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	1.2	1.2	95	80-120	
Fluoride	mg/L	0.5	0.50	100	80-120	
Sulfate	mg/L	2.5	2.4	97	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3330642 3330643

Parameter	Units	50340927004		3330643		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		Result	MS Spike Conc.	MSD Spike Conc.	MSD Result								
Chloride	mg/L	6.8	1.2	1.2	7.9	7.9	83	82	80-120	0	15		
Fluoride	mg/L	0.058J	0.5	0.5	0.52	0.52	92	92	80-120	0	15		
Sulfate	mg/L	8.4	2.5	2.5	10.8	10.7	95	92	80-120	1	15		

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### QUALITY CONTROL DATA

Project: Eagle Valley N&E 2023

Pace Project No.: 50340807

QC Batch: 726527

Analysis Method: EPA 6010

QC Batch Method: EPA 3010

Analysis Description: 6010 MET

Laboratory: Pace Analytical Services - Indianapolis

Associated Lab Samples: 50340807001, 50340807002

METHOD BLANK: 3333726

Matrix: Water

Associated Lab Samples: 50340807001, 50340807002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Aluminum	ug/L	ND	200	54.4	04/06/23 10:34	
Boron	ug/L	ND	100	61.4	04/06/23 10:34	
Calcium	ug/L	ND	1000	88.4	04/06/23 10:34	
Lithium	ug/L	ND	20.0	6.2	04/06/23 10:34	
Magnesium	ug/L	ND	1000	43.0	04/06/23 10:34	
Manganese	ug/L	ND	10.0	5.4	04/06/23 10:34	
Potassium	ug/L	ND	1000	200	04/06/23 10:34	
Silica	ug/L	ND	450		04/06/23 10:34	N2
Sodium	ug/L	ND	1000	284	04/06/23 10:34	

LABORATORY CONTROL SAMPLE: 3333727

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Aluminum	ug/L	10000	9530	95	80-120	
Boron	ug/L	1000	949	95	80-120	
Calcium	ug/L	10000	9950	99	80-120	
Lithium	ug/L	1000	977	98	80-120	
Magnesium	ug/L	10000	9810	98	80-120	
Manganese	ug/L	1000	946	95	80-120	
Potassium	ug/L	10000	9710	97	80-120	
Silica	ug/L	10700	10500	98	80-120	N2
Sodium	ug/L	10000	9600	96	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3333728 3333729

Parameter	Units	MS		MSD		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		50340406002 Result	Spike Conc.	Spike Conc.	MS Result						
Aluminum	ug/L	6480	10000	10000	17000	16900	106	104	75-125	1	20
Boron	ug/L	0.61 mg/L	1000	1000	1500	1490	90	88	75-125	1	20
Calcium	ug/L	112 mg/L	10000	10000	122000	121000	105	90	75-125	1	20
Lithium	ug/L	405	1000	1000	1500	1490	109	108	75-125	0	20
Magnesium	ug/L	32.2 mg/L	10000	10000	42200	41400	100	93	75-125	2	20
Manganese	ug/L	0.15 mg/L	1000	1000	1090	1080	94	93	75-125	1	20
Potassium	ug/L	244 mg/L	10000	10000	260000	260000	125	118	75-125	0	20 E
Silica	ug/L	19800	10700	10700	11000	10200	-82	-90	75-125	8	20 N2
Sodium	ug/L	1280 mg/L	10000	10000	1190000	1180000	-10	-150	75-125	1	20 E,P6

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**QUALITY CONTROL DATA**

Project: Eagle Valley N&E 2023

Pace Project No.: 50340807

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3333730 3333731												
Parameter	Units	50340959003		MS	MSD	MS		MSD		% Rec Limits	Max RPD	Qual
		Result	Conc.	Spike Conc.	Spike Conc.	Result	Result	% Rec	% Rec			
Aluminum	ug/L	738	10000	10000	10000	10600	10800	99	100	75-125	1	20
Boron	ug/L	1710	1000	1000	1000	2690	2700	98	99	75-125	0	20
Calcium	ug/L	77100	10000	10000	10000	86800	87500	96	104	75-125	1	20
Lithium	ug/L	67.9	1000	1000	1000	1080	1100	101	103	75-125	2	20
Magnesium	ug/L	16700	10000	10000	10000	26400	26600	97	99	75-125	1	20
Manganese	ug/L	138	1000	1000	1000	1080	1090	94	95	75-125	1	20
Potassium	ug/L	4410	10000	10000	10000	14700	14800	103	104	75-125	1	20
Silica	ug/L	14800	10700	10700	10700	25900	26200	104	107	75-125	1	20 N2
Sodium	ug/L	86500	10000	10000	10000	95000	95700	85	92	75-125	1	20

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### QUALITY CONTROL DATA

Project: Eagle Valley N&E 2023

Pace Project No.: 50340807

QC Batch: 726524

Analysis Method: EPA 6010

QC Batch Method: EPA 3010

Analysis Description: 6010 MET Dissolved

Laboratory: Pace Analytical Services - Indianapolis

Associated Lab Samples: 50340807001, 50340807002

METHOD BLANK: 3333711

Matrix: Water

Associated Lab Samples: 50340807001, 50340807002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Manganese, Dissolved	ug/L	ND	10.0	5.4	04/06/23 10:04	
Molybdenum, Dissolved	ug/L	ND	10.0	2.0	04/06/23 10:04	

LABORATORY CONTROL SAMPLE: 3333712

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Manganese, Dissolved	ug/L	1000	976	98	80-120	
Molybdenum, Dissolved	ug/L	1000	1060	106	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3333713 3333714

Parameter	Units	50340807001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Manganese, Dissolved	ug/L	254	1000	1000	1190	1180	93	92	75-125	1	20	
Molybdenum, Dissolved	ug/L	224	1000	1000	1250	1240	102	102	75-125	0	20	

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### QUALITY CONTROL DATA

Project: Eagle Valley N&E 2023  
Pace Project No.: 50340807

QC Batch: 725685      Analysis Method: EPA 6020  
QC Batch Method: EPA 200.2      Analysis Description: 6020 MET  
Laboratory: Pace Analytical Services - Indianapolis

Associated Lab Samples: 50340807001, 50340807002

METHOD BLANK: 3330200      Matrix: Water

Associated Lab Samples: 50340807001, 50340807002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Antimony	ug/L	ND	1.0	0.080	04/03/23 05:34	
Arsenic	ug/L	ND	1.0	0.12	04/03/23 05:34	
Barium	ug/L	ND	1.0	0.065	04/03/23 05:34	
Beryllium	ug/L	ND	0.20	0.026	04/03/23 05:34	
Cadmium	ug/L	ND	0.20	0.016	04/03/23 05:34	
Cobalt	ug/L	ND	1.0	0.071	04/03/23 05:34	
Lead	ug/L	ND	1.0	0.068	04/03/23 05:34	
Molybdenum	ug/L	ND	1.0	0.074	04/03/23 05:34	
Selenium	ug/L	ND	1.0	0.19	04/03/23 05:34	
Thallium	ug/L	ND	1.0	0.060	04/03/23 05:34	

LABORATORY CONTROL SAMPLE: 3330201

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Antimony	ug/L	40	42.0	105	80-120	
Arsenic	ug/L	40	38.0	95	80-120	
Barium	ug/L	40	39.0	97	80-120	
Beryllium	ug/L	40	38.5	96	80-120	
Cadmium	ug/L	40	41.0	102	80-120	
Cobalt	ug/L	40	39.7	99	80-120	
Lead	ug/L	40	41.3	103	80-120	
Molybdenum	ug/L	40	40.8	102	80-120	
Selenium	ug/L	40	39.2	98	80-120	
Thallium	ug/L	40	41.1	103	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3330202      3330203

Parameter	Units	MS		MSD		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual	
		50340580006 Result	Spike Conc.	Spike Conc.	Result							Result
Antimony	ug/L	<0.080	40	40	42.4	42.3	106	106	75-125	0	20	
Arsenic	ug/L	<0.12	40	40	37.4	37.7	93	94	75-125	1	20	
Barium	ug/L	89.0	40	40	129	129	101	100	75-125	0	20	
Beryllium	ug/L	<0.026	40	40	39.4	38.8	99	97	75-125	2	20	
Cadmium	ug/L	<0.016	40	40	40.1	39.1	100	98	75-125	3	20	
Cobalt	ug/L	0.12J	40	40	37.1	37.2	92	93	75-125	0	20	
Lead	ug/L	<0.068	40	40	41.7	41.4	104	103	75-125	1	20	
Molybdenum	ug/L	<0.074	40	40	40.7	41.4	102	103	75-125	2	20	

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### QUALITY CONTROL DATA

Project: Eagle Valley N&E 2023

Pace Project No.: 50340807

Parameter	Units	3330202		3330203		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		50340580006 Result	MS Spike Conc.	MSD Spike Conc.									
Selenium	ug/L	<0.19	40	40	38.6	38.8	96	97	75-125	1	20		
Thallium	ug/L	<0.060	40	40	42.1	41.5	105	104	75-125	1	20		

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### QUALITY CONTROL DATA

Project: Eagle Valley N&E 2023

Pace Project No.: 50340807

QC Batch: 725651

Analysis Method: SM 2320B

QC Batch Method: SM 2320B

Analysis Description: 2320B Alkalinity

Laboratory: Pace Analytical Services - Indianapolis

Associated Lab Samples: 50340807001, 50340807002

METHOD BLANK: 3330077

Matrix: Water

Associated Lab Samples: 50340807001, 50340807002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Alkalinity, Total as CaCO <sub>3</sub>	mg/L	ND	10.0	10.0	03/31/23 00:40	
Alkalinity,Bicarbonate (CaCO <sub>3</sub> )	mg/L	ND	10.0	10.0	03/31/23 00:40	
Alkalinity,Carbonate (CaCO <sub>3</sub> )	mg/L	ND	10.0	10.0	03/31/23 00:40	

LABORATORY CONTROL SAMPLE: 3330078

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Alkalinity, Total as CaCO <sub>3</sub>	mg/L	50	49.3	99	90-110	

SAMPLE DUPLICATE: 3330079

Parameter	Units	50340807001 Result	Dup Result	RPD	Max RPD	Qualifiers
Alkalinity, Total as CaCO <sub>3</sub>	mg/L	281	287	2	20	
Alkalinity,Bicarbonate (CaCO <sub>3</sub> )	mg/L	281	287	2	20	
Alkalinity,Carbonate (CaCO <sub>3</sub> )	mg/L	ND	ND		20	

SAMPLE DUPLICATE: 3330080

Parameter	Units	50340582001 Result	Dup Result	RPD	Max RPD	Qualifiers
Alkalinity, Total as CaCO <sub>3</sub>	mg/L	159	162	2	20	
Alkalinity,Bicarbonate (CaCO <sub>3</sub> )	mg/L	150	152	1	20	
Alkalinity,Carbonate (CaCO <sub>3</sub> )	mg/L	ND	10.0		20	

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**QUALITY CONTROL DATA**

Project: Eagle Valley N&E 2023

Pace Project No.: 50340807

QC Batch: 725900

Analysis Method: SM 2540C

QC Batch Method: SM 2540C

Analysis Description: 2540C Total Dissolved Solids

Laboratory: Pace Analytical Services - Indianapolis

Associated Lab Samples: 50340807001, 50340807002

METHOD BLANK: 3331395

Matrix: Water

Associated Lab Samples: 50340807001, 50340807002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	ND	10.0	10.0	04/01/23 12:11	

LABORATORY CONTROL SAMPLE: 3331396

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	300	282	94	80-120	

SAMPLE DUPLICATE: 3331397

Parameter	Units	50340794007 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	332	331	0	10	

SAMPLE DUPLICATE: 3331398

Parameter	Units	50340794010 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	377	385	2	10	

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### QUALITY CONTROL DATA

Project: Eagle Valley N&E 2023

Pace Project No.: 50340807

QC Batch: 725577	Analysis Method: SM 4500-Cl G
QC Batch Method: SM 4500-Cl G	Analysis Description: 4500CL G Chlorine, Total Residual
	Laboratory: Pace Analytical Services - Indianapolis

Associated Lab Samples: 50340807001, 50340807002

METHOD BLANK: 3329626 Matrix: Water

Associated Lab Samples: 50340807001, 50340807002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chlorine, Total Residual	mg/L	ND	0.10	0.034	03/30/23 16:26	H3

LABORATORY CONTROL SAMPLE: 3329627

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chlorine, Total Residual	mg/L	1	1.1	109	90-110	H3

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3329628 3329629

Parameter	Units	50340587003		3329629		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual	
		MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result							
Chlorine, Total Residual	mg/L	ND	1	1	1.1	1.2	113	115	90-110	1	20	H3,M3

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### QUALITY CONTROL DATA

Project: Eagle Valley N&E 2023

Pace Project No.: 50340807

QC Batch: 725731

Analysis Method: SM 4500-H+B

QC Batch Method: SM 4500-H+B

Analysis Description: 4500H+B pH

Laboratory: Pace Analytical Services - Indianapolis

Associated Lab Samples: 50340807001, 50340807002

SAMPLE DUPLICATE: 3330557

Parameter	Units	50340406002 Result	Dup Result	RPD	Max RPD	Qualifiers
pH at 25 Degrees C	Std. Units	9.4	9.4	0	2	H3

SAMPLE DUPLICATE: 3330558

Parameter	Units	50340411002 Result	Dup Result	RPD	Max RPD	Qualifiers
pH at 25 Degrees C	Std. Units	7.9	7.9	0	2	H3

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**QUALITY CONTROL DATA**

Project: Eagle Valley N&E 2023

Pace Project No.: 50340807

QC Batch: 725548

Analysis Method: SM 4500-S2-D

QC Batch Method: SM 4500-S2-D

Analysis Description: 4500S2D Sulfide Water

Laboratory: Pace Analytical Services - Indianapolis

Associated Lab Samples: 50340807001, 50340807002

METHOD BLANK: 3329516

Matrix: Water

Associated Lab Samples: 50340807001, 50340807002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Sulfide	mg/L	ND	0.10	0.025	03/30/23 14:08	

LABORATORY CONTROL SAMPLE: 3329517

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Sulfide	mg/L	0.5	0.55	109	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3329518 3329519

Parameter	Units	50340467003 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Sulfide	mg/L	ND	0.5	0.5	0.57	0.57	114	115	90-110	1	20	M3

MATRIX SPIKE SAMPLE: 3329520

Parameter	Units	50340587001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Sulfide	mg/L	ND	0.5	0.37	74	90-110	M0

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### QUALITY CONTROL DATA

Project: Eagle Valley N&E 2023  
Pace Project No.: 50340807

QC Batch: 725605      Analysis Method: EPA 353.2  
QC Batch Method: EPA 353.2      Analysis Description: 353.2 Nitrate + Nitrite, Unpres.  
Laboratory: Pace Analytical Services - Indianapolis  
Associated Lab Samples: 50340807001, 50340807002

METHOD BLANK: 3329812      Matrix: Water  
Associated Lab Samples: 50340807001, 50340807002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Nitrogen, Nitrate	mg/L	ND	0.10	0.011	03/30/23 18:45	
Nitrogen, Nitrite	mg/L	ND	0.10	0.0040	03/30/23 18:45	

LABORATORY CONTROL SAMPLE: 3329813

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Nitrogen, Nitrate	mg/L	1	1.0	105	90-110	
Nitrogen, Nitrite	mg/L	1	1.0	102	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3329814      3329815

Parameter	Units	50340789001		3329815		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		Result	MS Spike Conc.	MSD Spike Conc.	MS Result						
Nitrogen, Nitrate	mg/L	ND	1	1	1.0	1.1	103	104	90-110	2	20
Nitrogen, Nitrite	mg/L	ND	1	1	1.0	1.0	101	103	90-110	2	20

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### QUALITY CONTROL DATA

Project: Eagle Valley N&E 2023

Pace Project No.: 50340807

QC Batch: 725721

Analysis Method: EPA 365.1

QC Batch Method: EPA 365.1

Analysis Description: 365.1 Total Phosphorus

Laboratory: Pace Analytical Services - Indianapolis

Associated Lab Samples: 50340807001, 50340807002

METHOD BLANK: 3330521

Matrix: Water

Associated Lab Samples: 50340807001, 50340807002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Phosphate as P04	mg/L	ND	0.15	0.15	04/03/23 18:33	

LABORATORY CONTROL SAMPLE: 3330522

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Phosphate as P04	mg/L		1.5			

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3330523 3330524

Parameter	Units	50340587002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Phosphate as P04	mg/L	ND			1.5	1.6					6	

MATRIX SPIKE SAMPLE: 3330525

Parameter	Units	50340826010 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Phosphate as P04	mg/L		0.62		1.9		

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### QUALITY CONTROL DATA

Project: Eagle Valley N&E 2023  
Pace Project No.: 50340807

QC Batch: 726078	Analysis Method: SM 5310C
QC Batch Method: SM 5310C	Analysis Description: 5310C Total Organic Carbon
	Laboratory: Pace Analytical Services - Indianapolis

Associated Lab Samples: 50340807001, 50340807002

METHOD BLANK: 3332142 Matrix: Water  
Associated Lab Samples: 50340807001, 50340807002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Organic Carbon	mg/L	ND	1.0	0.24	04/04/23 15:44	

LABORATORY CONTROL SAMPLE: 3332143

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Organic Carbon	mg/L	10	10.4	104	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3332144 3332145

Parameter	Units	50340959003 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Total Organic Carbon	mg/L	1.4	10	10	11.6	11.3	102	99	80-120	3	20	

MATRIX SPIKE SAMPLE: 3332146

Parameter	Units	50340720001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Total Organic Carbon	mg/L	2.4	10	13.0	106	80-120	

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### QUALITY CONTROL DATA

Project: Eagle Valley N&E 2023

Pace Project No.: 50340807

QC Batch: 726079	Analysis Method: SM 5310C
QC Batch Method: SM 5310C	Analysis Description: 5310C Dissolved Organic Carbon
	Laboratory: Pace Analytical Services - Indianapolis

Associated Lab Samples: 50340807001, 50340807002

METHOD BLANK: 3332147 Matrix: Water

Associated Lab Samples: 50340807001, 50340807002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Dissolved Organic Carbon	mg/L	ND	1.0	0.24	04/04/23 21:21	

LABORATORY CONTROL SAMPLE: 3332148

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Dissolved Organic Carbon	mg/L	10	10.4	104	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3332149 3332150

Parameter	Units	3332149		3332150		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual	
		50340959003 Result	MS Spike Conc.	MSD Spike Conc.	MS Result							MSD Result
Dissolved Organic Carbon	mg/L	1.4	10	10	11.1	11.0	98	97	80-120	1	20	

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Eagle Valley N&E 2023

Pace Project No.: 50340807

**Sample: MW-12I**      **Lab ID: 50340807001**      Collected: 03/29/23 11:00      Received: 03/30/23 08:00      Matrix: Water  
PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	<b>1.00 ± 0.562 (0.582)</b> <b>C:NA T:79%</b>	pCi/L	04/15/23 14:41	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	<b>0.666 ± 0.440 (0.823)</b> <b>C:67% T:79%</b>	pCi/L	04/10/23 11:57	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	<b>1.67 ± 1.00 (1.41)</b>	pCi/L	04/19/23 16:59	7440-14-4	

### REPORT OF LABORATORY ANALYSIS

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Eagle Valley N&E 2023

Pace Project No.: 50340807

**Sample: MW-12D**      **Lab ID: 50340807002**      Collected: 03/29/23 10:00      Received: 03/30/23 08:00      Matrix: Water  
PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	<b>0.554 ± 0.607 (0.977)</b> <b>C:NA T:86%</b>	pCi/L	04/15/23 14:41	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	<b>0.394 ± 0.654 (1.42)</b> <b>C:65% T:86%</b>	pCi/L	04/10/23 14:32	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	<b>0.948 ± 1.26 (2.40)</b>	pCi/L	04/19/23 16:59	7440-14-4	

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### QUALITY CONTROL - RADIOCHEMISTRY

Project: Eagle Valley N&E 2023

Pace Project No.: 50340807

QC Batch: 577950

Analysis Method: EPA 904.0

QC Batch Method: EPA 904.0

Analysis Description: 904.0 Radium 228

Laboratory: Pace Analytical Services - Greensburg

Associated Lab Samples: 50340807001, 50340807002

METHOD BLANK: 2806234

Matrix: Water

Associated Lab Samples: 50340807001, 50340807002

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.231 ± 0.332 (0.713) C:77% T:84%	pCi/L	04/10/23 11:25	

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### QUALITY CONTROL - RADIOCHEMISTRY

Project: Eagle Valley N&E 2023

Pace Project No.: 50340807

QC Batch: 577949

Analysis Method: EPA 903.1

QC Batch Method: EPA 903.1

Analysis Description: 903.1 Radium-226

Laboratory: Pace Analytical Services - Greensburg

Associated Lab Samples: 50340807001, 50340807002

METHOD BLANK: 2806233

Matrix: Water

Associated Lab Samples: 50340807001, 50340807002

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.0555 ± 0.253 (0.515) C:NA T:84%	pCi/L	04/15/23 14:14	

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## QUALIFIERS

Project: Eagle Valley N&E 2023

Pace Project No.: 50340807

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### DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Reported results are not rounded until the final step prior to reporting. Therefore, calculated parameters that are typically reported as "Total" may vary slightly from the sum of the reported component parameters.

Act - Activity

Unc - Uncertainty: SDWA = 1.96 sigma count uncertainty, all other matrices = Expanded Uncertainty (95% confidence interval).

Gamma Spec = Expanded Uncertainty (95.4% Confidence Interval)

(MDC) - Minimum Detectable Concentration

Trac - Tracer Recovery (%)

Carr - Carrier Recovery (%)

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

### ANALYTE QUALIFIERS

E Analyte concentration exceeded the calibration range. The reported result is estimated.

H3 Sample was received or analysis requested beyond the recognized method holding time.

M0 Matrix spike recovery and/or matrix spike duplicate recovery was outside laboratory control limits.

M3 Matrix spike recovery was outside laboratory control limits due to matrix interferences.

N2 The lab does not hold NELAC/TNI accreditation for this parameter but other accreditations/certifications may apply. A complete list of accreditations/certifications is available upon request.

P6 Matrix spike recovery was outside laboratory control limits due to a parent sample concentration notably higher than the spike level.

## REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Eagle Valley N&E 2023

Pace Project No.: 50340807

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
50340807001	MW-12I	EPA 9056	725751		
50340807002	MW-12D	EPA 9056	725751		
50340807001	MW-12I	EPA 3010	726527	EPA 6010	726648
50340807002	MW-12D	EPA 3010	726527	EPA 6010	726648
50340807001	MW-12I	EPA 3010	726524	EPA 6010	726647
50340807002	MW-12D	EPA 3010	726524	EPA 6010	726647
50340807001	MW-12I	EPA 200.2	725685	EPA 6020	725984
50340807002	MW-12D	EPA 200.2	725685	EPA 6020	725984
50340807001	MW-12I	EPA 903.1	577949		
50340807002	MW-12D	EPA 903.1	577949		
50340807001	MW-12I	EPA 904.0	577950		
50340807002	MW-12D	EPA 904.0	577950		
50340807001	MW-12I	Total Radium Calculation	582209		
50340807002	MW-12D	Total Radium Calculation	582209		
50340807001	MW-12I	SM 2320B	725651		
50340807002	MW-12D	SM 2320B	725651		
50340807001	MW-12I	SM 2540C	725900		
50340807002	MW-12D	SM 2540C	725900		
50340807001	MW-12I	SM 4500-CI G	725577		
50340807002	MW-12D	SM 4500-CI G	725577		
50340807001	MW-12I	SM 4500-H+B	725731		
50340807002	MW-12D	SM 4500-H+B	725731		
50340807001	MW-12I	SM 4500-S2-D	725548		
50340807002	MW-12D	SM 4500-S2-D	725548		
50340807001	MW-12I	EPA 353.2	725605		
50340807002	MW-12D	EPA 353.2	725605		
50340807001	MW-12I	EPA 365.1	725721	EPA 365.1	726290
50340807002	MW-12D	EPA 365.1	725721	EPA 365.1	726290
50340807001	MW-12I	SM 5310C	726078		
50340807002	MW-12D	SM 5310C	726078		
50340807001	MW-12I	SM 5310C	726079		
50340807002	MW-12D	SM 5310C	726079		

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**SAMPLE CONDITION UPON RECEIPT FORM**

Date/Time and Initials of person examining contents: MCS 3/30/23 0840

1. Courier:  FED EX  UPS  CLIENT  PACE  USPS  OTHER \_\_\_\_\_

2. Custody Seal on Cooler/Box Present:  Yes  No  
 (If yes)Seals Intact:  Yes  No (leave blank if no seals were present)

3. Thermometer: 1 2 3 4 5 6 **A** **B** C D E F

4. Cooler Temperature(s): 2.2 | 2.3     
 (Initial/Corrected) RECORD TEMPS OF ALL COOLERS RECEIVED (use Comments below to add more)

5. Packing Material:  Bubble Wrap  Bubble Bags  
 None  Other \_\_\_\_\_

6. Ice Type:  Wet  Blue  None

7. If temp. is over 6°C or under 0°C, was the PM notified?:  Yes  No  
 Cooler temp should be above freezing to 6°C

All discrepancies will be written out in the comments section below.

	Yes	No		Yes	No	N/A
USDA Regulated Soils? (HI, ID, NY, WA, OR, CA, NM, TX, OK, AR, LA, TN, AL, MS, NC, SC, GA, FL, or Puerto Rico)		/	All containers needing acid/base preservation have been pH CHECKED?: Exceptions: VOA, coliform, LLHg, O&G, RAD CHEM, and any container with a septum cap or preserved with HCl.			
Short Hold Time Analysis (48 hours or less)? Analysis: <u>N02/N03</u>	/		Circle: HNO3 (<2) H2SO4 (<2) NaOH (>10) NaOH/ZnAc (>9) Any non-conformance to pH recommendations will be noted on the container count form	✓		
Time 5035A TC placed in Freezer or Short Holds To Lab	Time:	<u>0900</u>	Residual Chlorine Check (SVOC 625 Pest/PCB 608)	Present	Absent	N/A
Rush TAT Requested (4 days or less):		/	Residual Chlorine Check (Total/Amenable/Free Cyanide)			/
Custody Signatures Present?	/	<del>MCS</del>	Headspace Wisconsin Sulfide?			/
Containers Intact?:	/		Headspace in VOA Vials (>6mm): See Containter Count form for details	Present	Absent	No VOA Vials Sent
Sample Label (IDs/Dates/Times) Match COC?: Except TCs, which only require sample ID	/		Trip Blank Present?		/	
Extra labels on Terracore Vials? (soils only)			Trip Blank Custody Seals?:			/

COMMENTS:

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May 03, 2023

Mr. Mark Breting  
ATC Group Services  
7988 Centerpoint Drive  
Suite 100  
Indianapolis, IN 46256

RE: Project: Eagle Valley N&E 2023  
Pace Project No.: 50340959

Dear Mr. Breting:

Enclosed are the analytical results for sample(s) received by the laboratory on March 31, 2023. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

The test results provided in this final report were generated by each of the following laboratories within the Pace Network:

- Pace Analytical Services - Indianapolis
- Pace Analytical Services - Greensburg

If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Will Statz  
will.statz@pacelabs.com  
(317)228-3105  
Project Manager

Enclosures

cc: Mr. Robert Miller, Haley & Aldrich



## REPORT OF LABORATORY ANALYSIS

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## CERTIFICATIONS

Project: Eagle Valley N&E 2023

Pace Project No.: 50340959

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### **Pace Analytical Services Pennsylvania**

1638 Roseytown Rd Suites 2,3&4, Greensburg, PA 15601

ANAB DOD-ELAP Rad Accreditation #: L2417

Alabama Certification #: 41590

Arizona Certification #: AZ0734

Arkansas Certification

California Certification #: 04222CA

Colorado Certification #: PA01547

Connecticut Certification #: PH-0694

Delaware Certification

EPA Region 4 DW Rad

Florida/TNI Certification #: E87683

Georgia Certification #: C040

Guam Certification

Florida: Cert E871149 SEKS WET

Hawaii Certification

Idaho Certification

Illinois Certification

Indiana Certification

Iowa Certification #: 391

Kansas/TNI Certification #: E-10358

Kentucky Certification #: KY90133

KY WW Permit #: KY0098221

KY WW Permit #: KY0000221

Louisiana DHH/TNI Certification #: LA180012

Louisiana DEQ/TNI Certification #: 4086

Maine Certification #: 2017020

Maryland Certification #: 308

Massachusetts Certification #: M-PA1457

Michigan/PADEP Certification #: 9991

Missouri Certification #: 235

Montana Certification #: Cert0082

Nebraska Certification #: NE-OS-29-14

Nevada Certification #: PA014572018-1

New Hampshire/TNI Certification #: 297617

New Jersey/TNI Certification #: PA051

New Mexico Certification #: PA01457

New York/TNI Certification #: 10888

North Carolina Certification #: 42706

North Dakota Certification #: R-190

Ohio EPA Rad Approval: #41249

Oregon/TNI Certification #: PA200002-010

Pennsylvania/TNI Certification #: 65-00282

Puerto Rico Certification #: PA01457

Rhode Island Certification #: 65-00282

South Dakota Certification

Tennessee Certification #: 02867

Texas/TNI Certification #: T104704188-17-3

Utah/TNI Certification #: PA014572017-9

USDA Soil Permit #: P330-17-00091

Vermont Dept. of Health: ID# VT-0282

Virgin Island/PADEP Certification

Virginia/VELAP Certification #: 460198

Washington Certification #: C868

West Virginia DEP Certification #: 143

West Virginia DHHR Certification #: 9964C

Wisconsin Approve List for Rad

Wyoming Certification #: 8TMS-L

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### **Pace Analytical Services Indianapolis**

7726 Moller Road, Indianapolis, IN 46268

Illinois Accreditation #: 200074

Indiana Drinking Water Laboratory #: C-49-06

Kansas/TNI Certification #: E-10177

Kentucky UST Agency Interest #: 80226

Kentucky WW Laboratory ID #: 98019

Michigan Drinking Water Laboratory #9050

Ohio VAP Certified Laboratory #: CL0065

Oklahoma Laboratory #: 9204

Texas Certification #: T104704355

Wisconsin Laboratory #: 999788130

USDA Foreign Soil Permit #: 525-23-13-23119

USDA Compliance Agreement #: IN-SL-22-001

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## REPORT OF LABORATORY ANALYSIS

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## SAMPLE SUMMARY

Project: Eagle Valley N&E 2023

Pace Project No.: 50340959

Lab ID	Sample ID	Matrix	Date Collected	Date Received
50340959001	MW-25S	Water	03/30/23 12:45	03/31/23 14:30
50340959002	MW-25I	Water	03/30/23 11:45	03/31/23 14:30
50340959003	MW-25D	Water	03/30/23 10:30	03/31/23 14:30
50340959004	MW-25D MS	Water	03/30/23 10:30	03/31/23 14:30
50340959005	MW-25D MSD	Water	03/30/23 10:30	03/31/23 14:30
50340959006	Dup-1	Water	03/30/23 10:30	03/31/23 14:30

## REPORT OF LABORATORY ANALYSIS

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### SAMPLE ANALYTE COUNT

Project: Eagle Valley N&E 2023

Pace Project No.: 50340959

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
50340959001	MW-25S	EPA 9056	ADM	3	PASI-I
		EPA 6010	FRW	9	PASI-I
		EPA 6010	RAM	2	PASI-I
		EPA 6020	CAW	10	PASI-I
		EPA 903.1	JDZ	1	PASI-PA
		EPA 904.0	JGH	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
		SM 2320B	DAW	3	PASI-I
		SM 2540C	TRK	1	PASI-I
		SM 4500-CI G	BEP	1	PASI-I
		SM 4500-H+B	BMS	1	PASI-I
		SM 4500-S2-D	BEP	1	PASI-I
		EPA 353.2	ZM	2	PASI-I
		EPA 365.1	YAM	1	PASI-I
		SM 5310C	ATS	1	PASI-I
		SM 5310C	ATS	1	PASI-I
		50340959002	MW-25I	EPA 9056	ADM
EPA 6010	FRW			9	PASI-I
EPA 6010	RAM			2	PASI-I
EPA 6020	CAW			10	PASI-I
EPA 903.1	JDZ			1	PASI-PA
EPA 904.0	JGH			1	PASI-PA
Total Radium Calculation	JAL			1	PASI-PA
SM 2320B	DAW			3	PASI-I
SM 2540C	TRK			1	PASI-I
SM 4500-CI G	BEP			1	PASI-I
SM 4500-H+B	BMS			1	PASI-I
SM 4500-S2-D	BEP			1	PASI-I
EPA 353.2	ZM			2	PASI-I
EPA 365.1	YAM			1	PASI-I
SM 5310C	ATS			1	PASI-I
SM 5310C	ATS			1	PASI-I
50340959003	MW-25D			EPA 9056	ADM
		EPA 6010	FRW	9	PASI-I
		EPA 6010	RAM	2	PASI-I
		EPA 6020	CAW	10	PASI-I
		EPA 903.1	JDZ	1	PASI-PA

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### SAMPLE ANALYTE COUNT

Project: Eagle Valley N&E 2023

Pace Project No.: 50340959

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
		EPA 904.0	JGH	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
		SM 2320B	DAW	3	PASI-I
		SM 2540C	TRK	1	PASI-I
		SM 4500-CI G	BEP	1	PASI-I
		SM 4500-H+B	BMS	1	PASI-I
		SM 4500-S2-D	BEP	1	PASI-I
		EPA 353.2	ZM	2	PASI-I
		EPA 365.1	YAM	1	PASI-I
		SM 5310C	ATS	1	PASI-I
		SM 5310C	ATS	1	PASI-I
50340959004	MW-25D MS	EPA 903.1	JDZ	1	PASI-PA
		EPA 904.0	JGH	1	PASI-PA
50340959005	MW-25D MSD	EPA 903.1	JDZ	1	PASI-PA
		EPA 904.0	JGH	1	PASI-PA
50340959006	Dup-1	EPA 9056	ADM	3	PASI-I
		EPA 6010	FRW	9	PASI-I
		EPA 6010	RAM	2	PASI-I
		EPA 6020	CAW	10	PASI-I
		EPA 903.1	JDZ	1	PASI-PA
		EPA 904.0	JGH	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
		SM 2320B	DAW	3	PASI-I
		SM 2540C	TRK	1	PASI-I
		SM 4500-CI G	BEP	1	PASI-I
		SM 4500-H+B	BMS	1	PASI-I
		SM 4500-S2-D	BEP	1	PASI-I
		EPA 353.2	ZM	2	PASI-I
		EPA 365.1	YAM	1	PASI-I
		SM 5310C	ATS	1	PASI-I
		SM 5310C	ATS	1	PASI-I

PASI-I = Pace Analytical Services - Indianapolis

PASI-PA = Pace Analytical Services - Greensburg

### REPORT OF LABORATORY ANALYSIS

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### SUMMARY OF DETECTION

Project: Eagle Valley N&E 2023

Pace Project No.: 50340959

Lab Sample ID	Client Sample ID	Result	Units	Report Limit	Analyzed	Qualifiers
Method	Parameters					
<b>50340959001</b>	<b>MW-25S</b>					
EPA 9056	Chloride	67.3	mg/L	2.5	04/07/23 10:34	
EPA 9056	Fluoride	0.29	mg/L	0.10	04/07/23 10:19	
EPA 9056	Sulfate	62.3	mg/L	2.5	04/07/23 10:34	
EPA 6010	Aluminum	274	ug/L	200	04/06/23 11:01	
EPA 6010	Boron	444	ug/L	100	04/06/23 11:01	
EPA 6010	Calcium	90000	ug/L	1000	04/06/23 11:01	
EPA 6010	Lithium	57.9	ug/L	20.0	04/06/23 11:01	
EPA 6010	Magnesium	25500	ug/L	1000	04/06/23 11:01	
EPA 6010	Manganese	643	ug/L	10.0	04/06/23 11:01	
EPA 6010	Potassium	6490	ug/L	1000	04/06/23 11:01	
EPA 6010	Silica	11800	ug/L	450	04/06/23 11:01	N2
EPA 6010	Sodium	50600	ug/L	1000	04/06/23 11:01	
EPA 6010	Manganese, Dissolved	651	ug/L	10.0	04/07/23 11:45	
EPA 6010	Molybdenum, Dissolved	32.1	ug/L	10.0	04/07/23 11:45	
EPA 6020	Arsenic	3.2	ug/L	1.0	04/05/23 23:26	
EPA 6020	Barium	115	ug/L	1.0	04/05/23 23:26	
EPA 6020	Molybdenum	33.5	ug/L	1.0	04/05/23 23:26	
EPA 903.1	Radium-226	0.780 ± 0.613 (0.852)	pCi/L		05/01/23 13:10	
EPA 904.0	Radium-228	C:NA T:85% 0.517 ± 0.413 (0.821) C:82% T:74%	pCi/L		04/12/23 12:29	
Total Radium Calculation	Total Radium	1.30 ± 1.03 (1.67)	pCi/L		05/03/23 12:57	
SM 2320B	Alkalinity, Total as CaCO3	288	mg/L	10.0	03/31/23 20:22	
SM 2320B	Alkalinity, Bicarbonate (CaCO3)	288	mg/L	10.0	03/31/23 20:22	
SM 2540C	Total Dissolved Solids	473	mg/L	10.0	04/03/23 15:55	
SM 4500-H+B	pH at 25 Degrees C	7.6	Std. Units	0.10	04/06/23 14:18	H3
SM 5310C	Dissolved Organic Carbon	1.3	mg/L	1.0	04/04/23 22:04	
<b>50340959002</b>	<b>MW-25I</b>					
EPA 9056	Chloride	94.3	mg/L	2.5	04/07/23 11:36	
EPA 9056	Fluoride	0.12	mg/L	0.10	04/07/23 11:21	
EPA 9056	Sulfate	85.3	mg/L	2.5	04/07/23 11:36	
EPA 6010	Aluminum	462	ug/L	200	04/06/23 11:03	
EPA 6010	Boron	1080	ug/L	100	04/06/23 11:03	
EPA 6010	Calcium	79800	ug/L	1000	04/06/23 11:03	
EPA 6010	Lithium	77.6	ug/L	20.0	04/06/23 11:03	
EPA 6010	Magnesium	21200	ug/L	1000	04/06/23 11:03	
EPA 6010	Manganese	197	ug/L	10.0	04/06/23 11:03	
EPA 6010	Potassium	6780	ug/L	1000	04/06/23 11:03	
EPA 6010	Silica	12800	ug/L	450	04/06/23 11:03	N2
EPA 6010	Sodium	76000	ug/L	1000	04/06/23 11:03	
EPA 6010	Manganese, Dissolved	178	ug/L	10.0	04/07/23 11:47	
EPA 6010	Molybdenum, Dissolved	131	ug/L	10.0	04/07/23 11:47	

### REPORT OF LABORATORY ANALYSIS

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### SUMMARY OF DETECTION

Project: Eagle Valley N&E 2023

Pace Project No.: 50340959

Lab Sample ID	Client Sample ID	Result	Units	Report Limit	Analyzed	Qualifiers
Method	Parameters					
<b>50340959002</b>	<b>MW-25I</b>					
EPA 6020	Arsenic	1.4	ug/L	1.0	04/05/23 23:30	
EPA 6020	Barium	94.3	ug/L	1.0	04/05/23 23:30	
EPA 6020	Molybdenum	131	ug/L	1.0	04/05/23 23:30	
EPA 903.1	Radium-226	0.255 ± 0.531 (0.958)	pCi/L		05/01/23 13:10	
EPA 904.0	Radium-228	C:NA T:91% 0.731 ± 0.398 (0.712)	pCi/L		04/12/23 12:29	
		C:83% T:85%				
Total Radium Calculation	Total Radium	0.986 ± 0.929 (1.67)	pCi/L		05/03/23 12:57	
SM 2320B	Alkalinity, Total as CaCO3	218	mg/L	10.0	03/31/23 20:22	
SM 2320B	Alkalinity, Bicarbonate (CaCO3)	218	mg/L	10.0	03/31/23 20:22	
SM 2540C	Total Dissolved Solids	496	mg/L	10.0	04/03/23 15:55	
SM 4500-H+B	pH at 25 Degrees C	7.8	Std. Units	0.10	04/06/23 14:19	H3
EPA 365.1	Phosphate as P04	0.18	mg/L	0.15	04/20/23 12:21	
SM 5310C	Total Organic Carbon	1.3	mg/L	1.0	04/04/23 17:02	
SM 5310C	Dissolved Organic Carbon	1.3	mg/L	1.0	04/04/23 22:15	
<b>50340959003</b>	<b>MW-25D</b>					
EPA 9056	Chloride	92.1	mg/L	2.5	04/07/23 12:07	
EPA 9056	Fluoride	0.12	mg/L	0.10	04/07/23 11:52	
EPA 9056	Sulfate	96.6	mg/L	2.5	04/07/23 12:07	
EPA 6010	Aluminum	738	ug/L	200	04/06/23 11:05	
EPA 6010	Boron	1710	ug/L	100	04/06/23 11:05	
EPA 6010	Calcium	77100	ug/L	1000	04/06/23 11:05	
EPA 6010	Lithium	67.9	ug/L	20.0	04/06/23 11:05	
EPA 6010	Magnesium	16700	ug/L	1000	04/06/23 11:05	
EPA 6010	Manganese	138	ug/L	10.0	04/06/23 11:05	
EPA 6010	Potassium	4410	ug/L	1000	04/06/23 11:05	
EPA 6010	Silica	14800	ug/L	450	04/06/23 11:05	N2
EPA 6010	Sodium	86500	ug/L	1000	04/06/23 11:05	
EPA 6010	Manganese, Dissolved	122	ug/L	10.0	04/07/23 11:50	
EPA 6010	Molybdenum, Dissolved	181	ug/L	10.0	04/07/23 11:50	
EPA 6020	Barium	65.5	ug/L	1.0	04/05/23 23:39	
EPA 6020	Molybdenum	176	ug/L	2.0	04/07/23 02:33	
EPA 903.1	Radium-226	0.255 ± 0.362 (0.613)	pCi/L		05/01/23 13:10	
EPA 904.0	Radium-228	C:NA T:90% 0.647 ± 0.375 (0.678)	pCi/L		04/12/23 15:38	
		C:77% T:86%				

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### SUMMARY OF DETECTION

Project: Eagle Valley N&E 2023

Pace Project No.: 50340959

Lab Sample ID	Client Sample ID	Result	Units	Report Limit	Analyzed	Qualifiers
Method	Parameters					
<b>50340959003</b>	<b>MW-25D</b>					
Total Radium Calculation	Total Radium	0.902 ± 0.737 (1.29)	pCi/L		05/03/23 12:57	
SM 2320B	Alkalinity, Total as CaCO3	229	mg/L	10.0	03/31/23 20:22	
SM 2320B	Alkalinity,Bicarbonate (CaCO3)	229	mg/L	10.0	03/31/23 20:22	
SM 2540C	Total Dissolved Solids	506	mg/L	10.0	04/03/23 15:55	
SM 4500-H+B	pH at 25 Degrees C	7.8	Std. Units	0.10	04/06/23 14:13	H3
SM 5310C	Total Organic Carbon	1.4	mg/L	1.0	04/04/23 17:13	
SM 5310C	Dissolved Organic Carbon	1.4	mg/L	1.0	04/04/23 22:50	
<b>50340959004</b>	<b>MW-25D MS</b>					
EPA 903.1	Radium-226	105.93 %REC ± NA (NA) C:NA T:NA	pCi/L		05/01/23 13:10	
EPA 904.0	Radium-228	91.35 %REC ± NA (NA) C:NA T:NA	pCi/L		04/12/23 15:38	
<b>50340959005</b>	<b>MW-25D MSD</b>					
EPA 903.1	Radium-226	116.79 %REC 9.76RPD ± NA (NA) C:NA T:NA	pCi/L		05/01/23 13:10	
EPA 904.0	Radium-228	86.48 %REC 5.48RPD ± NA (NA) C:NA T:NA	pCi/L		04/12/23 15:38	
<b>50340959006</b>	<b>Dup-1</b>					
EPA 9056	Chloride	69.1	mg/L	2.5	04/07/23 14:11	
EPA 9056	Fluoride	0.29	mg/L	0.10	04/07/23 13:56	
EPA 9056	Sulfate	60.9	mg/L	2.5	04/07/23 14:11	
EPA 6010	Boron	463	ug/L	100	04/06/23 11:20	
EPA 6010	Calcium	92100	ug/L	1000	04/06/23 11:20	
EPA 6010	Lithium	58.8	ug/L	20.0	04/06/23 11:20	
EPA 6010	Magnesium	26100	ug/L	1000	04/06/23 11:20	
EPA 6010	Manganese	662	ug/L	10.0	04/06/23 11:20	
EPA 6010	Potassium	6580	ug/L	1000	04/06/23 11:20	
EPA 6010	Silica	12100	ug/L	450	04/06/23 11:20	N2
EPA 6010	Sodium	52200	ug/L	1000	04/06/23 11:20	
EPA 6010	Manganese, Dissolved	655	ug/L	10.0	04/07/23 12:00	
EPA 6010	Molybdenum, Dissolved	32.5	ug/L	10.0	04/07/23 12:00	
EPA 6020	Arsenic	3.1	ug/L	1.0	04/05/23 23:49	
EPA 6020	Barium	111	ug/L	1.0	04/05/23 23:49	
EPA 6020	Molybdenum	32.6	ug/L	1.0	04/05/23 23:49	

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### SUMMARY OF DETECTION

Project: Eagle Valley N&E 2023

Pace Project No.: 50340959

Lab Sample ID Method	Client Sample ID Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
<b>50340959006</b>	<b>Dup-1</b>					
EPA 903.1	Radium-226	0.935 ± 0.701 (1.00) C:NA T:87%	pCi/L		05/01/23 13:10	
EPA 904.0	Radium-228	0.521 ± 0.338 (0.627) C:80% T:83%	pCi/L		04/12/23 12:30	
Total Radium Calculation	Total Radium	1.46 ± 1.04 (1.63)	pCi/L		05/03/23 12:57	
SM 2320B	Alkalinity, Total as CaCO <sub>3</sub>	286	mg/L	10.0	03/31/23 20:22	
SM 2320B	Alkalinity,Bicarbonate (CaCO <sub>3</sub> )	286	mg/L	10.0	03/31/23 20:22	
SM 2540C	Total Dissolved Solids	469	mg/L	10.0	04/03/23 15:56	
SM 4500-H+B	pH at 25 Degrees C	7.5	Std. Units	0.10	04/06/23 14:16	H3
SM 5310C	Total Organic Carbon	1.3	mg/L	1.0	04/04/23 18:16	
SM 5310C	Dissolved Organic Carbon	1.4	mg/L	1.0	04/04/23 23:24	

### REPORT OF LABORATORY ANALYSIS

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### ANALYTICAL RESULTS

Project: Eagle Valley N&E 2023

Pace Project No.: 50340959

Sample: MW-25S		Lab ID: 50340959001		Collected: 03/30/23 12:45		Received: 03/31/23 14:30		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>9056 IC Anions</b>		Analytical Method: EPA 9056 Pace Analytical Services - Indianapolis							
Chloride	67.3	mg/L	2.5	0.67	10		04/07/23 10:34	16887-00-6	
Fluoride	0.29	mg/L	0.10	0.017	1		04/07/23 10:19	16984-48-8	
Sulfate	62.3	mg/L	2.5	0.85	10		04/07/23 10:34	14808-79-8	
<b>6010 MET ICP</b>		Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis							
Aluminum	274	ug/L	200	54.4	1	04/05/23 16:07	04/06/23 11:01	7429-90-5	
Boron	444	ug/L	100	61.4	1	04/05/23 16:07	04/06/23 11:01	7440-42-8	
Calcium	90000	ug/L	1000	88.4	1	04/05/23 16:07	04/06/23 11:01	7440-70-2	
Lithium	57.9	ug/L	20.0	6.2	1	04/05/23 16:07	04/06/23 11:01	7439-93-2	
Magnesium	25500	ug/L	1000	43.0	1	04/05/23 16:07	04/06/23 11:01	7439-95-4	
Manganese	643	ug/L	10.0	5.4	1	04/05/23 16:07	04/06/23 11:01	7439-96-5	
Potassium	6490	ug/L	1000	200	1	04/05/23 16:07	04/06/23 11:01	7440-09-7	
Silica	11800	ug/L	450		1	04/05/23 16:07	04/06/23 11:01	7631-86-9	N2
Sodium	50600	ug/L	1000	284	1	04/05/23 16:07	04/06/23 11:01	7440-23-5	
<b>6010 MET ICP, Dissolved</b>		Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis							
Manganese, Dissolved	651	ug/L	10.0	5.4	1	04/06/23 16:20	04/07/23 11:45	7439-96-5	
Molybdenum, Dissolved	32.1	ug/L	10.0	2.0	1	04/06/23 16:20	04/07/23 11:45	7439-98-7	
<b>6020 MET ICPMS</b>		Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis							
Antimony	ND	ug/L	1.0	0.036	1	04/03/23 22:45	04/05/23 23:26	7440-36-0	
Arsenic	3.2	ug/L	1.0	0.053	1	04/03/23 22:45	04/05/23 23:26	7440-38-2	
Barium	115	ug/L	1.0	0.051	1	04/03/23 22:45	04/05/23 23:26	7440-39-3	
Beryllium	ND	ug/L	0.20	0.028	1	04/03/23 22:45	04/05/23 23:26	7440-41-7	
Cadmium	ND	ug/L	0.20	0.0090	1	04/03/23 22:45	04/05/23 23:26	7440-43-9	
Cobalt	ND	ug/L	1.0	0.032	1	04/03/23 22:45	04/05/23 23:26	7440-48-4	
Lead	ND	ug/L	1.0	0.034	1	04/03/23 22:45	04/05/23 23:26	7439-92-1	
Molybdenum	33.5	ug/L	1.0	0.048	1	04/03/23 22:45	04/05/23 23:26	7439-98-7	
Selenium	ND	ug/L	1.0	0.23	1	04/03/23 22:45	04/05/23 23:26	7782-49-2	
Thallium	ND	ug/L	1.0	0.033	1	04/03/23 22:45	04/05/23 23:26	7440-28-0	
<b>2320B Alkalinity</b>		Analytical Method: SM 2320B Pace Analytical Services - Indianapolis							
Alkalinity, Total as CaCO3	288	mg/L	10.0	10.0	1		03/31/23 20:22		
Alkalinity,Bicarbonate (CaCO3)	288	mg/L	10.0	10.0	1		03/31/23 20:22		
Alkalinity,Carbonate (CaCO3)	ND	mg/L	10.0	10.0	1		03/31/23 20:22		
<b>2540C Total Dissolved Solids</b>		Analytical Method: SM 2540C Pace Analytical Services - Indianapolis							
Total Dissolved Solids	473	mg/L	10.0	10.0	1		04/03/23 15:55		

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## ANALYTICAL RESULTS

Project: Eagle Valley N&E 2023

Pace Project No.: 50340959

Sample: MW-25S		Lab ID: 50340959001		Collected: 03/30/23 12:45	Received: 03/31/23 14:30	Matrix: Water				
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual	
<b>4500CL G Chlorine, Residual</b>		Analytical Method: SM 4500-Cl G Pace Analytical Services - Indianapolis								
Chlorine, Total Residual	ND	mg/L	0.10	0.034	1		04/04/23 13:46	7782-50-5	H3	
<b>4500H+ pH, Electrometric</b>		Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis								
pH at 25 Degrees C	7.6	Std. Units	0.10	0.10	1		04/06/23 14:18		H3	
<b>4500S2D Sulfide Water</b>		Analytical Method: SM 4500-S2-D Pace Analytical Services - Indianapolis								
Sulfide	ND	mg/L	0.10	0.025	1		04/04/23 09:19	18496-25-8		
<b>353.2 Nitrogen, NO2/NO3 unpres</b>		Analytical Method: EPA 353.2 Pace Analytical Services - Indianapolis								
Nitrogen, Nitrate	ND	mg/L	0.10	0.011	1		04/01/23 09:05	14797-55-8		
Nitrogen, Nitrite	ND	mg/L	0.10	0.0040	1		04/01/23 09:05	14797-65-0		
<b>365.1 Total Phosphorus</b>		Analytical Method: EPA 365.1 Preparation Method: EPA 365.1 Pace Analytical Services - Indianapolis								
Phosphate as P04	ND	mg/L	0.15	0.15	1	04/19/23 13:00	04/20/23 12:21			
<b>5310C TOC</b>		Analytical Method: SM 5310C Pace Analytical Services - Indianapolis								
Total Organic Carbon	ND	mg/L	4.0	0.94	4		04/04/23 16:51	7440-44-0	D3	
<b>5310C Dissolved Organic Carbon</b>		Analytical Method: SM 5310C Pace Analytical Services - Indianapolis								
Dissolved Organic Carbon	1.3	mg/L	1.0	0.24	1		04/04/23 22:04			

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### ANALYTICAL RESULTS

Project: Eagle Valley N&E 2023

Pace Project No.: 50340959

Sample: MW-251		Lab ID: 50340959002		Collected: 03/30/23 11:45		Received: 03/31/23 14:30		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>9056 IC Anions</b>		Analytical Method: EPA 9056 Pace Analytical Services - Indianapolis							
Chloride	94.3	mg/L	2.5	0.67	10		04/07/23 11:36	16887-00-6	
Fluoride	0.12	mg/L	0.10	0.017	1		04/07/23 11:21	16984-48-8	
Sulfate	85.3	mg/L	2.5	0.85	10		04/07/23 11:36	14808-79-8	
<b>6010 MET ICP</b>		Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis							
Aluminum	462	ug/L	200	54.4	1	04/05/23 16:07	04/06/23 11:03	7429-90-5	
Boron	1080	ug/L	100	61.4	1	04/05/23 16:07	04/06/23 11:03	7440-42-8	
Calcium	79800	ug/L	1000	88.4	1	04/05/23 16:07	04/06/23 11:03	7440-70-2	
Lithium	77.6	ug/L	20.0	6.2	1	04/05/23 16:07	04/06/23 11:03	7439-93-2	
Magnesium	21200	ug/L	1000	43.0	1	04/05/23 16:07	04/06/23 11:03	7439-95-4	
Manganese	197	ug/L	10.0	5.4	1	04/05/23 16:07	04/06/23 11:03	7439-96-5	
Potassium	6780	ug/L	1000	200	1	04/05/23 16:07	04/06/23 11:03	7440-09-7	
Silica	12800	ug/L	450		1	04/05/23 16:07	04/06/23 11:03	7631-86-9	N2
Sodium	76000	ug/L	1000	284	1	04/05/23 16:07	04/06/23 11:03	7440-23-5	
<b>6010 MET ICP, Dissolved</b>		Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis							
Manganese, Dissolved	178	ug/L	10.0	5.4	1	04/06/23 16:20	04/07/23 11:47	7439-96-5	
Molybdenum, Dissolved	131	ug/L	10.0	2.0	1	04/06/23 16:20	04/07/23 11:47	7439-98-7	
<b>6020 MET ICPMS</b>		Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis							
Antimony	ND	ug/L	1.0	0.036	1	04/03/23 22:45	04/05/23 23:30	7440-36-0	
Arsenic	1.4	ug/L	1.0	0.053	1	04/03/23 22:45	04/05/23 23:30	7440-38-2	
Barium	94.3	ug/L	1.0	0.051	1	04/03/23 22:45	04/05/23 23:30	7440-39-3	
Beryllium	ND	ug/L	0.20	0.028	1	04/03/23 22:45	04/05/23 23:30	7440-41-7	
Cadmium	ND	ug/L	0.20	0.0090	1	04/03/23 22:45	04/05/23 23:30	7440-43-9	
Cobalt	ND	ug/L	1.0	0.032	1	04/03/23 22:45	04/05/23 23:30	7440-48-4	
Lead	ND	ug/L	1.0	0.034	1	04/03/23 22:45	04/05/23 23:30	7439-92-1	
Molybdenum	131	ug/L	1.0	0.048	1	04/03/23 22:45	04/05/23 23:30	7439-98-7	
Selenium	ND	ug/L	1.0	0.23	1	04/03/23 22:45	04/05/23 23:30	7782-49-2	
Thallium	ND	ug/L	1.0	0.033	1	04/03/23 22:45	04/05/23 23:30	7440-28-0	
<b>2320B Alkalinity</b>		Analytical Method: SM 2320B Pace Analytical Services - Indianapolis							
Alkalinity, Total as CaCO3	218	mg/L	10.0	10.0	1		03/31/23 20:22		
Alkalinity,Bicarbonate (CaCO3)	218	mg/L	10.0	10.0	1		03/31/23 20:22		
Alkalinity,Carbonate (CaCO3)	ND	mg/L	10.0	10.0	1		03/31/23 20:22		
<b>2540C Total Dissolved Solids</b>		Analytical Method: SM 2540C Pace Analytical Services - Indianapolis							
Total Dissolved Solids	496	mg/L	10.0	10.0	1		04/03/23 15:55		

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### ANALYTICAL RESULTS

Project: Eagle Valley N&E 2023

Pace Project No.: 50340959

Sample: MW-25I		Lab ID: 50340959002		Collected: 03/30/23 11:45		Received: 03/31/23 14:30		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>4500CL G Chlorine, Residual</b>		Analytical Method: SM 4500-Cl G Pace Analytical Services - Indianapolis							
Chlorine, Total Residual	ND	mg/L	0.10	0.034	1		04/04/23 13:46	7782-50-5	H3
<b>4500H+ pH, Electrometric</b>		Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis							
pH at 25 Degrees C	7.8	Std. Units	0.10	0.10	1		04/06/23 14:19		H3
<b>4500S2D Sulfide Water</b>		Analytical Method: SM 4500-S2-D Pace Analytical Services - Indianapolis							
Sulfide	ND	mg/L	0.10	0.025	1		04/04/23 09:19	18496-25-8	
<b>353.2 Nitrogen, NO2/NO3 unpres</b>		Analytical Method: EPA 353.2 Pace Analytical Services - Indianapolis							
Nitrogen, Nitrate	ND	mg/L	0.10	0.011	1		04/01/23 09:03	14797-55-8	
Nitrogen, Nitrite	ND	mg/L	0.10	0.0040	1		04/01/23 09:03	14797-65-0	
<b>365.1 Total Phosphorus</b>		Analytical Method: EPA 365.1 Preparation Method: EPA 365.1 Pace Analytical Services - Indianapolis							
Phosphate as P04	0.18	mg/L	0.15	0.15	1	04/19/23 13:00	04/20/23 12:21		
<b>5310C TOC</b>		Analytical Method: SM 5310C Pace Analytical Services - Indianapolis							
Total Organic Carbon	1.3	mg/L	1.0	0.24	1		04/04/23 17:02	7440-44-0	
<b>5310C Dissolved Organic Carbon</b>		Analytical Method: SM 5310C Pace Analytical Services - Indianapolis							
Dissolved Organic Carbon	1.3	mg/L	1.0	0.24	1		04/04/23 22:15		

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### ANALYTICAL RESULTS

Project: Eagle Valley N&E 2023

Pace Project No.: 50340959

Sample: MW-25D		Lab ID: 50340959003		Collected: 03/30/23 10:30		Received: 03/31/23 14:30		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>9056 IC Anions</b>		Analytical Method: EPA 9056 Pace Analytical Services - Indianapolis							
Chloride	92.1	mg/L	2.5	0.67	10		04/07/23 12:07	16887-00-6	
Fluoride	0.12	mg/L	0.10	0.017	1		04/07/23 11:52	16984-48-8	
Sulfate	96.6	mg/L	2.5	0.85	10		04/07/23 12:07	14808-79-8	
<b>6010 MET ICP</b>		Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis							
Aluminum	738	ug/L	200	54.4	1	04/05/23 16:07	04/06/23 11:05	7429-90-5	
Boron	1710	ug/L	100	61.4	1	04/05/23 16:07	04/06/23 11:05	7440-42-8	
Calcium	77100	ug/L	1000	88.4	1	04/05/23 16:07	04/06/23 11:05	7440-70-2	
Lithium	67.9	ug/L	20.0	6.2	1	04/05/23 16:07	04/06/23 11:05	7439-93-2	
Magnesium	16700	ug/L	1000	43.0	1	04/05/23 16:07	04/06/23 11:05	7439-95-4	
Manganese	138	ug/L	10.0	5.4	1	04/05/23 16:07	04/06/23 11:05	7439-96-5	
Potassium	4410	ug/L	1000	200	1	04/05/23 16:07	04/06/23 11:05	7440-09-7	
Silica	14800	ug/L	450		1	04/05/23 16:07	04/06/23 11:05	7631-86-9	N2
Sodium	86500	ug/L	1000	284	1	04/05/23 16:07	04/06/23 11:05	7440-23-5	
<b>6010 MET ICP, Dissolved</b>		Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis							
Manganese, Dissolved	122	ug/L	10.0	5.4	1	04/06/23 16:20	04/07/23 11:50	7439-96-5	
Molybdenum, Dissolved	181	ug/L	10.0	2.0	1	04/06/23 16:20	04/07/23 11:50	7439-98-7	
<b>6020 MET ICPMS</b>		Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis							
Antimony	ND	ug/L	1.0	0.036	1	04/03/23 22:45	04/05/23 23:39	7440-36-0	
Arsenic	ND	ug/L	1.0	0.053	1	04/03/23 22:45	04/05/23 23:39	7440-38-2	
Barium	65.5	ug/L	1.0	0.051	1	04/03/23 22:45	04/05/23 23:39	7440-39-3	
Beryllium	ND	ug/L	0.20	0.028	1	04/03/23 22:45	04/05/23 23:39	7440-41-7	
Cadmium	ND	ug/L	0.20	0.0090	1	04/03/23 22:45	04/05/23 23:39	7440-43-9	
Cobalt	ND	ug/L	1.0	0.032	1	04/03/23 22:45	04/05/23 23:39	7440-48-4	
Lead	ND	ug/L	1.0	0.034	1	04/03/23 22:45	04/05/23 23:39	7439-92-1	
Molybdenum	176	ug/L	2.0	0.096	2	04/03/23 22:45	04/07/23 02:33	7439-98-7	
Selenium	ND	ug/L	1.0	0.23	1	04/03/23 22:45	04/05/23 23:39	7782-49-2	
Thallium	ND	ug/L	1.0	0.033	1	04/03/23 22:45	04/05/23 23:39	7440-28-0	
<b>2320B Alkalinity</b>		Analytical Method: SM 2320B Pace Analytical Services - Indianapolis							
Alkalinity, Total as CaCO3	229	mg/L	10.0	10.0	1		03/31/23 20:22		
Alkalinity,Bicarbonate (CaCO3)	229	mg/L	10.0	10.0	1		03/31/23 20:22		
Alkalinity,Carbonate (CaCO3)	ND	mg/L	10.0	10.0	1		03/31/23 20:22		
<b>2540C Total Dissolved Solids</b>		Analytical Method: SM 2540C Pace Analytical Services - Indianapolis							
Total Dissolved Solids	506	mg/L	10.0	10.0	1		04/03/23 15:55		

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## ANALYTICAL RESULTS

Project: Eagle Valley N&E 2023

Pace Project No.: 50340959

Sample: MW-25D		Lab ID: 50340959003		Collected: 03/30/23 10:30	Received: 03/31/23 14:30	Matrix: Water				
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual	
<b>4500CL G Chlorine, Residual</b>		Analytical Method: SM 4500-Cl G Pace Analytical Services - Indianapolis								
Chlorine, Total Residual	ND	mg/L	0.10	0.034	1		04/04/23 13:45	7782-50-5	H3	
<b>4500H+ pH, Electrometric</b>		Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis								
pH at 25 Degrees C	7.8	Std. Units	0.10	0.10	1		04/06/23 14:13		H3	
<b>4500S2D Sulfide Water</b>		Analytical Method: SM 4500-S2-D Pace Analytical Services - Indianapolis								
Sulfide	ND	mg/L	0.10	0.025	1		04/04/23 09:19	18496-25-8		
<b>353.2 Nitrogen, NO2/NO3 unpres</b>		Analytical Method: EPA 353.2 Pace Analytical Services - Indianapolis								
Nitrogen, Nitrate	ND	mg/L	0.10	0.011	1		04/01/23 08:55	14797-55-8		
Nitrogen, Nitrite	ND	mg/L	0.10	0.0040	1		04/01/23 08:55	14797-65-0		
<b>365.1 Total Phosphorus</b>		Analytical Method: EPA 365.1 Preparation Method: EPA 365.1 Pace Analytical Services - Indianapolis								
Phosphate as P04	ND	mg/L	0.15	0.15	1	04/19/23 13:00	04/20/23 12:22			
<b>5310C TOC</b>		Analytical Method: SM 5310C Pace Analytical Services - Indianapolis								
Total Organic Carbon	1.4	mg/L	1.0	0.24	1		04/04/23 17:13	7440-44-0		
<b>5310C Dissolved Organic Carbon</b>		Analytical Method: SM 5310C Pace Analytical Services - Indianapolis								
Dissolved Organic Carbon	1.4	mg/L	1.0	0.24	1		04/04/23 22:50			

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### ANALYTICAL RESULTS

Project: Eagle Valley N&E 2023

Pace Project No.: 50340959

Sample: Dup-1		Lab ID: 50340959006		Collected: 03/30/23 10:30		Received: 03/31/23 14:30		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>9056 IC Anions</b>									
Analytical Method: EPA 9056									
Pace Analytical Services - Indianapolis									
Chloride	69.1	mg/L	2.5	0.67	10		04/07/23 14:11	16887-00-6	
Fluoride	0.29	mg/L	0.10	0.017	1		04/07/23 13:56	16984-48-8	
Sulfate	60.9	mg/L	2.5	0.85	10		04/07/23 14:11	14808-79-8	
<b>6010 MET ICP</b>									
Analytical Method: EPA 6010 Preparation Method: EPA 3010									
Pace Analytical Services - Indianapolis									
Aluminum	ND	ug/L	200	54.4	1	04/05/23 16:07	04/06/23 11:20	7429-90-5	
Boron	463	ug/L	100	61.4	1	04/05/23 16:07	04/06/23 11:20	7440-42-8	
Calcium	92100	ug/L	1000	88.4	1	04/05/23 16:07	04/06/23 11:20	7440-70-2	
Lithium	58.8	ug/L	20.0	6.2	1	04/05/23 16:07	04/06/23 11:20	7439-93-2	
Magnesium	26100	ug/L	1000	43.0	1	04/05/23 16:07	04/06/23 11:20	7439-95-4	
Manganese	662	ug/L	10.0	5.4	1	04/05/23 16:07	04/06/23 11:20	7439-96-5	
Potassium	6580	ug/L	1000	200	1	04/05/23 16:07	04/06/23 11:20	7440-09-7	
Silica	12100	ug/L	450		1	04/05/23 16:07	04/06/23 11:20	7631-86-9	N2
Sodium	52200	ug/L	1000	284	1	04/05/23 16:07	04/06/23 11:20	7440-23-5	
<b>6010 MET ICP, Dissolved</b>									
Analytical Method: EPA 6010 Preparation Method: EPA 3010									
Pace Analytical Services - Indianapolis									
Manganese, Dissolved	655	ug/L	10.0	5.4	1	04/06/23 16:20	04/07/23 12:00	7439-96-5	
Molybdenum, Dissolved	32.5	ug/L	10.0	2.0	1	04/06/23 16:20	04/07/23 12:00	7439-98-7	
<b>6020 MET ICPMS</b>									
Analytical Method: EPA 6020 Preparation Method: EPA 200.2									
Pace Analytical Services - Indianapolis									
Antimony	ND	ug/L	1.0	0.036	1	04/03/23 22:45	04/05/23 23:49	7440-36-0	
Arsenic	3.1	ug/L	1.0	0.053	1	04/03/23 22:45	04/05/23 23:49	7440-38-2	
Barium	111	ug/L	1.0	0.051	1	04/03/23 22:45	04/05/23 23:49	7440-39-3	
Beryllium	ND	ug/L	0.20	0.028	1	04/03/23 22:45	04/05/23 23:49	7440-41-7	
Cadmium	ND	ug/L	0.20	0.0090	1	04/03/23 22:45	04/05/23 23:49	7440-43-9	
Cobalt	ND	ug/L	1.0	0.032	1	04/03/23 22:45	04/05/23 23:49	7440-48-4	
Lead	ND	ug/L	1.0	0.034	1	04/03/23 22:45	04/05/23 23:49	7439-92-1	
Molybdenum	32.6	ug/L	1.0	0.048	1	04/03/23 22:45	04/05/23 23:49	7439-98-7	
Selenium	ND	ug/L	1.0	0.23	1	04/03/23 22:45	04/05/23 23:49	7782-49-2	
Thallium	ND	ug/L	1.0	0.033	1	04/03/23 22:45	04/05/23 23:49	7440-28-0	
<b>2320B Alkalinity</b>									
Analytical Method: SM 2320B									
Pace Analytical Services - Indianapolis									
Alkalinity, Total as CaCO3	286	mg/L	10.0	10.0	1		03/31/23 20:22		
Alkalinity,Bicarbonate (CaCO3)	286	mg/L	10.0	10.0	1		03/31/23 20:22		
Alkalinity,Carbonate (CaCO3)	ND	mg/L	10.0	10.0	1		03/31/23 20:22		
<b>2540C Total Dissolved Solids</b>									
Analytical Method: SM 2540C									
Pace Analytical Services - Indianapolis									
Total Dissolved Solids	469	mg/L	10.0	10.0	1		04/03/23 15:56		

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## ANALYTICAL RESULTS

Project: Eagle Valley N&E 2023

Pace Project No.: 50340959

Sample: Dup-1		Lab ID: 50340959006		Collected: 03/30/23 10:30	Received: 03/31/23 14:30	Matrix: Water				
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual	
<b>4500CL G Chlorine, Residual</b>		Analytical Method: SM 4500-Cl G Pace Analytical Services - Indianapolis								
Chlorine, Total Residual	ND	mg/L	0.10	0.034	1		04/04/23 13:46	7782-50-5	H3	
<b>4500H+ pH, Electrometric</b>		Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis								
pH at 25 Degrees C	7.5	Std. Units	0.10	0.10	1		04/06/23 14:16		H3	
<b>4500S2D Sulfide Water</b>		Analytical Method: SM 4500-S2-D Pace Analytical Services - Indianapolis								
Sulfide	ND	mg/L	0.10	0.025	1		04/04/23 09:19	18496-25-8		
<b>353.2 Nitrogen, NO2/NO3 unpres</b>		Analytical Method: EPA 353.2 Pace Analytical Services - Indianapolis								
Nitrogen, Nitrate	ND	mg/L	0.10	0.011	1		04/01/23 09:01	14797-55-8		
Nitrogen, Nitrite	ND	mg/L	0.10	0.0040	1		04/01/23 09:01	14797-65-0		
<b>365.1 Total Phosphorus</b>		Analytical Method: EPA 365.1 Preparation Method: EPA 365.1 Pace Analytical Services - Indianapolis								
Phosphate as P04	ND	mg/L	0.15	0.15	1	04/19/23 13:00	04/20/23 12:24			
<b>5310C TOC</b>		Analytical Method: SM 5310C Pace Analytical Services - Indianapolis								
Total Organic Carbon	1.3	mg/L	1.0	0.24	1		04/04/23 18:16	7440-44-0		
<b>5310C Dissolved Organic Carbon</b>		Analytical Method: SM 5310C Pace Analytical Services - Indianapolis								
Dissolved Organic Carbon	1.4	mg/L	1.0	0.24	1		04/04/23 23:24			

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### QUALITY CONTROL DATA

Project: Eagle Valley N&E 2023

Pace Project No.: 50340959

QC Batch:	726426	Analysis Method:	EPA 9056
QC Batch Method:	EPA 9056	Analysis Description:	9056 IC Anions
		Laboratory:	Pace Analytical Services - Indianapolis

Associated Lab Samples: 50340959001, 50340959002, 50340959003, 50340959006

METHOD BLANK: 3333284 Matrix: Water  
Associated Lab Samples: 50340959001, 50340959002, 50340959003, 50340959006

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chloride	mg/L	ND	0.25	0.067	04/07/23 05:24	
Fluoride	mg/L	ND	0.10	0.017	04/07/23 05:24	
Sulfate	mg/L	ND	0.25	0.085	04/07/23 05:24	

LABORATORY CONTROL SAMPLE: 3333285

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	1.2	1.2	95	80-120	
Fluoride	mg/L	0.5	0.48	96	80-120	
Sulfate	mg/L	2.5	2.5	100	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3333286 3333287

Parameter	Units	50340789001		3333286		3333287		% Rec	% Rec	% Rec Limits	RPD	Max RPD	Qual
		MS Result	MSD Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result						
Chloride	mg/L	23.9	12.5	12.5	33.8	34.6	79	85	80-120	2	15	M0	
Fluoride	mg/L	0.22	0.5	0.5	0.71	0.70	98	95	80-120	2	15		
Sulfate	mg/L	44.6	25	25	66.6	68.2	88	94	80-120	2	15		

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3333288 3333289

Parameter	Units	50340959003		3333288		3333289		% Rec	% Rec	% Rec Limits	RPD	Max RPD	Qual
		MS Result	MSD Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result						
Chloride	mg/L	92.1	12.5	12.5	102	100	78	63	80-120	2	15	M0	
Fluoride	mg/L	0.12	0.5	0.5	0.60	0.61	97	98	80-120	1	15		
Sulfate	mg/L	96.6	25	25	110	110	54	53	80-120	0	15	M0	

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### QUALITY CONTROL DATA

Project: Eagle Valley N&E 2023  
Pace Project No.: 50340959

QC Batch: 726527 Analysis Method: EPA 6010  
QC Batch Method: EPA 3010 Analysis Description: 6010 MET  
Laboratory: Pace Analytical Services - Indianapolis  
Associated Lab Samples: 50340959001, 50340959002, 50340959003, 50340959006

METHOD BLANK: 3333726 Matrix: Water  
Associated Lab Samples: 50340959001, 50340959002, 50340959003, 50340959006

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Aluminum	ug/L	ND	200	54.4	04/06/23 10:34	
Boron	ug/L	ND	100	61.4	04/06/23 10:34	
Calcium	ug/L	ND	1000	88.4	04/06/23 10:34	
Lithium	ug/L	ND	20.0	6.2	04/06/23 10:34	
Magnesium	ug/L	ND	1000	43.0	04/06/23 10:34	
Manganese	ug/L	ND	10.0	5.4	04/06/23 10:34	
Potassium	ug/L	ND	1000	200	04/06/23 10:34	
Silica	ug/L	ND	450		04/06/23 10:34	N2
Sodium	ug/L	ND	1000	284	04/06/23 10:34	

LABORATORY CONTROL SAMPLE: 3333727

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Aluminum	ug/L	10000	9530	95	80-120	
Boron	ug/L	1000	949	95	80-120	
Calcium	ug/L	10000	9950	99	80-120	
Lithium	ug/L	1000	977	98	80-120	
Magnesium	ug/L	10000	9810	98	80-120	
Manganese	ug/L	1000	946	95	80-120	
Potassium	ug/L	10000	9710	97	80-120	
Silica	ug/L	10700	10500	98	80-120	N2
Sodium	ug/L	10000	9600	96	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3333728 3333729

Parameter	Units	MS		MSD		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual	
		50340406002 Result	Spike Conc.	Spike Conc.	Result							Result
Aluminum	ug/L	6480	10000	10000	17000	16900	106	104	75-125	1	20	
Boron	ug/L	0.61 mg/L	1000	1000	1500	1490	90	88	75-125	1	20	
Calcium	ug/L	112 mg/L	10000	10000	122000	121000	105	90	75-125	1	20	
Lithium	ug/L	405	1000	1000	1500	1490	109	108	75-125	0	20	
Magnesium	ug/L	32.2 mg/L	10000	10000	42200	41400	100	93	75-125	2	20	
Manganese	ug/L	0.15 mg/L	1000	1000	1090	1080	94	93	75-125	1	20	
Potassium	ug/L	244 mg/L	10000	10000	260000	260000	125	118	75-125	0	20	E
Silica	ug/L	19800	10700	10700	11000	10200	-82	-90	75-125	8	20	N2
Sodium	ug/L	1280 mg/L	10000	10000	1190000	1180000	-10	-150	75-125	1	20	E,P6

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**QUALITY CONTROL DATA**

Project: Eagle Valley N&E 2023

Pace Project No.: 50340959

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3333730 3333731												
Parameter	Units	50340959003		MS	MSD	MS		MSD		% Rec Limits	Max RPD	Qual
		Result	Conc.	Spike Conc.	Spike Conc.	Result	Result	% Rec	% Rec			
Aluminum	ug/L	738	10000	10000	10600	10800	99	100	75-125	1	20	
Boron	ug/L	1710	1000	1000	2690	2700	98	99	75-125	0	20	
Calcium	ug/L	77100	10000	10000	86800	87500	96	104	75-125	1	20	
Lithium	ug/L	67.9	1000	1000	1080	1100	101	103	75-125	2	20	
Magnesium	ug/L	16700	10000	10000	26400	26600	97	99	75-125	1	20	
Manganese	ug/L	138	1000	1000	1080	1090	94	95	75-125	1	20	
Potassium	ug/L	4410	10000	10000	14700	14800	103	104	75-125	1	20	
Silica	ug/L	14800	10700	10700	25900	26200	104	107	75-125	1	20	N2
Sodium	ug/L	86500	10000	10000	95000	95700	85	92	75-125	1	20	

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### QUALITY CONTROL DATA

Project: Eagle Valley N&E 2023

Pace Project No.: 50340959

QC Batch:	726716	Analysis Method:	EPA 6010
QC Batch Method:	EPA 3010	Analysis Description:	6010 MET Dissolved
		Laboratory:	Pace Analytical Services - Indianapolis

Associated Lab Samples: 50340959001, 50340959002, 50340959003, 50340959006

METHOD BLANK: 3334661 Matrix: Water

Associated Lab Samples: 50340959001, 50340959002, 50340959003, 50340959006

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Manganese, Dissolved	ug/L	ND	10.0	5.4	04/07/23 11:43	
Molybdenum, Dissolved	ug/L	ND	10.0	2.0	04/07/23 11:43	

LABORATORY CONTROL SAMPLE: 3334662

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Manganese, Dissolved	ug/L	1000	940	94	80-120	
Molybdenum, Dissolved	ug/L	1000	996	100	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3334663 3334664

Parameter	Units	50340959003 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Manganese, Dissolved	ug/L	122	1000	1000	1040	1030	92	91	75-125	1	20	
Molybdenum, Dissolved	ug/L	181	1000	1000	1180	1170	99	99	75-125	1	20	

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### QUALITY CONTROL DATA

Project: Eagle Valley N&E 2023

Pace Project No.: 50340959

QC Batch:	725988	Analysis Method:	EPA 6020
QC Batch Method:	EPA 200.2	Analysis Description:	6020 MET
		Laboratory:	Pace Analytical Services - Indianapolis

Associated Lab Samples: 50340959001, 50340959002, 50340959003, 50340959006

METHOD BLANK: 3331916 Matrix: Water

Associated Lab Samples: 50340959001, 50340959002, 50340959003, 50340959006

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Antimony	ug/L	ND	1.0	0.036	04/05/23 21:44	
Arsenic	ug/L	ND	1.0	0.053	04/05/23 21:44	
Barium	ug/L	ND	1.0	0.051	04/05/23 21:44	
Beryllium	ug/L	ND	0.20	0.028	04/05/23 21:44	
Cadmium	ug/L	ND	0.20	0.0090	04/05/23 21:44	
Cobalt	ug/L	ND	1.0	0.032	04/05/23 21:44	
Lead	ug/L	ND	1.0	0.034	04/05/23 21:44	
Molybdenum	ug/L	ND	1.0	0.048	04/05/23 21:44	
Selenium	ug/L	ND	1.0	0.23	04/05/23 21:44	
Thallium	ug/L	ND	1.0	0.033	04/05/23 21:44	

LABORATORY CONTROL SAMPLE: 3331917

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Antimony	ug/L	40	41.3	103	80-120	
Arsenic	ug/L	40	37.9	95	80-120	
Barium	ug/L	40	39.6	99	80-120	
Beryllium	ug/L	40	38.3	96	80-120	
Cadmium	ug/L	40	38.8	97	80-120	
Cobalt	ug/L	40	41.0	103	80-120	
Lead	ug/L	40	41.1	103	80-120	
Molybdenum	ug/L	40	42.8	107	80-120	
Selenium	ug/L	40	39.9	100	80-120	
Thallium	ug/L	40	41.4	104	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3331918 3331919

Parameter	Units	MS		MSD		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual	
		50340752001 Result	Spike Conc.	Spike Conc.	Result							Result
Antimony	ug/L	0.11J	40	40	41.4	42.2	103	105	75-125	2	20	
Arsenic	ug/L	0.68J	40	40	38.7	39.3	95	96	75-125	1	20	
Barium	ug/L	37.6	40	40	79.1	79.4	104	105	75-125	0	20	
Beryllium	ug/L	<0.028	40	40	38.8	39.7	97	99	75-125	2	20	
Cadmium	ug/L	<0.0090	40	40	38.4	38.8	96	97	75-125	1	20	
Cobalt	ug/L	0.18J	40	40	39.1	39.2	97	98	75-125	0	20	
Lead	ug/L	0.13J	40	40	41.4	41.7	103	104	75-125	1	20	
Molybdenum	ug/L	0.99J	40	40	43.4	43.9	106	107	75-125	1	20	

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**QUALITY CONTROL DATA**

Project: Eagle Valley N&E 2023

Pace Project No.: 50340959

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3331918												3331919	
Parameter	Units	50340752001 Result	MS	MSD	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual	
			Spike Conc.	Spike Conc.									
Selenium	ug/L	0.58J	40	40	40.8	41.2	100	102	75-125	1	20		
Thallium	ug/L	<0.033	40	40	42.7	42.5	107	106	75-125	1	20		

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3331920												3331921	
Parameter	Units	50340752009 Result	MS	MSD	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual	
			Spike Conc.	Spike Conc.									
Antimony	ug/L	0.61J	40	40	42.3	42.4	104	104	75-125	0	20		
Arsenic	ug/L	0.29J	40	40	38.9	38.9	96	96	75-125	0	20		
Barium	ug/L	40.6	40	40	83.3	83.5	107	107	75-125	0	20		
Beryllium	ug/L	<0.028	40	40	38.2	38.0	96	95	75-125	1	20		
Cadmium	ug/L	0.053J	40	40	38.7	38.9	97	97	75-125	1	20		
Cobalt	ug/L	0.50J	40	40	39.8	39.3	98	97	75-125	1	20		
Lead	ug/L	0.67J	40	40	41.8	41.8	103	103	75-125	0	20		
Molybdenum	ug/L	0.46J	40	40	43.1	42.4	106	105	75-125	2	20		
Selenium	ug/L	<0.23	40	40	40.7	41.0	101	102	75-125	1	20		
Thallium	ug/L	<0.033	40	40	42.8	42.8	107	107	75-125	0	20		

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3331922												3331923	
Parameter	Units	50340959003 Result	MS	MSD	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual	
			Spike Conc.	Spike Conc.									
Antimony	ug/L	ND	40	40	42.1	41.9	105	104	75-125	0	20		
Arsenic	ug/L	ND	40	40	38.8	38.7	95	95	75-125	0	20		
Barium	ug/L	65.5	40	40	110	110	110	112	75-125	1	20		
Beryllium	ug/L	ND	40	40	38.2	38.5	95	96	75-125	1	20		
Cadmium	ug/L	ND	40	40	38.6	38.5	96	96	75-125	0	20		
Cobalt	ug/L	ND	40	40	39.4	40.0	97	99	75-125	1	20		
Lead	ug/L	ND	40	40	41.9	42.1	103	104	75-125	0	20		
Molybdenum	ug/L	176	40	40	218	220	106	110	75-125	1	20		
Selenium	ug/L	ND	40	40	40.0	39.9	99	99	75-125	0	20		
Thallium	ug/L	ND	40	40	42.1	42.3	105	106	75-125	0	20		

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### QUALITY CONTROL DATA

Project: Eagle Valley N&E 2023

Pace Project No.: 50340959

QC Batch: 725851 Analysis Method: SM 2320B  
 QC Batch Method: SM 2320B Analysis Description: 2320B Alkalinity  
 Laboratory: Pace Analytical Services - Indianapolis  
 Associated Lab Samples: 50340959001, 50340959002, 50340959003, 50340959006

METHOD BLANK: 3331139 Matrix: Water  
 Associated Lab Samples: 50340959001, 50340959002, 50340959003, 50340959006

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Alkalinity, Total as CaCO3	mg/L	ND	10.0	10.0	03/31/23 20:22	
Alkalinity,Bicarbonate (CaCO3)	mg/L	ND	10.0	10.0	03/31/23 20:22	
Alkalinity,Carbonate (CaCO3)	mg/L	ND	10.0	10.0	03/31/23 20:22	

LABORATORY CONTROL SAMPLE: 3331140

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Alkalinity, Total as CaCO3	mg/L	50	48.4	97	90-110	

SAMPLE DUPLICATE: 3331141

Parameter	Units	50340959003 Result	Dup Result	RPD	Max RPD	Qualifiers
Alkalinity, Total as CaCO3	mg/L	229	232	1	20	
Alkalinity,Bicarbonate (CaCO3)	mg/L	229	232	1	20	
Alkalinity,Carbonate (CaCO3)	mg/L	ND	ND		20	

SAMPLE DUPLICATE: 3331142

Parameter	Units	50340784002 Result	Dup Result	RPD	Max RPD	Qualifiers
Alkalinity, Total as CaCO3	mg/L	296	301	2	20	
Alkalinity,Bicarbonate (CaCO3)	mg/L	296	301	2	20	
Alkalinity,Carbonate (CaCO3)	mg/L	ND	ND		20	

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**QUALITY CONTROL DATA**

Project: Eagle Valley N&E 2023

Pace Project No.: 50340959

QC Batch:	726074	Analysis Method:	SM 2540C
QC Batch Method:	SM 2540C	Analysis Description:	2540C Total Dissolved Solids
		Laboratory:	Pace Analytical Services - Indianapolis

Associated Lab Samples: 50340959001, 50340959002, 50340959003, 50340959006

METHOD BLANK: 3332130 Matrix: Water  
Associated Lab Samples: 50340959001, 50340959002, 50340959003, 50340959006

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	ND	10.0	10.0	04/03/23 15:51	

LABORATORY CONTROL SAMPLE: 3332131

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	300	282	94	80-120	

SAMPLE DUPLICATE: 3332132

Parameter	Units	50340959003 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	506	496	2	10	

SAMPLE DUPLICATE: 3332133

Parameter	Units	50340999003 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	7230	7260	0	10	

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### QUALITY CONTROL DATA

Project: Eagle Valley N&E 2023

Pace Project No.: 50340959

QC Batch:	726284	Analysis Method:	SM 4500-Cl G
QC Batch Method:	SM 4500-Cl G	Analysis Description:	4500CL G Chlorine, Total Residual
		Laboratory:	Pace Analytical Services - Indianapolis

Associated Lab Samples: 50340959001, 50340959002, 50340959003, 50340959006

METHOD BLANK: 3332672 Matrix: Water

Associated Lab Samples: 50340959001, 50340959002, 50340959003, 50340959006

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chlorine, Total Residual	mg/L	ND	0.10	0.034	04/04/23 13:45	H3

LABORATORY CONTROL SAMPLE: 3332673

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chlorine, Total Residual	mg/L	1	1.1	110	90-110	H3

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3332674 3332675

Parameter	Units	50340959003		3332675		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result						
Chlorine, Total Residual	mg/L	ND	1	1	1.1	1.1	106	106	90-110	0	20 H3

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### QUALITY CONTROL DATA

Project: Eagle Valley N&E 2023

Pace Project No.: 50340959

QC Batch: 726210

Analysis Method: SM 4500-H+B

QC Batch Method: SM 4500-H+B

Analysis Description: 4500H+B pH

Laboratory: Pace Analytical Services - Indianapolis

Associated Lab Samples: 50340959001, 50340959002, 50340959003, 50340959006

SAMPLE DUPLICATE: 3332457

Parameter	Units	50340959003 Result	Dup Result	RPD	Max RPD	Qualifiers
pH at 25 Degrees C	Std. Units	7.8	7.8	0	2	H3

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**QUALITY CONTROL DATA**

Project: Eagle Valley N&E 2023

Pace Project No.: 50340959

QC Batch:	726201	Analysis Method:	SM 4500-S2-D
QC Batch Method:	SM 4500-S2-D	Analysis Description:	4500S2D Sulfide Water
		Laboratory:	Pace Analytical Services - Indianapolis
Associated Lab Samples:	50340959001, 50340959002, 50340959003, 50340959006		

METHOD BLANK: 3332435 Matrix: Water  
Associated Lab Samples: 50340959001, 50340959002, 50340959003, 50340959006

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Sulfide	mg/L	ND	0.10	0.025	04/04/23 09:19	

LABORATORY CONTROL SAMPLE: 3332436

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Sulfide	mg/L	0.5	0.54	107	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3332437 3332438

Parameter	Units	50340959003 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Sulfide	mg/L	ND	0.5	0.5	0.56	0.56	109	109	90-110	0	20	

MATRIX SPIKE SAMPLE: 3332439

Parameter	Units	50340841001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Sulfide	mg/L	ND	0.5	0.42	84	90-110	M0

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### QUALITY CONTROL DATA

Project: Eagle Valley N&E 2023

Pace Project No.: 50340959

QC Batch:	728701	Analysis Method:	EPA 365.1
QC Batch Method:	EPA 365.1	Analysis Description:	365.1 Total Phosphorus
		Laboratory:	Pace Analytical Services - Indianapolis

Associated Lab Samples: 50340959001, 50340959002, 50340959003, 50340959006

METHOD BLANK: 3343981 Matrix: Water  
Associated Lab Samples: 50340959001, 50340959002, 50340959003, 50340959006

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Phosphate as P04	mg/L	ND	0.15	0.15	04/20/23 12:19	

LABORATORY CONTROL SAMPLE: 3343982

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Phosphate as P04	mg/L		1.5			

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3343983 3343984

Parameter	Units	50340959003 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Phosphate as P04	mg/L	ND			1.6	1.6					5	

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**QUALITY CONTROL DATA**

Project: Eagle Valley N&E 2023

Pace Project No.: 50340959

QC Batch:	726078	Analysis Method:	SM 5310C
QC Batch Method:	SM 5310C	Analysis Description:	5310C Total Organic Carbon
		Laboratory:	Pace Analytical Services - Indianapolis
Associated Lab Samples:	50340959001, 50340959002, 50340959003, 50340959006		

METHOD BLANK:	3332142	Matrix:	Water
Associated Lab Samples:	50340959001, 50340959002, 50340959003, 50340959006		

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Organic Carbon	mg/L	ND	1.0	0.24	04/04/23 15:44	

LABORATORY CONTROL SAMPLE: 3332143						
Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Organic Carbon	mg/L	10	10.4	104	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3332144												3332145	
Parameter	Units	50340959003 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual	
Total Organic Carbon	mg/L	1.4	10	10	11.6	11.3	102	99	80-120	3	20		

MATRIX SPIKE SAMPLE: 3332146											
Parameter	Units	50340720001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers				
Total Organic Carbon	mg/L	2.4	10	13.0	106	80-120					

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### QUALITY CONTROL DATA

Project: Eagle Valley N&E 2023

Pace Project No.: 50340959

QC Batch:	726079	Analysis Method:	SM 5310C
QC Batch Method:	SM 5310C	Analysis Description:	5310C Dissolved Organic Carbon
		Laboratory:	Pace Analytical Services - Indianapolis

Associated Lab Samples: 50340959001, 50340959002, 50340959003, 50340959006

METHOD BLANK: 3332147 Matrix: Water

Associated Lab Samples: 50340959001, 50340959002, 50340959003, 50340959006

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Dissolved Organic Carbon	mg/L	ND	1.0	0.24	04/04/23 21:21	

LABORATORY CONTROL SAMPLE: 3332148

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Dissolved Organic Carbon	mg/L	10	10.4	104	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3332149 3332150

Parameter	Units	3332149		3332150		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual	
		50340959003 Result	MS Spike Conc.	MSD Spike Conc.	MS Result							MSD Result
Dissolved Organic Carbon	mg/L	1.4	10	10	11.1	11.0	98	97	80-120	1	20	

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Eagle Valley N&E 2023

Pace Project No.: 50340959

**Sample: MW-25S**      **Lab ID: 50340959001**      Collected: 03/30/23 12:45      Received: 03/31/23 14:30      Matrix: Water  
PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	<b>0.780 ± 0.613 (0.852)</b> <b>C:NA T:85%</b>	pCi/L	05/01/23 13:10	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	<b>0.517 ± 0.413 (0.821)</b> <b>C:82% T:74%</b>	pCi/L	04/12/23 12:29	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	<b>1.30 ± 1.03 (1.67)</b>	pCi/L	05/03/23 12:57	7440-14-4	

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Eagle Valley N&E 2023

Pace Project No.: 50340959

**Sample: MW-25I**      **Lab ID: 50340959002**      Collected: 03/30/23 11:45      Received: 03/31/23 14:30      Matrix: Water  
PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	<b>0.255 ± 0.531 (0.958)</b> <b>C:NA T:91%</b>	pCi/L	05/01/23 13:10	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	<b>0.731 ± 0.398 (0.712)</b> <b>C:83% T:85%</b>	pCi/L	04/12/23 12:29	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	<b>0.986 ± 0.929 (1.67)</b>	pCi/L	05/03/23 12:57	7440-14-4	

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Eagle Valley N&E 2023

Pace Project No.: 50340959

**Sample: MW-25D**      **Lab ID: 50340959003**      Collected: 03/30/23 10:30      Received: 03/31/23 14:30      Matrix: Water  
PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	<b>0.255 ± 0.362 (0.613)</b> <b>C:NA T:90%</b>	pCi/L	05/01/23 13:10	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	<b>0.647 ± 0.375 (0.678)</b> <b>C:77% T:86%</b>	pCi/L	04/12/23 15:38	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	<b>0.902 ± 0.737 (1.29)</b>	pCi/L	05/03/23 12:57	7440-14-4	

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Eagle Valley N&E 2023

Pace Project No.: 50340959

**Sample: MW-25D MS**      **Lab ID: 50340959004**      Collected: 03/30/23 10:30      Received: 03/31/23 14:30      Matrix: Water  
PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	<b>105.93 %REC ± NA (NA)</b> <b>C:NA T:NA</b>	pCi/L	05/01/23 13:10	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	<b>91.35 %REC ± NA (NA)</b> <b>C:NA T:NA</b>	pCi/L	04/12/23 15:38	15262-20-1	

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Eagle Valley N&E 2023

Pace Project No.: 50340959

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Radium-226	EPA 903.1	<b>116.79 %REC 9.76RPD ±</b> <b>NA (NA)</b> <b>C:NA T:NA</b>	pCi/L	05/01/23 13:10	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 904.0	<b>86.48 %REC 5.48RPD ± NA</b> <b>(NA)</b> <b>C:NA T:NA</b>	pCi/L	04/12/23 15:38	15262-20-1	

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Eagle Valley N&E 2023

Pace Project No.: 50340959

**Sample: Dup-1**      **Lab ID: 50340959006**      Collected: 03/30/23 10:30      Received: 03/31/23 14:30      Matrix: Water  
PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Radium-226	EPA 903.1	<b>0.935 ± 0.701 (1.00)</b> <b>C:NA T:87%</b>	pCi/L	05/01/23 13:10	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 904.0	<b>0.521 ± 0.338 (0.627)</b> <b>C:80% T:83%</b>	pCi/L	04/12/23 12:30	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	<b>1.46 ± 1.04 (1.63)</b>	pCi/L	05/03/23 12:57	7440-14-4	

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### QUALITY CONTROL - RADIOCHEMISTRY

Project: Eagle Valley N&E 2023

Pace Project No.: 50340959

QC Batch: 579274

Analysis Method: EPA 904.0

QC Batch Method: EPA 904.0

Analysis Description: 904.0 Radium 228

Laboratory: Pace Analytical Services - Greensburg

Associated Lab Samples: 50340959001, 50340959002, 50340959003, 50340959004, 50340959005, 50340959006

METHOD BLANK: 2813235

Matrix: Water

Associated Lab Samples: 50340959001, 50340959002, 50340959003, 50340959004, 50340959005, 50340959006

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.512 ± 0.327 (0.607) C:81% T:84%	pCi/L	04/12/23 12:26	

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## QUALIFIERS

Project: Eagle Valley N&E 2023

Pace Project No.: 50340959

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### DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Reported results are not rounded until the final step prior to reporting. Therefore, calculated parameters that are typically reported as "Total" may vary slightly from the sum of the reported component parameters.

Act - Activity

Unc - Uncertainty: SDWA = 1.96 sigma count uncertainty, all other matrices = Expanded Uncertainty (95% confidence interval).

Gamma Spec = Expanded Uncertainty (95.4% Confidence Interval)

(MDC) - Minimum Detectable Concentration

Trac - Tracer Recovery (%)

Carr - Carrier Recovery (%)

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

### ANALYTE QUALIFIERS

D3 Sample was diluted due to the presence of high levels of non-target analytes or other matrix interference.

E Analyte concentration exceeded the calibration range. The reported result is estimated.

H3 Sample was received or analysis requested beyond the recognized method holding time.

M0 Matrix spike recovery and/or matrix spike duplicate recovery was outside laboratory control limits.

N2 The lab does not hold NELAC/TNI accreditation for this parameter but other accreditations/certifications may apply. A complete list of accreditations/certifications is available upon request.

P6 Matrix spike recovery was outside laboratory control limits due to a parent sample concentration notably higher than the spike level.

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### QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Eagle Valley N&E 2023

Pace Project No.: 50340959

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
50340959001	MW-25S	EPA 9056	726426		
50340959002	MW-25I	EPA 9056	726426		
50340959003	MW-25D	EPA 9056	726426		
50340959006	Dup-1	EPA 9056	726426		
50340959001	MW-25S	EPA 3010	726527	EPA 6010	726648
50340959002	MW-25I	EPA 3010	726527	EPA 6010	726648
50340959003	MW-25D	EPA 3010	726527	EPA 6010	726648
50340959006	Dup-1	EPA 3010	726527	EPA 6010	726648
50340959001	MW-25S	EPA 3010	726716	EPA 6010	726851
50340959002	MW-25I	EPA 3010	726716	EPA 6010	726851
50340959003	MW-25D	EPA 3010	726716	EPA 6010	726851
50340959006	Dup-1	EPA 3010	726716	EPA 6010	726851
50340959001	MW-25S	EPA 200.2	725988	EPA 6020	726233
50340959002	MW-25I	EPA 200.2	725988	EPA 6020	726233
50340959003	MW-25D	EPA 200.2	725988	EPA 6020	726233
50340959006	Dup-1	EPA 200.2	725988	EPA 6020	726233
50340959001	MW-25S	EPA 903.1	578991		
50340959002	MW-25I	EPA 903.1	578991		
50340959003	MW-25D	EPA 903.1	578991		
50340959004	MW-25D MS	EPA 903.1	578991		
50340959005	MW-25D MSD	EPA 903.1	578991		
50340959006	Dup-1	EPA 903.1	578991		
50340959001	MW-25S	EPA 904.0	579274		
50340959002	MW-25I	EPA 904.0	579274		
50340959003	MW-25D	EPA 904.0	579274		
50340959004	MW-25D MS	EPA 904.0	579274		
50340959005	MW-25D MSD	EPA 904.0	579274		
50340959006	Dup-1	EPA 904.0	579274		
50340959001	MW-25S	Total Radium Calculation	585496		
50340959002	MW-25I	Total Radium Calculation	585496		
50340959003	MW-25D	Total Radium Calculation	585496		
50340959006	Dup-1	Total Radium Calculation	585496		
50340959001	MW-25S	SM 2320B	725851		
50340959002	MW-25I	SM 2320B	725851		
50340959003	MW-25D	SM 2320B	725851		
50340959006	Dup-1	SM 2320B	725851		
50340959001	MW-25S	SM 2540C	726074		
50340959002	MW-25I	SM 2540C	726074		
50340959003	MW-25D	SM 2540C	726074		
50340959006	Dup-1	SM 2540C	726074		
50340959001	MW-25S	SM 4500-Cl G	726284		
50340959002	MW-25I	SM 4500-Cl G	726284		
50340959003	MW-25D	SM 4500-Cl G	726284		
50340959006	Dup-1	SM 4500-Cl G	726284		

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### QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Eagle Valley N&E 2023

Pace Project No.: 50340959

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
50340959001	MW-25S	SM 4500-H+B	726210		
50340959002	MW-25I	SM 4500-H+B	726210		
50340959003	MW-25D	SM 4500-H+B	726210		
50340959006	Dup-1	SM 4500-H+B	726210		
50340959001	MW-25S	SM 4500-S2-D	726201		
50340959002	MW-25I	SM 4500-S2-D	726201		
50340959003	MW-25D	SM 4500-S2-D	726201		
50340959006	Dup-1	SM 4500-S2-D	726201		
50340959001	MW-25S	EPA 353.2	725886		
50340959002	MW-25I	EPA 353.2	725886		
50340959003	MW-25D	EPA 353.2	725886		
50340959006	Dup-1	EPA 353.2	725886		
50340959001	MW-25S	EPA 365.1	728701	EPA 365.1	728978
50340959002	MW-25I	EPA 365.1	728701	EPA 365.1	728978
50340959003	MW-25D	EPA 365.1	728701	EPA 365.1	728978
50340959006	Dup-1	EPA 365.1	728701	EPA 365.1	728978
50340959001	MW-25S	SM 5310C	726078		
50340959002	MW-25I	SM 5310C	726078		
50340959003	MW-25D	SM 5310C	726078		
50340959006	Dup-1	SM 5310C	726078		
50340959001	MW-25S	SM 5310C	726079		
50340959002	MW-25I	SM 5310C	726079		
50340959003	MW-25D	SM 5310C	726079		
50340959006	Dup-1	SM 5310C	726079		

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**SAMPLE CONDITION UPON RECEIPT FORM**

Date/Time and Initials of person examining contents: 3/31/23 11 15:20

1. Courier:  FED EX  UPS  CLIENT  PACE  USPS  OTHER \_\_\_\_\_
2. Custody Seal on Cooler/Box Present:  Yes  No  
 (If yes)Seals Intact:  Yes  No (leave blank if no seals were present)
3. Thermometer: 1 2 3 4 5 6 (A) B C D E F
4. Cooler Temperature(s): 0.9/0.7 1.6/1.4    
 (Initial/Corrected) RECORD TEMPS OF ALL COOLERS RECEIVED (use Comments below to add more)

5. Packing Material: 113/101  
 Bubble Wrap  Bubble Bags  
 None  Other \_\_\_\_\_
6. Ice Type:  Wet  Blue  None
7. If temp. is over 6°C or under 0°C, was the PM notified?:  Yes  No  
 Cooler temp should be above freezing to 6°C

All discrepancies will be written out in the comments section below.

	Yes	No		Yes	No	N/A
USDA Regulated Soils? (HI, ID, NY, WA, OR, CA, NM, TX, OK, AR, LA, TN, AL, MS, NC, SC, GA, FL, or Puerto Rico)		<input checked="" type="checkbox"/>	All containers needing acid/base preservation have been pH CHECKED?: Exceptions: VOA, coliform, LLHg, O&G, RAD CHEM, and any container with a septum cap or preserved with HCl.			
Short Hold Time Analysis (48 hours or less)? Analysis: <u>NO2/NO3</u>	<input checked="" type="checkbox"/>		Circle: <u>HNO3 (&lt;2)</u> <u>H2SO4 (&lt;2)</u> <u>NaOH (&gt;10)</u> <u>NaOH/ZnAc (&gt;9)</u> Any non-conformance to pH recommendations will be noted on the container count form	<input checked="" type="checkbox"/>		
Time 5035A TC placed in Freezer or Short Holds To Lab Time: <u>16:40</u>			Residual Chlorine Check (SVOC 625 Pest/PCB 608)	<u>Present</u>	<u>Absent</u>	<u>N/A</u>
Rush TAT Requested (4 days or less):		<input checked="" type="checkbox"/>	Residual Chlorine Check (Total/Amenable/Free Cyanide)			<input checked="" type="checkbox"/>
Custody Signatures Present?	<input checked="" type="checkbox"/>		Headspace Wisconsin Sulfide?			<input checked="" type="checkbox"/>
Containers Intact?:	<input checked="" type="checkbox"/>		Headspace in VOA Vials (>6mm): See Container Count form for details	<u>Present</u>	<u>Absent</u>	<u>No VOA Vials Sent</u>
Sample Label (IDs/Dates/Times) Match COC?: Except TCs, which only require sample ID	<input checked="" type="checkbox"/>		Trip Blank Present?		<input checked="" type="checkbox"/>	
Extra labels on Terracore Vials? (soils only)			Trip Blank Custody Seals?:			<input checked="" type="checkbox"/>

COMMENTS:

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Sample Container Count

\*\* Place a RED dot on containers that are out of conformance \*\*

COC Line Item	WGFLU	MeOH (only)		VIALS					AMBER GLASS					PLASTIC							OTHER			Matrix	Nitric	Sulfuric	Sodium Hydroxide	Sodium Hydroxide/ZnAc									
		SBS	DI	DG9H	VG9H	VOA VIAL HS (>6mm)	VG9U	DG9U	VG9T	AG0U	AG1H	AG1U	AG2U	AG3S	AG3SF	AG3C	BP1U	BP1N	BP2U	BP3U	BP3N	BP3F	BP3S		BP3B	BP3Z	CG3H	CG3F	Syringe Kit	Red	Yellow	Green	Black				
		R	DG9H	VG9H	VOA VIAL HS (>6mm)	VG9U	DG9U	VG9T	AG0U	AG1H	AG1U	AG2U	AG3S	AG3SF	AG3C	BP1U	BP1N	BP2U	BP3U	BP3N	BP3F	BP3S	BP3B		BP3Z	CG3H	CG3F	Syringe Kit	HNO3 <2	H2SO4 <2	NaOH >9	NaOH/Zn Ac >9					
1												1	1				2	1	2	1	1	1										WT	✓	✓	✓	✓	
2												3	3				6	3	6	3	3	3															
3												3	3				6	3	6	3	3	3															
4																																					
5																																					
6												1	1				2	1	2	1	1	1															
7																																					
8																																					
9																																					
10																																					
11																																					
12																																					

Container Codes

Glass				Plastic			
DG9H	40mL HCl amber voa vial	BG1T	1L Na Thiosulfate clear glass	BP1B	1L NaOH plastic	BP4U	125mL unpreserved plastic
DG9P	40mL TSP amber vial	BG1U	1L unpreserved glass	BP1N	1L HNO3 plastic	BP4N	125mL HNO3 plastic
DG9S	40mL H2SO4 amber vial	BG3H	250mL HCl Clear Glass	BP1S	1L H2SO4 plastic	BP4S	125mL H2SO4 plastic
DG9T	40mL Na Thio amber vial	BG3U	250mL Unpres Clear Glass	BP1U	1L unpreserved plastic	<b>Miscellaneous</b>	
DG9U	40mL unpreserved amber vial	AG0U	100mL unpres amber glass	BP1Z	1L NaOH, Zn, Ac		
VG9H	40mL HCl clear vial	AG1H	1L HCl amber glass	BP2N	500mL HNO3 plastic	Syringe Kit	LL Cr+6 sampling kit
VG9T	40mL Na Thio. clear vial	AG1S	1L H2SO4 amber glass	BP2C	500mL NaOH plastic	ZPLC	Ziploc Bag
VG9U	40mL unpreserved clear vial	AG1T	1L Na Thiosulfate amber glass	BP2S	500mL H2SO4 plastic	R	Terracore Kit
I	40mL w/hexane wipe vial	AG1U	1liter unpres amber glass	BP2U	500mL unpreserved plastic	SP5T	120mL Coliform Sodium Thiosulfate
WGKU	8oz unpreserved clear jar	AG2N	500mL HNO3 amber glass	BP2Z	500mL NaOH, Zn Ac	GN	General Container
WGFLU	4oz clear soil jar	AG2S	500mL H2SO4 amber glass	BP3B	250mL NaOH plastic	U	Summa Can (air sample)
JGFU	4oz unpreserved amber wide	AG2U	500mL unpres amber glass	BP3N	250mL HNO3 plastic	WT	Water
CG3H	250mL clear glass HCl	AG3S	250mL H2SO4 amber glass	BP3F	250mL HNO3 plastic-field filtered	SL	Solid Solid
CG3F	250mL clear glass HCl, Field Filter	AG3SF	250mL H2SO4 amb glass -field filtered	BP3U	250mL unpreserved plastic	OL	Oil
BG1H	1L HCl clear glass	AG3U	250mL unpres amber glass	BP3S	250mL H2SO4 plastic	NAL	Non-aqueous liquid
BG1S	1L H2SO4 clear glass	AG3C	250mL NaOH amber glass	BP3Z	250mL NaOH, ZnAc plastic	WP	Wipe

**April 2023**



July 18, 2023

Mr. Mark Breting  
ATC Group Services  
7988 Centerpoint Drive  
Suite 100  
Indianapolis, IN 46256

RE: Project: Eagle Valley April 2023 P1R1  
Pace Project No.: 50342354

Dear Mr. Breting:

Enclosed are the analytical results for sample(s) received by the laboratory on April 18, 2023. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

The test results provided in this final report were generated by each of the following laboratories within the Pace Network:

- Pace Analytical Services - Indianapolis
- Pace Analytical Services - Greensburg

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Will Statz  
will.statz@pacelabs.com  
(317)228-3105  
Project Manager

Enclosures

cc: Mohammed Bazlamit, Atlas  
Mr. Robert Miller, Haley & Aldrich



## REPORT OF LABORATORY ANALYSIS

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### CERTIFICATIONS

Project: Eagle Valley April 2023 P1R1  
Pace Project No.: 50342354

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#### Pace Analytical Services Pennsylvania

1638 Roseytown Rd Suites 2,3&4, Greensburg, PA 15601  
ANAB DOD-ELAP Rad Accreditation #: L2417  
ANABISO/IEC 17025:2017 Rad Cert#: L24170  
Alabama Certification #: 41590  
Arizona Certification #: AZ0734  
Arkansas Certification  
California Certification #: 2950  
Colorado Certification #: PA01547  
Connecticut Certification #: PH-0694  
EPA Region 4 DW Rad  
Florida/TNI Certification #: E87683  
Georgia Certification #: C040  
Guam Certification  
Hawaii Certification  
Idaho Certification  
Illinois Certification  
Indiana Certification  
Iowa Certification #: 391  
Kansas Certification #: E-10358  
Kentucky Certification #: KY90133  
KY WW Permit #: KY0098221  
KY WW Permit #: KY0000221  
Louisiana DHH/TNI Certification #: LA010  
Louisiana DEQ/TNI Certification #: 04086  
Maine Certification #: 2023021  
Maryland Certification #: 308  
Massachusetts Certification #: M-PA1457  
Michigan/PADEP Certification #: 9991

Missouri Certification #: 235  
Montana Certification #: Cert0082  
Nebraska Certification #: NE-OS-29-14  
Nevada Certification #: PA014572023-03  
New Hampshire/TNI Certification #: 297622  
New Jersey/TNI Certification #: PA051  
New Mexico Certification #: PA01457  
New York/TNI Certification #: 10888  
North Carolina Certification #: 42706  
North Dakota Certification #: R-190  
Ohio EPA Rad Approval: #41249  
Oregon/TNI Certification #: PA200002-015  
Pennsylvania/TNI Certification #: 65-00282  
Puerto Rico Certification #: PA01457  
Rhode Island Certification #: 65-00282  
South Dakota Certification  
Tennessee Certification #: TN02867  
Texas/TNI Certification #: T104704188-22-18  
Utah/TNI Certification #: PA014572223-14  
USDA Soil Permit #: 525-23-67-77263  
Vermont Dept. of Health: ID# VT-0282  
Virgin Island/PADEP Certification  
Virginia/VELAP Certification #: 460198  
Washington Certification #: C868  
West Virginia DEP Certification #: 143  
West Virginia DHHR Certification #: 9964C  
Wisconsin Approve List for Rad

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#### Pace Analytical Services Indianapolis

7726 Moller Road, Indianapolis, IN 46268  
Illinois Accreditation #: 200074  
Indiana Drinking Water Laboratory #: C-49-06  
Kansas/TNI Certification #: E-10177  
Kentucky UST Agency Interest #: 80226  
Kentucky WW Laboratory ID #: 98019  
Michigan Drinking Water Laboratory #9050

Ohio VAP Certified Laboratory #: CL0065  
Oklahoma Laboratory #: 9204  
Texas Certification #: T104704355  
Wisconsin Laboratory #: 999788130  
USDA Foreign Soil Permit #: 525-23-13-23119  
USDA Compliance Agreement #: IN-SL-22-001

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### SAMPLE SUMMARY

Project: Eagle Valley April 2023 P1R1

Pace Project No.: 50342354

Lab ID	Sample ID	Matrix	Date Collected	Date Received
50342354001	MW-3D	Water	04/17/23 13:10	04/18/23 09:15
50342354002	MW-3I	Water	04/17/23 15:55	04/18/23 09:15
50342354003	MW-13D	Water	04/17/23 14:15	04/18/23 09:15
50342354004	MW-13D MS	Water	04/17/23 14:15	04/18/23 09:15
50342354005	MW-13D MSD	Water	04/17/23 14:15	04/18/23 09:15

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### SAMPLE ANALYTE COUNT

Project: Eagle Valley April 2023 P1R1

Pace Project No.: 50342354

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory		
50342354001	MW-3D	EPA 9056	RMR	3	PASI-I		
		EPA 6010	DJS	10	PASI-I		
		EPA 6010	JPK	2	PASI-I		
		EPA 6020	CAW	11	PASI-I		
		EPA 7470	ILP	1	PASI-I		
		EPA 903.1	CLM	1	PASI-PA		
		EPA 904.0	JJS1	1	PASI-PA		
		Total Radium Calculation	JAL	1	PASI-PA		
		SM 2320B	DAW	3	PASI-I		
		SM 2540C	AEL	1	PASI-I		
		SM 4500-H+B	BMS	1	PASI-I		
		SM 4500-S2-D	STS	1	PASI-I		
		HACH 8146	BEP	1	PASI-I		
		EPA 353.2	ZM	2	PASI-I		
		EPA 365.1	MMS	1	PASI-I		
		SM 5310C	ATS	1	PASI-I		
		SM 5310C	ATS	1	PASI-I		
		50342354002	MW-3I	EPA 9056	RMR	3	PASI-I
				EPA 6010	DJS	10	PASI-I
				EPA 6010	JPK	2	PASI-I
EPA 6020	CAW			11	PASI-I		
EPA 7470	ILP			1	PASI-I		
EPA 903.1	CLM			1	PASI-PA		
EPA 904.0	JJS1			1	PASI-PA		
Total Radium Calculation	JAL			1	PASI-PA		
SM 2320B	DAW			3	PASI-I		
SM 2540C	AEL			1	PASI-I		
SM 4500-H+B	BMS			1	PASI-I		
SM 4500-S2-D	STS			1	PASI-I		
HACH 8146	BEP			1	PASI-I		
EPA 353.2	ZM			2	PASI-I		
EPA 365.1	MMS			1	PASI-I		
SM 5310C	ATS			1	PASI-I		
SM 5310C	ATS			1	PASI-I		
50342354003	MW-13D			EPA 9056	RMR	3	PASI-I
				EPA 6010	DJS	10	PASI-I
				EPA 6010	JPK	2	PASI-I

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### SAMPLE ANALYTE COUNT

Project: Eagle Valley April 2023 P1R1

Pace Project No.: 50342354

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
		EPA 6020	CAW	11	PASI-I
		EPA 7470	ILP	1	PASI-I
		EPA 903.1	CLM	1	PASI-PA
		EPA 904.0	JJS1	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
		SM 2320B	DAW	3	PASI-I
		SM 2540C	AEL	1	PASI-I
		SM 4500-H+B	BMS	1	PASI-I
		SM 4500-S2-D	STS	1	PASI-I
		HACH 8146	BEP	1	PASI-I
		EPA 353.2	ZM	2	PASI-I
		EPA 365.1	MMS	1	PASI-I
		SM 5310C	ATS	1	PASI-I
		SM 5310C	ATS	1	PASI-I
50342354004	MW-13D MS	EPA 903.1	CLM	1	PASI-PA
		EPA 904.0	JJS1	1	PASI-PA
50342354005	MW-13D MSD	EPA 903.1	CLM	1	PASI-PA
		EPA 904.0	JJS1	1	PASI-PA

PASI-I = Pace Analytical Services - Indianapolis

PASI-PA = Pace Analytical Services - Greensburg

### REPORT OF LABORATORY ANALYSIS

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### SUMMARY OF DETECTION

Project: Eagle Valley April 2023 P1R1  
 Pace Project No.: 50342354

Lab Sample ID	Client Sample ID	Result	Units	Report Limit	Analyzed	Qualifiers
Method	Parameters					
<b>50342354001</b>	<b>MW-3D</b>					
EPA 9056	Chloride	98.2	mg/L	2.5	04/22/23 02:21	
EPA 9056	Fluoride	0.26	mg/L	0.10	04/22/23 02:05	
EPA 9056	Sulfate	52.2	mg/L	2.5	04/22/23 02:21	
EPA 6010	Aluminum	283	ug/L	200	04/24/23 16:35	
EPA 6010	Boron	170	ug/L	100	04/24/23 16:35	
EPA 6010	Calcium	83300	ug/L	1000	04/24/23 16:35	
EPA 6010	Iron	2150	ug/L	100	04/24/23 16:35	
EPA 6010	Magnesium	26200	ug/L	1000	04/24/23 16:35	
EPA 6010	Manganese	223	ug/L	10.0	04/24/23 16:35	
EPA 6010	Potassium	5940	ug/L	1000	04/24/23 16:35	
EPA 6010	Silica	14100	ug/L	450	04/24/23 16:35	N2
EPA 6010	Sodium	67400	ug/L	1000	04/24/23 16:35	
EPA 6010	Manganese, Dissolved	204	ug/L	10.0	04/27/23 00:54	
EPA 6010	Molybdenum, Dissolved	19.7	ug/L	10.0	04/27/23 00:54	
EPA 6020	Arsenic	1.4	ug/L	1.0	04/25/23 18:51	
EPA 6020	Barium	87.2	ug/L	1.0	04/25/23 18:51	
EPA 6020	Molybdenum	18.3	ug/L	10.0	04/25/23 18:51	
EPA 903.1	Radium-226	0.941 ± 0.693 (0.995)	pCi/L		05/03/23 14:13	
EPA 904.0	Radium-228	C:NA T:97% 1.16 ± 0.464 (0.719) C:79% T:88%	pCi/L		05/01/23 15:08	
Total Radium Calculation	Total Radium	2.10 ± 1.16 (1.71)	pCi/L		05/05/23 10:39	
SM 2320B	Alkalinity, Total as CaCO3	264	mg/L	10.0	04/20/23 00:56	
SM 2320B	Alkalinity,Bicarbonate (CaCO3)	264	mg/L	10.0	04/20/23 00:56	
SM 2540C	Total Dissolved Solids	477	mg/L	10.0	04/21/23 08:23	
SM 4500-H+B	pH at 25 Degrees C	7.8	Std. Units	0.10	04/27/23 09:57	H3
HACH 8146	Iron, Ferrous	0.82	mg/L	0.20	04/20/23 15:43	H3,N2
SM 5310C	Total Organic Carbon	1.2	mg/L	1.0	04/21/23 20:20	
SM 5310C	Dissolved Organic Carbon	1.4	mg/L	1.0	04/25/23 01:16	
<b>50342354002</b>	<b>MW-3I</b>					
EPA 9056	Chloride	109	mg/L	2.5	04/22/23 02:52	
EPA 9056	Fluoride	0.34	mg/L	0.10	04/22/23 02:36	
EPA 9056	Sulfate	101	mg/L	2.5	04/22/23 02:52	
EPA 6010	Boron	153	ug/L	100	04/24/23 16:37	
EPA 6010	Calcium	63600	ug/L	1000	04/24/23 16:37	
EPA 6010	Magnesium	19100	ug/L	1000	04/24/23 16:37	
EPA 6010	Manganese	23.6	ug/L	10.0	04/24/23 16:37	
EPA 6010	Potassium	5230	ug/L	1000	04/24/23 16:37	
EPA 6010	Silica	12500	ug/L	450	04/24/23 16:37	N2
EPA 6010	Sodium	108000	ug/L	1000	04/24/23 16:37	
EPA 6010	Manganese, Dissolved	22.9	ug/L	10.0	04/27/23 00:56	
EPA 6010	Molybdenum, Dissolved	68.6	ug/L	10.0	04/27/23 00:56	

### REPORT OF LABORATORY ANALYSIS

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**SUMMARY OF DETECTION**

Project: Eagle Valley April 2023 P1R1  
 Pace Project No.: 50342354

Lab Sample ID	Client Sample ID	Result	Units	Report Limit	Analyzed	Qualifiers
Method	Parameters					
<b>50342354002</b>	<b>MW-3I</b>					
EPA 6020	Barium	62.4	ug/L	1.0	04/25/23 18:54	
EPA 6020	Molybdenum	68.1	ug/L	10.0	04/25/23 18:54	
EPA 903.1	Radium-226	0.0638 ± 0.650 (1.24) C:NA T:94%	pCi/L		05/03/23 14:27	
EPA 904.0	Radium-228	0.848 ± 0.439 (0.760) C:75% T:81%	pCi/L		05/01/23 15:08	
Total Radium Calculation	Total Radium	0.912 ± 1.09 (2.00)	pCi/L		05/05/23 10:39	
SM 2320B	Alkalinity, Total as CaCO3	235	mg/L	10.0	04/20/23 00:56	
SM 2320B	Alkalinity,Bicarbonate (CaCO3)	235	mg/L	10.0	04/20/23 00:56	
SM 2540C	Total Dissolved Solids	513	mg/L	10.0	04/21/23 08:24	
SM 4500-H+B	pH at 25 Degrees C	7.7	Std. Units	0.10	04/27/23 10:03	H3
SM 5310C	Total Organic Carbon	1.4	mg/L	1.0	04/21/23 20:31	
SM 5310C	Dissolved Organic Carbon	1.7	mg/L	1.0	04/25/23 01:28	
<b>50342354003</b>	<b>MW-13D</b>					
EPA 9056	Chloride	47.1	mg/L	2.5	04/22/23 03:23	
EPA 9056	Sulfate	27.7	mg/L	0.25	04/22/23 03:07	
EPA 6010	Calcium	81900	ug/L	1000	04/24/23 16:39	
EPA 6010	Magnesium	24700	ug/L	1000	04/24/23 16:39	
EPA 6010	Manganese	19.3	ug/L	10.0	04/24/23 16:39	
EPA 6010	Potassium	1730	ug/L	1000	04/24/23 16:39	
EPA 6010	Silica	16200	ug/L	450	04/24/23 16:39	N2
EPA 6010	Sodium	33200	ug/L	1000	04/24/23 16:39	
EPA 6010	Manganese, Dissolved	17.3	ug/L	10.0	04/27/23 00:58	
EPA 6020	Barium	59.4	ug/L	1.0	04/25/23 19:21	
EPA 6020	Selenium	1.2	ug/L	1.0	04/25/23 19:21	
EPA 903.1	Radium-226	0.592 ± 0.342 (0.134) C:NA T:96%	pCi/L		05/03/23 14:27	
EPA 904.0	Radium-228	1.36 ± 0.508 (0.745) C:75% T:86%	pCi/L		05/01/23 15:08	
Total Radium Calculation	Total Radium	1.95 ± 0.850 (0.879)	pCi/L		05/05/23 10:39	
SM 2320B	Alkalinity, Total as CaCO3	276	mg/L	10.0	04/20/23 00:56	
SM 2320B	Alkalinity,Bicarbonate (CaCO3)	276	mg/L	10.0	04/20/23 00:56	
SM 2540C	Total Dissolved Solids	374	mg/L	10.0	04/21/23 08:24	
SM 4500-H+B	pH at 25 Degrees C	7.8	Std. Units	0.10	04/27/23 10:00	H3
EPA 353.2	Nitrogen, Nitrate	1.0	mg/L	0.10	04/18/23 19:22	
SM 5310C	Dissolved Organic Carbon	1.6	mg/L	1.0	04/25/23 01:39	

**REPORT OF LABORATORY ANALYSIS**

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### SUMMARY OF DETECTION

Project: Eagle Valley April 2023 P1R1

Pace Project No.: 50342354

Lab Sample ID Method	Client Sample ID Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
<b>50342354004</b>	<b>MW-13D MS</b>					
EPA 903.1	Radium-226	87.99 %REC ± NA (NA) C:NA T:NA	pCi/L		05/03/23 14:27	
EPA 904.0	Radium-228	89.19 %REC ± NA (NA) C:NA T:NA	pCi/L		05/01/23 15:08	
<b>50342354005</b>	<b>MW-13D MSD</b>					
EPA 903.1	Radium-226	90.61 %REC 2.93RPD ± NA (NA) C:NA T:NA	pCi/L		05/03/23 14:27	
EPA 904.0	Radium-228	95.76 %REC 7.10RPD ± NA (NA) C:NA T:NA	pCi/L		05/01/23 15:04	

### REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: Eagle Valley April 2023 P1R1

Pace Project No.: 50342354

Sample: MW-3D		Lab ID: 50342354001		Collected: 04/17/23 13:10		Received: 04/18/23 09:15		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>9056 IC Anions</b>									
Analytical Method: EPA 9056									
Pace Analytical Services - Indianapolis									
Chloride	98.2	mg/L	2.5	0.67	10		04/22/23 02:21	16887-00-6	
Fluoride	0.26	mg/L	0.10	0.017	1		04/22/23 02:05	16984-48-8	
Sulfate	52.2	mg/L	2.5	0.85	10		04/22/23 02:21	14808-79-8	
<b>6010 MET ICP</b>									
Analytical Method: EPA 6010 Preparation Method: EPA 3010									
Pace Analytical Services - Indianapolis									
Aluminum	283	ug/L	200	54.4	1	04/22/23 16:43	04/24/23 16:35	7429-90-5	
Boron	170	ug/L	100	61.4	1	04/22/23 16:43	04/24/23 16:35	7440-42-8	
Calcium	83300	ug/L	1000	88.4	1	04/22/23 16:43	04/24/23 16:35	7440-70-2	
Iron	2150	ug/L	100	48.8	1	04/22/23 16:43	04/24/23 16:35	7439-89-6	
Lithium	ND	ug/L	20.0	6.2	1	04/22/23 16:43	04/24/23 16:35	7439-93-2	
Magnesium	26200	ug/L	1000	43.0	1	04/22/23 16:43	04/24/23 16:35	7439-95-4	
Manganese	223	ug/L	10.0	5.4	1	04/22/23 16:43	04/24/23 16:35	7439-96-5	
Potassium	5940	ug/L	1000	200	1	04/22/23 16:43	04/24/23 16:35	7440-09-7	
Silica	14100	ug/L	450		1	04/22/23 16:43	04/24/23 16:35	7631-86-9	N2
Sodium	67400	ug/L	1000	284	1	04/22/23 16:43	04/24/23 16:35	7440-23-5	
<b>6010 MET ICP, Dissolved</b>									
Analytical Method: EPA 6010 Preparation Method: EPA 3010									
Pace Analytical Services - Indianapolis									
Manganese, Dissolved	204	ug/L	10.0	2.5	1	04/26/23 15:44	04/27/23 00:54	7439-96-5	
Molybdenum, Dissolved	19.7	ug/L	10.0	3.7	1	04/26/23 15:44	04/27/23 00:54	7439-98-7	
<b>6020 MET ICPMS</b>									
Analytical Method: EPA 6020 Preparation Method: EPA 200.2									
Pace Analytical Services - Indianapolis									
Antimony	ND	ug/L	1.0	0.036	1	04/24/23 22:00	04/25/23 18:51	7440-36-0	
Arsenic	1.4	ug/L	1.0	0.053	1	04/24/23 22:00	04/25/23 18:51	7440-38-2	
Barium	87.2	ug/L	1.0	0.051	1	04/24/23 22:00	04/25/23 18:51	7440-39-3	
Beryllium	ND	ug/L	0.20	0.028	1	04/24/23 22:00	04/25/23 18:51	7440-41-7	
Cadmium	ND	ug/L	2.0	0.0090	1	04/24/23 22:00	04/25/23 18:51	7440-43-9	
Chromium	ND	ug/L	10.0	0.13	1	04/24/23 22:00	04/25/23 18:51	7440-47-3	
Cobalt	ND	ug/L	1.0	0.032	1	04/24/23 22:00	04/25/23 18:51	7440-48-4	
Lead	ND	ug/L	10.0	0.034	1	04/24/23 22:00	04/25/23 18:51	7439-92-1	
Molybdenum	18.3	ug/L	10.0	0.048	1	04/24/23 22:00	04/25/23 18:51	7439-98-7	
Selenium	ND	ug/L	1.0	0.23	1	04/24/23 22:00	04/25/23 18:51	7782-49-2	
Thallium	ND	ug/L	1.0	0.033	1	04/24/23 22:00	04/25/23 18:51	7440-28-0	
<b>7470 Mercury</b>									
Analytical Method: EPA 7470 Preparation Method: EPA 7470									
Pace Analytical Services - Indianapolis									
Mercury	ND	ug/L	0.20	0.12	1	04/20/23 19:07	04/21/23 08:40	7439-97-6	
<b>2320B Alkalinity</b>									
Analytical Method: SM 2320B									
Pace Analytical Services - Indianapolis									
Alkalinity, Total as CaCO3	264	mg/L	10.0	10.0	1		04/20/23 00:56		
Alkalinity,Bicarbonate (CaCO3)	264	mg/L	10.0	10.0	1		04/20/23 00:56		

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**ANALYTICAL RESULTS**

Project: Eagle Valley April 2023 P1R1

Pace Project No.: 50342354

Sample: MW-3D		Lab ID: 50342354001		Collected: 04/17/23 13:10	Received: 04/18/23 09:15	Matrix: Water			
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>2320B Alkalinity</b>		Analytical Method: SM 2320B Pace Analytical Services - Indianapolis							
Alkalinity, Carbonate (CaCO3)	ND	mg/L	10.0	10.0	1		04/20/23 00:56		
<b>2540C Total Dissolved Solids</b>		Analytical Method: SM 2540C Pace Analytical Services - Indianapolis							
Total Dissolved Solids	<b>477</b>	mg/L	10.0	10.0	1		04/21/23 08:23		
<b>4500H+ pH, Electrometric</b>		Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis							
pH at 25 Degrees C	<b>7.8</b>	Std. Units	0.10	0.10	1		04/27/23 09:57		H3
<b>4500S2D Sulfide Water</b>		Analytical Method: SM 4500-S2-D Pace Analytical Services - Indianapolis							
Sulfide	ND	mg/L	0.10	0.025	1		04/21/23 12:54	18496-25-8	
<b>Iron, Ferrous</b>		Analytical Method: HACH 8146 Pace Analytical Services - Indianapolis							
Iron, Ferrous	<b>0.82</b>	mg/L	0.20	0.035	1		04/20/23 15:43	15438-31-0	H3,N2
<b>353.2 Nitrogen, NO2/NO3 unpres</b>		Analytical Method: EPA 353.2 Pace Analytical Services - Indianapolis							
Nitrogen, Nitrate	ND	mg/L	0.10	0.011	1		04/18/23 19:20	14797-55-8	
Nitrogen, Nitrite	ND	mg/L	0.10	0.0040	1		04/18/23 19:20	14797-65-0	
<b>365.1 Total Phosphorus</b>		Analytical Method: EPA 365.1 Preparation Method: EPA 365.1 Pace Analytical Services - Indianapolis							
Phosphate as P04	ND	mg/L	0.15	0.15	1	04/26/23 11:20	04/28/23 15:29		
<b>5310C TOC</b>		Analytical Method: SM 5310C Pace Analytical Services - Indianapolis							
Total Organic Carbon	<b>1.2</b>	mg/L	1.0	0.24	1		04/21/23 20:20	7440-44-0	
<b>5310C Dissolved Organic Carbon</b>		Analytical Method: SM 5310C Pace Analytical Services - Indianapolis							
Dissolved Organic Carbon	<b>1.4</b>	mg/L	1.0	0.24	1		04/25/23 01:16		

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## ANALYTICAL RESULTS

Project: Eagle Valley April 2023 P1R1

Pace Project No.: 50342354

Sample: MW-31 Lab ID: 50342354002 Collected: 04/17/23 15:55 Received: 04/18/23 09:15 Matrix: Water

Parameters	Results	Units	Report			Prepared	Analyzed	CAS No.	Qual
			Limit	MDL	DF				
<b>9056 IC Anions</b>									
Analytical Method: EPA 9056									
Pace Analytical Services - Indianapolis									
Chloride	109	mg/L	2.5	0.67	10		04/22/23 02:52	16887-00-6	
Fluoride	0.34	mg/L	0.10	0.017	1		04/22/23 02:36	16984-48-8	
Sulfate	101	mg/L	2.5	0.85	10		04/22/23 02:52	14808-79-8	
<b>6010 MET ICP</b>									
Analytical Method: EPA 6010 Preparation Method: EPA 3010									
Pace Analytical Services - Indianapolis									
Aluminum	ND	ug/L	200	54.4	1	04/22/23 16:43	04/24/23 16:37	7429-90-5	
Boron	153	ug/L	100	61.4	1	04/22/23 16:43	04/24/23 16:37	7440-42-8	
Calcium	63600	ug/L	1000	88.4	1	04/22/23 16:43	04/24/23 16:37	7440-70-2	
Iron	ND	ug/L	100	48.8	1	04/22/23 16:43	04/24/23 16:37	7439-89-6	
Lithium	ND	ug/L	20.0	6.2	1	04/22/23 16:43	04/24/23 16:37	7439-93-2	
Magnesium	19100	ug/L	1000	43.0	1	04/22/23 16:43	04/24/23 16:37	7439-95-4	
Manganese	23.6	ug/L	10.0	5.4	1	04/22/23 16:43	04/24/23 16:37	7439-96-5	
Potassium	5230	ug/L	1000	200	1	04/22/23 16:43	04/24/23 16:37	7440-09-7	
Silica	12500	ug/L	450		1	04/22/23 16:43	04/24/23 16:37	7631-86-9	N2
Sodium	108000	ug/L	1000	284	1	04/22/23 16:43	04/24/23 16:37	7440-23-5	
<b>6010 MET ICP, Dissolved</b>									
Analytical Method: EPA 6010 Preparation Method: EPA 3010									
Pace Analytical Services - Indianapolis									
Manganese, Dissolved	22.9	ug/L	10.0	2.5	1	04/26/23 15:44	04/27/23 00:56	7439-96-5	
Molybdenum, Dissolved	68.6	ug/L	10.0	3.7	1	04/26/23 15:44	04/27/23 00:56	7439-98-7	
<b>6020 MET ICPMS</b>									
Analytical Method: EPA 6020 Preparation Method: EPA 200.2									
Pace Analytical Services - Indianapolis									
Antimony	ND	ug/L	1.0	0.036	1	04/24/23 22:00	04/25/23 18:54	7440-36-0	
Arsenic	ND	ug/L	1.0	0.053	1	04/24/23 22:00	04/25/23 18:54	7440-38-2	
Barium	62.4	ug/L	1.0	0.051	1	04/24/23 22:00	04/25/23 18:54	7440-39-3	
Beryllium	ND	ug/L	0.20	0.028	1	04/24/23 22:00	04/25/23 18:54	7440-41-7	
Cadmium	ND	ug/L	2.0	0.0090	1	04/24/23 22:00	04/25/23 18:54	7440-43-9	
Chromium	ND	ug/L	10.0	0.13	1	04/24/23 22:00	04/25/23 18:54	7440-47-3	
Cobalt	ND	ug/L	1.0	0.032	1	04/24/23 22:00	04/25/23 18:54	7440-48-4	
Lead	ND	ug/L	10.0	0.034	1	04/24/23 22:00	04/25/23 18:54	7439-92-1	
Molybdenum	68.1	ug/L	10.0	0.048	1	04/24/23 22:00	04/25/23 18:54	7439-98-7	
Selenium	ND	ug/L	1.0	0.23	1	04/24/23 22:00	04/25/23 18:54	7782-49-2	
Thallium	ND	ug/L	1.0	0.033	1	04/24/23 22:00	04/25/23 18:54	7440-28-0	
<b>7470 Mercury</b>									
Analytical Method: EPA 7470 Preparation Method: EPA 7470									
Pace Analytical Services - Indianapolis									
Mercury	ND	ug/L	0.20	0.12	1	04/20/23 19:07	04/21/23 08:42	7439-97-6	
<b>2320B Alkalinity</b>									
Analytical Method: SM 2320B									
Pace Analytical Services - Indianapolis									
Alkalinity, Total as CaCO3	235	mg/L	10.0	10.0	1		04/20/23 00:56		
Alkalinity,Bicarbonate (CaCO3)	235	mg/L	10.0	10.0	1		04/20/23 00:56		

## REPORT OF LABORATORY ANALYSIS

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**ANALYTICAL RESULTS**

Project: Eagle Valley April 2023 P1R1  
 Pace Project No.: 50342354

Sample: MW-3I		Lab ID: 50342354002		Collected: 04/17/23 15:55	Received: 04/18/23 09:15	Matrix: Water			
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>2320B Alkalinity</b>									
Analytical Method: SM 2320B Pace Analytical Services - Indianapolis									
Alkalinity, Carbonate (CaCO3)	ND	mg/L	10.0	10.0	1		04/20/23 00:56		
<b>2540C Total Dissolved Solids</b>									
Analytical Method: SM 2540C Pace Analytical Services - Indianapolis									
Total Dissolved Solids	513	mg/L	10.0	10.0	1		04/21/23 08:24		
<b>4500H+ pH, Electrometric</b>									
Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis									
pH at 25 Degrees C	7.7	Std. Units	0.10	0.10	1		04/27/23 10:03		H3
<b>4500S2D Sulfide Water</b>									
Analytical Method: SM 4500-S2-D Pace Analytical Services - Indianapolis									
Sulfide	ND	mg/L	0.10	0.025	1		04/21/23 12:54	18496-25-8	
<b>Iron, Ferrous</b>									
Analytical Method: HACH 8146 Pace Analytical Services - Indianapolis									
Iron, Ferrous	ND	mg/L	0.20	0.035	1		04/20/23 15:58	15438-31-0	H3,N2
<b>353.2 Nitrogen, NO2/NO3 unpres</b>									
Analytical Method: EPA 353.2 Pace Analytical Services - Indianapolis									
Nitrogen, Nitrate	ND	mg/L	0.10	0.011	1		04/18/23 19:27	14797-55-8	
Nitrogen, Nitrite	ND	mg/L	0.10	0.0040	1		04/18/23 19:27	14797-65-0	
<b>365.1 Total Phosphorus</b>									
Analytical Method: EPA 365.1 Preparation Method: EPA 365.1 Pace Analytical Services - Indianapolis									
Phosphate as P04	ND	mg/L	0.15	0.15	1	04/26/23 11:20	04/28/23 15:30		
<b>5310C TOC</b>									
Analytical Method: SM 5310C Pace Analytical Services - Indianapolis									
Total Organic Carbon	1.4	mg/L	1.0	0.24	1		04/21/23 20:31	7440-44-0	
<b>5310C Dissolved Organic Carbon</b>									
Analytical Method: SM 5310C Pace Analytical Services - Indianapolis									
Dissolved Organic Carbon	1.7	mg/L	1.0	0.24	1		04/25/23 01:28		

**REPORT OF LABORATORY ANALYSIS**

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### ANALYTICAL RESULTS

Project: Eagle Valley April 2023 P1R1  
 Pace Project No.: 50342354

**Sample: MW-13D**      **Lab ID: 50342354003**      Collected: 04/17/23 14:15      Received: 04/18/23 09:15      Matrix: Water

Parameters	Results	Units	Report			Prepared	Analyzed	CAS No.	Qual
			Limit	MDL	DF				
<b>9056 IC Anions</b>									
Analytical Method: EPA 9056									
Pace Analytical Services - Indianapolis									
Chloride	47.1	mg/L	2.5	0.67	10		04/22/23 03:23	16887-00-6	
Fluoride	ND	mg/L	0.10	0.017	1		04/22/23 03:07	16984-48-8	
Sulfate	27.7	mg/L	0.25	0.085	1		04/22/23 03:07	14808-79-8	
<b>6010 MET ICP</b>									
Analytical Method: EPA 6010      Preparation Method: EPA 3010									
Pace Analytical Services - Indianapolis									
Aluminum	ND	ug/L	200	54.4	1	04/22/23 16:43	04/24/23 16:39	7429-90-5	
Boron	ND	ug/L	100	61.4	1	04/22/23 16:43	04/24/23 16:39	7440-42-8	
Calcium	81900	ug/L	1000	88.4	1	04/22/23 16:43	04/24/23 16:39	7440-70-2	
Iron	ND	ug/L	100	48.8	1	04/22/23 16:43	04/24/23 16:39	7439-89-6	
Lithium	ND	ug/L	20.0	6.2	1	04/22/23 16:43	04/24/23 16:39	7439-93-2	
Magnesium	24700	ug/L	1000	43.0	1	04/22/23 16:43	04/24/23 16:39	7439-95-4	
Manganese	19.3	ug/L	10.0	5.4	1	04/22/23 16:43	04/24/23 16:39	7439-96-5	
Potassium	1730	ug/L	1000	200	1	04/22/23 16:43	04/24/23 16:39	7440-09-7	
Silica	16200	ug/L	450		1	04/22/23 16:43	04/24/23 16:39	7631-86-9	N2
Sodium	33200	ug/L	1000	284	1	04/22/23 16:43	04/24/23 16:39	7440-23-5	
<b>6010 MET ICP, Dissolved</b>									
Analytical Method: EPA 6010      Preparation Method: EPA 3010									
Pace Analytical Services - Indianapolis									
Manganese, Dissolved	17.3	ug/L	10.0	2.5	1	04/26/23 15:44	04/27/23 00:58	7439-96-5	
Molybdenum, Dissolved	ND	ug/L	10.0	3.7	1	04/26/23 15:44	04/27/23 00:58	7439-98-7	
<b>6020 MET ICPMS</b>									
Analytical Method: EPA 6020      Preparation Method: EPA 200.2									
Pace Analytical Services - Indianapolis									
Antimony	ND	ug/L	1.0	0.036	1	04/24/23 22:00	04/25/23 19:21	7440-36-0	
Arsenic	ND	ug/L	1.0	0.053	1	04/24/23 22:00	04/25/23 19:21	7440-38-2	
Barium	59.4	ug/L	1.0	0.051	1	04/24/23 22:00	04/25/23 19:21	7440-39-3	
Beryllium	ND	ug/L	0.20	0.028	1	04/24/23 22:00	04/25/23 19:21	7440-41-7	
Cadmium	ND	ug/L	2.0	0.0090	1	04/24/23 22:00	04/25/23 19:21	7440-43-9	
Chromium	ND	ug/L	10.0	0.13	1	04/24/23 22:00	04/25/23 19:21	7440-47-3	
Cobalt	ND	ug/L	1.0	0.032	1	04/24/23 22:00	04/25/23 19:21	7440-48-4	
Lead	ND	ug/L	10.0	0.034	1	04/24/23 22:00	04/25/23 19:21	7439-92-1	
Molybdenum	ND	ug/L	10.0	0.048	1	04/24/23 22:00	04/25/23 19:21	7439-98-7	
Selenium	1.2	ug/L	1.0	0.23	1	04/24/23 22:00	04/25/23 19:21	7782-49-2	
Thallium	ND	ug/L	1.0	0.033	1	04/24/23 22:00	04/25/23 19:21	7440-28-0	
<b>7470 Mercury</b>									
Analytical Method: EPA 7470      Preparation Method: EPA 7470									
Pace Analytical Services - Indianapolis									
Mercury	ND	ug/L	0.20	0.12	1	04/20/23 19:07	04/21/23 08:45	7439-97-6	
<b>2320B Alkalinity</b>									
Analytical Method: SM 2320B									
Pace Analytical Services - Indianapolis									
Alkalinity, Total as CaCO3	276	mg/L	10.0	10.0	1		04/20/23 00:56		
Alkalinity,Bicarbonate (CaCO3)	276	mg/L	10.0	10.0	1		04/20/23 00:56		

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### ANALYTICAL RESULTS

Project: Eagle Valley April 2023 P1R1

Pace Project No.: 50342354

Sample: MW-13D		Lab ID: 50342354003		Collected: 04/17/23 14:15	Received: 04/18/23 09:15	Matrix: Water			
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>2320B Alkalinity</b>									
Analytical Method: SM 2320B Pace Analytical Services - Indianapolis									
Alkalinity, Carbonate (CaCO3)	ND	mg/L	10.0	10.0	1		04/20/23 00:56		
<b>2540C Total Dissolved Solids</b>									
Analytical Method: SM 2540C Pace Analytical Services - Indianapolis									
Total Dissolved Solids	374	mg/L	10.0	10.0	1		04/21/23 08:24		
<b>4500H+ pH, Electrometric</b>									
Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis									
pH at 25 Degrees C	7.8	Std. Units	0.10	0.10	1		04/27/23 10:00		H3
<b>4500S2D Sulfide Water</b>									
Analytical Method: SM 4500-S2-D Pace Analytical Services - Indianapolis									
Sulfide	ND	mg/L	0.10	0.025	1		04/21/23 12:54	18496-25-8	
<b>Iron, Ferrous</b>									
Analytical Method: HACH 8146 Pace Analytical Services - Indianapolis									
Iron, Ferrous	ND	mg/L	0.20	0.035	1		04/20/23 15:43	15438-31-0	H3,N2
<b>353.2 Nitrogen, NO2/NO3 unpres</b>									
Analytical Method: EPA 353.2 Pace Analytical Services - Indianapolis									
Nitrogen, Nitrate	1.0	mg/L	0.10	0.011	1		04/18/23 19:22	14797-55-8	
Nitrogen, Nitrite	ND	mg/L	0.10	0.0040	1		04/18/23 19:22	14797-65-0	
<b>365.1 Total Phosphorus</b>									
Analytical Method: EPA 365.1 Preparation Method: EPA 365.1 Pace Analytical Services - Indianapolis									
Phosphate as P04	ND	mg/L	0.15	0.15	1	04/26/23 11:20	04/28/23 15:30		
<b>5310C TOC</b>									
Analytical Method: SM 5310C Pace Analytical Services - Indianapolis									
Total Organic Carbon	ND	mg/L	1.0	0.24	1		04/21/23 20:42	7440-44-0	
<b>5310C Dissolved Organic Carbon</b>									
Analytical Method: SM 5310C Pace Analytical Services - Indianapolis									
Dissolved Organic Carbon	1.6	mg/L	1.0	0.24	1		04/25/23 01:39		

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**QUALITY CONTROL DATA**

Project: Eagle Valley April 2023 P1R1

Pace Project No.: 50342354

QC Batch:	728539	Analysis Method:	EPA 9056
QC Batch Method:	EPA 9056	Analysis Description:	9056 IC Anions
		Laboratory:	Pace Analytical Services - Indianapolis

Associated Lab Samples: 50342354001, 50342354002, 50342354003

METHOD BLANK: 3343295 Matrix: Water

Associated Lab Samples: 50342354001, 50342354002, 50342354003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chloride	mg/L	ND	0.25	0.067	04/23/23 02:15	
Fluoride	mg/L	ND	0.10	0.017	04/23/23 02:15	
Sulfate	mg/L	ND	0.25	0.085	04/23/23 02:15	

LABORATORY CONTROL SAMPLE: 3343296

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	2.5	2.3	93	80-120	
Fluoride	mg/L	1	0.94	94	80-120	
Sulfate	mg/L	5	4.8	96	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3343297 3343298

Parameter	Units	50342354003		MS		MSD		% Rec	% Rec	% Rec Limits	RPD	Max RPD	Qual
		Result	Conc.	Spike Conc.	Conc.	Result	Result						
Chloride	mg/L	47.1	25	25	72.2	70.8	100	95	80-120	2	15		
Fluoride	mg/L	ND	1	1	1.1	1.1	101	101	80-120	0	15		
Sulfate	mg/L	27.7	5	5	33.1	33.1	108	109	80-120	0	15		

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3343299 3343300

Parameter	Units	50341907007		MS		MSD		% Rec	% Rec	% Rec Limits	RPD	Max RPD	Qual
		Result	Conc.	Spike Conc.	Conc.	Result	Result						
Chloride	mg/L	5.6	2.5	2.5	7.7	7.6	86	81	80-120	2	15		
Fluoride	mg/L	0.34	1	1	1.4	1.3	101	98	80-120	2	15		
Sulfate	mg/L	80.4	50	50	123	119	84	77	80-120	3	15 M0		

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**QUALITY CONTROL DATA**

Project: Eagle Valley April 2023 P1R1

Pace Project No.: 50342354

QC Batch:	728758	Analysis Method:	EPA 7470
QC Batch Method:	EPA 7470	Analysis Description:	7470 Mercury
		Laboratory:	Pace Analytical Services - Indianapolis
Associated Lab Samples:	50342354001, 50342354002, 50342354003		

METHOD BLANK: 3344174 Matrix: Water  
 Associated Lab Samples: 50342354001, 50342354002, 50342354003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Mercury	ug/L	ND	0.20	0.12	04/21/23 08:18	

LABORATORY CONTROL SAMPLE: 3344175

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury	ug/L	5	5.5	111	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3344176 3344177

Parameter	Units	50342354003		3344177		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result						
Mercury	ug/L	ND	5	5	5.3	5.4	104	107	75-125	2	20

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3344178 3344179

Parameter	Units	50342144002		3344179		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result						
Mercury	ug/L	ND	5	5	5.1	5.2	100	102	75-125	1	20

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**QUALITY CONTROL DATA**

Project: Eagle Valley April 2023 P1R1  
Pace Project No.: 50342354

QC Batch: 729320 Analysis Method: EPA 6010  
QC Batch Method: EPA 3010 Analysis Description: 6010 MET  
Laboratory: Pace Analytical Services - Indianapolis  
Associated Lab Samples: 50342354001, 50342354002, 50342354003

METHOD BLANK: 3347277 Matrix: Water  
Associated Lab Samples: 50342354001, 50342354002, 50342354003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Aluminum	ug/L	ND	200	54.4	04/24/23 16:14	
Boron	ug/L	ND	100	61.4	04/24/23 16:14	
Calcium	ug/L	ND	1000	88.4	04/24/23 16:14	
Iron	ug/L	ND	100	48.8	04/24/23 16:14	
Lithium	ug/L	ND	20.0	6.2	04/24/23 16:14	
Magnesium	ug/L	ND	1000	43.0	04/24/23 16:14	
Manganese	ug/L	ND	10.0	5.4	04/24/23 16:14	
Potassium	ug/L	ND	1000	200	04/24/23 16:14	
Silica	ug/L	ND	450		04/24/23 16:14	N2
Sodium	ug/L	ND	1000	284	04/24/23 16:14	

LABORATORY CONTROL SAMPLE: 3347278

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Aluminum	ug/L	10000	9740	97	80-120	
Boron	ug/L	1000	969	97	80-120	
Calcium	ug/L	10000	10200	102	80-120	
Iron	ug/L	10000	9780	98	80-120	
Lithium	ug/L	1000	986	99	80-120	
Magnesium	ug/L	10000	9950	100	80-120	
Manganese	ug/L	1000	1010	101	80-120	
Potassium	ug/L	10000	9970	100	80-120	
Silica	ug/L	10700	11000	103	80-120	N2
Sodium	ug/L	10000	10200	102	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3347279 3347280

Parameter	Units	MS		MSD		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual	
		50342354003 Result	Spike Conc.	Spike Conc.	Result							Result
Aluminum	ug/L	ND	10000	10000	9400	10200	94	102	75-125	8	20	
Boron	ug/L	ND	1000	1000	981	1060	92	101	75-125	8	20	
Calcium	ug/L	81900	10000	10000	89600	95500	77	136	75-125	6	20	P6
Iron	ug/L	ND	10000	10000	9190	9940	91	99	75-125	8	20	
Lithium	ug/L	ND	1000	1000	932	1000	93	100	75-125	8	20	
Magnesium	ug/L	24700	10000	10000	33400	35700	87	110	75-125	7	20	
Manganese	ug/L	19.3	1000	1000	972	1050	95	103	75-125	8	20	
Potassium	ug/L	1730	10000	10000	11100	11800	94	101	75-125	6	20	

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**QUALITY CONTROL DATA**

Project: Eagle Valley April 2023 P1R1

Pace Project No.: 50342354

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3347279 3347280														
Parameter	Units	50342354003		MS	MSD	3347280		% Rec	% Rec	% Rec	Limits	RPD	Max RPD	Qual
		Result	Conc.	Spike Conc.	Spike Conc.	MS Result	MSD Result							
Silica	ug/L	16200	10700	10700	26400	28200	96	113	75-125	7	20	N2		
Sodium	ug/L	33200	10000	10000	42200	44700	89	115	75-125	6	20			

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**QUALITY CONTROL DATA**

Project: Eagle Valley April 2023 P1R1

Pace Project No.: 50342354

QC Batch:	729858	Analysis Method:	EPA 6010
QC Batch Method:	EPA 3010	Analysis Description:	6010 MET Dissolved
		Laboratory:	Pace Analytical Services - Indianapolis

Associated Lab Samples: 50342354001, 50342354002, 50342354003

METHOD BLANK: 3349569 Matrix: Water  
 Associated Lab Samples: 50342354001, 50342354002, 50342354003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Manganese, Dissolved	ug/L	ND	10.0	2.5	04/27/23 00:50	
Molybdenum, Dissolved	ug/L	ND	10.0	3.7	04/27/23 00:50	

LABORATORY CONTROL SAMPLE: 3349570

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Manganese, Dissolved	ug/L	1000	900	90	80-120	
Molybdenum, Dissolved	ug/L	1000	940	94	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3349571 3349572

Parameter	Units	50342354003 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Manganese, Dissolved	ug/L	17.3	1000	1000	949	982	93	97	75-125	3	20	
Molybdenum, Dissolved	ug/L	ND	1000	1000	994	1040	99	104	75-125	4	20	

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**QUALITY CONTROL DATA**

Project: Eagle Valley April 2023 P1R1

Pace Project No.: 50342354

QC Batch:	729425	Analysis Method:	EPA 6020
QC Batch Method:	EPA 200.2	Analysis Description:	6020 MET
		Laboratory:	Pace Analytical Services - Indianapolis

Associated Lab Samples: 50342354001, 50342354002, 50342354003

METHOD BLANK: 3347793 Matrix: Water

Associated Lab Samples: 50342354001, 50342354002, 50342354003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Antimony	ug/L	ND	1.0	0.036	04/25/23 18:44	
Arsenic	ug/L	ND	1.0	0.053	04/25/23 18:44	
Barium	ug/L	ND	1.0	0.051	04/25/23 18:44	
Beryllium	ug/L	ND	0.20	0.028	04/25/23 18:44	
Cadmium	ug/L	ND	2.0	0.0090	04/25/23 18:44	
Chromium	ug/L	ND	10.0	0.13	04/25/23 18:44	
Cobalt	ug/L	ND	1.0	0.032	04/25/23 18:44	
Lead	ug/L	ND	10.0	0.034	04/25/23 18:44	
Molybdenum	ug/L	ND	10.0	0.048	04/25/23 18:44	
Selenium	ug/L	ND	1.0	0.23	04/25/23 18:44	
Thallium	ug/L	ND	1.0	0.033	04/25/23 18:44	

LABORATORY CONTROL SAMPLE: 3347794

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Antimony	ug/L	40	40.6	101	80-120	
Arsenic	ug/L	40	37.6	94	80-120	
Barium	ug/L	40	38.5	96	80-120	
Beryllium	ug/L	40	39.6	99	80-120	
Cadmium	ug/L	40	38.4	96	80-120	
Chromium	ug/L	40	40.1	100	80-120	
Cobalt	ug/L	40	40.3	101	80-120	
Lead	ug/L	40	39.8	99	80-120	
Molybdenum	ug/L	40	41.2	103	80-120	
Selenium	ug/L	40	39.2	98	80-120	
Thallium	ug/L	40	40.0	100	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3347795 3347796

Parameter	Units	50342354003		3347796		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual	
		MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result							
Antimony	ug/L	ND	40	40	41.9	41.5	105	104	75-125	1	20	
Arsenic	ug/L	ND	40	40	37.8	37.7	93	93	75-125	0	20	
Barium	ug/L	59.4	40	40	102	101	106	104	75-125	1	20	
Beryllium	ug/L	ND	40	40	39.5	39.2	99	98	75-125	1	20	
Cadmium	ug/L	ND	40	40	38.4	38.5	96	96	75-125	0	20	
Chromium	ug/L	ND	40	40	40.5	40.0	101	99	75-125	1	20	

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**QUALITY CONTROL DATA**

Project: Eagle Valley April 2023 P1R1

Pace Project No.: 50342354

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3347795 3347796												
Parameter	Units	50342354003 Result	MS		MSD		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
			Spike Conc.	Spike Conc.	MS Result	MSD Result						
Cobalt	ug/L	ND	40	40	38.8	38.3	97	95	75-125	1	20	
Lead	ug/L	ND	40	40	40.2	40.2	100	101	75-125	0	20	
Molybdenum	ug/L	ND	40	40	42.2	42.4	104	105	75-125	1	20	
Selenium	ug/L	1.2	40	40	39.2	39.7	95	96	75-125	1	20	
Thallium	ug/L	ND	40	40	41.3	41.2	103	103	75-125	0	20	

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### QUALITY CONTROL DATA

Project: Eagle Valley April 2023 P1R1

Pace Project No.: 50342354

QC Batch:	728882	Analysis Method:	SM 2320B
QC Batch Method:	SM 2320B	Analysis Description:	2320B Alkalinity
		Laboratory:	Pace Analytical Services - Indianapolis

Associated Lab Samples: 50342354001, 50342354002, 50342354003

METHOD BLANK: 3344747 Matrix: Water

Associated Lab Samples: 50342354001, 50342354002, 50342354003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Alkalinity, Total as CaCO3	mg/L	ND	10.0	10.0	04/20/23 00:56	
Alkalinity,Bicarbonate (CaCO3)	mg/L	ND	10.0	10.0	04/20/23 00:56	
Alkalinity,Carbonate (CaCO3)	mg/L	ND	10.0	10.0	04/20/23 00:56	

LABORATORY CONTROL SAMPLE: 3344748

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Alkalinity, Total as CaCO3	mg/L	50	49.5	99	90-110	

SAMPLE DUPLICATE: 3344749

Parameter	Units	50342354003 Result	Dup Result	RPD	Max RPD	Qualifiers
Alkalinity, Total as CaCO3	mg/L	276	283	2	20	
Alkalinity,Bicarbonate (CaCO3)	mg/L	276	283	2	20	
Alkalinity,Carbonate (CaCO3)	mg/L	ND	ND		20	

SAMPLE DUPLICATE: 3344750

Parameter	Units	50342319004 Result	Dup Result	RPD	Max RPD	Qualifiers
Alkalinity, Total as CaCO3	mg/L	458	469	2	20	
Alkalinity,Bicarbonate (CaCO3)	mg/L	458	469	2	20	
Alkalinity,Carbonate (CaCO3)	mg/L	<10.0	ND		20	

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**QUALITY CONTROL DATA**

Project: Eagle Valley April 2023 P1R1

Pace Project No.: 50342354

QC Batch:	729143	Analysis Method:	SM 2540C
QC Batch Method:	SM 2540C	Analysis Description:	2540C Total Dissolved Solids
		Laboratory:	Pace Analytical Services - Indianapolis
Associated Lab Samples:	50342354001, 50342354002, 50342354003		

METHOD BLANK: 3346184 Matrix: Water  
 Associated Lab Samples: 50342354001, 50342354002, 50342354003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	ND	10.0	10.0	04/21/23 08:22	

LABORATORY CONTROL SAMPLE: 3346185

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	300	273	91	80-120	

SAMPLE DUPLICATE: 3346186

Parameter	Units	50342354003 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	374	375	0	10	

SAMPLE DUPLICATE: 3346187

Parameter	Units	50342433005 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	1200	1190	1	10	

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### QUALITY CONTROL DATA

Project: Eagle Valley April 2023 P1R1

Pace Project No.: 50342354

QC Batch: 730199

Analysis Method: SM 4500-H+B

QC Batch Method: SM 4500-H+B

Analysis Description: 4500H+B pH

Laboratory: Pace Analytical Services - Indianapolis

Associated Lab Samples: 50342354001, 50342354002, 50342354003

SAMPLE DUPLICATE: 3351044

Parameter	Units	50342402001 Result	Dup Result	RPD	Max RPD	Qualifiers
pH at 25 Degrees C	Std. Units	7.2	7.2	0	2	H3

SAMPLE DUPLICATE: 3351045

Parameter	Units	50342354003 Result	Dup Result	RPD	Max RPD	Qualifiers
pH at 25 Degrees C	Std. Units	7.8	7.8	0	2	H3

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**QUALITY CONTROL DATA**

Project: Eagle Valley April 2023 P1R1

Pace Project No.: 50342354

QC Batch:	729176	Analysis Method:	SM 4500-S2-D
QC Batch Method:	SM 4500-S2-D	Analysis Description:	4500S2D Sulfide Water
		Laboratory:	Pace Analytical Services - Indianapolis
Associated Lab Samples:	50342354001, 50342354002, 50342354003		

METHOD BLANK: 3346293 Matrix: Water  
 Associated Lab Samples: 50342354001, 50342354002, 50342354003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Sulfide	mg/L	ND	0.10	0.025	04/21/23 12:54	

LABORATORY CONTROL SAMPLE: 3346294

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Sulfide	mg/L	0.5	0.51	101	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3346295 3346296

Parameter	Units	50342354003 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Sulfide	mg/L	ND	0.5	0.5	0.50	0.50	101	99	90-110	2	20	

MATRIX SPIKE SAMPLE: 3346297

Parameter	Units	50342484003 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Sulfide	mg/L	ND	0.5	0.56	112	90-110	M0

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**QUALITY CONTROL DATA**

Project: Eagle Valley April 2023 P1R1  
 Pace Project No.: 50342354

QC Batch: 729055 Analysis Method: HACH 8146  
 QC Batch Method: HACH 8146 Analysis Description: Iron, Ferrous  
 Laboratory: Pace Analytical Services - Indianapolis  
 Associated Lab Samples: 50342354001, 50342354002, 50342354003

METHOD BLANK: 3345416 Matrix: Water  
 Associated Lab Samples: 50342354001, 50342354002, 50342354003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Iron, Ferrous	mg/L	ND	0.20	0.035	04/20/23 15:42	H3,N2

LABORATORY CONTROL SAMPLE: 3345417

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Iron, Ferrous	mg/L	1	1.0	101	90-110	H3,N2

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3345418 3345419

Parameter	Units	50342354003		3345419		% Rec	% Rec	% Rec Limits	RPD	Max RPD	Qual	
		MS Result	MSD Spike Conc.	MS Result	MSD Spike Conc.							
Iron, Ferrous	mg/L	ND	1	1	1.1	1.1	107	107	90-110	0	20	H3,N2

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3345420 3345421

Parameter	Units	50342601002		3345421		% Rec	% Rec	% Rec Limits	RPD	Max RPD	Qual	
		MS Result	MSD Spike Conc.	MS Result	MSD Spike Conc.							
Iron, Ferrous	mg/L	0.46	1	1	1.4	1.5	97	101	90-110	3	20	H3,N2

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**QUALITY CONTROL DATA**

Project: Eagle Valley April 2023 P1R1

Pace Project No.: 50342354

QC Batch:	728578	Analysis Method:	EPA 353.2
QC Batch Method:	EPA 353.2	Analysis Description:	353.2 Nitrate + Nitrite, Unpres.
		Laboratory:	Pace Analytical Services - Indianapolis

Associated Lab Samples: 50342354001, 50342354002, 50342354003

METHOD BLANK: 3343476 Matrix: Water

Associated Lab Samples: 50342354001, 50342354002, 50342354003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Nitrogen, Nitrate	mg/L	ND	0.10	0.011	04/18/23 18:56	
Nitrogen, Nitrite	mg/L	ND	0.10	0.0040	04/18/23 18:56	

LABORATORY CONTROL SAMPLE: 3343477

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Nitrogen, Nitrate	mg/L	1	0.93	93	90-110	
Nitrogen, Nitrite	mg/L	1	0.97	97	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3343478 3343479

Parameter	Units	50342354003 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Nitrogen, Nitrate	mg/L	1.0	1	1	2.0	2.0	96	96	90-110	0	20	
Nitrogen, Nitrite	mg/L	ND	1	1	1.0	1.0	99	99	90-110	0	20	

MATRIX SPIKE SAMPLE: 3343480

Parameter	Units	50342354002 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Nitrogen, Nitrate	mg/L	ND	1	0.97	96	90-110	
Nitrogen, Nitrite	mg/L	ND	1	1.0	101	90-110	

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**QUALITY CONTROL DATA**

Project: Eagle Valley April 2023 P1R1  
 Pace Project No.: 50342354

QC Batch: 729933 Analysis Method: EPA 365.1  
 QC Batch Method: EPA 365.1 Analysis Description: 365.1 Total Phosphorus  
 Laboratory: Pace Analytical Services - Indianapolis  
 Associated Lab Samples: 50342354001, 50342354002, 50342354003

METHOD BLANK: 3349925 Matrix: Water  
 Associated Lab Samples: 50342354001, 50342354002, 50342354003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Phosphate as P04	mg/L	ND	0.15	0.15	04/28/23 15:28	

LABORATORY CONTROL SAMPLE: 3349926

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Phosphate as P04	mg/L		1.5			

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3349927 3349928

Parameter	Units	50342354003		3349928		% Rec	% Rec	% Rec Limits	RPD	Max RPD	Qual
		MS Result	MSD Result	MS Result	MSD Result						
Phosphate as P04	mg/L	ND		1.5	1.4				7		

MATRIX SPIKE SAMPLE: 3349929

Parameter	Units	50342296001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Phosphate as P04	mg/L		3.2		4.6		

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**QUALITY CONTROL DATA**

Project: Eagle Valley April 2023 P1R1  
 Pace Project No.: 50342354

QC Batch: 728995 Analysis Method: SM 5310C  
 QC Batch Method: SM 5310C Analysis Description: 5310C Total Organic Carbon  
 Laboratory: Pace Analytical Services - Indianapolis  
 Associated Lab Samples: 50342354001, 50342354002, 50342354003

METHOD BLANK: 3345154 Matrix: Water  
 Associated Lab Samples: 50342354001, 50342354002, 50342354003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Organic Carbon	mg/L	ND	1.0	0.24	04/21/23 20:10	

LABORATORY CONTROL SAMPLE: 3345155

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Organic Carbon	mg/L	10	10.2	102	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3345156 3345157

Parameter	Units	50342354003		3345157		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result						
Total Organic Carbon	mg/L	ND	10	10	10.9	11.3	100	104	80-120	4	20

MATRIX SPIKE SAMPLE: 3345158

Parameter	Units	50342074001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Total Organic Carbon	mg/L	2.0	10	12.3	103	80-120	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

**REPORT OF LABORATORY ANALYSIS**

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**QUALITY CONTROL DATA**

Project: Eagle Valley April 2023 P1R1

Pace Project No.: 50342354

QC Batch:	729001	Analysis Method:	SM 5310C
QC Batch Method:	SM 5310C	Analysis Description:	5310C Dissolved Organic Carbon
		Laboratory:	Pace Analytical Services - Indianapolis

Associated Lab Samples: 50342354001, 50342354002, 50342354003

METHOD BLANK: 3345177 Matrix: Water  
 Associated Lab Samples: 50342354001, 50342354002, 50342354003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Dissolved Organic Carbon	mg/L	ND	1.0	0.24	04/25/23 00:50	

LABORATORY CONTROL SAMPLE: 3345178

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Dissolved Organic Carbon	mg/L	10	10.4	104	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3345179 3345180

Parameter	Units	50342354003		3345180		% Rec	% Rec	% Rec	% Rec	Limits	RPD	Max RPD	Qual
		MS Result	MSD Spike Conc.	MS Result	MSD Spike Conc.								
Dissolved Organic Carbon	mg/L	1.6	10	11.6	10	100	97	80-120	2	20			

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3345181 3345182

Parameter	Units	50342601002		3345182		% Rec	% Rec	% Rec	% Rec	Limits	RPD	Max RPD	Qual
		MS Result	MSD Spike Conc.	MS Result	MSD Spike Conc.								
Dissolved Organic Carbon	mg/L	ND	10	11.4	10	101	101	80-120	0	20			

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Eagle Valley April 2023 P1R1

Pace Project No.: 50342354

**Sample: MW-3D**      **Lab ID: 50342354001**      Collected: 04/17/23 13:10      Received: 04/18/23 09:15      Matrix: Water  
 PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	<b>0.941 ± 0.693 (0.995)</b> <b>C:NA T:97%</b>	pCi/L	05/03/23 14:13	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	<b>1.16 ± 0.464 (0.719)</b> <b>C:79% T:88%</b>	pCi/L	05/01/23 15:08	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	<b>2.10 ± 1.16 (1.71)</b>	pCi/L	05/05/23 10:39	7440-14-4	

### REPORT OF LABORATORY ANALYSIS

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**ANALYTICAL RESULTS - RADIOCHEMISTRY**

Project: Eagle Valley April 2023 P1R1

Pace Project No.: 50342354

**Sample: MW-3I**      **Lab ID: 50342354002**      Collected: 04/17/23 15:55      Received: 04/18/23 09:15      Matrix: Water  
 PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	<b>0.0638 ± 0.650 (1.24)</b> <b>C:NA T:94%</b>	pCi/L	05/03/23 14:27	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	<b>0.848 ± 0.439 (0.760)</b> <b>C:75% T:81%</b>	pCi/L	05/01/23 15:08	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	<b>0.912 ± 1.09 (2.00)</b>	pCi/L	05/05/23 10:39	7440-14-4	

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Eagle Valley April 2023 P1R1

Pace Project No.: 50342354

**Sample: MW-13D**      **Lab ID: 50342354003**      Collected: 04/17/23 14:15      Received: 04/18/23 09:15      Matrix: Water  
PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	<b>0.592 ± 0.342 (0.134)</b> <b>C:NA T:96%</b>	pCi/L	05/03/23 14:27	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	<b>1.36 ± 0.508 (0.745)</b> <b>C:75% T:86%</b>	pCi/L	05/01/23 15:08	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	<b>1.95 ± 0.850 (0.879)</b>	pCi/L	05/05/23 10:39	7440-14-4	

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Eagle Valley April 2023 P1R1

Pace Project No.: 50342354

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
<b>Sample: MW-13D MS</b> <b>Lab ID: 50342354004</b> Collected: 04/17/23 14:15      Received: 04/18/23 09:15      Matrix: Water PWS:      Site ID:      Sample Type:						
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	<b>87.99 %REC ± NA (NA)</b> <b>C:NA T:NA</b>	pCi/L	05/03/23 14:27	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	<b>89.19 %REC ± NA (NA)</b> <b>C:NA T:NA</b>	pCi/L	05/01/23 15:08	15262-20-1	

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Eagle Valley April 2023 P1R1

Pace Project No.: 50342354

<b>Sample:</b> MW-13D MSD	<b>Lab ID:</b> 50342354005	Collected: 04/17/23 14:15	Received: 04/18/23 09:15	Matrix: Water
PWS:	Site ID:	Sample Type:		

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Radium-226	EPA 903.1	<b>90.61 %REC 2.93RPD ± NA</b> <b>(NA)</b> <b>C:NA T:NA</b>	pCi/L	05/03/23 14:27	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 904.0	<b>95.76 %REC 7.10RPD ± NA</b> <b>(NA)</b> <b>C:NA T:NA</b>	pCi/L	05/01/23 15:04	15262-20-1	

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### QUALITY CONTROL - RADIOCHEMISTRY

Project: Eagle Valley April 2023 P1R1

Pace Project No.: 50342354

QC Batch: 582468

Analysis Method: EPA 903.1

QC Batch Method: EPA 903.1

Analysis Description: 903.1 Radium-226

Laboratory: Pace Analytical Services - Greensburg

Associated Lab Samples: 50342354001, 50342354002, 50342354003, 50342354004, 50342354005

METHOD BLANK: 2828839

Matrix: Water

Associated Lab Samples: 50342354001, 50342354002, 50342354003, 50342354004, 50342354005

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.264 ± 0.245 (0.323) C:NA T:97%	pCi/L	05/03/23 13:51	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

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### QUALITY CONTROL - RADIOCHEMISTRY

Project: Eagle Valley April 2023 P1R1

Pace Project No.: 50342354

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QC Batch:	582471	Analysis Method:	EPA 904.0
QC Batch Method:	EPA 904.0	Analysis Description:	904.0 Radium 228
		Laboratory:	Pace Analytical Services - Greensburg

Associated Lab Samples: 50342354001, 50342354002, 50342354003, 50342354004, 50342354005

---

METHOD BLANK: 2828843 Matrix: Water

Associated Lab Samples: 50342354001, 50342354002, 50342354003, 50342354004, 50342354005

---

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.257 ± 0.289 (0.602) C:85% T:89%	pCi/L	05/01/23 15:03	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

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## QUALIFIERS

Project: Eagle Valley April 2023 P1R1

Pace Project No.: 50342354

### DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Reported results are not rounded until the final step prior to reporting. Therefore, calculated parameters that are typically reported as "Total" may vary slightly from the sum of the reported component parameters.

Act - Activity

Unc - Uncertainty: SDWA = 1.96 sigma count uncertainty, all other matrices = Expanded Uncertainty (95% confidence interval).

Gamma Spec = Expanded Uncertainty (95.4% Confidence Interval)

(MDC) - Minimum Detectable Concentration

Trac - Tracer Recovery (%)

Carr - Carrier Recovery (%)

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

### ANALYTE QUALIFIERS

H3 Sample was received or analysis requested beyond the recognized method holding time.

M0 Matrix spike recovery and/or matrix spike duplicate recovery was outside laboratory control limits.

N2 The lab does not hold NELAC/TNI accreditation for this parameter but other accreditations/certifications may apply. A complete list of accreditations/certifications is available upon request.

P6 Matrix spike recovery was outside laboratory control limits due to a parent sample concentration notably higher than the spike level.

## REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Eagle Valley April 2023 P1R1

Pace Project No.: 50342354

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
50342354001	MW-3D	EPA 9056	728539		
50342354002	MW-3I	EPA 9056	728539		
50342354003	MW-13D	EPA 9056	728539		
50342354001	MW-3D	EPA 3010	729320	EPA 6010	729541
50342354002	MW-3I	EPA 3010	729320	EPA 6010	729541
50342354003	MW-13D	EPA 3010	729320	EPA 6010	729541
50342354001	MW-3D	EPA 3010	729858	EPA 6010	730150
50342354002	MW-3I	EPA 3010	729858	EPA 6010	730150
50342354003	MW-13D	EPA 3010	729858	EPA 6010	730150
50342354001	MW-3D	EPA 200.2	729425	EPA 6020	729684
50342354002	MW-3I	EPA 200.2	729425	EPA 6020	729684
50342354003	MW-13D	EPA 200.2	729425	EPA 6020	729684
50342354001	MW-3D	EPA 7470	728758	EPA 7470	729129
50342354002	MW-3I	EPA 7470	728758	EPA 7470	729129
50342354003	MW-13D	EPA 7470	728758	EPA 7470	729129
50342354001	MW-3D	EPA 903.1	582468		
50342354002	MW-3I	EPA 903.1	582468		
50342354003	MW-13D	EPA 903.1	582468		
50342354004	MW-13D MS	EPA 903.1	582468		
50342354005	MW-13D MSD	EPA 903.1	582468		
50342354001	MW-3D	EPA 904.0	582471		
50342354002	MW-3I	EPA 904.0	582471		
50342354003	MW-13D	EPA 904.0	582471		
50342354004	MW-13D MS	EPA 904.0	582471		
50342354005	MW-13D MSD	EPA 904.0	582471		
50342354001	MW-3D	Total Radium Calculation	586082		
50342354002	MW-3I	Total Radium Calculation	586082		
50342354003	MW-13D	Total Radium Calculation	586082		
50342354001	MW-3D	SM 2320B	728882		
50342354002	MW-3I	SM 2320B	728882		
50342354003	MW-13D	SM 2320B	728882		
50342354001	MW-3D	SM 2540C	729143		
50342354002	MW-3I	SM 2540C	729143		
50342354003	MW-13D	SM 2540C	729143		
50342354001	MW-3D	SM 4500-H+B	730199		
50342354002	MW-3I	SM 4500-H+B	730199		
50342354003	MW-13D	SM 4500-H+B	730199		
50342354001	MW-3D	SM 4500-S2-D	729176		
50342354002	MW-3I	SM 4500-S2-D	729176		
50342354003	MW-13D	SM 4500-S2-D	729176		
50342354001	MW-3D	HACH 8146	729055		
50342354002	MW-3I	HACH 8146	729055		
50342354003	MW-13D	HACH 8146	729055		

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### QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Eagle Valley April 2023 P1R1

Pace Project No.: 50342354

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
50342354001	MW-3D	EPA 353.2	728578		
50342354002	MW-3I	EPA 353.2	728578		
50342354003	MW-13D	EPA 353.2	728578		
50342354001	MW-3D	EPA 365.1	729933	EPA 365.1	730564
50342354002	MW-3I	EPA 365.1	729933	EPA 365.1	730564
50342354003	MW-13D	EPA 365.1	729933	EPA 365.1	730564
50342354001	MW-3D	SM 5310C	728995		
50342354002	MW-3I	SM 5310C	728995		
50342354003	MW-13D	SM 5310C	728995		
50342354001	MW-3D	SM 5310C	729001		
50342354002	MW-3I	SM 5310C	729001		
50342354003	MW-13D	SM 5310C	729001		

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# CHAIN-OF-CUSTODY / Analytical Request Do

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must

Submitting a sample via this chain of custody constitutes acknowledgment and acceptance of the Pace Terms and Conditions found at <https://info.pacelabs.com>

## WO# : 50342354



50342354

<b>Section A</b>		<b>Section B</b>		<b>Section C</b>	
<b>Required Client Information:</b>		<b>Required Project Information:</b>		<b>Invoice Information:</b>	
Company: Atlas Indianapolis		Report To: Mark Breting		Attention: Accounts Payable - Paula Sedam	
Address: 7988 Centerpoint Drive Suite 100, Indianapolis, IN 46256		Copy To:		Company Name: Atlas Indianapolis	
Email: mark.breting@oneatlas.com		Purchase Order #:		Address:	
Phone: 317-313-8306 Fax:		Project Name: Eagle Valley April 2023 PTR2		Pace Quote:	
Requested Due Date:		Project #: WHS 4/18/23 P1R1		Pace Project Manager: will.statz@pacelabs.com	
				Pace Profile #: 10498/40	
					Regulatory Agency
					State / Location
					IN

ITEM #	SAMPLE ID One Character per box. (A-Z, 0-9 / , -) Sample ids must be unique	MATRIX CODE Drinking Water DW Water WT Waste Water WW Product P Soil/Solid SL Oil OL Wipe WP Air AR Other OT Tissue TS	COLLECTED START DATE TIME END DATE TIME	PRESERVATIVES Unpreserved H2SO4 HNO3 HCl NaOH Na2S2O3 Methanol Other	ANALYSES TEST Metals, Total 6010 6020 747 Field Filtered Mn, Mo 6010 TDS 2540C/pH 4500+B TOC by 5310 DOC by 5310 Alkalinity/Ferrous Fe Nitrate, Nitrite 353.2-WET Sulfide 4500S2D Phosphate 365.1 (Cl,F,SO4) 9056 Rad-226/228 + Sum	Requested Analysis Filtered (Y/N)		Residual Chlorine (Y/N)				
						MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)		# OF CONTAINERS		Y/N	Y/N
1	MW-3D	W	4-17 1310		3 3 4				001			
2	MW-3I	W	4-17 1555		3 3 4				002			
3	MW-13D (MS/MSD I)	W	4-17 1415		3 3 4				003			
4	MS/MSD I	W	4-17 1415		3 3 3 2				004 005			
5												
6												
7												
8												
9												
10												
11												
12												

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS
NO2/NO3 has a SH time of 48 hours	/ Atlas	4/18/23	0915		4/18/23	0915	see cc Y N Y

<b>SAMPLER NAME AND SIGNATURE</b>		TEMP in C Received on ice (Y/N) Custody Sealed Cooler (Y/N) Samples Intact (Y/N)
PRINT Name of SAMPLER:	Erika Valerio	
SIGNATURE of SAMPLER:		
DATE Signed:		4/18/2023



**SAMPLE CONDITION UPON RECEIPT FORM**

Date/Time and Initials of person examining contents: DD 4/18/23 1117

1. Courier:  FED EX  UPS  CLIENT  PACE  USPS  OTHER

2. Custody Seal on Cooler/Box Present:  Yes  No

(If yes)Seals Intact:  Yes  No (leave blank if no seals were present)

3. Thermometer: **1 2 3 4 5 6 A B C D E F**

4. Cooler Temperature(s): 6.8/10.9 0.6/0.7 1.1/1.2  
 (Initial/Corrected) RECORD TEMPS OF ALL COOLERS RECEIVED (use Comments below to add more)

5. Packing Material:  Bubble Wrap  Bubble Bags  
 None  Other

6. Ice Type:  Wet  Blue  None

7. If temp. is over 6°C or under 0°C, was the PM notified?:  Yes  No  
 Cooler temp should be above freezing to 6°C

All discrepancies will be written out in the comments section below.

	Yes	No		Yes	No	N/A
USDA Regulated Soils? (HI, ID, NY, WA, OR,CA, NM, TX, OK, AR, LA, TN, AL, MS, NC, SC, GA, FL, or Puerto Rico)		<input checked="" type="checkbox"/>	All containers needing acid/base preservation have been pH CHECKED?: Exceptions: VOA, coliform, LLHg, O&G, RAD CHEM, and any container with a septum cap or preserved with HCl.			
Short Hold Time Analysis (48 hours or less)? Analysis: <u>N/A</u>	<input checked="" type="checkbox"/>		Circle: <u>HNO3 (&lt;2)</u> <u>H2SO4 (&lt;2)</u> NaOH (>10) <u>NaOH/ZnAc (&gt;9)</u> Any non-conformance to pH recommendations will be noted on the container count form		<input checked="" type="checkbox"/>	
Time 5035A TC placed in Freezer or Short Holds To Lab Time: <u>12:00</u>			Residual Chlorine Check (SVOC 625 Pest/PCB 608)	<u>Present</u>	<u>Absent</u>	<u>N/A</u>
Rush TAT Requested (4 days or less):		<input checked="" type="checkbox"/>	Residual Chlorine Check (Total/Amenable/Free Cyanide)			<input checked="" type="checkbox"/>
Custody Signatures Present?	<input checked="" type="checkbox"/>		Headspace Wisconsin Sulfide?			<input checked="" type="checkbox"/>
Containers Intact?:	<input checked="" type="checkbox"/>		Headspace in VOA Vials (>6mm): See Containter Count form for details	<u>Present</u>	<u>Absent</u>	<u>No VOA Vials Sent</u>
Sample Label (IDs/Dates/Times) Match COC?: Except TCs, which only require sample ID	<input checked="" type="checkbox"/>		Trip Blank Present?			<input checked="" type="checkbox"/>
Extra labels on Terracore Vials? (soils only)			Trip Blank Custody Seals?:			<input checked="" type="checkbox"/>

COMMENTS:

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July 18, 2023

Mr. Mark Breting  
ATC Group Services  
7988 Centerpoint Drive  
Suite 100  
Indianapolis, IN 46256

RE: Project: Eagle Valley April 2023 P1R1  
Pace Project No.: 50342484

Dear Mr. Breting:

Enclosed are the analytical results for sample(s) received by the laboratory on April 19, 2023. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

The test results provided in this final report were generated by each of the following laboratories within the Pace Network:

- Pace Analytical Services - Indianapolis
- Pace Analytical Services - Greensburg

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Will Statz  
will.statz@pacelabs.com  
(317)228-3105  
Project Manager

Enclosures

cc: Mohammed Bazlamit, Atlas  
Mr. Robert Miller, Haley & Aldrich



## REPORT OF LABORATORY ANALYSIS

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### CERTIFICATIONS

Project: Eagle Valley April 2023 P1R1

Pace Project No.: 50342484

#### Pace Analytical Services Pennsylvania

1638 Roseytown Rd Suites 2,3&4, Greensburg, PA 15601  
 ANAB DOD-ELAP Rad Accreditation #: L2417  
 ANABISO/IEC 17025:2017 Rad Cert#: L24170  
 Alabama Certification #: 41590  
 Arizona Certification #: AZ0734  
 Arkansas Certification  
 California Certification #: 2950  
 Colorado Certification #: PA01547  
 Connecticut Certification #: PH-0694  
 EPA Region 4 DW Rad  
 Florida/TNI Certification #: E87683  
 Georgia Certification #: C040  
 Guam Certification  
 Hawaii Certification  
 Idaho Certification  
 Illinois Certification  
 Indiana Certification  
 Iowa Certification #: 391  
 Kansas Certification #: E-10358  
 Kentucky Certification #: KY90133  
 KY WW Permit #: KY0098221  
 KY WW Permit #: KY0000221  
 Louisiana DHH/TNI Certification #: LA010  
 Louisiana DEQ/TNI Certification #: 04086  
 Maine Certification #: 2023021  
 Maryland Certification #: 308  
 Massachusetts Certification #: M-PA1457  
 Michigan/PADEP Certification #: 9991

Missouri Certification #: 235  
 Montana Certification #: Cert0082  
 Nebraska Certification #: NE-OS-29-14  
 Nevada Certification #: PA014572023-03  
 New Hampshire/TNI Certification #: 297622  
 New Jersey/TNI Certification #: PA051  
 New Mexico Certification #: PA01457  
 New York/TNI Certification #: 10888  
 North Carolina Certification #: 42706  
 North Dakota Certification #: R-190  
 Ohio EPA Rad Approval: #41249  
 Oregon/TNI Certification #: PA200002-015  
 Pennsylvania/TNI Certification #: 65-00282  
 Puerto Rico Certification #: PA01457  
 Rhode Island Certification #: 65-00282  
 South Dakota Certification  
 Tennessee Certification #: TN02867  
 Texas/TNI Certification #: T104704188-22-18  
 Utah/TNI Certification #: PA014572223-14  
 USDA Soil Permit #: 525-23-67-77263  
 Vermont Dept. of Health: ID# VT-0282  
 Virgin Island/PADEP Certification  
 Virginia/VELAP Certification #: 460198  
 Washington Certification #: C868  
 West Virginia DEP Certification #: 143  
 West Virginia DHHR Certification #: 9964C  
 Wisconsin Approve List for Rad

#### Pace Analytical Services Indianapolis

7726 Moller Road, Indianapolis, IN 46268  
 Illinois Accreditation #: 200074  
 Indiana Drinking Water Laboratory #: C-49-06  
 Kansas/TNI Certification #: E-10177  
 Kentucky UST Agency Interest #: 80226  
 Kentucky WW Laboratory ID #: 98019  
 Michigan Drinking Water Laboratory #9050

Ohio VAP Certified Laboratory #: CL0065  
 Oklahoma Laboratory #: 9204  
 Texas Certification #: T104704355  
 Wisconsin Laboratory #: 999788130  
 USDA Foreign Soil Permit #: 525-23-13-23119  
 USDA Compliance Agreement #: IN-SL-22-001

### REPORT OF LABORATORY ANALYSIS

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### SAMPLE SUMMARY

Project: Eagle Valley April 2023 P1R1

Pace Project No.: 50342484

Lab ID	Sample ID	Matrix	Date Collected	Date Received
50342484001	MW-2S	Water	04/18/23 12:25	04/19/23 10:00
50342484002	MW-2D	Water	04/18/23 15:23	04/19/23 10:00
50342484003	MW-3S	Water	04/18/23 10:55	04/19/23 10:00
50342484004	MW-13S	Water	04/18/23 13:45	04/19/23 10:00
50342484005	MW-13I	Water	04/18/23 12:30	04/19/23 10:00
50342484006	DUP-1	Water	04/18/23 08:00	04/19/23 10:00
50342484007	DUP-2	Water	04/18/23 08:00	04/19/23 10:00

### REPORT OF LABORATORY ANALYSIS

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### SAMPLE ANALYTE COUNT

Project: Eagle Valley April 2023 P1R1

Pace Project No.: 50342484

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory		
50342484001	MW-2S	EPA 9056	ADM	3	PASI-I		
		EPA 6010	ELK	10	PASI-I		
		EPA 6010	JPK	2	PASI-I		
		EPA 6020	CAW	11	PASI-I		
		EPA 7470	EAE	1	PASI-I		
		EPA 903.1	JDZ	1	PASI-PA		
		EPA 904.0	ZPC	1	PASI-PA		
		Total Radium Calculation	JAL	1	PASI-PA		
		SM 2320B	DAW	3	PASI-I		
		SM 2540C	TRK	1	PASI-I		
		SM 4500-H+B	LHZ	1	PASI-I		
		SM 4500-S2-D	STS	1	PASI-I		
		HACH 8146	BEP	1	PASI-I		
		EPA 353.2	ZM	2	PASI-I		
		EPA 365.1	YAM	1	PASI-I		
		SM 5310C	ATS	1	PASI-I		
		SM 5310C	ATS	1	PASI-I		
		50342484002	MW-2D	EPA 9056	ADM	3	PASI-I
				EPA 6010	ELK	10	PASI-I
				EPA 6010	JPK	2	PASI-I
EPA 6020	CAW			11	PASI-I		
EPA 7470	EAE			1	PASI-I		
EPA 903.1	JDZ			1	PASI-PA		
EPA 904.0	ZPC			1	PASI-PA		
Total Radium Calculation	JAL			1	PASI-PA		
SM 2320B	DAW			3	PASI-I		
SM 2540C	TRK			1	PASI-I		
SM 4500-H+B	LHZ			1	PASI-I		
SM 4500-S2-D	STS			1	PASI-I		
HACH 8146	BEP			1	PASI-I		
EPA 353.2	ZM			2	PASI-I		
EPA 365.1	YAM			1	PASI-I		
SM 5310C	ATS			1	PASI-I		
SM 5310C	ATS			1	PASI-I		
50342484003	MW-3S			EPA 9056	ADM	3	PASI-I
				EPA 6010	ELK	10	PASI-I
				EPA 6010	JPK	2	PASI-I

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**SAMPLE ANALYTE COUNT**

Project: Eagle Valley April 2023 P1R1

Pace Project No.: 50342484

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
50342484004	MW-13S	EPA 6020	CAW	11	PASI-I
		EPA 7470	EAE	1	PASI-I
		EPA 903.1	JDZ	1	PASI-PA
		EPA 904.0	ZPC	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
		SM 2320B	DAW	3	PASI-I
		SM 2540C	TRK	1	PASI-I
		SM 4500-H+B	LHZ	1	PASI-I
		SM 4500-S2-D	STS	1	PASI-I
		HACH 8146	BEP	1	PASI-I
		EPA 353.2	ZM	2	PASI-I
		EPA 365.1	YAM	1	PASI-I
		SM 5310C	ATS	1	PASI-I
		SM 5310C	ATS	1	PASI-I
		EPA 9056	ADM	3	PASI-I
		EPA 6010	ELK	10	PASI-I
		EPA 6010	JPK	2	PASI-I
		EPA 6020	CAW	11	PASI-I
		EPA 7470	EAE	1	PASI-I
		EPA 903.1	JDZ	1	PASI-PA
		EPA 904.0	ZPC	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
		SM 2320B	DAW	3	PASI-I
		SM 2540C	TRK	1	PASI-I
		SM 4500-H+B	LHZ	1	PASI-I
		SM 4500-S2-D	STS	1	PASI-I
HACH 8146	BEP	1	PASI-I		
EPA 353.2	ZM	2	PASI-I		
EPA 365.1	YAM	1	PASI-I		
SM 5310C	ATS	1	PASI-I		
SM 5310C	ATS	1	PASI-I		
50342484005	MW-13I	EPA 9056	ADM	3	PASI-I
		EPA 6010	ELK	10	PASI-I
		EPA 6010	JPK	2	PASI-I
		EPA 6020	CAW	11	PASI-I
		EPA 7470	EAE	1	PASI-I
		EPA 903.1	JDZ	1	PASI-PA

**REPORT OF LABORATORY ANALYSIS**

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**SAMPLE ANALYTE COUNT**

Project: Eagle Valley April 2023 P1R1

Pace Project No.: 50342484

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
50342484006	DUP-1	EPA 904.0	ZPC	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
		SM 2320B	DAW	3	PASI-I
		SM 2540C	TRK	1	PASI-I
		SM 4500-H+B	LHZ	1	PASI-I
		SM 4500-S2-D	STS	1	PASI-I
		HACH 8146	BEP	1	PASI-I
		EPA 353.2	ZM	2	PASI-I
		EPA 365.1	YAM	1	PASI-I
		SM 5310C	ATS	1	PASI-I
		SM 5310C	ATS	1	PASI-I
		EPA 9056	ADM	3	PASI-I
		EPA 6010	ELK	10	PASI-I
		EPA 6010	JPK	2	PASI-I
		EPA 6020	CAW	11	PASI-I
		EPA 7470	EAE	1	PASI-I
		EPA 903.1	JDZ	1	PASI-PA
		EPA 904.0	ZPC	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
		SM 2320B	DAW	3	PASI-I
SM 2540C	TRK	1	PASI-I		
SM 4500-H+B	LHZ	1	PASI-I		
SM 4500-S2-D	STS	1	PASI-I		
HACH 8146	BEP	1	PASI-I		
EPA 353.2	ZM	2	PASI-I		
EPA 365.1	YAM	1	PASI-I		
SM 5310C	ATS	1	PASI-I		
SM 5310C	ATS	1	PASI-I		
50342484007	DUP-2	EPA 9056	ADM	3	PASI-I
		EPA 6010	ELK	10	PASI-I
		EPA 6010	JPK	2	PASI-I
		EPA 6020	CAW	11	PASI-I
		EPA 7470	EAE	1	PASI-I
		EPA 903.1	JDZ	1	PASI-PA
		EPA 904.0	ZPC	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
		SM 2320B	DAW	3	PASI-I

**REPORT OF LABORATORY ANALYSIS**

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### SAMPLE ANALYTE COUNT

Project: Eagle Valley April 2023 P1R1

Pace Project No.: 50342484

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Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
		SM 2540C	TRK	1	PASI-I
		SM 4500-H+B	LHZ	1	PASI-I
		SM 4500-S2-D	STS	1	PASI-I
		HACH 8146	BEP	1	PASI-I
		EPA 353.2	ZM	2	PASI-I
		EPA 365.1	YAM	1	PASI-I
		SM 5310C	ATS	1	PASI-I
		SM 5310C	ATS	1	PASI-I

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PASI-I = Pace Analytical Services - Indianapolis

PASI-PA = Pace Analytical Services - Greensburg

### REPORT OF LABORATORY ANALYSIS

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**SUMMARY OF DETECTION**

Project: Eagle Valley April 2023 P1R1  
Pace Project No.: 50342484

Lab Sample ID	Client Sample ID	Result	Units	Report Limit	Analyzed	Qualifiers
Method	Parameters					
<b>50342484001</b>	<b>MW-2S</b>					
EPA 9056	Chloride	17.9	mg/L	0.25	04/22/23 06:43	
EPA 9056	Fluoride	0.16	mg/L	0.10	04/22/23 06:43	
EPA 9056	Sulfate	38.8	mg/L	0.25	04/22/23 06:43	
EPA 6010	Boron	978	ug/L	100	04/24/23 14:53	
EPA 6010	Calcium	169000	ug/L	1000	04/24/23 14:53	
EPA 6010	Lithium	38.8	ug/L	20.0	04/24/23 14:53	
EPA 6010	Magnesium	32100	ug/L	1000	04/24/23 14:53	
EPA 6010	Potassium	5300	ug/L	1000	04/24/23 14:53	
EPA 6010	Silica	16000	ug/L	450	04/24/23 14:53	N2
EPA 6010	Sodium	22200	ug/L	1000	04/24/23 14:53	
EPA 6020	Arsenic	13.9	ug/L	1.0	04/25/23 19:51	
EPA 6020	Barium	175	ug/L	1.0	04/25/23 19:51	
EPA 6020	Selenium	25.7	ug/L	1.0	04/25/23 19:51	
EPA 903.1	Radium-226	0.000 ± 0.384 (0.812)	pCi/L		05/08/23 16:34	
EPA 904.0	Radium-228	C:NA T:92% 0.0849 ± 0.277 (0.627)	pCi/L		05/03/23 11:23	
		C:79% T:86%				
Total Radium Calculation	Total Radium	0.0849 ± 0.661 (1.44)	pCi/L		05/11/23 14:24	
SM 2320B	Alkalinity, Total as CaCO3	540	mg/L	10.0	04/19/23 22:54	
SM 2320B	Alkalinity,Bicarbonate (CaCO3)	540	mg/L	10.0	04/19/23 22:54	
SM 2540C	Total Dissolved Solids	607	mg/L	10.0	04/21/23 11:54	
SM 4500-H+B	pH at 25 Degrees C	7.3	Std. Units	0.10	04/26/23 14:14	H3
EPA 353.2	Nitrogen, Nitrate	2.3	mg/L	0.10	04/19/23 19:34	
EPA 365.1	Phosphate as P04	0.27	mg/L	0.15	04/24/23 17:08	
SM 5310C	Total Organic Carbon	1.5	mg/L	1.0	04/21/23 01:14	
SM 5310C	Dissolved Organic Carbon	1.6	mg/L	1.0	04/25/23 02:39	
<b>50342484002</b>	<b>MW-2D</b>					
EPA 9056	Chloride	109	mg/L	2.5	04/22/23 08:52	
EPA 9056	Fluoride	0.32	mg/L	0.10	04/22/23 08:34	
EPA 9056	Sulfate	101	mg/L	2.5	04/22/23 08:52	
EPA 6010	Boron	160	ug/L	100	04/24/23 14:55	
EPA 6010	Calcium	88300	ug/L	1000	04/24/23 14:55	
EPA 6010	Iron	1040	ug/L	100	04/24/23 14:55	
EPA 6010	Lithium	47.9	ug/L	20.0	04/24/23 14:55	
EPA 6010	Magnesium	22400	ug/L	1000	04/24/23 14:55	
EPA 6010	Manganese	229	ug/L	10.0	04/24/23 14:55	
EPA 6010	Potassium	8620	ug/L	1000	04/24/23 14:55	
EPA 6010	Silica	11300	ug/L	450	04/24/23 14:55	N2
EPA 6010	Sodium	74200	ug/L	1000	04/24/23 14:55	
EPA 6010	Manganese, Dissolved	236	ug/L	10.0	04/21/23 03:31	
EPA 6010	Molybdenum, Dissolved	46.2	ug/L	10.0	04/21/23 03:31	
EPA 6020	Arsenic	3.8	ug/L	1.0	04/25/23 19:54	

**REPORT OF LABORATORY ANALYSIS**

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### SUMMARY OF DETECTION

Project: Eagle Valley April 2023 P1R1

Pace Project No.: 50342484

Lab Sample ID	Client Sample ID	Result	Units	Report Limit	Analyzed	Qualifiers
Method	Parameters					
<b>50342484002</b>	<b>MW-2D</b>					
EPA 6020	Barium	79.0	ug/L	1.0	04/25/23 19:54	
EPA 6020	Molybdenum	47.6	ug/L	10.0	04/25/23 19:54	
EPA 903.1	Radium-226	0.123 ± 0.452 (0.868)	pCi/L		05/08/23 16:34	
EPA 904.0	Radium-228	C:NA T:89% 0.663 ± 0.337 (0.573)	pCi/L		05/03/23 11:23	
		C:81% T:87%				
Total Radium Calculation	Total Radium	0.786 ± 0.789 (1.44)	pCi/L		05/11/23 14:24	
SM 2320B	Alkalinity, Total as CaCO3	232	mg/L	10.0	04/19/23 22:54	
SM 2320B	Alkalinity,Bicarbonate (CaCO3)	232	mg/L	10.0	04/19/23 22:54	
SM 2540C	Total Dissolved Solids	549	mg/L	10.0	04/21/23 11:54	
SM 4500-H+B	pH at 25 Degrees C	7.5	Std. Units	0.10	04/26/23 14:15	H3
HACH 8146	Iron, Ferrous	0.72	mg/L	0.20	04/20/23 15:59	H3,N2
SM 5310C	Total Organic Carbon	1.5	mg/L	1.0	04/21/23 01:46	
SM 5310C	Dissolved Organic Carbon	1.3	mg/L	1.0	04/25/23 02:50	
<b>50342484003</b>	<b>MW-3S</b>					
EPA 9056	Chloride	86.3	mg/L	2.5	04/22/23 10:06	
EPA 9056	Fluoride	0.20	mg/L	0.10	04/22/23 09:48	
EPA 9056	Sulfate	117	mg/L	2.5	04/22/23 10:06	
EPA 6010	Boron	522	ug/L	100	04/24/23 14:58	
EPA 6010	Calcium	138000	ug/L	1000	04/24/23 14:58	
EPA 6010	Magnesium	29300	ug/L	1000	04/24/23 14:58	
EPA 6010	Manganese	190	ug/L	10.0	04/24/23 14:58	
EPA 6010	Potassium	5440	ug/L	1000	04/24/23 14:58	
EPA 6010	Silica	14400	ug/L	450	04/24/23 14:58	N2
EPA 6010	Sodium	63400	ug/L	1000	04/24/23 14:58	
EPA 6010	Manganese, Dissolved	108	ug/L	10.0	04/21/23 03:58	
EPA 6010	Molybdenum, Dissolved	20.3	ug/L	10.0	04/21/23 03:58	
EPA 6020	Barium	116	ug/L	1.0	04/25/23 19:57	
EPA 6020	Molybdenum	21.1	ug/L	10.0	04/25/23 19:57	
EPA 6020	Selenium	7.3	ug/L	1.0	04/25/23 19:57	
EPA 903.1	Radium-226	-0.116 ± 0.394 (0.870)	pCi/L		05/08/23 16:34	
EPA 904.0	Radium-228	C:NA T:99% -0.276 ± 0.275 (0.708)	pCi/L		05/03/23 11:23	
		C:79% T:85%				
Total Radium Calculation	Total Radium	0.000 ± 0.669 (1.58)	pCi/L		05/11/23 14:24	
SM 2320B	Alkalinity, Total as CaCO3	375	mg/L	10.0	04/19/23 22:54	

### REPORT OF LABORATORY ANALYSIS

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### SUMMARY OF DETECTION

Project: Eagle Valley April 2023 P1R1

Pace Project No.: 50342484

Lab Sample ID	Client Sample ID	Result	Units	Report Limit	Analyzed	Qualifiers
Method	Parameters					
<b>50342484003</b>	<b>MW-3S</b>					
SM 2320B	Alkalinity,Bicarbonate (CaCO3)	375	mg/L	10.0	04/19/23 22:54	
SM 2540C	Total Dissolved Solids	676	mg/L	10.0	04/21/23 11:54	
SM 4500-H+B	pH at 25 Degrees C	7.4	Std. Units	0.10	04/26/23 14:16	H3
EPA 353.2	Nitrogen, Nitrate	0.98	mg/L	0.10	04/19/23 19:25	
SM 5310C	Total Organic Carbon	1.4	mg/L	1.0	04/21/23 02:38	
SM 5310C	Dissolved Organic Carbon	2.6	mg/L	1.0	04/25/23 03:02	
<b>50342484004</b>	<b>MW-13S</b>					
EPA 9056	Chloride	50.6	mg/L	2.5	04/22/23 10:43	
EPA 9056	Sulfate	15.7	mg/L	0.25	04/22/23 10:24	
EPA 6010	Calcium	113000	ug/L	1000	04/24/23 15:04	
EPA 6010	Magnesium	29300	ug/L	1000	04/24/23 15:04	
EPA 6010	Potassium	3410	ug/L	1000	04/24/23 15:04	
EPA 6010	Silica	15300	ug/L	450	04/24/23 15:04	N2
EPA 6010	Sodium	43300	ug/L	1000	04/24/23 15:04	
EPA 6020	Barium	50.7	ug/L	1.0	04/25/23 20:21	
EPA 903.1	Radium-226	0.248 ± 0.298 (0.455) C:NA T:90%	pCi/L		05/08/23 16:34	
EPA 904.0	Radium-228	0.193 ± 0.281 (0.604) C:74% T:94%	pCi/L		05/03/23 11:23	
Total Radium Calculation	Total Radium	0.441 ± 0.579 (1.06)	pCi/L		05/11/23 14:24	
SM 2320B	Alkalinity, Total as CaCO3	360	mg/L	10.0	04/19/23 22:54	
SM 2320B	Alkalinity,Bicarbonate (CaCO3)	360	mg/L	10.0	04/19/23 22:54	
SM 2540C	Total Dissolved Solids	493	mg/L	10.0	04/21/23 11:54	
SM 4500-H+B	pH at 25 Degrees C	7.5	Std. Units	0.10	04/26/23 14:19	H3
EPA 353.2	Nitrogen, Nitrate	10.3	mg/L	0.50	04/19/23 20:13	
SM 5310C	Total Organic Carbon	1.2	mg/L	1.0	04/21/23 02:48	
SM 5310C	Dissolved Organic Carbon	1.6	mg/L	1.0	04/25/23 03:13	
<b>50342484005</b>	<b>MW-13I</b>					
EPA 9056	Chloride	41.3	mg/L	2.5	04/22/23 11:20	
EPA 9056	Sulfate	18.3	mg/L	0.25	04/22/23 11:01	
EPA 6010	Calcium	82600	ug/L	1000	04/24/23 15:07	
EPA 6010	Magnesium	23400	ug/L	1000	04/24/23 15:07	
EPA 6010	Potassium	2260	ug/L	1000	04/24/23 15:07	
EPA 6010	Silica	17700	ug/L	450	04/24/23 15:07	N2
EPA 6010	Sodium	33300	ug/L	1000	04/24/23 15:07	
EPA 6020	Barium	37.8	ug/L	1.0	04/25/23 20:18	
EPA 903.1	Radium-226	-0.294 ± 0.501 (1.17) C:NA T:90%	pCi/L		05/08/23 16:34	

### REPORT OF LABORATORY ANALYSIS

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**SUMMARY OF DETECTION**

Project: Eagle Valley April 2023 P1R1

Pace Project No.: 50342484

Lab Sample ID	Client Sample ID	Result	Units	Report Limit	Analyzed	Qualifiers
Method	Parameters					
<b>50342484005</b>	<b>MW-13I</b>					
EPA 904.0	Radium-228	-0.0278 ± 0.303 (0.714) C:80% T:85%	pCi/L		05/03/23 11:23	
Total Radium Calculation	Total Radium	0.000 ± 0.804 (1.88)	pCi/L		05/11/23 14:24	
SM 2320B	Alkalinity, Total as CaCO3	277	mg/L	10.0	04/19/23 22:54	
SM 2320B	Alkalinity,Bicarbonate (CaCO3)	277	mg/L	10.0	04/19/23 22:54	
SM 2540C	Total Dissolved Solids	386	mg/L	10.0	04/21/23 11:55	
SM 4500-H+B	pH at 25 Degrees C	7.7	Std. Units	0.10	04/26/23 14:20	H3
EPA 353.2	Nitrogen, Nitrate	4.6	mg/L	0.10	04/19/23 19:42	
SM 5310C	Dissolved Organic Carbon	1.4	mg/L	1.0	04/25/23 03:24	
<b>50342484006</b>	<b>DUP-1</b>					
EPA 9056	Chloride	51.2	mg/L	2.5	04/22/23 11:57	
EPA 9056	Sulfate	15.7	mg/L	0.25	04/22/23 11:38	
EPA 6010	Calcium	115000	ug/L	1000	04/24/23 15:09	
EPA 6010	Magnesium	29900	ug/L	1000	04/24/23 15:09	
EPA 6010	Potassium	3450	ug/L	1000	04/24/23 15:09	
EPA 6010	Silica	15700	ug/L	450	04/24/23 15:09	N2
EPA 6010	Sodium	44300	ug/L	1000	04/24/23 15:09	
EPA 6020	Barium	51.2	ug/L	1.0	04/25/23 20:31	
EPA 903.1	Radium-226	0.187 ± 0.441 (0.816) C:NA T:89%	pCi/L		05/08/23 16:34	
EPA 904.0	Radium-228	0.589 ± 0.376 (0.708) C:78% T:86%	pCi/L		05/03/23 11:24	
Total Radium Calculation	Total Radium	0.776 ± 0.817 (1.52)	pCi/L		05/11/23 14:24	
SM 2320B	Alkalinity, Total as CaCO3	359	mg/L	10.0	04/19/23 22:54	
SM 2320B	Alkalinity,Bicarbonate (CaCO3)	359	mg/L	10.0	04/19/23 22:54	
SM 2540C	Total Dissolved Solids	499	mg/L	10.0	04/21/23 11:55	
SM 4500-H+B	pH at 25 Degrees C	7.5	Std. Units	0.10	04/26/23 14:21	H3
EPA 353.2	Nitrogen, Nitrate	9.9	mg/L	0.50	04/19/23 20:09	
SM 5310C	Total Organic Carbon	1.3	mg/L	1.0	04/21/23 03:08	
SM 5310C	Dissolved Organic Carbon	1.4	mg/L	1.0	04/25/23 03:34	
<b>50342484007</b>	<b>DUP-2</b>					
EPA 9056	Chloride	17.5	mg/L	0.25	04/22/23 12:15	
EPA 9056	Fluoride	0.17	mg/L	0.10	04/22/23 12:15	
EPA 9056	Sulfate	38.6	mg/L	0.25	04/22/23 12:15	
EPA 6010	Boron	1060	ug/L	100	04/24/23 15:11	
EPA 6010	Calcium	172000	ug/L	1000	04/24/23 15:11	
EPA 6010	Lithium	33.1	ug/L	20.0	04/24/23 15:11	

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**SUMMARY OF DETECTION**

Project: Eagle Valley April 2023 P1R1

Pace Project No.: 50342484

Lab Sample ID Method	Client Sample ID Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
<b>50342484007</b>	<b>DUP-2</b>					
EPA 6010	Magnesium	33400	ug/L	1000	04/24/23 15:11	
EPA 6010	Potassium	5310	ug/L	1000	04/24/23 15:11	
EPA 6010	Silica	16700	ug/L	450	04/24/23 15:11	N2
EPA 6010	Sodium	22500	ug/L	1000	04/24/23 15:11	
EPA 6020	Arsenic	13.8	ug/L	1.0	04/25/23 20:34	
EPA 6020	Barium	176	ug/L	1.0	04/25/23 20:34	
EPA 6020	Selenium	25.5	ug/L	1.0	04/25/23 20:34	
EPA 903.1	Radium-226	0.0648 ± 0.381 (0.778) C:NA T:100%	pCi/L		05/08/23 16:50	
EPA 904.0	Radium-228	0.598 ± 0.331 (0.579) C:80% T:86%	pCi/L		05/03/23 11:24	
Total Radium Calculation	Total Radium	0.663 ± 0.712 (1.36)	pCi/L		05/11/23 14:24	
SM 2320B	Alkalinity, Total as CaCO3	537	mg/L	10.0	04/19/23 22:54	
SM 2320B	Alkalinity,Bicarbonate (CaCO3)	537	mg/L	10.0	04/19/23 22:54	
SM 2540C	Total Dissolved Solids	608	mg/L	10.0	04/21/23 11:55	
SM 4500-H+B	pH at 25 Degrees C	7.2	Std. Units	0.10	04/26/23 14:22	H3
EPA 353.2	Nitrogen, Nitrate	2.3	mg/L	0.10	04/19/23 20:11	
EPA 365.1	Phosphate as P04	0.23	mg/L	0.15	04/26/23 12:20	
SM 5310C	Total Organic Carbon	1.5	mg/L	1.0	04/21/23 03:18	
SM 5310C	Dissolved Organic Carbon	1.9	mg/L	1.0	04/25/23 03:51	

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### ANALYTICAL RESULTS

Project: Eagle Valley April 2023 P1R1

Pace Project No.: 50342484

**Sample: MW-2S**      **Lab ID: 50342484001**      Collected: 04/18/23 12:25      Received: 04/19/23 10:00      Matrix: Water

Parameters	Results	Units	Report			Prepared	Analyzed	CAS No.	Qual
			Limit	MDL	DF				
<b>9056 IC Anions</b>									
Analytical Method: EPA 9056									
Pace Analytical Services - Indianapolis									
Chloride	17.9	mg/L	0.25	0.067	1		04/22/23 06:43	16887-00-6	
Fluoride	0.16	mg/L	0.10	0.017	1		04/22/23 06:43	16984-48-8	
Sulfate	38.8	mg/L	0.25	0.085	1		04/22/23 06:43	14808-79-8	
<b>6010 MET ICP</b>									
Analytical Method: EPA 6010      Preparation Method: EPA 3010									
Pace Analytical Services - Indianapolis									
Aluminum	ND	ug/L	200	55.4	1	04/20/23 08:04	04/24/23 14:53	7429-90-5	
Boron	978	ug/L	100	37.6	1	04/20/23 08:04	04/24/23 14:53	7440-42-8	
Calcium	169000	ug/L	1000	163	1	04/20/23 08:04	04/24/23 14:53	7440-70-2	
Iron	ND	ug/L	100	48.8	1	04/20/23 08:04	04/24/23 14:53	7439-89-6	
Lithium	38.8	ug/L	20.0	6.2	1	04/20/23 08:04	04/24/23 14:53	7439-93-2	
Magnesium	32100	ug/L	1000	71.8	1	04/20/23 08:04	04/24/23 14:53	7439-95-4	
Manganese	ND	ug/L	10.0	2.5	1	04/20/23 08:04	04/24/23 14:53	7439-96-5	
Potassium	5300	ug/L	1000	281	1	04/20/23 08:04	04/24/23 14:53	7440-09-7	
Silica	16000	ug/L	450		1	04/20/23 08:04	04/24/23 14:53	7631-86-9	N2
Sodium	22200	ug/L	1000	214	1	04/20/23 08:04	04/24/23 14:53	7440-23-5	
<b>6010 MET ICP, Dissolved</b>									
Analytical Method: EPA 6010      Preparation Method: EPA 3010									
Pace Analytical Services - Indianapolis									
Manganese, Dissolved	ND	ug/L	10.0	2.5	1	04/20/23 08:13	04/21/23 03:29	7439-96-5	
Molybdenum, Dissolved	ND	ug/L	10.0	3.7	1	04/20/23 08:13	04/21/23 03:29	7439-98-7	
<b>6020 MET ICPMS</b>									
Analytical Method: EPA 6020      Preparation Method: EPA 200.2									
Pace Analytical Services - Indianapolis									
Antimony	ND	ug/L	1.0	0.036	1	04/24/23 22:00	04/25/23 19:51	7440-36-0	
Arsenic	13.9	ug/L	1.0	0.053	1	04/24/23 22:00	04/25/23 19:51	7440-38-2	
Barium	175	ug/L	1.0	0.051	1	04/24/23 22:00	04/25/23 19:51	7440-39-3	
Beryllium	ND	ug/L	0.20	0.028	1	04/24/23 22:00	04/25/23 19:51	7440-41-7	
Cadmium	ND	ug/L	2.0	0.0090	1	04/24/23 22:00	04/25/23 19:51	7440-43-9	
Chromium	ND	ug/L	10.0	0.13	1	04/24/23 22:00	04/25/23 19:51	7440-47-3	
Cobalt	ND	ug/L	1.0	0.032	1	04/24/23 22:00	04/25/23 19:51	7440-48-4	
Lead	ND	ug/L	10.0	0.034	1	04/24/23 22:00	04/25/23 19:51	7439-92-1	
Molybdenum	ND	ug/L	10.0	0.048	1	04/24/23 22:00	04/25/23 19:51	7439-98-7	
Selenium	25.7	ug/L	1.0	0.23	1	04/24/23 22:00	04/25/23 19:51	7782-49-2	
Thallium	ND	ug/L	1.0	0.033	1	04/24/23 22:00	04/25/23 19:51	7440-28-0	
<b>7470 Mercury</b>									
Analytical Method: EPA 7470      Preparation Method: EPA 7470									
Pace Analytical Services - Indianapolis									
Mercury	ND	ug/L	0.20	0.091	1	04/20/23 11:22	04/20/23 18:20	7439-97-6	
<b>2320B Alkalinity</b>									
Analytical Method: SM 2320B									
Pace Analytical Services - Indianapolis									
Alkalinity, Total as CaCO3	540	mg/L	10.0	10.0	1		04/19/23 22:54		
Alkalinity, Bicarbonate (CaCO3)	540	mg/L	10.0	10.0	1		04/19/23 22:54		

### REPORT OF LABORATORY ANALYSIS

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**ANALYTICAL RESULTS**

Project: Eagle Valley April 2023 P1R1  
 Pace Project No.: 50342484

Sample: MW-2S		Lab ID: 50342484001		Collected: 04/18/23 12:25	Received: 04/19/23 10:00	Matrix: Water			
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>2320B Alkalinity</b>		Analytical Method: SM 2320B Pace Analytical Services - Indianapolis							
Alkalinity, Carbonate (CaCO3)	ND	mg/L	10.0	10.0	1		04/19/23 22:54		
<b>2540C Total Dissolved Solids</b>		Analytical Method: SM 2540C Pace Analytical Services - Indianapolis							
Total Dissolved Solids	607	mg/L	10.0	10.0	1		04/21/23 11:54		
<b>4500H+ pH, Electrometric</b>		Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis							
pH at 25 Degrees C	7.3	Std. Units	0.10	0.10	1		04/26/23 14:14		H3
<b>4500S2D Sulfide Water</b>		Analytical Method: SM 4500-S2-D Pace Analytical Services - Indianapolis							
Sulfide	ND	mg/L	0.10	0.025	1		04/21/23 12:54	18496-25-8	
<b>Iron, Ferrous</b>		Analytical Method: HACH 8146 Pace Analytical Services - Indianapolis							
Iron, Ferrous	ND	mg/L	0.20	0.035	1		04/20/23 15:59	15438-31-0	H3,N2
<b>353.2 Nitrogen, NO2/NO3 unpres</b>		Analytical Method: EPA 353.2 Pace Analytical Services - Indianapolis							
Nitrogen, Nitrate	2.3	mg/L	0.10	0.011	1		04/19/23 19:34	14797-55-8	
Nitrogen, Nitrite	ND	mg/L	0.10	0.0040	1		04/19/23 19:34	14797-65-0	
<b>365.1 Total Phosphorus</b>		Analytical Method: EPA 365.1 Preparation Method: EPA 365.1 Pace Analytical Services - Indianapolis							
Phosphate as P04	0.27	mg/L	0.15	0.15	1	04/21/23 13:00	04/24/23 17:08		
<b>5310C TOC</b>		Analytical Method: SM 5310C Pace Analytical Services - Indianapolis							
Total Organic Carbon	1.5	mg/L	1.0	0.24	1		04/21/23 01:14	7440-44-0	
<b>5310C Dissolved Organic Carbon</b>		Analytical Method: SM 5310C Pace Analytical Services - Indianapolis							
Dissolved Organic Carbon	1.6	mg/L	1.0	0.24	1		04/25/23 02:39		

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## ANALYTICAL RESULTS

Project: Eagle Valley April 2023 P1R1

Pace Project No.: 50342484

Sample: MW-2D      Lab ID: 50342484002      Collected: 04/18/23 15:23      Received: 04/19/23 10:00      Matrix: Water									
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>9056 IC Anions</b>									
Analytical Method: EPA 9056									
Pace Analytical Services - Indianapolis									
Chloride	109	mg/L	2.5	0.67	10		04/22/23 08:52	16887-00-6	
Fluoride	0.32	mg/L	0.10	0.017	1		04/22/23 08:34	16984-48-8	
Sulfate	101	mg/L	2.5	0.85	10		04/22/23 08:52	14808-79-8	
<b>6010 MET ICP</b>									
Analytical Method: EPA 6010      Preparation Method: EPA 3010									
Pace Analytical Services - Indianapolis									
Aluminum	ND	ug/L	200	55.4	1	04/20/23 08:04	04/24/23 14:55	7429-90-5	
Boron	160	ug/L	100	37.6	1	04/20/23 08:04	04/24/23 14:55	7440-42-8	
Calcium	88300	ug/L	1000	163	1	04/20/23 08:04	04/24/23 14:55	7440-70-2	
Iron	1040	ug/L	100	48.8	1	04/20/23 08:04	04/24/23 14:55	7439-89-6	
Lithium	47.9	ug/L	20.0	6.2	1	04/20/23 08:04	04/24/23 14:55	7439-93-2	
Magnesium	22400	ug/L	1000	71.8	1	04/20/23 08:04	04/24/23 14:55	7439-95-4	
Manganese	229	ug/L	10.0	2.5	1	04/20/23 08:04	04/24/23 14:55	7439-96-5	
Potassium	8620	ug/L	1000	281	1	04/20/23 08:04	04/24/23 14:55	7440-09-7	
Silica	11300	ug/L	450		1	04/20/23 08:04	04/24/23 14:55	7631-86-9	N2
Sodium	74200	ug/L	1000	214	1	04/20/23 08:04	04/24/23 14:55	7440-23-5	
<b>6010 MET ICP, Dissolved</b>									
Analytical Method: EPA 6010      Preparation Method: EPA 3010									
Pace Analytical Services - Indianapolis									
Manganese, Dissolved	236	ug/L	10.0	2.5	1	04/20/23 08:13	04/21/23 03:31	7439-96-5	
Molybdenum, Dissolved	46.2	ug/L	10.0	3.7	1	04/20/23 08:13	04/21/23 03:31	7439-98-7	
<b>6020 MET ICPMS</b>									
Analytical Method: EPA 6020      Preparation Method: EPA 200.2									
Pace Analytical Services - Indianapolis									
Antimony	ND	ug/L	1.0	0.036	1	04/24/23 22:00	04/25/23 19:54	7440-36-0	
Arsenic	3.8	ug/L	1.0	0.053	1	04/24/23 22:00	04/25/23 19:54	7440-38-2	
Barium	79.0	ug/L	1.0	0.051	1	04/24/23 22:00	04/25/23 19:54	7440-39-3	
Beryllium	ND	ug/L	0.20	0.028	1	04/24/23 22:00	04/25/23 19:54	7440-41-7	
Cadmium	ND	ug/L	2.0	0.0090	1	04/24/23 22:00	04/25/23 19:54	7440-43-9	
Chromium	ND	ug/L	10.0	0.13	1	04/24/23 22:00	04/25/23 19:54	7440-47-3	
Cobalt	ND	ug/L	1.0	0.032	1	04/24/23 22:00	04/25/23 19:54	7440-48-4	
Lead	ND	ug/L	10.0	0.034	1	04/24/23 22:00	04/25/23 19:54	7439-92-1	
Molybdenum	47.6	ug/L	10.0	0.048	1	04/24/23 22:00	04/25/23 19:54	7439-98-7	
Selenium	ND	ug/L	1.0	0.23	1	04/24/23 22:00	04/25/23 19:54	7782-49-2	
Thallium	ND	ug/L	1.0	0.033	1	04/24/23 22:00	04/25/23 19:54	7440-28-0	
<b>7470 Mercury</b>									
Analytical Method: EPA 7470      Preparation Method: EPA 7470									
Pace Analytical Services - Indianapolis									
Mercury	ND	ug/L	0.20	0.091	1	04/20/23 11:22	04/20/23 18:23	7439-97-6	
<b>2320B Alkalinity</b>									
Analytical Method: SM 2320B									
Pace Analytical Services - Indianapolis									
Alkalinity, Total as CaCO3	232	mg/L	10.0	10.0	1		04/19/23 22:54		
Alkalinity,Bicarbonate (CaCO3)	232	mg/L	10.0	10.0	1		04/19/23 22:54		

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**ANALYTICAL RESULTS**

Project: Eagle Valley April 2023 P1R1  
 Pace Project No.: 50342484

Sample: MW-2D		Lab ID: 50342484002		Collected: 04/18/23 15:23	Received: 04/19/23 10:00	Matrix: Water			
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>2320B Alkalinity</b>		Analytical Method: SM 2320B Pace Analytical Services - Indianapolis							
Alkalinity, Carbonate (CaCO3)	ND	mg/L	10.0	10.0	1		04/19/23 22:54		
<b>2540C Total Dissolved Solids</b>		Analytical Method: SM 2540C Pace Analytical Services - Indianapolis							
Total Dissolved Solids	549	mg/L	10.0	10.0	1		04/21/23 11:54		
<b>4500H+ pH, Electrometric</b>		Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis							
pH at 25 Degrees C	7.5	Std. Units	0.10	0.10	1		04/26/23 14:15		H3
<b>4500S2D Sulfide Water</b>		Analytical Method: SM 4500-S2-D Pace Analytical Services - Indianapolis							
Sulfide	ND	mg/L	0.10	0.025	1		04/21/23 12:54	18496-25-8	
<b>Iron, Ferrous</b>		Analytical Method: HACH 8146 Pace Analytical Services - Indianapolis							
Iron, Ferrous	0.72	mg/L	0.20	0.035	1		04/20/23 15:59	15438-31-0	H3,N2
<b>353.2 Nitrogen, NO2/NO3 unpres</b>		Analytical Method: EPA 353.2 Pace Analytical Services - Indianapolis							
Nitrogen, Nitrate	ND	mg/L	0.10	0.011	1		04/19/23 20:06	14797-55-8	
Nitrogen, Nitrite	ND	mg/L	0.10	0.0040	1		04/19/23 20:06	14797-65-0	
<b>365.1 Total Phosphorus</b>		Analytical Method: EPA 365.1 Preparation Method: EPA 365.1 Pace Analytical Services - Indianapolis							
Phosphate as P04	ND	mg/L	0.15	0.15	1	04/21/23 13:00	04/24/23 17:11		
<b>5310C TOC</b>		Analytical Method: SM 5310C Pace Analytical Services - Indianapolis							
Total Organic Carbon	1.5	mg/L	1.0	0.24	1		04/21/23 01:46	7440-44-0	
<b>5310C Dissolved Organic Carbon</b>		Analytical Method: SM 5310C Pace Analytical Services - Indianapolis							
Dissolved Organic Carbon	1.3	mg/L	1.0	0.24	1		04/25/23 02:50		

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## ANALYTICAL RESULTS

Project: Eagle Valley April 2023 P1R1

Pace Project No.: 50342484

Sample: MW-3S		Lab ID: 50342484003		Collected: 04/18/23 10:55		Received: 04/19/23 10:00		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>9056 IC Anions</b>									
Analytical Method: EPA 9056									
Pace Analytical Services - Indianapolis									
Chloride	86.3	mg/L	2.5	0.67	10		04/22/23 10:06	16887-00-6	
Fluoride	0.20	mg/L	0.10	0.017	1		04/22/23 09:48	16984-48-8	
Sulfate	117	mg/L	2.5	0.85	10		04/22/23 10:06	14808-79-8	
<b>6010 MET ICP</b>									
Analytical Method: EPA 6010 Preparation Method: EPA 3010									
Pace Analytical Services - Indianapolis									
Aluminum	ND	ug/L	200	55.4	1	04/20/23 08:04	04/24/23 14:58	7429-90-5	
Boron	522	ug/L	100	37.6	1	04/20/23 08:04	04/24/23 14:58	7440-42-8	
Calcium	138000	ug/L	1000	163	1	04/20/23 08:04	04/24/23 14:58	7440-70-2	
Iron	ND	ug/L	100	48.8	1	04/20/23 08:04	04/24/23 14:58	7439-89-6	
Lithium	ND	ug/L	20.0	6.2	1	04/20/23 08:04	04/24/23 14:58	7439-93-2	
Magnesium	29300	ug/L	1000	71.8	1	04/20/23 08:04	04/24/23 14:58	7439-95-4	
Manganese	190	ug/L	10.0	2.5	1	04/20/23 08:04	04/24/23 14:58	7439-96-5	
Potassium	5440	ug/L	1000	281	1	04/20/23 08:04	04/24/23 14:58	7440-09-7	
Silica	14400	ug/L	450		1	04/20/23 08:04	04/24/23 14:58	7631-86-9	N2
Sodium	63400	ug/L	1000	214	1	04/20/23 08:04	04/24/23 14:58	7440-23-5	
<b>6010 MET ICP, Dissolved</b>									
Analytical Method: EPA 6010 Preparation Method: EPA 3010									
Pace Analytical Services - Indianapolis									
Manganese, Dissolved	108	ug/L	10.0	2.5	1	04/20/23 08:13	04/21/23 03:58	7439-96-5	
Molybdenum, Dissolved	20.3	ug/L	10.0	3.7	1	04/20/23 08:13	04/21/23 03:58	7439-98-7	
<b>6020 MET ICPMS</b>									
Analytical Method: EPA 6020 Preparation Method: EPA 200.2									
Pace Analytical Services - Indianapolis									
Antimony	ND	ug/L	1.0	0.036	1	04/24/23 22:00	04/25/23 19:57	7440-36-0	
Arsenic	ND	ug/L	1.0	0.053	1	04/24/23 22:00	04/25/23 19:57	7440-38-2	
Barium	116	ug/L	1.0	0.051	1	04/24/23 22:00	04/25/23 19:57	7440-39-3	
Beryllium	ND	ug/L	0.20	0.028	1	04/24/23 22:00	04/25/23 19:57	7440-41-7	
Cadmium	ND	ug/L	2.0	0.0090	1	04/24/23 22:00	04/25/23 19:57	7440-43-9	
Chromium	ND	ug/L	10.0	0.13	1	04/24/23 22:00	04/25/23 19:57	7440-47-3	
Cobalt	ND	ug/L	1.0	0.032	1	04/24/23 22:00	04/25/23 19:57	7440-48-4	
Lead	ND	ug/L	10.0	0.034	1	04/24/23 22:00	04/25/23 19:57	7439-92-1	
Molybdenum	21.1	ug/L	10.0	0.048	1	04/24/23 22:00	04/25/23 19:57	7439-98-7	
Selenium	7.3	ug/L	1.0	0.23	1	04/24/23 22:00	04/25/23 19:57	7782-49-2	
Thallium	ND	ug/L	1.0	0.033	1	04/24/23 22:00	04/25/23 19:57	7440-28-0	
<b>7470 Mercury</b>									
Analytical Method: EPA 7470 Preparation Method: EPA 7470									
Pace Analytical Services - Indianapolis									
Mercury	ND	ug/L	0.20	0.091	1	04/20/23 11:22	04/20/23 18:30	7439-97-6	
<b>2320B Alkalinity</b>									
Analytical Method: SM 2320B									
Pace Analytical Services - Indianapolis									
Alkalinity, Total as CaCO3	375	mg/L	10.0	10.0	1		04/19/23 22:54		
Alkalinity,Bicarbonate (CaCO3)	375	mg/L	10.0	10.0	1		04/19/23 22:54		

## REPORT OF LABORATORY ANALYSIS

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**ANALYTICAL RESULTS**

Project: Eagle Valley April 2023 P1R1  
Pace Project No.: 50342484

Sample: MW-3S		Lab ID: 50342484003		Collected: 04/18/23 10:55	Received: 04/19/23 10:00	Matrix: Water			
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>2320B Alkalinity</b>		Analytical Method: SM 2320B Pace Analytical Services - Indianapolis							
Alkalinity, Carbonate (CaCO3)	ND	mg/L	10.0	10.0	1		04/19/23 22:54		
<b>2540C Total Dissolved Solids</b>		Analytical Method: SM 2540C Pace Analytical Services - Indianapolis							
Total Dissolved Solids	676	mg/L	10.0	10.0	1		04/21/23 11:54		
<b>4500H+ pH, Electrometric</b>		Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis							
pH at 25 Degrees C	7.4	Std. Units	0.10	0.10	1		04/26/23 14:16		H3
<b>4500S2D Sulfide Water</b>		Analytical Method: SM 4500-S2-D Pace Analytical Services - Indianapolis							
Sulfide	ND	mg/L	0.10	0.025	1		04/21/23 12:54	18496-25-8	
<b>Iron, Ferrous</b>		Analytical Method: HACH 8146 Pace Analytical Services - Indianapolis							
Iron, Ferrous	ND	mg/L	0.20	0.035	1		04/20/23 15:58	15438-31-0	H3,N2
<b>353.2 Nitrogen, NO2/NO3 unpres</b>		Analytical Method: EPA 353.2 Pace Analytical Services - Indianapolis							
Nitrogen, Nitrate	0.98	mg/L	0.10	0.011	1		04/19/23 19:25	14797-55-8	
Nitrogen, Nitrite	ND	mg/L	0.10	0.0040	1		04/19/23 19:25	14797-65-0	
<b>365.1 Total Phosphorus</b>		Analytical Method: EPA 365.1 Preparation Method: EPA 365.1 Pace Analytical Services - Indianapolis							
Phosphate as P04	ND	mg/L	0.15	0.15	1	04/21/23 13:00	04/24/23 17:11		
<b>5310C TOC</b>		Analytical Method: SM 5310C Pace Analytical Services - Indianapolis							
Total Organic Carbon	1.4	mg/L	1.0	0.24	1		04/21/23 02:38	7440-44-0	
<b>5310C Dissolved Organic Carbon</b>		Analytical Method: SM 5310C Pace Analytical Services - Indianapolis							
Dissolved Organic Carbon	2.6	mg/L	1.0	0.24	1		04/25/23 03:02		

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### ANALYTICAL RESULTS

Project: Eagle Valley April 2023 P1R1  
 Pace Project No.: 50342484

**Sample: MW-13S**      **Lab ID: 50342484004**      Collected: 04/18/23 13:45      Received: 04/19/23 10:00      Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
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**9056 IC Anions**

Analytical Method: EPA 9056  
 Pace Analytical Services - Indianapolis

Chloride	50.6	mg/L	2.5	0.67	10		04/22/23 10:43	16887-00-6	
Fluoride	ND	mg/L	0.10	0.017	1		04/22/23 10:24	16984-48-8	
Sulfate	15.7	mg/L	0.25	0.085	1		04/22/23 10:24	14808-79-8	

**6010 MET ICP**

Analytical Method: EPA 6010      Preparation Method: EPA 3010  
 Pace Analytical Services - Indianapolis

Aluminum	ND	ug/L	200	55.4	1	04/20/23 08:04	04/24/23 15:04	7429-90-5	
Boron	ND	ug/L	100	37.6	1	04/20/23 08:04	04/24/23 15:04	7440-42-8	
Calcium	113000	ug/L	1000	163	1	04/20/23 08:04	04/24/23 15:04	7440-70-2	
Iron	ND	ug/L	100	48.8	1	04/20/23 08:04	04/24/23 15:04	7439-89-6	
Lithium	ND	ug/L	20.0	6.2	1	04/20/23 08:04	04/24/23 15:04	7439-93-2	
Magnesium	29300	ug/L	1000	71.8	1	04/20/23 08:04	04/24/23 15:04	7439-95-4	
Manganese	ND	ug/L	10.0	2.5	1	04/20/23 08:04	04/24/23 15:04	7439-96-5	
Potassium	3410	ug/L	1000	281	1	04/20/23 08:04	04/24/23 15:04	7440-09-7	
Silica	15300	ug/L	450		1	04/20/23 08:04	04/24/23 15:04	7631-86-9	N2
Sodium	43300	ug/L	1000	214	1	04/20/23 08:04	04/24/23 15:04	7440-23-5	

**6010 MET ICP, Dissolved**

Analytical Method: EPA 6010      Preparation Method: EPA 3010  
 Pace Analytical Services - Indianapolis

Manganese, Dissolved	ND	ug/L	10.0	2.5	1	04/20/23 08:13	04/21/23 04:05	7439-96-5	
Molybdenum, Dissolved	ND	ug/L	10.0	3.7	1	04/20/23 08:13	04/21/23 04:05	7439-98-7	

**6020 MET ICPMS**

Analytical Method: EPA 6020      Preparation Method: EPA 200.2  
 Pace Analytical Services - Indianapolis

Antimony	ND	ug/L	1.0	0.036	1	04/24/23 22:00	04/25/23 20:21	7440-36-0	
Arsenic	ND	ug/L	1.0	0.053	1	04/24/23 22:00	04/25/23 20:21	7440-38-2	
Barium	50.7	ug/L	1.0	0.051	1	04/24/23 22:00	04/25/23 20:21	7440-39-3	
Beryllium	ND	ug/L	0.20	0.028	1	04/24/23 22:00	04/25/23 20:21	7440-41-7	
Cadmium	ND	ug/L	2.0	0.0090	1	04/24/23 22:00	04/25/23 20:21	7440-43-9	
Chromium	ND	ug/L	10.0	0.13	1	04/24/23 22:00	04/25/23 20:21	7440-47-3	
Cobalt	ND	ug/L	1.0	0.032	1	04/24/23 22:00	04/25/23 20:21	7440-48-4	
Lead	ND	ug/L	10.0	0.034	1	04/24/23 22:00	04/25/23 20:21	7439-92-1	
Molybdenum	ND	ug/L	10.0	0.048	1	04/24/23 22:00	04/25/23 20:21	7439-98-7	
Selenium	ND	ug/L	1.0	0.23	1	04/24/23 22:00	04/25/23 20:21	7782-49-2	
Thallium	ND	ug/L	1.0	0.033	1	04/24/23 22:00	04/25/23 20:21	7440-28-0	

**7470 Mercury**

Analytical Method: EPA 7470      Preparation Method: EPA 7470  
 Pace Analytical Services - Indianapolis

Mercury	ND	ug/L	0.20	0.091	1	04/20/23 11:22	04/20/23 18:33	7439-97-6	
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**2320B Alkalinity**

Analytical Method: SM 2320B  
 Pace Analytical Services - Indianapolis

Alkalinity, Total as CaCO3	360	mg/L	10.0	10.0	1		04/19/23 22:54		
Alkalinity, Bicarbonate (CaCO3)	360	mg/L	10.0	10.0	1		04/19/23 22:54		

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**ANALYTICAL RESULTS**

Project: Eagle Valley April 2023 P1R1

Pace Project No.: 50342484

Sample: MW-13S		Lab ID: 50342484004		Collected: 04/18/23 13:45	Received: 04/19/23 10:00	Matrix: Water			
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>2320B Alkalinity</b>		Analytical Method: SM 2320B Pace Analytical Services - Indianapolis							
Alkalinity, Carbonate (CaCO3)	ND	mg/L	10.0	10.0	1		04/19/23 22:54		
<b>2540C Total Dissolved Solids</b>		Analytical Method: SM 2540C Pace Analytical Services - Indianapolis							
Total Dissolved Solids	<b>493</b>	mg/L	10.0	10.0	1		04/21/23 11:54		
<b>4500H+ pH, Electrometric</b>		Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis							
pH at 25 Degrees C	<b>7.5</b>	Std. Units	0.10	0.10	1		04/26/23 14:19		H3
<b>4500S2D Sulfide Water</b>		Analytical Method: SM 4500-S2-D Pace Analytical Services - Indianapolis							
Sulfide	ND	mg/L	0.10	0.025	1		04/21/23 12:54	18496-25-8	
<b>Iron, Ferrous</b>		Analytical Method: HACH 8146 Pace Analytical Services - Indianapolis							
Iron, Ferrous	ND	mg/L	0.20	0.035	1		04/20/23 15:59	15438-31-0	H3,N2
<b>353.2 Nitrogen, NO2/NO3 unpres</b>		Analytical Method: EPA 353.2 Pace Analytical Services - Indianapolis							
Nitrogen, Nitrate	<b>10.3</b>	mg/L	0.50	0.055	5		04/19/23 20:13	14797-55-8	
Nitrogen, Nitrite	ND	mg/L	0.50	0.020	5		04/19/23 20:13	14797-65-0	
<b>365.1 Total Phosphorus</b>		Analytical Method: EPA 365.1 Preparation Method: EPA 365.1 Pace Analytical Services - Indianapolis							
Phosphate as P04	ND	mg/L	0.15	0.15	1	04/21/23 13:00	04/24/23 17:12		
<b>5310C TOC</b>		Analytical Method: SM 5310C Pace Analytical Services - Indianapolis							
Total Organic Carbon	<b>1.2</b>	mg/L	1.0	0.24	1		04/21/23 02:48	7440-44-0	
<b>5310C Dissolved Organic Carbon</b>		Analytical Method: SM 5310C Pace Analytical Services - Indianapolis							
Dissolved Organic Carbon	<b>1.6</b>	mg/L	1.0	0.24	1		04/25/23 03:13		

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## ANALYTICAL RESULTS

Project: Eagle Valley April 2023 P1R1

Pace Project No.: 50342484

Sample: MW-131		Lab ID: 50342484005		Collected: 04/18/23 12:30		Received: 04/19/23 10:00		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>9056 IC Anions</b>		Analytical Method: EPA 9056 Pace Analytical Services - Indianapolis							
Chloride	41.3	mg/L	2.5	0.67	10		04/22/23 11:20	16887-00-6	
Fluoride	ND	mg/L	0.10	0.017	1		04/22/23 11:01	16984-48-8	
Sulfate	18.3	mg/L	0.25	0.085	1		04/22/23 11:01	14808-79-8	
<b>6010 MET ICP</b>		Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis							
Aluminum	ND	ug/L	200	55.4	1	04/20/23 08:04	04/24/23 15:07	7429-90-5	
Boron	ND	ug/L	100	37.6	1	04/20/23 08:04	04/24/23 15:07	7440-42-8	
Calcium	82600	ug/L	1000	163	1	04/20/23 08:04	04/24/23 15:07	7440-70-2	
Iron	ND	ug/L	100	48.8	1	04/20/23 08:04	04/24/23 15:07	7439-89-6	
Lithium	ND	ug/L	20.0	6.2	1	04/20/23 08:04	04/24/23 15:07	7439-93-2	
Magnesium	23400	ug/L	1000	71.8	1	04/20/23 08:04	04/24/23 15:07	7439-95-4	
Manganese	ND	ug/L	10.0	2.5	1	04/20/23 08:04	04/24/23 15:07	7439-96-5	
Potassium	2260	ug/L	1000	281	1	04/20/23 08:04	04/24/23 15:07	7440-09-7	
Silica	17700	ug/L	450		1	04/20/23 08:04	04/24/23 15:07	7631-86-9	N2
Sodium	33300	ug/L	1000	214	1	04/20/23 08:04	04/24/23 15:07	7440-23-5	
<b>6010 MET ICP, Dissolved</b>		Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis							
Manganese, Dissolved	ND	ug/L	10.0	2.5	1	04/20/23 08:13	04/21/23 04:07	7439-96-5	
Molybdenum, Dissolved	ND	ug/L	10.0	3.7	1	04/20/23 08:13	04/21/23 04:07	7439-98-7	
<b>6020 MET ICPMS</b>		Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis							
Antimony	ND	ug/L	1.0	0.036	1	04/24/23 22:00	04/25/23 20:18	7440-36-0	
Arsenic	ND	ug/L	1.0	0.053	1	04/24/23 22:00	04/25/23 20:18	7440-38-2	
Barium	37.8	ug/L	1.0	0.051	1	04/24/23 22:00	04/25/23 20:18	7440-39-3	
Beryllium	ND	ug/L	0.20	0.028	1	04/24/23 22:00	04/25/23 20:18	7440-41-7	
Cadmium	ND	ug/L	2.0	0.0090	1	04/24/23 22:00	04/25/23 20:18	7440-43-9	
Chromium	ND	ug/L	10.0	0.13	1	04/24/23 22:00	04/25/23 20:18	7440-47-3	
Cobalt	ND	ug/L	1.0	0.032	1	04/24/23 22:00	04/25/23 20:18	7440-48-4	
Lead	ND	ug/L	10.0	0.034	1	04/24/23 22:00	04/25/23 20:18	7439-92-1	
Molybdenum	ND	ug/L	10.0	0.048	1	04/24/23 22:00	04/25/23 20:18	7439-98-7	
Selenium	ND	ug/L	1.0	0.23	1	04/24/23 22:00	04/25/23 20:18	7782-49-2	
Thallium	ND	ug/L	1.0	0.033	1	04/24/23 22:00	04/25/23 20:18	7440-28-0	
<b>7470 Mercury</b>		Analytical Method: EPA 7470 Preparation Method: EPA 7470 Pace Analytical Services - Indianapolis							
Mercury	ND	ug/L	0.20	0.091	1	04/20/23 11:22	04/20/23 18:35	7439-97-6	
<b>2320B Alkalinity</b>		Analytical Method: SM 2320B Pace Analytical Services - Indianapolis							
Alkalinity, Total as CaCO3	277	mg/L	10.0	10.0	1		04/19/23 22:54		
Alkalinity,Bicarbonate (CaCO3)	277	mg/L	10.0	10.0	1		04/19/23 22:54		

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**ANALYTICAL RESULTS**

Project: Eagle Valley April 2023 P1R1  
 Pace Project No.: 50342484

Sample: MW-131		Lab ID: 50342484005		Collected: 04/18/23 12:30	Received: 04/19/23 10:00	Matrix: Water			
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>2320B Alkalinity</b>		Analytical Method: SM 2320B Pace Analytical Services - Indianapolis							
Alkalinity, Carbonate (CaCO3)	ND	mg/L	10.0	10.0	1		04/19/23 22:54		
<b>2540C Total Dissolved Solids</b>		Analytical Method: SM 2540C Pace Analytical Services - Indianapolis							
Total Dissolved Solids	<b>386</b>	mg/L	10.0	10.0	1		04/21/23 11:55		
<b>4500H+ pH, Electrometric</b>		Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis							
pH at 25 Degrees C	<b>7.7</b>	Std. Units	0.10	0.10	1		04/26/23 14:20		H3
<b>4500S2D Sulfide Water</b>		Analytical Method: SM 4500-S2-D Pace Analytical Services - Indianapolis							
Sulfide	ND	mg/L	0.10	0.025	1		04/21/23 12:54	18496-25-8	
<b>Iron, Ferrous</b>		Analytical Method: HACH 8146 Pace Analytical Services - Indianapolis							
Iron, Ferrous	ND	mg/L	0.20	0.035	1		04/20/23 15:59	15438-31-0	H3,N2
<b>353.2 Nitrogen, NO2/NO3 unpres</b>		Analytical Method: EPA 353.2 Pace Analytical Services - Indianapolis							
Nitrogen, Nitrate	<b>4.6</b>	mg/L	0.10	0.011	1		04/19/23 19:42	14797-55-8	
Nitrogen, Nitrite	ND	mg/L	0.10	0.0040	1		04/19/23 19:42	14797-65-0	
<b>365.1 Total Phosphorus</b>		Analytical Method: EPA 365.1 Preparation Method: EPA 365.1 Pace Analytical Services - Indianapolis							
Phosphate as P04	ND	mg/L	0.15	0.15	1	04/21/23 13:00	04/24/23 17:12		
<b>5310C TOC</b>		Analytical Method: SM 5310C Pace Analytical Services - Indianapolis							
Total Organic Carbon	ND	mg/L	1.0	0.24	1		04/21/23 02:58	7440-44-0	
<b>5310C Dissolved Organic Carbon</b>		Analytical Method: SM 5310C Pace Analytical Services - Indianapolis							
Dissolved Organic Carbon	<b>1.4</b>	mg/L	1.0	0.24	1		04/25/23 03:24		

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### ANALYTICAL RESULTS

Project: Eagle Valley April 2023 P1R1

Pace Project No.: 50342484

**Sample:** DUP-1      **Lab ID:** 50342484006      Collected: 04/18/23 08:00      Received: 04/19/23 10:00      Matrix: Water

Parameters	Results	Units	Report			Prepared	Analyzed	CAS No.	Qual
			Limit	MDL	DF				
<b>9056 IC Anions</b>									
Analytical Method: EPA 9056									
Pace Analytical Services - Indianapolis									
Chloride	51.2	mg/L	2.5	0.67	10		04/22/23 11:57	16887-00-6	
Fluoride	ND	mg/L	0.10	0.017	1		04/22/23 11:38	16984-48-8	
Sulfate	15.7	mg/L	0.25	0.085	1		04/22/23 11:38	14808-79-8	
<b>6010 MET ICP</b>									
Analytical Method: EPA 6010      Preparation Method: EPA 3010									
Pace Analytical Services - Indianapolis									
Aluminum	ND	ug/L	200	55.4	1	04/20/23 08:04	04/24/23 15:09	7429-90-5	
Boron	ND	ug/L	100	37.6	1	04/20/23 08:04	04/24/23 15:09	7440-42-8	
Calcium	115000	ug/L	1000	163	1	04/20/23 08:04	04/24/23 15:09	7440-70-2	
Iron	ND	ug/L	100	48.8	1	04/20/23 08:04	04/24/23 15:09	7439-89-6	
Lithium	ND	ug/L	20.0	6.2	1	04/20/23 08:04	04/24/23 15:09	7439-93-2	
Magnesium	29900	ug/L	1000	71.8	1	04/20/23 08:04	04/24/23 15:09	7439-95-4	
Manganese	ND	ug/L	10.0	2.5	1	04/20/23 08:04	04/24/23 15:09	7439-96-5	
Potassium	3450	ug/L	1000	281	1	04/20/23 08:04	04/24/23 15:09	7440-09-7	
Silica	15700	ug/L	450		1	04/20/23 08:04	04/24/23 15:09	7631-86-9	N2
Sodium	44300	ug/L	1000	214	1	04/20/23 08:04	04/24/23 15:09	7440-23-5	
<b>6010 MET ICP, Dissolved</b>									
Analytical Method: EPA 6010      Preparation Method: EPA 3010									
Pace Analytical Services - Indianapolis									
Manganese, Dissolved	ND	ug/L	10.0	2.5	1	04/20/23 08:13	04/21/23 04:09	7439-96-5	
Molybdenum, Dissolved	ND	ug/L	10.0	3.7	1	04/20/23 08:13	04/21/23 04:09	7439-98-7	
<b>6020 MET ICPMS</b>									
Analytical Method: EPA 6020      Preparation Method: EPA 200.2									
Pace Analytical Services - Indianapolis									
Antimony	ND	ug/L	1.0	0.036	1	04/24/23 22:00	04/25/23 20:31	7440-36-0	
Arsenic	ND	ug/L	1.0	0.053	1	04/24/23 22:00	04/25/23 20:31	7440-38-2	
Barium	51.2	ug/L	1.0	0.051	1	04/24/23 22:00	04/25/23 20:31	7440-39-3	
Beryllium	ND	ug/L	0.20	0.028	1	04/24/23 22:00	04/25/23 20:31	7440-41-7	
Cadmium	ND	ug/L	2.0	0.0090	1	04/24/23 22:00	04/25/23 20:31	7440-43-9	
Chromium	ND	ug/L	10.0	0.13	1	04/24/23 22:00	04/25/23 20:31	7440-47-3	
Cobalt	ND	ug/L	1.0	0.032	1	04/24/23 22:00	04/25/23 20:31	7440-48-4	
Lead	ND	ug/L	10.0	0.034	1	04/24/23 22:00	04/25/23 20:31	7439-92-1	
Molybdenum	ND	ug/L	10.0	0.048	1	04/24/23 22:00	04/25/23 20:31	7439-98-7	
Selenium	ND	ug/L	1.0	0.23	1	04/24/23 22:00	04/25/23 20:31	7782-49-2	
Thallium	ND	ug/L	1.0	0.033	1	04/24/23 22:00	04/25/23 20:31	7440-28-0	
<b>7470 Mercury</b>									
Analytical Method: EPA 7470      Preparation Method: EPA 7470									
Pace Analytical Services - Indianapolis									
Mercury	ND	ug/L	0.20	0.091	1	04/20/23 11:22	04/20/23 18:37	7439-97-6	
<b>2320B Alkalinity</b>									
Analytical Method: SM 2320B									
Pace Analytical Services - Indianapolis									
Alkalinity, Total as CaCO3	359	mg/L	10.0	10.0	1		04/19/23 22:54		
Alkalinity, Bicarbonate (CaCO3)	359	mg/L	10.0	10.0	1		04/19/23 22:54		

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### ANALYTICAL RESULTS

Project: Eagle Valley April 2023 P1R1

Pace Project No.: 50342484

Sample: DUP-1		Lab ID: 50342484006		Collected: 04/18/23 08:00	Received: 04/19/23 10:00	Matrix: Water			
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>2320B Alkalinity</b>		Analytical Method: SM 2320B Pace Analytical Services - Indianapolis							
Alkalinity, Carbonate (CaCO3)	ND	mg/L	10.0	10.0	1		04/19/23 22:54		
<b>2540C Total Dissolved Solids</b>		Analytical Method: SM 2540C Pace Analytical Services - Indianapolis							
Total Dissolved Solids	499	mg/L	10.0	10.0	1		04/21/23 11:55		
<b>4500H+ pH, Electrometric</b>		Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis							
pH at 25 Degrees C	7.5	Std. Units	0.10	0.10	1		04/26/23 14:21		H3
<b>4500S2D Sulfide Water</b>		Analytical Method: SM 4500-S2-D Pace Analytical Services - Indianapolis							
Sulfide	ND	mg/L	0.10	0.025	1		04/21/23 12:54	18496-25-8	
<b>Iron, Ferrous</b>		Analytical Method: HACH 8146 Pace Analytical Services - Indianapolis							
Iron, Ferrous	ND	mg/L	0.20	0.035	1		04/20/23 15:58	15438-31-0	H3,N2
<b>353.2 Nitrogen, NO2/NO3 unpres</b>		Analytical Method: EPA 353.2 Pace Analytical Services - Indianapolis							
Nitrogen, Nitrate	9.9	mg/L	0.50	0.055	5		04/19/23 20:09	14797-55-8	
Nitrogen, Nitrite	ND	mg/L	0.50	0.020	5		04/19/23 20:09	14797-65-0	
<b>365.1 Total Phosphorus</b>		Analytical Method: EPA 365.1 Preparation Method: EPA 365.1 Pace Analytical Services - Indianapolis							
Phosphate as P04	ND	mg/L	0.15	0.15	1	04/21/23 13:00	04/24/23 17:13		
<b>5310C TOC</b>		Analytical Method: SM 5310C Pace Analytical Services - Indianapolis							
Total Organic Carbon	1.3	mg/L	1.0	0.24	1		04/21/23 03:08	7440-44-0	
<b>5310C Dissolved Organic Carbon</b>		Analytical Method: SM 5310C Pace Analytical Services - Indianapolis							
Dissolved Organic Carbon	1.4	mg/L	1.0	0.24	1		04/25/23 03:34		

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### ANALYTICAL RESULTS

Project: Eagle Valley April 2023 P1R1

Pace Project No.: 50342484

**Sample: DUP-2**      **Lab ID: 50342484007**      Collected: 04/18/23 08:00      Received: 04/19/23 10:00      Matrix: Water

Parameters	Results	Units	Report			Prepared	Analyzed	CAS No.	Qual
			Limit	MDL	DF				
<b>9056 IC Anions</b>									
Analytical Method: EPA 9056									
Pace Analytical Services - Indianapolis									
Chloride	17.5	mg/L	0.25	0.067	1		04/22/23 12:15	16887-00-6	
Fluoride	0.17	mg/L	0.10	0.017	1		04/22/23 12:15	16984-48-8	
Sulfate	38.6	mg/L	0.25	0.085	1		04/22/23 12:15	14808-79-8	
<b>6010 MET ICP</b>									
Analytical Method: EPA 6010      Preparation Method: EPA 3010									
Pace Analytical Services - Indianapolis									
Aluminum	ND	ug/L	200	55.4	1	04/20/23 08:04	04/24/23 15:11	7429-90-5	
Boron	1060	ug/L	100	37.6	1	04/20/23 08:04	04/24/23 15:11	7440-42-8	
Calcium	172000	ug/L	1000	163	1	04/20/23 08:04	04/24/23 15:11	7440-70-2	
Iron	ND	ug/L	100	48.8	1	04/20/23 08:04	04/24/23 15:11	7439-89-6	
Lithium	33.1	ug/L	20.0	6.2	1	04/20/23 08:04	04/24/23 15:11	7439-93-2	
Magnesium	33400	ug/L	1000	71.8	1	04/20/23 08:04	04/24/23 15:11	7439-95-4	
Manganese	ND	ug/L	10.0	2.5	1	04/20/23 08:04	04/24/23 15:11	7439-96-5	
Potassium	5310	ug/L	1000	281	1	04/20/23 08:04	04/24/23 15:11	7440-09-7	
Silica	16700	ug/L	450		1	04/20/23 08:04	04/24/23 15:11	7631-86-9	N2
Sodium	22500	ug/L	1000	214	1	04/20/23 08:04	04/24/23 15:11	7440-23-5	
<b>6010 MET ICP, Dissolved</b>									
Analytical Method: EPA 6010      Preparation Method: EPA 3010									
Pace Analytical Services - Indianapolis									
Manganese, Dissolved	ND	ug/L	10.0	2.5	1	04/20/23 08:13	04/21/23 04:12	7439-96-5	
Molybdenum, Dissolved	ND	ug/L	10.0	3.7	1	04/20/23 08:13	04/21/23 04:12	7439-98-7	
<b>6020 MET ICPMS</b>									
Analytical Method: EPA 6020      Preparation Method: EPA 200.2									
Pace Analytical Services - Indianapolis									
Antimony	ND	ug/L	1.0	0.036	1	04/24/23 22:00	04/25/23 20:34	7440-36-0	
Arsenic	13.8	ug/L	1.0	0.053	1	04/24/23 22:00	04/25/23 20:34	7440-38-2	
Barium	176	ug/L	1.0	0.051	1	04/24/23 22:00	04/25/23 20:34	7440-39-3	
Beryllium	ND	ug/L	0.20	0.028	1	04/24/23 22:00	04/25/23 20:34	7440-41-7	
Cadmium	ND	ug/L	2.0	0.0090	1	04/24/23 22:00	04/25/23 20:34	7440-43-9	
Chromium	ND	ug/L	10.0	0.13	1	04/24/23 22:00	04/25/23 20:34	7440-47-3	
Cobalt	ND	ug/L	1.0	0.032	1	04/24/23 22:00	04/25/23 20:34	7440-48-4	
Lead	ND	ug/L	10.0	0.034	1	04/24/23 22:00	04/25/23 20:34	7439-92-1	
Molybdenum	ND	ug/L	10.0	0.048	1	04/24/23 22:00	04/25/23 20:34	7439-98-7	
Selenium	25.5	ug/L	1.0	0.23	1	04/24/23 22:00	04/25/23 20:34	7782-49-2	
Thallium	ND	ug/L	1.0	0.033	1	04/24/23 22:00	04/25/23 20:34	7440-28-0	
<b>7470 Mercury</b>									
Analytical Method: EPA 7470      Preparation Method: EPA 7470									
Pace Analytical Services - Indianapolis									
Mercury	ND	ug/L	0.20	0.091	1	04/20/23 11:22	04/20/23 18:40	7439-97-6	
<b>2320B Alkalinity</b>									
Analytical Method: SM 2320B									
Pace Analytical Services - Indianapolis									
Alkalinity, Total as CaCO3	537	mg/L	10.0	10.0	1		04/19/23 22:54		
Alkalinity,Bicarbonate (CaCO3)	537	mg/L	10.0	10.0	1		04/19/23 22:54		

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**ANALYTICAL RESULTS**

Project: Eagle Valley April 2023 P1R1  
 Pace Project No.: 50342484

Sample: DUP-2      Lab ID: 50342484007      Collected: 04/18/23 08:00      Received: 04/19/23 10:00      Matrix: Water									
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>2320B Alkalinity</b>									
Analytical Method: SM 2320B Pace Analytical Services - Indianapolis									
Alkalinity, Carbonate (CaCO3)	ND	mg/L	10.0	10.0	1		04/19/23 22:54		
<b>2540C Total Dissolved Solids</b>									
Analytical Method: SM 2540C Pace Analytical Services - Indianapolis									
Total Dissolved Solids	<b>608</b>	mg/L	10.0	10.0	1		04/21/23 11:55		
<b>4500H+ pH, Electrometric</b>									
Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis									
pH at 25 Degrees C	<b>7.2</b>	Std. Units	0.10	0.10	1		04/26/23 14:22		H3
<b>4500S2D Sulfide Water</b>									
Analytical Method: SM 4500-S2-D Pace Analytical Services - Indianapolis									
Sulfide	ND	mg/L	0.10	0.025	1		04/21/23 12:54	18496-25-8	
<b>Iron, Ferrous</b>									
Analytical Method: HACH 8146 Pace Analytical Services - Indianapolis									
Iron, Ferrous	ND	mg/L	0.20	0.035	1		04/20/23 15:58	15438-31-0	H3,N2
<b>353.2 Nitrogen, NO2/NO3 unpres</b>									
Analytical Method: EPA 353.2 Pace Analytical Services - Indianapolis									
Nitrogen, Nitrate	<b>2.3</b>	mg/L	0.10	0.011	1		04/19/23 20:11	14797-55-8	
Nitrogen, Nitrite	ND	mg/L	0.10	0.0040	1		04/19/23 20:11	14797-65-0	
<b>365.1 Total Phosphorus</b>									
Analytical Method: EPA 365.1      Preparation Method: EPA 365.1 Pace Analytical Services - Indianapolis									
Phosphate as P04	<b>0.23</b>	mg/L	0.15	0.15	1	04/26/23 06:00	04/26/23 12:20		
<b>5310C TOC</b>									
Analytical Method: SM 5310C Pace Analytical Services - Indianapolis									
Total Organic Carbon	<b>1.5</b>	mg/L	1.0	0.24	1		04/21/23 03:18	7440-44-0	
<b>5310C Dissolved Organic Carbon</b>									
Analytical Method: SM 5310C Pace Analytical Services - Indianapolis									
Dissolved Organic Carbon	<b>1.9</b>	mg/L	1.0	0.24	1		04/25/23 03:51		

**REPORT OF LABORATORY ANALYSIS**

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**QUALITY CONTROL DATA**

Project: Eagle Valley April 2023 P1R1  
 Pace Project No.: 50342484

QC Batch: 728771 Analysis Method: EPA 9056  
 QC Batch Method: EPA 9056 Analysis Description: 9056 IC Anions  
 Laboratory: Pace Analytical Services - Indianapolis  
 Associated Lab Samples: 50342484001, 50342484002, 50342484003, 50342484004, 50342484005, 50342484006, 50342484007

METHOD BLANK: 3344240 Matrix: Water  
 Associated Lab Samples: 50342484001, 50342484002, 50342484003, 50342484004, 50342484005, 50342484006, 50342484007

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chloride	mg/L	ND	0.25	0.067	04/22/23 06:06	
Fluoride	mg/L	ND	0.10	0.017	04/22/23 06:06	
Sulfate	mg/L	ND	0.25	0.085	04/22/23 06:06	

LABORATORY CONTROL SAMPLE: 3344241

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	2.5	2.3	90	80-120	
Fluoride	mg/L	1	0.94	94	80-120	
Sulfate	mg/L	5	4.6	92	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3344242 3344243

Parameter	Units	MS		MSD		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		50342484001 Result	Spike Conc.	Spike Conc.	Result								
Chloride	mg/L	17.9	2.5	2.5	20.5	20.5	105	104	80-120	0	15		
Fluoride	mg/L	0.16	1	1	1.2	1.2	101	102	80-120	1	15		
Sulfate	mg/L	38.8	5	5	43.7	43.6	97	95	80-120	0	15		

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**QUALITY CONTROL DATA**

Project: Eagle Valley April 2023 P1R1

Pace Project No.: 50342484

QC Batch: 728881 Analysis Method: EPA 7470  
 QC Batch Method: EPA 7470 Analysis Description: 7470 Mercury  
 Laboratory: Pace Analytical Services - Indianapolis  
 Associated Lab Samples: 50342484001, 50342484002, 50342484003, 50342484004, 50342484005, 50342484006, 50342484007

METHOD BLANK: 3344743 Matrix: Water  
 Associated Lab Samples: 50342484001, 50342484002, 50342484003, 50342484004, 50342484005, 50342484006, 50342484007

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Mercury	ug/L	ND	0.20	0.091	04/20/23 18:01	

LABORATORY CONTROL SAMPLE: 3344744

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury	ug/L	5	5.2	104	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3344745 3344746

Parameter	Units	50342484007 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Mercury	ug/L	ND	5	5	5.2	5.2	104	104	75-125	1	20	

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**QUALITY CONTROL DATA**

Project: Eagle Valley April 2023 P1R1

Pace Project No.: 50342484

QC Batch:	728853	Analysis Method:	EPA 6010
QC Batch Method:	EPA 3010	Analysis Description:	6010 MET
		Laboratory:	Pace Analytical Services - Indianapolis

Associated Lab Samples: 50342484001, 50342484002, 50342484003, 50342484004, 50342484005, 50342484006, 50342484007

METHOD BLANK:	3344528	Matrix:	Water
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Associated Lab Samples: 50342484001, 50342484002, 50342484003, 50342484004, 50342484005, 50342484006, 50342484007

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Aluminum	ug/L	ND	200	55.4	04/24/23 14:27	
Boron	ug/L	ND	100	37.6	04/24/23 14:27	
Calcium	ug/L	ND	1000	163	04/24/23 14:27	
Iron	ug/L	ND	100	48.8	04/24/23 14:27	
Lithium	ug/L	ND	20.0	6.2	04/24/23 14:27	
Magnesium	ug/L	ND	1000	71.8	04/24/23 14:27	
Manganese	ug/L	ND	10.0	2.5	04/24/23 14:27	
Potassium	ug/L	ND	1000	281	04/24/23 14:27	
Silica	ug/L	ND	450		04/24/23 14:27	N2
Sodium	ug/L	ND	1000	214	04/24/23 14:27	

LABORATORY CONTROL SAMPLE: 3344529

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Aluminum	ug/L	10000	9520	95	80-120	
Boron	ug/L	1000	917	92	80-120	
Calcium	ug/L	10000	9690	97	80-120	
Iron	ug/L	10000	9730	97	80-120	
Lithium	ug/L	1000	927	93	80-120	
Magnesium	ug/L	10000	9370	94	80-120	
Manganese	ug/L	1000	906	91	80-120	
Potassium	ug/L	10000	9330	93	80-120	
Silica	ug/L	10700	10200	95	80-120	N2
Sodium	ug/L	10000	9260	93	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3344530 3344531

Parameter	Units	MS		MSD		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		Spike Conc.	Result	Spike Conc.	Result						
Aluminum	ug/L	91300	10000	10000	106000	103000	143	121	75-125	2	20 P6
Boron	ug/L	196	1000	1000	1150	1160	96	96	75-125	0	20
Calcium	ug/L	743000	10000	10000	744000	714000	12	-287	75-125	4	20 E,P6
Iron	ug/L	188000	10000	10000	184000	175000	-42	-131	75-125	5	20 P6
Lithium	ug/L	200	1000	1000	1280	1250	108	105	75-125	3	20
Magnesium	ug/L	304000	10000	10000	307000	301000	36	-28	75-125	2	20 P6
Manganese	ug/L	3890	1000	1000	4670	4530	78	64	75-125	3	20 P6
Potassium	ug/L	23700	10000	10000	36200	34900	125	112	75-125	4	20

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### QUALITY CONTROL DATA

Project: Eagle Valley April 2023 P1R1

Pace Project No.: 50342484

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3344530 3344531													
Parameter	Units	50342247001 Result	MS	MSD	MS	MSD	MS	MSD	% Rec	Limits	RPD	Max RPD	Qual
			Spike Conc.	Spike Conc.	Result	Result	% Rec	% Rec					
Silica	ug/L	130000	10700	10700	238000	250000	1010	1120	75-125	5	20	N2	
Sodium	ug/L	28400	10000	10000	39100	37900	107	95	75-125	3	20		

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**QUALITY CONTROL DATA**

Project: Eagle Valley April 2023 P1R1

Pace Project No.: 50342484

QC Batch: 728877 Analysis Method: EPA 6010  
 QC Batch Method: EPA 3010 Analysis Description: 6010 MET Dissolved  
 Laboratory: Pace Analytical Services - Indianapolis  
 Associated Lab Samples: 50342484001, 50342484002, 50342484003, 50342484004, 50342484005, 50342484006, 50342484007

METHOD BLANK: 3344712 Matrix: Water  
 Associated Lab Samples: 50342484001, 50342484002, 50342484003, 50342484004, 50342484005, 50342484006, 50342484007

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Manganese, Dissolved	ug/L	ND	10.0	2.5	04/21/23 03:26	
Molybdenum, Dissolved	ug/L	ND	10.0	3.7	04/21/23 03:26	

LABORATORY CONTROL SAMPLE: 3344713

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Manganese, Dissolved	ug/L	1000	887	89	80-120	
Molybdenum, Dissolved	ug/L	1000	926	93	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3344714 3344715

Parameter	Units	50341927002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Manganese, Dissolved	ug/L	4700	1000	1000	5370	5400	67	70	75-125	1	20	P6
Molybdenum, Dissolved	ug/L	ND	1000	1000	972	966	96	96	75-125	1	20	

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**QUALITY CONTROL DATA**

Project: Eagle Valley April 2023 P1R1

Pace Project No.: 50342484

QC Batch:	729423	Analysis Method:	EPA 6020
QC Batch Method:	EPA 200.2	Analysis Description:	6020 MET
		Laboratory:	Pace Analytical Services - Indianapolis

Associated Lab Samples: 50342484001, 50342484002, 50342484003, 50342484004, 50342484005, 50342484006, 50342484007

METHOD BLANK: 3347783 Matrix: Water  
 Associated Lab Samples: 50342484001, 50342484002, 50342484003, 50342484004, 50342484005, 50342484006, 50342484007

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Antimony	ug/L	ND	1.0	0.036	04/25/23 19:44	
Arsenic	ug/L	ND	1.0	0.053	04/25/23 19:44	
Barium	ug/L	ND	1.0	0.051	04/25/23 19:44	
Beryllium	ug/L	ND	0.20	0.028	04/25/23 19:44	
Cadmium	ug/L	ND	2.0	0.0090	04/25/23 19:44	
Chromium	ug/L	ND	10.0	0.13	04/25/23 19:44	
Cobalt	ug/L	ND	1.0	0.032	04/25/23 19:44	
Lead	ug/L	ND	10.0	0.034	04/25/23 19:44	
Molybdenum	ug/L	ND	10.0	0.048	04/25/23 19:44	
Selenium	ug/L	ND	1.0	0.23	04/25/23 19:44	
Thallium	ug/L	ND	1.0	0.033	04/25/23 19:44	

LABORATORY CONTROL SAMPLE: 3347784

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Antimony	ug/L	40	41.1	103	80-120	
Arsenic	ug/L	40	37.6	94	80-120	
Barium	ug/L	40	38.7	97	80-120	
Beryllium	ug/L	40	38.9	97	80-120	
Cadmium	ug/L	40	38.5	96	80-120	
Chromium	ug/L	40	40.2	100	80-120	
Cobalt	ug/L	40	40.8	102	80-120	
Lead	ug/L	40	40.1	100	80-120	
Molybdenum	ug/L	40	42.1	105	80-120	
Selenium	ug/L	40	40.0	100	80-120	
Thallium	ug/L	40	40.6	101	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3347785 3347786

Parameter	Units	MS		MSD		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		50342601002	Spike Conc.	Spike Conc.	Result								
Antimony	ug/L	ND	40	40	42.4	41.8	106	105	75-125	1	20		
Arsenic	ug/L	1.7	40	40	39.5	39.4	94	94	75-125	0	20		
Barium	ug/L	59.9	40	40	103	103	107	107	75-125	0	20		
Beryllium	ug/L	ND	40	40	40.8	40.6	102	101	75-125	1	20		
Cadmium	ug/L	ND	40	40	38.3	38.2	96	95	75-125	0	20		
Chromium	ug/L	ND	40	40	40.0	39.6	99	98	75-125	1	20		

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**REPORT OF LABORATORY ANALYSIS**

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**QUALITY CONTROL DATA**

Project: Eagle Valley April 2023 P1R1

Pace Project No.: 50342484

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3347785 3347786													
Parameter	Units	50342601002 Result	MS	MSD	MS	MSD	MS	MSD	% Rec	Limits	RPD	Max RPD	Qual
			Spike Conc.	Spike Conc.	Result	Result	% Rec	% Rec					
Cobalt	ug/L	ND	40	40	39.1	38.3	98	96	75-125	2	20		
Lead	ug/L	ND	40	40	41.1	40.6	103	102	75-125	1	20		
Molybdenum	ug/L	96.6	40	40	137	137	102	102	75-125	0	20		
Selenium	ug/L	ND	40	40	39.0	39.6	98	99	75-125	1	20		
Thallium	ug/L	ND	40	40	42.2	41.8	106	104	75-125	1	20		

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3347787 3347788													
Parameter	Units	50342799003 Result	MS	MSD	MS	MSD	MS	MSD	% Rec	Limits	RPD	Max RPD	Qual
			Spike Conc.	Spike Conc.	Result	Result	% Rec	% Rec					
Antimony	ug/L	ND	40	40	42.5	42.4	106	105	75-125	0	20		
Arsenic	ug/L	2.3	40	40	39.6	39.2	93	92	75-125	1	20		
Barium	ug/L	44.2	40	40	85.2	84.8	102	101	75-125	1	20		
Beryllium	ug/L	ND	40	40	39.4	39.2	99	98	75-125	1	20		
Cadmium	ug/L	ND	40	40	38.2	38.2	95	95	75-125	0	20		
Chromium	ug/L	ND	40	40	39.9	39.8	98	98	75-125	0	20		
Cobalt	ug/L	ND	40	40	38.1	37.5	95	93	75-125	2	20		
Lead	ug/L	ND	40	40	41.1	40.9	102	102	75-125	0	20		
Molybdenum	ug/L	ND	40	40	43.7	43.4	106	105	75-125	1	20		
Selenium	ug/L	ND	40	40	39.0	38.7	97	97	75-125	1	20		
Thallium	ug/L	ND	40	40	42.2	41.8	106	105	75-125	1	20		

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**QUALITY CONTROL DATA**

Project: Eagle Valley April 2023 P1R1

Pace Project No.: 50342484

QC Batch:	728878	Analysis Method:	SM 2320B
QC Batch Method:	SM 2320B	Analysis Description:	2320B Alkalinity
		Laboratory:	Pace Analytical Services - Indianapolis

Associated Lab Samples: 50342484001, 50342484002, 50342484003, 50342484004, 50342484005, 50342484006, 50342484007

METHOD BLANK: 3344718 Matrix: Water  
 Associated Lab Samples: 50342484001, 50342484002, 50342484003, 50342484004, 50342484005, 50342484006, 50342484007

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Alkalinity, Total as CaCO3	mg/L	ND	10.0	10.0	04/19/23 22:54	
Alkalinity,Bicarbonate (CaCO3)	mg/L	ND	10.0	10.0	04/19/23 22:54	
Alkalinity,Carbonate (CaCO3)	mg/L	ND	10.0	10.0	04/19/23 22:54	

LABORATORY CONTROL SAMPLE: 3344719

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Alkalinity, Total as CaCO3	mg/L	50	49.3	99	90-110	

SAMPLE DUPLICATE: 3344720

Parameter	Units	50342484001 Result	Dup Result	RPD	Max RPD	Qualifiers
Alkalinity, Total as CaCO3	mg/L	540	548	2	20	
Alkalinity,Bicarbonate (CaCO3)	mg/L	540	548	2	20	
Alkalinity,Carbonate (CaCO3)	mg/L	ND	ND		20	

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### QUALITY CONTROL DATA

Project: Eagle Valley April 2023 P1R1

Pace Project No.: 50342484

QC Batch:	729210	Analysis Method:	SM 2540C
QC Batch Method:	SM 2540C	Analysis Description:	2540C Total Dissolved Solids
		Laboratory:	Pace Analytical Services - Indianapolis

Associated Lab Samples: 50342484001, 50342484002, 50342484003, 50342484004, 50342484005, 50342484006, 50342484007

METHOD BLANK: 3346456 Matrix: Water

Associated Lab Samples: 50342484001, 50342484002, 50342484003, 50342484004, 50342484005, 50342484006, 50342484007

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	ND	10.0	10.0	04/21/23 11:51	

LABORATORY CONTROL SAMPLE: 3346457

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	300	281	94	80-120	

SAMPLE DUPLICATE: 3346458

Parameter	Units	50342695003 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	413	418	1	10	

SAMPLE DUPLICATE: 3346459

Parameter	Units	50342695006 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	1600	1590	0	10	

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### QUALITY CONTROL DATA

Project: Eagle Valley April 2023 P1R1

Pace Project No.: 50342484

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QC Batch:	730029	Analysis Method:	SM 4500-H+B
QC Batch Method:	SM 4500-H+B	Analysis Description:	4500H+B pH
		Laboratory:	Pace Analytical Services - Indianapolis

Associated Lab Samples: 50342484001, 50342484002, 50342484003, 50342484004, 50342484005, 50342484006, 50342484007

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SAMPLE DUPLICATE: 3350285

Parameter	Units	50342484001 Result	Dup Result	RPD	Max RPD	Qualifiers
pH at 25 Degrees C	Std. Units	7.3	7.3	1	2	H3

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SAMPLE DUPLICATE: 3350286

Parameter	Units	50342484007 Result	Dup Result	RPD	Max RPD	Qualifiers
pH at 25 Degrees C	Std. Units	7.2	7.2	0	2	H3

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**QUALITY CONTROL DATA**

Project: Eagle Valley April 2023 P1R1

Pace Project No.: 50342484

QC Batch:	729176	Analysis Method:	SM 4500-S2-D
QC Batch Method:	SM 4500-S2-D	Analysis Description:	4500S2D Sulfide Water
		Laboratory:	Pace Analytical Services - Indianapolis
Associated Lab Samples:	50342484001, 50342484002, 50342484003, 50342484004, 50342484005, 50342484006, 50342484007		

METHOD BLANK:	3346293	Matrix:	Water
Associated Lab Samples:	50342484001, 50342484002, 50342484003, 50342484004, 50342484005, 50342484006, 50342484007		

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Sulfide	mg/L	ND	0.10	0.025	04/21/23 12:54	

LABORATORY CONTROL SAMPLE: 3346294						
Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Sulfide	mg/L	0.5	0.51	101	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3346295												3346296	
Parameter	Units	50342354003 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual	
Sulfide	mg/L	ND	0.5	0.5	0.50	0.50	101	99	90-110	2	20		

MATRIX SPIKE SAMPLE: 3346297											
Parameter	Units	50342484003 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers				
Sulfide	mg/L	ND	0.5	0.56	112	90-110	M0				

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**QUALITY CONTROL DATA**

Project: Eagle Valley April 2023 P1R1  
 Pace Project No.: 50342484

QC Batch: 729055 Analysis Method: HACH 8146  
 QC Batch Method: HACH 8146 Analysis Description: Iron, Ferrous  
 Laboratory: Pace Analytical Services - Indianapolis  
 Associated Lab Samples: 50342484001, 50342484002, 50342484003, 50342484004, 50342484005, 50342484006, 50342484007

METHOD BLANK: 3345416 Matrix: Water  
 Associated Lab Samples: 50342484001, 50342484002, 50342484003, 50342484004, 50342484005, 50342484006, 50342484007

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Iron, Ferrous	mg/L	ND	0.20	0.035	04/20/23 15:42	H3,N2

LABORATORY CONTROL SAMPLE: 3345417

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Iron, Ferrous	mg/L	1	1.0	101	90-110	H3,N2

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3345418 3345419

Parameter	Units	50342354003 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Iron, Ferrous	mg/L	ND	1	1	1.1	1.1	107	107	90-110	0	20	H3,N2

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3345420 3345421

Parameter	Units	50342601002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Iron, Ferrous	mg/L	0.46	1	1	1.4	1.5	97	101	90-110	3	20	H3,N2

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**QUALITY CONTROL DATA**

Project: Eagle Valley April 2023 P1R1

Pace Project No.: 50342484

QC Batch:	728861	Analysis Method:	EPA 353.2
QC Batch Method:	EPA 353.2	Analysis Description:	353.2 Nitrate + Nitrite, Unpres.
		Laboratory:	Pace Analytical Services - Indianapolis
Associated Lab Samples:	50342484001, 50342484002, 50342484003, 50342484004, 50342484005, 50342484006, 50342484007		

METHOD BLANK: 3344577 Matrix: Water  
 Associated Lab Samples: 50342484001, 50342484002, 50342484003, 50342484004, 50342484005, 50342484006, 50342484007

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Nitrogen, Nitrate	mg/L	ND	0.10	0.011	04/19/23 19:17	
Nitrogen, Nitrite	mg/L	ND	0.10	0.0040	04/19/23 19:17	

LABORATORY CONTROL SAMPLE: 3344578

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Nitrogen, Nitrate	mg/L	1	0.98	98	90-110	
Nitrogen, Nitrite	mg/L	1	1.0	103	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3344579 3344580

Parameter	Units	50342485001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Nitrogen, Nitrate	mg/L	ND	1	1	.077J	.065J	8	6	90-110		20	
Nitrogen, Nitrite	mg/L	ND	1	1	0.67	0.67	63	64	90-110	1	20 M3	

MATRIX SPIKE SAMPLE: 3344581

Parameter	Units	50342484001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Nitrogen, Nitrate	mg/L		2.3	1	3.2	94	90-110
Nitrogen, Nitrite	mg/L		ND	1	1.0	103	90-110

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**QUALITY CONTROL DATA**

Project: Eagle Valley April 2023 P1R1

Pace Project No.: 50342484

QC Batch:	729178	Analysis Method:	EPA 365.1
QC Batch Method:	EPA 365.1	Analysis Description:	365.1 Total Phosphorus
		Laboratory:	Pace Analytical Services - Indianapolis
Associated Lab Samples:	50342484001, 50342484002, 50342484003, 50342484004, 50342484005, 50342484006		

METHOD BLANK:	3346304	Matrix:	Water
Associated Lab Samples:	50342484001, 50342484002, 50342484003, 50342484004, 50342484005, 50342484006		

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Phosphate as P04	mg/L	ND	0.15	0.15	04/24/23 17:04	

LABORATORY CONTROL SAMPLE: 3346305						
Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Phosphate as P04	mg/L		1.5			

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3346306											3346307		
Parameter	Units	50342484001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual	
Phosphate as P04	mg/L	0.27			1.7	1.7				0			

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**QUALITY CONTROL DATA**

Project: Eagle Valley April 2023 P1R1

Pace Project No.: 50342484

QC Batch:	729866	Analysis Method:	EPA 365.1
QC Batch Method:	EPA 365.1	Analysis Description:	365.1 Total Phosphorus
		Laboratory:	Pace Analytical Services - Indianapolis

Associated Lab Samples: 50342484007

METHOD BLANK: 3349590 Matrix: Water

Associated Lab Samples: 50342484007

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Phosphate as P04	mg/L	ND	0.15	0.15	04/26/23 12:04	

LABORATORY CONTROL SAMPLE: 3349591

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Phosphate as P04	mg/L		1.4			

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3349592 3349593

Parameter	Units	50342177007 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Phosphate as P04	mg/L	ND			1.5	1.5				1		

MATRIX SPIKE SAMPLE: 3349594

Parameter	Units	50342209001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Phosphate as P04	mg/L	ND		1.4			

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**QUALITY CONTROL DATA**

Project: Eagle Valley April 2023 P1R1

Pace Project No.: 50342484

QC Batch: 728990 Analysis Method: SM 5310C  
 QC Batch Method: SM 5310C Analysis Description: 5310C Total Organic Carbon  
 Laboratory: Pace Analytical Services - Indianapolis  
 Associated Lab Samples: 50342484001, 50342484002, 50342484003, 50342484004, 50342484005, 50342484006, 50342484007

METHOD BLANK: 3345133 Matrix: Water  
 Associated Lab Samples: 50342484001, 50342484002, 50342484003, 50342484004, 50342484005, 50342484006, 50342484007

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Organic Carbon	mg/L	ND	1.0	0.24	04/21/23 00:39	

LABORATORY CONTROL SAMPLE: 3345134

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Organic Carbon	mg/L	10	10.4	104	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3345135 3345136

Parameter	Units	50342484001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Total Organic Carbon	mg/L	1.5	10	10	11.5	11.2	100	97	80-120	3	20	

MATRIX SPIKE SAMPLE: 3345137

Parameter	Units	50342484002 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Total Organic Carbon	mg/L	1.5	10	11.7	102	80-120	

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**QUALITY CONTROL DATA**

Project: Eagle Valley April 2023 P1R1

Pace Project No.: 50342484

QC Batch:	729001	Analysis Method:	SM 5310C
QC Batch Method:	SM 5310C	Analysis Description:	5310C Dissolved Organic Carbon
		Laboratory:	Pace Analytical Services - Indianapolis
Associated Lab Samples:	50342484001, 50342484002, 50342484003, 50342484004, 50342484005, 50342484006, 50342484007		

METHOD BLANK:	3345177	Matrix:	Water
Associated Lab Samples:	50342484001, 50342484002, 50342484003, 50342484004, 50342484005, 50342484006, 50342484007		

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Dissolved Organic Carbon	mg/L	ND	1.0	0.24	04/25/23 00:50	

LABORATORY CONTROL SAMPLE: 3345178						
Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Dissolved Organic Carbon	mg/L	10	10.4	104	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3345179												3345180	
Parameter	Units	50342354003 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual	
Dissolved Organic Carbon	mg/L	1.6	10	10	11.6	11.3	100	97	80-120	2	20		

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3345181												3345182	
Parameter	Units	50342601002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual	
Dissolved Organic Carbon	mg/L	ND	10	10	11.4	11.4	101	101	80-120	0	20		

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Eagle Valley April 2023 P1R1

Pace Project No.: 50342484

**Sample: MW-2S**      **Lab ID: 50342484001**      Collected: 04/18/23 12:25      Received: 04/19/23 10:00      Matrix: Water  
 PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	<b>0.000 ± 0.384 (0.812)</b> <b>C:NA T:92%</b>	pCi/L	05/08/23 16:34	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	<b>0.0849 ± 0.277 (0.627)</b> <b>C:79% T:86%</b>	pCi/L	05/03/23 11:23	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	<b>0.0849 ± 0.661 (1.44)</b>	pCi/L	05/11/23 14:24	7440-14-4	

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Eagle Valley April 2023 P1R1

Pace Project No.: 50342484

**Sample: MW-2D**      **Lab ID: 50342484002**      Collected: 04/18/23 15:23      Received: 04/19/23 10:00      Matrix: Water  
 PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Radium-226	EPA 903.1	<b>0.123 ± 0.452 (0.868)</b> <b>C:NA T:89%</b>	pCi/L	05/08/23 16:34	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 904.0	<b>0.663 ± 0.337 (0.573)</b> <b>C:81% T:87%</b>	pCi/L	05/03/23 11:23	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	<b>0.786 ± 0.789 (1.44)</b>	pCi/L	05/11/23 14:24	7440-14-4	

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**ANALYTICAL RESULTS - RADIOCHEMISTRY**

Project: Eagle Valley April 2023 P1R1

Pace Project No.: 50342484

**Sample: MW-3S**      **Lab ID: 50342484003**      Collected: 04/18/23 10:55      Received: 04/19/23 10:00      Matrix: Water  
 PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	<b>-0.116 ± 0.394 (0.870)</b> <b>C:NA T:99%</b>	pCi/L	05/08/23 16:34	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	<b>-0.276 ± 0.275 (0.708)</b> <b>C:79% T:85%</b>	pCi/L	05/03/23 11:23	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	<b>0.000 ± 0.669 (1.58)</b>	pCi/L	05/11/23 14:24	7440-14-4	

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Eagle Valley April 2023 P1R1

Pace Project No.: 50342484

**Sample: MW-13S**      **Lab ID: 50342484004**      Collected: 04/18/23 13:45      Received: 04/19/23 10:00      Matrix: Water  
 PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Radium-226	EPA 903.1	<b>0.248 ± 0.298 (0.455)</b> <b>C:NA T:90%</b>	pCi/L	05/08/23 16:34	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 904.0	<b>0.193 ± 0.281 (0.604)</b> <b>C:74% T:94%</b>	pCi/L	05/03/23 11:23	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	<b>0.441 ± 0.579 (1.06)</b>	pCi/L	05/11/23 14:24	7440-14-4	

### REPORT OF LABORATORY ANALYSIS

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Eagle Valley April 2023 P1R1

Pace Project No.: 50342484

**Sample: MW-131**      **Lab ID: 50342484005**      Collected: 04/18/23 12:30      Received: 04/19/23 10:00      Matrix: Water  
 PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	<b>-0.294 ± 0.501 (1.17)</b> <b>C:NA T:90%</b>	pCi/L	05/08/23 16:34	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	<b>-0.0278 ± 0.303 (0.714)</b> <b>C:80% T:85%</b>	pCi/L	05/03/23 11:23	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	<b>0.000 ± 0.804 (1.88)</b>	pCi/L	05/11/23 14:24	7440-14-4	

### REPORT OF LABORATORY ANALYSIS

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Eagle Valley April 2023 P1R1

Pace Project No.: 50342484

**Sample: DUP-1**      **Lab ID: 50342484006**      Collected: 04/18/23 08:00      Received: 04/19/23 10:00      Matrix: Water  
 PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Radium-226	EPA 903.1	<b>0.187 ± 0.441 (0.816)</b> <b>C:NA T:89%</b>	pCi/L	05/08/23 16:34	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 904.0	<b>0.589 ± 0.376 (0.708)</b> <b>C:78% T:86%</b>	pCi/L	05/03/23 11:24	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	<b>0.776 ± 0.817 (1.52)</b>	pCi/L	05/11/23 14:24	7440-14-4	

### REPORT OF LABORATORY ANALYSIS

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**ANALYTICAL RESULTS - RADIOCHEMISTRY**

Project: Eagle Valley April 2023 P1R1

Pace Project No.: 50342484

**Sample: DUP-2**      **Lab ID: 50342484007**      Collected: 04/18/23 08:00      Received: 04/19/23 10:00      Matrix: Water  
 PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	<b>0.0648 ± 0.381 (0.778)</b> <b>C:NA T:100%</b>	pCi/L	05/08/23 16:50	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	<b>0.598 ± 0.331 (0.579)</b> <b>C:80% T:86%</b>	pCi/L	05/03/23 11:24	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	<b>0.663 ± 0.712 (1.36)</b>	pCi/L	05/11/23 14:24	7440-14-4	

**REPORT OF LABORATORY ANALYSIS**

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### QUALITY CONTROL - RADIOCHEMISTRY

Project: Eagle Valley April 2023 P1R1

Pace Project No.: 50342484

QC Batch:	583198	Analysis Method:	EPA 903.1
QC Batch Method:	EPA 903.1	Analysis Description:	903.1 Radium-226
		Laboratory:	Pace Analytical Services - Greensburg

Associated Lab Samples: 50342484001, 50342484002, 50342484003, 50342484004, 50342484005, 50342484006, 50342484007

METHOD BLANK:	2832270	Matrix:	Water
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Associated Lab Samples: 50342484001, 50342484002, 50342484003, 50342484004, 50342484005, 50342484006, 50342484007

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.258 ± 0.208 (0.116) C:NA T:97%	pCi/L	05/08/23 16:21	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

### REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL - RADIOCHEMISTRY

Project: Eagle Valley April 2023 P1R1

Pace Project No.: 50342484

QC Batch:	583199	Analysis Method:	EPA 904.0
QC Batch Method:	EPA 904.0	Analysis Description:	904.0 Radium 228
		Laboratory:	Pace Analytical Services - Greensburg
Associated Lab Samples:	50342484001, 50342484002, 50342484003, 50342484004, 50342484005, 50342484006, 50342484007		

METHOD BLANK:	2832272	Matrix:	Water
Associated Lab Samples:	50342484001, 50342484002, 50342484003, 50342484004, 50342484005, 50342484006, 50342484007		

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.677 ± 0.396 (0.724) C:80% T:79%	pCi/L	05/03/23 11:22	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

### REPORT OF LABORATORY ANALYSIS

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## QUALIFIERS

Project: Eagle Valley April 2023 P1R1

Pace Project No.: 50342484

### DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Reported results are not rounded until the final step prior to reporting. Therefore, calculated parameters that are typically reported as "Total" may vary slightly from the sum of the reported component parameters.

Act - Activity

Unc - Uncertainty: SDWA = 1.96 sigma count uncertainty, all other matrices = Expanded Uncertainty (95% confidence interval).

Gamma Spec = Expanded Uncertainty (95.4% Confidence Interval)

(MDC) - Minimum Detectable Concentration

Trac - Tracer Recovery (%)

Carr - Carrier Recovery (%)

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

### ANALYTE QUALIFIERS

E Analyte concentration exceeded the calibration range. The reported result is estimated.

H3 Sample was received or analysis requested beyond the recognized method holding time.

M0 Matrix spike recovery and/or matrix spike duplicate recovery was outside laboratory control limits.

M3 Matrix spike recovery was outside laboratory control limits due to matrix interferences.

N2 The lab does not hold NELAC/TNI accreditation for this parameter but other accreditations/certifications may apply. A complete list of accreditations/certifications is available upon request.

P6 Matrix spike recovery was outside laboratory control limits due to a parent sample concentration notably higher than the spike level.

## REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Eagle Valley April 2023 P1R1

Pace Project No.: 50342484

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
50342484001	MW-2S	EPA 9056	728771		
50342484002	MW-2D	EPA 9056	728771		
50342484003	MW-3S	EPA 9056	728771		
50342484004	MW-13S	EPA 9056	728771		
50342484005	MW-13I	EPA 9056	728771		
50342484006	DUP-1	EPA 9056	728771		
50342484007	DUP-2	EPA 9056	728771		
50342484001	MW-2S	EPA 3010	728853	EPA 6010	729497
50342484002	MW-2D	EPA 3010	728853	EPA 6010	729497
50342484003	MW-3S	EPA 3010	728853	EPA 6010	729497
50342484004	MW-13S	EPA 3010	728853	EPA 6010	729497
50342484005	MW-13I	EPA 3010	728853	EPA 6010	729497
50342484006	DUP-1	EPA 3010	728853	EPA 6010	729497
50342484007	DUP-2	EPA 3010	728853	EPA 6010	729497
50342484001	MW-2S	EPA 3010	728877	EPA 6010	729126
50342484002	MW-2D	EPA 3010	728877	EPA 6010	729126
50342484003	MW-3S	EPA 3010	728877	EPA 6010	729126
50342484004	MW-13S	EPA 3010	728877	EPA 6010	729126
50342484005	MW-13I	EPA 3010	728877	EPA 6010	729126
50342484006	DUP-1	EPA 3010	728877	EPA 6010	729126
50342484007	DUP-2	EPA 3010	728877	EPA 6010	729126
50342484001	MW-2S	EPA 200.2	729423	EPA 6020	729682
50342484002	MW-2D	EPA 200.2	729423	EPA 6020	729682
50342484003	MW-3S	EPA 200.2	729423	EPA 6020	729682
50342484004	MW-13S	EPA 200.2	729423	EPA 6020	729682
50342484005	MW-13I	EPA 200.2	729423	EPA 6020	729682
50342484006	DUP-1	EPA 200.2	729423	EPA 6020	729682
50342484007	DUP-2	EPA 200.2	729423	EPA 6020	729682
50342484001	MW-2S	EPA 7470	728881	EPA 7470	729078
50342484002	MW-2D	EPA 7470	728881	EPA 7470	729078
50342484003	MW-3S	EPA 7470	728881	EPA 7470	729078
50342484004	MW-13S	EPA 7470	728881	EPA 7470	729078
50342484005	MW-13I	EPA 7470	728881	EPA 7470	729078
50342484006	DUP-1	EPA 7470	728881	EPA 7470	729078
50342484007	DUP-2	EPA 7470	728881	EPA 7470	729078
50342484001	MW-2S	EPA 903.1	583198		
50342484002	MW-2D	EPA 903.1	583198		
50342484003	MW-3S	EPA 903.1	583198		
50342484004	MW-13S	EPA 903.1	583198		
50342484005	MW-13I	EPA 903.1	583198		
50342484006	DUP-1	EPA 903.1	583198		
50342484007	DUP-2	EPA 903.1	583198		
50342484001	MW-2S	EPA 904.0	583199		
50342484002	MW-2D	EPA 904.0	583199		
50342484003	MW-3S	EPA 904.0	583199		
50342484004	MW-13S	EPA 904.0	583199		

REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Eagle Valley April 2023 P1R1

Pace Project No.: 50342484

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
50342484005	MW-13I	EPA 904.0	583199		
50342484006	DUP-1	EPA 904.0	583199		
50342484007	DUP-2	EPA 904.0	583199		
50342484001	MW-2S	Total Radium Calculation	587595		
50342484002	MW-2D	Total Radium Calculation	587595		
50342484003	MW-3S	Total Radium Calculation	587595		
50342484004	MW-13S	Total Radium Calculation	587595		
50342484005	MW-13I	Total Radium Calculation	587595		
50342484006	DUP-1	Total Radium Calculation	587595		
50342484007	DUP-2	Total Radium Calculation	587595		
50342484001	MW-2S	SM 2320B	728878		
50342484002	MW-2D	SM 2320B	728878		
50342484003	MW-3S	SM 2320B	728878		
50342484004	MW-13S	SM 2320B	728878		
50342484005	MW-13I	SM 2320B	728878		
50342484006	DUP-1	SM 2320B	728878		
50342484007	DUP-2	SM 2320B	728878		
50342484001	MW-2S	SM 2540C	729210		
50342484002	MW-2D	SM 2540C	729210		
50342484003	MW-3S	SM 2540C	729210		
50342484004	MW-13S	SM 2540C	729210		
50342484005	MW-13I	SM 2540C	729210		
50342484006	DUP-1	SM 2540C	729210		
50342484007	DUP-2	SM 2540C	729210		
50342484001	MW-2S	SM 4500-H+B	730029		
50342484002	MW-2D	SM 4500-H+B	730029		
50342484003	MW-3S	SM 4500-H+B	730029		
50342484004	MW-13S	SM 4500-H+B	730029		
50342484005	MW-13I	SM 4500-H+B	730029		
50342484006	DUP-1	SM 4500-H+B	730029		
50342484007	DUP-2	SM 4500-H+B	730029		
50342484001	MW-2S	SM 4500-S2-D	729176		
50342484002	MW-2D	SM 4500-S2-D	729176		
50342484003	MW-3S	SM 4500-S2-D	729176		
50342484004	MW-13S	SM 4500-S2-D	729176		
50342484005	MW-13I	SM 4500-S2-D	729176		
50342484006	DUP-1	SM 4500-S2-D	729176		
50342484007	DUP-2	SM 4500-S2-D	729176		
50342484001	MW-2S	HACH 8146	729055		
50342484002	MW-2D	HACH 8146	729055		
50342484003	MW-3S	HACH 8146	729055		
50342484004	MW-13S	HACH 8146	729055		
50342484005	MW-13I	HACH 8146	729055		
50342484006	DUP-1	HACH 8146	729055		
50342484007	DUP-2	HACH 8146	729055		

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### QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Eagle Valley April 2023 P1R1

Pace Project No.: 50342484

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
50342484001	MW-2S	EPA 353.2	728861		
50342484002	MW-2D	EPA 353.2	728861		
50342484003	MW-3S	EPA 353.2	728861		
50342484004	MW-13S	EPA 353.2	728861		
50342484005	MW-13I	EPA 353.2	728861		
50342484006	DUP-1	EPA 353.2	728861		
50342484007	DUP-2	EPA 353.2	728861		
50342484001	MW-2S	EPA 365.1	729178	EPA 365.1	729585
50342484002	MW-2D	EPA 365.1	729178	EPA 365.1	729585
50342484003	MW-3S	EPA 365.1	729178	EPA 365.1	729585
50342484004	MW-13S	EPA 365.1	729178	EPA 365.1	729585
50342484005	MW-13I	EPA 365.1	729178	EPA 365.1	729585
50342484006	DUP-1	EPA 365.1	729178	EPA 365.1	729585
50342484007	DUP-2	EPA 365.1	729866	EPA 365.1	729989
50342484001	MW-2S	SM 5310C	728990		
50342484002	MW-2D	SM 5310C	728990		
50342484003	MW-3S	SM 5310C	728990		
50342484004	MW-13S	SM 5310C	728990		
50342484005	MW-13I	SM 5310C	728990		
50342484006	DUP-1	SM 5310C	728990		
50342484007	DUP-2	SM 5310C	728990		
50342484001	MW-2S	SM 5310C	729001		
50342484002	MW-2D	SM 5310C	729001		
50342484003	MW-3S	SM 5310C	729001		
50342484004	MW-13S	SM 5310C	729001		
50342484005	MW-13I	SM 5310C	729001		
50342484006	DUP-1	SM 5310C	729001		
50342484007	DUP-2	SM 5310C	729001		

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**SAMPLE CONDITION UPON RECEIPT FORM**

Date/Time and Initials of person examining contents: MCS 4/19/23 1000

1. Courier:  FED EX  UPS  CLIENT  PACE  USPS  OTHER \_\_\_\_\_
2. Custody Seal on Cooler/Box Present:  Yes  No  
 (If yes)Seals Intact:  Yes  No (leave blank if no seals were present)
3. Thermometer: 1 2 3 4 5 6 **A B C D E F**
4. Cooler Temperature(s): 1.1/1.2 0.9/1.0 0.7/0.8 0.3/0.4  
 (Initial/Corrected) RECORD TEMPS OF ALL COOLERS RECEIVED (use Comments below to add more)

5. Packing Material:  Bubble Wrap  Bubble Bags  
 None  Other \_\_\_\_\_
6. Ice Type:  Wet  Blue  None
7. If temp. is over 6°C or under 0°C, was the PM notified?:  Yes  No  
 Cooler temp should be above freezing to 6°C

All discrepancies will be written out in the comments section below.

	Yes	No		Yes	No	N/A
USDA Regulated Soils? (HI, ID, NY, WA, OR,CA, NM, TX, OK, AR, LA, TN, AL, MS, NC, SC, GA, FL, or Puerto Rico)		<input checked="" type="checkbox"/>	All containers needing acid/base preservation have been pH CHECKED?: Exceptions: VOA, coliform, LLHg, O&G, RAD CHEM, and any container with a septum cap or preserved with HCl.			
Short Hold Time Analysis (48 hours or less)? Analysis: <u>NO2/NO3</u>	<input checked="" type="checkbox"/>		Circle: <u>HNO3</u> (>2) <u>H2SO4</u> (>2) NaOH (>10) <u>NaOH/ZnAc</u> (>9) Any non-conformance to pH recommendations will be noted on the container count form	<input checked="" type="checkbox"/>		
Time 5035A TC placed in Freezer or Short Holds To Lab Time: <u>12:50</u>			Residual Chlorine Check (SVOC 625 Pest/PCB 608)	<u>Present</u>	<u>Absent</u>	<u>N/A</u>
Rush TAT Requested (4 days or less):		<input checked="" type="checkbox"/>	Residual Chlorine Check (Total/Amenable/Free Cyanide)			<u>—</u>
Custody Signatures Present?	<input checked="" type="checkbox"/>		Headspace Wisconsin Sulfide?			<u>—</u>
Containers Intact?:	<input checked="" type="checkbox"/>		Headspace in VOA Vials (>6mm): See Containter Count form for details	<u>Present</u>	<u>Absent</u>	<u>No VOA Vials Sent</u>
Sample Label (IDs/Dates/Times) Match COC?: Except TCs, which only require sample ID	<input checked="" type="checkbox"/>		Trip Blank Present?		<input checked="" type="checkbox"/>	
Extra labels on Terracore Vials? (soils only)			Trip Blank Custody Seals?:			<u>—</u>

COMMENTS:

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July 18, 2023

Mr. Mark Breting  
ATC Group Services  
7988 Centerpoint Drive  
Suite 100  
Indianapolis, IN 46256

RE: Project: Eagle Valley April 2023 P1R1  
Pace Project No.: 50342601

Dear Mr. Breting:

Enclosed are the analytical results for sample(s) received by the laboratory on April 20, 2023. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

The test results provided in this final report were generated by each of the following laboratories within the Pace Network:

- Pace Analytical Services - Indianapolis
- Pace Analytical Services - Greensburg

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Will Statz  
will.statz@pacelabs.com  
(317)228-3105  
Project Manager

Enclosures

cc: Mohammed Bazlamit, Atlas  
Mr. Robert Miller, Haley & Aldrich



## REPORT OF LABORATORY ANALYSIS

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### CERTIFICATIONS

Project: Eagle Valley April 2023 P1R1  
Pace Project No.: 50342601

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#### Pace Analytical Services Pennsylvania

1638 Roseytown Rd Suites 2,3&4, Greensburg, PA 15601  
ANAB DOD-ELAP Rad Accreditation #: L2417  
ANABISO/IEC 17025:2017 Rad Cert#: L24170  
Alabama Certification #: 41590  
Arizona Certification #: AZ0734  
Arkansas Certification  
California Certification #: 2950  
Colorado Certification #: PA01547  
Connecticut Certification #: PH-0694  
EPA Region 4 DW Rad  
Florida/TNI Certification #: E87683  
Georgia Certification #: C040  
Guam Certification  
Hawaii Certification  
Idaho Certification  
Illinois Certification  
Indiana Certification  
Iowa Certification #: 391  
Kansas Certification #: E-10358  
Kentucky Certification #: KY90133  
KY WW Permit #: KY0098221  
KY WW Permit #: KY0000221  
Louisiana DHH/TNI Certification #: LA010  
Louisiana DEQ/TNI Certification #: 04086  
Maine Certification #: 2023021  
Maryland Certification #: 308  
Massachusetts Certification #: M-PA1457  
Michigan/PADEP Certification #: 9991

Missouri Certification #: 235  
Montana Certification #: Cert0082  
Nebraska Certification #: NE-OS-29-14  
Nevada Certification #: PA014572023-03  
New Hampshire/TNI Certification #: 297622  
New Jersey/TNI Certification #: PA051  
New Mexico Certification #: PA01457  
New York/TNI Certification #: 10888  
North Carolina Certification #: 42706  
North Dakota Certification #: R-190  
Ohio EPA Rad Approval: #41249  
Oregon/TNI Certification #: PA200002-015  
Pennsylvania/TNI Certification #: 65-00282  
Puerto Rico Certification #: PA01457  
Rhode Island Certification #: 65-00282  
South Dakota Certification  
Tennessee Certification #: TN02867  
Texas/TNI Certification #: T104704188-22-18  
Utah/TNI Certification #: PA014572223-14  
USDA Soil Permit #: 525-23-67-77263  
Vermont Dept. of Health: ID# VT-0282  
Virgin Island/PADEP Certification  
Virginia/VELAP Certification #: 460198  
Washington Certification #: C868  
West Virginia DEP Certification #: 143  
West Virginia DHHR Certification #: 9964C  
Wisconsin Approve List for Rad

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#### Pace Analytical Services Indianapolis

7726 Moller Road, Indianapolis, IN 46268  
Illinois Accreditation #: 200074  
Indiana Drinking Water Laboratory #: C-49-06  
Kansas/TNI Certification #: E-10177  
Kentucky UST Agency Interest #: 80226  
Kentucky WW Laboratory ID #: 98019  
Michigan Drinking Water Laboratory #9050

Ohio VAP Certified Laboratory #: CL0065  
Oklahoma Laboratory #: 9204  
Texas Certification #: T104704355  
Wisconsin Laboratory #: 999788130  
USDA Foreign Soil Permit #: 525-23-13-23119  
USDA Compliance Agreement #: IN-SL-22-001

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### REPORT OF LABORATORY ANALYSIS

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### SAMPLE SUMMARY

Project: Eagle Valley April 2023 P1R1

Pace Project No.: 50342601

Lab ID	Sample ID	Matrix	Date Collected	Date Received
50342601001	MW-1I	Water	04/19/23 15:30	04/20/23 08:45
50342601002	MW-1D	Water	04/19/23 12:42	04/20/23 08:45
50342601003	MW-1D MS	Water	04/19/23 12:42	04/20/23 08:45
50342601004	MW-1D MSD	Water	04/19/23 12:42	04/20/23 08:45
50342601005	MW-2I	Water	04/19/23 10:45	04/20/23 08:45

### REPORT OF LABORATORY ANALYSIS

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**SAMPLE ANALYTE COUNT**

Project: Eagle Valley April 2023 P1R1  
 Pace Project No.: 50342601

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory		
50342601001	MW-1I	EPA 9056	RMR	3	PASI-I		
		EPA 6010	JPK	10	PASI-I		
		EPA 6010	DJS	2	PASI-I		
		EPA 6020	CAW	11	PASI-I		
		EPA 7470	EAE	1	PASI-I		
		EPA 903.1	CLM	1	PASI-PA		
		EPA 904.0	JJS1	1	PASI-PA		
		Total Radium Calculation	JAL	1	PASI-PA		
		SM 2320B	DAW	3	PASI-I		
		SM 2540C	TRK	1	PASI-I		
		SM 4500-H+B	BMS	1	PASI-I		
		SM 4500-S2-D	STS	1	PASI-I		
		HACH 8146	BEP	1	PASI-I		
		EPA 353.2	ZM	2	PASI-I		
		EPA 365.1	YAM	1	PASI-I		
		SM 5310C	ATS	1	PASI-I		
		SM 5310C	ATS	1	PASI-I		
		50342601002	MW-1D	EPA 9056	RMR	3	PASI-I
				EPA 6010	JPK	10	PASI-I
				EPA 6010	DJS	2	PASI-I
EPA 6020	CAW			11	PASI-I		
EPA 7470	EAE			1	PASI-I		
EPA 903.1	CLM			1	PASI-PA		
EPA 904.0	JJS1			1	PASI-PA		
Total Radium Calculation	JAL			1	PASI-PA		
SM 2320B	DAW			3	PASI-I		
SM 2540C	TRK			1	PASI-I		
SM 4500-H+B	BMS			1	PASI-I		
SM 4500-S2-D	STS			1	PASI-I		
HACH 8146	BEP			1	PASI-I		
EPA 353.2	ZM			2	PASI-I		
EPA 365.1	YAM			1	PASI-I		
SM 5310C	ATS			1	PASI-I		
SM 5310C	ATS			1	PASI-I		
50342601003	MW-1D MS			EPA 903.1	CLM	1	PASI-PA
				EPA 904.0	JJS1	1	PASI-PA
50342601004	MW-1D MSD			EPA 903.1	CLM	1	PASI-PA

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### SAMPLE ANALYTE COUNT

Project: Eagle Valley April 2023 P1R1

Pace Project No.: 50342601

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
50342601005	MW-2I	EPA 904.0	JJS1	1	PASI-PA
		EPA 9056	RMR	3	PASI-I
		EPA 6010	JPK	10	PASI-I
		EPA 6010	DJS	2	PASI-I
		EPA 6020	CAW	11	PASI-I
		EPA 7470	EAE	1	PASI-I
		EPA 903.1	CLM	1	PASI-PA
		EPA 904.0	JJS1	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
		SM 2320B	DAW	3	PASI-I
		SM 2540C	TRK	1	PASI-I
		SM 4500-H+B	BMS	1	PASI-I
		SM 4500-S2-D	STS	1	PASI-I
		HACH 8146	BEP	1	PASI-I
		EPA 353.2	ZM	2	PASI-I
		EPA 365.1	YAM	1	PASI-I
		SM 5310C	ATS	1	PASI-I
SM 5310C	ATS	1	PASI-I		

PASI-I = Pace Analytical Services - Indianapolis

PASI-PA = Pace Analytical Services - Greensburg

### REPORT OF LABORATORY ANALYSIS

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**SUMMARY OF DETECTION**

Project: Eagle Valley April 2023 P1R1  
 Pace Project No.: 50342601

Lab Sample ID	Client Sample ID	Result	Units	Report Limit	Analyzed	Qualifiers
Method	Parameters					
<b>50342601001</b>	<b>MW-1I</b>					
EPA 9056	Chloride	89.5	mg/L	2.5	04/25/23 03:20	
EPA 9056	Fluoride	0.28	mg/L	0.10	04/25/23 03:04	
EPA 9056	Sulfate	95.9	mg/L	2.5	04/25/23 03:20	
EPA 6010	Boron	601	ug/L	100	04/25/23 00:36	
EPA 6010	Calcium	80400	ug/L	1000	04/25/23 00:36	
EPA 6010	Lithium	87.2	ug/L	20.0	04/25/23 00:36	
EPA 6010	Magnesium	26400	ug/L	1000	04/25/23 00:36	
EPA 6010	Manganese	272	ug/L	10.0	04/25/23 00:36	
EPA 6010	Potassium	8660	ug/L	1000	04/25/23 00:36	
EPA 6010	Silica	10400	ug/L	450	04/25/23 00:36	N2
EPA 6010	Sodium	74900	ug/L	1000	04/25/23 00:36	
EPA 6010	Manganese, Dissolved	247	ug/L	10.0	04/24/23 17:41	
EPA 6010	Molybdenum, Dissolved	89.4	ug/L	10.0	04/24/23 17:41	
EPA 6020	Barium	52.7	ug/L	1.0	04/25/23 20:38	
EPA 6020	Molybdenum	87.9	ug/L	10.0	04/25/23 20:38	
EPA 903.1	Radium-226	1.11 ± 0.935	pCi/L		05/05/23 13:57	
		(1.39) C:NA T:89%				
EPA 904.0	Radium-228	0.498 ± 0.446 (0.914) C:70% T:88%	pCi/L		05/02/23 15:23	
Total Radium Calculation	Total Radium	1.61 ± 1.38 (2.30)	pCi/L		05/08/23 17:06	
SM 2320B	Alkalinity, Total as CaCO3	258	mg/L	10.0	04/21/23 02:36	
SM 2320B	Alkalinity,Bicarbonate (CaCO3)	258	mg/L	10.0	04/21/23 02:36	
SM 2540C	Total Dissolved Solids	501	mg/L	10.0	04/25/23 11:29	
SM 4500-H+B	pH at 25 Degrees C	7.9	Std. Units	0.10	04/27/23 09:04	H3
SM 5310C	Total Organic Carbon	1.2	mg/L	1.0	04/25/23 13:00	
SM 5310C	Dissolved Organic Carbon	1.6	mg/L	1.0	04/25/23 04:02	
<b>50342601002</b>	<b>MW-1D</b>					
EPA 9056	Chloride	102	mg/L	2.5	04/25/23 04:22	
EPA 9056	Fluoride	0.34	mg/L	0.10	04/25/23 04:06	
EPA 9056	Sulfate	87.0	mg/L	2.5	04/25/23 04:22	
EPA 6010	Boron	538	ug/L	100	04/25/23 00:38	
EPA 6010	Calcium	74400	ug/L	1000	04/25/23 00:38	
EPA 6010	Iron	618	ug/L	100	04/25/23 00:38	
EPA 6010	Lithium	88.9	ug/L	20.0	04/25/23 00:38	
EPA 6010	Magnesium	22400	ug/L	1000	04/25/23 00:38	
EPA 6010	Manganese	320	ug/L	10.0	04/25/23 00:38	
EPA 6010	Potassium	7800	ug/L	1000	04/25/23 00:38	
EPA 6010	Silica	9960	ug/L	450	04/25/23 00:38	N2
EPA 6010	Sodium	71000	ug/L	1000	04/25/23 00:38	
EPA 6010	Manganese, Dissolved	343	ug/L	10.0	04/24/23 17:43	
EPA 6010	Molybdenum, Dissolved	97.9	ug/L	10.0	04/24/23 17:43	
EPA 6020	Arsenic	1.7	ug/L	1.0	04/25/23 20:41	

**REPORT OF LABORATORY ANALYSIS**

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**SUMMARY OF DETECTION**

Project: Eagle Valley April 2023 P1R1

Pace Project No.: 50342601

Lab Sample ID	Client Sample ID	Result	Units	Report Limit	Analyzed	Qualifiers
Method	Parameters					
<b>50342601002</b>	<b>MW-1D</b>					
EPA 6020	Barium	59.9	ug/L	1.0	04/25/23 20:41	
EPA 6020	Molybdenum	96.6	ug/L	10.0	04/25/23 20:41	
EPA 903.1	Radium-226	0.581 ± 0.462 (0.600)	pCi/L		05/05/23 13:57	
EPA 904.0	Radium-228	C:NA T:90% 1.29 ± 0.549 (0.921)	pCi/L		05/02/23 15:23	
		C:71% T:89%				
Total Radium Calculation	Total Radium	1.87 ± 1.01 (1.52)	pCi/L		05/08/23 17:06	
SM 2320B	Alkalinity, Total as CaCO3	226	mg/L	10.0	04/21/23 02:36	
SM 2320B	Alkalinity,Bicarbonate (CaCO3)	226	mg/L	10.0	04/21/23 02:36	
SM 2540C	Total Dissolved Solids	480	mg/L	10.0	04/25/23 11:30	
SM 4500-H+B	pH at 25 Degrees C	7.9	Std. Units	0.10	04/27/23 08:52	H3
HACH 8146	Iron, Ferrous	0.46	mg/L	0.20	04/20/23 16:00	H3,N2
SM 5310C	Total Organic Carbon	1.4	mg/L	1.0	04/25/23 13:11	
<b>50342601003</b>	<b>MW-1D MS</b>					
EPA 903.1	Radium-226	88.25 %REC ± NA (NA)	pCi/L		05/05/23 13:57	
EPA 904.0	Radium-228	C:NA T:NA 77.89 %REC ± NA (NA)	pCi/L		05/02/23 15:23	
		C:NA T:NA				
<b>50342601004</b>	<b>MW-1D MSD</b>					
EPA 903.1	Radium-226	78.52 %REC 11.67RPD ± NA (NA)	pCi/L		05/05/23 13:57	
EPA 904.0	Radium-228	C:NA T:NA 75.92 %REC 2.56RPD ± NA (NA)	pCi/L		05/02/23 15:23	
		C:NA T:NA				
<b>50342601005</b>	<b>MW-2I</b>					
EPA 9056	Chloride	131	mg/L	2.5	04/25/23 05:55	
EPA 9056	Fluoride	0.28	mg/L	0.10	04/25/23 05:39	
EPA 9056	Sulfate	142	mg/L	2.5	04/25/23 05:55	
EPA 6010	Boron	257	ug/L	100	04/25/23 00:53	
EPA 6010	Calcium	89900	ug/L	1000	04/25/23 00:53	
EPA 6010	Lithium	47.9	ug/L	20.0	04/25/23 00:53	
EPA 6010	Magnesium	27000	ug/L	1000	04/25/23 00:53	
EPA 6010	Manganese	79.8	ug/L	10.0	04/25/23 00:53	
EPA 6010	Potassium	10300	ug/L	1000	04/25/23 00:53	
EPA 6010	Silica	12100	ug/L	450	04/25/23 00:53	N2

**REPORT OF LABORATORY ANALYSIS**

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### SUMMARY OF DETECTION

Project: Eagle Valley April 2023 P1R1

Pace Project No.: 50342601

Lab Sample ID Method	Client Sample ID Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
<b>50342601005</b>	<b>MW-2I</b>					
EPA 6010	Sodium	106000	ug/L	1000	04/25/23 00:53	
EPA 6010	Manganese, Dissolved	87.2	ug/L	10.0	04/24/23 17:58	
EPA 6010	Molybdenum, Dissolved	76.9	ug/L	10.0	04/24/23 17:58	
EPA 6020	Barium	94.9	ug/L	1.0	04/25/23 21:11	
EPA 6020	Molybdenum	73.7	ug/L	10.0	04/25/23 21:11	
EPA 903.1	Radium-226	1.24 ± 0.829	pCi/L		05/05/23 13:39	
		(1.03) C:NA T:89%				
EPA 904.0	Radium-228	0.134 ± 0.360 (0.806) C:71% T:86%	pCi/L		05/02/23 15:23	
Total Radium Calculation	Total Radium	1.37 ± 1.19 (1.84)	pCi/L		05/08/23 17:06	
SM 2320B	Alkalinity, Total as CaCO3	265	mg/L	10.0	04/21/23 02:36	
SM 2320B	Alkalinity,Bicarbonate (CaCO3)	265	mg/L	10.0	04/21/23 02:36	
SM 2540C	Total Dissolved Solids	649	mg/L	10.0	04/25/23 11:30	
SM 4500-H+B	pH at 25 Degrees C	7.8	Std. Units	0.10	04/27/23 08:51	H3
SM 5310C	Total Organic Carbon	1.3	mg/L	1.0	04/25/23 13:45	
SM 5310C	Dissolved Organic Carbon	1.4	mg/L	1.0	04/25/23 05:16	

### REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: Eagle Valley April 2023 P1R1

Pace Project No.: 50342601

Sample: MW-11		Lab ID: 50342601001		Collected: 04/19/23 15:30		Received: 04/20/23 08:45		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>9056 IC Anions</b>		Analytical Method: EPA 9056 Pace Analytical Services - Indianapolis							
Chloride	89.5	mg/L	2.5	0.67	10		04/25/23 03:20	16887-00-6	
Fluoride	0.28	mg/L	0.10	0.017	1		04/25/23 03:04	16984-48-8	
Sulfate	95.9	mg/L	2.5	0.85	10		04/25/23 03:20	14808-79-8	
<b>6010 MET ICP</b>		Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis							
Aluminum	ND	ug/L	200	55.4	1	04/24/23 08:38	04/25/23 00:36	7429-90-5	
Boron	601	ug/L	100	37.6	1	04/24/23 08:38	04/25/23 00:36	7440-42-8	
Calcium	80400	ug/L	1000	163	1	04/24/23 08:38	04/25/23 00:36	7440-70-2	
Iron	ND	ug/L	100	48.8	1	04/24/23 08:38	04/25/23 00:36	7439-89-6	
Lithium	87.2	ug/L	20.0	6.2	1	04/24/23 08:38	04/25/23 00:36	7439-93-2	
Magnesium	26400	ug/L	1000	71.8	1	04/24/23 08:38	04/25/23 00:36	7439-95-4	
Manganese	272	ug/L	10.0	2.5	1	04/24/23 08:38	04/25/23 00:36	7439-96-5	
Potassium	8660	ug/L	1000	281	1	04/24/23 08:38	04/25/23 00:36	7440-09-7	
Silica	10400	ug/L	450		1	04/24/23 08:38	04/25/23 00:36	7631-86-9	N2
Sodium	74900	ug/L	1000	214	1	04/24/23 08:38	04/25/23 00:36	7440-23-5	
<b>6010 MET ICP, Dissolved</b>		Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis							
Manganese, Dissolved	247	ug/L	10.0	5.4	1	04/21/23 16:14	04/24/23 17:41	7439-96-5	
Molybdenum, Dissolved	89.4	ug/L	10.0	2.0	1	04/21/23 16:14	04/24/23 17:41	7439-98-7	
<b>6020 MET ICPMS</b>		Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis							
Antimony	ND	ug/L	1.0	0.036	1	04/24/23 22:00	04/25/23 20:38	7440-36-0	
Arsenic	ND	ug/L	1.0	0.053	1	04/24/23 22:00	04/25/23 20:38	7440-38-2	
Barium	52.7	ug/L	1.0	0.051	1	04/24/23 22:00	04/25/23 20:38	7440-39-3	
Beryllium	ND	ug/L	0.20	0.028	1	04/24/23 22:00	04/25/23 20:38	7440-41-7	
Cadmium	ND	ug/L	2.0	0.0090	1	04/24/23 22:00	04/25/23 20:38	7440-43-9	
Chromium	ND	ug/L	10.0	0.13	1	04/24/23 22:00	04/25/23 20:38	7440-47-3	
Cobalt	ND	ug/L	1.0	0.032	1	04/24/23 22:00	04/25/23 20:38	7440-48-4	
Lead	ND	ug/L	10.0	0.034	1	04/24/23 22:00	04/25/23 20:38	7439-92-1	
Molybdenum	87.9	ug/L	10.0	0.048	1	04/24/23 22:00	04/25/23 20:38	7439-98-7	
Selenium	ND	ug/L	1.0	0.23	1	04/24/23 22:00	04/25/23 20:38	7782-49-2	
Thallium	ND	ug/L	1.0	0.033	1	04/24/23 22:00	04/25/23 20:38	7440-28-0	
<b>7470 Mercury</b>		Analytical Method: EPA 7470 Preparation Method: EPA 7470 Pace Analytical Services - Indianapolis							
Mercury	ND	ug/L	0.20	0.091	1	04/24/23 10:43	04/24/23 21:37	7439-97-6	
<b>2320B Alkalinity</b>		Analytical Method: SM 2320B Pace Analytical Services - Indianapolis							
Alkalinity, Total as CaCO3	258	mg/L	10.0	10.0	1		04/21/23 02:36		
Alkalinity, Bicarbonate (CaCO3)	258	mg/L	10.0	10.0	1		04/21/23 02:36		

## REPORT OF LABORATORY ANALYSIS

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**ANALYTICAL RESULTS**

Project: Eagle Valley April 2023 P1R1

Pace Project No.: 50342601

Sample: MW-11		Lab ID: 50342601001		Collected: 04/19/23 15:30	Received: 04/20/23 08:45	Matrix: Water			
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>2320B Alkalinity</b>		Analytical Method: SM 2320B Pace Analytical Services - Indianapolis							
Alkalinity, Carbonate (CaCO3)	ND	mg/L	10.0	10.0	1		04/21/23 02:36		
<b>2540C Total Dissolved Solids</b>		Analytical Method: SM 2540C Pace Analytical Services - Indianapolis							
Total Dissolved Solids	501	mg/L	10.0	10.0	1		04/25/23 11:29		
<b>4500H+ pH, Electrometric</b>		Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis							
pH at 25 Degrees C	7.9	Std. Units	0.10	0.10	1		04/27/23 09:04		H3
<b>4500S2D Sulfide Water</b>		Analytical Method: SM 4500-S2-D Pace Analytical Services - Indianapolis							
Sulfide	ND	mg/L	0.10	0.025	1		04/21/23 13:43	18496-25-8	
<b>Iron, Ferrous</b>		Analytical Method: HACH 8146 Pace Analytical Services - Indianapolis							
Iron, Ferrous	ND	mg/L	0.20	0.035	1		04/20/23 16:01	15438-31-0	H3,N2
<b>353.2 Nitrogen, NO2/NO3 unpres</b>		Analytical Method: EPA 353.2 Pace Analytical Services - Indianapolis							
Nitrogen, Nitrate	ND	mg/L	0.10	0.011	1		04/20/23 21:40	14797-55-8	
Nitrogen, Nitrite	ND	mg/L	0.10	0.0040	1		04/20/23 21:40	14797-65-0	
<b>365.1 Total Phosphorus</b>		Analytical Method: EPA 365.1 Preparation Method: EPA 365.1 Pace Analytical Services - Indianapolis							
Phosphate as P04	ND	mg/L	0.15	0.15	1	04/22/23 13:45	04/24/23 17:23		
<b>5310C TOC</b>		Analytical Method: SM 5310C Pace Analytical Services - Indianapolis							
Total Organic Carbon	1.2	mg/L	1.0	0.24	1		04/25/23 13:00	7440-44-0	
<b>5310C Dissolved Organic Carbon</b>		Analytical Method: SM 5310C Pace Analytical Services - Indianapolis							
Dissolved Organic Carbon	1.6	mg/L	1.0	0.24	1		04/25/23 04:02		

**REPORT OF LABORATORY ANALYSIS**

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## ANALYTICAL RESULTS

Project: Eagle Valley April 2023 P1R1

Pace Project No.: 50342601

Sample: MW-1D		Lab ID: 50342601002		Collected: 04/19/23 12:42		Received: 04/20/23 08:45		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>9056 IC Anions</b>									
Analytical Method: EPA 9056									
Pace Analytical Services - Indianapolis									
Chloride	102	mg/L	2.5	0.67	10		04/25/23 04:22	16887-00-6	
Fluoride	0.34	mg/L	0.10	0.017	1		04/25/23 04:06	16984-48-8	
Sulfate	87.0	mg/L	2.5	0.85	10		04/25/23 04:22	14808-79-8	
<b>6010 MET ICP</b>									
Analytical Method: EPA 6010 Preparation Method: EPA 3010									
Pace Analytical Services - Indianapolis									
Aluminum	ND	ug/L	200	55.4	1	04/24/23 08:38	04/25/23 00:38	7429-90-5	
Boron	538	ug/L	100	37.6	1	04/24/23 08:38	04/25/23 00:38	7440-42-8	
Calcium	74400	ug/L	1000	163	1	04/24/23 08:38	04/25/23 00:38	7440-70-2	
Iron	618	ug/L	100	48.8	1	04/24/23 08:38	04/25/23 00:38	7439-89-6	
Lithium	88.9	ug/L	20.0	6.2	1	04/24/23 08:38	04/25/23 00:38	7439-93-2	
Magnesium	22400	ug/L	1000	71.8	1	04/24/23 08:38	04/25/23 00:38	7439-95-4	
Manganese	320	ug/L	10.0	2.5	1	04/24/23 08:38	04/25/23 00:38	7439-96-5	
Potassium	7800	ug/L	1000	281	1	04/24/23 08:38	04/25/23 00:38	7440-09-7	
Silica	9960	ug/L	450		1	04/24/23 08:38	04/25/23 00:38	7631-86-9	N2
Sodium	71000	ug/L	1000	214	1	04/24/23 08:38	04/25/23 00:38	7440-23-5	
<b>6010 MET ICP, Dissolved</b>									
Analytical Method: EPA 6010 Preparation Method: EPA 3010									
Pace Analytical Services - Indianapolis									
Manganese, Dissolved	343	ug/L	10.0	5.4	1	04/21/23 16:14	04/24/23 17:43	7439-96-5	
Molybdenum, Dissolved	97.9	ug/L	10.0	2.0	1	04/21/23 16:14	04/24/23 17:43	7439-98-7	
<b>6020 MET ICPMS</b>									
Analytical Method: EPA 6020 Preparation Method: EPA 200.2									
Pace Analytical Services - Indianapolis									
Antimony	ND	ug/L	1.0	0.036	1	04/24/23 22:00	04/25/23 20:41	7440-36-0	
Arsenic	1.7	ug/L	1.0	0.053	1	04/24/23 22:00	04/25/23 20:41	7440-38-2	
Barium	59.9	ug/L	1.0	0.051	1	04/24/23 22:00	04/25/23 20:41	7440-39-3	
Beryllium	ND	ug/L	0.20	0.028	1	04/24/23 22:00	04/25/23 20:41	7440-41-7	
Cadmium	ND	ug/L	2.0	0.0090	1	04/24/23 22:00	04/25/23 20:41	7440-43-9	
Chromium	ND	ug/L	10.0	0.13	1	04/24/23 22:00	04/25/23 20:41	7440-47-3	
Cobalt	ND	ug/L	1.0	0.032	1	04/24/23 22:00	04/25/23 20:41	7440-48-4	
Lead	ND	ug/L	10.0	0.034	1	04/24/23 22:00	04/25/23 20:41	7439-92-1	
Molybdenum	96.6	ug/L	10.0	0.048	1	04/24/23 22:00	04/25/23 20:41	7439-98-7	
Selenium	ND	ug/L	1.0	0.23	1	04/24/23 22:00	04/25/23 20:41	7782-49-2	
Thallium	ND	ug/L	1.0	0.033	1	04/24/23 22:00	04/25/23 20:41	7440-28-0	
<b>7470 Mercury</b>									
Analytical Method: EPA 7470 Preparation Method: EPA 7470									
Pace Analytical Services - Indianapolis									
Mercury	ND	ug/L	0.20	0.091	1	04/24/23 10:43	04/24/23 21:39	7439-97-6	
<b>2320B Alkalinity</b>									
Analytical Method: SM 2320B									
Pace Analytical Services - Indianapolis									
Alkalinity, Total as CaCO3	226	mg/L	10.0	10.0	1		04/21/23 02:36		
Alkalinity,Bicarbonate (CaCO3)	226	mg/L	10.0	10.0	1		04/21/23 02:36		

## REPORT OF LABORATORY ANALYSIS

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**ANALYTICAL RESULTS**

Project: Eagle Valley April 2023 P1R1  
 Pace Project No.: 50342601

Sample: MW-1D		Lab ID: 50342601002		Collected: 04/19/23 12:42	Received: 04/20/23 08:45	Matrix: Water			
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>2320B Alkalinity</b>		Analytical Method: SM 2320B Pace Analytical Services - Indianapolis							
Alkalinity, Carbonate (CaCO3)	ND	mg/L	10.0	10.0	1		04/21/23 02:36		
<b>2540C Total Dissolved Solids</b>		Analytical Method: SM 2540C Pace Analytical Services - Indianapolis							
Total Dissolved Solids	<b>480</b>	mg/L	10.0	10.0	1		04/25/23 11:30		
<b>4500H+ pH, Electrometric</b>		Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis							
pH at 25 Degrees C	<b>7.9</b>	Std. Units	0.10	0.10	1		04/27/23 08:52		H3
<b>4500S2D Sulfide Water</b>		Analytical Method: SM 4500-S2-D Pace Analytical Services - Indianapolis							
Sulfide	ND	mg/L	0.10	0.025	1		04/21/23 13:43	18496-25-8	
<b>Iron, Ferrous</b>		Analytical Method: HACH 8146 Pace Analytical Services - Indianapolis							
Iron, Ferrous	<b>0.46</b>	mg/L	0.20	0.035	1		04/20/23 16:00	15438-31-0	H3,N2
<b>353.2 Nitrogen, NO2/NO3 unpres</b>		Analytical Method: EPA 353.2 Pace Analytical Services - Indianapolis							
Nitrogen, Nitrate	ND	mg/L	0.10	0.011	1		04/20/23 21:16	14797-55-8	
Nitrogen, Nitrite	ND	mg/L	0.10	0.0040	1		04/20/23 21:16	14797-65-0	
<b>365.1 Total Phosphorus</b>		Analytical Method: EPA 365.1 Preparation Method: EPA 365.1 Pace Analytical Services - Indianapolis							
Phosphate as P04	ND	mg/L	0.15	0.15	1	04/22/23 13:45	04/24/23 17:24		
<b>5310C TOC</b>		Analytical Method: SM 5310C Pace Analytical Services - Indianapolis							
Total Organic Carbon	<b>1.4</b>	mg/L	1.0	0.24	1		04/25/23 13:11	7440-44-0	
<b>5310C Dissolved Organic Carbon</b>		Analytical Method: SM 5310C Pace Analytical Services - Indianapolis							
Dissolved Organic Carbon	ND	mg/L	4.0	0.94	4		04/25/23 10:50		D3

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## ANALYTICAL RESULTS

Project: Eagle Valley April 2023 P1R1

Pace Project No.: 50342601

Sample: MW-21		Lab ID: 50342601005		Collected: 04/19/23 10:45		Received: 04/20/23 08:45		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>9056 IC Anions</b>									
Analytical Method: EPA 9056									
Pace Analytical Services - Indianapolis									
Chloride	131	mg/L	2.5	0.67	10		04/25/23 05:55	16887-00-6	
Fluoride	0.28	mg/L	0.10	0.017	1		04/25/23 05:39	16984-48-8	
Sulfate	142	mg/L	2.5	0.85	10		04/25/23 05:55	14808-79-8	
<b>6010 MET ICP</b>									
Analytical Method: EPA 6010 Preparation Method: EPA 3010									
Pace Analytical Services - Indianapolis									
Aluminum	ND	ug/L	200	55.4	1	04/24/23 08:38	04/25/23 00:53	7429-90-5	
Boron	257	ug/L	100	37.6	1	04/24/23 08:38	04/25/23 00:53	7440-42-8	
Calcium	89900	ug/L	1000	163	1	04/24/23 08:38	04/25/23 00:53	7440-70-2	
Iron	ND	ug/L	100	48.8	1	04/24/23 08:38	04/25/23 00:53	7439-89-6	
Lithium	47.9	ug/L	20.0	6.2	1	04/24/23 08:38	04/25/23 00:53	7439-93-2	
Magnesium	27000	ug/L	1000	71.8	1	04/24/23 08:38	04/25/23 00:53	7439-95-4	
Manganese	79.8	ug/L	10.0	2.5	1	04/24/23 08:38	04/25/23 00:53	7439-96-5	
Potassium	10300	ug/L	1000	281	1	04/24/23 08:38	04/25/23 00:53	7440-09-7	
Silica	12100	ug/L	450		1	04/24/23 08:38	04/25/23 00:53	7631-86-9	N2
Sodium	106000	ug/L	1000	214	1	04/24/23 08:38	04/25/23 00:53	7440-23-5	
<b>6010 MET ICP, Dissolved</b>									
Analytical Method: EPA 6010 Preparation Method: EPA 3010									
Pace Analytical Services - Indianapolis									
Manganese, Dissolved	87.2	ug/L	10.0	5.4	1	04/21/23 16:14	04/24/23 17:58	7439-96-5	
Molybdenum, Dissolved	76.9	ug/L	10.0	2.0	1	04/21/23 16:14	04/24/23 17:58	7439-98-7	
<b>6020 MET ICPMS</b>									
Analytical Method: EPA 6020 Preparation Method: EPA 200.2									
Pace Analytical Services - Indianapolis									
Antimony	ND	ug/L	1.0	0.036	1	04/24/23 22:00	04/25/23 21:11	7440-36-0	
Arsenic	ND	ug/L	1.0	0.053	1	04/24/23 22:00	04/25/23 21:11	7440-38-2	
Barium	94.9	ug/L	1.0	0.051	1	04/24/23 22:00	04/25/23 21:11	7440-39-3	
Beryllium	ND	ug/L	0.20	0.028	1	04/24/23 22:00	04/25/23 21:11	7440-41-7	
Cadmium	ND	ug/L	2.0	0.0090	1	04/24/23 22:00	04/25/23 21:11	7440-43-9	
Chromium	ND	ug/L	10.0	0.13	1	04/24/23 22:00	04/25/23 21:11	7440-47-3	
Cobalt	ND	ug/L	1.0	0.032	1	04/24/23 22:00	04/25/23 21:11	7440-48-4	
Lead	ND	ug/L	10.0	0.034	1	04/24/23 22:00	04/25/23 21:11	7439-92-1	
Molybdenum	73.7	ug/L	10.0	0.048	1	04/24/23 22:00	04/25/23 21:11	7439-98-7	
Selenium	ND	ug/L	1.0	0.23	1	04/24/23 22:00	04/25/23 21:11	7782-49-2	
Thallium	ND	ug/L	1.0	0.033	1	04/24/23 22:00	04/25/23 21:11	7440-28-0	
<b>7470 Mercury</b>									
Analytical Method: EPA 7470 Preparation Method: EPA 7470									
Pace Analytical Services - Indianapolis									
Mercury	ND	ug/L	0.20	0.091	1	04/24/23 10:43	04/24/23 21:47	7439-97-6	
<b>2320B Alkalinity</b>									
Analytical Method: SM 2320B									
Pace Analytical Services - Indianapolis									
Alkalinity, Total as CaCO3	265	mg/L	10.0	10.0	1		04/21/23 02:36		
Alkalinity, Bicarbonate (CaCO3)	265	mg/L	10.0	10.0	1		04/21/23 02:36		

## REPORT OF LABORATORY ANALYSIS

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### ANALYTICAL RESULTS

Project: Eagle Valley April 2023 P1R1  
 Pace Project No.: 50342601

Sample: MW-2I		Lab ID: 50342601005		Collected: 04/19/23 10:45	Received: 04/20/23 08:45	Matrix: Water			
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>2320B Alkalinity</b>		Analytical Method: SM 2320B Pace Analytical Services - Indianapolis							
Alkalinity, Carbonate (CaCO3)	ND	mg/L	10.0	10.0	1		04/21/23 02:36		
<b>2540C Total Dissolved Solids</b>		Analytical Method: SM 2540C Pace Analytical Services - Indianapolis							
Total Dissolved Solids	649	mg/L	10.0	10.0	1		04/25/23 11:30		
<b>4500H+ pH, Electrometric</b>		Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis							
pH at 25 Degrees C	7.8	Std. Units	0.10	0.10	1		04/27/23 08:51		H3
<b>4500S2D Sulfide Water</b>		Analytical Method: SM 4500-S2-D Pace Analytical Services - Indianapolis							
Sulfide	ND	mg/L	0.10	0.025	1		04/21/23 13:43	18496-25-8	
<b>Iron, Ferrous</b>		Analytical Method: HACH 8146 Pace Analytical Services - Indianapolis							
Iron, Ferrous	ND	mg/L	0.20	0.035	1		04/20/23 15:59	15438-31-0	H3,N2
<b>353.2 Nitrogen, NO2/NO3 unpres</b>		Analytical Method: EPA 353.2 Pace Analytical Services - Indianapolis							
Nitrogen, Nitrate	ND	mg/L	0.10	0.011	1		04/20/23 22:19	14797-55-8	
Nitrogen, Nitrite	ND	mg/L	0.10	0.0040	1		04/20/23 22:19	14797-65-0	
<b>365.1 Total Phosphorus</b>		Analytical Method: EPA 365.1 Preparation Method: EPA 365.1 Pace Analytical Services - Indianapolis							
Phosphate as P04	ND	mg/L	0.15	0.15	1	04/22/23 13:45	04/24/23 17:25		
<b>5310C TOC</b>		Analytical Method: SM 5310C Pace Analytical Services - Indianapolis							
Total Organic Carbon	1.3	mg/L	1.0	0.24	1		04/25/23 13:45	7440-44-0	
<b>5310C Dissolved Organic Carbon</b>		Analytical Method: SM 5310C Pace Analytical Services - Indianapolis							
Dissolved Organic Carbon	1.4	mg/L	1.0	0.24	1		04/25/23 05:16		

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**QUALITY CONTROL DATA**

Project: Eagle Valley April 2023 P1R1

Pace Project No.: 50342601

QC Batch:	729229	Analysis Method:	EPA 9056
QC Batch Method:	EPA 9056	Analysis Description:	9056 IC Anions
		Laboratory:	Pace Analytical Services - Indianapolis
Associated Lab Samples:	50342601001, 50342601002, 50342601005		

METHOD BLANK: 3346544 Matrix: Water

Associated Lab Samples: 50342601001, 50342601002, 50342601005

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chloride	mg/L	ND	0.25	0.067	04/24/23 10:23	
Fluoride	mg/L	ND	0.10	0.017	04/24/23 10:23	
Sulfate	mg/L	ND	0.25	0.085	04/24/23 10:23	

LABORATORY CONTROL SAMPLE: 3346545

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	2.5	2.3	90	80-120	
Fluoride	mg/L	1	0.91	91	80-120	
Sulfate	mg/L	5	4.6	92	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3346546 3346547

Parameter	Units	MS		MSD		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		50342601002 Result	Spike Conc.	Spike Conc.	Result								
Chloride	mg/L	102	25	25	129	126	106	96	96	80-120	2	15	
Fluoride	mg/L	0.34	1	1	1.3	1.4	101	102	102	80-120	1	15	
Sulfate	mg/L	87.0	50	50	137	135	100	96	96	80-120	2	15	

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**REPORT OF LABORATORY ANALYSIS**

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**QUALITY CONTROL DATA**

Project: Eagle Valley April 2023 P1R1

Pace Project No.: 50342601

QC Batch:	729446	Analysis Method:	EPA 7470
QC Batch Method:	EPA 7470	Analysis Description:	7470 Mercury
		Laboratory:	Pace Analytical Services - Indianapolis

Associated Lab Samples: 50342601001, 50342601002, 50342601005

METHOD BLANK: 3347813 Matrix: Water

Associated Lab Samples: 50342601001, 50342601002, 50342601005

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Mercury	ug/L	ND	0.20	0.091	04/24/23 21:05	

LABORATORY CONTROL SAMPLE: 3347814

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury	ug/L	5	5.2	103	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3347815 3347816

Parameter	Units	50341419003 Result	MS	MSD	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
			Spike Conc.	Spike Conc.								
Mercury	ug/L	ND	5	5	5.4	5.2	108	105	75-125	3	20	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3347817 3347818

Parameter	Units	50342601002 Result	MS	MSD	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
			Spike Conc.	Spike Conc.								
Mercury	ug/L	ND	5	5	5.6	5.4	112	109	75-125	2	20	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3347819 3347820

Parameter	Units	50342799003 Result	MS	MSD	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
			Spike Conc.	Spike Conc.								
Mercury	ug/L	ND	5	5	5.5	5.3	110	106	75-125	3	20	

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**QUALITY CONTROL DATA**

Project: Eagle Valley April 2023 P1R1

Pace Project No.: 50342601

QC Batch:	729378	Analysis Method:	EPA 6010
QC Batch Method:	EPA 3010	Analysis Description:	6010 MET
		Laboratory:	Pace Analytical Services - Indianapolis

Associated Lab Samples: 50342601001, 50342601002, 50342601005

METHOD BLANK: 3347613 Matrix: Water

Associated Lab Samples: 50342601001, 50342601002, 50342601005

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Aluminum	ug/L	ND	200	55.4	04/25/23 00:34	
Boron	ug/L	ND	100	37.6	04/25/23 00:34	
Calcium	ug/L	ND	1000	163	04/25/23 00:34	
Iron	ug/L	ND	100	48.8	04/25/23 00:34	
Lithium	ug/L	ND	20.0	6.2	04/25/23 00:34	
Magnesium	ug/L	ND	1000	71.8	04/25/23 00:34	
Manganese	ug/L	ND	10.0	2.5	04/25/23 00:34	
Potassium	ug/L	ND	1000	281	04/25/23 00:34	
Silica	ug/L	ND	450		04/25/23 00:34	N2
Sodium	ug/L	ND	1000	214	04/25/23 00:34	

LABORATORY CONTROL SAMPLE: 3347614

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Aluminum	ug/L	10000	9830	98	80-120	
Boron	ug/L	1000	956	96	80-120	
Calcium	ug/L	10000	9860	99	80-120	
Iron	ug/L	10000	10100	101	80-120	
Lithium	ug/L	1000	968	97	80-120	
Magnesium	ug/L	10000	9720	97	80-120	
Manganese	ug/L	1000	936	94	80-120	
Potassium	ug/L	10000	9790	98	80-120	
Silica	ug/L	10700	10500	98	80-120	N2
Sodium	ug/L	10000	9570	96	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3347615 3347616

Parameter	Units	MS		MSD		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		50342601002 Result	Spike Conc.	Spike Conc.	MS Result						
Aluminum	ug/L	ND	10000	10000	9620	9720	96	97	75-125	1	20
Boron	ug/L	538	1000	1000	1490	1510	95	97	75-125	1	20
Calcium	ug/L	74400	10000	10000	81900	82200	75	78	75-125	0	20
Iron	ug/L	618	10000	10000	10500	10700	99	101	75-125	2	20
Lithium	ug/L	88.9	1000	1000	1100	1120	101	103	75-125	1	20
Magnesium	ug/L	22400	10000	10000	31300	31200	89	88	75-125	0	20
Manganese	ug/L	320	1000	1000	1230	1240	91	92	75-125	1	20
Potassium	ug/L	7800	10000	10000	17700	17800	99	100	75-125	1	20

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**QUALITY CONTROL DATA**

Project: Eagle Valley April 2023 P1R1

Pace Project No.: 50342601

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3347615												3347616	
Parameter	Units	50342601002 Result	MS	MSD	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual	
			Spike Conc.	Spike Conc.									
Silica	ug/L	9960	10700	10700	20100	20200	95	96	75-125	0	20	N2	
Sodium	ug/L	71000	10000	10000	79200	80300	82	93	75-125	1	20		

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3347617												3347618	
Parameter	Units	50342799003 Result	MS	MSD	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual	
			Spike Conc.	Spike Conc.									
Aluminum	ug/L	200	10000	10000	9950	9930	97	97	75-125	0	20		
Boron	ug/L	326	1000	1000	1300	1300	98	97	75-125	0	20		
Calcium	ug/L	152000	10000	10000	161000	158000	91	62	75-125	2	20	P6	
Iron	ug/L	3840	10000	10000	13700	13600	98	98	75-125	0	20		
Lithium	ug/L	ND	1000	1000	1040	1040	102	102	75-125	0	20		
Magnesium	ug/L	34800	10000	10000	44200	43800	94	90	75-125	1	20		
Manganese	ug/L	364	1000	1000	1280	1270	91	91	75-125	0	20		
Potassium	ug/L	3410	10000	10000	13700	13700	102	103	75-125	0	20		
Silica	ug/L	16300	10700	10700	26700	26500	97	95	75-125	1	20	N2	
Sodium	ug/L	52900	10000	10000	63300	61900	104	90	75-125	2	20		

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**QUALITY CONTROL DATA**

Project: Eagle Valley April 2023 P1R1

Pace Project No.: 50342601

QC Batch: 729247 Analysis Method: EPA 6010  
 QC Batch Method: EPA 3010 Analysis Description: 6010 MET Dissolved  
 Laboratory: Pace Analytical Services - Indianapolis  
 Associated Lab Samples: 50342601001, 50342601002, 50342601005

METHOD BLANK: 3346651 Matrix: Water  
 Associated Lab Samples: 50342601001, 50342601002, 50342601005

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Manganese, Dissolved	ug/L	ND	10.0	5.4	04/24/23 17:17	
Molybdenum, Dissolved	ug/L	ND	10.0	2.0	04/24/23 17:17	

LABORATORY CONTROL SAMPLE: 3346652

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Manganese, Dissolved	ug/L	1000	999	100	80-120	
Molybdenum, Dissolved	ug/L	1000	1010	101	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3346653 3346654

Parameter	Units	50342601002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Manganese, Dissolved	ug/L	343	1000	1000	1330	1330	99	98	75-125	1	20	
Molybdenum, Dissolved	ug/L	97.9	1000	1000	1130	1110	103	101	75-125	2	20	

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**QUALITY CONTROL DATA**

Project: Eagle Valley April 2023 P1R1

Pace Project No.: 50342601

QC Batch:	729423	Analysis Method:	EPA 6020
QC Batch Method:	EPA 200.2	Analysis Description:	6020 MET
		Laboratory:	Pace Analytical Services - Indianapolis

Associated Lab Samples: 50342601001, 50342601002, 50342601005

METHOD BLANK: 3347783 Matrix: Water

Associated Lab Samples: 50342601001, 50342601002, 50342601005

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Antimony	ug/L	ND	1.0	0.036	04/25/23 19:44	
Arsenic	ug/L	ND	1.0	0.053	04/25/23 19:44	
Barium	ug/L	ND	1.0	0.051	04/25/23 19:44	
Beryllium	ug/L	ND	0.20	0.028	04/25/23 19:44	
Cadmium	ug/L	ND	2.0	0.0090	04/25/23 19:44	
Chromium	ug/L	ND	10.0	0.13	04/25/23 19:44	
Cobalt	ug/L	ND	1.0	0.032	04/25/23 19:44	
Lead	ug/L	ND	10.0	0.034	04/25/23 19:44	
Molybdenum	ug/L	ND	10.0	0.048	04/25/23 19:44	
Selenium	ug/L	ND	1.0	0.23	04/25/23 19:44	
Thallium	ug/L	ND	1.0	0.033	04/25/23 19:44	

LABORATORY CONTROL SAMPLE: 3347784

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Antimony	ug/L	40	41.1	103	80-120	
Arsenic	ug/L	40	37.6	94	80-120	
Barium	ug/L	40	38.7	97	80-120	
Beryllium	ug/L	40	38.9	97	80-120	
Cadmium	ug/L	40	38.5	96	80-120	
Chromium	ug/L	40	40.2	100	80-120	
Cobalt	ug/L	40	40.8	102	80-120	
Lead	ug/L	40	40.1	100	80-120	
Molybdenum	ug/L	40	42.1	105	80-120	
Selenium	ug/L	40	40.0	100	80-120	
Thallium	ug/L	40	40.6	101	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3347785 3347786

Parameter	Units	MS		MSD		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		50342601002	Spike Conc.	Spike Conc.	Result								
Antimony	ug/L	ND	40	40	42.4	41.8	106	105	75-125	1	20		
Arsenic	ug/L	1.7	40	40	39.5	39.4	94	94	75-125	0	20		
Barium	ug/L	59.9	40	40	103	103	107	107	75-125	0	20		
Beryllium	ug/L	ND	40	40	40.8	40.6	102	101	75-125	1	20		
Cadmium	ug/L	ND	40	40	38.3	38.2	96	95	75-125	0	20		
Chromium	ug/L	ND	40	40	40.0	39.6	99	98	75-125	1	20		

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**QUALITY CONTROL DATA**

Project: Eagle Valley April 2023 P1R1

Pace Project No.: 50342601

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3347785 3347786													
Parameter	Units	50342601002 Result	MS	MSD	MS	MSD	MS	MSD	% Rec	Limits	RPD	Max RPD	Qual
			Spike Conc.	Spike Conc.	Result	Result	% Rec	% Rec					
Cobalt	ug/L	ND	40	40	39.1	38.3	98	96	75-125	2	20		
Lead	ug/L	ND	40	40	41.1	40.6	103	102	75-125	1	20		
Molybdenum	ug/L	96.6	40	40	137	137	102	102	75-125	0	20		
Selenium	ug/L	ND	40	40	39.0	39.6	98	99	75-125	1	20		
Thallium	ug/L	ND	40	40	42.2	41.8	106	104	75-125	1	20		

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3347787 3347788													
Parameter	Units	50342799003 Result	MS	MSD	MS	MSD	MS	MSD	% Rec	Limits	RPD	Max RPD	Qual
			Spike Conc.	Spike Conc.	Result	Result	% Rec	% Rec					
Antimony	ug/L	ND	40	40	42.5	42.4	106	105	75-125	0	20		
Arsenic	ug/L	2.3	40	40	39.6	39.2	93	92	75-125	1	20		
Barium	ug/L	44.2	40	40	85.2	84.8	102	101	75-125	1	20		
Beryllium	ug/L	ND	40	40	39.4	39.2	99	98	75-125	1	20		
Cadmium	ug/L	ND	40	40	38.2	38.2	95	95	75-125	0	20		
Chromium	ug/L	ND	40	40	39.9	39.8	98	98	75-125	0	20		
Cobalt	ug/L	ND	40	40	38.1	37.5	95	93	75-125	2	20		
Lead	ug/L	ND	40	40	41.1	40.9	102	102	75-125	0	20		
Molybdenum	ug/L	ND	40	40	43.7	43.4	106	105	75-125	1	20		
Selenium	ug/L	ND	40	40	39.0	38.7	97	97	75-125	1	20		
Thallium	ug/L	ND	40	40	42.2	41.8	106	105	75-125	1	20		

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### QUALITY CONTROL DATA

Project: Eagle Valley April 2023 P1R1

Pace Project No.: 50342601

QC Batch:	729121	Analysis Method:	SM 2320B
QC Batch Method:	SM 2320B	Analysis Description:	2320B Alkalinity
		Laboratory:	Pace Analytical Services - Indianapolis
Associated Lab Samples:	50342601001, 50342601002, 50342601005		

METHOD BLANK: 3346100 Matrix: Water

Associated Lab Samples: 50342601001, 50342601002, 50342601005

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Alkalinity, Total as CaCO3	mg/L	ND	10.0	10.0	04/21/23 02:36	
Alkalinity,Bicarbonate (CaCO3)	mg/L	ND	10.0	10.0	04/21/23 02:36	
Alkalinity,Carbonate (CaCO3)	mg/L	ND	10.0	10.0	04/21/23 02:36	

LABORATORY CONTROL SAMPLE: 3346101

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Alkalinity, Total as CaCO3	mg/L	50	48.5	97	90-110	

SAMPLE DUPLICATE: 3346102

Parameter	Units	50342601001 Result	Dup Result	RPD	Max RPD	Qualifiers
Alkalinity, Total as CaCO3	mg/L	258	261	1	20	
Alkalinity,Bicarbonate (CaCO3)	mg/L	258	261	1	20	
Alkalinity,Carbonate (CaCO3)	mg/L	ND	ND		20	

SAMPLE DUPLICATE: 3346103

Parameter	Units	50342601002 Result	Dup Result	RPD	Max RPD	Qualifiers
Alkalinity, Total as CaCO3	mg/L	226	229	1	20	
Alkalinity,Bicarbonate (CaCO3)	mg/L	226	229	1	20	
Alkalinity,Carbonate (CaCO3)	mg/L	ND	ND		20	

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**QUALITY CONTROL DATA**

Project: Eagle Valley April 2023 P1R1

Pace Project No.: 50342601

QC Batch:	729681	Analysis Method:	SM 2540C
QC Batch Method:	SM 2540C	Analysis Description:	2540C Total Dissolved Solids
		Laboratory:	Pace Analytical Services - Indianapolis
Associated Lab Samples:	50342601001, 50342601002, 50342601005		

METHOD BLANK: 3348524 Matrix: Water

Associated Lab Samples: 50342601001, 50342601002, 50342601005

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	ND	10.0	10.0	04/25/23 11:24	

LABORATORY CONTROL SAMPLE: 3348525

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	300	275	92	80-120	

SAMPLE DUPLICATE: 3348527

Parameter	Units	50342601002 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	480	493	3	10	

SAMPLE DUPLICATE: 3348610

Parameter	Units	50342604001 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	4400	4340	2	10	

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### QUALITY CONTROL DATA

Project: Eagle Valley April 2023 P1R1

Pace Project No.: 50342601

QC Batch: 730170

Analysis Method: SM 4500-H+B

QC Batch Method: SM 4500-H+B

Analysis Description: 4500H+B pH

Laboratory: Pace Analytical Services - Indianapolis

Associated Lab Samples: 50342601001, 50342601002, 50342601005

SAMPLE DUPLICATE: 3350934

Parameter	Units	50342601002 Result	Dup Result	RPD	Max RPD	Qualifiers
pH at 25 Degrees C	Std. Units	7.9	8.0	1	2	H3

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**QUALITY CONTROL DATA**

Project: Eagle Valley April 2023 P1R1

Pace Project No.: 50342601

QC Batch:	729184	Analysis Method:	SM 4500-S2-D
QC Batch Method:	SM 4500-S2-D	Analysis Description:	4500S2D Sulfide Water
		Laboratory:	Pace Analytical Services - Indianapolis
Associated Lab Samples:	50342601001, 50342601002, 50342601005		

METHOD BLANK: 3346347 Matrix: Water

Associated Lab Samples: 50342601001, 50342601002, 50342601005

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Sulfide	mg/L	ND	0.10	0.025	04/21/23 13:43	

LABORATORY CONTROL SAMPLE: 3346348

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Sulfide	mg/L	0.5	0.52	104	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3346349 3346350

Parameter	Units	50342601002		50342601005		MS		MSD		% Rec Limits	RPD	Max RPD	Qual
		Result	MS Spike Conc.	MSD Spike Conc.	Result	MSD Result	% Rec	% Rec					
Sulfide	mg/L	ND	0.5	0.5	0.40	0.40	81	80	90-110	1	20	M3	

MATRIX SPIKE SAMPLE: 3346351

Parameter	Units	50342601005 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Sulfide	mg/L	ND	0.5	0.37	74	90-110	M0

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**QUALITY CONTROL DATA**

Project: Eagle Valley April 2023 P1R1  
 Pace Project No.: 50342601

QC Batch: 729055 Analysis Method: HACH 8146  
 QC Batch Method: HACH 8146 Analysis Description: Iron, Ferrous  
 Laboratory: Pace Analytical Services - Indianapolis  
 Associated Lab Samples: 50342601001, 50342601002, 50342601005

METHOD BLANK: 3345416 Matrix: Water  
 Associated Lab Samples: 50342601001, 50342601002, 50342601005

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Iron, Ferrous	mg/L	ND	0.20	0.035	04/20/23 15:42	H3,N2

LABORATORY CONTROL SAMPLE: 3345417

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Iron, Ferrous	mg/L	1	1.0	101	90-110	H3,N2

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3345418 3345419

Parameter	Units	50342354003		3345419		% Rec	% Rec	% Rec Limits	RPD	Max RPD	Qual	
		MS Result	MSD Spike Conc.	MS Result	MSD Spike Conc.							
Iron, Ferrous	mg/L	ND	1	1	1.1	1.1	107	107	90-110	0	20	H3,N2

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3345420 3345421

Parameter	Units	50342601002		3345421		% Rec	% Rec	% Rec Limits	RPD	Max RPD	Qual	
		MS Result	MSD Spike Conc.	MS Result	MSD Spike Conc.							
Iron, Ferrous	mg/L	0.46	1	1	1.4	1.5	97	101	90-110	3	20	H3,N2

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**QUALITY CONTROL DATA**

Project: Eagle Valley April 2023 P1R1

Pace Project No.: 50342601

QC Batch:	729109	Analysis Method:	EPA 353.2
QC Batch Method:	EPA 353.2	Analysis Description:	353.2 Nitrate + Nitrite, Unpres.
		Laboratory:	Pace Analytical Services - Indianapolis

Associated Lab Samples: 50342601001, 50342601002, 50342601005

METHOD BLANK: 3345835 Matrix: Water

Associated Lab Samples: 50342601001, 50342601002, 50342601005

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Nitrogen, Nitrate	mg/L	ND	0.10	0.011	04/20/23 20:50	
Nitrogen, Nitrite	mg/L	ND	0.10	0.0040	04/20/23 20:50	

LABORATORY CONTROL SAMPLE: 3345836

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Nitrogen, Nitrate	mg/L	1	0.96	96	90-110	
Nitrogen, Nitrite	mg/L	1	0.99	99	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3345837 3345838

Parameter	Units	50342601002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Nitrogen, Nitrate	mg/L	ND	1	1	0.95	0.95	94	94	90-110	0	20	
Nitrogen, Nitrite	mg/L	ND	1	1	0.99	0.99	98	99	90-110	0	20	

MATRIX SPIKE SAMPLE: 3345839

Parameter	Units	50342641014 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Nitrogen, Nitrate	mg/L		1.2	1	2.2	108	90-110
Nitrogen, Nitrite	mg/L		ND	1	1.0	98	90-110

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**QUALITY CONTROL DATA**

Project: Eagle Valley April 2023 P1R1

Pace Project No.: 50342601

QC Batch:	729340	Analysis Method:	EPA 365.1
QC Batch Method:	EPA 365.1	Analysis Description:	365.1 Total Phosphorus
		Laboratory:	Pace Analytical Services - Indianapolis
Associated Lab Samples:	50342601001, 50342601002, 50342601005		

METHOD BLANK: 3347356 Matrix: Water  
 Associated Lab Samples: 50342601001, 50342601002, 50342601005

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Phosphate as P04	mg/L	ND	0.15	0.15	04/24/23 17:15	

LABORATORY CONTROL SAMPLE: 3347357

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Phosphate as P04	mg/L		1.4			

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3347358 3347359

Parameter	Units	50342601002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Phosphate as P04	mg/L	ND			1.4	1.4				2		

MATRIX SPIKE SAMPLE: 3347360

Parameter	Units	50342607002 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Phosphate as P04	mg/L		4.5	6.1			

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**QUALITY CONTROL DATA**

Project: Eagle Valley April 2023 P1R1  
 Pace Project No.: 50342601

QC Batch: 729526 Analysis Method: SM 5310C  
 QC Batch Method: SM 5310C Analysis Description: 5310C Total Organic Carbon  
 Laboratory: Pace Analytical Services - Indianapolis  
 Associated Lab Samples: 50342601001, 50342601002, 50342601005

METHOD BLANK: 3348133 Matrix: Water  
 Associated Lab Samples: 50342601001, 50342601002, 50342601005

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Organic Carbon	mg/L	ND	1.0	0.24	04/25/23 12:13	

LABORATORY CONTROL SAMPLE: 3348134

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Organic Carbon	mg/L	10	10.1	101	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3348135 3348136

Parameter	Units	50342601002		3348135		3348136		% Rec Limits	RPD	Max RPD	Qual	
		MS Result	MSD Spike Conc.	MS Result	MSD Spike Conc.	MS Result	MSD Spike Conc.					
Total Organic Carbon	mg/L	1.4	10	10	10	11.4	11.3	100	100	80-120	0	20

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3348137 3348138

Parameter	Units	50342799003		3348137		3348138		% Rec Limits	RPD	Max RPD	Qual	
		MS Result	MSD Spike Conc.	MS Result	MSD Spike Conc.	MS Result	MSD Spike Conc.					
Total Organic Carbon	mg/L	1.0	10	10	10	10.7	10.8	96	98	80-120	1	20

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**QUALITY CONTROL DATA**

Project: Eagle Valley April 2023 P1R1

Pace Project No.: 50342601

QC Batch:	729001	Analysis Method:	SM 5310C
QC Batch Method:	SM 5310C	Analysis Description:	5310C Dissolved Organic Carbon
		Laboratory:	Pace Analytical Services - Indianapolis
Associated Lab Samples:	50342601001, 50342601002, 50342601005		

METHOD BLANK: 3345177 Matrix: Water

Associated Lab Samples: 50342601001, 50342601002, 50342601005

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Dissolved Organic Carbon	mg/L	ND	1.0	0.24	04/25/23 00:50	

LABORATORY CONTROL SAMPLE: 3345178

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Dissolved Organic Carbon	mg/L	10	10.4	104	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3345179 3345180

Parameter	Units	50342354003		3345179		3345180		% Rec Limits	RPD	Max RPD	Qual	
		MS Result	MS Spike Conc.	MS Result	MS Spike Conc.	MSD Result	MSD Spike Conc.					MSD Result
Dissolved Organic Carbon	mg/L	1.6	10	11.6	10	11.3	10	100	97	80-120	2	20

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3345181 3345182

Parameter	Units	50342601002		3345181		3345182		% Rec Limits	RPD	Max RPD	Qual	
		MS Result	MS Spike Conc.	MS Result	MS Spike Conc.	MSD Result	MSD Spike Conc.					MSD Result
Dissolved Organic Carbon	mg/L	ND	10	11.4	10	11.4	10	101	101	80-120	0	20

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**ANALYTICAL RESULTS - RADIOCHEMISTRY**

Project: Eagle Valley April 2023 P1R1

Pace Project No.: 50342601

**Sample: MW-11**      **Lab ID: 50342601001**      Collected: 04/19/23 15:30      Received: 04/20/23 08:45      Matrix: Water  
 PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	<b>1.11 ± 0.935 (1.39)</b> <b>C:NA T:89%</b>	pCi/L	05/05/23 13:57	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	<b>0.498 ± 0.446 (0.914)</b> <b>C:70% T:88%</b>	pCi/L	05/02/23 15:23	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	<b>1.61 ± 1.38 (2.30)</b>	pCi/L	05/08/23 17:06	7440-14-4	

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Eagle Valley April 2023 P1R1

Pace Project No.: 50342601

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Radium-226	EPA 903.1	<b>0.581 ± 0.462 (0.600)</b> <b>C:NA T:90%</b>	pCi/L	05/05/23 13:57	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 904.0	<b>1.29 ± 0.549 (0.921)</b> <b>C:71% T:89%</b>	pCi/L	05/02/23 15:23	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	<b>1.87 ± 1.01 (1.52)</b>	pCi/L	05/08/23 17:06	7440-14-4	

### REPORT OF LABORATORY ANALYSIS

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Eagle Valley April 2023 P1R1

Pace Project No.: 50342601

---

**Sample: MW-1D MS**      **Lab ID: 50342601003**      Collected: 04/19/23 12:42      Received: 04/20/23 08:45      Matrix: Water  
PWS:      Site ID:      Sample Type:

---

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	<b>88.25 %REC ± NA (NA)</b> <b>C:NA T:NA</b>	pCi/L	05/05/23 13:57	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	<b>77.89 %REC ± NA (NA)</b> <b>C:NA T:NA</b>	pCi/L	05/02/23 15:23	15262-20-1	

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Eagle Valley April 2023 P1R1

Pace Project No.: 50342601

<b>Sample:</b> MW-1D MSD	<b>Lab ID:</b> 50342601004	Collected: 04/19/23 12:42	Received: 04/20/23 08:45	Matrix: Water
PWS:	Site ID:	Sample Type:		

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Radium-226	EPA 903.1	<b>78.52 %REC 11.67RPD ±</b> <b>NA (NA)</b> <b>C:NA T:NA</b>	pCi/L	05/05/23 13:57	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 904.0	<b>75.92 %REC 2.56RPD ± NA</b> <b>(NA)</b> <b>C:NA T:NA</b>	pCi/L	05/02/23 15:23	15262-20-1	

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**ANALYTICAL RESULTS - RADIOCHEMISTRY**

Project: Eagle Valley April 2023 P1R1

Pace Project No.: 50342601

**Sample: MW-21**      **Lab ID: 50342601005**      Collected: 04/19/23 10:45      Received: 04/20/23 08:45      Matrix: Water  
 PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	<b>1.24 ± 0.829 (1.03)</b> <b>C:NA T:89%</b>	pCi/L	05/05/23 13:39	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	<b>0.134 ± 0.360 (0.806)</b> <b>C:71% T:86%</b>	pCi/L	05/02/23 15:23	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	<b>1.37 ± 1.19 (1.84)</b>	pCi/L	05/08/23 17:06	7440-14-4	

**REPORT OF LABORATORY ANALYSIS**

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### QUALITY CONTROL - RADIOCHEMISTRY

Project: Eagle Valley April 2023 P1R1

Pace Project No.: 50342601

QC Batch: 583400

Analysis Method: EPA 903.1

QC Batch Method: EPA 903.1

Analysis Description: 903.1 Radium-226

Laboratory: Pace Analytical Services - Greensburg

Associated Lab Samples: 50342601001, 50342601002, 50342601003, 50342601004, 50342601005

METHOD BLANK: 2833102

Matrix: Water

Associated Lab Samples: 50342601001, 50342601002, 50342601003, 50342601004, 50342601005

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.366 ± 0.296 (0.165) C:NA T:95%	pCi/L	05/05/23 13:27	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

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### QUALITY CONTROL - RADIOCHEMISTRY

Project: Eagle Valley April 2023 P1R1

Pace Project No.: 50342601

QC Batch: 583401

Analysis Method: EPA 904.0

QC Batch Method: EPA 904.0

Analysis Description: 904.0 Radium 228

Laboratory: Pace Analytical Services - Greensburg

Associated Lab Samples: 50342601001, 50342601002, 50342601003, 50342601004, 50342601005

METHOD BLANK: 2833103

Matrix: Water

Associated Lab Samples: 50342601001, 50342601002, 50342601003, 50342601004, 50342601005

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.321 ± 0.297 (0.598) C:70% T:93%	pCi/L	05/02/23 15:22	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

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## QUALIFIERS

Project: Eagle Valley April 2023 P1R1

Pace Project No.: 50342601

### DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Reported results are not rounded until the final step prior to reporting. Therefore, calculated parameters that are typically reported as "Total" may vary slightly from the sum of the reported component parameters.

Act - Activity

Unc - Uncertainty: SDWA = 1.96 sigma count uncertainty, all other matrices = Expanded Uncertainty (95% confidence interval).

Gamma Spec = Expanded Uncertainty (95.4% Confidence Interval)

(MDC) - Minimum Detectable Concentration

Trac - Tracer Recovery (%)

Carr - Carrier Recovery (%)

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

### ANALYTE QUALIFIERS

D3 Sample was diluted due to the presence of high levels of non-target analytes or other matrix interference.

H3 Sample was received or analysis requested beyond the recognized method holding time.

M0 Matrix spike recovery and/or matrix spike duplicate recovery was outside laboratory control limits.

M3 Matrix spike recovery was outside laboratory control limits due to matrix interferences.

N2 The lab does not hold NELAC/TNI accreditation for this parameter but other accreditations/certifications may apply. A complete list of accreditations/certifications is available upon request.

P6 Matrix spike recovery was outside laboratory control limits due to a parent sample concentration notably higher than the spike level.

## REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Eagle Valley April 2023 P1R1

Pace Project No.: 50342601

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
50342601001	MW-1I	EPA 9056	729229		
50342601002	MW-1D	EPA 9056	729229		
50342601005	MW-2I	EPA 9056	729229		
50342601001	MW-1I	EPA 3010	729378	EPA 6010	729617
50342601002	MW-1D	EPA 3010	729378	EPA 6010	729617
50342601005	MW-2I	EPA 3010	729378	EPA 6010	729617
50342601001	MW-1I	EPA 3010	729247	EPA 6010	729542
50342601002	MW-1D	EPA 3010	729247	EPA 6010	729542
50342601005	MW-2I	EPA 3010	729247	EPA 6010	729542
50342601001	MW-1I	EPA 200.2	729423	EPA 6020	729682
50342601002	MW-1D	EPA 200.2	729423	EPA 6020	729682
50342601005	MW-2I	EPA 200.2	729423	EPA 6020	729682
50342601001	MW-1I	EPA 7470	729446	EPA 7470	729593
50342601002	MW-1D	EPA 7470	729446	EPA 7470	729593
50342601005	MW-2I	EPA 7470	729446	EPA 7470	729593
50342601001	MW-1I	EPA 903.1	583400		
50342601002	MW-1D	EPA 903.1	583400		
50342601003	MW-1D MS	EPA 903.1	583400		
50342601004	MW-1D MSD	EPA 903.1	583400		
50342601005	MW-2I	EPA 903.1	583400		
50342601001	MW-1I	EPA 904.0	583401		
50342601002	MW-1D	EPA 904.0	583401		
50342601003	MW-1D MS	EPA 904.0	583401		
50342601004	MW-1D MSD	EPA 904.0	583401		
50342601005	MW-2I	EPA 904.0	583401		
50342601001	MW-1I	Total Radium Calculation	586663		
50342601002	MW-1D	Total Radium Calculation	586663		
50342601005	MW-2I	Total Radium Calculation	586663		
50342601001	MW-1I	SM 2320B	729121		
50342601002	MW-1D	SM 2320B	729121		
50342601005	MW-2I	SM 2320B	729121		
50342601001	MW-1I	SM 2540C	729681		
50342601002	MW-1D	SM 2540C	729681		
50342601005	MW-2I	SM 2540C	729681		
50342601001	MW-1I	SM 4500-H+B	730170		
50342601002	MW-1D	SM 4500-H+B	730170		
50342601005	MW-2I	SM 4500-H+B	730170		
50342601001	MW-1I	SM 4500-S2-D	729184		
50342601002	MW-1D	SM 4500-S2-D	729184		
50342601005	MW-2I	SM 4500-S2-D	729184		
50342601001	MW-1I	HACH 8146	729055		
50342601002	MW-1D	HACH 8146	729055		
50342601005	MW-2I	HACH 8146	729055		

REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Eagle Valley April 2023 P1R1

Pace Project No.: 50342601

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
50342601001	MW-1I	EPA 353.2	729109		
50342601002	MW-1D	EPA 353.2	729109		
50342601005	MW-2I	EPA 353.2	729109		
50342601001	MW-1I	EPA 365.1	729340	EPA 365.1	729586
50342601002	MW-1D	EPA 365.1	729340	EPA 365.1	729586
50342601005	MW-2I	EPA 365.1	729340	EPA 365.1	729586
50342601001	MW-1I	SM 5310C	729526		
50342601002	MW-1D	SM 5310C	729526		
50342601005	MW-2I	SM 5310C	729526		
50342601001	MW-1I	SM 5310C	729001		
50342601002	MW-1D	SM 5310C	729001		
50342601005	MW-2I	SM 5310C	729001		

### REPORT OF LABORATORY ANALYSIS

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**SAMPLE CONDITION UPON RECEIPT FORM**

Date/Time and Initials of person examining contents: ML 4/28/23 1115

1. Courier:  FED EX  UPS  CLIENT  PACE  USPS  OTHER \_\_\_\_\_
2. Custody Seal on Cooler/Box Present:  Yes  No  
 (If yes)Seals Intact:  Yes  No (leave blank if no seals were present)
3. Thermometer: 1 2 3 4 5 6 **A** B C D E F
4. Cooler Temperature(s): 2.8/2.8 2.1/2.1 4.7/4.7 \_\_\_\_\_  
 (Initial/Corrected) RECORD TEMPS OF ALL COOLERS RECEIVED (use Comments below to add more)

5. Packing Material:  Bubble Wrap  Bubble Bags  
 None  Other \_\_\_\_\_
6. Ice Type:  Wet  Blue  None
7. If temp. is over 6°C or under 0°C, was the PM notified?:  Yes  No  
 Cooler temp should be above freezing to 6°C

All discrepancies will be written out in the comments section below.

	Yes	No		Yes	No	N/A
USDA Regulated Soils? (HI, ID, NY, WA, OR,CA, NM, TX, OK, AR, LA, TN, AL, MS, NC, SC, GA, FL, or Puerto Rico)		/	All containers needing acid/base preservation have been pH CHECKED?: Exceptions: VOA, coliform, LLHg, O&G, RAD CHEM, and any container with a septum cap or preserved with HCl.			
Short Hold Time Analysis (48 hours or less)? Analysis: <u>NO3</u>	/		Circle: <u>HNO3 (&lt;2)</u> <u>H2SO4 (&lt;2)</u> <u>NaOH (&gt;10)</u> <u>NaOH/ZnAc (&gt;9)</u> Any non-conformance to pH recommendations will be noted on the container count form	/		
Time 5035A TC placed in Freezer or Short Holds To Lab		Time: <u>12:05</u>	Residual Chlorine Check (SVOC 625 Pest/PCB 608)	<u>Present</u>	<u>Absent</u>	<u>N/A</u>
Rush TAT Requested (4 days or less):		/	Residual Chlorine Check (Total/Amenable/Free Cyanide)			/
Custody Signatures Present?	/		Headspace Wisconsin Sulfide?			/
Containers Intact?:	/		Headspace in VOA Vials (>6mm): See Containter Count form for details	<u>Present</u>	<u>Absent</u>	<u>No VOA Vials Sent</u>
Sample Label (IDs/Dates/Times) Match COC?: Except TCs, which only require sample ID	<u>ML</u> /	/	Trip Blank Present?		/	
Extra labels on Terracore Vials? (soils only)			Trip Blank Custody Seals?:		/	

COMMENTS: MS/MSD-2 CONTAINERS LABELED MW-2I 4/19/23 1045

Sample Container Count

\*\* Place a RED dot on containers that are out of conformance \*\*

COC Line Item	WGFC	MeOH (only) SBS DI	VIALS										AMBER GLASS						PLASTIC							OTHER			Matrix	Nitric Red	Sulfuric Yellow	Sodium Hydroxide Green	Sodium Hydroxide/ ZnAc Black	
			VG9H	VG9H	VOA VIAL HS (>6mm)	VG9U	DG9U	VG9T	AG0U	AG1H	AG1U	AG2U	AG3S	AG3SF	AG3C	BP1U	BP1N	BP2U	BP3U	BP3N	BP3F	BP3S	BP3B	BP3Z	CG3H	CG3F	Syringe Kit							
			R	DG9H	VG9H	VG9U	DG9U	VG9T	AG0U	AG1H	AG1U	AG2U	AG3S	AG3SF	AG3C	BP1U	BP1N	BP2U	BP3U	BP3N	BP3F	BP3S	BP3B	BP3Z	CG3H	CG3F	Syringe Kit							
1											1	1			2	1	2	1	1			1							5	✓	✓		✓	
2											3	3			6	3	6	3	3	3			3											
3											1	1			2	1	2	1	1	1			1											
4																																		
5																																		
6																																		
7																																		
8																																		
9																																		
10																																		
11																																		
12																																		

Container Codes

Glass				Plastic			
DG9H	40mL HCl amber voa vial	BG1T	1L Na Thiosulfate clear glass	BP1B	1L NaOH plastic	BP4U	125mL unpreserved plastic
DG9P	40mL TSP amber vial	BG1U	1L unpreserved glass	BP1N	1L HNO3 plastic	BP4N	125mL HNO3 plastic
DG9S	40mL H2SO4 amber vial	BG3H	250mL HCl Clear Glass	BP1S	1L H2SO4 plastic	BP4S	125mL H2SO4 plastic
DG9T	40mL Na Thio amber vial	BG3U	250mL Unpres Clear Glass	BP1U	1L unpreserved plastic	<b>Miscellaneous</b>	
DG9U	40mL unpreserved amber vial	AG0U	100mL unpres amber glass	BP1Z	1L NaOH, Zn, Ac		
VG9H	40mL HCl clear vial	AG1H	1L HCl amber glass	BP2N	500mL HNO3 plastic	Syringe Kit	LL Cr+6 sampling kit
VG9T	40mL Na Thio. clear vial	AG1S	1L H2SO4 amber glass	BP2C	500mL NaOH plastic	ZPLC	Ziploc Bag
VG9U	40mL unpreserved clear vial	AG1T	1L Na Thiosulfate amber glass	BP2S	500mL H2SO4 plastic	R	Terracore Kit
I	40mL w/hexane wipe vial	AG1U	1liter unpres amber glass	BP2U	500mL unpreserved plastic	SP5T	120mL Coliform Sodium Thiosulfate
WGKU	8oz unpreserved clear jar	AG2N	500mL HNO3 amber glass	BP2Z	500mL NaOH, Zn Ac	GN	General Container
WGFC	4oz clear soil jar	AG2S	500mL H2SO4 amber glass	BP3B	250mL NaOH plastic	U	Summa Can (air sample)
JGFU	4oz unpreserved amber wide	AG2U	500mL unpres amber glass	BP3N	250mL HNO3 plastic	WT	Water
CG3H	250mL clear glass HCl	AG3S	250mL H2SO4 amber glass	BP3F	250mL HNO3 plastic-field filtered	SL	Solid Solid
CG3F	250mL clear glass HCl, Field Filter	AG3SF	250mL H2SO4 amb glass -field filtered	BP3U	250mL unpreserved plastic	OL:	Oil
BG1H	1L HCl clear glass	AG3U	250mL unpres amber glass	BP3S	250mL H2SO4 plastic	NAL	Non-aqueous liquid
BG1S	1L H2SO4 clear glass	AG3C	250mL NaOH amber glass	BP3Z	250mL NaOH, ZnAc plastic	WP	Wipe





July 18, 2023

Mr. Mark Breting  
ATC Group Services  
7988 Centerpoint Drive  
Suite 100  
Indianapolis, IN 46256

RE: Project: Eagle Valley April 2023 P1R4  
Pace Project No.: 50342799

Dear Mr. Breting:

Enclosed are the analytical results for sample(s) received by the laboratory on April 21, 2023. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

The test results provided in this final report were generated by each of the following laboratories within the Pace Network:

- Pace Analytical Services - Indianapolis
- Pace Analytical Services - Greensburg

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Will Statz  
will.statz@pacelabs.com  
(317)228-3105  
Project Manager

Enclosures

cc: Mohammed Bazlamit, Atlas  
Mr. Robert Miller, Haley & Aldrich



## REPORT OF LABORATORY ANALYSIS

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### CERTIFICATIONS

Project: Eagle Valley April 2023 P1R4  
Pace Project No.: 50342799

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#### Pace Analytical Services Pennsylvania

1638 Roseytown Rd Suites 2,3&4, Greensburg, PA 15601  
ANAB DOD-ELAP Rad Accreditation #: L2417  
ANABISO/IEC 17025:2017 Rad Cert#: L24170  
Alabama Certification #: 41590  
Arizona Certification #: AZ0734  
Arkansas Certification  
California Certification #: 2950  
Colorado Certification #: PA01547  
Connecticut Certification #: PH-0694  
EPA Region 4 DW Rad  
Florida/TNI Certification #: E87683  
Georgia Certification #: C040  
Guam Certification  
Hawaii Certification  
Idaho Certification  
Illinois Certification  
Indiana Certification  
Iowa Certification #: 391  
Kansas Certification #: E-10358  
Kentucky Certification #: KY90133  
KY WW Permit #: KY0098221  
KY WW Permit #: KY0000221  
Louisiana DHH/TNI Certification #: LA010  
Louisiana DEQ/TNI Certification #: 04086  
Maine Certification #: 2023021  
Maryland Certification #: 308  
Massachusetts Certification #: M-PA1457  
Michigan/PADEP Certification #: 9991

Missouri Certification #: 235  
Montana Certification #: Cert0082  
Nebraska Certification #: NE-OS-29-14  
Nevada Certification #: PA014572023-03  
New Hampshire/TNI Certification #: 297622  
New Jersey/TNI Certification #: PA051  
New Mexico Certification #: PA01457  
New York/TNI Certification #: 10888  
North Carolina Certification #: 42706  
North Dakota Certification #: R-190  
Ohio EPA Rad Approval: #41249  
Oregon/TNI Certification #: PA200002-015  
Pennsylvania/TNI Certification #: 65-00282  
Puerto Rico Certification #: PA01457  
Rhode Island Certification #: 65-00282  
South Dakota Certification  
Tennessee Certification #: TN02867  
Texas/TNI Certification #: T104704188-22-18  
Utah/TNI Certification #: PA014572223-14  
USDA Soil Permit #: 525-23-67-77263  
Vermont Dept. of Health: ID# VT-0282  
Virgin Island/PADEP Certification  
Virginia/VELAP Certification #: 460198  
Washington Certification #: C868  
West Virginia DEP Certification #: 143  
West Virginia DHHR Certification #: 9964C  
Wisconsin Approve List for Rad

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#### Pace Analytical Services Indianapolis

7726 Moller Road, Indianapolis, IN 46268  
Illinois Accreditation #: 200074  
Indiana Drinking Water Laboratory #: C-49-06  
Kansas/TNI Certification #: E-10177  
Kentucky UST Agency Interest #: 80226  
Kentucky WW Laboratory ID #: 98019  
Michigan Drinking Water Laboratory #9050

Ohio VAP Certified Laboratory #: CL0065  
Oklahoma Laboratory #: 9204  
Texas Certification #: T104704355  
Wisconsin Laboratory #: 999788130  
USDA Foreign Soil Permit #: 525-23-13-23119  
USDA Compliance Agreement #: IN-SL-22-001

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### SAMPLE SUMMARY

Project: Eagle Valley April 2023 P1R4

Pace Project No.: 50342799

Lab ID	Sample ID	Matrix	Date Collected	Date Received
50342799001	MW-21S	Water	04/20/23 11:55	04/21/23 11:00
50342799002	MW-21I	Water	04/20/23 13:45	04/21/23 11:00
50342799003	MW-21D	Water	04/20/23 11:50	04/21/23 11:00
50342799004	MW-21D MS	Water	04/20/23 11:50	04/21/23 11:00
50342799005	MW-21D MSD	Water	04/20/23 11:50	04/21/23 11:00
50342799006	MW-22S	Water	04/20/23 15:30	04/21/23 11:00
50342799007	DUP-7	Water	04/20/23 08:00	04/21/23 11:00

### REPORT OF LABORATORY ANALYSIS

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**SAMPLE ANALYTE COUNT**

Project: Eagle Valley April 2023 P1R4  
 Pace Project No.: 50342799

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory		
50342799001	MW-21S	EPA 9056	RMR	3	PASI-I		
		EPA 6010	JPK	10	PASI-I		
		EPA 6010	JPK	2	PASI-I		
		EPA 6020	CAW	11	PASI-I		
		EPA 7470	EAE	1	PASI-I		
		EPA 903.1	CLM	1	PASI-PA		
		EPA 904.0	VAL	1	PASI-PA		
		Total Radium Calculation	JAL	1	PASI-PA		
		SM 2320B	DAW	3	PASI-I		
		SM 2540C	TRK	1	PASI-I		
		SM 4500-H+B	BMS	1	PASI-I		
		SM 4500-S2-D	BEP	1	PASI-I		
		HACH 8146	BEP	1	PASI-I		
		EPA 353.2	ZM	2	PASI-I		
		EPA 365.1	MMS	1	PASI-I		
		SM 5310C	ATS	1	PASI-I		
		SM 5310C	ATS	1	PASI-I		
		50342799002	MW-21I	EPA 9056	RMR	3	PASI-I
				EPA 6010	JPK	10	PASI-I
EPA 6010	JPK			2	PASI-I		
EPA 6020	CAW			11	PASI-I		
EPA 7470	EAE			1	PASI-I		
EPA 903.1	CLM			1	PASI-PA		
EPA 904.0	VAL			1	PASI-PA		
Total Radium Calculation	JAL			1	PASI-PA		
SM 2320B	DAW			3	PASI-I		
SM 2540C	TRK			1	PASI-I		
SM 4500-H+B	BMS			1	PASI-I		
SM 4500-S2-D	BEP			1	PASI-I		
HACH 8146	BEP			1	PASI-I		
EPA 353.2	ZM			2	PASI-I		
EPA 365.1	MMS			1	PASI-I		
SM 5310C	ATS			1	PASI-I		
SM 5310C	ATS			1	PASI-I		
50342799003	MW-21D			EPA 9056	RMR	3	PASI-I
				EPA 6010	JPK	10	PASI-I
		EPA 6010	JPK	2	PASI-I		

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**SAMPLE ANALYTE COUNT**

Project: Eagle Valley April 2023 P1R4  
 Pace Project No.: 50342799

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
		EPA 6020	CAW	11	PASI-I
		EPA 7470	EAE	1	PASI-I
		EPA 903.1	CLM	1	PASI-PA
		EPA 904.0	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
		SM 2320B	DAW	3	PASI-I
		SM 2540C	TRK	1	PASI-I
		SM 4500-H+B	BMS	1	PASI-I
		SM 4500-S2-D	BEP	1	PASI-I
		HACH 8146	BEP	1	PASI-I
		EPA 353.2	ZM	2	PASI-I
		EPA 365.1	MMS	1	PASI-I
		SM 5310C	ATS	1	PASI-I
		SM 5310C	ATS	1	PASI-I
50342799004	MW-21D MS	EPA 903.1	CLM	1	PASI-PA
		EPA 904.0	VAL	1	PASI-PA
50342799005	MW-21D MSD	EPA 903.1	CLM	1	PASI-PA
		EPA 904.0	VAL	1	PASI-PA
50342799006	MW-22S	EPA 9056	RMR	3	PASI-I
		EPA 6010	JPK	10	PASI-I
		EPA 6010	JPK	2	PASI-I
		EPA 6020	CAW	11	PASI-I
		EPA 7470	EAE	1	PASI-I
		EPA 903.1	CLM	1	PASI-PA
		EPA 904.0	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
		SM 2320B	DAW	3	PASI-I
		SM 2540C	TRK	1	PASI-I
		SM 4500-H+B	BMS	1	PASI-I
		SM 4500-S2-D	BEP	1	PASI-I
		HACH 8146	BEP	1	PASI-I
		EPA 353.2	ZM	2	PASI-I
		EPA 365.1	MMS	1	PASI-I
		SM 5310C	ATS	1	PASI-I
		SM 5310C	ATS	1	PASI-I
50342799007	DUP-7	EPA 9056	RMR	3	PASI-I
		EPA 6010	JPK	10	PASI-I

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### SAMPLE ANALYTE COUNT

Project: Eagle Valley April 2023 P1R4

Pace Project No.: 50342799

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
		EPA 6010	JPK	2	PASI-I
		EPA 6020	CAW	11	PASI-I
		EPA 7470	EAE	1	PASI-I
		EPA 903.1	CLM	1	PASI-PA
		EPA 904.0	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
		SM 2320B	DAW	3	PASI-I
		SM 2540C	TRK	1	PASI-I
		SM 4500-H+B	BMS	1	PASI-I
		SM 4500-S2-D	BEP	1	PASI-I
		HACH 8146	BEP	1	PASI-I
		EPA 353.2	ZM	2	PASI-I
		EPA 365.1	MMS	1	PASI-I
		SM 5310C	ATS	1	PASI-I
		SM 5310C	ATS	1	PASI-I

PASI-I = Pace Analytical Services - Indianapolis

PASI-PA = Pace Analytical Services - Greensburg

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### SUMMARY OF DETECTION

Project: Eagle Valley April 2023 P1R4

Pace Project No.: 50342799

Lab Sample ID	Client Sample ID	Result	Units	Report Limit	Analyzed	Qualifiers
Method	Parameters					
<b>50342799001</b>	<b>MW-21S</b>					
EPA 9056	Chloride	63.3	mg/L	2.5	04/29/23 05:47	
EPA 9056	Fluoride	0.16	mg/L	0.10	04/29/23 05:28	
EPA 9056	Sulfate	44.3	mg/L	0.25	04/29/23 05:28	
EPA 6010	Calcium	53900	ug/L	1000	04/25/23 00:56	
EPA 6010	Magnesium	19500	ug/L	1000	04/25/23 00:56	
EPA 6010	Manganese	188	ug/L	10.0	04/25/23 00:56	
EPA 6010	Potassium	2950	ug/L	1000	04/25/23 00:56	
EPA 6010	Silica	4840	ug/L	450	04/25/23 00:56	N2
EPA 6010	Sodium	46200	ug/L	1000	04/25/23 00:56	
EPA 6010	Manganese, Dissolved	105	ug/L	10.0	04/27/23 00:21	
EPA 6020	Barium	20.3	ug/L	1.0	04/25/23 21:14	
EPA 903.1	Radium-226	0.000 ± 0.454 (0.919) C:NA T:93%	pCi/L		05/15/23 12:31	
EPA 904.0	Radium-228	0.700 ± 0.512 (1.01) C:66% T:85%	pCi/L		05/09/23 12:30	
Total Radium Calculation	Total Radium	0.700 ± 0.966 (1.93)	pCi/L		05/15/23 17:16	
SM 2320B	Alkalinity, Total as CaCO3	191	mg/L	10.0	04/21/23 20:14	
SM 2320B	Alkalinity,Bicarbonate (CaCO3)	191	mg/L	10.0	04/21/23 20:14	
SM 2540C	Total Dissolved Solids	307	mg/L	10.0	04/26/23 09:11	
SM 4500-H+B	pH at 25 Degrees C	7.9	Std. Units	0.10	04/26/23 13:09	H3
EPA 353.2	Nitrogen, Nitrate	0.27	mg/L	0.10	04/21/23 19:31	
SM 5310C	Total Organic Carbon	1.5	mg/L	1.0	04/25/23 13:56	
SM 5310C	Dissolved Organic Carbon	1.8	mg/L	1.0	04/28/23 19:40	
<b>50342799002</b>	<b>MW-21I</b>					
EPA 9056	Chloride	19.2	mg/L	0.25	04/29/23 06:06	
EPA 9056	Sulfate	41.6	mg/L	0.25	04/29/23 06:06	
EPA 6010	Calcium	91500	ug/L	1000	04/25/23 00:58	
EPA 6010	Iron	296	ug/L	100	04/25/23 00:58	
EPA 6010	Magnesium	26700	ug/L	1000	04/25/23 00:58	
EPA 6010	Manganese	109	ug/L	10.0	04/25/23 00:58	
EPA 6010	Potassium	1790	ug/L	1000	04/25/23 00:58	
EPA 6010	Silica	13500	ug/L	450	04/25/23 00:58	N2
EPA 6010	Sodium	9870	ug/L	1000	04/25/23 00:58	
EPA 6010	Manganese, Dissolved	105	ug/L	10.0	04/27/23 00:23	
EPA 6020	Barium	80.9	ug/L	1.0	04/25/23 21:18	
EPA 6020	Selenium	6.7	ug/L	1.0	04/25/23 21:18	
EPA 903.1	Radium-226	0.0573 ± 0.337 (0.688) C:NA T:93%	pCi/L		05/15/23 12:31	

### REPORT OF LABORATORY ANALYSIS

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**SUMMARY OF DETECTION**

Project: Eagle Valley April 2023 P1R4

Pace Project No.: 50342799

Lab Sample ID	Client Sample ID	Result	Units	Report Limit	Analyzed	Qualifiers
Method	Parameters					
<b>50342799002</b>	<b>MW-21I</b>					
EPA 904.0	Radium-228	0.803 ± 0.379 (0.646) C:83% T:92%	pCi/L		05/09/23 12:30	
Total Radium Calculation	Total Radium	0.860 ± 0.716 (1.33)	pCi/L		05/15/23 17:16	
SM 2320B	Alkalinity, Total as CaCO3	276	mg/L	10.0	04/21/23 20:14	
SM 2320B	Alkalinity,Bicarbonate (CaCO3)	276	mg/L	10.0	04/21/23 20:14	
SM 2540C	Total Dissolved Solids	355	mg/L	10.0	04/26/23 09:11	
SM 4500-H+B	pH at 25 Degrees C	7.8	Std. Units	0.10	04/26/23 13:10	H3
EPA 353.2	Nitrogen, Nitrate	6.5	mg/L	0.20	04/21/23 19:49	
SM 5310C	Dissolved Organic Carbon	2.0	mg/L	1.0	04/28/23 19:51	
<b>50342799003</b>	<b>MW-21D</b>					
EPA 9056	Chloride	54.9	mg/L	2.5	04/29/23 07:05	
EPA 9056	Sulfate	274	mg/L	2.5	04/29/23 07:05	
EPA 6010	Aluminum	200	ug/L	200	04/25/23 01:00	
EPA 6010	Boron	326	ug/L	100	04/25/23 01:00	
EPA 6010	Calcium	152000	ug/L	1000	04/25/23 01:00	
EPA 6010	Iron	3840	ug/L	100	04/25/23 01:00	
EPA 6010	Magnesium	34800	ug/L	1000	04/25/23 01:00	
EPA 6010	Manganese	364	ug/L	10.0	04/25/23 01:00	
EPA 6010	Potassium	3410	ug/L	1000	04/25/23 01:00	
EPA 6010	Silica	16300	ug/L	450	04/25/23 01:00	N2
EPA 6010	Sodium	52900	ug/L	1000	04/25/23 01:00	
EPA 6010	Manganese, Dissolved	353	ug/L	10.0	04/27/23 00:25	
EPA 6020	Arsenic	2.3	ug/L	1.0	04/25/23 21:21	
EPA 6020	Barium	44.2	ug/L	1.0	04/25/23 21:21	
EPA 903.1	Radium-226	0.189 ± 0.348 (0.620) C:NA T:87%	pCi/L		05/15/23 12:31	
EPA 904.0	Radium-228	0.746 ± 0.432 (0.800) C:79% T:82%	pCi/L		05/09/23 12:30	
Total Radium Calculation	Total Radium	0.935 ± 0.780 (1.42)	pCi/L		05/15/23 17:16	
SM 2320B	Alkalinity, Total as CaCO3	275	mg/L	10.0	04/21/23 20:14	
SM 2320B	Alkalinity,Bicarbonate (CaCO3)	275	mg/L	10.0	04/21/23 20:14	
SM 2540C	Total Dissolved Solids	738	mg/L	10.0	04/26/23 09:12	
SM 4500-H+B	pH at 25 Degrees C	7.3	Std. Units	0.10	04/26/23 13:10	H3
SM 5310C	Total Organic Carbon	1.0	mg/L	1.0	04/25/23 14:36	
SM 5310C	Dissolved Organic Carbon	1.5	mg/L	1.0	04/28/23 20:26	

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**SUMMARY OF DETECTION**

Project: Eagle Valley April 2023 P1R4

Pace Project No.: 50342799

Lab Sample ID	Client Sample ID	Result	Units	Report Limit	Analyzed	Qualifiers
Method	Parameters					
<b>50342799004</b>	<b>MW-21D MS</b>					
EPA 903.1	Radium-226	93.09 %REC ± NA (NA) C:NA T:NA	pCi/L		05/15/23 12:31	
EPA 904.0	Radium-228	86.45 %REC ± NA (NA) C:NA T:NA	pCi/L		05/09/23 12:30	
<b>50342799005</b>	<b>MW-21D MSD</b>					
EPA 903.1	Radium-226	109.64 %REC 16.33RPD± NA (NA) C:NA T:NA	pCi/L		05/15/23 12:31	
EPA 904.0	Radium-228	82.24 %REC 5.00RPD ± NA (NA) C:NA T:NA	pCi/L		05/09/23 12:27	
<b>50342799006</b>	<b>MW-22S</b>					
EPA 9056	Chloride	27.8	mg/L	2.5	04/29/23 09:41	
EPA 9056	Fluoride	0.10	mg/L	0.10	04/29/23 09:21	
EPA 9056	Sulfate	29.3	mg/L	0.25	04/29/23 09:21	
EPA 6010	Calcium	134000	ug/L	1000	04/25/23 01:07	
EPA 6010	Magnesium	29600	ug/L	1000	04/25/23 01:07	
EPA 6010	Manganese	744	ug/L	10.0	04/25/23 01:07	
EPA 6010	Potassium	1670	ug/L	1000	04/25/23 01:07	
EPA 6010	Silica	12000	ug/L	450	04/25/23 01:07	N2
EPA 6010	Sodium	23100	ug/L	1000	04/25/23 01:07	
EPA 6010	Manganese, Dissolved	515	ug/L	10.0	04/26/23 23:45	
EPA 6020	Barium	42.7	ug/L	1.0	04/25/23 21:38	
EPA 6020	Selenium	2.8	ug/L	1.0	04/25/23 21:38	
EPA 903.1	Radium-226	0.0581 ± 0.341 (0.697) C:NA T:97%	pCi/L		05/15/23 12:57	
EPA 904.0	Radium-228	0.671 ± 0.633 (1.30) C:50% T:84%	pCi/L		05/09/23 12:27	
Total Radium Calculation	Total Radium	0.729 ± 0.974 (2.00)	pCi/L		05/15/23 17:16	
SM 2320B	Alkalinity, Total as CaCO3	452	mg/L	10.0	04/21/23 20:14	
SM 2320B	Alkalinity,Bicarbonate (CaCO3)	452	mg/L	10.0	04/21/23 20:14	
SM 2540C	Total Dissolved Solids	514	mg/L	10.0	04/26/23 09:12	
SM 4500-H+B	pH at 25 Degrees C	7.0	Std. Units	0.10	04/26/23 13:11	H3
EPA 353.2	Nitrogen, Nitrate	1.6	mg/L	0.10	04/21/23 19:44	
SM 5310C	Total Organic Carbon	1.7	mg/L	1.0	04/25/23 15:08	
SM 5310C	Dissolved Organic Carbon	1.7	mg/L	1.0	04/28/23 21:03	

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### SUMMARY OF DETECTION

Project: Eagle Valley April 2023 P1R4

Pace Project No.: 50342799

Lab Sample ID	Client Sample ID	Result	Units	Report Limit	Analyzed	Qualifiers
Method	Parameters					
<b>50342799007</b>	<b>DUP-7</b>					
EPA 9056	Chloride	27.5	mg/L	2.5	04/29/23 10:20	
EPA 9056	Fluoride	0.11	mg/L	0.10	04/29/23 10:00	
EPA 9056	Sulfate	29.2	mg/L	0.25	04/29/23 10:00	
EPA 6010	Calcium	136000	ug/L	1000	04/25/23 01:09	
EPA 6010	Magnesium	30600	ug/L	1000	04/25/23 01:09	
EPA 6010	Manganese	735	ug/L	10.0	04/25/23 01:09	
EPA 6010	Potassium	1700	ug/L	1000	04/25/23 01:09	
EPA 6010	Silica	12400	ug/L	450	04/25/23 01:09	N2
EPA 6010	Sodium	23700	ug/L	1000	04/25/23 01:09	
EPA 6010	Manganese, Dissolved	530	ug/L	10.0	04/26/23 23:51	
EPA 6020	Barium	42.7	ug/L	1.0	04/25/23 21:41	
EPA 6020	Selenium	2.8	ug/L	1.0	04/25/23 21:41	
EPA 903.1	Radium-226	0.111 ± 0.345 (0.668) C:NA T:101%	pCi/L		05/15/23 12:57	
EPA 904.0	Radium-228	0.227 ± 0.388 (0.846) C:79% T:81%	pCi/L		05/09/23 12:27	
Total Radium Calculation	Total Radium	0.338 ± 0.733 (1.51)	pCi/L		05/15/23 17:16	
SM 2320B	Alkalinity, Total as CaCO3	449	mg/L	10.0	04/21/23 20:14	
SM 2320B	Alkalinity,Bicarbonate (CaCO3)	449	mg/L	10.0	04/21/23 20:14	
SM 2540C	Total Dissolved Solids	521	mg/L	10.0	04/26/23 09:13	
SM 4500-H+B	pH at 25 Degrees C	7.0	Std. Units	0.10	04/26/23 13:12	H3
EPA 353.2	Nitrogen, Nitrate	1.6	mg/L	0.10	04/21/23 19:12	
SM 5310C	Total Organic Carbon	1.6	mg/L	1.0	04/25/23 15:18	
SM 5310C	Dissolved Organic Carbon	1.7	mg/L	1.0	04/28/23 21:24	

### REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: Eagle Valley April 2023 P1R4

Pace Project No.: 50342799

Sample: MW-21S		Lab ID: 50342799001		Collected: 04/20/23 11:55		Received: 04/21/23 11:00		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>9056 IC Anions</b>									
Analytical Method: EPA 9056									
Pace Analytical Services - Indianapolis									
Chloride	63.3	mg/L	2.5	0.67	10		04/29/23 05:47	16887-00-6	
Fluoride	0.16	mg/L	0.10	0.017	1		04/29/23 05:28	16984-48-8	
Sulfate	44.3	mg/L	0.25	0.085	1		04/29/23 05:28	14808-79-8	
<b>6010 MET ICP</b>									
Analytical Method: EPA 6010 Preparation Method: EPA 3010									
Pace Analytical Services - Indianapolis									
Aluminum	ND	ug/L	200	55.4	1	04/24/23 08:38	04/25/23 00:56	7429-90-5	
Boron	ND	ug/L	100	37.6	1	04/24/23 08:38	04/25/23 00:56	7440-42-8	
Calcium	53900	ug/L	1000	163	1	04/24/23 08:38	04/25/23 00:56	7440-70-2	
Iron	ND	ug/L	100	48.8	1	04/24/23 08:38	04/25/23 00:56	7439-89-6	
Lithium	ND	ug/L	20.0	6.2	1	04/24/23 08:38	04/25/23 00:56	7439-93-2	
Magnesium	19500	ug/L	1000	71.8	1	04/24/23 08:38	04/25/23 00:56	7439-95-4	
Manganese	188	ug/L	10.0	2.5	1	04/24/23 08:38	04/25/23 00:56	7439-96-5	
Potassium	2950	ug/L	1000	281	1	04/24/23 08:38	04/25/23 00:56	7440-09-7	
Silica	4840	ug/L	450		1	04/24/23 08:38	04/25/23 00:56	7631-86-9	N2
Sodium	46200	ug/L	1000	214	1	04/24/23 08:38	04/25/23 00:56	7440-23-5	
<b>6010 MET ICP, Dissolved</b>									
Analytical Method: EPA 6010 Preparation Method: EPA 3010									
Pace Analytical Services - Indianapolis									
Manganese, Dissolved	105	ug/L	10.0	2.5	1	04/26/23 15:43	04/27/23 00:21	7439-96-5	
Molybdenum, Dissolved	ND	ug/L	10.0	3.7	1	04/26/23 15:43	04/27/23 00:21	7439-98-7	
<b>6020 MET ICPMS</b>									
Analytical Method: EPA 6020 Preparation Method: EPA 200.2									
Pace Analytical Services - Indianapolis									
Antimony	ND	ug/L	1.0	0.036	1	04/24/23 22:00	04/25/23 21:14	7440-36-0	
Arsenic	ND	ug/L	1.0	0.053	1	04/24/23 22:00	04/25/23 21:14	7440-38-2	
Barium	20.3	ug/L	1.0	0.051	1	04/24/23 22:00	04/25/23 21:14	7440-39-3	
Beryllium	ND	ug/L	0.20	0.028	1	04/24/23 22:00	04/25/23 21:14	7440-41-7	
Cadmium	ND	ug/L	2.0	0.0090	1	04/24/23 22:00	04/25/23 21:14	7440-43-9	
Chromium	ND	ug/L	10.0	0.13	1	04/24/23 22:00	04/25/23 21:14	7440-47-3	
Cobalt	ND	ug/L	1.0	0.032	1	04/24/23 22:00	04/25/23 21:14	7440-48-4	
Lead	ND	ug/L	10.0	0.034	1	04/24/23 22:00	04/25/23 21:14	7439-92-1	
Molybdenum	ND	ug/L	10.0	0.048	1	04/24/23 22:00	04/25/23 21:14	7439-98-7	
Selenium	ND	ug/L	1.0	0.23	1	04/24/23 22:00	04/25/23 21:14	7782-49-2	
Thallium	ND	ug/L	1.0	0.033	1	04/24/23 22:00	04/25/23 21:14	7440-28-0	
<b>7470 Mercury</b>									
Analytical Method: EPA 7470 Preparation Method: EPA 7470									
Pace Analytical Services - Indianapolis									
Mercury	ND	ug/L	0.20	0.091	1	04/24/23 10:43	04/24/23 21:49	7439-97-6	
<b>2320B Alkalinity</b>									
Analytical Method: SM 2320B									
Pace Analytical Services - Indianapolis									
Alkalinity, Total as CaCO3	191	mg/L	10.0	10.0	1		04/21/23 20:14		
Alkalinity,Bicarbonate (CaCO3)	191	mg/L	10.0	10.0	1		04/21/23 20:14		

## REPORT OF LABORATORY ANALYSIS

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**ANALYTICAL RESULTS**

Project: Eagle Valley April 2023 P1R4

Pace Project No.: 50342799

Sample: MW-21S		Lab ID: 50342799001		Collected: 04/20/23 11:55	Received: 04/21/23 11:00	Matrix: Water			
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>2320B Alkalinity</b>		Analytical Method: SM 2320B Pace Analytical Services - Indianapolis							
Alkalinity, Carbonate (CaCO3)	ND	mg/L	10.0	10.0	1		04/21/23 20:14		
<b>2540C Total Dissolved Solids</b>		Analytical Method: SM 2540C Pace Analytical Services - Indianapolis							
Total Dissolved Solids	307	mg/L	10.0	10.0	1		04/26/23 09:11		
<b>4500H+ pH, Electrometric</b>		Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis							
pH at 25 Degrees C	7.9	Std. Units	0.10	0.10	1		04/26/23 13:09		H3
<b>4500S2D Sulfide Water</b>		Analytical Method: SM 4500-S2-D Pace Analytical Services - Indianapolis							
Sulfide	ND	mg/L	0.10	0.025	1		04/24/23 16:28	18496-25-8	
<b>Iron, Ferrous</b>		Analytical Method: HACH 8146 Pace Analytical Services - Indianapolis							
Iron, Ferrous	ND	mg/L	0.20	0.035	1		04/26/23 10:17	15438-31-0	H3,N2
<b>353.2 Nitrogen, NO2/NO3 unpres</b>		Analytical Method: EPA 353.2 Pace Analytical Services - Indianapolis							
Nitrogen, Nitrate	0.27	mg/L	0.10	0.011	1		04/21/23 19:31	14797-55-8	
Nitrogen, Nitrite	ND	mg/L	0.10	0.0040	1		04/21/23 19:31	14797-65-0	
<b>365.1 Total Phosphorus</b>		Analytical Method: EPA 365.1 Preparation Method: EPA 365.1 Pace Analytical Services - Indianapolis							
Phosphate as P04	ND	mg/L	0.15	0.15	1	04/26/23 11:20	04/28/23 16:38		
<b>5310C TOC</b>		Analytical Method: SM 5310C Pace Analytical Services - Indianapolis							
Total Organic Carbon	1.5	mg/L	1.0	0.24	1		04/25/23 13:56	7440-44-0	
<b>5310C Dissolved Organic Carbon</b>		Analytical Method: SM 5310C Pace Analytical Services - Indianapolis							
Dissolved Organic Carbon	1.8	mg/L	1.0	0.24	1		04/28/23 19:40		

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## ANALYTICAL RESULTS

Project: Eagle Valley April 2023 P1R4

Pace Project No.: 50342799

Sample: MW-211		Lab ID: 50342799002		Collected: 04/20/23 13:45		Received: 04/21/23 11:00		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>9056 IC Anions</b>		Analytical Method: EPA 9056 Pace Analytical Services - Indianapolis							
Chloride	19.2	mg/L	0.25	0.067	1		04/29/23 06:06	16887-00-6	
Fluoride	ND	mg/L	0.10	0.017	1		04/29/23 06:06	16984-48-8	
Sulfate	41.6	mg/L	0.25	0.085	1		04/29/23 06:06	14808-79-8	
<b>6010 MET ICP</b>		Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis							
Aluminum	ND	ug/L	200	55.4	1	04/24/23 08:38	04/25/23 00:58	7429-90-5	
Boron	ND	ug/L	100	37.6	1	04/24/23 08:38	04/25/23 00:58	7440-42-8	
Calcium	91500	ug/L	1000	163	1	04/24/23 08:38	04/25/23 00:58	7440-70-2	
Iron	296	ug/L	100	48.8	1	04/24/23 08:38	04/25/23 00:58	7439-89-6	
Lithium	ND	ug/L	20.0	6.2	1	04/24/23 08:38	04/25/23 00:58	7439-93-2	
Magnesium	26700	ug/L	1000	71.8	1	04/24/23 08:38	04/25/23 00:58	7439-95-4	
Manganese	109	ug/L	10.0	2.5	1	04/24/23 08:38	04/25/23 00:58	7439-96-5	
Potassium	1790	ug/L	1000	281	1	04/24/23 08:38	04/25/23 00:58	7440-09-7	
Silica	13500	ug/L	450		1	04/24/23 08:38	04/25/23 00:58	7631-86-9	N2
Sodium	9870	ug/L	1000	214	1	04/24/23 08:38	04/25/23 00:58	7440-23-5	
<b>6010 MET ICP, Dissolved</b>		Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis							
Manganese, Dissolved	105	ug/L	10.0	2.5	1	04/26/23 15:43	04/27/23 00:23	7439-96-5	
Molybdenum, Dissolved	ND	ug/L	10.0	3.7	1	04/26/23 15:43	04/27/23 00:23	7439-98-7	
<b>6020 MET ICPMS</b>		Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis							
Antimony	ND	ug/L	1.0	0.036	1	04/24/23 22:00	04/25/23 21:18	7440-36-0	
Arsenic	ND	ug/L	1.0	0.053	1	04/24/23 22:00	04/25/23 21:18	7440-38-2	
Barium	80.9	ug/L	1.0	0.051	1	04/24/23 22:00	04/25/23 21:18	7440-39-3	
Beryllium	ND	ug/L	0.20	0.028	1	04/24/23 22:00	04/25/23 21:18	7440-41-7	
Cadmium	ND	ug/L	2.0	0.0090	1	04/24/23 22:00	04/25/23 21:18	7440-43-9	
Chromium	ND	ug/L	10.0	0.13	1	04/24/23 22:00	04/25/23 21:18	7440-47-3	
Cobalt	ND	ug/L	1.0	0.032	1	04/24/23 22:00	04/25/23 21:18	7440-48-4	
Lead	ND	ug/L	10.0	0.034	1	04/24/23 22:00	04/25/23 21:18	7439-92-1	
Molybdenum	ND	ug/L	10.0	0.048	1	04/24/23 22:00	04/25/23 21:18	7439-98-7	
Selenium	6.7	ug/L	1.0	0.23	1	04/24/23 22:00	04/25/23 21:18	7782-49-2	
Thallium	ND	ug/L	1.0	0.033	1	04/24/23 22:00	04/25/23 21:18	7440-28-0	
<b>7470 Mercury</b>		Analytical Method: EPA 7470 Preparation Method: EPA 7470 Pace Analytical Services - Indianapolis							
Mercury	ND	ug/L	0.20	0.091	1	04/24/23 10:43	04/24/23 21:52	7439-97-6	
<b>2320B Alkalinity</b>		Analytical Method: SM 2320B Pace Analytical Services - Indianapolis							
Alkalinity, Total as CaCO3	276	mg/L	10.0	10.0	1		04/21/23 20:14		
Alkalinity,Bicarbonate (CaCO3)	276	mg/L	10.0	10.0	1		04/21/23 20:14		

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**ANALYTICAL RESULTS**

Project: Eagle Valley April 2023 P1R4  
 Pace Project No.: 50342799

Sample: MW-211		Lab ID: 50342799002		Collected: 04/20/23 13:45	Received: 04/21/23 11:00	Matrix: Water			
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>2320B Alkalinity</b>		Analytical Method: SM 2320B Pace Analytical Services - Indianapolis							
Alkalinity, Carbonate (CaCO3)	ND	mg/L	10.0	10.0	1		04/21/23 20:14		
<b>2540C Total Dissolved Solids</b>		Analytical Method: SM 2540C Pace Analytical Services - Indianapolis							
Total Dissolved Solids	355	mg/L	10.0	10.0	1		04/26/23 09:11		
<b>4500H+ pH, Electrometric</b>		Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis							
pH at 25 Degrees C	7.8	Std. Units	0.10	0.10	1		04/26/23 13:10		H3
<b>4500S2D Sulfide Water</b>		Analytical Method: SM 4500-S2-D Pace Analytical Services - Indianapolis							
Sulfide	ND	mg/L	0.10	0.025	1		04/24/23 16:28	18496-25-8	
<b>Iron, Ferrous</b>		Analytical Method: HACH 8146 Pace Analytical Services - Indianapolis							
Iron, Ferrous	ND	mg/L	0.20	0.035	1		04/26/23 10:17	15438-31-0	H3,N2
<b>353.2 Nitrogen, NO2/NO3 unpres</b>		Analytical Method: EPA 353.2 Pace Analytical Services - Indianapolis							
Nitrogen, Nitrate	6.5	mg/L	0.20	0.022	2		04/21/23 19:49	14797-55-8	
Nitrogen, Nitrite	ND	mg/L	0.20	0.0080	2		04/21/23 19:49	14797-65-0	
<b>365.1 Total Phosphorus</b>		Analytical Method: EPA 365.1 Preparation Method: EPA 365.1 Pace Analytical Services - Indianapolis							
Phosphate as P04	ND	mg/L	0.15	0.15	1	04/26/23 11:20	04/28/23 16:39		
<b>5310C TOC</b>		Analytical Method: SM 5310C Pace Analytical Services - Indianapolis							
Total Organic Carbon	ND	mg/L	1.0	0.24	1		04/25/23 14:06	7440-44-0	
<b>5310C Dissolved Organic Carbon</b>		Analytical Method: SM 5310C Pace Analytical Services - Indianapolis							
Dissolved Organic Carbon	2.0	mg/L	1.0	0.24	1		04/28/23 19:51		

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## ANALYTICAL RESULTS

Project: Eagle Valley April 2023 P1R4

Pace Project No.: 50342799

Sample: MW-21D		Lab ID: 50342799003		Collected: 04/20/23 11:50		Received: 04/21/23 11:00		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>9056 IC Anions</b>		Analytical Method: EPA 9056 Pace Analytical Services - Indianapolis							
Chloride	54.9	mg/L	2.5	0.67	10		04/29/23 07:05	16887-00-6	
Fluoride	ND	mg/L	0.10	0.017	1		04/29/23 06:45	16984-48-8	
Sulfate	274	mg/L	2.5	0.85	10		04/29/23 07:05	14808-79-8	
<b>6010 MET ICP</b>		Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis							
Aluminum	200	ug/L	200	55.4	1	04/24/23 08:38	04/25/23 01:00	7429-90-5	
Boron	326	ug/L	100	37.6	1	04/24/23 08:38	04/25/23 01:00	7440-42-8	
Calcium	152000	ug/L	1000	163	1	04/24/23 08:38	04/25/23 01:00	7440-70-2	
Iron	3840	ug/L	100	48.8	1	04/24/23 08:38	04/25/23 01:00	7439-89-6	
Lithium	ND	ug/L	20.0	6.2	1	04/24/23 08:38	04/25/23 01:00	7439-93-2	
Magnesium	34800	ug/L	1000	71.8	1	04/24/23 08:38	04/25/23 01:00	7439-95-4	
Manganese	364	ug/L	10.0	2.5	1	04/24/23 08:38	04/25/23 01:00	7439-96-5	
Potassium	3410	ug/L	1000	281	1	04/24/23 08:38	04/25/23 01:00	7440-09-7	
Silica	16300	ug/L	450		1	04/24/23 08:38	04/25/23 01:00	7631-86-9	N2
Sodium	52900	ug/L	1000	214	1	04/24/23 08:38	04/25/23 01:00	7440-23-5	
<b>6010 MET ICP, Dissolved</b>		Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis							
Manganese, Dissolved	353	ug/L	10.0	2.5	1	04/26/23 15:43	04/27/23 00:25	7439-96-5	
Molybdenum, Dissolved	ND	ug/L	10.0	3.7	1	04/26/23 15:43	04/27/23 00:25	7439-98-7	
<b>6020 MET ICPMS</b>		Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis							
Antimony	ND	ug/L	1.0	0.036	1	04/24/23 22:00	04/25/23 21:21	7440-36-0	
Arsenic	2.3	ug/L	1.0	0.053	1	04/24/23 22:00	04/25/23 21:21	7440-38-2	
Barium	44.2	ug/L	1.0	0.051	1	04/24/23 22:00	04/25/23 21:21	7440-39-3	
Beryllium	ND	ug/L	0.20	0.028	1	04/24/23 22:00	04/25/23 21:21	7440-41-7	
Cadmium	ND	ug/L	2.0	0.0090	1	04/24/23 22:00	04/25/23 21:21	7440-43-9	
Chromium	ND	ug/L	10.0	0.13	1	04/24/23 22:00	04/25/23 21:21	7440-47-3	
Cobalt	ND	ug/L	1.0	0.032	1	04/24/23 22:00	04/25/23 21:21	7440-48-4	
Lead	ND	ug/L	10.0	0.034	1	04/24/23 22:00	04/25/23 21:21	7439-92-1	
Molybdenum	ND	ug/L	10.0	0.048	1	04/24/23 22:00	04/25/23 21:21	7439-98-7	
Selenium	ND	ug/L	1.0	0.23	1	04/24/23 22:00	04/25/23 21:21	7782-49-2	
Thallium	ND	ug/L	1.0	0.033	1	04/24/23 22:00	04/25/23 21:21	7440-28-0	
<b>7470 Mercury</b>		Analytical Method: EPA 7470 Preparation Method: EPA 7470 Pace Analytical Services - Indianapolis							
Mercury	ND	ug/L	0.20	0.091	1	04/24/23 10:43	04/24/23 21:54	7439-97-6	
<b>2320B Alkalinity</b>		Analytical Method: SM 2320B Pace Analytical Services - Indianapolis							
Alkalinity, Total as CaCO3	275	mg/L	10.0	10.0	1		04/21/23 20:14		
Alkalinity, Bicarbonate (CaCO3)	275	mg/L	10.0	10.0	1		04/21/23 20:14		

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**ANALYTICAL RESULTS**

Project: Eagle Valley April 2023 P1R4

Pace Project No.: 50342799

Sample: MW-21D		Lab ID: 50342799003		Collected: 04/20/23 11:50	Received: 04/21/23 11:00	Matrix: Water			
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>2320B Alkalinity</b>		Analytical Method: SM 2320B Pace Analytical Services - Indianapolis							
Alkalinity, Carbonate (CaCO3)	ND	mg/L	10.0	10.0	1		04/21/23 20:14		
<b>2540C Total Dissolved Solids</b>		Analytical Method: SM 2540C Pace Analytical Services - Indianapolis							
Total Dissolved Solids	<b>738</b>	mg/L	10.0	10.0	1		04/26/23 09:12		
<b>4500H+ pH, Electrometric</b>		Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis							
pH at 25 Degrees C	<b>7.3</b>	Std. Units	0.10	0.10	1		04/26/23 13:10		H3
<b>4500S2D Sulfide Water</b>		Analytical Method: SM 4500-S2-D Pace Analytical Services - Indianapolis							
Sulfide	ND	mg/L	0.10	0.025	1		04/24/23 16:28	18496-25-8	
<b>Iron, Ferrous</b>		Analytical Method: HACH 8146 Pace Analytical Services - Indianapolis							
Iron, Ferrous	ND	mg/L	0.20	0.035	1		04/26/23 10:16	15438-31-0	H3,N2
<b>353.2 Nitrogen, NO2/NO3 unpres</b>		Analytical Method: EPA 353.2 Pace Analytical Services - Indianapolis							
Nitrogen, Nitrate	ND	mg/L	0.10	0.011	1		04/21/23 19:21	14797-55-8	
Nitrogen, Nitrite	ND	mg/L	0.10	0.0040	1		04/21/23 19:21	14797-65-0	
<b>365.1 Total Phosphorus</b>		Analytical Method: EPA 365.1 Preparation Method: EPA 365.1 Pace Analytical Services - Indianapolis							
Phosphate as P04	ND	mg/L	0.15	0.15	1	04/26/23 11:20	04/28/23 16:40		
<b>5310C TOC</b>		Analytical Method: SM 5310C Pace Analytical Services - Indianapolis							
Total Organic Carbon	<b>1.0</b>	mg/L	1.0	0.24	1		04/25/23 14:36	7440-44-0	
<b>5310C Dissolved Organic Carbon</b>		Analytical Method: SM 5310C Pace Analytical Services - Indianapolis							
Dissolved Organic Carbon	<b>1.5</b>	mg/L	1.0	0.24	1		04/28/23 20:26		

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## ANALYTICAL RESULTS

Project: Eagle Valley April 2023 P1R4

Pace Project No.: 50342799

Sample: MW-22S		Lab ID: 50342799006		Collected: 04/20/23 15:30		Received: 04/21/23 11:00		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>9056 IC Anions</b>		Analytical Method: EPA 9056 Pace Analytical Services - Indianapolis							
Chloride	27.8	mg/L	2.5	0.67	10		04/29/23 09:41	16887-00-6	
Fluoride	0.10	mg/L	0.10	0.017	1		04/29/23 09:21	16984-48-8	
Sulfate	29.3	mg/L	0.25	0.085	1		04/29/23 09:21	14808-79-8	
<b>6010 MET ICP</b>		Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis							
Aluminum	ND	ug/L	200	55.4	1	04/24/23 08:38	04/25/23 01:07	7429-90-5	
Boron	ND	ug/L	100	37.6	1	04/24/23 08:38	04/25/23 01:07	7440-42-8	
Calcium	134000	ug/L	1000	163	1	04/24/23 08:38	04/25/23 01:07	7440-70-2	
Iron	ND	ug/L	100	48.8	1	04/24/23 08:38	04/25/23 01:07	7439-89-6	
Lithium	ND	ug/L	20.0	6.2	1	04/24/23 08:38	04/25/23 01:07	7439-93-2	
Magnesium	29600	ug/L	1000	71.8	1	04/24/23 08:38	04/25/23 01:07	7439-95-4	
Manganese	744	ug/L	10.0	2.5	1	04/24/23 08:38	04/25/23 01:07	7439-96-5	
Potassium	1670	ug/L	1000	281	1	04/24/23 08:38	04/25/23 01:07	7440-09-7	
Silica	12000	ug/L	450		1	04/24/23 08:38	04/25/23 01:07	7631-86-9	N2
Sodium	23100	ug/L	1000	214	1	04/24/23 08:38	04/25/23 01:07	7440-23-5	
<b>6010 MET ICP, Dissolved</b>		Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis							
Manganese, Dissolved	515	ug/L	10.0	2.5	1	04/26/23 15:43	04/26/23 23:45	7439-96-5	
Molybdenum, Dissolved	ND	ug/L	10.0	3.7	1	04/26/23 15:43	04/26/23 23:45	7439-98-7	
<b>6020 MET ICPMS</b>		Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis							
Antimony	ND	ug/L	1.0	0.036	1	04/24/23 22:00	04/25/23 21:38	7440-36-0	
Arsenic	ND	ug/L	1.0	0.053	1	04/24/23 22:00	04/25/23 21:38	7440-38-2	
Barium	42.7	ug/L	1.0	0.051	1	04/24/23 22:00	04/25/23 21:38	7440-39-3	
Beryllium	ND	ug/L	0.20	0.028	1	04/24/23 22:00	04/25/23 21:38	7440-41-7	
Cadmium	ND	ug/L	2.0	0.0090	1	04/24/23 22:00	04/25/23 21:38	7440-43-9	
Chromium	ND	ug/L	10.0	0.13	1	04/24/23 22:00	04/25/23 21:38	7440-47-3	
Cobalt	ND	ug/L	1.0	0.032	1	04/24/23 22:00	04/25/23 21:38	7440-48-4	
Lead	ND	ug/L	10.0	0.034	1	04/24/23 22:00	04/25/23 21:38	7439-92-1	
Molybdenum	ND	ug/L	10.0	0.048	1	04/24/23 22:00	04/25/23 21:38	7439-98-7	
Selenium	2.8	ug/L	1.0	0.23	1	04/24/23 22:00	04/25/23 21:38	7782-49-2	
Thallium	ND	ug/L	1.0	0.033	1	04/24/23 22:00	04/25/23 21:38	7440-28-0	
<b>7470 Mercury</b>		Analytical Method: EPA 7470 Preparation Method: EPA 7470 Pace Analytical Services - Indianapolis							
Mercury	ND	ug/L	0.20	0.091	1	04/24/23 10:43	04/24/23 22:09	7439-97-6	
<b>2320B Alkalinity</b>		Analytical Method: SM 2320B Pace Analytical Services - Indianapolis							
Alkalinity, Total as CaCO3	452	mg/L	10.0	10.0	1		04/21/23 20:14		
Alkalinity,Bicarbonate (CaCO3)	452	mg/L	10.0	10.0	1		04/21/23 20:14		

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**ANALYTICAL RESULTS**

Project: Eagle Valley April 2023 P1R4  
 Pace Project No.: 50342799

Sample: MW-22S		Lab ID: 50342799006		Collected: 04/20/23 15:30	Received: 04/21/23 11:00	Matrix: Water			
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>2320B Alkalinity</b>		Analytical Method: SM 2320B Pace Analytical Services - Indianapolis							
Alkalinity, Carbonate (CaCO3)	ND	mg/L	10.0	10.0	1		04/21/23 20:14		
<b>2540C Total Dissolved Solids</b>		Analytical Method: SM 2540C Pace Analytical Services - Indianapolis							
Total Dissolved Solids	<b>514</b>	mg/L	10.0	10.0	1		04/26/23 09:12		
<b>4500H+ pH, Electrometric</b>		Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis							
pH at 25 Degrees C	<b>7.0</b>	Std. Units	0.10	0.10	1		04/26/23 13:11		H3
<b>4500S2D Sulfide Water</b>		Analytical Method: SM 4500-S2-D Pace Analytical Services - Indianapolis							
Sulfide	ND	mg/L	0.10	0.025	1		04/24/23 16:28	18496-25-8	
<b>Iron, Ferrous</b>		Analytical Method: HACH 8146 Pace Analytical Services - Indianapolis							
Iron, Ferrous	ND	mg/L	0.20	0.035	1		04/26/23 10:18	15438-31-0	H3,N2
<b>353.2 Nitrogen, NO2/NO3 unpres</b>		Analytical Method: EPA 353.2 Pace Analytical Services - Indianapolis							
Nitrogen, Nitrate	<b>1.6</b>	mg/L	0.10	0.011	1		04/21/23 19:44	14797-55-8	
Nitrogen, Nitrite	ND	mg/L	0.10	0.0040	1		04/21/23 19:44	14797-65-0	
<b>365.1 Total Phosphorus</b>		Analytical Method: EPA 365.1 Preparation Method: EPA 365.1 Pace Analytical Services - Indianapolis							
Phosphate as P04	ND	mg/L	0.15	0.15	1	04/26/23 11:20	04/28/23 16:43		
<b>5310C TOC</b>		Analytical Method: SM 5310C Pace Analytical Services - Indianapolis							
Total Organic Carbon	<b>1.7</b>	mg/L	1.0	0.24	1		04/25/23 15:08	7440-44-0	
<b>5310C Dissolved Organic Carbon</b>		Analytical Method: SM 5310C Pace Analytical Services - Indianapolis							
Dissolved Organic Carbon	<b>1.7</b>	mg/L	1.0	0.24	1		04/28/23 21:03		

**REPORT OF LABORATORY ANALYSIS**

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## ANALYTICAL RESULTS

Project: Eagle Valley April 2023 P1R4

Pace Project No.: 50342799

Sample: DUP-7 Lab ID: 50342799007 Collected: 04/20/23 08:00 Received: 04/21/23 11:00 Matrix: Water

Parameters	Results	Units	Report			Prepared	Analyzed	CAS No.	Qual
			Limit	MDL	DF				
<b>9056 IC Anions</b>									
Analytical Method: EPA 9056									
Pace Analytical Services - Indianapolis									
Chloride	27.5	mg/L	2.5	0.67	10		04/29/23 10:20	16887-00-6	
Fluoride	0.11	mg/L	0.10	0.017	1		04/29/23 10:00	16984-48-8	
Sulfate	29.2	mg/L	0.25	0.085	1		04/29/23 10:00	14808-79-8	
<b>6010 MET ICP</b>									
Analytical Method: EPA 6010 Preparation Method: EPA 3010									
Pace Analytical Services - Indianapolis									
Aluminum	ND	ug/L	200	55.4	1	04/24/23 08:38	04/25/23 01:09	7429-90-5	
Boron	ND	ug/L	100	37.6	1	04/24/23 08:38	04/25/23 01:09	7440-42-8	
Calcium	136000	ug/L	1000	163	1	04/24/23 08:38	04/25/23 01:09	7440-70-2	
Iron	ND	ug/L	100	48.8	1	04/24/23 08:38	04/25/23 01:09	7439-89-6	
Lithium	ND	ug/L	20.0	6.2	1	04/24/23 08:38	04/25/23 01:09	7439-93-2	
Magnesium	30600	ug/L	1000	71.8	1	04/24/23 08:38	04/25/23 01:09	7439-95-4	
Manganese	735	ug/L	10.0	2.5	1	04/24/23 08:38	04/25/23 01:09	7439-96-5	
Potassium	1700	ug/L	1000	281	1	04/24/23 08:38	04/25/23 01:09	7440-09-7	
Silica	12400	ug/L	450		1	04/24/23 08:38	04/25/23 01:09	7631-86-9	N2
Sodium	23700	ug/L	1000	214	1	04/24/23 08:38	04/25/23 01:09	7440-23-5	
<b>6010 MET ICP, Dissolved</b>									
Analytical Method: EPA 6010 Preparation Method: EPA 3010									
Pace Analytical Services - Indianapolis									
Manganese, Dissolved	530	ug/L	10.0	2.5	1	04/26/23 15:43	04/26/23 23:51	7439-96-5	
Molybdenum, Dissolved	ND	ug/L	10.0	3.7	1	04/26/23 15:43	04/26/23 23:51	7439-98-7	
<b>6020 MET ICPMS</b>									
Analytical Method: EPA 6020 Preparation Method: EPA 200.2									
Pace Analytical Services - Indianapolis									
Antimony	ND	ug/L	1.0	0.036	1	04/24/23 22:00	04/25/23 21:41	7440-36-0	
Arsenic	ND	ug/L	1.0	0.053	1	04/24/23 22:00	04/25/23 21:41	7440-38-2	
Barium	42.7	ug/L	1.0	0.051	1	04/24/23 22:00	04/25/23 21:41	7440-39-3	
Beryllium	ND	ug/L	0.20	0.028	1	04/24/23 22:00	04/25/23 21:41	7440-41-7	
Cadmium	ND	ug/L	2.0	0.0090	1	04/24/23 22:00	04/25/23 21:41	7440-43-9	
Chromium	ND	ug/L	10.0	0.13	1	04/24/23 22:00	04/25/23 21:41	7440-47-3	
Cobalt	ND	ug/L	1.0	0.032	1	04/24/23 22:00	04/25/23 21:41	7440-48-4	
Lead	ND	ug/L	10.0	0.034	1	04/24/23 22:00	04/25/23 21:41	7439-92-1	
Molybdenum	ND	ug/L	10.0	0.048	1	04/24/23 22:00	04/25/23 21:41	7439-98-7	
Selenium	2.8	ug/L	1.0	0.23	1	04/24/23 22:00	04/25/23 21:41	7782-49-2	
Thallium	ND	ug/L	1.0	0.033	1	04/24/23 22:00	04/25/23 21:41	7440-28-0	
<b>7470 Mercury</b>									
Analytical Method: EPA 7470 Preparation Method: EPA 7470									
Pace Analytical Services - Indianapolis									
Mercury	ND	ug/L	0.20	0.091	1	04/24/23 10:43	04/24/23 22:11	7439-97-6	
<b>2320B Alkalinity</b>									
Analytical Method: SM 2320B									
Pace Analytical Services - Indianapolis									
Alkalinity, Total as CaCO3	449	mg/L	10.0	10.0	1		04/21/23 20:14		
Alkalinity,Bicarbonate (CaCO3)	449	mg/L	10.0	10.0	1		04/21/23 20:14		

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**ANALYTICAL RESULTS**

Project: Eagle Valley April 2023 P1R4  
 Pace Project No.: 50342799

Sample: DUP-7		Lab ID: 50342799007		Collected: 04/20/23 08:00	Received: 04/21/23 11:00	Matrix: Water			
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>2320B Alkalinity</b>		Analytical Method: SM 2320B Pace Analytical Services - Indianapolis							
Alkalinity, Carbonate (CaCO3)	ND	mg/L	10.0	10.0	1		04/21/23 20:14		
<b>2540C Total Dissolved Solids</b>		Analytical Method: SM 2540C Pace Analytical Services - Indianapolis							
Total Dissolved Solids	521	mg/L	10.0	10.0	1		04/26/23 09:13		
<b>4500H+ pH, Electrometric</b>		Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis							
pH at 25 Degrees C	7.0	Std. Units	0.10	0.10	1		04/26/23 13:12		H3
<b>4500S2D Sulfide Water</b>		Analytical Method: SM 4500-S2-D Pace Analytical Services - Indianapolis							
Sulfide	ND	mg/L	0.10	0.025	1		04/24/23 16:28	18496-25-8	
<b>Iron, Ferrous</b>		Analytical Method: HACH 8146 Pace Analytical Services - Indianapolis							
Iron, Ferrous	ND	mg/L	0.20	0.035	1		04/26/23 10:15	15438-31-0	H3,N2
<b>353.2 Nitrogen, NO2/NO3 unpres</b>		Analytical Method: EPA 353.2 Pace Analytical Services - Indianapolis							
Nitrogen, Nitrate	1.6	mg/L	0.10	0.011	1		04/21/23 19:12	14797-55-8	
Nitrogen, Nitrite	ND	mg/L	0.10	0.0040	1		04/21/23 19:12	14797-65-0	
<b>365.1 Total Phosphorus</b>		Analytical Method: EPA 365.1 Preparation Method: EPA 365.1 Pace Analytical Services - Indianapolis							
Phosphate as P04	ND	mg/L	0.15	0.15	1	04/26/23 11:20	04/28/23 16:43		
<b>5310C TOC</b>		Analytical Method: SM 5310C Pace Analytical Services - Indianapolis							
Total Organic Carbon	1.6	mg/L	1.0	0.24	1		04/25/23 15:18	7440-44-0	
<b>5310C Dissolved Organic Carbon</b>		Analytical Method: SM 5310C Pace Analytical Services - Indianapolis							
Dissolved Organic Carbon	1.7	mg/L	1.0	0.24	1		04/28/23 21:24		

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**QUALITY CONTROL DATA**

Project: Eagle Valley April 2023 P1R4

Pace Project No.: 50342799

QC Batch:	730038	Analysis Method:	EPA 9056
QC Batch Method:	EPA 9056	Analysis Description:	9056 IC Anions
		Laboratory:	Pace Analytical Services - Indianapolis
Associated Lab Samples:	50342799001, 50342799002, 50342799003, 50342799006, 50342799007		

METHOD BLANK: 3350309 Matrix: Water  
 Associated Lab Samples: 50342799001, 50342799002, 50342799003, 50342799006, 50342799007

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chloride	mg/L	ND	0.25	0.067	04/28/23 20:41	
Fluoride	mg/L	ND	0.10	0.017	04/28/23 20:41	
Sulfate	mg/L	ND	0.25	0.085	04/28/23 20:41	

LABORATORY CONTROL SAMPLE: 3350310

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	2.5	2.3	92	80-120	
Fluoride	mg/L	1	0.97	97	80-120	
Sulfate	mg/L	5	4.6	93	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3350311 3350312

Parameter	Units	MS		MSD		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		50342799003	Result	Spike Conc.	Spike Conc.								
Chloride	mg/L	54.9	25	25	80.9	80.1	104	101	80-120	1	15		
Fluoride	mg/L	ND	1	1	1.0	1.0	97	98	80-120	1	15		
Sulfate	mg/L	274	50	50	318	318	89	88	80-120	0	15		

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**QUALITY CONTROL DATA**

Project: Eagle Valley April 2023 P1R4  
 Pace Project No.: 50342799

QC Batch: 729446 Analysis Method: EPA 7470  
 QC Batch Method: EPA 7470 Analysis Description: 7470 Mercury  
 Laboratory: Pace Analytical Services - Indianapolis  
 Associated Lab Samples: 50342799001, 50342799002, 50342799003, 50342799006, 50342799007

METHOD BLANK: 3347813 Matrix: Water  
 Associated Lab Samples: 50342799001, 50342799002, 50342799003, 50342799006, 50342799007

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Mercury	ug/L	ND	0.20	0.091	04/24/23 21:05	

LABORATORY CONTROL SAMPLE: 3347814

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury	ug/L	5	5.2	103	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3347815 3347816

Parameter	Units	50341419003		3347815		3347816		% Rec Limits	RPD	Max RPD	Qual	
		Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec					MSD % Rec
Mercury	ug/L	ND	5	5	5.4	5.2	108	105	75-125	3	20	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3347817 3347818

Parameter	Units	50342601002		3347817		3347818		% Rec Limits	RPD	Max RPD	Qual	
		Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec					MSD % Rec
Mercury	ug/L	ND	5	5	5.6	5.4	112	109	75-125	2	20	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3347819 3347820

Parameter	Units	50342799003		3347819		3347820		% Rec Limits	RPD	Max RPD	Qual	
		Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec					MSD % Rec
Mercury	ug/L	ND	5	5	5.5	5.3	110	106	75-125	3	20	

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**QUALITY CONTROL DATA**

Project: Eagle Valley April 2023 P1R4  
Pace Project No.: 50342799

QC Batch: 729378 Analysis Method: EPA 6010  
QC Batch Method: EPA 3010 Analysis Description: 6010 MET  
Laboratory: Pace Analytical Services - Indianapolis  
Associated Lab Samples: 50342799001, 50342799002, 50342799003, 50342799006, 50342799007

METHOD BLANK: 3347613 Matrix: Water  
Associated Lab Samples: 50342799001, 50342799002, 50342799003, 50342799006, 50342799007

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Aluminum	ug/L	ND	200	55.4	04/25/23 00:34	
Boron	ug/L	ND	100	37.6	04/25/23 00:34	
Calcium	ug/L	ND	1000	163	04/25/23 00:34	
Iron	ug/L	ND	100	48.8	04/25/23 00:34	
Lithium	ug/L	ND	20.0	6.2	04/25/23 00:34	
Magnesium	ug/L	ND	1000	71.8	04/25/23 00:34	
Manganese	ug/L	ND	10.0	2.5	04/25/23 00:34	
Potassium	ug/L	ND	1000	281	04/25/23 00:34	
Silica	ug/L	ND	450		04/25/23 00:34	N2
Sodium	ug/L	ND	1000	214	04/25/23 00:34	

LABORATORY CONTROL SAMPLE: 3347614

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Aluminum	ug/L	10000	9830	98	80-120	
Boron	ug/L	1000	956	96	80-120	
Calcium	ug/L	10000	9860	99	80-120	
Iron	ug/L	10000	10100	101	80-120	
Lithium	ug/L	1000	968	97	80-120	
Magnesium	ug/L	10000	9720	97	80-120	
Manganese	ug/L	1000	936	94	80-120	
Potassium	ug/L	10000	9790	98	80-120	
Silica	ug/L	10700	10500	98	80-120	N2
Sodium	ug/L	10000	9570	96	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3347615 3347616

Parameter	Units	MS		MSD		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual	
		50342601002 Result	Spike Conc.	Spike Conc.	Result							Result
Aluminum	ug/L	ND	10000	10000	9620	9720	96	97	75-125	1	20	
Boron	ug/L	538	1000	1000	1490	1510	95	97	75-125	1	20	
Calcium	ug/L	74400	10000	10000	81900	82200	75	78	75-125	0	20	
Iron	ug/L	618	10000	10000	10500	10700	99	101	75-125	2	20	
Lithium	ug/L	88.9	1000	1000	1100	1120	101	103	75-125	1	20	
Magnesium	ug/L	22400	10000	10000	31300	31200	89	88	75-125	0	20	
Manganese	ug/L	320	1000	1000	1230	1240	91	92	75-125	1	20	
Potassium	ug/L	7800	10000	10000	17700	17800	99	100	75-125	1	20	

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**QUALITY CONTROL DATA**

Project: Eagle Valley April 2023 P1R4

Pace Project No.: 50342799

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3347615												3347616	
Parameter	Units	50342601002 Result	MS	MSD	MS	MSD	MS	MSD	% Rec	Limits	RPD	Max RPD	Qual
			Spike Conc.	Spike Conc.	Result	Result	% Rec	% Rec					
Silica	ug/L	9960	10700	10700	20100	20200	95	96	75-125	0	20	N2	
Sodium	ug/L	71000	10000	10000	79200	80300	82	93	75-125	1	20		

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3347617												3347618	
Parameter	Units	50342799003 Result	MS	MSD	MS	MSD	MS	MSD	% Rec	Limits	RPD	Max RPD	Qual
			Spike Conc.	Spike Conc.	Result	Result	% Rec	% Rec					
Aluminum	ug/L	200	10000	10000	9950	9930	97	97	75-125	0	20		
Boron	ug/L	326	1000	1000	1300	1300	98	97	75-125	0	20		
Calcium	ug/L	152000	10000	10000	161000	158000	91	62	75-125	2	20	P6	
Iron	ug/L	3840	10000	10000	13700	13600	98	98	75-125	0	20		
Lithium	ug/L	ND	1000	1000	1040	1040	102	102	75-125	0	20		
Magnesium	ug/L	34800	10000	10000	44200	43800	94	90	75-125	1	20		
Manganese	ug/L	364	1000	1000	1280	1270	91	91	75-125	0	20		
Potassium	ug/L	3410	10000	10000	13700	13700	102	103	75-125	0	20		
Silica	ug/L	16300	10700	10700	26700	26500	97	95	75-125	1	20	N2	
Sodium	ug/L	52900	10000	10000	63300	61900	104	90	75-125	2	20		

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**QUALITY CONTROL DATA**

Project: Eagle Valley April 2023 P1R4

Pace Project No.: 50342799

QC Batch: 729855 Analysis Method: EPA 6010  
 QC Batch Method: EPA 3010 Analysis Description: 6010 MET Dissolved  
 Laboratory: Pace Analytical Services - Indianapolis  
 Associated Lab Samples: 50342799001, 50342799002, 50342799003, 50342799006, 50342799007

METHOD BLANK: 3349555 Matrix: Water  
 Associated Lab Samples: 50342799001, 50342799002, 50342799003, 50342799006, 50342799007

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Manganese, Dissolved	ug/L	ND	10.0	2.5	04/26/23 23:43	
Molybdenum, Dissolved	ug/L	ND	10.0	3.7	04/26/23 23:43	

LABORATORY CONTROL SAMPLE: 3349556

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Manganese, Dissolved	ug/L	1000	959	96	80-120	
Molybdenum, Dissolved	ug/L	1000	1020	102	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3349557 3349558

Parameter	Units	50342799003 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Manganese, Dissolved	ug/L	353	1000	1000	1350	1320	99	97	75-125	2	20	
Molybdenum, Dissolved	ug/L	ND	1000	1000	1060	1030	106	103	75-125	3	20	

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**QUALITY CONTROL DATA**

Project: Eagle Valley April 2023 P1R4  
Pace Project No.: 50342799

QC Batch: 729423 Analysis Method: EPA 6020  
QC Batch Method: EPA 200.2 Analysis Description: 6020 MET  
Laboratory: Pace Analytical Services - Indianapolis  
Associated Lab Samples: 50342799001, 50342799002, 50342799003, 50342799006, 50342799007

METHOD BLANK: 3347783 Matrix: Water  
Associated Lab Samples: 50342799001, 50342799002, 50342799003, 50342799006, 50342799007

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Antimony	ug/L	ND	1.0	0.036	04/25/23 19:44	
Arsenic	ug/L	ND	1.0	0.053	04/25/23 19:44	
Barium	ug/L	ND	1.0	0.051	04/25/23 19:44	
Beryllium	ug/L	ND	0.20	0.028	04/25/23 19:44	
Cadmium	ug/L	ND	2.0	0.0090	04/25/23 19:44	
Chromium	ug/L	ND	10.0	0.13	04/25/23 19:44	
Cobalt	ug/L	ND	1.0	0.032	04/25/23 19:44	
Lead	ug/L	ND	10.0	0.034	04/25/23 19:44	
Molybdenum	ug/L	ND	10.0	0.048	04/25/23 19:44	
Selenium	ug/L	ND	1.0	0.23	04/25/23 19:44	
Thallium	ug/L	ND	1.0	0.033	04/25/23 19:44	

LABORATORY CONTROL SAMPLE: 3347784

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Antimony	ug/L	40	41.1	103	80-120	
Arsenic	ug/L	40	37.6	94	80-120	
Barium	ug/L	40	38.7	97	80-120	
Beryllium	ug/L	40	38.9	97	80-120	
Cadmium	ug/L	40	38.5	96	80-120	
Chromium	ug/L	40	40.2	100	80-120	
Cobalt	ug/L	40	40.8	102	80-120	
Lead	ug/L	40	40.1	100	80-120	
Molybdenum	ug/L	40	42.1	105	80-120	
Selenium	ug/L	40	40.0	100	80-120	
Thallium	ug/L	40	40.6	101	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3347785 3347786

Parameter	Units	MS		MSD		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		50342601002	Spike Conc.	Spike Conc.	Result								
Antimony	ug/L	ND	40	40	42.4	41.8	106	105	75-125	1	20		
Arsenic	ug/L	1.7	40	40	39.5	39.4	94	94	75-125	0	20		
Barium	ug/L	59.9	40	40	103	103	107	107	75-125	0	20		
Beryllium	ug/L	ND	40	40	40.8	40.6	102	101	75-125	1	20		
Cadmium	ug/L	ND	40	40	38.3	38.2	96	95	75-125	0	20		
Chromium	ug/L	ND	40	40	40.0	39.6	99	98	75-125	1	20		

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**QUALITY CONTROL DATA**

Project: Eagle Valley April 2023 P1R4

Pace Project No.: 50342799

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3347785												3347786	
Parameter	Units	50342601002 Result	MS	MSD	MS	MSD	MS	MSD	% Rec	Limits	RPD	Max RPD	Qual
			Spike Conc.	Spike Conc.	Result	Result	% Rec	% Rec					
Cobalt	ug/L	ND	40	40	39.1	38.3	98	96	75-125	2	20		
Lead	ug/L	ND	40	40	41.1	40.6	103	102	75-125	1	20		
Molybdenum	ug/L	96.6	40	40	137	137	102	102	75-125	0	20		
Selenium	ug/L	ND	40	40	39.0	39.6	98	99	75-125	1	20		
Thallium	ug/L	ND	40	40	42.2	41.8	106	104	75-125	1	20		

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3347787												3347788	
Parameter	Units	50342799003 Result	MS	MSD	MS	MSD	MS	MSD	% Rec	Limits	RPD	Max RPD	Qual
			Spike Conc.	Spike Conc.	Result	Result	% Rec	% Rec					
Antimony	ug/L	ND	40	40	42.5	42.4	106	105	75-125	0	20		
Arsenic	ug/L	2.3	40	40	39.6	39.2	93	92	75-125	1	20		
Barium	ug/L	44.2	40	40	85.2	84.8	102	101	75-125	1	20		
Beryllium	ug/L	ND	40	40	39.4	39.2	99	98	75-125	1	20		
Cadmium	ug/L	ND	40	40	38.2	38.2	95	95	75-125	0	20		
Chromium	ug/L	ND	40	40	39.9	39.8	98	98	75-125	0	20		
Cobalt	ug/L	ND	40	40	38.1	37.5	95	93	75-125	2	20		
Lead	ug/L	ND	40	40	41.1	40.9	102	102	75-125	0	20		
Molybdenum	ug/L	ND	40	40	43.7	43.4	106	105	75-125	1	20		
Selenium	ug/L	ND	40	40	39.0	38.7	97	97	75-125	1	20		
Thallium	ug/L	ND	40	40	42.2	41.8	106	105	75-125	1	20		

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**QUALITY CONTROL DATA**

Project: Eagle Valley April 2023 P1R4

Pace Project No.: 50342799

QC Batch: 729304 Analysis Method: SM 2320B  
 QC Batch Method: SM 2320B Analysis Description: 2320B Alkalinity  
 Laboratory: Pace Analytical Services - Indianapolis  
 Associated Lab Samples: 50342799001, 50342799002, 50342799003, 50342799006, 50342799007

METHOD BLANK: 3346922 Matrix: Water  
 Associated Lab Samples: 50342799001, 50342799002, 50342799003, 50342799006, 50342799007

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Alkalinity, Total as CaCO3	mg/L	ND	10.0	10.0	04/21/23 20:14	
Alkalinity,Bicarbonate (CaCO3)	mg/L	ND	10.0	10.0	04/21/23 20:14	
Alkalinity,Carbonate (CaCO3)	mg/L	ND	10.0	10.0	04/21/23 20:14	

LABORATORY CONTROL SAMPLE: 3346923

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Alkalinity, Total as CaCO3	mg/L	50	49.6	99	90-110	

SAMPLE DUPLICATE: 3346924

Parameter	Units	50342799003 Result	Dup Result	RPD	Max RPD	Qualifiers
Alkalinity, Total as CaCO3	mg/L	275	280	2	20	
Alkalinity,Bicarbonate (CaCO3)	mg/L	275	280	2	20	
Alkalinity,Carbonate (CaCO3)	mg/L	ND	ND		20	

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QUALITY CONTROL DATA

Project: Eagle Valley April 2023 P1R4

Pace Project No.: 50342799

QC Batch: 729888 Analysis Method: SM 2540C  
 QC Batch Method: SM 2540C Analysis Description: 2540C Total Dissolved Solids  
 Laboratory: Pace Analytical Services - Indianapolis  
 Associated Lab Samples: 50342799001, 50342799002, 50342799003, 50342799006, 50342799007

METHOD BLANK: 3349684 Matrix: Water  
 Associated Lab Samples: 50342799001, 50342799002, 50342799003, 50342799006, 50342799007

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	ND	10.0	10.0	04/26/23 09:08	

LABORATORY CONTROL SAMPLE: 3349685

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	300	282	94	80-120	

SAMPLE DUPLICATE: 3349686

Parameter	Units	50342799003 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	738	750	2	10	

SAMPLE DUPLICATE: 3349687

Parameter	Units	50342896007 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	3100	3100	0	10	

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### QUALITY CONTROL DATA

Project: Eagle Valley April 2023 P1R4

Pace Project No.: 50342799

QC Batch: 729956

Analysis Method: SM 4500-H+B

QC Batch Method: SM 4500-H+B

Analysis Description: 4500H+B pH

Laboratory: Pace Analytical Services - Indianapolis

Associated Lab Samples: 50342799001, 50342799002, 50342799003, 50342799006, 50342799007

SAMPLE DUPLICATE: 3350025

Parameter	Units	50342799003 Result	Dup Result	RPD	Max RPD	Qualifiers
pH at 25 Degrees C	Std. Units	7.3	7.3	0	2	H3

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**QUALITY CONTROL DATA**

Project: Eagle Valley April 2023 P1R4

Pace Project No.: 50342799

QC Batch:	729533	Analysis Method:	SM 4500-S2-D
QC Batch Method:	SM 4500-S2-D	Analysis Description:	4500S2D Sulfide Water
		Laboratory:	Pace Analytical Services - Indianapolis
Associated Lab Samples:	50342799001, 50342799002, 50342799003, 50342799006, 50342799007		

METHOD BLANK: 3348159 Matrix: Water  
 Associated Lab Samples: 50342799001, 50342799002, 50342799003, 50342799006, 50342799007

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Sulfide	mg/L	ND	0.10	0.025	04/24/23 16:28	

LABORATORY CONTROL SAMPLE: 3348160

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Sulfide	mg/L	0.5	0.48	95	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3348161 3348162

Parameter	Units	50342799003 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Sulfide	mg/L	ND	0.5	0.5	0.47	0.48	93	95	90-110	3	20	

MATRIX SPIKE SAMPLE: 3348163

Parameter	Units	50342935001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Sulfide	mg/L	ND	0.5	0.39	73	90-110	M0

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**QUALITY CONTROL DATA**

Project: Eagle Valley April 2023 P1R4

Pace Project No.: 50342799

QC Batch:	729924	Analysis Method:	HACH 8146
QC Batch Method:	HACH 8146	Analysis Description:	Iron, Ferrous
		Laboratory:	Pace Analytical Services - Indianapolis
Associated Lab Samples:	50342799001, 50342799002, 50342799003, 50342799006, 50342799007		

METHOD BLANK:	3349904	Matrix:	Water
Associated Lab Samples:	50342799001, 50342799002, 50342799003, 50342799006, 50342799007		

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Iron, Ferrous	mg/L	ND	0.20	0.035	04/26/23 10:15	H3,N2

LABORATORY CONTROL SAMPLE: 3349905						
Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Iron, Ferrous	mg/L	1	1.0	100	90-110	H3,N2

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3349906 3349907												
Parameter	Units	50342799003 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Iron, Ferrous	mg/L	ND	1	1	1.1	1.2	108	109	90-110	1	20	H3,N2

MATRIX SPIKE SAMPLE: 3349908												
Parameter	Units	50343102001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers					
Iron, Ferrous	mg/L	ND	1	1.1	109	90-110	H3,N2					

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**QUALITY CONTROL DATA**

Project: Eagle Valley April 2023 P1R4

Pace Project No.: 50342799

QC Batch:	729301	Analysis Method:	EPA 353.2
QC Batch Method:	EPA 353.2	Analysis Description:	353.2 Nitrate + Nitrite, Unpres.
		Laboratory:	Pace Analytical Services - Indianapolis

Associated Lab Samples: 50342799001, 50342799002, 50342799003, 50342799006, 50342799007

METHOD BLANK: 3346897 Matrix: Water  
 Associated Lab Samples: 50342799001, 50342799002, 50342799003, 50342799006, 50342799007

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Nitrogen, Nitrate	mg/L	ND	0.10	0.011	04/21/23 19:05	
Nitrogen, Nitrite	mg/L	ND	0.10	0.0040	04/21/23 19:05	

LABORATORY CONTROL SAMPLE: 3346898

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Nitrogen, Nitrate	mg/L	1	0.92	92	90-110	
Nitrogen, Nitrite	mg/L	1	0.97	97	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3346899 3346900

Parameter	Units	50342799003 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Nitrogen, Nitrate	mg/L	ND	1	1	0.95	0.96	95	96	90-110	1	20	
Nitrogen, Nitrite	mg/L	ND	1	1	1.0	1.0	100	101	90-110	1	20	

MATRIX SPIKE SAMPLE: 3346903

Parameter	Units	50342771003 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Nitrogen, Nitrate	mg/L		1.5	1	2.5	101	90-110
Nitrogen, Nitrite	mg/L		0.0099J	1	1.0	99	90-110

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**QUALITY CONTROL DATA**

Project: Eagle Valley April 2023 P1R4

Pace Project No.: 50342799

QC Batch:	729938	Analysis Method:	EPA 365.1
QC Batch Method:	EPA 365.1	Analysis Description:	365.1 Total Phosphorus
		Laboratory:	Pace Analytical Services - Indianapolis

Associated Lab Samples: 50342799001, 50342799002, 50342799003, 50342799006, 50342799007

METHOD BLANK: 3349941 Matrix: Water  
 Associated Lab Samples: 50342799001, 50342799002, 50342799003, 50342799006, 50342799007

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Phosphate as P04	mg/L	ND	0.15	0.15	04/28/23 16:34	

LABORATORY CONTROL SAMPLE: 3349942

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Phosphate as P04	mg/L		1.4			

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3349943 3349944

Parameter	Units	50342799003 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Phosphate as P04	mg/L	ND			1.5	1.5				1		

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**QUALITY CONTROL DATA**

Project: Eagle Valley April 2023 P1R4

Pace Project No.: 50342799

QC Batch:	729526	Analysis Method:	SM 5310C
QC Batch Method:	SM 5310C	Analysis Description:	5310C Total Organic Carbon
		Laboratory:	Pace Analytical Services - Indianapolis
Associated Lab Samples:	50342799001, 50342799002, 50342799003, 50342799006, 50342799007		

METHOD BLANK: 3348133 Matrix: Water  
 Associated Lab Samples: 50342799001, 50342799002, 50342799003, 50342799006, 50342799007

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Organic Carbon	mg/L	ND	1.0	0.24	04/25/23 12:13	

LABORATORY CONTROL SAMPLE: 3348134

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Organic Carbon	mg/L	10	10.1	101	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3348135 3348136

Parameter	Units	50342601002		3348135		3348136		% Rec Limits	RPD	Max RPD	Qual	
		MS Result	MS Spike Conc.	MSD Result	MSD Spike Conc.	MS Result	MSD Result					MS % Rec
Total Organic Carbon	mg/L	1.4	10	10	10	11.4	11.3	100	100	80-120	0	20

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3348137 3348138

Parameter	Units	50342799003		3348137		3348138		% Rec Limits	RPD	Max RPD	Qual	
		MS Result	MS Spike Conc.	MSD Result	MSD Spike Conc.	MS Result	MSD Result					MS % Rec
Total Organic Carbon	mg/L	1.0	10	10	10	10.7	10.8	96	98	80-120	1	20

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**QUALITY CONTROL DATA**

Project: Eagle Valley April 2023 P1R4

Pace Project No.: 50342799

QC Batch:	730536	Analysis Method:	SM 5310C
QC Batch Method:	SM 5310C	Analysis Description:	5310C Dissolved Organic Carbon
		Laboratory:	Pace Analytical Services - Indianapolis
Associated Lab Samples:	50342799001, 50342799002, 50342799003, 50342799006, 50342799007		

METHOD BLANK:	3352857	Matrix:	Water
Associated Lab Samples:	50342799001, 50342799002, 50342799003, 50342799006, 50342799007		

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Dissolved Organic Carbon	mg/L	ND	1.0	0.24	04/28/23 19:13	

LABORATORY CONTROL SAMPLE: 3352858						
Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Dissolved Organic Carbon	mg/L	10	10.6	106	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3352859												3352860	
Parameter	Units	50342799003 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual	
Dissolved Organic Carbon	mg/L	1.5	10	10	11.1	11.5	96	100	80-120	3	20		

MATRIX SPIKE SAMPLE: 3352861											
Parameter	Units	50342799006 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers				
Dissolved Organic Carbon	mg/L		1.7	10	11.5	97	80-120				

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Eagle Valley April 2023 P1R4

Pace Project No.: 50342799

**Sample: MW-21S**      **Lab ID: 50342799001**      Collected: 04/20/23 11:55      Received: 04/21/23 11:00      Matrix: Water  
 PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	<b>0.000 ± 0.454 (0.919)</b> <b>C:NA T:93%</b>	pCi/L	05/15/23 12:31	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	<b>0.700 ± 0.512 (1.01)</b> <b>C:66% T:85%</b>	pCi/L	05/09/23 12:30	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	<b>0.700 ± 0.966 (1.93)</b>	pCi/L	05/15/23 17:16	7440-14-4	

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Eagle Valley April 2023 P1R4

Pace Project No.: 50342799

**Sample: MW-211**      **Lab ID: 50342799002**      Collected: 04/20/23 13:45      Received: 04/21/23 11:00      Matrix: Water  
PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	<b>0.0573 ± 0.337 (0.688)</b> <b>C:NA T:93%</b>	pCi/L	05/15/23 12:31	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	<b>0.803 ± 0.379 (0.646)</b> <b>C:83% T:92%</b>	pCi/L	05/09/23 12:30	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	<b>0.860 ± 0.716 (1.33)</b>	pCi/L	05/15/23 17:16	7440-14-4	

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Eagle Valley April 2023 P1R4

Pace Project No.: 50342799

**Sample: MW-21D**      **Lab ID: 50342799003**      Collected: 04/20/23 11:50      Received: 04/21/23 11:00      Matrix: Water  
 PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Radium-226	EPA 903.1	<b>0.189 ± 0.348 (0.620)</b> <b>C:NA T:87%</b>	pCi/L	05/15/23 12:31	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 904.0	<b>0.746 ± 0.432 (0.800)</b> <b>C:79% T:82%</b>	pCi/L	05/09/23 12:30	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	<b>0.935 ± 0.780 (1.42)</b>	pCi/L	05/15/23 17:16	7440-14-4	

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Eagle Valley April 2023 P1R4

Pace Project No.: 50342799

<b>Sample:</b> MW-21D MS	<b>Lab ID:</b> 50342799004	Collected: 04/20/23 11:50	Received: 04/21/23 11:00	Matrix: Water
PWS:	Site ID:	Sample Type:		

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Radium-226	EPA 903.1	<b>93.09 %REC ± NA (NA)</b> <b>C:NA T:NA</b>	pCi/L	05/15/23 12:31	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 904.0	<b>86.45 %REC ± NA (NA)</b> <b>C:NA T:NA</b>	pCi/L	05/09/23 12:30	15262-20-1	

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Eagle Valley April 2023 P1R4

Pace Project No.: 50342799

**Sample: MW-21D MSD**      **Lab ID: 50342799005**      Collected: 04/20/23 11:50      Received: 04/21/23 11:00      Matrix: Water  
 PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Radium-226	EPA 903.1	<b>109.64 %REC 16.33RPD±</b> <b>NA (NA)</b> <b>C:NA T:NA</b>	pCi/L	05/15/23 12:31	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 904.0	<b>82.24 %REC 5.00RPD ± NA</b> <b>(NA)</b> <b>C:NA T:NA</b>	pCi/L	05/09/23 12:27	15262-20-1	

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Eagle Valley April 2023 P1R4

Pace Project No.: 50342799

**Sample: MW-22S**      **Lab ID: 50342799006**      Collected: 04/20/23 15:30      Received: 04/21/23 11:00      Matrix: Water  
 PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Radium-226	EPA 903.1	<b>0.0581 ± 0.341 (0.697)</b> <b>C:NA T:97%</b>	pCi/L	05/15/23 12:57	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 904.0	<b>0.671 ± 0.633 (1.30)</b> <b>C:50% T:84%</b>	pCi/L	05/09/23 12:27	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	<b>0.729 ± 0.974 (2.00)</b>	pCi/L	05/15/23 17:16	7440-14-4	

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Eagle Valley April 2023 P1R4

Pace Project No.: 50342799

**Sample: DUP-7**      **Lab ID: 50342799007**      Collected: 04/20/23 08:00      Received: 04/21/23 11:00      Matrix: Water  
 PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Radium-226	EPA 903.1	<b>0.111 ± 0.345 (0.668)</b> <b>C:NA T:101%</b>	pCi/L	05/15/23 12:57	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 904.0	<b>0.227 ± 0.388 (0.846)</b> <b>C:79% T:81%</b>	pCi/L	05/09/23 12:27	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	<b>0.338 ± 0.733 (1.51)</b>	pCi/L	05/15/23 17:16	7440-14-4	

### REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL - RADIOCHEMISTRY

Project: Eagle Valley April 2023 P1R4

Pace Project No.: 50342799

QC Batch:	584555	Analysis Method:	EPA 903.1
QC Batch Method:	EPA 903.1	Analysis Description:	903.1 Radium-226
		Laboratory:	Pace Analytical Services - Greensburg
Associated Lab Samples:	50342799001, 50342799002, 50342799003, 50342799004, 50342799005, 50342799006, 50342799007		

METHOD BLANK:	2838484	Matrix:	Water
Associated Lab Samples:	50342799001, 50342799002, 50342799003, 50342799004, 50342799005, 50342799006, 50342799007		

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.503 ± 0.373 (0.467) C:NA T:89%	pCi/L	05/15/23 12:44	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

### REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL - RADIOCHEMISTRY

Project: Eagle Valley April 2023 P1R4

Pace Project No.: 50342799

QC Batch:	584556	Analysis Method:	EPA 904.0
QC Batch Method:	EPA 904.0	Analysis Description:	904.0 Radium 228
		Laboratory:	Pace Analytical Services - Greensburg

Associated Lab Samples: 50342799001, 50342799002, 50342799003, 50342799004, 50342799005, 50342799006, 50342799007

METHOD BLANK:	2838494	Matrix:	Water
---------------	---------	---------	-------

Associated Lab Samples: 50342799001, 50342799002, 50342799003, 50342799004, 50342799005, 50342799006, 50342799007

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.416 ± 0.304 (0.588) C:84% T:85%	pCi/L	05/09/23 12:31	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

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## QUALIFIERS

Project: Eagle Valley April 2023 P1R4

Pace Project No.: 50342799

### DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Reported results are not rounded until the final step prior to reporting. Therefore, calculated parameters that are typically reported as "Total" may vary slightly from the sum of the reported component parameters.

Act - Activity

Unc - Uncertainty: SDWA = 1.96 sigma count uncertainty, all other matrices = Expanded Uncertainty (95% confidence interval).

Gamma Spec = Expanded Uncertainty (95.4% Confidence Interval)

(MDC) - Minimum Detectable Concentration

Trac - Tracer Recovery (%)

Carr - Carrier Recovery (%)

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

### ANALYTE QUALIFIERS

H3 Sample was received or analysis requested beyond the recognized method holding time.

M0 Matrix spike recovery and/or matrix spike duplicate recovery was outside laboratory control limits.

N2 The lab does not hold NELAC/TNI accreditation for this parameter but other accreditations/certifications may apply. A complete list of accreditations/certifications is available upon request.

P6 Matrix spike recovery was outside laboratory control limits due to a parent sample concentration notably higher than the spike level.

## REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Eagle Valley April 2023 P1R4

Pace Project No.: 50342799

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
50342799001	MW-21S	EPA 9056	730038		
50342799002	MW-21I	EPA 9056	730038		
50342799003	MW-21D	EPA 9056	730038		
50342799006	MW-22S	EPA 9056	730038		
50342799007	DUP-7	EPA 9056	730038		
50342799001	MW-21S	EPA 3010	729378	EPA 6010	729617
50342799002	MW-21I	EPA 3010	729378	EPA 6010	729617
50342799003	MW-21D	EPA 3010	729378	EPA 6010	729617
50342799006	MW-22S	EPA 3010	729378	EPA 6010	729617
50342799007	DUP-7	EPA 3010	729378	EPA 6010	729617
50342799001	MW-21S	EPA 3010	729855	EPA 6010	730149
50342799002	MW-21I	EPA 3010	729855	EPA 6010	730149
50342799003	MW-21D	EPA 3010	729855	EPA 6010	730149
50342799006	MW-22S	EPA 3010	729855	EPA 6010	730149
50342799007	DUP-7	EPA 3010	729855	EPA 6010	730149
50342799001	MW-21S	EPA 200.2	729423	EPA 6020	729682
50342799002	MW-21I	EPA 200.2	729423	EPA 6020	729682
50342799003	MW-21D	EPA 200.2	729423	EPA 6020	729682
50342799006	MW-22S	EPA 200.2	729423	EPA 6020	729682
50342799007	DUP-7	EPA 200.2	729423	EPA 6020	729682
50342799001	MW-21S	EPA 7470	729446	EPA 7470	729593
50342799002	MW-21I	EPA 7470	729446	EPA 7470	729593
50342799003	MW-21D	EPA 7470	729446	EPA 7470	729593
50342799006	MW-22S	EPA 7470	729446	EPA 7470	729593
50342799007	DUP-7	EPA 7470	729446	EPA 7470	729593
50342799001	MW-21S	EPA 903.1	584555		
50342799002	MW-21I	EPA 903.1	584555		
50342799003	MW-21D	EPA 903.1	584555		
50342799004	MW-21D MS	EPA 903.1	584555		
50342799005	MW-21D MSD	EPA 903.1	584555		
50342799006	MW-22S	EPA 903.1	584555		
50342799007	DUP-7	EPA 903.1	584555		
50342799001	MW-21S	EPA 904.0	584556		
50342799002	MW-21I	EPA 904.0	584556		
50342799003	MW-21D	EPA 904.0	584556		
50342799004	MW-21D MS	EPA 904.0	584556		
50342799005	MW-21D MSD	EPA 904.0	584556		
50342799006	MW-22S	EPA 904.0	584556		
50342799007	DUP-7	EPA 904.0	584556		
50342799001	MW-21S	Total Radium Calculation	588256		
50342799002	MW-21I	Total Radium Calculation	588256		
50342799003	MW-21D	Total Radium Calculation	588256		
50342799006	MW-22S	Total Radium Calculation	588256		
50342799007	DUP-7	Total Radium Calculation	588256		
50342799001	MW-21S	SM 2320B	729304		

### REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Eagle Valley April 2023 P1R4

Pace Project No.: 50342799

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
50342799002	MW-21I	SM 2320B	729304		
50342799003	MW-21D	SM 2320B	729304		
50342799006	MW-22S	SM 2320B	729304		
50342799007	DUP-7	SM 2320B	729304		
50342799001	MW-21S	SM 2540C	729888		
50342799002	MW-21I	SM 2540C	729888		
50342799003	MW-21D	SM 2540C	729888		
50342799006	MW-22S	SM 2540C	729888		
50342799007	DUP-7	SM 2540C	729888		
50342799001	MW-21S	SM 4500-H+B	729956		
50342799002	MW-21I	SM 4500-H+B	729956		
50342799003	MW-21D	SM 4500-H+B	729956		
50342799006	MW-22S	SM 4500-H+B	729956		
50342799007	DUP-7	SM 4500-H+B	729956		
50342799001	MW-21S	SM 4500-S2-D	729533		
50342799002	MW-21I	SM 4500-S2-D	729533		
50342799003	MW-21D	SM 4500-S2-D	729533		
50342799006	MW-22S	SM 4500-S2-D	729533		
50342799007	DUP-7	SM 4500-S2-D	729533		
50342799001	MW-21S	HACH 8146	729924		
50342799002	MW-21I	HACH 8146	729924		
50342799003	MW-21D	HACH 8146	729924		
50342799006	MW-22S	HACH 8146	729924		
50342799007	DUP-7	HACH 8146	729924		
50342799001	MW-21S	EPA 353.2	729301		
50342799002	MW-21I	EPA 353.2	729301		
50342799003	MW-21D	EPA 353.2	729301		
50342799006	MW-22S	EPA 353.2	729301		
50342799007	DUP-7	EPA 353.2	729301		
50342799001	MW-21S	EPA 365.1	729938	EPA 365.1	730607
50342799002	MW-21I	EPA 365.1	729938	EPA 365.1	730607
50342799003	MW-21D	EPA 365.1	729938	EPA 365.1	730607
50342799006	MW-22S	EPA 365.1	729938	EPA 365.1	730607
50342799007	DUP-7	EPA 365.1	729938	EPA 365.1	730607
50342799001	MW-21S	SM 5310C	729526		
50342799002	MW-21I	SM 5310C	729526		
50342799003	MW-21D	SM 5310C	729526		
50342799006	MW-22S	SM 5310C	729526		
50342799007	DUP-7	SM 5310C	729526		
50342799001	MW-21S	SM 5310C	730536		
50342799002	MW-21I	SM 5310C	730536		
50342799003	MW-21D	SM 5310C	730536		
50342799006	MW-22S	SM 5310C	730536		
50342799007	DUP-7	SM 5310C	730536		

### REPORT OF LABORATORY ANALYSIS

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**SAMPLE CONDITION UPON RECEIPT FORM**

Date/Time and Initials of person examining contents: DD 4/21/23 1300

1. Courier:  FED EX  UPS  CLIENT  PACE  USPS  OTHER \_\_\_\_\_
2. Custody Seal on Cooler/Box Present:  Yes  No  
 (If yes)Seals Intact:  Yes  No (leave blank if no seals were present)
3. Thermometer: **1 2 3 4 5 6 A B C D E F**
4. Cooler Temperature(s): 1.6/1.4 2.0/1.8 3.1/1.9 2.2/2.0  
 (Initial/Corrected) RECORD TEMPS OF ALL COOLERS RECEIVED (use Comments below to add more)

5. Packing Material:  Bubble Wrap  Bubble Bags  
 None  Other \_\_\_\_\_
6. Ice Type:  Wet  Blue  None
7. If temp. is over 6°C or under 0°C, was the PM notified?:  Yes  No  
 Cooler temp should be above freezing to 6°C

All discrepancies will be written out in the comments section below.

	Yes	No		Yes	No	N/A
USDA Regulated Soils? (HI, ID, NY, WA, OR, CA, NM, TX, OK, AR, LA, TN, AL, MS, NC, SC, GA, FL, or Puerto Rico)		<input checked="" type="checkbox"/>	All containers needing acid/base preservation have been pH CHECKED?: Exceptions: VOA, coliform, LLHg, O&G, RAD CHEM, and any container with a septum cap or preserved with HCl.			
Short Hold Time Analysis (48 hours or less)? Analysis: <u>Nitrate</u>	<input checked="" type="checkbox"/>		Circle: <u>HNO3 (&lt;2)</u> <u>H2SO4 (&lt;2)</u> NaOH (>10) <u>NaOH/ZnAc (&gt;9)</u> Any non-conformance to pH recommendations will be noted on the container count form	<input checked="" type="checkbox"/>		
Time 5035A TC placed in Freezer or Short Holds To Lab Time: <u>13:55</u>			Residual Chlorine Check (SVOC 625 Pest/PCB 608)	<u>Present</u>	<u>Absent</u>	<u>N/A</u>
Rush TAT Requested (4 days or less):		<input checked="" type="checkbox"/>	Residual Chlorine Check (Total/Amenable/Free Cyanide)			<input checked="" type="checkbox"/>
Custody Signatures Present?	<input checked="" type="checkbox"/>		Headspace Wisconsin Sulfide?			<input checked="" type="checkbox"/>
Containers Intact?:	<input checked="" type="checkbox"/>		Headspace in VOA Vials (>6mm): See Containter Count form for details	<u>Present</u>	<u>Absent</u>	<u>No VOA Vials Sent</u>
Sample Label (IDs/Dates/Times) Match COC?: Except TCs, which only require sample ID	<input checked="" type="checkbox"/>		Trip Blank Present?			<input checked="" type="checkbox"/>
Extra labels on Terracore Vials? (soils only)			Trip Blank Custody Seals?:			<input checked="" type="checkbox"/>

COMMENTS:

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### Sample Container Count

\*\* Place a RED dot on containers that are out of conformance \*\*

COC Line Item	WGFU	MeOH (only) SBS DI R	VIALS					AMBER GLASS					PLASTIC							OTHER			Matrix	Nitric Red	Sulfuric Yellow	Sodium Hydroxide Green	Sodium Hydroxide/ ZnAc Black						
			DG9H	VG9H	VOA VIAL HS (>6mm)	VG9U	DG9U	VG9T	AG0U	AG1H	AG1U	AG2U	AG3S	AG3SF	AG3C	BP1U	BP1N	BP2U	BP3U	BP3N	BP3F	BP3S						BP3B	BP3Z	CG3H	CG3F	Syringe Kit	
			HNO3 <2	H2SO4 <2	NaOH >10	NaOH/ZnAc >9																											
1										1	1			2	1	2	1	1	1			1					WT	✓	✓		✓		
2										↓	↓			↓	↓	↓	↓	↓	↓			↓					↓	↓	↓		↓		
3										3	3			6	3	6	3	3	3			3					↓	↓	↓		↓		
4										1	1			2	1	2	1	1	1			1					↓	↓	↓		↓		
5										↓	↓			↓	↓	↓	↓	↓	↓			↓					↓	↓	↓		↓		
6																																	
7																																	
8																																	
9																																	
10																																	
11																																	
12																																	

Container Codes

Glass				Plastic			
DG9H	40mL HCl amber voa vial	BG1T	1L Na Thiosulfate clear glass	BP1B	1L NaOH plastic	BP4U	125mL unpreserved plastic
DG9P	40mL TSP amber vial	BG1U	1L unpreserved glass	BP1N	1L HNO3 plastic	BP4N	125mL HNO3 plastic
DG9S	40mL H2SO4 amber vial	BG3H	250mL HCl Clear Glass	BP1S	1L H2SO4 plastic	BP4S	125mL H2SO4 plastic
DG9T	40mL Na Thio amber vial	BG3U	250mL Unpres Clear Glass	BP1U	1L unpreserved plastic	<b>Miscellaneous</b>	
DG9U	40mL unpreserved amber vial	AG0U	100mL unpres amber glass	BP1Z	1L NaOH, Zn, Ac		
VG9H	40mL HCl clear vial	AG1H	1L HCl amber glass	BP2N	500mL HNO3 plastic	Syringe Kit	LL Cr+6 sampling kit
VG9T	40mL Na Thio. clear vial	AG1S	1L H2SO4 amber glass	BP2C	500mL NaOH plastic	ZPLC	Ziploc Bag
VG9U	40mL unpreserved clear vial	AG1T	1L Na Thiosulfate amber glass	BP2S	500mL H2SO4 plastic	R	Terracore Kit
I	40mL w/hexane wipe vial	AG1U	1liter unpres amber glass	BP2U	500mL unpreserved plastic	SP5T	120mL Coliform Sodium Thiosulfate
WGPU	8oz unpreserved clear jar	AG2N	500mL HNO3 amber glass	BP2Z	500mL NaOH, Zn Ac	GN	General Container
WGFU	4oz clear soil jar	AG2S	500mL H2SO4 amber glass	BP3B	250mL NaOH plastic	U	Summa Can (air sample)
JGFU	4oz unpreserved amber wide	AG2U	500mL unpres amber glass	BP3N	250mL HNO3 plastic	WT	Water
CG3H	250mL clear glass HCl	AG3S	250mL H2SO4 amber glass	BP3F	250mL HNO3 plastic-field filtered	SL	Solid Solid
CG3F	250mL clear glass HCl, Field Filter	AG3SF	250mL H2SO4 amb glass -field filtered	BP3U	250mL unpreserved plastic	OL:	Oil
BG1H	1L HCl clear glass	AG3U	250mL unpres amber glass	BP3S	250mL H2SO4 plastic	NAL	Non-aqueous liquid
BG1S	1L H2SO4 clear glass	AG3C	250mL NaOH amber glass	BP3Z	250mL NaOH, ZnAc plastic	WP	Wipe



July 18, 2023

Mr. Mark Breting  
ATC Group Services  
7988 Centerpoint Drive  
Suite 100  
Indianapolis, IN 46256

RE: Project: Eagle Valley April 2023 P1R1  
Pace Project No.: 50342983

Dear Mr. Breting:

Enclosed are the analytical results for sample(s) received by the laboratory on April 24, 2023. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

The test results provided in this final report were generated by each of the following laboratories within the Pace Network:

- Pace Analytical Services - Indianapolis
- Pace Analytical Services - Greensburg

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Will Statz  
will.statz@pacelabs.com  
(317)228-3105  
Project Manager

Enclosures

cc: Mohammed Bazlamit, Atlas  
Mr. Robert Miller, Haley & Aldrich



## REPORT OF LABORATORY ANALYSIS

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### CERTIFICATIONS

Project: Eagle Valley April 2023 P1R1

Pace Project No.: 50342983

#### Pace Analytical Services Pennsylvania

1638 Roseytown Rd Suites 2,3&4, Greensburg, PA 15601

ANAB DOD-ELAP Rad Accreditation #: L2417

ANABISO/IEC 17025:2017 Rad Cert#: L24170

Alabama Certification #: 41590

Arizona Certification #: AZ0734

Arkansas Certification

California Certification #: 2950

Colorado Certification #: PA01547

Connecticut Certification #: PH-0694

EPA Region 4 DW Rad

Florida/TNI Certification #: E87683

Georgia Certification #: C040

Guam Certification

Hawaii Certification

Idaho Certification

Illinois Certification

Indiana Certification

Iowa Certification #: 391

Kansas Certification #: E-10358

Kentucky Certification #: KY90133

KY WW Permit #: KY0098221

KY WW Permit #: KY0000221

Louisiana DHH/TNI Certification #: LA010

Louisiana DEQ/TNI Certification #: 04086

Maine Certification #: 2023021

Maryland Certification #: 308

Massachusetts Certification #: M-PA1457

Michigan/PADEP Certification #: 9991

Missouri Certification #: 235

Montana Certification #: Cert0082

Nebraska Certification #: NE-OS-29-14

Nevada Certification #: PA014572023-03

New Hampshire/TNI Certification #: 297622

New Jersey/TNI Certification #: PA051

New Mexico Certification #: PA01457

New York/TNI Certification #: 10888

North Carolina Certification #: 42706

North Dakota Certification #: R-190

Ohio EPA Rad Approval: #41249

Oregon/TNI Certification #: PA200002-015

Pennsylvania/TNI Certification #: 65-00282

Puerto Rico Certification #: PA01457

Rhode Island Certification #: 65-00282

South Dakota Certification

Tennessee Certification #: TN02867

Texas/TNI Certification #: T104704188-22-18

Utah/TNI Certification #: PA014572223-14

USDA Soil Permit #: 525-23-67-77263

Vermont Dept. of Health: ID# VT-0282

Virgin Island/PADEP Certification

Virginia/VELAP Certification #: 460198

Washington Certification #: C868

West Virginia DEP Certification #: 143

West Virginia DHHR Certification #: 9964C

Wisconsin Approve List for Rad

#### Pace Analytical Services Indianapolis

7726 Moller Road, Indianapolis, IN 46268

Illinois Accreditation #: 200074

Indiana Drinking Water Laboratory #: C-49-06

Kansas/TNI Certification #: E-10177

Kentucky UST Agency Interest #: 80226

Kentucky WW Laboratory ID #: 98019

Michigan Drinking Water Laboratory #9050

Ohio VAP Certified Laboratory #: CL0065

Oklahoma Laboratory #: 9204

Texas Certification #: T104704355

Wisconsin Laboratory #: 999788130

USDA Foreign Soil Permit #: 525-23-13-23119

USDA Compliance Agreement #: IN-SL-22-001

### REPORT OF LABORATORY ANALYSIS

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### SAMPLE SUMMARY

Project: Eagle Valley April 2023 P1R1  
Pace Project No.: 50342983

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Lab ID	Sample ID	Matrix	Date Collected	Date Received
50342983001	MW-1S	Water	04/23/23 11:05	04/24/23 17:15

### REPORT OF LABORATORY ANALYSIS

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### SAMPLE ANALYTE COUNT

Project: Eagle Valley April 2023 P1R1

Pace Project No.: 50342983

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
50342983001	MW-1S	EPA 9056	ADM	3	PASI-I
		EPA 6010	MTM	10	PASI-I
		EPA 6010	JPK	2	PASI-I
		EPA 6020	CAW	11	PASI-I
		EPA 7470	ILP	1	PASI-I
		EPA 903.1	CLM	1	PASI-PA
		EPA 904.0	JJS1	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
		SM 2320B	DAW	3	PASI-I
		SM 2540C	AEL	1	PASI-I
		SM 4500-H+B	BMS	1	PASI-I
		SM 4500-S2-D	BEP	1	PASI-I
		HACH 8146	BEP	1	PASI-I
		EPA 353.2	ZM	2	PASI-I
		EPA 365.1	YAM	1	PASI-I
		SM 5310C	ATS	1	PASI-I
		SM 5310C	ATS	1	PASI-I

PASI-I = Pace Analytical Services - Indianapolis

PASI-PA = Pace Analytical Services - Greensburg

### REPORT OF LABORATORY ANALYSIS

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**SUMMARY OF DETECTION**

Project: Eagle Valley April 2023 P1R1  
 Pace Project No.: 50342983

Lab Sample ID	Client Sample ID	Result	Units	Report Limit	Analyzed	Qualifiers
Method	Parameters					
<b>50342983001</b>	<b>MW-1S</b>					
EPA 9056	Chloride	32.6	mg/L	2.5	04/28/23 01:49	
EPA 9056	Fluoride	0.17	mg/L	0.10	04/28/23 01:30	
EPA 9056	Sulfate	177	mg/L	2.5	04/28/23 01:49	
EPA 6010	Boron	2660	ug/L	100	04/27/23 12:40	
EPA 6010	Calcium	212000	ug/L	2000	04/27/23 12:50	
EPA 6010	Iron	171	ug/L	100	04/27/23 12:40	
EPA 6010	Lithium	64.5	ug/L	20.0	04/27/23 12:40	
EPA 6010	Magnesium	42000	ug/L	1000	04/27/23 12:40	
EPA 6010	Manganese	14.0	ug/L	10.0	04/27/23 12:40	
EPA 6010	Potassium	6480	ug/L	1000	04/27/23 12:40	
EPA 6010	Silica	15100	ug/L	450	04/27/23 12:40	N2
EPA 6010	Sodium	36100	ug/L	1000	04/27/23 12:40	
EPA 6010	Molybdenum, Dissolved	14.8	ug/L	10.0	04/27/23 01:14	
EPA 6020	Antimony	1.4	ug/L	1.0	04/26/23 20:21	
EPA 6020	Arsenic	3.4	ug/L	1.0	04/26/23 20:21	
EPA 6020	Barium	62.8	ug/L	1.0	04/26/23 20:21	
EPA 6020	Molybdenum	13.5	ug/L	10.0	04/26/23 20:21	
EPA 6020	Selenium	28.2	ug/L	1.0	04/26/23 20:21	
EPA 903.1	Radium-226	0.231 ± 0.400 (0.715)	pCi/L		05/09/23 15:38	
EPA 904.0	Radium-228	C:NA T:93% 0.441 ± 0.445 (0.923) C:76% T:79%	pCi/L		05/08/23 15:21	
Total Radium Calculation	Total Radium	0.672 ± 0.845 (1.64)	pCi/L		05/15/23 17:00	
SM 2320B	Alkalinity, Total as CaCO3	514	mg/L	10.0	04/25/23 18:42	
SM 2320B	Alkalinity,Bicarbonate (CaCO3)	514	mg/L	10.0	04/25/23 18:42	
SM 2540C	Total Dissolved Solids	840	mg/L	10.0	04/28/23 08:28	
SM 4500-H+B	pH at 25 Degrees C	7.0	Std. Units	0.10	04/27/23 10:23	H3
EPA 353.2	Nitrogen, Nitrate	2.5	mg/L	0.10	04/25/23 10:29	
SM 5310C	Total Organic Carbon	1.7	mg/L	1.0	04/26/23 23:14	
SM 5310C	Dissolved Organic Carbon	1.7	mg/L	1.0	04/28/23 21:34	

**REPORT OF LABORATORY ANALYSIS**

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## ANALYTICAL RESULTS

Project: Eagle Valley April 2023 P1R1

Pace Project No.: 50342983

Sample: MW-1S		Lab ID: 50342983001		Collected: 04/23/23 11:05		Received: 04/24/23 17:15		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>9056 IC Anions</b>									
Analytical Method: EPA 9056									
Pace Analytical Services - Indianapolis									
Chloride	32.6	mg/L	2.5	0.67	10		04/28/23 01:49	16887-00-6	
Fluoride	0.17	mg/L	0.10	0.017	1		04/28/23 01:30	16984-48-8	
Sulfate	177	mg/L	2.5	0.85	10		04/28/23 01:49	14808-79-8	
<b>6010 MET ICP</b>									
Analytical Method: EPA 6010 Preparation Method: EPA 3010									
Pace Analytical Services - Indianapolis									
Aluminum	ND	ug/L	200	55.4	1	04/26/23 09:41	04/27/23 12:40	7429-90-5	
Boron	2660	ug/L	100	37.6	1	04/26/23 09:41	04/27/23 12:40	7440-42-8	
Calcium	212000	ug/L	2000	326	2	04/26/23 09:41	04/27/23 12:50	7440-70-2	
Iron	171	ug/L	100	48.8	1	04/26/23 09:41	04/27/23 12:40	7439-89-6	
Lithium	64.5	ug/L	20.0	6.2	1	04/26/23 09:41	04/27/23 12:40	7439-93-2	
Magnesium	42000	ug/L	1000	71.8	1	04/26/23 09:41	04/27/23 12:40	7439-95-4	
Manganese	14.0	ug/L	10.0	2.5	1	04/26/23 09:41	04/27/23 12:40	7439-96-5	
Potassium	6480	ug/L	1000	281	1	04/26/23 09:41	04/27/23 12:40	7440-09-7	
Silica	15100	ug/L	450		1	04/26/23 09:41	04/27/23 12:40	7631-86-9	N2
Sodium	36100	ug/L	1000	214	1	04/26/23 09:41	04/27/23 12:40	7440-23-5	
<b>6010 MET ICP, Dissolved</b>									
Analytical Method: EPA 6010 Preparation Method: EPA 3010									
Pace Analytical Services - Indianapolis									
Manganese, Dissolved	ND	ug/L	10.0	2.5	1	04/26/23 15:44	04/27/23 01:14	7439-96-5	
Molybdenum, Dissolved	14.8	ug/L	10.0	3.7	1	04/26/23 15:44	04/27/23 01:14	7439-98-7	
<b>6020 MET ICPMS</b>									
Analytical Method: EPA 6020 Preparation Method: EPA 200.2									
Pace Analytical Services - Indianapolis									
Antimony	1.4	ug/L	1.0	0.036	1	04/25/23 07:32	04/26/23 20:21	7440-36-0	
Arsenic	3.4	ug/L	1.0	0.053	1	04/25/23 07:32	04/26/23 20:21	7440-38-2	
Barium	62.8	ug/L	1.0	0.051	1	04/25/23 07:32	04/26/23 20:21	7440-39-3	
Beryllium	ND	ug/L	0.20	0.028	1	04/25/23 07:32	04/26/23 20:21	7440-41-7	
Cadmium	ND	ug/L	2.0	0.0090	1	04/25/23 07:32	04/26/23 20:21	7440-43-9	
Chromium	ND	ug/L	10.0	0.13	1	04/25/23 07:32	04/26/23 20:21	7440-47-3	
Cobalt	ND	ug/L	1.0	0.032	1	04/25/23 07:32	04/26/23 20:21	7440-48-4	
Lead	ND	ug/L	10.0	0.034	1	04/25/23 07:32	04/26/23 20:21	7439-92-1	
Molybdenum	13.5	ug/L	10.0	0.048	1	04/25/23 07:32	04/26/23 20:21	7439-98-7	
Selenium	28.2	ug/L	1.0	0.23	1	04/25/23 07:32	04/26/23 20:21	7782-49-2	
Thallium	ND	ug/L	1.0	0.033	1	04/25/23 07:32	04/26/23 20:21	7440-28-0	
<b>7470 Mercury</b>									
Analytical Method: EPA 7470 Preparation Method: EPA 7470									
Pace Analytical Services - Indianapolis									
Mercury	ND	ug/L	0.20	0.12	1	04/26/23 18:10	04/27/23 09:30	7439-97-6	
<b>2320B Alkalinity</b>									
Analytical Method: SM 2320B									
Pace Analytical Services - Indianapolis									
Alkalinity, Total as CaCO3	514	mg/L	10.0	10.0	1		04/25/23 18:42		
Alkalinity,Bicarbonate (CaCO3)	514	mg/L	10.0	10.0	1		04/25/23 18:42		

## REPORT OF LABORATORY ANALYSIS

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### ANALYTICAL RESULTS

Project: Eagle Valley April 2023 P1R1  
Pace Project No.: 50342983

Sample: MW-1S		Lab ID: 50342983001		Collected: 04/23/23 11:05	Received: 04/24/23 17:15	Matrix: Water				
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual	
<b>2320B Alkalinity</b>		Analytical Method: SM 2320B Pace Analytical Services - Indianapolis								
Alkalinity, Carbonate (CaCO3)	ND	mg/L	10.0	10.0	1		04/25/23 18:42			
<b>2540C Total Dissolved Solids</b>		Analytical Method: SM 2540C Pace Analytical Services - Indianapolis								
Total Dissolved Solids	840	mg/L	10.0	10.0	1		04/28/23 08:28			
<b>4500H+ pH, Electrometric</b>		Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis								
pH at 25 Degrees C	7.0	Std. Units	0.10	0.10	1		04/27/23 10:23		H3	
<b>4500S2D Sulfide Water</b>		Analytical Method: SM 4500-S2-D Pace Analytical Services - Indianapolis								
Sulfide	ND	mg/L	0.10	0.025	1		04/28/23 09:52	18496-25-8		
<b>Iron, Ferrous</b>		Analytical Method: HACH 8146 Pace Analytical Services - Indianapolis								
Iron, Ferrous	ND	mg/L	0.20	0.035	1		04/26/23 10:18	15438-31-0	H3,N2	
<b>353.2 Nitrogen, NO2/NO3 unpres</b>		Analytical Method: EPA 353.2 Pace Analytical Services - Indianapolis								
Nitrogen, Nitrate	2.5	mg/L	0.10	0.011	1		04/25/23 10:29	14797-55-8		
Nitrogen, Nitrite	ND	mg/L	0.10	0.0040	1		04/25/23 10:29	14797-65-0		
<b>365.1 Total Phosphorus</b>		Analytical Method: EPA 365.1 Preparation Method: EPA 365.1 Pace Analytical Services - Indianapolis								
Phosphate as P04	ND	mg/L	0.15	0.15	1	04/26/23 12:50	05/02/23 11:29			
<b>5310C TOC</b>		Analytical Method: SM 5310C Pace Analytical Services - Indianapolis								
Total Organic Carbon	1.7	mg/L	1.0	0.24	1		04/26/23 23:14	7440-44-0		
<b>5310C Dissolved Organic Carbon</b>		Analytical Method: SM 5310C Pace Analytical Services - Indianapolis								
Dissolved Organic Carbon	1.7	mg/L	1.0	0.24	1		04/28/23 21:34			

### REPORT OF LABORATORY ANALYSIS

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**QUALITY CONTROL DATA**

Project: Eagle Valley April 2023 P1R1

Pace Project No.: 50342983

QC Batch:	730227	Analysis Method:	EPA 9056
QC Batch Method:	EPA 9056	Analysis Description:	9056 IC Anions
		Laboratory:	Pace Analytical Services - Indianapolis

Associated Lab Samples: 50342983001

METHOD BLANK: 3351172 Matrix: Water

Associated Lab Samples: 50342983001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chloride	mg/L	ND	0.25	0.067	04/28/23 00:53	
Fluoride	mg/L	ND	0.10	0.017	04/28/23 00:53	
Sulfate	mg/L	ND	0.25	0.085	04/28/23 00:53	

LABORATORY CONTROL SAMPLE: 3351173

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	2.5	2.4	95	80-120	
Fluoride	mg/L	1	0.97	97	80-120	
Sulfate	mg/L	5	4.7	94	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3351192 3351193

Parameter	Units	50342548004		3351193		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		Result	MS Spike Conc.	MSD Spike Conc.	MSD Result								
Chloride	mg/L	96.4	25	25	116	116	79	79	80-120	0	15	M0	
Fluoride	mg/L	0.42	1	1	1.4	1.4	102	102	80-120	0	15		
Sulfate	mg/L	33.6	5	5	38.1	38.0	90	89	80-120	0	15		

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**QUALITY CONTROL DATA**

Project: Eagle Valley April 2023 P1R1

Pace Project No.: 50342983

QC Batch:	729957	Analysis Method:	EPA 7470
QC Batch Method:	EPA 7470	Analysis Description:	7470 Mercury
		Laboratory:	Pace Analytical Services - Indianapolis

Associated Lab Samples: 50342983001

METHOD BLANK: 3349994 Matrix: Water

Associated Lab Samples: 50342983001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Mercury	ug/L	ND	0.20	0.12	04/27/23 08:44	

LABORATORY CONTROL SAMPLE: 3349995

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury	ug/L	5	5.0	99	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3349996 3349997

Parameter	Units	3349996		3349997		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		50342731002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result						
Mercury	ug/L	ND	5	5	5.0	5.1	100	102	75-125	2	20

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**QUALITY CONTROL DATA**

Project: Eagle Valley April 2023 P1R1  
Pace Project No.: 50342983

QC Batch: 729832 Analysis Method: EPA 6010  
QC Batch Method: EPA 3010 Analysis Description: 6010 MET  
Laboratory: Pace Analytical Services - Indianapolis

Associated Lab Samples: 50342983001

METHOD BLANK: 3349481 Matrix: Water  
Associated Lab Samples: 50342983001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Aluminum	ug/L	ND	200	55.4	04/27/23 11:46	
Boron	ug/L	ND	100	37.6	04/27/23 11:46	
Calcium	ug/L	ND	1000	163	04/27/23 11:46	
Iron	ug/L	ND	100	48.8	04/27/23 11:46	
Lithium	ug/L	ND	20.0	6.2	04/27/23 11:46	
Magnesium	ug/L	ND	1000	71.8	04/27/23 11:46	
Manganese	ug/L	ND	10.0	2.5	04/27/23 11:46	
Potassium	ug/L	ND	1000	281	04/27/23 11:46	
Silica	ug/L	ND	450		04/27/23 11:46	N2
Sodium	ug/L	ND	1000	214	04/27/23 11:46	

LABORATORY CONTROL SAMPLE: 3349482

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Aluminum	ug/L	10000	9720	97	80-120	
Boron	ug/L	1000	922	92	80-120	
Calcium	ug/L	10000	9720	97	80-120	
Iron	ug/L	10000	9920	99	80-120	
Lithium	ug/L	1000	982	98	80-120	
Magnesium	ug/L	10000	9280	93	80-120	
Manganese	ug/L	1000	943	94	80-120	
Potassium	ug/L	10000	9460	95	80-120	
Silica	ug/L	10700	10400	97	80-120	N2
Sodium	ug/L	10000	9400	94	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3349483 3349484

Parameter	Units	MS		MSD		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual	
		50342312002 Result	Spike Conc.	Spike Conc.	MS Result							MSD Result
Aluminum	ug/L	<200	10000	10000	9920	9720	99	97	75-125	2	20	
Boron	ug/L	<100	1000	1000	988	977	97	96	75-125	1	20	
Calcium	ug/L	66900	10000	10000	76600	77600	97	107	75-125	1	20	
Iron	ug/L	<100	10000	10000	10000	9940	100	99	75-125	1	20	
Lithium	ug/L	<20.0	1000	1000	1100	1080	110	108	75-125	2	20	
Magnesium	ug/L	15000	10000	10000	24300	24300	93	93	75-125	0	20	
Manganese	ug/L	<10.0	1000	1000	959	949	96	95	75-125	1	20	
Potassium	ug/L	103000	10000	10000	114000	114000	118	116	75-125	0	20	E

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**QUALITY CONTROL DATA**

Project: Eagle Valley April 2023 P1R1

Pace Project No.: 50342983

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3349483 3349484											
Parameter	Units	50342312002		MS	MSD	MS	MSD	MS	MSD	% Rec	Max
		Result	Conc.	Spike Conc.	Spike Conc.	Result	Result	% Rec	% Rec	Limits	RPD
Silica	ug/L	8100	10700	10700	19000	18900	102	101	75-125	1	20 N2
Sodium	ug/L	80100	10000	10000	91400	91700	113	116	75-125	0	20

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3349485 3349486											
Parameter	Units	50342319004		MS	MSD	MS	MSD	MS	MSD	% Rec	Max
		Result	Conc.	Spike Conc.	Spike Conc.	Result	Result	% Rec	% Rec	Limits	RPD
Aluminum	ug/L	<55.4	10000	10000	9870	9800	99	98	75-125	1	20
Boron	ug/L	55.6J	1000	1000	1020	1020	96	96	75-125	0	20
Calcium	ug/L	148000	10000	10000	157000	155000	95	72	75-125	1	20 P6
Iron	ug/L	16400	10000	10000	26200	25900	98	95	75-125	1	20
Lithium	ug/L	<6.2	1000	1000	1060	1070	105	107	75-125	1	20
Magnesium	ug/L	28500	10000	10000	37600	37000	91	85	75-125	2	20
Manganese	ug/L	2090	1000	1000	3030	3010	94	92	75-125	1	20
Potassium	ug/L	15700	10000	10000	25800	25800	102	102	75-125	0	20
Silica	ug/L	13700	10700	10700	24300	24100	99	98	75-125	1	20 N2
Sodium	ug/L	72700	10000	10000	82800	82600	101	98	75-125	0	20

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**QUALITY CONTROL DATA**

Project: Eagle Valley April 2023 P1R1

Pace Project No.: 50342983

QC Batch:	729858	Analysis Method:	EPA 6010
QC Batch Method:	EPA 3010	Analysis Description:	6010 MET Dissolved
		Laboratory:	Pace Analytical Services - Indianapolis

Associated Lab Samples: 50342983001

METHOD BLANK: 3349569 Matrix: Water

Associated Lab Samples: 50342983001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Manganese, Dissolved	ug/L	ND	10.0	2.5	04/27/23 00:50	
Molybdenum, Dissolved	ug/L	ND	10.0	3.7	04/27/23 00:50	

LABORATORY CONTROL SAMPLE: 3349570

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Manganese, Dissolved	ug/L	1000	900	90	80-120	
Molybdenum, Dissolved	ug/L	1000	940	94	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3349571 3349572

Parameter	Units	50342354003		3349571		3349572		% Rec Limits	RPD	Max RPD	Qual
		Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec				
Manganese, Dissolved	ug/L	17.3	1000	1000	949	982	93	97	75-125	3	20
Molybdenum, Dissolved	ug/L	ND	1000	1000	994	1040	99	104	75-125	4	20

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**QUALITY CONTROL DATA**

Project: Eagle Valley April 2023 P1R1

Pace Project No.: 50342983

QC Batch: 729624

Analysis Method: EPA 6020

QC Batch Method: EPA 200.2

Analysis Description: 6020 MET

Laboratory: Pace Analytical Services - Indianapolis

Associated Lab Samples: 50342983001

METHOD BLANK: 3348367

Matrix: Water

Associated Lab Samples: 50342983001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Antimony	ug/L	ND	1.0	0.036	04/26/23 14:33	
Arsenic	ug/L	ND	1.0	0.053	04/26/23 14:33	
Barium	ug/L	ND	1.0	0.051	04/26/23 14:33	
Beryllium	ug/L	ND	0.20	0.028	04/27/23 17:53	
Cadmium	ug/L	ND	2.0	0.0090	04/26/23 14:33	
Chromium	ug/L	ND	10.0	0.13	04/26/23 14:33	
Cobalt	ug/L	ND	1.0	0.032	04/26/23 14:33	
Lead	ug/L	ND	10.0	0.034	04/26/23 14:33	
Molybdenum	ug/L	ND	10.0	0.048	04/26/23 14:33	
Selenium	ug/L	ND	1.0	0.23	04/26/23 14:33	
Thallium	ug/L	ND	1.0	0.033	04/26/23 14:33	

LABORATORY CONTROL SAMPLE: 3348368

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Antimony	ug/L	40	41.0	102	80-120	
Arsenic	ug/L	40	37.7	94	80-120	
Barium	ug/L	40	39.5	99	80-120	
Beryllium	ug/L	40	40.1	100	80-120	
Cadmium	ug/L	40	38.8	97	80-120	
Chromium	ug/L	40	40.1	100	80-120	
Cobalt	ug/L	40	40.8	102	80-120	
Lead	ug/L	40	40.3	101	80-120	
Molybdenum	ug/L	40	41.3	103	80-120	
Selenium	ug/L	40	39.9	100	80-120	
Thallium	ug/L	40	40.9	102	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3348369 3348370

Parameter	Units	MS		MSD		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		50342623006 Result	Spike Conc.	Spike Conc.	MS Result						
Antimony	ug/L	ND	40	40	41.9	42.7	105	107	75-125	2	20
Arsenic	ug/L	ND	40	40	38.2	38.5	95	96	75-125	1	20
Barium	ug/L	14.1	40	40	53.2	54.2	98	100	75-125	2	20
Beryllium	ug/L	ND	40	40	35.4	35.8	88	89	75-125	1	20 CC
Cadmium	ug/L	ND	40	40	38.4	39.2	96	98	75-125	2	20
Chromium	ug/L	ND	40	40	39.6	39.6	98	98	75-125	0	20

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### QUALITY CONTROL DATA

Project: Eagle Valley April 2023 P1R1

Pace Project No.: 50342983

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3348369 3348370											
Parameter	Units	50342623006 Result	MS	MSD	MS	MSD	MS	MSD	% Rec	Max	Qual
			Spike Conc.	Spike Conc.	Result	Result	% Rec	% Rec	Limits	RPD	
Cobalt	ug/L	ND	40	40	38.1	38.0	95	95	75-125	0	20
Lead	ug/L	ND	40	40	41.3	41.6	103	104	75-125	1	20
Molybdenum	ug/L	ND	40	40	42.3	42.4	105	105	75-125	0	20
Selenium	ug/L	ND	40	40	40.5	41.5	101	104	75-125	2	20
Thallium	ug/L	ND	40	40	42.3	42.4	106	106	75-125	0	20

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### REPORT OF LABORATORY ANALYSIS

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**QUALITY CONTROL DATA**

Project: Eagle Valley April 2023 P1R1

Pace Project No.: 50342983

QC Batch:	729793	Analysis Method:	SM 2320B
QC Batch Method:	SM 2320B	Analysis Description:	2320B Alkalinity
		Laboratory:	Pace Analytical Services - Indianapolis

Associated Lab Samples: 50342983001

METHOD BLANK: 3349132 Matrix: Water

Associated Lab Samples: 50342983001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Alkalinity, Total as CaCO3	mg/L	ND	10.0	10.0	04/25/23 18:42	
Alkalinity,Bicarbonate (CaCO3)	mg/L	ND	10.0	10.0	04/25/23 18:42	
Alkalinity,Carbonate (CaCO3)	mg/L	ND	10.0	10.0	04/25/23 18:42	

LABORATORY CONTROL SAMPLE: 3349133

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Alkalinity, Total as CaCO3	mg/L	50	48.9	98	90-110	

SAMPLE DUPLICATE: 3349134

Parameter	Units	50342725001 Result	Dup Result	RPD	Max RPD	Qualifiers
Alkalinity, Total as CaCO3	mg/L	98.1	99.0	1	20	
Alkalinity,Bicarbonate (CaCO3)	mg/L	98.1	99.0	1	20	
Alkalinity,Carbonate (CaCO3)	mg/L	ND	ND		20	

SAMPLE DUPLICATE: 3349135

Parameter	Units	50342725004 Result	Dup Result	RPD	Max RPD	Qualifiers
Alkalinity, Total as CaCO3	mg/L	202	205	1	20	
Alkalinity,Bicarbonate (CaCO3)	mg/L	202	205	1	20	
Alkalinity,Carbonate (CaCO3)	mg/L	ND	ND		20	

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### QUALITY CONTROL DATA

Project: Eagle Valley April 2023 P1R1

Pace Project No.: 50342983

QC Batch:	730413	Analysis Method:	SM 2540C
QC Batch Method:	SM 2540C	Analysis Description:	2540C Total Dissolved Solids
		Laboratory:	Pace Analytical Services - Indianapolis

Associated Lab Samples: 50342983001

METHOD BLANK: 3352198 Matrix: Water

Associated Lab Samples: 50342983001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	ND	10.0	10.0	04/28/23 08:26	

LABORATORY CONTROL SAMPLE: 3352199

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	300	281	94	80-120	

SAMPLE DUPLICATE: 3352200

Parameter	Units	50342943001 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	325	321	1	10	

SAMPLE DUPLICATE: 3352201

Parameter	Units	50342943002 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	475	473	0	10	

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### QUALITY CONTROL DATA

Project: Eagle Valley April 2023 P1R1

Pace Project No.: 50342983

QC Batch: 730200

Analysis Method: SM 4500-H+B

QC Batch Method: SM 4500-H+B

Analysis Description: 4500H+B pH

Laboratory: Pace Analytical Services - Indianapolis

Associated Lab Samples: 50342983001

SAMPLE DUPLICATE: 3351046

Parameter	Units	50342433005 Result	Dup Result	RPD	Max RPD	Qualifiers
pH at 25 Degrees C	Std. Units	7.0	7.0	0	2	H3

SAMPLE DUPLICATE: 3351047

Parameter	Units	50342433006 Result	Dup Result	RPD	Max RPD	Qualifiers
pH at 25 Degrees C	Std. Units	7.6	7.6	0	2	H3

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**QUALITY CONTROL DATA**

Project: Eagle Valley April 2023 P1R1

Pace Project No.: 50342983

QC Batch:	730439	Analysis Method:	SM 4500-S2-D
QC Batch Method:	SM 4500-S2-D	Analysis Description:	4500S2D Sulfide Water
		Laboratory:	Pace Analytical Services - Indianapolis

Associated Lab Samples: 50342983001

METHOD BLANK: 3352411 Matrix: Water

Associated Lab Samples: 50342983001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Sulfide	mg/L	ND	0.10	0.025	04/28/23 09:52	

LABORATORY CONTROL SAMPLE: 3352412

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Sulfide	mg/L	0.5	0.47	94	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3352413 3352414

Parameter	Units	50342983001		3352414		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result						
Sulfide	mg/L	ND	0.5	0.5	0.44	0.42	88	84	90-110	4	20 M3

MATRIX SPIKE SAMPLE: 3352415

Parameter	Units	50343327006 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Sulfide	mg/L	ND	0.5	0.41	79	90-110	M0

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**QUALITY CONTROL DATA**

Project: Eagle Valley April 2023 P1R1

Pace Project No.: 50342983

QC Batch:	729924	Analysis Method:	HACH 8146
QC Batch Method:	HACH 8146	Analysis Description:	Iron, Ferrous
		Laboratory:	Pace Analytical Services - Indianapolis

Associated Lab Samples: 50342983001

METHOD BLANK: 3349904 Matrix: Water

Associated Lab Samples: 50342983001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Iron, Ferrous	mg/L	ND	0.20	0.035	04/26/23 10:15	H3,N2

LABORATORY CONTROL SAMPLE: 3349905

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Iron, Ferrous	mg/L	1	1.0	100	90-110	H3,N2

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3349906 3349907

Parameter	Units	50342799003		3349907		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual	
		MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result							
Iron, Ferrous	mg/L	ND	1	1	1.1	1.2	108	109	90-110	1	20	H3,N2

MATRIX SPIKE SAMPLE: 3349908

Parameter	Units	50343102001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Iron, Ferrous	mg/L	ND	1	1.1	109	90-110	H3,N2

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**QUALITY CONTROL DATA**

Project: Eagle Valley April 2023 P1R1

Pace Project No.: 50342983

QC Batch:	729657	Analysis Method:	EPA 353.2
QC Batch Method:	EPA 353.2	Analysis Description:	353.2 Nitrate + Nitrite, Unpres.
		Laboratory:	Pace Analytical Services - Indianapolis

Associated Lab Samples: 50342983001

METHOD BLANK: 3348473 Matrix: Water

Associated Lab Samples: 50342983001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Nitrogen, Nitrate	mg/L	ND	0.10	0.011	04/25/23 10:31	
Nitrogen, Nitrite	mg/L	ND	0.10	0.0040	04/25/23 10:31	

LABORATORY CONTROL SAMPLE: 3348474

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Nitrogen, Nitrate	mg/L	1	0.95	95	90-110	
Nitrogen, Nitrite	mg/L	1	0.99	99	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3348475 3348476

Parameter	Units	50342984001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Nitrogen, Nitrate	mg/L	0.23	1	1	1.2	1.2	101	100	90-110	1	20	
Nitrogen, Nitrite	mg/L	ND	1	1	1.1	1.1	106	106	90-110	1	20	

MATRIX SPIKE SAMPLE: 3348477

Parameter	Units	50342976001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Nitrogen, Nitrate	mg/L		1.5	1	2.4	92	90-110
Nitrogen, Nitrite	mg/L		ND	1	1.1	105	90-110

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**QUALITY CONTROL DATA**

Project: Eagle Valley April 2023 P1R1

Pace Project No.: 50342983

QC Batch:	729941	Analysis Method:	EPA 365.1
QC Batch Method:	EPA 365.1	Analysis Description:	365.1 Total Phosphorus
		Laboratory:	Pace Analytical Services - Indianapolis

Associated Lab Samples: 50342983001

METHOD BLANK: 3349951 Matrix: Water

Associated Lab Samples: 50342983001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Phosphate as P04	mg/L	ND	0.15	0.15	05/02/23 11:17	

LABORATORY CONTROL SAMPLE: 3349952

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Phosphate as P04	mg/L		1.4			

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3349953 3349954

Parameter	Units	50342778001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Phosphate as P04	mg/L	ND			1.5	1.5				1		

MATRIX SPIKE SAMPLE: 3349955

Parameter	Units	50342983001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Phosphate as P04	mg/L	ND		1.5			

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**QUALITY CONTROL DATA**

Project: Eagle Valley April 2023 P1R1

Pace Project No.: 50342983

QC Batch: 729727	Analysis Method: SM 5310C
QC Batch Method: SM 5310C	Analysis Description: 5310C Total Organic Carbon
	Laboratory: Pace Analytical Services - Indianapolis

Associated Lab Samples: 50342983001

METHOD BLANK: 3348884 Matrix: Water

Associated Lab Samples: 50342983001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Organic Carbon	mg/L	ND	1.0	0.24	04/26/23 19:11	

LABORATORY CONTROL SAMPLE: 3348885

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Organic Carbon	mg/L	10	9.9	99	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3348886 3348887

Parameter	Units	50342392011		50342392012		50342392011		50342392012		% Rec Limits	RPD	Max RPD	Qual
		MS Result	MSD Spike Conc.	MS Result	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec				
Total Organic Carbon	mg/L	24.5	40	40	65.5	64.9	102	101	80-120	1	20		

MATRIX SPIKE SAMPLE: 3348888

Parameter	Units	50342392012 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Total Organic Carbon	mg/L	18.4	40	60.9	106	80-120	

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**QUALITY CONTROL DATA**

Project: Eagle Valley April 2023 P1R1

Pace Project No.: 50342983

QC Batch:	730536	Analysis Method:	SM 5310C
QC Batch Method:	SM 5310C	Analysis Description:	5310C Dissolved Organic Carbon
		Laboratory:	Pace Analytical Services - Indianapolis

Associated Lab Samples: 50342983001

METHOD BLANK:	3352857	Matrix:	Water
Associated Lab Samples:	50342983001		

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Dissolved Organic Carbon	mg/L	ND	1.0	0.24	04/28/23 19:13	

LABORATORY CONTROL SAMPLE:	3352858					
Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Dissolved Organic Carbon	mg/L	10	10.6	106	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE:	3352859			3352860								
Parameter	Units	50342799003 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Dissolved Organic Carbon	mg/L	1.5	10	10	11.1	11.5	96	100	80-120	3	20	

MATRIX SPIKE SAMPLE:	3352861										
Parameter	Units	50342799006 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers				
Dissolved Organic Carbon	mg/L	1.7	10	11.5	97	80-120					

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**ANALYTICAL RESULTS - RADIOCHEMISTRY**

Project: Eagle Valley April 2023 P1R1

Pace Project No.: 50342983

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Radium-226	EPA 903.1	<b>0.231 ± 0.400 (0.715)</b> <b>C:NA T:93%</b>	pCi/L	05/09/23 15:38	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 904.0	<b>0.441 ± 0.445 (0.923)</b> <b>C:76% T:79%</b>	pCi/L	05/08/23 15:21	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	<b>0.672 ± 0.845 (1.64)</b>	pCi/L	05/15/23 17:00	7440-14-4	

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### QUALITY CONTROL - RADIOCHEMISTRY

Project: Eagle Valley April 2023 P1R1

Pace Project No.: 50342983

QC Batch: 585052

Analysis Method: EPA 903.1

QC Batch Method: EPA 903.1

Analysis Description: 903.1 Radium-226

Laboratory: Pace Analytical Services - Greensburg

Associated Lab Samples: 50342983001

METHOD BLANK: 2841322

Matrix: Water

Associated Lab Samples: 50342983001

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.218 ± 0.250 (0.148) C:NA T:93%	pCi/L	05/09/23 15:38	

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### QUALITY CONTROL - RADIOCHEMISTRY

Project: Eagle Valley April 2023 P1R1

Pace Project No.: 50342983

QC Batch: 585053

Analysis Method: EPA 904.0

QC Batch Method: EPA 904.0

Analysis Description: 904.0 Radium 228

Laboratory: Pace Analytical Services - Greensburg

Associated Lab Samples: 50342983001

METHOD BLANK: 2841323

Matrix: Water

Associated Lab Samples: 50342983001

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.571 ± 0.354 (0.657) C:83% T:88%	pCi/L	05/08/23 15:21	

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## QUALIFIERS

Project: Eagle Valley April 2023 P1R1

Pace Project No.: 50342983

### DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Reported results are not rounded until the final step prior to reporting. Therefore, calculated parameters that are typically reported as "Total" may vary slightly from the sum of the reported component parameters.

Act - Activity

Unc - Uncertainty: SDWA = 1.96 sigma count uncertainty, all other matrices = Expanded Uncertainty (95% confidence interval).

Gamma Spec = Expanded Uncertainty (95.4% Confidence Interval)

(MDC) - Minimum Detectable Concentration

Trac - Tracer Recovery (%)

Carr - Carrier Recovery (%)

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

### ANALYTE QUALIFIERS

CC The continuing calibration for this compound is outside of method control limits. The result is estimated.

E Analyte concentration exceeded the calibration range. The reported result is estimated.

H3 Sample was received or analysis requested beyond the recognized method holding time.

M0 Matrix spike recovery and/or matrix spike duplicate recovery was outside laboratory control limits.

M3 Matrix spike recovery was outside laboratory control limits due to matrix interferences.

N2 The lab does not hold NELAC/TNI accreditation for this parameter but other accreditations/certifications may apply. A complete list of accreditations/certifications is available upon request.

P6 Matrix spike recovery was outside laboratory control limits due to a parent sample concentration notably higher than the spike level.

## REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Eagle Valley April 2023 P1R1

Pace Project No.: 50342983

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
50342983001	MW-1S	EPA 9056	730227		
50342983001	MW-1S	EPA 3010	729832	EPA 6010	730222
50342983001	MW-1S	EPA 3010	729858	EPA 6010	730150
50342983001	MW-1S	EPA 200.2	729624	EPA 6020	729695
50342983001	MW-1S	EPA 7470	729957	EPA 7470	730163
50342983001	MW-1S	EPA 903.1	585052		
50342983001	MW-1S	EPA 904.0	585053		
50342983001	MW-1S	Total Radium Calculation	588253		
50342983001	MW-1S	SM 2320B	729793		
50342983001	MW-1S	SM 2540C	730413		
50342983001	MW-1S	SM 4500-H+B	730200		
50342983001	MW-1S	SM 4500-S2-D	730439		
50342983001	MW-1S	HACH 8146	729924		
50342983001	MW-1S	EPA 353.2	729657		
50342983001	MW-1S	EPA 365.1	729941	EPA 365.1	731058
50342983001	MW-1S	SM 5310C	729727		
50342983001	MW-1S	SM 5310C	730536		

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**SAMPLE CONDITION UPON RECEIPT FORM**

Date/Time and Initials of person examining contents: 4/24/23 10:17 TH

1. Courier:  FED EX  UPS  CLIENT  PACE  USPS  OTHER

2. Custody Seal on Cooler/Box Present:  Yes  No  
 (If yes)Seals Intact:  Yes  No (leave blank if no seals were present)

3. Thermometer: **1 2 3 4 5 6 A B C D E F**

4. Cooler Temperature(s): 2.6/2.6 3.0/3.0    
 (Initial/Corrected) RECORD TEMPS OF ALL COOLERS RECEIVED (use Comments below to add more)

5. Packing Material:  Bubble Wrap  Bubble Bags  
 None  Other Ziploc

6. Ice Type:  Wet  Blue  None

7. If temp. is over 6°C or under 0°C, was the PM notified?:  Yes  No  
 Cooler temp should be above freezing to 6°C

All discrepancies will be written out in the comments section below.

	Yes	No		Yes	No	N/A
USDA Regulated Soils? (HI, ID, NY, WA, OR, CA, NM, TX, OK, AR, LA, TN, AL, MS, NC, SC, GA, FL, or Puerto Rico)		<input checked="" type="checkbox"/>	All containers needing acid/base preservation have been pH CHECKED?: Exceptions: VOA, coliform, LLHg, O&G, RAD CHEM, and any container with a septum cap or preserved with HCl.	<input checked="" type="checkbox"/>		
Short Hold Time Analysis (48 hours or less)? Analysis: <u>NO2/NO3</u>	<input checked="" type="checkbox"/>		Circle: <u>HNO3 (&lt;2)</u> <u>H2SO4 (&lt;2)</u> NaOH (>10) <u>NaOH/ZnAc (&gt;9)</u> Any non-conformance to pH recommendations will be noted on the container count form	<input checked="" type="checkbox"/>		
Time 5035A TC placed in Freezer or Short Holds To Lab Time:			Residual Chlorine Check (SVOC 625 Pest/PCB 608)	Present	Absent	N/A
Rush TAT Requested (4 days or less):	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Residual Chlorine Check (Total/Amenable/Free Cyanide)		<input checked="" type="checkbox"/>	
Custody Signatures Present?	<input checked="" type="checkbox"/>		Headspace Wisconsin Sulfide?			<input checked="" type="checkbox"/>
Containers Intact?:	<input checked="" type="checkbox"/>		Headspace in VOA Vials (>6mm): See Containter Count form for details	Present	Absent	No VOA Vials Sent
Sample Label (IDs/Dates/Times) Match COC?: Except TCs, which only require sample ID	<input checked="" type="checkbox"/>		Trip Blank Present?			<input checked="" type="checkbox"/>
Extra labels on Terracore Vials? (soils only)			Trip Blank Custody Seals?:			<input checked="" type="checkbox"/>

COMMENTS:

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July 18, 2023

Mr. Mark Breting  
ATC Group Services  
7988 Centerpoint Drive  
Suite 100  
Indianapolis, IN 46256

RE: Project: Eagle Valley April 2023 P1R2  
Pace Project No.: 50342984

Dear Mr. Breting:

Enclosed are the analytical results for sample(s) received by the laboratory on April 24, 2023. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

The test results provided in this final report were generated by each of the following laboratories within the Pace Network:

- Pace Analytical Services - Indianapolis
- Pace Analytical Services - Greensburg

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Will Statz  
will.statz@pacelabs.com  
(317)228-3105  
Project Manager

Enclosures

cc: Mohammed Bazlamit, Atlas  
Mr. Robert Miller, Haley & Aldrich



## REPORT OF LABORATORY ANALYSIS

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### CERTIFICATIONS

Project: Eagle Valley April 2023 P1R2

Pace Project No.: 50342984

#### Pace Analytical Services Pennsylvania

1638 Roseytown Rd Suites 2,3&4, Greensburg, PA 15601  
 ANAB DOD-ELAP Rad Accreditation #: L2417  
 ANABISO/IEC 17025:2017 Rad Cert#: L24170  
 Alabama Certification #: 41590  
 Arizona Certification #: AZ0734  
 Arkansas Certification  
 California Certification #: 2950  
 Colorado Certification #: PA01547  
 Connecticut Certification #: PH-0694  
 EPA Region 4 DW Rad  
 Florida/TNI Certification #: E87683  
 Georgia Certification #: C040  
 Guam Certification  
 Hawaii Certification  
 Idaho Certification  
 Illinois Certification  
 Indiana Certification  
 Iowa Certification #: 391  
 Kansas Certification #: E-10358  
 Kentucky Certification #: KY90133  
 KY WW Permit #: KY0098221  
 KY WW Permit #: KY0000221  
 Louisiana DHH/TNI Certification #: LA010  
 Louisiana DEQ/TNI Certification #: 04086  
 Maine Certification #: 2023021  
 Maryland Certification #: 308  
 Massachusetts Certification #: M-PA1457  
 Michigan/PADEP Certification #: 9991

Missouri Certification #: 235  
 Montana Certification #: Cert0082  
 Nebraska Certification #: NE-OS-29-14  
 Nevada Certification #: PA014572023-03  
 New Hampshire/TNI Certification #: 297622  
 New Jersey/TNI Certification #: PA051  
 New Mexico Certification #: PA01457  
 New York/TNI Certification #: 10888  
 North Carolina Certification #: 42706  
 North Dakota Certification #: R-190  
 Ohio EPA Rad Approval: #41249  
 Oregon/TNI Certification #: PA200002-015  
 Pennsylvania/TNI Certification #: 65-00282  
 Puerto Rico Certification #: PA01457  
 Rhode Island Certification #: 65-00282  
 South Dakota Certification  
 Tennessee Certification #: TN02867  
 Texas/TNI Certification #: T104704188-22-18  
 Utah/TNI Certification #: PA014572223-14  
 USDA Soil Permit #: 525-23-67-77263  
 Vermont Dept. of Health: ID# VT-0282  
 Virgin Island/PADEP Certification  
 Virginia/VELAP Certification #: 460198  
 Washington Certification #: C868  
 West Virginia DEP Certification #: 143  
 West Virginia DHHR Certification #: 9964C  
 Wisconsin Approve List for Rad

#### Pace Analytical Services Indianapolis

7726 Moller Road, Indianapolis, IN 46268  
 Illinois Accreditation #: 200074  
 Indiana Drinking Water Laboratory #: C-49-06  
 Kansas/TNI Certification #: E-10177  
 Kentucky UST Agency Interest #: 80226  
 Kentucky WW Laboratory ID #: 98019  
 Michigan Drinking Water Laboratory #9050

Ohio VAP Certified Laboratory #: CL0065  
 Oklahoma Laboratory #: 9204  
 Texas Certification #: T104704355  
 Wisconsin Laboratory #: 999788130  
 USDA Foreign Soil Permit #: 525-23-13-23119  
 USDA Compliance Agreement #: IN-SL-22-001

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### SAMPLE SUMMARY

Project: Eagle Valley April 2023 P1R2

Pace Project No.: 50342984

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Lab ID	Sample ID	Matrix	Date Collected	Date Received
50342984001	MW-16S	Water	04/24/23 12:20	04/24/23 17:15
50342984002	MW-16I	Water	04/24/23 13:45	04/24/23 17:15
50342984003	MW-16D	Water	04/24/23 14:57	04/24/23 17:15

### REPORT OF LABORATORY ANALYSIS

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### SAMPLE ANALYTE COUNT

Project: Eagle Valley April 2023 P1R2

Pace Project No.: 50342984

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
50342984001	MW-16S	EPA 9056	RMR	3	PASI-I
		EPA 6010	MTM	10	PASI-I
		EPA 6010	JPK	2	PASI-I
		EPA 6020	CAW	11	PASI-I
		EPA 7470	ILP	1	PASI-I
		EPA 903.1	CLM	1	PASI-PA
		EPA 904.0	JJS1	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
		SM 2320B	DAW	3	PASI-I
		SM 2540C	AEL	1	PASI-I
		SM 4500-H+B	BMS	1	PASI-I
		SM 4500-S2-D	BEP	1	PASI-I
		HACH 8146	BEP	1	PASI-I
		EPA 353.2	ZM	2	PASI-I
		EPA 365.1	YAM	1	PASI-I
		SM 5310C	ATS	1	PASI-I
		SM 5310C	ATS	1	PASI-I
		50342984002	MW-16I	EPA 9056	RMR
EPA 6010	MTM			10	PASI-I
EPA 6010	JPK			2	PASI-I
EPA 6020	CAW			11	PASI-I
EPA 7470	ILP			1	PASI-I
EPA 903.1	CLM			1	PASI-PA
EPA 904.0	JJS1			1	PASI-PA
Total Radium Calculation	JAL			1	PASI-PA
SM 2320B	DAW			3	PASI-I
SM 2540C	AEL			1	PASI-I
SM 4500-H+B	BMS			1	PASI-I
SM 4500-S2-D	BEP			1	PASI-I
HACH 8146	BEP			1	PASI-I
EPA 353.2	ZM			2	PASI-I
EPA 365.1	YAM			1	PASI-I
SM 5310C	ATS			1	PASI-I
SM 5310C	ATS			1	PASI-I
50342984003	MW-16D			EPA 9056	RMR
		EPA 6010	MTM	10	PASI-I
		EPA 6010	JPK	2	PASI-I

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### SAMPLE ANALYTE COUNT

Project: Eagle Valley April 2023 P1R2

Pace Project No.: 50342984

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
		EPA 6020	CAW	11	PASI-I
		EPA 7470	ILP	1	PASI-I
		EPA 903.1	CLM	1	PASI-PA
		EPA 904.0	JJS1	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
		SM 2320B	DAW	3	PASI-I
		SM 2540C	AEL	1	PASI-I
		SM 4500-H+B	BMS	1	PASI-I
		SM 4500-S2-D	BEP	1	PASI-I
		HACH 8146	BEP	1	PASI-I
		EPA 353.2	ZM	2	PASI-I
		EPA 365.1	YAM	1	PASI-I
		SM 5310C	ATS	1	PASI-I
		SM 5310C	ATS	1	PASI-I

PASI-I = Pace Analytical Services - Indianapolis

PASI-PA = Pace Analytical Services - Greensburg

### REPORT OF LABORATORY ANALYSIS

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**SUMMARY OF DETECTION**

Project: Eagle Valley April 2023 P1R2  
 Pace Project No.: 50342984

Lab Sample ID	Client Sample ID	Result	Units	Report Limit	Analyzed	Qualifiers
Method	Parameters					
<b>50342984001</b>	<b>MW-16S</b>					
EPA 9056	Chloride	128	mg/L	2.5	04/29/23 10:59	
EPA 9056	Fluoride	0.28	mg/L	0.10	04/29/23 10:39	
EPA 9056	Sulfate	128	mg/L	2.5	04/29/23 10:59	
EPA 6010	Aluminum	428	ug/L	200	04/27/23 12:43	
EPA 6010	Boron	278	ug/L	100	04/27/23 12:43	
EPA 6010	Calcium	97400	ug/L	1000	04/27/23 12:43	
EPA 6010	Iron	641	ug/L	100	04/27/23 12:43	
EPA 6010	Lithium	57.0	ug/L	20.0	04/27/23 12:43	
EPA 6010	Magnesium	25000	ug/L	1000	04/27/23 12:43	
EPA 6010	Manganese	828	ug/L	10.0	04/27/23 12:43	
EPA 6010	Potassium	8930	ug/L	1000	04/27/23 12:43	
EPA 6010	Silica	14800	ug/L	450	04/27/23 12:43	N2
EPA 6010	Sodium	97500	ug/L	1000	04/27/23 12:43	
EPA 6010	Manganese, Dissolved	138	ug/L	10.0	04/27/23 01:16	
EPA 6010	Molybdenum, Dissolved	54.9	ug/L	10.0	04/27/23 01:16	
EPA 6020	Barium	86.0	ug/L	1.0	04/26/23 20:24	
EPA 6020	Cobalt	1.1	ug/L	1.0	04/26/23 20:24	
EPA 6020	Molybdenum	58.4	ug/L	10.0	04/26/23 20:24	
EPA 903.1	Radium-226	0.316 ± 0.790 (1.43) C:NA T:87%	pCi/L		05/09/23 15:38	
EPA 904.0	Radium-228	0.775 ± 0.422 (0.762) C:86% T:80%	pCi/L		05/08/23 15:20	
Total Radium Calculation	Total Radium	1.09 ± 1.21 (2.19)	pCi/L		05/15/23 17:00	
SM 2320B	Alkalinity, Total as CaCO3	258	mg/L	10.0	04/25/23 18:42	
SM 2320B	Alkalinity, Bicarbonate (CaCO3)	258	mg/L	10.0	04/25/23 18:42	
SM 2540C	Total Dissolved Solids	632	mg/L	10.0	04/28/23 08:30	
SM 4500-H+B	pH at 25 Degrees C	7.4	Std. Units	0.10	04/27/23 10:23	H3
EPA 353.2	Nitrogen, Nitrate	0.23	mg/L	0.10	04/25/23 10:51	
SM 5310C	Total Organic Carbon	1.2	mg/L	1.0	04/26/23 23:24	
SM 5310C	Dissolved Organic Carbon	1.3	mg/L	1.0	04/28/23 21:45	
<b>50342984002</b>	<b>MW-16I</b>					
EPA 9056	Chloride	120	mg/L	2.5	04/29/23 12:17	
EPA 9056	Fluoride	0.32	mg/L	0.10	04/29/23 11:57	
EPA 9056	Sulfate	96.2	mg/L	2.5	04/29/23 12:17	
EPA 6010	Boron	240	ug/L	100	04/27/23 12:45	
EPA 6010	Calcium	78500	ug/L	1000	04/27/23 12:45	
EPA 6010	Lithium	71.5	ug/L	20.0	04/27/23 12:45	
EPA 6010	Magnesium	23200	ug/L	1000	04/27/23 12:45	
EPA 6010	Manganese	99.8	ug/L	10.0	04/27/23 12:45	
EPA 6010	Potassium	8680	ug/L	1000	04/27/23 12:45	
EPA 6010	Silica	11600	ug/L	450	04/27/23 12:45	N2
EPA 6010	Sodium	79500	ug/L	1000	04/27/23 12:45	

**REPORT OF LABORATORY ANALYSIS**

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**SUMMARY OF DETECTION**

Project: Eagle Valley April 2023 P1R2  
 Pace Project No.: 50342984

Lab Sample ID	Client Sample ID	Result	Units	Report Limit	Analyzed	Qualifiers
Method	Parameters					
<b>50342984002</b>	<b>MW-16I</b>					
EPA 6010	Manganese, Dissolved	94.8	ug/L	10.0	04/27/23 01:19	
EPA 6010	Molybdenum, Dissolved	89.6	ug/L	10.0	04/27/23 01:19	
EPA 6020	Barium	70.3	ug/L	1.0	04/26/23 20:31	
EPA 6020	Molybdenum	88.7	ug/L	10.0	04/26/23 20:31	
EPA 903.1	Radium-226	0.495 ± 0.638 (1.06) C:NA	pCi/L		05/09/23 15:38	
EPA 904.0	Radium-228	T:93% 0.555 ± 0.430 (0.856) C:80% T:82%	pCi/L		05/08/23 15:20	
Total Radium Calculation	Total Radium	1.05 ± 1.07 (1.92)	pCi/L		05/15/23 17:00	
SM 2320B	Alkalinity, Total as CaCO3	213	mg/L	10.0	04/25/23 18:42	
SM 2320B	Alkalinity,Bicarbonate (CaCO3)	213	mg/L	10.0	04/25/23 18:42	
SM 2540C	Total Dissolved Solids	532	mg/L	10.0	04/28/23 08:31	
SM 4500-H+B	pH at 25 Degrees C	7.7	Std. Units	0.10	04/27/23 10:26	H3
SM 5310C	Total Organic Carbon	1.4	mg/L	1.0	04/26/23 23:36	
SM 5310C	Dissolved Organic Carbon	1.4	mg/L	1.0	04/28/23 22:03	
<b>50342984003</b>	<b>MW-16D</b>					
EPA 9056	Chloride	114	mg/L	2.5	04/29/23 12:56	
EPA 9056	Fluoride	0.33	mg/L	0.10	04/29/23 12:36	
EPA 9056	Sulfate	87.3	mg/L	2.5	04/29/23 12:56	
EPA 6010	Boron	166	ug/L	100	04/27/23 12:47	
EPA 6010	Calcium	86800	ug/L	1000	04/27/23 12:47	
EPA 6010	Iron	1170	ug/L	100	04/27/23 12:47	
EPA 6010	Lithium	50.7	ug/L	20.0	04/27/23 12:47	
EPA 6010	Magnesium	21300	ug/L	1000	04/27/23 12:47	
EPA 6010	Manganese	194	ug/L	10.0	04/27/23 12:47	
EPA 6010	Potassium	8900	ug/L	1000	04/27/23 12:47	
EPA 6010	Silica	11300	ug/L	450	04/27/23 12:47	N2
EPA 6010	Sodium	63800	ug/L	1000	04/27/23 12:47	
EPA 6010	Manganese, Dissolved	195	ug/L	10.0	04/27/23 01:21	
EPA 6010	Molybdenum, Dissolved	53.7	ug/L	10.0	04/27/23 01:21	
EPA 6020	Arsenic	4.1	ug/L	1.0	04/26/23 18:37	
EPA 6020	Barium	68.0	ug/L	1.0	04/26/23 18:37	
EPA 6020	Molybdenum	53.1	ug/L	10.0	04/26/23 18:37	
EPA 903.1	Radium-226	0.435 ± 0.782 (1.38) C:NA	pCi/L		05/09/23 15:38	
EPA 904.0	Radium-228	T:90% 1.31 ± 0.573 (0.955) C:74% T:76%	pCi/L		05/08/23 15:20	
Total Radium Calculation	Total Radium	1.75 ± 1.36 (2.34)	pCi/L		05/15/23 17:00	

**REPORT OF LABORATORY ANALYSIS**

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### SUMMARY OF DETECTION

Project: Eagle Valley April 2023 P1R2

Pace Project No.: 50342984

Lab Sample ID Method	Client Sample ID Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
<b>50342984003</b>	<b>MW-16D</b>					
SM 2320B	Alkalinity, Total as CaCO3	215	mg/L	10.0	04/25/23 18:42	
SM 2320B	Alkalinity,Bicarbonate (CaCO3)	215	mg/L	10.0	04/25/23 18:42	
SM 2540C	Total Dissolved Solids	524	mg/L	10.0	04/28/23 08:31	
SM 4500-H+B	pH at 25 Degrees C	7.7	Std. Units	0.10	04/27/23 10:27	H3
HACH 8146	Iron, Ferrous	0.80	mg/L	0.20	04/26/23 10:19	H3,N2
SM 5310C	Total Organic Carbon	1.3	mg/L	1.0	04/27/23 00:14	
SM 5310C	Dissolved Organic Carbon	1.5	mg/L	1.0	04/28/23 22:15	

### REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: Eagle Valley April 2023 P1R2

Pace Project No.: 50342984

Sample: MW-16S      Lab ID: 50342984001      Collected: 04/24/23 12:20      Received: 04/24/23 17:15      Matrix: Water									
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>9056 IC Anions</b>									
Analytical Method: EPA 9056									
Pace Analytical Services - Indianapolis									
Chloride	128	mg/L	2.5	0.67	10		04/29/23 10:59	16887-00-6	
Fluoride	0.28	mg/L	0.10	0.017	1		04/29/23 10:39	16984-48-8	
Sulfate	128	mg/L	2.5	0.85	10		04/29/23 10:59	14808-79-8	
<b>6010 MET ICP</b>									
Analytical Method: EPA 6010      Preparation Method: EPA 3010									
Pace Analytical Services - Indianapolis									
Aluminum	428	ug/L	200	55.4	1	04/26/23 09:41	04/27/23 12:43	7429-90-5	
Boron	278	ug/L	100	37.6	1	04/26/23 09:41	04/27/23 12:43	7440-42-8	
Calcium	97400	ug/L	1000	163	1	04/26/23 09:41	04/27/23 12:43	7440-70-2	
Iron	641	ug/L	100	48.8	1	04/26/23 09:41	04/27/23 12:43	7439-89-6	
Lithium	57.0	ug/L	20.0	6.2	1	04/26/23 09:41	04/27/23 12:43	7439-93-2	
Magnesium	25000	ug/L	1000	71.8	1	04/26/23 09:41	04/27/23 12:43	7439-95-4	
Manganese	828	ug/L	10.0	2.5	1	04/26/23 09:41	04/27/23 12:43	7439-96-5	
Potassium	8930	ug/L	1000	281	1	04/26/23 09:41	04/27/23 12:43	7440-09-7	
Silica	14800	ug/L	450		1	04/26/23 09:41	04/27/23 12:43	7631-86-9	N2
Sodium	97500	ug/L	1000	214	1	04/26/23 09:41	04/27/23 12:43	7440-23-5	
<b>6010 MET ICP, Dissolved</b>									
Analytical Method: EPA 6010      Preparation Method: EPA 3010									
Pace Analytical Services - Indianapolis									
Manganese, Dissolved	138	ug/L	10.0	2.5	1	04/26/23 15:44	04/27/23 01:16	7439-96-5	
Molybdenum, Dissolved	54.9	ug/L	10.0	3.7	1	04/26/23 15:44	04/27/23 01:16	7439-98-7	
<b>6020 MET ICPMS</b>									
Analytical Method: EPA 6020      Preparation Method: EPA 200.2									
Pace Analytical Services - Indianapolis									
Antimony	ND	ug/L	1.0	0.036	1	04/25/23 07:32	04/26/23 20:24	7440-36-0	
Arsenic	ND	ug/L	1.0	0.053	1	04/25/23 07:32	04/26/23 20:24	7440-38-2	
Barium	86.0	ug/L	1.0	0.051	1	04/25/23 07:32	04/26/23 20:24	7440-39-3	
Beryllium	ND	ug/L	0.20	0.028	1	04/25/23 07:32	04/26/23 20:24	7440-41-7	
Cadmium	ND	ug/L	2.0	0.0090	1	04/25/23 07:32	04/26/23 20:24	7440-43-9	
Chromium	ND	ug/L	10.0	0.13	1	04/25/23 07:32	04/26/23 20:24	7440-47-3	
Cobalt	1.1	ug/L	1.0	0.032	1	04/25/23 07:32	04/26/23 20:24	7440-48-4	
Lead	ND	ug/L	10.0	0.034	1	04/25/23 07:32	04/26/23 20:24	7439-92-1	
Molybdenum	58.4	ug/L	10.0	0.048	1	04/25/23 07:32	04/26/23 20:24	7439-98-7	
Selenium	ND	ug/L	1.0	0.23	1	04/25/23 07:32	04/26/23 20:24	7782-49-2	
Thallium	ND	ug/L	1.0	0.033	1	04/25/23 07:32	04/26/23 20:24	7440-28-0	
<b>7470 Mercury</b>									
Analytical Method: EPA 7470      Preparation Method: EPA 7470									
Pace Analytical Services - Indianapolis									
Mercury	ND	ug/L	0.20	0.12	1	04/26/23 18:10	04/27/23 09:33	7439-97-6	
<b>2320B Alkalinity</b>									
Analytical Method: SM 2320B									
Pace Analytical Services - Indianapolis									
Alkalinity, Total as CaCO3	258	mg/L	10.0	10.0	1		04/25/23 18:42		
Alkalinity, Bicarbonate (CaCO3)	258	mg/L	10.0	10.0	1		04/25/23 18:42		

## REPORT OF LABORATORY ANALYSIS

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### ANALYTICAL RESULTS

Project: Eagle Valley April 2023 P1R2  
Pace Project No.: 50342984

Sample: MW-16S		Lab ID: 50342984001		Collected: 04/24/23 12:20	Received: 04/24/23 17:15	Matrix: Water			
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>2320B Alkalinity</b>		Analytical Method: SM 2320B Pace Analytical Services - Indianapolis							
Alkalinity, Carbonate (CaCO3)	ND	mg/L	10.0	10.0	1		04/25/23 18:42		
<b>2540C Total Dissolved Solids</b>		Analytical Method: SM 2540C Pace Analytical Services - Indianapolis							
Total Dissolved Solids	<b>632</b>	mg/L	10.0	10.0	1		04/28/23 08:30		
<b>4500H+ pH, Electrometric</b>		Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis							
pH at 25 Degrees C	<b>7.4</b>	Std. Units	0.10	0.10	1		04/27/23 10:23		H3
<b>4500S2D Sulfide Water</b>		Analytical Method: SM 4500-S2-D Pace Analytical Services - Indianapolis							
Sulfide	ND	mg/L	0.10	0.025	1		04/28/23 09:52	18496-25-8	
<b>Iron, Ferrous</b>		Analytical Method: HACH 8146 Pace Analytical Services - Indianapolis							
Iron, Ferrous	ND	mg/L	0.20	0.035	1		04/26/23 10:19	15438-31-0	H3,N2
<b>353.2 Nitrogen, NO2/NO3 unpres</b>		Analytical Method: EPA 353.2 Pace Analytical Services - Indianapolis							
Nitrogen, Nitrate	<b>0.23</b>	mg/L	0.10	0.011	1		04/25/23 10:51	14797-55-8	
Nitrogen, Nitrite	ND	mg/L	0.10	0.0040	1		04/25/23 10:51	14797-65-0	
<b>365.1 Total Phosphorus</b>		Analytical Method: EPA 365.1 Preparation Method: EPA 365.1 Pace Analytical Services - Indianapolis							
Phosphate as P04	ND	mg/L	0.15	0.15	1	04/26/23 12:50	05/02/23 11:31		
<b>5310C TOC</b>		Analytical Method: SM 5310C Pace Analytical Services - Indianapolis							
Total Organic Carbon	<b>1.2</b>	mg/L	1.0	0.24	1		04/26/23 23:24	7440-44-0	
<b>5310C Dissolved Organic Carbon</b>		Analytical Method: SM 5310C Pace Analytical Services - Indianapolis							
Dissolved Organic Carbon	<b>1.3</b>	mg/L	1.0	0.24	1		04/28/23 21:45		

### REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: Eagle Valley April 2023 P1R2

Pace Project No.: 50342984

Sample: MW-16I		Lab ID: 50342984002		Collected: 04/24/23 13:45		Received: 04/24/23 17:15		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>9056 IC Anions</b>									
Analytical Method: EPA 9056									
Pace Analytical Services - Indianapolis									
Chloride	120	mg/L	2.5	0.67	10		04/29/23 12:17	16887-00-6	
Fluoride	0.32	mg/L	0.10	0.017	1		04/29/23 11:57	16984-48-8	
Sulfate	96.2	mg/L	2.5	0.85	10		04/29/23 12:17	14808-79-8	
<b>6010 MET ICP</b>									
Analytical Method: EPA 6010 Preparation Method: EPA 3010									
Pace Analytical Services - Indianapolis									
Aluminum	ND	ug/L	200	55.4	1	04/26/23 09:41	04/27/23 12:45	7429-90-5	
Boron	240	ug/L	100	37.6	1	04/26/23 09:41	04/27/23 12:45	7440-42-8	
Calcium	78500	ug/L	1000	163	1	04/26/23 09:41	04/27/23 12:45	7440-70-2	
Iron	ND	ug/L	100	48.8	1	04/26/23 09:41	04/27/23 12:45	7439-89-6	
Lithium	71.5	ug/L	20.0	6.2	1	04/26/23 09:41	04/27/23 12:45	7439-93-2	
Magnesium	23200	ug/L	1000	71.8	1	04/26/23 09:41	04/27/23 12:45	7439-95-4	
Manganese	99.8	ug/L	10.0	2.5	1	04/26/23 09:41	04/27/23 12:45	7439-96-5	
Potassium	8680	ug/L	1000	281	1	04/26/23 09:41	04/27/23 12:45	7440-09-7	
Silica	11600	ug/L	450		1	04/26/23 09:41	04/27/23 12:45	7631-86-9	N2
Sodium	79500	ug/L	1000	214	1	04/26/23 09:41	04/27/23 12:45	7440-23-5	
<b>6010 MET ICP, Dissolved</b>									
Analytical Method: EPA 6010 Preparation Method: EPA 3010									
Pace Analytical Services - Indianapolis									
Manganese, Dissolved	94.8	ug/L	10.0	2.5	1	04/26/23 15:44	04/27/23 01:19	7439-96-5	
Molybdenum, Dissolved	89.6	ug/L	10.0	3.7	1	04/26/23 15:44	04/27/23 01:19	7439-98-7	
<b>6020 MET ICPMS</b>									
Analytical Method: EPA 6020 Preparation Method: EPA 200.2									
Pace Analytical Services - Indianapolis									
Antimony	ND	ug/L	1.0	0.036	1	04/25/23 07:32	04/26/23 20:31	7440-36-0	
Arsenic	ND	ug/L	1.0	0.053	1	04/25/23 07:32	04/26/23 20:31	7440-38-2	
Barium	70.3	ug/L	1.0	0.051	1	04/25/23 07:32	04/26/23 20:31	7440-39-3	
Beryllium	ND	ug/L	0.20	0.028	1	04/25/23 07:32	04/26/23 20:31	7440-41-7	
Cadmium	ND	ug/L	2.0	0.0090	1	04/25/23 07:32	04/26/23 20:31	7440-43-9	
Chromium	ND	ug/L	10.0	0.13	1	04/25/23 07:32	04/26/23 20:31	7440-47-3	
Cobalt	ND	ug/L	1.0	0.032	1	04/25/23 07:32	04/26/23 20:31	7440-48-4	
Lead	ND	ug/L	10.0	0.034	1	04/25/23 07:32	04/26/23 20:31	7439-92-1	
Molybdenum	88.7	ug/L	10.0	0.048	1	04/25/23 07:32	04/26/23 20:31	7439-98-7	
Selenium	ND	ug/L	1.0	0.23	1	04/25/23 07:32	04/26/23 20:31	7782-49-2	
Thallium	ND	ug/L	1.0	0.033	1	04/25/23 07:32	04/26/23 20:31	7440-28-0	
<b>7470 Mercury</b>									
Analytical Method: EPA 7470 Preparation Method: EPA 7470									
Pace Analytical Services - Indianapolis									
Mercury	ND	ug/L	0.20	0.12	1	04/26/23 18:10	04/27/23 09:35	7439-97-6	
<b>2320B Alkalinity</b>									
Analytical Method: SM 2320B									
Pace Analytical Services - Indianapolis									
Alkalinity, Total as CaCO3	213	mg/L	10.0	10.0	1		04/25/23 18:42		
Alkalinity, Bicarbonate (CaCO3)	213	mg/L	10.0	10.0	1		04/25/23 18:42		

## REPORT OF LABORATORY ANALYSIS

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### ANALYTICAL RESULTS

Project: Eagle Valley April 2023 P1R2  
 Pace Project No.: 50342984

Sample: MW-161      Lab ID: 50342984002      Collected: 04/24/23 13:45      Received: 04/24/23 17:15      Matrix: Water									
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>2320B Alkalinity</b>									
Analytical Method: SM 2320B Pace Analytical Services - Indianapolis									
Alkalinity, Carbonate (CaCO3)	ND	mg/L	10.0	10.0	1		04/25/23 18:42		
<b>2540C Total Dissolved Solids</b>									
Analytical Method: SM 2540C Pace Analytical Services - Indianapolis									
Total Dissolved Solids	532	mg/L	10.0	10.0	1		04/28/23 08:31		
<b>4500H+ pH, Electrometric</b>									
Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis									
pH at 25 Degrees C	7.7	Std. Units	0.10	0.10	1		04/27/23 10:26		H3
<b>4500S2D Sulfide Water</b>									
Analytical Method: SM 4500-S2-D Pace Analytical Services - Indianapolis									
Sulfide	ND	mg/L	0.10	0.025	1		04/28/23 09:52	18496-25-8	
<b>Iron, Ferrous</b>									
Analytical Method: HACH 8146 Pace Analytical Services - Indianapolis									
Iron, Ferrous	ND	mg/L	0.20	0.035	1		04/26/23 10:19	15438-31-0	H3,N2
<b>353.2 Nitrogen, NO2/NO3 unpres</b>									
Analytical Method: EPA 353.2 Pace Analytical Services - Indianapolis									
Nitrogen, Nitrate	ND	mg/L	0.10	0.011	1		04/25/23 11:02	14797-55-8	
Nitrogen, Nitrite	ND	mg/L	0.10	0.0040	1		04/25/23 11:02	14797-65-0	
<b>365.1 Total Phosphorus</b>									
Analytical Method: EPA 365.1      Preparation Method: EPA 365.1 Pace Analytical Services - Indianapolis									
Phosphate as P04	ND	mg/L	0.15	0.15	1	04/26/23 12:50	05/02/23 11:31		
<b>5310C TOC</b>									
Analytical Method: SM 5310C Pace Analytical Services - Indianapolis									
Total Organic Carbon	1.4	mg/L	1.0	0.24	1		04/26/23 23:36	7440-44-0	
<b>5310C Dissolved Organic Carbon</b>									
Analytical Method: SM 5310C Pace Analytical Services - Indianapolis									
Dissolved Organic Carbon	1.4	mg/L	1.0	0.24	1		04/28/23 22:03		

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## ANALYTICAL RESULTS

Project: Eagle Valley April 2023 P1R2

Pace Project No.: 50342984

Sample: MW-16D Lab ID: 50342984003 Collected: 04/24/23 14:57 Received: 04/24/23 17:15 Matrix: Water

Parameters	Results	Units	Report			Prepared	Analyzed	CAS No.	Qual
			Limit	MDL	DF				
<b>9056 IC Anions</b>									
Analytical Method: EPA 9056									
Pace Analytical Services - Indianapolis									
Chloride	114	mg/L	2.5	0.67	10		04/29/23 12:56	16887-00-6	
Fluoride	0.33	mg/L	0.10	0.017	1		04/29/23 12:36	16984-48-8	
Sulfate	87.3	mg/L	2.5	0.85	10		04/29/23 12:56	14808-79-8	
<b>6010 MET ICP</b>									
Analytical Method: EPA 6010 Preparation Method: EPA 3010									
Pace Analytical Services - Indianapolis									
Aluminum	ND	ug/L	200	55.4	1	04/26/23 09:41	04/27/23 12:47	7429-90-5	
Boron	166	ug/L	100	37.6	1	04/26/23 09:41	04/27/23 12:47	7440-42-8	
Calcium	86800	ug/L	1000	163	1	04/26/23 09:41	04/27/23 12:47	7440-70-2	
Iron	1170	ug/L	100	48.8	1	04/26/23 09:41	04/27/23 12:47	7439-89-6	
Lithium	50.7	ug/L	20.0	6.2	1	04/26/23 09:41	04/27/23 12:47	7439-93-2	
Magnesium	21300	ug/L	1000	71.8	1	04/26/23 09:41	04/27/23 12:47	7439-95-4	
Manganese	194	ug/L	10.0	2.5	1	04/26/23 09:41	04/27/23 12:47	7439-96-5	
Potassium	8900	ug/L	1000	281	1	04/26/23 09:41	04/27/23 12:47	7440-09-7	
Silica	11300	ug/L	450		1	04/26/23 09:41	04/27/23 12:47	7631-86-9	N2
Sodium	63800	ug/L	1000	214	1	04/26/23 09:41	04/27/23 12:47	7440-23-5	
<b>6010 MET ICP, Dissolved</b>									
Analytical Method: EPA 6010 Preparation Method: EPA 3010									
Pace Analytical Services - Indianapolis									
Manganese, Dissolved	195	ug/L	10.0	2.5	1	04/26/23 15:44	04/27/23 01:21	7439-96-5	
Molybdenum, Dissolved	53.7	ug/L	10.0	3.7	1	04/26/23 15:44	04/27/23 01:21	7439-98-7	
<b>6020 MET ICPMS</b>									
Analytical Method: EPA 6020 Preparation Method: EPA 200.2									
Pace Analytical Services - Indianapolis									
Antimony	ND	ug/L	1.0	0.036	1	04/25/23 07:32	04/26/23 18:37	7440-36-0	
Arsenic	4.1	ug/L	1.0	0.053	1	04/25/23 07:32	04/26/23 18:37	7440-38-2	
Barium	68.0	ug/L	1.0	0.051	1	04/25/23 07:32	04/26/23 18:37	7440-39-3	
Beryllium	ND	ug/L	0.20	0.028	1	04/25/23 07:32	04/28/23 01:45	7440-41-7	
Cadmium	ND	ug/L	2.0	0.0090	1	04/25/23 07:32	04/26/23 18:37	7440-43-9	
Chromium	ND	ug/L	10.0	0.13	1	04/25/23 07:32	04/26/23 18:37	7440-47-3	
Cobalt	ND	ug/L	1.0	0.032	1	04/25/23 07:32	04/26/23 18:37	7440-48-4	
Lead	ND	ug/L	10.0	0.034	1	04/25/23 07:32	04/26/23 18:37	7439-92-1	
Molybdenum	53.1	ug/L	10.0	0.048	1	04/25/23 07:32	04/26/23 18:37	7439-98-7	
Selenium	ND	ug/L	1.0	0.23	1	04/25/23 07:32	04/26/23 18:37	7782-49-2	
Thallium	ND	ug/L	1.0	0.033	1	04/25/23 07:32	04/26/23 18:37	7440-28-0	
<b>7470 Mercury</b>									
Analytical Method: EPA 7470 Preparation Method: EPA 7470									
Pace Analytical Services - Indianapolis									
Mercury	ND	ug/L	0.20	0.12	1	04/26/23 18:10	04/27/23 09:38	7439-97-6	
<b>2320B Alkalinity</b>									
Analytical Method: SM 2320B									
Pace Analytical Services - Indianapolis									
Alkalinity, Total as CaCO3	215	mg/L	10.0	10.0	1		04/25/23 18:42		
Alkalinity, Bicarbonate (CaCO3)	215	mg/L	10.0	10.0	1		04/25/23 18:42		

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### ANALYTICAL RESULTS

Project: Eagle Valley April 2023 P1R2

Pace Project No.: 50342984

Sample: MW-16D		Lab ID: 50342984003		Collected: 04/24/23 14:57	Received: 04/24/23 17:15	Matrix: Water			
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>2320B Alkalinity</b>		Analytical Method: SM 2320B Pace Analytical Services - Indianapolis							
Alkalinity, Carbonate (CaCO3)	ND	mg/L	10.0	10.0	1		04/25/23 18:42		
<b>2540C Total Dissolved Solids</b>		Analytical Method: SM 2540C Pace Analytical Services - Indianapolis							
Total Dissolved Solids	<b>524</b>	mg/L	10.0	10.0	1		04/28/23 08:31		
<b>4500H+ pH, Electrometric</b>		Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis							
pH at 25 Degrees C	<b>7.7</b>	Std. Units	0.10	0.10	1		04/27/23 10:27		H3
<b>4500S2D Sulfide Water</b>		Analytical Method: SM 4500-S2-D Pace Analytical Services - Indianapolis							
Sulfide	ND	mg/L	0.10	0.025	1		04/28/23 09:52	18496-25-8	
<b>Iron, Ferrous</b>		Analytical Method: HACH 8146 Pace Analytical Services - Indianapolis							
Iron, Ferrous	<b>0.80</b>	mg/L	0.20	0.035	1		04/26/23 10:19	15438-31-0	H3,N2
<b>353.2 Nitrogen, NO2/NO3 unpres</b>		Analytical Method: EPA 353.2 Pace Analytical Services - Indianapolis							
Nitrogen, Nitrate	ND	mg/L	0.10	0.011	1		04/25/23 11:04	14797-55-8	
Nitrogen, Nitrite	ND	mg/L	0.10	0.0040	1		04/25/23 11:04	14797-65-0	
<b>365.1 Total Phosphorus</b>		Analytical Method: EPA 365.1 Preparation Method: EPA 365.1 Pace Analytical Services - Indianapolis							
Phosphate as P04	ND	mg/L	0.15	0.15	1	04/26/23 12:50	05/02/23 11:32		
<b>5310C TOC</b>		Analytical Method: SM 5310C Pace Analytical Services - Indianapolis							
Total Organic Carbon	<b>1.3</b>	mg/L	1.0	0.24	1		04/27/23 00:14	7440-44-0	
<b>5310C Dissolved Organic Carbon</b>		Analytical Method: SM 5310C Pace Analytical Services - Indianapolis							
Dissolved Organic Carbon	<b>1.5</b>	mg/L	1.0	0.24	1		04/28/23 22:15		

### REPORT OF LABORATORY ANALYSIS

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**QUALITY CONTROL DATA**

Project: Eagle Valley April 2023 P1R2

Pace Project No.: 50342984

QC Batch:	730038	Analysis Method:	EPA 9056
QC Batch Method:	EPA 9056	Analysis Description:	9056 IC Anions
		Laboratory:	Pace Analytical Services - Indianapolis

Associated Lab Samples: 50342984001, 50342984002, 50342984003

METHOD BLANK: 3350309 Matrix: Water

Associated Lab Samples: 50342984001, 50342984002, 50342984003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chloride	mg/L	ND	0.25	0.067	04/28/23 20:41	
Fluoride	mg/L	ND	0.10	0.017	04/28/23 20:41	
Sulfate	mg/L	ND	0.25	0.085	04/28/23 20:41	

LABORATORY CONTROL SAMPLE: 3350310

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	2.5	2.3	92	80-120	
Fluoride	mg/L	1	0.97	97	80-120	
Sulfate	mg/L	5	4.6	93	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3350311 3350312

Parameter	Units	MS		MSD		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		50342799003	Result	Spike Conc.	Spike Conc.								
Chloride	mg/L	54.9	25	25	80.9	80.1	104	101	80-120	1	15		
Fluoride	mg/L	ND	1	1	1.0	1.0	97	98	80-120	1	15		
Sulfate	mg/L	274	50	50	318	318	89	88	80-120	0	15		

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**QUALITY CONTROL DATA**

Project: Eagle Valley April 2023 P1R2  
Pace Project No.: 50342984

QC Batch: 729832 Analysis Method: EPA 6010  
QC Batch Method: EPA 3010 Analysis Description: 6010 MET  
Laboratory: Pace Analytical Services - Indianapolis  
Associated Lab Samples: 50342984001, 50342984002, 50342984003

METHOD BLANK: 3349481 Matrix: Water  
Associated Lab Samples: 50342984001, 50342984002, 50342984003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Aluminum	ug/L	ND	200	55.4	04/27/23 11:46	
Boron	ug/L	ND	100	37.6	04/27/23 11:46	
Calcium	ug/L	ND	1000	163	04/27/23 11:46	
Iron	ug/L	ND	100	48.8	04/27/23 11:46	
Lithium	ug/L	ND	20.0	6.2	04/27/23 11:46	
Magnesium	ug/L	ND	1000	71.8	04/27/23 11:46	
Manganese	ug/L	ND	10.0	2.5	04/27/23 11:46	
Potassium	ug/L	ND	1000	281	04/27/23 11:46	
Silica	ug/L	ND	450		04/27/23 11:46	N2
Sodium	ug/L	ND	1000	214	04/27/23 11:46	

LABORATORY CONTROL SAMPLE: 3349482

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Aluminum	ug/L	10000	9720	97	80-120	
Boron	ug/L	1000	922	92	80-120	
Calcium	ug/L	10000	9720	97	80-120	
Iron	ug/L	10000	9920	99	80-120	
Lithium	ug/L	1000	982	98	80-120	
Magnesium	ug/L	10000	9280	93	80-120	
Manganese	ug/L	1000	943	94	80-120	
Potassium	ug/L	10000	9460	95	80-120	
Silica	ug/L	10700	10400	97	80-120	N2
Sodium	ug/L	10000	9400	94	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3349483 3349484

Parameter	Units	MS		MSD		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual	
		50342312002 Result	Spike Conc.	Spike Conc.	MS Result							MSD Result
Aluminum	ug/L	<200	10000	10000	9920	9720	99	97	75-125	2	20	
Boron	ug/L	<100	1000	1000	988	977	97	96	75-125	1	20	
Calcium	ug/L	66900	10000	10000	76600	77600	97	107	75-125	1	20	
Iron	ug/L	<100	10000	10000	10000	9940	100	99	75-125	1	20	
Lithium	ug/L	<20.0	1000	1000	1100	1080	110	108	75-125	2	20	
Magnesium	ug/L	15000	10000	10000	24300	24300	93	93	75-125	0	20	
Manganese	ug/L	<10.0	1000	1000	959	949	96	95	75-125	1	20	
Potassium	ug/L	103000	10000	10000	114000	114000	118	116	75-125	0	20	E

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**QUALITY CONTROL DATA**

Project: Eagle Valley April 2023 P1R2

Pace Project No.: 50342984

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3349483												3349484	
Parameter	Units	50342312002 Result	MS	MSD	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual	
			Spike Conc.	Spike Conc.									
Silica	ug/L	8100	10700	10700	19000	18900	102	101	75-125	1	20	N2	
Sodium	ug/L	80100	10000	10000	91400	91700	113	116	75-125	0	20		

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3349485												3349486	
Parameter	Units	50342319004 Result	MS	MSD	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual	
			Spike Conc.	Spike Conc.									
Aluminum	ug/L	<55.4	10000	10000	9870	9800	99	98	75-125	1	20		
Boron	ug/L	55.6J	1000	1000	1020	1020	96	96	75-125	0	20		
Calcium	ug/L	148000	10000	10000	157000	155000	95	72	75-125	1	20	P6	
Iron	ug/L	16400	10000	10000	26200	25900	98	95	75-125	1	20		
Lithium	ug/L	<6.2	1000	1000	1060	1070	105	107	75-125	1	20		
Magnesium	ug/L	28500	10000	10000	37600	37000	91	85	75-125	2	20		
Manganese	ug/L	2090	1000	1000	3030	3010	94	92	75-125	1	20		
Potassium	ug/L	15700	10000	10000	25800	25800	102	102	75-125	0	20		
Silica	ug/L	13700	10700	10700	24300	24100	99	98	75-125	1	20	N2	
Sodium	ug/L	72700	10000	10000	82800	82600	101	98	75-125	0	20		

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**QUALITY CONTROL DATA**

Project: Eagle Valley April 2023 P1R2  
 Pace Project No.: 50342984

QC Batch: 729624 Analysis Method: EPA 6020  
 QC Batch Method: EPA 200.2 Analysis Description: 6020 MET  
 Laboratory: Pace Analytical Services - Indianapolis  
 Associated Lab Samples: 50342984001, 50342984002, 50342984003

METHOD BLANK: 3348367 Matrix: Water  
 Associated Lab Samples: 50342984001, 50342984002, 50342984003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Antimony	ug/L	ND	1.0	0.036	04/26/23 14:33	
Arsenic	ug/L	ND	1.0	0.053	04/26/23 14:33	
Barium	ug/L	ND	1.0	0.051	04/26/23 14:33	
Beryllium	ug/L	ND	0.20	0.028	04/27/23 17:53	
Cadmium	ug/L	ND	2.0	0.0090	04/26/23 14:33	
Chromium	ug/L	ND	10.0	0.13	04/26/23 14:33	
Cobalt	ug/L	ND	1.0	0.032	04/26/23 14:33	
Lead	ug/L	ND	10.0	0.034	04/26/23 14:33	
Molybdenum	ug/L	ND	10.0	0.048	04/26/23 14:33	
Selenium	ug/L	ND	1.0	0.23	04/26/23 14:33	
Thallium	ug/L	ND	1.0	0.033	04/26/23 14:33	

LABORATORY CONTROL SAMPLE: 3348368

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Antimony	ug/L	40	41.0	102	80-120	
Arsenic	ug/L	40	37.7	94	80-120	
Barium	ug/L	40	39.5	99	80-120	
Beryllium	ug/L	40	40.1	100	80-120	
Cadmium	ug/L	40	38.8	97	80-120	
Chromium	ug/L	40	40.1	100	80-120	
Cobalt	ug/L	40	40.8	102	80-120	
Lead	ug/L	40	40.3	101	80-120	
Molybdenum	ug/L	40	41.3	103	80-120	
Selenium	ug/L	40	39.9	100	80-120	
Thallium	ug/L	40	40.9	102	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3348369 3348370

Parameter	Units	MS		MSD		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual	
		50342623006 Result	Spike Conc.	Spike Conc.	MS Result							MSD Result
Antimony	ug/L	ND	40	40	41.9	42.7	105	107	75-125	2	20	
Arsenic	ug/L	ND	40	40	38.2	38.5	95	96	75-125	1	20	
Barium	ug/L	14.1	40	40	53.2	54.2	98	100	75-125	2	20	
Beryllium	ug/L	ND	40	40	35.4	35.8	88	89	75-125	1	20	CC
Cadmium	ug/L	ND	40	40	38.4	39.2	96	98	75-125	2	20	
Chromium	ug/L	ND	40	40	39.6	39.6	98	98	75-125	0	20	

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**QUALITY CONTROL DATA**

Project: Eagle Valley April 2023 P1R2

Pace Project No.: 50342984

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3348369 3348370												
Parameter	Units	50342623006 Result	MS	MSD	MS	MSD	MS	MSD	% Rec	Limits	Max RPD	Qual
			Spike Conc.	Spike Conc.	Result	Result	% Rec	% Rec				
Cobalt	ug/L	ND	40	40	38.1	38.0	95	95	75-125	0	20	
Lead	ug/L	ND	40	40	41.3	41.6	103	104	75-125	1	20	
Molybdenum	ug/L	ND	40	40	42.3	42.4	105	105	75-125	0	20	
Selenium	ug/L	ND	40	40	40.5	41.5	101	104	75-125	2	20	
Thallium	ug/L	ND	40	40	42.3	42.4	106	106	75-125	0	20	

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**QUALITY CONTROL DATA**

Project: Eagle Valley April 2023 P1R2

Pace Project No.: 50342984

QC Batch: 729793 Analysis Method: SM 2320B  
 QC Batch Method: SM 2320B Analysis Description: 2320B Alkalinity  
 Laboratory: Pace Analytical Services - Indianapolis  
 Associated Lab Samples: 50342984001, 50342984002, 50342984003

METHOD BLANK: 3349132 Matrix: Water  
 Associated Lab Samples: 50342984001, 50342984002, 50342984003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Alkalinity, Total as CaCO3	mg/L	ND	10.0	10.0	04/25/23 18:42	
Alkalinity,Bicarbonate (CaCO3)	mg/L	ND	10.0	10.0	04/25/23 18:42	
Alkalinity,Carbonate (CaCO3)	mg/L	ND	10.0	10.0	04/25/23 18:42	

LABORATORY CONTROL SAMPLE: 3349133

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Alkalinity, Total as CaCO3	mg/L	50	48.9	98	90-110	

SAMPLE DUPLICATE: 3349134

Parameter	Units	50342725001 Result	Dup Result	RPD	Max RPD	Qualifiers
Alkalinity, Total as CaCO3	mg/L	98.1	99.0	1	20	
Alkalinity,Bicarbonate (CaCO3)	mg/L	98.1	99.0	1	20	
Alkalinity,Carbonate (CaCO3)	mg/L	ND	ND		20	

SAMPLE DUPLICATE: 3349135

Parameter	Units	50342725004 Result	Dup Result	RPD	Max RPD	Qualifiers
Alkalinity, Total as CaCO3	mg/L	202	205	1	20	
Alkalinity,Bicarbonate (CaCO3)	mg/L	202	205	1	20	
Alkalinity,Carbonate (CaCO3)	mg/L	ND	ND		20	

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**QUALITY CONTROL DATA**

Project: Eagle Valley April 2023 P1R2

Pace Project No.: 50342984

QC Batch:	730413	Analysis Method:	SM 2540C
QC Batch Method:	SM 2540C	Analysis Description:	2540C Total Dissolved Solids
		Laboratory:	Pace Analytical Services - Indianapolis
Associated Lab Samples:	50342984001, 50342984002, 50342984003		

METHOD BLANK: 3352198 Matrix: Water

Associated Lab Samples: 50342984001, 50342984002, 50342984003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	ND	10.0	10.0	04/28/23 08:26	

LABORATORY CONTROL SAMPLE: 3352199

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	300	281	94	80-120	

SAMPLE DUPLICATE: 3352200

Parameter	Units	50342943001 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	325	321	1	10	

SAMPLE DUPLICATE: 3352201

Parameter	Units	50342943002 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	475	473	0	10	

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### QUALITY CONTROL DATA

Project: Eagle Valley April 2023 P1R2

Pace Project No.: 50342984

QC Batch: 730200

Analysis Method: SM 4500-H+B

QC Batch Method: SM 4500-H+B

Analysis Description: 4500H+B pH

Laboratory: Pace Analytical Services - Indianapolis

Associated Lab Samples: 50342984001, 50342984002, 50342984003

SAMPLE DUPLICATE: 3351046

Parameter	Units	50342433005 Result	Dup Result	RPD	Max RPD	Qualifiers
pH at 25 Degrees C	Std. Units	7.0	7.0	0	2	H3

SAMPLE DUPLICATE: 3351047

Parameter	Units	50342433006 Result	Dup Result	RPD	Max RPD	Qualifiers
pH at 25 Degrees C	Std. Units	7.6	7.6	0	2	H3

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**QUALITY CONTROL DATA**

Project: Eagle Valley April 2023 P1R2

Pace Project No.: 50342984

QC Batch:	730439	Analysis Method:	SM 4500-S2-D
QC Batch Method:	SM 4500-S2-D	Analysis Description:	4500S2D Sulfide Water
		Laboratory:	Pace Analytical Services - Indianapolis
Associated Lab Samples:	50342984001, 50342984002, 50342984003		

METHOD BLANK: 3352411 Matrix: Water

Associated Lab Samples: 50342984001, 50342984002, 50342984003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Sulfide	mg/L	ND	0.10	0.025	04/28/23 09:52	

LABORATORY CONTROL SAMPLE: 3352412

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Sulfide	mg/L	0.5	0.47	94	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3352413 3352414

Parameter	Units	50342983001		50342984001		50342984002		50342984003		% Rec Limits	RPD	Max RPD	Qual
		MS Result	MSD Spike Conc.	MS Result	MSD Spike Conc.	MS Result	MSD Spike Conc.	MS Result	MSD Spike Conc.				
Sulfide	mg/L	ND	0.5	0.5	0.44	0.42	88	84	90-110	4	20	M3	

MATRIX SPIKE SAMPLE: 3352415

Parameter	Units	50343327006 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Sulfide	mg/L	ND	0.5	0.41	79	90-110	M0

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**QUALITY CONTROL DATA**

Project: Eagle Valley April 2023 P1R2

Pace Project No.: 50342984

QC Batch:	729924	Analysis Method:	HACH 8146
QC Batch Method:	HACH 8146	Analysis Description:	Iron, Ferrous
		Laboratory:	Pace Analytical Services - Indianapolis
Associated Lab Samples:	50342984001, 50342984002, 50342984003		

METHOD BLANK: 3349904 Matrix: Water

Associated Lab Samples: 50342984001, 50342984002, 50342984003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Iron, Ferrous	mg/L	ND	0.20	0.035	04/26/23 10:15	H3,N2

LABORATORY CONTROL SAMPLE: 3349905

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Iron, Ferrous	mg/L	1	1.0	100	90-110	H3,N2

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3349906 3349907

Parameter	Units	50342799003		3349907		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual	
		MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result							
Iron, Ferrous	mg/L	ND	1	1	1.1	1.2	108	109	90-110	1	20	H3,N2

MATRIX SPIKE SAMPLE: 3349908

Parameter	Units	50343102001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Iron, Ferrous	mg/L	ND	1	1.1	109	90-110	H3,N2

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**QUALITY CONTROL DATA**

Project: Eagle Valley April 2023 P1R2

Pace Project No.: 50342984

QC Batch:	729657	Analysis Method:	EPA 353.2
QC Batch Method:	EPA 353.2	Analysis Description:	353.2 Nitrate + Nitrite, Unpres.
		Laboratory:	Pace Analytical Services - Indianapolis
Associated Lab Samples:	50342984001, 50342984002, 50342984003		

METHOD BLANK: 3348473 Matrix: Water  
 Associated Lab Samples: 50342984001, 50342984002, 50342984003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Nitrogen, Nitrate	mg/L	ND	0.10	0.011	04/25/23 10:31	
Nitrogen, Nitrite	mg/L	ND	0.10	0.0040	04/25/23 10:31	

LABORATORY CONTROL SAMPLE: 3348474

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Nitrogen, Nitrate	mg/L	1	0.95	95	90-110	
Nitrogen, Nitrite	mg/L	1	0.99	99	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3348475 3348476

Parameter	Units	50342984001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Nitrogen, Nitrate	mg/L	0.23	1	1	1.2	1.2	101	100	90-110	1	20	
Nitrogen, Nitrite	mg/L	ND	1	1	1.1	1.1	106	106	90-110	1	20	

MATRIX SPIKE SAMPLE: 3348477

Parameter	Units	50342976001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Nitrogen, Nitrate	mg/L		1.5	1	2.4	92	90-110
Nitrogen, Nitrite	mg/L		ND	1	1.1	105	90-110

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**QUALITY CONTROL DATA**

Project: Eagle Valley April 2023 P1R2

Pace Project No.: 50342984

QC Batch:	729941	Analysis Method:	EPA 365.1
QC Batch Method:	EPA 365.1	Analysis Description:	365.1 Total Phosphorus
		Laboratory:	Pace Analytical Services - Indianapolis
Associated Lab Samples:	50342984001, 50342984002, 50342984003		

METHOD BLANK: 3349951 Matrix: Water

Associated Lab Samples: 50342984001, 50342984002, 50342984003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Phosphate as P04	mg/L	ND	0.15	0.15	05/02/23 11:17	

LABORATORY CONTROL SAMPLE: 3349952

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Phosphate as P04	mg/L		1.4			

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3349953 3349954

Parameter	Units	50342778001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Phosphate as P04	mg/L	ND			1.5	1.5				1		

MATRIX SPIKE SAMPLE: 3349955

Parameter	Units	50342983001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Phosphate as P04	mg/L	ND		1.5			

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**QUALITY CONTROL DATA**

Project: Eagle Valley April 2023 P1R2

Pace Project No.: 50342984

QC Batch:	729727	Analysis Method:	SM 5310C
QC Batch Method:	SM 5310C	Analysis Description:	5310C Total Organic Carbon
		Laboratory:	Pace Analytical Services - Indianapolis
Associated Lab Samples:	50342984001, 50342984002, 50342984003		

METHOD BLANK: 3348884 Matrix: Water

Associated Lab Samples: 50342984001, 50342984002, 50342984003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Organic Carbon	mg/L	ND	1.0	0.24	04/26/23 19:11	

LABORATORY CONTROL SAMPLE: 3348885

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Organic Carbon	mg/L	10	9.9	99	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3348886 3348887

Parameter	Units	50342392011		50342392012		50342392011		50342392012		% Rec Limits	RPD	Max RPD	Qual
		MS Result	MSD Spike Conc.	MS Result	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec				
Total Organic Carbon	mg/L	24.5	40	40	40	65.5	64.9	102	101	80-120	1	20	

MATRIX SPIKE SAMPLE: 3348888

Parameter	Units	50342392012 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Total Organic Carbon	mg/L	18.4	40	60.9	106	80-120	

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**QUALITY CONTROL DATA**

Project: Eagle Valley April 2023 P1R2

Pace Project No.: 50342984

QC Batch:	730536	Analysis Method:	SM 5310C
QC Batch Method:	SM 5310C	Analysis Description:	5310C Dissolved Organic Carbon
		Laboratory:	Pace Analytical Services - Indianapolis
Associated Lab Samples:	50342984001, 50342984002, 50342984003		

METHOD BLANK: 3352857 Matrix: Water

Associated Lab Samples: 50342984001, 50342984002, 50342984003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Dissolved Organic Carbon	mg/L	ND	1.0	0.24	04/28/23 19:13	

LABORATORY CONTROL SAMPLE: 3352858

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Dissolved Organic Carbon	mg/L	10	10.6	106	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3352859 3352860

Parameter	Units	50342799003		50342799006		50342799003		50342799006		% Rec Limits	RPD	Max RPD	Qual
		MS Result	MSD Spike Conc.	MS Result	MSD Spike Conc.	MS Result	MSD Spike Conc.	MS Result	MSD Spike Conc.				
Dissolved Organic Carbon	mg/L	1.5	10	10	10	11.1	11.5	96	100	80-120	3	20	

MATRIX SPIKE SAMPLE: 3352861

Parameter	Units	50342799006 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Dissolved Organic Carbon	mg/L	1.7	10	11.5	97	80-120	

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Eagle Valley April 2023 P1R2

Pace Project No.: 50342984

**Sample: MW-16S**      **Lab ID: 50342984001**      Collected: 04/24/23 12:20      Received: 04/24/23 17:15      Matrix: Water  
 PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	<b>0.316 ± 0.790 (1.43)</b> <b>C:NA T:87%</b>	pCi/L	05/09/23 15:38	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	<b>0.775 ± 0.422 (0.762)</b> <b>C:86% T:80%</b>	pCi/L	05/08/23 15:20	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	<b>1.09 ± 1.21 (2.19)</b>	pCi/L	05/15/23 17:00	7440-14-4	

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Eagle Valley April 2023 P1R2

Pace Project No.: 50342984

**Sample: MW-161**      **Lab ID: 50342984002**      Collected: 04/24/23 13:45      Received: 04/24/23 17:15      Matrix: Water  
 PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	<b>0.495 ± 0.638 (1.06)</b> <b>C:NA T:93%</b>	pCi/L	05/09/23 15:38	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	<b>0.555 ± 0.430 (0.856)</b> <b>C:80% T:82%</b>	pCi/L	05/08/23 15:20	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	<b>1.05 ± 1.07 (1.92)</b>	pCi/L	05/15/23 17:00	7440-14-4	

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Eagle Valley April 2023 P1R2

Pace Project No.: 50342984

**Sample: MW-16D**      **Lab ID: 50342984003**      Collected: 04/24/23 14:57      Received: 04/24/23 17:15      Matrix: Water  
 PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	<b>0.435 ± 0.782 (1.38)</b> <b>C:NA T:90%</b>	pCi/L	05/09/23 15:38	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	<b>1.31 ± 0.573 (0.955)</b> <b>C:74% T:76%</b>	pCi/L	05/08/23 15:20	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	<b>1.75 ± 1.36 (2.34)</b>	pCi/L	05/15/23 17:00	7440-14-4	

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### QUALITY CONTROL - RADIOCHEMISTRY

Project: Eagle Valley April 2023 P1R2

Pace Project No.: 50342984

QC Batch:	585052	Analysis Method:	EPA 903.1
QC Batch Method:	EPA 903.1	Analysis Description:	903.1 Radium-226
		Laboratory:	Pace Analytical Services - Greensburg

Associated Lab Samples: 50342984001, 50342984002, 50342984003

METHOD BLANK:	2841322	Matrix:	Water
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Associated Lab Samples: 50342984001, 50342984002, 50342984003

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.218 ± 0.250 (0.148) C:NA T:93%	pCi/L	05/09/23 15:38	

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### QUALITY CONTROL - RADIOCHEMISTRY

Project: Eagle Valley April 2023 P1R2

Pace Project No.: 50342984

QC Batch:	585053	Analysis Method:	EPA 904.0
QC Batch Method:	EPA 904.0	Analysis Description:	904.0 Radium 228
		Laboratory:	Pace Analytical Services - Greensburg

Associated Lab Samples: 50342984001, 50342984002, 50342984003

METHOD BLANK:	2841323	Matrix:	Water
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Associated Lab Samples: 50342984001, 50342984002, 50342984003

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.571 ± 0.354 (0.657) C:83% T:88%	pCi/L	05/08/23 15:21	

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## QUALIFIERS

Project: Eagle Valley April 2023 P1R2

Pace Project No.: 50342984

### DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Reported results are not rounded until the final step prior to reporting. Therefore, calculated parameters that are typically reported as "Total" may vary slightly from the sum of the reported component parameters.

Act - Activity

Unc - Uncertainty: SDWA = 1.96 sigma count uncertainty, all other matrices = Expanded Uncertainty (95% confidence interval).

Gamma Spec = Expanded Uncertainty (95.4% Confidence Interval)

(MDC) - Minimum Detectable Concentration

Trac - Tracer Recovery (%)

Carr - Carrier Recovery (%)

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

### ANALYTE QUALIFIERS

CC The continuing calibration for this compound is outside of method control limits. The result is estimated.

E Analyte concentration exceeded the calibration range. The reported result is estimated.

H3 Sample was received or analysis requested beyond the recognized method holding time.

M0 Matrix spike recovery and/or matrix spike duplicate recovery was outside laboratory control limits.

M3 Matrix spike recovery was outside laboratory control limits due to matrix interferences.

N2 The lab does not hold NELAC/TNI accreditation for this parameter but other accreditations/certifications may apply. A complete list of accreditations/certifications is available upon request.

P6 Matrix spike recovery was outside laboratory control limits due to a parent sample concentration notably higher than the spike level.

## REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Eagle Valley April 2023 P1R2

Pace Project No.: 50342984

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
50342984001	MW-16S	EPA 9056	730038		
50342984002	MW-16I	EPA 9056	730038		
50342984003	MW-16D	EPA 9056	730038		
50342984001	MW-16S	EPA 3010	729832	EPA 6010	730222
50342984002	MW-16I	EPA 3010	729832	EPA 6010	730222
50342984003	MW-16D	EPA 3010	729832	EPA 6010	730222
50342984001	MW-16S	EPA 3010	729858	EPA 6010	730150
50342984002	MW-16I	EPA 3010	729858	EPA 6010	730150
50342984003	MW-16D	EPA 3010	729858	EPA 6010	730150
50342984001	MW-16S	EPA 200.2	729624	EPA 6020	729695
50342984002	MW-16I	EPA 200.2	729624	EPA 6020	729695
50342984003	MW-16D	EPA 200.2	729624	EPA 6020	729695
50342984001	MW-16S	EPA 7470	729957	EPA 7470	730163
50342984002	MW-16I	EPA 7470	729957	EPA 7470	730163
50342984003	MW-16D	EPA 7470	729957	EPA 7470	730163
50342984001	MW-16S	EPA 903.1	585052		
50342984002	MW-16I	EPA 903.1	585052		
50342984003	MW-16D	EPA 903.1	585052		
50342984001	MW-16S	EPA 904.0	585053		
50342984002	MW-16I	EPA 904.0	585053		
50342984003	MW-16D	EPA 904.0	585053		
50342984001	MW-16S	Total Radium Calculation	588253		
50342984002	MW-16I	Total Radium Calculation	588253		
50342984003	MW-16D	Total Radium Calculation	588253		
50342984001	MW-16S	SM 2320B	729793		
50342984002	MW-16I	SM 2320B	729793		
50342984003	MW-16D	SM 2320B	729793		
50342984001	MW-16S	SM 2540C	730413		
50342984002	MW-16I	SM 2540C	730413		
50342984003	MW-16D	SM 2540C	730413		
50342984001	MW-16S	SM 4500-H+B	730200		
50342984002	MW-16I	SM 4500-H+B	730200		
50342984003	MW-16D	SM 4500-H+B	730200		
50342984001	MW-16S	SM 4500-S2-D	730439		
50342984002	MW-16I	SM 4500-S2-D	730439		
50342984003	MW-16D	SM 4500-S2-D	730439		
50342984001	MW-16S	HACH 8146	729924		
50342984002	MW-16I	HACH 8146	729924		
50342984003	MW-16D	HACH 8146	729924		
50342984001	MW-16S	EPA 353.2	729657		
50342984002	MW-16I	EPA 353.2	729657		
50342984003	MW-16D	EPA 353.2	729657		

### REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Eagle Valley April 2023 P1R2

Pace Project No.: 50342984

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
50342984001	MW-16S	EPA 365.1	729941	EPA 365.1	731058
50342984002	MW-16I	EPA 365.1	729941	EPA 365.1	731058
50342984003	MW-16D	EPA 365.1	729941	EPA 365.1	731058
50342984001	MW-16S	SM 5310C	729727		
50342984002	MW-16I	SM 5310C	729727		
50342984003	MW-16D	SM 5310C	729727		
50342984001	MW-16S	SM 5310C	730536		
50342984002	MW-16I	SM 5310C	730536		
50342984003	MW-16D	SM 5310C	730536		

### REPORT OF LABORATORY ANALYSIS

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**SAMPLE CONDITION UPON RECEIPT FORM**

Date/Time and Initials of person examining contents: 4/24/23 10:17 TH

1. Courier:  FED EX  UPS  CLIENT  PACE  USPS  OTHER

2. Custody Seal on Cooler/Box Present:  Yes  No

(If yes) Seals Intact:  Yes  No (leave blank if no seals were present)

3. Thermometer: 1 2 3 4 5 6 A B C D E F

4. Cooler Temperature(s): 26.2 30.3-0    
 (Initial/Corrected) RECORD TEMPS OF ALL COOLERS RECEIVED (use Comments below to add more)

5. Packing Material:  Bubble Wrap  Bubble Bags  
 None  Other Ziploc

6. Ice Type:  Wet  Blue  None

7. If temp. is over 6°C or under 0°C, was the PM notified?:  Yes  No  
 Cooler temp should be above freezing to 6°C

All discrepancies will be written out in the comments section below.

	Yes	No		Yes	No	N/A
USDA Regulated Soils? (HI, ID, NY, WA, OR, CA, NM, TX, OK, AR, LA, TN, AL, MS, NC, SC, GA, FL, or Puerto Rico)		<input checked="" type="checkbox"/>	All containers needing acid/base preservation have been pH CHECKED?: Exceptions: VOA, coliform, LLHg, O&G, RAD CHEM, and any container with a septum cap or preserved with HCl.			
Short Hold Time Analysis (48 hours or less)? Analysis: <u>NO2/NO3</u>	<input checked="" type="checkbox"/>		Circle: <u>HNO3 (&lt;2)</u> <u>H2SO4 (&lt;2)</u> NaOH (>10) <u>NaOH/ZnAc (&gt;9)</u> Any non-conformance to pH recommendations will be noted on the container count form	<input checked="" type="checkbox"/>		
Time 5035A TC placed in Freezer or Short Holds To Lab	Time:			<u>Present</u>	<u>Absent</u>	<u>N/A</u>
			Residual Chlorine Check (SVOC 625 Pest/PCB 608)		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Rush TAT Requested (4 days or less):		<input checked="" type="checkbox"/>	Residual Chlorine Check (Total/Amenable/Free Cyanide)		<input checked="" type="checkbox"/>	
Custody Signatures Present?	<input checked="" type="checkbox"/>		Headspace Wisconsin Sulfide?			<input checked="" type="checkbox"/>
Containers Intact?:	<input checked="" type="checkbox"/>		Headspace in VOA Vials (>6mm): See Container Count form for details	<u>Present</u>	<u>Absent</u>	<u>No VOA Vials Sent</u>
Sample Label (IDs/Dates/Times) Match COC?: Except TCs, which only require sample ID	<input checked="" type="checkbox"/>		Trip Blank Present?			
Extra labels on Terracore Vials? (soils only)			Trip Blank Custody Seals?:			<input checked="" type="checkbox"/>

COMMENTS:

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July 18, 2023

Mr. Mark Breting  
ATC Group Services  
7988 Centerpoint Drive  
Suite 100  
Indianapolis, IN 46256

RE: Project: Eagle Valley April 2023 P1R4  
Pace Project No.: 50343102

Dear Mr. Breting:

Enclosed are the analytical results for sample(s) received by the laboratory on April 25, 2023. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

The test results provided in this final report were generated by each of the following laboratories within the Pace Network:

- Pace Analytical Services - Indianapolis
- Pace Analytical Services - Greensburg

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

A handwritten signature in black ink, appearing to read "Will Statz".

Will Statz  
will.statz@pacelabs.com  
(317)228-3105  
Project Manager

Enclosures

cc: Mohammed Bazlamit, Atlas  
Mr. Robert Miller, Haley & Aldrich



## REPORT OF LABORATORY ANALYSIS

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### CERTIFICATIONS

Project: Eagle Valley April 2023 P1R4  
Pace Project No.: 50343102

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#### Pace Analytical Services Pennsylvania

1638 Roseytown Rd Suites 2,3&4, Greensburg, PA 15601  
ANAB DOD-ELAP Rad Accreditation #: L2417  
ANABISO/IEC 17025:2017 Rad Cert#: L24170  
Alabama Certification #: 41590  
Arizona Certification #: AZ0734  
Arkansas Certification  
California Certification #: 2950  
Colorado Certification #: PA01547  
Connecticut Certification #: PH-0694  
EPA Region 4 DW Rad  
Florida/TNI Certification #: E87683  
Georgia Certification #: C040  
Guam Certification  
Hawaii Certification  
Idaho Certification  
Illinois Certification  
Indiana Certification  
Iowa Certification #: 391  
Kansas Certification #: E-10358  
Kentucky Certification #: KY90133  
KY WW Permit #: KY0098221  
KY WW Permit #: KY0000221  
Louisiana DHH/TNI Certification #: LA010  
Louisiana DEQ/TNI Certification #: 04086  
Maine Certification #: 2023021  
Maryland Certification #: 308  
Massachusetts Certification #: M-PA1457  
Michigan/PADEP Certification #: 9991

Missouri Certification #: 235  
Montana Certification #: Cert0082  
Nebraska Certification #: NE-OS-29-14  
Nevada Certification #: PA014572023-03  
New Hampshire/TNI Certification #: 297622  
New Jersey/TNI Certification #: PA051  
New Mexico Certification #: PA01457  
New York/TNI Certification #: 10888  
North Carolina Certification #: 42706  
North Dakota Certification #: R-190  
Ohio EPA Rad Approval: #41249  
Oregon/TNI Certification #: PA200002-015  
Pennsylvania/TNI Certification #: 65-00282  
Puerto Rico Certification #: PA01457  
Rhode Island Certification #: 65-00282  
South Dakota Certification  
Tennessee Certification #: TN02867  
Texas/TNI Certification #: T104704188-22-18  
Utah/TNI Certification #: PA014572223-14  
USDA Soil Permit #: 525-23-67-77263  
Vermont Dept. of Health: ID# VT-0282  
Virgin Island/PADEP Certification  
Virginia/VELAP Certification #: 460198  
Washington Certification #: C868  
West Virginia DEP Certification #: 143  
West Virginia DHHR Certification #: 9964C  
Wisconsin Approve List for Rad

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#### Pace Analytical Services Indianapolis

7726 Moller Road, Indianapolis, IN 46268  
Illinois Accreditation #: 200074  
Indiana Drinking Water Laboratory #: C-49-06  
Kansas/TNI Certification #: E-10177  
Kentucky UST Agency Interest #: 80226  
Kentucky WW Laboratory ID #: 98019  
Michigan Drinking Water Laboratory #9050

Ohio VAP Certified Laboratory #: CL0065  
Oklahoma Laboratory #: 9204  
Texas Certification #: T104704355  
Wisconsin Laboratory #: 999788130  
USDA Foreign Soil Permit #: 525-23-13-23119  
USDA Compliance Agreement #: IN-SL-22-001

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### REPORT OF LABORATORY ANALYSIS

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### SAMPLE SUMMARY

Project: Eagle Valley April 2023 P1R4  
Pace Project No.: 50343102

Lab ID	Sample ID	Matrix	Date Collected	Date Received
50343102001	MW-17S	Water	04/25/23 10:00	04/25/23 16:20
50343102002	MW-17I	Water	04/25/23 10:50	04/25/23 16:20
50343102003	MW-17D	Water	04/25/23 11:30	04/25/23 16:20
50343102004	MW-18S	Water	04/25/23 12:20	04/25/23 16:20

### REPORT OF LABORATORY ANALYSIS

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### SAMPLE ANALYTE COUNT

Project: Eagle Valley April 2023 P1R4

Pace Project No.: 50343102

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory		
50343102001	MW-17S	EPA 9056	RMR	3	PASI-I		
		EPA 6010	MTM	10	PASI-I		
		EPA 6010	JPK	2	PASI-I		
		EPA 6020	MGM	11	PASI-I		
		EPA 7470	EAE	1	PASI-I		
		EPA 903.1	CLM	1	PASI-PA		
		EPA 904.0	VAL	1	PASI-PA		
		Total Radium Calculation	LAL	1	PASI-PA		
		SM 2320B	DAW	3	PASI-I		
		SM 2540C	AEL	1	PASI-I		
		SM 4500-H+B	BMS	1	PASI-I		
		SM 4500-S2-D	BEP	1	PASI-I		
		HACH 8146	BEP	1	PASI-I		
		EPA 353.2	ZM	2	PASI-I		
		EPA 365.1	YAM	1	PASI-I		
		SM 5310C	ATS	1	PASI-I		
		SM 5310C	ATS	1	PASI-I		
		50343102002	MW-17I	EPA 9056	RMR	3	PASI-I
				EPA 6010	MTM	10	PASI-I
				EPA 6010	JPK	2	PASI-I
EPA 6020	MGM			11	PASI-I		
EPA 7470	EAE			1	PASI-I		
EPA 903.1	CLM			1	PASI-PA		
EPA 904.0	VAL			1	PASI-PA		
Total Radium Calculation	LAL			1	PASI-PA		
SM 2320B	DAW			3	PASI-I		
SM 2540C	AEL			1	PASI-I		
SM 4500-H+B	BMS			1	PASI-I		
SM 4500-S2-D	BEP			1	PASI-I		
HACH 8146	BEP			1	PASI-I		
EPA 353.2	ZM			2	PASI-I		
EPA 365.1	YAM			1	PASI-I		
SM 5310C	ATS			1	PASI-I		
SM 5310C	ATS			1	PASI-I		
50343102003	MW-17D			EPA 9056	RMR	3	PASI-I
				EPA 6010	MTM	10	PASI-I
				EPA 6010	JPK	2	PASI-I

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**SAMPLE ANALYTE COUNT**

Project: Eagle Valley April 2023 P1R4

Pace Project No.: 50343102

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
		EPA 6020	MGM	11	PASI-I
		EPA 7470	EAE	1	PASI-I
		EPA 903.1	CLM	1	PASI-PA
		EPA 904.0	VAL	1	PASI-PA
		Total Radium Calculation	LAL	1	PASI-PA
		SM 2320B	DAW	3	PASI-I
		SM 2540C	AEL	1	PASI-I
		SM 4500-H+B	BMS	1	PASI-I
		SM 4500-S2-D	BEP	1	PASI-I
		HACH 8146	BEP	1	PASI-I
		EPA 353.2	ZM	2	PASI-I
		EPA 365.1	YAM	1	PASI-I
		SM 5310C	ATS	1	PASI-I
		SM 5310C	ATS	1	PASI-I
50343102004	MW-18S	EPA 9056	RMR	3	PASI-I
		EPA 6010	MTM	10	PASI-I
		EPA 6010	JPK	2	PASI-I
		EPA 6020	MGM	11	PASI-I
		EPA 7470	EAE	1	PASI-I
		EPA 903.1	CLM	1	PASI-PA
		EPA 904.0	VAL	1	PASI-PA
		Total Radium Calculation	LAL	1	PASI-PA
		SM 2320B	DAW	3	PASI-I
		SM 2540C	AEL	1	PASI-I
		SM 4500-H+B	BMS	1	PASI-I
		SM 4500-S2-D	BEP	1	PASI-I
		HACH 8146	BEP	1	PASI-I
		EPA 353.2	ZM	2	PASI-I
		EPA 365.1	YAM	1	PASI-I
		SM 5310C	ATS	1	PASI-I
		SM 5310C	ATS	1	PASI-I

PASI-I = Pace Analytical Services - Indianapolis  
 PASI-PA = Pace Analytical Services - Greensburg

**REPORT OF LABORATORY ANALYSIS**

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### SUMMARY OF DETECTION

Project: Eagle Valley April 2023 P1R4

Pace Project No.: 50343102

Lab Sample ID	Client Sample ID	Result	Units	Report Limit	Analyzed	Qualifiers
Method	Parameters					
<b>50343102001</b>	<b>MW-17S</b>					
EPA 9056	Chloride	36.5	mg/L	2.5	04/29/23 14:02	
EPA 9056	Fluoride	0.16	mg/L	0.10	04/29/23 13:43	
EPA 9056	Sulfate	27.1	mg/L	0.25	04/29/23 13:43	
EPA 6010	Boron	247	ug/L	100	04/28/23 16:28	
EPA 6010	Calcium	104000	ug/L	1000	04/28/23 16:28	
EPA 6010	Magnesium	22500	ug/L	1000	04/28/23 16:28	
EPA 6010	Potassium	3400	ug/L	1000	04/28/23 16:28	
EPA 6010	Silica	12100	ug/L	450	04/28/23 16:28	N2
EPA 6010	Sodium	26600	ug/L	1000	04/28/23 16:28	
EPA 6010	Molybdenum, Dissolved	15.1	ug/L	10.0	04/28/23 02:18	
EPA 6020	Barium	115	ug/L	1.0	04/27/23 21:56	
EPA 6020	Molybdenum	14.0	ug/L	10.0	04/27/23 21:56	
EPA 903.1	Radium-226	0.000 ± 0.472 (0.955)	pCi/L		05/16/23 14:31	
EPA 904.0	Radium-228	C:NA T:94% 0.206 ± 0.398 (0.875)	pCi/L		05/10/23 15:35	
		C:69% T:90%				
Total Radium Calculation	Total Radium	0.206 ± 0.870 (1.83)	pCi/L		05/18/23 12:42	
SM 2320B	Alkalinity, Total as CaCO3	325	mg/L	10.0	04/26/23 21:35	
SM 2320B	Alkalinity,Bicarbonate (CaCO3)	325	mg/L	10.0	04/26/23 21:35	
SM 2540C	Total Dissolved Solids	424	mg/L	10.0	04/28/23 08:49	
SM 4500-H+B	pH at 25 Degrees C	7.9	Std. Units	0.10	04/27/23 13:26	H3
EPA 353.2	Nitrogen, Nitrate	1.7	mg/L	0.10	04/25/23 22:55	
SM 5310C	Total Organic Carbon	1.5	mg/L	1.0	05/01/23 23:56	
SM 5310C	Dissolved Organic Carbon	1.8	mg/L	1.0	04/28/23 22:49	
<b>50343102002</b>	<b>MW-17I</b>					
EPA 9056	Chloride	36.5	mg/L	2.5	04/29/23 14:41	
EPA 9056	Fluoride	0.14	mg/L	0.10	04/29/23 14:22	
EPA 9056	Sulfate	28.4	mg/L	0.25	04/29/23 14:22	
EPA 6010	Boron	327	ug/L	100	04/28/23 16:31	
EPA 6010	Calcium	84300	ug/L	1000	04/28/23 16:31	
EPA 6010	Magnesium	21700	ug/L	1000	04/28/23 16:31	
EPA 6010	Manganese	10.3	ug/L	10.0	04/28/23 16:31	
EPA 6010	Potassium	2240	ug/L	1000	04/28/23 16:31	
EPA 6010	Silica	10800	ug/L	450	04/28/23 16:31	N2
EPA 6010	Sodium	30500	ug/L	1000	04/28/23 16:31	
EPA 6020	Barium	55.2	ug/L	1.0	04/27/23 22:00	
EPA 903.1	Radium-226	0.464 ± 0.434 (0.615)	pCi/L		05/16/23 14:44	
		C:NA T:91%				

### REPORT OF LABORATORY ANALYSIS

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**SUMMARY OF DETECTION**

Project: Eagle Valley April 2023 P1R4

Pace Project No.: 50343102

Lab Sample ID	Client Sample ID	Result	Units	Report Limit	Analyzed	Qualifiers
Method	Parameters					
<b>50343102002</b>	<b>MW-17I</b>					
EPA 904.0	Radium-228	0.626 ± 0.416 (0.789) C:75% T:81%	pCi/L		05/10/23 15:35	
Total Radium Calculation	Total Radium	1.09 ± 0.850 (1.40)	pCi/L		05/18/23 12:42	
SM 2320B	Alkalinity, Total as CaCO3	277	mg/L	10.0	04/26/23 21:35	
SM 2320B	Alkalinity,Bicarbonate (CaCO3)	277	mg/L	10.0	04/26/23 21:35	
SM 2540C	Total Dissolved Solids	384	mg/L	10.0	04/28/23 08:49	
SM 4500-H+B	pH at 25 Degrees C	8.0	Std. Units	0.10	04/27/23 13:28	H3
EPA 353.2	Nitrogen, Nitrate	1.5	mg/L	0.10	04/25/23 22:33	
SM 5310C	Total Organic Carbon	1.2	mg/L	1.0	05/02/23 00:06	
SM 5310C	Dissolved Organic Carbon	1.1	mg/L	1.0	04/28/23 23:00	
<b>50343102003</b>	<b>MW-17D</b>					
EPA 9056	Chloride	49.0	mg/L	2.5	04/29/23 15:20	
EPA 9056	Sulfate	64.0	mg/L	2.5	04/29/23 15:20	
EPA 6010	Boron	2260	ug/L	100	04/28/23 16:33	
EPA 6010	Calcium	84200	ug/L	1000	04/28/23 16:33	
EPA 6010	Iron	2930	ug/L	100	04/28/23 16:33	
EPA 6010	Lithium	41.7	ug/L	20.0	04/28/23 16:33	
EPA 6010	Magnesium	22900	ug/L	1000	04/28/23 16:33	
EPA 6010	Manganese	309	ug/L	10.0	04/28/23 16:33	
EPA 6010	Potassium	2860	ug/L	1000	04/28/23 16:33	
EPA 6010	Silica	12600	ug/L	450	04/28/23 16:33	N2
EPA 6010	Sodium	41000	ug/L	1000	04/28/23 16:33	
EPA 6010	Manganese, Dissolved	266	ug/L	10.0	04/28/23 02:35	
EPA 6010	Molybdenum, Dissolved	20.1	ug/L	10.0	04/28/23 02:35	
EPA 6020	Arsenic	7.1	ug/L	1.0	04/27/23 22:04	
EPA 6020	Barium	53.0	ug/L	1.0	04/27/23 22:04	
EPA 6020	Molybdenum	19.1	ug/L	10.0	04/27/23 22:04	
EPA 903.1	Radium-226	0.422 ± 0.569 (0.957) C:NA T:87%	pCi/L		05/16/23 14:44	
EPA 904.0	Radium-228	0.760 ± 0.594 (1.17) C:72% T:78%	pCi/L		05/10/23 18:18	
Total Radium Calculation	Total Radium	1.18 ± 1.16 (2.13)	pCi/L		05/18/23 12:42	
SM 2320B	Alkalinity, Total as CaCO3	256	mg/L	10.0	04/26/23 21:35	
SM 2320B	Alkalinity,Bicarbonate (CaCO3)	256	mg/L	10.0	04/26/23 21:35	
SM 2540C	Total Dissolved Solids	422	mg/L	10.0	04/28/23 08:49	
SM 4500-H+B	pH at 25 Degrees C	8.0	Std. Units	0.10	04/27/23 13:30	H3
HACH 8146	Iron, Ferrous	1.4	mg/L	0.20	04/26/23 10:21	H3,N2

**REPORT OF LABORATORY ANALYSIS**

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### SUMMARY OF DETECTION

Project: Eagle Valley April 2023 P1R4

Pace Project No.: 50343102

Lab Sample ID	Client Sample ID	Result	Units	Report Limit	Analyzed	Qualifiers
Method	Parameters					
<b>50343102004</b>	<b>MW-18S</b>					
EPA 9056	Chloride	34.5	mg/L	2.5	04/29/23 15:59	
EPA 9056	Fluoride	0.16	mg/L	0.10	04/29/23 15:40	
EPA 9056	Sulfate	23.2	mg/L	0.25	04/29/23 15:40	
EPA 6010	Calcium	62200	ug/L	1000	04/28/23 16:35	
EPA 6010	Magnesium	14300	ug/L	1000	04/28/23 16:35	
EPA 6010	Potassium	1730	ug/L	1000	04/28/23 16:35	
EPA 6010	Silica	6900	ug/L	450	04/28/23 16:35	N2
EPA 6010	Sodium	24900	ug/L	1000	04/28/23 16:35	
EPA 6010	Molybdenum, Dissolved	11.5	ug/L	10.0	04/28/23 02:37	
EPA 6020	Barium	27.6	ug/L	1.0	04/27/23 22:08	
EPA 6020	Molybdenum	10.9	ug/L	10.0	04/27/23 22:08	
EPA 6020	Selenium	1.1	ug/L	1.0	04/27/23 22:08	
EPA 903.1	Radium-226	0.289 ± 0.409 (0.693)	pCi/L		05/16/23 14:44	
EPA 904.0	Radium-228	C:NA T:92% 0.230 ± 0.500 (1.11) C:72% T:82%	pCi/L		05/10/23 18:18	
Total Radium Calculation	Total Radium	0.519 ± 0.909 (1.80)	pCi/L		05/18/23 12:42	
SM 2320B	Alkalinity, Total as CaCO3	192	mg/L	10.0	04/26/23 21:35	
SM 2320B	Alkalinity,Bicarbonate (CaCO3)	192	mg/L	10.0	04/26/23 21:35	
SM 2540C	Total Dissolved Solids	279	mg/L	10.0	04/28/23 08:50	
SM 4500-H+B	pH at 25 Degrees C	8.0	Std. Units	0.10	04/27/23 13:31	H3
EPA 353.2	Nitrogen, Nitrate	0.73	mg/L	0.10	04/25/23 22:42	
SM 5310C	Total Organic Carbon	1.3	mg/L	1.0	05/02/23 00:27	
SM 5310C	Dissolved Organic Carbon	1.3	mg/L	1.0	04/28/23 23:20	

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### ANALYTICAL RESULTS

Project: Eagle Valley April 2023 P1R4  
 Pace Project No.: 50343102

**Sample: MW-17S**      **Lab ID: 50343102001**      Collected: 04/25/23 10:00      Received: 04/25/23 16:20      Matrix: Water

Parameters	Results	Units	Report			Prepared	Analyzed	CAS No.	Qual
			Limit	MDL	DF				
<b>9056 IC Anions</b>									
Analytical Method: EPA 9056									
Pace Analytical Services - Indianapolis									
Chloride	36.5	mg/L	2.5	0.67	10		04/29/23 14:02	16887-00-6	
Fluoride	0.16	mg/L	0.10	0.017	1		04/29/23 13:43	16984-48-8	
Sulfate	27.1	mg/L	0.25	0.085	1		04/29/23 13:43	14808-79-8	
<b>6010 MET ICP</b>									
Analytical Method: EPA 6010      Preparation Method: EPA 3010									
Pace Analytical Services - Indianapolis									
Aluminum	ND	ug/L	200	55.4	1	04/27/23 15:44	04/28/23 16:28	7429-90-5	
Boron	247	ug/L	100	37.6	1	04/27/23 15:44	04/28/23 16:28	7440-42-8	
Calcium	104000	ug/L	1000	163	1	04/27/23 15:44	04/28/23 16:28	7440-70-2	
Iron	ND	ug/L	100	48.8	1	04/27/23 15:44	04/28/23 16:28	7439-89-6	
Lithium	ND	ug/L	20.0	6.2	1	04/27/23 15:44	04/28/23 16:28	7439-93-2	
Magnesium	22500	ug/L	1000	71.8	1	04/27/23 15:44	04/28/23 16:28	7439-95-4	
Manganese	ND	ug/L	10.0	2.5	1	04/27/23 15:44	04/28/23 16:28	7439-96-5	
Potassium	3400	ug/L	1000	281	1	04/27/23 15:44	04/28/23 16:28	7440-09-7	
Silica	12100	ug/L	450		1	04/27/23 15:44	04/28/23 16:28	7631-86-9	N2
Sodium	26600	ug/L	1000	214	1	04/27/23 15:44	04/28/23 16:28	7440-23-5	
<b>6010 MET ICP, Dissolved</b>									
Analytical Method: EPA 6010      Preparation Method: EPA 3010									
Pace Analytical Services - Indianapolis									
Manganese, Dissolved	ND	ug/L	10.0	2.5	1	04/27/23 16:16	04/28/23 02:18	7439-96-5	
Molybdenum, Dissolved	15.1	ug/L	10.0	3.7	1	04/27/23 16:16	04/28/23 02:18	7439-98-7	
<b>6020 MET ICPMS</b>									
Analytical Method: EPA 6020      Preparation Method: EPA 200.2									
Pace Analytical Services - Indianapolis									
Antimony	ND	ug/L	1.0	0.13	1	04/26/23 07:25	04/27/23 21:56	7440-36-0	
Arsenic	ND	ug/L	1.0	0.10	1	04/26/23 07:25	04/27/23 21:56	7440-38-2	
Barium	115	ug/L	1.0	0.14	1	04/26/23 07:25	04/27/23 21:56	7440-39-3	
Beryllium	ND	ug/L	0.20	0.026	1	04/26/23 07:25	04/27/23 21:56	7440-41-7	
Cadmium	ND	ug/L	2.0	0.054	1	04/26/23 07:25	04/27/23 21:56	7440-43-9	
Chromium	ND	ug/L	10.0	0.20	1	04/26/23 07:25	04/27/23 21:56	7440-47-3	
Cobalt	ND	ug/L	1.0	0.082	1	04/26/23 07:25	04/27/23 21:56	7440-48-4	
Lead	ND	ug/L	10.0	0.080	1	04/26/23 07:25	04/27/23 21:56	7439-92-1	
Molybdenum	14.0	ug/L	10.0	0.072	1	04/26/23 07:25	04/27/23 21:56	7439-98-7	
Selenium	ND	ug/L	1.0	0.44	1	04/26/23 07:25	04/27/23 21:56	7782-49-2	
Thallium	ND	ug/L	1.0	0.072	1	04/26/23 07:25	04/27/23 21:56	7440-28-0	
<b>7470 Mercury</b>									
Analytical Method: EPA 7470      Preparation Method: EPA 7470									
Pace Analytical Services - Indianapolis									
Mercury	ND	ug/L	0.20	0.091	1	04/27/23 10:07	04/27/23 19:45	7439-97-6	
<b>2320B Alkalinity</b>									
Analytical Method: SM 2320B									
Pace Analytical Services - Indianapolis									
Alkalinity, Total as CaCO3	325	mg/L	10.0	10.0	1		04/26/23 21:35		
Alkalinity,Bicarbonate (CaCO3)	325	mg/L	10.0	10.0	1		04/26/23 21:35		

### REPORT OF LABORATORY ANALYSIS

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**ANALYTICAL RESULTS**

Project: Eagle Valley April 2023 P1R4  
Pace Project No.: 50343102

Sample: MW-17S		Lab ID: 50343102001		Collected: 04/25/23 10:00	Received: 04/25/23 16:20	Matrix: Water			
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>2320B Alkalinity</b>		Analytical Method: SM 2320B Pace Analytical Services - Indianapolis							
Alkalinity, Carbonate (CaCO3)	ND	mg/L	10.0	10.0	1		04/26/23 21:35		
<b>2540C Total Dissolved Solids</b>		Analytical Method: SM 2540C Pace Analytical Services - Indianapolis							
Total Dissolved Solids	<b>424</b>	mg/L	10.0	10.0	1		04/28/23 08:49		
<b>4500H+ pH, Electrometric</b>		Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis							
pH at 25 Degrees C	<b>7.9</b>	Std. Units	0.10	0.10	1		04/27/23 13:26		H3
<b>4500S2D Sulfide Water</b>		Analytical Method: SM 4500-S2-D Pace Analytical Services - Indianapolis							
Sulfide	ND	mg/L	0.10	0.025	1		04/28/23 09:52	18496-25-8	
<b>Iron, Ferrous</b>		Analytical Method: HACH 8146 Pace Analytical Services - Indianapolis							
Iron, Ferrous	ND	mg/L	0.20	0.035	1		04/26/23 10:20	15438-31-0	H3,N2
<b>353.2 Nitrogen, NO2/NO3 unpres</b>		Analytical Method: EPA 353.2 Pace Analytical Services - Indianapolis							
Nitrogen, Nitrate	<b>1.7</b>	mg/L	0.10	0.011	1		04/25/23 22:55	14797-55-8	
Nitrogen, Nitrite	ND	mg/L	0.10	0.0040	1		04/25/23 22:55	14797-65-0	
<b>365.1 Total Phosphorus</b>		Analytical Method: EPA 365.1 Preparation Method: EPA 365.1 Pace Analytical Services - Indianapolis							
Phosphate as P04	ND	mg/L	0.15	0.15	1	04/27/23 11:22	05/02/23 11:51		
<b>5310C TOC</b>		Analytical Method: SM 5310C Pace Analytical Services - Indianapolis							
Total Organic Carbon	<b>1.5</b>	mg/L	1.0	0.24	1		05/01/23 23:56	7440-44-0	
<b>5310C Dissolved Organic Carbon</b>		Analytical Method: SM 5310C Pace Analytical Services - Indianapolis							
Dissolved Organic Carbon	<b>1.8</b>	mg/L	1.0	0.24	1		04/28/23 22:49		

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## ANALYTICAL RESULTS

Project: Eagle Valley April 2023 P1R4

Pace Project No.: 50343102

Sample: MW-171 Lab ID: 50343102002 Collected: 04/25/23 10:50 Received: 04/25/23 16:20 Matrix: Water

Parameters	Results	Units	Report			Prepared	Analyzed	CAS No.	Qual
			Limit	MDL	DF				
<b>9056 IC Anions</b>									
Analytical Method: EPA 9056									
Pace Analytical Services - Indianapolis									
Chloride	36.5	mg/L	2.5	0.67	10		04/29/23 14:41	16887-00-6	
Fluoride	0.14	mg/L	0.10	0.017	1		04/29/23 14:22	16984-48-8	
Sulfate	28.4	mg/L	0.25	0.085	1		04/29/23 14:22	14808-79-8	
<b>6010 MET ICP</b>									
Analytical Method: EPA 6010 Preparation Method: EPA 3010									
Pace Analytical Services - Indianapolis									
Aluminum	ND	ug/L	200	55.4	1	04/27/23 15:44	04/28/23 16:31	7429-90-5	
Boron	327	ug/L	100	37.6	1	04/27/23 15:44	04/28/23 16:31	7440-42-8	
Calcium	84300	ug/L	1000	163	1	04/27/23 15:44	04/28/23 16:31	7440-70-2	
Iron	ND	ug/L	100	48.8	1	04/27/23 15:44	04/28/23 16:31	7439-89-6	
Lithium	ND	ug/L	20.0	6.2	1	04/27/23 15:44	04/28/23 16:31	7439-93-2	
Magnesium	21700	ug/L	1000	71.8	1	04/27/23 15:44	04/28/23 16:31	7439-95-4	
Manganese	10.3	ug/L	10.0	2.5	1	04/27/23 15:44	04/28/23 16:31	7439-96-5	
Potassium	2240	ug/L	1000	281	1	04/27/23 15:44	04/28/23 16:31	7440-09-7	
Silica	10800	ug/L	450		1	04/27/23 15:44	04/28/23 16:31	7631-86-9	N2
Sodium	30500	ug/L	1000	214	1	04/27/23 15:44	04/28/23 16:31	7440-23-5	
<b>6010 MET ICP, Dissolved</b>									
Analytical Method: EPA 6010 Preparation Method: EPA 3010									
Pace Analytical Services - Indianapolis									
Manganese, Dissolved	ND	ug/L	10.0	2.5	1	04/27/23 16:16	04/28/23 02:33	7439-96-5	
Molybdenum, Dissolved	ND	ug/L	10.0	3.7	1	04/27/23 16:16	04/28/23 02:33	7439-98-7	
<b>6020 MET ICPMS</b>									
Analytical Method: EPA 6020 Preparation Method: EPA 200.2									
Pace Analytical Services - Indianapolis									
Antimony	ND	ug/L	1.0	0.13	1	04/26/23 07:25	04/27/23 22:00	7440-36-0	
Arsenic	ND	ug/L	1.0	0.10	1	04/26/23 07:25	04/27/23 22:00	7440-38-2	
Barium	55.2	ug/L	1.0	0.14	1	04/26/23 07:25	04/27/23 22:00	7440-39-3	
Beryllium	ND	ug/L	0.20	0.026	1	04/26/23 07:25	04/27/23 22:00	7440-41-7	
Cadmium	ND	ug/L	2.0	0.054	1	04/26/23 07:25	04/27/23 22:00	7440-43-9	
Chromium	ND	ug/L	10.0	0.20	1	04/26/23 07:25	04/27/23 22:00	7440-47-3	
Cobalt	ND	ug/L	1.0	0.082	1	04/26/23 07:25	04/27/23 22:00	7440-48-4	
Lead	ND	ug/L	10.0	0.080	1	04/26/23 07:25	04/27/23 22:00	7439-92-1	
Molybdenum	ND	ug/L	10.0	0.072	1	04/26/23 07:25	04/27/23 22:00	7439-98-7	
Selenium	ND	ug/L	1.0	0.44	1	04/26/23 07:25	04/27/23 22:00	7782-49-2	
Thallium	ND	ug/L	1.0	0.072	1	04/26/23 07:25	04/27/23 22:00	7440-28-0	
<b>7470 Mercury</b>									
Analytical Method: EPA 7470 Preparation Method: EPA 7470									
Pace Analytical Services - Indianapolis									
Mercury	ND	ug/L	0.20	0.091	1	04/27/23 10:07	04/27/23 19:47	7439-97-6	
<b>2320B Alkalinity</b>									
Analytical Method: SM 2320B									
Pace Analytical Services - Indianapolis									
Alkalinity, Total as CaCO3	277	mg/L	10.0	10.0	1		04/26/23 21:35		
Alkalinity,Bicarbonate (CaCO3)	277	mg/L	10.0	10.0	1		04/26/23 21:35		

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### ANALYTICAL RESULTS

Project: Eagle Valley April 2023 P1R4  
 Pace Project No.: 50343102

Sample: MW-171		Lab ID: 50343102002		Collected: 04/25/23 10:50	Received: 04/25/23 16:20	Matrix: Water			
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>2320B Alkalinity</b>									
Analytical Method: SM 2320B Pace Analytical Services - Indianapolis									
Alkalinity, Carbonate (CaCO3)	ND	mg/L	10.0	10.0	1		04/26/23 21:35		
<b>2540C Total Dissolved Solids</b>									
Analytical Method: SM 2540C Pace Analytical Services - Indianapolis									
Total Dissolved Solids	<b>384</b>	mg/L	10.0	10.0	1		04/28/23 08:49		
<b>4500H+ pH, Electrometric</b>									
Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis									
pH at 25 Degrees C	<b>8.0</b>	Std. Units	0.10	0.10	1		04/27/23 13:28		H3
<b>4500S2D Sulfide Water</b>									
Analytical Method: SM 4500-S2-D Pace Analytical Services - Indianapolis									
Sulfide	ND	mg/L	0.10	0.025	1		04/28/23 09:52	18496-25-8	
<b>Iron, Ferrous</b>									
Analytical Method: HACH 8146 Pace Analytical Services - Indianapolis									
Iron, Ferrous	ND	mg/L	0.20	0.035	1		04/26/23 10:20	15438-31-0	H3,N2
<b>353.2 Nitrogen, NO2/NO3 unpres</b>									
Analytical Method: EPA 353.2 Pace Analytical Services - Indianapolis									
Nitrogen, Nitrate	<b>1.5</b>	mg/L	0.10	0.011	1		04/25/23 22:33	14797-55-8	
Nitrogen, Nitrite	ND	mg/L	0.10	0.0040	1		04/25/23 22:33	14797-65-0	
<b>365.1 Total Phosphorus</b>									
Analytical Method: EPA 365.1 Preparation Method: EPA 365.1 Pace Analytical Services - Indianapolis									
Phosphate as P04	ND	mg/L	0.15	0.15	1	04/27/23 11:22	05/02/23 13:06		
<b>5310C TOC</b>									
Analytical Method: SM 5310C Pace Analytical Services - Indianapolis									
Total Organic Carbon	<b>1.2</b>	mg/L	1.0	0.24	1		05/02/23 00:06	7440-44-0	
<b>5310C Dissolved Organic Carbon</b>									
Analytical Method: SM 5310C Pace Analytical Services - Indianapolis									
Dissolved Organic Carbon	<b>1.1</b>	mg/L	1.0	0.24	1		04/28/23 23:00		

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## ANALYTICAL RESULTS

Project: Eagle Valley April 2023 P1R4

Pace Project No.: 50343102

Sample: MW-17D		Lab ID: 50343102003		Collected: 04/25/23 11:30		Received: 04/25/23 16:20		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>9056 IC Anions</b>		Analytical Method: EPA 9056 Pace Analytical Services - Indianapolis							
Chloride	49.0	mg/L	2.5	0.67	10		04/29/23 15:20	16887-00-6	
Fluoride	ND	mg/L	0.10	0.017	1		04/29/23 15:01	16984-48-8	
Sulfate	64.0	mg/L	2.5	0.85	10		04/29/23 15:20	14808-79-8	
<b>6010 MET ICP</b>		Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis							
Aluminum	ND	ug/L	200	55.4	1	04/27/23 15:44	04/28/23 16:33	7429-90-5	
Boron	2260	ug/L	100	37.6	1	04/27/23 15:44	04/28/23 16:33	7440-42-8	
Calcium	84200	ug/L	1000	163	1	04/27/23 15:44	04/28/23 16:33	7440-70-2	
Iron	2930	ug/L	100	48.8	1	04/27/23 15:44	04/28/23 16:33	7439-89-6	
Lithium	41.7	ug/L	20.0	6.2	1	04/27/23 15:44	04/28/23 16:33	7439-93-2	
Magnesium	22900	ug/L	1000	71.8	1	04/27/23 15:44	04/28/23 16:33	7439-95-4	
Manganese	309	ug/L	10.0	2.5	1	04/27/23 15:44	04/28/23 16:33	7439-96-5	
Potassium	2860	ug/L	1000	281	1	04/27/23 15:44	04/28/23 16:33	7440-09-7	
Silica	12600	ug/L	450		1	04/27/23 15:44	04/28/23 16:33	7631-86-9	N2
Sodium	41000	ug/L	1000	214	1	04/27/23 15:44	04/28/23 16:33	7440-23-5	
<b>6010 MET ICP, Dissolved</b>		Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis							
Manganese, Dissolved	266	ug/L	10.0	2.5	1	04/27/23 16:16	04/28/23 02:35	7439-96-5	
Molybdenum, Dissolved	20.1	ug/L	10.0	3.7	1	04/27/23 16:16	04/28/23 02:35	7439-98-7	
<b>6020 MET ICPMS</b>		Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis							
Antimony	ND	ug/L	1.0	0.13	1	04/26/23 07:25	04/27/23 22:04	7440-36-0	
Arsenic	7.1	ug/L	1.0	0.10	1	04/26/23 07:25	04/27/23 22:04	7440-38-2	
Barium	53.0	ug/L	1.0	0.14	1	04/26/23 07:25	04/27/23 22:04	7440-39-3	
Beryllium	ND	ug/L	0.20	0.026	1	04/26/23 07:25	04/27/23 22:04	7440-41-7	
Cadmium	ND	ug/L	2.0	0.054	1	04/26/23 07:25	04/27/23 22:04	7440-43-9	
Chromium	ND	ug/L	10.0	0.20	1	04/26/23 07:25	04/27/23 22:04	7440-47-3	
Cobalt	ND	ug/L	1.0	0.082	1	04/26/23 07:25	04/27/23 22:04	7440-48-4	
Lead	ND	ug/L	10.0	0.080	1	04/26/23 07:25	04/27/23 22:04	7439-92-1	
Molybdenum	19.1	ug/L	10.0	0.072	1	04/26/23 07:25	04/27/23 22:04	7439-98-7	
Selenium	ND	ug/L	1.0	0.44	1	04/26/23 07:25	04/27/23 22:04	7782-49-2	
Thallium	ND	ug/L	1.0	0.072	1	04/26/23 07:25	04/27/23 22:04	7440-28-0	
<b>7470 Mercury</b>		Analytical Method: EPA 7470 Preparation Method: EPA 7470 Pace Analytical Services - Indianapolis							
Mercury	ND	ug/L	0.20	0.091	1	04/27/23 10:07	04/27/23 19:50	7439-97-6	
<b>2320B Alkalinity</b>		Analytical Method: SM 2320B Pace Analytical Services - Indianapolis							
Alkalinity, Total as CaCO3	256	mg/L	10.0	10.0	1		04/26/23 21:35		
Alkalinity, Bicarbonate (CaCO3)	256	mg/L	10.0	10.0	1		04/26/23 21:35		

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**ANALYTICAL RESULTS**

Project: Eagle Valley April 2023 P1R4  
 Pace Project No.: 50343102

Sample: MW-17D		Lab ID: 50343102003		Collected: 04/25/23 11:30	Received: 04/25/23 16:20	Matrix: Water			
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>2320B Alkalinity</b>		Analytical Method: SM 2320B Pace Analytical Services - Indianapolis							
Alkalinity, Carbonate (CaCO3)	ND	mg/L	10.0	10.0	1		04/26/23 21:35		
<b>2540C Total Dissolved Solids</b>		Analytical Method: SM 2540C Pace Analytical Services - Indianapolis							
Total Dissolved Solids	422	mg/L	10.0	10.0	1		04/28/23 08:49		
<b>4500H+ pH, Electrometric</b>		Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis							
pH at 25 Degrees C	8.0	Std. Units	0.10	0.10	1		04/27/23 13:30		H3
<b>4500S2D Sulfide Water</b>		Analytical Method: SM 4500-S2-D Pace Analytical Services - Indianapolis							
Sulfide	ND	mg/L	0.10	0.025	1		04/28/23 09:52	18496-25-8	
<b>Iron, Ferrous</b>		Analytical Method: HACH 8146 Pace Analytical Services - Indianapolis							
Iron, Ferrous	1.4	mg/L	0.20	0.035	1		04/26/23 10:21	15438-31-0	H3,N2
<b>353.2 Nitrogen, NO2/NO3 unpres</b>		Analytical Method: EPA 353.2 Pace Analytical Services - Indianapolis							
Nitrogen, Nitrate	ND	mg/L	0.10	0.011	1		04/25/23 22:59	14797-55-8	
Nitrogen, Nitrite	ND	mg/L	0.10	0.0040	1		04/25/23 22:59	14797-65-0	
<b>365.1 Total Phosphorus</b>		Analytical Method: EPA 365.1 Preparation Method: EPA 365.1 Pace Analytical Services - Indianapolis							
Phosphate as P04	ND	mg/L	0.15	0.15	1	04/27/23 11:22	05/02/23 13:07		
<b>5310C TOC</b>		Analytical Method: SM 5310C Pace Analytical Services - Indianapolis							
Total Organic Carbon	ND	mg/L	1.0	0.24	1		05/02/23 00:16	7440-44-0	
<b>5310C Dissolved Organic Carbon</b>		Analytical Method: SM 5310C Pace Analytical Services - Indianapolis							
Dissolved Organic Carbon	ND	mg/L	1.0	0.24	1		04/28/23 23:10		

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## ANALYTICAL RESULTS

Project: Eagle Valley April 2023 P1R4

Pace Project No.: 50343102

Sample: MW-18S Lab ID: 50343102004 Collected: 04/25/23 12:20 Received: 04/25/23 16:20 Matrix: Water

Parameters	Results	Units	Report			Prepared	Analyzed	CAS No.	Qual
			Limit	MDL	DF				
<b>9056 IC Anions</b>									
Analytical Method: EPA 9056									
Pace Analytical Services - Indianapolis									
Chloride	34.5	mg/L	2.5	0.67	10		04/29/23 15:59	16887-00-6	
Fluoride	0.16	mg/L	0.10	0.017	1		04/29/23 15:40	16984-48-8	
Sulfate	23.2	mg/L	0.25	0.085	1		04/29/23 15:40	14808-79-8	
<b>6010 MET ICP</b>									
Analytical Method: EPA 6010 Preparation Method: EPA 3010									
Pace Analytical Services - Indianapolis									
Aluminum	ND	ug/L	200	55.4	1	04/27/23 15:44	04/28/23 16:35	7429-90-5	
Boron	ND	ug/L	100	37.6	1	04/27/23 15:44	04/28/23 16:35	7440-42-8	
Calcium	62200	ug/L	1000	163	1	04/27/23 15:44	04/28/23 16:35	7440-70-2	
Iron	ND	ug/L	100	48.8	1	04/27/23 15:44	04/28/23 16:35	7439-89-6	
Lithium	ND	ug/L	20.0	6.2	1	04/27/23 15:44	04/28/23 16:35	7439-93-2	
Magnesium	14300	ug/L	1000	71.8	1	04/27/23 15:44	04/28/23 16:35	7439-95-4	
Manganese	ND	ug/L	10.0	2.5	1	04/27/23 15:44	04/28/23 16:35	7439-96-5	
Potassium	1730	ug/L	1000	281	1	04/27/23 15:44	04/28/23 16:35	7440-09-7	
Silica	6900	ug/L	450		1	04/27/23 15:44	04/28/23 16:35	7631-86-9	N2
Sodium	24900	ug/L	1000	214	1	04/27/23 15:44	04/28/23 16:35	7440-23-5	
<b>6010 MET ICP, Dissolved</b>									
Analytical Method: EPA 6010 Preparation Method: EPA 3010									
Pace Analytical Services - Indianapolis									
Manganese, Dissolved	ND	ug/L	10.0	2.5	1	04/27/23 16:16	04/28/23 02:37	7439-96-5	
Molybdenum, Dissolved	11.5	ug/L	10.0	3.7	1	04/27/23 16:16	04/28/23 02:37	7439-98-7	
<b>6020 MET ICPMS</b>									
Analytical Method: EPA 6020 Preparation Method: EPA 200.2									
Pace Analytical Services - Indianapolis									
Antimony	ND	ug/L	1.0	0.13	1	04/26/23 07:25	04/27/23 22:08	7440-36-0	
Arsenic	ND	ug/L	1.0	0.10	1	04/26/23 07:25	04/27/23 22:08	7440-38-2	
Barium	27.6	ug/L	1.0	0.14	1	04/26/23 07:25	04/27/23 22:08	7440-39-3	
Beryllium	ND	ug/L	0.20	0.026	1	04/26/23 07:25	04/27/23 22:08	7440-41-7	
Cadmium	ND	ug/L	2.0	0.054	1	04/26/23 07:25	04/27/23 22:08	7440-43-9	
Chromium	ND	ug/L	10.0	0.20	1	04/26/23 07:25	04/27/23 22:08	7440-47-3	
Cobalt	ND	ug/L	1.0	0.082	1	04/26/23 07:25	04/27/23 22:08	7440-48-4	
Lead	ND	ug/L	10.0	0.080	1	04/26/23 07:25	04/27/23 22:08	7439-92-1	
Molybdenum	10.9	ug/L	10.0	0.072	1	04/26/23 07:25	04/27/23 22:08	7439-98-7	
Selenium	1.1	ug/L	1.0	0.44	1	04/26/23 07:25	04/27/23 22:08	7782-49-2	
Thallium	ND	ug/L	1.0	0.072	1	04/26/23 07:25	04/27/23 22:08	7440-28-0	
<b>7470 Mercury</b>									
Analytical Method: EPA 7470 Preparation Method: EPA 7470									
Pace Analytical Services - Indianapolis									
Mercury	ND	ug/L	0.20	0.091	1	04/27/23 10:07	04/27/23 19:52	7439-97-6	
<b>2320B Alkalinity</b>									
Analytical Method: SM 2320B									
Pace Analytical Services - Indianapolis									
Alkalinity, Total as CaCO3	192	mg/L	10.0	10.0	1		04/26/23 21:35		
Alkalinity,Bicarbonate (CaCO3)	192	mg/L	10.0	10.0	1		04/26/23 21:35		

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**ANALYTICAL RESULTS**

Project: Eagle Valley April 2023 P1R4

Pace Project No.: 50343102

Sample: MW-18S		Lab ID: 50343102004		Collected: 04/25/23 12:20	Received: 04/25/23 16:20	Matrix: Water			
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>2320B Alkalinity</b>		Analytical Method: SM 2320B Pace Analytical Services - Indianapolis							
Alkalinity, Carbonate (CaCO3)	ND	mg/L	10.0	10.0	1		04/26/23 21:35		
<b>2540C Total Dissolved Solids</b>		Analytical Method: SM 2540C Pace Analytical Services - Indianapolis							
Total Dissolved Solids	279	mg/L	10.0	10.0	1		04/28/23 08:50		
<b>4500H+ pH, Electrometric</b>		Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis							
pH at 25 Degrees C	8.0	Std. Units	0.10	0.10	1		04/27/23 13:31		H3
<b>4500S2D Sulfide Water</b>		Analytical Method: SM 4500-S2-D Pace Analytical Services - Indianapolis							
Sulfide	ND	mg/L	0.10	0.025	1		04/28/23 09:52	18496-25-8	
<b>Iron, Ferrous</b>		Analytical Method: HACH 8146 Pace Analytical Services - Indianapolis							
Iron, Ferrous	ND	mg/L	0.20	0.035	1		04/26/23 10:21	15438-31-0	H3,N2
<b>353.2 Nitrogen, NO2/NO3 unpres</b>		Analytical Method: EPA 353.2 Pace Analytical Services - Indianapolis							
Nitrogen, Nitrate	0.73	mg/L	0.10	0.011	1		04/25/23 22:42	14797-55-8	
Nitrogen, Nitrite	ND	mg/L	0.10	0.0040	1		04/25/23 22:42	14797-65-0	
<b>365.1 Total Phosphorus</b>		Analytical Method: EPA 365.1 Preparation Method: EPA 365.1 Pace Analytical Services - Indianapolis							
Phosphate as P04	ND	mg/L	0.15	0.15	1	04/27/23 11:22	05/02/23 13:08		
<b>5310C TOC</b>		Analytical Method: SM 5310C Pace Analytical Services - Indianapolis							
Total Organic Carbon	1.3	mg/L	1.0	0.24	1		05/02/23 00:27	7440-44-0	
<b>5310C Dissolved Organic Carbon</b>		Analytical Method: SM 5310C Pace Analytical Services - Indianapolis							
Dissolved Organic Carbon	1.3	mg/L	1.0	0.24	1		04/28/23 23:20		

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**QUALITY CONTROL DATA**

Project: Eagle Valley April 2023 P1R4

Pace Project No.: 50343102

QC Batch:	730292	Analysis Method:	EPA 9056
QC Batch Method:	EPA 9056	Analysis Description:	9056 IC Anions
		Laboratory:	Pace Analytical Services - Indianapolis
Associated Lab Samples:	50343102001, 50343102002, 50343102003, 50343102004		

METHOD BLANK: 3351439 Matrix: Water  
 Associated Lab Samples: 50343102001, 50343102002, 50343102003, 50343102004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chloride	mg/L	ND	0.25	0.067	04/29/23 13:04	
Fluoride	mg/L	ND	0.10	0.017	04/29/23 13:04	
Sulfate	mg/L	ND	0.25	0.085	04/29/23 13:04	

LABORATORY CONTROL SAMPLE: 3351440

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	2.5	2.3	93	80-120	
Fluoride	mg/L	1	0.91	91	80-120	
Sulfate	mg/L	5	4.8	96	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3351442 3351443

Parameter	Units	MS		MSD		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		50342535001 Result	Spike Conc.	Spike Conc.	Result								
Chloride	mg/L		25	25	248	249	62	67	80-120	1	15	M0	
Fluoride	mg/L		1	1	3.1	3.2	85	89	80-120	1	15		
Sulfate	mg/L	496	50	50	551	549	110	106	80-120	0	15		

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**QUALITY CONTROL DATA**

Project: Eagle Valley April 2023 P1R4

Pace Project No.: 50343102

QC Batch:	730146	Analysis Method:	EPA 7470
QC Batch Method:	EPA 7470	Analysis Description:	7470 Mercury
		Laboratory:	Pace Analytical Services - Indianapolis

Associated Lab Samples: 50343102001, 50343102002, 50343102003, 50343102004

METHOD BLANK: 3350873 Matrix: Water  
 Associated Lab Samples: 50343102001, 50343102002, 50343102003, 50343102004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Mercury	ug/L	ND	0.20	0.091	04/27/23 19:40	

LABORATORY CONTROL SAMPLE: 3350874

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury	ug/L	5	5.2	105	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3350875 3350876

Parameter	Units	50343174005 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Mercury	ug/L	ND	5	5	5.5	5.4	110	108	75-125	2	20	

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**QUALITY CONTROL DATA**

Project: Eagle Valley April 2023 P1R4  
Pace Project No.: 50343102

QC Batch: 730108 Analysis Method: EPA 6010  
QC Batch Method: EPA 3010 Analysis Description: 6010 MET  
Laboratory: Pace Analytical Services - Indianapolis  
Associated Lab Samples: 50343102001, 50343102002, 50343102003, 50343102004

METHOD BLANK: 3350592 Matrix: Water  
Associated Lab Samples: 50343102001, 50343102002, 50343102003, 50343102004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Aluminum	ug/L	ND	200	55.4	04/28/23 16:08	
Boron	ug/L	ND	100	37.6	04/28/23 16:08	
Calcium	ug/L	ND	1000	163	04/28/23 16:08	
Iron	ug/L	ND	100	48.8	04/28/23 16:08	
Lithium	ug/L	ND	20.0	6.2	04/28/23 16:08	
Magnesium	ug/L	ND	1000	71.8	04/28/23 16:08	
Manganese	ug/L	ND	10.0	2.5	04/28/23 16:08	
Potassium	ug/L	ND	1000	281	04/28/23 16:08	
Silica	ug/L	ND	450		04/28/23 16:08	N2
Sodium	ug/L	ND	1000	214	04/28/23 16:08	

LABORATORY CONTROL SAMPLE: 3350593

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Aluminum	ug/L	10000	9300	93	80-120	
Boron	ug/L	1000	926	93	80-120	
Calcium	ug/L	10000	9500	95	80-120	
Iron	ug/L	10000	9740	97	80-120	
Lithium	ug/L	1000	970	97	80-120	
Magnesium	ug/L	10000	9540	95	80-120	
Manganese	ug/L	1000	930	93	80-120	
Potassium	ug/L	10000	9460	95	80-120	
Silica	ug/L	10700	10200	96	80-120	N2
Sodium	ug/L	10000	9270	93	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3350594 3350595

Parameter	Units	MS		MSD		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual	
		50341484022 Result	Spike Conc.	Spike Conc.	Result							Result
Aluminum	ug/L	1480	10000	10000	11000	11500	95	100	75-125	4	20	
Boron	ug/L	79.0J	1000	1000	1030	1070	95	99	75-125	4	20	
Calcium	ug/L	87900	10000	10000	94100	98900	61	110	75-125	5	20	P6
Iron	ug/L	2440	10000	10000	12000	12400	95	99	75-125	3	20	
Lithium	ug/L	7.2J	1000	1000	984	1020	98	101	75-125	4	20	
Magnesium	ug/L	38800	10000	10000	46800	49000	81	102	75-125	4	20	
Manganese	ug/L	342	1000	1000	1250	1310	91	96	75-125	4	20	
Potassium	ug/L	2480	10000	10000	12100	12500	96	100	75-125	3	20	

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**QUALITY CONTROL DATA**

Project: Eagle Valley April 2023 P1R4

Pace Project No.: 50343102

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3350594 3350595											
Parameter	Units	50341484022		MS	MSD	MS	MSD	MS	MSD	% Rec	Max
		Result	Conc.	Spike	Spike						
Silica	ug/L	17000	10700	10700	28200	28900	104	111	75-125	3	20 N2
Sodium	ug/L	3120	10000	10000	12400	12900	92	98	75-125	4	20

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**QUALITY CONTROL DATA**

Project: Eagle Valley April 2023 P1R4

Pace Project No.: 50343102

QC Batch: 730114 Analysis Method: EPA 6010  
 QC Batch Method: EPA 3010 Analysis Description: 6010 MET Dissolved  
 Laboratory: Pace Analytical Services - Indianapolis  
 Associated Lab Samples: 50343102001, 50343102002, 50343102003, 50343102004

METHOD BLANK: 3350625 Matrix: Water  
 Associated Lab Samples: 50343102001, 50343102002, 50343102003, 50343102004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Manganese, Dissolved	ug/L	ND	10.0	2.5	04/28/23 02:15	
Molybdenum, Dissolved	ug/L	ND	10.0	3.7	04/28/23 02:15	

LABORATORY CONTROL SAMPLE: 3350626

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Manganese, Dissolved	ug/L	1000	997	100	80-120	
Molybdenum, Dissolved	ug/L	1000	1040	104	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3350627 3350628

Parameter	Units	50343102001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Manganese, Dissolved	ug/L	ND	1000	1000	948	970	95	97	75-125	2	20	
Molybdenum, Dissolved	ug/L	15.1	1000	1000	1010	1040	100	103	75-125	3	20	

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**QUALITY CONTROL DATA**

Project: Eagle Valley April 2023 P1R4

Pace Project No.: 50343102

QC Batch:	729856	Analysis Method:	EPA 6020
QC Batch Method:	EPA 200.2	Analysis Description:	6020 MET
		Laboratory:	Pace Analytical Services - Indianapolis

Associated Lab Samples: 50343102001, 50343102002, 50343102003, 50343102004

METHOD BLANK: 3349559 Matrix: Water

Associated Lab Samples: 50343102001, 50343102002, 50343102003, 50343102004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Antimony	ug/L	ND	1.0	0.13	04/27/23 18:46	
Arsenic	ug/L	ND	1.0	0.10	04/27/23 18:46	
Barium	ug/L	ND	1.0	0.14	04/27/23 18:46	
Beryllium	ug/L	ND	0.20	0.026	04/27/23 18:46	
Cadmium	ug/L	ND	2.0	0.054	04/27/23 18:46	
Chromium	ug/L	ND	10.0	0.20	04/27/23 18:46	
Cobalt	ug/L	ND	1.0	0.082	04/27/23 18:46	
Lead	ug/L	ND	10.0	0.080	04/27/23 18:46	
Molybdenum	ug/L	ND	10.0	0.072	04/27/23 18:46	
Selenium	ug/L	ND	1.0	0.44	04/27/23 18:46	
Thallium	ug/L	ND	1.0	0.072	04/27/23 18:46	

LABORATORY CONTROL SAMPLE: 3349560

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Antimony	ug/L	40	43.5	109	80-120	
Arsenic	ug/L	40	38.8	97	80-120	
Barium	ug/L	40	39.9	100	80-120	
Beryllium	ug/L	40	40.6	101	80-120	
Cadmium	ug/L	40	40.1	100	80-120	
Chromium	ug/L	40	41.6	104	80-120	
Cobalt	ug/L	40	41.7	104	80-120	
Lead	ug/L	40	41.0	103	80-120	
Molybdenum	ug/L	40	41.5	104	80-120	
Selenium	ug/L	40	40.7	102	80-120	
Thallium	ug/L	40	41.9	105	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3349561 3349562

Parameter	Units	50342599001		3349561		3349562		% Rec	% Rec	% Rec Limits	RPD	Max RPD	Qual
		Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec						
Antimony	ug/L	ND	40	40	42.5	43.3	106	108	75-125	2	20		
Arsenic	ug/L	0.56J	40	40	40.0	40.7	99	100	75-125	2	20		
Barium	ug/L	11.5	40	40	50.2	51.9	97	101	75-125	3	20		
Beryllium	ug/L	ND	40	40	39.4	40.3	98	101	75-125	2	20		
Cadmium	ug/L	ND	40	40	37.9	38.7	95	97	75-125	2	20		
Chromium	ug/L	1.1J	40	40	40.5	41.9	98	102	75-125	3	20		

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### QUALITY CONTROL DATA

Project: Eagle Valley April 2023 P1R4

Pace Project No.: 50343102

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3349561 3349562											
Parameter	Units	50342599001		MS		MSD		MS		MSD	
		Result	MS Spike Conc.	MSD Spike Conc.	Result	MSD Result	% Rec	MSD % Rec	% Rec	MSD % Rec	Limits
Cobalt	ug/L	16.4	40	40	54.1	54.4	94	95	75-125	1	20
Lead	ug/L	0.97J	40	40	39.6	40.3	97	98	75-125	2	20
Molybdenum	ug/L	0.35J	40	40	41.0	41.8	102	104	75-125	2	20
Selenium	ug/L	ND	40	40	39.2	41.1	98	102	75-125	5	20
Thallium	ug/L	ND	40	40	41.8	42.3	104	106	75-125	1	20

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### REPORT OF LABORATORY ANALYSIS

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**QUALITY CONTROL DATA**

Project: Eagle Valley April 2023 P1R4

Pace Project No.: 50343102

QC Batch:	730117	Analysis Method:	SM 2320B
QC Batch Method:	SM 2320B	Analysis Description:	2320B Alkalinity
		Laboratory:	Pace Analytical Services - Indianapolis

Associated Lab Samples: 50343102001, 50343102002, 50343102003, 50343102004

METHOD BLANK: 3350679 Matrix: Water  
 Associated Lab Samples: 50343102001, 50343102002, 50343102003, 50343102004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Alkalinity, Total as CaCO3	mg/L	ND	10.0	10.0	04/26/23 21:35	
Alkalinity,Bicarbonate (CaCO3)	mg/L	ND	10.0	10.0	04/26/23 21:35	
Alkalinity,Carbonate (CaCO3)	mg/L	ND	10.0	10.0	04/26/23 21:35	

LABORATORY CONTROL SAMPLE: 3350680

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Alkalinity, Total as CaCO3	mg/L	50	48.2	96	90-110	

SAMPLE DUPLICATE: 3350681

Parameter	Units	50343102001 Result	Dup Result	RPD	Max RPD	Qualifiers
Alkalinity, Total as CaCO3	mg/L	325	330	1	20	
Alkalinity,Bicarbonate (CaCO3)	mg/L	325	330	1	20	
Alkalinity,Carbonate (CaCO3)	mg/L	ND	ND		20	

SAMPLE DUPLICATE: 3350682

Parameter	Units	50343152001 Result	Dup Result	RPD	Max RPD	Qualifiers
Alkalinity, Total as CaCO3	mg/L	180	183	2	20	
Alkalinity,Bicarbonate (CaCO3)	mg/L	180	183	2	20	
Alkalinity,Carbonate (CaCO3)	mg/L	ND	ND		20	

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### QUALITY CONTROL DATA

Project: Eagle Valley April 2023 P1R4

Pace Project No.: 50343102

QC Batch: 730416

Analysis Method: SM 2540C

QC Batch Method: SM 2540C

Analysis Description: 2540C Total Dissolved Solids

Laboratory: Pace Analytical Services - Indianapolis

Associated Lab Samples: 50343102001, 50343102002, 50343102003, 50343102004

METHOD BLANK: 3352256

Matrix: Water

Associated Lab Samples: 50343102001, 50343102002, 50343102003, 50343102004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	ND	10.0	10.0	04/28/23 08:43	

LABORATORY CONTROL SAMPLE: 3352257

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	300	274	91	80-120	

SAMPLE DUPLICATE: 3352258

Parameter	Units	50343069001 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	395	398	1	10	

SAMPLE DUPLICATE: 3352259

Parameter	Units	50343069002 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	438	442	1	10	

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### REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL DATA

Project: Eagle Valley April 2023 P1R4

Pace Project No.: 50343102

QC Batch: 730241

Analysis Method: SM 4500-H+B

QC Batch Method: SM 4500-H+B

Analysis Description: 4500H+B pH

Laboratory: Pace Analytical Services - Indianapolis

Associated Lab Samples: 50343102001, 50343102002, 50343102003, 50343102004

SAMPLE DUPLICATE: 3351206

Parameter	Units	50343152003 Result	Dup Result	RPD	Max RPD	Qualifiers
pH at 25 Degrees C	Std. Units	7.8	7.8	0	2	H3

SAMPLE DUPLICATE: 3351207

Parameter	Units	50343102001 Result	Dup Result	RPD	Max RPD	Qualifiers
pH at 25 Degrees C	Std. Units	7.9	7.9	0	2	H3

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**QUALITY CONTROL DATA**

Project: Eagle Valley April 2023 P1R4

Pace Project No.: 50343102

QC Batch:	730439	Analysis Method:	SM 4500-S2-D
QC Batch Method:	SM 4500-S2-D	Analysis Description:	4500S2D Sulfide Water
		Laboratory:	Pace Analytical Services - Indianapolis
Associated Lab Samples:	50343102001, 50343102002, 50343102003, 50343102004		

METHOD BLANK: 3352411 Matrix: Water  
 Associated Lab Samples: 50343102001, 50343102002, 50343102003, 50343102004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Sulfide	mg/L	ND	0.10	0.025	04/28/23 09:52	

LABORATORY CONTROL SAMPLE: 3352412

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Sulfide	mg/L	0.5	0.47	94	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3352413 3352414

Parameter	Units	50342983001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Sulfide	mg/L	ND	0.5	0.5	0.44	0.42	88	84	90-110	4	20	M3

MATRIX SPIKE SAMPLE: 3352415

Parameter	Units	50343327006 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Sulfide	mg/L	ND	0.5	0.41	79	90-110	M0

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**QUALITY CONTROL DATA**

Project: Eagle Valley April 2023 P1R4

Pace Project No.: 50343102

QC Batch:	729924	Analysis Method:	HACH 8146
QC Batch Method:	HACH 8146	Analysis Description:	Iron, Ferrous
		Laboratory:	Pace Analytical Services - Indianapolis
Associated Lab Samples:	50343102001, 50343102002, 50343102003, 50343102004		

METHOD BLANK: 3349904 Matrix: Water  
 Associated Lab Samples: 50343102001, 50343102002, 50343102003, 50343102004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Iron, Ferrous	mg/L	ND	0.20	0.035	04/26/23 10:15	H3,N2

LABORATORY CONTROL SAMPLE: 3349905

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Iron, Ferrous	mg/L	1	1.0	100	90-110	H3,N2

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3349906 3349907

Parameter	Units	50342799003 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Iron, Ferrous	mg/L	ND	1	1	1.1	1.2	108	109	90-110	1	20	H3,N2

MATRIX SPIKE SAMPLE: 3349908

Parameter	Units	50343102001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Iron, Ferrous	mg/L	ND	1	1.1	109	90-110	H3,N2

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**QUALITY CONTROL DATA**

Project: Eagle Valley April 2023 P1R4

Pace Project No.: 50343102

QC Batch:	729837	Analysis Method:	EPA 353.2
QC Batch Method:	EPA 353.2	Analysis Description:	353.2 Nitrate + Nitrite, Unpres.
		Laboratory:	Pace Analytical Services - Indianapolis

Associated Lab Samples: 50343102001, 50343102002, 50343102003, 50343102004

METHOD BLANK: 3349512 Matrix: Water  
 Associated Lab Samples: 50343102001, 50343102002, 50343102003, 50343102004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Nitrogen, Nitrate	mg/L	ND	0.10	0.011	04/25/23 22:11	
Nitrogen, Nitrite	mg/L	ND	0.10	0.0040	04/25/23 22:11	

LABORATORY CONTROL SAMPLE: 3349513

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Nitrogen, Nitrate	mg/L	1	0.94	94	90-110	
Nitrogen, Nitrite	mg/L	1	0.99	99	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3349514 3349515

Parameter	Units	50343102001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Nitrogen, Nitrate	mg/L	1.7	1	1	2.6	2.6	91	90	90-110	0	20	
Nitrogen, Nitrite	mg/L	ND	1	1	1.1	1.1	106	106	90-110	0	20	

MATRIX SPIKE SAMPLE: 3349516

Parameter	Units	50343102002 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Nitrogen, Nitrate	mg/L		1.5	1	2.4	96	90-110
Nitrogen, Nitrite	mg/L		ND	1	1.1	109	90-110

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**QUALITY CONTROL DATA**

Project: Eagle Valley April 2023 P1R4

Pace Project No.: 50343102

QC Batch: 730204

Analysis Method: EPA 365.1

QC Batch Method: EPA 365.1

Analysis Description: 365.1 Total Phosphorus

Laboratory: Pace Analytical Services - Indianapolis

Associated Lab Samples: 50343102001

METHOD BLANK: 3351054

Matrix: Water

Associated Lab Samples: 50343102001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Phosphate as P04	mg/L	ND	0.15	0.15	05/02/23 11:34	

LABORATORY CONTROL SAMPLE: 3351055

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Phosphate as P04	mg/L		1.5			

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3351056 3351057

Parameter	Units	50342392011 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Phosphate as P04	mg/L	2.2			3.9	3.8				1		

MATRIX SPIKE SAMPLE: 3351058

Parameter	Units	50342866001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Phosphate as P04	mg/L		ND	1.5			

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**QUALITY CONTROL DATA**

Project: Eagle Valley April 2023 P1R4

Pace Project No.: 50343102

QC Batch:	730205	Analysis Method:	EPA 365.1
QC Batch Method:	EPA 365.1	Analysis Description:	365.1 Total Phosphorus
		Laboratory:	Pace Analytical Services - Indianapolis
Associated Lab Samples:	50343102002, 50343102003, 50343102004		

METHOD BLANK: 3351060 Matrix: Water

Associated Lab Samples: 50343102002, 50343102003, 50343102004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Phosphate as P04	mg/L	ND	0.15	0.15	05/02/23 13:03	

LABORATORY CONTROL SAMPLE: 3351061

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Phosphate as P04	mg/L		1.6			

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3351062 3351063

Parameter	Units	3351062		3351063		% Rec Limits	% Rec	RPD	Max RPD	Qual
		MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result					
Phosphate as P04	mg/L	0.79		2.3	2.4			0		

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**QUALITY CONTROL DATA**

Project: Eagle Valley April 2023 P1R4

Pace Project No.: 50343102

QC Batch:	730863	Analysis Method:	SM 5310C
QC Batch Method:	SM 5310C	Analysis Description:	5310C Total Organic Carbon
		Laboratory:	Pace Analytical Services - Indianapolis
Associated Lab Samples:	50343102001, 50343102002, 50343102003, 50343102004		

METHOD BLANK: 3354364 Matrix: Water  
 Associated Lab Samples: 50343102001, 50343102002, 50343102003, 50343102004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Organic Carbon	mg/L	ND	1.0	0.24	05/01/23 23:05	

LABORATORY CONTROL SAMPLE: 3354365

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Organic Carbon	mg/L	10	9.8	98	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3354366 3354367

Parameter	Units	50342644009 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Total Organic Carbon	mg/L	2.3	10	10	12.5	12.4	102	101	80-120	0	20	

MATRIX SPIKE SAMPLE: 3354368

Parameter	Units	50342644010 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Total Organic Carbon	mg/L	2.1	10	12.4	103	80-120	

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**QUALITY CONTROL DATA**

Project: Eagle Valley April 2023 P1R4

Pace Project No.: 50343102

QC Batch:	730536	Analysis Method:	SM 5310C
QC Batch Method:	SM 5310C	Analysis Description:	5310C Dissolved Organic Carbon
		Laboratory:	Pace Analytical Services - Indianapolis
Associated Lab Samples:	50343102001, 50343102002, 50343102003, 50343102004		

METHOD BLANK: 3352857 Matrix: Water  
 Associated Lab Samples: 50343102001, 50343102002, 50343102003, 50343102004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Dissolved Organic Carbon	mg/L	ND	1.0	0.24	04/28/23 19:13	

LABORATORY CONTROL SAMPLE: 3352858

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Dissolved Organic Carbon	mg/L	10	10.6	106	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3352859 3352860

Parameter	Units	50342799003 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Dissolved Organic Carbon	mg/L	1.5	10	10	11.1	11.5	96	100	80-120	3	20	

MATRIX SPIKE SAMPLE: 3352861

Parameter	Units	50342799006 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Dissolved Organic Carbon	mg/L	1.7	10	11.5	97	80-120	

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**ANALYTICAL RESULTS - RADIOCHEMISTRY**

Project: Eagle Valley April 2023 P1R4

Pace Project No.: 50343102

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Radium-226	EPA 903.1	<b>0.000 ± 0.472 (0.955)</b> <b>C:NA T:94%</b>	pCi/L	05/16/23 14:31	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 904.0	<b>0.206 ± 0.398 (0.875)</b> <b>C:69% T:90%</b>	pCi/L	05/10/23 15:35	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	<b>0.206 ± 0.870 (1.83)</b>	pCi/L	05/18/23 12:42	7440-14-4	

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Eagle Valley April 2023 P1R4

Pace Project No.: 50343102

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
<b>Sample: MW-171</b> <b>Lab ID: 50343102002</b> Collected: 04/25/23 10:50      Received: 04/25/23 16:20      Matrix: Water PWS:      Site ID:      Sample Type:						
Pace Analytical Services - Greensburg						
Radium-226	EPA 903.1	<b>0.464 ± 0.434 (0.615)</b> <b>C:NA T:91%</b>	pCi/L	05/16/23 14:44	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 904.0	<b>0.626 ± 0.416 (0.789)</b> <b>C:75% T:81%</b>	pCi/L	05/10/23 15:35	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	<b>1.09 ± 0.850 (1.40)</b>	pCi/L	05/18/23 12:42	7440-14-4	

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**ANALYTICAL RESULTS - RADIOCHEMISTRY**

Project: Eagle Valley April 2023 P1R4

Pace Project No.: 50343102

**Sample: MW-17D**      **Lab ID: 50343102003**      Collected: 04/25/23 11:30      Received: 04/25/23 16:20      Matrix: Water  
 PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Radium-226	EPA 903.1	<b>0.422 ± 0.569 (0.957)</b> <b>C:NA T:87%</b>	pCi/L	05/16/23 14:44	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 904.0	<b>0.760 ± 0.594 (1.17)</b> <b>C:72% T:78%</b>	pCi/L	05/10/23 18:18	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	<b>1.18 ± 1.16 (2.13)</b>	pCi/L	05/18/23 12:42	7440-14-4	

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Eagle Valley April 2023 P1R4

Pace Project No.: 50343102

**Sample: MW-18S**      **Lab ID: 50343102004**      Collected: 04/25/23 12:20      Received: 04/25/23 16:20      Matrix: Water  
 PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Radium-226	EPA 903.1	<b>0.289 ± 0.409 (0.693)</b> <b>C:NA T:92%</b>	pCi/L	05/16/23 14:44	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 904.0	<b>0.230 ± 0.500 (1.11)</b> <b>C:72% T:82%</b>	pCi/L	05/10/23 18:18	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	<b>0.519 ± 0.909 (1.80)</b>	pCi/L	05/18/23 12:42	7440-14-4	

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### QUALITY CONTROL - RADIOCHEMISTRY

Project: Eagle Valley April 2023 P1R4

Pace Project No.: 50343102

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QC Batch:	585057	Analysis Method:	EPA 903.1
QC Batch Method:	EPA 903.1	Analysis Description:	903.1 Radium-226
		Laboratory:	Pace Analytical Services - Greensburg

Associated Lab Samples: 50343102001, 50343102002, 50343102003, 50343102004

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METHOD BLANK: 2841341 Matrix: Water

Associated Lab Samples: 50343102001, 50343102002, 50343102003, 50343102004

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Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.0927 ± 0.223 (0.430) C:NA T:90%	pCi/L	05/16/23 14:16	

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### QUALITY CONTROL - RADIOCHEMISTRY

Project: Eagle Valley April 2023 P1R4

Pace Project No.: 50343102

QC Batch: 585067

Analysis Method: EPA 904.0

QC Batch Method: EPA 904.0

Analysis Description: 904.0 Radium 228

Laboratory: Pace Analytical Services - Greensburg

Associated Lab Samples: 50343102001, 50343102002, 50343102003, 50343102004

METHOD BLANK: 2841383

Matrix: Water

Associated Lab Samples: 50343102001, 50343102002, 50343102003, 50343102004

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.410 ± 0.355 (0.711) C:78% T:80%	pCi/L	05/10/23 15:35	

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## QUALIFIERS

Project: Eagle Valley April 2023 P1R4

Pace Project No.: 50343102

### DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Reported results are not rounded until the final step prior to reporting. Therefore, calculated parameters that are typically reported as "Total" may vary slightly from the sum of the reported component parameters.

Act - Activity

Unc - Uncertainty: SDWA = 1.96 sigma count uncertainty, all other matrices = Expanded Uncertainty (95% confidence interval).

Gamma Spec = Expanded Uncertainty (95.4% Confidence Interval)

(MDC) - Minimum Detectable Concentration

Trac - Tracer Recovery (%)

Carr - Carrier Recovery (%)

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

### ANALYTE QUALIFIERS

H3 Sample was received or analysis requested beyond the recognized method holding time.

M0 Matrix spike recovery and/or matrix spike duplicate recovery was outside laboratory control limits.

M3 Matrix spike recovery was outside laboratory control limits due to matrix interferences.

N2 The lab does not hold NELAC/TNI accreditation for this parameter but other accreditations/certifications may apply. A complete list of accreditations/certifications is available upon request.

P6 Matrix spike recovery was outside laboratory control limits due to a parent sample concentration notably higher than the spike level.

## REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Eagle Valley April 2023 P1R4

Pace Project No.: 50343102

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
50343102001	MW-17S	EPA 9056	730292		
50343102002	MW-17I	EPA 9056	730292		
50343102003	MW-17D	EPA 9056	730292		
50343102004	MW-18S	EPA 9056	730292		
50343102001	MW-17S	EPA 3010	730108	EPA 6010	730582
50343102002	MW-17I	EPA 3010	730108	EPA 6010	730582
50343102003	MW-17D	EPA 3010	730108	EPA 6010	730582
50343102004	MW-18S	EPA 3010	730108	EPA 6010	730582
50343102001	MW-17S	EPA 3010	730114	EPA 6010	730398
50343102002	MW-17I	EPA 3010	730114	EPA 6010	730398
50343102003	MW-17D	EPA 3010	730114	EPA 6010	730398
50343102004	MW-18S	EPA 3010	730114	EPA 6010	730398
50343102001	MW-17S	EPA 200.2	729856	EPA 6020	730058
50343102002	MW-17I	EPA 200.2	729856	EPA 6020	730058
50343102003	MW-17D	EPA 200.2	729856	EPA 6020	730058
50343102004	MW-18S	EPA 200.2	729856	EPA 6020	730058
50343102001	MW-17S	EPA 7470	730146	EPA 7470	730343
50343102002	MW-17I	EPA 7470	730146	EPA 7470	730343
50343102003	MW-17D	EPA 7470	730146	EPA 7470	730343
50343102004	MW-18S	EPA 7470	730146	EPA 7470	730343
50343102001	MW-17S	EPA 903.1	585057		
50343102002	MW-17I	EPA 903.1	585057		
50343102003	MW-17D	EPA 903.1	585057		
50343102004	MW-18S	EPA 903.1	585057		
50343102001	MW-17S	EPA 904.0	585067		
50343102002	MW-17I	EPA 904.0	585067		
50343102003	MW-17D	EPA 904.0	585067		
50343102004	MW-18S	EPA 904.0	585067		
50343102001	MW-17S	Total Radium Calculation	589110		
50343102002	MW-17I	Total Radium Calculation	589110		
50343102003	MW-17D	Total Radium Calculation	589110		
50343102004	MW-18S	Total Radium Calculation	589110		
50343102001	MW-17S	SM 2320B	730117		
50343102002	MW-17I	SM 2320B	730117		
50343102003	MW-17D	SM 2320B	730117		
50343102004	MW-18S	SM 2320B	730117		
50343102001	MW-17S	SM 2540C	730416		
50343102002	MW-17I	SM 2540C	730416		
50343102003	MW-17D	SM 2540C	730416		
50343102004	MW-18S	SM 2540C	730416		
50343102001	MW-17S	SM 4500-H+B	730241		
50343102002	MW-17I	SM 4500-H+B	730241		
50343102003	MW-17D	SM 4500-H+B	730241		
50343102004	MW-18S	SM 4500-H+B	730241		

REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Eagle Valley April 2023 P1R4

Pace Project No.: 50343102

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
50343102001	MW-17S	SM 4500-S2-D	730439		
50343102002	MW-17I	SM 4500-S2-D	730439		
50343102003	MW-17D	SM 4500-S2-D	730439		
50343102004	MW-18S	SM 4500-S2-D	730439		
50343102001	MW-17S	HACH 8146	729924		
50343102002	MW-17I	HACH 8146	729924		
50343102003	MW-17D	HACH 8146	729924		
50343102004	MW-18S	HACH 8146	729924		
50343102001	MW-17S	EPA 353.2	729837		
50343102002	MW-17I	EPA 353.2	729837		
50343102003	MW-17D	EPA 353.2	729837		
50343102004	MW-18S	EPA 353.2	729837		
50343102001	MW-17S	EPA 365.1	730204	EPA 365.1	731059
50343102002	MW-17I	EPA 365.1	730205	EPA 365.1	731110
50343102003	MW-17D	EPA 365.1	730205	EPA 365.1	731110
50343102004	MW-18S	EPA 365.1	730205	EPA 365.1	731110
50343102001	MW-17S	SM 5310C	730863		
50343102002	MW-17I	SM 5310C	730863		
50343102003	MW-17D	SM 5310C	730863		
50343102004	MW-18S	SM 5310C	730863		
50343102001	MW-17S	SM 5310C	730536		
50343102002	MW-17I	SM 5310C	730536		
50343102003	MW-17D	SM 5310C	730536		
50343102004	MW-18S	SM 5310C	730536		

### REPORT OF LABORATORY ANALYSIS

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**SAMPLE CONDITION UPON RECEIPT FORM**

Date/Time and Initials of person examining contents: 4/25/23 17:34 TH

1. Courier:  FED EX  UPS  CLIENT  PACE  USPS  OTHER \_\_\_\_\_

2. Custody Seal on Cooler/Box Present:  Yes  No  
 (If yes) Seals Intact:  Yes  No (leave blank if no seals were present)

3. Thermometer: **1 2 3 4 5 6 A B C D E F**

4. Cooler Temperature(s): 1.1/1.1 1.9/1.9    
 (Initial/Corrected) RECORD TEMPS OF ALL COOLERS RECEIVED (use Comments below to add more)

5. Packing Material:  Bubble Wrap  Bubble Bags  
 None  Other Ziploc

6. Ice Type:  Wet  Blue  None

7. If temp. is over 6°C or under 0°C, was the PM notified?:  Yes  No  
 Cooler temp should be above freezing to 6°C

All discrepancies will be written out in the comments section below.

	Yes	No		Yes	No	N/A
USDA Regulated Soils? (HI, ID, NY, WA, OR, CA, NM, TX, OK, AR, LA, TN, AL, MS, NC, SC, GA, FL, or Puerto Rico)		<input checked="" type="checkbox"/>	All containers needing acid/base preservation have been pH CHECKED?: Exceptions: VOA, coliform, LLHg, O&G, RAD CHEM, and any container with a septum cap or preserved with HCl.	<input checked="" type="checkbox"/>		
Short Hold Time Analysis (48 hours or less)? Analysis: <u>NO2/NO3</u>	<input checked="" type="checkbox"/>		Circle: <u>HNO3 (&lt;2)</u> <u>H2SO4 (&lt;2)</u> NaOH (>10) <u>NaOH/ZnAc (&gt;9)</u> Any non-conformance to pH recommendations will be noted on the container count form			
Time 5035A TC placed in Freezer or Short Holds To Lab Time: <u>1855</u> <u>to cooler</u>			Residual Chlorine Check (SVOC 625 Pest/PCB 608)	<u>Present</u>	<u>Absent</u>	<u>N/A</u>
Rush TAT Requested (4 days or less):	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Residual Chlorine Check (Total/Amenable/Free Cyanide)		<input checked="" type="checkbox"/>	
Custody Signatures Present?	<input checked="" type="checkbox"/>		Headspace Wisconsin Sulfide?			<input checked="" type="checkbox"/>
Containers Intact?:	<input checked="" type="checkbox"/>		Headspace in VOA Vials (>6mm): See Container Count form for details	<u>Present</u>	<u>Absent</u>	<u>No VOA Vials Sent</u>
Sample Label (IDs/Dates/Times) Match COC?: Except TCs, which only require sample ID	<input checked="" type="checkbox"/>		Trip Blank Present?			<input checked="" type="checkbox"/>
Extra labels on Terracore Vials? (soils only)			Trip Blank Custody Seals?:			<input checked="" type="checkbox"/>

COMMENTS:

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July 18, 2023

Mr. Mark Breting  
ATC Group Services  
7988 Centerpoint Drive  
Suite 100  
Indianapolis, IN 46256

RE: Project: Eagle Valley April 2023 P1R1  
Pace Project No.: 50343152

Dear Mr. Breting:

Enclosed are the analytical results for sample(s) received by the laboratory on April 26, 2023. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

The test results provided in this final report were generated by each of the following laboratories within the Pace Network:

- Pace Analytical Services - Indianapolis
- Pace Analytical Services - Greensburg

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Will Statz  
will.statz@pacelabs.com  
(317)228-3105  
Project Manager

Enclosures

cc: Mohammed Bazlamit, Atlas  
Mr. Robert Miller, Haley & Aldrich



## REPORT OF LABORATORY ANALYSIS

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### CERTIFICATIONS

Project: Eagle Valley April 2023 P1R1  
Pace Project No.: 50343152

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#### Pace Analytical Services Pennsylvania

1638 Roseytown Rd Suites 2,3&4, Greensburg, PA 15601  
ANAB DOD-ELAP Rad Accreditation #: L2417  
ANABISO/IEC 17025:2017 Rad Cert#: L24170  
Alabama Certification #: 41590  
Arizona Certification #: AZ0734  
Arkansas Certification  
California Certification #: 2950  
Colorado Certification #: PA01547  
Connecticut Certification #: PH-0694  
EPA Region 4 DW Rad  
Florida/TNI Certification #: E87683  
Georgia Certification #: C040  
Guam Certification  
Hawaii Certification  
Idaho Certification  
Illinois Certification  
Indiana Certification  
Iowa Certification #: 391  
Kansas Certification #: E-10358  
Kentucky Certification #: KY90133  
KY WW Permit #: KY0098221  
KY WW Permit #: KY0000221  
Louisiana DHH/TNI Certification #: LA010  
Louisiana DEQ/TNI Certification #: 04086  
Maine Certification #: 2023021  
Maryland Certification #: 308  
Massachusetts Certification #: M-PA1457  
Michigan/PADEP Certification #: 9991

Missouri Certification #: 235  
Montana Certification #: Cert0082  
Nebraska Certification #: NE-OS-29-14  
Nevada Certification #: PA014572023-03  
New Hampshire/TNI Certification #: 297622  
New Jersey/TNI Certification #: PA051  
New Mexico Certification #: PA01457  
New York/TNI Certification #: 10888  
North Carolina Certification #: 42706  
North Dakota Certification #: R-190  
Ohio EPA Rad Approval: #41249  
Oregon/TNI Certification #: PA200002-015  
Pennsylvania/TNI Certification #: 65-00282  
Puerto Rico Certification #: PA01457  
Rhode Island Certification #: 65-00282  
South Dakota Certification  
Tennessee Certification #: TN02867  
Texas/TNI Certification #: T104704188-22-18  
Utah/TNI Certification #: PA014572223-14  
USDA Soil Permit #: 525-23-67-77263  
Vermont Dept. of Health: ID# VT-0282  
Virgin Island/PADEP Certification  
Virginia/VELAP Certification #: 460198  
Washington Certification #: C868  
West Virginia DEP Certification #: 143  
West Virginia DHHR Certification #: 9964C  
Wisconsin Approve List for Rad

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#### Pace Analytical Services Indianapolis

7726 Moller Road, Indianapolis, IN 46268  
Illinois Accreditation #: 200074  
Indiana Drinking Water Laboratory #: C-49-06  
Kansas/TNI Certification #: E-10177  
Kentucky UST Agency Interest #: 80226  
Kentucky WW Laboratory ID #: 98019  
Michigan Drinking Water Laboratory #9050

Ohio VAP Certified Laboratory #: CL0065  
Oklahoma Laboratory #: 9204  
Texas Certification #: T104704355  
Wisconsin Laboratory #: 999788130  
USDA Foreign Soil Permit #: 525-23-13-23119  
USDA Compliance Agreement #: IN-SL-22-001

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### REPORT OF LABORATORY ANALYSIS

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### SAMPLE SUMMARY

Project: Eagle Valley April 2023 P1R1

Pace Project No.: 50343152

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Lab ID	Sample ID	Matrix	Date Collected	Date Received
50343152001	MW-4S	Water	04/25/23 11:00	04/26/23 08:45
50343152002	MW-4D	Water	04/25/23 12:55	04/26/23 08:45
50343152003	DUP-3	Water	04/25/23 08:00	04/26/23 08:45

### REPORT OF LABORATORY ANALYSIS

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### SAMPLE ANALYTE COUNT

Project: Eagle Valley April 2023 P1R1

Pace Project No.: 50343152

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory		
50343152001	MW-4S	EPA 9056	RMR	3	PASI-I		
		EPA 6010	MTM	10	PASI-I		
		EPA 6010	JPK	2	PASI-I		
		EPA 6020	CAW	11	PASI-I		
		EPA 7470	EAE	1	PASI-I		
		EPA 903.1	CLM	1	PASI-PA		
		EPA 904.0	VAL	1	PASI-PA		
		Total Radium Calculation	LAL	1	PASI-PA		
		SM 2320B	DAW	3	PASI-I		
		SM 2540C	AEL	1	PASI-I		
		SM 4500-H+B	BMS	1	PASI-I		
		SM 4500-S2-D	BEP	1	PASI-I		
		HACH 8146	BEP	1	PASI-I		
		EPA 353.2	ZM	2	PASI-I		
		EPA 365.1	YAM	1	PASI-I		
		SM 5310C	ATS	1	PASI-I		
		SM 5310C	ATS	1	PASI-I		
		50343152002	MW-4D	EPA 9056	RMR	3	PASI-I
				EPA 6010	MTM	10	PASI-I
				EPA 6010	JPK	2	PASI-I
EPA 6020	CAW			11	PASI-I		
EPA 7470	EAE			1	PASI-I		
EPA 903.1	CLM			1	PASI-PA		
EPA 904.0	VAL			1	PASI-PA		
Total Radium Calculation	LAL			1	PASI-PA		
SM 2320B	DAW			3	PASI-I		
SM 2540C	AEL			1	PASI-I		
SM 4500-H+B	BMS			1	PASI-I		
SM 4500-S2-D	BEP			1	PASI-I		
HACH 8146	BEP			1	PASI-I		
EPA 353.2	ZM			2	PASI-I		
EPA 365.1	YAM			1	PASI-I		
SM 5310C	ATS			1	PASI-I		
SM 5310C	ATS			1	PASI-I		
50343152003	DUP-3			EPA 9056	RMR	3	PASI-I
				EPA 6010	MTM	10	PASI-I
				EPA 6010	JPK	2	PASI-I

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### SAMPLE ANALYTE COUNT

Project: Eagle Valley April 2023 P1R1

Pace Project No.: 50343152

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
		EPA 6020	CAW	11	PASI-I
		EPA 7470	EAE	1	PASI-I
		EPA 903.1	CLM	1	PASI-PA
		EPA 904.0	VAL	1	PASI-PA
		Total Radium Calculation	LAL	1	PASI-PA
		SM 2320B	DAW	3	PASI-I
		SM 2540C	AEL	1	PASI-I
		SM 4500-H+B	BMS	1	PASI-I
		SM 4500-S2-D	BEP	1	PASI-I
		HACH 8146	BEP	1	PASI-I
		EPA 353.2	ZM	2	PASI-I
		EPA 365.1	YAM	1	PASI-I
		SM 5310C	ATS	1	PASI-I
		SM 5310C	ATS	1	PASI-I

PASI-I = Pace Analytical Services - Indianapolis

PASI-PA = Pace Analytical Services - Greensburg

### REPORT OF LABORATORY ANALYSIS

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**SUMMARY OF DETECTION**

Project: Eagle Valley April 2023 P1R1

Pace Project No.: 50343152

Lab Sample ID	Client Sample ID	Result	Units	Report Limit	Analyzed	Qualifiers
Method	Parameters					
<b>50343152001</b>	<b>MW-4S</b>					
EPA 9056	Chloride	122	mg/L	2.5	04/29/23 13:35	
EPA 9056	Fluoride	0.21	mg/L	0.10	04/29/23 13:15	
EPA 9056	Sulfate	236	mg/L	2.5	04/29/23 13:35	
EPA 6010	Boron	618	ug/L	100	04/28/23 16:37	
EPA 6010	Calcium	114000	ug/L	1000	04/28/23 16:37	
EPA 6010	Magnesium	30000	ug/L	1000	04/28/23 16:37	
EPA 6010	Potassium	5490	ug/L	1000	04/28/23 16:37	
EPA 6010	Silica	10900	ug/L	450	04/28/23 16:37	N2
EPA 6010	Sodium	73600	ug/L	1000	04/28/23 16:37	
EPA 6010	Molybdenum, Dissolved	34.2	ug/L	10.0	04/28/23 02:40	
EPA 6020	Arsenic	3.0	ug/L	1.0	04/28/23 01:55	
EPA 6020	Barium	82.4	ug/L	1.0	04/28/23 01:55	
EPA 6020	Molybdenum	32.7	ug/L	10.0	04/28/23 01:55	
EPA 6020	Selenium	2.1	ug/L	1.0	04/28/23 01:55	
EPA 903.1	Radium-226	0.170 ± 0.370 (0.682)	pCi/L		05/16/23 14:31	
EPA 904.0	Radium-228	C:NA T:89% 0.150 ± 0.402 (0.898)	pCi/L		05/10/23 15:34	
		C:76% T:80%				
Total Radium Calculation	Total Radium	0.320 ± 0.772 (1.58)	pCi/L		05/18/23 12:42	
SM 2320B	Alkalinity, Total as CaCO3	180	mg/L	10.0	04/26/23 21:35	
SM 2320B	Alkalinity, Bicarbonate (CaCO3)	180	mg/L	10.0	04/26/23 21:35	
SM 2540C	Total Dissolved Solids	658	mg/L	10.0	04/29/23 08:20	
SM 4500-H+B	pH at 25 Degrees C	7.8	Std. Units	0.10	04/27/23 13:29	H3
EPA 353.2	Nitrogen, Nitrate	1.2	mg/L	0.10	04/26/23 21:14	
EPA 365.1	Phosphate as P04	0.79	mg/L	0.15	05/02/23 13:08	
SM 5310C	Total Organic Carbon	2.0	mg/L	1.0	04/29/23 01:42	
SM 5310C	Dissolved Organic Carbon	2.0	mg/L	1.0	04/28/23 23:31	
<b>50343152002</b>	<b>MW-4D</b>					
EPA 9056	Chloride	108	mg/L	2.5	04/29/23 14:34	
EPA 9056	Fluoride	0.30	mg/L	0.10	04/29/23 14:14	
EPA 9056	Sulfate	80.7	mg/L	2.5	04/29/23 14:34	
EPA 6010	Boron	132	ug/L	100	04/28/23 16:39	
EPA 6010	Calcium	83900	ug/L	1000	04/28/23 16:39	
EPA 6010	Iron	1100	ug/L	100	04/28/23 16:39	
EPA 6010	Magnesium	25700	ug/L	1000	04/28/23 16:39	
EPA 6010	Manganese	206	ug/L	10.0	04/28/23 16:39	
EPA 6010	Potassium	3750	ug/L	1000	04/28/23 16:39	
EPA 6010	Silica	11700	ug/L	450	04/28/23 16:39	N2
EPA 6010	Sodium	67600	ug/L	1000	04/28/23 16:39	
EPA 6010	Manganese, Dissolved	199	ug/L	10.0	04/28/23 02:42	
EPA 6010	Molybdenum, Dissolved	12.1	ug/L	10.0	04/28/23 02:42	
EPA 6020	Arsenic	4.8	ug/L	1.0	04/28/23 02:18	

**REPORT OF LABORATORY ANALYSIS**

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### SUMMARY OF DETECTION

Project: Eagle Valley April 2023 P1R1

Pace Project No.: 50343152

Lab Sample ID	Client Sample ID	Result	Units	Report Limit	Analyzed	Qualifiers
Method	Parameters					
<b>50343152002</b>	<b>MW-4D</b>					
EPA 6020	Barium	66.4	ug/L	1.0	04/28/23 02:18	
EPA 6020	Molybdenum	11.9	ug/L	10.0	04/28/23 02:18	
EPA 903.1	Radium-226	0.566 ± 0.475 (0.679)	pCi/L		05/16/23 14:31	
EPA 904.0	Radium-228	C:NA T:93% 0.519 ± 0.464 (0.947)	pCi/L		05/10/23 15:35	
Total Radium Calculation	Total Radium	C:73% T:85% 1.09 ± 0.939 (1.63)	pCi/L		05/18/23 12:42	
SM 2320B	Alkalinity, Total as CaCO3	233	mg/L	10.0	04/26/23 21:35	
SM 2320B	Alkalinity,Bicarbonate (CaCO3)	233	mg/L	10.0	04/26/23 21:35	
SM 2540C	Total Dissolved Solids	476	mg/L	10.0	04/29/23 08:20	
SM 4500-H+B	pH at 25 Degrees C	7.7	Std. Units	0.10	04/27/23 13:32	H3
SM 5310C	Total Organic Carbon	1.5	mg/L	1.0	04/29/23 02:24	
SM 5310C	Dissolved Organic Carbon	1.7	mg/L	1.0	04/28/23 23:42	
<b>50343152003</b>	<b>DUP-3</b>					
EPA 9056	Chloride	119	mg/L	2.5	04/29/23 15:52	
EPA 9056	Fluoride	0.21	mg/L	0.10	04/29/23 15:32	
EPA 9056	Sulfate	239	mg/L	2.5	04/29/23 15:52	
EPA 6010	Boron	622	ug/L	100	04/28/23 16:41	
EPA 6010	Calcium	115000	ug/L	1000	04/28/23 16:41	
EPA 6010	Lithium	21.2	ug/L	20.0	04/28/23 16:41	
EPA 6010	Magnesium	30200	ug/L	1000	04/28/23 16:41	
EPA 6010	Potassium	5420	ug/L	1000	04/28/23 16:41	
EPA 6010	Silica	11000	ug/L	450	04/28/23 16:41	N2
EPA 6010	Sodium	73100	ug/L	1000	04/28/23 16:41	
EPA 6010	Molybdenum, Dissolved	33.6	ug/L	10.0	04/28/23 02:44	
EPA 6020	Arsenic	2.9	ug/L	1.0	04/28/23 02:22	
EPA 6020	Barium	83.6	ug/L	1.0	04/28/23 02:22	
EPA 6020	Molybdenum	33.6	ug/L	10.0	04/28/23 02:22	
EPA 6020	Selenium	2.1	ug/L	1.0	04/28/23 02:22	
EPA 903.1	Radium-226	-0.0612 ± 0.398 (0.862)	pCi/L		05/16/23 14:31	
EPA 904.0	Radium-228	C:NA T:101% 0.860 ± 0.436 (0.764)	pCi/L		05/10/23 15:35	
Total Radium Calculation	Total Radium	C:76% T:89% 0.860 ± 0.834 (1.63)	pCi/L		05/18/23 12:42	
SM 2320B	Alkalinity, Total as CaCO3	180	mg/L	10.0	04/26/23 21:35	
SM 2320B	Alkalinity,Bicarbonate (CaCO3)	180	mg/L	10.0	04/26/23 21:35	

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### SUMMARY OF DETECTION

Project: Eagle Valley April 2023 P1R1

Pace Project No.: 50343152

Lab Sample ID Method	Client Sample ID Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
<b>50343152003</b>	<b>DUP-3</b>					
SM 2540C	Total Dissolved Solids	681	mg/L	10.0	04/29/23 08:20	
SM 4500-H+B	pH at 25 Degrees C	7.8	Std. Units	0.10	04/27/23 13:24	H3
EPA 353.2	Nitrogen, Nitrate	1.3	mg/L	0.10	04/26/23 21:05	
EPA 365.1	Phosphate as P04	0.94	mg/L	0.15	05/02/23 13:11	
SM 5310C	Total Organic Carbon	2.0	mg/L	1.0	04/29/23 02:47	
SM 5310C	Dissolved Organic Carbon	2.0	mg/L	1.0	04/28/23 23:54	

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## ANALYTICAL RESULTS

Project: Eagle Valley April 2023 P1R1

Pace Project No.: 50343152

Sample: MW-4S		Lab ID: 50343152001		Collected: 04/25/23 11:00		Received: 04/26/23 08:45		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>9056 IC Anions</b>		Analytical Method: EPA 9056 Pace Analytical Services - Indianapolis							
Chloride	122	mg/L	2.5	0.67	10		04/29/23 13:35	16887-00-6	
Fluoride	0.21	mg/L	0.10	0.017	1		04/29/23 13:15	16984-48-8	
Sulfate	236	mg/L	2.5	0.85	10		04/29/23 13:35	14808-79-8	
<b>6010 MET ICP</b>		Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis							
Aluminum	ND	ug/L	200	55.4	1	04/27/23 15:44	04/28/23 16:37	7429-90-5	
Boron	618	ug/L	100	37.6	1	04/27/23 15:44	04/28/23 16:37	7440-42-8	
Calcium	114000	ug/L	1000	163	1	04/27/23 15:44	04/28/23 16:37	7440-70-2	
Iron	ND	ug/L	100	48.8	1	04/27/23 15:44	04/28/23 16:37	7439-89-6	
Lithium	ND	ug/L	20.0	6.2	1	04/27/23 15:44	04/28/23 16:37	7439-93-2	
Magnesium	30000	ug/L	1000	71.8	1	04/27/23 15:44	04/28/23 16:37	7439-95-4	
Manganese	ND	ug/L	10.0	2.5	1	04/27/23 15:44	04/28/23 16:37	7439-96-5	
Potassium	5490	ug/L	1000	281	1	04/27/23 15:44	04/28/23 16:37	7440-09-7	
Silica	10900	ug/L	450		1	04/27/23 15:44	04/28/23 16:37	7631-86-9	N2
Sodium	73600	ug/L	1000	214	1	04/27/23 15:44	04/28/23 16:37	7440-23-5	
<b>6010 MET ICP, Dissolved</b>		Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis							
Manganese, Dissolved	ND	ug/L	10.0	2.5	1	04/27/23 16:16	04/28/23 02:40	7439-96-5	
Molybdenum, Dissolved	34.2	ug/L	10.0	3.7	1	04/27/23 16:16	04/28/23 02:40	7439-98-7	
<b>6020 MET ICPMS</b>		Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis							
Antimony	ND	ug/L	1.0	0.036	1	04/27/23 07:05	04/28/23 01:55	7440-36-0	
Arsenic	3.0	ug/L	1.0	0.053	1	04/27/23 07:05	04/28/23 01:55	7440-38-2	
Barium	82.4	ug/L	1.0	0.051	1	04/27/23 07:05	04/28/23 01:55	7440-39-3	
Beryllium	ND	ug/L	0.20	0.028	1	04/27/23 07:05	04/28/23 01:55	7440-41-7	
Cadmium	ND	ug/L	2.0	0.0090	1	04/27/23 07:05	04/28/23 01:55	7440-43-9	
Chromium	ND	ug/L	10.0	0.13	1	04/27/23 07:05	04/28/23 01:55	7440-47-3	
Cobalt	ND	ug/L	1.0	0.032	1	04/27/23 07:05	04/28/23 01:55	7440-48-4	
Lead	ND	ug/L	10.0	0.034	1	04/27/23 07:05	04/28/23 01:55	7439-92-1	
Molybdenum	32.7	ug/L	10.0	0.048	1	04/27/23 07:05	04/28/23 01:55	7439-98-7	
Selenium	2.1	ug/L	1.0	0.23	1	04/27/23 07:05	04/28/23 01:55	7782-49-2	
Thallium	ND	ug/L	1.0	0.033	1	04/27/23 07:05	04/28/23 01:55	7440-28-0	
<b>7470 Mercury</b>		Analytical Method: EPA 7470 Preparation Method: EPA 7470 Pace Analytical Services - Indianapolis							
Mercury	ND	ug/L	0.20	0.091	1	04/27/23 10:07	04/27/23 19:54	7439-97-6	
<b>2320B Alkalinity</b>		Analytical Method: SM 2320B Pace Analytical Services - Indianapolis							
Alkalinity, Total as CaCO3	180	mg/L	10.0	10.0	1		04/26/23 21:35		
Alkalinity, Bicarbonate (CaCO3)	180	mg/L	10.0	10.0	1		04/26/23 21:35		

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### ANALYTICAL RESULTS

Project: Eagle Valley April 2023 P1R1  
 Pace Project No.: 50343152

Sample: MW-4S		Lab ID: 50343152001		Collected: 04/25/23 11:00	Received: 04/26/23 08:45	Matrix: Water			
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>2320B Alkalinity</b>		Analytical Method: SM 2320B Pace Analytical Services - Indianapolis							
Alkalinity, Carbonate (CaCO3)	ND	mg/L	10.0	10.0	1		04/26/23 21:35		
<b>2540C Total Dissolved Solids</b>		Analytical Method: SM 2540C Pace Analytical Services - Indianapolis							
Total Dissolved Solids	658	mg/L	10.0	10.0	1		04/29/23 08:20		
<b>4500H+ pH, Electrometric</b>		Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis							
pH at 25 Degrees C	7.8	Std. Units	0.10	0.10	1		04/27/23 13:29		H3
<b>4500S2D Sulfide Water</b>		Analytical Method: SM 4500-S2-D Pace Analytical Services - Indianapolis							
Sulfide	ND	mg/L	0.10	0.025	1		04/28/23 09:52	18496-25-8	
<b>Iron, Ferrous</b>		Analytical Method: HACH 8146 Pace Analytical Services - Indianapolis							
Iron, Ferrous	ND	mg/L	0.20	0.035	1		05/02/23 10:09	15438-31-0	H3,N2
<b>353.2 Nitrogen, NO2/NO3 unpres</b>		Analytical Method: EPA 353.2 Pace Analytical Services - Indianapolis							
Nitrogen, Nitrate	1.2	mg/L	0.10	0.011	1		04/26/23 21:14	14797-55-8	
Nitrogen, Nitrite	ND	mg/L	0.10	0.0040	1		04/26/23 21:14	14797-65-0	
<b>365.1 Total Phosphorus</b>		Analytical Method: EPA 365.1 Preparation Method: EPA 365.1 Pace Analytical Services - Indianapolis							
Phosphate as P04	0.79	mg/L	0.15	0.15	1	04/27/23 11:22	05/02/23 13:08		
<b>5310C TOC</b>		Analytical Method: SM 5310C Pace Analytical Services - Indianapolis							
Total Organic Carbon	2.0	mg/L	1.0	0.24	1		04/29/23 01:42	7440-44-0	
<b>5310C Dissolved Organic Carbon</b>		Analytical Method: SM 5310C Pace Analytical Services - Indianapolis							
Dissolved Organic Carbon	2.0	mg/L	1.0	0.24	1		04/28/23 23:31		

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## ANALYTICAL RESULTS

Project: Eagle Valley April 2023 P1R1

Pace Project No.: 50343152

Sample: MW-4D		Lab ID: 50343152002		Collected: 04/25/23 12:55		Received: 04/26/23 08:45		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>9056 IC Anions</b>		Analytical Method: EPA 9056 Pace Analytical Services - Indianapolis							
Chloride	108	mg/L	2.5	0.67	10		04/29/23 14:34	16887-00-6	
Fluoride	0.30	mg/L	0.10	0.017	1		04/29/23 14:14	16984-48-8	
Sulfate	80.7	mg/L	2.5	0.85	10		04/29/23 14:34	14808-79-8	
<b>6010 MET ICP</b>		Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis							
Aluminum	ND	ug/L	200	55.4	1	04/27/23 15:44	04/28/23 16:39	7429-90-5	
Boron	132	ug/L	100	37.6	1	04/27/23 15:44	04/28/23 16:39	7440-42-8	
Calcium	83900	ug/L	1000	163	1	04/27/23 15:44	04/28/23 16:39	7440-70-2	
Iron	1100	ug/L	100	48.8	1	04/27/23 15:44	04/28/23 16:39	7439-89-6	
Lithium	ND	ug/L	20.0	6.2	1	04/27/23 15:44	04/28/23 16:39	7439-93-2	
Magnesium	25700	ug/L	1000	71.8	1	04/27/23 15:44	04/28/23 16:39	7439-95-4	
Manganese	206	ug/L	10.0	2.5	1	04/27/23 15:44	04/28/23 16:39	7439-96-5	
Potassium	3750	ug/L	1000	281	1	04/27/23 15:44	04/28/23 16:39	7440-09-7	
Silica	11700	ug/L	450		1	04/27/23 15:44	04/28/23 16:39	7631-86-9	N2
Sodium	67600	ug/L	1000	214	1	04/27/23 15:44	04/28/23 16:39	7440-23-5	
<b>6010 MET ICP, Dissolved</b>		Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis							
Manganese, Dissolved	199	ug/L	10.0	2.5	1	04/27/23 16:16	04/28/23 02:42	7439-96-5	
Molybdenum, Dissolved	12.1	ug/L	10.0	3.7	1	04/27/23 16:16	04/28/23 02:42	7439-98-7	
<b>6020 MET ICPMS</b>		Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis							
Antimony	ND	ug/L	1.0	0.036	1	04/27/23 07:05	04/28/23 02:18	7440-36-0	
Arsenic	4.8	ug/L	1.0	0.053	1	04/27/23 07:05	04/28/23 02:18	7440-38-2	
Barium	66.4	ug/L	1.0	0.051	1	04/27/23 07:05	04/28/23 02:18	7440-39-3	
Beryllium	ND	ug/L	0.20	0.028	1	04/27/23 07:05	04/28/23 19:20	7440-41-7	
Cadmium	ND	ug/L	2.0	0.0090	1	04/27/23 07:05	04/28/23 02:18	7440-43-9	
Chromium	ND	ug/L	10.0	0.13	1	04/27/23 07:05	04/28/23 02:18	7440-47-3	
Cobalt	ND	ug/L	1.0	0.032	1	04/27/23 07:05	04/28/23 02:18	7440-48-4	
Lead	ND	ug/L	10.0	0.034	1	04/27/23 07:05	04/28/23 02:18	7439-92-1	
Molybdenum	11.9	ug/L	10.0	0.048	1	04/27/23 07:05	04/28/23 02:18	7439-98-7	
Selenium	ND	ug/L	1.0	0.23	1	04/27/23 07:05	04/28/23 02:18	7782-49-2	
Thallium	ND	ug/L	1.0	0.033	1	04/27/23 07:05	04/28/23 02:18	7440-28-0	
<b>7470 Mercury</b>		Analytical Method: EPA 7470 Preparation Method: EPA 7470 Pace Analytical Services - Indianapolis							
Mercury	ND	ug/L	0.20	0.091	1	04/27/23 10:07	04/27/23 19:57	7439-97-6	
<b>2320B Alkalinity</b>		Analytical Method: SM 2320B Pace Analytical Services - Indianapolis							
Alkalinity, Total as CaCO3	233	mg/L	10.0	10.0	1		04/26/23 21:35		
Alkalinity,Bicarbonate (CaCO3)	233	mg/L	10.0	10.0	1		04/26/23 21:35		

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### ANALYTICAL RESULTS

Project: Eagle Valley April 2023 P1R1  
Pace Project No.: 50343152

Sample: MW-4D		Lab ID: 50343152002		Collected: 04/25/23 12:55	Received: 04/26/23 08:45	Matrix: Water			
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>2320B Alkalinity</b>		Analytical Method: SM 2320B Pace Analytical Services - Indianapolis							
Alkalinity, Carbonate (CaCO3)	ND	mg/L	10.0	10.0	1		04/26/23 21:35		
<b>2540C Total Dissolved Solids</b>		Analytical Method: SM 2540C Pace Analytical Services - Indianapolis							
Total Dissolved Solids	<b>476</b>	mg/L	10.0	10.0	1		04/29/23 08:20		
<b>4500H+ pH, Electrometric</b>		Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis							
pH at 25 Degrees C	<b>7.7</b>	Std. Units	0.10	0.10	1		04/27/23 13:32		H3
<b>4500S2D Sulfide Water</b>		Analytical Method: SM 4500-S2-D Pace Analytical Services - Indianapolis							
Sulfide	ND	mg/L	0.10	0.025	1		04/28/23 09:52	18496-25-8	
<b>Iron, Ferrous</b>		Analytical Method: HACH 8146 Pace Analytical Services - Indianapolis							
Iron, Ferrous	ND	mg/L	0.20	0.035	1		05/02/23 10:09	15438-31-0	H3,N2
<b>353.2 Nitrogen, NO2/NO3 unpres</b>		Analytical Method: EPA 353.2 Pace Analytical Services - Indianapolis							
Nitrogen, Nitrate	ND	mg/L	0.10	0.011	1		04/26/23 21:29	14797-55-8	
Nitrogen, Nitrite	ND	mg/L	0.10	0.0040	1		04/26/23 21:29	14797-65-0	
<b>365.1 Total Phosphorus</b>		Analytical Method: EPA 365.1 Preparation Method: EPA 365.1 Pace Analytical Services - Indianapolis							
Phosphate as P04	ND	mg/L	0.15	0.15	1	04/27/23 11:22	05/02/23 13:11		
<b>5310C TOC</b>		Analytical Method: SM 5310C Pace Analytical Services - Indianapolis							
Total Organic Carbon	<b>1.5</b>	mg/L	1.0	0.24	1		04/29/23 02:24	7440-44-0	
<b>5310C Dissolved Organic Carbon</b>		Analytical Method: SM 5310C Pace Analytical Services - Indianapolis							
Dissolved Organic Carbon	<b>1.7</b>	mg/L	1.0	0.24	1		04/28/23 23:42		

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## ANALYTICAL RESULTS

Project: Eagle Valley April 2023 P1R1

Pace Project No.: 50343152

Sample: DUP-3 Lab ID: 50343152003 Collected: 04/25/23 08:00 Received: 04/26/23 08:45 Matrix: Water

Parameters	Results	Units	Report			Prepared	Analyzed	CAS No.	Qual
			Limit	MDL	DF				
<b>9056 IC Anions</b>									
Analytical Method: EPA 9056									
Pace Analytical Services - Indianapolis									
Chloride	119	mg/L	2.5	0.67	10		04/29/23 15:52	16887-00-6	
Fluoride	0.21	mg/L	0.10	0.017	1		04/29/23 15:32	16984-48-8	
Sulfate	239	mg/L	2.5	0.85	10		04/29/23 15:52	14808-79-8	
<b>6010 MET ICP</b>									
Analytical Method: EPA 6010 Preparation Method: EPA 3010									
Pace Analytical Services - Indianapolis									
Aluminum	ND	ug/L	200	55.4	1	04/27/23 15:44	04/28/23 16:41	7429-90-5	
Boron	622	ug/L	100	37.6	1	04/27/23 15:44	04/28/23 16:41	7440-42-8	
Calcium	115000	ug/L	1000	163	1	04/27/23 15:44	04/28/23 16:41	7440-70-2	
Iron	ND	ug/L	100	48.8	1	04/27/23 15:44	04/28/23 16:41	7439-89-6	
Lithium	21.2	ug/L	20.0	6.2	1	04/27/23 15:44	04/28/23 16:41	7439-93-2	
Magnesium	30200	ug/L	1000	71.8	1	04/27/23 15:44	04/28/23 16:41	7439-95-4	
Manganese	ND	ug/L	10.0	2.5	1	04/27/23 15:44	04/28/23 16:41	7439-96-5	
Potassium	5420	ug/L	1000	281	1	04/27/23 15:44	04/28/23 16:41	7440-09-7	
Silica	11000	ug/L	450		1	04/27/23 15:44	04/28/23 16:41	7631-86-9	N2
Sodium	73100	ug/L	1000	214	1	04/27/23 15:44	04/28/23 16:41	7440-23-5	
<b>6010 MET ICP, Dissolved</b>									
Analytical Method: EPA 6010 Preparation Method: EPA 3010									
Pace Analytical Services - Indianapolis									
Manganese, Dissolved	ND	ug/L	10.0	2.5	1	04/27/23 16:16	04/28/23 02:44	7439-96-5	
Molybdenum, Dissolved	33.6	ug/L	10.0	3.7	1	04/27/23 16:16	04/28/23 02:44	7439-98-7	
<b>6020 MET ICPMS</b>									
Analytical Method: EPA 6020 Preparation Method: EPA 200.2									
Pace Analytical Services - Indianapolis									
Antimony	ND	ug/L	1.0	0.036	1	04/27/23 07:05	04/28/23 02:22	7440-36-0	
Arsenic	2.9	ug/L	1.0	0.053	1	04/27/23 07:05	04/28/23 02:22	7440-38-2	
Barium	83.6	ug/L	1.0	0.051	1	04/27/23 07:05	04/28/23 02:22	7440-39-3	
Beryllium	ND	ug/L	0.20	0.028	1	04/27/23 07:05	04/28/23 19:23	7440-41-7	
Cadmium	ND	ug/L	2.0	0.0090	1	04/27/23 07:05	04/28/23 02:22	7440-43-9	
Chromium	ND	ug/L	10.0	0.13	1	04/27/23 07:05	04/28/23 02:22	7440-47-3	
Cobalt	ND	ug/L	1.0	0.032	1	04/27/23 07:05	04/28/23 02:22	7440-48-4	
Lead	ND	ug/L	10.0	0.034	1	04/27/23 07:05	04/28/23 02:22	7439-92-1	
Molybdenum	33.6	ug/L	10.0	0.048	1	04/27/23 07:05	04/28/23 02:22	7439-98-7	
Selenium	2.1	ug/L	1.0	0.23	1	04/27/23 07:05	04/28/23 02:22	7782-49-2	
Thallium	ND	ug/L	1.0	0.033	1	04/27/23 07:05	04/28/23 02:22	7440-28-0	
<b>7470 Mercury</b>									
Analytical Method: EPA 7470 Preparation Method: EPA 7470									
Pace Analytical Services - Indianapolis									
Mercury	ND	ug/L	0.20	0.091	1	04/27/23 10:07	04/27/23 19:59	7439-97-6	
<b>2320B Alkalinity</b>									
Analytical Method: SM 2320B									
Pace Analytical Services - Indianapolis									
Alkalinity, Total as CaCO3	180	mg/L	10.0	10.0	1		04/26/23 21:35		
Alkalinity, Bicarbonate (CaCO3)	180	mg/L	10.0	10.0	1		04/26/23 21:35		

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### ANALYTICAL RESULTS

Project: Eagle Valley April 2023 P1R1

Pace Project No.: 50343152

Sample: DUP-3		Lab ID: 50343152003		Collected: 04/25/23 08:00	Received: 04/26/23 08:45	Matrix: Water			
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>2320B Alkalinity</b>		Analytical Method: SM 2320B Pace Analytical Services - Indianapolis							
Alkalinity, Carbonate (CaCO3)	ND	mg/L	10.0	10.0	1		04/26/23 21:35		
<b>2540C Total Dissolved Solids</b>		Analytical Method: SM 2540C Pace Analytical Services - Indianapolis							
Total Dissolved Solids	<b>681</b>	mg/L	10.0	10.0	1		04/29/23 08:20		
<b>4500H+ pH, Electrometric</b>		Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis							
pH at 25 Degrees C	<b>7.8</b>	Std. Units	0.10	0.10	1		04/27/23 13:24		H3
<b>4500S2D Sulfide Water</b>		Analytical Method: SM 4500-S2-D Pace Analytical Services - Indianapolis							
Sulfide	ND	mg/L	0.10	0.025	1		04/28/23 09:52	18496-25-8	
<b>Iron, Ferrous</b>		Analytical Method: HACH 8146 Pace Analytical Services - Indianapolis							
Iron, Ferrous	ND	mg/L	0.20	0.035	1		05/02/23 10:09	15438-31-0	H3,N2
<b>353.2 Nitrogen, NO2/NO3 unpres</b>		Analytical Method: EPA 353.2 Pace Analytical Services - Indianapolis							
Nitrogen, Nitrate	<b>1.3</b>	mg/L	0.10	0.011	1		04/26/23 21:05	14797-55-8	
Nitrogen, Nitrite	ND	mg/L	0.10	0.0040	1		04/26/23 21:05	14797-65-0	
<b>365.1 Total Phosphorus</b>		Analytical Method: EPA 365.1 Preparation Method: EPA 365.1 Pace Analytical Services - Indianapolis							
Phosphate as P04	<b>0.94</b>	mg/L	0.15	0.15	1	04/27/23 11:22	05/02/23 13:11		
<b>5310C TOC</b>		Analytical Method: SM 5310C Pace Analytical Services - Indianapolis							
Total Organic Carbon	<b>2.0</b>	mg/L	1.0	0.24	1		04/29/23 02:47	7440-44-0	
<b>5310C Dissolved Organic Carbon</b>		Analytical Method: SM 5310C Pace Analytical Services - Indianapolis							
Dissolved Organic Carbon	<b>2.0</b>	mg/L	1.0	0.24	1		04/28/23 23:54		

### REPORT OF LABORATORY ANALYSIS

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**QUALITY CONTROL DATA**

Project: Eagle Valley April 2023 P1R1

Pace Project No.: 50343152

QC Batch:	730038	Analysis Method:	EPA 9056
QC Batch Method:	EPA 9056	Analysis Description:	9056 IC Anions
		Laboratory:	Pace Analytical Services - Indianapolis

Associated Lab Samples: 50343152001, 50343152002, 50343152003

METHOD BLANK: 3350309 Matrix: Water

Associated Lab Samples: 50343152001, 50343152002, 50343152003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chloride	mg/L	ND	0.25	0.067	04/28/23 20:41	
Fluoride	mg/L	ND	0.10	0.017	04/28/23 20:41	
Sulfate	mg/L	ND	0.25	0.085	04/28/23 20:41	

LABORATORY CONTROL SAMPLE: 3350310

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	2.5	2.3	92	80-120	
Fluoride	mg/L	1	0.97	97	80-120	
Sulfate	mg/L	5	4.6	93	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3350311 3350312

Parameter	Units	MS		MSD		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		50342799003	Result	Spike Conc.	Spike Conc.								
Chloride	mg/L	54.9	25	25	80.9	80.1	104	101	80-120	1	15		
Fluoride	mg/L	ND	1	1	1.0	1.0	97	98	80-120	1	15		
Sulfate	mg/L	274	50	50	318	318	89	88	80-120	0	15		

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**QUALITY CONTROL DATA**

Project: Eagle Valley April 2023 P1R1

Pace Project No.: 50343152

QC Batch:	730146	Analysis Method:	EPA 7470
QC Batch Method:	EPA 7470	Analysis Description:	7470 Mercury
		Laboratory:	Pace Analytical Services - Indianapolis

Associated Lab Samples: 50343152001, 50343152002, 50343152003

METHOD BLANK: 3350873 Matrix: Water

Associated Lab Samples: 50343152001, 50343152002, 50343152003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Mercury	ug/L	ND	0.20	0.091	04/27/23 19:40	

LABORATORY CONTROL SAMPLE: 3350874

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury	ug/L	5	5.2	105	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3350875 3350876

Parameter	Units	3350875		3350876		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		50343174005 Result	MS Spike Conc.	MSD Spike Conc.	MS Result						
Mercury	ug/L	ND	5	5	5.5	5.4	110	108	75-125	2	20

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**QUALITY CONTROL DATA**

Project: Eagle Valley April 2023 P1R1  
Pace Project No.: 50343152

QC Batch: 730108 Analysis Method: EPA 6010  
QC Batch Method: EPA 3010 Analysis Description: 6010 MET  
Laboratory: Pace Analytical Services - Indianapolis  
Associated Lab Samples: 50343152001, 50343152002, 50343152003

METHOD BLANK: 3350592 Matrix: Water  
Associated Lab Samples: 50343152001, 50343152002, 50343152003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Aluminum	ug/L	ND	200	55.4	04/28/23 16:08	
Boron	ug/L	ND	100	37.6	04/28/23 16:08	
Calcium	ug/L	ND	1000	163	04/28/23 16:08	
Iron	ug/L	ND	100	48.8	04/28/23 16:08	
Lithium	ug/L	ND	20.0	6.2	04/28/23 16:08	
Magnesium	ug/L	ND	1000	71.8	04/28/23 16:08	
Manganese	ug/L	ND	10.0	2.5	04/28/23 16:08	
Potassium	ug/L	ND	1000	281	04/28/23 16:08	
Silica	ug/L	ND	450		04/28/23 16:08	N2
Sodium	ug/L	ND	1000	214	04/28/23 16:08	

LABORATORY CONTROL SAMPLE: 3350593

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Aluminum	ug/L	10000	9300	93	80-120	
Boron	ug/L	1000	926	93	80-120	
Calcium	ug/L	10000	9500	95	80-120	
Iron	ug/L	10000	9740	97	80-120	
Lithium	ug/L	1000	970	97	80-120	
Magnesium	ug/L	10000	9540	95	80-120	
Manganese	ug/L	1000	930	93	80-120	
Potassium	ug/L	10000	9460	95	80-120	
Silica	ug/L	10700	10200	96	80-120	N2
Sodium	ug/L	10000	9270	93	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3350594 3350595

Parameter	Units	50341484022		3350594		3350595		% Rec	% Rec	% Rec Limits	RPD	Max RPD	Qual
		Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec						
Aluminum	ug/L	1480	10000	10000	11000	11500	95	100	75-125	4	20		
Boron	ug/L	79.0J	1000	1000	1030	1070	95	99	75-125	4	20		
Calcium	ug/L	87900	10000	10000	94100	98900	61	110	75-125	5	20	P6	
Iron	ug/L	2440	10000	10000	12000	12400	95	99	75-125	3	20		
Lithium	ug/L	7.2J	1000	1000	984	1020	98	101	75-125	4	20		
Magnesium	ug/L	38800	10000	10000	46800	49000	81	102	75-125	4	20		
Manganese	ug/L	342	1000	1000	1250	1310	91	96	75-125	4	20		
Potassium	ug/L	2480	10000	10000	12100	12500	96	100	75-125	3	20		

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**QUALITY CONTROL DATA**

Project: Eagle Valley April 2023 P1R1

Pace Project No.: 50343152

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3350594 3350595													
Parameter	Units	50341484022		MS	MSD	MS		MSD		% Rec Limits	RPD	Max RPD	Qual
		Result	Conc.	Spike Conc.	Spike Conc.	Result	Result	% Rec	% Rec				
Silica	ug/L	17000	10700	10700	28200	28900	104	111	75-125	3	20	N2	
Sodium	ug/L	3120	10000	10000	12400	12900	92	98	75-125	4	20		

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**QUALITY CONTROL DATA**

Project: Eagle Valley April 2023 P1R1

Pace Project No.: 50343152

QC Batch:	730114	Analysis Method:	EPA 6010
QC Batch Method:	EPA 3010	Analysis Description:	6010 MET Dissolved
		Laboratory:	Pace Analytical Services - Indianapolis
Associated Lab Samples:	50343152001, 50343152002, 50343152003		

METHOD BLANK: 3350625 Matrix: Water

Associated Lab Samples: 50343152001, 50343152002, 50343152003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Manganese, Dissolved	ug/L	ND	10.0	2.5	04/28/23 02:15	
Molybdenum, Dissolved	ug/L	ND	10.0	3.7	04/28/23 02:15	

LABORATORY CONTROL SAMPLE: 3350626

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Manganese, Dissolved	ug/L	1000	997	100	80-120	
Molybdenum, Dissolved	ug/L	1000	1040	104	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3350627 3350628

Parameter	Units	50343102001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Manganese, Dissolved	ug/L	ND	1000	1000	948	970	95	97	75-125	2	20	
Molybdenum, Dissolved	ug/L	15.1	1000	1000	1010	1040	100	103	75-125	3	20	

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**QUALITY CONTROL DATA**

Project: Eagle Valley April 2023 P1R1

Pace Project No.: 50343152

QC Batch:	730092	Analysis Method:	EPA 6020
QC Batch Method:	EPA 200.2	Analysis Description:	6020 MET
		Laboratory:	Pace Analytical Services - Indianapolis

Associated Lab Samples: 50343152001, 50343152002, 50343152003

METHOD BLANK: 3350509 Matrix: Water

Associated Lab Samples: 50343152001, 50343152002, 50343152003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Antimony	ug/L	ND	1.0	0.036	04/27/23 18:23	
Arsenic	ug/L	ND	1.0	0.053	04/27/23 18:23	
Barium	ug/L	ND	1.0	0.051	04/27/23 18:23	
Beryllium	ug/L	ND	0.20	0.028	04/27/23 18:23	
Cadmium	ug/L	ND	2.0	0.0090	04/27/23 18:23	
Chromium	ug/L	ND	10.0	0.13	04/27/23 18:23	
Cobalt	ug/L	ND	1.0	0.032	04/27/23 18:23	
Lead	ug/L	ND	10.0	0.034	04/27/23 18:23	
Molybdenum	ug/L	ND	10.0	0.048	04/27/23 18:23	
Selenium	ug/L	ND	1.0	0.23	04/27/23 18:23	
Thallium	ug/L	ND	1.0	0.033	04/27/23 18:23	

LABORATORY CONTROL SAMPLE: 3350510

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Antimony	ug/L	40	40.3	101	80-120	
Arsenic	ug/L	40	40.4	101	80-120	
Barium	ug/L	40	41.7	104	80-120	
Beryllium	ug/L	40	43.4	108	80-120	
Cadmium	ug/L	40	41.1	103	80-120	
Chromium	ug/L	40	42.9	107	80-120	
Cobalt	ug/L	40	43.0	107	80-120	
Lead	ug/L	40	43.4	108	80-120	
Molybdenum	ug/L	40	40.6	102	80-120	
Selenium	ug/L	40	41.7	104	80-120	
Thallium	ug/L	40	43.5	109	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3350511 3350512

Parameter	Units	50343152001		3350512		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual	
		Result	MS Spike Conc.	MSD Spike Conc.	MS Result							MSD Result
Antimony	ug/L	ND	40	40	41.7	42.0	103	104	75-125	1	20	
Arsenic	ug/L	3.0	40	40	42.8	43.0	99	100	75-125	1	20	
Barium	ug/L	82.4	40	40	124	125	105	107	75-125	1	20	
Beryllium	ug/L	ND	40	40	41.3	41.9	103	105	75-125	2	20	
Cadmium	ug/L	ND	40	40	40.0	40.6	100	102	75-125	2	20	
Chromium	ug/L	ND	40	40	42.0	42.4	104	105	75-125	1	20	

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**QUALITY CONTROL DATA**

Project: Eagle Valley April 2023 P1R1

Pace Project No.: 50343152

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3350511 3350512											
Parameter	Units	50343152001		MS		MSD		MS		MSD	
		Result	MS Spike Conc.	MSD Spike Conc.	Result	MSD Result	% Rec	MSD % Rec	% Rec	MSD % Rec	Limits
Cobalt	ug/L	ND	40	40	40.5	41.8	101	104	75-125	3	20
Lead	ug/L	ND	40	40	43.8	44.4	110	111	75-125	1	20
Molybdenum	ug/L	32.7	40	40	75.4	76.4	107	109	75-125	1	20
Selenium	ug/L	2.1	40	40	43.3	43.8	103	104	75-125	1	20
Thallium	ug/L	ND	40	40	44.3	45.0	111	113	75-125	2	20

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### QUALITY CONTROL DATA

Project: Eagle Valley April 2023 P1R1

Pace Project No.: 50343152

QC Batch: 730117

Analysis Method: SM 2320B

QC Batch Method: SM 2320B

Analysis Description: 2320B Alkalinity

Laboratory: Pace Analytical Services - Indianapolis

Associated Lab Samples: 50343152001, 50343152002, 50343152003

METHOD BLANK: 3350679

Matrix: Water

Associated Lab Samples: 50343152001, 50343152002, 50343152003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Alkalinity, Total as CaCO3	mg/L	ND	10.0	10.0	04/26/23 21:35	
Alkalinity,Bicarbonate (CaCO3)	mg/L	ND	10.0	10.0	04/26/23 21:35	
Alkalinity,Carbonate (CaCO3)	mg/L	ND	10.0	10.0	04/26/23 21:35	

LABORATORY CONTROL SAMPLE: 3350680

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Alkalinity, Total as CaCO3	mg/L	50	48.2	96	90-110	

SAMPLE DUPLICATE: 3350681

Parameter	Units	50343102001 Result	Dup Result	RPD	Max RPD	Qualifiers
Alkalinity, Total as CaCO3	mg/L	325	330	1	20	
Alkalinity,Bicarbonate (CaCO3)	mg/L	325	330	1	20	
Alkalinity,Carbonate (CaCO3)	mg/L	ND	ND		20	

SAMPLE DUPLICATE: 3350682

Parameter	Units	50343152001 Result	Dup Result	RPD	Max RPD	Qualifiers
Alkalinity, Total as CaCO3	mg/L	180	183	2	20	
Alkalinity,Bicarbonate (CaCO3)	mg/L	180	183	2	20	
Alkalinity,Carbonate (CaCO3)	mg/L	ND	ND		20	

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**QUALITY CONTROL DATA**

Project: Eagle Valley April 2023 P1R1

Pace Project No.: 50343152

QC Batch:	730630	Analysis Method:	SM 2540C
QC Batch Method:	SM 2540C	Analysis Description:	2540C Total Dissolved Solids
		Laboratory:	Pace Analytical Services - Indianapolis
Associated Lab Samples:	50343152001, 50343152002, 50343152003		

METHOD BLANK: 3353686 Matrix: Water  
 Associated Lab Samples: 50343152001, 50343152002, 50343152003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	ND	10.0	10.0	04/29/23 08:16	

LABORATORY CONTROL SAMPLE: 3353687

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	300	274	91	80-120	

SAMPLE DUPLICATE: 3353688

Parameter	Units	50343144005 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	1140	1110	2	10	

SAMPLE DUPLICATE: 3353689

Parameter	Units	50343172002 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	540	532	1	10	

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### QUALITY CONTROL DATA

Project: Eagle Valley April 2023 P1R1

Pace Project No.: 50343152

QC Batch: 730241

Analysis Method: SM 4500-H+B

QC Batch Method: SM 4500-H+B

Analysis Description: 4500H+B pH

Laboratory: Pace Analytical Services - Indianapolis

Associated Lab Samples: 50343152001, 50343152002, 50343152003

SAMPLE DUPLICATE: 3351206

Parameter	Units	50343152003 Result	Dup Result	RPD	Max RPD	Qualifiers
pH at 25 Degrees C	Std. Units	7.8	7.8	0	2	H3

SAMPLE DUPLICATE: 3351207

Parameter	Units	50343102001 Result	Dup Result	RPD	Max RPD	Qualifiers
pH at 25 Degrees C	Std. Units	7.9	7.9	0	2	H3

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**QUALITY CONTROL DATA**

Project: Eagle Valley April 2023 P1R1

Pace Project No.: 50343152

QC Batch:	730439	Analysis Method:	SM 4500-S2-D
QC Batch Method:	SM 4500-S2-D	Analysis Description:	4500S2D Sulfide Water
		Laboratory:	Pace Analytical Services - Indianapolis
Associated Lab Samples:	50343152001, 50343152002, 50343152003		

METHOD BLANK: 3352411 Matrix: Water

Associated Lab Samples: 50343152001, 50343152002, 50343152003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Sulfide	mg/L	ND	0.10	0.025	04/28/23 09:52	

LABORATORY CONTROL SAMPLE: 3352412

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Sulfide	mg/L	0.5	0.47	94	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3352413 3352414

Parameter	Units	50342983001		50342983001		50342983001		50342983001		% Rec Limits	RPD	Max RPD	Qual
		MS Result	MSD Spike Conc.	MS Result	MSD Spike Conc.	MS Result	MSD Spike Conc.	MS % Rec	MSD % Rec				
Sulfide	mg/L	ND	0.5	0.5	0.44	0.42	88	84	90-110	4	20	M3	

MATRIX SPIKE SAMPLE: 3352415

Parameter	Units	50343327006 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Sulfide	mg/L	ND	0.5	0.41	79	90-110	M0

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**QUALITY CONTROL DATA**

Project: Eagle Valley April 2023 P1R1

Pace Project No.: 50343152

QC Batch:	731019	Analysis Method:	HACH 8146
QC Batch Method:	HACH 8146	Analysis Description:	Iron, Ferrous
		Laboratory:	Pace Analytical Services - Indianapolis
Associated Lab Samples:	50343152001, 50343152002, 50343152003		

METHOD BLANK: 3354900 Matrix: Water  
 Associated Lab Samples: 50343152001, 50343152002, 50343152003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Iron, Ferrous	mg/L	ND	0.20	0.035	05/02/23 10:08	H3,N2

LABORATORY CONTROL SAMPLE: 3354901

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Iron, Ferrous	mg/L	1	1.0	101	90-110	H3,N2

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3354902 3354903

Parameter	Units	50343477002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Iron, Ferrous	mg/L	ND	1	1	1.1	1.0	107	104	90-110	3	20	H3,N2

MATRIX SPIKE SAMPLE: 3354904

Parameter	Units	50343152001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Iron, Ferrous	mg/L	ND	1	1.0	104	90-110	H3,N2

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**QUALITY CONTROL DATA**

Project: Eagle Valley April 2023 P1R1

Pace Project No.: 50343152

QC Batch:	730123	Analysis Method:	EPA 353.2
QC Batch Method:	EPA 353.2	Analysis Description:	353.2 Nitrate + Nitrite, Unpres.
		Laboratory:	Pace Analytical Services - Indianapolis

Associated Lab Samples: 50343152001, 50343152002, 50343152003

METHOD BLANK: 3350729 Matrix: Water

Associated Lab Samples: 50343152001, 50343152002, 50343152003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Nitrogen, Nitrate	mg/L	ND	0.10	0.011	04/26/23 20:59	
Nitrogen, Nitrite	mg/L	ND	0.10	0.0040	04/26/23 20:59	

LABORATORY CONTROL SAMPLE: 3350730

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Nitrogen, Nitrate	mg/L	1	1.0	102	90-110	
Nitrogen, Nitrite	mg/L	1	1.0	105	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3350731 3350732

Parameter	Units	50343152001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Nitrogen, Nitrate	mg/L	1.2	1	1	2.2	2.2	99	99	90-110	0	20	
Nitrogen, Nitrite	mg/L	ND	1	1	1.1	1.1	106	105	90-110	1	20	

MATRIX SPIKE SAMPLE: 3350733

Parameter	Units	50343174001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Nitrogen, Nitrate	mg/L	0.69	1	1.7	100	90-110	
Nitrogen, Nitrite	mg/L	ND	1	1.0	104	90-110	

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**REPORT OF LABORATORY ANALYSIS**

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**QUALITY CONTROL DATA**

Project: Eagle Valley April 2023 P1R1

Pace Project No.: 50343152

QC Batch:	730205	Analysis Method:	EPA 365.1
QC Batch Method:	EPA 365.1	Analysis Description:	365.1 Total Phosphorus
		Laboratory:	Pace Analytical Services - Indianapolis
Associated Lab Samples:	50343152001, 50343152002, 50343152003		

METHOD BLANK: 3351060 Matrix: Water

Associated Lab Samples: 50343152001, 50343152002, 50343152003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Phosphate as P04	mg/L	ND	0.15	0.15	05/02/23 13:03	

LABORATORY CONTROL SAMPLE: 3351061

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Phosphate as P04	mg/L		1.6			

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3351062 3351063

Parameter	Units	50343152001		3351063		% Rec	% Rec	% Rec Limits	RPD	Max RPD	Qual
		MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result						
Phosphate as P04	mg/L	0.79		2.3	2.4				0		

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**REPORT OF LABORATORY ANALYSIS**

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**QUALITY CONTROL DATA**

Project: Eagle Valley April 2023 P1R1  
 Pace Project No.: 50343152

QC Batch: 730538 Analysis Method: SM 5310C  
 QC Batch Method: SM 5310C Analysis Description: 5310C Total Organic Carbon  
 Laboratory: Pace Analytical Services - Indianapolis  
 Associated Lab Samples: 50343152001, 50343152002, 50343152003

METHOD BLANK: 3352869 Matrix: Water  
 Associated Lab Samples: 50343152001, 50343152002, 50343152003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Organic Carbon	mg/L	ND	1.0	0.24	04/29/23 01:21	

LABORATORY CONTROL SAMPLE: 3352870

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Organic Carbon	mg/L	10	10.0	100	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3352871 3352872

Parameter	Units	50343152001		50343152002		3352871		3352872		% Rec Limits	RPD	Max RPD	Qual
		MS Result	MSD Spike Conc.	MS Result	MSD Spike Conc.	MS % Rec	MSD % Rec	MS % Rec	MSD % Rec				
Total Organic Carbon	mg/L	2.0	10	10	10	11.9	12.0	99	100	80-120	1	20	

MATRIX SPIKE SAMPLE: 3352873

Parameter	Units	50343152002 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Total Organic Carbon	mg/L	1.5	10	11.4	99	80-120	

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**QUALITY CONTROL DATA**

Project: Eagle Valley April 2023 P1R1

Pace Project No.: 50343152

QC Batch:	730536	Analysis Method:	SM 5310C
QC Batch Method:	SM 5310C	Analysis Description:	5310C Dissolved Organic Carbon
		Laboratory:	Pace Analytical Services - Indianapolis

Associated Lab Samples: 50343152001, 50343152002, 50343152003

METHOD BLANK: 3352857 Matrix: Water  
 Associated Lab Samples: 50343152001, 50343152002, 50343152003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Dissolved Organic Carbon	mg/L	ND	1.0	0.24	04/28/23 19:13	

LABORATORY CONTROL SAMPLE: 3352858

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Dissolved Organic Carbon	mg/L	10	10.6	106	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3352859 3352860

Parameter	Units	50342799003 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Dissolved Organic Carbon	mg/L	1.5	10	10	11.1	11.5	96	100	80-120	3	20	

MATRIX SPIKE SAMPLE: 3352861

Parameter	Units	50342799006 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Dissolved Organic Carbon	mg/L	1.7	10	11.5	97	80-120	

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Eagle Valley April 2023 P1R1

Pace Project No.: 50343152

**Sample: MW-4S**      **Lab ID: 50343152001**      Collected: 04/25/23 11:00      Received: 04/26/23 08:45      Matrix: Water  
PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Radium-226	EPA 903.1	<b>0.170 ± 0.370 (0.682)</b> <b>C:NA T:89%</b>	pCi/L	05/16/23 14:31	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 904.0	<b>0.150 ± 0.402 (0.898)</b> <b>C:76% T:80%</b>	pCi/L	05/10/23 15:34	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	<b>0.320 ± 0.772 (1.58)</b>	pCi/L	05/18/23 12:42	7440-14-4	

### REPORT OF LABORATORY ANALYSIS

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**ANALYTICAL RESULTS - RADIOCHEMISTRY**

Project: Eagle Valley April 2023 P1R1

Pace Project No.: 50343152

**Sample: MW-4D**      **Lab ID: 50343152002**      Collected: 04/25/23 12:55      Received: 04/26/23 08:45      Matrix: Water  
 PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	<b>0.566 ± 0.475 (0.679)</b> <b>C:NA T:93%</b>	pCi/L	05/16/23 14:31	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	<b>0.519 ± 0.464 (0.947)</b> <b>C:73% T:85%</b>	pCi/L	05/10/23 15:35	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	<b>1.09 ± 0.939 (1.63)</b>	pCi/L	05/18/23 12:42	7440-14-4	

**REPORT OF LABORATORY ANALYSIS**

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Eagle Valley April 2023 P1R1

Pace Project No.: 50343152

**Sample: DUP-3**      **Lab ID: 50343152003**      Collected: 04/25/23 08:00      Received: 04/26/23 08:45      Matrix: Water  
 PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	<b>-0.0612 ± 0.398 (0.862)</b> <b>C:NA T:101%</b>	pCi/L	05/16/23 14:31	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	<b>0.860 ± 0.436 (0.764)</b> <b>C:76% T:89%</b>	pCi/L	05/10/23 15:35	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	<b>0.860 ± 0.834 (1.63)</b>	pCi/L	05/18/23 12:42	7440-14-4	

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### QUALITY CONTROL - RADIOCHEMISTRY

Project: Eagle Valley April 2023 P1R1

Pace Project No.: 50343152

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QC Batch:	585057	Analysis Method:	EPA 903.1
QC Batch Method:	EPA 903.1	Analysis Description:	903.1 Radium-226
		Laboratory:	Pace Analytical Services - Greensburg

Associated Lab Samples: 50343152001, 50343152002, 50343152003

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METHOD BLANK: 2841341 Matrix: Water

Associated Lab Samples: 50343152001, 50343152002, 50343152003

---

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.0927 ± 0.223 (0.430) C:NA T:90%	pCi/L	05/16/23 14:16	

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### QUALITY CONTROL - RADIOCHEMISTRY

Project: Eagle Valley April 2023 P1R1

Pace Project No.: 50343152

QC Batch:	585067	Analysis Method:	EPA 904.0
QC Batch Method:	EPA 904.0	Analysis Description:	904.0 Radium 228
		Laboratory:	Pace Analytical Services - Greensburg

Associated Lab Samples: 50343152001, 50343152002, 50343152003

METHOD BLANK:	2841383	Matrix:	Water
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Associated Lab Samples: 50343152001, 50343152002, 50343152003

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.410 ± 0.355 (0.711) C:78% T:80%	pCi/L	05/10/23 15:35	

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## QUALIFIERS

Project: Eagle Valley April 2023 P1R1

Pace Project No.: 50343152

### DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Reported results are not rounded until the final step prior to reporting. Therefore, calculated parameters that are typically reported as "Total" may vary slightly from the sum of the reported component parameters.

Act - Activity

Unc - Uncertainty: SDWA = 1.96 sigma count uncertainty, all other matrices = Expanded Uncertainty (95% confidence interval).

Gamma Spec = Expanded Uncertainty (95.4% Confidence Interval)

(MDC) - Minimum Detectable Concentration

Trac - Tracer Recovery (%)

Carr - Carrier Recovery (%)

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

### ANALYTE QUALIFIERS

H3 Sample was received or analysis requested beyond the recognized method holding time.

M0 Matrix spike recovery and/or matrix spike duplicate recovery was outside laboratory control limits.

M3 Matrix spike recovery was outside laboratory control limits due to matrix interferences.

N2 The lab does not hold NELAC/TNI accreditation for this parameter but other accreditations/certifications may apply. A complete list of accreditations/certifications is available upon request.

P6 Matrix spike recovery was outside laboratory control limits due to a parent sample concentration notably higher than the spike level.

## REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Eagle Valley April 2023 P1R1

Pace Project No.: 50343152

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
50343152001	MW-4S	EPA 9056	730038		
50343152002	MW-4D	EPA 9056	730038		
50343152003	DUP-3	EPA 9056	730038		
50343152001	MW-4S	EPA 3010	730108	EPA 6010	730582
50343152002	MW-4D	EPA 3010	730108	EPA 6010	730582
50343152003	DUP-3	EPA 3010	730108	EPA 6010	730582
50343152001	MW-4S	EPA 3010	730114	EPA 6010	730398
50343152002	MW-4D	EPA 3010	730114	EPA 6010	730398
50343152003	DUP-3	EPA 3010	730114	EPA 6010	730398
50343152001	MW-4S	EPA 200.2	730092	EPA 6020	730234
50343152002	MW-4D	EPA 200.2	730092	EPA 6020	730234
50343152003	DUP-3	EPA 200.2	730092	EPA 6020	730234
50343152001	MW-4S	EPA 7470	730146	EPA 7470	730343
50343152002	MW-4D	EPA 7470	730146	EPA 7470	730343
50343152003	DUP-3	EPA 7470	730146	EPA 7470	730343
50343152001	MW-4S	EPA 903.1	585057		
50343152002	MW-4D	EPA 903.1	585057		
50343152003	DUP-3	EPA 903.1	585057		
50343152001	MW-4S	EPA 904.0	585067		
50343152002	MW-4D	EPA 904.0	585067		
50343152003	DUP-3	EPA 904.0	585067		
50343152001	MW-4S	Total Radium Calculation	589110		
50343152002	MW-4D	Total Radium Calculation	589110		
50343152003	DUP-3	Total Radium Calculation	589110		
50343152001	MW-4S	SM 2320B	730117		
50343152002	MW-4D	SM 2320B	730117		
50343152003	DUP-3	SM 2320B	730117		
50343152001	MW-4S	SM 2540C	730630		
50343152002	MW-4D	SM 2540C	730630		
50343152003	DUP-3	SM 2540C	730630		
50343152001	MW-4S	SM 4500-H+B	730241		
50343152002	MW-4D	SM 4500-H+B	730241		
50343152003	DUP-3	SM 4500-H+B	730241		
50343152001	MW-4S	SM 4500-S2-D	730439		
50343152002	MW-4D	SM 4500-S2-D	730439		
50343152003	DUP-3	SM 4500-S2-D	730439		
50343152001	MW-4S	HACH 8146	731019		
50343152002	MW-4D	HACH 8146	731019		
50343152003	DUP-3	HACH 8146	731019		
50343152001	MW-4S	EPA 353.2	730123		
50343152002	MW-4D	EPA 353.2	730123		
50343152003	DUP-3	EPA 353.2	730123		

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### QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Eagle Valley April 2023 P1R1

Pace Project No.: 50343152

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
50343152001	MW-4S	EPA 365.1	730205	EPA 365.1	731110
50343152002	MW-4D	EPA 365.1	730205	EPA 365.1	731110
50343152003	DUP-3	EPA 365.1	730205	EPA 365.1	731110
50343152001	MW-4S	SM 5310C	730538		
50343152002	MW-4D	SM 5310C	730538		
50343152003	DUP-3	SM 5310C	730538		
50343152001	MW-4S	SM 5310C	730536		
50343152002	MW-4D	SM 5310C	730536		
50343152003	DUP-3	SM 5310C	730536		

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**SAMPLE CONDITION UPON RECEIPT FORM**

Date/Time and Initials of person examining contents: 4-26-23 1228/mw

1. Courier:  FED EX  UPS  CLIENT  PACE  USPS  OTHER

2. Custody Seal on Cooler/Box Present:  Yes  No

(If yes)Seals Intact:  Yes  No (leave blank if no seals were present)

3. Thermometer: 1 2 3 4 5 6 A B C D E F

4. Cooler Temperature(s): 15/-5 1.7/1.7    
 (Initial/Corrected) RECORD TEMPS OF ALL COOLERS RECEIVED (use Comments below to add more)

5. Packing Material:  Bubble Wrap  Bubble Bags  
 None  Other 2xplac

6. Ice Type:  Wet  Blue  None

7. If temp. is over 6°C or under 0°C, was the PM notified?:  Yes  No  
 Cooler temp should be above freezing to 6°C

All discrepancies will be written out in the comments section below.

	Yes	No		Yes	No	N/A
USDA Regulated Soils? (HI, ID, NY, WA, OR, CA, NM, TX, OK, AR, LA, TN, AL, MS, NC, SC, GA, FL, or Puerto Rico)		/	All containers needing acid/base preservation have been pH CHECKED?: Exceptions: VOA, coliform, LLHg, O&G, RAD CHEM, and any container with a septum cap or preserved with HCl.		/	
Short Hold Time Analysis (48 hours or less)? Analysis: <u>N. Frank</u>	/		Circle: <u>HNO3 (&lt;2)</u> <u>H2SO4 (&lt;2)</u> NaOH (>10) NaOH/ZnAc (>9) Any non-conformance to pH recommendations will be noted on the container count form		/	
Time 5035A TC placed in Freezer or Short Holds To Lab Time: <u>13:05</u>			Residual Chlorine Check (SVOC 625 Pest/PCB 608)	<u>Present</u>	<u>Absent</u>	<u>N/A</u>
Rush TAT Requested (4 days or less):	/	/	Residual Chlorine Check (Total/Amenable/Free Cyanide)			/
Custody Signatures Present?	/		Headspace Wisconsin Sulfide?			/
Containers Intact?:	/		Headspace in VOA Vials (>6mm): See Container Count form for details	<u>Present</u>	<u>Absent</u>	<u>No VOA Vials Sent</u>
Sample Label (IDs/Dates/Times) Match COC?: Except TCs, which only require sample ID	/		Trip Blank Present?		/	
Extra labels on Terracore Vials? (soils only)			Trip Blank Custody Seals?:			/

COMMENTS:  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_



Sample Container Count

\*\* Place a RED dot on containers that are out of conformance \*\*

COC Line Item	WGFI	MeOH (only) SBS DI	VIALS							AMBER GLASS					PLASTIC							OTHER			Matrix	Nitric Red	Sulfuric Yellow	Sodium Hydroxide Green	Sodium Hydroxide/ ZnAc Black					
			DG9H	VG9H	VOA VIAL HS (>6mm)	VG9U	DG9U	VG9T	AG0U	AG1H	AG1U	AG2U	AG3S	AG3SF	AG3C	BP1U	BP1N	BP2U	BP3U	BP3N	BP3F	BP3S	BP3B	BP3Z						CG3H	CG3F	Syringe Kit		
			R	DG9H	VG9H	VG9U	DG9U	VG9T	AG0U	AG1H	AG1U	AG2U	AG3S	AG3SF	AG3C	BP1U	BP1N	BP2U	BP3U	BP3N	BP3F	BP3S	BP3B	BP3Z						CG3H	CG3F	Syringe Kit		
1											1	1			2	1	2	1	1	1										3	✓	✓		✓
2											1	1			1	1	1	1	1	1										1	✓	✓		✓
3											1	1			1	1	1	1	1	1										1	✓	✓		✓
4																																		
5																																		
6																																		
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9																																		
10																																		
11																																		
12																																		

Container Codes

Glass				Plastic			
DG9H	40mL HCl amber voa vial	BG1T	1L Na Thiosulfate clear glass	BP1B	1L NaOH plastic	BP4U	125mL unpreserved plastic
DG9P	40mL TSP amber vial	BG1U	1L unpreserved glass	BP1N	1L HNO3 plastic	BP4N	125mL HNO3 plastic
DG9S	40mL H2SO4 amber vial	BG3H	250mL HCl Clear Glass	BP1S	1L H2SO4 plastic	BP4S	125mL H2SO4 plastic
DG9T	40mL Na Thio amber vial	BG3U	250mL Unpres Clear Glass	BP1U	1L unpreserved plastic	<b>Miscellaneous</b>	
DG9U	40mL unpreserved amber vial	AG0U	100mL unpres amber glass	BP1Z	1L NaOH, Zn, Ac		
VG9H	40mL HCl clear vial	AG1H	1L HCl amber glass	BP2N	500mL HNO3 plastic	Syringe Kit	LL Cr+6 sampling kit
VG9T	40mL Na Thio. clear vial	AG1S	1L H2SO4 amber glass	BP2C	500mL NaOH plastic	ZPLC	Ziploc Bag
VG9U	40mL unpreserved clear vial	AG1T	1L Na Thiosulfate amber glass	BP2S	500mL H2SO4 plastic	R	Terracore Kit
I	40mL w/hexane wipe vial	AG1U	1liter unpres amber glass	BP2U	500mL unpreserved plastic	SP5T	120mL Coliform Sodium Thiosulfate
WGKU	8oz unpreserved clear jar	AG2N	500mL HNO3 amber glass	BP2Z	500mL NaOH, Zn Ac	GN	General Container
WGFU	4oz clear soil jar	AG2S	500mL H2SO4 amber glass	BP3B	250mL NaOH plastic	U	Summa Can (air sample)
JGFU	4oz unpreserved amber wide	AG2U	500mL unpres amber glass	BP3N	250mL HNO3 plastic	WT	Water
CG3H	250mL clear glass HCl	AG3S	250mL H2SO4 amber glass	BP3F	250mL HNO3 plastic-field filtered	SL	Solid Solid
CG3F	250mL clear glass HCl, Field Filter	AG3SF	250mL H2SO4 amb glass -field filtered	BP3U	250mL unpreserved plastic	OL	Oil
BG1H	1L HCl clear glass	AG3U	250mL unpres amber glass	BP3S	250mL H2SO4 plastic	NAL	Non-aqueous liquid
BG1S	1L H2SO4 clear glass	AG3C	250mL NaOH amber glass	BP3Z	250mL NaOH, ZnAc plastic	WP	Wipe





July 18, 2023

Mr. Mark Breting  
ATC Group Services  
7988 Centerpoint Drive  
Suite 100  
Indianapolis, IN 46256

RE: Project: Eagle Valley April 2023 P1R4  
Pace Project No.: 50343174

Dear Mr. Breting:

Enclosed are the analytical results for sample(s) received by the laboratory on April 26, 2023. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

The test results provided in this final report were generated by each of the following laboratories within the Pace Network:

- Pace Analytical Services - Indianapolis
- Pace Analytical Services - Greensburg

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Will Statz  
will.statz@pacelabs.com  
(317)228-3105  
Project Manager

Enclosures

cc: Mohammed Bazlamit, Atlas  
Mr. Robert Miller, Haley & Aldrich



## REPORT OF LABORATORY ANALYSIS

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### CERTIFICATIONS

Project: Eagle Valley April 2023 P1R4  
Pace Project No.: 50343174

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#### Pace Analytical Services Pennsylvania

1638 Roseytown Rd Suites 2,3&4, Greensburg, PA 15601  
ANAB DOD-ELAP Rad Accreditation #: L2417  
ANABISO/IEC 17025:2017 Rad Cert#: L24170  
Alabama Certification #: 41590  
Arizona Certification #: AZ0734  
Arkansas Certification  
California Certification #: 2950  
Colorado Certification #: PA01547  
Connecticut Certification #: PH-0694  
EPA Region 4 DW Rad  
Florida/TNI Certification #: E87683  
Georgia Certification #: C040  
Guam Certification  
Hawaii Certification  
Idaho Certification  
Illinois Certification  
Indiana Certification  
Iowa Certification #: 391  
Kansas Certification #: E-10358  
Kentucky Certification #: KY90133  
KY WW Permit #: KY0098221  
KY WW Permit #: KY0000221  
Louisiana DHH/TNI Certification #: LA010  
Louisiana DEQ/TNI Certification #: 04086  
Maine Certification #: 2023021  
Maryland Certification #: 308  
Massachusetts Certification #: M-PA1457  
Michigan/PADEP Certification #: 9991

Missouri Certification #: 235  
Montana Certification #: Cert0082  
Nebraska Certification #: NE-OS-29-14  
Nevada Certification #: PA014572023-03  
New Hampshire/TNI Certification #: 297622  
New Jersey/TNI Certification #: PA051  
New Mexico Certification #: PA01457  
New York/TNI Certification #: 10888  
North Carolina Certification #: 42706  
North Dakota Certification #: R-190  
Ohio EPA Rad Approval: #41249  
Oregon/TNI Certification #: PA200002-015  
Pennsylvania/TNI Certification #: 65-00282  
Puerto Rico Certification #: PA01457  
Rhode Island Certification #: 65-00282  
South Dakota Certification  
Tennessee Certification #: TN02867  
Texas/TNI Certification #: T104704188-22-18  
Utah/TNI Certification #: PA014572223-14  
USDA Soil Permit #: 525-23-67-77263  
Vermont Dept. of Health: ID# VT-0282  
Virgin Island/PADEP Certification  
Virginia/VELAP Certification #: 460198  
Washington Certification #: C868  
West Virginia DEP Certification #: 143  
West Virginia DHHR Certification #: 9964C  
Wisconsin Approve List for Rad

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#### Pace Analytical Services Indianapolis

7726 Moller Road, Indianapolis, IN 46268  
Illinois Accreditation #: 200074  
Indiana Drinking Water Laboratory #: C-49-06  
Kansas/TNI Certification #: E-10177  
Kentucky UST Agency Interest #: 80226  
Kentucky WW Laboratory ID #: 98019  
Michigan Drinking Water Laboratory #9050

Ohio VAP Certified Laboratory #: CL0065  
Oklahoma Laboratory #: 9204  
Texas Certification #: T104704355  
Wisconsin Laboratory #: 999788130  
USDA Foreign Soil Permit #: 525-23-13-23119  
USDA Compliance Agreement #: IN-SL-22-001

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### REPORT OF LABORATORY ANALYSIS

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### SAMPLE SUMMARY

Project: Eagle Valley April 2023 P1R4

Pace Project No.: 50343174

Lab ID	Sample ID	Matrix	Date Collected	Date Received
50343174001	MW-18I	Water	04/26/23 10:00	04/26/23 13:55
50343174002	MW-18D	Water	04/26/23 10:55	04/26/23 13:55
50343174003	MW-19S	Water	04/26/23 11:50	04/26/23 13:55
50343174004	MW-19I	Water	04/26/23 12:25	04/26/23 13:55
50343174005	MW-19D	Water	04/26/23 13:10	04/26/23 13:55
50343174006	DUP 8	Water	04/26/23 08:00	04/26/23 13:55

### REPORT OF LABORATORY ANALYSIS

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### SAMPLE ANALYTE COUNT

Project: Eagle Valley April 2023 P1R4

Pace Project No.: 50343174

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory		
50343174001	MW-18I	EPA 9056	RMR	3	PASI-I		
		EPA 6010	MTM	10	PASI-I		
		EPA 6010	JPK	2	PASI-I		
		EPA 6020	CAW	11	PASI-I		
		EPA 7470	EAE	1	PASI-I		
		EPA 903.1	CLM	1	PASI-PA		
		EPA 904.0	VAL	1	PASI-PA		
		Total Radium Calculation	LAL	1	PASI-PA		
		SM 2320B	DAW	3	PASI-I		
		SM 2540C	AEL	1	PASI-I		
		SM 4500-H+B	BMS	1	PASI-I		
		SM 4500-S2-D	BEP	1	PASI-I		
		HACH 8146	BEP	1	PASI-I		
		EPA 353.2	ZM	2	PASI-I		
		EPA 365.1	YAM	1	PASI-I		
		SM 5310C	ATS	1	PASI-I		
		SM 5310C	ATS	1	PASI-I		
		50343174002	MW-18D	EPA 9056	RMR	3	PASI-I
				EPA 6010	MTM	10	PASI-I
EPA 6010	JPK			2	PASI-I		
EPA 6020	CAW			11	PASI-I		
EPA 7470	EAE			1	PASI-I		
EPA 903.1	CLM			1	PASI-PA		
EPA 904.0	VAL			1	PASI-PA		
Total Radium Calculation	LAL			1	PASI-PA		
SM 2320B	DAW			3	PASI-I		
SM 2540C	AEL			1	PASI-I		
SM 4500-H+B	BMS			1	PASI-I		
SM 4500-S2-D	BEP			1	PASI-I		
HACH 8146	BEP			1	PASI-I		
EPA 353.2	ZM			2	PASI-I		
EPA 365.1	YAM			1	PASI-I		
SM 5310C	ATS			1	PASI-I		
SM 5310C	ATS			1	PASI-I		
50343174003	MW-19S			EPA 9056	RMR	3	PASI-I
				EPA 6010	MTM	10	PASI-I
		EPA 6010	JPK	2	PASI-I		

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**SAMPLE ANALYTE COUNT**

Project: Eagle Valley April 2023 P1R4

Pace Project No.: 50343174

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
50343174004	MW-19I	EPA 6020	CAW	11	PASI-I
		EPA 7470	EAE	1	PASI-I
		EPA 903.1	CLM	1	PASI-PA
		EPA 904.0	VAL	1	PASI-PA
		Total Radium Calculation	LAL	1	PASI-PA
		SM 2320B	DAW	3	PASI-I
		SM 2540C	AEL	1	PASI-I
		SM 4500-H+B	BMS	1	PASI-I
		SM 4500-S2-D	BEP	1	PASI-I
		HACH 8146	BEP	1	PASI-I
		EPA 353.2	ZM	2	PASI-I
		EPA 365.1	YAM	1	PASI-I
		SM 5310C	ATS	1	PASI-I
		SM 5310C	ATS	1	PASI-I
		EPA 9056	RMR	3	PASI-I
		EPA 6010	MTM	10	PASI-I
		EPA 6010	JPK	2	PASI-I
		EPA 6020	CAW	11	PASI-I
		EPA 7470	EAE	1	PASI-I
		EPA 903.1	CLM	1	PASI-PA
		EPA 904.0	VAL	1	PASI-PA
		Total Radium Calculation	LAL	1	PASI-PA
		SM 2320B	DAW	3	PASI-I
		SM 2540C	AEL	1	PASI-I
		SM 4500-H+B	BMS	1	PASI-I
		SM 4500-S2-D	BEP	1	PASI-I
		HACH 8146	BEP	1	PASI-I
EPA 353.2	ZM	2	PASI-I		
EPA 365.1	YAM	1	PASI-I		
SM 5310C	ATS	1	PASI-I		
SM 5310C	ATS	1	PASI-I		
50343174005	MW-19D	EPA 9056	RMR	3	PASI-I
		EPA 6010	MTM	10	PASI-I
		EPA 6010	JPK	2	PASI-I
		EPA 6020	CAW	11	PASI-I
		EPA 7470	EAE	1	PASI-I
		EPA 903.1	CLM	1	PASI-PA

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**SAMPLE ANALYTE COUNT**

Project: Eagle Valley April 2023 P1R4

Pace Project No.: 50343174

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
50343174006	DUP 8	EPA 904.0	VAL	1	PASI-PA
		Total Radium Calculation	LAL	1	PASI-PA
		SM 2320B	DAW	3	PASI-I
		SM 2540C	AEL	1	PASI-I
		SM 4500-H+B	BMS	1	PASI-I
		SM 4500-S2-D	BEP	1	PASI-I
		HACH 8146	BEP	1	PASI-I
		EPA 353.2	ZM	2	PASI-I
		EPA 365.1	YAM	1	PASI-I
		SM 5310C	ATS	1	PASI-I
		SM 5310C	ATS	1	PASI-I
		EPA 9056	RMR	3	PASI-I
		EPA 6010	MTM	10	PASI-I
		EPA 6010	JPK	2	PASI-I
		EPA 6020	CAW	11	PASI-I
		EPA 7470	EAE	1	PASI-I
		EPA 903.1	CLM	1	PASI-PA
		EPA 904.0	VAL	1	PASI-PA
		Total Radium Calculation	LAL	1	PASI-PA
		SM 2320B	DAW	3	PASI-I
		SM 2540C	AEL	1	PASI-I
		SM 4500-H+B	BMS	1	PASI-I
		SM 4500-S2-D	BEP	1	PASI-I
		HACH 8146	BEP	1	PASI-I
EPA 353.2	ZM	2	PASI-I		
EPA 365.1	YAM	1	PASI-I		
SM 5310C	ATS	1	PASI-I		
SM 5310C	ATS	1	PASI-I		

PASI-I = Pace Analytical Services - Indianapolis

PASI-PA = Pace Analytical Services - Greensburg

**REPORT OF LABORATORY ANALYSIS**

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**SUMMARY OF DETECTION**

Project: Eagle Valley April 2023 P1R4  
 Pace Project No.: 50343174

Lab Sample ID	Client Sample ID	Result	Units	Report Limit	Analyzed	Qualifiers
Method	Parameters					
<b>50343174001</b>	<b>MW-18I</b>					
EPA 9056	Chloride	36.3	mg/L	2.5	04/29/23 17:17	
EPA 9056	Fluoride	0.14	mg/L	0.10	04/29/23 16:58	
EPA 9056	Sulfate	45.6	mg/L	0.25	04/29/23 16:58	
EPA 6010	Boron	198	ug/L	100	04/28/23 16:43	
EPA 6010	Calcium	74500	ug/L	1000	04/28/23 16:43	
EPA 6010	Lithium	33.4	ug/L	20.0	04/28/23 16:43	
EPA 6010	Magnesium	17900	ug/L	1000	04/28/23 16:43	
EPA 6010	Potassium	4560	ug/L	1000	04/28/23 16:43	
EPA 6010	Silica	10100	ug/L	450	04/28/23 16:43	N2
EPA 6010	Sodium	23900	ug/L	1000	04/28/23 16:43	
EPA 6010	Molybdenum, Dissolved	74.6	ug/L	10.0	04/28/23 02:51	
EPA 6020	Barium	62.4	ug/L	1.0	04/28/23 02:25	
EPA 6020	Molybdenum	72.5	ug/L	10.0	04/28/23 02:25	
EPA 903.1	Radium-226	0.304 ± 0.520 (0.912)	pCi/L		05/16/23 14:16	
EPA 904.0	Radium-228	C:NA T:92% 0.242 ± 0.366 (0.790)	pCi/L		05/10/23 15:32	
		C:77% T:86%				
Total Radium Calculation	Total Radium	0.546 ± 0.886 (1.70)	pCi/L		05/18/23 12:42	
SM 2320B	Alkalinity, Total as CaCO3	212	mg/L	10.0	04/26/23 21:35	
SM 2320B	Alkalinity,Bicarbonate (CaCO3)	212	mg/L	10.0	04/26/23 21:35	
SM 2540C	Total Dissolved Solids	306	mg/L	10.0	04/29/23 14:12	
SM 4500-H+B	pH at 25 Degrees C	7.9	Std. Units	0.10	04/27/23 13:35	H3
EPA 353.2	Nitrogen, Nitrate	0.69	mg/L	0.10	04/26/23 21:44	
SM 5310C	Total Organic Carbon	1.3	mg/L	1.0	04/29/23 02:58	
SM 5310C	Dissolved Organic Carbon	1.0	mg/L	1.0	04/29/23 00:05	
<b>50343174002</b>	<b>MW-18D</b>					
EPA 9056	Chloride	128	mg/L	2.5	04/29/23 17:56	
EPA 9056	Fluoride	0.13	mg/L	0.10	04/29/23 17:37	
EPA 9056	Sulfate	141	mg/L	2.5	04/29/23 17:56	
EPA 6010	Boron	4370	ug/L	100	04/28/23 16:46	
EPA 6010	Calcium	105000	ug/L	1000	04/28/23 16:46	
EPA 6010	Iron	553	ug/L	100	04/28/23 16:46	
EPA 6010	Lithium	94.8	ug/L	20.0	04/28/23 16:46	
EPA 6010	Magnesium	21800	ug/L	1000	04/28/23 16:46	
EPA 6010	Manganese	407	ug/L	10.0	04/28/23 16:46	
EPA 6010	Potassium	7260	ug/L	1000	04/28/23 16:46	
EPA 6010	Silica	13000	ug/L	450	04/28/23 16:46	N2
EPA 6010	Sodium	92000	ug/L	1000	04/28/23 16:46	
EPA 6010	Manganese, Dissolved	384	ug/L	10.0	04/28/23 02:53	
EPA 6010	Molybdenum, Dissolved	148	ug/L	10.0	04/28/23 02:53	
EPA 6020	Arsenic	1.2	ug/L	1.0	04/28/23 02:28	
EPA 6020	Barium	83.8	ug/L	1.0	04/28/23 02:28	

**REPORT OF LABORATORY ANALYSIS**

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**SUMMARY OF DETECTION**

Project: Eagle Valley April 2023 P1R4

Pace Project No.: 50343174

Lab Sample ID	Client Sample ID	Result	Units	Report Limit	Analyzed	Qualifiers
Method	Parameters					
<b>50343174002</b>	<b>MW-18D</b>					
EPA 6020	Molybdenum	147	ug/L	10.0	04/28/23 02:28	
EPA 903.1	Radium-226	0.411 ± 0.476 (0.769) C:NA T:94%	pCi/L		05/16/23 14:16	
EPA 904.0	Radium-228	0.707 ± 0.479 (0.937) C:79% T:87%	pCi/L		05/10/23 15:32	
Total Radium Calculation	Total Radium	1.12 ± 0.955 (1.71)	pCi/L		05/18/23 12:42	
SM 2320B	Alkalinity, Total as CaCO3	230	mg/L	10.0	04/26/23 21:35	
SM 2320B	Alkalinity,Bicarbonate (CaCO3)	230	mg/L	10.0	04/26/23 21:35	
SM 2540C	Total Dissolved Solids	618	mg/L	10.0	04/29/23 14:12	
SM 4500-H+B	pH at 25 Degrees C	7.9	Std. Units	0.10	04/27/23 13:37	H3
<b>50343174003</b>	<b>MW-19S</b>					
EPA 9056	Chloride	6.5	mg/L	0.25	04/29/23 18:16	
EPA 9056	Sulfate	11.3	mg/L	0.25	04/29/23 18:16	
EPA 6010	Boron	208	ug/L	100	04/28/23 16:48	
EPA 6010	Calcium	105000	ug/L	1000	04/28/23 16:48	
EPA 6010	Iron	276	ug/L	100	04/28/23 16:48	
EPA 6010	Magnesium	28300	ug/L	1000	04/28/23 16:48	
EPA 6010	Manganese	36.3	ug/L	10.0	04/28/23 16:48	
EPA 6010	Potassium	1790	ug/L	1000	04/28/23 16:48	
EPA 6010	Silica	11800	ug/L	450	04/28/23 16:48	N2
EPA 6010	Sodium	8770	ug/L	1000	04/28/23 16:48	
EPA 6020	Barium	29.7	ug/L	1.0	04/28/23 02:32	
EPA 903.1	Radium-226	0.000 ± 0.313 (0.678) C:NA T:94%	pCi/L		05/16/23 14:16	
EPA 904.0	Radium-228	0.305 ± 0.409 (0.875) C:74% T:88%	pCi/L		05/10/23 15:32	
Total Radium Calculation	Total Radium	0.305 ± 0.722 (1.55)	pCi/L		05/18/23 12:42	
SM 2320B	Alkalinity, Total as CaCO3	345	mg/L	10.0	04/26/23 21:35	
SM 2320B	Alkalinity,Bicarbonate (CaCO3)	345	mg/L	10.0	04/26/23 21:35	
SM 2540C	Total Dissolved Solids	350	mg/L	10.0	04/29/23 14:12	
SM 4500-H+B	pH at 25 Degrees C	7.6	Std. Units	0.10	04/27/23 13:38	H3
EPA 353.2	Nitrogen, Nitrate	8.2	mg/L	0.50	04/26/23 22:21	
SM 5310C	Dissolved Organic Carbon	1.0	mg/L	1.0	04/29/23 00:26	
<b>50343174004</b>	<b>MW-19I</b>					
EPA 9056	Chloride	89.6	mg/L	2.5	04/29/23 19:14	
EPA 9056	Sulfate	156	mg/L	2.5	04/29/23 19:14	

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**SUMMARY OF DETECTION**

Project: Eagle Valley April 2023 P1R4

Pace Project No.: 50343174

Lab Sample ID	Client Sample ID	Result	Units	Report Limit	Analyzed	Qualifiers
Method	Parameters					
<b>50343174004</b>	<b>MW-19I</b>					
EPA 6010	Boron	4510	ug/L	100	04/28/23 16:54	
EPA 6010	Calcium	109000	ug/L	1000	04/28/23 16:54	
EPA 6010	Lithium	94.5	ug/L	20.0	04/28/23 16:54	
EPA 6010	Magnesium	24300	ug/L	1000	04/28/23 16:54	
EPA 6010	Manganese	85.0	ug/L	10.0	04/28/23 16:54	
EPA 6010	Potassium	7160	ug/L	1000	04/28/23 16:54	
EPA 6010	Silica	14000	ug/L	450	04/28/23 16:54	N2
EPA 6010	Sodium	84300	ug/L	1000	04/28/23 16:54	
EPA 6010	Manganese, Dissolved	83.6	ug/L	10.0	04/28/23 02:58	
EPA 6010	Molybdenum, Dissolved	141	ug/L	10.0	04/28/23 02:58	
EPA 6020	Barium	59.6	ug/L	1.0	04/28/23 02:42	
EPA 6020	Molybdenum	137	ug/L	10.0	04/28/23 02:42	
EPA 903.1	Radium-226	1.14 ± 0.691 (0.891)	pCi/L		05/16/23 14:16	
		C:NA T:90%				
EPA 904.0	Radium-228	0.648 ± 0.430 (0.828)	pCi/L		05/10/23 15:32	
		C:81% T:83%				
Total Radium Calculation	Total Radium	1.79 ± 1.12 (1.72)	pCi/L		05/18/23 12:42	
SM 2320B	Alkalinity, Total as CaCO3	272	mg/L	10.0	04/26/23 21:35	
SM 2320B	Alkalinity, Bicarbonate (CaCO3)	272	mg/L	10.0	04/26/23 21:35	
SM 2540C	Total Dissolved Solids	637	mg/L	10.0	04/29/23 14:13	
SM 4500-H+B	pH at 25 Degrees C	7.8	Std. Units	0.10	04/27/23 13:40	H3
<b>50343174005</b>	<b>MW-19D</b>					
EPA 9056	Chloride	134	mg/L	2.5	04/29/23 19:53	
EPA 9056	Sulfate	201	mg/L	2.5	04/29/23 19:53	
EPA 6010	Boron	5750	ug/L	100	04/28/23 16:56	
EPA 6010	Calcium	119000	ug/L	1000	04/28/23 16:56	
EPA 6010	Iron	195	ug/L	100	04/28/23 16:56	
EPA 6010	Lithium	28.4	ug/L	20.0	04/28/23 16:56	
EPA 6010	Magnesium	29500	ug/L	1000	04/28/23 16:56	
EPA 6010	Manganese	384	ug/L	10.0	04/28/23 16:56	
EPA 6010	Potassium	4320	ug/L	1000	04/28/23 16:56	
EPA 6010	Silica	14700	ug/L	450	04/28/23 16:56	N2
EPA 6010	Sodium	105000	ug/L	1000	04/28/23 16:56	
EPA 6010	Manganese, Dissolved	385	ug/L	10.0	04/28/23 03:00	
EPA 6010	Molybdenum, Dissolved	16.7	ug/L	10.0	04/28/23 03:00	
EPA 6020	Barium	48.7	ug/L	1.0	04/28/23 02:45	
EPA 6020	Molybdenum	15.2	ug/L	10.0	04/28/23 02:45	
EPA 903.1	Radium-226	0.594 ± 0.597 (0.931)	pCi/L		05/16/23 14:16	
		C:NA T:91%				

**REPORT OF LABORATORY ANALYSIS**

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### SUMMARY OF DETECTION

Project: Eagle Valley April 2023 P1R4

Pace Project No.: 50343174

Lab Sample ID	Client Sample ID	Result	Units	Report Limit	Analyzed	Qualifiers
Method	Parameters					
<b>50343174005</b>	<b>MW-19D</b>					
EPA 904.0	Radium-228	1.04 ± 0.480 (0.824) C:78% T:88%	pCi/L		05/10/23 15:33	
Total Radium Calculation	Total Radium	1.63 ± 1.08 (1.76)	pCi/L		05/18/23 12:42	
SM 2320B	Alkalinity, Total as CaCO3	240	mg/L	10.0	04/26/23 21:35	
SM 2320B	Alkalinity,Bicarbonate (CaCO3)	240	mg/L	10.0	04/26/23 21:35	
SM 2540C	Total Dissolved Solids	749	mg/L	10.0	04/29/23 14:13	
SM 4500-H+B	pH at 25 Degrees C	7.8	Std. Units	0.10	04/27/23 13:42	H3
<b>50343174006</b>	<b>DUP 8</b>					
EPA 9056	Chloride	123	mg/L	2.5	04/29/23 21:11	
EPA 9056	Fluoride	0.13	mg/L	0.10	04/29/23 20:52	
EPA 9056	Sulfate	139	mg/L	2.5	04/29/23 21:11	
EPA 6010	Boron	4440	ug/L	100	04/28/23 16:58	
EPA 6010	Calcium	106000	ug/L	1000	04/28/23 16:58	
EPA 6010	Iron	552	ug/L	100	04/28/23 16:58	
EPA 6010	Lithium	94.9	ug/L	20.0	04/28/23 16:58	
EPA 6010	Magnesium	22100	ug/L	1000	04/28/23 16:58	
EPA 6010	Manganese	409	ug/L	10.0	04/28/23 16:58	
EPA 6010	Potassium	7360	ug/L	1000	04/28/23 16:58	
EPA 6010	Silica	13000	ug/L	450	04/28/23 16:58	N2
EPA 6010	Sodium	92900	ug/L	1000	04/28/23 16:58	
EPA 6010	Manganese, Dissolved	397	ug/L	10.0	04/28/23 03:03	
EPA 6010	Molybdenum, Dissolved	148	ug/L	10.0	04/28/23 03:03	
EPA 6020	Arsenic	1.2	ug/L	1.0	04/28/23 02:48	
EPA 6020	Barium	82.9	ug/L	1.0	04/28/23 02:48	
EPA 6020	Molybdenum	145	ug/L	10.0	04/28/23 02:48	
EPA 903.1	Radium-226	0.477 ± 0.697 (1.19) C:NA T:97%	pCi/L		05/16/23 14:16	
EPA 904.0	Radium-228	0.965 ± 0.472 (0.821) C:72% T:88%	pCi/L		05/10/23 15:33	
Total Radium Calculation	Total Radium	1.44 ± 1.17 (2.01)	pCi/L		05/18/23 12:42	
SM 2320B	Alkalinity, Total as CaCO3	229	mg/L	10.0	04/26/23 21:35	
SM 2320B	Alkalinity,Bicarbonate (CaCO3)	229	mg/L	10.0	04/26/23 21:35	
SM 2540C	Total Dissolved Solids	621	mg/L	10.0	04/29/23 14:13	
SM 4500-H+B	pH at 25 Degrees C	7.8	Std. Units	0.10	04/27/23 13:33	H3

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### ANALYTICAL RESULTS

Project: Eagle Valley April 2023 P1R4  
 Pace Project No.: 50343174

**Sample: MW-181**      **Lab ID: 50343174001**      Collected: 04/26/23 10:00      Received: 04/26/23 13:55      Matrix: Water

Parameters	Results	Units	Report			Prepared	Analyzed	CAS No.	Qual
			Limit	MDL	DF				
<b>9056 IC Anions</b>									
Analytical Method: EPA 9056									
Pace Analytical Services - Indianapolis									
Chloride	36.3	mg/L	2.5	0.67	10		04/29/23 17:17	16887-00-6	
Fluoride	0.14	mg/L	0.10	0.017	1		04/29/23 16:58	16984-48-8	
Sulfate	45.6	mg/L	0.25	0.085	1		04/29/23 16:58	14808-79-8	
<b>6010 MET ICP</b>									
Analytical Method: EPA 6010      Preparation Method: EPA 3010									
Pace Analytical Services - Indianapolis									
Aluminum	ND	ug/L	200	55.4	1	04/27/23 15:44	04/28/23 16:43	7429-90-5	
Boron	198	ug/L	100	37.6	1	04/27/23 15:44	04/28/23 16:43	7440-42-8	
Calcium	74500	ug/L	1000	163	1	04/27/23 15:44	04/28/23 16:43	7440-70-2	
Iron	ND	ug/L	100	48.8	1	04/27/23 15:44	04/28/23 16:43	7439-89-6	
Lithium	33.4	ug/L	20.0	6.2	1	04/27/23 15:44	04/28/23 16:43	7439-93-2	
Magnesium	17900	ug/L	1000	71.8	1	04/27/23 15:44	04/28/23 16:43	7439-95-4	
Manganese	ND	ug/L	10.0	2.5	1	04/27/23 15:44	04/28/23 16:43	7439-96-5	
Potassium	4560	ug/L	1000	281	1	04/27/23 15:44	04/28/23 16:43	7440-09-7	
Silica	10100	ug/L	450		1	04/27/23 15:44	04/28/23 16:43	7631-86-9	N2
Sodium	23900	ug/L	1000	214	1	04/27/23 15:44	04/28/23 16:43	7440-23-5	
<b>6010 MET ICP, Dissolved</b>									
Analytical Method: EPA 6010      Preparation Method: EPA 3010									
Pace Analytical Services - Indianapolis									
Manganese, Dissolved	ND	ug/L	10.0	2.5	1	04/27/23 16:16	04/28/23 02:51	7439-96-5	
Molybdenum, Dissolved	74.6	ug/L	10.0	3.7	1	04/27/23 16:16	04/28/23 02:51	7439-98-7	
<b>6020 MET ICPMS</b>									
Analytical Method: EPA 6020      Preparation Method: EPA 200.2									
Pace Analytical Services - Indianapolis									
Antimony	ND	ug/L	1.0	0.036	1	04/27/23 07:05	04/28/23 02:25	7440-36-0	
Arsenic	ND	ug/L	1.0	0.053	1	04/27/23 07:05	04/28/23 02:25	7440-38-2	
Barium	62.4	ug/L	1.0	0.051	1	04/27/23 07:05	04/28/23 02:25	7440-39-3	
Beryllium	ND	ug/L	0.20	0.028	1	04/27/23 07:05	04/28/23 19:27	7440-41-7	
Cadmium	ND	ug/L	2.0	0.0090	1	04/27/23 07:05	04/28/23 02:25	7440-43-9	
Chromium	ND	ug/L	10.0	0.13	1	04/27/23 07:05	04/28/23 02:25	7440-47-3	
Cobalt	ND	ug/L	1.0	0.032	1	04/27/23 07:05	04/28/23 02:25	7440-48-4	
Lead	ND	ug/L	10.0	0.034	1	04/27/23 07:05	04/28/23 02:25	7439-92-1	
Molybdenum	72.5	ug/L	10.0	0.048	1	04/27/23 07:05	04/28/23 02:25	7439-98-7	
Selenium	ND	ug/L	1.0	0.23	1	04/27/23 07:05	04/28/23 02:25	7782-49-2	
Thallium	ND	ug/L	1.0	0.033	1	04/27/23 07:05	04/28/23 02:25	7440-28-0	
<b>7470 Mercury</b>									
Analytical Method: EPA 7470      Preparation Method: EPA 7470									
Pace Analytical Services - Indianapolis									
Mercury	ND	ug/L	0.20	0.091	1	04/27/23 10:07	04/27/23 20:02	7439-97-6	
<b>2320B Alkalinity</b>									
Analytical Method: SM 2320B									
Pace Analytical Services - Indianapolis									
Alkalinity, Total as CaCO3	212	mg/L	10.0	10.0	1		04/26/23 21:35		
Alkalinity,Bicarbonate (CaCO3)	212	mg/L	10.0	10.0	1		04/26/23 21:35		

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**ANALYTICAL RESULTS**

Project: Eagle Valley April 2023 P1R4  
 Pace Project No.: 50343174

Sample: MW-18I		Lab ID: 50343174001		Collected: 04/26/23 10:00	Received: 04/26/23 13:55	Matrix: Water			
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>2320B Alkalinity</b>		Analytical Method: SM 2320B Pace Analytical Services - Indianapolis							
Alkalinity, Carbonate (CaCO3)	ND	mg/L	10.0	10.0	1		04/26/23 21:35		
<b>2540C Total Dissolved Solids</b>		Analytical Method: SM 2540C Pace Analytical Services - Indianapolis							
Total Dissolved Solids	306	mg/L	10.0	10.0	1		04/29/23 14:12		
<b>4500H+ pH, Electrometric</b>		Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis							
pH at 25 Degrees C	7.9	Std. Units	0.10	0.10	1		04/27/23 13:35		H3
<b>4500S2D Sulfide Water</b>		Analytical Method: SM 4500-S2-D Pace Analytical Services - Indianapolis							
Sulfide	ND	mg/L	0.10	0.025	1		04/28/23 11:07	18496-25-8	
<b>Iron, Ferrous</b>		Analytical Method: HACH 8146 Pace Analytical Services - Indianapolis							
Iron, Ferrous	ND	mg/L	0.20	0.035	1		05/02/23 10:10	15438-31-0	H3,N2
<b>353.2 Nitrogen, NO2/NO3 unpres</b>		Analytical Method: EPA 353.2 Pace Analytical Services - Indianapolis							
Nitrogen, Nitrate	0.69	mg/L	0.10	0.011	1		04/26/23 21:44	14797-55-8	
Nitrogen, Nitrite	ND	mg/L	0.10	0.0040	1		04/26/23 21:44	14797-65-0	
<b>365.1 Total Phosphorus</b>		Analytical Method: EPA 365.1 Preparation Method: EPA 365.1 Pace Analytical Services - Indianapolis							
Phosphate as P04	ND	mg/L	0.15	0.15	1	04/27/23 12:52	05/02/23 13:26		
<b>5310C TOC</b>		Analytical Method: SM 5310C Pace Analytical Services - Indianapolis							
Total Organic Carbon	1.3	mg/L	1.0	0.24	1		04/29/23 02:58	7440-44-0	
<b>5310C Dissolved Organic Carbon</b>		Analytical Method: SM 5310C Pace Analytical Services - Indianapolis							
Dissolved Organic Carbon	1.0	mg/L	1.0	0.24	1		04/29/23 00:05		

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## ANALYTICAL RESULTS

Project: Eagle Valley April 2023 P1R4

Pace Project No.: 50343174

Sample: MW-18D		Lab ID: 50343174002		Collected: 04/26/23 10:55		Received: 04/26/23 13:55		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>9056 IC Anions</b>									
Analytical Method: EPA 9056									
Pace Analytical Services - Indianapolis									
Chloride	128	mg/L	2.5	0.67	10		04/29/23 17:56	16887-00-6	
Fluoride	0.13	mg/L	0.10	0.017	1		04/29/23 17:37	16984-48-8	
Sulfate	141	mg/L	2.5	0.85	10		04/29/23 17:56	14808-79-8	
<b>6010 MET ICP</b>									
Analytical Method: EPA 6010 Preparation Method: EPA 3010									
Pace Analytical Services - Indianapolis									
Aluminum	ND	ug/L	200	55.4	1	04/27/23 15:44	04/28/23 16:46	7429-90-5	
Boron	4370	ug/L	100	37.6	1	04/27/23 15:44	04/28/23 16:46	7440-42-8	
Calcium	105000	ug/L	1000	163	1	04/27/23 15:44	04/28/23 16:46	7440-70-2	
Iron	553	ug/L	100	48.8	1	04/27/23 15:44	04/28/23 16:46	7439-89-6	
Lithium	94.8	ug/L	20.0	6.2	1	04/27/23 15:44	04/28/23 16:46	7439-93-2	
Magnesium	21800	ug/L	1000	71.8	1	04/27/23 15:44	04/28/23 16:46	7439-95-4	
Manganese	407	ug/L	10.0	2.5	1	04/27/23 15:44	04/28/23 16:46	7439-96-5	
Potassium	7260	ug/L	1000	281	1	04/27/23 15:44	04/28/23 16:46	7440-09-7	
Silica	13000	ug/L	450		1	04/27/23 15:44	04/28/23 16:46	7631-86-9	N2
Sodium	92000	ug/L	1000	214	1	04/27/23 15:44	04/28/23 16:46	7440-23-5	
<b>6010 MET ICP, Dissolved</b>									
Analytical Method: EPA 6010 Preparation Method: EPA 3010									
Pace Analytical Services - Indianapolis									
Manganese, Dissolved	384	ug/L	10.0	2.5	1	04/27/23 16:16	04/28/23 02:53	7439-96-5	
Molybdenum, Dissolved	148	ug/L	10.0	3.7	1	04/27/23 16:16	04/28/23 02:53	7439-98-7	
<b>6020 MET ICPMS</b>									
Analytical Method: EPA 6020 Preparation Method: EPA 200.2									
Pace Analytical Services - Indianapolis									
Antimony	ND	ug/L	1.0	0.036	1	04/27/23 07:05	04/28/23 02:28	7440-36-0	
Arsenic	1.2	ug/L	1.0	0.053	1	04/27/23 07:05	04/28/23 02:28	7440-38-2	
Barium	83.8	ug/L	1.0	0.051	1	04/27/23 07:05	04/28/23 02:28	7440-39-3	
Beryllium	ND	ug/L	0.20	0.028	1	04/27/23 07:05	04/28/23 19:37	7440-41-7	
Cadmium	ND	ug/L	2.0	0.0090	1	04/27/23 07:05	04/28/23 02:28	7440-43-9	
Chromium	ND	ug/L	10.0	0.13	1	04/27/23 07:05	04/28/23 02:28	7440-47-3	
Cobalt	ND	ug/L	1.0	0.032	1	04/27/23 07:05	04/28/23 02:28	7440-48-4	
Lead	ND	ug/L	10.0	0.034	1	04/27/23 07:05	04/28/23 02:28	7439-92-1	
Molybdenum	147	ug/L	10.0	0.048	1	04/27/23 07:05	04/28/23 02:28	7439-98-7	
Selenium	ND	ug/L	1.0	0.23	1	04/27/23 07:05	04/28/23 02:28	7782-49-2	
Thallium	ND	ug/L	1.0	0.033	1	04/27/23 07:05	04/28/23 02:28	7440-28-0	
<b>7470 Mercury</b>									
Analytical Method: EPA 7470 Preparation Method: EPA 7470									
Pace Analytical Services - Indianapolis									
Mercury	ND	ug/L	0.20	0.091	1	04/27/23 10:07	04/27/23 20:09	7439-97-6	
<b>2320B Alkalinity</b>									
Analytical Method: SM 2320B									
Pace Analytical Services - Indianapolis									
Alkalinity, Total as CaCO3	230	mg/L	10.0	10.0	1		04/26/23 21:35		
Alkalinity, Bicarbonate (CaCO3)	230	mg/L	10.0	10.0	1		04/26/23 21:35		

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**ANALYTICAL RESULTS**

Project: Eagle Valley April 2023 P1R4  
 Pace Project No.: 50343174

Sample: MW-18D		Lab ID: 50343174002		Collected: 04/26/23 10:55	Received: 04/26/23 13:55	Matrix: Water			
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>2320B Alkalinity</b>		Analytical Method: SM 2320B Pace Analytical Services - Indianapolis							
Alkalinity, Carbonate (CaCO3)	ND	mg/L	10.0	10.0	1		04/26/23 21:35		
<b>2540C Total Dissolved Solids</b>		Analytical Method: SM 2540C Pace Analytical Services - Indianapolis							
Total Dissolved Solids	<b>618</b>	mg/L	10.0	10.0	1		04/29/23 14:12		
<b>4500H+ pH, Electrometric</b>		Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis							
pH at 25 Degrees C	<b>7.9</b>	Std. Units	0.10	0.10	1		04/27/23 13:37		H3
<b>4500S2D Sulfide Water</b>		Analytical Method: SM 4500-S2-D Pace Analytical Services - Indianapolis							
Sulfide	ND	mg/L	0.10	0.025	1		04/28/23 11:07	18496-25-8	
<b>Iron, Ferrous</b>		Analytical Method: HACH 8146 Pace Analytical Services - Indianapolis							
Iron, Ferrous	ND	mg/L	0.20	0.035	1		05/02/23 10:10	15438-31-0	H3,N2
<b>353.2 Nitrogen, NO2/NO3 unpres</b>		Analytical Method: EPA 353.2 Pace Analytical Services - Indianapolis							
Nitrogen, Nitrate	ND	mg/L	0.10	0.011	1		04/26/23 21:50	14797-55-8	
Nitrogen, Nitrite	ND	mg/L	0.10	0.0040	1		04/26/23 21:50	14797-65-0	
<b>365.1 Total Phosphorus</b>		Analytical Method: EPA 365.1 Preparation Method: EPA 365.1 Pace Analytical Services - Indianapolis							
Phosphate as P04	ND	mg/L	0.15	0.15	1	04/27/23 12:52	05/02/23 13:26		
<b>5310C TOC</b>		Analytical Method: SM 5310C Pace Analytical Services - Indianapolis							
Total Organic Carbon	ND	mg/L	1.0	0.24	1		04/29/23 03:32	7440-44-0	
<b>5310C Dissolved Organic Carbon</b>		Analytical Method: SM 5310C Pace Analytical Services - Indianapolis							
Dissolved Organic Carbon	ND	mg/L	1.0	0.24	1		04/29/23 00:16		

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**ANALYTICAL RESULTS**

Project: Eagle Valley April 2023 P1R4

Pace Project No.: 50343174

**Sample: MW-19S**      **Lab ID: 50343174003**      Collected: 04/26/23 11:50      Received: 04/26/23 13:55      Matrix: Water

Parameters	Results	Units	Report			Prepared	Analyzed	CAS No.	Qual
			Limit	MDL	DF				
<b>9056 IC Anions</b>									
Analytical Method: EPA 9056									
Pace Analytical Services - Indianapolis									
Chloride	6.5	mg/L	0.25	0.067	1		04/29/23 18:16	16887-00-6	
Fluoride	ND	mg/L	0.10	0.017	1		04/29/23 18:16	16984-48-8	
Sulfate	11.3	mg/L	0.25	0.085	1		04/29/23 18:16	14808-79-8	
<b>6010 MET ICP</b>									
Analytical Method: EPA 6010      Preparation Method: EPA 3010									
Pace Analytical Services - Indianapolis									
Aluminum	ND	ug/L	200	55.4	1	04/27/23 15:44	04/28/23 16:48	7429-90-5	
Boron	208	ug/L	100	37.6	1	04/27/23 15:44	04/28/23 16:48	7440-42-8	
Calcium	105000	ug/L	1000	163	1	04/27/23 15:44	04/28/23 16:48	7440-70-2	
Iron	276	ug/L	100	48.8	1	04/27/23 15:44	04/28/23 16:48	7439-89-6	
Lithium	ND	ug/L	20.0	6.2	1	04/27/23 15:44	04/28/23 16:48	7439-93-2	
Magnesium	28300	ug/L	1000	71.8	1	04/27/23 15:44	04/28/23 16:48	7439-95-4	
Manganese	36.3	ug/L	10.0	2.5	1	04/27/23 15:44	04/28/23 16:48	7439-96-5	
Potassium	1790	ug/L	1000	281	1	04/27/23 15:44	04/28/23 16:48	7440-09-7	
Silica	11800	ug/L	450		1	04/27/23 15:44	04/28/23 16:48	7631-86-9	N2
Sodium	8770	ug/L	1000	214	1	04/27/23 15:44	04/28/23 16:48	7440-23-5	
<b>6010 MET ICP, Dissolved</b>									
Analytical Method: EPA 6010      Preparation Method: EPA 3010									
Pace Analytical Services - Indianapolis									
Manganese, Dissolved	ND	ug/L	10.0	2.5	1	04/27/23 16:16	04/28/23 02:56	7439-96-5	
Molybdenum, Dissolved	ND	ug/L	10.0	3.7	1	04/27/23 16:16	04/28/23 02:56	7439-98-7	
<b>6020 MET ICPMS</b>									
Analytical Method: EPA 6020      Preparation Method: EPA 200.2									
Pace Analytical Services - Indianapolis									
Antimony	ND	ug/L	1.0	0.036	1	04/27/23 07:05	04/28/23 02:32	7440-36-0	
Arsenic	ND	ug/L	1.0	0.053	1	04/27/23 07:05	04/28/23 02:32	7440-38-2	
Barium	29.7	ug/L	1.0	0.051	1	04/27/23 07:05	04/28/23 02:32	7440-39-3	
Beryllium	ND	ug/L	0.20	0.028	1	04/27/23 07:05	04/28/23 19:44	7440-41-7	
Cadmium	ND	ug/L	2.0	0.0090	1	04/27/23 07:05	04/28/23 02:32	7440-43-9	
Chromium	ND	ug/L	10.0	0.13	1	04/27/23 07:05	04/28/23 02:32	7440-47-3	
Cobalt	ND	ug/L	1.0	0.032	1	04/27/23 07:05	04/28/23 02:32	7440-48-4	
Lead	ND	ug/L	10.0	0.034	1	04/27/23 07:05	04/28/23 02:32	7439-92-1	
Molybdenum	ND	ug/L	10.0	0.048	1	04/27/23 07:05	04/28/23 02:32	7439-98-7	
Selenium	ND	ug/L	1.0	0.23	1	04/27/23 07:05	04/28/23 02:32	7782-49-2	
Thallium	ND	ug/L	1.0	0.033	1	04/27/23 07:05	04/28/23 02:32	7440-28-0	
<b>7470 Mercury</b>									
Analytical Method: EPA 7470      Preparation Method: EPA 7470									
Pace Analytical Services - Indianapolis									
Mercury	ND	ug/L	0.20	0.091	1	04/27/23 10:07	04/27/23 20:12	7439-97-6	
<b>2320B Alkalinity</b>									
Analytical Method: SM 2320B									
Pace Analytical Services - Indianapolis									
Alkalinity, Total as CaCO3	345	mg/L	10.0	10.0	1		04/26/23 21:35		
Alkalinity,Bicarbonate (CaCO3)	345	mg/L	10.0	10.0	1		04/26/23 21:35		

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**ANALYTICAL RESULTS**

Project: Eagle Valley April 2023 P1R4  
 Pace Project No.: 50343174

Sample: MW-19S		Lab ID: 50343174003		Collected: 04/26/23 11:50	Received: 04/26/23 13:55	Matrix: Water			
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>2320B Alkalinity</b>		Analytical Method: SM 2320B Pace Analytical Services - Indianapolis							
Alkalinity, Carbonate (CaCO3)	ND	mg/L	10.0	10.0	1		04/26/23 21:35		
<b>2540C Total Dissolved Solids</b>		Analytical Method: SM 2540C Pace Analytical Services - Indianapolis							
Total Dissolved Solids	<b>350</b>	mg/L	10.0	10.0	1		04/29/23 14:12		
<b>4500H+ pH, Electrometric</b>		Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis							
pH at 25 Degrees C	<b>7.6</b>	Std. Units	0.10	0.10	1		04/27/23 13:38		H3
<b>4500S2D Sulfide Water</b>		Analytical Method: SM 4500-S2-D Pace Analytical Services - Indianapolis							
Sulfide	ND	mg/L	0.10	0.025	1		04/28/23 11:07	18496-25-8	
<b>Iron, Ferrous</b>		Analytical Method: HACH 8146 Pace Analytical Services - Indianapolis							
Iron, Ferrous	ND	mg/L	0.20	0.035	1		05/02/23 10:11	15438-31-0	H3,N2
<b>353.2 Nitrogen, NO2/NO3 unpres</b>		Analytical Method: EPA 353.2 Pace Analytical Services - Indianapolis							
Nitrogen, Nitrate	<b>8.2</b>	mg/L	0.50	0.055	5		04/26/23 22:21	14797-55-8	
Nitrogen, Nitrite	ND	mg/L	0.50	0.020	5		04/26/23 22:21	14797-65-0	
<b>365.1 Total Phosphorus</b>		Analytical Method: EPA 365.1 Preparation Method: EPA 365.1 Pace Analytical Services - Indianapolis							
Phosphate as P04	ND	mg/L	0.15	0.15	1	04/27/23 12:52	05/02/23 13:27		
<b>5310C TOC</b>		Analytical Method: SM 5310C Pace Analytical Services - Indianapolis							
Total Organic Carbon	ND	mg/L	1.0	0.24	1		04/29/23 03:43	7440-44-0	
<b>5310C Dissolved Organic Carbon</b>		Analytical Method: SM 5310C Pace Analytical Services - Indianapolis							
Dissolved Organic Carbon	<b>1.0</b>	mg/L	1.0	0.24	1		04/29/23 00:26		

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## ANALYTICAL RESULTS

Project: Eagle Valley April 2023 P1R4

Pace Project No.: 50343174

Sample: MW-191 Lab ID: 50343174004 Collected: 04/26/23 12:25 Received: 04/26/23 13:55 Matrix: Water

Parameters	Results	Units	Report			Prepared	Analyzed	CAS No.	Qual
			Limit	MDL	DF				
<b>9056 IC Anions</b>									
Analytical Method: EPA 9056									
Pace Analytical Services - Indianapolis									
Chloride	89.6	mg/L	2.5	0.67	10		04/29/23 19:14	16887-00-6	
Fluoride	ND	mg/L	0.10	0.017	1		04/29/23 18:55	16984-48-8	
Sulfate	156	mg/L	2.5	0.85	10		04/29/23 19:14	14808-79-8	
<b>6010 MET ICP</b>									
Analytical Method: EPA 6010 Preparation Method: EPA 3010									
Pace Analytical Services - Indianapolis									
Aluminum	ND	ug/L	200	55.4	1	04/27/23 15:44	04/28/23 16:54	7429-90-5	
Boron	4510	ug/L	100	37.6	1	04/27/23 15:44	04/28/23 16:54	7440-42-8	
Calcium	109000	ug/L	1000	163	1	04/27/23 15:44	04/28/23 16:54	7440-70-2	
Iron	ND	ug/L	100	48.8	1	04/27/23 15:44	04/28/23 16:54	7439-89-6	
Lithium	94.5	ug/L	20.0	6.2	1	04/27/23 15:44	04/28/23 16:54	7439-93-2	
Magnesium	24300	ug/L	1000	71.8	1	04/27/23 15:44	04/28/23 16:54	7439-95-4	
Manganese	85.0	ug/L	10.0	2.5	1	04/27/23 15:44	04/28/23 16:54	7439-96-5	
Potassium	7160	ug/L	1000	281	1	04/27/23 15:44	04/28/23 16:54	7440-09-7	
Silica	14000	ug/L	450		1	04/27/23 15:44	04/28/23 16:54	7631-86-9	N2
Sodium	84300	ug/L	1000	214	1	04/27/23 15:44	04/28/23 16:54	7440-23-5	
<b>6010 MET ICP, Dissolved</b>									
Analytical Method: EPA 6010 Preparation Method: EPA 3010									
Pace Analytical Services - Indianapolis									
Manganese, Dissolved	83.6	ug/L	10.0	2.5	1	04/27/23 16:16	04/28/23 02:58	7439-96-5	
Molybdenum, Dissolved	141	ug/L	10.0	3.7	1	04/27/23 16:16	04/28/23 02:58	7439-98-7	
<b>6020 MET ICPMS</b>									
Analytical Method: EPA 6020 Preparation Method: EPA 200.2									
Pace Analytical Services - Indianapolis									
Antimony	ND	ug/L	1.0	0.036	1	04/27/23 07:05	04/28/23 02:42	7440-36-0	
Arsenic	ND	ug/L	1.0	0.053	1	04/27/23 07:05	04/28/23 02:42	7440-38-2	
Barium	59.6	ug/L	1.0	0.051	1	04/27/23 07:05	04/28/23 02:42	7440-39-3	
Beryllium	ND	ug/L	0.20	0.028	1	04/27/23 07:05	04/28/23 19:47	7440-41-7	
Cadmium	ND	ug/L	2.0	0.0090	1	04/27/23 07:05	04/28/23 02:42	7440-43-9	
Chromium	ND	ug/L	10.0	0.13	1	04/27/23 07:05	04/28/23 02:42	7440-47-3	
Cobalt	ND	ug/L	1.0	0.032	1	04/27/23 07:05	04/28/23 02:42	7440-48-4	
Lead	ND	ug/L	10.0	0.034	1	04/27/23 07:05	04/28/23 02:42	7439-92-1	
Molybdenum	137	ug/L	10.0	0.048	1	04/27/23 07:05	04/28/23 02:42	7439-98-7	
Selenium	ND	ug/L	1.0	0.23	1	04/27/23 07:05	04/28/23 02:42	7782-49-2	
Thallium	ND	ug/L	1.0	0.033	1	04/27/23 07:05	04/28/23 02:42	7440-28-0	
<b>7470 Mercury</b>									
Analytical Method: EPA 7470 Preparation Method: EPA 7470									
Pace Analytical Services - Indianapolis									
Mercury	ND	ug/L	0.20	0.091	1	04/27/23 10:07	04/27/23 20:14	7439-97-6	
<b>2320B Alkalinity</b>									
Analytical Method: SM 2320B									
Pace Analytical Services - Indianapolis									
Alkalinity, Total as CaCO3	272	mg/L	10.0	10.0	1		04/26/23 21:35		
Alkalinity,Bicarbonate (CaCO3)	272	mg/L	10.0	10.0	1		04/26/23 21:35		

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### ANALYTICAL RESULTS

Project: Eagle Valley April 2023 P1R4

Pace Project No.: 50343174

Sample: MW-19I		Lab ID: 50343174004		Collected: 04/26/23 12:25	Received: 04/26/23 13:55	Matrix: Water			
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>2320B Alkalinity</b>									
Analytical Method: SM 2320B									
Pace Analytical Services - Indianapolis									
Alkalinity, Carbonate (CaCO3)	ND	mg/L	10.0	10.0	1		04/26/23 21:35		
<b>2540C Total Dissolved Solids</b>									
Analytical Method: SM 2540C									
Pace Analytical Services - Indianapolis									
Total Dissolved Solids	637	mg/L	10.0	10.0	1		04/29/23 14:13		
<b>4500H+ pH, Electrometric</b>									
Analytical Method: SM 4500-H+B									
Pace Analytical Services - Indianapolis									
pH at 25 Degrees C	7.8	Std. Units	0.10	0.10	1		04/27/23 13:40		H3
<b>4500S2D Sulfide Water</b>									
Analytical Method: SM 4500-S2-D									
Pace Analytical Services - Indianapolis									
Sulfide	ND	mg/L	0.10	0.025	1		04/28/23 11:07	18496-25-8	
<b>Iron, Ferrous</b>									
Analytical Method: HACH 8146									
Pace Analytical Services - Indianapolis									
Iron, Ferrous	ND	mg/L	0.20	0.035	1		05/02/23 10:11	15438-31-0	H3,N2
<b>353.2 Nitrogen, NO2/NO3 unpres</b>									
Analytical Method: EPA 353.2									
Pace Analytical Services - Indianapolis									
Nitrogen, Nitrate	ND	mg/L	0.10	0.011	1		04/26/23 21:57	14797-55-8	
Nitrogen, Nitrite	ND	mg/L	0.10	0.0040	1		04/26/23 21:57	14797-65-0	
<b>365.1 Total Phosphorus</b>									
Analytical Method: EPA 365.1 Preparation Method: EPA 365.1									
Pace Analytical Services - Indianapolis									
Phosphate as P04	ND	mg/L	0.15	0.15	1	04/27/23 12:52	05/02/23 13:28		
<b>5310C TOC</b>									
Analytical Method: SM 5310C									
Pace Analytical Services - Indianapolis									
Total Organic Carbon	ND	mg/L	1.0	0.24	1		04/29/23 03:53	7440-44-0	
<b>5310C Dissolved Organic Carbon</b>									
Analytical Method: SM 5310C									
Pace Analytical Services - Indianapolis									
Dissolved Organic Carbon	ND	mg/L	1.0	0.24	1		04/29/23 01:07		

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## ANALYTICAL RESULTS

Project: Eagle Valley April 2023 P1R4

Pace Project No.: 50343174

Sample: MW-19D		Lab ID: 50343174005		Collected: 04/26/23 13:10		Received: 04/26/23 13:55		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>9056 IC Anions</b>									
Analytical Method: EPA 9056									
Pace Analytical Services - Indianapolis									
Chloride	134	mg/L	2.5	0.67	10		04/29/23 19:53	16887-00-6	
Fluoride	ND	mg/L	0.10	0.017	1		04/29/23 19:34	16984-48-8	
Sulfate	201	mg/L	2.5	0.85	10		04/29/23 19:53	14808-79-8	
<b>6010 MET ICP</b>									
Analytical Method: EPA 6010 Preparation Method: EPA 3010									
Pace Analytical Services - Indianapolis									
Aluminum	ND	ug/L	200	55.4	1	04/27/23 15:44	04/28/23 16:56	7429-90-5	
Boron	5750	ug/L	100	37.6	1	04/27/23 15:44	04/28/23 16:56	7440-42-8	
Calcium	119000	ug/L	1000	163	1	04/27/23 15:44	04/28/23 16:56	7440-70-2	
Iron	195	ug/L	100	48.8	1	04/27/23 15:44	04/28/23 16:56	7439-89-6	
Lithium	28.4	ug/L	20.0	6.2	1	04/27/23 15:44	04/28/23 16:56	7439-93-2	
Magnesium	29500	ug/L	1000	71.8	1	04/27/23 15:44	04/28/23 16:56	7439-95-4	
Manganese	384	ug/L	10.0	2.5	1	04/27/23 15:44	04/28/23 16:56	7439-96-5	
Potassium	4320	ug/L	1000	281	1	04/27/23 15:44	04/28/23 16:56	7440-09-7	
Silica	14700	ug/L	450		1	04/27/23 15:44	04/28/23 16:56	7631-86-9	N2
Sodium	105000	ug/L	1000	214	1	04/27/23 15:44	04/28/23 16:56	7440-23-5	
<b>6010 MET ICP, Dissolved</b>									
Analytical Method: EPA 6010 Preparation Method: EPA 3010									
Pace Analytical Services - Indianapolis									
Manganese, Dissolved	385	ug/L	10.0	2.5	1	04/27/23 16:16	04/28/23 03:00	7439-96-5	
Molybdenum, Dissolved	16.7	ug/L	10.0	3.7	1	04/27/23 16:16	04/28/23 03:00	7439-98-7	
<b>6020 MET ICPMS</b>									
Analytical Method: EPA 6020 Preparation Method: EPA 200.2									
Pace Analytical Services - Indianapolis									
Antimony	ND	ug/L	1.0	0.036	1	04/27/23 07:05	04/28/23 02:45	7440-36-0	
Arsenic	ND	ug/L	1.0	0.053	1	04/27/23 07:05	04/28/23 02:45	7440-38-2	
Barium	48.7	ug/L	1.0	0.051	1	04/27/23 07:05	04/28/23 02:45	7440-39-3	
Beryllium	ND	ug/L	0.20	0.028	1	04/27/23 07:05	04/28/23 20:01	7440-41-7	
Cadmium	ND	ug/L	2.0	0.0090	1	04/27/23 07:05	04/28/23 02:45	7440-43-9	
Chromium	ND	ug/L	10.0	0.13	1	04/27/23 07:05	04/28/23 02:45	7440-47-3	
Cobalt	ND	ug/L	1.0	0.032	1	04/27/23 07:05	04/28/23 02:45	7440-48-4	
Lead	ND	ug/L	10.0	0.034	1	04/27/23 07:05	04/28/23 02:45	7439-92-1	
Molybdenum	15.2	ug/L	10.0	0.048	1	04/27/23 07:05	04/28/23 02:45	7439-98-7	
Selenium	ND	ug/L	1.0	0.23	1	04/27/23 07:05	04/28/23 02:45	7782-49-2	
Thallium	ND	ug/L	1.0	0.033	1	04/27/23 07:05	04/28/23 02:45	7440-28-0	
<b>7470 Mercury</b>									
Analytical Method: EPA 7470 Preparation Method: EPA 7470									
Pace Analytical Services - Indianapolis									
Mercury	ND	ug/L	0.20	0.091	1	04/27/23 10:07	04/27/23 20:16	7439-97-6	
<b>2320B Alkalinity</b>									
Analytical Method: SM 2320B									
Pace Analytical Services - Indianapolis									
Alkalinity, Total as CaCO3	240	mg/L	10.0	10.0	1		04/26/23 21:35		
Alkalinity, Bicarbonate (CaCO3)	240	mg/L	10.0	10.0	1		04/26/23 21:35		

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**ANALYTICAL RESULTS**

Project: Eagle Valley April 2023 P1R4

Pace Project No.: 50343174

Sample: MW-19D		Lab ID: 50343174005		Collected: 04/26/23 13:10	Received: 04/26/23 13:55	Matrix: Water			
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>2320B Alkalinity</b>		Analytical Method: SM 2320B Pace Analytical Services - Indianapolis							
Alkalinity, Carbonate (CaCO3)	ND	mg/L	10.0	10.0	1		04/26/23 21:35		
<b>2540C Total Dissolved Solids</b>		Analytical Method: SM 2540C Pace Analytical Services - Indianapolis							
Total Dissolved Solids	749	mg/L	10.0	10.0	1		04/29/23 14:13		
<b>4500H+ pH, Electrometric</b>		Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis							
pH at 25 Degrees C	7.8	Std. Units	0.10	0.10	1		04/27/23 13:42		H3
<b>4500S2D Sulfide Water</b>		Analytical Method: SM 4500-S2-D Pace Analytical Services - Indianapolis							
Sulfide	ND	mg/L	0.10	0.025	1		04/28/23 11:07	18496-25-8	
<b>Iron, Ferrous</b>		Analytical Method: HACH 8146 Pace Analytical Services - Indianapolis							
Iron, Ferrous	ND	mg/L	0.20	0.035	1		05/02/23 10:11	15438-31-0	H3,N2
<b>353.2 Nitrogen, NO2/NO3 unpres</b>		Analytical Method: EPA 353.2 Pace Analytical Services - Indianapolis							
Nitrogen, Nitrate	ND	mg/L	0.10	0.011	1		04/26/23 22:01	14797-55-8	
Nitrogen, Nitrite	ND	mg/L	0.10	0.0040	1		04/26/23 22:01	14797-65-0	
<b>365.1 Total Phosphorus</b>		Analytical Method: EPA 365.1 Preparation Method: EPA 365.1 Pace Analytical Services - Indianapolis							
Phosphate as P04	ND	mg/L	0.15	0.15	1	04/27/23 12:52	05/02/23 13:28		
<b>5310C TOC</b>		Analytical Method: SM 5310C Pace Analytical Services - Indianapolis							
Total Organic Carbon	ND	mg/L	1.0	0.24	1		04/29/23 04:04	7440-44-0	
<b>5310C Dissolved Organic Carbon</b>		Analytical Method: SM 5310C Pace Analytical Services - Indianapolis							
Dissolved Organic Carbon	ND	mg/L	1.0	0.24	1		05/01/23 18:16		

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## ANALYTICAL RESULTS

Project: Eagle Valley April 2023 P1R4

Pace Project No.: 50343174

Sample: DUP 8		Lab ID: 50343174006		Collected: 04/26/23 08:00		Received: 04/26/23 13:55		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>9056 IC Anions</b>									
Analytical Method: EPA 9056									
Pace Analytical Services - Indianapolis									
Chloride	123	mg/L	2.5	0.67	10		04/29/23 21:11	16887-00-6	
Fluoride	0.13	mg/L	0.10	0.017	1		04/29/23 20:52	16984-48-8	
Sulfate	139	mg/L	2.5	0.85	10		04/29/23 21:11	14808-79-8	
<b>6010 MET ICP</b>									
Analytical Method: EPA 6010 Preparation Method: EPA 3010									
Pace Analytical Services - Indianapolis									
Aluminum	ND	ug/L	200	55.4	1	04/27/23 15:44	04/28/23 16:58	7429-90-5	
Boron	4440	ug/L	100	37.6	1	04/27/23 15:44	04/28/23 16:58	7440-42-8	
Calcium	106000	ug/L	1000	163	1	04/27/23 15:44	04/28/23 16:58	7440-70-2	
Iron	552	ug/L	100	48.8	1	04/27/23 15:44	04/28/23 16:58	7439-89-6	
Lithium	94.9	ug/L	20.0	6.2	1	04/27/23 15:44	04/28/23 16:58	7439-93-2	
Magnesium	22100	ug/L	1000	71.8	1	04/27/23 15:44	04/28/23 16:58	7439-95-4	
Manganese	409	ug/L	10.0	2.5	1	04/27/23 15:44	04/28/23 16:58	7439-96-5	
Potassium	7360	ug/L	1000	281	1	04/27/23 15:44	04/28/23 16:58	7440-09-7	
Silica	13000	ug/L	450		1	04/27/23 15:44	04/28/23 16:58	7631-86-9	N2
Sodium	92900	ug/L	1000	214	1	04/27/23 15:44	04/28/23 16:58	7440-23-5	
<b>6010 MET ICP, Dissolved</b>									
Analytical Method: EPA 6010 Preparation Method: EPA 3010									
Pace Analytical Services - Indianapolis									
Manganese, Dissolved	397	ug/L	10.0	2.5	1	04/27/23 16:16	04/28/23 03:03	7439-96-5	
Molybdenum, Dissolved	148	ug/L	10.0	3.7	1	04/27/23 16:16	04/28/23 03:03	7439-98-7	
<b>6020 MET ICPMS</b>									
Analytical Method: EPA 6020 Preparation Method: EPA 200.2									
Pace Analytical Services - Indianapolis									
Antimony	ND	ug/L	1.0	0.036	1	04/27/23 07:05	04/28/23 02:48	7440-36-0	
Arsenic	1.2	ug/L	1.0	0.053	1	04/27/23 07:05	04/28/23 02:48	7440-38-2	
Barium	82.9	ug/L	1.0	0.051	1	04/27/23 07:05	04/28/23 02:48	7440-39-3	
Beryllium	ND	ug/L	0.20	0.028	1	04/27/23 07:05	04/28/23 20:07	7440-41-7	
Cadmium	ND	ug/L	2.0	0.0090	1	04/27/23 07:05	04/28/23 02:48	7440-43-9	
Chromium	ND	ug/L	10.0	0.13	1	04/27/23 07:05	04/28/23 02:48	7440-47-3	
Cobalt	ND	ug/L	1.0	0.032	1	04/27/23 07:05	04/28/23 02:48	7440-48-4	
Lead	ND	ug/L	10.0	0.034	1	04/27/23 07:05	04/28/23 02:48	7439-92-1	
Molybdenum	145	ug/L	10.0	0.048	1	04/27/23 07:05	04/28/23 02:48	7439-98-7	
Selenium	ND	ug/L	1.0	0.23	1	04/27/23 07:05	04/28/23 02:48	7782-49-2	
Thallium	ND	ug/L	1.0	0.033	1	04/27/23 07:05	04/28/23 02:48	7440-28-0	
<b>7470 Mercury</b>									
Analytical Method: EPA 7470 Preparation Method: EPA 7470									
Pace Analytical Services - Indianapolis									
Mercury	ND	ug/L	0.20	0.091	1	04/27/23 10:07	04/27/23 20:24	7439-97-6	
<b>2320B Alkalinity</b>									
Analytical Method: SM 2320B									
Pace Analytical Services - Indianapolis									
Alkalinity, Total as CaCO3	229	mg/L	10.0	10.0	1		04/26/23 21:35		
Alkalinity,Bicarbonate (CaCO3)	229	mg/L	10.0	10.0	1		04/26/23 21:35		

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**ANALYTICAL RESULTS**

Project: Eagle Valley April 2023 P1R4  
Pace Project No.: 50343174

Sample: DUP 8		Lab ID: 50343174006		Collected: 04/26/23 08:00	Received: 04/26/23 13:55	Matrix: Water			
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>2320B Alkalinity</b>		Analytical Method: SM 2320B Pace Analytical Services - Indianapolis							
Alkalinity, Carbonate (CaCO3)	ND	mg/L	10.0	10.0	1		04/26/23 21:35		
<b>2540C Total Dissolved Solids</b>		Analytical Method: SM 2540C Pace Analytical Services - Indianapolis							
Total Dissolved Solids	621	mg/L	10.0	10.0	1		04/29/23 14:13		
<b>4500H+ pH, Electrometric</b>		Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis							
pH at 25 Degrees C	7.8	Std. Units	0.10	0.10	1		04/27/23 13:33		H3
<b>4500S2D Sulfide Water</b>		Analytical Method: SM 4500-S2-D Pace Analytical Services - Indianapolis							
Sulfide	ND	mg/L	0.10	0.025	1		04/28/23 11:07	18496-25-8	
<b>Iron, Ferrous</b>		Analytical Method: HACH 8146 Pace Analytical Services - Indianapolis							
Iron, Ferrous	ND	mg/L	0.20	0.035	1		05/02/23 10:10	15438-31-0	H3,N2
<b>353.2 Nitrogen, NO2/NO3 unpres</b>		Analytical Method: EPA 353.2 Pace Analytical Services - Indianapolis							
Nitrogen, Nitrate	ND	mg/L	0.10	0.011	1		04/26/23 21:38	14797-55-8	
Nitrogen, Nitrite	ND	mg/L	0.10	0.0040	1		04/26/23 21:38	14797-65-0	
<b>365.1 Total Phosphorus</b>		Analytical Method: EPA 365.1 Preparation Method: EPA 365.1 Pace Analytical Services - Indianapolis							
Phosphate as P04	ND	mg/L	0.15	0.15	1	04/27/23 12:52	05/02/23 13:29		
<b>5310C TOC</b>		Analytical Method: SM 5310C Pace Analytical Services - Indianapolis							
Total Organic Carbon	ND	mg/L	1.0	0.24	1		04/29/23 04:16	7440-44-0	
<b>5310C Dissolved Organic Carbon</b>		Analytical Method: SM 5310C Pace Analytical Services - Indianapolis							
Dissolved Organic Carbon	ND	mg/L	1.0	0.24	1		05/01/23 18:28		

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**QUALITY CONTROL DATA**

Project: Eagle Valley April 2023 P1R4

Pace Project No.: 50343174

QC Batch:	730292	Analysis Method:	EPA 9056
QC Batch Method:	EPA 9056	Analysis Description:	9056 IC Anions
		Laboratory:	Pace Analytical Services - Indianapolis
Associated Lab Samples:	50343174001, 50343174002, 50343174003, 50343174004, 50343174005, 50343174006		

METHOD BLANK: 3351439 Matrix: Water  
 Associated Lab Samples: 50343174001, 50343174002, 50343174003, 50343174004, 50343174005, 50343174006

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chloride	mg/L	ND	0.25	0.067	04/29/23 13:04	
Fluoride	mg/L	ND	0.10	0.017	04/29/23 13:04	
Sulfate	mg/L	ND	0.25	0.085	04/29/23 13:04	

LABORATORY CONTROL SAMPLE: 3351440

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	2.5	2.3	93	80-120	
Fluoride	mg/L	1	0.91	91	80-120	
Sulfate	mg/L	5	4.8	96	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3351442 3351443

Parameter	Units	MS		MSD		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		50342535001 Result	Spike Conc.	Spike Conc.	Conc.								
Chloride	mg/L		25	25	248	249	62	67	80-120	1	15	M0	
Fluoride	mg/L		1	1	3.1	3.2	85	89	80-120	1	15		
Sulfate	mg/L	496	50	50	551	549	110	106	80-120	0	15		

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**QUALITY CONTROL DATA**

Project: Eagle Valley April 2023 P1R4

Pace Project No.: 50343174

QC Batch: 730146 Analysis Method: EPA 7470  
 QC Batch Method: EPA 7470 Analysis Description: 7470 Mercury  
 Laboratory: Pace Analytical Services - Indianapolis  
 Associated Lab Samples: 50343174001, 50343174002, 50343174003, 50343174004, 50343174005, 50343174006

METHOD BLANK: 3350873 Matrix: Water  
 Associated Lab Samples: 50343174001, 50343174002, 50343174003, 50343174004, 50343174005, 50343174006

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Mercury	ug/L	ND	0.20	0.091	04/27/23 19:40	

LABORATORY CONTROL SAMPLE: 3350874

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury	ug/L	5	5.2	105	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3350875 3350876

Parameter	Units	50343174005 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Mercury	ug/L	ND	5	5	5.5	5.4	110	108	75-125	2	20	

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**REPORT OF LABORATORY ANALYSIS**

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**QUALITY CONTROL DATA**

Project: Eagle Valley April 2023 P1R4  
Pace Project No.: 50343174

QC Batch: 730108 Analysis Method: EPA 6010  
QC Batch Method: EPA 3010 Analysis Description: 6010 MET  
Laboratory: Pace Analytical Services - Indianapolis

Associated Lab Samples: 50343174001, 50343174002, 50343174003, 50343174004, 50343174005, 50343174006

METHOD BLANK: 3350592 Matrix: Water

Associated Lab Samples: 50343174001, 50343174002, 50343174003, 50343174004, 50343174005, 50343174006

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Aluminum	ug/L	ND	200	55.4	04/28/23 16:08	
Boron	ug/L	ND	100	37.6	04/28/23 16:08	
Calcium	ug/L	ND	1000	163	04/28/23 16:08	
Iron	ug/L	ND	100	48.8	04/28/23 16:08	
Lithium	ug/L	ND	20.0	6.2	04/28/23 16:08	
Magnesium	ug/L	ND	1000	71.8	04/28/23 16:08	
Manganese	ug/L	ND	10.0	2.5	04/28/23 16:08	
Potassium	ug/L	ND	1000	281	04/28/23 16:08	
Silica	ug/L	ND	450		04/28/23 16:08	N2
Sodium	ug/L	ND	1000	214	04/28/23 16:08	

LABORATORY CONTROL SAMPLE: 3350593

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Aluminum	ug/L	10000	9300	93	80-120	
Boron	ug/L	1000	926	93	80-120	
Calcium	ug/L	10000	9500	95	80-120	
Iron	ug/L	10000	9740	97	80-120	
Lithium	ug/L	1000	970	97	80-120	
Magnesium	ug/L	10000	9540	95	80-120	
Manganese	ug/L	1000	930	93	80-120	
Potassium	ug/L	10000	9460	95	80-120	
Silica	ug/L	10700	10200	96	80-120	N2
Sodium	ug/L	10000	9270	93	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3350594 3350595

Parameter	Units	MS		MSD		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual	
		50341484022 Result	Spike Conc.	Spike Conc.	Result							Result
Aluminum	ug/L	1480	10000	10000	11000	11500	95	100	75-125	4	20	
Boron	ug/L	79.0J	1000	1000	1030	1070	95	99	75-125	4	20	
Calcium	ug/L	87900	10000	10000	94100	98900	61	110	75-125	5	20	P6
Iron	ug/L	2440	10000	10000	12000	12400	95	99	75-125	3	20	
Lithium	ug/L	7.2J	1000	1000	984	1020	98	101	75-125	4	20	
Magnesium	ug/L	38800	10000	10000	46800	49000	81	102	75-125	4	20	
Manganese	ug/L	342	1000	1000	1250	1310	91	96	75-125	4	20	
Potassium	ug/L	2480	10000	10000	12100	12500	96	100	75-125	3	20	

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### QUALITY CONTROL DATA

Project: Eagle Valley April 2023 P1R4

Pace Project No.: 50343174

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3350594 3350595													
Parameter	Units	50341484022		MS	MSD	MS		MSD		% Rec Limits	RPD	Max RPD	Qual
		Result	Conc.	Spike Conc.	Result	Result	% Rec	% Rec					
Silica	ug/L	17000	10700	10700	28200	28900	104	111	75-125	3	20	N2	
Sodium	ug/L	3120	10000	10000	12400	12900	92	98	75-125	4	20		

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**QUALITY CONTROL DATA**

Project: Eagle Valley April 2023 P1R4

Pace Project No.: 50343174

QC Batch: 730114 Analysis Method: EPA 6010  
 QC Batch Method: EPA 3010 Analysis Description: 6010 MET Dissolved  
 Laboratory: Pace Analytical Services - Indianapolis  
 Associated Lab Samples: 50343174001, 50343174002, 50343174003, 50343174004, 50343174005, 50343174006

METHOD BLANK: 3350625 Matrix: Water  
 Associated Lab Samples: 50343174001, 50343174002, 50343174003, 50343174004, 50343174005, 50343174006

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Manganese, Dissolved	ug/L	ND	10.0	2.5	04/28/23 02:15	
Molybdenum, Dissolved	ug/L	ND	10.0	3.7	04/28/23 02:15	

LABORATORY CONTROL SAMPLE: 3350626

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Manganese, Dissolved	ug/L	1000	997	100	80-120	
Molybdenum, Dissolved	ug/L	1000	1040	104	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3350627 3350628

Parameter	Units	50343102001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Manganese, Dissolved	ug/L	ND	1000	1000	948	970	95	97	75-125	2	20	
Molybdenum, Dissolved	ug/L	15.1	1000	1000	1010	1040	100	103	75-125	3	20	

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**QUALITY CONTROL DATA**

Project: Eagle Valley April 2023 P1R4  
Pace Project No.: 50343174

QC Batch: 730092 Analysis Method: EPA 6020  
QC Batch Method: EPA 200.2 Analysis Description: 6020 MET  
Laboratory: Pace Analytical Services - Indianapolis  
Associated Lab Samples: 50343174001, 50343174002, 50343174003, 50343174004, 50343174005, 50343174006

METHOD BLANK: 3350509 Matrix: Water  
Associated Lab Samples: 50343174001, 50343174002, 50343174003, 50343174004, 50343174005, 50343174006

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Antimony	ug/L	ND	1.0	0.036	04/27/23 18:23	
Arsenic	ug/L	ND	1.0	0.053	04/27/23 18:23	
Barium	ug/L	ND	1.0	0.051	04/27/23 18:23	
Beryllium	ug/L	ND	0.20	0.028	04/27/23 18:23	
Cadmium	ug/L	ND	2.0	0.0090	04/27/23 18:23	
Chromium	ug/L	ND	10.0	0.13	04/27/23 18:23	
Cobalt	ug/L	ND	1.0	0.032	04/27/23 18:23	
Lead	ug/L	ND	10.0	0.034	04/27/23 18:23	
Molybdenum	ug/L	ND	10.0	0.048	04/27/23 18:23	
Selenium	ug/L	ND	1.0	0.23	04/27/23 18:23	
Thallium	ug/L	ND	1.0	0.033	04/27/23 18:23	

LABORATORY CONTROL SAMPLE: 3350510

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Antimony	ug/L	40	40.3	101	80-120	
Arsenic	ug/L	40	40.4	101	80-120	
Barium	ug/L	40	41.7	104	80-120	
Beryllium	ug/L	40	43.4	108	80-120	
Cadmium	ug/L	40	41.1	103	80-120	
Chromium	ug/L	40	42.9	107	80-120	
Cobalt	ug/L	40	43.0	107	80-120	
Lead	ug/L	40	43.4	108	80-120	
Molybdenum	ug/L	40	40.6	102	80-120	
Selenium	ug/L	40	41.7	104	80-120	
Thallium	ug/L	40	43.5	109	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3350511 3350512

Parameter	Units	MS		MSD		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual	
		50343152001 Result	Spike Conc.	Spike Conc.	MS Result							MSD Result
Antimony	ug/L	ND	40	40	41.7	42.0	103	104	75-125	1	20	
Arsenic	ug/L	3.0	40	40	42.8	43.0	99	100	75-125	1	20	
Barium	ug/L	82.4	40	40	124	125	105	107	75-125	1	20	
Beryllium	ug/L	ND	40	40	41.3	41.9	103	105	75-125	2	20	
Cadmium	ug/L	ND	40	40	40.0	40.6	100	102	75-125	2	20	
Chromium	ug/L	ND	40	40	42.0	42.4	104	105	75-125	1	20	

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**QUALITY CONTROL DATA**

Project: Eagle Valley April 2023 P1R4

Pace Project No.: 50343174

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3350511 3350512													
Parameter	Units	50343152001		MS		MSD		MS		MSD			
		Result	MS Spike Conc.	MSD Spike Conc.	Result	MSD Result	% Rec	MSD % Rec	% Rec	MSD % Rec	Limits	RPD	Max RPD
Cobalt	ug/L	ND	40	40	40.5	41.8	101	104	75-125	3	20		
Lead	ug/L	ND	40	40	43.8	44.4	110	111	75-125	1	20		
Molybdenum	ug/L	32.7	40	40	75.4	76.4	107	109	75-125	1	20		
Selenium	ug/L	2.1	40	40	43.3	43.8	103	104	75-125	1	20		
Thallium	ug/L	ND	40	40	44.3	45.0	111	113	75-125	2	20		

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### QUALITY CONTROL DATA

Project: Eagle Valley April 2023 P1R4

Pace Project No.: 50343174

QC Batch:	730117	Analysis Method:	SM 2320B
QC Batch Method:	SM 2320B	Analysis Description:	2320B Alkalinity
		Laboratory:	Pace Analytical Services - Indianapolis
Associated Lab Samples:	50343174001, 50343174002, 50343174003, 50343174004, 50343174005, 50343174006		

METHOD BLANK: 3350679 Matrix: Water  
 Associated Lab Samples: 50343174001, 50343174002, 50343174003, 50343174004, 50343174005, 50343174006

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Alkalinity, Total as CaCO3	mg/L	ND	10.0	10.0	04/26/23 21:35	
Alkalinity,Bicarbonate (CaCO3)	mg/L	ND	10.0	10.0	04/26/23 21:35	
Alkalinity,Carbonate (CaCO3)	mg/L	ND	10.0	10.0	04/26/23 21:35	

LABORATORY CONTROL SAMPLE: 3350680

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Alkalinity, Total as CaCO3	mg/L	50	48.2	96	90-110	

SAMPLE DUPLICATE: 3350681

Parameter	Units	50343102001 Result	Dup Result	RPD	Max RPD	Qualifiers
Alkalinity, Total as CaCO3	mg/L	325	330	1	20	
Alkalinity,Bicarbonate (CaCO3)	mg/L	325	330	1	20	
Alkalinity,Carbonate (CaCO3)	mg/L	ND	ND		20	

SAMPLE DUPLICATE: 3350682

Parameter	Units	50343152001 Result	Dup Result	RPD	Max RPD	Qualifiers
Alkalinity, Total as CaCO3	mg/L	180	183	2	20	
Alkalinity,Bicarbonate (CaCO3)	mg/L	180	183	2	20	
Alkalinity,Carbonate (CaCO3)	mg/L	ND	ND		20	

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### QUALITY CONTROL DATA

Project: Eagle Valley April 2023 P1R4

Pace Project No.: 50343174

QC Batch: 730668

Analysis Method: SM 2540C

QC Batch Method: SM 2540C

Analysis Description: 2540C Total Dissolved Solids

Laboratory: Pace Analytical Services - Indianapolis

Associated Lab Samples: 50343174001, 50343174002, 50343174003, 50343174004, 50343174005, 50343174006

METHOD BLANK: 3353854

Matrix: Water

Associated Lab Samples: 50343174001, 50343174002, 50343174003, 50343174004, 50343174005, 50343174006

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	ND	10.0	10.0	04/29/23 14:10	

LABORATORY CONTROL SAMPLE: 3353855

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	300	273	91	80-120	

SAMPLE DUPLICATE: 3353856

Parameter	Units	50343240003 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	599	606	1	10	

SAMPLE DUPLICATE: 3353857

Parameter	Units	50343240007 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	1310	1310	0	10	

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### QUALITY CONTROL DATA

Project: Eagle Valley April 2023 P1R4

Pace Project No.: 50343174

QC Batch: 730241

Analysis Method: SM 4500-H+B

QC Batch Method: SM 4500-H+B

Analysis Description: 4500H+B pH

Laboratory: Pace Analytical Services - Indianapolis

Associated Lab Samples: 50343174001, 50343174002, 50343174003, 50343174004, 50343174005, 50343174006

SAMPLE DUPLICATE: 3351206

Parameter	Units	50343152003 Result	Dup Result	RPD	Max RPD	Qualifiers
pH at 25 Degrees C	Std. Units	7.8	7.8	0	2	H3

SAMPLE DUPLICATE: 3351207

Parameter	Units	50343102001 Result	Dup Result	RPD	Max RPD	Qualifiers
pH at 25 Degrees C	Std. Units	7.9	7.9	0	2	H3

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**QUALITY CONTROL DATA**

Project: Eagle Valley April 2023 P1R4

Pace Project No.: 50343174

QC Batch:	730440	Analysis Method:	SM 4500-S2-D
QC Batch Method:	SM 4500-S2-D	Analysis Description:	4500S2D Sulfide Water
		Laboratory:	Pace Analytical Services - Indianapolis

Associated Lab Samples: 50343174001, 50343174002, 50343174003, 50343174004, 50343174005, 50343174006

METHOD BLANK: 3352418 Matrix: Water  
 Associated Lab Samples: 50343174001, 50343174002, 50343174003, 50343174004, 50343174005, 50343174006

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Sulfide	mg/L	ND	0.10	0.025	04/28/23 11:07	

LABORATORY CONTROL SAMPLE: 3352419

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Sulfide	mg/L	0.5	0.51	103	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3352420 3352421

Parameter	Units	50343325001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Sulfide	mg/L	0.27	0.5	0.5	0.75	0.73	95	92	90-110	2	20	

MATRIX SPIKE SAMPLE: 3352422

Parameter	Units	50343327001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Sulfide	mg/L	ND	0.5	0.44	86	90-110	M0

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**QUALITY CONTROL DATA**

Project: Eagle Valley April 2023 P1R4  
 Pace Project No.: 50343174

QC Batch: 731019 Analysis Method: HACH 8146  
 QC Batch Method: HACH 8146 Analysis Description: Iron, Ferrous  
 Laboratory: Pace Analytical Services - Indianapolis  
 Associated Lab Samples: 50343174001, 50343174002, 50343174003, 50343174004, 50343174005, 50343174006

METHOD BLANK: 3354900 Matrix: Water  
 Associated Lab Samples: 50343174001, 50343174002, 50343174003, 50343174004, 50343174005, 50343174006

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Iron, Ferrous	mg/L	ND	0.20	0.035	05/02/23 10:08	H3,N2

LABORATORY CONTROL SAMPLE: 3354901

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Iron, Ferrous	mg/L	1	1.0	101	90-110	H3,N2

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3354902 3354903

Parameter	Units	50343477002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Iron, Ferrous	mg/L	ND	1	1	1.1	1.0	107	104	90-110	3	20	H3,N2

MATRIX SPIKE SAMPLE: 3354904

Parameter	Units	50343152001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Iron, Ferrous	mg/L	ND	1	1.0	104	90-110	H3,N2

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**QUALITY CONTROL DATA**

Project: Eagle Valley April 2023 P1R4

Pace Project No.: 50343174

QC Batch:	730123	Analysis Method:	EPA 353.2
QC Batch Method:	EPA 353.2	Analysis Description:	353.2 Nitrate + Nitrite, Unpres.
		Laboratory:	Pace Analytical Services - Indianapolis

Associated Lab Samples: 50343174001, 50343174002, 50343174003, 50343174006

METHOD BLANK: 3350729 Matrix: Water  
 Associated Lab Samples: 50343174001, 50343174002, 50343174003, 50343174006

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Nitrogen, Nitrate	mg/L	ND	0.10	0.011	04/26/23 20:59	
Nitrogen, Nitrite	mg/L	ND	0.10	0.0040	04/26/23 20:59	

LABORATORY CONTROL SAMPLE: 3350730

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Nitrogen, Nitrate	mg/L	1	1.0	102	90-110	
Nitrogen, Nitrite	mg/L	1	1.0	105	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3350731 3350732

Parameter	Units	50343152001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Nitrogen, Nitrate	mg/L	1.2	1	1	2.2	2.2	99	99	90-110	0	20	
Nitrogen, Nitrite	mg/L	ND	1	1	1.1	1.1	106	105	90-110	1	20	

MATRIX SPIKE SAMPLE: 3350733

Parameter	Units	50343174001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Nitrogen, Nitrate	mg/L		0.69	1	1.7	100	90-110
Nitrogen, Nitrite	mg/L		ND	1	1.0	104	90-110

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**QUALITY CONTROL DATA**

Project: Eagle Valley April 2023 P1R4

Pace Project No.: 50343174

QC Batch:	730124	Analysis Method:	EPA 353.2
QC Batch Method:	EPA 353.2	Analysis Description:	353.2 Nitrate + Nitrite, Unpres.
		Laboratory:	Pace Analytical Services - Indianapolis

Associated Lab Samples: 50343174004, 50343174005

METHOD BLANK: 3350734 Matrix: Water

Associated Lab Samples: 50343174004, 50343174005

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Nitrogen, Nitrate	mg/L	ND	0.10	0.011	04/26/23 22:14	
Nitrogen, Nitrite	mg/L	ND	0.10	0.0040	04/26/23 22:14	

LABORATORY CONTROL SAMPLE: 3350735

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Nitrogen, Nitrate	mg/L	1	1.0	102	90-110	
Nitrogen, Nitrite	mg/L	1	1.1	105	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3350736 3350737

Parameter	Units	50343225001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Nitrogen, Nitrate	mg/L	7.8	5	5	11.7	11.7	78	76	90-110	1	20	
Nitrogen, Nitrite	mg/L	ND	5	5	5.2	5.2	103	104	90-110	0	20	

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**QUALITY CONTROL DATA**

Project: Eagle Valley April 2023 P1R4  
 Pace Project No.: 50343174

QC Batch: 730207 Analysis Method: EPA 365.1  
 QC Batch Method: EPA 365.1 Analysis Description: 365.1 Total Phosphorus  
 Laboratory: Pace Analytical Services - Indianapolis  
 Associated Lab Samples: 50343174001, 50343174002, 50343174003, 50343174004, 50343174005, 50343174006

METHOD BLANK: 3351066 Matrix: Water  
 Associated Lab Samples: 50343174001, 50343174002, 50343174003, 50343174004, 50343174005, 50343174006

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Phosphate as P04	mg/L	ND	0.15	0.15	05/02/23 13:12	

LABORATORY CONTROL SAMPLE: 3351067

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Phosphate as P04	mg/L		1.4			

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3351068 3351069

Parameter	Units	50342564003 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Phosphate as P04	mg/L				1.5	1.5					3	

MATRIX SPIKE SAMPLE: 3351070

Parameter	Units	50343174003 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Phosphate as P04	mg/L		ND	1.4			

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**QUALITY CONTROL DATA**

Project: Eagle Valley April 2023 P1R4

Pace Project No.: 50343174

QC Batch: 730538 Analysis Method: SM 5310C  
 QC Batch Method: SM 5310C Analysis Description: 5310C Total Organic Carbon  
 Laboratory: Pace Analytical Services - Indianapolis  
 Associated Lab Samples: 50343174001, 50343174002, 50343174003, 50343174004, 50343174005, 50343174006

METHOD BLANK: 3352869 Matrix: Water  
 Associated Lab Samples: 50343174001, 50343174002, 50343174003, 50343174004, 50343174005, 50343174006

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Organic Carbon	mg/L	ND	1.0	0.24	04/29/23 01:21	

LABORATORY CONTROL SAMPLE: 3352870

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Organic Carbon	mg/L	10	10.0	100	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3352871 3352872

Parameter	Units	50343152001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Total Organic Carbon	mg/L	2.0	10	10	11.9	12.0	99	100	80-120	1	20	

MATRIX SPIKE SAMPLE: 3352873

Parameter	Units	50343152002 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Total Organic Carbon	mg/L	1.5	10	11.4	99	80-120	

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**QUALITY CONTROL DATA**

Project: Eagle Valley April 2023 P1R4

Pace Project No.: 50343174

QC Batch:	730536	Analysis Method:	SM 5310C
QC Batch Method:	SM 5310C	Analysis Description:	5310C Dissolved Organic Carbon
		Laboratory:	Pace Analytical Services - Indianapolis
Associated Lab Samples:	50343174001, 50343174002, 50343174003, 50343174004		

METHOD BLANK: 3352857 Matrix: Water  
 Associated Lab Samples: 50343174001, 50343174002, 50343174003, 50343174004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Dissolved Organic Carbon	mg/L	ND	1.0	0.24	04/28/23 19:13	

LABORATORY CONTROL SAMPLE: 3352858

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Dissolved Organic Carbon	mg/L	10	10.6	106	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3352859 3352860

Parameter	Units	50342799003 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Dissolved Organic Carbon	mg/L	1.5	10	10	11.1	11.5	96	100	80-120	3	20	

MATRIX SPIKE SAMPLE: 3352861

Parameter	Units	50342799006 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Dissolved Organic Carbon	mg/L	1.7	10	11.5	97	80-120	

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**QUALITY CONTROL DATA**

Project: Eagle Valley April 2023 P1R4

Pace Project No.: 50343174

QC Batch:	730544	Analysis Method:	SM 5310C
QC Batch Method:	SM 5310C	Analysis Description:	5310C Dissolved Organic Carbon
		Laboratory:	Pace Analytical Services - Indianapolis

Associated Lab Samples: 50343174005, 50343174006

METHOD BLANK: 3352901 Matrix: Water

Associated Lab Samples: 50343174005, 50343174006

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Dissolved Organic Carbon	mg/L	ND	1.0	0.24	05/01/23 17:55	

LABORATORY CONTROL SAMPLE: 3352902

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Dissolved Organic Carbon	mg/L	10	9.8	98	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3352903 3352904

Parameter	Units	50342644009		3352904		% Rec	% Rec	% Rec Limits	RPD	Max RPD	Qual
		MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result						
Dissolved Organic Carbon	mg/L	2.2	10	10	12.2	12.3	100	101	80-120	1	20

MATRIX SPIKE SAMPLE: 3352905

Parameter	Units	50342644010 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Dissolved Organic Carbon	mg/L	2.0	10	11.8	98	80-120	

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Eagle Valley April 2023 P1R4

Pace Project No.: 50343174

**Sample: MW-181**      **Lab ID: 50343174001**      Collected: 04/26/23 10:00      Received: 04/26/23 13:55      Matrix: Water  
PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	<b>0.304 ± 0.520 (0.912)</b> <b>C:NA T:92%</b>	pCi/L	05/16/23 14:16	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	<b>0.242 ± 0.366 (0.790)</b> <b>C:77% T:86%</b>	pCi/L	05/10/23 15:32	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	<b>0.546 ± 0.886 (1.70)</b>	pCi/L	05/18/23 12:42	7440-14-4	

### REPORT OF LABORATORY ANALYSIS

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**ANALYTICAL RESULTS - RADIOCHEMISTRY**

Project: Eagle Valley April 2023 P1R4

Pace Project No.: 50343174

**Sample: MW-18D**      **Lab ID: 50343174002**      Collected: 04/26/23 10:55      Received: 04/26/23 13:55      Matrix: Water  
 PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	<b>0.411 ± 0.476 (0.769)</b> <b>C:NA T:94%</b>	pCi/L	05/16/23 14:16	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	<b>0.707 ± 0.479 (0.937)</b> <b>C:79% T:87%</b>	pCi/L	05/10/23 15:32	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	<b>1.12 ± 0.955 (1.71)</b>	pCi/L	05/18/23 12:42	7440-14-4	

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**ANALYTICAL RESULTS - RADIOCHEMISTRY**

Project: Eagle Valley April 2023 P1R4

Pace Project No.: 50343174

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Radium-226	EPA 903.1	<b>0.000 ± 0.313 (0.678)</b> <b>C:NA T:94%</b>	pCi/L	05/16/23 14:16	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 904.0	<b>0.305 ± 0.409 (0.875)</b> <b>C:74% T:88%</b>	pCi/L	05/10/23 15:32	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	<b>0.305 ± 0.722 (1.55)</b>	pCi/L	05/18/23 12:42	7440-14-4	

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Eagle Valley April 2023 P1R4

Pace Project No.: 50343174

**Sample: MW-191**      **Lab ID: 50343174004**      Collected: 04/26/23 12:25      Received: 04/26/23 13:55      Matrix: Water  
 PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	<b>1.14 ± 0.691 (0.891)</b> <b>C:NA T:90%</b>	pCi/L	05/16/23 14:16	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	<b>0.648 ± 0.430 (0.828)</b> <b>C:81% T:83%</b>	pCi/L	05/10/23 15:32	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	<b>1.79 ± 1.12 (1.72)</b>	pCi/L	05/18/23 12:42	7440-14-4	

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**ANALYTICAL RESULTS - RADIOCHEMISTRY**

Project: Eagle Valley April 2023 P1R4

Pace Project No.: 50343174

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
<b>Sample: MW-19D</b> <b>Lab ID: 50343174005</b> Collected: 04/26/23 13:10      Received: 04/26/23 13:55      Matrix: Water PWS:      Site ID:      Sample Type:						
Pace Analytical Services - Greensburg						
Radium-226	EPA 903.1	<b>0.594 ± 0.597 (0.931)</b> <b>C:NA T:91%</b>	pCi/L	05/16/23 14:16	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 904.0	<b>1.04 ± 0.480 (0.824)</b> <b>C:78% T:88%</b>	pCi/L	05/10/23 15:33	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	<b>1.63 ± 1.08 (1.76)</b>	pCi/L	05/18/23 12:42	7440-14-4	

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Eagle Valley April 2023 P1R4

Pace Project No.: 50343174

**Sample: DUP 8**                      **Lab ID: 50343174006**    Collected: 04/26/23 08:00    Received: 04/26/23 13:55    Matrix: Water  
 PWS:                                      Site ID:                                      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	<b>0.477 ± 0.697 (1.19)</b> <b>C:NA T:97%</b>	pCi/L	05/16/23 14:16	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	<b>0.965 ± 0.472 (0.821)</b> <b>C:72% T:88%</b>	pCi/L	05/10/23 15:33	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	<b>1.44 ± 1.17 (2.01)</b>	pCi/L	05/18/23 12:42	7440-14-4	

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### QUALITY CONTROL - RADIOCHEMISTRY

Project: Eagle Valley April 2023 P1R4

Pace Project No.: 50343174

QC Batch: 585057

Analysis Method: EPA 903.1

QC Batch Method: EPA 903.1

Analysis Description: 903.1 Radium-226

Laboratory: Pace Analytical Services - Greensburg

Associated Lab Samples: 50343174001, 50343174002, 50343174003, 50343174004, 50343174005, 50343174006

METHOD BLANK: 2841341

Matrix: Water

Associated Lab Samples: 50343174001, 50343174002, 50343174003, 50343174004, 50343174005, 50343174006

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.0927 ± 0.223 (0.430) C:NA T:90%	pCi/L	05/16/23 14:16	

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### QUALITY CONTROL - RADIOCHEMISTRY

Project: Eagle Valley April 2023 P1R4

Pace Project No.: 50343174

QC Batch:	585067	Analysis Method:	EPA 904.0
QC Batch Method:	EPA 904.0	Analysis Description:	904.0 Radium 228
		Laboratory:	Pace Analytical Services - Greensburg

Associated Lab Samples: 50343174001, 50343174002, 50343174003, 50343174004, 50343174005, 50343174006

METHOD BLANK: 2841383 Matrix: Water

Associated Lab Samples: 50343174001, 50343174002, 50343174003, 50343174004, 50343174005, 50343174006

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.410 ± 0.355 (0.711) C:78% T:80%	pCi/L	05/10/23 15:35	

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## QUALIFIERS

Project: Eagle Valley April 2023 P1R4

Pace Project No.: 50343174

### DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Reported results are not rounded until the final step prior to reporting. Therefore, calculated parameters that are typically reported as "Total" may vary slightly from the sum of the reported component parameters.

Act - Activity

Unc - Uncertainty: SDWA = 1.96 sigma count uncertainty, all other matrices = Expanded Uncertainty (95% confidence interval).

Gamma Spec = Expanded Uncertainty (95.4% Confidence Interval)

(MDC) - Minimum Detectable Concentration

Trac - Tracer Recovery (%)

Carr - Carrier Recovery (%)

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

### ANALYTE QUALIFIERS

H3 Sample was received or analysis requested beyond the recognized method holding time.

M0 Matrix spike recovery and/or matrix spike duplicate recovery was outside laboratory control limits.

N2 The lab does not hold NELAC/TNI accreditation for this parameter but other accreditations/certifications may apply. A complete list of accreditations/certifications is available upon request.

P6 Matrix spike recovery was outside laboratory control limits due to a parent sample concentration notably higher than the spike level.

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Eagle Valley April 2023 P1R4

Pace Project No.: 50343174

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
50343174001	MW-18I	EPA 9056	730292		
50343174002	MW-18D	EPA 9056	730292		
50343174003	MW-19S	EPA 9056	730292		
50343174004	MW-19I	EPA 9056	730292		
50343174005	MW-19D	EPA 9056	730292		
50343174006	DUP 8	EPA 9056	730292		
50343174001	MW-18I	EPA 3010	730108	EPA 6010	730582
50343174002	MW-18D	EPA 3010	730108	EPA 6010	730582
50343174003	MW-19S	EPA 3010	730108	EPA 6010	730582
50343174004	MW-19I	EPA 3010	730108	EPA 6010	730582
50343174005	MW-19D	EPA 3010	730108	EPA 6010	730582
50343174006	DUP 8	EPA 3010	730108	EPA 6010	730582
50343174001	MW-18I	EPA 3010	730114	EPA 6010	730398
50343174002	MW-18D	EPA 3010	730114	EPA 6010	730398
50343174003	MW-19S	EPA 3010	730114	EPA 6010	730398
50343174004	MW-19I	EPA 3010	730114	EPA 6010	730398
50343174005	MW-19D	EPA 3010	730114	EPA 6010	730398
50343174006	DUP 8	EPA 3010	730114	EPA 6010	730398
50343174001	MW-18I	EPA 200.2	730092	EPA 6020	730234
50343174002	MW-18D	EPA 200.2	730092	EPA 6020	730234
50343174003	MW-19S	EPA 200.2	730092	EPA 6020	730234
50343174004	MW-19I	EPA 200.2	730092	EPA 6020	730234
50343174005	MW-19D	EPA 200.2	730092	EPA 6020	730234
50343174006	DUP 8	EPA 200.2	730092	EPA 6020	730234
50343174001	MW-18I	EPA 7470	730146	EPA 7470	730343
50343174002	MW-18D	EPA 7470	730146	EPA 7470	730343
50343174003	MW-19S	EPA 7470	730146	EPA 7470	730343
50343174004	MW-19I	EPA 7470	730146	EPA 7470	730343
50343174005	MW-19D	EPA 7470	730146	EPA 7470	730343
50343174006	DUP 8	EPA 7470	730146	EPA 7470	730343
50343174001	MW-18I	EPA 903.1	585057		
50343174002	MW-18D	EPA 903.1	585057		
50343174003	MW-19S	EPA 903.1	585057		
50343174004	MW-19I	EPA 903.1	585057		
50343174005	MW-19D	EPA 903.1	585057		
50343174006	DUP 8	EPA 903.1	585057		
50343174001	MW-18I	EPA 904.0	585067		
50343174002	MW-18D	EPA 904.0	585067		
50343174003	MW-19S	EPA 904.0	585067		
50343174004	MW-19I	EPA 904.0	585067		
50343174005	MW-19D	EPA 904.0	585067		
50343174006	DUP 8	EPA 904.0	585067		
50343174001	MW-18I	Total Radium Calculation	589110		
50343174002	MW-18D	Total Radium Calculation	589110		
50343174003	MW-19S	Total Radium Calculation	589110		

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### QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Eagle Valley April 2023 P1R4

Pace Project No.: 50343174

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
50343174004	MW-19I	Total Radium Calculation	589110		
50343174005	MW-19D	Total Radium Calculation	589110		
50343174006	DUP 8	Total Radium Calculation	589110		
50343174001	MW-18I	SM 2320B	730117		
50343174002	MW-18D	SM 2320B	730117		
50343174003	MW-19S	SM 2320B	730117		
50343174004	MW-19I	SM 2320B	730117		
50343174005	MW-19D	SM 2320B	730117		
50343174006	DUP 8	SM 2320B	730117		
50343174001	MW-18I	SM 2540C	730668		
50343174002	MW-18D	SM 2540C	730668		
50343174003	MW-19S	SM 2540C	730668		
50343174004	MW-19I	SM 2540C	730668		
50343174005	MW-19D	SM 2540C	730668		
50343174006	DUP 8	SM 2540C	730668		
50343174001	MW-18I	SM 4500-H+B	730241		
50343174002	MW-18D	SM 4500-H+B	730241		
50343174003	MW-19S	SM 4500-H+B	730241		
50343174004	MW-19I	SM 4500-H+B	730241		
50343174005	MW-19D	SM 4500-H+B	730241		
50343174006	DUP 8	SM 4500-H+B	730241		
50343174001	MW-18I	SM 4500-S2-D	730440		
50343174002	MW-18D	SM 4500-S2-D	730440		
50343174003	MW-19S	SM 4500-S2-D	730440		
50343174004	MW-19I	SM 4500-S2-D	730440		
50343174005	MW-19D	SM 4500-S2-D	730440		
50343174006	DUP 8	SM 4500-S2-D	730440		
50343174001	MW-18I	HACH 8146	731019		
50343174002	MW-18D	HACH 8146	731019		
50343174003	MW-19S	HACH 8146	731019		
50343174004	MW-19I	HACH 8146	731019		
50343174005	MW-19D	HACH 8146	731019		
50343174006	DUP 8	HACH 8146	731019		
50343174001	MW-18I	EPA 353.2	730123		
50343174002	MW-18D	EPA 353.2	730123		
50343174003	MW-19S	EPA 353.2	730123		
50343174004	MW-19I	EPA 353.2	730124		
50343174005	MW-19D	EPA 353.2	730124		
50343174006	DUP 8	EPA 353.2	730123		
50343174001	MW-18I	EPA 365.1	730207	EPA 365.1	731112
50343174002	MW-18D	EPA 365.1	730207	EPA 365.1	731112
50343174003	MW-19S	EPA 365.1	730207	EPA 365.1	731112
50343174004	MW-19I	EPA 365.1	730207	EPA 365.1	731112
50343174005	MW-19D	EPA 365.1	730207	EPA 365.1	731112

### REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Eagle Valley April 2023 P1R4

Pace Project No.: 50343174

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
50343174006	DUP 8	EPA 365.1	730207	EPA 365.1	731112
50343174001	MW-18I	SM 5310C	730538		
50343174002	MW-18D	SM 5310C	730538		
50343174003	MW-19S	SM 5310C	730538		
50343174004	MW-19I	SM 5310C	730538		
50343174005	MW-19D	SM 5310C	730538		
50343174006	DUP 8	SM 5310C	730538		
50343174001	MW-18I	SM 5310C	730536		
50343174002	MW-18D	SM 5310C	730536		
50343174003	MW-19S	SM 5310C	730536		
50343174004	MW-19I	SM 5310C	730536		
50343174005	MW-19D	SM 5310C	730544		
50343174006	DUP 8	SM 5310C	730544		

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**SAMPLE CONDITION UPON RECEIPT FORM**

Date/Time and Initials of person examining contents: DD 4/26/23 1440

- 1. Courier:  FED EX  UPS  CLIENT  PACE  USPS  OTHER \_\_\_\_\_
- 2. Custody Seal on Cooler/Box Present:  Yes  No  
(If yes)Seals Intact:  Yes  No (leave blank if no seals were present)
- 3. Thermometer: 1 2 3 4 5 6 A B C D E F
- 4. Cooler Temperature(s): 2.5/2.3 2.6/2.4    
(Initial/Corrected) RECORD TEMPS OF ALL COOLERS RECEIVED (use Comments below to add more)

- 5. Packing Material:  Bubble Wrap  Bubble Bags  
 None  Other \_\_\_\_\_
- 6. Ice Type:  Wet  Blue  None
- 7. If temp. is over 6°C or under 0°C, was the PM notified?:  Yes  No  
Cooler temp should be above freezing to 6°C

All discrepancies will be written out in the comments section below.

	Yes	No		Yes	No	N/A
USDA Regulated Soils? (HI, ID, NY, WA, OR, CA, NM, TX, OK, AR, LA, TN, AL, MS, NC, SC, GA, FL, or Puerto Rico)		<input checked="" type="checkbox"/>	All containers needing acid/base preservation have been pH CHECKED?: Exceptions: VOA, coliform, LLHg, O&G, RAD CHEM, and any container with a septum cap or preserved with HCl. Circle:			
Short Hold Time Analysis (48 hours or less)? Analysis: <u>N/A</u>	<input checked="" type="checkbox"/>		<u>HNO3 (&lt;2)</u> <u>H2SO4 (&lt;2)</u> NaOH (>10) <u>NaOH/ZnAc (&gt;9)</u> Any non-conformance to pH recommendations will be noted on the container count form	<input checked="" type="checkbox"/>		
Time 5035A TC placed in Freezer or Short Holds To Lab Time: <u>15:10</u>			Residual Chlorine Check (SVOC 625 Pest/PCB 608)	<u>Present</u>	<u>Absent</u>	<u>N/A</u>
Rush TAT Requested (4 days or less):		<input checked="" type="checkbox"/>	Residual Chlorine Check (Total/Amenable/Free Cyanide)			<input checked="" type="checkbox"/>
Custody Signatures Present?	<input checked="" type="checkbox"/>		Headspace Wisconsin Sulfide?			<input checked="" type="checkbox"/>
Containers Intact?:	<input checked="" type="checkbox"/>		Headspace in VOA Vials (>6mm): See Container Count form for details	<u>Present</u>	<u>Absent</u>	<u>No VOA Vials Sent</u>
Sample Label (IDs/Dates/Times) Match COC?: Except TCs, which only require sample ID	<input checked="" type="checkbox"/>		Trip Blank Present?		<input checked="" type="checkbox"/>	
Extra labels on Terracore Vials? (soils only)			Trip Blank Custody Seals?:			<input checked="" type="checkbox"/>

COMMENTS: Rec'd Dup 8 sample point coat on COC - (DD 4/26/23)







July 18, 2023

Mr. Mark Breting  
ATC Group Services  
7988 Centerpoint Drive  
Suite 100  
Indianapolis, IN 46256

RE: Project: Eagle Valley April 2023 P1R1  
Pace Project No.: 50343223

Dear Mr. Breting:

Enclosed are the analytical results for sample(s) received by the laboratory on April 26, 2023. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

The test results provided in this final report were generated by each of the following laboratories within the Pace Network:

- Pace Analytical Services - Indianapolis
- Pace Analytical Services - Greensburg

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Will Statz  
will.statz@pacelabs.com  
(317)228-3105  
Project Manager

Enclosures

cc: Mohammed Bazlamit, Atlas  
Mr. Robert Miller, Haley & Aldrich



## REPORT OF LABORATORY ANALYSIS

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## CERTIFICATIONS

Project: Eagle Valley April 2023 P1R1  
Pace Project No.: 50343223

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### Pace Analytical Services Pennsylvania

1638 Roseytown Rd Suites 2,3&4, Greensburg, PA 15601  
ANAB DOD-ELAP Rad Accreditation #: L2417  
ANABISO/IEC 17025:2017 Rad Cert#: L24170  
Alabama Certification #: 41590  
Arizona Certification #: AZ0734  
Arkansas Certification  
California Certification #: 2950  
Colorado Certification #: PA01547  
Connecticut Certification #: PH-0694  
EPA Region 4 DW Rad  
Florida/TNI Certification #: E87683  
Georgia Certification #: C040  
Guam Certification  
Hawaii Certification  
Idaho Certification  
Illinois Certification  
Indiana Certification  
Iowa Certification #: 391  
Kansas Certification #: E-10358  
Kentucky Certification #: KY90133  
KY WW Permit #: KY0098221  
KY WW Permit #: KY0000221  
Louisiana DHH/TNI Certification #: LA010  
Louisiana DEQ/TNI Certification #: 04086  
Maine Certification #: 2023021  
Maryland Certification #: 308  
Massachusetts Certification #: M-PA1457  
Michigan/PADEP Certification #: 9991

Missouri Certification #: 235  
Montana Certification #: Cert0082  
Nebraska Certification #: NE-OS-29-14  
Nevada Certification #: PA014572023-03  
New Hampshire/TNI Certification #: 297622  
New Jersey/TNI Certification #: PA051  
New Mexico Certification #: PA01457  
New York/TNI Certification #: 10888  
North Carolina Certification #: 42706  
North Dakota Certification #: R-190  
Ohio EPA Rad Approval: #41249  
Oregon/TNI Certification #: PA200002-015  
Pennsylvania/TNI Certification #: 65-00282  
Puerto Rico Certification #: PA01457  
Rhode Island Certification #: 65-00282  
South Dakota Certification  
Tennessee Certification #: TN02867  
Texas/TNI Certification #: T104704188-22-18  
Utah/TNI Certification #: PA014572223-14  
USDA Soil Permit #: 525-23-67-77263  
Vermont Dept. of Health: ID# VT-0282  
Virgin Island/PADEP Certification  
Virginia/VELAP Certification #: 460198  
Washington Certification #: C868  
West Virginia DEP Certification #: 143  
West Virginia DHHR Certification #: 9964C  
Wisconsin Approve List for Rad

### Pace Analytical Services Indianapolis

7726 Moller Road, Indianapolis, IN 46268  
Illinois Accreditation #: 200074  
Indiana Drinking Water Laboratory #: C-49-06  
Kansas/TNI Certification #: E-10177  
Kentucky UST Agency Interest #: 80226  
Kentucky WW Laboratory ID #: 98019  
Michigan Drinking Water Laboratory #9050

Ohio VAP Certified Laboratory #: CL0065  
Oklahoma Laboratory #: 9204  
Texas Certification #: T104704355  
Wisconsin Laboratory #: 999788130  
USDA Foreign Soil Permit #: 525-23-13-23119  
USDA Compliance Agreement #: IN-SL-22-001

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## REPORT OF LABORATORY ANALYSIS

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### SAMPLE SUMMARY

Project: Eagle Valley April 2023 P1R1  
Pace Project No.: 50343223

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Lab ID	Sample ID	Matrix	Date Collected	Date Received
50343223001	MW-4I	Water	04/26/23 10:53	04/26/23 16:30

### REPORT OF LABORATORY ANALYSIS

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### SAMPLE ANALYTE COUNT

Project: Eagle Valley April 2023 P1R1

Pace Project No.: 50343223

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
50343223001	MW-4I	EPA 9056	ADM	3	PASI-I
		EPA 6010	JPK	10	PASI-I
		EPA 6010	DJS	2	PASI-I
		EPA 6020	MGM	11	PASI-I
		EPA 7470	EAE	1	PASI-I
		EPA 903.1	CLM	1	PASI-PA
		EPA 904.0	JJS1	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
		SM 2320B	DAW	3	PASI-I
		SM 2540C	AEL	1	PASI-I
		SM 4500-H+B	LHZ	1	PASI-I
		SM 4500-S2-D	BEP	1	PASI-I
		HACH 8146	BEP	1	PASI-I
		EPA 353.2	ZM	2	PASI-I
		EPA 365.1	YAM	1	PASI-I
		SM 5310C	ATS	1	PASI-I
		SM 5310C	ATS	1	PASI-I

PASI-I = Pace Analytical Services - Indianapolis

PASI-PA = Pace Analytical Services - Greensburg

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**SUMMARY OF DETECTION**

Project: Eagle Valley April 2023 P1R1  
 Pace Project No.: 50343223

Lab Sample ID	Client Sample ID	Result	Units	Report Limit	Analyzed	Qualifiers
Method	Parameters					
<b>50343223001</b>	<b>MW-4I</b>					
EPA 9056	Chloride	67.7	mg/L	2.5	05/03/23 13:52	
EPA 9056	Fluoride	0.31	mg/L	0.10	05/03/23 13:36	
EPA 9056	Sulfate	55.4	mg/L	2.5	05/03/23 13:52	
EPA 6010	Boron	136	ug/L	100	04/29/23 00:28	
EPA 6010	Calcium	74100	ug/L	1000	04/29/23 00:28	
EPA 6010	Iron	347	ug/L	100	04/29/23 00:28	
EPA 6010	Magnesium	24100	ug/L	1000	04/29/23 00:28	
EPA 6010	Manganese	156	ug/L	10.0	04/29/23 00:28	
EPA 6010	Potassium	3730	ug/L	1000	04/29/23 00:28	
EPA 6010	Silica	10400	ug/L	450	04/29/23 00:28	N2
EPA 6010	Sodium	69400	ug/L	1000	04/29/23 00:28	
EPA 6010	Manganese, Dissolved	152	ug/L	10.0	04/30/23 16:26	
EPA 6010	Molybdenum, Dissolved	12.5	ug/L	10.0	04/30/23 16:26	
EPA 6020	Barium	66.4	ug/L	1.0	04/28/23 00:49	
EPA 6020	Molybdenum	11.9	ug/L	10.0	04/28/23 00:49	
EPA 903.1	Radium-226	0.243 ± 0.506 (0.913)	pCi/L		05/18/23 12:24	
EPA 904.0	Radium-228	C:NA T:85% 0.631 ± 0.440 (0.853)	pCi/L		05/11/23 16:15	
		C:76% T:83%				
Total Radium Calculation	Total Radium	0.874 ± 0.946 (1.77)	pCi/L		05/19/23 15:30	
SM 2320B	Alkalinity, Total as CaCO3	248	mg/L	10.0	04/28/23 00:11	
SM 2320B	Alkalinity,Bicarbonate (CaCO3)	248	mg/L	10.0	04/28/23 00:11	
SM 2540C	Total Dissolved Solids	454	mg/L	10.0	04/29/23 14:14	
SM 4500-H+B	pH at 25 Degrees C	7.0	Std. Units	0.10	05/02/23 15:52	H3
SM 5310C	Total Organic Carbon	1.7	mg/L	1.0	05/02/23 19:02	
SM 5310C	Dissolved Organic Carbon	2.3	mg/L	1.0	05/03/23 12:10	

**REPORT OF LABORATORY ANALYSIS**

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## ANALYTICAL RESULTS

Project: Eagle Valley April 2023 P1R1

Pace Project No.: 50343223

Sample: MW-4I		Lab ID: 50343223001		Collected: 04/26/23 10:53		Received: 04/26/23 16:30		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>9056 IC Anions</b>									
Analytical Method: EPA 9056									
Pace Analytical Services - Indianapolis									
Chloride	67.7	mg/L	2.5	0.67	10		05/03/23 13:52	16887-00-6	
Fluoride	0.31	mg/L	0.10	0.017	1		05/03/23 13:36	16984-48-8	
Sulfate	55.4	mg/L	2.5	0.85	10		05/03/23 13:52	14808-79-8	
<b>6010 MET ICP</b>									
Analytical Method: EPA 6010 Preparation Method: EPA 3010									
Pace Analytical Services - Indianapolis									
Aluminum	ND	ug/L	200	55.4	1	04/28/23 09:05	04/29/23 00:28	7429-90-5	
Boron	136	ug/L	100	37.6	1	04/28/23 09:05	04/29/23 00:28	7440-42-8	
Calcium	74100	ug/L	1000	163	1	04/28/23 09:05	04/29/23 00:28	7440-70-2	
Iron	347	ug/L	100	48.8	1	04/28/23 09:05	04/29/23 00:28	7439-89-6	
Lithium	ND	ug/L	20.0	6.2	1	04/28/23 09:05	04/29/23 00:28	7439-93-2	
Magnesium	24100	ug/L	1000	71.8	1	04/28/23 09:05	04/29/23 00:28	7439-95-4	
Manganese	156	ug/L	10.0	2.5	1	04/28/23 09:05	04/29/23 00:28	7439-96-5	
Potassium	3730	ug/L	1000	281	1	04/28/23 09:05	04/29/23 00:28	7440-09-7	
Silica	10400	ug/L	450		1	04/28/23 09:05	04/29/23 00:28	7631-86-9	N2
Sodium	69400	ug/L	1000	214	1	04/28/23 09:05	04/29/23 00:28	7440-23-5	
<b>6010 MET ICP, Dissolved</b>									
Analytical Method: EPA 6010 Preparation Method: EPA 3010									
Pace Analytical Services - Indianapolis									
Manganese, Dissolved	152	ug/L	10.0	5.4	1	04/28/23 16:25	04/30/23 16:26	7439-96-5	
Molybdenum, Dissolved	12.5	ug/L	10.0	2.0	1	04/28/23 16:25	04/30/23 16:26	7439-98-7	
<b>6020 MET ICPMS</b>									
Analytical Method: EPA 6020 Preparation Method: EPA 200.2									
Pace Analytical Services - Indianapolis									
Antimony	ND	ug/L	1.0	0.13	1	04/27/23 07:05	04/28/23 00:49	7440-36-0	
Arsenic	ND	ug/L	1.0	0.10	1	04/27/23 07:05	04/28/23 00:49	7440-38-2	
Barium	66.4	ug/L	1.0	0.14	1	04/27/23 07:05	04/28/23 00:49	7440-39-3	
Beryllium	ND	ug/L	0.20	0.026	1	04/27/23 07:05	04/28/23 00:49	7440-41-7	
Cadmium	ND	ug/L	2.0	0.054	1	04/27/23 07:05	04/28/23 00:49	7440-43-9	
Chromium	ND	ug/L	10.0	0.20	1	04/27/23 07:05	04/28/23 00:49	7440-47-3	
Cobalt	ND	ug/L	1.0	0.082	1	04/27/23 07:05	04/28/23 00:49	7440-48-4	
Lead	ND	ug/L	10.0	0.080	1	04/27/23 07:05	04/28/23 00:49	7439-92-1	
Molybdenum	11.9	ug/L	10.0	0.072	1	04/27/23 07:05	04/28/23 00:49	7439-98-7	
Selenium	ND	ug/L	1.0	0.44	1	04/27/23 07:05	04/28/23 00:49	7782-49-2	
Thallium	ND	ug/L	1.0	0.072	1	04/27/23 07:05	04/28/23 00:49	7440-28-0	
<b>7470 Mercury</b>									
Analytical Method: EPA 7470 Preparation Method: EPA 7470									
Pace Analytical Services - Indianapolis									
Mercury	ND	ug/L	0.20	0.091	1	04/27/23 10:07	04/27/23 20:26	7439-97-6	
<b>2320B Alkalinity</b>									
Analytical Method: SM 2320B									
Pace Analytical Services - Indianapolis									
Alkalinity, Total as CaCO3	248	mg/L	10.0	10.0	1		04/28/23 00:11		
Alkalinity,Bicarbonate (CaCO3)	248	mg/L	10.0	10.0	1		04/28/23 00:11		

## REPORT OF LABORATORY ANALYSIS

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**ANALYTICAL RESULTS**

Project: Eagle Valley April 2023 P1R1  
 Pace Project No.: 50343223

Sample: MW-4I      Lab ID: 50343223001      Collected: 04/26/23 10:53      Received: 04/26/23 16:30      Matrix: Water									
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>2320B Alkalinity</b>									
Analytical Method: SM 2320B Pace Analytical Services - Indianapolis									
Alkalinity, Carbonate (CaCO3)	ND	mg/L	10.0	10.0	1		04/28/23 00:11		
<b>2540C Total Dissolved Solids</b>									
Analytical Method: SM 2540C Pace Analytical Services - Indianapolis									
Total Dissolved Solids	<b>454</b>	mg/L	10.0	10.0	1		04/29/23 14:14		
<b>4500H+ pH, Electrometric</b>									
Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis									
pH at 25 Degrees C	<b>7.0</b>	Std. Units	0.10	0.10	1		05/02/23 15:52		H3
<b>4500S2D Sulfide Water</b>									
Analytical Method: SM 4500-S2-D Pace Analytical Services - Indianapolis									
Sulfide	ND	mg/L	0.10	0.025	1		04/28/23 11:07	18496-25-8	
<b>Iron, Ferrous</b>									
Analytical Method: HACH 8146 Pace Analytical Services - Indianapolis									
Iron, Ferrous	ND	mg/L	0.20	0.035	1		05/02/23 10:10	15438-31-0	H3,N2
<b>353.2 Nitrogen, NO2/NO3 unpres</b>									
Analytical Method: EPA 353.2 Pace Analytical Services - Indianapolis									
Nitrogen, Nitrate	ND	mg/L	0.10	0.011	1		04/26/23 21:48	14797-55-8	
Nitrogen, Nitrite	ND	mg/L	0.10	0.0040	1		04/26/23 21:48	14797-65-0	
<b>365.1 Total Phosphorus</b>									
Analytical Method: EPA 365.1      Preparation Method: EPA 365.1 Pace Analytical Services - Indianapolis									
Phosphate as P04	ND	mg/L	0.15	0.15	1	05/03/23 12:30	05/04/23 10:20		
<b>5310C TOC</b>									
Analytical Method: SM 5310C Pace Analytical Services - Indianapolis									
Total Organic Carbon	<b>1.7</b>	mg/L	1.0	0.24	1		05/02/23 19:02	7440-44-0	
<b>5310C Dissolved Organic Carbon</b>									
Analytical Method: SM 5310C Pace Analytical Services - Indianapolis									
Dissolved Organic Carbon	<b>2.3</b>	mg/L	1.0	0.24	1		05/03/23 12:10		

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**QUALITY CONTROL DATA**

Project: Eagle Valley April 2023 P1R1

Pace Project No.: 50343223

QC Batch:	730602	Analysis Method:	EPA 9056
QC Batch Method:	EPA 9056	Analysis Description:	9056 IC Anions
		Laboratory:	Pace Analytical Services - Indianapolis

Associated Lab Samples: 50343223001

METHOD BLANK: 3353389 Matrix: Water

Associated Lab Samples: 50343223001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chloride	mg/L	ND	0.25	0.067	05/03/23 02:17	
Fluoride	mg/L	ND	0.10	0.017	05/03/23 02:17	
Sulfate	mg/L	ND	0.25	0.085	05/03/23 02:17	

LABORATORY CONTROL SAMPLE: 3353390

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	2.5	2.4	94	80-120	
Fluoride	mg/L	1	1.0	103	80-120	
Sulfate	mg/L	5	4.7	95	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3353397 3353398

Parameter	Units	MS		MSD		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		50342695003	Result	Spike Conc.	Spike Conc.								
Chloride	mg/L	6.9	2.5	2.5	9.1	9.1	89	89	80-120	0	15		
Fluoride	mg/L	0.10	1	1	1.1	1.1	103	104	80-120	1	15		
Sulfate	mg/L	96.5	50	50	143	142	92	91	80-120	0	15		

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

**REPORT OF LABORATORY ANALYSIS**

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**QUALITY CONTROL DATA**

Project: Eagle Valley April 2023 P1R1

Pace Project No.: 50343223

QC Batch:	730146	Analysis Method:	EPA 7470
QC Batch Method:	EPA 7470	Analysis Description:	7470 Mercury
		Laboratory:	Pace Analytical Services - Indianapolis

Associated Lab Samples: 50343223001

METHOD BLANK: 3350873 Matrix: Water

Associated Lab Samples: 50343223001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Mercury	ug/L	ND	0.20	0.091	04/27/23 19:40	

LABORATORY CONTROL SAMPLE: 3350874

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury	ug/L	5	5.2	105	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3350875 3350876

Parameter	Units	50343174005		3350876		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result						
Mercury	ug/L	ND	5	5	5.5	5.4	110	108	75-125	2	20

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**REPORT OF LABORATORY ANALYSIS**

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**QUALITY CONTROL DATA**

Project: Eagle Valley April 2023 P1R1  
Pace Project No.: 50343223

QC Batch: 729390 Analysis Method: EPA 6010  
QC Batch Method: EPA 3010 Analysis Description: 6010 MET  
Laboratory: Pace Analytical Services - Indianapolis

Associated Lab Samples: 50343223001

METHOD BLANK: 3347684 Matrix: Water  
Associated Lab Samples: 50343223001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Aluminum	ug/L	ND	200	55.4	04/28/23 23:21	
Boron	ug/L	ND	100	37.6	04/28/23 23:21	
Calcium	ug/L	ND	1000	163	04/28/23 23:21	
Iron	ug/L	ND	100	48.8	04/28/23 23:21	
Lithium	ug/L	ND	20.0	6.2	04/28/23 23:21	
Magnesium	ug/L	ND	1000	71.8	04/28/23 23:21	
Manganese	ug/L	ND	10.0	2.5	04/28/23 23:21	
Potassium	ug/L	ND	1000	281	04/28/23 23:21	
Silica	ug/L	ND	450		04/28/23 23:21	N2
Sodium	ug/L	ND	1000	214	04/28/23 23:21	

LABORATORY CONTROL SAMPLE: 3347685

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Aluminum	ug/L	10000	8830	88	80-120	
Boron	ug/L	1000	881	88	80-120	
Calcium	ug/L	10000	8730	87	80-120	
Iron	ug/L	10000	9140	91	80-120	
Lithium	ug/L	1000	870	87	80-120	
Magnesium	ug/L	10000	8930	89	80-120	
Manganese	ug/L	1000	863	86	80-120	
Potassium	ug/L	10000	8620	86	80-120	
Silica	ug/L	10700	9530	89	80-120	N2
Sodium	ug/L	10000	8520	85	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3347686 3347687

Parameter	Units	MS		MSD		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual	
		50342621001 Result	Spike Conc.	Spike Conc.	Result							Result
Aluminum	ug/L	ND	10000	10000	10000	10100	99	100	75-125	1	20	
Boron	ug/L	321	1000	1000	1320	1320	100	100	75-125	1	20	
Calcium	ug/L	117000	10000	10000	131000	131000	134	141	75-125	1	20	P6
Iron	ug/L	2490	10000	10000	12300	12400	98	99	75-125	1	20	
Lithium	ug/L	ND	1000	1000	1010	1020	100	101	75-125	1	20	
Magnesium	ug/L	65000	10000	10000	77400	77100	123	120	75-125	0	20	
Manganese	ug/L	435	1000	1000	1390	1410	96	97	75-125	1	20	
Potassium	ug/L	18500	10000	10000	29600	29600	111	111	75-125	0	20	

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### QUALITY CONTROL DATA

Project: Eagle Valley April 2023 P1R1

Pace Project No.: 50343223

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3347686 3347687												
Parameter	Units	50342621001 Result	MS	MSD	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max	Qual
			Spike Conc.	Spike Conc.							RPD	
Silica	ug/L	12000	10700	10700	23000	23000	103	103	75-125	0	20	N2
Sodium	ug/L	102000	10000	10000	117000	117000	151	150	75-125	0	20	P6

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**QUALITY CONTROL DATA**

Project: Eagle Valley April 2023 P1R1

Pace Project No.: 50343223

QC Batch:	730295	Analysis Method:	EPA 6010
QC Batch Method:	EPA 3010	Analysis Description:	6010 MET Dissolved
		Laboratory:	Pace Analytical Services - Indianapolis

Associated Lab Samples: 50343223001

METHOD BLANK: 3351456 Matrix: Water

Associated Lab Samples: 50343223001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Manganese, Dissolved	ug/L	ND	10.0	5.4	04/30/23 15:24	
Molybdenum, Dissolved	ug/L	ND	10.0	2.0	04/30/23 15:24	

LABORATORY CONTROL SAMPLE: 3351457

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Manganese, Dissolved	ug/L	1000	922	92	80-120	
Molybdenum, Dissolved	ug/L	1000	967	97	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3351458 3351459

Parameter	Units	50342676001		3351459		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result						
Manganese, Dissolved	ug/L	530	1000	1400	1470	87	94	75-125	5	20	
Molybdenum, Dissolved	ug/L	14.1	1000	971	1020	96	100	75-125	5	20	

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**QUALITY CONTROL DATA**

Project: Eagle Valley April 2023 P1R1

Pace Project No.: 50343223

QC Batch:	730141	Analysis Method:	EPA 6020
QC Batch Method:	EPA 200.2	Analysis Description:	6020 MET
		Laboratory:	Pace Analytical Services - Indianapolis

Associated Lab Samples: 50343223001

METHOD BLANK: 3350858 Matrix: Water

Associated Lab Samples: 50343223001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Antimony	ug/L	ND	1.0	0.13	04/28/23 00:33	
Arsenic	ug/L	ND	1.0	0.10	04/28/23 00:33	
Barium	ug/L	ND	1.0	0.14	04/28/23 00:33	
Beryllium	ug/L	ND	0.20	0.026	04/28/23 00:33	
Cadmium	ug/L	ND	2.0	0.054	04/28/23 00:33	
Chromium	ug/L	ND	10.0	0.20	04/28/23 00:33	
Cobalt	ug/L	ND	1.0	0.082	04/28/23 00:33	
Lead	ug/L	ND	10.0	0.080	04/28/23 00:33	
Molybdenum	ug/L	ND	10.0	0.072	04/28/23 00:33	
Selenium	ug/L	ND	1.0	0.44	04/28/23 00:33	
Thallium	ug/L	ND	1.0	0.072	04/28/23 00:33	

LABORATORY CONTROL SAMPLE: 3350859

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Antimony	ug/L	40	42.1	105	80-120	
Arsenic	ug/L	40	38.7	97	80-120	
Barium	ug/L	40	39.3	98	80-120	
Beryllium	ug/L	40	41.0	102	80-120	
Cadmium	ug/L	40	39.3	98	80-120	
Chromium	ug/L	40	41.2	103	80-120	
Cobalt	ug/L	40	41.3	103	80-120	
Lead	ug/L	40	40.7	102	80-120	
Molybdenum	ug/L	40	39.8	100	80-120	
Selenium	ug/L	40	38.0	95	80-120	
Thallium	ug/L	40	41.5	104	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3350860 3350861

Parameter	Units	50342722002		3350860		3350861		% Rec	% Rec	% Rec Limits	RPD	Max RPD	Qual
		Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec						
Antimony	ug/L	ND	40	40	41.4	40.2	103	100	75-125	3	20		
Arsenic	ug/L	2.6	40	40	42.2	39.5	99	92	75-125	6	20		
Barium	ug/L	16.4	40	40	56.6	54.3	101	95	75-125	4	20		
Beryllium	ug/L	ND	40	40	41.0	39.5	102	99	75-125	4	20		
Cadmium	ug/L	ND	40	40	38.2	37.2	96	93	75-125	3	20		
Chromium	ug/L	ND	40	40	39.2	38.0	97	94	75-125	3	20		

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### QUALITY CONTROL DATA

Project: Eagle Valley April 2023 P1R1

Pace Project No.: 50343223

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3350860 3350861											
Parameter	Units	50342722002 Result	MS	MSD	MS	MSD	MS	MSD	% Rec	Max	Qual
			Spike Conc.	Spike Conc.	Result	Result	% Rec	% Rec	Limits	RPD	
Cobalt	ug/L	2.2	40	40	42.4	40.6	100	96	75-125	4	20
Lead	ug/L	ND	40	40	40.3	38.9	101	97	75-125	3	20
Molybdenum	ug/L	0.48J	40	40	40.8	40.1	101	99	75-125	2	20
Selenium	ug/L	ND	40	40	41.8	37.8	104	94	75-125	10	20
Thallium	ug/L	ND	40	40	42.0	40.6	105	101	75-125	3	20

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**QUALITY CONTROL DATA**

Project: Eagle Valley April 2023 P1R1

Pace Project No.: 50343223

QC Batch: 730387

Analysis Method: SM 2320B

QC Batch Method: SM 2320B

Analysis Description: 2320B Alkalinity

Laboratory: Pace Analytical Services - Indianapolis

Associated Lab Samples: 50343223001

METHOD BLANK: 3352061

Matrix: Water

Associated Lab Samples: 50343223001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Alkalinity, Total as CaCO3	mg/L	ND	10.0	10.0	04/28/23 00:11	
Alkalinity,Bicarbonate (CaCO3)	mg/L	ND	10.0	10.0	04/28/23 00:11	
Alkalinity,Carbonate (CaCO3)	mg/L	ND	10.0	10.0	04/28/23 00:11	

LABORATORY CONTROL SAMPLE: 3352062

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Alkalinity, Total as CaCO3	mg/L	50	52.6	105	90-110	

SAMPLE DUPLICATE: 3352063

Parameter	Units	50342980001 Result	Dup Result	RPD	Max RPD	Qualifiers
Alkalinity, Total as CaCO3	mg/L	143	146	2	20	
Alkalinity,Bicarbonate (CaCO3)	mg/L	143	146	2	20	
Alkalinity,Carbonate (CaCO3)	mg/L	ND	ND		20	

SAMPLE DUPLICATE: 3352064

Parameter	Units	50343015001 Result	Dup Result	RPD	Max RPD	Qualifiers
Alkalinity, Total as CaCO3	mg/L	84.8	87.6	3	20	
Alkalinity,Bicarbonate (CaCO3)	mg/L	84.8	87.6	3	20	
Alkalinity,Carbonate (CaCO3)	mg/L	ND	ND		20	

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### QUALITY CONTROL DATA

Project: Eagle Valley April 2023 P1R1

Pace Project No.: 50343223

QC Batch: 730668	Analysis Method: SM 2540C
QC Batch Method: SM 2540C	Analysis Description: 2540C Total Dissolved Solids
	Laboratory: Pace Analytical Services - Indianapolis

Associated Lab Samples: 50343223001

METHOD BLANK: 3353854 Matrix: Water

Associated Lab Samples: 50343223001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	ND	10.0	10.0	04/29/23 14:10	

LABORATORY CONTROL SAMPLE: 3353855

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	300	273	91	80-120	

SAMPLE DUPLICATE: 3353856

Parameter	Units	50343240003 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	599	606	1	10	

SAMPLE DUPLICATE: 3353857

Parameter	Units	50343240007 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	1310	1310	0	10	

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### QUALITY CONTROL DATA

Project: Eagle Valley April 2023 P1R1

Pace Project No.: 50343223

QC Batch: 731127

Analysis Method: SM 4500-H+B

QC Batch Method: SM 4500-H+B

Analysis Description: 4500H+B pH

Laboratory: Pace Analytical Services - Indianapolis

Associated Lab Samples: 50343223001

SAMPLE DUPLICATE: 3355315

Parameter	Units	10650316001 Result	Dup Result	RPD	Max RPD	Qualifiers
pH at 25 Degrees C	Std. Units	7.9	7.9	1	2	H3

SAMPLE DUPLICATE: 3355316

Parameter	Units	50343519001 Result	Dup Result	RPD	Max RPD	Qualifiers
pH at 25 Degrees C	Std. Units	5.7	5.7	0	2	H3

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**QUALITY CONTROL DATA**

Project: Eagle Valley April 2023 P1R1

Pace Project No.: 50343223

QC Batch:	730440	Analysis Method:	SM 4500-S2-D
QC Batch Method:	SM 4500-S2-D	Analysis Description:	4500S2D Sulfide Water
		Laboratory:	Pace Analytical Services - Indianapolis

Associated Lab Samples: 50343223001

METHOD BLANK: 3352418 Matrix: Water

Associated Lab Samples: 50343223001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Sulfide	mg/L	ND	0.10	0.025	04/28/23 11:07	

LABORATORY CONTROL SAMPLE: 3352419

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Sulfide	mg/L	0.5	0.51	103	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3352420 3352421

Parameter	Units	50343325001		3352421		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result						
Sulfide	mg/L	0.27	0.5	0.5	0.75	0.73	95	92	90-110	2	20

MATRIX SPIKE SAMPLE: 3352422

Parameter	Units	50343327001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Sulfide	mg/L	ND	0.5	0.44	86	90-110	M0

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### QUALITY CONTROL DATA

Project: Eagle Valley April 2023 P1R1

Pace Project No.: 50343223

QC Batch:	731019	Analysis Method:	HACH 8146
QC Batch Method:	HACH 8146	Analysis Description:	Iron, Ferrous
		Laboratory:	Pace Analytical Services - Indianapolis

Associated Lab Samples: 50343223001

METHOD BLANK: 3354900 Matrix: Water

Associated Lab Samples: 50343223001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Iron, Ferrous	mg/L	ND	0.20	0.035	05/02/23 10:08	H3,N2

LABORATORY CONTROL SAMPLE: 3354901

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Iron, Ferrous	mg/L	1	1.0	101	90-110	H3,N2

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3354902 3354903

Parameter	Units	50343477002		3354903		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual	
		MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result							
Iron, Ferrous	mg/L	ND	1	1	1.1	1.0	107	104	90-110	3	20	H3,N2

MATRIX SPIKE SAMPLE: 3354904

Parameter	Units	50343152001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Iron, Ferrous	mg/L	ND	1	1.0	104	90-110	H3,N2

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**QUALITY CONTROL DATA**

Project: Eagle Valley April 2023 P1R1

Pace Project No.: 50343223

QC Batch:	730123	Analysis Method:	EPA 353.2
QC Batch Method:	EPA 353.2	Analysis Description:	353.2 Nitrate + Nitrite, Unpres.
		Laboratory:	Pace Analytical Services - Indianapolis

Associated Lab Samples: 50343223001

METHOD BLANK: 3350729 Matrix: Water

Associated Lab Samples: 50343223001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Nitrogen, Nitrate	mg/L	ND	0.10	0.011	04/26/23 20:59	
Nitrogen, Nitrite	mg/L	ND	0.10	0.0040	04/26/23 20:59	

LABORATORY CONTROL SAMPLE: 3350730

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Nitrogen, Nitrate	mg/L	1	1.0	102	90-110	
Nitrogen, Nitrite	mg/L	1	1.0	105	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3350731 3350732

Parameter	Units	50343152001		3350732		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result						
Nitrogen, Nitrate	mg/L	1.2	1	1	2.2	2.2	99	99	90-110	0	20
Nitrogen, Nitrite	mg/L	ND	1	1	1.1	1.1	106	105	90-110	1	20

MATRIX SPIKE SAMPLE: 3350733

Parameter	Units	50343174001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Nitrogen, Nitrate	mg/L	0.69	1	1.7	100	90-110	
Nitrogen, Nitrite	mg/L	ND	1	1.0	104	90-110	

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**QUALITY CONTROL DATA**

Project: Eagle Valley April 2023 P1R1

Pace Project No.: 50343223

QC Batch:	731282	Analysis Method:	EPA 365.1
QC Batch Method:	EPA 365.1	Analysis Description:	365.1 Total Phosphorus
		Laboratory:	Pace Analytical Services - Indianapolis

Associated Lab Samples: 50343223001

METHOD BLANK: 3355975 Matrix: Water

Associated Lab Samples: 50343223001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Phosphate as P04	mg/L	ND	0.15	0.15	05/04/23 10:06	

LABORATORY CONTROL SAMPLE: 3355976

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Phosphate as P04	mg/L		1.5			

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3355977 3355978

Parameter	Units	50342771003 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Phosphate as P04	mg/L	ND			1.4	1.4				1		

MATRIX SPIKE SAMPLE: 3355979

Parameter	Units	50343225002 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Phosphate as P04	mg/L	ND		1.5			

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**QUALITY CONTROL DATA**

Project: Eagle Valley April 2023 P1R1

Pace Project No.: 50343223

QC Batch: 730867	Analysis Method: SM 5310C
QC Batch Method: SM 5310C	Analysis Description: 5310C Total Organic Carbon
	Laboratory: Pace Analytical Services - Indianapolis

Associated Lab Samples: 50343223001

METHOD BLANK: 3354385 Matrix: Water

Associated Lab Samples: 50343223001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Organic Carbon	mg/L	ND	1.0	0.24	05/02/23 18:29	

LABORATORY CONTROL SAMPLE: 3354386

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Organic Carbon	mg/L	10	9.8	98	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3354387 3354388

Parameter	Units	50342752003		3354388		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual	
		MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result							
Total Organic Carbon	mg/L	6960 ug/L	10	10	16.8	16.8	99	98	80-120	0	20	

MATRIX SPIKE SAMPLE: 3354389

Parameter	Units	50342752004 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Total Organic Carbon	mg/L	13300 ug/L	40	54.1	102	80-120	

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**QUALITY CONTROL DATA**

Project: Eagle Valley April 2023 P1R1

Pace Project No.: 50343223

QC Batch: 731122	Analysis Method: SM 5310C
QC Batch Method: SM 5310C	Analysis Description: 5310C Dissolved Organic Carbon
	Laboratory: Pace Analytical Services - Indianapolis

Associated Lab Samples: 50343223001

METHOD BLANK: 3355289 Matrix: Water

Associated Lab Samples: 50343223001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Dissolved Organic Carbon	mg/L	ND	1.0	0.24	05/03/23 11:48	

LABORATORY CONTROL SAMPLE: 3355290

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Dissolved Organic Carbon	mg/L	10	10	100	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3355291 3355292

Parameter	Units	3355291		3355292		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual	
		MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result							
Dissolved Organic Carbon	mg/L	ND	10	10	10.5	10.6	98	99	80-120	1	20	

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Eagle Valley April 2023 P1R1

Pace Project No.: 50343223

**Sample: MW-4I**                      **Lab ID: 50343223001**    Collected: 04/26/23 10:53    Received: 04/26/23 16:30    Matrix: Water  
 PWS:                                      Site ID:                                      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Radium-226	EPA 903.1	<b>0.243 ± 0.506 (0.913)</b> <b>C:NA T:85%</b>	pCi/L	05/18/23 12:24	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 904.0	<b>0.631 ± 0.440 (0.853)</b> <b>C:76% T:83%</b>	pCi/L	05/11/23 16:15	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	<b>0.874 ± 0.946 (1.77)</b>	pCi/L	05/19/23 15:30	7440-14-4	

### REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL - RADIOCHEMISTRY

Project: Eagle Valley April 2023 P1R1

Pace Project No.: 50343223

QC Batch: 585733

Analysis Method: EPA 904.0

QC Batch Method: EPA 904.0

Analysis Description: 904.0 Radium 228

Laboratory: Pace Analytical Services - Greensburg

Associated Lab Samples: 50343223001

METHOD BLANK: 2845067

Matrix: Water

Associated Lab Samples: 50343223001

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.401 ± 0.294 (0.568) C:78% T:90%	pCi/L	05/11/23 12:58	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

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### QUALITY CONTROL - RADIOCHEMISTRY

Project: Eagle Valley April 2023 P1R1

Pace Project No.: 50343223

QC Batch: 585731

Analysis Method: EPA 903.1

QC Batch Method: EPA 903.1

Analysis Description: 903.1 Radium-226

Laboratory: Pace Analytical Services - Greensburg

Associated Lab Samples: 50343223001

METHOD BLANK: 2845061

Matrix: Water

Associated Lab Samples: 50343223001

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.152 ± 0.263 (0.469) C:NA T:86%	pCi/L	05/18/23 12:24	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

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## QUALIFIERS

Project: Eagle Valley April 2023 P1R1

Pace Project No.: 50343223

### DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Reported results are not rounded until the final step prior to reporting. Therefore, calculated parameters that are typically reported as "Total" may vary slightly from the sum of the reported component parameters.

Act - Activity

Unc - Uncertainty: SDWA = 1.96 sigma count uncertainty, all other matrices = Expanded Uncertainty (95% confidence interval).

Gamma Spec = Expanded Uncertainty (95.4% Confidence Interval)

(MDC) - Minimum Detectable Concentration

Trac - Tracer Recovery (%)

Carr - Carrier Recovery (%)

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

### ANALYTE QUALIFIERS

H3 Sample was received or analysis requested beyond the recognized method holding time.

M0 Matrix spike recovery and/or matrix spike duplicate recovery was outside laboratory control limits.

N2 The lab does not hold NELAC/TNI accreditation for this parameter but other accreditations/certifications may apply. A complete list of accreditations/certifications is available upon request.

P6 Matrix spike recovery was outside laboratory control limits due to a parent sample concentration notably higher than the spike level.

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### QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Eagle Valley April 2023 P1R1

Pace Project No.: 50343223

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
50343223001	MW-4I	EPA 9056	730602		
50343223001	MW-4I	EPA 3010	729390	EPA 6010	730624
50343223001	MW-4I	EPA 3010	730295	EPA 6010	730725
50343223001	MW-4I	EPA 200.2	730141	EPA 6020	730238
50343223001	MW-4I	EPA 7470	730146	EPA 7470	730343
50343223001	MW-4I	EPA 903.1	585731		
50343223001	MW-4I	EPA 904.0	585733		
50343223001	MW-4I	Total Radium Calculation	589447		
50343223001	MW-4I	SM 2320B	730387		
50343223001	MW-4I	SM 2540C	730668		
50343223001	MW-4I	SM 4500-H+B	731127		
50343223001	MW-4I	SM 4500-S2-D	730440		
50343223001	MW-4I	HACH 8146	731019		
50343223001	MW-4I	EPA 353.2	730123		
50343223001	MW-4I	EPA 365.1	731282	EPA 365.1	731584
50343223001	MW-4I	SM 5310C	730867		
50343223001	MW-4I	SM 5310C	731122		

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**SAMPLE CONDITION UPON RECEIPT FORM**

Date/Time and Initials of person examining contents: DA 4/24/23 1826

- 1. Courier:  FED EX  UPS  CLIENT  PACE  USPS  OTHER \_\_\_\_\_
- 2. Custody Seal on Cooler/Box Present:  Yes  No  
(If yes)Seals Intact:  Yes  No (leave blank if no seals were present)
- 3. Thermometer: 1 2 3 4 5 6 A B C D E F
- 4. Cooler Temperature(s): 1.1/1.8      
(Initial/Corrected) RECORD TEMPS OF ALL COOLERS RECEIVED (use Comments below to add more)

- 5. Packing Material:  Bubble Wrap  Bubble Bags  
 None  Other \_\_\_\_\_
- 6. Ice Type:  Wet  Blue  None
- 7. If temp. is over 6°C or under 0°C, was the PM notified?:  Yes  No  
Cooler temp should be above freezing to 6°C

All discrepancies will be written out in the comments section below.

	Yes	No		Yes	No	N/A
USDA Regulated Soils? (HI, ID, NY, WA, OR, CA, NM, TX, OK, AR, LA, TN, AL, MS, NC, SC, GA, FL, or Puerto Rico)		<input checked="" type="checkbox"/>	All containers needing acid/base preservation have been pH CHECKED?: Exceptions: VOA, coliform, LLHg, O&G, RAD CHEM, and any container with a septum cap or preserved with HCl.			
Short Hold Time Analysis (48 hours or less)? Analysis: <u>N/A</u>		<input checked="" type="checkbox"/>	Circle: HNO3 (<2) H2SO4 (<2) NaOH (>10) NaOH/ZnAc (>9) Any non-conformance to pH recommendations will be noted on the container count form			
Time 5035A TC placed in Freezer or Short Holds To Lab Time:			Residual Chlorine Check (SVOC 625 Pest/PCB 608)	<u>Present</u>	<u>Absent</u>	<u>N/A</u>
Rush TAT Requested (4 days or less):		<input checked="" type="checkbox"/>	Residual Chlorine Check (Total/Amenable/Free Cyanide)			<input checked="" type="checkbox"/>
Custody Signatures Present?	<input checked="" type="checkbox"/>		Headspace Wisconsin Sulfide?			<input checked="" type="checkbox"/>
Containers Intact?:	<input checked="" type="checkbox"/>		Headspace in VOA Vials (>6mm): See Container Count form for details	<u>Present</u>	<u>Absent</u>	<u>No VOA Vials Sent</u>
Sample Label (IDs/Dates/Times) Match COC?: Except TCs, which only require sample ID	<input checked="" type="checkbox"/>		Trip Blank Present?			<input checked="" type="checkbox"/>
Extra labels on Terracore Vials? (soils only)			Trip Blank Custody Seals?:			<input checked="" type="checkbox"/>

COMMENTS:  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_





July 18, 2023

Mr. Mark Breting  
ATC Group Services  
7988 Centerpoint Drive  
Suite 100  
Indianapolis, IN 46256

RE: Project: Eagle Valley April 2023 P1R4  
Pace Project No.: 50343225

Dear Mr. Breting:

Enclosed are the analytical results for sample(s) received by the laboratory on April 26, 2023. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

The test results provided in this final report were generated by each of the following laboratories within the Pace Network:

- Pace Analytical Services - Indianapolis
- Pace Analytical Services - Greensburg

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Will Statz  
will.statz@pacelabs.com  
(317)228-3105  
Project Manager

Enclosures

cc: Mohammed Bazlamit, Atlas  
Mr. Robert Miller, Haley & Aldrich



## REPORT OF LABORATORY ANALYSIS

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### CERTIFICATIONS

Project: Eagle Valley April 2023 P1R4

Pace Project No.: 50343225

#### Pace Analytical Services Pennsylvania

1638 Roseytown Rd Suites 2,3&4, Greensburg, PA 15601  
 ANAB DOD-ELAP Rad Accreditation #: L2417  
 ANABISO/IEC 17025:2017 Rad Cert#: L24170  
 Alabama Certification #: 41590  
 Arizona Certification #: AZ0734  
 Arkansas Certification  
 California Certification #: 2950  
 Colorado Certification #: PA01547  
 Connecticut Certification #: PH-0694  
 EPA Region 4 DW Rad  
 Florida/TNI Certification #: E87683  
 Georgia Certification #: C040  
 Guam Certification  
 Hawaii Certification  
 Idaho Certification  
 Illinois Certification  
 Indiana Certification  
 Iowa Certification #: 391  
 Kansas Certification #: E-10358  
 Kentucky Certification #: KY90133  
 KY WW Permit #: KY0098221  
 KY WW Permit #: KY0000221  
 Louisiana DHH/TNI Certification #: LA010  
 Louisiana DEQ/TNI Certification #: 04086  
 Maine Certification #: 2023021  
 Maryland Certification #: 308  
 Massachusetts Certification #: M-PA1457  
 Michigan/PADEP Certification #: 9991

Missouri Certification #: 235  
 Montana Certification #: Cert0082  
 Nebraska Certification #: NE-OS-29-14  
 Nevada Certification #: PA014572023-03  
 New Hampshire/TNI Certification #: 297622  
 New Jersey/TNI Certification #: PA051  
 New Mexico Certification #: PA01457  
 New York/TNI Certification #: 10888  
 North Carolina Certification #: 42706  
 North Dakota Certification #: R-190  
 Ohio EPA Rad Approval: #41249  
 Oregon/TNI Certification #: PA200002-015  
 Pennsylvania/TNI Certification #: 65-00282  
 Puerto Rico Certification #: PA01457  
 Rhode Island Certification #: 65-00282  
 South Dakota Certification  
 Tennessee Certification #: TN02867  
 Texas/TNI Certification #: T104704188-22-18  
 Utah/TNI Certification #: PA014572223-14  
 USDA Soil Permit #: 525-23-67-77263  
 Vermont Dept. of Health: ID# VT-0282  
 Virgin Island/PADEP Certification  
 Virginia/VELAP Certification #: 460198  
 Washington Certification #: C868  
 West Virginia DEP Certification #: 143  
 West Virginia DHHR Certification #: 9964C  
 Wisconsin Approve List for Rad

#### Pace Analytical Services Indianapolis

7726 Moller Road, Indianapolis, IN 46268  
 Illinois Accreditation #: 200074  
 Indiana Drinking Water Laboratory #: C-49-06  
 Kansas/TNI Certification #: E-10177  
 Kentucky UST Agency Interest #: 80226  
 Kentucky WW Laboratory ID #: 98019  
 Michigan Drinking Water Laboratory #9050

Ohio VAP Certified Laboratory #: CL0065  
 Oklahoma Laboratory #: 9204  
 Texas Certification #: T104704355  
 Wisconsin Laboratory #: 999788130  
 USDA Foreign Soil Permit #: 525-23-13-23119  
 USDA Compliance Agreement #: IN-SL-22-001

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### SAMPLE SUMMARY

Project: Eagle Valley April 2023 P1R4  
Pace Project No.: 50343225

Lab ID	Sample ID	Matrix	Date Collected	Date Received
50343225001	MW-22I	Water	04/26/23 14:20	04/26/23 16:30
50343225002	MW-22D	Water	04/26/23 12:55	04/26/23 16:30

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**SAMPLE ANALYTE COUNT**

Project: Eagle Valley April 2023 P1R4  
 Pace Project No.: 50343225

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory		
50343225001	MW-22I	EPA 9056	ADM	3	PASI-I		
		EPA 6010	JPK	10	PASI-I		
		EPA 6010	DJS	2	PASI-I		
		EPA 6020	MGM	11	PASI-I		
		EPA 7470	EAE	1	PASI-I		
		EPA 903.1	CLM	1	PASI-PA		
		EPA 904.0	JJS1	1	PASI-PA		
		Total Radium Calculation	JAL	1	PASI-PA		
		SM 2320B	DAW	3	PASI-I		
		SM 2540C	AEL	1	PASI-I		
		SM 4500-H+B	LHZ	1	PASI-I		
		SM 4500-S2-D	BEP	1	PASI-I		
		HACH 8146	BEP	1	PASI-I		
		EPA 353.2	ZM	2	PASI-I		
		EPA 365.1	YAM	1	PASI-I		
		SM 5310C	ATS	1	PASI-I		
		SM 5310C	ATS	1	PASI-I		
		50343225002	MW-22D	EPA 9056	ADM	3	PASI-I
				EPA 6010	JPK	10	PASI-I
				EPA 6010	DJS	2	PASI-I
EPA 6020	MGM			11	PASI-I		
EPA 7470	EAE			1	PASI-I		
EPA 903.1	CLM			1	PASI-PA		
EPA 904.0	JJS1			1	PASI-PA		
Total Radium Calculation	JAL			1	PASI-PA		
SM 2320B	DAW			3	PASI-I		
SM 2540C	AEL			1	PASI-I		
SM 4500-H+B	LHZ			1	PASI-I		
SM 4500-S2-D	BEP			1	PASI-I		
HACH 8146	BEP			1	PASI-I		
EPA 353.2	ZM			2	PASI-I		
EPA 365.1	YAM			1	PASI-I		
SM 5310C	ATS			1	PASI-I		
SM 5310C	ATS			1	PASI-I		

PASI-I = Pace Analytical Services - Indianapolis  
 PASI-PA = Pace Analytical Services - Greensburg

**REPORT OF LABORATORY ANALYSIS**

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### SUMMARY OF DETECTION

Project: Eagle Valley April 2023 P1R4

Pace Project No.: 50343225

Lab Sample ID	Client Sample ID	Result	Units	Report Limit	Analyzed	Qualifiers
Method	Parameters					
<b>50343225001</b>	<b>MW-22I</b>					
EPA 9056	Chloride	21.3	mg/L	0.25	05/03/23 14:08	
EPA 9056	Fluoride	0.13	mg/L	0.10	05/03/23 14:08	
EPA 9056	Sulfate	24.8	mg/L	0.25	05/03/23 14:08	
EPA 6010	Aluminum	347	ug/L	200	04/29/23 00:30	
EPA 6010	Calcium	96600	ug/L	1000	04/29/23 00:30	
EPA 6010	Iron	559	ug/L	100	04/29/23 00:30	
EPA 6010	Magnesium	28200	ug/L	1000	04/29/23 00:30	
EPA 6010	Manganese	258	ug/L	10.0	04/29/23 00:30	
EPA 6010	Potassium	1500	ug/L	1000	04/29/23 00:30	
EPA 6010	Silica	15000	ug/L	450	04/29/23 00:30	N2
EPA 6010	Sodium	6160	ug/L	1000	04/29/23 00:30	
EPA 6010	Manganese, Dissolved	155	ug/L	10.0	04/30/23 16:29	
EPA 6020	Barium	60.3	ug/L	1.0	04/28/23 00:53	
EPA 6020	Selenium	5.2	ug/L	1.0	04/28/23 00:53	
EPA 903.1	Radium-226	0.557 ± 0.384 (0.410)	pCi/L		05/18/23 12:37	
EPA 904.0	Radium-228	0.669 ± 0.419 (0.797)	pCi/L		05/11/23 16:15	
		C:NA T:96%				
		0.803 (1.21)				
		C:78% T:92%				
Total Radium Calculation	Total Radium	1.23 ± 0.803 (1.21)	pCi/L		05/19/23 15:30	
SM 2320B	Alkalinity, Total as CaCO3	300	mg/L	10.0	04/28/23 00:11	
SM 2320B	Alkalinity, Bicarbonate (CaCO3)	300	mg/L	10.0	04/28/23 00:11	
SM 2540C	Total Dissolved Solids	334	mg/L	10.0	04/29/23 14:14	
SM 4500-H+B	pH at 25 Degrees C	7.4	Std. Units	0.10	05/02/23 15:53	H3
EPA 353.2	Nitrogen, Nitrate	7.8	mg/L	0.50	04/26/23 22:16	
<b>50343225002</b>	<b>MW-22D</b>					
EPA 9056	Chloride	17.4	mg/L	0.25	05/03/23 14:40	
EPA 9056	Sulfate	46.5	mg/L	0.25	05/03/23 14:40	
EPA 6010	Aluminum	528	ug/L	200	04/29/23 00:32	
EPA 6010	Calcium	78900	ug/L	1000	04/29/23 00:32	
EPA 6010	Iron	2400	ug/L	100	04/29/23 00:32	
EPA 6010	Magnesium	24600	ug/L	1000	04/29/23 00:32	
EPA 6010	Manganese	338	ug/L	10.0	04/29/23 00:32	
EPA 6010	Potassium	1810	ug/L	1000	04/29/23 00:32	
EPA 6010	Silica	16000	ug/L	450	04/29/23 00:32	N2
EPA 6010	Sodium	9260	ug/L	1000	04/29/23 00:32	
EPA 6010	Manganese, Dissolved	276	ug/L	10.0	04/30/23 16:31	
EPA 6020	Arsenic	5.0	ug/L	1.0	04/28/23 00:57	
EPA 6020	Barium	105	ug/L	1.0	04/28/23 00:57	
EPA 903.1	Radium-226	0.432 ± 0.501 (0.809)	pCi/L		05/18/23 12:37	
		C:NA T:89%				

### REPORT OF LABORATORY ANALYSIS

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**SUMMARY OF DETECTION**

Project: Eagle Valley April 2023 P1R4

Pace Project No.: 50343225

Lab Sample ID Method	Client Sample ID Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
<b>50343225002</b>	<b>MW-22D</b>					
EPA 904.0	Radium-228	0.712 ± 0.391 (0.706) C:81% T:90%	pCi/L		05/11/23 16:15	
Total Radium Calculation	Total Radium	1.14 ± 0.892 (1.52)	pCi/L		05/19/23 15:30	
SM 2320B	Alkalinity, Total as CaCO3	249	mg/L	10.0	04/28/23 00:11	
SM 2320B	Alkalinity,Bicarbonate (CaCO3)	249	mg/L	10.0	04/28/23 00:11	
SM 2540C	Total Dissolved Solids	300	mg/L	10.0	04/29/23 14:14	
SM 4500-H+B	pH at 25 Degrees C	7.7	Std. Units	0.10	05/02/23 15:55	H3

**REPORT OF LABORATORY ANALYSIS**

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### ANALYTICAL RESULTS

Project: Eagle Valley April 2023 P1R4  
 Pace Project No.: 50343225

**Sample: MW-22I**      **Lab ID: 50343225001**      Collected: 04/26/23 14:20      Received: 04/26/23 16:30      Matrix: Water

Parameters	Results	Units	Report			Prepared	Analyzed	CAS No.	Qual
			Limit	MDL	DF				
<b>9056 IC Anions</b>									
Analytical Method: EPA 9056									
Pace Analytical Services - Indianapolis									
Chloride	21.3	mg/L	0.25	0.067	1		05/03/23 14:08	16887-00-6	
Fluoride	0.13	mg/L	0.10	0.017	1		05/03/23 14:08	16984-48-8	
Sulfate	24.8	mg/L	0.25	0.085	1		05/03/23 14:08	14808-79-8	
<b>6010 MET ICP</b>									
Analytical Method: EPA 6010      Preparation Method: EPA 3010									
Pace Analytical Services - Indianapolis									
Aluminum	347	ug/L	200	55.4	1	04/28/23 09:05	04/29/23 00:30	7429-90-5	
Boron	ND	ug/L	100	37.6	1	04/28/23 09:05	04/29/23 00:30	7440-42-8	
Calcium	96600	ug/L	1000	163	1	04/28/23 09:05	04/29/23 00:30	7440-70-2	
Iron	559	ug/L	100	48.8	1	04/28/23 09:05	04/29/23 00:30	7439-89-6	
Lithium	ND	ug/L	20.0	6.2	1	04/28/23 09:05	04/29/23 00:30	7439-93-2	
Magnesium	28200	ug/L	1000	71.8	1	04/28/23 09:05	04/29/23 00:30	7439-95-4	
Manganese	258	ug/L	10.0	2.5	1	04/28/23 09:05	04/29/23 00:30	7439-96-5	
Potassium	1500	ug/L	1000	281	1	04/28/23 09:05	04/29/23 00:30	7440-09-7	
Silica	15000	ug/L	450		1	04/28/23 09:05	04/29/23 00:30	7631-86-9	N2
Sodium	6160	ug/L	1000	214	1	04/28/23 09:05	04/29/23 00:30	7440-23-5	
<b>6010 MET ICP, Dissolved</b>									
Analytical Method: EPA 6010      Preparation Method: EPA 3010									
Pace Analytical Services - Indianapolis									
Manganese, Dissolved	155	ug/L	10.0	5.4	1	04/28/23 16:25	04/30/23 16:29	7439-96-5	
Molybdenum, Dissolved	ND	ug/L	10.0	2.0	1	04/28/23 16:25	04/30/23 16:29	7439-98-7	
<b>6020 MET ICPMS</b>									
Analytical Method: EPA 6020      Preparation Method: EPA 200.2									
Pace Analytical Services - Indianapolis									
Antimony	ND	ug/L	1.0	0.13	1	04/27/23 07:05	04/28/23 00:53	7440-36-0	
Arsenic	ND	ug/L	1.0	0.10	1	04/27/23 07:05	04/28/23 00:53	7440-38-2	
Barium	60.3	ug/L	1.0	0.14	1	04/27/23 07:05	04/28/23 00:53	7440-39-3	
Beryllium	ND	ug/L	0.20	0.026	1	04/27/23 07:05	04/28/23 00:53	7440-41-7	
Cadmium	ND	ug/L	2.0	0.054	1	04/27/23 07:05	04/28/23 00:53	7440-43-9	
Chromium	ND	ug/L	10.0	0.20	1	04/27/23 07:05	04/28/23 00:53	7440-47-3	
Cobalt	ND	ug/L	1.0	0.082	1	04/27/23 07:05	04/28/23 00:53	7440-48-4	
Lead	ND	ug/L	10.0	0.080	1	04/27/23 07:05	04/28/23 00:53	7439-92-1	
Molybdenum	ND	ug/L	10.0	0.072	1	04/27/23 07:05	04/28/23 00:53	7439-98-7	
Selenium	5.2	ug/L	1.0	0.44	1	04/27/23 07:05	04/28/23 00:53	7782-49-2	
Thallium	ND	ug/L	1.0	0.072	1	04/27/23 07:05	04/28/23 00:53	7440-28-0	
<b>7470 Mercury</b>									
Analytical Method: EPA 7470      Preparation Method: EPA 7470									
Pace Analytical Services - Indianapolis									
Mercury	ND	ug/L	0.20	0.091	1	04/27/23 10:07	04/27/23 20:29	7439-97-6	
<b>2320B Alkalinity</b>									
Analytical Method: SM 2320B									
Pace Analytical Services - Indianapolis									
Alkalinity, Total as CaCO3	300	mg/L	10.0	10.0	1		04/28/23 00:11		
Alkalinity,Bicarbonate (CaCO3)	300	mg/L	10.0	10.0	1		04/28/23 00:11		

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**ANALYTICAL RESULTS**

Project: Eagle Valley April 2023 P1R4  
 Pace Project No.: 50343225

Sample: MW-221		Lab ID: 50343225001		Collected: 04/26/23 14:20	Received: 04/26/23 16:30	Matrix: Water				
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual	
<b>2320B Alkalinity</b>		Analytical Method: SM 2320B Pace Analytical Services - Indianapolis								
Alkalinity, Carbonate (CaCO3)	ND	mg/L	10.0	10.0	1		04/28/23 00:11			
<b>2540C Total Dissolved Solids</b>		Analytical Method: SM 2540C Pace Analytical Services - Indianapolis								
Total Dissolved Solids	<b>334</b>	mg/L	10.0	10.0	1		04/29/23 14:14			
<b>4500H+ pH, Electrometric</b>		Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis								
pH at 25 Degrees C	<b>7.4</b>	Std. Units	0.10	0.10	1		05/02/23 15:53		H3	
<b>4500S2D Sulfide Water</b>		Analytical Method: SM 4500-S2-D Pace Analytical Services - Indianapolis								
Sulfide	ND	mg/L	0.10	0.025	1		04/28/23 11:53	18496-25-8		
<b>Iron, Ferrous</b>		Analytical Method: HACH 8146 Pace Analytical Services - Indianapolis								
Iron, Ferrous	ND	mg/L	0.20	0.035	1		05/02/23 10:12	15438-31-0	H3,N2	
<b>353.2 Nitrogen, NO2/NO3 unpres</b>		Analytical Method: EPA 353.2 Pace Analytical Services - Indianapolis								
Nitrogen, Nitrate	<b>7.8</b>	mg/L	0.50	0.055	5		04/26/23 22:16	14797-55-8		
Nitrogen, Nitrite	ND	mg/L	0.50	0.020	5		04/26/23 22:16	14797-65-0		
<b>365.1 Total Phosphorus</b>		Analytical Method: EPA 365.1 Preparation Method: EPA 365.1 Pace Analytical Services - Indianapolis								
Phosphate as P04	ND	mg/L	0.15	0.15	1	05/03/23 12:30	05/04/23 10:20			
<b>5310C TOC</b>		Analytical Method: SM 5310C Pace Analytical Services - Indianapolis								
Total Organic Carbon	ND	mg/L	1.0	0.24	1		05/02/23 19:12	7440-44-0		
<b>5310C Dissolved Organic Carbon</b>		Analytical Method: SM 5310C Pace Analytical Services - Indianapolis								
Dissolved Organic Carbon	ND	mg/L	1.0	0.24	1		05/03/23 12:21			

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## ANALYTICAL RESULTS

Project: Eagle Valley April 2023 P1R4

Pace Project No.: 50343225

Sample: MW-22D		Lab ID: 50343225002		Collected: 04/26/23 12:55		Received: 04/26/23 16:30		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>9056 IC Anions</b>		Analytical Method: EPA 9056 Pace Analytical Services - Indianapolis							
Chloride	17.4	mg/L	0.25	0.067	1		05/03/23 14:40	16887-00-6	
Fluoride	ND	mg/L	0.10	0.017	1		05/03/23 14:40	16984-48-8	
Sulfate	46.5	mg/L	0.25	0.085	1		05/03/23 14:40	14808-79-8	
<b>6010 MET ICP</b>		Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis							
Aluminum	528	ug/L	200	55.4	1	04/28/23 09:05	04/29/23 00:32	7429-90-5	
Boron	ND	ug/L	100	37.6	1	04/28/23 09:05	04/29/23 00:32	7440-42-8	
Calcium	78900	ug/L	1000	163	1	04/28/23 09:05	04/29/23 00:32	7440-70-2	
Iron	2400	ug/L	100	48.8	1	04/28/23 09:05	04/29/23 00:32	7439-89-6	
Lithium	ND	ug/L	20.0	6.2	1	04/28/23 09:05	04/29/23 00:32	7439-93-2	
Magnesium	24600	ug/L	1000	71.8	1	04/28/23 09:05	04/29/23 00:32	7439-95-4	
Manganese	338	ug/L	10.0	2.5	1	04/28/23 09:05	04/29/23 00:32	7439-96-5	
Potassium	1810	ug/L	1000	281	1	04/28/23 09:05	04/29/23 00:32	7440-09-7	
Silica	16000	ug/L	450		1	04/28/23 09:05	04/29/23 00:32	7631-86-9	N2
Sodium	9260	ug/L	1000	214	1	04/28/23 09:05	04/29/23 00:32	7440-23-5	
<b>6010 MET ICP, Dissolved</b>		Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis							
Manganese, Dissolved	276	ug/L	10.0	5.4	1	04/28/23 16:25	04/30/23 16:31	7439-96-5	
Molybdenum, Dissolved	ND	ug/L	10.0	2.0	1	04/28/23 16:25	04/30/23 16:31	7439-98-7	
<b>6020 MET ICPMS</b>		Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis							
Antimony	ND	ug/L	1.0	0.13	1	04/27/23 07:05	04/28/23 00:57	7440-36-0	
Arsenic	5.0	ug/L	1.0	0.10	1	04/27/23 07:05	04/28/23 00:57	7440-38-2	
Barium	105	ug/L	1.0	0.14	1	04/27/23 07:05	04/28/23 00:57	7440-39-3	
Beryllium	ND	ug/L	0.20	0.026	1	04/27/23 07:05	04/28/23 00:57	7440-41-7	
Cadmium	ND	ug/L	2.0	0.054	1	04/27/23 07:05	04/28/23 00:57	7440-43-9	
Chromium	ND	ug/L	10.0	0.20	1	04/27/23 07:05	04/28/23 00:57	7440-47-3	
Cobalt	ND	ug/L	1.0	0.082	1	04/27/23 07:05	04/28/23 00:57	7440-48-4	
Lead	ND	ug/L	10.0	0.080	1	04/27/23 07:05	04/28/23 00:57	7439-92-1	
Molybdenum	ND	ug/L	10.0	0.072	1	04/27/23 07:05	04/28/23 00:57	7439-98-7	
Selenium	ND	ug/L	1.0	0.44	1	04/27/23 07:05	04/28/23 00:57	7782-49-2	
Thallium	ND	ug/L	1.0	0.072	1	04/27/23 07:05	04/28/23 00:57	7440-28-0	
<b>7470 Mercury</b>		Analytical Method: EPA 7470 Preparation Method: EPA 7470 Pace Analytical Services - Indianapolis							
Mercury	ND	ug/L	0.20	0.091	1	04/27/23 10:07	04/27/23 20:31	7439-97-6	
<b>2320B Alkalinity</b>		Analytical Method: SM 2320B Pace Analytical Services - Indianapolis							
Alkalinity, Total as CaCO3	249	mg/L	10.0	10.0	1		04/28/23 00:11		
Alkalinity,Bicarbonate (CaCO3)	249	mg/L	10.0	10.0	1		04/28/23 00:11		

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**ANALYTICAL RESULTS**

Project: Eagle Valley April 2023 P1R4  
 Pace Project No.: 50343225

Sample: MW-22D		Lab ID: 50343225002		Collected: 04/26/23 12:55	Received: 04/26/23 16:30	Matrix: Water			
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>2320B Alkalinity</b>		Analytical Method: SM 2320B Pace Analytical Services - Indianapolis							
Alkalinity, Carbonate (CaCO3)	ND	mg/L	10.0	10.0	1		04/28/23 00:11		
<b>2540C Total Dissolved Solids</b>		Analytical Method: SM 2540C Pace Analytical Services - Indianapolis							
Total Dissolved Solids	300	mg/L	10.0	10.0	1		04/29/23 14:14		
<b>4500H+ pH, Electrometric</b>		Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis							
pH at 25 Degrees C	7.7	Std. Units	0.10	0.10	1		05/02/23 15:55		H3
<b>4500S2D Sulfide Water</b>		Analytical Method: SM 4500-S2-D Pace Analytical Services - Indianapolis							
Sulfide	ND	mg/L	0.10	0.025	1		04/28/23 11:53	18496-25-8	
<b>Iron, Ferrous</b>		Analytical Method: HACH 8146 Pace Analytical Services - Indianapolis							
Iron, Ferrous	ND	mg/L	0.20	0.035	1		05/02/23 10:11	15438-31-0	H3,N2
<b>353.2 Nitrogen, NO2/NO3 unpres</b>		Analytical Method: EPA 353.2 Pace Analytical Services - Indianapolis							
Nitrogen, Nitrate	ND	mg/L	0.10	0.011	1		04/26/23 21:59	14797-55-8	
Nitrogen, Nitrite	ND	mg/L	0.10	0.0040	1		04/26/23 21:59	14797-65-0	
<b>365.1 Total Phosphorus</b>		Analytical Method: EPA 365.1 Preparation Method: EPA 365.1 Pace Analytical Services - Indianapolis							
Phosphate as P04	ND	mg/L	0.15	0.15	1	05/03/23 12:30	05/04/23 10:22		
<b>5310C TOC</b>		Analytical Method: SM 5310C Pace Analytical Services - Indianapolis							
Total Organic Carbon	ND	mg/L	1.0	0.24	1		05/02/23 19:46	7440-44-0	
<b>5310C Dissolved Organic Carbon</b>		Analytical Method: SM 5310C Pace Analytical Services - Indianapolis							
Dissolved Organic Carbon	ND	mg/L	1.0	0.24	1		05/03/23 12:31		

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**QUALITY CONTROL DATA**

Project: Eagle Valley April 2023 P1R4

Pace Project No.: 50343225

QC Batch:	730602	Analysis Method:	EPA 9056
QC Batch Method:	EPA 9056	Analysis Description:	9056 IC Anions
		Laboratory:	Pace Analytical Services - Indianapolis

Associated Lab Samples: 50343225001, 50343225002

METHOD BLANK: 3353389 Matrix: Water

Associated Lab Samples: 50343225001, 50343225002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chloride	mg/L	ND	0.25	0.067	05/03/23 02:17	
Fluoride	mg/L	ND	0.10	0.017	05/03/23 02:17	
Sulfate	mg/L	ND	0.25	0.085	05/03/23 02:17	

LABORATORY CONTROL SAMPLE: 3353390

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	2.5	2.4	94	80-120	
Fluoride	mg/L	1	1.0	103	80-120	
Sulfate	mg/L	5	4.7	95	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3353397 3353398

Parameter	Units	MS		MSD		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		50342695003	Result	Spike Conc.	Spike Conc.								
Chloride	mg/L	6.9	2.5	2.5	9.1	9.1	89	89	80-120	0	15		
Fluoride	mg/L	0.10	1	1	1.1	1.1	103	104	80-120	1	15		
Sulfate	mg/L	96.5	50	50	143	142	92	91	80-120	0	15		

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**QUALITY CONTROL DATA**

Project: Eagle Valley April 2023 P1R4

Pace Project No.: 50343225

QC Batch:	730146	Analysis Method:	EPA 7470
QC Batch Method:	EPA 7470	Analysis Description:	7470 Mercury
		Laboratory:	Pace Analytical Services - Indianapolis

Associated Lab Samples: 50343225001, 50343225002

METHOD BLANK: 3350873 Matrix: Water

Associated Lab Samples: 50343225001, 50343225002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Mercury	ug/L	ND	0.20	0.091	04/27/23 19:40	

LABORATORY CONTROL SAMPLE: 3350874

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury	ug/L	5	5.2	105	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3350875 3350876

Parameter	Units	3350875		3350876		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		50343174005 Result	MS Spike Conc.	MSD Spike Conc.	MS Result						
Mercury	ug/L	ND	5	5	5.5	5.4	110	108	75-125	2	20

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**QUALITY CONTROL DATA**

Project: Eagle Valley April 2023 P1R4  
Pace Project No.: 50343225

QC Batch: 729390 Analysis Method: EPA 6010  
QC Batch Method: EPA 3010 Analysis Description: 6010 MET  
Laboratory: Pace Analytical Services - Indianapolis

Associated Lab Samples: 50343225001, 50343225002

METHOD BLANK: 3347684 Matrix: Water

Associated Lab Samples: 50343225001, 50343225002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Aluminum	ug/L	ND	200	55.4	04/28/23 23:21	
Boron	ug/L	ND	100	37.6	04/28/23 23:21	
Calcium	ug/L	ND	1000	163	04/28/23 23:21	
Iron	ug/L	ND	100	48.8	04/28/23 23:21	
Lithium	ug/L	ND	20.0	6.2	04/28/23 23:21	
Magnesium	ug/L	ND	1000	71.8	04/28/23 23:21	
Manganese	ug/L	ND	10.0	2.5	04/28/23 23:21	
Potassium	ug/L	ND	1000	281	04/28/23 23:21	
Silica	ug/L	ND	450		04/28/23 23:21	N2
Sodium	ug/L	ND	1000	214	04/28/23 23:21	

LABORATORY CONTROL SAMPLE: 3347685

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Aluminum	ug/L	10000	8830	88	80-120	
Boron	ug/L	1000	881	88	80-120	
Calcium	ug/L	10000	8730	87	80-120	
Iron	ug/L	10000	9140	91	80-120	
Lithium	ug/L	1000	870	87	80-120	
Magnesium	ug/L	10000	8930	89	80-120	
Manganese	ug/L	1000	863	86	80-120	
Potassium	ug/L	10000	8620	86	80-120	
Silica	ug/L	10700	9530	89	80-120	N2
Sodium	ug/L	10000	8520	85	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3347686 3347687

Parameter	Units	MS		MSD		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual	
		50342621001 Result	Spike Conc.	Spike Conc.	Result							Result
Aluminum	ug/L	ND	10000	10000	10000	10100	99	100	75-125	1	20	
Boron	ug/L	321	1000	1000	1320	1320	100	100	75-125	1	20	
Calcium	ug/L	117000	10000	10000	131000	131000	134	141	75-125	1	20	P6
Iron	ug/L	2490	10000	10000	12300	12400	98	99	75-125	1	20	
Lithium	ug/L	ND	1000	1000	1010	1020	100	101	75-125	1	20	
Magnesium	ug/L	65000	10000	10000	77400	77100	123	120	75-125	0	20	
Manganese	ug/L	435	1000	1000	1390	1410	96	97	75-125	1	20	
Potassium	ug/L	18500	10000	10000	29600	29600	111	111	75-125	0	20	

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### QUALITY CONTROL DATA

Project: Eagle Valley April 2023 P1R4

Pace Project No.: 50343225

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3347686 3347687												
Parameter	Units	50342621001 Result	MS	MSD	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max	Qual
			Spike Conc.	Spike Conc.							RPD	
Silica	ug/L	12000	10700	10700	23000	23000	103	103	75-125	0	20	N2
Sodium	ug/L	102000	10000	10000	117000	117000	151	150	75-125	0	20	P6

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**QUALITY CONTROL DATA**

Project: Eagle Valley April 2023 P1R4

Pace Project No.: 50343225

QC Batch: 730295	Analysis Method: EPA 6010
QC Batch Method: EPA 3010	Analysis Description: 6010 MET Dissolved
	Laboratory: Pace Analytical Services - Indianapolis

Associated Lab Samples: 50343225001, 50343225002

METHOD BLANK: 3351456 Matrix: Water

Associated Lab Samples: 50343225001, 50343225002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Manganese, Dissolved	ug/L	ND	10.0	5.4	04/30/23 15:24	
Molybdenum, Dissolved	ug/L	ND	10.0	2.0	04/30/23 15:24	

LABORATORY CONTROL SAMPLE: 3351457

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Manganese, Dissolved	ug/L	1000	922	92	80-120	
Molybdenum, Dissolved	ug/L	1000	967	97	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3351458 3351459

Parameter	Units	50342676001		3351459		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		Result	MS Spike Conc.	MSD Spike Conc.	MS Result						
Manganese, Dissolved	ug/L	530	1000	1000	1400	87	94	75-125	5	20	
Molybdenum, Dissolved	ug/L	14.1	1000	1000	971	96	100	75-125	5	20	

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**QUALITY CONTROL DATA**

Project: Eagle Valley April 2023 P1R4

Pace Project No.: 50343225

QC Batch:	730141	Analysis Method:	EPA 6020
QC Batch Method:	EPA 200.2	Analysis Description:	6020 MET
		Laboratory:	Pace Analytical Services - Indianapolis

Associated Lab Samples: 50343225001, 50343225002

METHOD BLANK: 3350858 Matrix: Water

Associated Lab Samples: 50343225001, 50343225002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Antimony	ug/L	ND	1.0	0.13	04/28/23 00:33	
Arsenic	ug/L	ND	1.0	0.10	04/28/23 00:33	
Barium	ug/L	ND	1.0	0.14	04/28/23 00:33	
Beryllium	ug/L	ND	0.20	0.026	04/28/23 00:33	
Cadmium	ug/L	ND	2.0	0.054	04/28/23 00:33	
Chromium	ug/L	ND	10.0	0.20	04/28/23 00:33	
Cobalt	ug/L	ND	1.0	0.082	04/28/23 00:33	
Lead	ug/L	ND	10.0	0.080	04/28/23 00:33	
Molybdenum	ug/L	ND	10.0	0.072	04/28/23 00:33	
Selenium	ug/L	ND	1.0	0.44	04/28/23 00:33	
Thallium	ug/L	ND	1.0	0.072	04/28/23 00:33	

LABORATORY CONTROL SAMPLE: 3350859

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Antimony	ug/L	40	42.1	105	80-120	
Arsenic	ug/L	40	38.7	97	80-120	
Barium	ug/L	40	39.3	98	80-120	
Beryllium	ug/L	40	41.0	102	80-120	
Cadmium	ug/L	40	39.3	98	80-120	
Chromium	ug/L	40	41.2	103	80-120	
Cobalt	ug/L	40	41.3	103	80-120	
Lead	ug/L	40	40.7	102	80-120	
Molybdenum	ug/L	40	39.8	100	80-120	
Selenium	ug/L	40	38.0	95	80-120	
Thallium	ug/L	40	41.5	104	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3350860 3350861

Parameter	Units	50342722002		3350860		3350861		% Rec	% Rec	% Rec Limits	RPD	Max RPD	Qual
		Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec						
Antimony	ug/L	ND	40	40	41.4	40.2	103	100	75-125	3	20		
Arsenic	ug/L	2.6	40	40	42.2	39.5	99	92	75-125	6	20		
Barium	ug/L	16.4	40	40	56.6	54.3	101	95	75-125	4	20		
Beryllium	ug/L	ND	40	40	41.0	39.5	102	99	75-125	4	20		
Cadmium	ug/L	ND	40	40	38.2	37.2	96	93	75-125	3	20		
Chromium	ug/L	ND	40	40	39.2	38.0	97	94	75-125	3	20		

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### QUALITY CONTROL DATA

Project: Eagle Valley April 2023 P1R4

Pace Project No.: 50343225

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3350860 3350861											
Parameter	Units	50342722002 Result	MS	MSD	MS	MSD	MS	MSD	% Rec	Max	Qual
			Spike Conc.	Spike Conc.	Result	Result	% Rec	% Rec	Limits	RPD	
Cobalt	ug/L	2.2	40	40	42.4	40.6	100	96	75-125	4	20
Lead	ug/L	ND	40	40	40.3	38.9	101	97	75-125	3	20
Molybdenum	ug/L	0.48J	40	40	40.8	40.1	101	99	75-125	2	20
Selenium	ug/L	ND	40	40	41.8	37.8	104	94	75-125	10	20
Thallium	ug/L	ND	40	40	42.0	40.6	105	101	75-125	3	20

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### REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL DATA

Project: Eagle Valley April 2023 P1R4

Pace Project No.: 50343225

QC Batch: 730387

Analysis Method: SM 2320B

QC Batch Method: SM 2320B

Analysis Description: 2320B Alkalinity

Laboratory: Pace Analytical Services - Indianapolis

Associated Lab Samples: 50343225001, 50343225002

METHOD BLANK: 3352061

Matrix: Water

Associated Lab Samples: 50343225001, 50343225002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Alkalinity, Total as CaCO3	mg/L	ND	10.0	10.0	04/28/23 00:11	
Alkalinity,Bicarbonate (CaCO3)	mg/L	ND	10.0	10.0	04/28/23 00:11	
Alkalinity,Carbonate (CaCO3)	mg/L	ND	10.0	10.0	04/28/23 00:11	

LABORATORY CONTROL SAMPLE: 3352062

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Alkalinity, Total as CaCO3	mg/L	50	52.6	105	90-110	

SAMPLE DUPLICATE: 3352063

Parameter	Units	50342980001 Result	Dup Result	RPD	Max RPD	Qualifiers
Alkalinity, Total as CaCO3	mg/L	143	146	2	20	
Alkalinity,Bicarbonate (CaCO3)	mg/L	143	146	2	20	
Alkalinity,Carbonate (CaCO3)	mg/L	ND	ND		20	

SAMPLE DUPLICATE: 3352064

Parameter	Units	50343015001 Result	Dup Result	RPD	Max RPD	Qualifiers
Alkalinity, Total as CaCO3	mg/L	84.8	87.6	3	20	
Alkalinity,Bicarbonate (CaCO3)	mg/L	84.8	87.6	3	20	
Alkalinity,Carbonate (CaCO3)	mg/L	ND	ND		20	

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**QUALITY CONTROL DATA**

Project: Eagle Valley April 2023 P1R4

Pace Project No.: 50343225

QC Batch: 730668	Analysis Method: SM 2540C
QC Batch Method: SM 2540C	Analysis Description: 2540C Total Dissolved Solids
	Laboratory: Pace Analytical Services - Indianapolis

Associated Lab Samples: 50343225001, 50343225002

METHOD BLANK: 3353854 Matrix: Water

Associated Lab Samples: 50343225001, 50343225002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	ND	10.0	10.0	04/29/23 14:10	

LABORATORY CONTROL SAMPLE: 3353855

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	300	273	91	80-120	

SAMPLE DUPLICATE: 3353856

Parameter	Units	50343240003 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	599	606	1	10	

SAMPLE DUPLICATE: 3353857

Parameter	Units	50343240007 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	1310	1310	0	10	

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### QUALITY CONTROL DATA

Project: Eagle Valley April 2023 P1R4

Pace Project No.: 50343225

QC Batch: 731127

Analysis Method: SM 4500-H+B

QC Batch Method: SM 4500-H+B

Analysis Description: 4500H+B pH

Laboratory: Pace Analytical Services - Indianapolis

Associated Lab Samples: 50343225001, 50343225002

SAMPLE DUPLICATE: 3355315

Parameter	Units	10650316001 Result	Dup Result	RPD	Max RPD	Qualifiers
pH at 25 Degrees C	Std. Units	7.9	7.9	1	2	H3

SAMPLE DUPLICATE: 3355316

Parameter	Units	50343519001 Result	Dup Result	RPD	Max RPD	Qualifiers
pH at 25 Degrees C	Std. Units	5.7	5.7	0	2	H3

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**QUALITY CONTROL DATA**

Project: Eagle Valley April 2023 P1R4

Pace Project No.: 50343225

QC Batch:	730441	Analysis Method:	SM 4500-S2-D
QC Batch Method:	SM 4500-S2-D	Analysis Description:	4500S2D Sulfide Water
		Laboratory:	Pace Analytical Services - Indianapolis

Associated Lab Samples: 50343225001, 50343225002

METHOD BLANK: 3352423 Matrix: Water

Associated Lab Samples: 50343225001, 50343225002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Sulfide	mg/L	ND	0.10	0.025	04/28/23 11:53	

LABORATORY CONTROL SAMPLE: 3352424

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Sulfide	mg/L	0.5	0.49	99	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3352425 3352426

Parameter	Units	3352425		3352426		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual	
		50343225001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result							MSD Result
Sulfide	mg/L	ND	0.5	0.5	0.46	0.46	91	90	90-110	1	20	

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**QUALITY CONTROL DATA**

Project: Eagle Valley April 2023 P1R4

Pace Project No.: 50343225

QC Batch:	731019	Analysis Method:	HACH 8146
QC Batch Method:	HACH 8146	Analysis Description:	Iron, Ferrous
		Laboratory:	Pace Analytical Services - Indianapolis

Associated Lab Samples: 50343225001, 50343225002

METHOD BLANK: 3354900 Matrix: Water

Associated Lab Samples: 50343225001, 50343225002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Iron, Ferrous	mg/L	ND	0.20	0.035	05/02/23 10:08	H3,N2

LABORATORY CONTROL SAMPLE: 3354901

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Iron, Ferrous	mg/L	1	1.0	101	90-110	H3,N2

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3354902 3354903

Parameter	Units	50343477002		3354903		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual	
		MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result							
Iron, Ferrous	mg/L	ND	1	1	1.1	1.0	107	104	90-110	3	20	H3,N2

MATRIX SPIKE SAMPLE: 3354904

Parameter	Units	50343152001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Iron, Ferrous	mg/L	ND	1	1.0	104	90-110	H3,N2

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**QUALITY CONTROL DATA**

Project: Eagle Valley April 2023 P1R4

Pace Project No.: 50343225

QC Batch: 730124	Analysis Method: EPA 353.2
QC Batch Method: EPA 353.2	Analysis Description: 353.2 Nitrate + Nitrite, Unpres.
	Laboratory: Pace Analytical Services - Indianapolis

Associated Lab Samples: 50343225001, 50343225002

METHOD BLANK: 3350734 Matrix: Water

Associated Lab Samples: 50343225001, 50343225002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Nitrogen, Nitrate	mg/L	ND	0.10	0.011	04/26/23 22:14	
Nitrogen, Nitrite	mg/L	ND	0.10	0.0040	04/26/23 22:14	

LABORATORY CONTROL SAMPLE: 3350735

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Nitrogen, Nitrate	mg/L	1	1.0	102	90-110	
Nitrogen, Nitrite	mg/L	1	1.1	105	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3350736 3350737

Parameter	Units	50343225001		3350737		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		Result	MS Spike Conc.	MSD Spike Conc.	MS Result						
Nitrogen, Nitrate	mg/L	7.8	5	5	11.7	11.7	78	76	90-110	1	20
Nitrogen, Nitrite	mg/L	ND	5	5	5.2	5.2	103	104	90-110	0	20

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**QUALITY CONTROL DATA**

Project: Eagle Valley April 2023 P1R4

Pace Project No.: 50343225

QC Batch:	731282	Analysis Method:	EPA 365.1
QC Batch Method:	EPA 365.1	Analysis Description:	365.1 Total Phosphorus
		Laboratory:	Pace Analytical Services - Indianapolis

Associated Lab Samples: 50343225001, 50343225002

METHOD BLANK: 3355975 Matrix: Water

Associated Lab Samples: 50343225001, 50343225002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Phosphate as P04	mg/L	ND	0.15	0.15	05/04/23 10:06	

LABORATORY CONTROL SAMPLE: 3355976

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Phosphate as P04	mg/L		1.5			

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3355977 3355978

Parameter	Units	50342771003 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Phosphate as P04	mg/L	ND			1.4	1.4				1		

MATRIX SPIKE SAMPLE: 3355979

Parameter	Units	50343225002 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Phosphate as P04	mg/L	ND		1.5			

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**QUALITY CONTROL DATA**

Project: Eagle Valley April 2023 P1R4

Pace Project No.: 50343225

QC Batch: 730867	Analysis Method: SM 5310C
QC Batch Method: SM 5310C	Analysis Description: 5310C Total Organic Carbon
	Laboratory: Pace Analytical Services - Indianapolis

Associated Lab Samples: 50343225001, 50343225002

METHOD BLANK: 3354385 Matrix: Water

Associated Lab Samples: 50343225001, 50343225002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Organic Carbon	mg/L	ND	1.0	0.24	05/02/23 18:29	

LABORATORY CONTROL SAMPLE: 3354386

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Organic Carbon	mg/L	10	9.8	98	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3354387 3354388

Parameter	Units	50342752003		50342752004		50342752003		50342752004		% Rec Limits	RPD	Max RPD	Qual
		MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec						
Total Organic Carbon	mg/L	6960 ug/L	10	10	16.8	16.8	99	98	80-120	0	20		

MATRIX SPIKE SAMPLE: 3354389

Parameter	Units	50342752004 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Total Organic Carbon	mg/L	13300 ug/L	40	54.1	102	80-120	

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**QUALITY CONTROL DATA**

Project: Eagle Valley April 2023 P1R4

Pace Project No.: 50343225

QC Batch:	731122	Analysis Method:	SM 5310C
QC Batch Method:	SM 5310C	Analysis Description:	5310C Dissolved Organic Carbon
		Laboratory:	Pace Analytical Services - Indianapolis

Associated Lab Samples: 50343225001, 50343225002

METHOD BLANK: 3355289 Matrix: Water

Associated Lab Samples: 50343225001, 50343225002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Dissolved Organic Carbon	mg/L	ND	1.0	0.24	05/03/23 11:48	

LABORATORY CONTROL SAMPLE: 3355290

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Dissolved Organic Carbon	mg/L	10	10	100	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3355291 3355292

Parameter	Units	3355291		3355292		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual	
		MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result							
Dissolved Organic Carbon	mg/L	ND	10	10	10.5	10.6	98	99	80-120	1	20	

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Eagle Valley April 2023 P1R4

Pace Project No.: 50343225

**Sample: MW-22I**      **Lab ID: 50343225001**      Collected: 04/26/23 14:20      Received: 04/26/23 16:30      Matrix: Water  
PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Radium-226	EPA 903.1	<b>0.557 ± 0.384 (0.410)</b> <b>C:NA T:96%</b>	pCi/L	05/18/23 12:37	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 904.0	<b>0.669 ± 0.419 (0.797)</b> <b>C:78% T:92%</b>	pCi/L	05/11/23 16:15	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	<b>1.23 ± 0.803 (1.21)</b>	pCi/L	05/19/23 15:30	7440-14-4	

### REPORT OF LABORATORY ANALYSIS

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Eagle Valley April 2023 P1R4

Pace Project No.: 50343225

**Sample: MW-22D**      **Lab ID: 50343225002**      Collected: 04/26/23 12:55      Received: 04/26/23 16:30      Matrix: Water  
 PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	<b>0.432 ± 0.501 (0.809)</b> <b>C:NA T:89%</b>	pCi/L	05/18/23 12:37	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	<b>0.712 ± 0.391 (0.706)</b> <b>C:81% T:90%</b>	pCi/L	05/11/23 16:15	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	<b>1.14 ± 0.892 (1.52)</b>	pCi/L	05/19/23 15:30	7440-14-4	

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### QUALITY CONTROL - RADIOCHEMISTRY

Project: Eagle Valley April 2023 P1R4

Pace Project No.: 50343225

QC Batch: 585733

Analysis Method: EPA 904.0

QC Batch Method: EPA 904.0

Analysis Description: 904.0 Radium 228

Laboratory: Pace Analytical Services - Greensburg

Associated Lab Samples: 50343225001, 50343225002

METHOD BLANK: 2845067

Matrix: Water

Associated Lab Samples: 50343225001, 50343225002

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.401 ± 0.294 (0.568) C:78% T:90%	pCi/L	05/11/23 12:58	

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### QUALITY CONTROL - RADIOCHEMISTRY

Project: Eagle Valley April 2023 P1R4

Pace Project No.: 50343225

QC Batch: 585731

Analysis Method: EPA 903.1

QC Batch Method: EPA 903.1

Analysis Description: 903.1 Radium-226

Laboratory: Pace Analytical Services - Greensburg

Associated Lab Samples: 50343225001, 50343225002

METHOD BLANK: 2845061

Matrix: Water

Associated Lab Samples: 50343225001, 50343225002

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.152 ± 0.263 (0.469) C:NA T:86%	pCi/L	05/18/23 12:24	

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## QUALIFIERS

Project: Eagle Valley April 2023 P1R4

Pace Project No.: 50343225

### DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Reported results are not rounded until the final step prior to reporting. Therefore, calculated parameters that are typically reported as "Total" may vary slightly from the sum of the reported component parameters.

Act - Activity

Unc - Uncertainty: SDWA = 1.96 sigma count uncertainty, all other matrices = Expanded Uncertainty (95% confidence interval).

Gamma Spec = Expanded Uncertainty (95.4% Confidence Interval)

(MDC) - Minimum Detectable Concentration

Trac - Tracer Recovery (%)

Carr - Carrier Recovery (%)

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

### ANALYTE QUALIFIERS

H3 Sample was received or analysis requested beyond the recognized method holding time.

N2 The lab does not hold NELAC/TNI accreditation for this parameter but other accreditations/certifications may apply. A complete list of accreditations/certifications is available upon request.

P6 Matrix spike recovery was outside laboratory control limits due to a parent sample concentration notably higher than the spike level.

## REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Eagle Valley April 2023 P1R4

Pace Project No.: 50343225

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
50343225001	MW-22I	EPA 9056	730602		
50343225002	MW-22D	EPA 9056	730602		
50343225001	MW-22I	EPA 3010	729390	EPA 6010	730624
50343225002	MW-22D	EPA 3010	729390	EPA 6010	730624
50343225001	MW-22I	EPA 3010	730295	EPA 6010	730725
50343225002	MW-22D	EPA 3010	730295	EPA 6010	730725
50343225001	MW-22I	EPA 200.2	730141	EPA 6020	730238
50343225002	MW-22D	EPA 200.2	730141	EPA 6020	730238
50343225001	MW-22I	EPA 7470	730146	EPA 7470	730343
50343225002	MW-22D	EPA 7470	730146	EPA 7470	730343
50343225001	MW-22I	EPA 903.1	585731		
50343225002	MW-22D	EPA 903.1	585731		
50343225001	MW-22I	EPA 904.0	585733		
50343225002	MW-22D	EPA 904.0	585733		
50343225001	MW-22I	Total Radium Calculation	589447		
50343225002	MW-22D	Total Radium Calculation	589447		
50343225001	MW-22I	SM 2320B	730387		
50343225002	MW-22D	SM 2320B	730387		
50343225001	MW-22I	SM 2540C	730668		
50343225002	MW-22D	SM 2540C	730668		
50343225001	MW-22I	SM 4500-H+B	731127		
50343225002	MW-22D	SM 4500-H+B	731127		
50343225001	MW-22I	SM 4500-S2-D	730441		
50343225002	MW-22D	SM 4500-S2-D	730441		
50343225001	MW-22I	HACH 8146	731019		
50343225002	MW-22D	HACH 8146	731019		
50343225001	MW-22I	EPA 353.2	730124		
50343225002	MW-22D	EPA 353.2	730124		
50343225001	MW-22I	EPA 365.1	731282	EPA 365.1	731584
50343225002	MW-22D	EPA 365.1	731282	EPA 365.1	731584
50343225001	MW-22I	SM 5310C	730867		
50343225002	MW-22D	SM 5310C	730867		
50343225001	MW-22I	SM 5310C	731122		
50343225002	MW-22D	SM 5310C	731122		

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**SAMPLE CONDITION UPON RECEIPT FORM**

Date/Time and Initials of person examining contents: DD 4/24/23 1826

1. Courier:  FED EX  UPS  CLIENT  PACE  USPS  OTHER \_\_\_\_\_

2. Custody Seal on Cooler/Box Present:  Yes  No  
 (If yes)Seals Intact:  Yes  No (leave blank if no seals were present)

3. Thermometer: 1 2 3 4 5 6 **A B C D E F**

4. Cooler Temperature(s): 1.7/1.7     
 (Initial/Corrected) RECORD TEMPS OF ALL COOLERS RECEIVED (use Comments below to add more)

5. Packing Material:  Bubble Wrap  Bubble Bags  
 None  Other \_\_\_\_\_

6. Ice Type:  Wet  Blue  None

7. If temp. is over 6°C or under 0°C, was the PM notified?:  Yes  No  
 Cooler temp should be above freezing to 6°C

All discrepancies will be written out in the comments section below.

	Yes	No		Yes	No	N/A
USDA Regulated Soils? (HI, ID, NY, WA, OR,CA, NM, TX, OK, AR, LA, TN, AL, MS, NC, SC, GA, FL, or Puerto Rico)		<input checked="" type="checkbox"/>	All containers needing acid/base preservation have been pH CHECKED?: Exceptions: VOA, coliform, LLHg, O&G, RAD CHEM, and any container with a septum cap or preserved with HCl.			
Short Hold Time Analysis (48 hours or less)? Analysis: <u>N. Info</u>		<input checked="" type="checkbox"/>	Circle: HNO3 (<2) H2SO4 (<2) NaOH (>10) NaOH/ZnAc (>9) Any non-conformance to pH recommendations will be noted on the container count form		<input checked="" type="checkbox"/>	
Time 5035A TC placed in Freezer or Short Holds To Lab	Time:		Residual Chlorine Check (SVOC 625 Pest/PCB 608)	<u>Present</u>	<u>Absent</u>	<u>N/A</u>
Rush TAT Requested (4 days or less):		<input checked="" type="checkbox"/>	Residual Chlorine Check (Total/Amenable/Free Cyanide)			<input checked="" type="checkbox"/>
Custody Signatures Present?	<input checked="" type="checkbox"/>		Headspace Wisconsin Sulfide?			<input checked="" type="checkbox"/>
Containers Intact?:	<input checked="" type="checkbox"/>		Headspace in VOA Vials (>6mm): See Containter Count form for details	<u>Present</u>	<u>Absent</u>	<u>No VOA Vials Sent</u>
Sample Label (IDs/Dates/Times) Match COC?: Except TCs, which only require sample ID	<input checked="" type="checkbox"/>		Trip Blank Present?		<input checked="" type="checkbox"/>	
Extra labels on Terracore Vials? (soils only)			Trip Blank Custody Seals?:			<input checked="" type="checkbox"/>

COMMENTS:

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July 18, 2023

Mr. Mark Breting  
ATC Group Services  
7988 Centerpoint Drive  
Suite 100  
Indianapolis, IN 46256

RE: Project: Eagle Valley April 2023 P1R1  
Pace Project No.: 50343318

Dear Mr. Breting:

Enclosed are the analytical results for sample(s) received by the laboratory on April 27, 2023. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

The test results provided in this final report were generated by each of the following laboratories within the Pace Network:

- Pace Analytical Services - Indianapolis
- Pace Analytical Services - Greensburg

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Will Statz  
will.statz@pacelabs.com  
(317)228-3105  
Project Manager

Enclosures

cc: Mohammed Bazlamit, Atlas  
Mr. Robert Miller, Haley & Aldrich



## REPORT OF LABORATORY ANALYSIS

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### CERTIFICATIONS

Project: Eagle Valley April 2023 P1R1  
Pace Project No.: 50343318

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#### Pace Analytical Services Pennsylvania

1638 Roseytown Rd Suites 2,3&4, Greensburg, PA 15601  
ANAB DOD-ELAP Rad Accreditation #: L2417  
ANABISO/IEC 17025:2017 Rad Cert#: L24170  
Alabama Certification #: 41590  
Arizona Certification #: AZ0734  
Arkansas Certification  
California Certification #: 2950  
Colorado Certification #: PA01547  
Connecticut Certification #: PH-0694  
EPA Region 4 DW Rad  
Florida/TNI Certification #: E87683  
Georgia Certification #: C040  
Guam Certification  
Hawaii Certification  
Idaho Certification  
Illinois Certification  
Indiana Certification  
Iowa Certification #: 391  
Kansas Certification #: E-10358  
Kentucky Certification #: KY90133  
KY WW Permit #: KY0098221  
KY WW Permit #: KY0000221  
Louisiana DHH/TNI Certification #: LA010  
Louisiana DEQ/TNI Certification #: 04086  
Maine Certification #: 2023021  
Maryland Certification #: 308  
Massachusetts Certification #: M-PA1457  
Michigan/PADEP Certification #: 9991

Missouri Certification #: 235  
Montana Certification #: Cert0082  
Nebraska Certification #: NE-OS-29-14  
Nevada Certification #: PA014572023-03  
New Hampshire/TNI Certification #: 297622  
New Jersey/TNI Certification #: PA051  
New Mexico Certification #: PA01457  
New York/TNI Certification #: 10888  
North Carolina Certification #: 42706  
North Dakota Certification #: R-190  
Ohio EPA Rad Approval: #41249  
Oregon/TNI Certification #: PA200002-015  
Pennsylvania/TNI Certification #: 65-00282  
Puerto Rico Certification #: PA01457  
Rhode Island Certification #: 65-00282  
South Dakota Certification  
Tennessee Certification #: TN02867  
Texas/TNI Certification #: T104704188-22-18  
Utah/TNI Certification #: PA014572223-14  
USDA Soil Permit #: 525-23-67-77263  
Vermont Dept. of Health: ID# VT-0282  
Virgin Island/PADEP Certification  
Virginia/VELAP Certification #: 460198  
Washington Certification #: C868  
West Virginia DEP Certification #: 143  
West Virginia DHHR Certification #: 9964C  
Wisconsin Approve List for Rad

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#### Pace Analytical Services Indianapolis

7726 Moller Road, Indianapolis, IN 46268  
Illinois Accreditation #: 200074  
Indiana Drinking Water Laboratory #: C-49-06  
Kansas/TNI Certification #: E-10177  
Kentucky UST Agency Interest #: 80226  
Kentucky WW Laboratory ID #: 98019  
Michigan Drinking Water Laboratory #9050

Ohio VAP Certified Laboratory #: CL0065  
Oklahoma Laboratory #: 9204  
Texas Certification #: T104704355  
Wisconsin Laboratory #: 999788130  
USDA Foreign Soil Permit #: 525-23-13-23119  
USDA Compliance Agreement #: IN-SL-22-001

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### REPORT OF LABORATORY ANALYSIS

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### SAMPLE SUMMARY

Project: Eagle Valley April 2023 P1R1

Pace Project No.: 50343318

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Lab ID	Sample ID	Matrix	Date Collected	Date Received
50343318001	MW-12S	Water	04/27/23 12:21	04/27/23 15:30
50343318002	MW-12I	Water	04/27/23 13:37	04/27/23 15:30
50343318003	MW-12D	Water	04/27/23 11:13	04/27/23 15:30

### REPORT OF LABORATORY ANALYSIS

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### SAMPLE ANALYTE COUNT

Project: Eagle Valley April 2023 P1R1

Pace Project No.: 50343318

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory		
50343318001	MW-12S	EPA 9056	RMR	3	PASI-I		
		EPA 6010	MTM	10	PASI-I		
		EPA 6010	JPK	2	PASI-I		
		EPA 6020	CAW	11	PASI-I		
		EPA 7470	ILP	1	PASI-I		
		EPA 903.1	JLJ	1	PASI-PA		
		EPA 904.0	JJS1	1	PASI-PA		
		Total Radium Calculation	JAL	1	PASI-PA		
		SM 2320B	DAW	3	PASI-I		
		SM 2540C	TRK	1	PASI-I		
		SM 4500-H+B	BMS	1	PASI-I		
		SM 4500-S2-D	BEP	1	PASI-I		
		HACH 8146	BEP	1	PASI-I		
		EPA 353.2	ZM	2	PASI-I		
		EPA 365.1	YAM	1	PASI-I		
		SM 5310C	ATS	1	PASI-I		
		SM 5310C	ATS	1	PASI-I		
		50343318002	MW-12I	EPA 9056	RMR	3	PASI-I
				EPA 6010	MTM	10	PASI-I
				EPA 6010	JPK	2	PASI-I
EPA 6020	CAW			11	PASI-I		
EPA 7470	ILP			1	PASI-I		
EPA 903.1	JLJ			1	PASI-PA		
EPA 904.0	JJS1			1	PASI-PA		
Total Radium Calculation	JAL			1	PASI-PA		
SM 2320B	DAW			3	PASI-I		
SM 2540C	TRK			1	PASI-I		
SM 4500-H+B	BMS			1	PASI-I		
SM 4500-S2-D	BEP			1	PASI-I		
HACH 8146	BEP			1	PASI-I		
EPA 353.2	ZM			2	PASI-I		
EPA 365.1	YAM			1	PASI-I		
SM 5310C	ATS			1	PASI-I		
SM 5310C	ATS			1	PASI-I		
50343318003	MW-12D			EPA 9056	RMR	3	PASI-I
				EPA 6010	MTM	10	PASI-I
				EPA 6010	JPK	2	PASI-I

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### SAMPLE ANALYTE COUNT

Project: Eagle Valley April 2023 P1R1

Pace Project No.: 50343318

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
		EPA 6020	CAW	11	PASI-I
		EPA 7470	ILP	1	PASI-I
		EPA 903.1	JLJ	1	PASI-PA
		EPA 904.0	JJS1	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
		SM 2320B	DAW	3	PASI-I
		SM 2540C	TRK	1	PASI-I
		SM 4500-H+B	BMS	1	PASI-I
		SM 4500-S2-D	BEP	1	PASI-I
		HACH 8146	BEP	1	PASI-I
		EPA 353.2	ZM	2	PASI-I
		EPA 365.1	YAM	1	PASI-I
		SM 5310C	ATS	1	PASI-I
		SM 5310C	ATS	1	PASI-I

PASI-I = Pace Analytical Services - Indianapolis

PASI-PA = Pace Analytical Services - Greensburg

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### SUMMARY OF DETECTION

Project: Eagle Valley April 2023 P1R1

Pace Project No.: 50343318

Lab Sample ID	Client Sample ID	Result	Units	Report Limit	Analyzed	Qualifiers
Method	Parameters					
<b>50343318001</b>	<b>MW-12S</b>					
EPA 9056	Chloride	41.1	mg/L	2.5	05/02/23 18:34	
EPA 9056	Fluoride	0.24	mg/L	0.10	05/02/23 18:14	
EPA 9056	Sulfate	146	mg/L	2.5	05/02/23 18:34	
EPA 6010	Boron	4520	ug/L	100	05/03/23 14:02	
EPA 6010	Calcium	117000	ug/L	1000	05/03/23 14:02	
EPA 6010	Iron	157	ug/L	100	05/03/23 14:02	
EPA 6010	Lithium	97.7	ug/L	20.0	05/03/23 14:02	
EPA 6010	Magnesium	25100	ug/L	1000	05/03/23 14:02	
EPA 6010	Manganese	58.0	ug/L	10.0	05/03/23 14:02	
EPA 6010	Potassium	11400	ug/L	1000	05/03/23 14:02	
EPA 6010	Silica	11600	ug/L	450	05/03/23 14:02	N2
EPA 6010	Sodium	74600	ug/L	1000	05/03/23 14:02	
EPA 6010	Molybdenum, Dissolved	33.9	ug/L	10.0	05/02/23 00:49	
EPA 6020	Antimony	1.5	ug/L	1.0	05/02/23 00:39	
EPA 6020	Arsenic	1.8	ug/L	1.0	05/02/23 00:39	
EPA 6020	Barium	122	ug/L	1.0	05/02/23 00:39	
EPA 6020	Molybdenum	35.9	ug/L	10.0	05/02/23 00:39	
EPA 6020	Selenium	8.3	ug/L	1.0	05/02/23 00:39	
EPA 903.1	Radium-226	0.194 ± 0.457 (0.846)	pCi/L		05/17/23 15:01	
EPA 904.0	Radium-228	C:NA T:89% 0.946 ± 0.448 (0.743) C:74% T:81%	pCi/L		05/11/23 16:16	
Total Radium Calculation	Total Radium	1.14 ± 0.905 (1.59)	pCi/L		05/19/23 15:07	
SM 2320B	Alkalinity, Total as CaCO3	346	mg/L	10.0	04/27/23 22:13	
SM 2320B	Alkalinity,Bicarbonate (CaCO3)	346	mg/L	10.0	04/27/23 22:13	
SM 2540C	Total Dissolved Solids	643	mg/L	10.0	05/01/23 11:06	
SM 4500-H+B	pH at 25 Degrees C	7.5	Std. Units	0.10	05/05/23 12:04	H3
EPA 353.2	Nitrogen, Nitrate	0.60	mg/L	0.10	04/28/23 20:16	
<b>50343318002</b>	<b>MW-12I</b>					
EPA 9056	Chloride	82.7	mg/L	2.5	05/02/23 19:32	
EPA 9056	Fluoride	0.32	mg/L	0.10	05/02/23 19:13	
EPA 9056	Sulfate	219	mg/L	2.5	05/02/23 19:32	
EPA 6010	Aluminum	267	ug/L	200	05/03/23 14:05	
EPA 6010	Boron	2470	ug/L	100	05/03/23 14:05	
EPA 6010	Calcium	122000	ug/L	1000	05/03/23 14:05	
EPA 6010	Iron	1210	ug/L	100	05/03/23 14:05	
EPA 6010	Lithium	109	ug/L	20.0	05/03/23 14:05	
EPA 6010	Magnesium	29100	ug/L	1000	05/03/23 14:05	
EPA 6010	Manganese	280	ug/L	10.0	05/03/23 14:05	
EPA 6010	Potassium	12100	ug/L	1000	05/03/23 14:05	
EPA 6010	Silica	11800	ug/L	450	05/03/23 14:05	N2
EPA 6010	Sodium	90200	ug/L	1000	05/03/23 14:05	

### REPORT OF LABORATORY ANALYSIS

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**SUMMARY OF DETECTION**

Project: Eagle Valley April 2023 P1R1

Pace Project No.: 50343318

Lab Sample ID	Client Sample ID	Result	Units	Report Limit	Analyzed	Qualifiers
Method	Parameters					
<b>50343318002</b>	<b>MW-12I</b>					
EPA 6010	Manganese, Dissolved	272	ug/L	10.0	05/02/23 00:51	
EPA 6010	Molybdenum, Dissolved	232	ug/L	10.0	05/02/23 00:51	
EPA 6020	Barium	76.7	ug/L	1.0	05/02/23 00:46	
EPA 6020	Molybdenum	225	ug/L	20.0	05/02/23 00:42	
EPA 903.1	Radium-226	0.592 ± 0.639	pCi/L		05/17/23 15:01	
		(1.03) C:NA				
		T:92%				
EPA 904.0	Radium-228	0.631 ± 0.411	pCi/L		05/11/23 16:16	
		(0.769)				
		C:74%				
		T:83%				
Total Radium Calculation	Total Radium	1.22 ± 1.05 (1.80)	pCi/L		05/19/23 15:07	
SM 2320B	Alkalinity, Total as CaCO3	272	mg/L	10.0	04/27/23 22:13	
SM 2320B	Alkalinity,Bicarbonate (CaCO3)	272	mg/L	10.0	04/27/23 22:13	
SM 2540C	Total Dissolved Solids	739	mg/L	10.0	05/01/23 11:07	
SM 4500-H+B	pH at 25 Degrees C	7.6	Std. Units	0.10	05/05/23 12:05	H3
SM 4500-S2-D	Sulfide	0.028J	mg/L	0.10	04/28/23 11:53	
<b>50343318003</b>	<b>MW-12D</b>					
EPA 9056	Chloride	87.1	mg/L	2.5	05/02/23 20:11	
EPA 9056	Fluoride	0.25	mg/L	0.10	05/02/23 19:52	
EPA 9056	Sulfate	83.9	mg/L	2.5	05/02/23 20:11	
EPA 6010	Aluminum	986	ug/L	200	05/03/23 14:07	
EPA 6010	Boron	2110	ug/L	100	05/03/23 14:07	
EPA 6010	Calcium	81500	ug/L	1000	05/03/23 14:07	
EPA 6010	Iron	1860	ug/L	100	05/03/23 14:07	
EPA 6010	Lithium	76.3	ug/L	20.0	05/03/23 14:07	
EPA 6010	Magnesium	15800	ug/L	1000	05/03/23 14:07	
EPA 6010	Manganese	317	ug/L	10.0	05/03/23 14:07	
EPA 6010	Potassium	6320	ug/L	1000	05/03/23 14:07	
EPA 6010	Silica	15600	ug/L	450	05/03/23 14:07	N2
EPA 6010	Sodium	84300	ug/L	1000	05/03/23 14:07	
EPA 6010	Manganese, Dissolved	288	ug/L	10.0	05/02/23 00:54	
EPA 6010	Molybdenum, Dissolved	204	ug/L	10.0	05/02/23 00:54	
EPA 6020	Arsenic	2.7	ug/L	1.0	05/02/23 00:56	
EPA 6020	Barium	66.3	ug/L	1.0	05/02/23 00:56	
EPA 6020	Molybdenum	194	ug/L	10.0	05/02/23 00:56	
EPA 903.1	Radium-226	0.645 ± 0.388	pCi/L		05/17/23 15:01	
		(0.159)				
		C:NA T:91%				
EPA 904.0	Radium-228	0.345 ± 0.296	pCi/L		05/11/23 16:16	
		(0.584)				
		C:80%				
		T:85%				

**REPORT OF LABORATORY ANALYSIS**

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### SUMMARY OF DETECTION

Project: Eagle Valley April 2023 P1R1

Pace Project No.: 50343318

Lab Sample ID Method	Client Sample ID Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
<b>50343318003</b>	<b>MW-12D</b>					
Total Radium Calculation	Total Radium	0.990 ± 0.684 (0.743)	pCi/L		05/19/23 15:07	
SM 2320B	Alkalinity, Total as CaCO3	226	mg/L	10.0	04/27/23 22:13	
SM 2320B	Alkalinity,Bicarbonate (CaCO3)	226	mg/L	10.0	04/27/23 22:13	
SM 2540C	Total Dissolved Solids	502	mg/L	10.0	05/02/23 11:25	
SM 4500-H+B	pH at 25 Degrees C	7.6	Std. Units	0.10	05/05/23 12:06	H3
SM 4500-S2-D	Sulfide	0.025J	mg/L	0.10	04/28/23 11:53	

### REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: Eagle Valley April 2023 P1R1

Pace Project No.: 50343318

Sample: MW-12S		Lab ID: 50343318001		Collected: 04/27/23 12:21		Received: 04/27/23 15:30		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>9056 IC Anions</b>									
Analytical Method: EPA 9056									
Pace Analytical Services - Indianapolis									
Chloride	41.1	mg/L	2.5	0.67	10		05/02/23 18:34	16887-00-6	
Fluoride	0.24	mg/L	0.10	0.017	1		05/02/23 18:14	16984-48-8	
Sulfate	146	mg/L	2.5	0.85	10		05/02/23 18:34	14808-79-8	
<b>6010 MET ICP</b>									
Analytical Method: EPA 6010 Preparation Method: EPA 3010									
Pace Analytical Services - Indianapolis									
Aluminum	ND	ug/L	200	55.4	1	05/02/23 08:33	05/03/23 14:02	7429-90-5	
Boron	4520	ug/L	100	37.6	1	05/02/23 08:33	05/03/23 14:02	7440-42-8	
Calcium	117000	ug/L	1000	163	1	05/02/23 08:33	05/03/23 14:02	7440-70-2	
Iron	157	ug/L	100	48.8	1	05/02/23 08:33	05/03/23 14:02	7439-89-6	
Lithium	97.7	ug/L	20.0	6.2	1	05/02/23 08:33	05/03/23 14:02	7439-93-2	
Magnesium	25100	ug/L	1000	71.8	1	05/02/23 08:33	05/03/23 14:02	7439-95-4	
Manganese	58.0	ug/L	10.0	2.5	1	05/02/23 08:33	05/03/23 14:02	7439-96-5	
Potassium	11400	ug/L	1000	281	1	05/02/23 08:33	05/03/23 14:02	7440-09-7	
Silica	11600	ug/L	450		1	05/02/23 08:33	05/03/23 14:02	7631-86-9	N2
Sodium	74600	ug/L	1000	214	1	05/02/23 08:33	05/03/23 14:02	7440-23-5	
<b>6010 MET ICP, Dissolved</b>									
Analytical Method: EPA 6010 Preparation Method: EPA 3010									
Pace Analytical Services - Indianapolis									
Manganese, Dissolved	ND	ug/L	10.0	2.5	1	05/01/23 09:24	05/02/23 00:49	7439-96-5	
Molybdenum, Dissolved	33.9	ug/L	10.0	3.7	1	05/01/23 09:24	05/02/23 00:49	7439-98-7	
<b>6020 MET ICPMS</b>									
Analytical Method: EPA 6020 Preparation Method: EPA 200.2									
Pace Analytical Services - Indianapolis									
Antimony	1.5	ug/L	1.0	0.036	1	04/29/23 07:10	05/02/23 00:39	7440-36-0	
Arsenic	1.8	ug/L	1.0	0.053	1	04/29/23 07:10	05/02/23 00:39	7440-38-2	
Barium	122	ug/L	1.0	0.051	1	04/29/23 07:10	05/02/23 00:39	7440-39-3	
Beryllium	ND	ug/L	0.20	0.028	1	04/29/23 07:10	05/02/23 00:39	7440-41-7	
Cadmium	ND	ug/L	2.0	0.0090	1	04/29/23 07:10	05/02/23 00:39	7440-43-9	
Chromium	ND	ug/L	10.0	0.13	1	04/29/23 07:10	05/02/23 00:39	7440-47-3	
Cobalt	ND	ug/L	1.0	0.032	1	04/29/23 07:10	05/02/23 00:39	7440-48-4	
Lead	ND	ug/L	10.0	0.034	1	04/29/23 07:10	05/02/23 00:39	7439-92-1	
Molybdenum	35.9	ug/L	10.0	0.048	1	04/29/23 07:10	05/02/23 00:39	7439-98-7	
Selenium	8.3	ug/L	1.0	0.23	1	04/29/23 07:10	05/02/23 00:39	7782-49-2	
Thallium	ND	ug/L	1.0	0.033	1	04/29/23 07:10	05/02/23 00:39	7440-28-0	
<b>7470 Mercury</b>									
Analytical Method: EPA 7470 Preparation Method: EPA 7470									
Pace Analytical Services - Indianapolis									
Mercury	ND	ug/L	0.20	0.12	1	05/01/23 21:04	05/02/23 11:33	7439-97-6	
<b>2320B Alkalinity</b>									
Analytical Method: SM 2320B									
Pace Analytical Services - Indianapolis									
Alkalinity, Total as CaCO3	346	mg/L	10.0	10.0	1		04/27/23 22:13		
Alkalinity,Bicarbonate (CaCO3)	346	mg/L	10.0	10.0	1		04/27/23 22:13		

## REPORT OF LABORATORY ANALYSIS

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### ANALYTICAL RESULTS

Project: Eagle Valley April 2023 P1R1

Pace Project No.: 50343318

Sample: MW-12S		Lab ID: 50343318001		Collected: 04/27/23 12:21	Received: 04/27/23 15:30	Matrix: Water			
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>2320B Alkalinity</b>		Analytical Method: SM 2320B Pace Analytical Services - Indianapolis							
Alkalinity, Carbonate (CaCO3)	ND	mg/L	10.0	10.0	1		04/27/23 22:13		
<b>2540C Total Dissolved Solids</b>		Analytical Method: SM 2540C Pace Analytical Services - Indianapolis							
Total Dissolved Solids	<b>643</b>	mg/L	10.0	10.0	1		05/01/23 11:06		
<b>4500H+ pH, Electrometric</b>		Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis							
pH at 25 Degrees C	<b>7.5</b>	Std. Units	0.10	0.10	1		05/05/23 12:04		H3
<b>4500S2D Sulfide Water</b>		Analytical Method: SM 4500-S2-D Pace Analytical Services - Indianapolis							
Sulfide	ND	mg/L	0.10	0.025	1		04/28/23 11:53	18496-25-8	
<b>Iron, Ferrous</b>		Analytical Method: HACH 8146 Pace Analytical Services - Indianapolis							
Iron, Ferrous	ND	mg/L	0.20	0.035	1		05/02/23 10:14	15438-31-0	H3,N2
<b>353.2 Nitrogen, NO2/NO3 unpres</b>		Analytical Method: EPA 353.2 Pace Analytical Services - Indianapolis							
Nitrogen, Nitrate	<b>0.60</b>	mg/L	0.10	0.011	1		04/28/23 20:16	14797-55-8	
Nitrogen, Nitrite	ND	mg/L	0.10	0.0040	1		04/28/23 20:16	14797-65-0	
<b>365.1 Total Phosphorus</b>		Analytical Method: EPA 365.1 Preparation Method: EPA 365.1 Pace Analytical Services - Indianapolis							
Phosphate as P04	ND	mg/L	0.15	0.15	1	05/04/23 13:00	05/07/23 13:00		
<b>5310C TOC</b>		Analytical Method: SM 5310C Pace Analytical Services - Indianapolis							
Total Organic Carbon	ND	mg/L	1.0	0.24	1		05/04/23 05:08	7440-44-0	
<b>5310C Dissolved Organic Carbon</b>		Analytical Method: SM 5310C Pace Analytical Services - Indianapolis							
Dissolved Organic Carbon	ND	mg/L	1.0	0.24	1		05/03/23 12:41		

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## ANALYTICAL RESULTS

Project: Eagle Valley April 2023 P1R1

Pace Project No.: 50343318

Sample: MW-121 Lab ID: 50343318002 Collected: 04/27/23 13:37 Received: 04/27/23 15:30 Matrix: Water

Parameters	Results	Units	Report			Prepared	Analyzed	CAS No.	Qual
			Limit	MDL	DF				
<b>9056 IC Anions</b>									
Analytical Method: EPA 9056									
Pace Analytical Services - Indianapolis									
Chloride	82.7	mg/L	2.5	0.67	10		05/02/23 19:32	16887-00-6	
Fluoride	0.32	mg/L	0.10	0.017	1		05/02/23 19:13	16984-48-8	
Sulfate	219	mg/L	2.5	0.85	10		05/02/23 19:32	14808-79-8	
<b>6010 MET ICP</b>									
Analytical Method: EPA 6010 Preparation Method: EPA 3010									
Pace Analytical Services - Indianapolis									
Aluminum	267	ug/L	200	55.4	1	05/02/23 08:33	05/03/23 14:05	7429-90-5	
Boron	2470	ug/L	100	37.6	1	05/02/23 08:33	05/03/23 14:05	7440-42-8	
Calcium	122000	ug/L	1000	163	1	05/02/23 08:33	05/03/23 14:05	7440-70-2	
Iron	1210	ug/L	100	48.8	1	05/02/23 08:33	05/03/23 14:05	7439-89-6	
Lithium	109	ug/L	20.0	6.2	1	05/02/23 08:33	05/03/23 14:05	7439-93-2	
Magnesium	29100	ug/L	1000	71.8	1	05/02/23 08:33	05/03/23 14:05	7439-95-4	
Manganese	280	ug/L	10.0	2.5	1	05/02/23 08:33	05/03/23 14:05	7439-96-5	
Potassium	12100	ug/L	1000	281	1	05/02/23 08:33	05/03/23 14:05	7440-09-7	
Silica	11800	ug/L	450		1	05/02/23 08:33	05/03/23 14:05	7631-86-9	N2
Sodium	90200	ug/L	1000	214	1	05/02/23 08:33	05/03/23 14:05	7440-23-5	
<b>6010 MET ICP, Dissolved</b>									
Analytical Method: EPA 6010 Preparation Method: EPA 3010									
Pace Analytical Services - Indianapolis									
Manganese, Dissolved	272	ug/L	10.0	2.5	1	05/01/23 09:24	05/02/23 00:51	7439-96-5	
Molybdenum, Dissolved	232	ug/L	10.0	3.7	1	05/01/23 09:24	05/02/23 00:51	7439-98-7	
<b>6020 MET ICPMS</b>									
Analytical Method: EPA 6020 Preparation Method: EPA 200.2									
Pace Analytical Services - Indianapolis									
Antimony	ND	ug/L	1.0	0.036	1	04/29/23 07:10	05/02/23 00:46	7440-36-0	
Arsenic	ND	ug/L	1.0	0.053	1	04/29/23 07:10	05/02/23 00:46	7440-38-2	
Barium	76.7	ug/L	1.0	0.051	1	04/29/23 07:10	05/02/23 00:46	7440-39-3	
Beryllium	ND	ug/L	0.20	0.028	1	04/29/23 07:10	05/02/23 00:46	7440-41-7	
Cadmium	ND	ug/L	2.0	0.0090	1	04/29/23 07:10	05/02/23 00:46	7440-43-9	
Chromium	ND	ug/L	10.0	0.13	1	04/29/23 07:10	05/02/23 00:46	7440-47-3	
Cobalt	ND	ug/L	1.0	0.032	1	04/29/23 07:10	05/02/23 00:46	7440-48-4	
Lead	ND	ug/L	10.0	0.034	1	04/29/23 07:10	05/02/23 00:46	7439-92-1	
Molybdenum	225	ug/L	20.0	0.096	2	04/29/23 07:10	05/02/23 00:42	7439-98-7	
Selenium	ND	ug/L	1.0	0.23	1	04/29/23 07:10	05/02/23 00:46	7782-49-2	
Thallium	ND	ug/L	1.0	0.033	1	04/29/23 07:10	05/02/23 00:46	7440-28-0	
<b>7470 Mercury</b>									
Analytical Method: EPA 7470 Preparation Method: EPA 7470									
Pace Analytical Services - Indianapolis									
Mercury	ND	ug/L	0.20	0.12	1	05/01/23 21:04	05/02/23 11:36	7439-97-6	
<b>2320B Alkalinity</b>									
Analytical Method: SM 2320B									
Pace Analytical Services - Indianapolis									
Alkalinity, Total as CaCO3	272	mg/L	10.0	10.0	1		04/27/23 22:13		
Alkalinity,Bicarbonate (CaCO3)	272	mg/L	10.0	10.0	1		04/27/23 22:13		

## REPORT OF LABORATORY ANALYSIS

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**ANALYTICAL RESULTS**

Project: Eagle Valley April 2023 P1R1  
 Pace Project No.: 50343318

Sample: MW-121 Lab ID: 50343318002 Collected: 04/27/23 13:37 Received: 04/27/23 15:30 Matrix: Water									
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>2320B Alkalinity</b> Analytical Method: SM 2320B Pace Analytical Services - Indianapolis									
Alkalinity, Carbonate (CaCO3)	ND	mg/L	10.0	10.0	1		04/27/23 22:13		
<b>2540C Total Dissolved Solids</b> Analytical Method: SM 2540C Pace Analytical Services - Indianapolis									
Total Dissolved Solids	739	mg/L	10.0	10.0	1		05/01/23 11:07		
<b>4500H+ pH, Electrometric</b> Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis									
pH at 25 Degrees C	7.6	Std. Units	0.10	0.10	1		05/05/23 12:05		H3
<b>4500S2D Sulfide Water</b> Analytical Method: SM 4500-S2-D Pace Analytical Services - Indianapolis									
Sulfide	0.028J	mg/L	0.10	0.025	1		04/28/23 11:53	18496-25-8	
<b>Iron, Ferrous</b> Analytical Method: HACH 8146 Pace Analytical Services - Indianapolis									
Iron, Ferrous	ND	mg/L	0.20	0.035	1		05/02/23 10:15	15438-31-0	H3,N2
<b>353.2 Nitrogen, NO2/NO3 unpres</b> Analytical Method: EPA 353.2 Pace Analytical Services - Indianapolis									
Nitrogen, Nitrate	ND	mg/L	0.10	0.011	1		04/28/23 19:55	14797-55-8	
Nitrogen, Nitrite	ND	mg/L	0.10	0.0040	1		04/28/23 19:55	14797-65-0	
<b>365.1 Total Phosphorus</b> Analytical Method: EPA 365.1 Preparation Method: EPA 365.1 Pace Analytical Services - Indianapolis									
Phosphate as P04	ND	mg/L	0.15	0.15	1	05/04/23 13:00	05/07/23 13:01		
<b>5310C TOC</b> Analytical Method: SM 5310C Pace Analytical Services - Indianapolis									
Total Organic Carbon	ND	mg/L	4.0	0.94	4		05/04/23 05:18	7440-44-0	D3
<b>5310C Dissolved Organic Carbon</b> Analytical Method: SM 5310C Pace Analytical Services - Indianapolis									
Dissolved Organic Carbon	ND	mg/L	4.0	0.94	4		05/03/23 12:54		D3

**REPORT OF LABORATORY ANALYSIS**

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## ANALYTICAL RESULTS

Project: Eagle Valley April 2023 P1R1

Pace Project No.: 50343318

Sample: MW-12D Lab ID: 50343318003 Collected: 04/27/23 11:13 Received: 04/27/23 15:30 Matrix: Water

Parameters	Results	Units	Report			Prepared	Analyzed	CAS No.	Qual
			Limit	MDL	DF				
<b>9056 IC Anions</b>									
Analytical Method: EPA 9056									
Pace Analytical Services - Indianapolis									
Chloride	87.1	mg/L	2.5	0.67	10		05/02/23 20:11	16887-00-6	
Fluoride	0.25	mg/L	0.10	0.017	1		05/02/23 19:52	16984-48-8	
Sulfate	83.9	mg/L	2.5	0.85	10		05/02/23 20:11	14808-79-8	
<b>6010 MET ICP</b>									
Analytical Method: EPA 6010 Preparation Method: EPA 3010									
Pace Analytical Services - Indianapolis									
Aluminum	986	ug/L	200	55.4	1	05/02/23 08:33	05/03/23 14:07	7429-90-5	
Boron	2110	ug/L	100	37.6	1	05/02/23 08:33	05/03/23 14:07	7440-42-8	
Calcium	81500	ug/L	1000	163	1	05/02/23 08:33	05/03/23 14:07	7440-70-2	
Iron	1860	ug/L	100	48.8	1	05/02/23 08:33	05/03/23 14:07	7439-89-6	
Lithium	76.3	ug/L	20.0	6.2	1	05/02/23 08:33	05/03/23 14:07	7439-93-2	
Magnesium	15800	ug/L	1000	71.8	1	05/02/23 08:33	05/03/23 14:07	7439-95-4	
Manganese	317	ug/L	10.0	2.5	1	05/02/23 08:33	05/03/23 14:07	7439-96-5	
Potassium	6320	ug/L	1000	281	1	05/02/23 08:33	05/03/23 14:07	7440-09-7	
Silica	15600	ug/L	450		1	05/02/23 08:33	05/03/23 14:07	7631-86-9	N2
Sodium	84300	ug/L	1000	214	1	05/02/23 08:33	05/03/23 14:07	7440-23-5	
<b>6010 MET ICP, Dissolved</b>									
Analytical Method: EPA 6010 Preparation Method: EPA 3010									
Pace Analytical Services - Indianapolis									
Manganese, Dissolved	288	ug/L	10.0	2.5	1	05/01/23 09:24	05/02/23 00:54	7439-96-5	
Molybdenum, Dissolved	204	ug/L	10.0	3.7	1	05/01/23 09:24	05/02/23 00:54	7439-98-7	
<b>6020 MET ICPMS</b>									
Analytical Method: EPA 6020 Preparation Method: EPA 200.2									
Pace Analytical Services - Indianapolis									
Antimony	ND	ug/L	1.0	0.036	1	04/29/23 07:10	05/02/23 00:56	7440-36-0	
Arsenic	2.7	ug/L	1.0	0.053	1	04/29/23 07:10	05/02/23 00:56	7440-38-2	
Barium	66.3	ug/L	1.0	0.051	1	04/29/23 07:10	05/02/23 00:56	7440-39-3	
Beryllium	ND	ug/L	0.20	0.028	1	04/29/23 07:10	05/02/23 00:56	7440-41-7	
Cadmium	ND	ug/L	2.0	0.0090	1	04/29/23 07:10	05/02/23 00:56	7440-43-9	
Chromium	ND	ug/L	10.0	0.13	1	04/29/23 07:10	05/02/23 00:56	7440-47-3	
Cobalt	ND	ug/L	1.0	0.032	1	04/29/23 07:10	05/02/23 00:56	7440-48-4	
Lead	ND	ug/L	10.0	0.034	1	04/29/23 07:10	05/02/23 00:56	7439-92-1	
Molybdenum	194	ug/L	10.0	0.048	1	04/29/23 07:10	05/02/23 00:56	7439-98-7	
Selenium	ND	ug/L	1.0	0.23	1	04/29/23 07:10	05/02/23 00:56	7782-49-2	
Thallium	ND	ug/L	1.0	0.033	1	04/29/23 07:10	05/02/23 00:56	7440-28-0	
<b>7470 Mercury</b>									
Analytical Method: EPA 7470 Preparation Method: EPA 7470									
Pace Analytical Services - Indianapolis									
Mercury	ND	ug/L	0.20	0.12	1	05/01/23 21:04	05/02/23 11:50	7439-97-6	
<b>2320B Alkalinity</b>									
Analytical Method: SM 2320B									
Pace Analytical Services - Indianapolis									
Alkalinity, Total as CaCO3	226	mg/L	10.0	10.0	1		04/27/23 22:13		
Alkalinity,Bicarbonate (CaCO3)	226	mg/L	10.0	10.0	1		04/27/23 22:13		

## REPORT OF LABORATORY ANALYSIS

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### ANALYTICAL RESULTS

Project: Eagle Valley April 2023 P1R1

Pace Project No.: 50343318

Sample: MW-12D		Lab ID: 50343318003		Collected: 04/27/23 11:13	Received: 04/27/23 15:30	Matrix: Water			
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>2320B Alkalinity</b>		Analytical Method: SM 2320B Pace Analytical Services - Indianapolis							
Alkalinity, Carbonate (CaCO3)	ND	mg/L	10.0	10.0	1		04/27/23 22:13		
<b>2540C Total Dissolved Solids</b>		Analytical Method: SM 2540C Pace Analytical Services - Indianapolis							
Total Dissolved Solids	<b>502</b>	mg/L	10.0	10.0	1		05/02/23 11:25		
<b>4500H+ pH, Electrometric</b>		Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis							
pH at 25 Degrees C	<b>7.6</b>	Std. Units	0.10	0.10	1		05/05/23 12:06		H3
<b>4500S2D Sulfide Water</b>		Analytical Method: SM 4500-S2-D Pace Analytical Services - Indianapolis							
Sulfide	<b>0.025J</b>	mg/L	0.10	0.025	1		04/28/23 11:53	18496-25-8	
<b>Iron, Ferrous</b>		Analytical Method: HACH 8146 Pace Analytical Services - Indianapolis							
Iron, Ferrous	ND	mg/L	0.20	0.035	1		05/02/23 10:12	15438-31-0	H3,N2
<b>353.2 Nitrogen, NO2/NO3 unpres</b>		Analytical Method: EPA 353.2 Pace Analytical Services - Indianapolis							
Nitrogen, Nitrate	ND	mg/L	0.10	0.011	1		04/28/23 19:37	14797-55-8	
Nitrogen, Nitrite	ND	mg/L	0.10	0.0040	1		04/28/23 19:37	14797-65-0	
<b>365.1 Total Phosphorus</b>		Analytical Method: EPA 365.1 Preparation Method: EPA 365.1 Pace Analytical Services - Indianapolis							
Phosphate as P04	ND	mg/L	0.15	0.15	1	05/04/23 13:00	05/07/23 13:01		
<b>5310C TOC</b>		Analytical Method: SM 5310C Pace Analytical Services - Indianapolis							
Total Organic Carbon	ND	mg/L	4.0	0.94	4		05/04/23 05:28	7440-44-0	D3
<b>5310C Dissolved Organic Carbon</b>		Analytical Method: SM 5310C Pace Analytical Services - Indianapolis							
Dissolved Organic Carbon	ND	mg/L	4.0	0.94	4		05/03/23 13:04		D3

### REPORT OF LABORATORY ANALYSIS

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**QUALITY CONTROL DATA**

Project: Eagle Valley April 2023 P1R1

Pace Project No.: 50343318

QC Batch:	730663	Analysis Method:	EPA 9056
QC Batch Method:	EPA 9056	Analysis Description:	9056 IC Anions
		Laboratory:	Pace Analytical Services - Indianapolis

Associated Lab Samples: 50343318001, 50343318002, 50343318003

METHOD BLANK: 3353789 Matrix: Water

Associated Lab Samples: 50343318001, 50343318002, 50343318003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chloride	mg/L	ND	0.25	0.067	05/02/23 02:12	
Fluoride	mg/L	ND	0.10	0.017	05/02/23 02:12	
Sulfate	mg/L	ND	0.25	0.085	05/02/23 02:12	

LABORATORY CONTROL SAMPLE: 3353790

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	2.5	2.3	93	80-120	
Fluoride	mg/L	1	0.95	95	80-120	
Sulfate	mg/L	5	4.7	93	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3353791 3353792

Parameter	Units	50342822011		3353792		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		Result	MS Spike Conc.	MSD Spike Conc.	MS Result								
Chloride	mg/L	10.3	2.5	2.5	13.4	13.1	122	111	80-120	2	15	M0	
Fluoride	mg/L	0.22	1	1	1.2	1.2	96	95	80-120	1	15		
Sulfate	mg/L	224	50	50	268	266	89	85	80-120	1	15		

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**REPORT OF LABORATORY ANALYSIS**

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**QUALITY CONTROL DATA**

Project: Eagle Valley April 2023 P1R1

Pace Project No.: 50343318

QC Batch:	730914	Analysis Method:	EPA 7470
QC Batch Method:	EPA 7470	Analysis Description:	7470 Mercury
		Laboratory:	Pace Analytical Services - Indianapolis
Associated Lab Samples:	50343318001, 50343318002, 50343318003		

METHOD BLANK: 3354537 Matrix: Water  
 Associated Lab Samples: 50343318001, 50343318002, 50343318003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Mercury	ug/L	ND	0.20	0.12	05/02/23 10:54	

LABORATORY CONTROL SAMPLE: 3354538

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury	ug/L	5	5.4	108	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3354539 3354540

Parameter	Units	50343477002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Mercury	ug/L	ND	5	5	5.4	5.3	108	107	75-125	1	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

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**QUALITY CONTROL DATA**

Project: Eagle Valley April 2023 P1R1

Pace Project No.: 50343318

QC Batch:	730692	Analysis Method:	EPA 6010
QC Batch Method:	EPA 3010	Analysis Description:	6010 MET
		Laboratory:	Pace Analytical Services - Indianapolis

Associated Lab Samples: 50343318001, 50343318002, 50343318003

METHOD BLANK: 3353961 Matrix: Water

Associated Lab Samples: 50343318001, 50343318002, 50343318003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Aluminum	ug/L	ND	200	55.4	05/03/23 13:13	
Boron	ug/L	ND	100	37.6	05/03/23 13:13	
Calcium	ug/L	ND	1000	163	05/03/23 13:13	
Iron	ug/L	ND	100	48.8	05/03/23 13:13	
Lithium	ug/L	ND	20.0	6.2	05/03/23 13:13	
Magnesium	ug/L	ND	1000	71.8	05/03/23 13:13	
Manganese	ug/L	ND	10.0	2.5	05/03/23 13:13	
Potassium	ug/L	ND	1000	281	05/03/23 13:13	
Silica	ug/L	ND	450		05/03/23 13:13	N2
Sodium	ug/L	ND	1000	214	05/03/23 13:13	

LABORATORY CONTROL SAMPLE: 3353962

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Aluminum	ug/L	10000	9660	97	80-120	
Boron	ug/L	1000	964	96	80-120	
Calcium	ug/L	10000	9660	97	80-120	
Iron	ug/L	10000	9740	97	80-120	
Lithium	ug/L	1000	968	97	80-120	
Magnesium	ug/L	10000	9660	97	80-120	
Manganese	ug/L	1000	921	92	80-120	
Potassium	ug/L	10000	9840	98	80-120	
Silica	ug/L	10700	10200	95	80-120	N2
Sodium	ug/L	10000	10100	101	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3353963 3353964

Parameter	Units	MS		MSD		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		50342776001 Result	Spike Conc.	Spike Conc.	MS Result						
Aluminum	ug/L	ND	10000	10000	10200	10400	102	104	75-125	2	20
Boron	ug/L	9.8 mg/L	1000	1000	10900	11200	110	133	75-125	2	20 P6
Calcium	ug/L	225 mg/L	10000	10000	235000	240000	100	152	75-125	2	20 P6
Iron	ug/L	5.2 mg/L	10000	10000	15100	15500	99	102	75-125	2	20
Lithium	ug/L	ND	1000	1000	1050	1060	105	106	75-125	1	20
Magnesium	ug/L	65.1 mg/L	10000	10000	75400	77100	103	120	75-125	2	20
Manganese	ug/L	0.47 mg/L	1000	1000	1410	1440	94	97	75-125	2	20
Potassium	ug/L	4.5 mg/L	10000	10000	15200	15200	107	107	75-125	0	20

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### QUALITY CONTROL DATA

Project: Eagle Valley April 2023 P1R1

Pace Project No.: 50343318

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3353963 3353964													
Parameter	Units	50342776001 Result	MS	MSD	MS	MSD	MS	MSD	% Rec	Limits	RPD	Max RPD	Qual
			Spike Conc.	Spike Conc.	Result	Result	% Rec	% Rec					
Silica	ug/L	11.3 mg/L	10700	10700	22000	22400	100	104	75-125	2	20	N2	
Sodium	ug/L	67.0 mg/L	10000	10000	78700	79100	116	121	75-125	1	20		

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**QUALITY CONTROL DATA**

Project: Eagle Valley April 2023 P1R1

Pace Project No.: 50343318

QC Batch:	730703	Analysis Method:	EPA 6010
QC Batch Method:	EPA 3010	Analysis Description:	6010 MET Dissolved
		Laboratory:	Pace Analytical Services - Indianapolis
Associated Lab Samples:	50343318001, 50343318002, 50343318003		

METHOD BLANK: 3354001 Matrix: Water

Associated Lab Samples: 50343318001, 50343318002, 50343318003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Manganese, Dissolved	ug/L	ND	10.0	2.5	05/01/23 23:44	
Molybdenum, Dissolved	ug/L	ND	10.0	3.7	05/01/23 23:44	

LABORATORY CONTROL SAMPLE: 3354002

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Manganese, Dissolved	ug/L	1000	939	94	80-120	
Molybdenum, Dissolved	ug/L	1000	986	99	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3354003 3354004

Parameter	Units	50342752003 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Manganese, Dissolved	ug/L	370	1000	1000	1370	1350	100	98	75-125	1	20	
Molybdenum, Dissolved	ug/L	<10.0	1000	1000	1070	1070	107	107	75-125	0	20	

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**QUALITY CONTROL DATA**

Project: Eagle Valley April 2023 P1R1

Pace Project No.: 50343318

QC Batch:	730410	Analysis Method:	EPA 6020
QC Batch Method:	EPA 200.2	Analysis Description:	6020 MET
		Laboratory:	Pace Analytical Services - Indianapolis

Associated Lab Samples: 50343318001, 50343318002, 50343318003

METHOD BLANK: 3352187 Matrix: Water

Associated Lab Samples: 50343318001, 50343318002, 50343318003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Antimony	ug/L	ND	1.0	0.036	05/01/23 16:16	
Arsenic	ug/L	ND	1.0	0.053	05/01/23 16:16	
Barium	ug/L	ND	1.0	0.051	05/01/23 16:16	
Beryllium	ug/L	ND	0.20	0.028	05/01/23 16:16	
Cadmium	ug/L	ND	2.0	0.0090	05/01/23 16:16	
Chromium	ug/L	ND	10.0	0.13	05/01/23 16:16	
Cobalt	ug/L	ND	1.0	0.032	05/01/23 16:16	
Lead	ug/L	ND	10.0	0.034	05/01/23 16:16	
Molybdenum	ug/L	ND	10.0	0.048	05/01/23 16:16	
Selenium	ug/L	ND	1.0	0.23	05/01/23 16:16	
Thallium	ug/L	ND	1.0	0.033	05/01/23 16:16	

LABORATORY CONTROL SAMPLE: 3352188

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Antimony	ug/L	40	41.1	103	80-120	
Arsenic	ug/L	40	37.4	94	80-120	
Barium	ug/L	40	39.7	99	80-120	
Beryllium	ug/L	40	40.2	100	80-120	
Cadmium	ug/L	40	38.8	97	80-120	
Chromium	ug/L	40	40.3	101	80-120	
Cobalt	ug/L	40	41.8	105	80-120	
Lead	ug/L	40	41.2	103	80-120	
Molybdenum	ug/L	40	41.8	105	80-120	
Selenium	ug/L	40	39.9	100	80-120	
Thallium	ug/L	40	41.5	104	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3352189 3352190

Parameter	Units	MS		MSD		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual	
		50342978004 Result	Spike Conc.	Spike Conc.	MS Result							MSD Result
Antimony	ug/L	<1.0	40	40	41.3	40.6	103	101	75-125	2	20	
Arsenic	ug/L	<1.0	40	40	39.1	38.7	96	95	75-125	1	20	
Barium	ug/L	41.8	40	40	83.8	81.7	105	100	75-125	3	20	
Beryllium	ug/L	<0.20	40	40	40.1	39.6	100	99	75-125	1	20	
Cadmium	ug/L	<0.20	40	40	38.9	38.1	97	95	75-125	2	20	
Chromium	ug/L	<2.0	40	40	40.5	39.2	100	97	75-125	3	20	

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### QUALITY CONTROL DATA

Project: Eagle Valley April 2023 P1R1

Pace Project No.: 50343318

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3352189 3352190												
Parameter	Units	50342978004 Result	MS		MSD		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
			Spike Conc.	MS Result	MSD Result	Spike Conc.						
Cobalt	ug/L	<1.0	40	40	39.7	39.1	99	98	75-125	1	20	
Lead	ug/L	<1.0	40	40	41.0	40.3	102	100	75-125	2	20	
Molybdenum	ug/L	1.8	40	40	42.9	42.7	103	102	75-125	0	20	
Selenium	ug/L	<1.0	40	40	39.9	39.4	99	98	75-125	1	20	
Thallium	ug/L	<1.0	40	40	41.5	41.0	104	103	75-125	1	20	

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**QUALITY CONTROL DATA**

Project: Eagle Valley April 2023 P1R1

Pace Project No.: 50343318

QC Batch:	730382	Analysis Method:	SM 2320B
QC Batch Method:	SM 2320B	Analysis Description:	2320B Alkalinity
		Laboratory:	Pace Analytical Services - Indianapolis
Associated Lab Samples:	50343318001, 50343318002, 50343318003		

METHOD BLANK: 3351958 Matrix: Water  
 Associated Lab Samples: 50343318001, 50343318002, 50343318003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Alkalinity, Total as CaCO3	mg/L	ND	10.0	10.0	04/27/23 22:13	
Alkalinity,Bicarbonate (CaCO3)	mg/L	ND	10.0	10.0	04/27/23 22:13	
Alkalinity,Carbonate (CaCO3)	mg/L	ND	10.0	10.0	04/27/23 22:13	

LABORATORY CONTROL SAMPLE: 3351959

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Alkalinity, Total as CaCO3	mg/L	50	51.8	104	90-110	

SAMPLE DUPLICATE: 3351960

Parameter	Units	50343127001 Result	Dup Result	RPD	Max RPD	Qualifiers
Alkalinity, Total as CaCO3	mg/L	230	237	3	20	
Alkalinity,Bicarbonate (CaCO3)	mg/L	209	215	3	20	
Alkalinity,Carbonate (CaCO3)	mg/L	21.6	22.0	2	20	

SAMPLE DUPLICATE: 3351961

Parameter	Units	50343162001 Result	Dup Result	RPD	Max RPD	Qualifiers
Alkalinity, Total as CaCO3	mg/L	156	144	9	20	
Alkalinity,Bicarbonate (CaCO3)	mg/L	156	144	9	20	
Alkalinity,Carbonate (CaCO3)	mg/L	ND	ND		20	

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**QUALITY CONTROL DATA**

Project: Eagle Valley April 2023 P1R1

Pace Project No.: 50343318

QC Batch:	730811	Analysis Method:	SM 2540C
QC Batch Method:	SM 2540C	Analysis Description:	2540C Total Dissolved Solids
		Laboratory:	Pace Analytical Services - Indianapolis

Associated Lab Samples: 50343318001, 50343318002

METHOD BLANK: 3354210 Matrix: Water  
 Associated Lab Samples: 50343318001, 50343318002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	ND	10.0	10.0	05/01/23 11:01	

LABORATORY CONTROL SAMPLE: 3354211

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	300	281	94	80-120	

SAMPLE DUPLICATE: 3354212

Parameter	Units	50343254001 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	1170	1170	1	10	

SAMPLE DUPLICATE: 3354213

Parameter	Units	50343274003 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	209	202	3	10	

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### QUALITY CONTROL DATA

Project: Eagle Valley April 2023 P1R1

Pace Project No.: 50343318

QC Batch: 731031

Analysis Method: SM 2540C

QC Batch Method: SM 2540C

Analysis Description: 2540C Total Dissolved Solids

Laboratory: Pace Analytical Services - Indianapolis

Associated Lab Samples: 50343318003

METHOD BLANK: 3354947

Matrix: Water

Associated Lab Samples: 50343318003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	ND	10.0	10.0	05/02/23 11:23	

LABORATORY CONTROL SAMPLE: 3354948

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	300	285	95	80-120	

SAMPLE DUPLICATE: 3354949

Parameter	Units	50343286001 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	493000 ug/L	516	5	10	

SAMPLE DUPLICATE: 3354950

Parameter	Units	50343291001 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	7280000 ug/L	7300	0	10	

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### QUALITY CONTROL DATA

Project: Eagle Valley April 2023 P1R1

Pace Project No.: 50343318

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QC Batch:	731310	Analysis Method:	SM 4500-H+B
QC Batch Method:	SM 4500-H+B	Analysis Description:	4500H+B pH
		Laboratory:	Pace Analytical Services - Indianapolis

Associated Lab Samples: 50343318001, 50343318002, 50343318003

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SAMPLE DUPLICATE: 3356110

Parameter	Units	50342776001 Result	Dup Result	RPD	Max RPD	Qualifiers
pH at 25 Degrees C	Std. Units	7.3	7.4	1	2	H3

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SAMPLE DUPLICATE: 3356111

Parameter	Units	50342776002 Result	Dup Result	RPD	Max RPD	Qualifiers
pH at 25 Degrees C	Std. Units	7.3	7.3	0	2	H3

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**QUALITY CONTROL DATA**

Project: Eagle Valley April 2023 P1R1

Pace Project No.: 50343318

QC Batch:	730441	Analysis Method:	SM 4500-S2-D
QC Batch Method:	SM 4500-S2-D	Analysis Description:	4500S2D Sulfide Water
		Laboratory:	Pace Analytical Services - Indianapolis
Associated Lab Samples:	50343318001, 50343318002, 50343318003		

METHOD BLANK: 3352423 Matrix: Water  
 Associated Lab Samples: 50343318001, 50343318002, 50343318003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Sulfide	mg/L	ND	0.10	0.025	04/28/23 11:53	

LABORATORY CONTROL SAMPLE: 3352424

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Sulfide	mg/L	0.5	0.49	99	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3352425 3352426

Parameter	Units	50343225001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Sulfide	mg/L	ND	0.5	0.5	0.46	0.46	91	90	90-110	1	20	

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**QUALITY CONTROL DATA**

Project: Eagle Valley April 2023 P1R1  
 Pace Project No.: 50343318

QC Batch: 731019 Analysis Method: HACH 8146  
 QC Batch Method: HACH 8146 Analysis Description: Iron, Ferrous  
 Laboratory: Pace Analytical Services - Indianapolis  
 Associated Lab Samples: 50343318001, 50343318002, 50343318003

METHOD BLANK: 3354900 Matrix: Water  
 Associated Lab Samples: 50343318001, 50343318002, 50343318003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Iron, Ferrous	mg/L	ND	0.20	0.035	05/02/23 10:08	H3,N2

LABORATORY CONTROL SAMPLE: 3354901

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Iron, Ferrous	mg/L	1	1.0	101	90-110	H3,N2

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3354902 3354903

Parameter	Units	50343477002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Iron, Ferrous	mg/L	ND	1	1	1.1	1.0	107	104	90-110	3	20	H3,N2

MATRIX SPIKE SAMPLE: 3354904

Parameter	Units	50343152001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Iron, Ferrous	mg/L	ND	1	1.0	104	90-110	H3,N2

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**QUALITY CONTROL DATA**

Project: Eagle Valley April 2023 P1R1

Pace Project No.: 50343318

QC Batch:	730605	Analysis Method:	EPA 353.2
QC Batch Method:	EPA 353.2	Analysis Description:	353.2 Nitrate + Nitrite, Unpres.
		Laboratory:	Pace Analytical Services - Indianapolis

Associated Lab Samples: 50343318001, 50343318002, 50343318003

METHOD BLANK: 3353464 Matrix: Water

Associated Lab Samples: 50343318001, 50343318002, 50343318003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Nitrogen, Nitrate	mg/L	ND	0.10	0.011	04/28/23 19:27	
Nitrogen, Nitrite	mg/L	ND	0.10	0.0040	04/28/23 19:27	

LABORATORY CONTROL SAMPLE: 3353465

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Nitrogen, Nitrate	mg/L	1	0.97	97	90-110	
Nitrogen, Nitrite	mg/L	1	0.99	99	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3353466 3353467

Parameter	Units	50343477002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Nitrogen, Nitrate	mg/L	ND	1	1	0.98	0.98	97	97	90-110	1	20	
Nitrogen, Nitrite	mg/L	ND	1	1	1.0	1.0	104	104	90-110	0	20	

MATRIX SPIKE SAMPLE: 3353468

Parameter	Units	50343318002 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Nitrogen, Nitrate	mg/L	ND	1	0.97	96	90-110	
Nitrogen, Nitrite	mg/L	ND	1	1.0	102	90-110	

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**QUALITY CONTROL DATA**

Project: Eagle Valley April 2023 P1R1

Pace Project No.: 50343318

QC Batch:	731576	Analysis Method:	EPA 365.1
QC Batch Method:	EPA 365.1	Analysis Description:	365.1 Total Phosphorus
		Laboratory:	Pace Analytical Services - Indianapolis
Associated Lab Samples:	50343318001, 50343318002, 50343318003		

METHOD BLANK: 3357259 Matrix: Water  
 Associated Lab Samples: 50343318001, 50343318002, 50343318003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Phosphate as P04	mg/L	ND	0.15	0.15	05/07/23 12:59	

LABORATORY CONTROL SAMPLE: 3357260

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Phosphate as P04	mg/L		1.4			

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3357261 3357262

Parameter	Units	50343477002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Phosphate as P04	mg/L	ND			1.3	1.4					4	

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**QUALITY CONTROL DATA**

Project: Eagle Valley April 2023 P1R1

Pace Project No.: 50343318

QC Batch:	731137	Analysis Method:	SM 5310C
QC Batch Method:	SM 5310C	Analysis Description:	5310C Total Organic Carbon
		Laboratory:	Pace Analytical Services - Indianapolis
Associated Lab Samples:	50343318001, 50343318002, 50343318003		

METHOD BLANK: 3355350 Matrix: Water

Associated Lab Samples: 50343318001, 50343318002, 50343318003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Organic Carbon	mg/L	ND	1.0	0.24	05/04/23 00:15	

LABORATORY CONTROL SAMPLE: 3355351

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Organic Carbon	mg/L	10	9.9	99	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3355352 3355353

Parameter	Units	50342861004		50342861005		50342861004		50342861005		% Rec Limits	RPD	Max RPD	Qual
		MS Result	MSD Spike Conc.	MS Result	MSD Spike Conc.	MS Result	MSD Spike Conc.	MS Result	MSD Spike Conc.				
Total Organic Carbon	mg/L	2.1	10	10	11.8	11.4	97	93	80-120	3	20		

MATRIX SPIKE SAMPLE: 3355354

Parameter	Units	50342861005 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Total Organic Carbon	mg/L	17.5	40	58.2	102	80-120	

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**QUALITY CONTROL DATA**

Project: Eagle Valley April 2023 P1R1

Pace Project No.: 50343318

QC Batch:	731122	Analysis Method:	SM 5310C
QC Batch Method:	SM 5310C	Analysis Description:	5310C Dissolved Organic Carbon
		Laboratory:	Pace Analytical Services - Indianapolis
Associated Lab Samples:	50343318001, 50343318002, 50343318003		

METHOD BLANK: 3355289 Matrix: Water

Associated Lab Samples: 50343318001, 50343318002, 50343318003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Dissolved Organic Carbon	mg/L	ND	1.0	0.24	05/03/23 11:48	

LABORATORY CONTROL SAMPLE: 3355290

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Dissolved Organic Carbon	mg/L	10	10	100	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3355291 3355292

Parameter	Units	50343477002		3355292		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual	
		MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result							
Dissolved Organic Carbon	mg/L	ND	10	10	10.5	10.6	98	99	80-120	1	20	

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**ANALYTICAL RESULTS - RADIOCHEMISTRY**

Project: Eagle Valley April 2023 P1R1

Pace Project No.: 50343318

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Radium-226	EPA 903.1	<b>0.194 ± 0.457 (0.846)</b> <b>C:NA T:89%</b>	pCi/L	05/17/23 15:01	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 904.0	<b>0.946 ± 0.448 (0.743)</b> <b>C:74% T:81%</b>	pCi/L	05/11/23 16:16	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	<b>1.14 ± 0.905 (1.59)</b>	pCi/L	05/19/23 15:07	7440-14-4	

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**ANALYTICAL RESULTS - RADIOCHEMISTRY**

Project: Eagle Valley April 2023 P1R1

Pace Project No.: 50343318

**Sample: MW-12I**      **Lab ID: 50343318002**      Collected: 04/27/23 13:37      Received: 04/27/23 15:30      Matrix: Water  
 PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	<b>0.592 ± 0.639 (1.03)</b> <b>C:NA T:92%</b>	pCi/L	05/17/23 15:01	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	<b>0.631 ± 0.411 (0.769)</b> <b>C:74% T:83%</b>	pCi/L	05/11/23 16:16	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	<b>1.22 ± 1.05 (1.80)</b>	pCi/L	05/19/23 15:07	7440-14-4	

**REPORT OF LABORATORY ANALYSIS**

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Eagle Valley April 2023 P1R1

Pace Project No.: 50343318

**Sample: MW-12D**      **Lab ID: 50343318003**      Collected: 04/27/23 11:13      Received: 04/27/23 15:30      Matrix: Water  
 PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Radium-226	EPA 903.1	<b>0.645 ± 0.388 (0.159)</b> <b>C:NA T:91%</b>	pCi/L	05/17/23 15:01	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 904.0	<b>0.345 ± 0.296 (0.584)</b> <b>C:80% T:85%</b>	pCi/L	05/11/23 16:16	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	<b>0.990 ± 0.684 (0.743)</b>	pCi/L	05/19/23 15:07	7440-14-4	

### REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL - RADIOCHEMISTRY

Project: Eagle Valley April 2023 P1R1

Pace Project No.: 50343318

QC Batch:	585444	Analysis Method:	EPA 903.1
QC Batch Method:	EPA 903.1	Analysis Description:	903.1 Radium-226
		Laboratory:	Pace Analytical Services - Greensburg

Associated Lab Samples: 50343318001, 50343318002, 50343318003

METHOD BLANK: 2843355 Matrix: Water

Associated Lab Samples: 50343318001, 50343318002, 50343318003

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.0499 ± 0.228 (0.135) C:NA T:94%	pCi/L	05/17/23 15:01	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

### REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL - RADIOCHEMISTRY

Project: Eagle Valley April 2023 P1R1

Pace Project No.: 50343318

QC Batch:	585445	Analysis Method:	EPA 904.0
QC Batch Method:	EPA 904.0	Analysis Description:	904.0 Radium 228
		Laboratory:	Pace Analytical Services - Greensburg
Associated Lab Samples:	50343318001, 50343318002, 50343318003		

METHOD BLANK:	2843363	Matrix:	Water
Associated Lab Samples:	50343318001, 50343318002, 50343318003		

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.459 ± 0.319 (0.599) C:77% T:85%	pCi/L	05/11/23 16:16	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

### REPORT OF LABORATORY ANALYSIS

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## QUALIFIERS

Project: Eagle Valley April 2023 P1R1

Pace Project No.: 50343318

### DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Reported results are not rounded until the final step prior to reporting. Therefore, calculated parameters that are typically reported as "Total" may vary slightly from the sum of the reported component parameters.

Act - Activity

Unc - Uncertainty: SDWA = 1.96 sigma count uncertainty, all other matrices = Expanded Uncertainty (95% confidence interval).

Gamma Spec = Expanded Uncertainty (95.4% Confidence Interval)

(MDC) - Minimum Detectable Concentration

Trac - Tracer Recovery (%)

Carr - Carrier Recovery (%)

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

### ANALYTE QUALIFIERS

D3 Sample was diluted due to the presence of high levels of non-target analytes or other matrix interference.

H3 Sample was received or analysis requested beyond the recognized method holding time.

M0 Matrix spike recovery and/or matrix spike duplicate recovery was outside laboratory control limits.

N2 The lab does not hold NELAC/TNI accreditation for this parameter but other accreditations/certifications may apply. A complete list of accreditations/certifications is available upon request.

P6 Matrix spike recovery was outside laboratory control limits due to a parent sample concentration notably higher than the spike level.

## REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Eagle Valley April 2023 P1R1

Pace Project No.: 50343318

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
50343318001	MW-12S	EPA 9056	730663		
50343318002	MW-12I	EPA 9056	730663		
50343318003	MW-12D	EPA 9056	730663		
50343318001	MW-12S	EPA 3010	730692	EPA 6010	731352
50343318002	MW-12I	EPA 3010	730692	EPA 6010	731352
50343318003	MW-12D	EPA 3010	730692	EPA 6010	731352
50343318001	MW-12S	EPA 3010	730703	EPA 6010	730946
50343318002	MW-12I	EPA 3010	730703	EPA 6010	730946
50343318003	MW-12D	EPA 3010	730703	EPA 6010	730946
50343318001	MW-12S	EPA 200.2	730410	EPA 6020	730741
50343318002	MW-12I	EPA 200.2	730410	EPA 6020	730741
50343318003	MW-12D	EPA 200.2	730410	EPA 6020	730741
50343318001	MW-12S	EPA 7470	730914	EPA 7470	730968
50343318002	MW-12I	EPA 7470	730914	EPA 7470	730968
50343318003	MW-12D	EPA 7470	730914	EPA 7470	730968
50343318001	MW-12S	EPA 903.1	585444		
50343318002	MW-12I	EPA 903.1	585444		
50343318003	MW-12D	EPA 903.1	585444		
50343318001	MW-12S	EPA 904.0	585445		
50343318002	MW-12I	EPA 904.0	585445		
50343318003	MW-12D	EPA 904.0	585445		
50343318001	MW-12S	Total Radium Calculation	589438		
50343318002	MW-12I	Total Radium Calculation	589438		
50343318003	MW-12D	Total Radium Calculation	589438		
50343318001	MW-12S	SM 2320B	730382		
50343318002	MW-12I	SM 2320B	730382		
50343318003	MW-12D	SM 2320B	730382		
50343318001	MW-12S	SM 2540C	730811		
50343318002	MW-12I	SM 2540C	730811		
50343318003	MW-12D	SM 2540C	731031		
50343318001	MW-12S	SM 4500-H+B	731310		
50343318002	MW-12I	SM 4500-H+B	731310		
50343318003	MW-12D	SM 4500-H+B	731310		
50343318001	MW-12S	SM 4500-S2-D	730441		
50343318002	MW-12I	SM 4500-S2-D	730441		
50343318003	MW-12D	SM 4500-S2-D	730441		
50343318001	MW-12S	HACH 8146	731019		
50343318002	MW-12I	HACH 8146	731019		
50343318003	MW-12D	HACH 8146	731019		
50343318001	MW-12S	EPA 353.2	730605		
50343318002	MW-12I	EPA 353.2	730605		
50343318003	MW-12D	EPA 353.2	730605		

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### QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Eagle Valley April 2023 P1R1

Pace Project No.: 50343318

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
50343318001	MW-12S	EPA 365.1	731576	EPA 365.1	732106
50343318002	MW-12I	EPA 365.1	731576	EPA 365.1	732106
50343318003	MW-12D	EPA 365.1	731576	EPA 365.1	732106
50343318001	MW-12S	SM 5310C	731137		
50343318002	MW-12I	SM 5310C	731137		
50343318003	MW-12D	SM 5310C	731137		
50343318001	MW-12S	SM 5310C	731122		
50343318002	MW-12I	SM 5310C	731122		
50343318003	MW-12D	SM 5310C	731122		

### REPORT OF LABORATORY ANALYSIS

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**SAMPLE CONDITION UPON RECEIPT FORM**

Date/Time and Initials of person examining contents: 4/27/23 16:10 JG

1. Courier:  FED EX  UPS  CLIENT  PACE  USPS  OTHER

2. Custody Seal on Cooler/Box Present:  Yes  No

(If yes)Seals Intact:  Yes  No (leave blank if no seals were present)

3. Thermometer: 1 2 3 4 5 6 A B C D E F

4. Cooler Temperature(s): 0.4/0.4 9.4/0.4

(Initial/Corrected) RECORD TEMPS OF ALL COOLERS RECEIVED (use Comments below to add more)

5. Packing Material:  Bubble Wrap  Bubble Bags

None  Other \_\_\_\_\_

6. Ice Type:  Wet  Blue  None

7. If temp. is over 6°C or under 0°C, was the PM notified?:  Yes  No

Cooler temp should be above freezing to 6°C

All discrepancies will be written out in the comments section below.

	Yes	No		Yes	No	N/A
USDA Regulated Soils? (HI, ID, NY, WA, OR, CA, NM, TX, OK, AR, LA, TN, AL, MS, NC, SC, GA, FL, or Puerto Rico)		—	All containers needing acid/base preservation have been pH CHECKED?: Exceptions: VOA, coliform, LLHg, O&G, RAD CHEM, and any container with a septum cap or preserved with HCl.			
Short Hold Time Analysis (48 hours or less)? Analysis: Nitrate/Nitrite (Unpreserved)	—		Circle: HNO3 (<2) H2SO4 (<2) NaOH (>10) NaOH/ZnAc (>9) Any non-conformance to pH recommendations will be noted on the container count form	—		
Time 5035A TC placed in Freezer or Short Holds To Lab			Time: <u>17:05</u>	Present	Absent	N/A
Rush TAT Requested (4 days or less):		—	Residual Chlorine Check (SVOC 625 Pest/PCB 608)			—
Custody Signatures Present?	—		Residual Chlorine Check (Total/Amenable/Free Cyanide)			—
Containers Intact?:	—		Headspace Wisconsin Sulfide?			—
Sample Label (IDs/Dates/Times) Match COC?: Except TCs, which only require sample ID	—		Headspace in VOA Vials (>6mm): See Container Count form for details	Present	Absent	No VOA Vials Sent
Extra labels on Terracore Vials? (soils only)		—	Trip Blank Present?		—	
			Trip Blank Custody Seals?:			—

COMMENTS:

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Sample Container Count

\*\* Place a RED dot on containers that are out of conformance \*\*

COC Line Item	WGUFU	MeOH (only) SBS DI R	VIALS			AMBER GLASS					PLASTIC							OTHER			Matrix	Nitric	Sulfuric	Sodium Hydroxide	Sodium Hydroxide/ZnAc									
			DG9H	VG9H	VOA VIAL HS (>6mm)	VG9U	DG9U	VG9T	AG0U	AG1H	AG1U	AG2U	AG3S	AG3SF	AG3C	BP1U	BP1N	BP2U	BP3U	BP3N		BP3F	BP3S	BP3B	BP3Z	CG3H	CG3F	Syringe Kit	Red	Yellow	Green	Black		
			HNO3 <2	H2SO4 <2	NaOH >10	NaOH/Zn Ac >9																												
1										1	1				2	1	2	1	1	1										WT	✓	✓		✓
2										1	1				2	1	2	1	1	1										WT				
3										1	1				2	1	2	1	1	1										WT				
4																																		
5																																		
6																																		
7																																		
8																																		
9																																		
10																																		
11																																		
12																																		

Container Codes

Glass				Plastic			
DG9H	40mL HCl amber voa vial	BG1T	1L Na Thiosulfate clear glass	BP1B	1L NaOH plastic	BP4U	125mL unpreserved plastic
DG9P	40mL TSP amber vial	BG1U	1L unpreserved glass	BP1N	1L HNO3 plastic	BP4N	125mL HNO3 plastic
DG9S	40mL H2SO4 amber vial	BG3H	250mL HCl Clear Glass	BP1S	1L H2SO4 plastic	BP4S	125mL H2SO4 plastic
DG9T	40mL Na Thio amber vial	BG3U	250mL Unpres Clear Glass	BP1U	1L unpreserved plastic	<b>Miscellaneous</b>	
DG9U	40mL unpreserved amber vial	AG0U	100mL unpres amber glass	BP1Z	1L NaOH, Zn, Ac		
VG9H	40mL HCl clear vial	AG1H	1L HCl amber glass	BP2N	500mL HNO3 plastic	Syringe Kit	LL Cr+6 sampling kit
VG9T	40mL Na Thio. clear vial	AG1S	1L H2SO4 amber glass	BP2C	500mL NaOH plastic	ZPLC	Ziploc Bag
VG9U	40mL unpreserved clear vial	AG1T	1L Na Thiosulfate amber glass	BP2S	500mL H2SO4 plastic	R	Terracore Kit
I	40mL w/hexane wipe vial	AG1U	1liter unpres amber glass	BP2U	500mL unpreserved plastic	SP5T	120mL Coliform Sodium Thiosulfate
WGKU	8oz unpreserved clear jar	AG2N	500mL HNO3 amber glass	BP2Z	500mL NaOH, Zn Ac	GN	General Container
WGUFU	4oz clear soil jar	AG2S	500mL H2SO4 amber glass	BP3B	250mL NaOH plastic	U	Summa Can (air sample)
JGFU	4oz unpreserved amber wide	AG2U	500mL unpres amber glass	BP3N	250mL HNO3 plastic	WT	Water
CG3H	250mL clear glass HCl	AG3S	250mL H2SO4 amber glass	BP3F	250mL HNO3 plastic-field filtered	SL	Solid Solid
CG3F	250mL clear glass HCl, Field Filter	AG3SF	250mL H2SO4 amb glass -field filtered	BP3U	250mL unpreserved plastic	OL:	Oil
BG1H	1L HCl clear glass	AG3U	250mL unpres amber glass	BP3S	250mL H2SO4 plastic	NAL	Non-aqueous liquid
BG1S	1L H2SO4 clear glass	AG3C	250mL NaOH amber glass	BP3Z	250mL NaOH, ZnAc plastic	WP	Wipe



July 18, 2023

Mr. Mark Breting  
ATC Group Services  
7988 Centerpoint Drive  
Suite 100  
Indianapolis, IN 46256

RE: Project: Eagle Valley April 2023 P1R2  
Pace Project No.: 50343477

Dear Mr. Breting:

Enclosed are the analytical results for sample(s) received by the laboratory on April 28, 2023. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

The test results provided in this final report were generated by each of the following laboratories within the Pace Network:

- Pace Analytical Services - Indianapolis
- Pace Analytical Services - Greensburg

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Will Statz  
will.statz@pacelabs.com  
(317)228-3105  
Project Manager

Enclosures

cc: Mohammed Bazlamit, Atlas  
Mr. Robert Miller, Haley & Aldrich



## REPORT OF LABORATORY ANALYSIS

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### CERTIFICATIONS

Project: Eagle Valley April 2023 P1R2

Pace Project No.: 50343477

#### Pace Analytical Services Pennsylvania

1638 Roseytown Rd Suites 2,3&4, Greensburg, PA 15601  
 ANAB DOD-ELAP Rad Accreditation #: L2417  
 ANABISO/IEC 17025:2017 Rad Cert#: L24170  
 Alabama Certification #: 41590  
 Arizona Certification #: AZ0734  
 Arkansas Certification  
 California Certification #: 2950  
 Colorado Certification #: PA01547  
 Connecticut Certification #: PH-0694  
 EPA Region 4 DW Rad  
 Florida/TNI Certification #: E87683  
 Georgia Certification #: C040  
 Guam Certification  
 Hawaii Certification  
 Idaho Certification  
 Illinois Certification  
 Indiana Certification  
 Iowa Certification #: 391  
 Kansas Certification #: E-10358  
 Kentucky Certification #: KY90133  
 KY WW Permit #: KY0098221  
 KY WW Permit #: KY0000221  
 Louisiana DHH/TNI Certification #: LA010  
 Louisiana DEQ/TNI Certification #: 04086  
 Maine Certification #: 2023021  
 Maryland Certification #: 308  
 Massachusetts Certification #: M-PA1457  
 Michigan/PADEP Certification #: 9991

Missouri Certification #: 235  
 Montana Certification #: Cert0082  
 Nebraska Certification #: NE-OS-29-14  
 Nevada Certification #: PA014572023-03  
 New Hampshire/TNI Certification #: 297622  
 New Jersey/TNI Certification #: PA051  
 New Mexico Certification #: PA01457  
 New York/TNI Certification #: 10888  
 North Carolina Certification #: 42706  
 North Dakota Certification #: R-190  
 Ohio EPA Rad Approval: #41249  
 Oregon/TNI Certification #: PA200002-015  
 Pennsylvania/TNI Certification #: 65-00282  
 Puerto Rico Certification #: PA01457  
 Rhode Island Certification #: 65-00282  
 South Dakota Certification  
 Tennessee Certification #: TN02867  
 Texas/TNI Certification #: T104704188-22-18  
 Utah/TNI Certification #: PA014572223-14  
 USDA Soil Permit #: 525-23-67-77263  
 Vermont Dept. of Health: ID# VT-0282  
 Virgin Island/PADEP Certification  
 Virginia/VELAP Certification #: 460198  
 Washington Certification #: C868  
 West Virginia DEP Certification #: 143  
 West Virginia DHHR Certification #: 9964C  
 Wisconsin Approve List for Rad

#### Pace Analytical Services Indianapolis

7726 Moller Road, Indianapolis, IN 46268  
 Illinois Accreditation #: 200074  
 Indiana Drinking Water Laboratory #: C-49-06  
 Kansas/TNI Certification #: E-10177  
 Kentucky UST Agency Interest #: 80226  
 Kentucky WW Laboratory ID #: 98019  
 Michigan Drinking Water Laboratory #9050

Ohio VAP Certified Laboratory #: CL0065  
 Oklahoma Laboratory #: 9204  
 Texas Certification #: T104704355  
 Wisconsin Laboratory #: 999788130  
 USDA Foreign Soil Permit #: 525-23-13-23119  
 USDA Compliance Agreement #: IN-SL-22-001

### REPORT OF LABORATORY ANALYSIS

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### SAMPLE SUMMARY

Project: Eagle Valley April 2023 P1R2

Pace Project No.: 50343477

Lab ID	Sample ID	Matrix	Date Collected	Date Received
50343477001	MW-14S	Water	04/27/23 11:20	04/28/23 15:50
50343477002	MW-14I	Water	04/27/23 13:20	04/28/23 15:50
50343477003	MW-14D	Water	04/27/23 12:35	04/28/23 15:50
50343477004	MW-14I MS	Water	04/27/23 13:20	04/28/23 15:50
50343477005	MW-14I MSD	Water	04/27/23 13:20	04/28/23 15:50
50343477006	Dup-5	Water	04/27/23 08:00	04/28/23 15:50

### REPORT OF LABORATORY ANALYSIS

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### SAMPLE ANALYTE COUNT

Project: Eagle Valley April 2023 P1R2

Pace Project No.: 50343477

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory		
50343477001	MW-14S	EPA 9056	ADM	3	PASI-I		
		EPA 6010	DJS	10	PASI-I		
		EPA 6010	ELK	2	PASI-I		
		EPA 6020	CAW	11	PASI-I		
		EPA 7470	ILP	1	PASI-I		
		EPA 903.1	CLM	1	PASI-PA		
		EPA 904.0	JJS1	1	PASI-PA		
		Total Radium Calculation	JAL	1	PASI-PA		
		SM 2320B	DAW	3	PASI-I		
		SM 2540C	TRK	1	PASI-I		
		SM 4500-H+B	BMS	1	PASI-I		
		SM 4500-S2-D	BEP	1	PASI-I		
		HACH 8146	BEP	1	PASI-I		
		EPA 353.2	ZM	2	PASI-I		
		EPA 365.1	YAM	1	PASI-I		
		SM 5310C	ATS	1	PASI-I		
		SM 5310C	ATS	1	PASI-I		
		50343477002	MW-14I	EPA 9056	ADM	3	PASI-I
				EPA 6010	DJS	10	PASI-I
EPA 6010	ELK			2	PASI-I		
EPA 6020	CAW			11	PASI-I		
EPA 7470	ILP			1	PASI-I		
EPA 903.1	CLM			1	PASI-PA		
EPA 904.0	JJS1			1	PASI-PA		
Total Radium Calculation	JAL			1	PASI-PA		
SM 2320B	DAW			3	PASI-I		
SM 2540C	TRK			1	PASI-I		
SM 4500-H+B	BMS			1	PASI-I		
SM 4500-S2-D	BEP			1	PASI-I		
HACH 8146	BEP			1	PASI-I		
EPA 353.2	ZM			2	PASI-I		
EPA 365.1	YAM			1	PASI-I		
SM 5310C	ATS			1	PASI-I		
SM 5310C	ATS			1	PASI-I		
50343477003	MW-14D			EPA 9056	ADM	3	PASI-I
				EPA 6010	DJS	10	PASI-I
		EPA 6010	ELK	2	PASI-I		

### REPORT OF LABORATORY ANALYSIS

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### SAMPLE ANALYTE COUNT

Project: Eagle Valley April 2023 P1R2

Pace Project No.: 50343477

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
		EPA 6020	CAW	11	PASI-I
		EPA 7470	ILP	1	PASI-I
		EPA 903.1	CLM	1	PASI-PA
		EPA 904.0	JJS1	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
		SM 2320B	DAW	3	PASI-I
		SM 2540C	TRK	1	PASI-I
		SM 4500-H+B	BMS	1	PASI-I
		SM 4500-S2-D	BEP	1	PASI-I
		HACH 8146	BEP	1	PASI-I
		EPA 353.2	ZM	2	PASI-I
		EPA 365.1	YAM	1	PASI-I
		SM 5310C	ATS	1	PASI-I
		SM 5310C	ATS	1	PASI-I
50343477004	MW-14I MS	EPA 903.1	CLM	1	PASI-PA
		EPA 904.0	JJS1	1	PASI-PA
50343477005	MW-14I MSD	EPA 903.1	CLM	1	PASI-PA
		EPA 904.0	JJS1	1	PASI-PA
50343477006	Dup-5	EPA 9056	ADM	3	PASI-I
		EPA 6010	DJS	10	PASI-I
		EPA 6010	ELK	2	PASI-I
		EPA 6020	CAW	11	PASI-I
		EPA 7470	ILP	1	PASI-I
		EPA 903.1	CLM	1	PASI-PA
		EPA 904.0	JJS1	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
		SM 2320B	DAW	3	PASI-I
		SM 2540C	TRK	1	PASI-I
		SM 4500-H+B	BMS	1	PASI-I
		SM 4500-S2-D	BEP	1	PASI-I
		HACH 8146	BEP	1	PASI-I
		EPA 353.2	ZM	2	PASI-I
		EPA 365.1	YAM	1	PASI-I
		SM 5310C	ATS	1	PASI-I
		SM 5310C	ATS	1	PASI-I

PASI-I = Pace Analytical Services - Indianapolis

PASI-PA = Pace Analytical Services - Greensburg

### REPORT OF LABORATORY ANALYSIS

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### SUMMARY OF DETECTION

Project: Eagle Valley April 2023 P1R2

Pace Project No.: 50343477

Lab Sample ID	Client Sample ID	Result	Units	Report Limit	Analyzed	Qualifiers
Method	Parameters					
<b>50343477001</b>	<b>MW-14S</b>					
EPA 9056	Chloride	2.6	mg/L	0.25	05/05/23 23:48	
EPA 9056	Fluoride	0.12	mg/L	0.10	05/05/23 23:48	
EPA 9056	Sulfate	10.1	mg/L	0.25	05/05/23 23:48	
EPA 6010	Boron	226	ug/L	100	05/03/23 15:37	
EPA 6010	Calcium	88300	ug/L	1000	05/03/23 15:37	
EPA 6010	Magnesium	22900	ug/L	1000	05/03/23 15:37	
EPA 6010	Potassium	1670	ug/L	1000	05/03/23 15:37	
EPA 6010	Silica	12100	ug/L	450	05/03/23 15:37	N2
EPA 6010	Sodium	5710	ug/L	1000	05/03/23 15:37	
EPA 6010	Molybdenum, Dissolved	51.1	ug/L	10.0	05/04/23 13:03	
EPA 6020	Barium	24.3	ug/L	1.0	05/02/23 07:04	
EPA 6020	Molybdenum	49.4	ug/L	10.0	05/02/23 07:04	
EPA 903.1	Radium-226	0.131 ± 0.258 (0.471)	pCi/L		05/22/23 13:59	
EPA 904.0	Radium-228	C:NA T:91% 0.836 ± 0.428 (0.762)	pCi/L		05/15/23 15:15	
		C:79% T:91%				
Total Radium Calculation	Total Radium	0.967 ± 0.686 (1.23)	pCi/L		05/23/23 09:59	
SM 2320B	Alkalinity, Total as CaCO3	279	mg/L	10.0	05/02/23 02:48	
SM 2320B	Alkalinity,Bicarbonate (CaCO3)	279	mg/L	10.0	05/02/23 02:48	
SM 2540C	Total Dissolved Solids	335	mg/L	10.0	05/01/23 17:08	
SM 4500-H+B	pH at 25 Degrees C	7.7	Std. Units	0.10	05/08/23 13:05	H3
EPA 353.2	Nitrogen, Nitrate	9.4	mg/L	0.50	04/28/23 20:14	
<b>50343477002</b>	<b>MW-14I</b>					
EPA 9056	Chloride	90.6	mg/L	2.5	05/06/23 00:27	
EPA 9056	Sulfate	209	mg/L	2.5	05/06/23 00:27	
EPA 6010	Boron	4000	ug/L	100	05/03/23 15:44	
EPA 6010	Calcium	131000	ug/L	1000	05/03/23 15:44	
EPA 6010	Lithium	75.9	ug/L	20.0	05/03/23 15:44	
EPA 6010	Magnesium	30900	ug/L	1000	05/03/23 15:44	
EPA 6010	Potassium	4580	ug/L	1000	05/03/23 15:44	
EPA 6010	Silica	14700	ug/L	450	05/03/23 15:44	N2
EPA 6010	Sodium	75200	ug/L	1000	05/03/23 15:44	
EPA 6010	Molybdenum, Dissolved	95.6	ug/L	10.0	05/04/23 13:05	
EPA 6020	Barium	53.0	ug/L	1.0	05/02/23 06:41	
EPA 6020	Molybdenum	91.9	ug/L	10.0	05/02/23 06:41	
EPA 903.1	Radium-226	0.181 ± 0.517 (0.959)	pCi/L		05/22/23 13:59	
		C:NA T:82%				

### REPORT OF LABORATORY ANALYSIS

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**SUMMARY OF DETECTION**

Project: Eagle Valley April 2023 P1R2

Pace Project No.: 50343477

Lab Sample ID Method	Client Sample ID Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
<b>50343477002</b>	<b>MW-14I</b>					
EPA 904.0	Radium-228	1.07 ± 0.462 (0.757) C:83% T:82%	pCi/L		05/15/23 15:15	
Total Radium Calculation	Total Radium	1.25 ± 0.979 (1.72)	pCi/L		05/23/23 09:59	
SM 2320B	Alkalinity, Total as CaCO3	272	mg/L	10.0	05/02/23 02:48	
SM 2320B	Alkalinity,Bicarbonate (CaCO3)	272	mg/L	10.0	05/02/23 02:48	
SM 2540C	Total Dissolved Solids	737	mg/L	10.0	05/01/23 17:09	
SM 4500-H+B	pH at 25 Degrees C	7.8	Std. Units	0.10	05/08/23 13:06	H3
<b>50343477003</b>	<b>MW-14D</b>					
EPA 9056	Chloride	83.5	mg/L	25.0	05/06/23 03:22	
EPA 9056	Sulfate	280	mg/L	25.0	05/06/23 03:22	
EPA 6010	Boron	2570	ug/L	100	05/03/23 15:55	
EPA 6010	Calcium	155000	ug/L	1000	05/03/23 15:55	
EPA 6010	Lithium	30.0	ug/L	20.0	05/03/23 15:55	
EPA 6010	Magnesium	34300	ug/L	1000	05/03/23 15:55	
EPA 6010	Manganese	109	ug/L	10.0	05/03/23 15:55	
EPA 6010	Potassium	4050	ug/L	1000	05/03/23 15:55	
EPA 6010	Silica	15400	ug/L	450	05/03/23 15:55	N2
EPA 6010	Sodium	83700	ug/L	1000	05/03/23 15:55	
EPA 6010	Manganese, Dissolved	114	ug/L	10.0	05/04/23 14:37	
EPA 6010	Molybdenum, Dissolved	22.8	ug/L	10.0	05/04/23 14:37	
EPA 6020	Barium	23.3	ug/L	1.0	05/02/23 07:07	
EPA 6020	Molybdenum	21.1	ug/L	10.0	05/02/23 07:07	
EPA 903.1	Radium-226	0.130 ± 0.308 (0.570) C:NA T:91%	pCi/L		05/22/23 13:59	
EPA 904.0	Radium-228	1.17 ± 0.461 (0.715) C:79% T:91%	pCi/L		05/15/23 15:16	
Total Radium Calculation	Total Radium	1.30 ± 0.769 (1.29)	pCi/L		05/23/23 09:59	
SM 2320B	Alkalinity, Total as CaCO3	295	mg/L	10.0	05/02/23 02:48	
SM 2320B	Alkalinity,Bicarbonate (CaCO3)	295	mg/L	10.0	05/02/23 02:48	
SM 2540C	Total Dissolved Solids	894	mg/L	10.0	05/01/23 17:09	
SM 4500-H+B	pH at 25 Degrees C	7.5	Std. Units	0.10	05/08/23 13:07	H3
<b>50343477004</b>	<b>MW-14I MS</b>					
EPA 903.1	Radium-226	99.00 %REC ± NA (NA) C:NA T:NA	pCi/L		05/22/23 13:59	

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**SUMMARY OF DETECTION**

Project: Eagle Valley April 2023 P1R2

Pace Project No.: 50343477

Lab Sample ID Method	Client Sample ID Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
<b>50343477004</b>	<b>MW-14I MS</b>					
EPA 904.0	Radium-228	73.42 %REC ± NA (NA) C:NA T:NA	pCi/L		05/15/23 15:16	
<b>50343477005</b>	<b>MW-14I MSD</b>					
EPA 903.1	Radium-226	96.76 %REC 2.29RPD ± NA (NA) C:NA T:NA	pCi/L		05/22/23 13:59	
EPA 904.0	Radium-228	78.44 %REC 6.60RPD ± NA (NA) C:NA T:NA	pCi/L		05/15/23 15:16	
<b>50343477006</b>	<b>Dup-5</b>					
EPA 9056	Chloride	2.5	mg/L	0.25	05/06/23 03:41	
EPA 9056	Fluoride	0.12	mg/L	0.10	05/06/23 03:41	
EPA 9056	Sulfate	10.4	mg/L	0.25	05/06/23 03:41	
EPA 6010	Boron	238	ug/L	100	05/03/23 15:57	
EPA 6010	Calcium	88800	ug/L	1000	05/03/23 15:57	
EPA 6010	Magnesium	23100	ug/L	1000	05/03/23 15:57	
EPA 6010	Potassium	1620	ug/L	1000	05/03/23 15:57	
EPA 6010	Silica	12000	ug/L	450	05/03/23 15:57	N2
EPA 6010	Sodium	5840	ug/L	1000	05/03/23 15:57	
EPA 6010	Molybdenum, Dissolved	49.9	ug/L	10.0	05/04/23 14:39	
EPA 6020	Barium	24.7	ug/L	1.0	05/02/23 07:11	
EPA 6020	Molybdenum	49.8	ug/L	10.0	05/02/23 07:11	
EPA 903.1	Radium-226	0.0518 ± 0.304 (0.622) C:NA T:87%	pCi/L		05/22/23 14:13	
EPA 904.0	Radium-228	0.953 ± 0.418 (0.693) C:87% T:87%	pCi/L		05/15/23 15:16	
Total Radium Calculation	Total Radium	1.00 ± 0.722 (1.32)	pCi/L		05/23/23 09:59	
SM 2320B	Alkalinity, Total as CaCO3	281	mg/L	10.0	05/02/23 02:48	
SM 2320B	Alkalinity, Bicarbonate (CaCO3)	281	mg/L	10.0	05/02/23 02:48	
SM 2540C	Total Dissolved Solids	344	mg/L	10.0	05/01/23 17:09	
SM 4500-H+B	pH at 25 Degrees C	7.7	Std. Units	0.10	05/08/23 13:09	H3
EPA 353.2	Nitrogen, Nitrate	9.6	mg/L	0.50	04/28/23 20:07	

**REPORT OF LABORATORY ANALYSIS**

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## ANALYTICAL RESULTS

Project: Eagle Valley April 2023 P1R2

Pace Project No.: 50343477

Sample: MW-14S		Lab ID: 50343477001		Collected: 04/27/23 11:20		Received: 04/28/23 15:50		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>9056 IC Anions</b>									
Analytical Method: EPA 9056									
Pace Analytical Services - Indianapolis									
Chloride	2.6	mg/L	0.25	0.067	1		05/05/23 23:48	16887-00-6	
Fluoride	0.12	mg/L	0.10	0.017	1		05/05/23 23:48	16984-48-8	
Sulfate	10.1	mg/L	0.25	0.085	1		05/05/23 23:48	14808-79-8	
<b>6010 MET ICP</b>									
Analytical Method: EPA 6010 Preparation Method: EPA 3010									
Pace Analytical Services - Indianapolis									
Aluminum	ND	ug/L	200	54.4	1	05/02/23 16:40	05/03/23 15:37	7429-90-5	
Boron	226	ug/L	100	61.4	1	05/02/23 16:40	05/03/23 15:37	7440-42-8	
Calcium	88300	ug/L	1000	88.4	1	05/02/23 16:40	05/03/23 15:37	7440-70-2	
Iron	ND	ug/L	100	48.8	1	05/02/23 16:40	05/03/23 15:37	7439-89-6	
Lithium	ND	ug/L	20.0	6.2	1	05/02/23 16:40	05/03/23 15:37	7439-93-2	
Magnesium	22900	ug/L	1000	43.0	1	05/02/23 16:40	05/03/23 15:37	7439-95-4	
Manganese	ND	ug/L	10.0	5.4	1	05/02/23 16:40	05/03/23 15:37	7439-96-5	
Potassium	1670	ug/L	1000	200	1	05/02/23 16:40	05/03/23 15:37	7440-09-7	
Silica	12100	ug/L	450		1	05/02/23 16:40	05/03/23 15:37	7631-86-9	N2
Sodium	5710	ug/L	1000	284	1	05/02/23 16:40	05/03/23 15:37	7440-23-5	
<b>6010 MET ICP, Dissolved</b>									
Analytical Method: EPA 6010 Preparation Method: EPA 3010									
Pace Analytical Services - Indianapolis									
Manganese, Dissolved	ND	ug/L	10.0	5.4	1	05/03/23 09:40	05/04/23 13:03	7439-96-5	
Molybdenum, Dissolved	51.1	ug/L	10.0	2.0	1	05/03/23 09:40	05/04/23 13:03	7439-98-7	
<b>6020 MET ICPMS</b>									
Analytical Method: EPA 6020 Preparation Method: EPA 200.2									
Pace Analytical Services - Indianapolis									
Antimony	ND	ug/L	1.0	0.036	1	04/30/23 22:15	05/02/23 07:04	7440-36-0	
Arsenic	ND	ug/L	1.0	0.053	1	04/30/23 22:15	05/02/23 07:04	7440-38-2	
Barium	24.3	ug/L	1.0	0.051	1	04/30/23 22:15	05/02/23 07:04	7440-39-3	
Beryllium	ND	ug/L	0.20	0.028	1	04/30/23 22:15	05/02/23 07:04	7440-41-7	
Cadmium	ND	ug/L	2.0	0.0090	1	04/30/23 22:15	05/02/23 07:04	7440-43-9	
Chromium	ND	ug/L	10.0	0.13	1	04/30/23 22:15	05/02/23 07:04	7440-47-3	
Cobalt	ND	ug/L	1.0	0.032	1	04/30/23 22:15	05/02/23 07:04	7440-48-4	
Lead	ND	ug/L	10.0	0.034	1	04/30/23 22:15	05/02/23 07:04	7439-92-1	
Molybdenum	49.4	ug/L	10.0	0.048	1	04/30/23 22:15	05/02/23 07:04	7439-98-7	
Selenium	ND	ug/L	1.0	0.23	1	04/30/23 22:15	05/02/23 07:04	7782-49-2	
Thallium	ND	ug/L	1.0	0.033	1	04/30/23 22:15	05/02/23 07:04	7440-28-0	
<b>7470 Mercury</b>									
Analytical Method: EPA 7470 Preparation Method: EPA 7470									
Pace Analytical Services - Indianapolis									
Mercury	ND	ug/L	0.20	0.12	1	05/01/23 21:04	05/02/23 11:53	7439-97-6	
<b>2320B Alkalinity</b>									
Analytical Method: SM 2320B									
Pace Analytical Services - Indianapolis									
Alkalinity, Total as CaCO3	279	mg/L	10.0	10.0	1		05/02/23 02:48		
Alkalinity,Bicarbonate (CaCO3)	279	mg/L	10.0	10.0	1		05/02/23 02:48		

## REPORT OF LABORATORY ANALYSIS

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**ANALYTICAL RESULTS**

Project: Eagle Valley April 2023 P1R2  
 Pace Project No.: 50343477

Sample: MW-14S		Lab ID: 50343477001		Collected: 04/27/23 11:20	Received: 04/28/23 15:50	Matrix: Water				
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual	
<b>2320B Alkalinity</b>		Analytical Method: SM 2320B Pace Analytical Services - Indianapolis								
Alkalinity, Carbonate (CaCO3)	ND	mg/L	10.0	10.0	1		05/02/23 02:48			
<b>2540C Total Dissolved Solids</b>		Analytical Method: SM 2540C Pace Analytical Services - Indianapolis								
Total Dissolved Solids	<b>335</b>	mg/L	10.0	10.0	1		05/01/23 17:08			
<b>4500H+ pH, Electrometric</b>		Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis								
pH at 25 Degrees C	<b>7.7</b>	Std. Units	0.10	0.10	1		05/08/23 13:05		H3	
<b>4500S2D Sulfide Water</b>		Analytical Method: SM 4500-S2-D Pace Analytical Services - Indianapolis								
Sulfide	ND	mg/L	0.10	0.025	1		05/01/23 13:09	18496-25-8		
<b>Iron, Ferrous</b>		Analytical Method: HACH 8146 Pace Analytical Services - Indianapolis								
Iron, Ferrous	ND	mg/L	0.20	0.035	1		05/02/23 10:14	15438-31-0	H3,N2	
<b>353.2 Nitrogen, NO2/NO3 unpres</b>		Analytical Method: EPA 353.2 Pace Analytical Services - Indianapolis								
Nitrogen, Nitrate	<b>9.4</b>	mg/L	0.50	0.055	5		04/28/23 20:14	14797-55-8		
Nitrogen, Nitrite	ND	mg/L	0.50	0.020	5		04/28/23 20:14	14797-65-0		
<b>365.1 Total Phosphorus</b>		Analytical Method: EPA 365.1 Preparation Method: EPA 365.1 Pace Analytical Services - Indianapolis								
Phosphate as P04	ND	mg/L	0.15	0.15	1	05/04/23 13:00	05/07/23 13:03			
<b>5310C TOC</b>		Analytical Method: SM 5310C Pace Analytical Services - Indianapolis								
Total Organic Carbon	ND	mg/L	1.0	0.24	1		05/05/23 01:23	7440-44-0		
<b>5310C Dissolved Organic Carbon</b>		Analytical Method: SM 5310C Pace Analytical Services - Indianapolis								
Dissolved Organic Carbon	ND	mg/L	1.0	0.24	1		05/03/23 13:14			

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## ANALYTICAL RESULTS

Project: Eagle Valley April 2023 P1R2

Pace Project No.: 50343477

Sample: MW-141 Lab ID: 50343477002 Collected: 04/27/23 13:20 Received: 04/28/23 15:50 Matrix: Water

Parameters	Results	Units	Report			Prepared	Analyzed	CAS No.	Qual
			Limit	MDL	DF				
<b>9056 IC Anions</b>									
Analytical Method: EPA 9056									
Pace Analytical Services - Indianapolis									
Chloride	90.6	mg/L	2.5	0.67	10		05/06/23 00:27	16887-00-6	
Fluoride	ND	mg/L	0.10	0.017	1		05/06/23 00:07	16984-48-8	
Sulfate	209	mg/L	2.5	0.85	10		05/06/23 00:27	14808-79-8	
<b>6010 MET ICP</b>									
Analytical Method: EPA 6010 Preparation Method: EPA 3010									
Pace Analytical Services - Indianapolis									
Aluminum	ND	ug/L	200	54.4	1	05/02/23 16:40	05/03/23 15:44	7429-90-5	
Boron	4000	ug/L	100	61.4	1	05/02/23 16:40	05/03/23 15:44	7440-42-8	
Calcium	131000	ug/L	1000	88.4	1	05/02/23 16:40	05/03/23 15:44	7440-70-2	
Iron	ND	ug/L	100	48.8	1	05/02/23 16:40	05/03/23 15:44	7439-89-6	
Lithium	75.9	ug/L	20.0	6.2	1	05/02/23 16:40	05/03/23 15:44	7439-93-2	
Magnesium	30900	ug/L	1000	43.0	1	05/02/23 16:40	05/03/23 15:44	7439-95-4	
Manganese	ND	ug/L	10.0	5.4	1	05/02/23 16:40	05/03/23 15:44	7439-96-5	
Potassium	4580	ug/L	1000	200	1	05/02/23 16:40	05/03/23 15:44	7440-09-7	
Silica	14700	ug/L	450		1	05/02/23 16:40	05/03/23 15:44	7631-86-9	N2
Sodium	75200	ug/L	1000	284	1	05/02/23 16:40	05/03/23 15:44	7440-23-5	
<b>6010 MET ICP, Dissolved</b>									
Analytical Method: EPA 6010 Preparation Method: EPA 3010									
Pace Analytical Services - Indianapolis									
Manganese, Dissolved	ND	ug/L	10.0	5.4	1	05/03/23 09:40	05/04/23 13:05	7439-96-5	
Molybdenum, Dissolved	95.6	ug/L	10.0	2.0	1	05/03/23 09:40	05/04/23 13:05	7439-98-7	
<b>6020 MET ICPMS</b>									
Analytical Method: EPA 6020 Preparation Method: EPA 200.2									
Pace Analytical Services - Indianapolis									
Antimony	ND	ug/L	1.0	0.036	1	04/30/23 22:15	05/02/23 06:41	7440-36-0	
Arsenic	ND	ug/L	1.0	0.053	1	04/30/23 22:15	05/02/23 06:41	7440-38-2	
Barium	53.0	ug/L	1.0	0.051	1	04/30/23 22:15	05/02/23 06:41	7440-39-3	
Beryllium	ND	ug/L	0.20	0.028	1	04/30/23 22:15	05/02/23 06:41	7440-41-7	
Cadmium	ND	ug/L	2.0	0.0090	1	04/30/23 22:15	05/02/23 06:41	7440-43-9	
Chromium	ND	ug/L	10.0	0.13	1	04/30/23 22:15	05/02/23 06:41	7440-47-3	
Cobalt	ND	ug/L	1.0	0.032	1	04/30/23 22:15	05/02/23 06:41	7440-48-4	
Lead	ND	ug/L	10.0	0.034	1	04/30/23 22:15	05/02/23 06:41	7439-92-1	
Molybdenum	91.9	ug/L	10.0	0.048	1	04/30/23 22:15	05/02/23 06:41	7439-98-7	
Selenium	ND	ug/L	1.0	0.23	1	04/30/23 22:15	05/02/23 06:41	7782-49-2	
Thallium	ND	ug/L	1.0	0.033	1	04/30/23 22:15	05/02/23 06:41	7440-28-0	
<b>7470 Mercury</b>									
Analytical Method: EPA 7470 Preparation Method: EPA 7470									
Pace Analytical Services - Indianapolis									
Mercury	ND	ug/L	0.20	0.12	1	05/01/23 21:04	05/02/23 11:55	7439-97-6	
<b>2320B Alkalinity</b>									
Analytical Method: SM 2320B									
Pace Analytical Services - Indianapolis									
Alkalinity, Total as CaCO3	272	mg/L	10.0	10.0	1		05/02/23 02:48		
Alkalinity,Bicarbonate (CaCO3)	272	mg/L	10.0	10.0	1		05/02/23 02:48		

## REPORT OF LABORATORY ANALYSIS

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**ANALYTICAL RESULTS**

Project: Eagle Valley April 2023 P1R2  
 Pace Project No.: 50343477

Sample: MW-141		Lab ID: 50343477002		Collected: 04/27/23 13:20	Received: 04/28/23 15:50	Matrix: Water				
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual	
<b>2320B Alkalinity</b>		Analytical Method: SM 2320B Pace Analytical Services - Indianapolis								
Alkalinity, Carbonate (CaCO3)	ND	mg/L	10.0	10.0	1		05/02/23 02:48			
<b>2540C Total Dissolved Solids</b>		Analytical Method: SM 2540C Pace Analytical Services - Indianapolis								
Total Dissolved Solids	737	mg/L	10.0	10.0	1		05/01/23 17:09			
<b>4500H+ pH, Electrometric</b>		Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis								
pH at 25 Degrees C	7.8	Std. Units	0.10	0.10	1		05/08/23 13:06		H3	
<b>4500S2D Sulfide Water</b>		Analytical Method: SM 4500-S2-D Pace Analytical Services - Indianapolis								
Sulfide	ND	mg/L	0.10	0.025	1		05/01/23 13:09	18496-25-8		
<b>Iron, Ferrous</b>		Analytical Method: HACH 8146 Pace Analytical Services - Indianapolis								
Iron, Ferrous	ND	mg/L	0.20	0.035	1		05/02/23 10:15	15438-31-0	H3,N2	
<b>353.2 Nitrogen, NO2/NO3 unpres</b>		Analytical Method: EPA 353.2 Pace Analytical Services - Indianapolis								
Nitrogen, Nitrate	ND	mg/L	0.10	0.011	1		04/28/23 19:50	14797-55-8		
Nitrogen, Nitrite	ND	mg/L	0.10	0.0040	1		04/28/23 19:50	14797-65-0		
<b>365.1 Total Phosphorus</b>		Analytical Method: EPA 365.1 Preparation Method: EPA 365.1 Pace Analytical Services - Indianapolis								
Phosphate as P04	ND	mg/L	0.15	0.15	1	05/04/23 13:00	05/07/23 13:04			
<b>5310C TOC</b>		Analytical Method: SM 5310C Pace Analytical Services - Indianapolis								
Total Organic Carbon	ND	mg/L	1.0	0.24	1		05/05/23 01:33	7440-44-0		
<b>5310C Dissolved Organic Carbon</b>		Analytical Method: SM 5310C Pace Analytical Services - Indianapolis								
Dissolved Organic Carbon	ND	mg/L	1.0	0.24	1		05/03/23 13:24			

**REPORT OF LABORATORY ANALYSIS**

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### ANALYTICAL RESULTS

Project: Eagle Valley April 2023 P1R2  
 Pace Project No.: 50343477

**Sample: MW-14D**      **Lab ID: 50343477003**      Collected: 04/27/23 12:35      Received: 04/28/23 15:50      Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
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**9056 IC Anions**

Analytical Method: EPA 9056  
 Pace Analytical Services - Indianapolis

Chloride	<b>83.5</b>	mg/L	25.0	6.7	100		05/06/23 03:22	16887-00-6	
Fluoride	ND	mg/L	0.10	0.017	1		05/06/23 03:02	16984-48-8	
Sulfate	<b>280</b>	mg/L	25.0	8.5	100		05/06/23 03:22	14808-79-8	

**6010 MET ICP**

Analytical Method: EPA 6010      Preparation Method: EPA 3010  
 Pace Analytical Services - Indianapolis

Aluminum	ND	ug/L	200	54.4	1	05/02/23 16:40	05/03/23 15:55	7429-90-5	
Boron	<b>2570</b>	ug/L	100	61.4	1	05/02/23 16:40	05/03/23 15:55	7440-42-8	
Calcium	<b>155000</b>	ug/L	1000	88.4	1	05/02/23 16:40	05/03/23 15:55	7440-70-2	
Iron	ND	ug/L	100	48.8	1	05/02/23 16:40	05/03/23 15:55	7439-89-6	
Lithium	<b>30.0</b>	ug/L	20.0	6.2	1	05/02/23 16:40	05/03/23 15:55	7439-93-2	
Magnesium	<b>34300</b>	ug/L	1000	43.0	1	05/02/23 16:40	05/03/23 15:55	7439-95-4	
Manganese	<b>109</b>	ug/L	10.0	5.4	1	05/02/23 16:40	05/03/23 15:55	7439-96-5	
Potassium	<b>4050</b>	ug/L	1000	200	1	05/02/23 16:40	05/03/23 15:55	7440-09-7	
Silica	<b>15400</b>	ug/L	450		1	05/02/23 16:40	05/03/23 15:55	7631-86-9	N2
Sodium	<b>83700</b>	ug/L	1000	284	1	05/02/23 16:40	05/03/23 15:55	7440-23-5	

**6010 MET ICP, Dissolved**

Analytical Method: EPA 6010      Preparation Method: EPA 3010  
 Pace Analytical Services - Indianapolis

Manganese, Dissolved	<b>114</b>	ug/L	10.0	5.4	1	05/03/23 09:40	05/04/23 14:37	7439-96-5	
Molybdenum, Dissolved	<b>22.8</b>	ug/L	10.0	2.0	1	05/03/23 09:40	05/04/23 14:37	7439-98-7	

**6020 MET ICPMS**

Analytical Method: EPA 6020      Preparation Method: EPA 200.2  
 Pace Analytical Services - Indianapolis

Antimony	ND	ug/L	1.0	0.036	1	04/30/23 22:15	05/02/23 07:07	7440-36-0	
Arsenic	ND	ug/L	1.0	0.053	1	04/30/23 22:15	05/02/23 07:07	7440-38-2	
Barium	<b>23.3</b>	ug/L	1.0	0.051	1	04/30/23 22:15	05/02/23 07:07	7440-39-3	
Beryllium	ND	ug/L	0.20	0.028	1	04/30/23 22:15	05/02/23 07:07	7440-41-7	
Cadmium	ND	ug/L	2.0	0.0090	1	04/30/23 22:15	05/02/23 07:07	7440-43-9	
Chromium	ND	ug/L	10.0	0.13	1	04/30/23 22:15	05/02/23 07:07	7440-47-3	
Cobalt	ND	ug/L	1.0	0.032	1	04/30/23 22:15	05/02/23 07:07	7440-48-4	
Lead	ND	ug/L	10.0	0.034	1	04/30/23 22:15	05/02/23 07:07	7439-92-1	
Molybdenum	<b>21.1</b>	ug/L	10.0	0.048	1	04/30/23 22:15	05/02/23 07:07	7439-98-7	
Selenium	ND	ug/L	1.0	0.23	1	04/30/23 22:15	05/02/23 07:07	7782-49-2	
Thallium	ND	ug/L	1.0	0.033	1	04/30/23 22:15	05/02/23 07:07	7440-28-0	

**7470 Mercury**

Analytical Method: EPA 7470      Preparation Method: EPA 7470  
 Pace Analytical Services - Indianapolis

Mercury	ND	ug/L	0.20	0.12	1	05/01/23 21:04	05/02/23 12:03	7439-97-6	
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**2320B Alkalinity**

Analytical Method: SM 2320B  
 Pace Analytical Services - Indianapolis

Alkalinity, Total as CaCO3	<b>295</b>	mg/L	10.0	10.0	1		05/02/23 02:48		
Alkalinity,Bicarbonate (CaCO3)	<b>295</b>	mg/L	10.0	10.0	1		05/02/23 02:48		

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### ANALYTICAL RESULTS

Project: Eagle Valley April 2023 P1R2

Pace Project No.: 50343477

Sample: MW-14D		Lab ID: 50343477003		Collected: 04/27/23 12:35	Received: 04/28/23 15:50	Matrix: Water			
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>2320B Alkalinity</b>		Analytical Method: SM 2320B Pace Analytical Services - Indianapolis							
Alkalinity, Carbonate (CaCO3)	ND	mg/L	10.0	10.0	1		05/02/23 02:48		
<b>2540C Total Dissolved Solids</b>		Analytical Method: SM 2540C Pace Analytical Services - Indianapolis							
Total Dissolved Solids	<b>894</b>	mg/L	10.0	10.0	1		05/01/23 17:09		
<b>4500H+ pH, Electrometric</b>		Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis							
pH at 25 Degrees C	<b>7.5</b>	Std. Units	0.10	0.10	1		05/08/23 13:07		H3
<b>4500S2D Sulfide Water</b>		Analytical Method: SM 4500-S2-D Pace Analytical Services - Indianapolis							
Sulfide	ND	mg/L	0.10	0.025	1		05/01/23 13:09	18496-25-8	
<b>Iron, Ferrous</b>		Analytical Method: HACH 8146 Pace Analytical Services - Indianapolis							
Iron, Ferrous	ND	mg/L	0.20	0.035	1		05/02/23 10:14	15438-31-0	H3,N2
<b>353.2 Nitrogen, NO2/NO3 unpres</b>		Analytical Method: EPA 353.2 Pace Analytical Services - Indianapolis							
Nitrogen, Nitrate	ND	mg/L	0.10	0.011	1		04/28/23 19:44	14797-55-8	
Nitrogen, Nitrite	ND	mg/L	0.10	0.0040	1		04/28/23 19:44	14797-65-0	
<b>365.1 Total Phosphorus</b>		Analytical Method: EPA 365.1 Preparation Method: EPA 365.1 Pace Analytical Services - Indianapolis							
Phosphate as P04	ND	mg/L	0.15	0.15	1	05/04/23 13:00	05/07/23 13:06		
<b>5310C TOC</b>		Analytical Method: SM 5310C Pace Analytical Services - Indianapolis							
Total Organic Carbon	ND	mg/L	1.0	0.24	1		05/05/23 02:08	7440-44-0	
<b>5310C Dissolved Organic Carbon</b>		Analytical Method: SM 5310C Pace Analytical Services - Indianapolis							
Dissolved Organic Carbon	ND	mg/L	1.0	0.24	1		05/03/23 01:50		

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## ANALYTICAL RESULTS

Project: Eagle Valley April 2023 P1R2

Pace Project No.: 50343477

Sample: Dup-5		Lab ID: 50343477006		Collected: 04/27/23 08:00		Received: 04/28/23 15:50		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>9056 IC Anions</b>									
Analytical Method: EPA 9056									
Pace Analytical Services - Indianapolis									
Chloride	2.5	mg/L	0.25	0.067	1		05/06/23 03:41	16887-00-6	
Fluoride	0.12	mg/L	0.10	0.017	1		05/06/23 03:41	16984-48-8	
Sulfate	10.4	mg/L	0.25	0.085	1		05/06/23 03:41	14808-79-8	
<b>6010 MET ICP</b>									
Analytical Method: EPA 6010 Preparation Method: EPA 3010									
Pace Analytical Services - Indianapolis									
Aluminum	ND	ug/L	200	54.4	1	05/02/23 16:40	05/03/23 15:57	7429-90-5	
Boron	238	ug/L	100	61.4	1	05/02/23 16:40	05/03/23 15:57	7440-42-8	
Calcium	88800	ug/L	1000	88.4	1	05/02/23 16:40	05/03/23 15:57	7440-70-2	
Iron	ND	ug/L	100	48.8	1	05/02/23 16:40	05/03/23 15:57	7439-89-6	
Lithium	ND	ug/L	20.0	6.2	1	05/02/23 16:40	05/03/23 15:57	7439-93-2	
Magnesium	23100	ug/L	1000	43.0	1	05/02/23 16:40	05/03/23 15:57	7439-95-4	
Manganese	ND	ug/L	10.0	5.4	1	05/02/23 16:40	05/03/23 15:57	7439-96-5	
Potassium	1620	ug/L	1000	200	1	05/02/23 16:40	05/03/23 15:57	7440-09-7	
Silica	12000	ug/L	450		1	05/02/23 16:40	05/03/23 15:57	7631-86-9	N2
Sodium	5840	ug/L	1000	284	1	05/02/23 16:40	05/03/23 15:57	7440-23-5	
<b>6010 MET ICP, Dissolved</b>									
Analytical Method: EPA 6010 Preparation Method: EPA 3010									
Pace Analytical Services - Indianapolis									
Manganese, Dissolved	ND	ug/L	10.0	5.4	1	05/03/23 09:40	05/04/23 14:39	7439-96-5	
Molybdenum, Dissolved	49.9	ug/L	10.0	2.0	1	05/03/23 09:40	05/04/23 14:39	7439-98-7	
<b>6020 MET ICPMS</b>									
Analytical Method: EPA 6020 Preparation Method: EPA 200.2									
Pace Analytical Services - Indianapolis									
Antimony	ND	ug/L	1.0	0.036	1	04/30/23 22:15	05/02/23 07:11	7440-36-0	
Arsenic	ND	ug/L	1.0	0.053	1	04/30/23 22:15	05/02/23 07:11	7440-38-2	
Barium	24.7	ug/L	1.0	0.051	1	04/30/23 22:15	05/02/23 07:11	7440-39-3	
Beryllium	ND	ug/L	0.20	0.028	1	04/30/23 22:15	05/02/23 07:11	7440-41-7	
Cadmium	ND	ug/L	2.0	0.0090	1	04/30/23 22:15	05/02/23 07:11	7440-43-9	
Chromium	ND	ug/L	10.0	0.13	1	04/30/23 22:15	05/02/23 07:11	7440-47-3	
Cobalt	ND	ug/L	1.0	0.032	1	04/30/23 22:15	05/02/23 07:11	7440-48-4	
Lead	ND	ug/L	10.0	0.034	1	04/30/23 22:15	05/02/23 07:11	7439-92-1	
Molybdenum	49.8	ug/L	10.0	0.048	1	04/30/23 22:15	05/02/23 07:11	7439-98-7	
Selenium	ND	ug/L	1.0	0.23	1	04/30/23 22:15	05/02/23 07:11	7782-49-2	
Thallium	ND	ug/L	1.0	0.033	1	04/30/23 22:15	05/02/23 07:11	7440-28-0	
<b>7470 Mercury</b>									
Analytical Method: EPA 7470 Preparation Method: EPA 7470									
Pace Analytical Services - Indianapolis									
Mercury	ND	ug/L	0.20	0.12	1	05/01/23 21:04	05/02/23 12:05	7439-97-6	
<b>2320B Alkalinity</b>									
Analytical Method: SM 2320B									
Pace Analytical Services - Indianapolis									
Alkalinity, Total as CaCO3	281	mg/L	10.0	10.0	1		05/02/23 02:48		
Alkalinity,Bicarbonate (CaCO3)	281	mg/L	10.0	10.0	1		05/02/23 02:48		

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**ANALYTICAL RESULTS**

Project: Eagle Valley April 2023 P1R2  
 Pace Project No.: 50343477

Sample: Dup-5      Lab ID: 50343477006      Collected: 04/27/23 08:00      Received: 04/28/23 15:50      Matrix: Water									
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>2320B Alkalinity</b>									
Analytical Method: SM 2320B Pace Analytical Services - Indianapolis									
Alkalinity, Carbonate (CaCO3)	ND	mg/L	10.0	10.0	1		05/02/23 02:48		
<b>2540C Total Dissolved Solids</b>									
Analytical Method: SM 2540C Pace Analytical Services - Indianapolis									
Total Dissolved Solids	344	mg/L	10.0	10.0	1		05/01/23 17:09		
<b>4500H+ pH, Electrometric</b>									
Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis									
pH at 25 Degrees C	7.7	Std. Units	0.10	0.10	1		05/08/23 13:09		H3
<b>4500S2D Sulfide Water</b>									
Analytical Method: SM 4500-S2-D Pace Analytical Services - Indianapolis									
Sulfide	ND	mg/L	0.10	0.025	1		05/01/23 13:09	18496-25-8	
<b>Iron, Ferrous</b>									
Analytical Method: HACH 8146 Pace Analytical Services - Indianapolis									
Iron, Ferrous	ND	mg/L	0.20	0.035	1		05/02/23 10:12	15438-31-0	H3,N2
<b>353.2 Nitrogen, NO2/NO3 unpres</b>									
Analytical Method: EPA 353.2 Pace Analytical Services - Indianapolis									
Nitrogen, Nitrate	9.6	mg/L	0.50	0.055	5		04/28/23 20:07	14797-55-8	
Nitrogen, Nitrite	ND	mg/L	0.50	0.020	5		04/28/23 20:07	14797-65-0	
<b>365.1 Total Phosphorus</b>									
Analytical Method: EPA 365.1      Preparation Method: EPA 365.1 Pace Analytical Services - Indianapolis									
Phosphate as P04	ND	mg/L	0.15	0.15	1	05/04/23 13:00	05/07/23 13:06		
<b>5310C TOC</b>									
Analytical Method: SM 5310C Pace Analytical Services - Indianapolis									
Total Organic Carbon	ND	mg/L	1.0	0.24	1		05/05/23 03:23	7440-44-0	
<b>5310C Dissolved Organic Carbon</b>									
Analytical Method: SM 5310C Pace Analytical Services - Indianapolis									
Dissolved Organic Carbon	ND	mg/L	1.0	0.24	1		05/03/23 02:00		

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**QUALITY CONTROL DATA**

Project: Eagle Valley April 2023 P1R2  
 Pace Project No.: 50343477

QC Batch: 731451 Analysis Method: EPA 9056  
 QC Batch Method: EPA 9056 Analysis Description: 9056 IC Anions  
 Laboratory: Pace Analytical Services - Indianapolis  
 Associated Lab Samples: 50343477001, 50343477002, 50343477003, 50343477006

METHOD BLANK: 3356576 Matrix: Water  
 Associated Lab Samples: 50343477001, 50343477002, 50343477003, 50343477006

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chloride	mg/L	ND	0.25	0.067	05/05/23 23:08	
Fluoride	mg/L	ND	0.10	0.017	05/05/23 23:08	
Sulfate	mg/L	ND	0.25	0.085	05/05/23 23:08	

LABORATORY CONTROL SAMPLE: 3356577

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	2.5	2.3	91	80-120	
Fluoride	mg/L	1	0.91	91	80-120	
Sulfate	mg/L	5	4.7	93	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3356578 3356579

Parameter	Units	50343477002		50343477003		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		Result	MS Spike Conc.	MSD Spike Conc.	MSD Spike Conc.								
Chloride	mg/L	90.6	25	25	114	114	95	94	80-120	0	15		
Fluoride	mg/L	ND	1	1	0.98	0.99	92	93	80-120	1	15		
Sulfate	mg/L	209	50	50	264	262	110	106	80-120	1	15		

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

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**QUALITY CONTROL DATA**

Project: Eagle Valley April 2023 P1R2

Pace Project No.: 50343477

QC Batch:	730914	Analysis Method:	EPA 7470
QC Batch Method:	EPA 7470	Analysis Description:	7470 Mercury
		Laboratory:	Pace Analytical Services - Indianapolis

Associated Lab Samples: 50343477001, 50343477002, 50343477003, 50343477006

METHOD BLANK: 3354537 Matrix: Water  
 Associated Lab Samples: 50343477001, 50343477002, 50343477003, 50343477006

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Mercury	ug/L	ND	0.20	0.12	05/02/23 10:54	

LABORATORY CONTROL SAMPLE: 3354538

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury	ug/L	5	5.4	108	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3354539 3354540

Parameter	Units	50343477002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Mercury	ug/L	ND	5	5	5.4	5.3	108	107	75-125	1	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

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**QUALITY CONTROL DATA**

Project: Eagle Valley April 2023 P1R2  
 Pace Project No.: 50343477

QC Batch: 731081 Analysis Method: EPA 6010  
 QC Batch Method: EPA 3010 Analysis Description: 6010 MET  
 Laboratory: Pace Analytical Services - Indianapolis  
 Associated Lab Samples: 50343477001, 50343477002, 50343477003, 50343477006

METHOD BLANK: 3355131 Matrix: Water  
 Associated Lab Samples: 50343477001, 50343477002, 50343477003, 50343477006

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Aluminum	ug/L	ND	200	54.4	05/03/23 15:00	
Boron	ug/L	ND	100	61.4	05/03/23 15:00	
Calcium	ug/L	ND	1000	88.4	05/03/23 15:00	
Iron	ug/L	ND	100	48.8	05/03/23 15:00	
Lithium	ug/L	ND	20.0	6.2	05/03/23 15:00	
Magnesium	ug/L	ND	1000	43.0	05/03/23 15:00	
Manganese	ug/L	ND	10.0	5.4	05/03/23 15:00	
Potassium	ug/L	ND	1000	200	05/03/23 15:00	
Silica	ug/L	ND	450		05/03/23 15:00	N2
Sodium	ug/L	ND	1000	284	05/03/23 15:00	

LABORATORY CONTROL SAMPLE: 3355132

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Aluminum	ug/L	10000	9410	94	80-120	
Boron	ug/L	1000	957	96	80-120	
Calcium	ug/L	10000	9690	97	80-120	
Iron	ug/L	10000	9820	98	80-120	
Lithium	ug/L	1000	973	97	80-120	
Magnesium	ug/L	10000	9590	96	80-120	
Manganese	ug/L	1000	948	95	80-120	
Potassium	ug/L	10000	9540	95	80-120	
Silica	ug/L	10700	10400	97	80-120	N2
Sodium	ug/L	10000	9620	96	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3355133 3355134

Parameter	Units	MS 50343477002		MSD 50343477003		MS 3355134		MSD 3355134		% Rec Limits	RPD	Max RPD	Qual
		Result	Conc.	Spike Conc.	Conc.	Result	Result	% Rec	% Rec				
Aluminum	ug/L	ND	10000	10000	9630	9810	96	98	75-125	2	20		
Boron	ug/L	4000	1000	1000	4830	5030	83	104	75-125	4	20		
Calcium	ug/L	131000	10000	10000	136000	142000	46	105	75-125	4	20	P6	
Iron	ug/L	ND	10000	10000	9480	9740	94	97	75-125	3	20		
Lithium	ug/L	75.9	1000	1000	1040	1050	96	98	75-125	1	20		
Magnesium	ug/L	30900	10000	10000	39100	40600	82	96	75-125	4	20		
Manganese	ug/L	ND	1000	1000	930	954	92	95	75-125	3	20		
Potassium	ug/L	4580	10000	10000	14200	14600	97	100	75-125	2	20		

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### QUALITY CONTROL DATA

Project: Eagle Valley April 2023 P1R2

Pace Project No.: 50343477

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3355133 3355134													
Parameter	Units	50343477002 Result	MS	MSD	MS	MSD	MS	MSD	% Rec	Limits	RPD	Max RPD	Qual
			Spike Conc.	Spike Conc.	Result	Result	% Rec	% Rec					
Silica	ug/L	14700	10700	10700	24700	25400	93	100	75-125	3	20	N2	
Sodium	ug/L	75200	10000	10000	82200	85200	70	101	75-125	4	20	P6	

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**QUALITY CONTROL DATA**

Project: Eagle Valley April 2023 P1R2

Pace Project No.: 50343477

QC Batch: 731183 Analysis Method: EPA 6010  
 QC Batch Method: EPA 3010 Analysis Description: 6010 MET Dissolved  
 Laboratory: Pace Analytical Services - Indianapolis  
 Associated Lab Samples: 50343477001, 50343477002, 50343477003, 50343477006

METHOD BLANK: 3355539 Matrix: Water  
 Associated Lab Samples: 50343477001, 50343477002, 50343477003, 50343477006

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Manganese, Dissolved	ug/L	ND	10.0	5.4	05/04/23 12:06	
Molybdenum, Dissolved	ug/L	ND	10.0	2.0	05/04/23 12:06	

LABORATORY CONTROL SAMPLE: 3355540

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Manganese, Dissolved	ug/L	1000	1020	102	80-120	
Molybdenum, Dissolved	ug/L	1000	1070	107	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3355541 3355542

Parameter	Units	50343477002		3355542		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		Result	MS Spike Conc.	MSD Spike Conc.	MS Result						
Manganese, Dissolved	ug/L	ND	1000	1000	987	995	98	99	75-125	1	20
Molybdenum, Dissolved	ug/L	95.6	1000	1000	1160	1160	107	106	75-125	0	20

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**QUALITY CONTROL DATA**

Project: Eagle Valley April 2023 P1R2

Pace Project No.: 50343477

QC Batch:	730632	Analysis Method:	EPA 6020
QC Batch Method:	EPA 200.2	Analysis Description:	6020 MET
		Laboratory:	Pace Analytical Services - Indianapolis

Associated Lab Samples: 50343477001, 50343477002, 50343477003, 50343477006

METHOD BLANK: 3353690 Matrix: Water

Associated Lab Samples: 50343477001, 50343477002, 50343477003, 50343477006

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Antimony	ug/L	ND	1.0	0.036	05/01/23 21:45	
Arsenic	ug/L	ND	1.0	0.053	05/01/23 21:45	
Barium	ug/L	ND	1.0	0.051	05/01/23 21:45	
Beryllium	ug/L	ND	0.20	0.028	05/01/23 21:45	
Cadmium	ug/L	ND	2.0	0.0090	05/01/23 21:45	
Chromium	ug/L	ND	10.0	0.13	05/01/23 21:45	
Cobalt	ug/L	ND	1.0	0.032	05/01/23 21:45	
Lead	ug/L	ND	10.0	0.034	05/01/23 21:45	
Molybdenum	ug/L	ND	10.0	0.048	05/01/23 21:45	
Selenium	ug/L	ND	1.0	0.23	05/01/23 21:45	
Thallium	ug/L	ND	1.0	0.033	05/01/23 21:45	

LABORATORY CONTROL SAMPLE: 3353691

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Antimony	ug/L	40	40.6	102	80-120	
Arsenic	ug/L	40	36.5	91	80-120	
Barium	ug/L	40	38.2	95	80-120	
Beryllium	ug/L	40	36.5	91	80-120	
Cadmium	ug/L	40	38.0	95	80-120	
Chromium	ug/L	40	40.1	100	80-120	
Cobalt	ug/L	40	39.9	100	80-120	
Lead	ug/L	40	40.3	101	80-120	
Molybdenum	ug/L	40	40.7	102	80-120	
Selenium	ug/L	40	38.2	95	80-120	
Thallium	ug/L	40	40.7	102	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3353692 3353693

Parameter	Units	MS		MSD		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual	
		50343477002 Result	Spike Conc.	Spike Conc.	MS Result							MSD Result
Antimony	ug/L	ND	40	40	41.9	42.5	105	106	75-125	2	20	
Arsenic	ug/L	ND	40	40	37.3	37.8	93	94	75-125	2	20	
Barium	ug/L	53.0	40	40	95.6	96.9	107	110	75-125	1	20	
Beryllium	ug/L	ND	40	40	40.2	40.9	100	102	75-125	2	20	
Cadmium	ug/L	ND	40	40	37.5	37.6	94	94	75-125	0	20	
Chromium	ug/L	ND	40	40	39.0	39.8	97	99	75-125	2	20	

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### QUALITY CONTROL DATA

Project: Eagle Valley April 2023 P1R2

Pace Project No.: 50343477

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3353692 3353693												
Parameter	Units	50343477002 Result	MS		MSD		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
			Spike Conc.	Spike Conc.	MS Result	MSD Result						
Cobalt	ug/L	ND	40	40	38.3	39.1	95	97	75-125	2	20	
Lead	ug/L	ND	40	40	40.7	41.7	102	104	75-125	2	20	
Molybdenum	ug/L	91.9	40	40	132	135	100	108	75-125	2	20	
Selenium	ug/L	ND	40	40	38.1	39.1	95	97	75-125	3	20	
Thallium	ug/L	ND	40	40	41.6	43.0	104	108	75-125	3	20	

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**QUALITY CONTROL DATA**

Project: Eagle Valley April 2023 P1R2

Pace Project No.: 50343477

QC Batch:	730944	Analysis Method:	SM 2320B
QC Batch Method:	SM 2320B	Analysis Description:	2320B Alkalinity
		Laboratory:	Pace Analytical Services - Indianapolis
Associated Lab Samples:	50343477001, 50343477002, 50343477003, 50343477006		

METHOD BLANK: 3354709 Matrix: Water  
 Associated Lab Samples: 50343477001, 50343477002, 50343477003, 50343477006

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Alkalinity, Total as CaCO3	mg/L	ND	10.0	10.0	05/02/23 02:48	
Alkalinity,Bicarbonate (CaCO3)	mg/L	ND	10.0	10.0	05/02/23 02:48	
Alkalinity,Carbonate (CaCO3)	mg/L	ND	10.0	10.0	05/02/23 02:48	

LABORATORY CONTROL SAMPLE: 3354710

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Alkalinity, Total as CaCO3	mg/L	50	47.3	95	90-110	

SAMPLE DUPLICATE: 3354711

Parameter	Units	50343477002 Result	Dup Result	RPD	Max RPD	Qualifiers
Alkalinity, Total as CaCO3	mg/L	272	272	0	20	
Alkalinity,Bicarbonate (CaCO3)	mg/L	272	272	0	20	
Alkalinity,Carbonate (CaCO3)	mg/L	ND	ND		20	

SAMPLE DUPLICATE: 3354712

Parameter	Units	50343329001 Result	Dup Result	RPD	Max RPD	Qualifiers
Alkalinity, Total as CaCO3	mg/L	547	550	1	20	
Alkalinity,Bicarbonate (CaCO3)	mg/L	518	522	1	20	
Alkalinity,Carbonate (CaCO3)	mg/L	29.2	28.0	4	20	

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### QUALITY CONTROL DATA

Project: Eagle Valley April 2023 P1R2

Pace Project No.: 50343477

QC Batch: 730829

Analysis Method: SM 2540C

QC Batch Method: SM 2540C

Analysis Description: 2540C Total Dissolved Solids

Laboratory: Pace Analytical Services - Indianapolis

Associated Lab Samples: 50343477001, 50343477002, 50343477003, 50343477006

METHOD BLANK: 3354257

Matrix: Water

Associated Lab Samples: 50343477001, 50343477002, 50343477003, 50343477006

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	ND	10.0	10.0	05/01/23 17:04	

LABORATORY CONTROL SAMPLE: 3354258

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	300	278	93	80-120	

SAMPLE DUPLICATE: 3354259

Parameter	Units	50343399002 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	10400	10500	1	10	

SAMPLE DUPLICATE: 3354260

Parameter	Units	50343477002 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	737	755	2	10	

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### QUALITY CONTROL DATA

Project: Eagle Valley April 2023 P1R2

Pace Project No.: 50343477

QC Batch: 732145

Analysis Method: SM 4500-H+B

QC Batch Method: SM 4500-H+B

Analysis Description: 4500H+B pH

Laboratory: Pace Analytical Services - Indianapolis

Associated Lab Samples: 50343477001, 50343477002, 50343477003, 50343477006

SAMPLE DUPLICATE: 3360327

Parameter	Units	50342909001 Result	Dup Result	RPD	Max RPD	Qualifiers
pH at 25 Degrees C	Std. Units	7.3	7.4	0	2	H3

SAMPLE DUPLICATE: 3360328

Parameter	Units	50343477002 Result	Dup Result	RPD	Max RPD	Qualifiers
pH at 25 Degrees C	Std. Units	7.8	7.8	0	2	H3

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**QUALITY CONTROL DATA**

Project: Eagle Valley April 2023 P1R2

Pace Project No.: 50343477

QC Batch:	730823	Analysis Method:	SM 4500-S2-D
QC Batch Method:	SM 4500-S2-D	Analysis Description:	4500S2D Sulfide Water
		Laboratory:	Pace Analytical Services - Indianapolis
Associated Lab Samples:	50343477001, 50343477002, 50343477003, 50343477006		

METHOD BLANK: 3354238 Matrix: Water  
 Associated Lab Samples: 50343477001, 50343477002, 50343477003, 50343477006

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Sulfide	mg/L	ND	0.10	0.025	05/01/23 13:09	

LABORATORY CONTROL SAMPLE: 3354239

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Sulfide	mg/L	0.5	0.55	109	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3354240 3354241

Parameter	Units	50343477002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Sulfide	mg/L	ND	0.5	0.5	0.41	0.46	82	92	90-110	11	20	M0

MATRIX SPIKE SAMPLE: 3354242

Parameter	Units	50343477006 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Sulfide	mg/L	ND	0.5	0.61	122	90-110	M0

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**QUALITY CONTROL DATA**

Project: Eagle Valley April 2023 P1R2

Pace Project No.: 50343477

QC Batch:	731019	Analysis Method:	HACH 8146
QC Batch Method:	HACH 8146	Analysis Description:	Iron, Ferrous
		Laboratory:	Pace Analytical Services - Indianapolis
Associated Lab Samples:	50343477001, 50343477002, 50343477003, 50343477006		

METHOD BLANK: 3354900 Matrix: Water  
 Associated Lab Samples: 50343477001, 50343477002, 50343477003, 50343477006

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Iron, Ferrous	mg/L	ND	0.20	0.035	05/02/23 10:08	H3,N2

LABORATORY CONTROL SAMPLE: 3354901

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Iron, Ferrous	mg/L	1	1.0	101	90-110	H3,N2

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3354902 3354903

Parameter	Units	50343477002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Iron, Ferrous	mg/L	ND	1	1	1.1	1.0	107	104	90-110	3	20	H3,N2

MATRIX SPIKE SAMPLE: 3354904

Parameter	Units	50343152001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Iron, Ferrous	mg/L	ND	1	1.0	104	90-110	H3,N2

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**QUALITY CONTROL DATA**

Project: Eagle Valley April 2023 P1R2

Pace Project No.: 50343477

QC Batch: 730605 Analysis Method: EPA 353.2  
 QC Batch Method: EPA 353.2 Analysis Description: 353.2 Nitrate + Nitrite, Unpres.  
 Laboratory: Pace Analytical Services - Indianapolis  
 Associated Lab Samples: 50343477001, 50343477002, 50343477003, 50343477006

METHOD BLANK: 3353464 Matrix: Water  
 Associated Lab Samples: 50343477001, 50343477002, 50343477003, 50343477006

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Nitrogen, Nitrate	mg/L	ND	0.10	0.011	04/28/23 19:27	
Nitrogen, Nitrite	mg/L	ND	0.10	0.0040	04/28/23 19:27	

LABORATORY CONTROL SAMPLE: 3353465

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Nitrogen, Nitrate	mg/L	1	0.97	97	90-110	
Nitrogen, Nitrite	mg/L	1	0.99	99	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3353466 3353467

Parameter	Units	50343477002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Nitrogen, Nitrate	mg/L	ND	1	1	0.98	0.98	97	97	90-110	1	20	
Nitrogen, Nitrite	mg/L	ND	1	1	1.0	1.0	104	104	90-110	0	20	

MATRIX SPIKE SAMPLE: 3353468

Parameter	Units	50343318002 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Nitrogen, Nitrate	mg/L	ND	1	0.97	96	90-110	
Nitrogen, Nitrite	mg/L	ND	1	1.0	102	90-110	

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**QUALITY CONTROL DATA**

Project: Eagle Valley April 2023 P1R2

Pace Project No.: 50343477

QC Batch:	731576	Analysis Method:	EPA 365.1
QC Batch Method:	EPA 365.1	Analysis Description:	365.1 Total Phosphorus
		Laboratory:	Pace Analytical Services - Indianapolis
Associated Lab Samples:	50343477001, 50343477002, 50343477003, 50343477006		

METHOD BLANK: 3357259 Matrix: Water  
 Associated Lab Samples: 50343477001, 50343477002, 50343477003, 50343477006

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Phosphate as P04	mg/L	ND	0.15	0.15	05/07/23 12:59	

LABORATORY CONTROL SAMPLE: 3357260

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Phosphate as P04	mg/L		1.4			

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3357261 3357262

Parameter	Units	50343477002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Phosphate as P04	mg/L	ND			1.3	1.4				4		

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**QUALITY CONTROL DATA**

Project: Eagle Valley April 2023 P1R2

Pace Project No.: 50343477

QC Batch:	731370	Analysis Method:	SM 5310C
QC Batch Method:	SM 5310C	Analysis Description:	5310C Total Organic Carbon
		Laboratory:	Pace Analytical Services - Indianapolis

Associated Lab Samples: 50343477001, 50343477002, 50343477003

METHOD BLANK: 3356294 Matrix: Water

Associated Lab Samples: 50343477001, 50343477002, 50343477003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Organic Carbon	mg/L	ND	1.0	0.24	05/04/23 20:16	

LABORATORY CONTROL SAMPLE: 3356295

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Organic Carbon	mg/L	10	9.8	98	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3356296 3356297

Parameter	Units	50343477002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Total Organic Carbon	mg/L	ND	10	10	11.2	11.1	106	105	80-120	1	20	

MATRIX SPIKE SAMPLE: 3356298

Parameter	Units	50343477003 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Total Organic Carbon	mg/L	ND	10	11.2	103	80-120	

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**QUALITY CONTROL DATA**

Project: Eagle Valley April 2023 P1R2

Pace Project No.: 50343477

QC Batch: 731374

Analysis Method: SM 5310C

QC Batch Method: SM 5310C

Analysis Description: 5310C Total Organic Carbon

Laboratory: Pace Analytical Services - Indianapolis

Associated Lab Samples: 50343477006

METHOD BLANK: 3356301

Matrix: Water

Associated Lab Samples: 50343477006

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Organic Carbon	mg/L	ND	1.0	0.24	05/05/23 03:02	

LABORATORY CONTROL SAMPLE: 3356302

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Organic Carbon	mg/L	10	10.5	105	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3356303 3356304

Parameter	Units	50343108004		3356304		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result						
Total Organic Carbon	mg/L	ND	10	10	10.5	10.7	105	107	80-120	2	20

MATRIX SPIKE SAMPLE: 3356305

Parameter	Units	50343108005 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Total Organic Carbon	mg/L	ND	10	10.7	107	80-120	

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**QUALITY CONTROL DATA**

Project: Eagle Valley April 2023 P1R2

Pace Project No.: 50343477

QC Batch:	731122	Analysis Method:	SM 5310C
QC Batch Method:	SM 5310C	Analysis Description:	5310C Dissolved Organic Carbon
		Laboratory:	Pace Analytical Services - Indianapolis
Associated Lab Samples:	50343477001, 50343477002, 50343477003, 50343477006		

METHOD BLANK: 3355289 Matrix: Water  
 Associated Lab Samples: 50343477001, 50343477002, 50343477003, 50343477006

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Dissolved Organic Carbon	mg/L	ND	1.0	0.24	05/03/23 11:48	

LABORATORY CONTROL SAMPLE: 3355290

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Dissolved Organic Carbon	mg/L	10	10	100	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3355291 3355292

Parameter	Units	50343477002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Dissolved Organic Carbon	mg/L	ND	10	10	10.5	10.6	98	99	80-120	1	20	

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**REPORT OF LABORATORY ANALYSIS**

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Eagle Valley April 2023 P1R2

Pace Project No.: 50343477

**Sample: MW-14S**      **Lab ID: 50343477001**      Collected: 04/27/23 11:20      Received: 04/28/23 15:50      Matrix: Water  
 PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	<b>0.131 ± 0.258 (0.471)</b> <b>C:NA T:91%</b>	pCi/L	05/22/23 13:59	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	<b>0.836 ± 0.428 (0.762)</b> <b>C:79% T:91%</b>	pCi/L	05/15/23 15:15	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	<b>0.967 ± 0.686 (1.23)</b>	pCi/L	05/23/23 09:59	7440-14-4	

### REPORT OF LABORATORY ANALYSIS

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Eagle Valley April 2023 P1R2

Pace Project No.: 50343477

**Sample: MW-141**      **Lab ID: 50343477002**      Collected: 04/27/23 13:20      Received: 04/28/23 15:50      Matrix: Water  
 PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	<b>0.181 ± 0.517 (0.959)</b> <b>C:NA T:82%</b>	pCi/L	05/22/23 13:59	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	<b>1.07 ± 0.462 (0.757)</b> <b>C:83% T:82%</b>	pCi/L	05/15/23 15:15	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	<b>1.25 ± 0.979 (1.72)</b>	pCi/L	05/23/23 09:59	7440-14-4	

### REPORT OF LABORATORY ANALYSIS

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Eagle Valley April 2023 P1R2

Pace Project No.: 50343477

**Sample: MW-14D**      **Lab ID: 50343477003**      Collected: 04/27/23 12:35      Received: 04/28/23 15:50      Matrix: Water  
 PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Radium-226	EPA 903.1	<b>0.130 ± 0.308 (0.570)</b> <b>C:NA T:91%</b>	pCi/L	05/22/23 13:59	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 904.0	<b>1.17 ± 0.461 (0.715)</b> <b>C:79% T:91%</b>	pCi/L	05/15/23 15:16	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	<b>1.30 ± 0.769 (1.29)</b>	pCi/L	05/23/23 09:59	7440-14-4	

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Eagle Valley April 2023 P1R2

Pace Project No.: 50343477

**Sample: MW-14I MS**      **Lab ID: 50343477004**      Collected: 04/27/23 13:20      Received: 04/28/23 15:50      Matrix: Water  
 PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	<b>99.00 %REC ± NA (NA)</b> <b>C:NA T:NA</b>	pCi/L	05/22/23 13:59	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	<b>73.42 %REC ± NA (NA)</b> <b>C:NA T:NA</b>	pCi/L	05/15/23 15:16	15262-20-1	

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**ANALYTICAL RESULTS - RADIOCHEMISTRY**

Project: Eagle Valley April 2023 P1R2

Pace Project No.: 50343477

**Sample: MW-14I MSD**      **Lab ID: 50343477005**      Collected: 04/27/23 13:20      Received: 04/28/23 15:50      Matrix: Water  
 PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Radium-226	EPA 903.1	<b>96.76 %REC 2.29RPD ±</b> <b>NA (NA)</b> <b>C:NA T:NA</b>	pCi/L	05/22/23 13:59	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 904.0	<b>78.44 %REC 6.60RPD ± NA</b> <b>(NA)</b> <b>C:NA T:NA</b>	pCi/L	05/15/23 15:16	15262-20-1	

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**ANALYTICAL RESULTS - RADIOCHEMISTRY**

Project: Eagle Valley April 2023 P1R2

Pace Project No.: 50343477

**Sample: Dup-5**      **Lab ID: 50343477006**      Collected: 04/27/23 08:00      Received: 04/28/23 15:50      Matrix: Water  
 PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	<b>0.0518 ± 0.304 (0.622)</b> <b>C:NA T:87%</b>	pCi/L	05/22/23 14:13	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	<b>0.953 ± 0.418 (0.693)</b> <b>C:87% T:87%</b>	pCi/L	05/15/23 15:16	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	<b>1.00 ± 0.722 (1.32)</b>	pCi/L	05/23/23 09:59	7440-14-4	

**REPORT OF LABORATORY ANALYSIS**

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### QUALITY CONTROL - RADIOCHEMISTRY

Project: Eagle Valley April 2023 P1R2

Pace Project No.: 50343477

QC Batch:	585877	Analysis Method:	EPA 904.0
QC Batch Method:	EPA 904.0	Analysis Description:	904.0 Radium 228
		Laboratory:	Pace Analytical Services - Greensburg

Associated Lab Samples: 50343477001, 50343477002, 50343477003, 50343477004, 50343477005, 50343477006

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METHOD BLANK: 2845709 Matrix: Water

Associated Lab Samples: 50343477001, 50343477002, 50343477003, 50343477004, 50343477005, 50343477006

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.682 ± 0.328 (0.547) C:80% T:101%	pCi/L	05/15/23 11:58	

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## QUALIFIERS

Project: Eagle Valley April 2023 P1R2

Pace Project No.: 50343477

### DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Reported results are not rounded until the final step prior to reporting. Therefore, calculated parameters that are typically reported as "Total" may vary slightly from the sum of the reported component parameters.

Act - Activity

Unc - Uncertainty: SDWA = 1.96 sigma count uncertainty, all other matrices = Expanded Uncertainty (95% confidence interval).

Gamma Spec = Expanded Uncertainty (95.4% Confidence Interval)

(MDC) - Minimum Detectable Concentration

Trac - Tracer Recovery (%)

Carr - Carrier Recovery (%)

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

### ANALYTE QUALIFIERS

H3 Sample was received or analysis requested beyond the recognized method holding time.

M0 Matrix spike recovery and/or matrix spike duplicate recovery was outside laboratory control limits.

N2 The lab does not hold NELAC/TNI accreditation for this parameter but other accreditations/certifications may apply. A complete list of accreditations/certifications is available upon request.

P6 Matrix spike recovery was outside laboratory control limits due to a parent sample concentration notably higher than the spike level.

## REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Eagle Valley April 2023 P1R2

Pace Project No.: 50343477

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
50343477001	MW-14S	EPA 9056	731451		
50343477002	MW-14I	EPA 9056	731451		
50343477003	MW-14D	EPA 9056	731451		
50343477006	Dup-5	EPA 9056	731451		
50343477001	MW-14S	EPA 3010	731081	EPA 6010	731391
50343477002	MW-14I	EPA 3010	731081	EPA 6010	731391
50343477003	MW-14D	EPA 3010	731081	EPA 6010	731391
50343477006	Dup-5	EPA 3010	731081	EPA 6010	731391
50343477001	MW-14S	EPA 3010	731183	EPA 6010	731556
50343477002	MW-14I	EPA 3010	731183	EPA 6010	731556
50343477003	MW-14D	EPA 3010	731183	EPA 6010	731556
50343477006	Dup-5	EPA 3010	731183	EPA 6010	731556
50343477001	MW-14S	EPA 200.2	730632	EPA 6020	730838
50343477002	MW-14I	EPA 200.2	730632	EPA 6020	730838
50343477003	MW-14D	EPA 200.2	730632	EPA 6020	730838
50343477006	Dup-5	EPA 200.2	730632	EPA 6020	730838
50343477001	MW-14S	EPA 7470	730914	EPA 7470	730968
50343477002	MW-14I	EPA 7470	730914	EPA 7470	730968
50343477003	MW-14D	EPA 7470	730914	EPA 7470	730968
50343477006	Dup-5	EPA 7470	730914	EPA 7470	730968
50343477001	MW-14S	EPA 903.1	585876		
50343477002	MW-14I	EPA 903.1	585876		
50343477003	MW-14D	EPA 903.1	585876		
50343477004	MW-14I MS	EPA 903.1	585876		
50343477005	MW-14I MSD	EPA 903.1	585876		
50343477006	Dup-5	EPA 903.1	585876		
50343477001	MW-14S	EPA 904.0	585877		
50343477002	MW-14I	EPA 904.0	585877		
50343477003	MW-14D	EPA 904.0	585877		
50343477004	MW-14I MS	EPA 904.0	585877		
50343477005	MW-14I MSD	EPA 904.0	585877		
50343477006	Dup-5	EPA 904.0	585877		
50343477001	MW-14S	Total Radium Calculation	589993		
50343477002	MW-14I	Total Radium Calculation	589993		
50343477003	MW-14D	Total Radium Calculation	589993		
50343477006	Dup-5	Total Radium Calculation	589993		
50343477001	MW-14S	SM 2320B	730944		
50343477002	MW-14I	SM 2320B	730944		
50343477003	MW-14D	SM 2320B	730944		
50343477006	Dup-5	SM 2320B	730944		
50343477001	MW-14S	SM 2540C	730829		
50343477002	MW-14I	SM 2540C	730829		
50343477003	MW-14D	SM 2540C	730829		
50343477006	Dup-5	SM 2540C	730829		

REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Eagle Valley April 2023 P1R2

Pace Project No.: 50343477

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
50343477001	MW-14S	SM 4500-H+B	732145		
50343477002	MW-14I	SM 4500-H+B	732145		
50343477003	MW-14D	SM 4500-H+B	732145		
50343477006	Dup-5	SM 4500-H+B	732145		
50343477001	MW-14S	SM 4500-S2-D	730823		
50343477002	MW-14I	SM 4500-S2-D	730823		
50343477003	MW-14D	SM 4500-S2-D	730823		
50343477006	Dup-5	SM 4500-S2-D	730823		
50343477001	MW-14S	HACH 8146	731019		
50343477002	MW-14I	HACH 8146	731019		
50343477003	MW-14D	HACH 8146	731019		
50343477006	Dup-5	HACH 8146	731019		
50343477001	MW-14S	EPA 353.2	730605		
50343477002	MW-14I	EPA 353.2	730605		
50343477003	MW-14D	EPA 353.2	730605		
50343477006	Dup-5	EPA 353.2	730605		
50343477001	MW-14S	EPA 365.1	731576	EPA 365.1	732106
50343477002	MW-14I	EPA 365.1	731576	EPA 365.1	732106
50343477003	MW-14D	EPA 365.1	731576	EPA 365.1	732106
50343477006	Dup-5	EPA 365.1	731576	EPA 365.1	732106
50343477001	MW-14S	SM 5310C	731370		
50343477002	MW-14I	SM 5310C	731370		
50343477003	MW-14D	SM 5310C	731370		
50343477006	Dup-5	SM 5310C	731374		
50343477001	MW-14S	SM 5310C	731122		
50343477002	MW-14I	SM 5310C	731122		
50343477003	MW-14D	SM 5310C	731122		
50343477006	Dup-5	SM 5310C	731122		

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**SAMPLE CONDITION UPON RECEIPT FORM**

Date/Time and Initials of person examining contents: 4/28/23 15:52 JG

1. Courier:  FED EX  UPS  CLIENT  PACE  USPS  OTHER \_\_\_\_\_
2. Custody Seal on Cooler/Box Present:  Yes  No  
 (If yes)Seals Intact:  Yes  No (leave blank if no seals were present)
3. Thermometer: **1 2 3 4 5 6 A B C D E F**  
2.0/2.0 2.0/2.0
4. Cooler Temperature(s): 2.0/2.0 2.0/2.0    
 (Initial/Corrected) RECORD TEMPS OF ALL COOLERS RECEIVED (use Comments below to add more)

5. Packing Material:  Bubble Wrap  Bubble Bags  
 None  Other \_\_\_\_\_
6. Ice Type:  Wet  Blue  None
7. If temp. is over 6°C or under 0°C, was the PM notified?:  Yes  No  
 Cooler temp should be above freezing to 6°C

All discrepancies will be written out in the comments section below.

	Yes	No		Yes	No	N/A
USDA Regulated Soils? (HI, ID, NY, WA, OR, CA, NM, TX, OK, AR, LA, TN, AL, MS, NC, SC, GA, FL, or Puerto Rico)		<input checked="" type="checkbox"/>	All containers needing acid/base preservation have been pH CHECKED?: Exceptions: VOA, coliform, LLHg, O&G, RAD CHEM, and any container with a septum cap or preserved with HCl.			
Short Hold Time Analysis (48 hours or less)? Analysis: <u>Nitrate, Nitrite</u>	<input checked="" type="checkbox"/>		Circle: <u>HNO3 (&lt;2) H2SO4 (&lt;2) NaOH (&gt;10) NaOH/ZnAc (&gt;9)</u> Any non-conformance to pH recommendations will be noted on the container count form	<input checked="" type="checkbox"/>		
Time 5035A TC placed in Freezer or Short Holds To Lab Time: <u>17:25</u>			Residual Chlorine Check (SVOC 625 Pest/PCB 608)	<u>Present</u>	<u>Absent</u>	<u>N/A</u>
Rush TAT Requested (4 days or less):		<input checked="" type="checkbox"/>	Residual Chlorine Check (Total/Amenable/Free Cyanide)			<input checked="" type="checkbox"/>
Custody Signatures Present?	<input checked="" type="checkbox"/>		Headspace Wisconsin Sulfide?			<input checked="" type="checkbox"/>
Containers Intact?:	<input checked="" type="checkbox"/>		Headspace in VOA Vials (>6mm): See Container Count form for details	<u>Present</u>	<u>Absent</u>	<u>No VOA Vials Sent</u>
Sample Label (IDs/Dates/Times) Match COC?: Except TCs, which only require sample ID	<input checked="" type="checkbox"/>		Trip Blank Present?		<input checked="" type="checkbox"/>	
Extra labels on Terracore Vials? (soils only)		<input checked="" type="checkbox"/>	Trip Blank Custody Seals?:			<input checked="" type="checkbox"/>

COMMENTS:

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Sample Container Count

\*\* Place a RED dot on containers that are out of conformance \*\*

COC Line Item	WGFLU	MeOH (only) SBS DI R	VIALS			AMBER GLASS							PLASTIC							OTHER			Matrix	Nitric Red HNO3 <2	Sulfuric Yellow H2SO4 <2	Sodium Hydroxide Green NaOH >10	Sodium Hydroxide/ ZnAc Black NaOH/Zn Ac >9								
			DG9H	VG9H	VOA VIAL HS (>6mm)	VG9U	DG9U	VG9T	AG0U	AG1H	AG1U	AG2U	AG3S	AG3SF	AG3C	BP1U	BP1N	BP2U	BP3U	BP3N	BP3F	BP3S						BP3B	BP3Z	CG3H	CG3F	Syringe Kit			
			1											1	1													1	1	1					
2																																			
3																																			
4																																			
5																																			
6																																			
7																																			
8																																			
9																																			
10																																			
11																																			
12																																			

Container Codes

Glass				Plastic			
DG9H	40mL HCl amber voa vial	BG1T	1L Na Thiosulfate clear glass	BP1B	1L NaOH plastic	BP4U	125mL unpreserved plastic
DG9P	40mL TSP amber vial	BG1U	1L unpreserved glass	BP1N	1L HNO3 plastic	BP4N	125mL HNO3 plastic
DG9S	40mL H2SO4 amber vial	BG3H	250mL HCl Clear Glass	BP1S	1L H2SO4 plastic	BP4S	125mL H2SO4 plastic
DG9T	40mL Na Thio amber vial	BG3U	250mL Unpres Clear Glass	BP1U	1L unpreserved plastic	<b>Miscellaneous</b>	
DG9U	40mL unpreserved amber vial	AG0U	100mL unpres amber glass	BP1Z	1L NaOH, Zn, Ac		
VG9H	40mL HCl clear vial	AG1H	1L HCl amber glass	BP2N	500mL HNO3 plastic	Syringe Kit	LL Cr+6 sampling kit
VG9T	40mL Na Thio. clear vial	AG1S	1L H2SO4 amber glass	BP2C	500mL NaOH plastic	ZPLC	Ziploc Bag
VG9U	40mL unpreserved clear vial	AG1T	1L Na Thiosulfate amber glass	BP2S	500mL H2SO4 plastic	R	Terracore Kit
I	40mL w/hexane wipe vial	AG1U	1liter unpres amber glass	BP2U	500mL unpreserved plastic	SP5T	120mL Coliform Sodium Thiosulfate
WGKU	8oz unpreserved clear jar	AG2N	500mL HNO3 amber glass	BP2Z	500mL NaOH, Zn Ac	GN	General Container
WGFU	4oz clear soil jar	AG2S	500mL H2SO4 amber glass	BP3B	250mL NaOH plastic	U	Summa Can (air sample)
JGFU	4oz unpreserved amber wide	AG2U	500mL unpres amber glass	BP3N	250mL HNO3 plastic	WT	Water
CG3H	250mL clear glass HCl	AG3S	250mL H2SO4 amber glass	BP3F	250mL HNO3 plastic-field filtered	SL	Solid Solid
CG3F	250mL clear glass HCl, Field Filter	AG3SF	250mL H2SO4 amb glass -field filtered	BP3U	250mL unpreserved plastic	OL:	Oil
BG1H	1L HCl clear glass	AG3U	250mL unpres amber glass	BP3S	250mL H2SO4 plastic	NAL	Non-aqueous liquid
BG1S	1L H2SO4 clear glass	AG3C	250mL NaOH amber glass	BP3Z	250mL NaOH, ZnAc plastic	WP	Wipe



July 18, 2023

Mr. Mark Breting  
ATC Group Services  
7988 Centerpoint Drive  
Suite 100  
Indianapolis, IN 46256

RE: Project: Eagle Valley April 2023 P1R2  
Pace Project No.: 50343589

Dear Mr. Breting:

Enclosed are the analytical results for sample(s) received by the laboratory on May 02, 2023. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

The test results provided in this final report were generated by each of the following laboratories within the Pace Network:

- Pace Analytical Services - Indianapolis
- Pace Analytical Services - Greensburg

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Will Statz  
will.statz@pacelabs.com  
(317)228-3105  
Project Manager

Enclosures

cc: Mohammed Bazlamit, Atlas  
Mr. Robert Miller, Haley & Aldrich



## REPORT OF LABORATORY ANALYSIS

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### CERTIFICATIONS

Project: Eagle Valley April 2023 P1R2  
Pace Project No.: 50343589

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#### Pace Analytical Services Pennsylvania

1638 Roseytown Rd Suites 2,3&4, Greensburg, PA 15601  
ANAB DOD-ELAP Rad Accreditation #: L2417  
ANABISO/IEC 17025:2017 Rad Cert#: L24170  
Alabama Certification #: 41590  
Arizona Certification #: AZ0734  
Arkansas Certification  
California Certification #: 2950  
Colorado Certification #: PA01547  
Connecticut Certification #: PH-0694  
EPA Region 4 DW Rad  
Florida/TNI Certification #: E87683  
Georgia Certification #: C040  
Guam Certification  
Hawaii Certification  
Idaho Certification  
Illinois Certification  
Indiana Certification  
Iowa Certification #: 391  
Kansas Certification #: E-10358  
Kentucky Certification #: KY90133  
KY WW Permit #: KY0098221  
KY WW Permit #: KY0000221  
Louisiana DHH/TNI Certification #: LA010  
Louisiana DEQ/TNI Certification #: 04086  
Maine Certification #: 2023021  
Maryland Certification #: 308  
Massachusetts Certification #: M-PA1457  
Michigan/PADEP Certification #: 9991

Missouri Certification #: 235  
Montana Certification #: Cert0082  
Nebraska Certification #: NE-OS-29-14  
Nevada Certification #: PA014572023-03  
New Hampshire/TNI Certification #: 297622  
New Jersey/TNI Certification #: PA051  
New Mexico Certification #: PA01457  
New York/TNI Certification #: 10888  
North Carolina Certification #: 42706  
North Dakota Certification #: R-190  
Ohio EPA Rad Approval: #41249  
Oregon/TNI Certification #: PA200002-015  
Pennsylvania/TNI Certification #: 65-00282  
Puerto Rico Certification #: PA01457  
Rhode Island Certification #: 65-00282  
South Dakota Certification  
Tennessee Certification #: TN02867  
Texas/TNI Certification #: T104704188-22-18  
Utah/TNI Certification #: PA014572223-14  
USDA Soil Permit #: 525-23-67-77263  
Vermont Dept. of Health: ID# VT-0282  
Virgin Island/PADEP Certification  
Virginia/VELAP Certification #: 460198  
Washington Certification #: C868  
West Virginia DEP Certification #: 143  
West Virginia DHHR Certification #: 9964C  
Wisconsin Approve List for Rad

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#### Pace Analytical Services Indianapolis

7726 Moller Road, Indianapolis, IN 46268  
Illinois Accreditation #: 200074  
Indiana Drinking Water Laboratory #: C-49-06  
Kansas/TNI Certification #: E-10177  
Kentucky UST Agency Interest #: 80226  
Kentucky WW Laboratory ID #: 98019  
Michigan Drinking Water Laboratory #9050

Ohio VAP Certified Laboratory #: CL0065  
Oklahoma Laboratory #: 9204  
Texas Certification #: T104704355  
Wisconsin Laboratory #: 999788130  
USDA Foreign Soil Permit #: 525-23-13-23119  
USDA Compliance Agreement #: IN-SL-22-001

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### REPORT OF LABORATORY ANALYSIS

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### SAMPLE SUMMARY

Project: Eagle Valley April 2023 P1R2  
Pace Project No.: 50343589

Lab ID	Sample ID	Matrix	Date Collected	Date Received
50343589001	MW-15S	Water	05/01/23 11:15	05/02/23 08:30
50343589002	MW-15I	Water	05/01/23 13:15	05/02/23 08:30
50343589003	MW-15D	Water	05/01/23 14:28	05/02/23 08:30
50343589004	DUP-6	Water	05/01/23 08:00	05/02/23 08:30
50343589005	Field Blank-3	Water	05/01/23 10:00	05/02/23 08:30

### REPORT OF LABORATORY ANALYSIS

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**SAMPLE ANALYTE COUNT**

Project: Eagle Valley April 2023 P1R2  
 Pace Project No.: 50343589

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory		
50343589001	MW-15S	EPA 9056	ADM	3	PASI-I		
		EPA 6010	MTM	10	PASI-I		
		EPA 6010	JPK	2	PASI-I		
		EPA 6020	CAW	11	PASI-I		
		EPA 7470	ILP	1	PASI-I		
		EPA 903.1	CLM	1	PASI-PA		
		EPA 904.0	JJS1	1	PASI-PA		
		Total Radium Calculation	JAL	1	PASI-PA		
		SM 2320B	DAW	3	PASI-I		
		SM 2540C	TRK	1	PASI-I		
		SM 4500-H+B	LHZ	1	PASI-I		
		SM 4500-S2-D	BEP	1	PASI-I		
		HACH 8146	BEP	1	PASI-I		
		EPA 353.2	ZM	2	PASI-I		
		EPA 365.1	YAM	1	PASI-I		
		SM 5310C	ATS	1	PASI-I		
		SM 5310C	ATS	1	PASI-I		
		50343589002	MW-15I	EPA 9056	ADM	3	PASI-I
				EPA 6010	MTM	10	PASI-I
				EPA 6010	JPK	2	PASI-I
EPA 6020	CAW			11	PASI-I		
EPA 7470	ILP			1	PASI-I		
EPA 903.1	CLM			1	PASI-PA		
EPA 904.0	JJS1			1	PASI-PA		
Total Radium Calculation	JAL			1	PASI-PA		
SM 2320B	DAW			3	PASI-I		
SM 2540C	TRK			1	PASI-I		
SM 4500-H+B	LHZ			1	PASI-I		
SM 4500-S2-D	BEP			1	PASI-I		
HACH 8146	BEP			1	PASI-I		
EPA 353.2	ZM			2	PASI-I		
EPA 365.1	YAM			1	PASI-I		
SM 5310C	ATS			1	PASI-I		
SM 5310C	ATS			1	PASI-I		
50343589003	MW-15D			EPA 9056	ADM	3	PASI-I
				EPA 6010	MTM	10	PASI-I
				EPA 6010	JPK	2	PASI-I

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### SAMPLE ANALYTE COUNT

Project: Eagle Valley April 2023 P1R2

Pace Project No.: 50343589

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
50343589004	DUP-6	EPA 6020	CAW	11	PASI-I
		EPA 7470	ILP	1	PASI-I
		EPA 903.1	CLM	1	PASI-PA
		EPA 904.0	JJS1	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
		SM 2320B	DAW	3	PASI-I
		SM 2540C	TRK	1	PASI-I
		SM 4500-H+B	BMS	1	PASI-I
		SM 4500-S2-D	BEP	1	PASI-I
		HACH 8146	BEP	1	PASI-I
		EPA 353.2	ZM	2	PASI-I
		EPA 365.1	YAM	1	PASI-I
		SM 5310C	ATS	1	PASI-I
		SM 5310C	ATS	1	PASI-I
		EPA 9056	ADM	3	PASI-I
		EPA 6010	MTM	10	PASI-I
		EPA 6010	JPK	2	PASI-I
		EPA 6020	CAW	11	PASI-I
		EPA 7470	ILP	1	PASI-I
		EPA 903.1	CLM	1	PASI-PA
EPA 904.0	JJS1	1	PASI-PA		
Total Radium Calculation	JAL	1	PASI-PA		
SM 2320B	DAW	3	PASI-I		
SM 2540C	TRK	1	PASI-I		
SM 4500-H+B	BMS	1	PASI-I		
SM 4500-S2-D	BEP	1	PASI-I		
HACH 8146	BEP	1	PASI-I		
EPA 353.2	ZM	2	PASI-I		
EPA 365.1	YAM	1	PASI-I		
SM 5310C	ATS	1	PASI-I		
SM 5310C	ATS	1	PASI-I		
50343589005	Field Blank-3	EPA 9056	ADM	3	PASI-I
		EPA 6010	MTM	10	PASI-I
		EPA 6020	CAW	11	PASI-I
		EPA 7470	ILP	1	PASI-I
		EPA 903.1	CLM	1	PASI-PA
		EPA 904.0	JJS1	1	PASI-PA

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### SAMPLE ANALYTE COUNT

Project: Eagle Valley April 2023 P1R2

Pace Project No.: 50343589

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
		Total Radium Calculation	JAL	1	PASI-PA
		SM 2320B	DAW	3	PASI-I
		SM 2540C	TRK	1	PASI-I
		SM 4500-H+B	BMS	1	PASI-I
		SM 4500-S2-D	BEP	1	PASI-I
		HACH 8146	BEP	1	PASI-I
		EPA 353.2	ZM	2	PASI-I
		EPA 365.1	YAM	1	PASI-I
		SM 5310C	ATS	1	PASI-I

PASI-I = Pace Analytical Services - Indianapolis

PASI-PA = Pace Analytical Services - Greensburg

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### SUMMARY OF DETECTION

Project: Eagle Valley April 2023 P1R2

Pace Project No.: 50343589

Lab Sample ID	Client Sample ID	Result	Units	Report Limit	Analyzed	Qualifiers
Method	Parameters					
<b>50343589001</b>	<b>MW-15S</b>					
EPA 9056	Chloride	11.8	mg/L	0.25	05/06/23 10:51	
EPA 9056	Fluoride	0.27	mg/L	0.10	05/06/23 10:51	
EPA 9056	Sulfate	25.1	mg/L	0.25	05/06/23 10:51	
EPA 6010	Boron	1500	ug/L	100	05/05/23 14:11	
EPA 6010	Calcium	93800	ug/L	1000	05/05/23 14:11	
EPA 6010	Lithium	37.4	ug/L	20.0	05/05/23 14:11	
EPA 6010	Magnesium	23800	ug/L	1000	05/05/23 14:11	
EPA 6010	Manganese	12.3	ug/L	10.0	05/05/23 14:11	
EPA 6010	Potassium	4240	ug/L	1000	05/05/23 14:11	
EPA 6010	Silica	11000	ug/L	450	05/05/23 14:11	N2
EPA 6010	Sodium	22500	ug/L	1000	05/05/23 14:11	
EPA 6010	Molybdenum, Dissolved	58.8	ug/L	10.0	05/05/23 03:07	
EPA 6020	Barium	54.7	ug/L	1.0	05/04/23 22:23	
EPA 6020	Molybdenum	58.6	ug/L	10.0	05/04/23 22:23	
EPA 6020	Selenium	1.9	ug/L	1.0	05/04/23 22:23	
EPA 903.1	Radium-226	0.353 ± 0.369 (0.520)	pCi/L		05/23/23 15:45	
EPA 904.0	Radium-228	C:NA T:61% 0.747 ± 0.466 (0.862)	pCi/L		05/16/23 11:17	
		C:81% T:61%				
Total Radium Calculation	Total Radium	1.10 ± 0.835 (1.38)	pCi/L		05/25/23 07:43	
SM 2320B	Alkalinity, Total as CaCO3	323	mg/L	10.0	05/03/23 02:45	
SM 2320B	Alkalinity,Bicarbonate (CaCO3)	323	mg/L	10.0	05/03/23 02:45	
SM 2540C	Total Dissolved Solids	372	mg/L	10.0	05/03/23 14:25	
SM 4500-H+B	pH at 25 Degrees C	7.5	Std. Units	0.10	05/08/23 16:49	H3
EPA 353.2	Nitrogen, Nitrate	6.8	mg/L	0.20	05/02/23 20:27	
<b>50343589002</b>	<b>MW-15I</b>					
EPA 9056	Chloride	85.5	mg/L	2.5	05/06/23 11:49	
EPA 9056	Fluoride	0.38	mg/L	0.10	05/06/23 11:30	
EPA 9056	Sulfate	202	mg/L	2.5	05/06/23 11:49	
EPA 6010	Boron	7300	ug/L	100	05/05/23 14:18	
EPA 6010	Calcium	79300	ug/L	1000	05/05/23 14:18	
EPA 6010	Lithium	85.6	ug/L	20.0	05/05/23 14:18	
EPA 6010	Magnesium	19000	ug/L	1000	05/05/23 14:18	
EPA 6010	Manganese	56.2	ug/L	10.0	05/05/23 14:18	
EPA 6010	Potassium	9170	ug/L	1000	05/05/23 14:18	
EPA 6010	Silica	9960	ug/L	450	05/05/23 14:18	N2
EPA 6010	Sodium	106000	ug/L	1000	05/05/23 14:18	
EPA 6010	Manganese, Dissolved	59.4	ug/L	10.0	05/05/23 03:09	
EPA 6010	Molybdenum, Dissolved	370	ug/L	10.0	05/05/23 03:09	
EPA 6020	Barium	49.9	ug/L	1.0	05/04/23 22:27	
EPA 6020	Molybdenum	360	ug/L	30.0	05/05/23 17:41	

### REPORT OF LABORATORY ANALYSIS

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### SUMMARY OF DETECTION

Project: Eagle Valley April 2023 P1R2

Pace Project No.: 50343589

Lab Sample ID	Client Sample ID	Result	Units	Report Limit	Analyzed	Qualifiers
Method	Parameters					
<b>50343589002</b>	<b>MW-15I</b>					
EPA 903.1	Radium-226	0.558 ± 0.481 (0.715) C:NA T:89%	pCi/L		05/23/23 15:45	
EPA 904.0	Radium-228	1.79 ± 0.550 (0.675) C:76% T:89%	pCi/L		05/16/23 11:17	
Total Radium Calculation	Total Radium	2.35 ± 1.03 (1.39)	pCi/L		05/25/23 07:43	
SM 2320B	Alkalinity, Total as CaCO3	205	mg/L	10.0	05/03/23 02:45	
SM 2320B	Alkalinity,Bicarbonate (CaCO3)	205	mg/L	10.0	05/03/23 02:45	
SM 2540C	Total Dissolved Solids	628	mg/L	10.0	05/03/23 14:25	
SM 4500-H+B	pH at 25 Degrees C	7.6	Std. Units	0.10	05/08/23 16:52	H3
<b>50343589003</b>	<b>MW-15D</b>					
EPA 9056	Chloride	110	mg/L	2.5	05/06/23 12:28	
EPA 9056	Fluoride	0.24	mg/L	0.10	05/06/23 12:09	
EPA 9056	Sulfate	155	mg/L	2.5	05/06/23 12:28	
EPA 6010	Boron	4980	ug/L	100	05/05/23 14:20	
EPA 6010	Calcium	86600	ug/L	1000	05/05/23 14:20	
EPA 6010	Iron	145	ug/L	100	05/05/23 14:20	
EPA 6010	Lithium	83.9	ug/L	20.0	05/05/23 14:20	
EPA 6010	Magnesium	16800	ug/L	1000	05/05/23 14:20	
EPA 6010	Manganese	345	ug/L	10.0	05/05/23 14:20	
EPA 6010	Potassium	7050	ug/L	1000	05/05/23 14:20	
EPA 6010	Silica	11400	ug/L	450	05/05/23 14:20	N2
EPA 6010	Sodium	97800	ug/L	1000	05/05/23 14:20	
EPA 6010	Manganese, Dissolved	367	ug/L	10.0	05/05/23 03:16	
EPA 6010	Molybdenum, Dissolved	213	ug/L	10.0	05/05/23 03:16	
EPA 6020	Barium	44.9	ug/L	1.0	05/04/23 22:30	
EPA 6020	Molybdenum	204	ug/L	20.0	05/05/23 17:44	
EPA 903.1	Radium-226	0.170 ± 0.205 (0.313) C:NA T:94%	pCi/L		05/23/23 15:45	
EPA 904.0	Radium-228	2.11 ± 0.565 (0.573) C:84% T:94%	pCi/L		05/16/23 11:17	
Total Radium Calculation	Total Radium	2.28 ± 0.770 (0.886)	pCi/L		05/25/23 07:43	
SM 2320B	Alkalinity, Total as CaCO3	196	mg/L	10.0	05/03/23 02:45	
SM 2320B	Alkalinity,Bicarbonate (CaCO3)	196	mg/L	10.0	05/03/23 02:45	
SM 2540C	Total Dissolved Solids	593	mg/L	10.0	05/03/23 14:26	
SM 4500-H+B	pH at 25 Degrees C	7.7	Std. Units	0.10	05/09/23 12:44	H3
<b>50343589004</b>	<b>DUP-6</b>					
EPA 9056	Chloride	11.9	mg/L	0.25	05/06/23 12:48	

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**SUMMARY OF DETECTION**

Project: Eagle Valley April 2023 P1R2  
Pace Project No.: 50343589

Lab Sample ID Method	Client Sample ID Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
<b>50343589004</b>	<b>DUP-6</b>					
EPA 9056	Fluoride	0.28	mg/L	0.10	05/06/23 12:48	
EPA 9056	Sulfate	24.9	mg/L	0.25	05/06/23 12:48	
EPA 6010	Boron	1510	ug/L	100	05/05/23 14:22	
EPA 6010	Calcium	93100	ug/L	1000	05/05/23 14:22	
EPA 6010	Lithium	38.6	ug/L	20.0	05/05/23 14:22	
EPA 6010	Magnesium	23700	ug/L	1000	05/05/23 14:22	
EPA 6010	Potassium	4140	ug/L	1000	05/05/23 14:22	
EPA 6010	Silica	10900	ug/L	450	05/05/23 14:22	N2
EPA 6010	Sodium	22200	ug/L	1000	05/05/23 14:22	
EPA 6010	Molybdenum, Dissolved	58.6	ug/L	10.0	05/05/23 03:18	
EPA 6020	Barium	53.6	ug/L	1.0	05/04/23 22:33	
EPA 6020	Molybdenum	57.4	ug/L	10.0	05/04/23 22:33	
EPA 6020	Selenium	1.8	ug/L	1.0	05/04/23 22:33	
EPA 903.1	Radium-226	0.128 ± 0.251 (0.458) C:NA T:88%	pCi/L		05/23/23 15:45	
EPA 904.0	Radium-228	1.77 ± 0.509 (0.560) C:87% T:88%	pCi/L		05/16/23 11:17	
Total Radium Calculation	Total Radium	1.90 ± 0.760 (1.02)	pCi/L		05/25/23 07:43	
SM 2320B	Alkalinity, Total as CaCO3	319	mg/L	10.0	05/03/23 02:45	
SM 2320B	Alkalinity, Bicarbonate (CaCO3)	319	mg/L	10.0	05/03/23 02:45	
SM 2540C	Total Dissolved Solids	374	mg/L	10.0	05/03/23 14:26	
SM 4500-H+B	pH at 25 Degrees C	7.6	Std. Units	0.10	05/09/23 12:45	H3
EPA 353.2	Nitrogen, Nitrate	6.8	mg/L	0.20	05/02/23 20:12	
<b>50343589005</b>	<b>Field Blank-3</b>					
EPA 903.1	Radium-226	0.188 ± 0.262 (0.438) C:NA T:84%	pCi/L		05/23/23 15:45	
EPA 904.0	Radium-228	0.495 ± 0.365 (0.708) C:80% T:84%	pCi/L		05/16/23 11:28	
Total Radium Calculation	Total Radium	0.683 ± 0.627 (1.15)	pCi/L		05/25/23 07:43	
SM 4500-H+B	pH at 25 Degrees C	5.9	Std. Units	0.10	05/09/23 12:47	H3

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## ANALYTICAL RESULTS

Project: Eagle Valley April 2023 P1R2

Pace Project No.: 50343589

Sample: MW-15S		Lab ID: 50343589001		Collected: 05/01/23 11:15		Received: 05/02/23 08:30		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>9056 IC Anions</b>									
Analytical Method: EPA 9056									
Pace Analytical Services - Indianapolis									
Chloride	11.8	mg/L	0.25	0.067	1		05/06/23 10:51	16887-00-6	
Fluoride	0.27	mg/L	0.10	0.017	1		05/06/23 10:51	16984-48-8	
Sulfate	25.1	mg/L	0.25	0.085	1		05/06/23 10:51	14808-79-8	
<b>6010 MET ICP</b>									
Analytical Method: EPA 6010 Preparation Method: EPA 3010									
Pace Analytical Services - Indianapolis									
Aluminum	ND	ug/L	200	55.4	1	05/04/23 16:14	05/05/23 14:11	7429-90-5	
Boron	1500	ug/L	100	37.6	1	05/04/23 16:14	05/05/23 14:11	7440-42-8	
Calcium	93800	ug/L	1000	163	1	05/04/23 16:14	05/05/23 14:11	7440-70-2	
Iron	ND	ug/L	100	48.8	1	05/04/23 16:14	05/05/23 14:11	7439-89-6	
Lithium	37.4	ug/L	20.0	6.2	1	05/04/23 16:14	05/05/23 14:11	7439-93-2	
Magnesium	23800	ug/L	1000	71.8	1	05/04/23 16:14	05/05/23 14:11	7439-95-4	
Manganese	12.3	ug/L	10.0	2.5	1	05/04/23 16:14	05/05/23 14:11	7439-96-5	
Potassium	4240	ug/L	1000	281	1	05/04/23 16:14	05/05/23 14:11	7440-09-7	
Silica	11000	ug/L	450		1	05/04/23 16:14	05/05/23 14:11	7631-86-9	N2
Sodium	22500	ug/L	1000	214	1	05/04/23 16:14	05/05/23 14:11	7440-23-5	
<b>6010 MET ICP, Dissolved</b>									
Analytical Method: EPA 6010 Preparation Method: EPA 3010									
Pace Analytical Services - Indianapolis									
Manganese, Dissolved	ND	ug/L	10.0	2.5	1	05/04/23 07:40	05/05/23 03:07	7439-96-5	
Molybdenum, Dissolved	58.8	ug/L	10.0	3.7	1	05/04/23 07:40	05/05/23 03:07	7439-98-7	
<b>6020 MET ICPMS</b>									
Analytical Method: EPA 6020 Preparation Method: EPA 200.2									
Pace Analytical Services - Indianapolis									
Antimony	ND	ug/L	1.0	0.036	1	05/04/23 07:30	05/04/23 22:23	7440-36-0	
Arsenic	ND	ug/L	1.0	0.053	1	05/04/23 07:30	05/04/23 22:23	7440-38-2	
Barium	54.7	ug/L	1.0	0.051	1	05/04/23 07:30	05/04/23 22:23	7440-39-3	
Beryllium	ND	ug/L	0.20	0.028	1	05/04/23 07:30	05/04/23 22:23	7440-41-7	
Cadmium	ND	ug/L	2.0	0.0090	1	05/04/23 07:30	05/04/23 22:23	7440-43-9	
Chromium	ND	ug/L	10.0	0.13	1	05/04/23 07:30	05/04/23 22:23	7440-47-3	
Cobalt	ND	ug/L	1.0	0.032	1	05/04/23 07:30	05/04/23 22:23	7440-48-4	
Lead	ND	ug/L	10.0	0.034	1	05/04/23 07:30	05/04/23 22:23	7439-92-1	
Molybdenum	58.6	ug/L	10.0	0.048	1	05/04/23 07:30	05/04/23 22:23	7439-98-7	
Selenium	1.9	ug/L	1.0	0.23	1	05/04/23 07:30	05/04/23 22:23	7782-49-2	
Thallium	ND	ug/L	1.0	0.033	1	05/04/23 07:30	05/04/23 22:23	7440-28-0	
<b>7470 Mercury</b>									
Analytical Method: EPA 7470 Preparation Method: EPA 7470									
Pace Analytical Services - Indianapolis									
Mercury	ND	ug/L	0.20	0.12	1	05/02/23 18:29	05/03/23 07:38	7439-97-6	
<b>2320B Alkalinity</b>									
Analytical Method: SM 2320B									
Pace Analytical Services - Indianapolis									
Alkalinity, Total as CaCO3	323	mg/L	10.0	10.0	1		05/03/23 02:45		
Alkalinity,Bicarbonate (CaCO3)	323	mg/L	10.0	10.0	1		05/03/23 02:45		

## REPORT OF LABORATORY ANALYSIS

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**ANALYTICAL RESULTS**

Project: Eagle Valley April 2023 P1R2  
 Pace Project No.: 50343589

Sample: MW-15S		Lab ID: 50343589001		Collected: 05/01/23 11:15	Received: 05/02/23 08:30	Matrix: Water			
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>2320B Alkalinity</b>		Analytical Method: SM 2320B Pace Analytical Services - Indianapolis							
Alkalinity, Carbonate (CaCO3)	ND	mg/L	10.0	10.0	1		05/03/23 02:45		
<b>2540C Total Dissolved Solids</b>		Analytical Method: SM 2540C Pace Analytical Services - Indianapolis							
Total Dissolved Solids	372	mg/L	10.0	10.0	1		05/03/23 14:25		
<b>4500H+ pH, Electrometric</b>		Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis							
pH at 25 Degrees C	7.5	Std. Units	0.10	0.10	1		05/08/23 16:49		H3
<b>4500S2D Sulfide Water</b>		Analytical Method: SM 4500-S2-D Pace Analytical Services - Indianapolis							
Sulfide	ND	mg/L	0.10	0.025	1		05/03/23 11:34	18496-25-8	
<b>Iron, Ferrous</b>		Analytical Method: HACH 8146 Pace Analytical Services - Indianapolis							
Iron, Ferrous	ND	mg/L	0.20	0.035	1		05/03/23 12:42	15438-31-0	H3,N2
<b>353.2 Nitrogen, NO2/NO3 unpres</b>		Analytical Method: EPA 353.2 Pace Analytical Services - Indianapolis							
Nitrogen, Nitrate	6.8	mg/L	0.20	0.022	2		05/02/23 20:27	14797-55-8	
Nitrogen, Nitrite	ND	mg/L	0.20	0.0080	2		05/02/23 20:27	14797-65-0	
<b>365.1 Total Phosphorus</b>		Analytical Method: EPA 365.1 Preparation Method: EPA 365.1 Pace Analytical Services - Indianapolis							
Phosphate as P04	ND	mg/L	0.15	0.15	1	05/05/23 13:00	05/07/23 15:26		
<b>5310C TOC</b>		Analytical Method: SM 5310C Pace Analytical Services - Indianapolis							
Total Organic Carbon	ND	mg/L	1.0	0.24	1		05/05/23 06:59	7440-44-0	
<b>5310C Dissolved Organic Carbon</b>		Analytical Method: SM 5310C Pace Analytical Services - Indianapolis							
Dissolved Organic Carbon	ND	mg/L	1.0	0.24	1		05/05/23 16:05		

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**ANALYTICAL RESULTS**

Project: Eagle Valley April 2023 P1R2  
 Pace Project No.: 50343589

**Sample: MW-151**      **Lab ID: 50343589002**      Collected: 05/01/23 13:15      Received: 05/02/23 08:30      Matrix: Water

Parameters	Results	Units	Report			Prepared	Analyzed	CAS No.	Qual
			Limit	MDL	DF				
<b>9056 IC Anions</b>									
Analytical Method: EPA 9056									
Pace Analytical Services - Indianapolis									
Chloride	85.5	mg/L	2.5	0.67	10		05/06/23 11:49	16887-00-6	
Fluoride	0.38	mg/L	0.10	0.017	1		05/06/23 11:30	16984-48-8	
Sulfate	202	mg/L	2.5	0.85	10		05/06/23 11:49	14808-79-8	
<b>6010 MET ICP</b>									
Analytical Method: EPA 6010      Preparation Method: EPA 3010									
Pace Analytical Services - Indianapolis									
Aluminum	ND	ug/L	200	55.4	1	05/04/23 16:14	05/05/23 14:18	7429-90-5	
Boron	7300	ug/L	100	37.6	1	05/04/23 16:14	05/05/23 14:18	7440-42-8	
Calcium	79300	ug/L	1000	163	1	05/04/23 16:14	05/05/23 14:18	7440-70-2	
Iron	ND	ug/L	100	48.8	1	05/04/23 16:14	05/05/23 14:18	7439-89-6	
Lithium	85.6	ug/L	20.0	6.2	1	05/04/23 16:14	05/05/23 14:18	7439-93-2	
Magnesium	19000	ug/L	1000	71.8	1	05/04/23 16:14	05/05/23 14:18	7439-95-4	
Manganese	56.2	ug/L	10.0	2.5	1	05/04/23 16:14	05/05/23 14:18	7439-96-5	
Potassium	9170	ug/L	1000	281	1	05/04/23 16:14	05/05/23 14:18	7440-09-7	
Silica	9960	ug/L	450		1	05/04/23 16:14	05/05/23 14:18	7631-86-9	N2
Sodium	106000	ug/L	1000	214	1	05/04/23 16:14	05/05/23 14:18	7440-23-5	
<b>6010 MET ICP, Dissolved</b>									
Analytical Method: EPA 6010      Preparation Method: EPA 3010									
Pace Analytical Services - Indianapolis									
Manganese, Dissolved	59.4	ug/L	10.0	2.5	1	05/04/23 07:40	05/05/23 03:09	7439-96-5	
Molybdenum, Dissolved	370	ug/L	10.0	3.7	1	05/04/23 07:40	05/05/23 03:09	7439-98-7	
<b>6020 MET ICPMS</b>									
Analytical Method: EPA 6020      Preparation Method: EPA 200.2									
Pace Analytical Services - Indianapolis									
Antimony	ND	ug/L	1.0	0.036	1	05/04/23 07:30	05/04/23 22:27	7440-36-0	
Arsenic	ND	ug/L	1.0	0.053	1	05/04/23 07:30	05/04/23 22:27	7440-38-2	
Barium	49.9	ug/L	1.0	0.051	1	05/04/23 07:30	05/04/23 22:27	7440-39-3	
Beryllium	ND	ug/L	0.20	0.028	1	05/04/23 07:30	05/04/23 22:27	7440-41-7	
Cadmium	ND	ug/L	2.0	0.0090	1	05/04/23 07:30	05/04/23 22:27	7440-43-9	
Chromium	ND	ug/L	10.0	0.13	1	05/04/23 07:30	05/04/23 22:27	7440-47-3	
Cobalt	ND	ug/L	1.0	0.032	1	05/04/23 07:30	05/04/23 22:27	7440-48-4	
Lead	ND	ug/L	10.0	0.034	1	05/04/23 07:30	05/04/23 22:27	7439-92-1	
Molybdenum	360	ug/L	30.0	0.14	3	05/04/23 07:30	05/05/23 17:41	7439-98-7	
Selenium	ND	ug/L	1.0	0.23	1	05/04/23 07:30	05/04/23 22:27	7782-49-2	
Thallium	ND	ug/L	1.0	0.033	1	05/04/23 07:30	05/04/23 22:27	7440-28-0	
<b>7470 Mercury</b>									
Analytical Method: EPA 7470      Preparation Method: EPA 7470									
Pace Analytical Services - Indianapolis									
Mercury	ND	ug/L	0.20	0.12	1	05/02/23 18:29	05/03/23 07:40	7439-97-6	
<b>2320B Alkalinity</b>									
Analytical Method: SM 2320B									
Pace Analytical Services - Indianapolis									
Alkalinity, Total as CaCO3	205	mg/L	10.0	10.0	1		05/03/23 02:45		
Alkalinity,Bicarbonate (CaCO3)	205	mg/L	10.0	10.0	1		05/03/23 02:45		

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**ANALYTICAL RESULTS**

Project: Eagle Valley April 2023 P1R2  
 Pace Project No.: 50343589

Sample: MW-151		Lab ID: 50343589002		Collected: 05/01/23 13:15	Received: 05/02/23 08:30	Matrix: Water			
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>2320B Alkalinity</b>		Analytical Method: SM 2320B Pace Analytical Services - Indianapolis							
Alkalinity, Carbonate (CaCO3)	ND	mg/L	10.0	10.0	1		05/03/23 02:45		
<b>2540C Total Dissolved Solids</b>		Analytical Method: SM 2540C Pace Analytical Services - Indianapolis							
Total Dissolved Solids	<b>628</b>	mg/L	10.0	10.0	1		05/03/23 14:25		
<b>4500H+ pH, Electrometric</b>		Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis							
pH at 25 Degrees C	<b>7.6</b>	Std. Units	0.10	0.10	1		05/08/23 16:52		H3
<b>4500S2D Sulfide Water</b>		Analytical Method: SM 4500-S2-D Pace Analytical Services - Indianapolis							
Sulfide	ND	mg/L	0.10	0.025	1		05/03/23 11:34	18496-25-8	
<b>Iron, Ferrous</b>		Analytical Method: HACH 8146 Pace Analytical Services - Indianapolis							
Iron, Ferrous	ND	mg/L	0.20	0.035	1		05/03/23 12:44	15438-31-0	H3,N2
<b>353.2 Nitrogen, NO2/NO3 unpres</b>		Analytical Method: EPA 353.2 Pace Analytical Services - Indianapolis							
Nitrogen, Nitrate	ND	mg/L	0.10	0.011	1		05/02/23 19:31	14797-55-8	
Nitrogen, Nitrite	ND	mg/L	0.10	0.0040	1		05/02/23 19:31	14797-65-0	
<b>365.1 Total Phosphorus</b>		Analytical Method: EPA 365.1 Preparation Method: EPA 365.1 Pace Analytical Services - Indianapolis							
Phosphate as P04	ND	mg/L	0.15	0.15	1	05/05/23 13:00	05/07/23 15:27		
<b>5310C TOC</b>		Analytical Method: SM 5310C Pace Analytical Services - Indianapolis							
Total Organic Carbon	ND	mg/L	1.0	0.24	1		05/05/23 07:09	7440-44-0	
<b>5310C Dissolved Organic Carbon</b>		Analytical Method: SM 5310C Pace Analytical Services - Indianapolis							
Dissolved Organic Carbon	ND	mg/L	1.0	0.24	1		05/05/23 16:15		

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## ANALYTICAL RESULTS

Project: Eagle Valley April 2023 P1R2

Pace Project No.: 50343589

Sample: MW-15D		Lab ID: 50343589003		Collected: 05/01/23 14:28		Received: 05/02/23 08:30		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>9056 IC Anions</b>		Analytical Method: EPA 9056 Pace Analytical Services - Indianapolis							
Chloride	110	mg/L	2.5	0.67	10		05/06/23 12:28	16887-00-6	
Fluoride	0.24	mg/L	0.10	0.017	1		05/06/23 12:09	16984-48-8	
Sulfate	155	mg/L	2.5	0.85	10		05/06/23 12:28	14808-79-8	
<b>6010 MET ICP</b>		Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis							
Aluminum	ND	ug/L	200	55.4	1	05/04/23 16:14	05/05/23 14:20	7429-90-5	
Boron	4980	ug/L	100	37.6	1	05/04/23 16:14	05/05/23 14:20	7440-42-8	
Calcium	86600	ug/L	1000	163	1	05/04/23 16:14	05/05/23 14:20	7440-70-2	
Iron	145	ug/L	100	48.8	1	05/04/23 16:14	05/05/23 14:20	7439-89-6	
Lithium	83.9	ug/L	20.0	6.2	1	05/04/23 16:14	05/05/23 14:20	7439-93-2	
Magnesium	16800	ug/L	1000	71.8	1	05/04/23 16:14	05/05/23 14:20	7439-95-4	
Manganese	345	ug/L	10.0	2.5	1	05/04/23 16:14	05/05/23 14:20	7439-96-5	
Potassium	7050	ug/L	1000	281	1	05/04/23 16:14	05/05/23 14:20	7440-09-7	
Silica	11400	ug/L	450		1	05/04/23 16:14	05/05/23 14:20	7631-86-9	N2
Sodium	97800	ug/L	1000	214	1	05/04/23 16:14	05/05/23 14:20	7440-23-5	
<b>6010 MET ICP, Dissolved</b>		Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis							
Manganese, Dissolved	367	ug/L	10.0	2.5	1	05/04/23 07:40	05/05/23 03:16	7439-96-5	
Molybdenum, Dissolved	213	ug/L	10.0	3.7	1	05/04/23 07:40	05/05/23 03:16	7439-98-7	
<b>6020 MET ICPMS</b>		Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis							
Antimony	ND	ug/L	1.0	0.036	1	05/04/23 07:30	05/04/23 22:30	7440-36-0	
Arsenic	ND	ug/L	1.0	0.053	1	05/04/23 07:30	05/04/23 22:30	7440-38-2	
Barium	44.9	ug/L	1.0	0.051	1	05/04/23 07:30	05/04/23 22:30	7440-39-3	
Beryllium	ND	ug/L	0.20	0.028	1	05/04/23 07:30	05/04/23 22:30	7440-41-7	
Cadmium	ND	ug/L	2.0	0.0090	1	05/04/23 07:30	05/04/23 22:30	7440-43-9	
Chromium	ND	ug/L	10.0	0.13	1	05/04/23 07:30	05/04/23 22:30	7440-47-3	
Cobalt	ND	ug/L	1.0	0.032	1	05/04/23 07:30	05/04/23 22:30	7440-48-4	
Lead	ND	ug/L	10.0	0.034	1	05/04/23 07:30	05/04/23 22:30	7439-92-1	
Molybdenum	204	ug/L	20.0	0.096	2	05/04/23 07:30	05/05/23 17:44	7439-98-7	
Selenium	ND	ug/L	1.0	0.23	1	05/04/23 07:30	05/04/23 22:30	7782-49-2	
Thallium	ND	ug/L	1.0	0.033	1	05/04/23 07:30	05/04/23 22:30	7440-28-0	
<b>7470 Mercury</b>		Analytical Method: EPA 7470 Preparation Method: EPA 7470 Pace Analytical Services - Indianapolis							
Mercury	ND	ug/L	0.20	0.12	1	05/02/23 18:29	05/03/23 07:43	7439-97-6	
<b>2320B Alkalinity</b>		Analytical Method: SM 2320B Pace Analytical Services - Indianapolis							
Alkalinity, Total as CaCO3	196	mg/L	10.0	10.0	1		05/03/23 02:45		
Alkalinity,Bicarbonate (CaCO3)	196	mg/L	10.0	10.0	1		05/03/23 02:45		

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**ANALYTICAL RESULTS**

Project: Eagle Valley April 2023 P1R2  
Pace Project No.: 50343589

Sample: MW-15D		Lab ID: 50343589003		Collected: 05/01/23 14:28	Received: 05/02/23 08:30	Matrix: Water			
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>2320B Alkalinity</b>		Analytical Method: SM 2320B Pace Analytical Services - Indianapolis							
Alkalinity, Carbonate (CaCO3)	ND	mg/L	10.0	10.0	1		05/03/23 02:45		
<b>2540C Total Dissolved Solids</b>		Analytical Method: SM 2540C Pace Analytical Services - Indianapolis							
Total Dissolved Solids	<b>593</b>	mg/L	10.0	10.0	1		05/03/23 14:26		
<b>4500H+ pH, Electrometric</b>		Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis							
pH at 25 Degrees C	<b>7.7</b>	Std. Units	0.10	0.10	1		05/09/23 12:44		H3
<b>4500S2D Sulfide Water</b>		Analytical Method: SM 4500-S2-D Pace Analytical Services - Indianapolis							
Sulfide	ND	mg/L	0.10	0.025	1		05/03/23 11:34	18496-25-8	
<b>Iron, Ferrous</b>		Analytical Method: HACH 8146 Pace Analytical Services - Indianapolis							
Iron, Ferrous	ND	mg/L	0.20	0.035	1		05/03/23 12:44	15438-31-0	H3,N2
<b>353.2 Nitrogen, NO2/NO3 unpres</b>		Analytical Method: EPA 353.2 Pace Analytical Services - Indianapolis							
Nitrogen, Nitrate	ND	mg/L	0.10	0.011	1		05/02/23 19:48	14797-55-8	
Nitrogen, Nitrite	ND	mg/L	0.10	0.0040	1		05/02/23 19:48	14797-65-0	
<b>365.1 Total Phosphorus</b>		Analytical Method: EPA 365.1 Preparation Method: EPA 365.1 Pace Analytical Services - Indianapolis							
Phosphate as P04	ND	mg/L	0.15	0.15	1	05/05/23 13:00	05/07/23 15:28		
<b>5310C TOC</b>		Analytical Method: SM 5310C Pace Analytical Services - Indianapolis							
Total Organic Carbon	ND	mg/L	1.0	0.24	1		05/05/23 07:44	7440-44-0	
<b>5310C Dissolved Organic Carbon</b>		Analytical Method: SM 5310C Pace Analytical Services - Indianapolis							
Dissolved Organic Carbon	ND	mg/L	1.0	0.24	1		05/05/23 16:26		

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## ANALYTICAL RESULTS

Project: Eagle Valley April 2023 P1R2

Pace Project No.: 50343589

Sample: DUP-6		Lab ID: 50343589004		Collected: 05/01/23 08:00		Received: 05/02/23 08:30		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>9056 IC Anions</b>		Analytical Method: EPA 9056 Pace Analytical Services - Indianapolis							
Chloride	11.9	mg/L	0.25	0.067	1		05/06/23 12:48	16887-00-6	
Fluoride	0.28	mg/L	0.10	0.017	1		05/06/23 12:48	16984-48-8	
Sulfate	24.9	mg/L	0.25	0.085	1		05/06/23 12:48	14808-79-8	
<b>6010 MET ICP</b>		Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis							
Aluminum	ND	ug/L	200	55.4	1	05/04/23 16:14	05/05/23 14:22	7429-90-5	
Boron	1510	ug/L	100	37.6	1	05/04/23 16:14	05/05/23 14:22	7440-42-8	
Calcium	93100	ug/L	1000	163	1	05/04/23 16:14	05/05/23 14:22	7440-70-2	
Iron	ND	ug/L	100	48.8	1	05/04/23 16:14	05/05/23 14:22	7439-89-6	
Lithium	38.6	ug/L	20.0	6.2	1	05/04/23 16:14	05/05/23 14:22	7439-93-2	
Magnesium	23700	ug/L	1000	71.8	1	05/04/23 16:14	05/05/23 14:22	7439-95-4	
Manganese	ND	ug/L	10.0	2.5	1	05/04/23 16:14	05/05/23 14:22	7439-96-5	
Potassium	4140	ug/L	1000	281	1	05/04/23 16:14	05/05/23 14:22	7440-09-7	
Silica	10900	ug/L	450		1	05/04/23 16:14	05/05/23 14:22	7631-86-9	N2
Sodium	22200	ug/L	1000	214	1	05/04/23 16:14	05/05/23 14:22	7440-23-5	
<b>6010 MET ICP, Dissolved</b>		Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis							
Manganese, Dissolved	ND	ug/L	10.0	2.5	1	05/04/23 07:40	05/05/23 03:18	7439-96-5	
Molybdenum, Dissolved	58.6	ug/L	10.0	3.7	1	05/04/23 07:40	05/05/23 03:18	7439-98-7	
<b>6020 MET ICPMS</b>		Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis							
Antimony	ND	ug/L	1.0	0.036	1	05/04/23 07:30	05/04/23 22:33	7440-36-0	
Arsenic	ND	ug/L	1.0	0.053	1	05/04/23 07:30	05/04/23 22:33	7440-38-2	
Barium	53.6	ug/L	1.0	0.051	1	05/04/23 07:30	05/04/23 22:33	7440-39-3	
Beryllium	ND	ug/L	0.20	0.028	1	05/04/23 07:30	05/04/23 22:33	7440-41-7	
Cadmium	ND	ug/L	2.0	0.0090	1	05/04/23 07:30	05/04/23 22:33	7440-43-9	
Chromium	ND	ug/L	10.0	0.13	1	05/04/23 07:30	05/04/23 22:33	7440-47-3	
Cobalt	ND	ug/L	1.0	0.032	1	05/04/23 07:30	05/04/23 22:33	7440-48-4	
Lead	ND	ug/L	10.0	0.034	1	05/04/23 07:30	05/04/23 22:33	7439-92-1	
Molybdenum	57.4	ug/L	10.0	0.048	1	05/04/23 07:30	05/04/23 22:33	7439-98-7	
Selenium	1.8	ug/L	1.0	0.23	1	05/04/23 07:30	05/04/23 22:33	7782-49-2	
Thallium	ND	ug/L	1.0	0.033	1	05/04/23 07:30	05/04/23 22:33	7440-28-0	
<b>7470 Mercury</b>		Analytical Method: EPA 7470 Preparation Method: EPA 7470 Pace Analytical Services - Indianapolis							
Mercury	ND	ug/L	0.20	0.12	1	05/02/23 18:29	05/03/23 07:45	7439-97-6	
<b>2320B Alkalinity</b>		Analytical Method: SM 2320B Pace Analytical Services - Indianapolis							
Alkalinity, Total as CaCO3	319	mg/L	10.0	10.0	1		05/03/23 02:45		
Alkalinity,Bicarbonate (CaCO3)	319	mg/L	10.0	10.0	1		05/03/23 02:45		

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**ANALYTICAL RESULTS**

Project: Eagle Valley April 2023 P1R2  
 Pace Project No.: 50343589

Sample: DUP-6      Lab ID: 50343589004      Collected: 05/01/23 08:00      Received: 05/02/23 08:30      Matrix: Water									
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>2320B Alkalinity</b>									
Analytical Method: SM 2320B Pace Analytical Services - Indianapolis									
Alkalinity, Carbonate (CaCO3)	ND	mg/L	10.0	10.0	1		05/03/23 02:45		
<b>2540C Total Dissolved Solids</b>									
Analytical Method: SM 2540C Pace Analytical Services - Indianapolis									
Total Dissolved Solids	<b>374</b>	mg/L	10.0	10.0	1		05/03/23 14:26		
<b>4500H+ pH, Electrometric</b>									
Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis									
pH at 25 Degrees C	<b>7.6</b>	Std. Units	0.10	0.10	1		05/09/23 12:45		H3
<b>4500S2D Sulfide Water</b>									
Analytical Method: SM 4500-S2-D Pace Analytical Services - Indianapolis									
Sulfide	ND	mg/L	0.10	0.025	1		05/03/23 11:34	18496-25-8	
<b>Iron, Ferrous</b>									
Analytical Method: HACH 8146 Pace Analytical Services - Indianapolis									
Iron, Ferrous	ND	mg/L	0.20	0.035	1		05/03/23 12:41	15438-31-0	H3,N2
<b>353.2 Nitrogen, NO2/NO3 unpres</b>									
Analytical Method: EPA 353.2 Pace Analytical Services - Indianapolis									
Nitrogen, Nitrate	<b>6.8</b>	mg/L	0.20	0.022	2		05/02/23 20:12	14797-55-8	
Nitrogen, Nitrite	ND	mg/L	0.20	0.0080	2		05/02/23 20:12	14797-65-0	
<b>365.1 Total Phosphorus</b>									
Analytical Method: EPA 365.1      Preparation Method: EPA 365.1 Pace Analytical Services - Indianapolis									
Phosphate as P04	ND	mg/L	0.15	0.15	1	05/05/23 13:00	05/07/23 15:29		
<b>5310C TOC</b>									
Analytical Method: SM 5310C Pace Analytical Services - Indianapolis									
Total Organic Carbon	ND	mg/L	1.0	0.24	1		05/05/23 07:55	7440-44-0	
<b>5310C Dissolved Organic Carbon</b>									
Analytical Method: SM 5310C Pace Analytical Services - Indianapolis									
Dissolved Organic Carbon	ND	mg/L	1.0	0.24	1		05/05/23 16:37		

**REPORT OF LABORATORY ANALYSIS**

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**ANALYTICAL RESULTS**

Project: Eagle Valley April 2023 P1R2  
 Pace Project No.: 50343589

**Sample: Field Blank-3**      **Lab ID: 50343589005**      Collected: 05/01/23 10:00      Received: 05/02/23 08:30      Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>9056 IC Anions</b>									
Analytical Method: EPA 9056 Pace Analytical Services - Indianapolis									
Chloride	ND	mg/L	0.25	0.067	1		05/06/23 14:45	16887-00-6	
Fluoride	ND	mg/L	0.10	0.017	1		05/06/23 14:45	16984-48-8	
Sulfate	ND	mg/L	0.25	0.085	1		05/06/23 14:45	14808-79-8	
<b>6010 MET ICP</b>									
Analytical Method: EPA 6010      Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis									
Aluminum	ND	ug/L	200	55.4	1	05/04/23 16:14	05/05/23 14:25	7429-90-5	
Boron	ND	ug/L	100	37.6	1	05/04/23 16:14	05/05/23 14:25	7440-42-8	
Calcium	ND	ug/L	1000	163	1	05/04/23 16:14	05/05/23 14:25	7440-70-2	
Iron	ND	ug/L	100	48.8	1	05/04/23 16:14	05/05/23 14:25	7439-89-6	
Lithium	ND	ug/L	20.0	6.2	1	05/04/23 16:14	05/05/23 14:25	7439-93-2	
Magnesium	ND	ug/L	1000	71.8	1	05/04/23 16:14	05/05/23 14:25	7439-95-4	
Manganese	ND	ug/L	10.0	2.5	1	05/04/23 16:14	05/05/23 14:25	7439-96-5	
Potassium	ND	ug/L	1000	281	1	05/04/23 16:14	05/05/23 14:25	7440-09-7	
Silica	ND	ug/L	450		1	05/04/23 16:14	05/05/23 14:25	7631-86-9	N2
Sodium	ND	ug/L	1000	214	1	05/04/23 16:14	05/05/23 14:25	7440-23-5	
<b>6020 MET ICPMS</b>									
Analytical Method: EPA 6020      Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis									
Antimony	ND	ug/L	1.0	0.036	1	05/04/23 07:30	05/04/23 22:44	7440-36-0	
Arsenic	ND	ug/L	1.0	0.053	1	05/04/23 07:30	05/04/23 22:44	7440-38-2	
Barium	ND	ug/L	1.0	0.051	1	05/04/23 07:30	05/04/23 22:44	7440-39-3	
Beryllium	ND	ug/L	0.20	0.028	1	05/04/23 07:30	05/04/23 22:44	7440-41-7	
Cadmium	ND	ug/L	2.0	0.0090	1	05/04/23 07:30	05/04/23 22:44	7440-43-9	
Chromium	ND	ug/L	10.0	0.13	1	05/04/23 07:30	05/04/23 22:44	7440-47-3	
Cobalt	ND	ug/L	1.0	0.032	1	05/04/23 07:30	05/04/23 22:44	7440-48-4	
Lead	ND	ug/L	10.0	0.034	1	05/04/23 07:30	05/04/23 22:44	7439-92-1	
Molybdenum	ND	ug/L	10.0	0.048	1	05/04/23 07:30	05/04/23 22:44	7439-98-7	
Selenium	ND	ug/L	1.0	0.23	1	05/04/23 07:30	05/04/23 22:44	7782-49-2	
Thallium	ND	ug/L	1.0	0.033	1	05/04/23 07:30	05/04/23 22:44	7440-28-0	
<b>7470 Mercury</b>									
Analytical Method: EPA 7470      Preparation Method: EPA 7470 Pace Analytical Services - Indianapolis									
Mercury	ND	ug/L	0.20	0.12	1	05/02/23 18:29	05/03/23 07:48	7439-97-6	
<b>2320B Alkalinity</b>									
Analytical Method: SM 2320B Pace Analytical Services - Indianapolis									
Alkalinity, Total as CaCO3	ND	mg/L	10.0	10.0	1		05/03/23 02:45		
Alkalinity,Bicarbonate (CaCO3)	ND	mg/L	10.0	10.0	1		05/03/23 02:45		
Alkalinity,Carbonate (CaCO3)	ND	mg/L	10.0	10.0	1		05/03/23 02:45		
<b>2540C Total Dissolved Solids</b>									
Analytical Method: SM 2540C Pace Analytical Services - Indianapolis									
Total Dissolved Solids	ND	mg/L	10.0	10.0	1		05/03/23 14:26		PL

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### ANALYTICAL RESULTS

Project: Eagle Valley April 2023 P1R2

Pace Project No.: 50343589

Sample: Field Blank-3      Lab ID: 50343589005      Collected: 05/01/23 10:00      Received: 05/02/23 08:30      Matrix: Water									
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>4500H+ pH, Electrometric</b>									
Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis									
pH at 25 Degrees C	5.9	Std. Units	0.10	0.10	1		05/09/23 12:47		H3
<b>4500S2D Sulfide Water</b>									
Analytical Method: SM 4500-S2-D Pace Analytical Services - Indianapolis									
Sulfide	ND	mg/L	0.10	0.025	1		05/03/23 11:34	18496-25-8	
<b>Iron, Ferrous</b>									
Analytical Method: HACH 8146 Pace Analytical Services - Indianapolis									
Iron, Ferrous	ND	mg/L	0.20	0.035	1		05/03/23 12:41	15438-31-0	H3,N2
<b>353.2 Nitrogen, NO2/NO3 unpres</b>									
Analytical Method: EPA 353.2 Pace Analytical Services - Indianapolis									
Nitrogen, Nitrate	ND	mg/L	0.10	0.011	1		05/02/23 20:21	14797-55-8	
Nitrogen, Nitrite	ND	mg/L	0.10	0.0040	1		05/02/23 20:21	14797-65-0	
<b>365.1 Total Phosphorus</b>									
Analytical Method: EPA 365.1      Preparation Method: EPA 365.1 Pace Analytical Services - Indianapolis									
Phosphate as P04	ND	mg/L	0.15	0.15	1	05/05/23 13:00	05/07/23 15:29		
<b>5310C TOC</b>									
Analytical Method: SM 5310C Pace Analytical Services - Indianapolis									
Total Organic Carbon	ND	mg/L	1.0	0.24	1		05/05/23 08:04	7440-44-0	

### REPORT OF LABORATORY ANALYSIS

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**QUALITY CONTROL DATA**

Project: Eagle Valley April 2023 P1R2

Pace Project No.: 50343589

QC Batch:	731451	Analysis Method:	EPA 9056
QC Batch Method:	EPA 9056	Analysis Description:	9056 IC Anions
		Laboratory:	Pace Analytical Services - Indianapolis

Associated Lab Samples: 50343589001, 50343589002, 50343589003, 50343589004, 50343589005

METHOD BLANK: 3356576 Matrix: Water  
 Associated Lab Samples: 50343589001, 50343589002, 50343589003, 50343589004, 50343589005

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chloride	mg/L	ND	0.25	0.067	05/05/23 23:08	
Fluoride	mg/L	ND	0.10	0.017	05/05/23 23:08	
Sulfate	mg/L	ND	0.25	0.085	05/05/23 23:08	

LABORATORY CONTROL SAMPLE: 3356577

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	2.5	2.3	91	80-120	
Fluoride	mg/L	1	0.91	91	80-120	
Sulfate	mg/L	5	4.7	93	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3356578 3356579

Parameter	Units	50343477002		MS		MSD		MS		MSD		% Rec Limits	RPD	Max RPD	Qual
		Result	Conc.	Spike Conc.	Conc.	Result	Result	% Rec	% Rec						
Chloride	mg/L	90.6	25	25	114	114	95	94	80-120	0	15				
Fluoride	mg/L	ND	1	1	0.98	0.99	92	93	80-120	1	15				
Sulfate	mg/L	209	50	50	264	262	110	106	80-120	1	15				

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**QUALITY CONTROL DATA**

Project: Eagle Valley April 2023 P1R2

Pace Project No.: 50343589

QC Batch:	731161	Analysis Method:	EPA 7470
QC Batch Method:	EPA 7470	Analysis Description:	7470 Mercury
		Laboratory:	Pace Analytical Services - Indianapolis
Associated Lab Samples:	50343589001, 50343589002, 50343589003, 50343589004, 50343589005		

METHOD BLANK: 3355468 Matrix: Water  
 Associated Lab Samples: 50343589001, 50343589002, 50343589003, 50343589004, 50343589005

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Mercury	ug/L	ND	0.20	0.12	05/03/23 07:31	

LABORATORY CONTROL SAMPLE: 3355469

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury	ug/L	5	5.4	107	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3355470 3355471

Parameter	Units	3355470		3355471		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		50343595002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result						
Mercury	ug/L	ND	5	5	5.2	5.3	103	106	75-125	2	20

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**QUALITY CONTROL DATA**

Project: Eagle Valley April 2023 P1R2  
Pace Project No.: 50343589

QC Batch: 731098 Analysis Method: EPA 6010  
QC Batch Method: EPA 3010 Analysis Description: 6010 MET  
Laboratory: Pace Analytical Services - Indianapolis  
Associated Lab Samples: 50343589001, 50343589002, 50343589003, 50343589004, 50343589005

METHOD BLANK: 3355183 Matrix: Water  
Associated Lab Samples: 50343589001, 50343589002, 50343589003, 50343589004, 50343589005

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Aluminum	ug/L	ND	200	55.4	05/05/23 12:35	
Boron	ug/L	ND	100	37.6	05/05/23 12:35	
Calcium	ug/L	ND	1000	163	05/05/23 12:35	
Iron	ug/L	ND	100	48.8	05/05/23 12:35	
Lithium	ug/L	ND	20.0	6.2	05/05/23 12:35	
Magnesium	ug/L	ND	1000	71.8	05/05/23 12:35	
Manganese	ug/L	ND	10.0	2.5	05/05/23 12:35	
Potassium	ug/L	ND	1000	281	05/05/23 12:35	
Silica	ug/L	ND	450		05/05/23 12:35	N2
Sodium	ug/L	ND	1000	214	05/05/23 12:35	

LABORATORY CONTROL SAMPLE: 3355184

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Aluminum	ug/L	10000	9650	97	80-120	
Boron	ug/L	1000	941	94	80-120	
Calcium	ug/L	10000	9540	95	80-120	
Iron	ug/L	10000	9670	97	80-120	
Lithium	ug/L	1000	960	96	80-120	
Magnesium	ug/L	10000	9450	94	80-120	
Manganese	ug/L	1000	906	91	80-120	
Potassium	ug/L	10000	9510	95	80-120	
Silica	ug/L	10700	9880	92	80-120	N2
Sodium	ug/L	10000	9370	94	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3355185 3355186

Parameter	Units	MS		MSD		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual	
		50342978004 Result	Spike Conc.	Spike Conc.	MS Result							MSD Result
Aluminum	ug/L	<200	10000	10000	10000	9670	99	95	75-125	3	20	
Boron	ug/L	<100	1000	1000	994	958	98	95	75-125	4	20	
Calcium	ug/L	59700	10000	10000	71700	64200	120	45	75-125	11	20	P6
Iron	ug/L	177	10000	10000	9930	9600	98	94	75-125	3	20	
Lithium	ug/L	<20.0	1000	1000	1010	965	100	96	75-125	4	20	
Magnesium	ug/L	17100	10000	10000	27200	25200	101	81	75-125	8	20	
Manganese	ug/L	<20.0	1000	1000	939	902	93	89	75-125	4	20	
Potassium	ug/L	1140	10000	10000	11000	10400	98	93	75-125	5	20	

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**QUALITY CONTROL DATA**

Project: Eagle Valley April 2023 P1R2

Pace Project No.: 50343589

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3355185												3355186		
Parameter	Units	50342978004		MS	MSD	MS	MSD	MS	MSD	% Rec	Max	RPD	RPD	Qual
		Result	Conc.	Spike Conc.	Spike Conc.	Result	Result	% Rec	% Rec	Limits				
Silica	ug/L	8810	10700	10700	10700	19500	18300	100	88	75-125	6	20	N2	
Sodium	ug/L	3430	10000	10000	10000	13400	12500	99	91	75-125	6	20		

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3355187												3355188		
Parameter	Units	50343397001		MS	MSD	MS	MSD	MS	MSD	% Rec	Max	RPD	RPD	Qual
		Result	Conc.	Spike Conc.	Spike Conc.	Result	Result	% Rec	% Rec	Limits				
Aluminum	ug/L	4830	10000	10000	10000	15200	15400	103	106	75-125	2	20		
Boron	ug/L	106	1000	1000	1000	1050	1070	95	96	75-125	2	20		
Calcium	ug/L	128000	10000	10000	10000	131000	135000	26	71	75-125	3	20	P6	
Iron	ug/L	12400	10000	10000	10000	20700	21200	83	89	75-125	3	20		
Lithium	ug/L	ND	1000	1000	1000	979	997	96	98	75-125	2	20		
Magnesium	ug/L	34200	10000	10000	10000	41200	42600	69	83	75-125	3	20	M0	
Manganese	ug/L	482	1000	1000	1000	1320	1360	84	88	75-125	3	20		
Potassium	ug/L	5740	10000	10000	10000	15400	15800	97	101	75-125	3	20		
Silica	ug/L	31000	10700	10700	10700	42900	40900	111	93	75-125	5	20	N2	
Sodium	ug/L	241000	10000	10000	10000	238000	251000	-29	99	75-125	5	20	E,P6	

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**QUALITY CONTROL DATA**

Project: Eagle Valley April 2023 P1R2

Pace Project No.: 50343589

QC Batch:	731187	Analysis Method:	EPA 6010
QC Batch Method:	EPA 3010	Analysis Description:	6010 MET Dissolved
		Laboratory:	Pace Analytical Services - Indianapolis
Associated Lab Samples:	50343589001, 50343589002, 50343589003, 50343589004		

METHOD BLANK: 3355553 Matrix: Water  
 Associated Lab Samples: 50343589001, 50343589002, 50343589003, 50343589004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Manganese, Dissolved	ug/L	ND	10.0	2.5	05/05/23 02:13	
Molybdenum, Dissolved	ug/L	ND	10.0	3.7	05/05/23 02:13	

LABORATORY CONTROL SAMPLE: 3355554

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Manganese, Dissolved	ug/L	1000	939	94	80-120	
Molybdenum, Dissolved	ug/L	1000	969	97	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3355555 3355556

Parameter	Units	50343204002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Manganese, Dissolved	ug/L	37.6	1000	1000	1010	1000	97	96	75-125	1	20	
Molybdenum, Dissolved	ug/L	<10.0	1000	1000	1040	1010	104	101	75-125	3	20	

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**QUALITY CONTROL DATA**

Project: Eagle Valley April 2023 P1R2

Pace Project No.: 50343589

QC Batch:	731264	Analysis Method:	EPA 6020
QC Batch Method:	EPA 200.2	Analysis Description:	6020 MET
		Laboratory:	Pace Analytical Services - Indianapolis

Associated Lab Samples: 50343589001, 50343589002, 50343589003, 50343589004, 50343589005

METHOD BLANK: 3355877 Matrix: Water

Associated Lab Samples: 50343589001, 50343589002, 50343589003, 50343589004, 50343589005

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Antimony	ug/L	ND	1.0	0.036	05/04/23 18:19	
Arsenic	ug/L	ND	1.0	0.053	05/04/23 18:19	
Barium	ug/L	ND	1.0	0.051	05/04/23 18:19	
Beryllium	ug/L	ND	0.20	0.028	05/04/23 18:19	
Cadmium	ug/L	ND	2.0	0.0090	05/04/23 18:19	
Chromium	ug/L	ND	10.0	0.13	05/04/23 18:19	
Cobalt	ug/L	ND	1.0	0.032	05/04/23 18:19	
Lead	ug/L	ND	10.0	0.034	05/04/23 18:19	
Molybdenum	ug/L	ND	10.0	0.048	05/04/23 18:19	
Selenium	ug/L	ND	1.0	0.23	05/04/23 18:19	
Thallium	ug/L	ND	1.0	0.033	05/04/23 18:19	

LABORATORY CONTROL SAMPLE: 3355878

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Antimony	ug/L	40	42.2	105	80-120	
Arsenic	ug/L	40	37.8	95	80-120	
Barium	ug/L	40	39.6	99	80-120	
Beryllium	ug/L	40	40.4	101	80-120	
Cadmium	ug/L	40	39.3	98	80-120	
Chromium	ug/L	40	40.5	101	80-120	
Cobalt	ug/L	40	41.0	103	80-120	
Lead	ug/L	40	40.6	102	80-120	
Molybdenum	ug/L	40	41.4	103	80-120	
Selenium	ug/L	40	39.9	100	80-120	
Thallium	ug/L	40	40.8	102	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3355879 3355880

Parameter	Units	MS		MSD		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		50343595002	Spike Conc.	Spike Conc.	Conc.								
Antimony	ug/L	ND	40	40	41.1	41.8	102	104	75-125	2	20		
Arsenic	ug/L	2.5	40	40	40.1	39.5	94	93	75-125	1	20		
Barium	ug/L	58.4	40	40	100	101	104	106	75-125	1	20		
Beryllium	ug/L	ND	40	40	40.1	39.9	100	100	75-125	0	20		
Cadmium	ug/L	ND	40	40	38.2	38.5	95	96	75-125	1	20		
Chromium	ug/L	ND	40	40	40.9	40.9	99	99	75-125	0	20		

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**QUALITY CONTROL DATA**

Project: Eagle Valley April 2023 P1R2

Pace Project No.: 50343589

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3355879 3355880											
Parameter	Units	50343595002 Result	MS	MSD	MS	MSD	MS	MSD	% Rec	Max	Qual
			Spike Conc.	Spike Conc.	Result	Result	% Rec	% Rec	Limits	RPD	
Cobalt	ug/L	3.2	40	40	41.7	41.6	96	96	75-125	0	20
Lead	ug/L	ND	40	40	42.7	42.8	102	102	75-125	0	20
Molybdenum	ug/L	ND	40	40	42.1	42.0	104	103	75-125	0	20
Selenium	ug/L	ND	40	40	39.8	39.2	98	97	75-125	2	20
Thallium	ug/L	ND	40	40	41.9	42.0	105	105	75-125	0	20

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### QUALITY CONTROL DATA

Project: Eagle Valley April 2023 P1R2

Pace Project No.: 50343589

QC Batch: 731222

Analysis Method: SM 2320B

QC Batch Method: SM 2320B

Analysis Description: 2320B Alkalinity

Laboratory: Pace Analytical Services - Indianapolis

Associated Lab Samples: 50343589001, 50343589002, 50343589003, 50343589004, 50343589005

METHOD BLANK: 3355760

Matrix: Water

Associated Lab Samples: 50343589001, 50343589002, 50343589003, 50343589004, 50343589005

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Alkalinity, Total as CaCO3	mg/L	ND	10.0	10.0	05/03/23 02:45	
Alkalinity,Bicarbonate (CaCO3)	mg/L	ND	10.0	10.0	05/03/23 02:45	
Alkalinity,Carbonate (CaCO3)	mg/L	ND	10.0	10.0	05/03/23 02:45	

LABORATORY CONTROL SAMPLE: 3355761

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Alkalinity, Total as CaCO3	mg/L	50	53.2	106	90-110	

SAMPLE DUPLICATE: 3355762

Parameter	Units	50343503001 Result	Dup Result	RPD	Max RPD	Qualifiers
Alkalinity, Total as CaCO3	mg/L	477	485	2	20	
Alkalinity,Bicarbonate (CaCO3)	mg/L	477	485	2	20	
Alkalinity,Carbonate (CaCO3)	mg/L	ND	ND		20	

SAMPLE DUPLICATE: 3355763

Parameter	Units	50343616001 Result	Dup Result	RPD	Max RPD	Qualifiers
Alkalinity, Total as CaCO3	mg/L	63.2	63.6	1	20	
Alkalinity,Bicarbonate (CaCO3)	mg/L	33.2	33.2	0	20	
Alkalinity,Carbonate (CaCO3)	mg/L	30.0	30.4	1	20	

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**QUALITY CONTROL DATA**

Project: Eagle Valley April 2023 P1R2

Pace Project No.: 50343589

QC Batch:	731387	Analysis Method:	SM 2540C
QC Batch Method:	SM 2540C	Analysis Description:	2540C Total Dissolved Solids
		Laboratory:	Pace Analytical Services - Indianapolis
Associated Lab Samples:	50343589001, 50343589002, 50343589003, 50343589004, 50343589005		

METHOD BLANK:	3356343	Matrix:	Water
Associated Lab Samples:	50343589001, 50343589002, 50343589003, 50343589004, 50343589005		

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	ND	10.0	10.0	05/03/23 14:23	

LABORATORY CONTROL SAMPLE: 3356344						
Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	300	279	93	80-120	

SAMPLE DUPLICATE: 3356345						
Parameter	Units	50343644001 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	1230	1240	1	10	

SAMPLE DUPLICATE: 3356346						
Parameter	Units	50343595002 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	371	375	1	10	

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### QUALITY CONTROL DATA

Project: Eagle Valley April 2023 P1R2

Pace Project No.: 50343589

QC Batch: 732299

Analysis Method: SM 4500-H+B

QC Batch Method: SM 4500-H+B

Analysis Description: 4500H+B pH

Laboratory: Pace Analytical Services - Indianapolis

Associated Lab Samples: 50343589001, 50343589002

SAMPLE DUPLICATE: 3360756

Parameter	Units	50341682001 Result	Dup Result	RPD	Max RPD	Qualifiers
pH at 25 Degrees C	Std. Units	7.1	7.1	0	2	H3

SAMPLE DUPLICATE: 3360757

Parameter	Units	50343589002 Result	Dup Result	RPD	Max RPD	Qualifiers
pH at 25 Degrees C	Std. Units	7.6	7.6	0	2	H3

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### QUALITY CONTROL DATA

Project: Eagle Valley April 2023 P1R2

Pace Project No.: 50343589

QC Batch: 732417

Analysis Method: SM 4500-H+B

QC Batch Method: SM 4500-H+B

Analysis Description: 4500H+B pH

Laboratory: Pace Analytical Services - Indianapolis

Associated Lab Samples: 50343589003, 50343589004, 50343589005

SAMPLE DUPLICATE: 3361360

Parameter	Units	50343589003 Result	Dup Result	RPD	Max RPD	Qualifiers
pH at 25 Degrees C	Std. Units	7.7	7.7	0	2	H3

SAMPLE DUPLICATE: 3361361

Parameter	Units	50343595002 Result	Dup Result	RPD	Max RPD	Qualifiers
pH at 25 Degrees C	Std. Units	7.7	7.7	0	2	H3

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**QUALITY CONTROL DATA**

Project: Eagle Valley April 2023 P1R2

Pace Project No.: 50343589

QC Batch:	731288	Analysis Method:	SM 4500-S2-D
QC Batch Method:	SM 4500-S2-D	Analysis Description:	4500S2D Sulfide Water
		Laboratory:	Pace Analytical Services - Indianapolis
Associated Lab Samples:	50343589001, 50343589002, 50343589003, 50343589004, 50343589005		

METHOD BLANK: 3356024 Matrix: Water  
 Associated Lab Samples: 50343589001, 50343589002, 50343589003, 50343589004, 50343589005

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Sulfide	mg/L	ND	0.10	0.025	05/03/23 11:34	

LABORATORY CONTROL SAMPLE: 3356025

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Sulfide	mg/L	0.5	0.50	101	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3356026 3356027

Parameter	Units	50343595002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Sulfide	mg/L	ND	0.5	0.5	0.44	0.46	86	89	90-110	4	20	M3

MATRIX SPIKE SAMPLE: 3356030

Parameter	Units	50343589001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Sulfide	mg/L	ND	0.5	0.48	97	90-110	

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**QUALITY CONTROL DATA**

Project: Eagle Valley April 2023 P1R2

Pace Project No.: 50343589

QC Batch:	731295	Analysis Method:	HACH 8146
QC Batch Method:	HACH 8146	Analysis Description:	Iron, Ferrous
		Laboratory:	Pace Analytical Services - Indianapolis
Associated Lab Samples:	50343589001, 50343589002, 50343589003, 50343589004, 50343589005		

METHOD BLANK:	3356053	Matrix:	Water
Associated Lab Samples:	50343589001, 50343589002, 50343589003, 50343589004, 50343589005		

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Iron, Ferrous	mg/L	ND	0.20	0.035	05/03/23 12:40	H3,N2

LABORATORY CONTROL SAMPLE:	3356054					
Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Iron, Ferrous	mg/L	1	1.0	104	90-110	H3,N2

MATRIX SPIKE & MATRIX SPIKE DUPLICATE:	3356055			3356056								
Parameter	Units	50343595002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Iron, Ferrous	mg/L	ND	1	1	1.2	1.2	120	121	90-110	1	20	H3,M3,N2

MATRIX SPIKE SAMPLE:	3356057										
Parameter	Units	50343666002 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers				
Iron, Ferrous	mg/L	ND	1	1.2	109	90-110	H3,N2				

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**QUALITY CONTROL DATA**

Project: Eagle Valley April 2023 P1R2

Pace Project No.: 50343589

QC Batch:	731170	Analysis Method:	EPA 353.2
QC Batch Method:	EPA 353.2	Analysis Description:	353.2 Nitrate + Nitrite, Unpres.
		Laboratory:	Pace Analytical Services - Indianapolis

Associated Lab Samples: 50343589001, 50343589002, 50343589004, 50343589005

METHOD BLANK: 3355512 Matrix: Water  
 Associated Lab Samples: 50343589001, 50343589002, 50343589004, 50343589005

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Nitrogen, Nitrate	mg/L	ND	0.10	0.011	05/02/23 18:52	
Nitrogen, Nitrite	mg/L	ND	0.10	0.0040	05/02/23 18:52	

LABORATORY CONTROL SAMPLE: 3355513

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Nitrogen, Nitrate	mg/L	1	1.0	104	90-110	
Nitrogen, Nitrite	mg/L	1	1.0	104	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3355514 3355515

Parameter	Units	50343595002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Nitrogen, Nitrate	mg/L	3.1	2	2	5.2	5.1	105	102	90-110	1	20	
Nitrogen, Nitrite	mg/L	ND	2	2	2.1	2.1	106	105	90-110	1	20	

MATRIX SPIKE SAMPLE: 3355516

Parameter	Units	50343591003 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Nitrogen, Nitrate	mg/L	0.25	1	1.3	106	90-110	
Nitrogen, Nitrite	mg/L	ND	1	1.0	104	90-110	

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**QUALITY CONTROL DATA**

Project: Eagle Valley April 2023 P1R2

Pace Project No.: 50343589

QC Batch:	731171	Analysis Method:	EPA 353.2
QC Batch Method:	EPA 353.2	Analysis Description:	353.2 Nitrate + Nitrite, Unpres.
		Laboratory:	Pace Analytical Services - Indianapolis

Associated Lab Samples: 50343589003

METHOD BLANK: 3355517 Matrix: Water

Associated Lab Samples: 50343589003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Nitrogen, Nitrate	mg/L	ND	0.10	0.011	05/02/23 19:44	
Nitrogen, Nitrite	mg/L	ND	0.10	0.0040	05/02/23 19:44	

LABORATORY CONTROL SAMPLE: 3355518

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Nitrogen, Nitrate	mg/L	1	1.0	104	90-110	
Nitrogen, Nitrite	mg/L	1	1.1	105	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3355519 3355520

Parameter	Units	50343589003		3355520		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		Result	MS Spike Conc.	MSD Spike Conc.	MS Result						
Nitrogen, Nitrate	mg/L	ND	1	1	1.1	1.0	105	104	90-110	1	20
Nitrogen, Nitrite	mg/L	ND	1	1	1.1	1.1	106	105	90-110	1	20

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**QUALITY CONTROL DATA**

Project: Eagle Valley April 2023 P1R2  
 Pace Project No.: 50343589

QC Batch: 731875 Analysis Method: EPA 365.1  
 QC Batch Method: EPA 365.1 Analysis Description: 365.1 Total Phosphorus  
 Laboratory: Pace Analytical Services - Indianapolis  
 Associated Lab Samples: 50343589001, 50343589002, 50343589003, 50343589004, 50343589005

METHOD BLANK: 3358984 Matrix: Water  
 Associated Lab Samples: 50343589001, 50343589002, 50343589003, 50343589004, 50343589005

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Phosphate as P04	mg/L	ND	0.15	0.15	05/07/23 15:24	

LABORATORY CONTROL SAMPLE: 3358985

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Phosphate as P04	mg/L		1.5			

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3358986 3358987

Parameter	Units	50343589002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Phosphate as P04	mg/L	ND			1.4	1.4				2		

MATRIX SPIKE SAMPLE: 3358988

Parameter	Units	50343741002 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Phosphate as P04	mg/L	ND		1.4			

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**QUALITY CONTROL DATA**

Project: Eagle Valley April 2023 P1R2

Pace Project No.: 50343589

QC Batch: 731374 Analysis Method: SM 5310C  
 QC Batch Method: SM 5310C Analysis Description: 5310C Total Organic Carbon  
 Laboratory: Pace Analytical Services - Indianapolis  
 Associated Lab Samples: 50343589001, 50343589002, 50343589003, 50343589004, 50343589005

METHOD BLANK: 3356301 Matrix: Water  
 Associated Lab Samples: 50343589001, 50343589002, 50343589003, 50343589004, 50343589005

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Organic Carbon	mg/L	ND	1.0	0.24	05/05/23 03:02	

LABORATORY CONTROL SAMPLE: 3356302

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Organic Carbon	mg/L	10	10.5	105	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3356303 3356304

Parameter	Units	50343108004 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Total Organic Carbon	mg/L	ND	10	10	10.5	10.7	105	107	80-120	2	20	

MATRIX SPIKE SAMPLE: 3356305

Parameter	Units	50343108005 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Total Organic Carbon	mg/L	ND	10	10.7	107	80-120	

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**QUALITY CONTROL DATA**

Project: Eagle Valley April 2023 P1R2

Pace Project No.: 50343589

QC Batch:	731675	Analysis Method:	SM 5310C
QC Batch Method:	SM 5310C	Analysis Description:	5310C Dissolved Organic Carbon
		Laboratory:	Pace Analytical Services - Indianapolis
Associated Lab Samples:	50343589001, 50343589002, 50343589003, 50343589004		

METHOD BLANK: 3357789 Matrix: Water  
 Associated Lab Samples: 50343589001, 50343589002, 50343589003, 50343589004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Dissolved Organic Carbon	mg/L	ND	1.0	0.24	05/05/23 15:44	

LABORATORY CONTROL SAMPLE: 3357790

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Dissolved Organic Carbon	mg/L	10	9.8	98	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3357791 3357792

Parameter	Units	50343595002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Dissolved Organic Carbon	mg/L	ND	10	10	11.0	10.8	105	104	80-120	1	20	

MATRIX SPIKE SAMPLE: 3357793

Parameter	Units	50343595005 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Dissolved Organic Carbon	mg/L	ND	10	10.8	100	80-120	

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**ANALYTICAL RESULTS - RADIOCHEMISTRY**

Project: Eagle Valley April 2023 P1R2

Pace Project No.: 50343589

**Sample: MW-15S**      **Lab ID: 50343589001**      Collected: 05/01/23 11:15      Received: 05/02/23 08:30      Matrix: Water  
 PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	<b>0.353 ± 0.369 (0.520)</b> <b>C:NA T:61%</b>	pCi/L	05/23/23 15:45	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	<b>0.747 ± 0.466 (0.862)</b> <b>C:81% T:61%</b>	pCi/L	05/16/23 11:17	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	<b>1.10 ± 0.835 (1.38)</b>	pCi/L	05/25/23 07:43	7440-14-4	

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**ANALYTICAL RESULTS - RADIOCHEMISTRY**

Project: Eagle Valley April 2023 P1R2

Pace Project No.: 50343589

**Sample: MW-151**      **Lab ID: 50343589002**      Collected: 05/01/23 13:15      Received: 05/02/23 08:30      Matrix: Water  
 PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	<b>0.558 ± 0.481 (0.715)</b> <b>C:NA T:89%</b>	pCi/L	05/23/23 15:45	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	<b>1.79 ± 0.550 (0.675)</b> <b>C:76% T:89%</b>	pCi/L	05/16/23 11:17	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	<b>2.35 ± 1.03 (1.39)</b>	pCi/L	05/25/23 07:43	7440-14-4	

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Eagle Valley April 2023 P1R2

Pace Project No.: 50343589

**Sample: MW-15D**      **Lab ID: 50343589003**      Collected: 05/01/23 14:28      Received: 05/02/23 08:30      Matrix: Water  
 PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	<b>0.170 ± 0.205 (0.313)</b> <b>C:NA T:94%</b>	pCi/L	05/23/23 15:45	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	<b>2.11 ± 0.565 (0.573)</b> <b>C:84% T:94%</b>	pCi/L	05/16/23 11:17	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	<b>2.28 ± 0.770 (0.886)</b>	pCi/L	05/25/23 07:43	7440-14-4	

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**ANALYTICAL RESULTS - RADIOCHEMISTRY**

Project: Eagle Valley April 2023 P1R2

Pace Project No.: 50343589

**Sample: DUP-6**      **Lab ID: 50343589004**      Collected: 05/01/23 08:00      Received: 05/02/23 08:30      Matrix: Water  
 PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	<b>0.128 ± 0.251 (0.458)</b> <b>C:NA T:88%</b>	pCi/L	05/23/23 15:45	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	<b>1.77 ± 0.509 (0.560)</b> <b>C:87% T:88%</b>	pCi/L	05/16/23 11:17	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	<b>1.90 ± 0.760 (1.02)</b>	pCi/L	05/25/23 07:43	7440-14-4	

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Eagle Valley April 2023 P1R2

Pace Project No.: 50343589

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
<b>Sample: Field Blank-3</b> <b>Lab ID: 50343589005</b> Collected: 05/01/23 10:00      Received: 05/02/23 08:30      Matrix: Water PWS:      Site ID:      Sample Type:						
Pace Analytical Services - Greensburg						
Radium-226	EPA 903.1	<b>0.188 ± 0.262 (0.438)</b> <b>C:NA T:84%</b>	pCi/L	05/23/23 15:45	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 904.0	<b>0.495 ± 0.365 (0.708)</b> <b>C:80% T:84%</b>	pCi/L	05/16/23 11:28	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	<b>0.683 ± 0.627 (1.15)</b>	pCi/L	05/25/23 07:43	7440-14-4	

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### QUALITY CONTROL - RADIOCHEMISTRY

Project: Eagle Valley April 2023 P1R2

Pace Project No.: 50343589

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QC Batch:	585904	Analysis Method:	EPA 904.0
QC Batch Method:	EPA 904.0	Analysis Description:	904.0 Radium 228
		Laboratory:	Pace Analytical Services - Greensburg

Associated Lab Samples: 50343589001, 50343589002, 50343589003, 50343589004, 50343589005

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METHOD BLANK: 2845862 Matrix: Water

Associated Lab Samples: 50343589001, 50343589002, 50343589003, 50343589004, 50343589005

---

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.914 ± 0.407 (0.635) C:83% T:72%	pCi/L	05/16/23 11:17	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

### REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL - RADIOCHEMISTRY

Project: Eagle Valley April 2023 P1R2

Pace Project No.: 50343589

QC Batch: 585902

Analysis Method: EPA 903.1

QC Batch Method: EPA 903.1

Analysis Description: 903.1 Radium-226

Laboratory: Pace Analytical Services - Greensburg

Associated Lab Samples: 50343589001, 50343589002, 50343589003, 50343589004, 50343589005

METHOD BLANK: 2845856

Matrix: Water

Associated Lab Samples: 50343589001, 50343589002, 50343589003, 50343589004, 50343589005

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.175 ± 0.267 (0.429) C:NA T:72%	pCi/L	05/23/23 15:45	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

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### QUALIFIERS

Project: Eagle Valley April 2023 P1R2

Pace Project No.: 50343589

#### DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Reported results are not rounded until the final step prior to reporting. Therefore, calculated parameters that are typically reported as "Total" may vary slightly from the sum of the reported component parameters.

Act - Activity

Unc - Uncertainty: SDWA = 1.96 sigma count uncertainty, all other matrices = Expanded Uncertainty (95% confidence interval).

Gamma Spec = Expanded Uncertainty (95.4% Confidence Interval)

(MDC) - Minimum Detectable Concentration

Trac - Tracer Recovery (%)

Carr - Carrier Recovery (%)

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

#### ANALYTE QUALIFIERS

E Analyte concentration exceeded the calibration range. The reported result is estimated.

H3 Sample was received or analysis requested beyond the recognized method holding time.

M0 Matrix spike recovery and/or matrix spike duplicate recovery was outside laboratory control limits.

M3 Matrix spike recovery was outside laboratory control limits due to matrix interferences.

N2 The lab does not hold NELAC/TNI accreditation for this parameter but other accreditations/certifications may apply. A complete list of accreditations/certifications is available upon request.

P6 Matrix spike recovery was outside laboratory control limits due to a parent sample concentration notably higher than the spike level.

PL The minimum mass of dried residue of 2.5 mg could not be obtained using the routine sample volume of 100 mL.

### REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Eagle Valley April 2023 P1R2

Pace Project No.: 50343589

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
50343589001	MW-15S	EPA 9056	731451		
50343589002	MW-15I	EPA 9056	731451		
50343589003	MW-15D	EPA 9056	731451		
50343589004	DUP-6	EPA 9056	731451		
50343589005	Field Blank-3	EPA 9056	731451		
50343589001	MW-15S	EPA 3010	731098	EPA 6010	731899
50343589002	MW-15I	EPA 3010	731098	EPA 6010	731899
50343589003	MW-15D	EPA 3010	731098	EPA 6010	731899
50343589004	DUP-6	EPA 3010	731098	EPA 6010	731899
50343589005	Field Blank-3	EPA 3010	731098	EPA 6010	731899
50343589001	MW-15S	EPA 3010	731187	EPA 6010	731795
50343589002	MW-15I	EPA 3010	731187	EPA 6010	731795
50343589003	MW-15D	EPA 3010	731187	EPA 6010	731795
50343589004	DUP-6	EPA 3010	731187	EPA 6010	731795
50343589001	MW-15S	EPA 200.2	731264	EPA 6020	731630
50343589002	MW-15I	EPA 200.2	731264	EPA 6020	731630
50343589003	MW-15D	EPA 200.2	731264	EPA 6020	731630
50343589004	DUP-6	EPA 200.2	731264	EPA 6020	731630
50343589005	Field Blank-3	EPA 200.2	731264	EPA 6020	731630
50343589001	MW-15S	EPA 7470	731161	EPA 7470	731240
50343589002	MW-15I	EPA 7470	731161	EPA 7470	731240
50343589003	MW-15D	EPA 7470	731161	EPA 7470	731240
50343589004	DUP-6	EPA 7470	731161	EPA 7470	731240
50343589005	Field Blank-3	EPA 7470	731161	EPA 7470	731240
50343589001	MW-15S	EPA 903.1	585902		
50343589002	MW-15I	EPA 903.1	585902		
50343589003	MW-15D	EPA 903.1	585902		
50343589004	DUP-6	EPA 903.1	585902		
50343589005	Field Blank-3	EPA 903.1	585902		
50343589001	MW-15S	EPA 904.0	585904		
50343589002	MW-15I	EPA 904.0	585904		
50343589003	MW-15D	EPA 904.0	585904		
50343589004	DUP-6	EPA 904.0	585904		
50343589005	Field Blank-3	EPA 904.0	585904		
50343589001	MW-15S	Total Radium Calculation	590582		
50343589002	MW-15I	Total Radium Calculation	590582		
50343589003	MW-15D	Total Radium Calculation	590582		
50343589004	DUP-6	Total Radium Calculation	590582		
50343589005	Field Blank-3	Total Radium Calculation	590582		
50343589001	MW-15S	SM 2320B	731222		
50343589002	MW-15I	SM 2320B	731222		
50343589003	MW-15D	SM 2320B	731222		
50343589004	DUP-6	SM 2320B	731222		
50343589005	Field Blank-3	SM 2320B	731222		

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### QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Eagle Valley April 2023 P1R2

Pace Project No.: 50343589

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
50343589001	MW-15S	SM 2540C	731387		
50343589002	MW-15I	SM 2540C	731387		
50343589003	MW-15D	SM 2540C	731387		
50343589004	DUP-6	SM 2540C	731387		
50343589005	Field Blank-3	SM 2540C	731387		
50343589001	MW-15S	SM 4500-H+B	732299		
50343589002	MW-15I	SM 4500-H+B	732299		
50343589003	MW-15D	SM 4500-H+B	732417		
50343589004	DUP-6	SM 4500-H+B	732417		
50343589005	Field Blank-3	SM 4500-H+B	732417		
50343589001	MW-15S	SM 4500-S2-D	731288		
50343589002	MW-15I	SM 4500-S2-D	731288		
50343589003	MW-15D	SM 4500-S2-D	731288		
50343589004	DUP-6	SM 4500-S2-D	731288		
50343589005	Field Blank-3	SM 4500-S2-D	731288		
50343589001	MW-15S	HACH 8146	731295		
50343589002	MW-15I	HACH 8146	731295		
50343589003	MW-15D	HACH 8146	731295		
50343589004	DUP-6	HACH 8146	731295		
50343589005	Field Blank-3	HACH 8146	731295		
50343589001	MW-15S	EPA 353.2	731170		
50343589002	MW-15I	EPA 353.2	731170		
50343589003	MW-15D	EPA 353.2	731171		
50343589004	DUP-6	EPA 353.2	731170		
50343589005	Field Blank-3	EPA 353.2	731170		
50343589001	MW-15S	EPA 365.1	731875	EPA 365.1	732116
50343589002	MW-15I	EPA 365.1	731875	EPA 365.1	732116
50343589003	MW-15D	EPA 365.1	731875	EPA 365.1	732116
50343589004	DUP-6	EPA 365.1	731875	EPA 365.1	732116
50343589005	Field Blank-3	EPA 365.1	731875	EPA 365.1	732116
50343589001	MW-15S	SM 5310C	731374		
50343589002	MW-15I	SM 5310C	731374		
50343589003	MW-15D	SM 5310C	731374		
50343589004	DUP-6	SM 5310C	731374		
50343589005	Field Blank-3	SM 5310C	731374		
50343589001	MW-15S	SM 5310C	731675		
50343589002	MW-15I	SM 5310C	731675		
50343589003	MW-15D	SM 5310C	731675		
50343589004	DUP-6	SM 5310C	731675		

### REPORT OF LABORATORY ANALYSIS

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**SAMPLE CONDITION UPON RECEIPT FORM**

Date/Time and Initials of person examining contents: 05/02/23 11:55 SMK

1. Courier:  FED EX  UPS  CLIENT  PACE  USPS  OTHER \_\_\_\_\_

2. Custody Seal on Cooler/Box Present:  Yes  No  
 (If yes)Seals Intact:  Yes  No (leave blank if no seals were present)

3. Thermometer: **1 2 3 4 5 6 A B C D E F**  
 (Initial/Corrected) 0.7/0.7 0.8/0.8 0.4/0.4 0.9/0.9

4. Cooler Temperature(s): 0.7/0.7 0.8/0.8 0.4/0.4 0.9/0.9  
 RECORD TEMPS OF ALL COOLERS RECEIVED (use Comments below to add more)

5. Packing Material:  Bubble Wrap  Bubble Bags  
 None  Other \_\_\_\_\_

6. Ice Type:  Wet  Blue  None

7. If temp. is over 6°C or under 0°C, was the PM notified?:  Yes  No  
 Cooler temp should be above freezing to 6°C

All discrepancies will be written out in the comments section below.

	Yes	No		Yes	No	N/A
USDA Regulated Soils? (HI, ID, NY, WA, OR,CA, NM, TX, OK, AR, LA, TN, AL, MS, NC, SC, GA, FL, or Puerto Rico)		/	All containers needing acid/base preservation have been pH CHECKED?: Exceptions: VOA, coliform, LLHg, O&G, RAD CHEM, and any container with a septum cap or preserved with HCl.			
Short Hold Time Analysis (48 hours or less)? Analysis: <u>NO3</u>	/		Circle: HNO3 (<2) H2SO4 (<2) NaOH (>10) NaOH/ZnAc (>9) Any non-conformance to pH recommendations will be noted on the container count form	/		
Time 5035A TC placed in Freezer or Short Holds To Lab Time: <u>11:55</u>			Residual Chlorine Check (SVOC 625 Pest/PCB 608)	<u>Present</u>	<u>Absent</u>	<u>N/A</u>
Rush TAT Requested (4 days or less):		/	Residual Chlorine Check (Total/Amenable/Free Cyanide)			/
Custody Signatures Present?	/		Headspace Wisconsin Sulfide?			/
Containers Intact?:	/		Headspace in VOA Vials (>6mm): See Containter Count form for details	<u>Present</u>	<u>Absent</u>	<u>No VOA Vials Sent</u>
Sample Label (IDs/Dates/Times) Match COC?: Except TCs, which only require sample ID	/		Trip Blank Present?		/	
Extra labels on Terracore Vials? (soils only)		/	Trip Blank Custody Seals?:			/

COMMENTS:

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July 18, 2023

Mr. Mark Breting  
ATC Group Services  
7988 Centerpoint Drive  
Suite 100  
Indianapolis, IN 46256

RE: Project: Eagle Valley April 2023 P1R1  
Pace Project No.: 50343591

Dear Mr. Breting:

Enclosed are the analytical results for sample(s) received by the laboratory on May 02, 2023. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

The test results provided in this final report were generated by each of the following laboratories within the Pace Network:

- Pace Analytical Services - Indianapolis
- Pace Analytical Services - Greensburg

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Will Statz  
will.statz@pacelabs.com  
(317)228-3105  
Project Manager

Enclosures

cc: Mohammed Bazlamit, Atlas  
Mr. Robert Miller, Haley & Aldrich



## REPORT OF LABORATORY ANALYSIS

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### CERTIFICATIONS

Project: Eagle Valley April 2023 P1R1  
Pace Project No.: 50343591

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#### Pace Analytical Services Pennsylvania

1638 Roseytown Rd Suites 2,3&4, Greensburg, PA 15601  
ANAB DOD-ELAP Rad Accreditation #: L2417  
ANABISO/IEC 17025:2017 Rad Cert#: L24170  
Alabama Certification #: 41590  
Arizona Certification #: AZ0734  
Arkansas Certification  
California Certification #: 2950  
Colorado Certification #: PA01547  
Connecticut Certification #: PH-0694  
EPA Region 4 DW Rad  
Florida/TNI Certification #: E87683  
Georgia Certification #: C040  
Guam Certification  
Hawaii Certification  
Idaho Certification  
Illinois Certification  
Indiana Certification  
Iowa Certification #: 391  
Kansas Certification #: E-10358  
Kentucky Certification #: KY90133  
KY WW Permit #: KY0098221  
KY WW Permit #: KY0000221  
Louisiana DHH/TNI Certification #: LA010  
Louisiana DEQ/TNI Certification #: 04086  
Maine Certification #: 2023021  
Maryland Certification #: 308  
Massachusetts Certification #: M-PA1457  
Michigan/PADEP Certification #: 9991

Missouri Certification #: 235  
Montana Certification #: Cert0082  
Nebraska Certification #: NE-OS-29-14  
Nevada Certification #: PA014572023-03  
New Hampshire/TNI Certification #: 297622  
New Jersey/TNI Certification #: PA051  
New Mexico Certification #: PA01457  
New York/TNI Certification #: 10888  
North Carolina Certification #: 42706  
North Dakota Certification #: R-190  
Ohio EPA Rad Approval: #41249  
Oregon/TNI Certification #: PA200002-015  
Pennsylvania/TNI Certification #: 65-00282  
Puerto Rico Certification #: PA01457  
Rhode Island Certification #: 65-00282  
South Dakota Certification  
Tennessee Certification #: TN02867  
Texas/TNI Certification #: T104704188-22-18  
Utah/TNI Certification #: PA014572223-14  
USDA Soil Permit #: 525-23-67-77263  
Vermont Dept. of Health: ID# VT-0282  
Virgin Island/PADEP Certification  
Virginia/VELAP Certification #: 460198  
Washington Certification #: C868  
West Virginia DEP Certification #: 143  
West Virginia DHHR Certification #: 9964C  
Wisconsin Approve List for Rad

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#### Pace Analytical Services Indianapolis

7726 Moller Road, Indianapolis, IN 46268  
Illinois Accreditation #: 200074  
Indiana Drinking Water Laboratory #: C-49-06  
Kansas/TNI Certification #: E-10177  
Kentucky UST Agency Interest #: 80226  
Kentucky WW Laboratory ID #: 98019  
Michigan Drinking Water Laboratory #9050

Ohio VAP Certified Laboratory #: CL0065  
Oklahoma Laboratory #: 9204  
Texas Certification #: T104704355  
Wisconsin Laboratory #: 999788130  
USDA Foreign Soil Permit #: 525-23-13-23119  
USDA Compliance Agreement #: IN-SL-22-001

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### REPORT OF LABORATORY ANALYSIS

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### SAMPLE SUMMARY

Project: Eagle Valley April 2023 P1R1

Pace Project No.: 50343591

Lab ID	Sample ID	Matrix	Date Collected	Date Received
50343591001	MW-6S	Water	05/01/23 13:50	05/02/23 08:30
50343591002	MW-6I	Water	05/01/23 15:55	05/02/23 08:30
50343591003	MW-6D	Water	05/01/23 12:20	05/02/23 08:30
50343591004	DUP-4	Water	05/01/23 08:00	05/02/23 08:30
50343591005	Field Blank 1	Water	05/01/23 16:30	05/02/23 08:30

### REPORT OF LABORATORY ANALYSIS

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### SAMPLE ANALYTE COUNT

Project: Eagle Valley April 2023 P1R1

Pace Project No.: 50343591

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory		
50343591001	MW-6S	EPA 9056	ADM	3	PASI-I		
		EPA 6010	JPK	10	PASI-I		
		EPA 6010	MTM	2	PASI-I		
		EPA 6020	CAW	11	PASI-I		
		EPA 7470	ILP	1	PASI-I		
		EPA 903.1	CLM	1	PASI-PA		
		EPA 904.0	JJS1	1	PASI-PA		
		Total Radium Calculation	JAL	1	PASI-PA		
		SM 2320B	DAW	3	PASI-I		
		SM 2540C	TRK	1	PASI-I		
		SM 4500-H+B	BMS	1	PASI-I		
		SM 4500-S2-D	BEP	1	PASI-I		
		HACH 8146	BEP	1	PASI-I		
		EPA 353.2	ZM	2	PASI-I		
		EPA 365.1	YAM	1	PASI-I		
		SM 5310C	ATS	1	PASI-I		
		SM 5310C	ATS	1	PASI-I		
		50343591002	MW-6I	EPA 9056	ADM	3	PASI-I
				EPA 6010	JPK	10	PASI-I
				EPA 6010	MTM	2	PASI-I
EPA 6020	CAW			11	PASI-I		
EPA 7470	ILP			1	PASI-I		
EPA 903.1	CLM			1	PASI-PA		
EPA 904.0	JJS1			1	PASI-PA		
Total Radium Calculation	JAL			1	PASI-PA		
SM 2320B	DAW			3	PASI-I		
SM 2540C	TRK			1	PASI-I		
SM 4500-H+B	BMS			1	PASI-I		
SM 4500-S2-D	BEP			1	PASI-I		
HACH 8146	BEP			1	PASI-I		
EPA 353.2	ZM			2	PASI-I		
EPA 365.1	YAM			1	PASI-I		
SM 5310C	ATS			1	PASI-I		
SM 5310C	ATS			1	PASI-I		
50343591003	MW-6D			EPA 9056	ADM	3	PASI-I
				EPA 6010	JPK	10	PASI-I
				EPA 6010	MTM	2	PASI-I

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**SAMPLE ANALYTE COUNT**

Project: Eagle Valley April 2023 P1R1

Pace Project No.: 50343591

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
		EPA 6020	CAW	11	PASI-I
		EPA 7470	ILP	1	PASI-I
		EPA 903.1	CLM	1	PASI-PA
		EPA 904.0	JJS1	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
		SM 2320B	DAW	3	PASI-I
		SM 2540C	TRK	1	PASI-I
		SM 4500-H+B	BMS	1	PASI-I
		SM 4500-S2-D	BEP	1	PASI-I
		HACH 8146	BEP	1	PASI-I
		EPA 353.2	ZM	2	PASI-I
		EPA 365.1	YAM	1	PASI-I
		SM 5310C	ATS	1	PASI-I
		SM 5310C	ATS	1	PASI-I
50343591004	DUP-4	EPA 9056	ADM	3	PASI-I
		EPA 6010	JPK	10	PASI-I
		EPA 6010	MTM	2	PASI-I
		EPA 6020	CAW	11	PASI-I
		EPA 7470	ILP	1	PASI-I
		EPA 903.1	CLM	1	PASI-PA
		EPA 904.0	JJS1	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
		SM 2320B	DAW	3	PASI-I
		SM 2540C	TRK	1	PASI-I
		SM 4500-H+B	BMS	1	PASI-I
		SM 4500-S2-D	BEP	1	PASI-I
		HACH 8146	BEP	1	PASI-I
		EPA 353.2	ZM	2	PASI-I
		EPA 365.1	YAM	1	PASI-I
		SM 5310C	ATS	1	PASI-I
		SM 5310C	ATS	1	PASI-I
50343591005	Field Blank 1	EPA 9056	ADM	3	PASI-I
		EPA 6010	JPK	10	PASI-I
		EPA 6020	CAW	11	PASI-I
		EPA 7470	ILP	1	PASI-I
		EPA 903.1	CLM	1	PASI-PA
		EPA 904.0	JJS1	1	PASI-PA

**REPORT OF LABORATORY ANALYSIS**

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### SAMPLE ANALYTE COUNT

Project: Eagle Valley April 2023 P1R1

Pace Project No.: 50343591

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
		Total Radium Calculation	JAL	1	PASI-PA
		SM 2320B	DAW	3	PASI-I
		SM 2540C	TRK	1	PASI-I
		SM 4500-H+B	BMS	1	PASI-I
		SM 4500-S2-D	BEP	1	PASI-I
		HACH 8146	BEP	1	PASI-I
		EPA 353.2	ZM	2	PASI-I
		EPA 365.1	YAM	1	PASI-I
		SM 5310C	ATS	1	PASI-I

PASI-I = Pace Analytical Services - Indianapolis

PASI-PA = Pace Analytical Services - Greensburg

### REPORT OF LABORATORY ANALYSIS

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**SUMMARY OF DETECTION**

Project: Eagle Valley April 2023 P1R1

Pace Project No.: 50343591

Lab Sample ID	Client Sample ID	Result	Units	Report Limit	Analyzed	Qualifiers
Method	Parameters					
<b>50343591001</b>	<b>MW-6S</b>					
EPA 9056	Chloride	34.1	mg/L	25.0	05/06/23 13:46	
EPA 9056	Fluoride	0.25	mg/L	0.10	05/06/23 13:27	
EPA 9056	Sulfate	176	mg/L	25.0	05/06/23 13:46	
EPA 6010	Boron	5950	ug/L	100	05/04/23 23:23	
EPA 6010	Calcium	146000	ug/L	1000	05/04/23 23:23	
EPA 6010	Lithium	52.2	ug/L	20.0	05/04/23 23:23	
EPA 6010	Magnesium	36400	ug/L	1000	05/04/23 23:23	
EPA 6010	Potassium	6540	ug/L	1000	05/04/23 23:23	
EPA 6010	Silica	12200	ug/L	450	05/04/23 23:23	N2
EPA 6010	Sodium	61000	ug/L	1000	05/04/23 23:23	
EPA 6010	Molybdenum, Dissolved	83.9	ug/L	10.0	05/05/23 15:26	
EPA 6020	Antimony	1.0	ug/L	1.0	05/04/23 22:47	
EPA 6020	Barium	73.1	ug/L	1.0	05/04/23 22:47	
EPA 6020	Molybdenum	83.8	ug/L	10.0	05/04/23 22:47	
EPA 6020	Selenium	36.4	ug/L	1.0	05/04/23 22:47	
EPA 903.1	Radium-226	-0.127 ± 0.379 (0.794)	pCi/L		05/23/23 16:18	
EPA 904.0	Radium-228	C:NA T:93% 0.562 ± 0.366 (0.691)	pCi/L		05/16/23 11:27	
		C:78% T:93%				
Total Radium Calculation	Total Radium	0.562 ± 0.745 (1.49)	pCi/L		05/25/23 07:43	
SM 2320B	Alkalinity, Total as CaCO3	402	mg/L	10.0	05/04/23 00:13	
SM 2320B	Alkalinity,Bicarbonate (CaCO3)	402	mg/L	10.0	05/04/23 00:13	
SM 2540C	Total Dissolved Solids	721	mg/L	10.0	05/03/23 14:28	
SM 4500-H+B	pH at 25 Degrees C	7.4	Std. Units	0.10	05/09/23 12:48	H3
EPA 353.2	Nitrogen, Nitrate	0.57	mg/L	0.10	05/02/23 19:41	
SM 5310C	Total Organic Carbon	1.5	mg/L	1.0	05/05/23 08:18	
SM 5310C	Dissolved Organic Carbon	1.6	mg/L	1.0	05/05/23 16:47	
<b>50343591002</b>	<b>MW-6I</b>					
EPA 9056	Chloride	81.3	mg/L	25.0	05/06/23 15:24	
EPA 9056	Fluoride	0.32	mg/L	0.10	05/06/23 15:04	
EPA 9056	Sulfate	189	mg/L	25.0	05/06/23 15:24	
EPA 6010	Boron	1520	ug/L	100	05/04/23 23:25	
EPA 6010	Calcium	113000	ug/L	1000	05/04/23 23:25	
EPA 6010	Lithium	99.5	ug/L	20.0	05/04/23 23:25	
EPA 6010	Magnesium	24300	ug/L	1000	05/04/23 23:25	
EPA 6010	Manganese	55.9	ug/L	10.0	05/04/23 23:25	
EPA 6010	Potassium	15400	ug/L	1000	05/04/23 23:25	
EPA 6010	Silica	10600	ug/L	450	05/04/23 23:25	N2
EPA 6010	Sodium	85700	ug/L	1000	05/04/23 23:25	
EPA 6010	Manganese, Dissolved	55.3	ug/L	10.0	05/05/23 15:29	
EPA 6010	Molybdenum, Dissolved	180	ug/L	10.0	05/05/23 15:29	
EPA 6020	Barium	73.8	ug/L	1.0	05/04/23 22:50	

**REPORT OF LABORATORY ANALYSIS**

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**SUMMARY OF DETECTION**

Project: Eagle Valley April 2023 P1R1

Pace Project No.: 50343591

Lab Sample ID	Client Sample ID	Result	Units	Report Limit	Analyzed	Qualifiers
Method	Parameters					
<b>50343591002</b>	<b>MW-6I</b>					
EPA 6020	Molybdenum	173	ug/L	10.0	05/04/23 22:50	
EPA 903.1	Radium-226	0.753 ± 0.460 (0.565) C:NA T:82%	pCi/L		05/23/23 16:18	
EPA 904.0	Radium-228	1.13 ± 0.440 (0.664) C:85% T:82%	pCi/L		05/16/23 11:27	
Total Radium Calculation	Total Radium	1.88 ± 0.900 (1.23)	pCi/L		05/25/23 07:43	
SM 2320B	Alkalinity, Total as CaCO3	271	mg/L	10.0	05/04/23 00:13	
SM 2320B	Alkalinity,Bicarbonate (CaCO3)	271	mg/L	10.0	05/04/23 00:13	
SM 2540C	Total Dissolved Solids	668	mg/L	10.0	05/03/23 14:28	
SM 4500-H+B	pH at 25 Degrees C	7.7	Std. Units	0.10	05/09/23 12:50	H3
SM 5310C	Dissolved Organic Carbon	2.2	mg/L	1.0	05/05/23 16:57	
<b>50343591003</b>	<b>MW-6D</b>					
EPA 9056	Chloride	81.8	mg/L	25.0	05/04/23 21:28	
EPA 9056	Fluoride	0.22	mg/L	0.10	05/04/23 21:11	
EPA 9056	Sulfate	81.0	mg/L	25.0	05/04/23 21:28	
EPA 6010	Boron	2090	ug/L	100	05/04/23 23:28	
EPA 6010	Calcium	73600	ug/L	1000	05/04/23 23:28	
EPA 6010	Lithium	70.0	ug/L	20.0	05/04/23 23:28	
EPA 6010	Magnesium	14300	ug/L	1000	05/04/23 23:28	
EPA 6010	Manganese	251	ug/L	10.0	05/04/23 23:28	
EPA 6010	Potassium	6390	ug/L	1000	05/04/23 23:28	
EPA 6010	Silica	11300	ug/L	450	05/04/23 23:28	N2
EPA 6010	Sodium	79700	ug/L	1000	05/04/23 23:28	
EPA 6010	Manganese, Dissolved	237	ug/L	10.0	05/05/23 15:31	
EPA 6010	Molybdenum, Dissolved	216	ug/L	10.0	05/05/23 15:31	
EPA 6020	Barium	57.9	ug/L	1.0	05/04/23 22:57	
EPA 6020	Molybdenum	212	ug/L	20.0	05/04/23 22:54	
EPA 903.1	Radium-226	0.570 ± 0.424 (0.558) C:NA T:85%	pCi/L		05/23/23 16:18	
EPA 904.0	Radium-228	0.875 ± 0.414 (0.694) C:79% T:85%	pCi/L		05/16/23 11:27	
Total Radium Calculation	Total Radium	1.45 ± 0.838 (1.25)	pCi/L		05/25/23 07:43	
SM 2320B	Alkalinity, Total as CaCO3	220	mg/L	10.0	05/04/23 00:13	
SM 2320B	Alkalinity,Bicarbonate (CaCO3)	220	mg/L	10.0	05/04/23 00:13	
SM 2540C	Total Dissolved Solids	471	mg/L	10.0	05/03/23 14:29	
SM 4500-H+B	pH at 25 Degrees C	8.0	Std. Units	0.10	05/09/23 12:50	H3

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### SUMMARY OF DETECTION

Project: Eagle Valley April 2023 P1R1

Pace Project No.: 50343591

Lab Sample ID Method	Client Sample ID Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
<b>50343591003</b>	<b>MW-6D</b>					
EPA 353.2	Nitrogen, Nitrate	0.25	mg/L	0.10	05/02/23 19:24	
SM 5310C	Dissolved Organic Carbon	1.8	mg/L	1.0	05/05/23 17:09	
<b>50343591004</b>	<b>DUP-4</b>					
EPA 9056	Chloride	42.1	mg/L	25.0	05/04/23 22:03	
EPA 9056	Fluoride	0.28	mg/L	0.10	05/04/23 21:46	
EPA 9056	Sulfate	183	mg/L	25.0	05/04/23 22:03	
EPA 6010	Boron	5890	ug/L	100	05/04/23 23:30	
EPA 6010	Calcium	144000	ug/L	1000	05/04/23 23:30	
EPA 6010	Lithium	52.9	ug/L	20.0	05/04/23 23:30	
EPA 6010	Magnesium	35900	ug/L	1000	05/04/23 23:30	
EPA 6010	Potassium	6420	ug/L	1000	05/04/23 23:30	
EPA 6010	Silica	12000	ug/L	450	05/04/23 23:30	N2
EPA 6010	Sodium	61100	ug/L	1000	05/04/23 23:30	
EPA 6010	Molybdenum, Dissolved	85.5	ug/L	10.0	05/05/23 15:33	
EPA 6020	Antimony	1.0	ug/L	1.0	05/04/23 23:07	
EPA 6020	Barium	74.4	ug/L	1.0	05/04/23 23:07	
EPA 6020	Molybdenum	82.8	ug/L	10.0	05/04/23 23:07	
EPA 6020	Selenium	36.5	ug/L	1.0	05/04/23 23:07	
EPA 903.1	Radium-226	0.0928 ± 0.258 (0.500)	pCi/L		05/23/23 16:18	
EPA 904.0	Radium-228	C:NA T:86% 0.695 ± 0.381 (0.675)	pCi/L		05/16/23 11:27	
		C:78% T:86%				
Total Radium Calculation	Total Radium	0.788 ± 0.639 (1.18)	pCi/L		05/25/23 07:43	
SM 2320B	Alkalinity, Total as CaCO3	403	mg/L	10.0	05/04/23 00:13	
SM 2320B	Alkalinity,Bicarbonate (CaCO3)	403	mg/L	10.0	05/04/23 00:13	
SM 2540C	Total Dissolved Solids	742	mg/L	10.0	05/03/23 14:29	
SM 4500-H+B	pH at 25 Degrees C	7.9	Std. Units	0.10	05/09/23 12:51	H3
EPA 353.2	Nitrogen, Nitrate	0.58	mg/L	0.10	05/02/23 20:14	
SM 5310C	Total Organic Carbon	1.4	mg/L	1.0	05/06/23 04:01	
SM 5310C	Dissolved Organic Carbon	1.6	mg/L	1.0	05/05/23 17:20	
<b>50343591005</b>	<b>Field Blank 1</b>					
EPA 9056	Chloride	0.26	mg/L	0.25	05/04/23 22:21	
EPA 9056	Sulfate	0.30	mg/L	0.25	05/04/23 22:21	
EPA 903.1	Radium-226	0.177 ± 0.347 (0.623)	pCi/L		05/23/23 16:18	
EPA 904.0	Radium-228	C:NA T:91% 0.620 ± 0.412 (0.796)	pCi/L		05/16/23 11:27	
		C:79% T:91%				

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### SUMMARY OF DETECTION

Project: Eagle Valley April 2023 P1R1

Pace Project No.: 50343591

Lab Sample ID Method	Client Sample ID Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
<b>50343591005</b>	<b>Field Blank 1</b>					
Total Radium Calculation	Total Radium	0.797 ± 0.759 (1.42)	pCi/L		05/25/23 07:43	
SM 4500-H+B	pH at 25 Degrees C	5.7	Std. Units	0.10	05/09/23 12:54	H3

### REPORT OF LABORATORY ANALYSIS

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### ANALYTICAL RESULTS

Project: Eagle Valley April 2023 P1R1  
 Pace Project No.: 50343591

Sample: MW-6S		Lab ID: 50343591001		Collected: 05/01/23 13:50		Received: 05/02/23 08:30		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>9056 IC Anions</b>									
Analytical Method: EPA 9056									
Pace Analytical Services - Indianapolis									
Chloride	34.1	mg/L	25.0	6.7	100		05/06/23 13:46	16887-00-6	
Fluoride	0.25	mg/L	0.10	0.017	1		05/06/23 13:27	16984-48-8	
Sulfate	176	mg/L	25.0	8.5	100		05/06/23 13:46	14808-79-8	
<b>6010 MET ICP</b>									
Analytical Method: EPA 6010 Preparation Method: EPA 3010									
Pace Analytical Services - Indianapolis									
Aluminum	ND	ug/L	200	55.4	1	05/04/23 07:40	05/04/23 23:23	7429-90-5	
Boron	5950	ug/L	100	37.6	1	05/04/23 07:40	05/04/23 23:23	7440-42-8	
Calcium	146000	ug/L	1000	163	1	05/04/23 07:40	05/04/23 23:23	7440-70-2	
Iron	ND	ug/L	100	48.8	1	05/04/23 07:40	05/04/23 23:23	7439-89-6	
Lithium	52.2	ug/L	20.0	6.2	1	05/04/23 07:40	05/04/23 23:23	7439-93-2	
Magnesium	36400	ug/L	1000	71.8	1	05/04/23 07:40	05/04/23 23:23	7439-95-4	
Manganese	ND	ug/L	10.0	2.5	1	05/04/23 07:40	05/04/23 23:23	7439-96-5	
Potassium	6540	ug/L	1000	281	1	05/04/23 07:40	05/04/23 23:23	7440-09-7	
Silica	12200	ug/L	450		1	05/04/23 07:40	05/04/23 23:23	7631-86-9	N2
Sodium	61000	ug/L	1000	214	1	05/04/23 07:40	05/04/23 23:23	7440-23-5	
<b>6010 MET ICP, Dissolved</b>									
Analytical Method: EPA 6010 Preparation Method: EPA 3010									
Pace Analytical Services - Indianapolis									
Manganese, Dissolved	ND	ug/L	10.0	2.5	1	05/04/23 16:14	05/05/23 15:26	7439-96-5	
Molybdenum, Dissolved	83.9	ug/L	10.0	3.7	1	05/04/23 16:14	05/05/23 15:26	7439-98-7	
<b>6020 MET ICPMS</b>									
Analytical Method: EPA 6020 Preparation Method: EPA 200.2									
Pace Analytical Services - Indianapolis									
Antimony	1.0	ug/L	1.0	0.036	1	05/04/23 07:30	05/04/23 22:47	7440-36-0	
Arsenic	ND	ug/L	1.0	0.053	1	05/04/23 07:30	05/04/23 22:47	7440-38-2	
Barium	73.1	ug/L	1.0	0.051	1	05/04/23 07:30	05/04/23 22:47	7440-39-3	
Beryllium	ND	ug/L	0.20	0.028	1	05/04/23 07:30	05/04/23 22:47	7440-41-7	
Cadmium	ND	ug/L	2.0	0.0090	1	05/04/23 07:30	05/04/23 22:47	7440-43-9	
Chromium	ND	ug/L	10.0	0.13	1	05/04/23 07:30	05/04/23 22:47	7440-47-3	
Cobalt	ND	ug/L	1.0	0.032	1	05/04/23 07:30	05/04/23 22:47	7440-48-4	
Lead	ND	ug/L	10.0	0.034	1	05/04/23 07:30	05/04/23 22:47	7439-92-1	
Molybdenum	83.8	ug/L	10.0	0.048	1	05/04/23 07:30	05/04/23 22:47	7439-98-7	
Selenium	36.4	ug/L	1.0	0.23	1	05/04/23 07:30	05/04/23 22:47	7782-49-2	
Thallium	ND	ug/L	1.0	0.033	1	05/04/23 07:30	05/04/23 22:47	7440-28-0	
<b>7470 Mercury</b>									
Analytical Method: EPA 7470 Preparation Method: EPA 7470									
Pace Analytical Services - Indianapolis									
Mercury	ND	ug/L	0.20	0.12	1	05/02/23 18:29	05/03/23 07:50	7439-97-6	
<b>2320B Alkalinity</b>									
Analytical Method: SM 2320B									
Pace Analytical Services - Indianapolis									
Alkalinity, Total as CaCO3	402	mg/L	10.0	10.0	1		05/04/23 00:13		
Alkalinity,Bicarbonate (CaCO3)	402	mg/L	10.0	10.0	1		05/04/23 00:13		

### REPORT OF LABORATORY ANALYSIS

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**ANALYTICAL RESULTS**

Project: Eagle Valley April 2023 P1R1  
 Pace Project No.: 50343591

Sample: MW-6S		Lab ID: 50343591001		Collected: 05/01/23 13:50	Received: 05/02/23 08:30	Matrix: Water			
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>2320B Alkalinity</b>		Analytical Method: SM 2320B Pace Analytical Services - Indianapolis							
Alkalinity, Carbonate (CaCO3)	ND	mg/L	10.0	10.0	1		05/04/23 00:13		
<b>2540C Total Dissolved Solids</b>		Analytical Method: SM 2540C Pace Analytical Services - Indianapolis							
Total Dissolved Solids	721	mg/L	10.0	10.0	1		05/03/23 14:28		
<b>4500H+ pH, Electrometric</b>		Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis							
pH at 25 Degrees C	7.4	Std. Units	0.10	0.10	1		05/09/23 12:48		H3
<b>4500S2D Sulfide Water</b>		Analytical Method: SM 4500-S2-D Pace Analytical Services - Indianapolis							
Sulfide	ND	mg/L	0.10	0.025	1		05/03/23 11:34	18496-25-8	
<b>Iron, Ferrous</b>		Analytical Method: HACH 8146 Pace Analytical Services - Indianapolis							
Iron, Ferrous	ND	mg/L	0.20	0.035	1		05/03/23 12:44	15438-31-0	H3,N2
<b>353.2 Nitrogen, NO2/NO3 unpres</b>		Analytical Method: EPA 353.2 Pace Analytical Services - Indianapolis							
Nitrogen, Nitrate	0.57	mg/L	0.10	0.011	1		05/02/23 19:41	14797-55-8	
Nitrogen, Nitrite	ND	mg/L	0.10	0.0040	1		05/02/23 19:41	14797-65-0	
<b>365.1 Total Phosphorus</b>		Analytical Method: EPA 365.1 Preparation Method: EPA 365.1 Pace Analytical Services - Indianapolis							
Phosphate as P04	ND	mg/L	0.15	0.15	1	05/05/23 13:00	05/07/23 15:43		
<b>5310C TOC</b>		Analytical Method: SM 5310C Pace Analytical Services - Indianapolis							
Total Organic Carbon	1.5	mg/L	1.0	0.24	1		05/05/23 08:18	7440-44-0	
<b>5310C Dissolved Organic Carbon</b>		Analytical Method: SM 5310C Pace Analytical Services - Indianapolis							
Dissolved Organic Carbon	1.6	mg/L	1.0	0.24	1		05/05/23 16:47		

**REPORT OF LABORATORY ANALYSIS**

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## ANALYTICAL RESULTS

Project: Eagle Valley April 2023 P1R1

Pace Project No.: 50343591

Sample: MW-6I		Lab ID: 50343591002		Collected: 05/01/23 15:55		Received: 05/02/23 08:30		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>9056 IC Anions</b>		Analytical Method: EPA 9056 Pace Analytical Services - Indianapolis							
Chloride	81.3	mg/L	25.0	6.7	100		05/06/23 15:24	16887-00-6	
Fluoride	0.32	mg/L	0.10	0.017	1		05/06/23 15:04	16984-48-8	
Sulfate	189	mg/L	25.0	8.5	100		05/06/23 15:24	14808-79-8	
<b>6010 MET ICP</b>		Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis							
Aluminum	ND	ug/L	200	55.4	1	05/04/23 07:40	05/04/23 23:25	7429-90-5	
Boron	1520	ug/L	100	37.6	1	05/04/23 07:40	05/04/23 23:25	7440-42-8	
Calcium	113000	ug/L	1000	163	1	05/04/23 07:40	05/04/23 23:25	7440-70-2	
Iron	ND	ug/L	100	48.8	1	05/04/23 07:40	05/04/23 23:25	7439-89-6	
Lithium	99.5	ug/L	20.0	6.2	1	05/04/23 07:40	05/04/23 23:25	7439-93-2	
Magnesium	24300	ug/L	1000	71.8	1	05/04/23 07:40	05/04/23 23:25	7439-95-4	
Manganese	55.9	ug/L	10.0	2.5	1	05/04/23 07:40	05/04/23 23:25	7439-96-5	
Potassium	15400	ug/L	1000	281	1	05/04/23 07:40	05/04/23 23:25	7440-09-7	
Silica	10600	ug/L	450		1	05/04/23 07:40	05/04/23 23:25	7631-86-9	N2
Sodium	85700	ug/L	1000	214	1	05/04/23 07:40	05/04/23 23:25	7440-23-5	
<b>6010 MET ICP, Dissolved</b>		Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis							
Manganese, Dissolved	55.3	ug/L	10.0	2.5	1	05/04/23 16:14	05/05/23 15:29	7439-96-5	
Molybdenum, Dissolved	180	ug/L	10.0	3.7	1	05/04/23 16:14	05/05/23 15:29	7439-98-7	
<b>6020 MET ICPMS</b>		Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis							
Antimony	ND	ug/L	1.0	0.036	1	05/04/23 07:30	05/04/23 22:50	7440-36-0	
Arsenic	ND	ug/L	1.0	0.053	1	05/04/23 07:30	05/04/23 22:50	7440-38-2	
Barium	73.8	ug/L	1.0	0.051	1	05/04/23 07:30	05/04/23 22:50	7440-39-3	
Beryllium	ND	ug/L	0.20	0.028	1	05/04/23 07:30	05/04/23 22:50	7440-41-7	
Cadmium	ND	ug/L	2.0	0.0090	1	05/04/23 07:30	05/04/23 22:50	7440-43-9	
Chromium	ND	ug/L	10.0	0.13	1	05/04/23 07:30	05/04/23 22:50	7440-47-3	
Cobalt	ND	ug/L	1.0	0.032	1	05/04/23 07:30	05/04/23 22:50	7440-48-4	
Lead	ND	ug/L	10.0	0.034	1	05/04/23 07:30	05/04/23 22:50	7439-92-1	
Molybdenum	173	ug/L	10.0	0.048	1	05/04/23 07:30	05/04/23 22:50	7439-98-7	
Selenium	ND	ug/L	1.0	0.23	1	05/04/23 07:30	05/04/23 22:50	7782-49-2	
Thallium	ND	ug/L	1.0	0.033	1	05/04/23 07:30	05/04/23 22:50	7440-28-0	
<b>7470 Mercury</b>		Analytical Method: EPA 7470 Preparation Method: EPA 7470 Pace Analytical Services - Indianapolis							
Mercury	ND	ug/L	0.20	0.12	1	05/02/23 18:29	05/03/23 07:53	7439-97-6	
<b>2320B Alkalinity</b>		Analytical Method: SM 2320B Pace Analytical Services - Indianapolis							
Alkalinity, Total as CaCO3	271	mg/L	10.0	10.0	1		05/04/23 00:13		
Alkalinity,Bicarbonate (CaCO3)	271	mg/L	10.0	10.0	1		05/04/23 00:13		

## REPORT OF LABORATORY ANALYSIS

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### ANALYTICAL RESULTS

Project: Eagle Valley April 2023 P1R1  
 Pace Project No.: 50343591

Sample: MW-6I		Lab ID: 50343591002		Collected: 05/01/23 15:55	Received: 05/02/23 08:30	Matrix: Water			
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>2320B Alkalinity</b>		Analytical Method: SM 2320B Pace Analytical Services - Indianapolis							
Alkalinity, Carbonate (CaCO3)	ND	mg/L	10.0	10.0	1		05/04/23 00:13		
<b>2540C Total Dissolved Solids</b>		Analytical Method: SM 2540C Pace Analytical Services - Indianapolis							
Total Dissolved Solids	668	mg/L	10.0	10.0	1		05/03/23 14:28		
<b>4500H+ pH, Electrometric</b>		Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis							
pH at 25 Degrees C	7.7	Std. Units	0.10	0.10	1		05/09/23 12:50		H3
<b>4500S2D Sulfide Water</b>		Analytical Method: SM 4500-S2-D Pace Analytical Services - Indianapolis							
Sulfide	ND	mg/L	0.10	0.025	1		05/03/23 11:34	18496-25-8	
<b>Iron, Ferrous</b>		Analytical Method: HACH 8146 Pace Analytical Services - Indianapolis							
Iron, Ferrous	ND	mg/L	0.20	0.035	1		05/03/23 12:45	15438-31-0	H3,N2
<b>353.2 Nitrogen, NO2/NO3 unpres</b>		Analytical Method: EPA 353.2 Pace Analytical Services - Indianapolis							
Nitrogen, Nitrate	ND	mg/L	0.10	0.011	1		05/02/23 20:05	14797-55-8	
Nitrogen, Nitrite	ND	mg/L	0.10	0.0040	1		05/02/23 20:05	14797-65-0	
<b>365.1 Total Phosphorus</b>		Analytical Method: EPA 365.1 Preparation Method: EPA 365.1 Pace Analytical Services - Indianapolis							
Phosphate as P04	ND	mg/L	0.15	0.15	1	05/05/23 13:00	05/07/23 15:44		
<b>5310C TOC</b>		Analytical Method: SM 5310C Pace Analytical Services - Indianapolis							
Total Organic Carbon	ND	mg/L	1.0	0.24	1		05/05/23 08:28	7440-44-0	
<b>5310C Dissolved Organic Carbon</b>		Analytical Method: SM 5310C Pace Analytical Services - Indianapolis							
Dissolved Organic Carbon	2.2	mg/L	1.0	0.24	1		05/05/23 16:57		

### REPORT OF LABORATORY ANALYSIS

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**ANALYTICAL RESULTS**

Project: Eagle Valley April 2023 P1R1  
 Pace Project No.: 50343591

**Sample: MW-6D**      **Lab ID: 50343591003**      Collected: 05/01/23 12:20      Received: 05/02/23 08:30      Matrix: Water

Parameters	Results	Units	Report			Prepared	Analyzed	CAS No.	Qual
			Limit	MDL	DF				

**9056 IC Anions**

Analytical Method: EPA 9056  
 Pace Analytical Services - Indianapolis

Chloride	<b>81.8</b>	mg/L	25.0	6.7	100		05/04/23 21:28	16887-00-6	
Fluoride	<b>0.22</b>	mg/L	0.10	0.017	1		05/04/23 21:11	16984-48-8	
Sulfate	<b>81.0</b>	mg/L	25.0	8.5	100		05/04/23 21:28	14808-79-8	

**6010 MET ICP**

Analytical Method: EPA 6010      Preparation Method: EPA 3010  
 Pace Analytical Services - Indianapolis

Aluminum	ND	ug/L	200	55.4	1	05/04/23 07:40	05/04/23 23:28	7429-90-5	
Boron	<b>2090</b>	ug/L	100	37.6	1	05/04/23 07:40	05/04/23 23:28	7440-42-8	
Calcium	<b>73600</b>	ug/L	1000	163	1	05/04/23 07:40	05/04/23 23:28	7440-70-2	
Iron	ND	ug/L	100	48.8	1	05/04/23 07:40	05/04/23 23:28	7439-89-6	
Lithium	<b>70.0</b>	ug/L	20.0	6.2	1	05/04/23 07:40	05/04/23 23:28	7439-93-2	
Magnesium	<b>14300</b>	ug/L	1000	71.8	1	05/04/23 07:40	05/04/23 23:28	7439-95-4	
Manganese	<b>251</b>	ug/L	10.0	2.5	1	05/04/23 07:40	05/04/23 23:28	7439-96-5	
Potassium	<b>6390</b>	ug/L	1000	281	1	05/04/23 07:40	05/04/23 23:28	7440-09-7	
Silica	<b>11300</b>	ug/L	450		1	05/04/23 07:40	05/04/23 23:28	7631-86-9	N2
Sodium	<b>79700</b>	ug/L	1000	214	1	05/04/23 07:40	05/04/23 23:28	7440-23-5	

**6010 MET ICP, Dissolved**

Analytical Method: EPA 6010      Preparation Method: EPA 3010  
 Pace Analytical Services - Indianapolis

Manganese, Dissolved	<b>237</b>	ug/L	10.0	2.5	1	05/04/23 16:14	05/05/23 15:31	7439-96-5	
Molybdenum, Dissolved	<b>216</b>	ug/L	10.0	3.7	1	05/04/23 16:14	05/05/23 15:31	7439-98-7	

**6020 MET ICPMS**

Analytical Method: EPA 6020      Preparation Method: EPA 200.2  
 Pace Analytical Services - Indianapolis

Antimony	ND	ug/L	1.0	0.036	1	05/04/23 07:30	05/04/23 22:57	7440-36-0	
Arsenic	ND	ug/L	1.0	0.053	1	05/04/23 07:30	05/04/23 22:57	7440-38-2	
Barium	<b>57.9</b>	ug/L	1.0	0.051	1	05/04/23 07:30	05/04/23 22:57	7440-39-3	
Beryllium	ND	ug/L	0.20	0.028	1	05/04/23 07:30	05/04/23 22:57	7440-41-7	
Cadmium	ND	ug/L	2.0	0.0090	1	05/04/23 07:30	05/04/23 22:57	7440-43-9	
Chromium	ND	ug/L	10.0	0.13	1	05/04/23 07:30	05/04/23 22:57	7440-47-3	
Cobalt	ND	ug/L	1.0	0.032	1	05/04/23 07:30	05/04/23 22:57	7440-48-4	
Lead	ND	ug/L	10.0	0.034	1	05/04/23 07:30	05/04/23 22:57	7439-92-1	
Molybdenum	<b>212</b>	ug/L	20.0	0.096	2	05/04/23 07:30	05/04/23 22:54	7439-98-7	
Selenium	ND	ug/L	1.0	0.23	1	05/04/23 07:30	05/04/23 22:57	7782-49-2	
Thallium	ND	ug/L	1.0	0.033	1	05/04/23 07:30	05/04/23 22:57	7440-28-0	

**7470 Mercury**

Analytical Method: EPA 7470      Preparation Method: EPA 7470  
 Pace Analytical Services - Indianapolis

Mercury	ND	ug/L	0.20	0.12	1	05/02/23 18:29	05/03/23 08:00	7439-97-6	
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**2320B Alkalinity**

Analytical Method: SM 2320B  
 Pace Analytical Services - Indianapolis

Alkalinity, Total as CaCO3	<b>220</b>	mg/L	10.0	10.0	1		05/04/23 00:13		
Alkalinity,Bicarbonate (CaCO3)	<b>220</b>	mg/L	10.0	10.0	1		05/04/23 00:13		

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**ANALYTICAL RESULTS**

Project: Eagle Valley April 2023 P1R1  
 Pace Project No.: 50343591

Sample: MW-6D		Lab ID: 50343591003		Collected: 05/01/23 12:20	Received: 05/02/23 08:30	Matrix: Water			
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>2320B Alkalinity</b>		Analytical Method: SM 2320B Pace Analytical Services - Indianapolis							
Alkalinity, Carbonate (CaCO3)	ND	mg/L	10.0	10.0	1		05/04/23 00:13		
<b>2540C Total Dissolved Solids</b>		Analytical Method: SM 2540C Pace Analytical Services - Indianapolis							
Total Dissolved Solids	471	mg/L	10.0	10.0	1		05/03/23 14:29		
<b>4500H+ pH, Electrometric</b>		Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis							
pH at 25 Degrees C	8.0	Std. Units	0.10	0.10	1		05/09/23 12:50		H3
<b>4500S2D Sulfide Water</b>		Analytical Method: SM 4500-S2-D Pace Analytical Services - Indianapolis							
Sulfide	ND	mg/L	0.10	0.025	1		05/03/23 11:34	18496-25-8	
<b>Iron, Ferrous</b>		Analytical Method: HACH 8146 Pace Analytical Services - Indianapolis							
Iron, Ferrous	ND	mg/L	0.20	0.035	1		05/03/23 12:44	15438-31-0	H3,N2
<b>353.2 Nitrogen, NO2/NO3 unpres</b>		Analytical Method: EPA 353.2 Pace Analytical Services - Indianapolis							
Nitrogen, Nitrate	0.25	mg/L	0.10	0.011	1		05/02/23 19:24	14797-55-8	
Nitrogen, Nitrite	ND	mg/L	0.10	0.0040	1		05/02/23 19:24	14797-65-0	
<b>365.1 Total Phosphorus</b>		Analytical Method: EPA 365.1 Preparation Method: EPA 365.1 Pace Analytical Services - Indianapolis							
Phosphate as P04	ND	mg/L	0.15	0.15	1	05/05/23 13:00	05/07/23 15:44		
<b>5310C TOC</b>		Analytical Method: SM 5310C Pace Analytical Services - Indianapolis							
Total Organic Carbon	ND	mg/L	1.0	0.24	1		05/06/23 03:50	7440-44-0	
<b>5310C Dissolved Organic Carbon</b>		Analytical Method: SM 5310C Pace Analytical Services - Indianapolis							
Dissolved Organic Carbon	1.8	mg/L	1.0	0.24	1		05/05/23 17:09		

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## ANALYTICAL RESULTS

Project: Eagle Valley April 2023 P1R1

Pace Project No.: 50343591

Sample: DUP-4		Lab ID: 50343591004		Collected: 05/01/23 08:00		Received: 05/02/23 08:30		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>9056 IC Anions</b>		Analytical Method: EPA 9056 Pace Analytical Services - Indianapolis							
Chloride	42.1	mg/L	25.0	6.7	100		05/04/23 22:03	16887-00-6	
Fluoride	0.28	mg/L	0.10	0.017	1		05/04/23 21:46	16984-48-8	
Sulfate	183	mg/L	25.0	8.5	100		05/04/23 22:03	14808-79-8	
<b>6010 MET ICP</b>		Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis							
Aluminum	ND	ug/L	200	55.4	1	05/04/23 07:40	05/04/23 23:30	7429-90-5	
Boron	5890	ug/L	100	37.6	1	05/04/23 07:40	05/04/23 23:30	7440-42-8	
Calcium	144000	ug/L	1000	163	1	05/04/23 07:40	05/04/23 23:30	7440-70-2	
Iron	ND	ug/L	100	48.8	1	05/04/23 07:40	05/04/23 23:30	7439-89-6	
Lithium	52.9	ug/L	20.0	6.2	1	05/04/23 07:40	05/04/23 23:30	7439-93-2	
Magnesium	35900	ug/L	1000	71.8	1	05/04/23 07:40	05/04/23 23:30	7439-95-4	
Manganese	ND	ug/L	10.0	2.5	1	05/04/23 07:40	05/04/23 23:30	7439-96-5	
Potassium	6420	ug/L	1000	281	1	05/04/23 07:40	05/04/23 23:30	7440-09-7	
Silica	12000	ug/L	450		1	05/04/23 07:40	05/04/23 23:30	7631-86-9	N2
Sodium	61100	ug/L	1000	214	1	05/04/23 07:40	05/04/23 23:30	7440-23-5	
<b>6010 MET ICP, Dissolved</b>		Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis							
Manganese, Dissolved	ND	ug/L	10.0	2.5	1	05/04/23 16:14	05/05/23 15:33	7439-96-5	
Molybdenum, Dissolved	85.5	ug/L	10.0	3.7	1	05/04/23 16:14	05/05/23 15:33	7439-98-7	
<b>6020 MET ICPMS</b>		Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis							
Antimony	1.0	ug/L	1.0	0.036	1	05/04/23 07:30	05/04/23 23:07	7440-36-0	
Arsenic	ND	ug/L	1.0	0.053	1	05/04/23 07:30	05/04/23 23:07	7440-38-2	
Barium	74.4	ug/L	1.0	0.051	1	05/04/23 07:30	05/04/23 23:07	7440-39-3	
Beryllium	ND	ug/L	0.20	0.028	1	05/04/23 07:30	05/04/23 23:07	7440-41-7	
Cadmium	ND	ug/L	2.0	0.0090	1	05/04/23 07:30	05/04/23 23:07	7440-43-9	
Chromium	ND	ug/L	10.0	0.13	1	05/04/23 07:30	05/04/23 23:07	7440-47-3	
Cobalt	ND	ug/L	1.0	0.032	1	05/04/23 07:30	05/04/23 23:07	7440-48-4	
Lead	ND	ug/L	10.0	0.034	1	05/04/23 07:30	05/04/23 23:07	7439-92-1	
Molybdenum	82.8	ug/L	10.0	0.048	1	05/04/23 07:30	05/04/23 23:07	7439-98-7	
Selenium	36.5	ug/L	1.0	0.23	1	05/04/23 07:30	05/04/23 23:07	7782-49-2	
Thallium	ND	ug/L	1.0	0.033	1	05/04/23 07:30	05/04/23 23:07	7440-28-0	
<b>7470 Mercury</b>		Analytical Method: EPA 7470 Preparation Method: EPA 7470 Pace Analytical Services - Indianapolis							
Mercury	ND	ug/L	0.20	0.12	1	05/02/23 18:29	05/03/23 08:02	7439-97-6	
<b>2320B Alkalinity</b>		Analytical Method: SM 2320B Pace Analytical Services - Indianapolis							
Alkalinity, Total as CaCO3	403	mg/L	10.0	10.0	1		05/04/23 00:13		
Alkalinity,Bicarbonate (CaCO3)	403	mg/L	10.0	10.0	1		05/04/23 00:13		

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### ANALYTICAL RESULTS

Project: Eagle Valley April 2023 P1R1

Pace Project No.: 50343591

Sample: DUP-4		Lab ID: 50343591004		Collected: 05/01/23 08:00	Received: 05/02/23 08:30	Matrix: Water			
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>2320B Alkalinity</b>									
Analytical Method: SM 2320B Pace Analytical Services - Indianapolis									
Alkalinity, Carbonate (CaCO3)	ND	mg/L	10.0	10.0	1		05/04/23 00:13		
<b>2540C Total Dissolved Solids</b>									
Analytical Method: SM 2540C Pace Analytical Services - Indianapolis									
Total Dissolved Solids	742	mg/L	10.0	10.0	1		05/03/23 14:29		
<b>4500H+ pH, Electrometric</b>									
Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis									
pH at 25 Degrees C	7.9	Std. Units	0.10	0.10	1		05/09/23 12:51		H3
<b>4500S2D Sulfide Water</b>									
Analytical Method: SM 4500-S2-D Pace Analytical Services - Indianapolis									
Sulfide	ND	mg/L	0.10	0.025	1		05/03/23 11:34	18496-25-8	
<b>Iron, Ferrous</b>									
Analytical Method: HACH 8146 Pace Analytical Services - Indianapolis									
Iron, Ferrous	ND	mg/L	0.20	0.035	1		05/03/23 12:41	15438-31-0	H3,N2
<b>353.2 Nitrogen, NO2/NO3 unpres</b>									
Analytical Method: EPA 353.2 Pace Analytical Services - Indianapolis									
Nitrogen, Nitrate	0.58	mg/L	0.10	0.011	1		05/02/23 20:14	14797-55-8	
Nitrogen, Nitrite	ND	mg/L	0.10	0.0040	1		05/02/23 20:14	14797-65-0	
<b>365.1 Total Phosphorus</b>									
Analytical Method: EPA 365.1 Preparation Method: EPA 365.1 Pace Analytical Services - Indianapolis									
Phosphate as P04	ND	mg/L	0.15	0.15	1	05/05/23 13:00	05/07/23 15:46		
<b>5310C TOC</b>									
Analytical Method: SM 5310C Pace Analytical Services - Indianapolis									
Total Organic Carbon	1.4	mg/L	1.0	0.24	1		05/06/23 04:01	7440-44-0	
<b>5310C Dissolved Organic Carbon</b>									
Analytical Method: SM 5310C Pace Analytical Services - Indianapolis									
Dissolved Organic Carbon	1.6	mg/L	1.0	0.24	1		05/05/23 17:20		

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**ANALYTICAL RESULTS**

Project: Eagle Valley April 2023 P1R1  
 Pace Project No.: 50343591

**Sample: Field Blank 1**      **Lab ID: 50343591005**      Collected: 05/01/23 16:30      Received: 05/02/23 08:30      Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>9056 IC Anions</b>									
Analytical Method: EPA 9056 Pace Analytical Services - Indianapolis									
Chloride	0.26	mg/L	0.25	0.067	1		05/04/23 22:21	16887-00-6	
Fluoride	ND	mg/L	0.10	0.017	1		05/04/23 22:21	16984-48-8	
Sulfate	0.30	mg/L	0.25	0.085	1		05/04/23 22:21	14808-79-8	
<b>6010 MET ICP</b>									
Analytical Method: EPA 6010      Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis									
Aluminum	ND	ug/L	200	55.4	1	05/04/23 07:40	05/04/23 23:32	7429-90-5	
Boron	ND	ug/L	100	37.6	1	05/04/23 07:40	05/04/23 23:32	7440-42-8	
Calcium	ND	ug/L	1000	163	1	05/04/23 07:40	05/04/23 23:32	7440-70-2	
Iron	ND	ug/L	100	48.8	1	05/04/23 07:40	05/04/23 23:32	7439-89-6	
Lithium	ND	ug/L	20.0	6.2	1	05/04/23 07:40	05/04/23 23:32	7439-93-2	
Magnesium	ND	ug/L	1000	71.8	1	05/04/23 07:40	05/04/23 23:32	7439-95-4	
Manganese	ND	ug/L	10.0	2.5	1	05/04/23 07:40	05/04/23 23:32	7439-96-5	
Potassium	ND	ug/L	1000	281	1	05/04/23 07:40	05/04/23 23:32	7440-09-7	
Silica	ND	ug/L	450		1	05/04/23 07:40	05/04/23 23:32	7631-86-9	N2
Sodium	ND	ug/L	1000	214	1	05/04/23 07:40	05/04/23 23:32	7440-23-5	
<b>6020 MET ICPMS</b>									
Analytical Method: EPA 6020      Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis									
Antimony	ND	ug/L	1.0	0.036	1	05/04/23 07:30	05/04/23 23:10	7440-36-0	
Arsenic	ND	ug/L	1.0	0.053	1	05/04/23 07:30	05/04/23 23:10	7440-38-2	
Barium	ND	ug/L	1.0	0.051	1	05/04/23 07:30	05/04/23 23:10	7440-39-3	
Beryllium	ND	ug/L	0.20	0.028	1	05/04/23 07:30	05/04/23 23:10	7440-41-7	
Cadmium	ND	ug/L	2.0	0.0090	1	05/04/23 07:30	05/04/23 23:10	7440-43-9	
Chromium	ND	ug/L	10.0	0.13	1	05/04/23 07:30	05/04/23 23:10	7440-47-3	
Cobalt	ND	ug/L	1.0	0.032	1	05/04/23 07:30	05/04/23 23:10	7440-48-4	
Lead	ND	ug/L	10.0	0.034	1	05/04/23 07:30	05/04/23 23:10	7439-92-1	
Molybdenum	ND	ug/L	10.0	0.048	1	05/04/23 07:30	05/04/23 23:10	7439-98-7	
Selenium	ND	ug/L	1.0	0.23	1	05/04/23 07:30	05/04/23 23:10	7782-49-2	
Thallium	ND	ug/L	1.0	0.033	1	05/04/23 07:30	05/04/23 23:10	7440-28-0	
<b>7470 Mercury</b>									
Analytical Method: EPA 7470      Preparation Method: EPA 7470 Pace Analytical Services - Indianapolis									
Mercury	ND	ug/L	0.20	0.12	1	05/02/23 18:29	05/03/23 08:05	7439-97-6	
<b>2320B Alkalinity</b>									
Analytical Method: SM 2320B Pace Analytical Services - Indianapolis									
Alkalinity, Total as CaCO3	ND	mg/L	10.0	10.0	1		05/04/23 00:13		
Alkalinity,Bicarbonate (CaCO3)	ND	mg/L	10.0	10.0	1		05/04/23 00:13		
Alkalinity,Carbonate (CaCO3)	ND	mg/L	10.0	10.0	1		05/04/23 00:13		
<b>2540C Total Dissolved Solids</b>									
Analytical Method: SM 2540C Pace Analytical Services - Indianapolis									
Total Dissolved Solids	ND	mg/L	10.0	10.0	1		05/03/23 14:29		PL

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### ANALYTICAL RESULTS

Project: Eagle Valley April 2023 P1R1

Pace Project No.: 50343591

Sample: Field Blank 1									
Lab ID: 50343591005									
Collected: 05/01/23 16:30									
Received: 05/02/23 08:30									
Matrix: Water									
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>4500H+ pH, Electrometric</b>									
Analytical Method: SM 4500-H+B									
Pace Analytical Services - Indianapolis									
pH at 25 Degrees C	5.7	Std. Units	0.10	0.10	1		05/09/23 12:54		H3
<b>4500S2D Sulfide Water</b>									
Analytical Method: SM 4500-S2-D									
Pace Analytical Services - Indianapolis									
Sulfide	ND	mg/L	0.10	0.025	1		05/03/23 11:34	18496-25-8	
<b>Iron, Ferrous</b>									
Analytical Method: HACH 8146									
Pace Analytical Services - Indianapolis									
Iron, Ferrous	ND	mg/L	0.20	0.035	1		05/03/23 12:45	15438-31-0	H3,N2
<b>353.2 Nitrogen, NO2/NO3 unpres</b>									
Analytical Method: EPA 353.2									
Pace Analytical Services - Indianapolis									
Nitrogen, Nitrate	ND	mg/L	0.10	0.011	1		05/02/23 20:07	14797-55-8	
Nitrogen, Nitrite	ND	mg/L	0.10	0.0040	1		05/02/23 20:07	14797-65-0	
<b>365.1 Total Phosphorus</b>									
Analytical Method: EPA 365.1 Preparation Method: EPA 365.1									
Pace Analytical Services - Indianapolis									
Phosphate as P04	ND	mg/L	0.15	0.15	1	05/05/23 13:00	05/07/23 15:46		
<b>5310C TOC</b>									
Analytical Method: SM 5310C									
Pace Analytical Services - Indianapolis									
Total Organic Carbon	ND	mg/L	1.0	0.24	1		05/06/23 04:14	7440-44-0	

### REPORT OF LABORATORY ANALYSIS

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**QUALITY CONTROL DATA**

Project: Eagle Valley April 2023 P1R1

Pace Project No.: 50343591

QC Batch:	731451	Analysis Method:	EPA 9056
QC Batch Method:	EPA 9056	Analysis Description:	9056 IC Anions
		Laboratory:	Pace Analytical Services - Indianapolis

Associated Lab Samples: 50343591001, 50343591002

METHOD BLANK: 3356576 Matrix: Water

Associated Lab Samples: 50343591001, 50343591002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chloride	mg/L	ND	0.25	0.067	05/05/23 23:08	
Fluoride	mg/L	ND	0.10	0.017	05/05/23 23:08	
Sulfate	mg/L	ND	0.25	0.085	05/05/23 23:08	

LABORATORY CONTROL SAMPLE: 3356577

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	2.5	2.3	91	80-120	
Fluoride	mg/L	1	0.91	91	80-120	
Sulfate	mg/L	5	4.7	93	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3356578 3356579

Parameter	Units	50343477002		3356579		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		Result	MS Spike Conc.	MSD Spike Conc.	MS Result								
Chloride	mg/L	90.6	25	25	114	114	95	94	80-120	0	15		
Fluoride	mg/L	ND	1	1	0.98	0.99	92	93	80-120	1	15		
Sulfate	mg/L	209	50	50	264	262	110	106	80-120	1	15		

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**REPORT OF LABORATORY ANALYSIS**

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**QUALITY CONTROL DATA**

Project: Eagle Valley April 2023 P1R1

Pace Project No.: 50343591

QC Batch:	731453	Analysis Method:	EPA 9056
QC Batch Method:	EPA 9056	Analysis Description:	9056 IC Anions
		Laboratory:	Pace Analytical Services - Indianapolis
Associated Lab Samples:	50343591003, 50343591004, 50343591005		

METHOD BLANK: 3356592 Matrix: Water  
 Associated Lab Samples: 50343591003, 50343591004, 50343591005

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chloride	mg/L	ND	0.25	0.067	05/04/23 20:36	
Fluoride	mg/L	ND	0.10	0.017	05/04/23 20:36	
Sulfate	mg/L	ND	0.25	0.085	05/04/23 20:36	

LABORATORY CONTROL SAMPLE: 3356593

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	2.5	2.4	94	80-120	
Fluoride	mg/L	1	1.0	104	80-120	
Sulfate	mg/L	5	4.7	94	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3356594 3356595

Parameter	Units	MS		MSD		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		50343595002 Result	Spike Conc.	Spike Conc.	Conc.								
Chloride	mg/L	32.7	25	25	25	55.6	55.5	91	91	80-120	0	15	
Fluoride	mg/L	ND	1	1	1	1.1	1.1	107	107	80-120	0	15	
Sulfate	mg/L	24.4	5	5	5	29.1	29.1	94	93	80-120	0	15	

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**QUALITY CONTROL DATA**

Project: Eagle Valley April 2023 P1R1

Pace Project No.: 50343591

QC Batch:	731161	Analysis Method:	EPA 7470
QC Batch Method:	EPA 7470	Analysis Description:	7470 Mercury
		Laboratory:	Pace Analytical Services - Indianapolis

Associated Lab Samples: 50343591001, 50343591002, 50343591003, 50343591004, 50343591005

METHOD BLANK: 3355468 Matrix: Water  
 Associated Lab Samples: 50343591001, 50343591002, 50343591003, 50343591004, 50343591005

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Mercury	ug/L	ND	0.20	0.12	05/03/23 07:31	

LABORATORY CONTROL SAMPLE: 3355469

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury	ug/L	5	5.4	107	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3355470 3355471

Parameter	Units	50343595002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Mercury	ug/L	ND	5	5	5.2	5.3	103	106	75-125	2	20	

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**QUALITY CONTROL DATA**

Project: Eagle Valley April 2023 P1R1  
 Pace Project No.: 50343591

QC Batch: 731100 Analysis Method: EPA 6010  
 QC Batch Method: EPA 3010 Analysis Description: 6010 MET  
 Laboratory: Pace Analytical Services - Indianapolis  
 Associated Lab Samples: 50343591001, 50343591002, 50343591003, 50343591004, 50343591005

METHOD BLANK: 3355194 Matrix: Water  
 Associated Lab Samples: 50343591001, 50343591002, 50343591003, 50343591004, 50343591005

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Aluminum	ug/L	ND	200	55.4	05/04/23 22:08	
Boron	ug/L	ND	100	37.6	05/04/23 22:08	
Calcium	ug/L	ND	1000	163	05/04/23 22:08	
Iron	ug/L	ND	100	48.8	05/04/23 22:08	
Lithium	ug/L	ND	20.0	6.2	05/04/23 22:08	
Magnesium	ug/L	ND	1000	71.8	05/04/23 22:08	
Manganese	ug/L	ND	10.0	2.5	05/04/23 22:08	
Potassium	ug/L	ND	1000	281	05/04/23 22:08	
Silica	ug/L	ND	450		05/04/23 22:08	N2
Sodium	ug/L	ND	1000	214	05/04/23 22:08	

LABORATORY CONTROL SAMPLE: 3355195

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Aluminum	ug/L	10000	9800	98	80-120	
Boron	ug/L	1000	971	97	80-120	
Calcium	ug/L	10000	9660	97	80-120	
Iron	ug/L	10000	9870	99	80-120	
Lithium	ug/L	1000	974	97	80-120	
Magnesium	ug/L	10000	9640	96	80-120	
Manganese	ug/L	1000	949	95	80-120	
Potassium	ug/L	10000	9740	97	80-120	
Silica	ug/L	10700	10300	96	80-120	N2
Sodium	ug/L	10000	9750	98	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3355196 3355197

Parameter	Units	MS		MSD		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual	
		50343073001 Result	Spike Conc.	Spike Conc.	MS Result							MSD Result
Aluminum	ug/L	<200	10000	10000	11300	10800	112	107	75-125	4	20	
Boron	ug/L	364	1000	1000	1450	1400	108	104	75-125	3	20	
Calcium	ug/L	4620000	10000	10000	4340000	4310000	-2830	-3080	75-125	1	20	P6
Iron	ug/L	1160	10000	10000	10000	9650	89	85	75-125	4	20	
Lithium	ug/L	504	1000	1000	1670	1630	117	113	75-125	2	20	
Magnesium	ug/L	3970	10000	10000	12000	11700	80	77	75-125	3	20	
Manganese	ug/L	199	1000	1000	1090	1050	89	86	75-125	3	20	
Potassium	ug/L	2420000	10000	10000	2280000	2260000	-1380	-1600	75-125	1	20	P6

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**QUALITY CONTROL DATA**

Project: Eagle Valley April 2023 P1R1

Pace Project No.: 50343591

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3355196 3355197													
Parameter	Units	50343073001		MS	MSD	MS		MSD		% Rec Limits	RPD	Max RPD	Qual
		Result	Conc.	Spike Conc.	Spike Conc.	Result	Result	% Rec	% Rec				
Silica	ug/L	7620	10700	10700	19200	18600	108	103	75-125	3	20	N2	
Sodium	ug/L	5120000	10000	10000	4820000	4790000	-3070	-3390	75-125	1	20	P6	

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**QUALITY CONTROL DATA**

Project: Eagle Valley April 2023 P1R1

Pace Project No.: 50343591

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QC Batch: 731186 Analysis Method: EPA 6010  
 QC Batch Method: EPA 3010 Analysis Description: 6010 MET Dissolved  
 Laboratory: Pace Analytical Services - Indianapolis  
 Associated Lab Samples: 50343591001, 50343591002, 50343591003, 50343591004

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METHOD BLANK: 3355547 Matrix: Water  
 Associated Lab Samples: 50343591001, 50343591002, 50343591003, 50343591004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Manganese, Dissolved	ug/L	ND	10.0	2.5	05/05/23 14:29	
Molybdenum, Dissolved	ug/L	ND	10.0	3.7	05/05/23 14:29	

LABORATORY CONTROL SAMPLE: 3355548

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Manganese, Dissolved	ug/L	2000	1670	83	80-120	
Molybdenum, Dissolved	ug/L	2000	1820	91	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3355549 3355550

Parameter	Units	50342977001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Manganese, Dissolved	ug/L	0.27 mg/L	1000	1000	1160	1150	89	88	75-125	1	20	
Molybdenum, Dissolved	ug/L	ND	1000	1000	977	955	97	95	75-125	2	20	

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**QUALITY CONTROL DATA**

Project: Eagle Valley April 2023 P1R1

Pace Project No.: 50343591

QC Batch:	731264	Analysis Method:	EPA 6020
QC Batch Method:	EPA 200.2	Analysis Description:	6020 MET
		Laboratory:	Pace Analytical Services - Indianapolis

Associated Lab Samples: 50343591001, 50343591002, 50343591003, 50343591004, 50343591005

METHOD BLANK: 3355877 Matrix: Water

Associated Lab Samples: 50343591001, 50343591002, 50343591003, 50343591004, 50343591005

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Antimony	ug/L	ND	1.0	0.036	05/04/23 18:19	
Arsenic	ug/L	ND	1.0	0.053	05/04/23 18:19	
Barium	ug/L	ND	1.0	0.051	05/04/23 18:19	
Beryllium	ug/L	ND	0.20	0.028	05/04/23 18:19	
Cadmium	ug/L	ND	2.0	0.0090	05/04/23 18:19	
Chromium	ug/L	ND	10.0	0.13	05/04/23 18:19	
Cobalt	ug/L	ND	1.0	0.032	05/04/23 18:19	
Lead	ug/L	ND	10.0	0.034	05/04/23 18:19	
Molybdenum	ug/L	ND	10.0	0.048	05/04/23 18:19	
Selenium	ug/L	ND	1.0	0.23	05/04/23 18:19	
Thallium	ug/L	ND	1.0	0.033	05/04/23 18:19	

LABORATORY CONTROL SAMPLE: 3355878

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Antimony	ug/L	40	42.2	105	80-120	
Arsenic	ug/L	40	37.8	95	80-120	
Barium	ug/L	40	39.6	99	80-120	
Beryllium	ug/L	40	40.4	101	80-120	
Cadmium	ug/L	40	39.3	98	80-120	
Chromium	ug/L	40	40.5	101	80-120	
Cobalt	ug/L	40	41.0	103	80-120	
Lead	ug/L	40	40.6	102	80-120	
Molybdenum	ug/L	40	41.4	103	80-120	
Selenium	ug/L	40	39.9	100	80-120	
Thallium	ug/L	40	40.8	102	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3355879 3355880

Parameter	Units	MS		MSD		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		50343595002	Spike Conc.	Spike Conc.	Conc.								
Antimony	ug/L	ND	40	40	40	41.1	41.8	102	104	75-125	2	20	
Arsenic	ug/L	2.5	40	40	40	40.1	39.5	94	93	75-125	1	20	
Barium	ug/L	58.4	40	40	40	100	101	104	106	75-125	1	20	
Beryllium	ug/L	ND	40	40	40	40.1	39.9	100	100	75-125	0	20	
Cadmium	ug/L	ND	40	40	40	38.2	38.5	95	96	75-125	1	20	
Chromium	ug/L	ND	40	40	40	40.9	40.9	99	99	75-125	0	20	

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### QUALITY CONTROL DATA

Project: Eagle Valley April 2023 P1R1

Pace Project No.: 50343591

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3355879 3355880												
Parameter	Units	50343595002		MS	MSD	MS		MSD		% Rec Limits	Max RPD	Qual
		Result	Conc.	Spike Conc.	Spike Conc.	Result	Result	% Rec	% Rec			
Cobalt	ug/L	3.2	40	40	41.7	41.6	96	96	75-125	0	20	
Lead	ug/L	ND	40	40	42.7	42.8	102	102	75-125	0	20	
Molybdenum	ug/L	ND	40	40	42.1	42.0	104	103	75-125	0	20	
Selenium	ug/L	ND	40	40	39.8	39.2	98	97	75-125	2	20	
Thallium	ug/L	ND	40	40	41.9	42.0	105	105	75-125	0	20	

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### QUALITY CONTROL DATA

Project: Eagle Valley April 2023 P1R1

Pace Project No.: 50343591

QC Batch: 731492

Analysis Method: SM 2320B

QC Batch Method: SM 2320B

Analysis Description: 2320B Alkalinity

Laboratory: Pace Analytical Services - Indianapolis

Associated Lab Samples: 50343591001, 50343591002, 50343591003, 50343591004, 50343591005

METHOD BLANK: 3356769

Matrix: Water

Associated Lab Samples: 50343591001, 50343591002, 50343591003, 50343591004, 50343591005

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Alkalinity, Total as CaCO3	mg/L	ND	10.0	10.0	05/04/23 00:13	
Alkalinity,Bicarbonate (CaCO3)	mg/L	ND	10.0	10.0	05/04/23 00:13	
Alkalinity,Carbonate (CaCO3)	mg/L	ND	10.0	10.0	05/04/23 00:13	

LABORATORY CONTROL SAMPLE: 3356770

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Alkalinity, Total as CaCO3	mg/L	50	48.8	98	90-110	

SAMPLE DUPLICATE: 3356771

Parameter	Units	50343591001 Result	Dup Result	RPD	Max RPD	Qualifiers
Alkalinity, Total as CaCO3	mg/L	402	407	1	20	
Alkalinity,Bicarbonate (CaCO3)	mg/L	402	407	1	20	
Alkalinity,Carbonate (CaCO3)	mg/L	ND	ND		20	

SAMPLE DUPLICATE: 3356772

Parameter	Units	50343616009 Result	Dup Result	RPD	Max RPD	Qualifiers
Alkalinity, Total as CaCO3	mg/L	53.4	53.9	1	20	
Alkalinity,Bicarbonate (CaCO3)	mg/L	46.4	46.9	1	20	
Alkalinity,Carbonate (CaCO3)	mg/L	ND	ND		20	

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**QUALITY CONTROL DATA**

Project: Eagle Valley April 2023 P1R1

Pace Project No.: 50343591

QC Batch:	731387	Analysis Method:	SM 2540C
QC Batch Method:	SM 2540C	Analysis Description:	2540C Total Dissolved Solids
		Laboratory:	Pace Analytical Services - Indianapolis
Associated Lab Samples:	50343591001, 50343591002, 50343591003, 50343591004, 50343591005		

METHOD BLANK: 3356343 Matrix: Water  
 Associated Lab Samples: 50343591001, 50343591002, 50343591003, 50343591004, 50343591005

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	ND	10.0	10.0	05/03/23 14:23	

LABORATORY CONTROL SAMPLE: 3356344

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	300	279	93	80-120	

SAMPLE DUPLICATE: 3356345

Parameter	Units	50343644001 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	1230	1240	1	10	

SAMPLE DUPLICATE: 3356346

Parameter	Units	50343595002 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	371	375	1	10	

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### QUALITY CONTROL DATA

Project: Eagle Valley April 2023 P1R1

Pace Project No.: 50343591

QC Batch: 732417

Analysis Method: SM 4500-H+B

QC Batch Method: SM 4500-H+B

Analysis Description: 4500H+B pH

Laboratory: Pace Analytical Services - Indianapolis

Associated Lab Samples: 50343591001, 50343591002, 50343591003, 50343591004, 50343591005

SAMPLE DUPLICATE: 3361360

Parameter	Units	50343589003 Result	Dup Result	RPD	Max RPD	Qualifiers
pH at 25 Degrees C	Std. Units	7.7	7.7	0	2	H3

SAMPLE DUPLICATE: 3361361

Parameter	Units	50343595002 Result	Dup Result	RPD	Max RPD	Qualifiers
pH at 25 Degrees C	Std. Units	7.7	7.7	0	2	H3

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**QUALITY CONTROL DATA**

Project: Eagle Valley April 2023 P1R1

Pace Project No.: 50343591

QC Batch:	731288	Analysis Method:	SM 4500-S2-D
QC Batch Method:	SM 4500-S2-D	Analysis Description:	4500S2D Sulfide Water
		Laboratory:	Pace Analytical Services - Indianapolis
Associated Lab Samples:	50343591001, 50343591002, 50343591003, 50343591004, 50343591005		

METHOD BLANK: 3356024 Matrix: Water  
 Associated Lab Samples: 50343591001, 50343591002, 50343591003, 50343591004, 50343591005

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Sulfide	mg/L	ND	0.10	0.025	05/03/23 11:34	

LABORATORY CONTROL SAMPLE: 3356025

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Sulfide	mg/L	0.5	0.50	101	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3356026 3356027

Parameter	Units	50343595002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Sulfide	mg/L	ND	0.5	0.5	0.44	0.46	86	89	90-110	4	20	M3

MATRIX SPIKE SAMPLE: 3356030

Parameter	Units	50343589001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Sulfide	mg/L	ND	0.5	0.48	97	90-110	

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**QUALITY CONTROL DATA**

Project: Eagle Valley April 2023 P1R1

Pace Project No.: 50343591

QC Batch: 731295 Analysis Method: HACH 8146  
 QC Batch Method: HACH 8146 Analysis Description: Iron, Ferrous  
 Laboratory: Pace Analytical Services - Indianapolis  
 Associated Lab Samples: 50343591001, 50343591002, 50343591003, 50343591004, 50343591005

METHOD BLANK: 3356053 Matrix: Water  
 Associated Lab Samples: 50343591001, 50343591002, 50343591003, 50343591004, 50343591005

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Iron, Ferrous	mg/L	ND	0.20	0.035	05/03/23 12:40	H3,N2

LABORATORY CONTROL SAMPLE: 3356054

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Iron, Ferrous	mg/L	1	1.0	104	90-110	H3,N2

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3356055 3356056

Parameter	Units	50343595002		50343595002		50343595002		% Rec Limits	RPD	Max RPD	Qual	
		MS Result	MSD Spike Conc.	MS Result	MSD Spike Conc.	MS % Rec	MSD % Rec					
Iron, Ferrous	mg/L	ND	1	1	1.2	1.2	120	121	90-110	1	20	H3,M3,N2

MATRIX SPIKE SAMPLE: 3356057

Parameter	Units	50343666002 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Iron, Ferrous	mg/L	ND	1	1.2	109	90-110	H3,N2

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**QUALITY CONTROL DATA**

Project: Eagle Valley April 2023 P1R1

Pace Project No.: 50343591

QC Batch:	731170	Analysis Method:	EPA 353.2
QC Batch Method:	EPA 353.2	Analysis Description:	353.2 Nitrate + Nitrite, Unpres.
		Laboratory:	Pace Analytical Services - Indianapolis

Associated Lab Samples: 50343591001, 50343591003, 50343591004

METHOD BLANK: 3355512 Matrix: Water  
 Associated Lab Samples: 50343591001, 50343591003, 50343591004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Nitrogen, Nitrate	mg/L	ND	0.10	0.011	05/02/23 18:52	
Nitrogen, Nitrite	mg/L	ND	0.10	0.0040	05/02/23 18:52	

LABORATORY CONTROL SAMPLE: 3355513

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Nitrogen, Nitrate	mg/L	1	1.0	104	90-110	
Nitrogen, Nitrite	mg/L	1	1.0	104	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3355514 3355515

Parameter	Units	50343595002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Nitrogen, Nitrate	mg/L	3.1	2	2	5.2	5.1	105	102	90-110	1	20	
Nitrogen, Nitrite	mg/L	ND	2	2	2.1	2.1	106	105	90-110	1	20	

MATRIX SPIKE SAMPLE: 3355516

Parameter	Units	50343591003 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Nitrogen, Nitrate	mg/L	0.25	1	1.3	106	90-110	
Nitrogen, Nitrite	mg/L	ND	1	1.0	104	90-110	

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**QUALITY CONTROL DATA**

Project: Eagle Valley April 2023 P1R1

Pace Project No.: 50343591

QC Batch: 731171

Analysis Method: EPA 353.2

QC Batch Method: EPA 353.2

Analysis Description: 353.2 Nitrate + Nitrite, Unpres.

Laboratory: Pace Analytical Services - Indianapolis

Associated Lab Samples: 50343591002, 50343591005

METHOD BLANK: 3355517

Matrix: Water

Associated Lab Samples: 50343591002, 50343591005

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Nitrogen, Nitrate	mg/L	ND	0.10	0.011	05/02/23 19:44	
Nitrogen, Nitrite	mg/L	ND	0.10	0.0040	05/02/23 19:44	

LABORATORY CONTROL SAMPLE: 3355518

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Nitrogen, Nitrate	mg/L	1	1.0	104	90-110	
Nitrogen, Nitrite	mg/L	1	1.1	105	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3355519 3355520

Parameter	Units	50343589003 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Nitrogen, Nitrate	mg/L	ND	1	1	1.1	1.0	105	104	90-110	1	20	
Nitrogen, Nitrite	mg/L	ND	1	1	1.1	1.1	106	105	90-110	1	20	

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**QUALITY CONTROL DATA**

Project: Eagle Valley April 2023 P1R1

Pace Project No.: 50343591

QC Batch:	731876	Analysis Method:	EPA 365.1
QC Batch Method:	EPA 365.1	Analysis Description:	365.1 Total Phosphorus
		Laboratory:	Pace Analytical Services - Indianapolis
Associated Lab Samples:	50343591001, 50343591002, 50343591003, 50343591004, 50343591005		

METHOD BLANK: 3358989 Matrix: Water  
 Associated Lab Samples: 50343591001, 50343591002, 50343591003, 50343591004, 50343591005

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Phosphate as P04	mg/L	ND	0.15	0.15	05/07/23 15:41	

LABORATORY CONTROL SAMPLE: 3358990

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Phosphate as P04	mg/L		1.4			

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3358991 3358992

Parameter	Units	50343595002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Phosphate as P04	mg/L	ND			1.5	1.5					4	

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**QUALITY CONTROL DATA**

Project: Eagle Valley April 2023 P1R1

Pace Project No.: 50343591

QC Batch:	731374	Analysis Method:	SM 5310C
QC Batch Method:	SM 5310C	Analysis Description:	5310C Total Organic Carbon
		Laboratory:	Pace Analytical Services - Indianapolis

Associated Lab Samples: 50343591001, 50343591002

METHOD BLANK: 3356301 Matrix: Water

Associated Lab Samples: 50343591001, 50343591002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Organic Carbon	mg/L	ND	1.0	0.24	05/05/23 03:02	

LABORATORY CONTROL SAMPLE: 3356302

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Organic Carbon	mg/L	10	10.5	105	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3356303 3356304

Parameter	Units	50343108004		3356304		% Rec	% Rec	% Rec Limits	RPD	Max RPD	Qual
		MS Result	MSD Spike Conc.	MS Result	MSD Spike Conc.						
Total Organic Carbon	mg/L	ND	10	10	10.5	105	107	80-120	2	20	

MATRIX SPIKE SAMPLE: 3356305

Parameter	Units	50343108005 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Total Organic Carbon	mg/L	ND	10	10.7	107	80-120	

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**QUALITY CONTROL DATA**

Project: Eagle Valley April 2023 P1R1

Pace Project No.: 50343591

QC Batch:	731673	Analysis Method:	SM 5310C
QC Batch Method:	SM 5310C	Analysis Description:	5310C Total Organic Carbon
		Laboratory:	Pace Analytical Services - Indianapolis

Associated Lab Samples: 50343591003, 50343591004, 50343591005

METHOD BLANK: 3357782 Matrix: Water  
 Associated Lab Samples: 50343591003, 50343591004, 50343591005

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Organic Carbon	mg/L	ND	1.0	0.24	05/06/23 03:29	

LABORATORY CONTROL SAMPLE: 3357783

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Organic Carbon	mg/L	10	10.0	100	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3357784 3357785

Parameter	Units	50343595002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Total Organic Carbon	mg/L	ND	10	10	10.7	10.9	98	100	80-120	2	20	

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**QUALITY CONTROL DATA**

Project: Eagle Valley April 2023 P1R1

Pace Project No.: 50343591

QC Batch:	731675	Analysis Method:	SM 5310C
QC Batch Method:	SM 5310C	Analysis Description:	5310C Dissolved Organic Carbon
		Laboratory:	Pace Analytical Services - Indianapolis
Associated Lab Samples:	50343591001, 50343591002, 50343591003, 50343591004		

METHOD BLANK: 3357789 Matrix: Water  
 Associated Lab Samples: 50343591001, 50343591002, 50343591003, 50343591004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Dissolved Organic Carbon	mg/L	ND	1.0	0.24	05/05/23 15:44	

LABORATORY CONTROL SAMPLE: 3357790

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Dissolved Organic Carbon	mg/L	10	9.8	98	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3357791 3357792

Parameter	Units	50343595002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Dissolved Organic Carbon	mg/L	ND	10	10	11.0	10.8	105	104	80-120	1	20	

MATRIX SPIKE SAMPLE: 3357793

Parameter	Units	50343595005 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Dissolved Organic Carbon	mg/L	ND	10	10.8	100	80-120	

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**ANALYTICAL RESULTS - RADIOCHEMISTRY**

Project: Eagle Valley April 2023 P1R1

Pace Project No.: 50343591

**Sample: MW-6S**      **Lab ID: 50343591001**      Collected: 05/01/23 13:50      Received: 05/02/23 08:30      Matrix: Water  
 PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	<b>-0.127 ± 0.379 (0.794)</b> <b>C:NA T:93%</b>	pCi/L	05/23/23 16:18	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	<b>0.562 ± 0.366 (0.691)</b> <b>C:78% T:93%</b>	pCi/L	05/16/23 11:27	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	<b>0.562 ± 0.745 (1.49)</b>	pCi/L	05/25/23 07:43	7440-14-4	

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**ANALYTICAL RESULTS - RADIOCHEMISTRY**

Project: Eagle Valley April 2023 P1R1

Pace Project No.: 50343591

**Sample: MW-6I**      **Lab ID: 50343591002**      Collected: 05/01/23 15:55      Received: 05/02/23 08:30      Matrix: Water  
 PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	<b>0.753 ± 0.460 (0.565)</b> <b>C:NA T:82%</b>	pCi/L	05/23/23 16:18	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	<b>1.13 ± 0.440 (0.664)</b> <b>C:85% T:82%</b>	pCi/L	05/16/23 11:27	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	<b>1.88 ± 0.900 (1.23)</b>	pCi/L	05/25/23 07:43	7440-14-4	

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**ANALYTICAL RESULTS - RADIOCHEMISTRY**

Project: Eagle Valley April 2023 P1R1

Pace Project No.: 50343591

**Sample: MW-6D**      **Lab ID: 50343591003**      Collected: 05/01/23 12:20      Received: 05/02/23 08:30      Matrix: Water  
 PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	<b>0.570 ± 0.424 (0.558)</b> <b>C:NA T:85%</b>	pCi/L	05/23/23 16:18	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	<b>0.875 ± 0.414 (0.694)</b> <b>C:79% T:85%</b>	pCi/L	05/16/23 11:27	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	<b>1.45 ± 0.838 (1.25)</b>	pCi/L	05/25/23 07:43	7440-14-4	

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**ANALYTICAL RESULTS - RADIOCHEMISTRY**

Project: Eagle Valley April 2023 P1R1

Pace Project No.: 50343591

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Radium-226	EPA 903.1	<b>0.0928 ± 0.258 (0.500)</b> <b>C:NA T:86%</b>	pCi/L	05/23/23 16:18	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 904.0	<b>0.695 ± 0.381 (0.675)</b> <b>C:78% T:86%</b>	pCi/L	05/16/23 11:27	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	<b>0.788 ± 0.639 (1.18)</b>	pCi/L	05/25/23 07:43	7440-14-4	

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**ANALYTICAL RESULTS - RADIOCHEMISTRY**

Project: Eagle Valley April 2023 P1R1

Pace Project No.: 50343591

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
<b>Sample: Field Blank 1</b> <b>Lab ID: 50343591005</b> Collected: 05/01/23 16:30      Received: 05/02/23 08:30      Matrix: Water PWS:      Site ID:      Sample Type:						
Pace Analytical Services - Greensburg						
Radium-226	EPA 903.1	<b>0.177 ± 0.347 (0.623)</b> <b>C:NA T:91%</b>	pCi/L	05/23/23 16:18	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 904.0	<b>0.620 ± 0.412 (0.796)</b> <b>C:79% T:91%</b>	pCi/L	05/16/23 11:27	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	<b>0.797 ± 0.759 (1.42)</b>	pCi/L	05/25/23 07:43	7440-14-4	

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### QUALITY CONTROL - RADIOCHEMISTRY

Project: Eagle Valley April 2023 P1R1

Pace Project No.: 50343591

QC Batch: 585904

Analysis Method: EPA 904.0

QC Batch Method: EPA 904.0

Analysis Description: 904.0 Radium 228

Laboratory: Pace Analytical Services - Greensburg

Associated Lab Samples: 50343591001, 50343591002, 50343591003, 50343591004, 50343591005

METHOD BLANK: 2845862

Matrix: Water

Associated Lab Samples: 50343591001, 50343591002, 50343591003, 50343591004, 50343591005

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.914 ± 0.407 (0.635) C:83% T:72%	pCi/L	05/16/23 11:17	

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### QUALITY CONTROL - RADIOCHEMISTRY

Project: Eagle Valley April 2023 P1R1

Pace Project No.: 50343591

QC Batch: 585902

Analysis Method: EPA 903.1

QC Batch Method: EPA 903.1

Analysis Description: 903.1 Radium-226

Laboratory: Pace Analytical Services - Greensburg

Associated Lab Samples: 50343591001, 50343591002, 50343591003, 50343591004, 50343591005

METHOD BLANK: 2845856

Matrix: Water

Associated Lab Samples: 50343591001, 50343591002, 50343591003, 50343591004, 50343591005

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.175 ± 0.267 (0.429) C:NA T:72%	pCi/L	05/23/23 15:45	

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## QUALIFIERS

Project: Eagle Valley April 2023 P1R1

Pace Project No.: 50343591

### DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Reported results are not rounded until the final step prior to reporting. Therefore, calculated parameters that are typically reported as "Total" may vary slightly from the sum of the reported component parameters.

Act - Activity

Unc - Uncertainty: SDWA = 1.96 sigma count uncertainty, all other matrices = Expanded Uncertainty (95% confidence interval).

Gamma Spec = Expanded Uncertainty (95.4% Confidence Interval)

(MDC) - Minimum Detectable Concentration

Trac - Tracer Recovery (%)

Carr - Carrier Recovery (%)

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

### ANALYTE QUALIFIERS

H3 Sample was received or analysis requested beyond the recognized method holding time.

M3 Matrix spike recovery was outside laboratory control limits due to matrix interferences.

N2 The lab does not hold NELAC/TNI accreditation for this parameter but other accreditations/certifications may apply. A complete list of accreditations/certifications is available upon request.

P6 Matrix spike recovery was outside laboratory control limits due to a parent sample concentration notably higher than the spike level.

PL The minimum mass of dried residue of 2.5 mg could not be obtained using the routine sample volume of 100 mL.

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### QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Eagle Valley April 2023 P1R1

Pace Project No.: 50343591

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
50343591001	MW-6S	EPA 9056	731451		
50343591002	MW-6I	EPA 9056	731451		
50343591003	MW-6D	EPA 9056	731453		
50343591004	DUP-4	EPA 9056	731453		
50343591005	Field Blank 1	EPA 9056	731453		
50343591001	MW-6S	EPA 3010	731100	EPA 6010	731764
50343591002	MW-6I	EPA 3010	731100	EPA 6010	731764
50343591003	MW-6D	EPA 3010	731100	EPA 6010	731764
50343591004	DUP-4	EPA 3010	731100	EPA 6010	731764
50343591005	Field Blank 1	EPA 3010	731100	EPA 6010	731764
50343591001	MW-6S	EPA 3010	731186	EPA 6010	731916
50343591002	MW-6I	EPA 3010	731186	EPA 6010	731916
50343591003	MW-6D	EPA 3010	731186	EPA 6010	731916
50343591004	DUP-4	EPA 3010	731186	EPA 6010	731916
50343591001	MW-6S	EPA 200.2	731264	EPA 6020	731630
50343591002	MW-6I	EPA 200.2	731264	EPA 6020	731630
50343591003	MW-6D	EPA 200.2	731264	EPA 6020	731630
50343591004	DUP-4	EPA 200.2	731264	EPA 6020	731630
50343591005	Field Blank 1	EPA 200.2	731264	EPA 6020	731630
50343591001	MW-6S	EPA 7470	731161	EPA 7470	731240
50343591002	MW-6I	EPA 7470	731161	EPA 7470	731240
50343591003	MW-6D	EPA 7470	731161	EPA 7470	731240
50343591004	DUP-4	EPA 7470	731161	EPA 7470	731240
50343591005	Field Blank 1	EPA 7470	731161	EPA 7470	731240
50343591001	MW-6S	EPA 903.1	585902		
50343591002	MW-6I	EPA 903.1	585902		
50343591003	MW-6D	EPA 903.1	585902		
50343591004	DUP-4	EPA 903.1	585902		
50343591005	Field Blank 1	EPA 903.1	585902		
50343591001	MW-6S	EPA 904.0	585904		
50343591002	MW-6I	EPA 904.0	585904		
50343591003	MW-6D	EPA 904.0	585904		
50343591004	DUP-4	EPA 904.0	585904		
50343591005	Field Blank 1	EPA 904.0	585904		
50343591001	MW-6S	Total Radium Calculation	590582		
50343591002	MW-6I	Total Radium Calculation	590582		
50343591003	MW-6D	Total Radium Calculation	590582		
50343591004	DUP-4	Total Radium Calculation	590582		
50343591005	Field Blank 1	Total Radium Calculation	590582		
50343591001	MW-6S	SM 2320B	731492		
50343591002	MW-6I	SM 2320B	731492		
50343591003	MW-6D	SM 2320B	731492		
50343591004	DUP-4	SM 2320B	731492		
50343591005	Field Blank 1	SM 2320B	731492		

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### QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Eagle Valley April 2023 P1R1

Pace Project No.: 50343591

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
50343591001	MW-6S	SM 2540C	731387		
50343591002	MW-6I	SM 2540C	731387		
50343591003	MW-6D	SM 2540C	731387		
50343591004	DUP-4	SM 2540C	731387		
50343591005	Field Blank 1	SM 2540C	731387		
50343591001	MW-6S	SM 4500-H+B	732417		
50343591002	MW-6I	SM 4500-H+B	732417		
50343591003	MW-6D	SM 4500-H+B	732417		
50343591004	DUP-4	SM 4500-H+B	732417		
50343591005	Field Blank 1	SM 4500-H+B	732417		
50343591001	MW-6S	SM 4500-S2-D	731288		
50343591002	MW-6I	SM 4500-S2-D	731288		
50343591003	MW-6D	SM 4500-S2-D	731288		
50343591004	DUP-4	SM 4500-S2-D	731288		
50343591005	Field Blank 1	SM 4500-S2-D	731288		
50343591001	MW-6S	HACH 8146	731295		
50343591002	MW-6I	HACH 8146	731295		
50343591003	MW-6D	HACH 8146	731295		
50343591004	DUP-4	HACH 8146	731295		
50343591005	Field Blank 1	HACH 8146	731295		
50343591001	MW-6S	EPA 353.2	731170		
50343591002	MW-6I	EPA 353.2	731171		
50343591003	MW-6D	EPA 353.2	731170		
50343591004	DUP-4	EPA 353.2	731170		
50343591005	Field Blank 1	EPA 353.2	731171		
50343591001	MW-6S	EPA 365.1	731876	EPA 365.1	732114
50343591002	MW-6I	EPA 365.1	731876	EPA 365.1	732114
50343591003	MW-6D	EPA 365.1	731876	EPA 365.1	732114
50343591004	DUP-4	EPA 365.1	731876	EPA 365.1	732114
50343591005	Field Blank 1	EPA 365.1	731876	EPA 365.1	732114
50343591001	MW-6S	SM 5310C	731374		
50343591002	MW-6I	SM 5310C	731374		
50343591003	MW-6D	SM 5310C	731673		
50343591004	DUP-4	SM 5310C	731673		
50343591005	Field Blank 1	SM 5310C	731673		
50343591001	MW-6S	SM 5310C	731675		
50343591002	MW-6I	SM 5310C	731675		
50343591003	MW-6D	SM 5310C	731675		
50343591004	DUP-4	SM 5310C	731675		

### REPORT OF LABORATORY ANALYSIS

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**SAMPLE CONDITION UPON RECEIPT FORM**

Date/Time and Initials of person examining contents: 05/02/23 11:15 SMK

1. Courier:  FED EX  UPS  CLIENT  PACE  USPS  OTHER \_\_\_\_\_
2. Custody Seal on Cooler/Box Present:  Yes  No  
 (If yes)Seals Intact:  Yes  No (leave blank if no seals were present)
3. Thermometer: **1 2 3 4 5 6 A B C D E F**  
 4. Cooler Temperature(s): 0.8/0.8 0.8/0.8 0.4/0.4 0.7/0.7  
 (Initial/Corrected) RECORD TEMPS OF ALL COOLERS RECEIVED (use Comments below to add more)

5. Packing Material:  Bubble Wrap  Bubble Bags  
 None  Other \_\_\_\_\_
6. Ice Type:  Wet  Blue  None
7. If temp. is over 6°C or under 0°C, was the PM notified?:  Yes  No  
 Cooler temp should be above freezing to 6°C

All discrepancies will be written out in the comments section below.

	Yes	No		Yes	No	N/A
USDA Regulated Soils? (HI, ID, NY, WA, OR,CA, NM, TX, OK, AR, LA, TN, AL, MS, NC, SC, GA, FL, or Puerto Rico)		/	All containers needing acid/base preservation have been pH CHECKED?: Exceptions: VOA, coliform, LLHg, O&G, RAD CHEM, and any container with a septum cap or preserved with HCl.			
Short Hold Time Analysis (48 hours or less)? Analysis: <u>NO3</u>	/		Circle: <u>HNO3 (&lt;2)</u> <u>H2SO4 (&lt;2)</u> NaOH (>10) NaOH/ZnAc (>9) Any non-conformance to pH recommendations will be noted on the container count form	/		
Time 5035A TC placed in Freezer or Short Holds To Lab Time: <u>12:00</u>			Residual Chlorine Check (SVOC 625 Pest/PCB 608)	Present	Absent	N/A
Rush TAT Requested (4 days or less):		/	Residual Chlorine Check (Total/Amenable/Free Cyanide)			/
Custody Signatures Present?	/		Headspace Wisconsin Sulfide?			/
Containers Intact?:	/		Headspace in VOA Vials (>6mm): See Container Count form for details	Present	Absent	No VOA Vials Sent
Sample Label (IDs/Dates/Times) Match COC?: Except TCs, which only require sample ID	/		Trip Blank Present?		/	
Extra labels on Terracore Vials? (soils only)		/	Trip Blank Custody Seals?:			/

COMMENTS:

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Sample Container Count

\*\* Place a RED dot on containers that are out of conformance \*\*

COC Line Item	WGFLU	MeOH (only)	VIALS						AMBER GLASS						PLASTIC						OTHER			Matrix	Nitric	Sulfuric	Sodium Hydroxide	Sodium Hydroxide/ZnAc						
		SBS	DG9H	VG9H	VOA VIAL HS (>6mm)	VG9U	DG9U	VG9T	AG0U	AG1H	AG1U	AG2U	AG3S	AG3SF	AG3C	BP1U	BP1N	BP2U	BP3U	BP3N	BP3F	BP3S	BP3B		BP3Z	CG3H	CG3F	Syringe Kit	Red	Yellow	Green	Black		
		DI	R																															
1												1	1		2	1	1	2	1	1	1									5	✓	✓		✓
2												1	1		1	1	1	1	1	1	1													
3												1	1		1	1	1	1	1	1	1													
4												1	1		1	1	1	1	1	1	1													
5												1	1		1	1	1	1	1	1	1													
6												1	1		1	1	1	1	1	1	1													
7												1	1		1	1	1	1	1	1	1													
8												1	1		1	1	1	1	1	1	1													
9												1	1		1	1	1	1	1	1	1													
10												1	1		1	1	1	1	1	1	1													
11												1	1		1	1	1	1	1	1	1													
12												1	1		1	1	1	1	1	1	1													

Container Codes

**Glass**

**Plastic**

G9H	40mL HCl amber voa vial	BG1T	1L Na Thiosulfate clear glass
G9P	40mL TSP amber vial	BG1U	1L unpreserved glass
G9S	40mL H2SO4 amber vial	BG3H	250mL HCl Clear Glass
G9T	40mL Na Thio amber vial	BG3U	250mL Unpres Clear Glass
G9U	40mL unpreserved amber vial	AG0U	100mL unpres amber glass
G9H	40mL HCl clear vial	AG1H	1L HCl amber glass
G9T	40mL Na Thio. clear vial	AG1S	1L H2SO4 amber glass
G9U	40mL unpreserved clear vial	AG1T	1L Na Thiosulfate amber glass
I	40mL w/hexane wipe vial	AG1U	1liter unpres amber glass
GKU	8oz unpreserved clear jar	AG2N	500mL HNO3 amber glass
GFU	4oz clear soil jar	AG2S	500mL H2SO4 amber glass
IFU	4oz unpreserved amber wide	AG2U	500mL unpres amber glass
B3H	250mL clear glass HCl	AG3S	250mL H2SO4 amber glass
B3F	250mL clear glass HCl, Field Filter	AG3SF	250mL H2SO4 amb glass -field filtered
B1H	1L HCl clear glass	AG3U	250mL unpres amber glass
B1S	1L H2SO4 clear glass	AG3C	250mL NaOH amber glass

BP4U	125mL unpreserved plastic
BP4N	125mL HNO3 plastic
BP4S	125mL H2SO4 plastic
<b>Miscellaneous</b>	
Syringe Kit	LL Cr+6 sampling kit
ZPLC	Ziploc Bag
R	Terracore Kit
SP5T	120mL Coliform Sodium Thiosulfate
GN	General Container
U	Summa Can (air sample)
WT	Water
SL	Solid Solid
OL:	Oil
NAL	Non-aqueous liquid
WP	Wipe





July 18, 2023

Mr. Mark Breting  
ATC Group Services  
7988 Centerpoint Drive  
Suite 100  
Indianapolis, IN 46256

RE: Project: Eagle Valley April 2023 P1R4  
Pace Project No.: 50343595

Dear Mr. Breting:

Enclosed are the analytical results for sample(s) received by the laboratory on May 02, 2023. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

The test results provided in this final report were generated by each of the following laboratories within the Pace Network:

- Pace Analytical Services - Indianapolis
- Pace Analytical Services - Greensburg

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Will Statz  
will.statz@pacelabs.com  
(317)228-3105  
Project Manager

Enclosures

cc: Mohammed Bazlamit, Atlas  
Mr. Robert Miller, Haley & Aldrich



## REPORT OF LABORATORY ANALYSIS

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### CERTIFICATIONS

Project: Eagle Valley April 2023 P1R4  
Pace Project No.: 50343595

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#### Pace Analytical Services Pennsylvania

1638 Roseytown Rd Suites 2,3&4, Greensburg, PA 15601  
ANAB DOD-ELAP Rad Accreditation #: L2417  
ANABISO/IEC 17025:2017 Rad Cert#: L24170  
Alabama Certification #: 41590  
Arizona Certification #: AZ0734  
Arkansas Certification  
California Certification #: 2950  
Colorado Certification #: PA01547  
Connecticut Certification #: PH-0694  
EPA Region 4 DW Rad  
Florida/TNI Certification #: E87683  
Georgia Certification #: C040  
Guam Certification  
Hawaii Certification  
Idaho Certification  
Illinois Certification  
Indiana Certification  
Iowa Certification #: 391  
Kansas Certification #: E-10358  
Kentucky Certification #: KY90133  
KY WW Permit #: KY0098221  
KY WW Permit #: KY0000221  
Louisiana DHH/TNI Certification #: LA010  
Louisiana DEQ/TNI Certification #: 04086  
Maine Certification #: 2023021  
Maryland Certification #: 308  
Massachusetts Certification #: M-PA1457  
Michigan/PADEP Certification #: 9991

Missouri Certification #: 235  
Montana Certification #: Cert0082  
Nebraska Certification #: NE-OS-29-14  
Nevada Certification #: PA014572023-03  
New Hampshire/TNI Certification #: 297622  
New Jersey/TNI Certification #: PA051  
New Mexico Certification #: PA01457  
New York/TNI Certification #: 10888  
North Carolina Certification #: 42706  
North Dakota Certification #: R-190  
Ohio EPA Rad Approval: #41249  
Oregon/TNI Certification #: PA200002-015  
Pennsylvania/TNI Certification #: 65-00282  
Puerto Rico Certification #: PA01457  
Rhode Island Certification #: 65-00282  
South Dakota Certification  
Tennessee Certification #: TN02867  
Texas/TNI Certification #: T104704188-22-18  
Utah/TNI Certification #: PA014572223-14  
USDA Soil Permit #: 525-23-67-77263  
Vermont Dept. of Health: ID# VT-0282  
Virgin Island/PADEP Certification  
Virginia/VELAP Certification #: 460198  
Washington Certification #: C868  
West Virginia DEP Certification #: 143  
West Virginia DHHR Certification #: 9964C  
Wisconsin Approve List for Rad

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#### Pace Analytical Services Indianapolis

7726 Moller Road, Indianapolis, IN 46268  
Illinois Accreditation #: 200074  
Indiana Drinking Water Laboratory #: C-49-06  
Kansas/TNI Certification #: E-10177  
Kentucky UST Agency Interest #: 80226  
Kentucky WW Laboratory ID #: 98019  
Michigan Drinking Water Laboratory #9050

Ohio VAP Certified Laboratory #: CL0065  
Oklahoma Laboratory #: 9204  
Texas Certification #: T104704355  
Wisconsin Laboratory #: 999788130  
USDA Foreign Soil Permit #: 525-23-13-23119  
USDA Compliance Agreement #: IN-SL-22-001

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### REPORT OF LABORATORY ANALYSIS

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### SAMPLE SUMMARY

Project: Eagle Valley April 2023 P1R4  
Pace Project No.: 50343595

Lab ID	Sample ID	Matrix	Date Collected	Date Received
50343595001	MW-20S	Water	05/01/23 10:20	05/02/23 08:00
50343595002	MW-20I	Water	05/01/23 11:50	05/02/23 08:00
50343595003	MW-20I MS	Water	05/01/23 11:50	05/02/23 08:00
50343595004	MW-20I MSD	Water	05/01/23 11:50	05/02/23 08:00
50343595005	MW-20D	Water	05/01/23 13:35	05/02/23 08:00
50343595006	Dup-9	Water	05/01/23 08:00	05/02/23 08:00

### REPORT OF LABORATORY ANALYSIS

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**SAMPLE ANALYTE COUNT**

Project: Eagle Valley April 2023 P1R4

Pace Project No.: 50343595

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory		
50343595001	MW-20S	EPA 9056	ADM	3	PASI-I		
		EPA 6010	ELK	10	PASI-I		
		EPA 6010	JPK	2	PASI-I		
		EPA 6020	CAW	11	PASI-I		
		EPA 7470	ILP	1	PASI-I		
		EPA 903.1	CLM	1	PASI-PA		
		EPA 904.0	JJS1	1	PASI-PA		
		Total Radium Calculation	JAL	1	PASI-PA		
		SM 2320B	DAW	3	PASI-I		
		SM 2540C	TRK	1	PASI-I		
		SM 4500-H+B	BMS	1	PASI-I		
		SM 4500-S2-D	BEP	1	PASI-I		
		HACH 8146	BEP	1	PASI-I		
		EPA 353.2	ZM	2	PASI-I		
		EPA 365.1	YAM	1	PASI-I		
		SM 5310C	ATS	1	PASI-I		
		SM 5310C	ATS	1	PASI-I		
		50343595002	MW-20I	EPA 9056	ADM	3	PASI-I
				EPA 6010	ELK	10	PASI-I
				EPA 6010	JPK	2	PASI-I
EPA 6020	CAW			11	PASI-I		
EPA 7470	ILP			1	PASI-I		
EPA 903.1	CLM			1	PASI-PA		
EPA 904.0	JJS1			1	PASI-PA		
Total Radium Calculation	JAL			1	PASI-PA		
SM 2320B	DAW			3	PASI-I		
SM 2540C	TRK			1	PASI-I		
SM 4500-H+B	BMS			1	PASI-I		
SM 4500-S2-D	BEP			1	PASI-I		
HACH 8146	BEP			1	PASI-I		
EPA 353.2	ZM			2	PASI-I		
EPA 365.1	YAM			1	PASI-I		
SM 5310C	ATS			1	PASI-I		
SM 5310C	ATS			1	PASI-I		
50343595003	MW-20I MS			EPA 903.1	CLM	1	PASI-PA
				EPA 904.0	JJS1	1	PASI-PA
50343595004	MW-20I MSD			EPA 903.1	CLM	1	PASI-PA

**REPORT OF LABORATORY ANALYSIS**

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**SAMPLE ANALYTE COUNT**

Project: Eagle Valley April 2023 P1R4

Pace Project No.: 50343595

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
50343595005	MW-20D	EPA 904.0	JJS1	1	PASI-PA
		EPA 9056	ADM	3	PASI-I
		EPA 6010	ELK	10	PASI-I
		EPA 6010	JPK	2	PASI-I
		EPA 6020	CAW	11	PASI-I
		EPA 7470	ILP	1	PASI-I
		EPA 903.1	CLM	1	PASI-PA
		EPA 904.0	JJS1	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
		SM 2320B	DAW	3	PASI-I
		SM 2540C	TRK	1	PASI-I
		SM 4500-H+B	BMS	1	PASI-I
		SM 4500-S2-D	BEP	1	PASI-I
		HACH 8146	BEP	1	PASI-I
		EPA 353.2	ZM	2	PASI-I
		EPA 365.1	YAM	1	PASI-I
		50343595006	Dup-9	SM 5310C	ATS
SM 5310C	ATS			1	PASI-I
EPA 9056	ADM			3	PASI-I
EPA 6010	ELK			10	PASI-I
EPA 6010	JPK			2	PASI-I
EPA 6020	CAW			11	PASI-I
EPA 7470	ILP			1	PASI-I
EPA 903.1	CLM			1	PASI-PA
EPA 904.0	JJS1			1	PASI-PA
Total Radium Calculation	JAL			1	PASI-PA
SM 2320B	DAW			3	PASI-I
SM 2540C	TRK			1	PASI-I
SM 4500-H+B	BMS			1	PASI-I
SM 4500-S2-D	BEP			1	PASI-I
HACH 8146	BEP			1	PASI-I
EPA 353.2	ZM			2	PASI-I
EPA 365.1	YAM			1	PASI-I
SM 5310C	ATS	1	PASI-I		
SM 5310C	ATS	1	PASI-I		

PASI-I = Pace Analytical Services - Indianapolis

PASI-PA = Pace Analytical Services - Greensburg

**REPORT OF LABORATORY ANALYSIS**

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**SUMMARY OF DETECTION**

Project: Eagle Valley April 2023 P1R4  
 Pace Project No.: 50343595

Lab Sample ID	Client Sample ID	Result	Units	Report Limit	Analyzed	Qualifiers
Method	Parameters					
<b>50343595001</b>	<b>MW-20S</b>					
EPA 9056	Chloride	7.3	mg/L	0.25	05/04/23 22:38	
EPA 9056	Fluoride	0.13	mg/L	0.10	05/04/23 22:38	
EPA 9056	Sulfate	7.4	mg/L	0.25	05/04/23 22:38	
EPA 6010	Calcium	93800	ug/L	1000	05/05/23 12:20	
EPA 6010	Iron	218	ug/L	100	05/05/23 12:20	
EPA 6010	Magnesium	22200	ug/L	1000	05/05/23 12:20	
EPA 6010	Manganese	10.3	ug/L	10.0	05/05/23 12:20	
EPA 6010	Potassium	1740	ug/L	1000	05/05/23 12:20	
EPA 6010	Silica	14600	ug/L	450	05/05/23 12:20	N2
EPA 6010	Sodium	8710	ug/L	1000	05/05/23 12:20	
EPA 6020	Barium	17.9	ug/L	1.0	05/04/23 23:14	
EPA 903.1	Radium-226	0.250 ± 0.451 (0.794) C:NA T:84%	pCi/L		05/23/23 15:45	
EPA 904.0	Radium-228	0.955 ± 0.407 (0.626) C:81% T:84%	pCi/L		05/16/23 11:28	
Total Radium Calculation	Total Radium	1.21 ± 0.858 (1.42)	pCi/L		05/25/23 07:43	
SM 2320B	Alkalinity, Total as CaCO3	263	mg/L	10.0	05/04/23 00:13	
SM 2320B	Alkalinity,Bicarbonate (CaCO3)	263	mg/L	10.0	05/04/23 00:13	
SM 2540C	Total Dissolved Solids	344	mg/L	10.0	05/03/23 14:30	
SM 4500-H+B	pH at 25 Degrees C	8.0	Std. Units	0.10	05/09/23 12:54	H3
EPA 353.2	Nitrogen, Nitrate	14.6	mg/L	1.0	05/02/23 20:23	
<b>50343595002</b>	<b>MW-20I</b>					
EPA 9056	Chloride	32.7	mg/L	2.5	05/05/23 00:05	
EPA 9056	Sulfate	24.4	mg/L	0.25	05/04/23 23:48	
EPA 6010	Aluminum	788	ug/L	200	05/05/23 12:23	
EPA 6010	Calcium	101000	ug/L	1000	05/05/23 12:23	
EPA 6010	Iron	2020	ug/L	100	05/05/23 12:23	
EPA 6010	Magnesium	27400	ug/L	1000	05/05/23 12:23	
EPA 6010	Manganese	137	ug/L	10.0	05/05/23 12:23	
EPA 6010	Potassium	4710	ug/L	1000	05/05/23 12:23	
EPA 6010	Silica	20200	ug/L	450	05/05/23 12:23	N2
EPA 6010	Sodium	14300	ug/L	1000	05/05/23 12:23	
EPA 6020	Arsenic	2.5	ug/L	1.0	05/04/23 23:17	
EPA 6020	Barium	58.4	ug/L	1.0	05/04/23 23:17	
EPA 6020	Cobalt	3.2	ug/L	1.0	05/04/23 23:17	
EPA 903.1	Radium-226	0.189 ± 0.293 (0.508) C:NA T:87%	pCi/L		05/23/23 15:45	

**REPORT OF LABORATORY ANALYSIS**

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**SUMMARY OF DETECTION**

Project: Eagle Valley April 2023 P1R4  
 Pace Project No.: 50343595

Lab Sample ID Method	Client Sample ID Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
<b>50343595002</b>	<b>MW-20I</b>					
EPA 904.0	Radium-228	0.724 ± 0.348 (0.573) C:83% T:87%	pCi/L		05/16/23 11:28	
Total Radium Calculation	Total Radium	0.913 ± 0.641 (1.08)	pCi/L		05/25/23 07:43	
SM 2320B	Alkalinity, Total as CaCO3	302	mg/L	10.0	05/03/23 00:27	
SM 2320B	Alkalinity,Bicarbonate (CaCO3)	302	mg/L	10.0	05/03/23 00:27	
SM 2540C	Total Dissolved Solids	371	mg/L	10.0	05/03/23 14:30	
SM 4500-H+B	pH at 25 Degrees C	7.7	Std. Units	0.10	05/09/23 13:02	H3
EPA 353.2	Nitrogen, Nitrate	3.1	mg/L	0.10	05/02/23 19:16	
<b>50343595003</b>	<b>MW-20I MS</b>					
EPA 903.1	Radium-226	116.20 %REC ± NA (NA) C:NA T:NA	pCi/L		05/23/23 16:01	
EPA 904.0	Radium-228	79.37 %REC ± NA (NA) C:NA T:NA	pCi/L		05/16/23 11:25	
<b>50343595004</b>	<b>MW-20I MSD</b>					
EPA 903.1	Radium-226	102.13 %REC 12.89RPD ± NA (NA) C:NA T:NA	pCi/L		05/23/23 16:01	
EPA 904.0	Radium-228	70.18 %REC 12.29RPD ± NA (NA) C:NA T:NA	pCi/L		05/16/23 11:26	
<b>50343595005</b>	<b>MW-20D</b>					
EPA 9056	Chloride	21.1	mg/L	0.25	05/05/23 01:32	
EPA 9056	Sulfate	30.0	mg/L	0.25	05/05/23 01:32	
EPA 6010	Aluminum	1780	ug/L	200	05/05/23 12:29	
EPA 6010	Calcium	87300	ug/L	1000	05/05/23 12:29	
EPA 6010	Iron	5490	ug/L	100	05/05/23 12:29	
EPA 6010	Magnesium	26400	ug/L	1000	05/05/23 12:29	
EPA 6010	Manganese	192	ug/L	10.0	05/05/23 12:29	
EPA 6010	Potassium	3110	ug/L	1000	05/05/23 12:29	
EPA 6010	Silica	23600	ug/L	450	05/05/23 12:29	N2
EPA 6010	Sodium	8650	ug/L	1000	05/05/23 12:29	
EPA 6020	Arsenic	4.9	ug/L	1.0	05/04/23 23:47	
EPA 6020	Barium	44.0	ug/L	1.0	05/04/23 23:47	
EPA 6020	Cobalt	4.1	ug/L	1.0	05/04/23 23:47	

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### SUMMARY OF DETECTION

Project: Eagle Valley April 2023 P1R4

Pace Project No.: 50343595

Lab Sample ID Method	Client Sample ID Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
<b>50343595005</b>	<b>MW-20D</b>					
EPA 903.1	Radium-226	-0.147 ± 0.397 (0.855)	pCi/L		05/23/23 16:01	
EPA 904.0	Radium-228	0.857 ± 0.452 (0.816) C:78% T:86%	pCi/L		05/16/23 11:26	
Total Radium Calculation	Total Radium	0.857 ± 0.849 (1.67)	pCi/L		05/25/23 07:43	
SM 2320B	Alkalinity, Total as CaCO3	261	mg/L	10.0	05/04/23 00:13	
SM 2320B	Alkalinity,Bicarbonate (CaCO3)	261	mg/L	10.0	05/04/23 00:13	
SM 2540C	Total Dissolved Solids	325	mg/L	10.0	05/03/23 14:30	
SM 4500-H+B	pH at 25 Degrees C	7.9	Std. Units	0.10	05/09/23 13:03	H3
EPA 353.2	Nitrogen, Nitrate	1.6	mg/L	0.10	05/02/23 19:39	
<b>50343595006</b>	<b>Dup-9</b>					
EPA 9056	Chloride	7.3	mg/L	0.25	05/05/23 02:07	
EPA 9056	Fluoride	0.13	mg/L	0.10	05/05/23 02:07	
EPA 9056	Sulfate	7.5	mg/L	0.25	05/05/23 02:07	
EPA 6010	Calcium	97500	ug/L	1000	05/05/23 12:32	
EPA 6010	Iron	140	ug/L	100	05/05/23 12:32	
EPA 6010	Magnesium	23000	ug/L	1000	05/05/23 12:32	
EPA 6010	Manganese	13.3	ug/L	10.0	05/05/23 12:32	
EPA 6010	Potassium	1800	ug/L	1000	05/05/23 12:32	
EPA 6010	Silica	15300	ug/L	450	05/05/23 12:32	N2
EPA 6010	Sodium	8900	ug/L	1000	05/05/23 12:32	
EPA 6020	Barium	18.2	ug/L	1.0	05/04/23 23:50	
EPA 903.1	Radium-226	0.000 ± 0.231 (0.470)	pCi/L		05/23/23 16:01	
EPA 904.0	Radium-228	0.595 ± 0.400 (0.776) C:83% T:91%	pCi/L		05/16/23 11:26	
Total Radium Calculation	Total Radium	0.595 ± 0.631 (1.25)	pCi/L		05/25/23 07:43	
SM 2320B	Alkalinity, Total as CaCO3	264	mg/L	10.0	05/04/23 00:13	
SM 2320B	Alkalinity,Bicarbonate (CaCO3)	264	mg/L	10.0	05/04/23 00:13	
SM 2540C	Total Dissolved Solids	317	mg/L	10.0	05/03/23 14:50	
SM 4500-H+B	pH at 25 Degrees C	7.7	Std. Units	0.10	05/09/23 13:03	H3
EPA 353.2	Nitrogen, Nitrate	14.8	mg/L	1.0	05/02/23 20:16	
SM 5310C	Total Organic Carbon	1.1	mg/L	1.0	05/06/23 05:45	

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### ANALYTICAL RESULTS

Project: Eagle Valley April 2023 P1R4  
 Pace Project No.: 50343595

**Sample: MW-20S**      **Lab ID: 50343595001**      Collected: 05/01/23 10:20      Received: 05/02/23 08:00      Matrix: Water

Parameters	Results	Units	Report			Prepared	Analyzed	CAS No.	Qual
			Limit	MDL	DF				
<b>9056 IC Anions</b>									
Analytical Method: EPA 9056									
Pace Analytical Services - Indianapolis									
Chloride	7.3	mg/L	0.25	0.067	1		05/04/23 22:38	16887-00-6	
Fluoride	0.13	mg/L	0.10	0.017	1		05/04/23 22:38	16984-48-8	
Sulfate	7.4	mg/L	0.25	0.085	1		05/04/23 22:38	14808-79-8	
<b>6010 MET ICP</b>									
Analytical Method: EPA 6010      Preparation Method: EPA 3010									
Pace Analytical Services - Indianapolis									
Aluminum	ND	ug/L	200	54.4	1	05/04/23 07:33	05/05/23 12:20	7429-90-5	
Boron	ND	ug/L	100	61.4	1	05/04/23 07:33	05/05/23 12:20	7440-42-8	
Calcium	93800	ug/L	1000	88.4	1	05/04/23 07:33	05/05/23 12:20	7440-70-2	
Iron	218	ug/L	100	48.8	1	05/04/23 07:33	05/05/23 12:20	7439-89-6	
Lithium	ND	ug/L	20.0	6.2	1	05/04/23 07:33	05/05/23 12:20	7439-93-2	
Magnesium	22200	ug/L	1000	43.0	1	05/04/23 07:33	05/05/23 12:20	7439-95-4	
Manganese	10.3	ug/L	10.0	5.4	1	05/04/23 07:33	05/05/23 12:20	7439-96-5	
Potassium	1740	ug/L	1000	200	1	05/04/23 07:33	05/05/23 12:20	7440-09-7	
Silica	14600	ug/L	450		1	05/04/23 07:33	05/05/23 12:20	7631-86-9	N2
Sodium	8710	ug/L	1000	284	1	05/04/23 07:33	05/05/23 12:20	7440-23-5	
<b>6010 MET ICP, Dissolved</b>									
Analytical Method: EPA 6010      Preparation Method: EPA 3010									
Pace Analytical Services - Indianapolis									
Manganese, Dissolved	ND	ug/L	10.0	2.5	1	05/05/23 09:10	05/06/23 02:14	7439-96-5	
Molybdenum, Dissolved	ND	ug/L	10.0	3.7	1	05/05/23 09:10	05/06/23 02:14	7439-98-7	
<b>6020 MET ICPMS</b>									
Analytical Method: EPA 6020      Preparation Method: EPA 200.2									
Pace Analytical Services - Indianapolis									
Antimony	ND	ug/L	1.0	0.036	1	05/04/23 07:30	05/04/23 23:14	7440-36-0	
Arsenic	ND	ug/L	1.0	0.053	1	05/04/23 07:30	05/04/23 23:14	7440-38-2	
Barium	17.9	ug/L	1.0	0.051	1	05/04/23 07:30	05/04/23 23:14	7440-39-3	
Beryllium	ND	ug/L	0.20	0.028	1	05/04/23 07:30	05/04/23 23:14	7440-41-7	
Cadmium	ND	ug/L	2.0	0.0090	1	05/04/23 07:30	05/04/23 23:14	7440-43-9	
Chromium	ND	ug/L	10.0	0.13	1	05/04/23 07:30	05/04/23 23:14	7440-47-3	
Cobalt	ND	ug/L	1.0	0.032	1	05/04/23 07:30	05/04/23 23:14	7440-48-4	
Lead	ND	ug/L	10.0	0.034	1	05/04/23 07:30	05/04/23 23:14	7439-92-1	
Molybdenum	ND	ug/L	10.0	0.048	1	05/04/23 07:30	05/04/23 23:14	7439-98-7	
Selenium	ND	ug/L	1.0	0.23	1	05/04/23 07:30	05/04/23 23:14	7782-49-2	
Thallium	ND	ug/L	1.0	0.033	1	05/04/23 07:30	05/04/23 23:14	7440-28-0	
<b>7470 Mercury</b>									
Analytical Method: EPA 7470      Preparation Method: EPA 7470									
Pace Analytical Services - Indianapolis									
Mercury	ND	ug/L	0.20	0.12	1	05/02/23 18:29	05/03/23 08:07	7439-97-6	
<b>2320B Alkalinity</b>									
Analytical Method: SM 2320B									
Pace Analytical Services - Indianapolis									
Alkalinity, Total as CaCO3	263	mg/L	10.0	10.0	1		05/04/23 00:13		
Alkalinity,Bicarbonate (CaCO3)	263	mg/L	10.0	10.0	1		05/04/23 00:13		

### REPORT OF LABORATORY ANALYSIS

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**ANALYTICAL RESULTS**

Project: Eagle Valley April 2023 P1R4

Pace Project No.: 50343595

Sample: MW-20S		Lab ID: 50343595001		Collected: 05/01/23 10:20	Received: 05/02/23 08:00	Matrix: Water			
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>2320B Alkalinity</b>		Analytical Method: SM 2320B Pace Analytical Services - Indianapolis							
Alkalinity, Carbonate (CaCO3)	ND	mg/L	10.0	10.0	1		05/04/23 00:13		
<b>2540C Total Dissolved Solids</b>		Analytical Method: SM 2540C Pace Analytical Services - Indianapolis							
Total Dissolved Solids	<b>344</b>	mg/L	10.0	10.0	1		05/03/23 14:30		
<b>4500H+ pH, Electrometric</b>		Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis							
pH at 25 Degrees C	<b>8.0</b>	Std. Units	0.10	0.10	1		05/09/23 12:54		H3
<b>4500S2D Sulfide Water</b>		Analytical Method: SM 4500-S2-D Pace Analytical Services - Indianapolis							
Sulfide	ND	mg/L	0.10	0.025	1		05/03/23 11:34	18496-25-8	
<b>Iron, Ferrous</b>		Analytical Method: HACH 8146 Pace Analytical Services - Indianapolis							
Iron, Ferrous	ND	mg/L	0.20	0.035	1		05/03/23 12:41	15438-31-0	H3,N2
<b>353.2 Nitrogen, NO2/NO3 unpres</b>		Analytical Method: EPA 353.2 Pace Analytical Services - Indianapolis							
Nitrogen, Nitrate	<b>14.6</b>	mg/L	1.0	0.11	10		05/02/23 20:23	14797-55-8	
Nitrogen, Nitrite	ND	mg/L	1.0	0.040	10		05/02/23 20:23	14797-65-0	
<b>365.1 Total Phosphorus</b>		Analytical Method: EPA 365.1 Preparation Method: EPA 365.1 Pace Analytical Services - Indianapolis							
Phosphate as P04	ND	mg/L	0.15	0.15	1	05/05/23 13:00	05/07/23 15:47		
<b>5310C TOC</b>		Analytical Method: SM 5310C Pace Analytical Services - Indianapolis							
Total Organic Carbon	ND	mg/L	1.0	0.24	1		05/06/23 04:24	7440-44-0	
<b>5310C Dissolved Organic Carbon</b>		Analytical Method: SM 5310C Pace Analytical Services - Indianapolis							
Dissolved Organic Carbon	ND	mg/L	1.0	0.24	1		05/05/23 17:50		

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## ANALYTICAL RESULTS

Project: Eagle Valley April 2023 P1R4

Pace Project No.: 50343595

Sample: MW-20I		Lab ID: 50343595002		Collected: 05/01/23 11:50		Received: 05/02/23 08:00		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>9056 IC Anions</b>		Analytical Method: EPA 9056 Pace Analytical Services - Indianapolis							
Chloride	32.7	mg/L	2.5	0.67	10		05/05/23 00:05	16887-00-6	
Fluoride	ND	mg/L	0.10	0.017	1		05/04/23 23:48	16984-48-8	
Sulfate	24.4	mg/L	0.25	0.085	1		05/04/23 23:48	14808-79-8	
<b>6010 MET ICP</b>		Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis							
Aluminum	788	ug/L	200	54.4	1	05/04/23 07:33	05/05/23 12:23	7429-90-5	
Boron	ND	ug/L	100	61.4	1	05/04/23 07:33	05/05/23 12:23	7440-42-8	
Calcium	101000	ug/L	1000	88.4	1	05/04/23 07:33	05/05/23 12:23	7440-70-2	
Iron	2020	ug/L	100	48.8	1	05/04/23 07:33	05/05/23 12:23	7439-89-6	
Lithium	ND	ug/L	20.0	6.2	1	05/04/23 07:33	05/05/23 12:23	7439-93-2	
Magnesium	27400	ug/L	1000	43.0	1	05/04/23 07:33	05/05/23 12:23	7439-95-4	
Manganese	137	ug/L	10.0	5.4	1	05/04/23 07:33	05/05/23 12:23	7439-96-5	
Potassium	4710	ug/L	1000	200	1	05/04/23 07:33	05/05/23 12:23	7440-09-7	
Silica	20200	ug/L	450		1	05/04/23 07:33	05/05/23 12:23	7631-86-9	N2
Sodium	14300	ug/L	1000	284	1	05/04/23 07:33	05/05/23 12:23	7440-23-5	
<b>6010 MET ICP, Dissolved</b>		Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis							
Manganese, Dissolved	ND	ug/L	10.0	2.5	1	05/05/23 09:10	05/06/23 02:16	7439-96-5	
Molybdenum, Dissolved	ND	ug/L	10.0	3.7	1	05/05/23 09:10	05/06/23 02:16	7439-98-7	
<b>6020 MET ICPMS</b>		Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis							
Antimony	ND	ug/L	1.0	0.036	1	05/04/23 07:30	05/04/23 23:17	7440-36-0	
Arsenic	2.5	ug/L	1.0	0.053	1	05/04/23 07:30	05/04/23 23:17	7440-38-2	
Barium	58.4	ug/L	1.0	0.051	1	05/04/23 07:30	05/04/23 23:17	7440-39-3	
Beryllium	ND	ug/L	0.20	0.028	1	05/04/23 07:30	05/04/23 23:17	7440-41-7	
Cadmium	ND	ug/L	2.0	0.0090	1	05/04/23 07:30	05/04/23 23:17	7440-43-9	
Chromium	ND	ug/L	10.0	0.13	1	05/04/23 07:30	05/04/23 23:17	7440-47-3	
Cobalt	3.2	ug/L	1.0	0.032	1	05/04/23 07:30	05/04/23 23:17	7440-48-4	
Lead	ND	ug/L	10.0	0.034	1	05/04/23 07:30	05/04/23 23:17	7439-92-1	
Molybdenum	ND	ug/L	10.0	0.048	1	05/04/23 07:30	05/04/23 23:17	7439-98-7	
Selenium	ND	ug/L	1.0	0.23	1	05/04/23 07:30	05/04/23 23:17	7782-49-2	
Thallium	ND	ug/L	1.0	0.033	1	05/04/23 07:30	05/04/23 23:17	7440-28-0	
<b>7470 Mercury</b>		Analytical Method: EPA 7470 Preparation Method: EPA 7470 Pace Analytical Services - Indianapolis							
Mercury	ND	ug/L	0.20	0.12	1	05/02/23 18:29	05/03/23 08:10	7439-97-6	
<b>2320B Alkalinity</b>		Analytical Method: SM 2320B Pace Analytical Services - Indianapolis							
Alkalinity, Total as CaCO3	302	mg/L	10.0	10.0	1		05/03/23 00:27		
Alkalinity,Bicarbonate (CaCO3)	302	mg/L	10.0	10.0	1		05/03/23 00:27		

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**ANALYTICAL RESULTS**

Project: Eagle Valley April 2023 P1R4  
 Pace Project No.: 50343595

Sample: MW-20I		Lab ID: 50343595002		Collected: 05/01/23 11:50	Received: 05/02/23 08:00	Matrix: Water			
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>2320B Alkalinity</b>		Analytical Method: SM 2320B Pace Analytical Services - Indianapolis							
Alkalinity, Carbonate (CaCO3)	ND	mg/L	10.0	10.0	1		05/03/23 00:27		
<b>2540C Total Dissolved Solids</b>		Analytical Method: SM 2540C Pace Analytical Services - Indianapolis							
Total Dissolved Solids	371	mg/L	10.0	10.0	1		05/03/23 14:30		
<b>4500H+ pH, Electrometric</b>		Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis							
pH at 25 Degrees C	7.7	Std. Units	0.10	0.10	1		05/09/23 13:02		H3
<b>4500S2D Sulfide Water</b>		Analytical Method: SM 4500-S2-D Pace Analytical Services - Indianapolis							
Sulfide	ND	mg/L	0.10	0.025	1		05/03/23 11:34	18496-25-8	
<b>Iron, Ferrous</b>		Analytical Method: HACH 8146 Pace Analytical Services - Indianapolis							
Iron, Ferrous	ND	mg/L	0.20	0.035	1		05/03/23 12:42	15438-31-0	H3,N2
<b>353.2 Nitrogen, NO2/NO3 unpres</b>		Analytical Method: EPA 353.2 Pace Analytical Services - Indianapolis							
Nitrogen, Nitrate	3.1	mg/L	0.10	0.011	1		05/02/23 19:16	14797-55-8	
Nitrogen, Nitrite	ND	mg/L	0.10	0.0040	1		05/02/23 19:16	14797-65-0	
<b>365.1 Total Phosphorus</b>		Analytical Method: EPA 365.1 Preparation Method: EPA 365.1 Pace Analytical Services - Indianapolis							
Phosphate as P04	ND	mg/L	0.15	0.15	1	05/05/23 13:00	05/07/23 15:47		
<b>5310C TOC</b>		Analytical Method: SM 5310C Pace Analytical Services - Indianapolis							
Total Organic Carbon	ND	mg/L	1.0	0.24	1		05/06/23 04:40	7440-44-0	
<b>5310C Dissolved Organic Carbon</b>		Analytical Method: SM 5310C Pace Analytical Services - Indianapolis							
Dissolved Organic Carbon	ND	mg/L	1.0	0.24	1		05/05/23 18:24		

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## ANALYTICAL RESULTS

Project: Eagle Valley April 2023 P1R4

Pace Project No.: 50343595

Sample: MW-20D		Lab ID: 50343595005		Collected: 05/01/23 13:35		Received: 05/02/23 08:00		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>9056 IC Anions</b>									
Analytical Method: EPA 9056									
Pace Analytical Services - Indianapolis									
Chloride	21.1	mg/L	0.25	0.067	1		05/05/23 01:32	16887-00-6	
Fluoride	ND	mg/L	0.10	0.017	1		05/05/23 01:32	16984-48-8	
Sulfate	30.0	mg/L	0.25	0.085	1		05/05/23 01:32	14808-79-8	
<b>6010 MET ICP</b>									
Analytical Method: EPA 6010 Preparation Method: EPA 3010									
Pace Analytical Services - Indianapolis									
Aluminum	1780	ug/L	200	54.4	1	05/04/23 07:33	05/05/23 12:29	7429-90-5	
Boron	ND	ug/L	100	61.4	1	05/04/23 07:33	05/05/23 12:29	7440-42-8	
Calcium	87300	ug/L	1000	88.4	1	05/04/23 07:33	05/05/23 12:29	7440-70-2	
Iron	5490	ug/L	100	48.8	1	05/04/23 07:33	05/05/23 12:29	7439-89-6	
Lithium	ND	ug/L	20.0	6.2	1	05/04/23 07:33	05/05/23 12:29	7439-93-2	
Magnesium	26400	ug/L	1000	43.0	1	05/04/23 07:33	05/05/23 12:29	7439-95-4	
Manganese	192	ug/L	10.0	5.4	1	05/04/23 07:33	05/05/23 12:29	7439-96-5	
Potassium	3110	ug/L	1000	200	1	05/04/23 07:33	05/05/23 12:29	7440-09-7	
Silica	23600	ug/L	450		1	05/04/23 07:33	05/05/23 12:29	7631-86-9	N2
Sodium	8650	ug/L	1000	284	1	05/04/23 07:33	05/05/23 12:29	7440-23-5	
<b>6010 MET ICP, Dissolved</b>									
Analytical Method: EPA 6010 Preparation Method: EPA 3010									
Pace Analytical Services - Indianapolis									
Manganese, Dissolved	ND	ug/L	10.0	2.5	1	05/05/23 09:10	05/06/23 02:27	7439-96-5	
Molybdenum, Dissolved	ND	ug/L	10.0	3.7	1	05/05/23 09:10	05/06/23 02:27	7439-98-7	
<b>6020 MET ICPMS</b>									
Analytical Method: EPA 6020 Preparation Method: EPA 200.2									
Pace Analytical Services - Indianapolis									
Antimony	ND	ug/L	1.0	0.036	1	05/04/23 07:30	05/04/23 23:47	7440-36-0	
Arsenic	4.9	ug/L	1.0	0.053	1	05/04/23 07:30	05/04/23 23:47	7440-38-2	
Barium	44.0	ug/L	1.0	0.051	1	05/04/23 07:30	05/04/23 23:47	7440-39-3	
Beryllium	ND	ug/L	0.20	0.028	1	05/04/23 07:30	05/04/23 23:47	7440-41-7	
Cadmium	ND	ug/L	2.0	0.0090	1	05/04/23 07:30	05/04/23 23:47	7440-43-9	
Chromium	ND	ug/L	10.0	0.13	1	05/04/23 07:30	05/04/23 23:47	7440-47-3	
Cobalt	4.1	ug/L	1.0	0.032	1	05/04/23 07:30	05/04/23 23:47	7440-48-4	
Lead	ND	ug/L	10.0	0.034	1	05/04/23 07:30	05/04/23 23:47	7439-92-1	
Molybdenum	ND	ug/L	10.0	0.048	1	05/04/23 07:30	05/04/23 23:47	7439-98-7	
Selenium	ND	ug/L	1.0	0.23	1	05/04/23 07:30	05/04/23 23:47	7782-49-2	
Thallium	ND	ug/L	1.0	0.033	1	05/04/23 07:30	05/04/23 23:47	7440-28-0	
<b>7470 Mercury</b>									
Analytical Method: EPA 7470 Preparation Method: EPA 7470									
Pace Analytical Services - Indianapolis									
Mercury	ND	ug/L	0.20	0.12	1	05/02/23 18:29	05/03/23 08:17	7439-97-6	
<b>2320B Alkalinity</b>									
Analytical Method: SM 2320B									
Pace Analytical Services - Indianapolis									
Alkalinity, Total as CaCO3	261	mg/L	10.0	10.0	1		05/04/23 00:13		
Alkalinity,Bicarbonate (CaCO3)	261	mg/L	10.0	10.0	1		05/04/23 00:13		

## REPORT OF LABORATORY ANALYSIS

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### ANALYTICAL RESULTS

Project: Eagle Valley April 2023 P1R4  
 Pace Project No.: 50343595

Sample: MW-20D		Lab ID: 50343595005		Collected: 05/01/23 13:35	Received: 05/02/23 08:00	Matrix: Water			
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>2320B Alkalinity</b>		Analytical Method: SM 2320B Pace Analytical Services - Indianapolis							
Alkalinity, Carbonate (CaCO3)	ND	mg/L	10.0	10.0	1		05/04/23 00:13		
<b>2540C Total Dissolved Solids</b>		Analytical Method: SM 2540C Pace Analytical Services - Indianapolis							
Total Dissolved Solids	<b>325</b>	mg/L	10.0	10.0	1		05/03/23 14:30		
<b>4500H+ pH, Electrometric</b>		Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis							
pH at 25 Degrees C	<b>7.9</b>	Std. Units	0.10	0.10	1		05/09/23 13:03		H3
<b>4500S2D Sulfide Water</b>		Analytical Method: SM 4500-S2-D Pace Analytical Services - Indianapolis							
Sulfide	ND	mg/L	0.10	0.025	1		05/03/23 11:34	18496-25-8	
<b>Iron, Ferrous</b>		Analytical Method: HACH 8146 Pace Analytical Services - Indianapolis							
Iron, Ferrous	ND	mg/L	0.20	0.035	1		05/03/23 12:44	15438-31-0	H3,N2
<b>353.2 Nitrogen, NO2/NO3 unpres</b>		Analytical Method: EPA 353.2 Pace Analytical Services - Indianapolis							
Nitrogen, Nitrate	<b>1.6</b>	mg/L	0.10	0.011	1		05/02/23 19:39	14797-55-8	
Nitrogen, Nitrite	ND	mg/L	0.10	0.0040	1		05/02/23 19:39	14797-65-0	
<b>365.1 Total Phosphorus</b>		Analytical Method: EPA 365.1 Preparation Method: EPA 365.1 Pace Analytical Services - Indianapolis							
Phosphate as P04	ND	mg/L	0.15	0.15	1	05/05/23 13:00	05/07/23 15:50		
<b>5310C TOC</b>		Analytical Method: SM 5310C Pace Analytical Services - Indianapolis							
Total Organic Carbon	ND	mg/L	4.0	0.94	4		05/06/23 05:11	7440-44-0	D3
<b>5310C Dissolved Organic Carbon</b>		Analytical Method: SM 5310C Pace Analytical Services - Indianapolis							
Dissolved Organic Carbon	ND	mg/L	1.0	0.24	1		05/05/23 18:55		

### REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: Eagle Valley April 2023 P1R4

Pace Project No.: 50343595

Sample: Dup-9		Lab ID: 50343595006		Collected: 05/01/23 08:00	Received: 05/02/23 08:00	Matrix: Water			
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>9056 IC Anions</b>		Analytical Method: EPA 9056 Pace Analytical Services - Indianapolis							
Chloride	7.3	mg/L	0.25	0.067	1		05/05/23 02:07	16887-00-6	
Fluoride	0.13	mg/L	0.10	0.017	1		05/05/23 02:07	16984-48-8	
Sulfate	7.5	mg/L	0.25	0.085	1		05/05/23 02:07	14808-79-8	
<b>6010 MET ICP</b>		Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis							
Aluminum	ND	ug/L	200	54.4	1	05/04/23 07:33	05/05/23 12:32	7429-90-5	
Boron	ND	ug/L	100	61.4	1	05/04/23 07:33	05/05/23 12:32	7440-42-8	
Calcium	97500	ug/L	1000	88.4	1	05/04/23 07:33	05/05/23 12:32	7440-70-2	
Iron	140	ug/L	100	48.8	1	05/04/23 07:33	05/05/23 12:32	7439-89-6	
Lithium	ND	ug/L	20.0	6.2	1	05/04/23 07:33	05/05/23 12:32	7439-93-2	
Magnesium	23000	ug/L	1000	43.0	1	05/04/23 07:33	05/05/23 12:32	7439-95-4	
Manganese	13.3	ug/L	10.0	5.4	1	05/04/23 07:33	05/05/23 12:32	7439-96-5	
Potassium	1800	ug/L	1000	200	1	05/04/23 07:33	05/05/23 12:32	7440-09-7	
Silica	15300	ug/L	450		1	05/04/23 07:33	05/05/23 12:32	7631-86-9	N2
Sodium	8900	ug/L	1000	284	1	05/04/23 07:33	05/05/23 12:32	7440-23-5	
<b>6010 MET ICP, Dissolved</b>		Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis							
Manganese, Dissolved	ND	ug/L	10.0	2.5	1	05/05/23 09:10	05/06/23 02:29	7439-96-5	
Molybdenum, Dissolved	ND	ug/L	10.0	3.7	1	05/05/23 09:10	05/06/23 02:29	7439-98-7	
<b>6020 MET ICPMS</b>		Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis							
Antimony	ND	ug/L	1.0	0.036	1	05/04/23 07:30	05/04/23 23:50	7440-36-0	
Arsenic	ND	ug/L	1.0	0.053	1	05/04/23 07:30	05/04/23 23:50	7440-38-2	
Barium	18.2	ug/L	1.0	0.051	1	05/04/23 07:30	05/04/23 23:50	7440-39-3	
Beryllium	ND	ug/L	0.20	0.028	1	05/04/23 07:30	05/04/23 23:50	7440-41-7	
Cadmium	ND	ug/L	2.0	0.0090	1	05/04/23 07:30	05/04/23 23:50	7440-43-9	
Chromium	ND	ug/L	10.0	0.13	1	05/04/23 07:30	05/04/23 23:50	7440-47-3	
Cobalt	ND	ug/L	1.0	0.032	1	05/04/23 07:30	05/04/23 23:50	7440-48-4	
Lead	ND	ug/L	10.0	0.034	1	05/04/23 07:30	05/04/23 23:50	7439-92-1	
Molybdenum	ND	ug/L	10.0	0.048	1	05/04/23 07:30	05/04/23 23:50	7439-98-7	
Selenium	ND	ug/L	1.0	0.23	1	05/04/23 07:30	05/04/23 23:50	7782-49-2	
Thallium	ND	ug/L	1.0	0.033	1	05/04/23 07:30	05/04/23 23:50	7440-28-0	
<b>7470 Mercury</b>		Analytical Method: EPA 7470 Preparation Method: EPA 7470 Pace Analytical Services - Indianapolis							
Mercury	ND	ug/L	0.20	0.12	1	05/02/23 18:29	05/03/23 08:20	7439-97-6	
<b>2320B Alkalinity</b>		Analytical Method: SM 2320B Pace Analytical Services - Indianapolis							
Alkalinity, Total as CaCO3	264	mg/L	10.0	10.0	1		05/04/23 00:13		
Alkalinity,Bicarbonate (CaCO3)	264	mg/L	10.0	10.0	1		05/04/23 00:13		

## REPORT OF LABORATORY ANALYSIS

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**ANALYTICAL RESULTS**

Project: Eagle Valley April 2023 P1R4  
 Pace Project No.: 50343595

Sample: Dup-9		Lab ID: 50343595006		Collected: 05/01/23 08:00	Received: 05/02/23 08:00	Matrix: Water			
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>2320B Alkalinity</b>		Analytical Method: SM 2320B Pace Analytical Services - Indianapolis							
Alkalinity, Carbonate (CaCO3)	ND	mg/L	10.0	10.0	1		05/04/23 00:13		
<b>2540C Total Dissolved Solids</b>		Analytical Method: SM 2540C Pace Analytical Services - Indianapolis							
Total Dissolved Solids	317	mg/L	10.0	10.0	1		05/03/23 14:50		
<b>4500H+ pH, Electrometric</b>		Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis							
pH at 25 Degrees C	7.7	Std. Units	0.10	0.10	1		05/09/23 13:03		H3
<b>4500S2D Sulfide Water</b>		Analytical Method: SM 4500-S2-D Pace Analytical Services - Indianapolis							
Sulfide	ND	mg/L	0.10	0.025	1		05/03/23 11:34	18496-25-8	
<b>Iron, Ferrous</b>		Analytical Method: HACH 8146 Pace Analytical Services - Indianapolis							
Iron, Ferrous	ND	mg/L	0.20	0.035	1		05/03/23 12:41	15438-31-0	H3,N2
<b>353.2 Nitrogen, NO2/NO3 unpres</b>		Analytical Method: EPA 353.2 Pace Analytical Services - Indianapolis							
Nitrogen, Nitrate	14.8	mg/L	1.0	0.11	10		05/02/23 20:16	14797-55-8	
Nitrogen, Nitrite	ND	mg/L	1.0	0.040	10		05/02/23 20:16	14797-65-0	
<b>365.1 Total Phosphorus</b>		Analytical Method: EPA 365.1 Preparation Method: EPA 365.1 Pace Analytical Services - Indianapolis							
Phosphate as P04	ND	mg/L	0.15	0.15	1	05/05/23 13:00	05/07/23 15:50		
<b>5310C TOC</b>		Analytical Method: SM 5310C Pace Analytical Services - Indianapolis							
Total Organic Carbon	1.1	mg/L	1.0	0.24	1		05/06/23 05:45	7440-44-0	
<b>5310C Dissolved Organic Carbon</b>		Analytical Method: SM 5310C Pace Analytical Services - Indianapolis							
Dissolved Organic Carbon	ND	mg/L	1.0	0.24	1		05/05/23 19:16		

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**QUALITY CONTROL DATA**

Project: Eagle Valley April 2023 P1R4

Pace Project No.: 50343595

QC Batch:	731453	Analysis Method:	EPA 9056
QC Batch Method:	EPA 9056	Analysis Description:	9056 IC Anions
		Laboratory:	Pace Analytical Services - Indianapolis

Associated Lab Samples: 50343595001, 50343595002, 50343595005, 50343595006

METHOD BLANK: 3356592 Matrix: Water

Associated Lab Samples: 50343595001, 50343595002, 50343595005, 50343595006

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chloride	mg/L	ND	0.25	0.067	05/04/23 20:36	
Fluoride	mg/L	ND	0.10	0.017	05/04/23 20:36	
Sulfate	mg/L	ND	0.25	0.085	05/04/23 20:36	

LABORATORY CONTROL SAMPLE: 3356593

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	2.5	2.4	94	80-120	
Fluoride	mg/L	1	1.0	104	80-120	
Sulfate	mg/L	5	4.7	94	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3356594 3356595

Parameter	Units	MS		MSD		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		50343595002	Result	Spike Conc.	Spike Conc.								
Chloride	mg/L	32.7	25	25	25	55.6	55.5	91	91	80-120	0	15	
Fluoride	mg/L	ND	1	1	1	1.1	1.1	107	107	80-120	0	15	
Sulfate	mg/L	24.4	5	5	5	29.1	29.1	94	93	80-120	0	15	

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**QUALITY CONTROL DATA**

Project: Eagle Valley April 2023 P1R4

Pace Project No.: 50343595

QC Batch:	731161	Analysis Method:	EPA 7470
QC Batch Method:	EPA 7470	Analysis Description:	7470 Mercury
		Laboratory:	Pace Analytical Services - Indianapolis
Associated Lab Samples:	50343595001, 50343595002, 50343595005, 50343595006		

METHOD BLANK: 3355468 Matrix: Water  
 Associated Lab Samples: 50343595001, 50343595002, 50343595005, 50343595006

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Mercury	ug/L	ND	0.20	0.12	05/03/23 07:31	

LABORATORY CONTROL SAMPLE: 3355469

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury	ug/L	5	5.4	107	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3355470 3355471

Parameter	Units	50343595002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Mercury	ug/L	ND	5	5	5.2	5.3	103	106	75-125	2	20	

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**QUALITY CONTROL DATA**

Project: Eagle Valley April 2023 P1R4  
 Pace Project No.: 50343595

QC Batch: 731202 Analysis Method: EPA 6010  
 QC Batch Method: EPA 3010 Analysis Description: 6010 MET  
 Laboratory: Pace Analytical Services - Indianapolis

Associated Lab Samples: 50343595001, 50343595002, 50343595005, 50343595006

METHOD BLANK: 3355608 Matrix: Water  
 Associated Lab Samples: 50343595001, 50343595002, 50343595005, 50343595006

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Aluminum	ug/L	ND	200	54.4	05/05/23 10:52	
Boron	ug/L	ND	100	61.4	05/05/23 10:52	
Calcium	ug/L	ND	1000	88.4	05/05/23 10:52	
Iron	ug/L	ND	100	48.8	05/05/23 10:52	
Lithium	ug/L	ND	20.0	6.2	05/05/23 10:52	
Magnesium	ug/L	ND	1000	43.0	05/05/23 10:52	
Manganese	ug/L	ND	10.0	5.4	05/05/23 10:52	
Potassium	ug/L	ND	1000	200	05/05/23 10:52	
Silica	ug/L	ND	450		05/05/23 10:52	N2
Sodium	ug/L	ND	1000	284	05/05/23 10:52	

LABORATORY CONTROL SAMPLE: 3355609

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Aluminum	ug/L	10000	9520	95	80-120	
Boron	ug/L	1000	954	95	80-120	
Calcium	ug/L	10000	10000	100	80-120	
Iron	ug/L	10000	10400	104	80-120	
Lithium	ug/L	1000	1020	102	80-120	
Magnesium	ug/L	10000	9400	94	80-120	
Manganese	ug/L	1000	995	99	80-120	
Potassium	ug/L	10000	10000	100	80-120	
Silica	ug/L	10700	10300	96	80-120	N2
Sodium	ug/L	10000	9910	99	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3355610 3355611

Parameter	Units	MS		MSD		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual	
		50343568002 Result	Spike Conc.	Spike Conc.	Result							Result
Aluminum	ug/L	449	10000	10000	10800	10900	103	104	75-125	1	20	
Boron	ug/L	ND	1000	1000	1100	1100	100	101	75-125	0	20	
Calcium	ug/L	234000	10000	10000	245000	245000	110	111	75-125	0	20	E
Iron	ug/L	5280	10000	10000	15900	16000	106	107	75-125	0	20	
Lithium	ug/L	ND	1000	1000	1080	1070	108	107	75-125	1	20	
Magnesium	ug/L	23800	10000	10000	33700	33800	99	100	75-125	0	20	
Manganese	ug/L	859	1000	1000	1860	1880	100	102	75-125	1	20	
Potassium	ug/L	4870	10000	10000	15800	15600	109	107	75-125	1	20	

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**QUALITY CONTROL DATA**

Project: Eagle Valley April 2023 P1R4

Pace Project No.: 50343595

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3355610												3355611	
Parameter	Units	50343568002 Result	MS	MSD	MS	MSD	MS	MSD	% Rec	Limits	RPD	Max RPD	Qual
			Spike Conc.	Spike Conc.	Result	Result	% Rec	% Rec					
Silica	ug/L	9690	10700	10700	21100	21000	107	105	75-125	1	20	N2	
Sodium	ug/L	63400	10000	10000	74600	74400	112	110	75-125	0	20		

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3355612												3355613	
Parameter	Units	50343595002 Result	MS	MSD	MS	MSD	MS	MSD	% Rec	Limits	RPD	Max RPD	Qual
			Spike Conc.	Spike Conc.	Result	Result	% Rec	% Rec					
Aluminum	ug/L	788	10000	10000	10600	10800	98	100	75-125	2	20		
Boron	ug/L	ND	1000	1000	1030	1050	96	99	75-125	2	20		
Calcium	ug/L	101000	10000	10000	109000	111000	86	103	75-125	2	20		
Iron	ug/L	2020	10000	10000	12300	12500	103	105	75-125	2	20		
Lithium	ug/L	ND	1000	1000	1030	1070	103	107	75-125	3	20		
Magnesium	ug/L	27400	10000	10000	36100	36800	88	95	75-125	2	20		
Manganese	ug/L	137	1000	1000	1120	1140	98	101	75-125	2	20		
Potassium	ug/L	4710	10000	10000	15000	15200	103	105	75-125	1	20		
Silica	ug/L	20200	10700	10700	31300	31600	103	106	75-125	1	20	N2	
Sodium	ug/L	14300	10000	10000	24100	24600	98	103	75-125	2	20		

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**QUALITY CONTROL DATA**

Project: Eagle Valley April 2023 P1R4

Pace Project No.: 50343595

QC Batch: 731786 Analysis Method: EPA 6010  
 QC Batch Method: EPA 3010 Analysis Description: 6010 MET Dissolved  
 Laboratory: Pace Analytical Services - Indianapolis  
 Associated Lab Samples: 50343595001, 50343595002, 50343595005, 50343595006

METHOD BLANK: 3358694 Matrix: Water  
 Associated Lab Samples: 50343595001, 50343595002, 50343595005, 50343595006

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Manganese, Dissolved	ug/L	ND	10.0	2.5	05/06/23 02:12	
Molybdenum, Dissolved	ug/L	ND	10.0	3.7	05/06/23 02:12	

LABORATORY CONTROL SAMPLE: 3358695

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Manganese, Dissolved	ug/L	1000	943	94	80-120	
Molybdenum, Dissolved	ug/L	1000	994	99	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3358696 3358697

Parameter	Units	50343595002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Manganese, Dissolved	ug/L	ND	1000	1000	976	944	97	94	75-125	3	20	
Molybdenum, Dissolved	ug/L	ND	1000	1000	1020	999	102	100	75-125	2	20	

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**QUALITY CONTROL DATA**

Project: Eagle Valley April 2023 P1R4

Pace Project No.: 50343595

QC Batch:	731264	Analysis Method:	EPA 6020
QC Batch Method:	EPA 200.2	Analysis Description:	6020 MET
		Laboratory:	Pace Analytical Services - Indianapolis

Associated Lab Samples: 50343595001, 50343595002, 50343595005, 50343595006

METHOD BLANK: 3355877 Matrix: Water

Associated Lab Samples: 50343595001, 50343595002, 50343595005, 50343595006

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Antimony	ug/L	ND	1.0	0.036	05/04/23 18:19	
Arsenic	ug/L	ND	1.0	0.053	05/04/23 18:19	
Barium	ug/L	ND	1.0	0.051	05/04/23 18:19	
Beryllium	ug/L	ND	0.20	0.028	05/04/23 18:19	
Cadmium	ug/L	ND	2.0	0.0090	05/04/23 18:19	
Chromium	ug/L	ND	10.0	0.13	05/04/23 18:19	
Cobalt	ug/L	ND	1.0	0.032	05/04/23 18:19	
Lead	ug/L	ND	10.0	0.034	05/04/23 18:19	
Molybdenum	ug/L	ND	10.0	0.048	05/04/23 18:19	
Selenium	ug/L	ND	1.0	0.23	05/04/23 18:19	
Thallium	ug/L	ND	1.0	0.033	05/04/23 18:19	

LABORATORY CONTROL SAMPLE: 3355878

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Antimony	ug/L	40	42.2	105	80-120	
Arsenic	ug/L	40	37.8	95	80-120	
Barium	ug/L	40	39.6	99	80-120	
Beryllium	ug/L	40	40.4	101	80-120	
Cadmium	ug/L	40	39.3	98	80-120	
Chromium	ug/L	40	40.5	101	80-120	
Cobalt	ug/L	40	41.0	103	80-120	
Lead	ug/L	40	40.6	102	80-120	
Molybdenum	ug/L	40	41.4	103	80-120	
Selenium	ug/L	40	39.9	100	80-120	
Thallium	ug/L	40	40.8	102	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3355879 3355880

Parameter	Units	MS		MSD		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		50343595002 Result	Spike Conc.	Spike Conc.	Conc.								
Antimony	ug/L	ND	40	40	40	41.1	41.8	102	104	75-125	2	20	
Arsenic	ug/L	2.5	40	40	40	40.1	39.5	94	93	75-125	1	20	
Barium	ug/L	58.4	40	40	40	100	101	104	106	75-125	1	20	
Beryllium	ug/L	ND	40	40	40	40.1	39.9	100	100	75-125	0	20	
Cadmium	ug/L	ND	40	40	40	38.2	38.5	95	96	75-125	1	20	
Chromium	ug/L	ND	40	40	40	40.9	40.9	99	99	75-125	0	20	

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**QUALITY CONTROL DATA**

Project: Eagle Valley April 2023 P1R4

Pace Project No.: 50343595

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3355879 3355880												
Parameter	Units	50343595002		MS	MSD	MS		MSD		% Rec Limits	Max RPD	Qual
		Result	Conc.	Spike Conc.	Spike Conc.	Result	Result	% Rec	% Rec			
Cobalt	ug/L	3.2	40	40	41.7	41.6	96	96	75-125	0	20	
Lead	ug/L	ND	40	40	42.7	42.8	102	102	75-125	0	20	
Molybdenum	ug/L	ND	40	40	42.1	42.0	104	103	75-125	0	20	
Selenium	ug/L	ND	40	40	39.8	39.2	98	97	75-125	2	20	
Thallium	ug/L	ND	40	40	41.9	42.0	105	105	75-125	0	20	

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**QUALITY CONTROL DATA**

Project: Eagle Valley April 2023 P1R4

Pace Project No.: 50343595

QC Batch: 731220

Analysis Method: SM 2320B

QC Batch Method: SM 2320B

Analysis Description: 2320B Alkalinity

Laboratory: Pace Analytical Services - Indianapolis

Associated Lab Samples: 50343595002

METHOD BLANK: 3355723

Matrix: Water

Associated Lab Samples: 50343595002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Alkalinity, Total as CaCO3	mg/L	ND	10.0	10.0	05/03/23 00:27	
Alkalinity,Bicarbonate (CaCO3)	mg/L	ND	10.0	10.0	05/03/23 00:27	
Alkalinity,Carbonate (CaCO3)	mg/L	ND	10.0	10.0	05/03/23 00:27	

LABORATORY CONTROL SAMPLE: 3355724

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Alkalinity, Total as CaCO3	mg/L	50	48.2	96	90-110	

SAMPLE DUPLICATE: 3355725

Parameter	Units	50343595002 Result	Dup Result	RPD	Max RPD	Qualifiers
Alkalinity, Total as CaCO3	mg/L	302	302	0	20	
Alkalinity,Bicarbonate (CaCO3)	mg/L	302	302	0	20	
Alkalinity,Carbonate (CaCO3)	mg/L	ND	ND		20	

SAMPLE DUPLICATE: 3355726

Parameter	Units	50343330001 Result	Dup Result	RPD	Max RPD	Qualifiers
Alkalinity, Total as CaCO3	mg/L	249	250	0	20	
Alkalinity,Bicarbonate (CaCO3)	mg/L	239	240	1	20	
Alkalinity,Carbonate (CaCO3)	mg/L	10.2	ND		20	

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**QUALITY CONTROL DATA**

Project: Eagle Valley April 2023 P1R4

Pace Project No.: 50343595

QC Batch:	731492	Analysis Method:	SM 2320B
QC Batch Method:	SM 2320B	Analysis Description:	2320B Alkalinity
		Laboratory:	Pace Analytical Services - Indianapolis
Associated Lab Samples:	50343595001, 50343595005, 50343595006		

METHOD BLANK: 3356769 Matrix: Water

Associated Lab Samples: 50343595001, 50343595005, 50343595006

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Alkalinity, Total as CaCO3	mg/L	ND	10.0	10.0	05/04/23 00:13	
Alkalinity,Bicarbonate (CaCO3)	mg/L	ND	10.0	10.0	05/04/23 00:13	
Alkalinity,Carbonate (CaCO3)	mg/L	ND	10.0	10.0	05/04/23 00:13	

LABORATORY CONTROL SAMPLE: 3356770

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Alkalinity, Total as CaCO3	mg/L	50	48.8	98	90-110	

SAMPLE DUPLICATE: 3356771

Parameter	Units	50343591001 Result	Dup Result	RPD	Max RPD	Qualifiers
Alkalinity, Total as CaCO3	mg/L	402	407	1	20	
Alkalinity,Bicarbonate (CaCO3)	mg/L	402	407	1	20	
Alkalinity,Carbonate (CaCO3)	mg/L	ND	ND		20	

SAMPLE DUPLICATE: 3356772

Parameter	Units	50343616009 Result	Dup Result	RPD	Max RPD	Qualifiers
Alkalinity, Total as CaCO3	mg/L	53.4	53.9	1	20	
Alkalinity,Bicarbonate (CaCO3)	mg/L	46.4	46.9	1	20	
Alkalinity,Carbonate (CaCO3)	mg/L	ND	ND		20	

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### QUALITY CONTROL DATA

Project: Eagle Valley April 2023 P1R4

Pace Project No.: 50343595

QC Batch:	731387	Analysis Method:	SM 2540C
QC Batch Method:	SM 2540C	Analysis Description:	2540C Total Dissolved Solids
		Laboratory:	Pace Analytical Services - Indianapolis

Associated Lab Samples: 50343595001, 50343595002, 50343595005

METHOD BLANK: 3356343 Matrix: Water

Associated Lab Samples: 50343595001, 50343595002, 50343595005

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	ND	10.0	10.0	05/03/23 14:23	

LABORATORY CONTROL SAMPLE: 3356344

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	300	279	93	80-120	

SAMPLE DUPLICATE: 3356345

Parameter	Units	50343644001 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	1230	1240	1	10	

SAMPLE DUPLICATE: 3356346

Parameter	Units	50343595002 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	371	375	1	10	

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**QUALITY CONTROL DATA**

Project: Eagle Valley April 2023 P1R4

Pace Project No.: 50343595

QC Batch: 731396

Analysis Method: SM 2540C

QC Batch Method: SM 2540C

Analysis Description: 2540C Total Dissolved Solids

Laboratory: Pace Analytical Services - Indianapolis

Associated Lab Samples: 50343595006

METHOD BLANK: 3356369

Matrix: Water

Associated Lab Samples: 50343595006

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	ND	10.0	10.0	05/03/23 14:50	

LABORATORY CONTROL SAMPLE: 3356370

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	300	279	93	80-120	

SAMPLE DUPLICATE: 3356371

Parameter	Units	50343615001 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	884	869	2	10	

SAMPLE DUPLICATE: 3356372

Parameter	Units	50343616003 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	1920	1910	1	10	

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### QUALITY CONTROL DATA

Project: Eagle Valley April 2023 P1R4

Pace Project No.: 50343595

QC Batch: 732417

Analysis Method: SM 4500-H+B

QC Batch Method: SM 4500-H+B

Analysis Description: 4500H+B pH

Laboratory: Pace Analytical Services - Indianapolis

Associated Lab Samples: 50343595001, 50343595002, 50343595005, 50343595006

SAMPLE DUPLICATE: 3361360

Parameter	Units	50343589003 Result	Dup Result	RPD	Max RPD	Qualifiers
pH at 25 Degrees C	Std. Units	7.7	7.7	0	2	H3

SAMPLE DUPLICATE: 3361361

Parameter	Units	50343595002 Result	Dup Result	RPD	Max RPD	Qualifiers
pH at 25 Degrees C	Std. Units	7.7	7.7	0	2	H3

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**QUALITY CONTROL DATA**

Project: Eagle Valley April 2023 P1R4

Pace Project No.: 50343595

QC Batch:	731288	Analysis Method:	SM 4500-S2-D
QC Batch Method:	SM 4500-S2-D	Analysis Description:	4500S2D Sulfide Water
		Laboratory:	Pace Analytical Services - Indianapolis

Associated Lab Samples: 50343595001, 50343595002, 50343595005, 50343595006

METHOD BLANK: 3356024 Matrix: Water  
 Associated Lab Samples: 50343595001, 50343595002, 50343595005, 50343595006

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Sulfide	mg/L	ND	0.10	0.025	05/03/23 11:34	

LABORATORY CONTROL SAMPLE: 3356025

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Sulfide	mg/L	0.5	0.50	101	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3356026 3356027

Parameter	Units	50343595002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Sulfide	mg/L	ND	0.5	0.5	0.44	0.46	86	89	90-110	4	20	M3

MATRIX SPIKE SAMPLE: 3356030

Parameter	Units	50343589001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Sulfide	mg/L	ND	0.5	0.48	97	90-110	

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**QUALITY CONTROL DATA**

Project: Eagle Valley April 2023 P1R4  
 Pace Project No.: 50343595

QC Batch: 731295 Analysis Method: HACH 8146  
 QC Batch Method: HACH 8146 Analysis Description: Iron, Ferrous  
 Laboratory: Pace Analytical Services - Indianapolis  
 Associated Lab Samples: 50343595001, 50343595002, 50343595005, 50343595006

METHOD BLANK: 3356053 Matrix: Water  
 Associated Lab Samples: 50343595001, 50343595002, 50343595005, 50343595006

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Iron, Ferrous	mg/L	ND	0.20	0.035	05/03/23 12:40	H3,N2

LABORATORY CONTROL SAMPLE: 3356054

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Iron, Ferrous	mg/L	1	1.0	104	90-110	H3,N2

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3356055 3356056

Parameter	Units	50343595002		3356056		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual	
		MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result							
Iron, Ferrous	mg/L	ND	1	1	1.2	1.2	120	121	90-110	1	20	H3,M3,N2

MATRIX SPIKE SAMPLE: 3356057

Parameter	Units	50343666002 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Iron, Ferrous	mg/L	ND	1	1.2	109	90-110	H3,N2

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**QUALITY CONTROL DATA**

Project: Eagle Valley April 2023 P1R4

Pace Project No.: 50343595

QC Batch:	731170	Analysis Method:	EPA 353.2
QC Batch Method:	EPA 353.2	Analysis Description:	353.2 Nitrate + Nitrite, Unpres.
		Laboratory:	Pace Analytical Services - Indianapolis

Associated Lab Samples: 50343595001, 50343595002, 50343595005, 50343595006

METHOD BLANK: 3355512 Matrix: Water  
 Associated Lab Samples: 50343595001, 50343595002, 50343595005, 50343595006

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Nitrogen, Nitrate	mg/L	ND	0.10	0.011	05/02/23 18:52	
Nitrogen, Nitrite	mg/L	ND	0.10	0.0040	05/02/23 18:52	

LABORATORY CONTROL SAMPLE: 3355513

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Nitrogen, Nitrate	mg/L	1	1.0	104	90-110	
Nitrogen, Nitrite	mg/L	1	1.0	104	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3355514 3355515

Parameter	Units	50343595002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Nitrogen, Nitrate	mg/L	3.1	2	2	5.2	5.1	105	102	90-110	1	20	
Nitrogen, Nitrite	mg/L	ND	2	2	2.1	2.1	106	105	90-110	1	20	

MATRIX SPIKE SAMPLE: 3355516

Parameter	Units	50343591003 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Nitrogen, Nitrate	mg/L		0.25	1	1.3	106	90-110
Nitrogen, Nitrite	mg/L		ND	1	1.0	104	90-110

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**QUALITY CONTROL DATA**

Project: Eagle Valley April 2023 P1R4

Pace Project No.: 50343595

QC Batch:	731876	Analysis Method:	EPA 365.1
QC Batch Method:	EPA 365.1	Analysis Description:	365.1 Total Phosphorus
		Laboratory:	Pace Analytical Services - Indianapolis

Associated Lab Samples: 50343595001, 50343595002, 50343595005, 50343595006

METHOD BLANK: 3358989 Matrix: Water  
 Associated Lab Samples: 50343595001, 50343595002, 50343595005, 50343595006

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Phosphate as P04	mg/L	ND	0.15	0.15	05/07/23 15:41	

LABORATORY CONTROL SAMPLE: 3358990

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Phosphate as P04	mg/L		1.4			

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3358991 3358992

Parameter	Units	50343595002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Phosphate as P04	mg/L	ND			1.5	1.5				4		

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**QUALITY CONTROL DATA**

Project: Eagle Valley April 2023 P1R4

Pace Project No.: 50343595

QC Batch:	731673	Analysis Method:	SM 5310C
QC Batch Method:	SM 5310C	Analysis Description:	5310C Total Organic Carbon
		Laboratory:	Pace Analytical Services - Indianapolis

Associated Lab Samples: 50343595001, 50343595002, 50343595005, 50343595006

METHOD BLANK: 3357782 Matrix: Water  
 Associated Lab Samples: 50343595001, 50343595002, 50343595005, 50343595006

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Organic Carbon	mg/L	ND	1.0	0.24	05/06/23 03:29	

LABORATORY CONTROL SAMPLE: 3357783

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Organic Carbon	mg/L	10	10.0	100	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3357784 3357785

Parameter	Units	50343595002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Total Organic Carbon	mg/L	ND	10	10	10.7	10.9	98	100	80-120	2	20	

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**QUALITY CONTROL DATA**

Project: Eagle Valley April 2023 P1R4

Pace Project No.: 50343595

QC Batch:	731675	Analysis Method:	SM 5310C
QC Batch Method:	SM 5310C	Analysis Description:	5310C Dissolved Organic Carbon
		Laboratory:	Pace Analytical Services - Indianapolis
Associated Lab Samples:	50343595001, 50343595002, 50343595005, 50343595006		

METHOD BLANK: 3357789 Matrix: Water  
 Associated Lab Samples: 50343595001, 50343595002, 50343595005, 50343595006

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Dissolved Organic Carbon	mg/L	ND	1.0	0.24	05/05/23 15:44	

LABORATORY CONTROL SAMPLE: 3357790

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Dissolved Organic Carbon	mg/L	10	9.8	98	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3357791 3357792

Parameter	Units	50343595002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Dissolved Organic Carbon	mg/L	ND	10	10	11.0	10.8	105	104	80-120	1	20	

MATRIX SPIKE SAMPLE: 3357793

Parameter	Units	50343595005 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Dissolved Organic Carbon	mg/L	ND	10	10.8	100	80-120	

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**ANALYTICAL RESULTS - RADIOCHEMISTRY**

Project: Eagle Valley April 2023 P1R4

Pace Project No.: 50343595

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Radium-226	EPA 903.1	<b>0.250 ± 0.451 (0.794)</b> <b>C:NA T:84%</b>	pCi/L	05/23/23 15:45	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 904.0	<b>0.955 ± 0.407 (0.626)</b> <b>C:81% T:84%</b>	pCi/L	05/16/23 11:28	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	<b>1.21 ± 0.858 (1.42)</b>	pCi/L	05/25/23 07:43	7440-14-4	

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Eagle Valley April 2023 P1R4

Pace Project No.: 50343595

**Sample: MW-20I**      **Lab ID: 50343595002**      Collected: 05/01/23 11:50      Received: 05/02/23 08:00      Matrix: Water  
 PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	<b>0.189 ± 0.293 (0.508)</b> <b>C:NA T:87%</b>	pCi/L	05/23/23 15:45	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	<b>0.724 ± 0.348 (0.573)</b> <b>C:83% T:87%</b>	pCi/L	05/16/23 11:28	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	<b>0.913 ± 0.641 (1.08)</b>	pCi/L	05/25/23 07:43	7440-14-4	

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Eagle Valley April 2023 P1R4

Pace Project No.: 50343595

<b>Sample: MW-20I MS</b>	<b>Lab ID: 50343595003</b>	Collected: 05/01/23 11:50	Received: 05/02/23 08:00	Matrix: Water
PWS:	Site ID:	Sample Type:		

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Radium-226	EPA 903.1	<b>116.20 %REC ± NA (NA)</b> <b>C:NA T:NA</b>	pCi/L	05/23/23 16:01	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 904.0	<b>79.37 %REC ± NA (NA)</b> <b>C:NA T:NA</b>	pCi/L	05/16/23 11:25	15262-20-1	

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Eagle Valley April 2023 P1R4

Pace Project No.: 50343595

<b>Sample:</b> MW-20I MSD	<b>Lab ID:</b> 50343595004	Collected: 05/01/23 11:50	Received: 05/02/23 08:00	Matrix: Water
PWS:	Site ID:	Sample Type:		

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Radium-226	EPA 903.1	<b>102.13 %REC 12.89RPD ±</b> <b>NA (NA)</b> <b>C:NA T:NA</b>	pCi/L	05/23/23 16:01	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 904.0	<b>70.18 %REC 12.29RPD ±</b> <b>NA (NA)</b> <b>C:NA T:NA</b>	pCi/L	05/16/23 11:26	15262-20-1	

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Eagle Valley April 2023 P1R4

Pace Project No.: 50343595

**Sample: MW-20D**      **Lab ID: 50343595005**      Collected: 05/01/23 13:35      Received: 05/02/23 08:00      Matrix: Water  
 PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	<b>-0.147 ± 0.397 (0.855)</b> <b>C:NA T:86%</b>	pCi/L	05/23/23 16:01	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	<b>0.857 ± 0.452 (0.816)</b> <b>C:78% T:86%</b>	pCi/L	05/16/23 11:26	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	<b>0.857 ± 0.849 (1.67)</b>	pCi/L	05/25/23 07:43	7440-14-4	

### REPORT OF LABORATORY ANALYSIS

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**ANALYTICAL RESULTS - RADIOCHEMISTRY**

Project: Eagle Valley April 2023 P1R4

Pace Project No.: 50343595

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Radium-226	EPA 903.1	<b>0.000 ± 0.231 (0.470)</b> <b>C:NA T:91%</b>	pCi/L	05/23/23 16:01	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 904.0	<b>0.595 ± 0.400 (0.776)</b> <b>C:83% T:91%</b>	pCi/L	05/16/23 11:26	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	<b>0.595 ± 0.631 (1.25)</b>	pCi/L	05/25/23 07:43	7440-14-4	

**REPORT OF LABORATORY ANALYSIS**

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### QUALITY CONTROL - RADIOCHEMISTRY

Project: Eagle Valley April 2023 P1R4

Pace Project No.: 50343595

QC Batch: 585904

Analysis Method: EPA 904.0

QC Batch Method: EPA 904.0

Analysis Description: 904.0 Radium 228

Laboratory: Pace Analytical Services - Greensburg

Associated Lab Samples: 50343595001, 50343595002, 50343595003, 50343595004, 50343595005, 50343595006

METHOD BLANK: 2845862

Matrix: Water

Associated Lab Samples: 50343595001, 50343595002, 50343595003, 50343595004, 50343595005, 50343595006

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.914 ± 0.407 (0.635) C:83% T:72%	pCi/L	05/16/23 11:17	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

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### QUALITY CONTROL - RADIOCHEMISTRY

Project: Eagle Valley April 2023 P1R4

Pace Project No.: 50343595

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QC Batch:	585902	Analysis Method:	EPA 903.1
QC Batch Method:	EPA 903.1	Analysis Description:	903.1 Radium-226
		Laboratory:	Pace Analytical Services - Greensburg

Associated Lab Samples: 50343595001, 50343595002, 50343595003, 50343595004, 50343595005, 50343595006

---

METHOD BLANK: 2845856 Matrix: Water

Associated Lab Samples: 50343595001, 50343595002, 50343595003, 50343595004, 50343595005, 50343595006

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Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.175 ± 0.267 (0.429) C:NA T:72%	pCi/L	05/23/23 15:45	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

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## QUALIFIERS

Project: Eagle Valley April 2023 P1R4

Pace Project No.: 50343595

### DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Reported results are not rounded until the final step prior to reporting. Therefore, calculated parameters that are typically reported as "Total" may vary slightly from the sum of the reported component parameters.

Act - Activity

Unc - Uncertainty: SDWA = 1.96 sigma count uncertainty, all other matrices = Expanded Uncertainty (95% confidence interval).

Gamma Spec = Expanded Uncertainty (95.4% Confidence Interval)

(MDC) - Minimum Detectable Concentration

Trac - Tracer Recovery (%)

Carr - Carrier Recovery (%)

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

### ANALYTE QUALIFIERS

D3 Sample was diluted due to the presence of high levels of non-target analytes or other matrix interference.

E Analyte concentration exceeded the calibration range. The reported result is estimated.

H3 Sample was received or analysis requested beyond the recognized method holding time.

M3 Matrix spike recovery was outside laboratory control limits due to matrix interferences.

N2 The lab does not hold NELAC/TNI accreditation for this parameter but other accreditations/certifications may apply. A complete list of accreditations/certifications is available upon request.

## REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Eagle Valley April 2023 P1R4

Pace Project No.: 50343595

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
50343595001	MW-20S	EPA 9056	731453		
50343595002	MW-20I	EPA 9056	731453		
50343595005	MW-20D	EPA 9056	731453		
50343595006	Dup-9	EPA 9056	731453		
50343595001	MW-20S	EPA 3010	731202	EPA 6010	731884
50343595002	MW-20I	EPA 3010	731202	EPA 6010	731884
50343595005	MW-20D	EPA 3010	731202	EPA 6010	731884
50343595006	Dup-9	EPA 3010	731202	EPA 6010	731884
50343595001	MW-20S	EPA 3010	731786	EPA 6010	732034
50343595002	MW-20I	EPA 3010	731786	EPA 6010	732034
50343595005	MW-20D	EPA 3010	731786	EPA 6010	732034
50343595006	Dup-9	EPA 3010	731786	EPA 6010	732034
50343595001	MW-20S	EPA 200.2	731264	EPA 6020	731630
50343595002	MW-20I	EPA 200.2	731264	EPA 6020	731630
50343595005	MW-20D	EPA 200.2	731264	EPA 6020	731630
50343595006	Dup-9	EPA 200.2	731264	EPA 6020	731630
50343595001	MW-20S	EPA 7470	731161	EPA 7470	731240
50343595002	MW-20I	EPA 7470	731161	EPA 7470	731240
50343595005	MW-20D	EPA 7470	731161	EPA 7470	731240
50343595006	Dup-9	EPA 7470	731161	EPA 7470	731240
50343595001	MW-20S	EPA 903.1	585902		
50343595002	MW-20I	EPA 903.1	585902		
50343595003	MW-20I MS	EPA 903.1	585902		
50343595004	MW-20I MSD	EPA 903.1	585902		
50343595005	MW-20D	EPA 903.1	585902		
50343595006	Dup-9	EPA 903.1	585902		
50343595001	MW-20S	EPA 904.0	585904		
50343595002	MW-20I	EPA 904.0	585904		
50343595003	MW-20I MS	EPA 904.0	585904		
50343595004	MW-20I MSD	EPA 904.0	585904		
50343595005	MW-20D	EPA 904.0	585904		
50343595006	Dup-9	EPA 904.0	585904		
50343595001	MW-20S	Total Radium Calculation	590582		
50343595002	MW-20I	Total Radium Calculation	590582		
50343595005	MW-20D	Total Radium Calculation	590582		
50343595006	Dup-9	Total Radium Calculation	590582		
50343595001	MW-20S	SM 2320B	731492		
50343595002	MW-20I	SM 2320B	731220		
50343595005	MW-20D	SM 2320B	731492		
50343595006	Dup-9	SM 2320B	731492		
50343595001	MW-20S	SM 2540C	731387		
50343595002	MW-20I	SM 2540C	731387		
50343595005	MW-20D	SM 2540C	731387		

REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Eagle Valley April 2023 P1R4

Pace Project No.: 50343595

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
50343595006	Dup-9	SM 2540C	731396		
50343595001	MW-20S	SM 4500-H+B	732417		
50343595002	MW-20I	SM 4500-H+B	732417		
50343595005	MW-20D	SM 4500-H+B	732417		
50343595006	Dup-9	SM 4500-H+B	732417		
50343595001	MW-20S	SM 4500-S2-D	731288		
50343595002	MW-20I	SM 4500-S2-D	731288		
50343595005	MW-20D	SM 4500-S2-D	731288		
50343595006	Dup-9	SM 4500-S2-D	731288		
50343595001	MW-20S	HACH 8146	731295		
50343595002	MW-20I	HACH 8146	731295		
50343595005	MW-20D	HACH 8146	731295		
50343595006	Dup-9	HACH 8146	731295		
50343595001	MW-20S	EPA 353.2	731170		
50343595002	MW-20I	EPA 353.2	731170		
50343595005	MW-20D	EPA 353.2	731170		
50343595006	Dup-9	EPA 353.2	731170		
50343595001	MW-20S	EPA 365.1	731876	EPA 365.1	732114
50343595002	MW-20I	EPA 365.1	731876	EPA 365.1	732114
50343595005	MW-20D	EPA 365.1	731876	EPA 365.1	732114
50343595006	Dup-9	EPA 365.1	731876	EPA 365.1	732114
50343595001	MW-20S	SM 5310C	731673		
50343595002	MW-20I	SM 5310C	731673		
50343595005	MW-20D	SM 5310C	731673		
50343595006	Dup-9	SM 5310C	731673		
50343595001	MW-20S	SM 5310C	731675		
50343595002	MW-20I	SM 5310C	731675		
50343595005	MW-20D	SM 5310C	731675		
50343595006	Dup-9	SM 5310C	731675		

### REPORT OF LABORATORY ANALYSIS

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**SAMPLE CONDITION UPON RECEIPT FORM**

Date/Time and Initials of person examining contents: MTL 5/2/23 1135

1. Courier:  FED EX  UPS  CLIENT  PACE  USPS  OTHER \_\_\_\_\_
2. Custody Seal on Cooler/Box Present:  Yes  No  
 (If yes)Seals Intact:  Yes  No (leave blank if no seals were present)
3. Thermometer: **1 2 3 4 5 6 A B C D E F**
4. Cooler Temperature(s): 0.2/0.2 0.4/0.4    
 (Initial/Corrected) RECORD TEMPS OF ALL COOLERS RECEIVED (use Comments below to add more)

5. Packing Material:  Bubble Wrap  Bubble Bags  
 None  Other \_\_\_\_\_
6. Ice Type:  Wet  Blue  None
7. If temp. is over 6°C or under 0°C, was the PM notified?:  Yes  No  
 Cooler temp should be above freezing to 6°C

All discrepancies will be written out in the comments section below.

	Yes	No		Yes	No	N/A
USDA Regulated Soils? (HI, ID, NY, WA, OR, CA, NM, TX, OK, AR, LA, TN, AL, MS, NC, SC, GA, FL, or Puerto Rico)		<input checked="" type="checkbox"/>	All containers needing acid/base preservation have been pH CHECKED?: Exceptions: VOA, coliform, LLHg, O&G, RAD CHEM, and any container with a septum cap or preserved with HCl.			
Short Hold Time Analysis (48 hours or less)? Analysis: <u>No3</u>	<input checked="" type="checkbox"/>		Circle: <u>HNO3 (&lt;2)</u> <u>H2SO4 (&lt;2)</u> NaOH (>10) <u>NaOH/ZnAc (&gt;9)</u> Any non-conformance to pH recommendations will be noted on the container count form	<input checked="" type="checkbox"/>		
Time 5035A TC placed in Freezer or Short Holds To Lab Time: <u>12:20</u>				<u>Present</u>	<u>Absent</u>	<u>N/A</u>
Rush TAT Requested (4 days or less):		<input checked="" type="checkbox"/>	Residual Chlorine Check (SVOC 625 Pest/PCB 608)			<u>-</u>
Custody Signatures Present?	<input checked="" type="checkbox"/>		Residual Chlorine Check (Total/Amenable/Free Cyanide)			<u>-</u>
Containers Intact?:	<input checked="" type="checkbox"/>		Headspace Wisconsin Sulfide?			<input checked="" type="checkbox"/>
Sample Label (IDs/Dates/Times) Match COC?: Except TCs, which only require sample ID	<input checked="" type="checkbox"/>		Headspace in VOA Vials (>6mm): See Containter Count form for details	<u>Present</u>	<u>Absent</u>	<u>No VOA Vials Sent</u>
Extra labels on Terracore Vials? (soils only)			Trip Blank Present?		<input checked="" type="checkbox"/>	
			Trip Blank Custody Seals?:		<input checked="" type="checkbox"/>	

COMMENTS:

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Sample Container Count

\*\* Place a RED dot on containers that are out of conformance \*\*

COC Line Item	WGUFU	MeOH (only)		VIALS							AMBER GLASS							PLASTIC							OTHER			Matrix	Nitric Red	Sulfuric Yellow	Sodium Hydroxide Green	Sodium Hydroxide/ZnAc Black	
		SBS	DI	DG9H	VG9H	VOA VIAL HS (>6mm)	VG9U	DG9U	VG9T	AG0U	AG1H	AG1U	AG2U	AG3S	AG3SF	AG3C	BP1U	BP1N	BP2U	BP3U	BP3N	BP3F	BP3S	BP3B	BP3Z	CG3H	CG3F						Syringe Kit
		R																															
1												1	1			2	1	2		1	1			1					5	✓	✓		✓
2												1	1			2	1	3		1	1			1				1	✓	✓		✓	
3												3	3			6	3	6		3	3			3				1	✓	✓		✓	
4																																	
5																																	
6												1	1			2	1	2		1	1			1				5	✓	✓		✓	
7																																	
8																																	
9																																	
10																																	
11																																	
12																																	

Container Codes

**Glass**

**Plastic**

VG9H	40mL HCl amber voa vial	BG1T	1L Na Thiosulfate clear glass	BP1B	1L NaOH plastic
VG9P	40mL TSP amber vial	BG1U	1L unpreserved glass	BP1N	1L HNO3 plastic
VG9S	40mL H2SO4 amber vial	BG3H	250mL HCl Clear Glass	BP1S	1L H2SO4 plastic
VG9T	40mL Na Thio amber vial	BG3U	250mL Unpres Clear Glass	BP1U	1L unpreserved plastic
VG9U	40mL unpreserved amber vial	AG0U	100mL unpres amber glass	BP1Z	1L NaOH, Zn, Ac
VG9H	40mL HCl clear vial	AG1H	1L HCl amber glass	BP2N	500mL HNO3 plastic
VG9T	40mL Na Thio. clear vial	AG1S	1L H2SO4 amber glass	BP2C	500mL NaOH plastic
VG9U	40mL unpreserved clear vial	AG1T	1L Na Thiosulfate amber glass	BP2S	500mL H2SO4 plastic
VG1	40mL w/hexane wipe vial	AG1U	1liter unpres amber glass	BP2U	500mL unpreserved plastic
VGKU	8oz unpreserved clear jar	AG2N	500mL HNO3 amber glass	BP2Z	500mL NaOH, Zn Ac
VGUFU	4oz clear soil jar	AG2S	500mL H2SO4 amber glass	BP3B	250mL NaOH plastic
VG3H	4oz unpreserved amber wide	AG2U	500mL unpres amber glass	BP3N	250mL HNO3 plastic
VG3H	250mL clear glass HCl	AG3S	250mL H2SO4 amber glass	BP3F	250mL HNO3 plastic-field filtered
VG3F	250mL clear glass HCl, Field Filter	AG3SF	250mL H2SO4 amb glass -field filtered	BP3U	250mL unpreserved plastic
VG1H	1L HCl clear glass	AG3U	250mL unpres amber glass	BP3S	250mL H2SO4 plastic
VG1S	1L H2SO4 clear glass	AG3C	250mL NaOH amber glass	BP3Z	250mL NaOH, ZnAc plastic

BP4U	125mL unpreserved plastic
BP4N	125mL HNO3 plastic
BP4S	125mL H2SO4 plastic

**Miscellaneous**

Syringe Kit	LL Cr+6 sampling kit
ZPLC	Ziploc Bag
R	Terracore Kit
SP5T	120mL Coliform Sodium Thiosulfate
GN	General Container
U	Summa Can (air sample)
WT	Water
SL	Solid Solid
OL	Oil
NAL	Non-aqueous liquid
WP	Wipe





July 19, 2023

Mr. Mark Breting  
ATC Group Services  
7988 Centerpoint Drive  
Suite 100  
Indianapolis, IN 46256

RE: Project: Eagle Valley April 2023 P1R1  
Pace Project No.: 50343666

Dear Mr. Breting:

Enclosed are the analytical results for sample(s) received by the laboratory on May 02, 2023. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

The test results provided in this final report were generated by each of the following laboratories within the Pace Network:

- Pace Analytical Services - Indianapolis
- Pace Analytical Services - Greensburg

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Will Statz  
will.statz@pacelabs.com  
(317)228-3105  
Project Manager

Enclosures

cc: Mohammed Bazlamit, Atlas  
Mr. Robert Miller, Haley & Aldrich



## REPORT OF LABORATORY ANALYSIS

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### CERTIFICATIONS

Project: Eagle Valley April 2023 P1R1  
Pace Project No.: 50343666

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#### Pace Analytical Services Pennsylvania

1638 Roseytown Rd Suites 2,3&4, Greensburg, PA 15601  
ANAB DOD-ELAP Rad Accreditation #: L2417  
ANABISO/IEC 17025:2017 Rad Cert#: L24170  
Alabama Certification #: 41590  
Arizona Certification #: AZ0734  
Arkansas Certification  
California Certification #: 2950  
Colorado Certification #: PA01547  
Connecticut Certification #: PH-0694  
EPA Region 4 DW Rad  
Florida/TNI Certification #: E87683  
Georgia Certification #: C040  
Guam Certification  
Hawaii Certification  
Idaho Certification  
Illinois Certification  
Indiana Certification  
Iowa Certification #: 391  
Kansas Certification #: E-10358  
Kentucky Certification #: KY90133  
KY WW Permit #: KY0098221  
KY WW Permit #: KY0000221  
Louisiana DHH/TNI Certification #: LA010  
Louisiana DEQ/TNI Certification #: 04086  
Maine Certification #: 2023021  
Maryland Certification #: 308  
Massachusetts Certification #: M-PA1457  
Michigan/PADEP Certification #: 9991

Missouri Certification #: 235  
Montana Certification #: Cert0082  
Nebraska Certification #: NE-OS-29-14  
Nevada Certification #: PA014572023-03  
New Hampshire/TNI Certification #: 297622  
New Jersey/TNI Certification #: PA051  
New Mexico Certification #: PA01457  
New York/TNI Certification #: 10888  
North Carolina Certification #: 42706  
North Dakota Certification #: R-190  
Ohio EPA Rad Approval: #41249  
Oregon/TNI Certification #: PA200002-015  
Pennsylvania/TNI Certification #: 65-00282  
Puerto Rico Certification #: PA01457  
Rhode Island Certification #: 65-00282  
South Dakota Certification  
Tennessee Certification #: TN02867  
Texas/TNI Certification #: T104704188-22-18  
Utah/TNI Certification #: PA014572223-14  
USDA Soil Permit #: 525-23-67-77263  
Vermont Dept. of Health: ID# VT-0282  
Virgin Island/PADEP Certification  
Virginia/VELAP Certification #: 460198  
Washington Certification #: C868  
West Virginia DEP Certification #: 143  
West Virginia DHHR Certification #: 9964C  
Wisconsin Approve List for Rad

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#### Pace Analytical Services Indianapolis

7726 Moller Road, Indianapolis, IN 46268  
Illinois Accreditation #: 200074  
Indiana Drinking Water Laboratory #: C-49-06  
Kansas/TNI Certification #: E-10177  
Kentucky UST Agency Interest #: 80226  
Kentucky WW Laboratory ID #: 98019  
Michigan Drinking Water Laboratory #9050

Ohio VAP Certified Laboratory #: CL0065  
Oklahoma Laboratory #: 9204  
Texas Certification #: T104704355  
Wisconsin Laboratory #: 999788130  
USDA Foreign Soil Permit #: 525-23-13-23119  
USDA Compliance Agreement #: IN-SL-22-001

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### REPORT OF LABORATORY ANALYSIS

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### SAMPLE SUMMARY

Project: Eagle Valley April 2023 P1R1  
Pace Project No.: 50343666

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Lab ID	Sample ID	Matrix	Date Collected	Date Received
50343666001	MW-11S	Water	05/02/23 12:20	05/02/23 15:15
50343666002	MW-11I	Water	05/02/23 11:15	05/02/23 15:15

### REPORT OF LABORATORY ANALYSIS

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### SAMPLE ANALYTE COUNT

Project: Eagle Valley April 2023 P1R1

Pace Project No.: 50343666

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory		
50343666001	MW-11S	EPA 9056	ADM	3	PASI-I		
		EPA 6010	ELK	10	PASI-I		
		EPA 6010	JPK	2	PASI-I		
		EPA 6020	CAW	11	PASI-I		
		EPA 7470	ILP	1	PASI-I		
		EPA 903.1	JLJ	1	PASI-PA		
		EPA 904.0	ZPC	1	PASI-PA		
		Total Radium Calculation	JAL	1	PASI-PA		
		SM 2320B	DAW	3	PASI-I		
		SM 2540C	TRK	1	PASI-I		
		SM 4500-H+B	BMS	1	PASI-I		
		SM 4500-S2-D	STS	1	PASI-I		
		HACH 8146	BEP	1	PASI-I		
		EPA 353.2	ZM	2	PASI-I		
		EPA 365.1	YAM	1	PASI-I		
		SM 5310C	ATS	1	PASI-I		
		SM 5310C	ATS	1	PASI-I		
		50343666002	MW-11I	EPA 9056	ADM	3	PASI-I
				EPA 6010	ELK	10	PASI-I
EPA 6010	JPK			2	PASI-I		
EPA 6020	CAW			11	PASI-I		
EPA 7470	ILP			1	PASI-I		
EPA 903.1	JLJ			1	PASI-PA		
EPA 904.0	ZPC			1	PASI-PA		
Total Radium Calculation	JAL			1	PASI-PA		
SM 2320B	DAW			3	PASI-I		
SM 2540C	TRK			1	PASI-I		
SM 4500-H+B	BMS			1	PASI-I		
SM 4500-S2-D	STS			1	PASI-I		
HACH 8146	BEP			1	PASI-I		
EPA 353.2	ZM			2	PASI-I		
EPA 365.1	YAM			1	PASI-I		
SM 5310C	ATS			1	PASI-I		
SM 5310C	ATS			1	PASI-I		

PASI-I = Pace Analytical Services - Indianapolis

PASI-PA = Pace Analytical Services - Greensburg

### REPORT OF LABORATORY ANALYSIS

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### SUMMARY OF DETECTION

Project: Eagle Valley April 2023 P1R1  
 Pace Project No.: 50343666

Lab Sample ID	Client Sample ID	Result	Units	Report Limit	Analyzed	Qualifiers
Method	Parameters					
<b>50343666001</b>	<b>MW-11S</b>					
EPA 9056	Chloride	39.3	mg/L	2.5	05/05/23 07:21	
EPA 9056	Fluoride	0.21	mg/L	0.10	05/05/23 07:03	
EPA 9056	Sulfate	89.7	mg/L	2.5	05/05/23 07:21	
EPA 6010	Boron	1360	ug/L	100	05/05/23 12:36	
EPA 6010	Calcium	111000	ug/L	1000	05/05/23 12:36	
EPA 6010	Lithium	51.4	ug/L	20.0	05/05/23 12:36	
EPA 6010	Magnesium	27800	ug/L	1000	05/05/23 12:36	
EPA 6010	Potassium	7390	ug/L	1000	05/05/23 12:36	
EPA 6010	Silica	11100	ug/L	450	05/05/23 12:36	N2
EPA 6010	Sodium	36400	ug/L	1000	05/05/23 12:36	
EPA 6010	Molybdenum, Dissolved	57.1	ug/L	10.0	05/06/23 02:38	
EPA 6020	Antimony	1.4	ug/L	1.0	05/04/23 23:54	
EPA 6020	Arsenic	59.8	ug/L	1.0	05/04/23 23:54	
EPA 6020	Barium	77.1	ug/L	1.0	05/04/23 23:54	
EPA 6020	Molybdenum	56.0	ug/L	10.0	05/04/23 23:54	
EPA 6020	Selenium	11.3	ug/L	1.0	05/04/23 23:54	
EPA 903.1	Radium-226	-0.0724 ± 0.512 (1.09) C:NA	pCi/L		05/22/23 16:03	
EPA 904.0	Radium-228	0.151 ± 0.289 (0.637) C:78%	pCi/L		05/18/23 11:54	
		T:86%				
Total Radium Calculation	Total Radium	0.151 ± 0.801 (1.73)	pCi/L		05/23/23 16:01	
SM 2320B	Alkalinity, Total as CaCO3	310	mg/L	10.0	05/04/23 00:13	
SM 2320B	Alkalinity, Bicarbonate (CaCO3)	310	mg/L	10.0	05/04/23 00:13	
SM 2540C	Total Dissolved Solids	488	mg/L	10.0	05/03/23 14:54	
SM 4500-H+B	pH at 25 Degrees C	7.9	Std. Units	0.10	05/09/23 14:55	H3
EPA 353.2	Nitrogen, Nitrate	1.5	mg/L	0.10	05/02/23 20:10	
EPA 365.1	Phosphate as P04	0.19	mg/L	0.15	05/07/23 13:18	
SM 5310C	Total Organic Carbon	1.2	mg/L	1.0	05/06/23 19:37	
SM 5310C	Dissolved Organic Carbon	1.4	mg/L	1.0	05/05/23 19:38	
<b>50343666002</b>	<b>MW-11I</b>					
EPA 9056	Chloride	101	mg/L	2.5	05/05/23 08:11	
EPA 9056	Fluoride	0.42	mg/L	0.10	05/05/23 07:56	
EPA 9056	Sulfate	76.5	mg/L	2.5	05/05/23 08:11	
EPA 6010	Boron	1000	ug/L	100	05/05/23 12:43	
EPA 6010	Calcium	76200	ug/L	1000	05/05/23 12:43	
EPA 6010	Iron	166	ug/L	100	05/05/23 12:43	
EPA 6010	Lithium	97.4	ug/L	20.0	05/05/23 12:43	
EPA 6010	Magnesium	22000	ug/L	1000	05/05/23 12:43	
EPA 6010	Manganese	244	ug/L	10.0	05/05/23 12:43	
EPA 6010	Potassium	7770	ug/L	1000	05/05/23 12:43	
EPA 6010	Silica	9980	ug/L	450	05/05/23 12:43	N2
EPA 6010	Sodium	76000	ug/L	1000	05/05/23 12:43	

### REPORT OF LABORATORY ANALYSIS

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### SUMMARY OF DETECTION

Project: Eagle Valley April 2023 P1R1

Pace Project No.: 50343666

Lab Sample ID Method	Client Sample ID Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
<b>50343666002</b>	<b>MW-11I</b>					
EPA 6010	Manganese, Dissolved	233	ug/L	10.0	05/06/23 02:41	
EPA 6010	Molybdenum, Dissolved	135	ug/L	10.0	05/06/23 02:41	
EPA 6020	Arsenic	1.0	ug/L	1.0	05/04/23 23:57	
EPA 6020	Barium	51.0	ug/L	1.0	05/04/23 23:57	
EPA 6020	Molybdenum	128	ug/L	10.0	05/04/23 23:57	
EPA 903.1	Radium-226	0.135 ± 0.375 (0.727)	pCi/L		05/22/23 16:03	
EPA 904.0	Radium-228	C:NA T:90% 0.723 ± 0.412 (0.758)	pCi/L		05/18/23 14:58	
		C:83% T:83%				
Total Radium Calculation	Total Radium	0.858 ± 0.787 (1.49)	pCi/L		05/23/23 16:01	
SM 2320B	Alkalinity, Total as CaCO3	212	mg/L	10.0	05/04/23 00:13	
SM 2320B	Alkalinity,Bicarbonate (CaCO3)	212	mg/L	10.0	05/04/23 00:13	
SM 2540C	Total Dissolved Solids	479	mg/L	10.0	05/03/23 14:54	
SM 4500-H+B	pH at 25 Degrees C	8.1	Std. Units	0.10	05/09/23 14:56	H3
SM 5310C	Total Organic Carbon	1.0	mg/L	1.0	05/06/23 19:48	
SM 5310C	Dissolved Organic Carbon	1.4	mg/L	1.0	05/05/23 19:49	

### REPORT OF LABORATORY ANALYSIS

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### ANALYTICAL RESULTS

Project: Eagle Valley April 2023 P1R1  
 Pace Project No.: 50343666

**Sample: MW-11S**      **Lab ID: 5034366001**      Collected: 05/02/23 12:20      Received: 05/02/23 15:15      Matrix: Water

Parameters	Results	Units	Report			Prepared	Analyzed	CAS No.	Qual
			Limit	MDL	DF				
<b>9056 IC Anions</b>									
Analytical Method: EPA 9056									
Pace Analytical Services - Indianapolis									
Chloride	39.3	mg/L	2.5	0.67	10		05/05/23 07:21	16887-00-6	
Fluoride	0.21	mg/L	0.10	0.017	1		05/05/23 07:03	16984-48-8	
Sulfate	89.7	mg/L	2.5	0.85	10		05/05/23 07:21	14808-79-8	
<b>6010 MET ICP</b>									
Analytical Method: EPA 6010      Preparation Method: EPA 3010									
Pace Analytical Services - Indianapolis									
Aluminum	ND	ug/L	200	54.4	1	05/04/23 07:33	05/05/23 12:36	7429-90-5	
Boron	1360	ug/L	100	61.4	1	05/04/23 07:33	05/05/23 12:36	7440-42-8	
Calcium	111000	ug/L	1000	88.4	1	05/04/23 07:33	05/05/23 12:36	7440-70-2	
Iron	ND	ug/L	100	48.8	1	05/04/23 07:33	05/05/23 12:36	7439-89-6	
Lithium	51.4	ug/L	20.0	6.2	1	05/04/23 07:33	05/05/23 12:36	7439-93-2	
Magnesium	27800	ug/L	1000	43.0	1	05/04/23 07:33	05/05/23 12:36	7439-95-4	
Manganese	ND	ug/L	10.0	5.4	1	05/04/23 07:33	05/05/23 12:36	7439-96-5	
Potassium	7390	ug/L	1000	200	1	05/04/23 07:33	05/05/23 12:36	7440-09-7	
Silica	11100	ug/L	450		1	05/04/23 07:33	05/05/23 12:36	7631-86-9	N2
Sodium	36400	ug/L	1000	284	1	05/04/23 07:33	05/05/23 12:36	7440-23-5	
<b>6010 MET ICP, Dissolved</b>									
Analytical Method: EPA 6010      Preparation Method: EPA 3010									
Pace Analytical Services - Indianapolis									
Manganese, Dissolved	ND	ug/L	10.0	2.5	1	05/05/23 09:10	05/06/23 02:38	7439-96-5	
Molybdenum, Dissolved	57.1	ug/L	10.0	3.7	1	05/05/23 09:10	05/06/23 02:38	7439-98-7	
<b>6020 MET ICPMS</b>									
Analytical Method: EPA 6020      Preparation Method: EPA 200.2									
Pace Analytical Services - Indianapolis									
Antimony	1.4	ug/L	1.0	0.036	1	05/04/23 07:30	05/04/23 23:54	7440-36-0	
Arsenic	59.8	ug/L	1.0	0.053	1	05/04/23 07:30	05/04/23 23:54	7440-38-2	
Barium	77.1	ug/L	1.0	0.051	1	05/04/23 07:30	05/04/23 23:54	7440-39-3	
Beryllium	ND	ug/L	0.20	0.028	1	05/04/23 07:30	05/04/23 23:54	7440-41-7	
Cadmium	ND	ug/L	2.0	0.0090	1	05/04/23 07:30	05/04/23 23:54	7440-43-9	
Chromium	ND	ug/L	10.0	0.13	1	05/04/23 07:30	05/04/23 23:54	7440-47-3	
Cobalt	ND	ug/L	1.0	0.032	1	05/04/23 07:30	05/04/23 23:54	7440-48-4	
Lead	ND	ug/L	10.0	0.034	1	05/04/23 07:30	05/04/23 23:54	7439-92-1	
Molybdenum	56.0	ug/L	10.0	0.048	1	05/04/23 07:30	05/04/23 23:54	7439-98-7	
Selenium	11.3	ug/L	1.0	0.23	1	05/04/23 07:30	05/04/23 23:54	7782-49-2	
Thallium	ND	ug/L	1.0	0.033	1	05/04/23 07:30	05/04/23 23:54	7440-28-0	
<b>7470 Mercury</b>									
Analytical Method: EPA 7470      Preparation Method: EPA 7470									
Pace Analytical Services - Indianapolis									
Mercury	ND	ug/L	0.20	0.12	1	05/02/23 19:39	05/03/23 10:23	7439-97-6	
<b>2320B Alkalinity</b>									
Analytical Method: SM 2320B									
Pace Analytical Services - Indianapolis									
Alkalinity, Total as CaCO3	310	mg/L	10.0	10.0	1		05/04/23 00:13		
Alkalinity,Bicarbonate (CaCO3)	310	mg/L	10.0	10.0	1		05/04/23 00:13		

### REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: Eagle Valley April 2023 P1R1

Pace Project No.: 50343666

Sample: MW-11S		Lab ID: 50343666001		Collected: 05/02/23 12:20	Received: 05/02/23 15:15	Matrix: Water			
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>2320B Alkalinity</b>		Analytical Method: SM 2320B Pace Analytical Services - Indianapolis							
Alkalinity, Carbonate (CaCO <sub>3</sub> )	ND	mg/L	10.0	10.0	1		05/04/23 00:13		
<b>2540C Total Dissolved Solids</b>		Analytical Method: SM 2540C Pace Analytical Services - Indianapolis							
Total Dissolved Solids	<b>488</b>	mg/L	10.0	10.0	1		05/03/23 14:54		
<b>4500H+ pH, Electrometric</b>		Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis							
pH at 25 Degrees C	<b>7.9</b>	Std. Units	0.10	0.10	1		05/09/23 14:55		H3
<b>4500S2D Sulfide Water</b>		Analytical Method: SM 4500-S2-D Pace Analytical Services - Indianapolis							
Sulfide	ND	mg/L	0.10	0.025	1		05/03/23 11:57	18496-25-8	
<b>Iron, Ferrous</b>		Analytical Method: HACH 8146 Pace Analytical Services - Indianapolis							
Iron, Ferrous	ND	mg/L	0.20	0.035	1		05/03/23 12:46	15438-31-0	H3,N2
<b>353.2 Nitrogen, NO<sub>2</sub>/NO<sub>3</sub> unpres</b>		Analytical Method: EPA 353.2 Pace Analytical Services - Indianapolis							
Nitrogen, Nitrate	<b>1.5</b>	mg/L	0.10	0.011	1		05/02/23 20:10	14797-55-8	
Nitrogen, Nitrite	ND	mg/L	0.10	0.0040	1		05/02/23 20:10	14797-65-0	
<b>365.1 Total Phosphorus</b>		Analytical Method: EPA 365.1 Preparation Method: EPA 365.1 Pace Analytical Services - Indianapolis							
Phosphate as P <sub>04</sub>	<b>0.19</b>	mg/L	0.15	0.15	1	05/05/23 11:30	05/07/23 13:18		
<b>5310C TOC</b>		Analytical Method: SM 5310C Pace Analytical Services - Indianapolis							
Total Organic Carbon	<b>1.2</b>	mg/L	1.0	0.24	1		05/06/23 19:37	7440-44-0	
<b>5310C Dissolved Organic Carbon</b>		Analytical Method: SM 5310C Pace Analytical Services - Indianapolis							
Dissolved Organic Carbon	<b>1.4</b>	mg/L	1.0	0.24	1		05/05/23 19:38		

## REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: Eagle Valley April 2023 P1R1

Pace Project No.: 50343666

Sample: MW-111									
Lab ID: 5034366002 Collected: 05/02/23 11:15 Received: 05/02/23 15:15 Matrix: Water									
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>9056 IC Anions</b>									
Analytical Method: EPA 9056									
Pace Analytical Services - Indianapolis									
Chloride	101	mg/L	2.5	0.67	10		05/05/23 08:11	16887-00-6	
Fluoride	0.42	mg/L	0.10	0.017	1		05/05/23 07:56	16984-48-8	
Sulfate	76.5	mg/L	2.5	0.85	10		05/05/23 08:11	14808-79-8	
<b>6010 MET ICP</b>									
Analytical Method: EPA 6010 Preparation Method: EPA 3010									
Pace Analytical Services - Indianapolis									
Aluminum	ND	ug/L	200	54.4	1	05/04/23 07:33	05/05/23 12:43	7429-90-5	
Boron	1000	ug/L	100	61.4	1	05/04/23 07:33	05/05/23 12:43	7440-42-8	
Calcium	76200	ug/L	1000	88.4	1	05/04/23 07:33	05/05/23 12:43	7440-70-2	
Iron	166	ug/L	100	48.8	1	05/04/23 07:33	05/05/23 12:43	7439-89-6	
Lithium	97.4	ug/L	20.0	6.2	1	05/04/23 07:33	05/05/23 12:43	7439-93-2	
Magnesium	22000	ug/L	1000	43.0	1	05/04/23 07:33	05/05/23 12:43	7439-95-4	
Manganese	244	ug/L	10.0	5.4	1	05/04/23 07:33	05/05/23 12:43	7439-96-5	
Potassium	7770	ug/L	1000	200	1	05/04/23 07:33	05/05/23 12:43	7440-09-7	
Silica	9980	ug/L	450		1	05/04/23 07:33	05/05/23 12:43	7631-86-9	N2
Sodium	76000	ug/L	1000	284	1	05/04/23 07:33	05/05/23 12:43	7440-23-5	
<b>6010 MET ICP, Dissolved</b>									
Analytical Method: EPA 6010 Preparation Method: EPA 3010									
Pace Analytical Services - Indianapolis									
Manganese, Dissolved	233	ug/L	10.0	2.5	1	05/05/23 09:10	05/06/23 02:41	7439-96-5	
Molybdenum, Dissolved	135	ug/L	10.0	3.7	1	05/05/23 09:10	05/06/23 02:41	7439-98-7	
<b>6020 MET ICPMS</b>									
Analytical Method: EPA 6020 Preparation Method: EPA 200.2									
Pace Analytical Services - Indianapolis									
Antimony	ND	ug/L	1.0	0.036	1	05/04/23 07:30	05/04/23 23:57	7440-36-0	
Arsenic	1.0	ug/L	1.0	0.053	1	05/04/23 07:30	05/04/23 23:57	7440-38-2	
Barium	51.0	ug/L	1.0	0.051	1	05/04/23 07:30	05/04/23 23:57	7440-39-3	
Beryllium	ND	ug/L	0.20	0.028	1	05/04/23 07:30	05/04/23 23:57	7440-41-7	
Cadmium	ND	ug/L	2.0	0.0090	1	05/04/23 07:30	05/04/23 23:57	7440-43-9	
Chromium	ND	ug/L	10.0	0.13	1	05/04/23 07:30	05/04/23 23:57	7440-47-3	
Cobalt	ND	ug/L	1.0	0.032	1	05/04/23 07:30	05/04/23 23:57	7440-48-4	
Lead	ND	ug/L	10.0	0.034	1	05/04/23 07:30	05/04/23 23:57	7439-92-1	
Molybdenum	128	ug/L	10.0	0.048	1	05/04/23 07:30	05/04/23 23:57	7439-98-7	
Selenium	ND	ug/L	1.0	0.23	1	05/04/23 07:30	05/04/23 23:57	7782-49-2	
Thallium	ND	ug/L	1.0	0.033	1	05/04/23 07:30	05/04/23 23:57	7440-28-0	
<b>7470 Mercury</b>									
Analytical Method: EPA 7470 Preparation Method: EPA 7470									
Pace Analytical Services - Indianapolis									
Mercury	ND	ug/L	0.20	0.12	1	05/02/23 19:39	05/03/23 10:26	7439-97-6	
<b>2320B Alkalinity</b>									
Analytical Method: SM 2320B									
Pace Analytical Services - Indianapolis									
Alkalinity, Total as CaCO3	212	mg/L	10.0	10.0	1		05/04/23 00:13		
Alkalinity,Bicarbonate (CaCO3)	212	mg/L	10.0	10.0	1		05/04/23 00:13		

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### ANALYTICAL RESULTS

Project: Eagle Valley April 2023 P1R1  
Pace Project No.: 50343666

Sample: MW-111		Lab ID: 50343666002		Collected: 05/02/23 11:15	Received: 05/02/23 15:15	Matrix: Water			
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>2320B Alkalinity</b>		Analytical Method: SM 2320B Pace Analytical Services - Indianapolis							
Alkalinity, Carbonate (CaCO3)	ND	mg/L	10.0	10.0	1		05/04/23 00:13		
<b>2540C Total Dissolved Solids</b>		Analytical Method: SM 2540C Pace Analytical Services - Indianapolis							
Total Dissolved Solids	<b>479</b>	mg/L	10.0	10.0	1		05/03/23 14:54		
<b>4500H+ pH, Electrometric</b>		Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis							
pH at 25 Degrees C	<b>8.1</b>	Std. Units	0.10	0.10	1		05/09/23 14:56		H3
<b>4500S2D Sulfide Water</b>		Analytical Method: SM 4500-S2-D Pace Analytical Services - Indianapolis							
Sulfide	ND	mg/L	0.10	0.025	1		05/03/23 11:57	18496-25-8	
<b>Iron, Ferrous</b>		Analytical Method: HACH 8146 Pace Analytical Services - Indianapolis							
Iron, Ferrous	ND	mg/L	0.20	0.035	1		05/03/23 12:45	15438-31-0	H3,N2
<b>353.2 Nitrogen, NO2/NO3 unpres</b>		Analytical Method: EPA 353.2 Pace Analytical Services - Indianapolis							
Nitrogen, Nitrate	ND	mg/L	0.10	0.011	1		05/02/23 20:08	14797-55-8	
Nitrogen, Nitrite	ND	mg/L	0.10	0.0040	1		05/02/23 20:08	14797-65-0	
<b>365.1 Total Phosphorus</b>		Analytical Method: EPA 365.1 Preparation Method: EPA 365.1 Pace Analytical Services - Indianapolis							
Phosphate as P04	ND	mg/L	0.15	0.15	1	05/05/23 11:30	05/07/23 13:18		
<b>5310C TOC</b>		Analytical Method: SM 5310C Pace Analytical Services - Indianapolis							
Total Organic Carbon	<b>1.0</b>	mg/L	1.0	0.24	1		05/06/23 19:48	7440-44-0	
<b>5310C Dissolved Organic Carbon</b>		Analytical Method: SM 5310C Pace Analytical Services - Indianapolis							
Dissolved Organic Carbon	<b>1.4</b>	mg/L	1.0	0.24	1		05/05/23 19:49		

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**QUALITY CONTROL DATA**

Project: Eagle Valley April 2023 P1R1

Pace Project No.: 50343666

QC Batch:	731453	Analysis Method:	EPA 9056
QC Batch Method:	EPA 9056	Analysis Description:	9056 IC Anions
		Laboratory:	Pace Analytical Services - Indianapolis

Associated Lab Samples: 50343666001, 50343666002

METHOD BLANK: 3356592 Matrix: Water

Associated Lab Samples: 50343666001, 50343666002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chloride	mg/L	ND	0.25	0.067	05/04/23 20:36	
Fluoride	mg/L	ND	0.10	0.017	05/04/23 20:36	
Sulfate	mg/L	ND	0.25	0.085	05/04/23 20:36	

LABORATORY CONTROL SAMPLE: 3356593

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	2.5	2.4	94	80-120	
Fluoride	mg/L	1	1.0	104	80-120	
Sulfate	mg/L	5	4.7	94	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3356594 3356595

Parameter	Units	50343595002		3356594		3356595		% Rec	% Rec	% Rec Limits	RPD	Max RPD	Qual
		Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec						
Chloride	mg/L	32.7	25	25	55.6	55.5	91	91	80-120	0	15		
Fluoride	mg/L	ND	1	1	1.1	1.1	107	107	80-120	0	15		
Sulfate	mg/L	24.4	5	5	29.1	29.1	94	93	80-120	0	15		

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**QUALITY CONTROL DATA**

Project: Eagle Valley April 2023 P1R1

Pace Project No.: 50343666

QC Batch:	731163	Analysis Method:	EPA 7470
QC Batch Method:	EPA 7470	Analysis Description:	7470 Mercury
		Laboratory:	Pace Analytical Services - Indianapolis

Associated Lab Samples: 50343666001, 50343666002

METHOD BLANK: 3355502 Matrix: Water

Associated Lab Samples: 50343666001, 50343666002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Mercury	ug/L	ND	0.20	0.12	05/03/23 09:34	

LABORATORY CONTROL SAMPLE: 3355503

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury	ug/L	5	5.1	102	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3355504 3355505

Parameter	Units	50343240006		3355505		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result						
Mercury	ug/L	ND	5	5	5.0	5.0	101	99	75-125	2	20

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**QUALITY CONTROL DATA**

Project: Eagle Valley April 2023 P1R1  
Pace Project No.: 50343666

QC Batch: 731202 Analysis Method: EPA 6010  
QC Batch Method: EPA 3010 Analysis Description: 6010 MET  
Laboratory: Pace Analytical Services - Indianapolis

Associated Lab Samples: 50343666001, 50343666002

METHOD BLANK: 3355608 Matrix: Water

Associated Lab Samples: 50343666001, 50343666002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Aluminum	ug/L	ND	200	54.4	05/05/23 10:52	
Boron	ug/L	ND	100	61.4	05/05/23 10:52	
Calcium	ug/L	ND	1000	88.4	05/05/23 10:52	
Iron	ug/L	ND	100	48.8	05/05/23 10:52	
Lithium	ug/L	ND	20.0	6.2	05/05/23 10:52	
Magnesium	ug/L	ND	1000	43.0	05/05/23 10:52	
Manganese	ug/L	ND	10.0	5.4	05/05/23 10:52	
Potassium	ug/L	ND	1000	200	05/05/23 10:52	
Silica	ug/L	ND	450		05/05/23 10:52	N2
Sodium	ug/L	ND	1000	284	05/05/23 10:52	

LABORATORY CONTROL SAMPLE: 3355609

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Aluminum	ug/L	10000	9520	95	80-120	
Boron	ug/L	1000	954	95	80-120	
Calcium	ug/L	10000	10000	100	80-120	
Iron	ug/L	10000	10400	104	80-120	
Lithium	ug/L	1000	1020	102	80-120	
Magnesium	ug/L	10000	9400	94	80-120	
Manganese	ug/L	1000	995	99	80-120	
Potassium	ug/L	10000	10000	100	80-120	
Silica	ug/L	10700	10300	96	80-120	N2
Sodium	ug/L	10000	9910	99	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3355610 3355611

Parameter	Units	MS		MSD		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual	
		50343568002 Result	Spike Conc.	Spike Conc.	MS Result							MSD Result
Aluminum	ug/L	449	10000	10000	10800	10900	103	104	75-125	1	20	
Boron	ug/L	ND	1000	1000	1100	1100	100	101	75-125	0	20	
Calcium	ug/L	234000	10000	10000	245000	245000	110	111	75-125	0	20	E
Iron	ug/L	5280	10000	10000	15900	16000	106	107	75-125	0	20	
Lithium	ug/L	ND	1000	1000	1080	1070	108	107	75-125	1	20	
Magnesium	ug/L	23800	10000	10000	33700	33800	99	100	75-125	0	20	
Manganese	ug/L	859	1000	1000	1860	1880	100	102	75-125	1	20	
Potassium	ug/L	4870	10000	10000	15800	15600	109	107	75-125	1	20	

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**QUALITY CONTROL DATA**

Project: Eagle Valley April 2023 P1R1

Pace Project No.: 50343666

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3355610												3355611	
Parameter	Units	50343568002 Result	MS	MSD	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual	
			Spike Conc.	Spike Conc.									
Silica	ug/L	9690	10700	10700	21100	21000	107	105	75-125	1	20	N2	
Sodium	ug/L	63400	10000	10000	74600	74400	112	110	75-125	0	20		

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3355612												3355613	
Parameter	Units	50343595002 Result	MS	MSD	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual	
			Spike Conc.	Spike Conc.									
Aluminum	ug/L	788	10000	10000	10600	10800	98	100	75-125	2	20		
Boron	ug/L	ND	1000	1000	1030	1050	96	99	75-125	2	20		
Calcium	ug/L	101000	10000	10000	109000	111000	86	103	75-125	2	20		
Iron	ug/L	2020	10000	10000	12300	12500	103	105	75-125	2	20		
Lithium	ug/L	ND	1000	1000	1030	1070	103	107	75-125	3	20		
Magnesium	ug/L	27400	10000	10000	36100	36800	88	95	75-125	2	20		
Manganese	ug/L	137	1000	1000	1120	1140	98	101	75-125	2	20		
Potassium	ug/L	4710	10000	10000	15000	15200	103	105	75-125	1	20		
Silica	ug/L	20200	10700	10700	31300	31600	103	106	75-125	1	20	N2	
Sodium	ug/L	14300	10000	10000	24100	24600	98	103	75-125	2	20		

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**QUALITY CONTROL DATA**

Project: Eagle Valley April 2023 P1R1

Pace Project No.: 50343666

QC Batch: 731786	Analysis Method: EPA 6010
QC Batch Method: EPA 3010	Analysis Description: 6010 MET Dissolved
	Laboratory: Pace Analytical Services - Indianapolis

Associated Lab Samples: 50343666001, 50343666002

METHOD BLANK: 3358694 Matrix: Water

Associated Lab Samples: 50343666001, 50343666002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Manganese, Dissolved	ug/L	ND	10.0	2.5	05/06/23 02:12	
Molybdenum, Dissolved	ug/L	ND	10.0	3.7	05/06/23 02:12	

LABORATORY CONTROL SAMPLE: 3358695

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Manganese, Dissolved	ug/L	1000	943	94	80-120	
Molybdenum, Dissolved	ug/L	1000	994	99	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3358696 3358697

Parameter	Units	50343595002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Manganese, Dissolved	ug/L	ND	1000	1000	976	944	97	94	75-125	3	20	
Molybdenum, Dissolved	ug/L	ND	1000	1000	1020	999	102	100	75-125	2	20	

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**QUALITY CONTROL DATA**

Project: Eagle Valley April 2023 P1R1  
 Pace Project No.: 50343666

QC Batch: 731264 Analysis Method: EPA 6020  
 QC Batch Method: EPA 200.2 Analysis Description: 6020 MET  
 Laboratory: Pace Analytical Services - Indianapolis

Associated Lab Samples: 50343666001, 50343666002

METHOD BLANK: 3355877 Matrix: Water

Associated Lab Samples: 50343666001, 50343666002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Antimony	ug/L	ND	1.0	0.036	05/04/23 18:19	
Arsenic	ug/L	ND	1.0	0.053	05/04/23 18:19	
Barium	ug/L	ND	1.0	0.051	05/04/23 18:19	
Beryllium	ug/L	ND	0.20	0.028	05/04/23 18:19	
Cadmium	ug/L	ND	2.0	0.0090	05/04/23 18:19	
Chromium	ug/L	ND	10.0	0.13	05/04/23 18:19	
Cobalt	ug/L	ND	1.0	0.032	05/04/23 18:19	
Lead	ug/L	ND	10.0	0.034	05/04/23 18:19	
Molybdenum	ug/L	ND	10.0	0.048	05/04/23 18:19	
Selenium	ug/L	ND	1.0	0.23	05/04/23 18:19	
Thallium	ug/L	ND	1.0	0.033	05/04/23 18:19	

LABORATORY CONTROL SAMPLE: 3355878

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Antimony	ug/L	40	42.2	105	80-120	
Arsenic	ug/L	40	37.8	95	80-120	
Barium	ug/L	40	39.6	99	80-120	
Beryllium	ug/L	40	40.4	101	80-120	
Cadmium	ug/L	40	39.3	98	80-120	
Chromium	ug/L	40	40.5	101	80-120	
Cobalt	ug/L	40	41.0	103	80-120	
Lead	ug/L	40	40.6	102	80-120	
Molybdenum	ug/L	40	41.4	103	80-120	
Selenium	ug/L	40	39.9	100	80-120	
Thallium	ug/L	40	40.8	102	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3355879 3355880

Parameter	Units	MS		MSD		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual	
		50343595002 Result	Spike Conc.	Spike Conc.	MS Result							MSD Result
Antimony	ug/L	ND	40	40	41.1	41.8	102	104	75-125	2	20	
Arsenic	ug/L	2.5	40	40	40.1	39.5	94	93	75-125	1	20	
Barium	ug/L	58.4	40	40	100	101	104	106	75-125	1	20	
Beryllium	ug/L	ND	40	40	40.1	39.9	100	100	75-125	0	20	
Cadmium	ug/L	ND	40	40	38.2	38.5	95	96	75-125	1	20	
Chromium	ug/L	ND	40	40	40.9	40.9	99	99	75-125	0	20	

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### QUALITY CONTROL DATA

Project: Eagle Valley April 2023 P1R1

Pace Project No.: 50343666

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3355879 3355880											
Parameter	Units	50343595002 Result	MS	MSD	MS	MSD	MS	MSD	% Rec	Max	Qual
			Spike Conc.	Spike Conc.	Result	Result	% Rec	% Rec	Limits	RPD	
Cobalt	ug/L	3.2	40	40	41.7	41.6	96	96	75-125	0	20
Lead	ug/L	ND	40	40	42.7	42.8	102	102	75-125	0	20
Molybdenum	ug/L	ND	40	40	42.1	42.0	104	103	75-125	0	20
Selenium	ug/L	ND	40	40	39.8	39.2	98	97	75-125	2	20
Thallium	ug/L	ND	40	40	41.9	42.0	105	105	75-125	0	20

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**QUALITY CONTROL DATA**

Project: Eagle Valley April 2023 P1R1

Pace Project No.: 50343666

QC Batch:	731492	Analysis Method:	SM 2320B
QC Batch Method:	SM 2320B	Analysis Description:	2320B Alkalinity
		Laboratory:	Pace Analytical Services - Indianapolis

Associated Lab Samples: 50343666001, 50343666002

METHOD BLANK: 3356769 Matrix: Water

Associated Lab Samples: 50343666001, 50343666002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Alkalinity, Total as CaCO3	mg/L	ND	10.0	10.0	05/04/23 00:13	
Alkalinity,Bicarbonate (CaCO3)	mg/L	ND	10.0	10.0	05/04/23 00:13	
Alkalinity,Carbonate (CaCO3)	mg/L	ND	10.0	10.0	05/04/23 00:13	

LABORATORY CONTROL SAMPLE: 3356770

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Alkalinity, Total as CaCO3	mg/L	50	48.8	98	90-110	

SAMPLE DUPLICATE: 3356771

Parameter	Units	50343591001 Result	Dup Result	RPD	Max RPD	Qualifiers
Alkalinity, Total as CaCO3	mg/L	402	407	1	20	
Alkalinity,Bicarbonate (CaCO3)	mg/L	402	407	1	20	
Alkalinity,Carbonate (CaCO3)	mg/L	ND	ND		20	

SAMPLE DUPLICATE: 3356772

Parameter	Units	50343616009 Result	Dup Result	RPD	Max RPD	Qualifiers
Alkalinity, Total as CaCO3	mg/L	53.4	53.9	1	20	
Alkalinity,Bicarbonate (CaCO3)	mg/L	46.4	46.9	1	20	
Alkalinity,Carbonate (CaCO3)	mg/L	ND	ND		20	

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### QUALITY CONTROL DATA

Project: Eagle Valley April 2023 P1R1

Pace Project No.: 50343666

QC Batch: 731396

Analysis Method: SM 2540C

QC Batch Method: SM 2540C

Analysis Description: 2540C Total Dissolved Solids

Laboratory: Pace Analytical Services - Indianapolis

Associated Lab Samples: 50343666001, 50343666002

METHOD BLANK: 3356369

Matrix: Water

Associated Lab Samples: 50343666001, 50343666002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	ND	10.0	10.0	05/03/23 14:50	

LABORATORY CONTROL SAMPLE: 3356370

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	300	279	93	80-120	

SAMPLE DUPLICATE: 3356371

Parameter	Units	50343615001 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	884	869	2	10	

SAMPLE DUPLICATE: 3356372

Parameter	Units	50343616003 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	1920	1910	1	10	

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### QUALITY CONTROL DATA

Project: Eagle Valley April 2023 P1R1

Pace Project No.: 50343666

QC Batch: 732452

Analysis Method: SM 4500-H+B

QC Batch Method: SM 4500-H+B

Analysis Description: 4500H+B pH

Laboratory: Pace Analytical Services - Indianapolis

Associated Lab Samples: 50343666001, 50343666002

SAMPLE DUPLICATE: 3361532

Parameter	Units	50343172002 Result	Dup Result	RPD	Max RPD	Qualifiers
pH at 25 Degrees C	Std. Units	7.8	7.8	0	2	H3

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**QUALITY CONTROL DATA**

Project: Eagle Valley April 2023 P1R1

Pace Project No.: 50343666

QC Batch:	731290	Analysis Method:	SM 4500-S2-D
QC Batch Method:	SM 4500-S2-D	Analysis Description:	4500S2D Sulfide Water
		Laboratory:	Pace Analytical Services - Indianapolis

Associated Lab Samples: 50343666001, 50343666002

METHOD BLANK: 3356037 Matrix: Water

Associated Lab Samples: 50343666001, 50343666002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Sulfide	mg/L	ND	0.10	0.025	05/03/23 11:57	

LABORATORY CONTROL SAMPLE: 3356038

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Sulfide	mg/L	0.5	0.47	95	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3356039 3356040

Parameter	Units	50343666001		3356040		% Rec	% Rec	% Rec Limits	RPD	Max RPD	Qual
		MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result						
Sulfide	mg/L	ND	0.5	0.5	0.54	0.50	104	96	90-110	8	20

MATRIX SPIKE SAMPLE: 3356041

Parameter	Units	50343690001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Sulfide	mg/L	ND	0.5	0.48	95	90-110	

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**QUALITY CONTROL DATA**

Project: Eagle Valley April 2023 P1R1

Pace Project No.: 50343666

QC Batch:	731295	Analysis Method:	HACH 8146
QC Batch Method:	HACH 8146	Analysis Description:	Iron, Ferrous
		Laboratory:	Pace Analytical Services - Indianapolis

Associated Lab Samples: 50343666001, 50343666002

METHOD BLANK: 3356053 Matrix: Water

Associated Lab Samples: 50343666001, 50343666002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Iron, Ferrous	mg/L	ND	0.20	0.035	05/03/23 12:40	H3,N2

LABORATORY CONTROL SAMPLE: 3356054

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Iron, Ferrous	mg/L	1	1.0	104	90-110	H3,N2

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3356055 3356056

Parameter	Units	50343595002		3356056		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual	
		MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result							
Iron, Ferrous	mg/L	ND	1	1	1.2	1.2	120	121	90-110	1	20	H3,M3,N2

MATRIX SPIKE SAMPLE: 3356057

Parameter	Units	50343666002 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Iron, Ferrous	mg/L	ND	1	1.2	109	90-110	H3,N2

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**QUALITY CONTROL DATA**

Project: Eagle Valley April 2023 P1R1

Pace Project No.: 50343666

QC Batch: 731171	Analysis Method: EPA 353.2
QC Batch Method: EPA 353.2	Analysis Description: 353.2 Nitrate + Nitrite, Unpres.
	Laboratory: Pace Analytical Services - Indianapolis

Associated Lab Samples: 50343666001, 50343666002

METHOD BLANK: 3355517 Matrix: Water

Associated Lab Samples: 50343666001, 50343666002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Nitrogen, Nitrate	mg/L	ND	0.10	0.011	05/02/23 19:44	
Nitrogen, Nitrite	mg/L	ND	0.10	0.0040	05/02/23 19:44	

LABORATORY CONTROL SAMPLE: 3355518

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Nitrogen, Nitrate	mg/L	1	1.0	104	90-110	
Nitrogen, Nitrite	mg/L	1	1.1	105	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3355519 3355520

Parameter	Units	50343589003		3355520		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result						
Nitrogen, Nitrate	mg/L	ND	1	1	1.1	1.0	105	104	90-110	1	20
Nitrogen, Nitrite	mg/L	ND	1	1	1.1	1.1	106	105	90-110	1	20

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**QUALITY CONTROL DATA**

Project: Eagle Valley April 2023 P1R1

Pace Project No.: 50343666

QC Batch:	731867	Analysis Method:	EPA 365.1
QC Batch Method:	EPA 365.1	Analysis Description:	365.1 Total Phosphorus
		Laboratory:	Pace Analytical Services - Indianapolis

Associated Lab Samples: 50343666001, 50343666002

METHOD BLANK: 3358946 Matrix: Water

Associated Lab Samples: 50343666001, 50343666002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Phosphate as P04	mg/L	ND	0.15	0.15	05/07/23 13:08	

LABORATORY CONTROL SAMPLE: 3358947

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Phosphate as P04	mg/L		1.5			

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3358948 3358949

Parameter	Units	50343162001		50343162001		50343162001		% Rec Limits	RPD	Max RPD	Qual
		MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec				
Phosphate as P04	mg/L	ND		1.4	1.4				1		

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**QUALITY CONTROL DATA**

Project: Eagle Valley April 2023 P1R1  
 Pace Project No.: 50343666

QC Batch: 731681 Analysis Method: SM 5310C  
 QC Batch Method: SM 5310C Analysis Description: 5310C Total Organic Carbon  
 Laboratory: Pace Analytical Services - Indianapolis  
 Associated Lab Samples: 50343666001, 50343666002

METHOD BLANK: 3357840 Matrix: Water  
 Associated Lab Samples: 50343666001, 50343666002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Organic Carbon	mg/L	ND	1.0	0.24	05/06/23 14:54	

LABORATORY CONTROL SAMPLE: 3357841

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Organic Carbon	mg/L	10	9.9	99	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3357842 3357843

Parameter	Units	50343073001		50343073002		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		Result	MS Spike Conc.	MSD Spike Conc.	MS Result								
Total Organic Carbon	mg/L	<64000 ug/L	1280	1280	1330	1310	100	98	80-120	2	20		

MATRIX SPIKE SAMPLE: 3357844

Parameter	Units	50343073002 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Total Organic Carbon	mg/L	408000 ug/L	1000	1480	107	80-120	

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**REPORT OF LABORATORY ANALYSIS**

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**QUALITY CONTROL DATA**

Project: Eagle Valley April 2023 P1R1

Pace Project No.: 50343666

QC Batch:	731675	Analysis Method:	SM 5310C
QC Batch Method:	SM 5310C	Analysis Description:	5310C Dissolved Organic Carbon
		Laboratory:	Pace Analytical Services - Indianapolis

Associated Lab Samples: 50343666001, 50343666002

METHOD BLANK: 3357789 Matrix: Water

Associated Lab Samples: 50343666001, 50343666002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Dissolved Organic Carbon	mg/L	ND	1.0	0.24	05/05/23 15:44	

LABORATORY CONTROL SAMPLE: 3357790

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Dissolved Organic Carbon	mg/L	10	9.8	98	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3357791 3357792

Parameter	Units	50343595002		3357791		3357792		% Rec Limits	RPD	Max RPD	Qual	
		MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec					
Dissolved Organic Carbon	mg/L	ND	10	10	11.0	10.8	105	104	80-120	1	20	

MATRIX SPIKE SAMPLE: 3357793

Parameter	Units	50343595005 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Dissolved Organic Carbon	mg/L	ND	10	10.8	100	80-120	

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**ANALYTICAL RESULTS - RADIOCHEMISTRY**

Project: Eagle Valley April 2023 P1R1

Pace Project No.: 50343666

**Sample: MW-11S**      **Lab ID: 50343666001**      Collected: 05/02/23 12:20      Received: 05/02/23 15:15      Matrix: Water  
 PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	<b>-0.0724 ± 0.512 (1.09)</b> <b>C:NA T:86%</b>	pCi/L	05/22/23 16:03	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	<b>0.151 ± 0.289 (0.637)</b> <b>C:78% T:87%</b>	pCi/L	05/18/23 11:54	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	<b>0.151 ± 0.801 (1.73)</b>	pCi/L	05/23/23 16:01	7440-14-4	

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**ANALYTICAL RESULTS - RADIOCHEMISTRY**

Project: Eagle Valley April 2023 P1R1

Pace Project No.: 50343666

**Sample: MW-111**      **Lab ID: 50343666002**      Collected: 05/02/23 11:15      Received: 05/02/23 15:15      Matrix: Water  
 PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Radium-226	EPA 903.1	<b>0.135 ± 0.375 (0.727)</b> <b>C:NA T:90%</b>	pCi/L	05/22/23 16:03	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 904.0	<b>0.723 ± 0.412 (0.758)</b> <b>C:83% T:83%</b>	pCi/L	05/18/23 14:58	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	<b>0.858 ± 0.787 (1.49)</b>	pCi/L	05/23/23 16:01	7440-14-4	

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### QUALITY CONTROL - RADIOCHEMISTRY

Project: Eagle Valley April 2023 P1R1

Pace Project No.: 50343666

QC Batch: 586250

Analysis Method: EPA 903.1

QC Batch Method: EPA 903.1

Analysis Description: 903.1 Radium-226

Laboratory: Pace Analytical Services - Greensburg

Associated Lab Samples: 50343666001, 50343666002

METHOD BLANK: 2847921

Matrix: Water

Associated Lab Samples: 50343666001, 50343666002

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.286 ± 0.231 (0.129) C:NA T:95%	pCi/L	05/22/23 15:41	

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### QUALITY CONTROL - RADIOCHEMISTRY

Project: Eagle Valley April 2023 P1R1

Pace Project No.: 50343666

QC Batch: 586251

Analysis Method: EPA 904.0

QC Batch Method: EPA 904.0

Analysis Description: 904.0 Radium 228

Laboratory: Pace Analytical Services - Greensburg

Associated Lab Samples: 50343666001, 50343666002

METHOD BLANK: 2847922

Matrix: Water

Associated Lab Samples: 50343666001, 50343666002

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.0470 ± 0.288 (0.665) C:70% T:94%	pCi/L	05/18/23 11:54	

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## QUALIFIERS

Project: Eagle Valley April 2023 P1R1

Pace Project No.: 50343666

### DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Reported results are not rounded until the final step prior to reporting. Therefore, calculated parameters that are typically reported as "Total" may vary slightly from the sum of the reported component parameters.

Act - Activity

Unc - Uncertainty: SDWA = 1.96 sigma count uncertainty, all other matrices = Expanded Uncertainty (95% confidence interval).

Gamma Spec = Expanded Uncertainty (95.4% Confidence Interval)

(MDC) - Minimum Detectable Concentration

Trac - Tracer Recovery (%)

Carr - Carrier Recovery (%)

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

### ANALYTE QUALIFIERS

E Analyte concentration exceeded the calibration range. The reported result is estimated.

H3 Sample was received or analysis requested beyond the recognized method holding time.

M3 Matrix spike recovery was outside laboratory control limits due to matrix interferences.

N2 The lab does not hold NELAC/TNI accreditation for this parameter but other accreditations/certifications may apply. A complete list of accreditations/certifications is available upon request.

## REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Eagle Valley April 2023 P1R1

Pace Project No.: 50343666

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
50343666001	MW-11S	EPA 9056	731453		
50343666002	MW-11I	EPA 9056	731453		
50343666001	MW-11S	EPA 3010	731202	EPA 6010	731884
50343666002	MW-11I	EPA 3010	731202	EPA 6010	731884
50343666001	MW-11S	EPA 3010	731786	EPA 6010	732034
50343666002	MW-11I	EPA 3010	731786	EPA 6010	732034
50343666001	MW-11S	EPA 200.2	731264	EPA 6020	731630
50343666002	MW-11I	EPA 200.2	731264	EPA 6020	731630
50343666001	MW-11S	EPA 7470	731163	EPA 7470	731242
50343666002	MW-11I	EPA 7470	731163	EPA 7470	731242
50343666001	MW-11S	EPA 903.1	586250		
50343666002	MW-11I	EPA 903.1	586250		
50343666001	MW-11S	EPA 904.0	586251		
50343666002	MW-11I	EPA 904.0	586251		
50343666001	MW-11S	Total Radium Calculation	590181		
50343666002	MW-11I	Total Radium Calculation	590181		
50343666001	MW-11S	SM 2320B	731492		
50343666002	MW-11I	SM 2320B	731492		
50343666001	MW-11S	SM 2540C	731396		
50343666002	MW-11I	SM 2540C	731396		
50343666001	MW-11S	SM 4500-H+B	732452		
50343666002	MW-11I	SM 4500-H+B	732452		
50343666001	MW-11S	SM 4500-S2-D	731290		
50343666002	MW-11I	SM 4500-S2-D	731290		
50343666001	MW-11S	HACH 8146	731295		
50343666002	MW-11I	HACH 8146	731295		
50343666001	MW-11S	EPA 353.2	731171		
50343666002	MW-11I	EPA 353.2	731171		
50343666001	MW-11S	EPA 365.1	731867	EPA 365.1	732107
50343666002	MW-11I	EPA 365.1	731867	EPA 365.1	732107
50343666001	MW-11S	SM 5310C	731681		
50343666002	MW-11I	SM 5310C	731681		
50343666001	MW-11S	SM 5310C	731675		
50343666002	MW-11I	SM 5310C	731675		

### REPORT OF LABORATORY ANALYSIS

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## SAMPLE CONDITION UPON RECEIPT FORM

Date/Time and Initials of person examining contents: WJL 5/2/23 1855

1. Courier:  FED EX  UPS  CLIENT  PACE  USPS  OTHER \_\_\_\_\_

2. Custody Seal on Cooler/Box Present:  Yes  No  
 (If yes) Seals Intact:  Yes  No (leave blank if no seals were present)

3. Thermometer: **1 2 3 4 5 6 A B C D E F**

4. Cooler Temperature(s): 2.0/2.0        
 (Initial/Corrected) RECORD TEMPS OF ALL COOLERS RECEIVED (use Comments below to add more)

5. Packing Material:  Bubble Wrap  Bubble Bags  
 None  Other \_\_\_\_\_

6. Ice Type:  Wet  Blue  None

7. If temp. is over 6°C or under 0°C, was the PM notified?:  Yes  No  
 Cooler temp should be above freezing to 6°C

All discrepancies will be written out in the comments section below.

	Yes	No		Yes	No	N/A
USDA Regulated Soils? (HI, ID, NY, WA, OR, CA, NM, TX, OK, AR, LA, TN, AL, MS, NC, SC, GA, FL, or Puerto Rico)		/	All containers needing acid/base preservation have been pH CHECKED?: Exceptions: VOA, coliform, LLHg, O&G, RAD CHEM, and any container with a septum cap or preserved with HCl.	/		
Short Hold Time Analysis (48 hours or less)? Analysis: <span style="margin-left: 100px;">N<sub>2</sub></span>	/		Circle: HNO <sub>3</sub> (<2) H <sub>2</sub> SO <sub>4</sub> (<2) NaOH (>10) NaOH/ZnAc (>9) Any non-conformance to pH recommendations will be noted on the container count form			
Time 5035A TC placed in Freezer or Short Holds To Lab		1615	Residual Chlorine Check (SVOC 625 Pest/PCB 608)	Present	Absent	N/A
Rush TAT Requested (4 days or less):		/	Residual Chlorine Check (Total/Amenable/Free Cyanide)			/
Custody Signatures Present?	/		Headspace Wisconsin Sulfide?			/
Containers Intact?:	/		Headspace in VOA Vials (>6mm): See Container Count form for details	Present	Absent	No VOA Vials Sent
Sample Label (IDs/Dates/Times) Match COC?: Except TCs, which only require sample ID	/		Trip Blank Present?		/	
Extra labels on Terracore Vials? (soils only)			Trip Blank Custody Seals?:		/	

COMMENTS:

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Sample Container Count

\*\* Place a RED dot on containers that are out of conformance \*\*

COC Line Item	WGFLU	MeOH (only) SBS DI R	VIALS							AMBER GLASS						PLASTIC							OTHER			Matrix	Nitric Red HNO3 <2	Sulfuric Yellow H2SO4 <2	Sodium Hydroxide Green NaOH >10	Sodium Hydroxide Black NaOH/Zn Ac >9		
			DG9H	VG9H	VOA VIAL HS (>6mm)	VG9U	DG9U	VG9T	AG0U	AG1H	AG1U	AG2U	AG3S	AG3SF	AG3C	BP1U	BP1N	BP2U	BP3U	BP3N	BP3F	BP3S	BP3B	BP3Z	CG3H						CG3F	Syringe Kit
			1										120	1	1			3	1	2	1	1	1		1							
2										115	1	1			2	1	2	1	1	1		1						✓	✓		✓	
3																																
4																																
5																																
6																																
7																																
8																																
9																																
10																																
11																																
12																																

Container Codes

Glass				Plastic			
DG9H	40mL HCl amber voa vial	BG1T	1L Na Thiosulfate clear glass	BP1B	1L NaOH plastic	BP4U	125mL unpreserved plastic
DG9P	40mL TSP amber vial	BG1U	1L unpreserved glass	BP1N	1L HNO3 plastic	BP4N	125mL HNO3 plastic
DG9S	40mL H2SO4 amber vial	BG3H	250mL HCl Clear Glass	BP1S	1L H2SO4 plastic	BP4S	125mL H2SO4 plastic
DG9T	40mL Na Thio amber vial	BG3U	250mL Unpres Clear Glass	BP1U	1L unpreserved plastic	<b>Miscellaneous</b>	
DG9U	40mL unpreserved amber vial	AG0U	100mL unpres amber glass	BP1Z	1L NaOH, Zn, Ac		
VG9H	40mL HCl clear vial	AG1H	1L HCl amber glass	BP2N	500mL HNO3 plastic	Syringe Kit	LL Cr+6 sampling kit
VG9T	40mL Na Thio. clear vial	AG1S	1L H2SO4 amber glass	BP2C	500mL NaOH plastic	ZPLC	Ziploc Bag
VG9U	40mL unpreserved clear vial	AG1T	1L Na Thiosulfate amber glass	BP2S	500mL H2SO4 plastic	R	Terracore Kit
I	40mL w/hexane wipe vial	AG1U	1liter unpres amber glass	BP2U	500mL unpreserved plastic	SP5T	120mL Coliform Sodium Thiosulfate
WGKU	8oz unpreserved clear jar	AG2N	500mL HNO3 amber glass	BP2Z	500mL NaOH, Zn Ac	GN	General Container
WGFLU	4oz clear soil jar	AG2S	500mL H2SO4 amber glass	BP3B	250mL NaOH plastic	U	Summa Can (air sample)
JGFLU	4oz unpreserved amber wide	AG2U	500mL unpres amber glass	BP3N	250mL HNO3 plastic	WT	Water
CG3H	250mL clear glass HCl	AG3S	250mL H2SO4 amber glass	BP3F	250mL HNO3 plastic-field filtered	SL	Solid Solid
CG3F	250mL clear glass HCl, Field Filter	AG3SF	250mL H2SO4 amb glass -field filtered	BP3U	250mL unpreserved plastic	OL	Oil
BG1H	1L HCl clear glass	AG3U	250mL unpres amber glass	BP3S	250mL H2SO4 plastic	NAL	Non-aqueous liquid
BG1S	1L H2SO4 clear glass	AG3C	250mL NaOH amber glass	BP3Z	250mL NaOH, ZnAc plastic	WP	Wipe



July 19, 2023

Mr. Mark Breting  
ATC Group Services  
7988 Centerpoint Drive  
Suite 100  
Indianapolis, IN 46256

RE: Project: Eagle Valley April 2023 P1R4  
Pace Project No.: 50343741

Dear Mr. Breting:

Enclosed are the analytical results for sample(s) received by the laboratory on May 03, 2023. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

The test results provided in this final report were generated by each of the following laboratories within the Pace Network:

- Pace Analytical Services - Indianapolis
- Pace Analytical Services - Greensburg

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Will Statz  
will.statz@pacelabs.com  
(317)228-3105  
Project Manager

Enclosures

cc: Mohammed Bazlamit, Atlas  
Mr. Robert Miller, Haley & Aldrich



## REPORT OF LABORATORY ANALYSIS

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### CERTIFICATIONS

Project: Eagle Valley April 2023 P1R4

Pace Project No.: 50343741

#### Pace Analytical Services Pennsylvania

1638 Roseytown Rd Suites 2,3&4, Greensburg, PA 15601  
 ANAB DOD-ELAP Rad Accreditation #: L2417  
 ANABISO/IEC 17025:2017 Rad Cert#: L24170  
 Alabama Certification #: 41590  
 Arizona Certification #: AZ0734  
 Arkansas Certification  
 California Certification #: 2950  
 Colorado Certification #: PA01547  
 Connecticut Certification #: PH-0694  
 EPA Region 4 DW Rad  
 Florida/TNI Certification #: E87683  
 Georgia Certification #: C040  
 Guam Certification  
 Hawaii Certification  
 Idaho Certification  
 Illinois Certification  
 Indiana Certification  
 Iowa Certification #: 391  
 Kansas Certification #: E-10358  
 Kentucky Certification #: KY90133  
 KY WW Permit #: KY0098221  
 KY WW Permit #: KY0000221  
 Louisiana DHH/TNI Certification #: LA010  
 Louisiana DEQ/TNI Certification #: 04086  
 Maine Certification #: 2023021  
 Maryland Certification #: 308  
 Massachusetts Certification #: M-PA1457  
 Michigan/PADEP Certification #: 9991

Missouri Certification #: 235  
 Montana Certification #: Cert0082  
 Nebraska Certification #: NE-OS-29-14  
 Nevada Certification #: PA014572023-03  
 New Hampshire/TNI Certification #: 297622  
 New Jersey/TNI Certification #: PA051  
 New Mexico Certification #: PA01457  
 New York/TNI Certification #: 10888  
 North Carolina Certification #: 42706  
 North Dakota Certification #: R-190  
 Ohio EPA Rad Approval: #41249  
 Oregon/TNI Certification #: PA200002-015  
 Pennsylvania/TNI Certification #: 65-00282  
 Puerto Rico Certification #: PA01457  
 Rhode Island Certification #: 65-00282  
 South Dakota Certification  
 Tennessee Certification #: TN02867  
 Texas/TNI Certification #: T104704188-22-18  
 Utah/TNI Certification #: PA014572223-14  
 USDA Soil Permit #: 525-23-67-77263  
 Vermont Dept. of Health: ID# VT-0282  
 Virgin Island/PADEP Certification  
 Virginia/VELAP Certification #: 460198  
 Washington Certification #: C868  
 West Virginia DEP Certification #: 143  
 West Virginia DHHR Certification #: 9964C  
 Wisconsin Approve List for Rad

#### Pace Analytical Services Indianapolis

7726 Moller Road, Indianapolis, IN 46268  
 Illinois Accreditation #: 200074  
 Indiana Drinking Water Laboratory #: C-49-06  
 Kansas/TNI Certification #: E-10177  
 Kentucky UST Agency Interest #: 80226  
 Kentucky WW Laboratory ID #: 98019  
 Michigan Drinking Water Laboratory #9050

Ohio VAP Certified Laboratory #: CL0065  
 Oklahoma Laboratory #: 9204  
 Texas Certification #: T104704355  
 Wisconsin Laboratory #: 999788130  
 USDA Foreign Soil Permit #: 525-23-13-23119  
 USDA Compliance Agreement #: IN-SL-22-001

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### SAMPLE SUMMARY

Project: Eagle Valley April 2023 P1R4  
Pace Project No.: 50343741

Lab ID	Sample ID	Matrix	Date Collected	Date Received
50343741001	MW-23S	Water	05/02/23 13:00	05/03/23 08:17
50343741002	MW-23I	Water	05/02/23 12:10	05/03/23 08:17
50343741003	MW-23D	Water	05/02/23 10:50	05/03/23 08:17
50343741004	FB-4	Water	05/02/23 12:30	05/03/23 08:17

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**SAMPLE ANALYTE COUNT**

Project: Eagle Valley April 2023 P1R4

Pace Project No.: 50343741

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory		
50343741001	MW-23S	EPA 9056	ADM	3	PASI-I		
		EPA 6010	MTM	10	PASI-I		
		EPA 6010	JPK	2	PASI-I		
		EPA 6020	CAW	11	PASI-I		
		EPA 7470	ILP	1	PASI-I		
		EPA 903.1	CLM	1	PASI-PA		
		EPA 904.0	JJS1	1	PASI-PA		
		Total Radium Calculation	JAL	1	PASI-PA		
		SM 2320B	DAW	3	PASI-I		
		SM 2540C	AEL	1	PASI-I		
		SM 4500-H+B	BMS	1	PASI-I		
		SM 4500-S2-D	BEP	1	PASI-I		
		HACH 8146	BEP	1	PASI-I		
		EPA 353.2	ZM	2	PASI-I		
		EPA 365.1	YAM	1	PASI-I		
		SM 5310C	ATS	1	PASI-I		
		SM 5310C	ATS	1	PASI-I		
		50343741002	MW-23I	EPA 9056	ADM	3	PASI-I
				EPA 6010	MTM	10	PASI-I
EPA 6010	JPK			2	PASI-I		
EPA 6020	CAW			11	PASI-I		
EPA 7470	ILP			1	PASI-I		
EPA 903.1	CLM			1	PASI-PA		
EPA 904.0	JJS1			1	PASI-PA		
Total Radium Calculation	JAL			1	PASI-PA		
SM 2320B	DAW			3	PASI-I		
SM 2540C	TRK			1	PASI-I		
SM 4500-H+B	BMS			1	PASI-I		
SM 4500-S2-D	BEP			1	PASI-I		
HACH 8146	BEP			1	PASI-I		
EPA 353.2	ZM			2	PASI-I		
EPA 365.1	YAM			1	PASI-I		
SM 5310C	ATS			1	PASI-I		
SM 5310C	ATS			1	PASI-I		
50343741003	MW-23D			EPA 9056	RMR	3	PASI-I
				EPA 6010	MTM	10	PASI-I
		EPA 6010	JPK	2	PASI-I		

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**SAMPLE ANALYTE COUNT**

Project: Eagle Valley April 2023 P1R4

Pace Project No.: 50343741

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
		EPA 6020	CAW	11	PASI-I
		EPA 7470	ILP	1	PASI-I
		EPA 903.1	CLM	1	PASI-PA
		EPA 904.0	JJS1	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
		SM 2320B	DAW	3	PASI-I
		SM 2540C	TRK	1	PASI-I
		SM 4500-H+B	BMS	1	PASI-I
		SM 4500-S2-D	BEP	1	PASI-I
		HACH 8146	BEP	1	PASI-I
		EPA 353.2	ZM	2	PASI-I
		EPA 365.1	YAM	1	PASI-I
		SM 5310C	ATS	1	PASI-I
		SM 5310C	ATS	1	PASI-I
50343741004	FB-4	EPA 9056	ADM	3	PASI-I
		EPA 6010	MTM	10	PASI-I
		EPA 6020	CAW	11	PASI-I
		EPA 7470	ILP	1	PASI-I
		EPA 903.1	CLM	1	PASI-PA
		EPA 904.0	JJS1	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
		SM 2320B	DAW	3	PASI-I
		SM 2540C	TRK	1	PASI-I
		SM 4500-H+B	BMS	1	PASI-I
		SM 4500-S2-D	BEP	1	PASI-I
		HACH 8146	BEP	1	PASI-I
		EPA 353.2	ZM	2	PASI-I
		EPA 365.1	YAM	1	PASI-I
		SM 5310C	ATS	1	PASI-I

PASI-I = Pace Analytical Services - Indianapolis  
 PASI-PA = Pace Analytical Services - Greensburg

**REPORT OF LABORATORY ANALYSIS**

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**SUMMARY OF DETECTION**

Project: Eagle Valley April 2023 P1R4  
 Pace Project No.: 50343741

Lab Sample ID	Client Sample ID	Result	Units	Report Limit	Analyzed	Qualifiers
Method	Parameters					
<b>50343741001</b>	<b>MW-23S</b>					
EPA 9056	Chloride	3.7	mg/L	0.25	05/06/23 13:11	
EPA 9056	Fluoride	0.11	mg/L	0.10	05/06/23 13:11	
EPA 9056	Sulfate	3.8	mg/L	0.25	05/06/23 13:11	
EPA 6010	Aluminum	534	ug/L	200	05/05/23 17:23	
EPA 6010	Calcium	101000	ug/L	1000	05/05/23 17:23	
EPA 6010	Iron	637	ug/L	100	05/05/23 17:23	
EPA 6010	Magnesium	29600	ug/L	1000	05/05/23 17:23	
EPA 6010	Manganese	31.9	ug/L	10.0	05/05/23 17:23	
EPA 6010	Silica	14800	ug/L	450	05/05/23 17:23	N2
EPA 6010	Sodium	3870	ug/L	1000	05/05/23 17:23	
EPA 6020	Barium	39.3	ug/L	1.0	05/09/23 02:29	
EPA 903.1	Radium-226	0.452 ± 0.437 (0.678)	pCi/L		06/05/23 14:04	
		C:NA T:98%				
EPA 904.0	Radium-228	0.262 ± 0.316 (0.669)	pCi/L		05/23/23 11:59	
		C:85% T:91%				
Total Radium Calculation	Total Radium	0.714 ± 0.753 (1.35)	pCi/L		06/05/23 16:13	
SM 2320B	Alkalinity, Total as CaCO3	332	mg/L	10.0	05/04/23 00:11	
SM 2320B	Alkalinity,Bicarbonate (CaCO3)	332	mg/L	10.0	05/04/23 00:11	
SM 2540C	Total Dissolved Solids	356	mg/L	10.0	05/04/23 15:23	
SM 4500-H+B	pH at 25 Degrees C	7.9	Std. Units	0.10	05/09/23 15:27	H3
EPA 353.2	Nitrogen, Nitrate	8.9	mg/L	0.50	05/03/23 19:42	
<b>50343741002</b>	<b>MW-23I</b>					
EPA 9056	Chloride	12.6	mg/L	0.25	05/06/23 13:30	
EPA 9056	Sulfate	20.4	mg/L	0.25	05/06/23 13:30	
EPA 6010	Aluminum	510	ug/L	200	05/05/23 17:39	
EPA 6010	Calcium	87600	ug/L	1000	05/05/23 17:39	
EPA 6010	Iron	657	ug/L	100	05/05/23 17:39	
EPA 6010	Magnesium	25500	ug/L	1000	05/05/23 17:39	
EPA 6010	Manganese	54.8	ug/L	10.0	05/05/23 17:39	
EPA 6010	Potassium	1620	ug/L	1000	05/05/23 17:39	
EPA 6010	Silica	17800	ug/L	450	05/05/23 17:39	N2
EPA 6010	Sodium	9240	ug/L	1000	05/05/23 17:39	
EPA 6010	Manganese, Dissolved	45.1	ug/L	10.0	05/06/23 03:10	
EPA 6020	Barium	29.3	ug/L	1.0	05/09/23 02:33	
EPA 6020	Selenium	5.9	ug/L	1.0	05/09/23 02:33	
EPA 903.1	Radium-226	0.293 ± 0.333 (0.525)	pCi/L		06/05/23 14:28	
		C:NA T:92%				

**REPORT OF LABORATORY ANALYSIS**

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### SUMMARY OF DETECTION

Project: Eagle Valley April 2023 P1R4

Pace Project No.: 50343741

Lab Sample ID Method	Client Sample ID Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
<b>50343741002</b>	<b>MW-23I</b>					
EPA 904.0	Radium-228	0.871 ± 0.399 (0.675) C:81% T:89%	pCi/L		05/23/23 11:59	
Total Radium Calculation	Total Radium	1.16 ± 0.732 (1.20)	pCi/L		06/05/23 16:13	
SM 2320B	Alkalinity, Total as CaCO3	259	mg/L	10.0	05/04/23 00:11	
SM 2320B	Alkalinity,Bicarbonate (CaCO3)	259	mg/L	10.0	05/04/23 00:11	
SM 2540C	Total Dissolved Solids	334	mg/L	10.0	05/05/23 08:21	
SM 4500-H+B	pH at 25 Degrees C	8.0	Std. Units	0.10	05/09/23 15:27	H3
EPA 353.2	Nitrogen, Nitrate	9.3	mg/L	0.50	05/03/23 19:44	
<b>50343741003</b>	<b>MW-23D</b>					
EPA 9056	Chloride	23.6	mg/L	0.25	05/08/23 04:38	
EPA 9056	Sulfate	34.9	mg/L	0.25	05/08/23 04:38	
EPA 6010	Aluminum	368	ug/L	200	05/05/23 17:41	
EPA 6010	Calcium	75600	ug/L	1000	05/05/23 17:41	
EPA 6010	Iron	717	ug/L	100	05/05/23 17:41	
EPA 6010	Magnesium	23200	ug/L	1000	05/05/23 17:41	
EPA 6010	Manganese	178	ug/L	10.0	05/05/23 17:41	
EPA 6010	Potassium	1830	ug/L	1000	05/05/23 17:41	
EPA 6010	Silica	16700	ug/L	450	05/05/23 17:41	N2
EPA 6010	Sodium	14100	ug/L	1000	05/05/23 17:41	
EPA 6010	Manganese, Dissolved	158	ug/L	10.0	05/06/23 03:12	
EPA 6020	Barium	43.2	ug/L	1.0	05/09/23 02:36	
EPA 6020	Selenium	5.8	ug/L	1.0	05/09/23 02:36	
EPA 903.1	Radium-226	0.0970 ± 0.269 (0.522) C:NA T:92%	pCi/L		06/05/23 14:28	
EPA 904.0	Radium-228	0.351 ± 0.352 (0.727) C:79% T:82%	pCi/L		05/23/23 11:59	
Total Radium Calculation	Total Radium	0.448 ± 0.621 (1.25)	pCi/L		06/05/23 16:13	
SM 2320B	Alkalinity, Total as CaCO3	232	mg/L	10.0	05/04/23 00:11	
SM 2320B	Alkalinity,Bicarbonate (CaCO3)	232	mg/L	10.0	05/04/23 00:11	
SM 2540C	Total Dissolved Solids	287	mg/L	10.0	05/05/23 08:22	
SM 4500-H+B	pH at 25 Degrees C	8.0	Std. Units	0.10	05/09/23 15:31	H3
EPA 353.2	Nitrogen, Nitrate	1.6	mg/L	0.10	05/03/23 19:46	
SM 5310C	Dissolved Organic Carbon	1.3	mg/L	1.0	05/05/23 23:47	
<b>50343741004</b>	<b>FB-4</b>					
EPA 903.1	Radium-226	0.103 ± 0.404 (0.773) C:NA T:88%	pCi/L		06/05/23 14:28	

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### SUMMARY OF DETECTION

Project: Eagle Valley April 2023 P1R4

Pace Project No.: 50343741

Lab Sample ID Method	Client Sample ID Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
<b>50343741004</b>	<b>FB-4</b>					
EPA 904.0	Radium-228	-0.0298 ± 0.346 (0.825) C:82% T:87%	pCi/L		05/23/23 15:02	
Total Radium Calculation	Total Radium	0.103 ± 0.750 (1.60)	pCi/L		06/05/23 16:13	
SM 4500-H+B	pH at 25 Degrees C	6.1	Std. Units	0.10	05/09/23 15:33	H3

### REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: Eagle Valley April 2023 P1R4

Pace Project No.: 50343741

Sample: MW-23S		Lab ID: 50343741001		Collected: 05/02/23 13:00		Received: 05/03/23 08:17		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>9056 IC Anions</b>		Analytical Method: EPA 9056 Pace Analytical Services - Indianapolis							
Chloride	3.7	mg/L	0.25	0.067	1		05/06/23 13:11	16887-00-6	
Fluoride	0.11	mg/L	0.10	0.017	1		05/06/23 13:11	16984-48-8	
Sulfate	3.8	mg/L	0.25	0.085	1		05/06/23 13:11	14808-79-8	
<b>6010 MET ICP</b>		Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis							
Aluminum	534	ug/L	200	55.4	1	05/05/23 09:10	05/05/23 17:23	7429-90-5	
Boron	ND	ug/L	100	37.6	1	05/05/23 09:10	05/05/23 17:23	7440-42-8	
Calcium	101000	ug/L	1000	163	1	05/05/23 09:10	05/05/23 17:23	7440-70-2	
Iron	637	ug/L	100	48.8	1	05/05/23 09:10	05/05/23 17:23	7439-89-6	
Lithium	ND	ug/L	20.0	6.2	1	05/05/23 09:10	05/05/23 17:23	7439-93-2	
Magnesium	29600	ug/L	1000	71.8	1	05/05/23 09:10	05/05/23 17:23	7439-95-4	
Manganese	31.9	ug/L	10.0	2.5	1	05/05/23 09:10	05/05/23 17:23	7439-96-5	
Potassium	ND	ug/L	1000	281	1	05/05/23 09:10	05/05/23 17:23	7440-09-7	
Silica	14800	ug/L	450		1	05/05/23 09:10	05/05/23 17:23	7631-86-9	N2
Sodium	3870	ug/L	1000	214	1	05/05/23 09:10	05/05/23 17:23	7440-23-5	
<b>6010 MET ICP, Dissolved</b>		Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis							
Manganese, Dissolved	ND	ug/L	10.0	2.5	1	05/05/23 09:10	05/06/23 03:08	7439-96-5	
Molybdenum, Dissolved	ND	ug/L	10.0	3.7	1	05/05/23 09:10	05/06/23 03:08	7439-98-7	
<b>6020 MET ICPMS</b>		Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis							
Antimony	ND	ug/L	1.0	0.036	1	05/05/23 07:16	05/09/23 02:29	7440-36-0	
Arsenic	ND	ug/L	1.0	0.053	1	05/05/23 07:16	05/09/23 02:29	7440-38-2	
Barium	39.3	ug/L	1.0	0.051	1	05/05/23 07:16	05/09/23 02:29	7440-39-3	
Beryllium	ND	ug/L	0.20	0.028	1	05/05/23 07:16	05/09/23 02:29	7440-41-7	
Cadmium	ND	ug/L	2.0	0.0090	1	05/05/23 07:16	05/09/23 02:29	7440-43-9	
Chromium	ND	ug/L	10.0	0.13	1	05/05/23 07:16	05/09/23 02:29	7440-47-3	
Cobalt	ND	ug/L	1.0	0.032	1	05/05/23 07:16	05/09/23 02:29	7440-48-4	
Lead	ND	ug/L	10.0	0.034	1	05/05/23 07:16	05/09/23 02:29	7439-92-1	
Molybdenum	ND	ug/L	10.0	0.048	1	05/05/23 07:16	05/09/23 02:29	7439-98-7	
Selenium	ND	ug/L	1.0	0.23	1	05/05/23 07:16	05/09/23 02:29	7782-49-2	
Thallium	ND	ug/L	1.0	0.033	1	05/05/23 07:16	05/09/23 02:29	7440-28-0	
<b>7470 Mercury</b>		Analytical Method: EPA 7470 Preparation Method: EPA 7470 Pace Analytical Services - Indianapolis							
Mercury	ND	ug/L	0.20	0.12	1	05/04/23 19:21	05/05/23 12:37	7439-97-6	
<b>2320B Alkalinity</b>		Analytical Method: SM 2320B Pace Analytical Services - Indianapolis							
Alkalinity, Total as CaCO3	332	mg/L	10.0	10.0	1		05/04/23 00:11		
Alkalinity,Bicarbonate (CaCO3)	332	mg/L	10.0	10.0	1		05/04/23 00:11		

## REPORT OF LABORATORY ANALYSIS

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### ANALYTICAL RESULTS

Project: Eagle Valley April 2023 P1R4

Pace Project No.: 50343741

Sample: MW-23S		Lab ID: 50343741001		Collected: 05/02/23 13:00	Received: 05/03/23 08:17	Matrix: Water			
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>2320B Alkalinity</b>		Analytical Method: SM 2320B Pace Analytical Services - Indianapolis							
Alkalinity, Carbonate (CaCO3)	ND	mg/L	10.0	10.0	1		05/04/23 00:11		
<b>2540C Total Dissolved Solids</b>		Analytical Method: SM 2540C Pace Analytical Services - Indianapolis							
Total Dissolved Solids	<b>356</b>	mg/L	10.0	10.0	1		05/04/23 15:23		
<b>4500H+ pH, Electrometric</b>		Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis							
pH at 25 Degrees C	<b>7.9</b>	Std. Units	0.10	0.10	1		05/09/23 15:27		H3
<b>4500S2D Sulfide Water</b>		Analytical Method: SM 4500-S2-D Pace Analytical Services - Indianapolis							
Sulfide	ND	mg/L	0.10	0.025	1		05/05/23 12:16	18496-25-8	
<b>Iron, Ferrous</b>		Analytical Method: HACH 8146 Pace Analytical Services - Indianapolis							
Iron, Ferrous	ND	mg/L	0.20	0.035	1		05/04/23 14:38	15438-31-0	H3,N2
<b>353.2 Nitrogen, NO2/NO3 unpres</b>		Analytical Method: EPA 353.2 Pace Analytical Services - Indianapolis							
Nitrogen, Nitrate	<b>8.9</b>	mg/L	0.50	0.055	5		05/03/23 19:42	14797-55-8	
Nitrogen, Nitrite	ND	mg/L	0.50	0.020	5		05/03/23 19:42	14797-65-0	
<b>365.1 Total Phosphorus</b>		Analytical Method: EPA 365.1 Preparation Method: EPA 365.1 Pace Analytical Services - Indianapolis							
Phosphate as P04	ND	mg/L	0.15	0.15	1	05/05/23 13:00	05/07/23 15:39		
<b>5310C TOC</b>		Analytical Method: SM 5310C Pace Analytical Services - Indianapolis							
Total Organic Carbon	ND	mg/L	1.0	0.24	1		05/06/23 22:44	7440-44-0	
<b>5310C Dissolved Organic Carbon</b>		Analytical Method: SM 5310C Pace Analytical Services - Indianapolis							
Dissolved Organic Carbon	ND	mg/L	1.0	0.24	1		05/05/23 23:26		

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## ANALYTICAL RESULTS

Project: Eagle Valley April 2023 P1R4

Pace Project No.: 50343741

Sample: MW-23I Lab ID: 50343741002 Collected: 05/02/23 12:10 Received: 05/03/23 08:17 Matrix: Water

Parameters	Results	Units	Report			Prepared	Analyzed	CAS No.	Qual
			Limit	MDL	DF				
<b>9056 IC Anions</b>									
Analytical Method: EPA 9056									
Pace Analytical Services - Indianapolis									
Chloride	12.6	mg/L	0.25	0.067	1		05/06/23 13:30	16887-00-6	
Fluoride	ND	mg/L	0.10	0.017	1		05/06/23 13:30	16984-48-8	
Sulfate	20.4	mg/L	0.25	0.085	1		05/06/23 13:30	14808-79-8	
<b>6010 MET ICP</b>									
Analytical Method: EPA 6010 Preparation Method: EPA 3010									
Pace Analytical Services - Indianapolis									
Aluminum	510	ug/L	200	55.4	1	05/05/23 09:10	05/05/23 17:39	7429-90-5	
Boron	ND	ug/L	100	37.6	1	05/05/23 09:10	05/05/23 17:39	7440-42-8	
Calcium	87600	ug/L	1000	163	1	05/05/23 09:10	05/05/23 17:39	7440-70-2	
Iron	657	ug/L	100	48.8	1	05/05/23 09:10	05/05/23 17:39	7439-89-6	
Lithium	ND	ug/L	20.0	6.2	1	05/05/23 09:10	05/05/23 17:39	7439-93-2	
Magnesium	25500	ug/L	1000	71.8	1	05/05/23 09:10	05/05/23 17:39	7439-95-4	
Manganese	54.8	ug/L	10.0	2.5	1	05/05/23 09:10	05/05/23 17:39	7439-96-5	
Potassium	1620	ug/L	1000	281	1	05/05/23 09:10	05/05/23 17:39	7440-09-7	
Silica	17800	ug/L	450		1	05/05/23 09:10	05/05/23 17:39	7631-86-9	N2
Sodium	9240	ug/L	1000	214	1	05/05/23 09:10	05/05/23 17:39	7440-23-5	
<b>6010 MET ICP, Dissolved</b>									
Analytical Method: EPA 6010 Preparation Method: EPA 3010									
Pace Analytical Services - Indianapolis									
Manganese, Dissolved	45.1	ug/L	10.0	2.5	1	05/05/23 09:10	05/06/23 03:10	7439-96-5	
Molybdenum, Dissolved	ND	ug/L	10.0	3.7	1	05/05/23 09:10	05/06/23 03:10	7439-98-7	
<b>6020 MET ICPMS</b>									
Analytical Method: EPA 6020 Preparation Method: EPA 200.2									
Pace Analytical Services - Indianapolis									
Antimony	ND	ug/L	1.0	0.036	1	05/05/23 07:16	05/09/23 02:33	7440-36-0	
Arsenic	ND	ug/L	1.0	0.053	1	05/05/23 07:16	05/09/23 02:33	7440-38-2	
Barium	29.3	ug/L	1.0	0.051	1	05/05/23 07:16	05/09/23 02:33	7440-39-3	
Beryllium	ND	ug/L	0.20	0.028	1	05/05/23 07:16	05/09/23 02:33	7440-41-7	
Cadmium	ND	ug/L	2.0	0.0090	1	05/05/23 07:16	05/09/23 02:33	7440-43-9	
Chromium	ND	ug/L	10.0	0.13	1	05/05/23 07:16	05/09/23 02:33	7440-47-3	
Cobalt	ND	ug/L	1.0	0.032	1	05/05/23 07:16	05/09/23 02:33	7440-48-4	
Lead	ND	ug/L	10.0	0.034	1	05/05/23 07:16	05/09/23 02:33	7439-92-1	
Molybdenum	ND	ug/L	10.0	0.048	1	05/05/23 07:16	05/09/23 02:33	7439-98-7	
Selenium	5.9	ug/L	1.0	0.23	1	05/05/23 07:16	05/09/23 02:33	7782-49-2	
Thallium	ND	ug/L	1.0	0.033	1	05/05/23 07:16	05/09/23 02:33	7440-28-0	
<b>7470 Mercury</b>									
Analytical Method: EPA 7470 Preparation Method: EPA 7470									
Pace Analytical Services - Indianapolis									
Mercury	ND	ug/L	0.20	0.12	1	05/04/23 19:21	05/05/23 12:39	7439-97-6	
<b>2320B Alkalinity</b>									
Analytical Method: SM 2320B									
Pace Analytical Services - Indianapolis									
Alkalinity, Total as CaCO3	259	mg/L	10.0	10.0	1		05/04/23 00:11		
Alkalinity,Bicarbonate (CaCO3)	259	mg/L	10.0	10.0	1		05/04/23 00:11		

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**ANALYTICAL RESULTS**

Project: Eagle Valley April 2023 P1R4  
 Pace Project No.: 50343741

Sample: MW-231		Lab ID: 50343741002		Collected: 05/02/23 12:10	Received: 05/03/23 08:17	Matrix: Water				
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual	
<b>2320B Alkalinity</b>		Analytical Method: SM 2320B Pace Analytical Services - Indianapolis								
Alkalinity, Carbonate (CaCO3)	ND	mg/L	10.0	10.0	1		05/04/23 00:11			
<b>2540C Total Dissolved Solids</b>		Analytical Method: SM 2540C Pace Analytical Services - Indianapolis								
Total Dissolved Solids	<b>334</b>	mg/L	10.0	10.0	1		05/05/23 08:21			
<b>4500H+ pH, Electrometric</b>		Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis								
pH at 25 Degrees C	<b>8.0</b>	Std. Units	0.10	0.10	1		05/09/23 15:27		H3	
<b>4500S2D Sulfide Water</b>		Analytical Method: SM 4500-S2-D Pace Analytical Services - Indianapolis								
Sulfide	ND	mg/L	0.10	0.025	1		05/05/23 12:16	18496-25-8		
<b>Iron, Ferrous</b>		Analytical Method: HACH 8146 Pace Analytical Services - Indianapolis								
Iron, Ferrous	ND	mg/L	0.20	0.035	1		05/04/23 14:37	15438-31-0	H3,N2	
<b>353.2 Nitrogen, NO2/NO3 unpres</b>		Analytical Method: EPA 353.2 Pace Analytical Services - Indianapolis								
Nitrogen, Nitrate	<b>9.3</b>	mg/L	0.50	0.055	5		05/03/23 19:44	14797-55-8		
Nitrogen, Nitrite	ND	mg/L	0.50	0.020	5		05/03/23 19:44	14797-65-0		
<b>365.1 Total Phosphorus</b>		Analytical Method: EPA 365.1 Preparation Method: EPA 365.1 Pace Analytical Services - Indianapolis								
Phosphate as P04	ND	mg/L	0.15	0.15	1	05/05/23 13:00	05/07/23 15:39			
<b>5310C TOC</b>		Analytical Method: SM 5310C Pace Analytical Services - Indianapolis								
Total Organic Carbon	ND	mg/L	1.0	0.24	1		05/06/23 22:54	7440-44-0		
<b>5310C Dissolved Organic Carbon</b>		Analytical Method: SM 5310C Pace Analytical Services - Indianapolis								
Dissolved Organic Carbon	ND	mg/L	1.0	0.24	1		05/05/23 23:36			

**REPORT OF LABORATORY ANALYSIS**

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### ANALYTICAL RESULTS

Project: Eagle Valley April 2023 P1R4  
 Pace Project No.: 50343741

**Sample: MW-23D**      **Lab ID: 50343741003**      Collected: 05/02/23 10:50      Received: 05/03/23 08:17      Matrix: Water

Parameters	Results	Units	Report			Prepared	Analyzed	CAS No.	Qual
			Limit	MDL	DF				
<b>9056 IC Anions</b>									
Analytical Method: EPA 9056									
Pace Analytical Services - Indianapolis									
Chloride	23.6	mg/L	0.25	0.067	1		05/08/23 04:38	16887-00-6	
Fluoride	ND	mg/L	0.10	0.017	1		05/08/23 04:38	16984-48-8	
Sulfate	34.9	mg/L	0.25	0.085	1		05/08/23 04:38	14808-79-8	
<b>6010 MET ICP</b>									
Analytical Method: EPA 6010      Preparation Method: EPA 3010									
Pace Analytical Services - Indianapolis									
Aluminum	368	ug/L	200	55.4	1	05/05/23 09:10	05/05/23 17:41	7429-90-5	
Boron	ND	ug/L	100	37.6	1	05/05/23 09:10	05/05/23 17:41	7440-42-8	
Calcium	75600	ug/L	1000	163	1	05/05/23 09:10	05/05/23 17:41	7440-70-2	
Iron	717	ug/L	100	48.8	1	05/05/23 09:10	05/05/23 17:41	7439-89-6	
Lithium	ND	ug/L	20.0	6.2	1	05/05/23 09:10	05/05/23 17:41	7439-93-2	
Magnesium	23200	ug/L	1000	71.8	1	05/05/23 09:10	05/05/23 17:41	7439-95-4	
Manganese	178	ug/L	10.0	2.5	1	05/05/23 09:10	05/05/23 17:41	7439-96-5	
Potassium	1830	ug/L	1000	281	1	05/05/23 09:10	05/05/23 17:41	7440-09-7	
Silica	16700	ug/L	450		1	05/05/23 09:10	05/05/23 17:41	7631-86-9	N2
Sodium	14100	ug/L	1000	214	1	05/05/23 09:10	05/05/23 17:41	7440-23-5	
<b>6010 MET ICP, Dissolved</b>									
Analytical Method: EPA 6010      Preparation Method: EPA 3010									
Pace Analytical Services - Indianapolis									
Manganese, Dissolved	158	ug/L	10.0	2.5	1	05/05/23 09:10	05/06/23 03:12	7439-96-5	
Molybdenum, Dissolved	ND	ug/L	10.0	3.7	1	05/05/23 09:10	05/06/23 03:12	7439-98-7	
<b>6020 MET ICPMS</b>									
Analytical Method: EPA 6020      Preparation Method: EPA 200.2									
Pace Analytical Services - Indianapolis									
Antimony	ND	ug/L	1.0	0.036	1	05/05/23 07:16	05/09/23 02:36	7440-36-0	
Arsenic	ND	ug/L	1.0	0.053	1	05/05/23 07:16	05/09/23 02:36	7440-38-2	
Barium	43.2	ug/L	1.0	0.051	1	05/05/23 07:16	05/09/23 02:36	7440-39-3	
Beryllium	ND	ug/L	0.20	0.028	1	05/05/23 07:16	05/09/23 02:36	7440-41-7	
Cadmium	ND	ug/L	2.0	0.0090	1	05/05/23 07:16	05/09/23 02:36	7440-43-9	
Chromium	ND	ug/L	10.0	0.13	1	05/05/23 07:16	05/09/23 02:36	7440-47-3	
Cobalt	ND	ug/L	1.0	0.032	1	05/05/23 07:16	05/09/23 02:36	7440-48-4	
Lead	ND	ug/L	10.0	0.034	1	05/05/23 07:16	05/09/23 02:36	7439-92-1	
Molybdenum	ND	ug/L	10.0	0.048	1	05/05/23 07:16	05/09/23 02:36	7439-98-7	
Selenium	5.8	ug/L	1.0	0.23	1	05/05/23 07:16	05/09/23 02:36	7782-49-2	
Thallium	ND	ug/L	1.0	0.033	1	05/05/23 07:16	05/09/23 02:36	7440-28-0	
<b>7470 Mercury</b>									
Analytical Method: EPA 7470      Preparation Method: EPA 7470									
Pace Analytical Services - Indianapolis									
Mercury	ND	ug/L	0.20	0.12	1	05/04/23 19:21	05/05/23 12:42	7439-97-6	
<b>2320B Alkalinity</b>									
Analytical Method: SM 2320B									
Pace Analytical Services - Indianapolis									
Alkalinity, Total as CaCO3	232	mg/L	10.0	10.0	1		05/04/23 00:11		
Alkalinity,Bicarbonate (CaCO3)	232	mg/L	10.0	10.0	1		05/04/23 00:11		

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**ANALYTICAL RESULTS**

Project: Eagle Valley April 2023 P1R4  
 Pace Project No.: 50343741

Sample: MW-23D		Lab ID: 50343741003		Collected: 05/02/23 10:50	Received: 05/03/23 08:17	Matrix: Water			
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>2320B Alkalinity</b>		Analytical Method: SM 2320B Pace Analytical Services - Indianapolis							
Alkalinity, Carbonate (CaCO3)	ND	mg/L	10.0	10.0	1		05/04/23 00:11		
<b>2540C Total Dissolved Solids</b>		Analytical Method: SM 2540C Pace Analytical Services - Indianapolis							
Total Dissolved Solids	<b>287</b>	mg/L	10.0	10.0	1		05/05/23 08:22		
<b>4500H+ pH, Electrometric</b>		Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis							
pH at 25 Degrees C	<b>8.0</b>	Std. Units	0.10	0.10	1		05/09/23 15:31		H3
<b>4500S2D Sulfide Water</b>		Analytical Method: SM 4500-S2-D Pace Analytical Services - Indianapolis							
Sulfide	ND	mg/L	0.10	0.025	1		05/05/23 12:16	18496-25-8	
<b>Iron, Ferrous</b>		Analytical Method: HACH 8146 Pace Analytical Services - Indianapolis							
Iron, Ferrous	ND	mg/L	0.20	0.035	1		05/04/23 14:37	15438-31-0	H3,N2
<b>353.2 Nitrogen, NO2/NO3 unpres</b>		Analytical Method: EPA 353.2 Pace Analytical Services - Indianapolis							
Nitrogen, Nitrate	<b>1.6</b>	mg/L	0.10	0.011	1		05/03/23 19:46	14797-55-8	
Nitrogen, Nitrite	ND	mg/L	0.10	0.0040	1		05/03/23 19:46	14797-65-0	
<b>365.1 Total Phosphorus</b>		Analytical Method: EPA 365.1 Preparation Method: EPA 365.1 Pace Analytical Services - Indianapolis							
Phosphate as P04	ND	mg/L	0.15	0.15	1	05/05/23 13:00	05/07/23 15:40		
<b>5310C TOC</b>		Analytical Method: SM 5310C Pace Analytical Services - Indianapolis							
Total Organic Carbon	ND	mg/L	1.0	0.24	1		05/06/23 23:03	7440-44-0	
<b>5310C Dissolved Organic Carbon</b>		Analytical Method: SM 5310C Pace Analytical Services - Indianapolis							
Dissolved Organic Carbon	<b>1.3</b>	mg/L	1.0	0.24	1		05/05/23 23:47		

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### ANALYTICAL RESULTS

Project: Eagle Valley April 2023 P1R4  
 Pace Project No.: 50343741

**Sample: FB-4**      **Lab ID: 50343741004**      Collected: 05/02/23 12:30      Received: 05/03/23 08:17      Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>9056 IC Anions</b>									
Analytical Method: EPA 9056 Pace Analytical Services - Indianapolis									
Chloride	ND	mg/L	0.25	0.067	1		05/06/23 09:55	16887-00-6	
Fluoride	ND	mg/L	0.10	0.017	1		05/06/23 09:55	16984-48-8	
Sulfate	ND	mg/L	0.25	0.085	1		05/06/23 09:55	14808-79-8	
<b>6010 MET ICP</b>									
Analytical Method: EPA 6010      Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis									
Aluminum	ND	ug/L	200	55.4	1	05/05/23 09:10	05/05/23 17:44	7429-90-5	
Boron	ND	ug/L	100	37.6	1	05/05/23 09:10	05/05/23 17:44	7440-42-8	
Calcium	ND	ug/L	1000	163	1	05/05/23 09:10	05/05/23 17:44	7440-70-2	
Iron	ND	ug/L	100	48.8	1	05/05/23 09:10	05/05/23 17:44	7439-89-6	
Lithium	ND	ug/L	20.0	6.2	1	05/05/23 09:10	05/05/23 17:44	7439-93-2	
Magnesium	ND	ug/L	1000	71.8	1	05/05/23 09:10	05/05/23 17:44	7439-95-4	
Manganese	ND	ug/L	10.0	2.5	1	05/05/23 09:10	05/05/23 17:44	7439-96-5	
Potassium	ND	ug/L	1000	281	1	05/05/23 09:10	05/05/23 17:44	7440-09-7	
Silica	ND	ug/L	450		1	05/05/23 09:10	05/05/23 17:44	7631-86-9	N2
Sodium	ND	ug/L	1000	214	1	05/05/23 09:10	05/05/23 17:44	7440-23-5	
<b>6020 MET ICPMS</b>									
Analytical Method: EPA 6020      Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis									
Antimony	ND	ug/L	1.0	0.036	1	05/05/23 07:16	05/09/23 02:39	7440-36-0	
Arsenic	ND	ug/L	1.0	0.053	1	05/05/23 07:16	05/09/23 02:39	7440-38-2	
Barium	ND	ug/L	1.0	0.051	1	05/05/23 07:16	05/09/23 02:39	7440-39-3	
Beryllium	ND	ug/L	0.20	0.028	1	05/05/23 07:16	05/09/23 02:39	7440-41-7	
Cadmium	ND	ug/L	2.0	0.0090	1	05/05/23 07:16	05/09/23 02:39	7440-43-9	
Chromium	ND	ug/L	10.0	0.13	1	05/05/23 07:16	05/09/23 02:39	7440-47-3	
Cobalt	ND	ug/L	1.0	0.032	1	05/05/23 07:16	05/09/23 02:39	7440-48-4	
Lead	ND	ug/L	10.0	0.034	1	05/05/23 07:16	05/09/23 02:39	7439-92-1	
Molybdenum	ND	ug/L	10.0	0.048	1	05/05/23 07:16	05/09/23 02:39	7439-98-7	
Selenium	ND	ug/L	1.0	0.23	1	05/05/23 07:16	05/09/23 02:39	7782-49-2	
Thallium	ND	ug/L	1.0	0.033	1	05/05/23 07:16	05/09/23 02:39	7440-28-0	
<b>7470 Mercury</b>									
Analytical Method: EPA 7470      Preparation Method: EPA 7470 Pace Analytical Services - Indianapolis									
Mercury	ND	ug/L	0.20	0.12	1	05/04/23 19:21	05/05/23 12:44	7439-97-6	
<b>2320B Alkalinity</b>									
Analytical Method: SM 2320B Pace Analytical Services - Indianapolis									
Alkalinity, Total as CaCO3	ND	mg/L	10.0	10.0	1		05/04/23 00:11		
Alkalinity,Bicarbonate (CaCO3)	ND	mg/L	10.0	10.0	1		05/04/23 00:11		
Alkalinity,Carbonate (CaCO3)	ND	mg/L	10.0	10.0	1		05/04/23 00:11		
<b>2540C Total Dissolved Solids</b>									
Analytical Method: SM 2540C Pace Analytical Services - Indianapolis									
Total Dissolved Solids	ND	mg/L	10.0	10.0	1		05/05/23 08:22		PL

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### ANALYTICAL RESULTS

Project: Eagle Valley April 2023 P1R4

Pace Project No.: 50343741

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>Sample: FB-4</b>									
<b>Lab ID: 50343741004</b>									
Collected: 05/02/23 12:30 Received: 05/03/23 08:17 Matrix: Water									
Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis									
pH at 25 Degrees C	6.1	Std. Units	0.10	0.10	1		05/09/23 15:33		H3
Analytical Method: SM 4500-S2-D Pace Analytical Services - Indianapolis									
Sulfide	ND	mg/L	0.10	0.025	1		05/05/23 12:16	18496-25-8	
Analytical Method: HACH 8146 Pace Analytical Services - Indianapolis									
Iron, Ferrous	ND	mg/L	0.20	0.035	1		05/04/23 14:38	15438-31-0	H3,N2
Analytical Method: EPA 353.2 Pace Analytical Services - Indianapolis									
Nitrogen, Nitrate	ND	mg/L	0.10	0.011	1		05/03/23 19:03	14797-55-8	
Nitrogen, Nitrite	ND	mg/L	0.10	0.0040	1		05/03/23 19:03	14797-65-0	
Analytical Method: EPA 365.1 Preparation Method: EPA 365.1 Pace Analytical Services - Indianapolis									
Phosphate as P04	ND	mg/L	0.15	0.15	1	05/05/23 13:00	05/07/23 15:41		
Analytical Method: SM 5310C Pace Analytical Services - Indianapolis									
Total Organic Carbon	ND	mg/L	1.0	0.24	1		05/06/23 23:13	7440-44-0	

### REPORT OF LABORATORY ANALYSIS

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**QUALITY CONTROL DATA**

Project: Eagle Valley April 2023 P1R4

Pace Project No.: 50343741

QC Batch:	731616	Analysis Method:	EPA 9056
QC Batch Method:	EPA 9056	Analysis Description:	9056 IC Anions
		Laboratory:	Pace Analytical Services - Indianapolis

Associated Lab Samples: 50343741001, 50343741002, 50343741003, 50343741004

METHOD BLANK: 3357480 Matrix: Water  
 Associated Lab Samples: 50343741001, 50343741002, 50343741003, 50343741004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chloride	mg/L	ND	0.25	0.067	05/05/23 23:12	
Fluoride	mg/L	ND	0.10	0.017	05/05/23 23:12	
Sulfate	mg/L	ND	0.25	0.085	05/05/23 23:12	

LABORATORY CONTROL SAMPLE: 3357481

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	2.5	2.5	98	80-120	
Fluoride	mg/L	1	0.98	98	80-120	
Sulfate	mg/L	5	4.9	98	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3357482 3357483

Parameter	Units	50343172002		3357482		3357483		% Rec	% Rec	% Rec Limits	RPD	Max RPD	Qual
		Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result							
Chloride	mg/L	199	25	25	223	223	95	95	80-120	0	15		
Fluoride	mg/L	0.92	1	1	1.9	1.9	100	101	80-120	0	15		
Sulfate	mg/L	62.8	50	50	110	109	94	93	80-120	1	15		

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**QUALITY CONTROL DATA**

Project: Eagle Valley April 2023 P1R4

Pace Project No.: 50343741

QC Batch:	731488	Analysis Method:	EPA 7470
QC Batch Method:	EPA 7470	Analysis Description:	7470 Mercury
		Laboratory:	Pace Analytical Services - Indianapolis
Associated Lab Samples:	50343741001, 50343741002, 50343741003, 50343741004		

METHOD BLANK: 3356740 Matrix: Water  
 Associated Lab Samples: 50343741001, 50343741002, 50343741003, 50343741004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Mercury	ug/L	ND	0.20	0.12	05/05/23 09:10	

LABORATORY CONTROL SAMPLE: 3356741

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury	ug/L	5	5.2	104	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3356742 3356743

Parameter	Units	50343709005 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Mercury	ug/L	ND	5	5	5.2	5.1	102	101	75-125	1	20	

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**QUALITY CONTROL DATA**

Project: Eagle Valley April 2023 P1R4  
Pace Project No.: 50343741

QC Batch: 731766 Analysis Method: EPA 6010  
QC Batch Method: EPA 3010 Analysis Description: 6010 MET  
Laboratory: Pace Analytical Services - Indianapolis  
Associated Lab Samples: 50343741001, 50343741002, 50343741003, 50343741004

METHOD BLANK: 3358579 Matrix: Water  
Associated Lab Samples: 50343741001, 50343741002, 50343741003, 50343741004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Aluminum	ug/L	ND	200	55.4	05/05/23 17:21	
Boron	ug/L	ND	100	37.6	05/05/23 17:21	
Calcium	ug/L	ND	1000	163	05/05/23 17:21	
Iron	ug/L	ND	100	48.8	05/05/23 17:21	
Lithium	ug/L	ND	20.0	6.2	05/05/23 17:21	
Magnesium	ug/L	ND	1000	71.8	05/05/23 17:21	
Manganese	ug/L	ND	10.0	2.5	05/05/23 17:21	
Potassium	ug/L	ND	1000	281	05/05/23 17:21	
Silica	ug/L	ND	450		05/05/23 17:21	N2
Sodium	ug/L	ND	1000	214	05/05/23 17:21	

LABORATORY CONTROL SAMPLE: 3358580

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Aluminum	ug/L	10000	10000	100	80-120	
Boron	ug/L	1000	976	98	80-120	
Calcium	ug/L	10000	9820	98	80-120	
Iron	ug/L	10000	10100	101	80-120	
Lithium	ug/L	1000	1000	100	80-120	
Magnesium	ug/L	10000	9850	98	80-120	
Manganese	ug/L	1000	929	93	80-120	
Potassium	ug/L	10000	9950	100	80-120	
Silica	ug/L	10700	10200	95	80-120	N2
Sodium	ug/L	10000	9750	98	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3358581 3358582

Parameter	Units	MS		MSD		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual	
		50343741001 Result	Spike Conc.	Spike Conc.	MS Result							MSD Result
Aluminum	ug/L	534	10000	10000	10500	11000	100	105	75-125	5	20	
Boron	ug/L	ND	1000	1000	1040	1090	99	104	75-125	4	20	
Calcium	ug/L	101000	10000	10000	106000	109000	57	81	75-125	2	20	P6
Iron	ug/L	637	10000	10000	10500	10900	99	103	75-125	4	20	
Lithium	ug/L	ND	1000	1000	1030	1050	103	104	75-125	2	20	
Magnesium	ug/L	29600	10000	10000	38000	39500	84	99	75-125	4	20	
Manganese	ug/L	31.9	1000	1000	955	986	92	95	75-125	3	20	
Potassium	ug/L	ND	10000	10000	11100	11300	102	104	75-125	2	20	

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### QUALITY CONTROL DATA

Project: Eagle Valley April 2023 P1R4

Pace Project No.: 50343741

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3358581 3358582												
Parameter	Units	50343741001 Result	MS	MSD	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max	Qual
			Spike Conc.	Spike Conc.							RPD	
Silica	ug/L	14800	10700	10700	24300	25100	90	97	75-125	3	20	N2
Sodium	ug/L	3870	10000	10000	13800	13900	99	100	75-125	1	20	

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**QUALITY CONTROL DATA**

Project: Eagle Valley April 2023 P1R4

Pace Project No.: 50343741

QC Batch:	731786	Analysis Method:	EPA 6010
QC Batch Method:	EPA 3010	Analysis Description:	6010 MET Dissolved
		Laboratory:	Pace Analytical Services - Indianapolis

Associated Lab Samples: 50343741001, 50343741002, 50343741003

METHOD BLANK: 3358694 Matrix: Water  
 Associated Lab Samples: 50343741001, 50343741002, 50343741003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Manganese, Dissolved	ug/L	ND	10.0	2.5	05/06/23 02:12	
Molybdenum, Dissolved	ug/L	ND	10.0	3.7	05/06/23 02:12	

LABORATORY CONTROL SAMPLE: 3358695

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Manganese, Dissolved	ug/L	1000	943	94	80-120	
Molybdenum, Dissolved	ug/L	1000	994	99	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3358696 3358697

Parameter	Units	50343595002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Manganese, Dissolved	ug/L	ND	1000	1000	976	944	97	94	75-125	3	20	
Molybdenum, Dissolved	ug/L	ND	1000	1000	1020	999	102	100	75-125	2	20	

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**QUALITY CONTROL DATA**

Project: Eagle Valley April 2023 P1R4

Pace Project No.: 50343741

QC Batch:	731717	Analysis Method:	EPA 6020
QC Batch Method:	EPA 200.2	Analysis Description:	6020 MET
		Laboratory:	Pace Analytical Services - Indianapolis

Associated Lab Samples: 50343741001, 50343741002, 50343741003, 50343741004

METHOD BLANK: 3358064 Matrix: Water

Associated Lab Samples: 50343741001, 50343741002, 50343741003, 50343741004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Antimony	ug/L	ND	1.0	0.036	05/08/23 16:56	
Arsenic	ug/L	ND	1.0	0.053	05/08/23 16:56	
Barium	ug/L	ND	1.0	0.051	05/08/23 16:56	
Beryllium	ug/L	ND	0.20	0.028	05/08/23 16:56	
Cadmium	ug/L	ND	2.0	0.0090	05/08/23 16:56	
Chromium	ug/L	ND	10.0	0.13	05/08/23 16:56	
Cobalt	ug/L	ND	1.0	0.032	05/08/23 16:56	
Lead	ug/L	ND	10.0	0.034	05/08/23 16:56	
Molybdenum	ug/L	ND	10.0	0.048	05/08/23 16:56	
Selenium	ug/L	ND	1.0	0.23	05/08/23 16:56	
Thallium	ug/L	ND	1.0	0.033	05/08/23 16:56	

LABORATORY CONTROL SAMPLE: 3358065

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Antimony	ug/L	40	42.6	106	80-120	
Arsenic	ug/L	40	39.6	99	80-120	
Barium	ug/L	40	40.4	101	80-120	
Beryllium	ug/L	40	37.3	93	80-120	
Cadmium	ug/L	40	39.0	97	80-120	
Chromium	ug/L	40	41.0	103	80-120	
Cobalt	ug/L	40	40.2	101	80-120	
Lead	ug/L	40	41.3	103	80-120	
Molybdenum	ug/L	40	41.7	104	80-120	
Selenium	ug/L	40	39.8	99	80-120	
Thallium	ug/L	40	41.5	104	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3358066 3358067

Parameter	Units	MS		MSD		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual	
		50343925001 Result	Spike Conc.	Spike Conc.	MS Result							MSD Result
Antimony	ug/L	ND	40	40	41.9	42.2	105	105	75-125	1	20	
Arsenic	ug/L	ND	40	40	39.2	39.6	98	99	75-125	1	20	
Barium	ug/L	27.8	40	40	65.6	65.6	94	94	75-125	0	20	
Beryllium	ug/L	ND	40	40	38.7	38.9	97	97	75-125	1	20	
Cadmium	ug/L	ND	40	40	37.5	37.3	94	93	75-125	1	20	
Chromium	ug/L	ND	40	40	40.3	40.3	100	100	75-125	0	20	

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### QUALITY CONTROL DATA

Project: Eagle Valley April 2023 P1R4

Pace Project No.: 50343741

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3358066 3358067													
Parameter	Units	50343925001 Result	MS	MSD	MS	MSD	MS	MSD	% Rec	Limits	RPD	Max RPD	Qual
			Spike Conc.	Spike Conc.	Result	Result	% Rec	% Rec					
Cobalt	ug/L	ND	40	40	39.1	39.4	97	98	75-125	1	20		
Lead	ug/L	ND	40	40	41.3	40.8	103	102	75-125	1	20		
Molybdenum	ug/L	1.1	40	40	42.3	43.1	103	105	75-125	2	20		
Selenium	ug/L	2.2	40	40	42.3	41.7	100	99	75-125	1	20		
Thallium	ug/L	ND	40	40	43.0	42.4	108	106	75-125	1	20		

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**QUALITY CONTROL DATA**

Project: Eagle Valley April 2023 P1R4

Pace Project No.: 50343741

QC Batch: 731493 Analysis Method: SM 2320B  
 QC Batch Method: SM 2320B Analysis Description: 2320B Alkalinity  
 Laboratory: Pace Analytical Services - Indianapolis  
 Associated Lab Samples: 50343741001, 50343741002, 50343741003, 50343741004

METHOD BLANK: 3356815 Matrix: Water  
 Associated Lab Samples: 50343741001, 50343741002, 50343741003, 50343741004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Alkalinity, Total as CaCO3	mg/L	ND	10.0	10.0	05/04/23 00:11	
Alkalinity,Bicarbonate (CaCO3)	mg/L	ND	10.0	10.0	05/04/23 00:11	
Alkalinity,Carbonate (CaCO3)	mg/L	ND	10.0	10.0	05/04/23 00:11	

LABORATORY CONTROL SAMPLE: 3356816

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Alkalinity, Total as CaCO3	mg/L	50	54.2	108	90-110	

SAMPLE DUPLICATE: 3356817

Parameter	Units	50343604001 Result	Dup Result	RPD	Max RPD	Qualifiers
Alkalinity, Total as CaCO3	mg/L	143	147	3	20	
Alkalinity,Bicarbonate (CaCO3)	mg/L	143	147	3	20	
Alkalinity,Carbonate (CaCO3)	mg/L	ND	ND		20	

SAMPLE DUPLICATE: 3356818

Parameter	Units	50343699006 Result	Dup Result	RPD	Max RPD	Qualifiers
Alkalinity, Total as CaCO3	mg/L	260	264	1	20	
Alkalinity,Bicarbonate (CaCO3)	mg/L	260	264	1	20	
Alkalinity,Carbonate (CaCO3)	mg/L	ND	ND		20	

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**QUALITY CONTROL DATA**

Project: Eagle Valley April 2023 P1R4

Pace Project No.: 50343741

QC Batch: 731627	Analysis Method: SM 2540C
QC Batch Method: SM 2540C	Analysis Description: 2540C Total Dissolved Solids
	Laboratory: Pace Analytical Services - Indianapolis

Associated Lab Samples: 50343741001

METHOD BLANK: 3357510 Matrix: Water

Associated Lab Samples: 50343741001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	ND	10.0	10.0	05/04/23 15:17	

LABORATORY CONTROL SAMPLE: 3357511

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	300	288	96	80-120	

SAMPLE DUPLICATE: 3357512

Parameter	Units	50343706006 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	349	333	5	10	

SAMPLE DUPLICATE: 3357513

Parameter	Units	50343706012 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	1050	1060	1	10	

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**QUALITY CONTROL DATA**

Project: Eagle Valley April 2023 P1R4

Pace Project No.: 50343741

QC Batch:	731629	Analysis Method:	SM 2540C
QC Batch Method:	SM 2540C	Analysis Description:	2540C Total Dissolved Solids
		Laboratory:	Pace Analytical Services - Indianapolis
Associated Lab Samples:	50343741002, 50343741003, 50343741004		

METHOD BLANK: 3357519 Matrix: Water

Associated Lab Samples: 50343741002, 50343741003, 50343741004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	ND	10.0	10.0	05/05/23 08:21	

LABORATORY CONTROL SAMPLE: 3357520

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	300	268	89	80-120	

SAMPLE DUPLICATE: 3357521

Parameter	Units	50343741002 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	334	322	4	10	

SAMPLE DUPLICATE: 3357522

Parameter	Units	50343890001 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	3600	3590	0	10	

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### QUALITY CONTROL DATA

Project: Eagle Valley April 2023 P1R4

Pace Project No.: 50343741

QC Batch: 732455

Analysis Method: SM 4500-H+B

QC Batch Method: SM 4500-H+B

Analysis Description: 4500H+B pH

Laboratory: Pace Analytical Services - Indianapolis

Associated Lab Samples: 50343741001, 50343741002, 50343741003, 50343741004

SAMPLE DUPLICATE: 3361538

Parameter	Units	50343740001 Result	Dup Result	RPD	Max RPD	Qualifiers
pH at 25 Degrees C	Std. Units	7.5	7.5	0	2	H3

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**QUALITY CONTROL DATA**

Project: Eagle Valley April 2023 P1R4

Pace Project No.: 50343741

QC Batch:	731870	Analysis Method:	SM 4500-S2-D
QC Batch Method:	SM 4500-S2-D	Analysis Description:	4500S2D Sulfide Water
		Laboratory:	Pace Analytical Services - Indianapolis
Associated Lab Samples:	50343741001, 50343741002, 50343741003, 50343741004		

METHOD BLANK: 3358960 Matrix: Water  
 Associated Lab Samples: 50343741001, 50343741002, 50343741003, 50343741004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Sulfide	mg/L	ND	0.10	0.025	05/05/23 12:16	

LABORATORY CONTROL SAMPLE: 3358961

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Sulfide	mg/L	0.5	0.50	100	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3358962 3358963

Parameter	Units	50343741001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Sulfide	mg/L	ND	0.5	0.5	0.56	0.59	111	116	90-110	4	20	M3

MATRIX SPIKE SAMPLE: 3358964

Parameter	Units	50343776001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Sulfide	mg/L	ND	0.5	0.52	102	90-110	

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**QUALITY CONTROL DATA**

Project: Eagle Valley April 2023 P1R4  
 Pace Project No.: 50343741

QC Batch: 731605 Analysis Method: HACH 8146  
 QC Batch Method: HACH 8146 Analysis Description: Iron, Ferrous  
 Laboratory: Pace Analytical Services - Indianapolis  
 Associated Lab Samples: 50343741001, 50343741002, 50343741003, 50343741004

METHOD BLANK: 3357453 Matrix: Water  
 Associated Lab Samples: 50343741001, 50343741002, 50343741003, 50343741004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Iron, Ferrous	mg/L	ND	0.20	0.035	05/04/23 14:36	H3,N2

LABORATORY CONTROL SAMPLE: 3357454

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Iron, Ferrous	mg/L	1	1.0	100	90-110	H3,N2

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3357455 3357456

Parameter	Units	50343711001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Iron, Ferrous	mg/L	ND	1	1	1.0	1.0	103	104	90-110	1	20	H3,N2

MATRIX SPIKE SAMPLE: 3357457

Parameter	Units	50343741002 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Iron, Ferrous	mg/L	ND	1	1.1	108	90-110	H3,N2

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**QUALITY CONTROL DATA**

Project: Eagle Valley April 2023 P1R4

Pace Project No.: 50343741

QC Batch:	731353	Analysis Method:	EPA 353.2
QC Batch Method:	EPA 353.2	Analysis Description:	353.2 Nitrate + Nitrite, Unpres.
		Laboratory:	Pace Analytical Services - Indianapolis

Associated Lab Samples: 50343741001, 50343741002, 50343741003, 50343741004

METHOD BLANK: 3356225 Matrix: Water  
 Associated Lab Samples: 50343741001, 50343741002, 50343741003, 50343741004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Nitrogen, Nitrate	mg/L	ND	0.10	0.011	05/03/23 18:11	
Nitrogen, Nitrite	mg/L	ND	0.10	0.0040	05/03/23 18:11	

LABORATORY CONTROL SAMPLE: 3356226

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Nitrogen, Nitrate	mg/L	1	0.98	98	90-110	
Nitrogen, Nitrite	mg/L	1	1.0	103	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3356227 3356228

Parameter	Units	50343700002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Nitrogen, Nitrate	mg/L	ND	1	1	0.97	0.97	96	96	90-110	0	20	
Nitrogen, Nitrite	mg/L	ND	1	1	1.0	1.0	101	101	90-110	0	20	

MATRIX SPIKE SAMPLE: 3356229

Parameter	Units	50343711005 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Nitrogen, Nitrate	mg/L	0.22	1	1.2	102	90-110	
Nitrogen, Nitrite	mg/L	ND	1	1.0	103	90-110	

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**QUALITY CONTROL DATA**

Project: Eagle Valley April 2023 P1R4

Pace Project No.: 50343741

QC Batch:	731875	Analysis Method:	EPA 365.1
QC Batch Method:	EPA 365.1	Analysis Description:	365.1 Total Phosphorus
		Laboratory:	Pace Analytical Services - Indianapolis
Associated Lab Samples:	50343741001, 50343741002, 50343741003, 50343741004		

METHOD BLANK: 3358984 Matrix: Water  
 Associated Lab Samples: 50343741001, 50343741002, 50343741003, 50343741004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Phosphate as P04	mg/L	ND	0.15	0.15	05/07/23 15:24	

LABORATORY CONTROL SAMPLE: 3358985

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Phosphate as P04	mg/L		1.5			

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3358986 3358987

Parameter	Units	50343589002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Phosphate as P04	mg/L	ND			1.4	1.4				2		

MATRIX SPIKE SAMPLE: 3358988

Parameter	Units	50343741002 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Phosphate as P04	mg/L	ND		1.4			

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**QUALITY CONTROL DATA**

Project: Eagle Valley April 2023 P1R4

Pace Project No.: 50343741

QC Batch:	731686	Analysis Method:	SM 5310C
QC Batch Method:	SM 5310C	Analysis Description:	5310C Total Organic Carbon
		Laboratory:	Pace Analytical Services - Indianapolis
Associated Lab Samples:	50343741001, 50343741002, 50343741003, 50343741004		

METHOD BLANK: 3357863 Matrix: Water  
 Associated Lab Samples: 50343741001, 50343741002, 50343741003, 50343741004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Organic Carbon	mg/L	ND	1.0	0.24	05/06/23 21:24	

LABORATORY CONTROL SAMPLE: 3357864

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Organic Carbon	mg/L	10	9.3	93	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3357865 3357866

Parameter	Units	50343204002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Total Organic Carbon	mg/L	919 ug/L	10	10	11.0	11.0	101	101	80-120	0	20	

MATRIX SPIKE SAMPLE: 3357867

Parameter	Units	50343204006 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Total Organic Carbon	mg/L	810 ug/L	10	10.9	100	80-120	

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**QUALITY CONTROL DATA**

Project: Eagle Valley April 2023 P1R4

Pace Project No.: 50343741

QC Batch:	731678	Analysis Method:	SM 5310C
QC Batch Method:	SM 5310C	Analysis Description:	5310C Dissolved Organic Carbon
		Laboratory:	Pace Analytical Services - Indianapolis
Associated Lab Samples:	50343741001, 50343741002, 50343741003		

METHOD BLANK: 3357813 Matrix: Water  
 Associated Lab Samples: 50343741001, 50343741002, 50343741003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Dissolved Organic Carbon	mg/L	ND	1.0	0.24	05/05/23 21:26	

LABORATORY CONTROL SAMPLE: 3357814

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Dissolved Organic Carbon	mg/L	10	10.1	101	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3357815 3357816

Parameter	Units	50343737001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Dissolved Organic Carbon	mg/L	2.5	10	10	12.4	12.5	99	100	80-120	1	20	

MATRIX SPIKE SAMPLE: 3357817

Parameter	Units	50343737002 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Dissolved Organic Carbon	mg/L	1.2	10	11.3	101	80-120	

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Eagle Valley April 2023 P1R4

Pace Project No.: 50343741

**Sample: MW-23S**      **Lab ID: 50343741001**      Collected: 05/02/23 13:00      Received: 05/03/23 08:17      Matrix: Water  
 PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Radium-226	EPA 903.1	<b>0.452 ± 0.437 (0.678)</b> <b>C:NA T:98%</b>	pCi/L	06/05/23 14:04	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 904.0	<b>0.262 ± 0.316 (0.669)</b> <b>C:85% T:91%</b>	pCi/L	05/23/23 11:59	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	<b>0.714 ± 0.753 (1.35)</b>	pCi/L	06/05/23 16:13	7440-14-4	

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Eagle Valley April 2023 P1R4

Pace Project No.: 50343741

**Sample: MW-231**      **Lab ID: 50343741002**      Collected: 05/02/23 12:10      Received: 05/03/23 08:17      Matrix: Water  
 PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	<b>0.293 ± 0.333 (0.525)</b> <b>C:NA T:92%</b>	pCi/L	06/05/23 14:28	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	<b>0.871 ± 0.399 (0.675)</b> <b>C:81% T:89%</b>	pCi/L	05/23/23 11:59	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	<b>1.16 ± 0.732 (1.20)</b>	pCi/L	06/05/23 16:13	7440-14-4	

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**ANALYTICAL RESULTS - RADIOCHEMISTRY**

Project: Eagle Valley April 2023 P1R4

Pace Project No.: 50343741

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
<b>Sample: MW-23D</b> <b>Lab ID: 50343741003</b> Collected: 05/02/23 10:50      Received: 05/03/23 08:17      Matrix: Water PWS:      Site ID:      Sample Type:						
Pace Analytical Services - Greensburg						
Radium-226	EPA 903.1	<b>0.0970 ± 0.269 (0.522)</b> <b>C:NA T:92%</b>	pCi/L	06/05/23 14:28	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 904.0	<b>0.351 ± 0.352 (0.727)</b> <b>C:79% T:82%</b>	pCi/L	05/23/23 11:59	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	<b>0.448 ± 0.621 (1.25)</b>	pCi/L	06/05/23 16:13	7440-14-4	

**REPORT OF LABORATORY ANALYSIS**

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Eagle Valley April 2023 P1R4

Pace Project No.: 50343741

**Sample: FB-4**                      **Lab ID: 50343741004**    Collected: 05/02/23 12:30    Received: 05/03/23 08:17    Matrix: Water  
 PWS:                                      Site ID:                                      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	<b>0.103 ± 0.404 (0.773)</b> <b>C:NA T:88%</b>	pCi/L	06/05/23 14:28	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	<b>-0.0298 ± 0.346 (0.825)</b> <b>C:82% T:87%</b>	pCi/L	05/23/23 15:02	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	<b>0.103 ± 0.750 (1.60)</b>	pCi/L	06/05/23 16:13	7440-14-4	

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### QUALITY CONTROL - RADIOCHEMISTRY

Project: Eagle Valley April 2023 P1R4

Pace Project No.: 50343741

QC Batch: 586661

Analysis Method: EPA 903.1

QC Batch Method: EPA 903.1

Analysis Description: 903.1 Radium-226

Laboratory: Pace Analytical Services - Greensburg

Associated Lab Samples: 50343741001, 50343741002, 50343741003, 50343741004

METHOD BLANK: 2849958

Matrix: Water

Associated Lab Samples: 50343741001, 50343741002, 50343741003, 50343741004

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.0765 ± 0.212 (0.412) C:NA T:96%	pCi/L	06/05/23 13:27	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

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### QUALITY CONTROL - RADIOCHEMISTRY

Project: Eagle Valley April 2023 P1R4

Pace Project No.: 50343741

QC Batch: 586662

Analysis Method: EPA 904.0

QC Batch Method: EPA 904.0

Analysis Description: 904.0 Radium 228

Laboratory: Pace Analytical Services - Greensburg

Associated Lab Samples: 50343741001, 50343741002, 50343741003, 50343741004

METHOD BLANK: 2849962

Matrix: Water

Associated Lab Samples: 50343741001, 50343741002, 50343741003, 50343741004

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.537 ± 0.299 (0.526) C:83% T:93%	pCi/L	05/23/23 11:58	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

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## QUALIFIERS

Project: Eagle Valley April 2023 P1R4

Pace Project No.: 50343741

### DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Reported results are not rounded until the final step prior to reporting. Therefore, calculated parameters that are typically reported as "Total" may vary slightly from the sum of the reported component parameters.

Act - Activity

Unc - Uncertainty: SDWA = 1.96 sigma count uncertainty, all other matrices = Expanded Uncertainty (95% confidence interval).

Gamma Spec = Expanded Uncertainty (95.4% Confidence Interval)

(MDC) - Minimum Detectable Concentration

Trac - Tracer Recovery (%)

Carr - Carrier Recovery (%)

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

### ANALYTE QUALIFIERS

H3 Sample was received or analysis requested beyond the recognized method holding time.

M3 Matrix spike recovery was outside laboratory control limits due to matrix interferences.

N2 The lab does not hold NELAC/TNI accreditation for this parameter but other accreditations/certifications may apply. A complete list of accreditations/certifications is available upon request.

P6 Matrix spike recovery was outside laboratory control limits due to a parent sample concentration notably higher than the spike level.

PL The minimum mass of dried residue of 2.5 mg could not be obtained using the routine sample volume of 100 mL.

## REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Eagle Valley April 2023 P1R4

Pace Project No.: 50343741

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
50343741001	MW-23S	EPA 9056	731616		
50343741002	MW-23I	EPA 9056	731616		
50343741003	MW-23D	EPA 9056	731616		
50343741004	FB-4	EPA 9056	731616		
50343741001	MW-23S	EPA 3010	731766	EPA 6010	731997
50343741002	MW-23I	EPA 3010	731766	EPA 6010	731997
50343741003	MW-23D	EPA 3010	731766	EPA 6010	731997
50343741004	FB-4	EPA 3010	731766	EPA 6010	731997
50343741001	MW-23S	EPA 3010	731786	EPA 6010	732034
50343741002	MW-23I	EPA 3010	731786	EPA 6010	732034
50343741003	MW-23D	EPA 3010	731786	EPA 6010	732034
50343741001	MW-23S	EPA 200.2	731717	EPA 6020	731907
50343741002	MW-23I	EPA 200.2	731717	EPA 6020	731907
50343741003	MW-23D	EPA 200.2	731717	EPA 6020	731907
50343741004	FB-4	EPA 200.2	731717	EPA 6020	731907
50343741001	MW-23S	EPA 7470	731488	EPA 7470	731821
50343741002	MW-23I	EPA 7470	731488	EPA 7470	731821
50343741003	MW-23D	EPA 7470	731488	EPA 7470	731821
50343741004	FB-4	EPA 7470	731488	EPA 7470	731821
50343741001	MW-23S	EPA 903.1	586661		
50343741002	MW-23I	EPA 903.1	586661		
50343741003	MW-23D	EPA 903.1	586661		
50343741004	FB-4	EPA 903.1	586661		
50343741001	MW-23S	EPA 904.0	586662		
50343741002	MW-23I	EPA 904.0	586662		
50343741003	MW-23D	EPA 904.0	586662		
50343741004	FB-4	EPA 904.0	586662		
50343741001	MW-23S	Total Radium Calculation	592769		
50343741002	MW-23I	Total Radium Calculation	592769		
50343741003	MW-23D	Total Radium Calculation	592769		
50343741004	FB-4	Total Radium Calculation	592769		
50343741001	MW-23S	SM 2320B	731493		
50343741002	MW-23I	SM 2320B	731493		
50343741003	MW-23D	SM 2320B	731493		
50343741004	FB-4	SM 2320B	731493		
50343741001	MW-23S	SM 2540C	731627		
50343741002	MW-23I	SM 2540C	731629		
50343741003	MW-23D	SM 2540C	731629		
50343741004	FB-4	SM 2540C	731629		
50343741001	MW-23S	SM 4500-H+B	732455		
50343741002	MW-23I	SM 4500-H+B	732455		
50343741003	MW-23D	SM 4500-H+B	732455		
50343741004	FB-4	SM 4500-H+B	732455		

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### QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Eagle Valley April 2023 P1R4

Pace Project No.: 50343741

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
50343741001	MW-23S	SM 4500-S2-D	731870		
50343741002	MW-23I	SM 4500-S2-D	731870		
50343741003	MW-23D	SM 4500-S2-D	731870		
50343741004	FB-4	SM 4500-S2-D	731870		
50343741001	MW-23S	HACH 8146	731605		
50343741002	MW-23I	HACH 8146	731605		
50343741003	MW-23D	HACH 8146	731605		
50343741004	FB-4	HACH 8146	731605		
50343741001	MW-23S	EPA 353.2	731353		
50343741002	MW-23I	EPA 353.2	731353		
50343741003	MW-23D	EPA 353.2	731353		
50343741004	FB-4	EPA 353.2	731353		
50343741001	MW-23S	EPA 365.1	731875	EPA 365.1	732116
50343741002	MW-23I	EPA 365.1	731875	EPA 365.1	732116
50343741003	MW-23D	EPA 365.1	731875	EPA 365.1	732116
50343741004	FB-4	EPA 365.1	731875	EPA 365.1	732116
50343741001	MW-23S	SM 5310C	731686		
50343741002	MW-23I	SM 5310C	731686		
50343741003	MW-23D	SM 5310C	731686		
50343741004	FB-4	SM 5310C	731686		
50343741001	MW-23S	SM 5310C	731678		
50343741002	MW-23I	SM 5310C	731678		
50343741003	MW-23D	SM 5310C	731678		

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**SAMPLE CONDITION UPON RECEIPT FORM**

Date/Time and Initials of person examining contents: 05/03/23 1325 SMK

1. Courier:  FED EX  UPS  CLIENT  PACE  USPS  OTHER \_\_\_\_\_
2. Custody Seal on Cooler/Box Present:  Yes  No  
 (If yes)Seals Intact:  Yes  No (leave blank if no seals were present)
3. Thermometer: **1 2 3 4 5 6 A B C D E F**
4. Cooler Temperature(s): G.K.P.A     
 (Initial/Corrected) RECORD TEMPS OF ALL COOLERS RECEIVED (use Comments below to add more)

5. Packing Material:  Bubble Wrap  Bubble Bags  
 None  Other \_\_\_\_\_
6. Ice Type:  Wet  Blue  None
7. If temp. is over 6°C or under 0°C, was the PM notified?:  Yes  No  
 Cooler temp should be above freezing to 6°C

All discrepancies will be written out in the comments section below.

	Yes	No		Yes	No	N/A
USDA Regulated Soils? (HI, ID, NY, WA, OR,CA, NM, TX, OK, AR, LA, TN, AL, MS, NC, SC, GA, FL, or Puerto Rico)		/	All containers needing acid/base preservation have been pH CHECKED?: Exceptions: VOA, coliform, LLHg, O&G, RAD CHEM, and any container with a septum cap or preserved with HCl. Circle: HNO3 (<2) H2SO4 (<2) NaOH (>10) NaOH/ZnAc (>9) Any non-conformance to pH recommendations will be noted on the container count form	/		
Short Hold Time Analysis (48 hours or less)? Analysis: <u>NO3</u>	/					
Time 5035A TC placed in Freezer or Short Holds To Lab Time: <u>14:20</u>			Residual Chlorine Check (SVOC 625 Pest/PCB 608)	<u>Present</u>	<u>Absent</u>	<u>N/A</u>
Rush TAT Requested (4 days or less):		/	Residual Chlorine Check (Total/Amenable/Free Cyanide)			/
Custody Signatures Present?	/		Headspace Wisconsin Sulfide?			/
Containers Intact?:	/		Headspace in VOA Vials (>6mm): See Containter Count form for details	<u>Present</u>	<u>Absent</u>	No VOA Vials Sent
Sample Label (IDs/Dates/Times) Match COC?: Except TCs, which only require sample ID	/		Trip Blank Present?		/	
Extra labels on Terracore Vials? (soils only)		/	Trip Blank Custody Seals?:			/

COMMENTS:

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July 19, 2023

Mr. Mark Breting  
ATC Group Services  
7988 Centerpoint Drive  
Suite 100  
Indianapolis, IN 46256

RE: Project: Eagle Valley April 2023 P1R2  
Pace Project No.: 50343776

Dear Mr. Breting:

Enclosed are the analytical results for sample(s) received by the laboratory on May 03, 2023. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

The test results provided in this final report were generated by each of the following laboratories within the Pace Network:

- Pace Analytical Services - Indianapolis
- Pace Analytical Services - Greensburg

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Will Statz  
will.statz@pacelabs.com  
(317)228-3105  
Project Manager

Enclosures

cc: Mohammed Bazlamit, Atlas  
Mr. Robert Miller, Haley & Aldrich



## REPORT OF LABORATORY ANALYSIS

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### CERTIFICATIONS

Project: Eagle Valley April 2023 P1R2  
Pace Project No.: 50343776

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#### Pace Analytical Services Pennsylvania

1638 Roseytown Rd Suites 2,3&4, Greensburg, PA 15601  
ANAB DOD-ELAP Rad Accreditation #: L2417  
ANABISO/IEC 17025:2017 Rad Cert#: L24170  
Alabama Certification #: 41590  
Arizona Certification #: AZ0734  
Arkansas Certification  
California Certification #: 2950  
Colorado Certification #: PA01547  
Connecticut Certification #: PH-0694  
EPA Region 4 DW Rad  
Florida/TNI Certification #: E87683  
Georgia Certification #: C040  
Guam Certification  
Hawaii Certification  
Idaho Certification  
Illinois Certification  
Indiana Certification  
Iowa Certification #: 391  
Kansas Certification #: E-10358  
Kentucky Certification #: KY90133  
KY WW Permit #: KY0098221  
KY WW Permit #: KY0000221  
Louisiana DHH/TNI Certification #: LA010  
Louisiana DEQ/TNI Certification #: 04086  
Maine Certification #: 2023021  
Maryland Certification #: 308  
Massachusetts Certification #: M-PA1457  
Michigan/PADEP Certification #: 9991

Missouri Certification #: 235  
Montana Certification #: Cert0082  
Nebraska Certification #: NE-OS-29-14  
Nevada Certification #: PA014572023-03  
New Hampshire/TNI Certification #: 297622  
New Jersey/TNI Certification #: PA051  
New Mexico Certification #: PA01457  
New York/TNI Certification #: 10888  
North Carolina Certification #: 42706  
North Dakota Certification #: R-190  
Ohio EPA Rad Approval: #41249  
Oregon/TNI Certification #: PA200002-015  
Pennsylvania/TNI Certification #: 65-00282  
Puerto Rico Certification #: PA01457  
Rhode Island Certification #: 65-00282  
South Dakota Certification  
Tennessee Certification #: TN02867  
Texas/TNI Certification #: T104704188-22-18  
Utah/TNI Certification #: PA014572223-14  
USDA Soil Permit #: 525-23-67-77263  
Vermont Dept. of Health: ID# VT-0282  
Virgin Island/PADEP Certification  
Virginia/VELAP Certification #: 460198  
Washington Certification #: C868  
West Virginia DEP Certification #: 143  
West Virginia DHHR Certification #: 9964C  
Wisconsin Approve List for Rad

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#### Pace Analytical Services Indianapolis

7726 Moller Road, Indianapolis, IN 46268  
Illinois Accreditation #: 200074  
Indiana Drinking Water Laboratory #: C-49-06  
Kansas/TNI Certification #: E-10177  
Kentucky UST Agency Interest #: 80226  
Kentucky WW Laboratory ID #: 98019  
Michigan Drinking Water Laboratory #9050

Ohio VAP Certified Laboratory #: CL0065  
Oklahoma Laboratory #: 9204  
Texas Certification #: T104704355  
Wisconsin Laboratory #: 999788130  
USDA Foreign Soil Permit #: 525-23-13-23119  
USDA Compliance Agreement #: IN-SL-22-001

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### REPORT OF LABORATORY ANALYSIS

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### SAMPLE SUMMARY

Project: Eagle Valley April 2023 P1R2  
Pace Project No.: 50343776

Lab ID	Sample ID	Matrix	Date Collected	Date Received
50343776001	MW-24S	Water	05/03/23 10:50	05/03/23 15:00
50343776002	MW-24I	Water	05/03/23 11:35	05/03/23 15:00
50343776003	MW-24D	Water	05/03/23 12:25	05/03/23 15:00
50343776004	MW-25S	Water	05/03/23 13:50	05/03/23 15:00

### REPORT OF LABORATORY ANALYSIS

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### SAMPLE ANALYTE COUNT

Project: Eagle Valley April 2023 P1R2

Pace Project No.: 50343776

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory		
50343776001	MW-24S	EPA 9056	ADM	3	PASI-I		
		EPA 6010	MTM	10	PASI-I		
		EPA 6010	DJS	2	PASI-I		
		EPA 6020	CAW	11	PASI-I		
		EPA 7470	EAE	1	PASI-I		
		EPA 903.1	JLJ	1	PASI-PA		
		EPA 904.0	ZPC	1	PASI-PA		
		Total Radium Calculation	JAL	1	PASI-PA		
		SM 2320B	DAW	3	PASI-I		
		SM 2540C	TRK	1	PASI-I		
		SM 4500-H+B	BMS	1	PASI-I		
		SM 4500-S2-D	BEP	1	PASI-I		
		HACH 8146	BEP	1	PASI-I		
		EPA 353.2	ZM	2	PASI-I		
		EPA 365.1	YAM	1	PASI-I		
		SM 5310C	ATS	1	PASI-I		
		SM 5310C	ATS	1	PASI-I		
		50343776002	MW-24I	EPA 9056	ADM	3	PASI-I
				EPA 6010	MTM	10	PASI-I
				EPA 6010	DJS	2	PASI-I
EPA 6020	CAW			11	PASI-I		
EPA 7470	EAE			1	PASI-I		
EPA 903.1	JLJ			1	PASI-PA		
EPA 904.0	ZPC			1	PASI-PA		
Total Radium Calculation	JAL			1	PASI-PA		
SM 2320B	DAW			3	PASI-I		
SM 2540C	TRK			1	PASI-I		
SM 4500-H+B	BMS			1	PASI-I		
SM 4500-S2-D	BEP			1	PASI-I		
HACH 8146	BEP			1	PASI-I		
EPA 353.2	ZM			2	PASI-I		
EPA 365.1	YAM			1	PASI-I		
SM 5310C	ATS			1	PASI-I		
SM 5310C	ATS			1	PASI-I		
50343776003	MW-24D			EPA 9056	ADM	3	PASI-I
				EPA 6010	MTM	10	PASI-I
				EPA 6010	DJS	2	PASI-I

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**SAMPLE ANALYTE COUNT**

Project: Eagle Valley April 2023 P1R2

Pace Project No.: 50343776

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
		EPA 6020	CAW	11	PASI-I
		EPA 7470	EAE	1	PASI-I
		EPA 903.1	JLJ	1	PASI-PA
		EPA 904.0	ZPC	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
		SM 2320B	DAW	3	PASI-I
		SM 2540C	TRK	1	PASI-I
		SM 4500-H+B	BMS	1	PASI-I
		SM 4500-S2-D	BEP	1	PASI-I
		HACH 8146	BEP	1	PASI-I
		EPA 353.2	ZM	2	PASI-I
		EPA 365.1	YAM	1	PASI-I
		SM 5310C	ATS	1	PASI-I
		SM 5310C	ATS	1	PASI-I
50343776004	MW-25S	EPA 9056	ADM	3	PASI-I
		EPA 6010	MTM	10	PASI-I
		EPA 6010	DJS	2	PASI-I
		EPA 6020	CAW	11	PASI-I
		EPA 7470	EAE	1	PASI-I
		EPA 903.1	JLJ	1	PASI-PA
		EPA 904.0	ZPC	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
		SM 2320B	DAW	3	PASI-I
		SM 2540C	TRK	1	PASI-I
		SM 4500-H+B	BMS	1	PASI-I
		SM 4500-S2-D	BEP	1	PASI-I
		HACH 8146	BEP	1	PASI-I
		EPA 353.2	ZM	2	PASI-I
		EPA 365.1	YAM	1	PASI-I
		SM 5310C	ATS	1	PASI-I
		SM 5310C	ATS	1	PASI-I

PASI-I = Pace Analytical Services - Indianapolis  
 PASI-PA = Pace Analytical Services - Greensburg

**REPORT OF LABORATORY ANALYSIS**

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### SUMMARY OF DETECTION

Project: Eagle Valley April 2023 P1R2

Pace Project No.: 50343776

Lab Sample ID	Client Sample ID	Result	Units	Report Limit	Analyzed	Qualifiers
Method	Parameters					
<b>50343776001</b>	<b>MW-24S</b>					
EPA 9056	Chloride	128	mg/L	2.5	05/07/23 09:27	
EPA 9056	Fluoride	0.41	mg/L	0.10	05/07/23 09:10	
EPA 9056	Sulfate	98.6	mg/L	2.5	05/07/23 09:27	
EPA 6010	Aluminum	1210	ug/L	200	05/05/23 17:46	
EPA 6010	Boron	135	ug/L	100	05/05/23 17:46	
EPA 6010	Calcium	78600	ug/L	1000	05/05/23 17:46	
EPA 6010	Iron	2040	ug/L	100	05/05/23 17:46	
EPA 6010	Magnesium	23500	ug/L	1000	05/05/23 17:46	
EPA 6010	Manganese	117	ug/L	10.0	05/05/23 17:46	
EPA 6010	Potassium	5500	ug/L	1000	05/05/23 17:46	
EPA 6010	Silica	16200	ug/L	450	05/05/23 17:46	N2
EPA 6010	Sodium	121000	ug/L	1000	05/05/23 17:46	
EPA 6010	Manganese, Dissolved	79.9	ug/L	10.0	05/09/23 09:01	
EPA 6010	Molybdenum, Dissolved	64.2	ug/L	10.0	05/09/23 09:01	
EPA 6020	Arsenic	1.6	ug/L	1.0	05/09/23 02:53	
EPA 6020	Barium	76.0	ug/L	1.0	05/09/23 02:53	
EPA 6020	Cobalt	1.2	ug/L	1.0	05/09/23 02:53	
EPA 6020	Molybdenum	62.1	ug/L	10.0	05/09/23 02:53	
EPA 903.1	Radium-226	0.381 ± 0.387 (0.586)	pCi/L		06/01/23 15:24	
EPA 904.0	Radium-228	C:NA T:87% 0.0828 ± 0.309 (0.702) C:87% T:84%	pCi/L		05/22/23 15:23	
Total Radium Calculation	Total Radium	0.464 ± 0.696 (1.29)	pCi/L		06/02/23 12:45	
SM 2320B	Alkalinity, Total as CaCO3	246	mg/L	10.0	05/04/23 20:17	
SM 2320B	Alkalinity,Bicarbonate (CaCO3)	246	mg/L	10.0	05/04/23 20:17	
SM 2540C	Total Dissolved Solids	569	mg/L	10.0	05/05/23 08:24	
SM 4500-H+B	pH at 25 Degrees C	7.9	Std. Units	0.10	05/09/23 15:50	H3
EPA 353.2	Nitrogen, Nitrate	2.0	mg/L	0.10	05/03/23 19:20	
EPA 353.2	Nitrogen, Nitrite	0.14	mg/L	0.10	05/03/23 19:20	
SM 5310C	Total Organic Carbon	1.5	mg/L	1.0	05/08/23 23:36	
SM 5310C	Dissolved Organic Carbon	1.6	mg/L	1.0	05/05/23 23:58	
<b>50343776002</b>	<b>MW-24I</b>					
EPA 9056	Chloride	73.2	mg/L	2.5	05/07/23 10:37	
EPA 9056	Fluoride	0.34	mg/L	0.10	05/07/23 10:20	
EPA 9056	Sulfate	58.1	mg/L	2.5	05/07/23 10:37	
EPA 6010	Aluminum	1340	ug/L	200	05/05/23 17:48	
EPA 6010	Boron	116	ug/L	100	05/05/23 17:48	
EPA 6010	Calcium	72800	ug/L	1000	05/05/23 17:48	
EPA 6010	Iron	2930	ug/L	100	05/05/23 17:48	
EPA 6010	Magnesium	21800	ug/L	1000	05/05/23 17:48	
EPA 6010	Manganese	193	ug/L	10.0	05/05/23 17:48	
EPA 6010	Potassium	7350	ug/L	1000	05/05/23 17:48	

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### SUMMARY OF DETECTION

Project: Eagle Valley April 2023 P1R2

Pace Project No.: 50343776

Lab Sample ID	Client Sample ID	Result	Units	Report Limit	Analyzed	Qualifiers
Method	Parameters					
<b>50343776002</b>	<b>MW-24I</b>					
EPA 6010	Silica	17300	ug/L	450	05/05/23 17:48	N2
EPA 6010	Sodium	73400	ug/L	1000	05/05/23 17:48	
EPA 6010	Manganese, Dissolved	167	ug/L	10.0	05/09/23 09:04	
EPA 6010	Molybdenum, Dissolved	55.2	ug/L	10.0	05/09/23 09:04	
EPA 6020	Arsenic	2.6	ug/L	1.0	05/09/23 02:56	
EPA 6020	Barium	72.9	ug/L	1.0	05/09/23 02:56	
EPA 6020	Molybdenum	52.6	ug/L	10.0	05/09/23 02:56	
EPA 903.1	Radium-226	0.560 ± 0.477 (0.670)	pCi/L		06/01/23 15:24	
EPA 904.0	Radium-228	C:NA T:87% 0.319 ± 0.314 (0.642)	pCi/L		05/22/23 15:23	
		C:87% T:81%				
Total Radium Calculation	Total Radium	0.879 ± 0.791 (1.31)	pCi/L		06/02/23 12:45	
SM 2320B	Alkalinity, Total as CaCO3	253	mg/L	10.0	05/04/23 20:17	
SM 2320B	Alkalinity,Bicarbonate (CaCO3)	253	mg/L	10.0	05/04/23 20:17	
SM 2540C	Total Dissolved Solids	442	mg/L	10.0	05/05/23 08:24	
SM 4500-H+B	pH at 25 Degrees C	7.9	Std. Units	0.10	05/09/23 15:51	H3
SM 4500-S2-D	Sulfide	0.056J	mg/L	0.10	05/05/23 12:16	
HACH 8146	Iron, Ferrous	0.22	mg/L	0.20	05/04/23 14:40	H3,N2
SM 5310C	Total Organic Carbon	1.4	mg/L	1.0	05/08/23 23:47	
SM 5310C	Dissolved Organic Carbon	1.4	mg/L	1.0	05/06/23 00:16	
<b>50343776003</b>	<b>MW-24D</b>					
EPA 9056	Chloride	65.8	mg/L	2.5	05/07/23 11:12	
EPA 9056	Fluoride	0.32	mg/L	0.10	05/07/23 10:55	
EPA 9056	Sulfate	54.1	mg/L	2.5	05/07/23 11:12	
EPA 6010	Aluminum	1450	ug/L	200	05/05/23 17:50	
EPA 6010	Calcium	66000	ug/L	1000	05/05/23 17:50	
EPA 6010	Iron	2230	ug/L	100	05/05/23 17:50	
EPA 6010	Magnesium	21400	ug/L	1000	05/05/23 17:50	
EPA 6010	Manganese	143	ug/L	10.0	05/05/23 17:50	
EPA 6010	Potassium	5140	ug/L	1000	05/05/23 17:50	
EPA 6010	Silica	15000	ug/L	450	05/05/23 17:50	N2
EPA 6010	Sodium	58500	ug/L	1000	05/05/23 17:50	
EPA 6010	Manganese, Dissolved	135	ug/L	10.0	05/09/23 09:11	
EPA 6010	Molybdenum, Dissolved	17.2	ug/L	10.0	05/09/23 09:11	
EPA 6020	Arsenic	1.6	ug/L	1.0	05/09/23 02:59	
EPA 6020	Barium	58.8	ug/L	1.0	05/09/23 02:59	
EPA 6020	Molybdenum	15.1	ug/L	10.0	05/09/23 02:59	
EPA 903.1	Radium-226	0.353 ± 0.410 (0.662)	pCi/L		06/01/23 15:24	
		C:NA T:93%				

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**SUMMARY OF DETECTION**

Project: Eagle Valley April 2023 P1R2  
Pace Project No.: 50343776

Lab Sample ID	Client Sample ID	Result	Units	Report Limit	Analyzed	Qualifiers
Method	Parameters					
<b>50343776003</b>	<b>MW-24D</b>					
EPA 904.0	Radium-228	0.147 ± 0.323 (0.718) C:82% T:76%	pCi/L		05/22/23 15:23	
Total Radium Calculation	Total Radium	0.500 ± 0.733 (1.38)	pCi/L		06/02/23 12:45	
SM 2320B	Alkalinity, Total as CaCO3	223	mg/L	10.0	05/04/23 20:17	
SM 2320B	Alkalinity,Bicarbonate (CaCO3)	223	mg/L	10.0	05/04/23 20:17	
SM 2540C	Total Dissolved Solids	404	mg/L	10.0	05/05/23 08:24	
SM 4500-H+B	pH at 25 Degrees C	7.9	Std. Units	0.10	05/09/23 15:53	H3
SM 4500-S2-D	Sulfide	0.031J	mg/L	0.10	05/05/23 12:16	
HACH 8146	Iron, Ferrous	0.32	mg/L	0.20	05/04/23 14:41	H3,N2
EPA 353.2	Nitrogen, Nitrate	0.10	mg/L	0.10	05/03/23 19:23	
SM 5310C	Total Organic Carbon	1.2	mg/L	1.0	05/08/23 23:58	
SM 5310C	Dissolved Organic Carbon	1.3	mg/L	1.0	05/06/23 00:26	
<b>50343776004</b>	<b>MW-25S</b>					
EPA 9056	Chloride	83.4	mg/L	2.5	05/07/23 11:47	
EPA 9056	Fluoride	0.34	mg/L	0.10	05/07/23 11:29	
EPA 9056	Sulfate	62.9	mg/L	2.5	05/07/23 11:47	
EPA 6010	Boron	397	ug/L	100	05/05/23 17:53	
EPA 6010	Calcium	75400	ug/L	1000	05/05/23 17:53	
EPA 6010	Iron	631	ug/L	100	05/05/23 17:53	
EPA 6010	Lithium	61.1	ug/L	20.0	05/05/23 17:53	
EPA 6010	Magnesium	22000	ug/L	1000	05/05/23 17:53	
EPA 6010	Manganese	518	ug/L	10.0	05/05/23 17:53	
EPA 6010	Potassium	6730	ug/L	1000	05/05/23 17:53	
EPA 6010	Silica	10400	ug/L	450	05/05/23 17:53	N2
EPA 6010	Sodium	64700	ug/L	1000	05/05/23 17:53	
EPA 6010	Manganese, Dissolved	570	ug/L	10.0	05/09/23 09:13	
EPA 6010	Molybdenum, Dissolved	65.8	ug/L	10.0	05/09/23 09:13	
EPA 6020	Arsenic	1.2	ug/L	1.0	05/09/23 02:49	
EPA 6020	Barium	84.5	ug/L	1.0	05/09/23 02:49	
EPA 6020	Molybdenum	66.0	ug/L	10.0	05/09/23 02:49	
EPA 903.1	Radium-226	0.595 ± 0.551 (0.838) C:NA T:96%	pCi/L		06/01/23 15:24	
EPA 904.0	Radium-228	-0.105 ± 0.296 (0.734) C:79% T:72%	pCi/L		05/22/23 15:23	
Total Radium Calculation	Total Radium	0.595 ± 0.847 (1.57)	pCi/L		06/02/23 12:45	
SM 2320B	Alkalinity, Total as CaCO3	245	mg/L	10.0	05/04/23 20:17	
SM 2320B	Alkalinity,Bicarbonate (CaCO3)	245	mg/L	10.0	05/04/23 20:17	
SM 2540C	Total Dissolved Solids	471	mg/L	10.0	05/05/23 08:25	

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### SUMMARY OF DETECTION

Project: Eagle Valley April 2023 P1R2

Pace Project No.: 50343776

Lab Sample ID Method	Client Sample ID Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
<b>50343776004</b>	<b>MW-25S</b>					
SM 4500-H+B	pH at 25 Degrees C	7.9	Std. Units	0.10	05/09/23 15:56	H3
HACH 8146	Iron, Ferrous	0.26	mg/L	0.20	05/04/23 14:41	H3,N2
SM 5310C	Dissolved Organic Carbon	1.5	mg/L	1.0	05/06/23 01:01	

### REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: Eagle Valley April 2023 P1R2

Pace Project No.: 50343776

Sample: MW-24S		Lab ID: 50343776001		Collected: 05/03/23 10:50		Received: 05/03/23 15:00		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>9056 IC Anions</b>		Analytical Method: EPA 9056 Pace Analytical Services - Indianapolis							
Chloride	128	mg/L	2.5	0.67	10		05/07/23 09:27	16887-00-6	
Fluoride	0.41	mg/L	0.10	0.017	1		05/07/23 09:10	16984-48-8	
Sulfate	98.6	mg/L	2.5	0.85	10		05/07/23 09:27	14808-79-8	
<b>6010 MET ICP</b>		Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis							
Aluminum	1210	ug/L	200	55.4	1	05/05/23 09:10	05/05/23 17:46	7429-90-5	
Boron	135	ug/L	100	37.6	1	05/05/23 09:10	05/05/23 17:46	7440-42-8	
Calcium	78600	ug/L	1000	163	1	05/05/23 09:10	05/05/23 17:46	7440-70-2	
Iron	2040	ug/L	100	48.8	1	05/05/23 09:10	05/05/23 17:46	7439-89-6	
Lithium	ND	ug/L	20.0	6.2	1	05/05/23 09:10	05/05/23 17:46	7439-93-2	
Magnesium	23500	ug/L	1000	71.8	1	05/05/23 09:10	05/05/23 17:46	7439-95-4	
Manganese	117	ug/L	10.0	2.5	1	05/05/23 09:10	05/05/23 17:46	7439-96-5	
Potassium	5500	ug/L	1000	281	1	05/05/23 09:10	05/05/23 17:46	7440-09-7	
Silica	16200	ug/L	450		1	05/05/23 09:10	05/05/23 17:46	7631-86-9	N2
Sodium	121000	ug/L	1000	214	1	05/05/23 09:10	05/05/23 17:46	7440-23-5	
<b>6010 MET ICP, Dissolved</b>		Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis							
Manganese, Dissolved	79.9	ug/L	10.0	5.4	1	05/07/23 15:50	05/09/23 09:01	7439-96-5	
Molybdenum, Dissolved	64.2	ug/L	10.0	2.0	1	05/07/23 15:50	05/09/23 09:01	7439-98-7	
<b>6020 MET ICPMS</b>		Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis							
Antimony	ND	ug/L	1.0	0.036	1	05/05/23 07:16	05/09/23 02:53	7440-36-0	
Arsenic	1.6	ug/L	1.0	0.053	1	05/05/23 07:16	05/09/23 02:53	7440-38-2	
Barium	76.0	ug/L	1.0	0.051	1	05/05/23 07:16	05/09/23 02:53	7440-39-3	
Beryllium	ND	ug/L	0.20	0.028	1	05/05/23 07:16	05/09/23 02:53	7440-41-7	
Cadmium	ND	ug/L	2.0	0.0090	1	05/05/23 07:16	05/09/23 02:53	7440-43-9	
Chromium	ND	ug/L	10.0	0.13	1	05/05/23 07:16	05/09/23 02:53	7440-47-3	
Cobalt	1.2	ug/L	1.0	0.032	1	05/05/23 07:16	05/09/23 02:53	7440-48-4	
Lead	ND	ug/L	10.0	0.034	1	05/05/23 07:16	05/09/23 02:53	7439-92-1	
Molybdenum	62.1	ug/L	10.0	0.048	1	05/05/23 07:16	05/09/23 02:53	7439-98-7	
Selenium	ND	ug/L	1.0	0.23	1	05/05/23 07:16	05/09/23 02:53	7782-49-2	
Thallium	ND	ug/L	1.0	0.033	1	05/05/23 07:16	05/09/23 02:53	7440-28-0	
<b>7470 Mercury</b>		Analytical Method: EPA 7470 Preparation Method: EPA 7470 Pace Analytical Services - Indianapolis							
Mercury	ND	ug/L	0.20	0.091	1	05/08/23 11:15	05/08/23 15:38	7439-97-6	
<b>2320B Alkalinity</b>		Analytical Method: SM 2320B Pace Analytical Services - Indianapolis							
Alkalinity, Total as CaCO3	246	mg/L	10.0	10.0	1		05/04/23 20:17		
Alkalinity,Bicarbonate (CaCO3)	246	mg/L	10.0	10.0	1		05/04/23 20:17		

## REPORT OF LABORATORY ANALYSIS

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**ANALYTICAL RESULTS**

Project: Eagle Valley April 2023 P1R2  
 Pace Project No.: 50343776

Sample: MW-24S		Lab ID: 50343776001		Collected: 05/03/23 10:50	Received: 05/03/23 15:00	Matrix: Water			
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>2320B Alkalinity</b>		Analytical Method: SM 2320B Pace Analytical Services - Indianapolis							
Alkalinity, Carbonate (CaCO3)	ND	mg/L	10.0	10.0	1		05/04/23 20:17		
<b>2540C Total Dissolved Solids</b>		Analytical Method: SM 2540C Pace Analytical Services - Indianapolis							
Total Dissolved Solids	<b>569</b>	mg/L	10.0	10.0	1		05/05/23 08:24		
<b>4500H+ pH, Electrometric</b>		Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis							
pH at 25 Degrees C	<b>7.9</b>	Std. Units	0.10	0.10	1		05/09/23 15:50		H3
<b>4500S2D Sulfide Water</b>		Analytical Method: SM 4500-S2-D Pace Analytical Services - Indianapolis							
Sulfide	ND	mg/L	0.10	0.025	1		05/05/23 12:16	18496-25-8	
<b>Iron, Ferrous</b>		Analytical Method: HACH 8146 Pace Analytical Services - Indianapolis							
Iron, Ferrous	ND	mg/L	0.20	0.035	1		05/04/23 14:40	15438-31-0	H3,N2
<b>353.2 Nitrogen, NO2/NO3 unpres</b>		Analytical Method: EPA 353.2 Pace Analytical Services - Indianapolis							
Nitrogen, Nitrate	<b>2.0</b>	mg/L	0.10	0.011	1		05/03/23 19:20	14797-55-8	
Nitrogen, Nitrite	<b>0.14</b>	mg/L	0.10	0.0040	1		05/03/23 19:20	14797-65-0	
<b>365.1 Total Phosphorus</b>		Analytical Method: EPA 365.1 Preparation Method: EPA 365.1 Pace Analytical Services - Indianapolis							
Phosphate as P04	ND	mg/L	0.15	0.15	1	05/06/23 12:30	05/09/23 11:51		
<b>5310C TOC</b>		Analytical Method: SM 5310C Pace Analytical Services - Indianapolis							
Total Organic Carbon	<b>1.5</b>	mg/L	1.0	0.24	1		05/08/23 23:36	7440-44-0	
<b>5310C Dissolved Organic Carbon</b>		Analytical Method: SM 5310C Pace Analytical Services - Indianapolis							
Dissolved Organic Carbon	<b>1.6</b>	mg/L	1.0	0.24	1		05/05/23 23:58		

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## ANALYTICAL RESULTS

Project: Eagle Valley April 2023 P1R2

Pace Project No.: 50343776

Sample: MW-241		Lab ID: 50343776002		Collected: 05/03/23 11:35		Received: 05/03/23 15:00		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>9056 IC Anions</b>									
Analytical Method: EPA 9056									
Pace Analytical Services - Indianapolis									
Chloride	73.2	mg/L	2.5	0.67	10		05/07/23 10:37	16887-00-6	
Fluoride	0.34	mg/L	0.10	0.017	1		05/07/23 10:20	16984-48-8	
Sulfate	58.1	mg/L	2.5	0.85	10		05/07/23 10:37	14808-79-8	
<b>6010 MET ICP</b>									
Analytical Method: EPA 6010 Preparation Method: EPA 3010									
Pace Analytical Services - Indianapolis									
Aluminum	1340	ug/L	200	55.4	1	05/05/23 09:10	05/05/23 17:48	7429-90-5	
Boron	116	ug/L	100	37.6	1	05/05/23 09:10	05/05/23 17:48	7440-42-8	
Calcium	72800	ug/L	1000	163	1	05/05/23 09:10	05/05/23 17:48	7440-70-2	
Iron	2930	ug/L	100	48.8	1	05/05/23 09:10	05/05/23 17:48	7439-89-6	
Lithium	ND	ug/L	20.0	6.2	1	05/05/23 09:10	05/05/23 17:48	7439-93-2	
Magnesium	21800	ug/L	1000	71.8	1	05/05/23 09:10	05/05/23 17:48	7439-95-4	
Manganese	193	ug/L	10.0	2.5	1	05/05/23 09:10	05/05/23 17:48	7439-96-5	
Potassium	7350	ug/L	1000	281	1	05/05/23 09:10	05/05/23 17:48	7440-09-7	
Silica	17300	ug/L	450		1	05/05/23 09:10	05/05/23 17:48	7631-86-9	N2
Sodium	73400	ug/L	1000	214	1	05/05/23 09:10	05/05/23 17:48	7440-23-5	
<b>6010 MET ICP, Dissolved</b>									
Analytical Method: EPA 6010 Preparation Method: EPA 3010									
Pace Analytical Services - Indianapolis									
Manganese, Dissolved	167	ug/L	10.0	5.4	1	05/07/23 15:50	05/09/23 09:04	7439-96-5	
Molybdenum, Dissolved	55.2	ug/L	10.0	2.0	1	05/07/23 15:50	05/09/23 09:04	7439-98-7	
<b>6020 MET ICPMS</b>									
Analytical Method: EPA 6020 Preparation Method: EPA 200.2									
Pace Analytical Services - Indianapolis									
Antimony	ND	ug/L	1.0	0.036	1	05/05/23 07:16	05/09/23 02:56	7440-36-0	
Arsenic	2.6	ug/L	1.0	0.053	1	05/05/23 07:16	05/09/23 02:56	7440-38-2	
Barium	72.9	ug/L	1.0	0.051	1	05/05/23 07:16	05/09/23 02:56	7440-39-3	
Beryllium	ND	ug/L	0.20	0.028	1	05/05/23 07:16	05/09/23 02:56	7440-41-7	
Cadmium	ND	ug/L	2.0	0.0090	1	05/05/23 07:16	05/09/23 02:56	7440-43-9	
Chromium	ND	ug/L	10.0	0.13	1	05/05/23 07:16	05/09/23 02:56	7440-47-3	
Cobalt	ND	ug/L	1.0	0.032	1	05/05/23 07:16	05/09/23 02:56	7440-48-4	
Lead	ND	ug/L	10.0	0.034	1	05/05/23 07:16	05/09/23 02:56	7439-92-1	
Molybdenum	52.6	ug/L	10.0	0.048	1	05/05/23 07:16	05/09/23 02:56	7439-98-7	
Selenium	ND	ug/L	1.0	0.23	1	05/05/23 07:16	05/09/23 02:56	7782-49-2	
Thallium	ND	ug/L	1.0	0.033	1	05/05/23 07:16	05/09/23 02:56	7440-28-0	
<b>7470 Mercury</b>									
Analytical Method: EPA 7470 Preparation Method: EPA 7470									
Pace Analytical Services - Indianapolis									
Mercury	ND	ug/L	0.20	0.091	1	05/08/23 11:15	05/08/23 15:41	7439-97-6	
<b>2320B Alkalinity</b>									
Analytical Method: SM 2320B									
Pace Analytical Services - Indianapolis									
Alkalinity, Total as CaCO3	253	mg/L	10.0	10.0	1		05/04/23 20:17		
Alkalinity,Bicarbonate (CaCO3)	253	mg/L	10.0	10.0	1		05/04/23 20:17		

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### ANALYTICAL RESULTS

Project: Eagle Valley April 2023 P1R2

Pace Project No.: 50343776

Sample: MW-241		Lab ID: 50343776002		Collected: 05/03/23 11:35	Received: 05/03/23 15:00	Matrix: Water			
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>2320B Alkalinity</b>									
Analytical Method: SM 2320B Pace Analytical Services - Indianapolis									
Alkalinity, Carbonate (CaCO <sub>3</sub> )	ND	mg/L	10.0	10.0	1		05/04/23 20:17		
<b>2540C Total Dissolved Solids</b>									
Analytical Method: SM 2540C Pace Analytical Services - Indianapolis									
Total Dissolved Solids	<b>442</b>	mg/L	10.0	10.0	1		05/05/23 08:24		
<b>4500H+ pH, Electrometric</b>									
Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis									
pH at 25 Degrees C	<b>7.9</b>	Std. Units	0.10	0.10	1		05/09/23 15:51		H3
<b>4500S2D Sulfide Water</b>									
Analytical Method: SM 4500-S2-D Pace Analytical Services - Indianapolis									
Sulfide	<b>0.056J</b>	mg/L	0.10	0.025	1		05/05/23 12:16	18496-25-8	
<b>Iron, Ferrous</b>									
Analytical Method: HACH 8146 Pace Analytical Services - Indianapolis									
Iron, Ferrous	<b>0.22</b>	mg/L	0.20	0.035	1		05/04/23 14:40	15438-31-0	H3,N2
<b>353.2 Nitrogen, NO<sub>2</sub>/NO<sub>3</sub> unpres</b>									
Analytical Method: EPA 353.2 Pace Analytical Services - Indianapolis									
Nitrogen, Nitrate	ND	mg/L	0.10	0.011	1		05/03/23 19:21	14797-55-8	
Nitrogen, Nitrite	ND	mg/L	0.10	0.0040	1		05/03/23 19:21	14797-65-0	
<b>365.1 Total Phosphorus</b>									
Analytical Method: EPA 365.1 Preparation Method: EPA 365.1 Pace Analytical Services - Indianapolis									
Phosphate as P <sub>04</sub>	ND	mg/L	0.15	0.15	1	05/06/23 12:30	05/09/23 11:53		
<b>5310C TOC</b>									
Analytical Method: SM 5310C Pace Analytical Services - Indianapolis									
Total Organic Carbon	<b>1.4</b>	mg/L	1.0	0.24	1		05/08/23 23:47	7440-44-0	
<b>5310C Dissolved Organic Carbon</b>									
Analytical Method: SM 5310C Pace Analytical Services - Indianapolis									
Dissolved Organic Carbon	<b>1.4</b>	mg/L	1.0	0.24	1		05/06/23 00:16		

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### ANALYTICAL RESULTS

Project: Eagle Valley April 2023 P1R2  
 Pace Project No.: 50343776

**Sample: MW-24D**      **Lab ID: 50343776003**      Collected: 05/03/23 12:25      Received: 05/03/23 15:00      Matrix: Water

Parameters	Results	Units	Report			Prepared	Analyzed	CAS No.	Qual
			Limit	MDL	DF				
<b>9056 IC Anions</b>									
Analytical Method: EPA 9056									
Pace Analytical Services - Indianapolis									
Chloride	65.8	mg/L	2.5	0.67	10		05/07/23 11:12	16887-00-6	
Fluoride	0.32	mg/L	0.10	0.017	1		05/07/23 10:55	16984-48-8	
Sulfate	54.1	mg/L	2.5	0.85	10		05/07/23 11:12	14808-79-8	
<b>6010 MET ICP</b>									
Analytical Method: EPA 6010      Preparation Method: EPA 3010									
Pace Analytical Services - Indianapolis									
Aluminum	1450	ug/L	200	55.4	1	05/05/23 09:10	05/05/23 17:50	7429-90-5	
Boron	ND	ug/L	100	37.6	1	05/05/23 09:10	05/05/23 17:50	7440-42-8	
Calcium	66000	ug/L	1000	163	1	05/05/23 09:10	05/05/23 17:50	7440-70-2	
Iron	2230	ug/L	100	48.8	1	05/05/23 09:10	05/05/23 17:50	7439-89-6	
Lithium	ND	ug/L	20.0	6.2	1	05/05/23 09:10	05/05/23 17:50	7439-93-2	
Magnesium	21400	ug/L	1000	71.8	1	05/05/23 09:10	05/05/23 17:50	7439-95-4	
Manganese	143	ug/L	10.0	2.5	1	05/05/23 09:10	05/05/23 17:50	7439-96-5	
Potassium	5140	ug/L	1000	281	1	05/05/23 09:10	05/05/23 17:50	7440-09-7	
Silica	15000	ug/L	450		1	05/05/23 09:10	05/05/23 17:50	7631-86-9	N2
Sodium	58500	ug/L	1000	214	1	05/05/23 09:10	05/05/23 17:50	7440-23-5	
<b>6010 MET ICP, Dissolved</b>									
Analytical Method: EPA 6010      Preparation Method: EPA 3010									
Pace Analytical Services - Indianapolis									
Manganese, Dissolved	135	ug/L	10.0	5.4	1	05/07/23 15:50	05/09/23 09:11	7439-96-5	
Molybdenum, Dissolved	17.2	ug/L	10.0	2.0	1	05/07/23 15:50	05/09/23 09:11	7439-98-7	
<b>6020 MET ICPMS</b>									
Analytical Method: EPA 6020      Preparation Method: EPA 200.2									
Pace Analytical Services - Indianapolis									
Antimony	ND	ug/L	1.0	0.036	1	05/05/23 07:16	05/09/23 02:59	7440-36-0	
Arsenic	1.6	ug/L	1.0	0.053	1	05/05/23 07:16	05/09/23 02:59	7440-38-2	
Barium	58.8	ug/L	1.0	0.051	1	05/05/23 07:16	05/09/23 02:59	7440-39-3	
Beryllium	ND	ug/L	0.20	0.028	1	05/05/23 07:16	05/09/23 02:59	7440-41-7	
Cadmium	ND	ug/L	2.0	0.0090	1	05/05/23 07:16	05/09/23 02:59	7440-43-9	
Chromium	ND	ug/L	10.0	0.13	1	05/05/23 07:16	05/09/23 02:59	7440-47-3	
Cobalt	ND	ug/L	1.0	0.032	1	05/05/23 07:16	05/09/23 02:59	7440-48-4	
Lead	ND	ug/L	10.0	0.034	1	05/05/23 07:16	05/09/23 02:59	7439-92-1	
Molybdenum	15.1	ug/L	10.0	0.048	1	05/05/23 07:16	05/09/23 02:59	7439-98-7	
Selenium	ND	ug/L	1.0	0.23	1	05/05/23 07:16	05/09/23 02:59	7782-49-2	
Thallium	ND	ug/L	1.0	0.033	1	05/05/23 07:16	05/09/23 02:59	7440-28-0	
<b>7470 Mercury</b>									
Analytical Method: EPA 7470      Preparation Method: EPA 7470									
Pace Analytical Services - Indianapolis									
Mercury	ND	ug/L	0.20	0.091	1	05/08/23 11:15	05/08/23 15:43	7439-97-6	
<b>2320B Alkalinity</b>									
Analytical Method: SM 2320B									
Pace Analytical Services - Indianapolis									
Alkalinity, Total as CaCO3	223	mg/L	10.0	10.0	1		05/04/23 20:17		
Alkalinity,Bicarbonate (CaCO3)	223	mg/L	10.0	10.0	1		05/04/23 20:17		

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**ANALYTICAL RESULTS**

Project: Eagle Valley April 2023 P1R2

Pace Project No.: 50343776

Sample: MW-24D		Lab ID: 50343776003		Collected: 05/03/23 12:25	Received: 05/03/23 15:00	Matrix: Water			
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>2320B Alkalinity</b>		Analytical Method: SM 2320B Pace Analytical Services - Indianapolis							
Alkalinity, Carbonate (CaCO3)	ND	mg/L	10.0	10.0	1		05/04/23 20:17		
<b>2540C Total Dissolved Solids</b>		Analytical Method: SM 2540C Pace Analytical Services - Indianapolis							
Total Dissolved Solids	<b>404</b>	mg/L	10.0	10.0	1		05/05/23 08:24		
<b>4500H+ pH, Electrometric</b>		Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis							
pH at 25 Degrees C	<b>7.9</b>	Std. Units	0.10	0.10	1		05/09/23 15:53		H3
<b>4500S2D Sulfide Water</b>		Analytical Method: SM 4500-S2-D Pace Analytical Services - Indianapolis							
Sulfide	<b>0.031J</b>	mg/L	0.10	0.025	1		05/05/23 12:16	18496-25-8	
<b>Iron, Ferrous</b>		Analytical Method: HACH 8146 Pace Analytical Services - Indianapolis							
Iron, Ferrous	<b>0.32</b>	mg/L	0.20	0.035	1		05/04/23 14:41	15438-31-0	H3,N2
<b>353.2 Nitrogen, NO2/NO3 unpres</b>		Analytical Method: EPA 353.2 Pace Analytical Services - Indianapolis							
Nitrogen, Nitrate	<b>0.10</b>	mg/L	0.10	0.011	1		05/03/23 19:23	14797-55-8	
Nitrogen, Nitrite	ND	mg/L	0.10	0.0040	1		05/03/23 19:23	14797-65-0	
<b>365.1 Total Phosphorus</b>		Analytical Method: EPA 365.1 Preparation Method: EPA 365.1 Pace Analytical Services - Indianapolis							
Phosphate as P04	ND	mg/L	0.15	0.15	1	05/06/23 12:30	05/09/23 11:53		
<b>5310C TOC</b>		Analytical Method: SM 5310C Pace Analytical Services - Indianapolis							
Total Organic Carbon	<b>1.2</b>	mg/L	1.0	0.24	1		05/08/23 23:58	7440-44-0	
<b>5310C Dissolved Organic Carbon</b>		Analytical Method: SM 5310C Pace Analytical Services - Indianapolis							
Dissolved Organic Carbon	<b>1.3</b>	mg/L	1.0	0.24	1		05/06/23 00:26		

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## ANALYTICAL RESULTS

Project: Eagle Valley April 2023 P1R2

Pace Project No.: 50343776

Sample: MW-25S		Lab ID: 50343776004		Collected: 05/03/23 13:50		Received: 05/03/23 15:00		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>9056 IC Anions</b>									
Analytical Method: EPA 9056									
Pace Analytical Services - Indianapolis									
Chloride	83.4	mg/L	2.5	0.67	10		05/07/23 11:47	16887-00-6	
Fluoride	0.34	mg/L	0.10	0.017	1		05/07/23 11:29	16984-48-8	
Sulfate	62.9	mg/L	2.5	0.85	10		05/07/23 11:47	14808-79-8	
<b>6010 MET ICP</b>									
Analytical Method: EPA 6010 Preparation Method: EPA 3010									
Pace Analytical Services - Indianapolis									
Aluminum	ND	ug/L	200	55.4	1	05/05/23 09:10	05/05/23 17:53	7429-90-5	
Boron	397	ug/L	100	37.6	1	05/05/23 09:10	05/05/23 17:53	7440-42-8	
Calcium	75400	ug/L	1000	163	1	05/05/23 09:10	05/05/23 17:53	7440-70-2	
Iron	631	ug/L	100	48.8	1	05/05/23 09:10	05/05/23 17:53	7439-89-6	
Lithium	61.1	ug/L	20.0	6.2	1	05/05/23 09:10	05/05/23 17:53	7439-93-2	
Magnesium	22000	ug/L	1000	71.8	1	05/05/23 09:10	05/05/23 17:53	7439-95-4	
Manganese	518	ug/L	10.0	2.5	1	05/05/23 09:10	05/05/23 17:53	7439-96-5	
Potassium	6730	ug/L	1000	281	1	05/05/23 09:10	05/05/23 17:53	7440-09-7	
Silica	10400	ug/L	450		1	05/05/23 09:10	05/05/23 17:53	7631-86-9	N2
Sodium	64700	ug/L	1000	214	1	05/05/23 09:10	05/05/23 17:53	7440-23-5	
<b>6010 MET ICP, Dissolved</b>									
Analytical Method: EPA 6010 Preparation Method: EPA 3010									
Pace Analytical Services - Indianapolis									
Manganese, Dissolved	570	ug/L	10.0	5.4	1	05/07/23 15:50	05/09/23 09:13	7439-96-5	
Molybdenum, Dissolved	65.8	ug/L	10.0	2.0	1	05/07/23 15:50	05/09/23 09:13	7439-98-7	
<b>6020 MET ICPMS</b>									
Analytical Method: EPA 6020 Preparation Method: EPA 200.2									
Pace Analytical Services - Indianapolis									
Antimony	ND	ug/L	1.0	0.036	1	05/05/23 07:16	05/09/23 02:49	7440-36-0	
Arsenic	1.2	ug/L	1.0	0.053	1	05/05/23 07:16	05/09/23 02:49	7440-38-2	
Barium	84.5	ug/L	1.0	0.051	1	05/05/23 07:16	05/09/23 02:49	7440-39-3	
Beryllium	ND	ug/L	0.20	0.028	1	05/05/23 07:16	05/09/23 02:49	7440-41-7	
Cadmium	ND	ug/L	2.0	0.0090	1	05/05/23 07:16	05/09/23 02:49	7440-43-9	
Chromium	ND	ug/L	10.0	0.13	1	05/05/23 07:16	05/09/23 02:49	7440-47-3	
Cobalt	ND	ug/L	1.0	0.032	1	05/05/23 07:16	05/09/23 02:49	7440-48-4	
Lead	ND	ug/L	10.0	0.034	1	05/05/23 07:16	05/09/23 02:49	7439-92-1	
Molybdenum	66.0	ug/L	10.0	0.048	1	05/05/23 07:16	05/09/23 02:49	7439-98-7	
Selenium	ND	ug/L	1.0	0.23	1	05/05/23 07:16	05/09/23 02:49	7782-49-2	
Thallium	ND	ug/L	1.0	0.033	1	05/05/23 07:16	05/09/23 02:49	7440-28-0	
<b>7470 Mercury</b>									
Analytical Method: EPA 7470 Preparation Method: EPA 7470									
Pace Analytical Services - Indianapolis									
Mercury	ND	ug/L	0.20	0.091	1	05/08/23 11:15	05/08/23 15:45	7439-97-6	
<b>2320B Alkalinity</b>									
Analytical Method: SM 2320B									
Pace Analytical Services - Indianapolis									
Alkalinity, Total as CaCO3	245	mg/L	10.0	10.0	1		05/04/23 20:17		
Alkalinity,Bicarbonate (CaCO3)	245	mg/L	10.0	10.0	1		05/04/23 20:17		

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**ANALYTICAL RESULTS**

Project: Eagle Valley April 2023 P1R2  
 Pace Project No.: 50343776

Sample: MW-25S		Lab ID: 50343776004		Collected: 05/03/23 13:50	Received: 05/03/23 15:00	Matrix: Water			
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>2320B Alkalinity</b>		Analytical Method: SM 2320B Pace Analytical Services - Indianapolis							
Alkalinity, Carbonate (CaCO3)	ND	mg/L	10.0	10.0	1		05/04/23 20:17		
<b>2540C Total Dissolved Solids</b>		Analytical Method: SM 2540C Pace Analytical Services - Indianapolis							
Total Dissolved Solids	471	mg/L	10.0	10.0	1		05/05/23 08:25		
<b>4500H+ pH, Electrometric</b>		Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis							
pH at 25 Degrees C	7.9	Std. Units	0.10	0.10	1		05/09/23 15:56		H3
<b>4500S2D Sulfide Water</b>		Analytical Method: SM 4500-S2-D Pace Analytical Services - Indianapolis							
Sulfide	ND	mg/L	0.10	0.025	1		05/05/23 12:16	18496-25-8	
<b>Iron, Ferrous</b>		Analytical Method: HACH 8146 Pace Analytical Services - Indianapolis							
Iron, Ferrous	0.26	mg/L	0.20	0.035	1		05/04/23 14:41	15438-31-0	H3,N2
<b>353.2 Nitrogen, NO2/NO3 unpres</b>		Analytical Method: EPA 353.2 Pace Analytical Services - Indianapolis							
Nitrogen, Nitrate	ND	mg/L	0.10	0.011	1		05/03/23 19:25	14797-55-8	
Nitrogen, Nitrite	ND	mg/L	0.10	0.0040	1		05/03/23 19:25	14797-65-0	
<b>365.1 Total Phosphorus</b>		Analytical Method: EPA 365.1 Preparation Method: EPA 365.1 Pace Analytical Services - Indianapolis							
Phosphate as P04	ND	mg/L	0.15	0.15	1	05/06/23 12:30	05/09/23 11:54		
<b>5310C TOC</b>		Analytical Method: SM 5310C Pace Analytical Services - Indianapolis							
Total Organic Carbon	ND	mg/L	1.0	0.24	1		05/09/23 00:09	7440-44-0	
<b>5310C Dissolved Organic Carbon</b>		Analytical Method: SM 5310C Pace Analytical Services - Indianapolis							
Dissolved Organic Carbon	1.5	mg/L	1.0	0.24	1		05/06/23 01:01		

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**QUALITY CONTROL DATA**

Project: Eagle Valley April 2023 P1R2  
 Pace Project No.: 50343776

QC Batch: 731947 Analysis Method: EPA 9056  
 QC Batch Method: EPA 9056 Analysis Description: 9056 IC Anions  
 Laboratory: Pace Analytical Services - Indianapolis  
 Associated Lab Samples: 50343776001, 50343776002, 50343776003, 50343776004

METHOD BLANK: 3359289 Matrix: Water  
 Associated Lab Samples: 50343776001, 50343776002, 50343776003, 50343776004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chloride	mg/L	ND	0.25	0.067	05/06/23 22:25	
Fluoride	mg/L	ND	0.10	0.017	05/06/23 22:25	
Sulfate	mg/L	ND	0.25	0.085	05/06/23 22:25	

LABORATORY CONTROL SAMPLE: 3359290

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	2.5	2.3	93	80-120	
Fluoride	mg/L	1	0.97	97	80-120	
Sulfate	mg/L	5	4.6	93	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3359291 3359292

Parameter	Units	50343925001		3359291		3359292		% Rec	% Rec	% Rec Limits	RPD	Max RPD	Qual
		MS Result	MSD Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result						
Chloride	mg/L	13.5	13.5	2.5	2.5	15.7	15.7	88	90	80-120	0	15	
Fluoride	mg/L	0.13	0.13	1	1	1.1	1.2	102	102	80-120	0	15	
Sulfate	mg/L	197	197	50	50	233	233	73	74	80-120	0	15 M0	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

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**QUALITY CONTROL DATA**

Project: Eagle Valley April 2023 P1R2

Pace Project No.: 50343776

QC Batch:	731759	Analysis Method:	EPA 7470
QC Batch Method:	EPA 7470	Analysis Description:	7470 Mercury
		Laboratory:	Pace Analytical Services - Indianapolis
Associated Lab Samples:	50343776001, 50343776002, 50343776003, 50343776004		

METHOD BLANK: 3358351 Matrix: Water  
 Associated Lab Samples: 50343776001, 50343776002, 50343776003, 50343776004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Mercury	ug/L	ND	0.20	0.091	05/08/23 15:33	

LABORATORY CONTROL SAMPLE: 3358352

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury	ug/L	5	5.2	103	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3358353 3358354

Parameter	Units	50343943001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Mercury	ug/L	ND	5	5	5.0	4.7	100	94	75-125	7	20	

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**QUALITY CONTROL DATA**

Project: Eagle Valley April 2023 P1R2  
Pace Project No.: 50343776

QC Batch: 731766 Analysis Method: EPA 6010  
QC Batch Method: EPA 3010 Analysis Description: 6010 MET  
Laboratory: Pace Analytical Services - Indianapolis

Associated Lab Samples: 50343776001, 50343776002, 50343776003, 50343776004

METHOD BLANK: 3358579 Matrix: Water  
Associated Lab Samples: 50343776001, 50343776002, 50343776003, 50343776004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Aluminum	ug/L	ND	200	55.4	05/05/23 17:21	
Boron	ug/L	ND	100	37.6	05/05/23 17:21	
Calcium	ug/L	ND	1000	163	05/05/23 17:21	
Iron	ug/L	ND	100	48.8	05/05/23 17:21	
Lithium	ug/L	ND	20.0	6.2	05/05/23 17:21	
Magnesium	ug/L	ND	1000	71.8	05/05/23 17:21	
Manganese	ug/L	ND	10.0	2.5	05/05/23 17:21	
Potassium	ug/L	ND	1000	281	05/05/23 17:21	
Silica	ug/L	ND	450		05/05/23 17:21	N2
Sodium	ug/L	ND	1000	214	05/05/23 17:21	

LABORATORY CONTROL SAMPLE: 3358580

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Aluminum	ug/L	10000	10000	100	80-120	
Boron	ug/L	1000	976	98	80-120	
Calcium	ug/L	10000	9820	98	80-120	
Iron	ug/L	10000	10100	101	80-120	
Lithium	ug/L	1000	1000	100	80-120	
Magnesium	ug/L	10000	9850	98	80-120	
Manganese	ug/L	1000	929	93	80-120	
Potassium	ug/L	10000	9950	100	80-120	
Silica	ug/L	10700	10200	95	80-120	N2
Sodium	ug/L	10000	9750	98	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3358581 3358582

Parameter	Units	MS		MSD		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual	
		50343741001 Result	Spike Conc.	Spike Conc.	MS Result							MSD Result
Aluminum	ug/L	534	10000	10000	10500	11000	100	105	75-125	5	20	
Boron	ug/L	ND	1000	1000	1040	1090	99	104	75-125	4	20	
Calcium	ug/L	101000	10000	10000	106000	109000	57	81	75-125	2	20	P6
Iron	ug/L	637	10000	10000	10500	10900	99	103	75-125	4	20	
Lithium	ug/L	ND	1000	1000	1030	1050	103	104	75-125	2	20	
Magnesium	ug/L	29600	10000	10000	38000	39500	84	99	75-125	4	20	
Manganese	ug/L	31.9	1000	1000	955	986	92	95	75-125	3	20	
Potassium	ug/L	ND	10000	10000	11100	11300	102	104	75-125	2	20	

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### QUALITY CONTROL DATA

Project: Eagle Valley April 2023 P1R2

Pace Project No.: 50343776

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3358581 3358582												
Parameter	Units	50343741001 Result	MS	MSD	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max	Qual
			Spike Conc.	Spike Conc.							RPD	
Silica	ug/L	14800	10700	10700	24300	25100	90	97	75-125	3	20	N2
Sodium	ug/L	3870	10000	10000	13800	13900	99	100	75-125	1	20	

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**QUALITY CONTROL DATA**

Project: Eagle Valley April 2023 P1R2

Pace Project No.: 50343776

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QC Batch: 731788 Analysis Method: EPA 6010  
 QC Batch Method: EPA 3010 Analysis Description: 6010 MET Dissolved  
 Laboratory: Pace Analytical Services - Indianapolis  
 Associated Lab Samples: 50343776001, 50343776002, 50343776003, 50343776004

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METHOD BLANK: 3358700 Matrix: Water  
 Associated Lab Samples: 50343776001, 50343776002, 50343776003, 50343776004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Manganese, Dissolved	ug/L	ND	10.0	5.4	05/09/23 08:59	
Molybdenum, Dissolved	ug/L	ND	10.0	2.0	05/09/23 08:59	

LABORATORY CONTROL SAMPLE: 3358701

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Manganese, Dissolved	ug/L	1000	1050	105	80-120	
Molybdenum, Dissolved	ug/L	1000	1060	106	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3358702 3358703

Parameter	Units	50343925001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Manganese, Dissolved	ug/L	ND	1000	1000	1020	1010	102	100	75-125	1	20	
Molybdenum, Dissolved	ug/L	ND	1000	1000	1070	1030	106	103	75-125	3	20	

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**QUALITY CONTROL DATA**

Project: Eagle Valley April 2023 P1R2

Pace Project No.: 50343776

QC Batch:	731717	Analysis Method:	EPA 6020
QC Batch Method:	EPA 200.2	Analysis Description:	6020 MET
		Laboratory:	Pace Analytical Services - Indianapolis

Associated Lab Samples: 50343776001, 50343776002, 50343776003, 50343776004

METHOD BLANK: 3358064 Matrix: Water

Associated Lab Samples: 50343776001, 50343776002, 50343776003, 50343776004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Antimony	ug/L	ND	1.0	0.036	05/08/23 16:56	
Arsenic	ug/L	ND	1.0	0.053	05/08/23 16:56	
Barium	ug/L	ND	1.0	0.051	05/08/23 16:56	
Beryllium	ug/L	ND	0.20	0.028	05/08/23 16:56	
Cadmium	ug/L	ND	2.0	0.0090	05/08/23 16:56	
Chromium	ug/L	ND	10.0	0.13	05/08/23 16:56	
Cobalt	ug/L	ND	1.0	0.032	05/08/23 16:56	
Lead	ug/L	ND	10.0	0.034	05/08/23 16:56	
Molybdenum	ug/L	ND	10.0	0.048	05/08/23 16:56	
Selenium	ug/L	ND	1.0	0.23	05/08/23 16:56	
Thallium	ug/L	ND	1.0	0.033	05/08/23 16:56	

LABORATORY CONTROL SAMPLE: 3358065

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Antimony	ug/L	40	42.6	106	80-120	
Arsenic	ug/L	40	39.6	99	80-120	
Barium	ug/L	40	40.4	101	80-120	
Beryllium	ug/L	40	37.3	93	80-120	
Cadmium	ug/L	40	39.0	97	80-120	
Chromium	ug/L	40	41.0	103	80-120	
Cobalt	ug/L	40	40.2	101	80-120	
Lead	ug/L	40	41.3	103	80-120	
Molybdenum	ug/L	40	41.7	104	80-120	
Selenium	ug/L	40	39.8	99	80-120	
Thallium	ug/L	40	41.5	104	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3358066 3358067

Parameter	Units	MS		MSD		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual	
		50343925001 Result	Spike Conc.	Spike Conc.	MS Result							MSD Result
Antimony	ug/L	ND	40	40	41.9	42.2	105	105	75-125	1	20	
Arsenic	ug/L	ND	40	40	39.2	39.6	98	99	75-125	1	20	
Barium	ug/L	27.8	40	40	65.6	65.6	94	94	75-125	0	20	
Beryllium	ug/L	ND	40	40	38.7	38.9	97	97	75-125	1	20	
Cadmium	ug/L	ND	40	40	37.5	37.3	94	93	75-125	1	20	
Chromium	ug/L	ND	40	40	40.3	40.3	100	100	75-125	0	20	

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### QUALITY CONTROL DATA

Project: Eagle Valley April 2023 P1R2

Pace Project No.: 50343776

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3358066 3358067													
Parameter	Units	50343925001 Result	MS	MSD	MS	MSD	MS	MSD	% Rec	Limits	RPD	Max RPD	Qual
			Spike Conc.	Spike Conc.	Result	Result	% Rec	% Rec					
Cobalt	ug/L	ND	40	40	39.1	39.4	97	98	75-125	1	20		
Lead	ug/L	ND	40	40	41.3	40.8	103	102	75-125	1	20		
Molybdenum	ug/L	1.1	40	40	42.3	43.1	103	105	75-125	2	20		
Selenium	ug/L	2.2	40	40	42.3	41.7	100	99	75-125	1	20		
Thallium	ug/L	ND	40	40	43.0	42.4	108	106	75-125	1	20		

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### QUALITY CONTROL DATA

Project: Eagle Valley April 2023 P1R2

Pace Project No.: 50343776

QC Batch:	731723	Analysis Method:	SM 2320B
QC Batch Method:	SM 2320B	Analysis Description:	2320B Alkalinity
		Laboratory:	Pace Analytical Services - Indianapolis

Associated Lab Samples: 50343776001, 50343776002, 50343776003, 50343776004

METHOD BLANK: 3358089 Matrix: Water  
 Associated Lab Samples: 50343776001, 50343776002, 50343776003, 50343776004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Alkalinity, Total as CaCO3	mg/L	ND	10.0	10.0	05/04/23 20:17	
Alkalinity,Bicarbonate (CaCO3)	mg/L	ND	10.0	10.0	05/04/23 20:17	
Alkalinity,Carbonate (CaCO3)	mg/L	ND	10.0	10.0	05/04/23 20:17	

LABORATORY CONTROL SAMPLE: 3358090

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Alkalinity, Total as CaCO3	mg/L	50	49.3	99	90-110	

SAMPLE DUPLICATE: 3358091

Parameter	Units	50343740001 Result	Dup Result	RPD	Max RPD	Qualifiers
Alkalinity, Total as CaCO3	mg/L	321	325	1	20	
Alkalinity,Bicarbonate (CaCO3)	mg/L	321	325	1	20	
Alkalinity,Carbonate (CaCO3)	mg/L	ND	ND		20	

SAMPLE DUPLICATE: 3358092

Parameter	Units	50343690004 Result	Dup Result	RPD	Max RPD	Qualifiers
Alkalinity, Total as CaCO3	mg/L	412	419	2	20	
Alkalinity,Bicarbonate (CaCO3)	mg/L	412	419	2	20	
Alkalinity,Carbonate (CaCO3)	mg/L	ND	ND		20	

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**QUALITY CONTROL DATA**

Project: Eagle Valley April 2023 P1R2

Pace Project No.: 50343776

QC Batch:	731629	Analysis Method:	SM 2540C
QC Batch Method:	SM 2540C	Analysis Description:	2540C Total Dissolved Solids
		Laboratory:	Pace Analytical Services - Indianapolis
Associated Lab Samples:	50343776001, 50343776002, 50343776003, 50343776004		

METHOD BLANK: 3357519 Matrix: Water  
 Associated Lab Samples: 50343776001, 50343776002, 50343776003, 50343776004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	ND	10.0	10.0	05/05/23 08:21	

LABORATORY CONTROL SAMPLE: 3357520

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	300	268	89	80-120	

SAMPLE DUPLICATE: 3357521

Parameter	Units	50343741002 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	334	322	4	10	

SAMPLE DUPLICATE: 3357522

Parameter	Units	50343890001 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	3600	3590	0	10	

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### QUALITY CONTROL DATA

Project: Eagle Valley April 2023 P1R2

Pace Project No.: 50343776

QC Batch: 732456

Analysis Method: SM 4500-H+B

QC Batch Method: SM 4500-H+B

Analysis Description: 4500H+B pH

Laboratory: Pace Analytical Services - Indianapolis

Associated Lab Samples: 50343776001, 50343776002, 50343776003, 50343776004

SAMPLE DUPLICATE: 3361540

Parameter	Units	50343255002 Result	Dup Result	RPD	Max RPD	Qualifiers
pH at 25 Degrees C	Std. Units	7.4	7.4	0	2	H3

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**QUALITY CONTROL DATA**

Project: Eagle Valley April 2023 P1R2

Pace Project No.: 50343776

QC Batch:	731870	Analysis Method:	SM 4500-S2-D
QC Batch Method:	SM 4500-S2-D	Analysis Description:	4500S2D Sulfide Water
		Laboratory:	Pace Analytical Services - Indianapolis

Associated Lab Samples: 50343776001, 50343776002, 50343776003, 50343776004

METHOD BLANK: 3358960 Matrix: Water  
 Associated Lab Samples: 50343776001, 50343776002, 50343776003, 50343776004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Sulfide	mg/L	ND	0.10	0.025	05/05/23 12:16	

LABORATORY CONTROL SAMPLE: 3358961

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Sulfide	mg/L	0.5	0.50	100	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3358962 3358963

Parameter	Units	50343741001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Sulfide	mg/L	ND	0.5	0.5	0.56	0.59	111	116	90-110	4	20	M3

MATRIX SPIKE SAMPLE: 3358964

Parameter	Units	50343776001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Sulfide	mg/L	ND	0.5	0.52	102	90-110	

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**QUALITY CONTROL DATA**

Project: Eagle Valley April 2023 P1R2

Pace Project No.: 50343776

QC Batch:	731605	Analysis Method:	HACH 8146
QC Batch Method:	HACH 8146	Analysis Description:	Iron, Ferrous
		Laboratory:	Pace Analytical Services - Indianapolis

Associated Lab Samples: 50343776001, 50343776002, 50343776003, 50343776004

METHOD BLANK: 3357453 Matrix: Water  
 Associated Lab Samples: 50343776001, 50343776002, 50343776003, 50343776004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Iron, Ferrous	mg/L	ND	0.20	0.035	05/04/23 14:36	H3,N2

LABORATORY CONTROL SAMPLE: 3357454

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Iron, Ferrous	mg/L	1	1.0	100	90-110	H3,N2

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3357455 3357456

Parameter	Units	50343711001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Iron, Ferrous	mg/L	ND	1	1	1.0	1.0	103	104	90-110	1	20	H3,N2

MATRIX SPIKE SAMPLE: 3357457

Parameter	Units	50343741002 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Iron, Ferrous	mg/L	ND	1	1.1	108	90-110	H3,N2

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**QUALITY CONTROL DATA**

Project: Eagle Valley April 2023 P1R2

Pace Project No.: 50343776

QC Batch:	731450	Analysis Method:	EPA 353.2
QC Batch Method:	EPA 353.2	Analysis Description:	353.2 Nitrate + Nitrite, Unpres.
		Laboratory:	Pace Analytical Services - Indianapolis

Associated Lab Samples: 50343776001, 50343776002, 50343776003, 50343776004

METHOD BLANK: 3356572 Matrix: Water  
 Associated Lab Samples: 50343776001, 50343776002, 50343776003, 50343776004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Nitrogen, Nitrate	mg/L	ND	0.10	0.011	05/03/23 19:08	
Nitrogen, Nitrite	mg/L	ND	0.10	0.0040	05/03/23 19:08	

LABORATORY CONTROL SAMPLE: 3356573

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Nitrogen, Nitrate	mg/L	1	1.0	101	90-110	
Nitrogen, Nitrite	mg/L	1	1.1	106	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3356574 3356575

Parameter	Units	50343748002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Nitrogen, Nitrate	mg/L	ND	1	1	0.99	1.0	99	99	90-110	0	20	
Nitrogen, Nitrite	mg/L	0.016J	1	1	1.1	1.1	104	104	90-110	0	20	

MATRIX SPIKE SAMPLE: 3356744

Parameter	Units	50343777004 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Nitrogen, Nitrate	mg/L	ND	1	1.0	100	90-110	
Nitrogen, Nitrite	mg/L	ND	1	1.0	104	90-110	

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**QUALITY CONTROL DATA**

Project: Eagle Valley April 2023 P1R2

Pace Project No.: 50343776

QC Batch:	732054	Analysis Method:	EPA 365.1
QC Batch Method:	EPA 365.1	Analysis Description:	365.1 Total Phosphorus
		Laboratory:	Pace Analytical Services - Indianapolis
Associated Lab Samples:	50343776001, 50343776002, 50343776003, 50343776004		

METHOD BLANK: 3359877 Matrix: Water  
 Associated Lab Samples: 50343776001, 50343776002, 50343776003, 50343776004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Phosphate as P04	mg/L	ND	0.15	0.15	05/09/23 11:41	

LABORATORY CONTROL SAMPLE: 3359878

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Phosphate as P04	mg/L		1.5			

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3359879 3359880

Parameter	Units	50343222001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Phosphate as P04	mg/L	1.9			3.5	3.4				2		

MATRIX SPIKE SAMPLE: 3359881

Parameter	Units	50343252002 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Phosphate as P04	mg/L	0.23		1.7			

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**QUALITY CONTROL DATA**

Project: Eagle Valley April 2023 P1R2

Pace Project No.: 50343776

QC Batch:	731951	Analysis Method:	SM 5310C
QC Batch Method:	SM 5310C	Analysis Description:	5310C Total Organic Carbon
		Laboratory:	Pace Analytical Services - Indianapolis

Associated Lab Samples: 50343776001, 50343776002, 50343776003, 50343776004

METHOD BLANK: 3359302 Matrix: Water  
 Associated Lab Samples: 50343776001, 50343776002, 50343776003, 50343776004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Organic Carbon	mg/L	ND	1.0	0.24	05/08/23 18:24	

LABORATORY CONTROL SAMPLE: 3359303

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Organic Carbon	mg/L	10	10.3	103	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3359304 3359305

Parameter	Units	50343240003 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Total Organic Carbon	mg/L	1.9	10	10	11.6	11.5	97	96	80-120	1	20	

MATRIX SPIKE SAMPLE: 3359306

Parameter	Units	50343240004 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Total Organic Carbon	mg/L	ND	10	11.2	100	80-120	

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**QUALITY CONTROL DATA**

Project: Eagle Valley April 2023 P1R2

Pace Project No.: 50343776

QC Batch:	731678	Analysis Method:	SM 5310C
QC Batch Method:	SM 5310C	Analysis Description:	5310C Dissolved Organic Carbon
		Laboratory:	Pace Analytical Services - Indianapolis
Associated Lab Samples:	50343776001, 50343776002, 50343776003, 50343776004		

METHOD BLANK: 3357813 Matrix: Water  
 Associated Lab Samples: 50343776001, 50343776002, 50343776003, 50343776004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Dissolved Organic Carbon	mg/L	ND	1.0	0.24	05/05/23 21:26	

LABORATORY CONTROL SAMPLE: 3357814

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Dissolved Organic Carbon	mg/L	10	10.1	101	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3357815 3357816

Parameter	Units	50343737001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Dissolved Organic Carbon	mg/L	2.5	10	10	12.4	12.5	99	100	80-120	1	20	

MATRIX SPIKE SAMPLE: 3357817

Parameter	Units	50343737002 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Dissolved Organic Carbon	mg/L	1.2	10	11.3	101	80-120	

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**ANALYTICAL RESULTS - RADIOCHEMISTRY**

Project: Eagle Valley April 2023 P1R2

Pace Project No.: 50343776

**Sample: MW-24S**      **Lab ID: 50343776001**      Collected: 05/03/23 10:50      Received: 05/03/23 15:00      Matrix: Water  
 PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	<b>0.381 ± 0.387 (0.586)</b> <b>C:NA T:87%</b>	pCi/L	06/01/23 15:24	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	<b>0.0828 ± 0.309 (0.702)</b> <b>C:87% T:84%</b>	pCi/L	05/22/23 15:23	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	<b>0.464 ± 0.696 (1.29)</b>	pCi/L	06/02/23 12:45	7440-14-4	

**REPORT OF LABORATORY ANALYSIS**

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**ANALYTICAL RESULTS - RADIOCHEMISTRY**

Project: Eagle Valley April 2023 P1R2

Pace Project No.: 50343776

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
<b>Sample: MW-24I</b> <b>Lab ID: 50343776002</b> Collected: 05/03/23 11:35      Received: 05/03/23 15:00      Matrix: Water PWS:      Site ID:      Sample Type:						
Pace Analytical Services - Greensburg						
Radium-226	EPA 903.1	<b>0.560 ± 0.477 (0.670)</b> <b>C:NA T:87%</b>	pCi/L	06/01/23 15:24	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 904.0	<b>0.319 ± 0.314 (0.642)</b> <b>C:87% T:81%</b>	pCi/L	05/22/23 15:23	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	<b>0.879 ± 0.791 (1.31)</b>	pCi/L	06/02/23 12:45	7440-14-4	

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**ANALYTICAL RESULTS - RADIOCHEMISTRY**

Project: Eagle Valley April 2023 P1R2

Pace Project No.: 50343776

**Sample: MW-24D**      **Lab ID: 50343776003**      Collected: 05/03/23 12:25      Received: 05/03/23 15:00      Matrix: Water  
 PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	<b>0.353 ± 0.410 (0.662)</b> <b>C:NA T:93%</b>	pCi/L	06/01/23 15:24	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	<b>0.147 ± 0.323 (0.718)</b> <b>C:82% T:76%</b>	pCi/L	05/22/23 15:23	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	<b>0.500 ± 0.733 (1.38)</b>	pCi/L	06/02/23 12:45	7440-14-4	

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**ANALYTICAL RESULTS - RADIOCHEMISTRY**

Project: Eagle Valley April 2023 P1R2

Pace Project No.: 50343776

**Sample: MW-25S**      **Lab ID: 50343776004**      Collected: 05/03/23 13:50      Received: 05/03/23 15:00      Matrix: Water  
 PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	<b>0.595 ± 0.551 (0.838)</b> <b>C:NA T:96%</b>	pCi/L	06/01/23 15:24	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	<b>-0.105 ± 0.296 (0.734)</b> <b>C:79% T:72%</b>	pCi/L	05/22/23 15:23	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	<b>0.595 ± 0.847 (1.57)</b>	pCi/L	06/02/23 12:45	7440-14-4	

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### QUALITY CONTROL - RADIOCHEMISTRY

Project: Eagle Valley April 2023 P1R2

Pace Project No.: 50343776

QC Batch: 586497

Analysis Method: EPA 903.1

QC Batch Method: EPA 903.1

Analysis Description: 903.1 Radium-226

Laboratory: Pace Analytical Services - Greensburg

Associated Lab Samples: 50343776001, 50343776002, 50343776003, 50343776004

METHOD BLANK: 2849183

Matrix: Water

Associated Lab Samples: 50343776001, 50343776002, 50343776003, 50343776004

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.137 ± 0.270 (0.493) C:NA T:83%	pCi/L	06/01/23 15:11	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

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### QUALITY CONTROL - RADIOCHEMISTRY

Project: Eagle Valley April 2023 P1R2

Pace Project No.: 50343776

QC Batch: 586499

Analysis Method: EPA 904.0

QC Batch Method: EPA 904.0

Analysis Description: 904.0 Radium 228

Laboratory: Pace Analytical Services - Greensburg

Associated Lab Samples: 50343776001, 50343776002, 50343776003, 50343776004

METHOD BLANK: 2849185

Matrix: Water

Associated Lab Samples: 50343776001, 50343776002, 50343776003, 50343776004

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.110 ± 0.290 (0.649) C:84% T:90%	pCi/L	05/22/23 15:22	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

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## QUALIFIERS

Project: Eagle Valley April 2023 P1R2

Pace Project No.: 50343776

### DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Reported results are not rounded until the final step prior to reporting. Therefore, calculated parameters that are typically reported as "Total" may vary slightly from the sum of the reported component parameters.

Act - Activity

Unc - Uncertainty: SDWA = 1.96 sigma count uncertainty, all other matrices = Expanded Uncertainty (95% confidence interval).

Gamma Spec = Expanded Uncertainty (95.4% Confidence Interval)

(MDC) - Minimum Detectable Concentration

Trac - Tracer Recovery (%)

Carr - Carrier Recovery (%)

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

### ANALYTE QUALIFIERS

H3 Sample was received or analysis requested beyond the recognized method holding time.

M0 Matrix spike recovery and/or matrix spike duplicate recovery was outside laboratory control limits.

M3 Matrix spike recovery was outside laboratory control limits due to matrix interferences.

N2 The lab does not hold NELAC/TNI accreditation for this parameter but other accreditations/certifications may apply. A complete list of accreditations/certifications is available upon request.

P6 Matrix spike recovery was outside laboratory control limits due to a parent sample concentration notably higher than the spike level.

## REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Eagle Valley April 2023 P1R2

Pace Project No.: 50343776

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
50343776001	MW-24S	EPA 9056	731947		
50343776002	MW-24I	EPA 9056	731947		
50343776003	MW-24D	EPA 9056	731947		
50343776004	MW-25S	EPA 9056	731947		
50343776001	MW-24S	EPA 3010	731766	EPA 6010	731997
50343776002	MW-24I	EPA 3010	731766	EPA 6010	731997
50343776003	MW-24D	EPA 3010	731766	EPA 6010	731997
50343776004	MW-25S	EPA 3010	731766	EPA 6010	731997
50343776001	MW-24S	EPA 3010	731788	EPA 6010	732262
50343776002	MW-24I	EPA 3010	731788	EPA 6010	732262
50343776003	MW-24D	EPA 3010	731788	EPA 6010	732262
50343776004	MW-25S	EPA 3010	731788	EPA 6010	732262
50343776001	MW-24S	EPA 200.2	731717	EPA 6020	731907
50343776002	MW-24I	EPA 200.2	731717	EPA 6020	731907
50343776003	MW-24D	EPA 200.2	731717	EPA 6020	731907
50343776004	MW-25S	EPA 200.2	731717	EPA 6020	731907
50343776001	MW-24S	EPA 7470	731759	EPA 7470	732270
50343776002	MW-24I	EPA 7470	731759	EPA 7470	732270
50343776003	MW-24D	EPA 7470	731759	EPA 7470	732270
50343776004	MW-25S	EPA 7470	731759	EPA 7470	732270
50343776001	MW-24S	EPA 903.1	586497		
50343776002	MW-24I	EPA 903.1	586497		
50343776003	MW-24D	EPA 903.1	586497		
50343776004	MW-25S	EPA 903.1	586497		
50343776001	MW-24S	EPA 904.0	586499		
50343776002	MW-24I	EPA 904.0	586499		
50343776003	MW-24D	EPA 904.0	586499		
50343776004	MW-25S	EPA 904.0	586499		
50343776001	MW-24S	Total Radium Calculation	592317		
50343776002	MW-24I	Total Radium Calculation	592317		
50343776003	MW-24D	Total Radium Calculation	592317		
50343776004	MW-25S	Total Radium Calculation	592317		
50343776001	MW-24S	SM 2320B	731723		
50343776002	MW-24I	SM 2320B	731723		
50343776003	MW-24D	SM 2320B	731723		
50343776004	MW-25S	SM 2320B	731723		
50343776001	MW-24S	SM 2540C	731629		
50343776002	MW-24I	SM 2540C	731629		
50343776003	MW-24D	SM 2540C	731629		
50343776004	MW-25S	SM 2540C	731629		
50343776001	MW-24S	SM 4500-H+B	732456		
50343776002	MW-24I	SM 4500-H+B	732456		
50343776003	MW-24D	SM 4500-H+B	732456		
50343776004	MW-25S	SM 4500-H+B	732456		

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### QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Eagle Valley April 2023 P1R2

Pace Project No.: 50343776

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
50343776001	MW-24S	SM 4500-S2-D	731870		
50343776002	MW-24I	SM 4500-S2-D	731870		
50343776003	MW-24D	SM 4500-S2-D	731870		
50343776004	MW-25S	SM 4500-S2-D	731870		
50343776001	MW-24S	HACH 8146	731605		
50343776002	MW-24I	HACH 8146	731605		
50343776003	MW-24D	HACH 8146	731605		
50343776004	MW-25S	HACH 8146	731605		
50343776001	MW-24S	EPA 353.2	731450		
50343776002	MW-24I	EPA 353.2	731450		
50343776003	MW-24D	EPA 353.2	731450		
50343776004	MW-25S	EPA 353.2	731450		
50343776001	MW-24S	EPA 365.1	732054	EPA 365.1	732479
50343776002	MW-24I	EPA 365.1	732054	EPA 365.1	732479
50343776003	MW-24D	EPA 365.1	732054	EPA 365.1	732479
50343776004	MW-25S	EPA 365.1	732054	EPA 365.1	732479
50343776001	MW-24S	SM 5310C	731951		
50343776002	MW-24I	SM 5310C	731951		
50343776003	MW-24D	SM 5310C	731951		
50343776004	MW-25S	SM 5310C	731951		
50343776001	MW-24S	SM 5310C	731678		
50343776002	MW-24I	SM 5310C	731678		
50343776003	MW-24D	SM 5310C	731678		
50343776004	MW-25S	SM 5310C	731678		

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**SAMPLE CONDITION UPON RECEIPT FORM**

Date/Time and Initials of person examining contents: 5/3/23 17:31 TH

- 1. Courier:  FED EX  UPS  CLIENT  PACE  USPS  OTHER
- 2. Custody Seal on Cooler/Box Present:  Yes  No  
(If yes) Seals Intact:  Yes  No (leave blank if no seals were present)
- 3. Thermometer: 1 2 3 4 5 6 A B C D E F (F)
- 4. Cooler Temperature(s): 1.7/1.7     
(Initial/Corrected) RECORD TEMPS OF ALL COOLERS RECEIVED (use Comments below to add more)

- 5. Packing Material:  Bubble Wrap  Bubble Bags  
 None  Other Ziploc
- 6. Ice Type:  Wet  Blue  None
- 7. If temp. is over 6°C or under 0°C, was the PM notified?:  Yes  No  
Cooler temp should be above freezing to 6°C

All discrepancies will be written out in the comments section below.

	Yes	No		Yes	No	N/A
USDA Regulated Soils? (HI, ID, NY, WA, OR, CA, NM, TX, OK, AR, LA, TN, AL, MS, NC, SC, GA, FL, or Puerto Rico)		<input checked="" type="checkbox"/>	All containers needing acid/base preservation have been pH CHECKED?: Exceptions: VOA, coliform, LLHg, O&G, RAD CHEM, and any container with a septum cap or preserved with HCl.	<input checked="" type="checkbox"/>		
Short Hold Time Analysis (48 hours or less)? Analysis: <u>NO2/NO3</u>	<input checked="" type="checkbox"/>		Circle: <u>HNO3 (&lt;2)</u> <u>H2SO4 (&lt;2)</u> NaOH (>10) <u>NaOH/ZnAc (&gt;9)</u> Any non-conformance to pH recommendations will be noted on the container count form	<input checked="" type="checkbox"/>		
Time 5035A TC placed in Freezer or Short Holds To Lab	Time:			<u>Present</u>	<u>Absent</u>	<u>N/A</u>
Rush TAT Requested (4 days or less):	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Residual Chlorine Check (SVOC 625 Pest/PCB 608)		<input checked="" type="checkbox"/>	
Custody Signatures Present?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Residual Chlorine Check (Total/Amenable/Free Cyanide)			<input checked="" type="checkbox"/>
Containers Intact?:	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Headspace Wisconsin Sulfide?			<input checked="" type="checkbox"/>
Sample Label (IDs/Dates/Times) Match COC?: Except TCs, which only require sample ID	<input checked="" type="checkbox"/>		Headspace in VOA Vials (>6mm): See Container Count form for details	<u>Present</u>	<u>Absent</u>	<u>No VOA Vials Sent</u>
Extra labels on Terracore Vials? (soils only)			Trip Blank Present?			<input checked="" type="checkbox"/>
			Trip Blank Custody Seals?:			<input checked="" type="checkbox"/>

COMMENTS:

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July 19, 2023

Mr. Mark Breting  
ATC Group Services  
7988 Centerpoint Drive  
Suite 100  
Indianapolis, IN 46256

RE: Project: Eagle Valley April 2023 P1R1  
Pace Project No.: 50343777

Dear Mr. Breting:

Enclosed are the analytical results for sample(s) received by the laboratory on May 03, 2023. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

The test results provided in this final report were generated by each of the following laboratories within the Pace Network:

- Pace Analytical Services - Indianapolis
- Pace Analytical Services - Greensburg

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Will Statz  
will.statz@pacelabs.com  
(317)228-3105  
Project Manager

Enclosures

cc: Mohammed Bazlamit, Atlas  
Mr. Robert Miller, Haley & Aldrich



## REPORT OF LABORATORY ANALYSIS

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### CERTIFICATIONS

Project: Eagle Valley April 2023 P1R1

Pace Project No.: 50343777

#### Pace Analytical Services Pennsylvania

1638 Roseytown Rd Suites 2,3&4, Greensburg, PA 15601  
 ANAB DOD-ELAP Rad Accreditation #: L2417  
 ANABISO/IEC 17025:2017 Rad Cert#: L24170  
 Alabama Certification #: 41590  
 Arizona Certification #: AZ0734  
 Arkansas Certification  
 California Certification #: 2950  
 Colorado Certification #: PA01547  
 Connecticut Certification #: PH-0694  
 EPA Region 4 DW Rad  
 Florida/TNI Certification #: E87683  
 Georgia Certification #: C040  
 Guam Certification  
 Hawaii Certification  
 Idaho Certification  
 Illinois Certification  
 Indiana Certification  
 Iowa Certification #: 391  
 Kansas Certification #: E-10358  
 Kentucky Certification #: KY90133  
 KY WW Permit #: KY0098221  
 KY WW Permit #: KY0000221  
 Louisiana DHH/TNI Certification #: LA010  
 Louisiana DEQ/TNI Certification #: 04086  
 Maine Certification #: 2023021  
 Maryland Certification #: 308  
 Massachusetts Certification #: M-PA1457  
 Michigan/PADEP Certification #: 9991

Missouri Certification #: 235  
 Montana Certification #: Cert0082  
 Nebraska Certification #: NE-OS-29-14  
 Nevada Certification #: PA014572023-03  
 New Hampshire/TNI Certification #: 297622  
 New Jersey/TNI Certification #: PA051  
 New Mexico Certification #: PA01457  
 New York/TNI Certification #: 10888  
 North Carolina Certification #: 42706  
 North Dakota Certification #: R-190  
 Ohio EPA Rad Approval: #41249  
 Oregon/TNI Certification #: PA200002-015  
 Pennsylvania/TNI Certification #: 65-00282  
 Puerto Rico Certification #: PA01457  
 Rhode Island Certification #: 65-00282  
 South Dakota Certification  
 Tennessee Certification #: TN02867  
 Texas/TNI Certification #: T104704188-22-18  
 Utah/TNI Certification #: PA014572223-14  
 USDA Soil Permit #: 525-23-67-77263  
 Vermont Dept. of Health: ID# VT-0282  
 Virgin Island/PADEP Certification  
 Virginia/VELAP Certification #: 460198  
 Washington Certification #: C868  
 West Virginia DEP Certification #: 143  
 West Virginia DHHR Certification #: 9964C  
 Wisconsin Approve List for Rad

#### Pace Analytical Services Indianapolis

7726 Moller Road, Indianapolis, IN 46268  
 Illinois Accreditation #: 200074  
 Indiana Drinking Water Laboratory #: C-49-06  
 Kansas/TNI Certification #: E-10177  
 Kentucky UST Agency Interest #: 80226  
 Kentucky WW Laboratory ID #: 98019  
 Michigan Drinking Water Laboratory #9050

Ohio VAP Certified Laboratory #: CL0065  
 Oklahoma Laboratory #: 9204  
 Texas Certification #: T104704355  
 Wisconsin Laboratory #: 999788130  
 USDA Foreign Soil Permit #: 525-23-13-23119  
 USDA Compliance Agreement #: IN-SL-22-001

### REPORT OF LABORATORY ANALYSIS

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### SAMPLE SUMMARY

Project: Eagle Valley April 2023 P1R1

Pace Project No.: 50343777

Lab ID	Sample ID	Matrix	Date Collected	Date Received
50343777001	MW-11D	Water	05/03/23 11:08	05/03/23 16:10
50343777002	FB-2	Water	05/03/23 12:15	05/03/23 16:10
50343777003	MW-7S	Water	05/03/23 13:28	05/03/23 16:10
50343777004	MW-8S	Water	05/03/23 14:48	05/03/23 16:10

### REPORT OF LABORATORY ANALYSIS

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### SAMPLE ANALYTE COUNT

Project: Eagle Valley April 2023 P1R1

Pace Project No.: 50343777

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory		
50343777001	MW-11D	EPA 9056	ADM	3	PASI-I		
		EPA 6010	MTM	10	PASI-I		
		EPA 6010	DJS	2	PASI-I		
		EPA 6020	DMT	11	PASI-I		
		EPA 7470	EAE	1	PASI-I		
		EPA 903.1	CLM	1	PASI-PA		
		EPA 904.0	JJS1	1	PASI-PA		
		Total Radium Calculation	JAL	1	PASI-PA		
		SM 2320B	DAW	3	PASI-I		
		SM 2540C	TRK	1	PASI-I		
		SM 4500-H+B	BMS	1	PASI-I		
		SM 4500-S2-D	BEP	1	PASI-I		
		HACH 8146	BEP	1	PASI-I		
		EPA 353.2	ZM	2	PASI-I		
		EPA 365.1	YAM	1	PASI-I		
		SM 5310C	ATS	1	PASI-I		
		SM 5310C	ATS	1	PASI-I		
		50343777002	FB-2	EPA 9056	ADM	3	PASI-I
				EPA 6010	MTM	10	PASI-I
EPA 6020	DMT			11	PASI-I		
EPA 7470	EAE			1	PASI-I		
EPA 903.1	CLM			1	PASI-PA		
EPA 904.0	JJS1			1	PASI-PA		
Total Radium Calculation	JAL			1	PASI-PA		
SM 2320B	DAW			3	PASI-I		
SM 2540C	TRK			1	PASI-I		
SM 4500-H+B	BMS			1	PASI-I		
SM 4500-S2-D	BEP			1	PASI-I		
HACH 8146	BEP			1	PASI-I		
EPA 353.2	ZM			2	PASI-I		
EPA 365.1	YAM			1	PASI-I		
SM 5310C	ATS			1	PASI-I		
50343777003	MW-7S			EPA 9056	ADM	3	PASI-I
				EPA 6010	MTM	10	PASI-I
				EPA 6010	DJS	2	PASI-I
				EPA 6020	DMT	11	PASI-I
		EPA 7470	EAE	1	PASI-I		

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**SAMPLE ANALYTE COUNT**

Project: Eagle Valley April 2023 P1R1

Pace Project No.: 50343777

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
		EPA 903.1	CLM	1	PASI-PA
		EPA 904.0	JJS1	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
		SM 2320B	DAW	3	PASI-I
		SM 2540C	TRK	1	PASI-I
		SM 4500-H+B	BMS	1	PASI-I
		SM 4500-S2-D	BEP	1	PASI-I
		HACH 8146	BEP	1	PASI-I
		EPA 353.2	ZM	2	PASI-I
		EPA 365.1	YAM	1	PASI-I
		SM 5310C	ATS	1	PASI-I
		SM 5310C	ATS	1	PASI-I
50343777004	MW-8S	EPA 9056	ADM	3	PASI-I
		EPA 6010	MTM	10	PASI-I
		EPA 6010	DJS	2	PASI-I
		EPA 6020	DMT	11	PASI-I
		EPA 7470	EAE	1	PASI-I
		EPA 903.1	CLM	1	PASI-PA
		EPA 904.0	JJS1	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
		SM 2320B	DAW	3	PASI-I
		SM 2540C	TRK	1	PASI-I
		SM 4500-H+B	BMS	1	PASI-I
		SM 4500-S2-D	BEP	1	PASI-I
		HACH 8146	BEP	1	PASI-I
		EPA 353.2	ZM	2	PASI-I
		EPA 365.1	YAM	1	PASI-I
		SM 5310C	ATS	1	PASI-I
		SM 5310C	ATS	1	PASI-I

PASI-I = Pace Analytical Services - Indianapolis  
 PASI-PA = Pace Analytical Services - Greensburg

**REPORT OF LABORATORY ANALYSIS**

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### SUMMARY OF DETECTION

Project: Eagle Valley April 2023 P1R1

Pace Project No.: 50343777

Lab Sample ID	Client Sample ID	Result	Units	Report Limit	Analyzed	Qualifiers
Method	Parameters					
<b>50343777001</b>	<b>MW-11D</b>					
EPA 9056	Chloride	83.0	mg/L	2.5	05/07/23 12:22	
EPA 9056	Fluoride	0.28	mg/L	0.10	05/07/23 12:04	
EPA 9056	Sulfate	75.4	mg/L	2.5	05/07/23 12:22	
EPA 6010	Aluminum	3290	ug/L	200	05/05/23 17:59	
EPA 6010	Boron	1380	ug/L	100	05/05/23 17:59	
EPA 6010	Calcium	71000	ug/L	1000	05/05/23 17:59	
EPA 6010	Iron	3760	ug/L	100	05/05/23 17:59	
EPA 6010	Lithium	79.2	ug/L	20.0	05/05/23 17:59	
EPA 6010	Magnesium	19900	ug/L	1000	05/05/23 17:59	
EPA 6010	Manganese	303	ug/L	10.0	05/05/23 17:59	
EPA 6010	Potassium	8060	ug/L	1000	05/05/23 17:59	
EPA 6010	Silica	23300	ug/L	450	05/05/23 17:59	N2
EPA 6010	Sodium	74600	ug/L	1000	05/05/23 17:59	
EPA 6010	Manganese, Dissolved	245	ug/L	10.0	05/09/23 09:15	
EPA 6010	Molybdenum, Dissolved	156	ug/L	10.0	05/09/23 09:15	
EPA 6020	Arsenic	5.4	ug/L	1.0	05/09/23 13:06	
EPA 6020	Barium	64.5	ug/L	1.0	05/09/23 13:06	
EPA 6020	Cobalt	1.4	ug/L	1.0	05/09/23 13:06	
EPA 6020	Molybdenum	149	ug/L	10.0	05/09/23 13:06	
EPA 903.1	Radium-226	0.571 ± 0.659 (1.07) C:NA T:95%	pCi/L		05/23/23 15:28	
EPA 904.0	Radium-228	1.11 ± 0.579 (1.02) C:71% T:76%	pCi/L		05/19/23 14:26	
Total Radium Calculation	Total Radium	1.68 ± 1.24 (2.09)	pCi/L		05/30/23 16:18	
SM 2320B	Alkalinity, Total as CaCO3	253	mg/L	10.0	05/04/23 20:17	
SM 2320B	Alkalinity, Bicarbonate (CaCO3)	253	mg/L	10.0	05/04/23 20:17	
SM 2540C	Total Dissolved Solids	450	mg/L	10.0	05/05/23 08:25	
SM 4500-H+B	pH at 25 Degrees C	7.7	Std. Units	0.10	05/09/23 15:57	H3
SM 4500-S2-D	Sulfide	0.097J	mg/L	0.10	05/05/23 12:16	
EPA 365.1	Phosphate as P04	0.57	mg/L	0.30	05/09/23 12:23	
SM 5310C	Dissolved Organic Carbon	2.4	mg/L	1.0	05/06/23 01:12	
<b>50343777002</b>	<b>FB-2</b>					
EPA 903.1	Radium-226	0.274 ± 0.331 (0.504) C:NA T:95%	pCi/L		05/23/23 15:28	
EPA 904.0	Radium-228	0.226 ± 0.375 (0.816) C:74% T:81%	pCi/L		05/19/23 14:26	
Total Radium Calculation	Total Radium	0.500 ± 0.706 (1.32)	pCi/L		05/30/23 16:18	

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### SUMMARY OF DETECTION

Project: Eagle Valley April 2023 P1R1

Pace Project No.: 50343777

Lab Sample ID	Client Sample ID	Result	Units	Report Limit	Analyzed	Qualifiers
Method	Parameters					
<b>50343777002</b>	<b>FB-2</b>					
SM 4500-H+B	pH at 25 Degrees C	6.1	Std. Units	0.10	05/09/23 15:59	H3
<b>50343777003</b>	<b>MW-7S</b>					
EPA 9056	Chloride	120	mg/L	2.5	05/07/23 14:16	
EPA 9056	Sulfate	439	mg/L	2.5	05/07/23 14:16	
EPA 6010	Aluminum	1170	ug/L	200	05/05/23 18:13	
EPA 6010	Boron	2420	ug/L	100	05/05/23 18:13	
EPA 6010	Calcium	251000	ug/L	2000	05/05/23 19:40	
EPA 6010	Iron	1660	ug/L	100	05/05/23 18:13	
EPA 6010	Lithium	37.6	ug/L	20.0	05/05/23 18:13	
EPA 6010	Magnesium	56400	ug/L	1000	05/05/23 18:13	
EPA 6010	Manganese	577	ug/L	10.0	05/05/23 18:13	
EPA 6010	Potassium	6600	ug/L	1000	05/05/23 18:13	
EPA 6010	Silica	19600	ug/L	450	05/05/23 18:13	N2
EPA 6010	Sodium	106000	ug/L	1000	05/05/23 18:13	
EPA 6010	Manganese, Dissolved	409	ug/L	10.0	05/09/23 09:18	
EPA 6010	Molybdenum, Dissolved	29.2	ug/L	10.0	05/09/23 09:18	
EPA 6020	Antimony	2.9	ug/L	1.0	05/09/23 13:13	
EPA 6020	Barium	63.8	ug/L	1.0	05/09/23 13:13	
EPA 6020	Cobalt	1.5	ug/L	1.0	05/09/23 13:13	
EPA 6020	Molybdenum	27.8	ug/L	10.0	05/09/23 13:13	
EPA 6020	Selenium	22.5	ug/L	1.0	05/09/23 13:13	
EPA 903.1	Radium-226	0.363 ± 0.294 (0.164)	pCi/L		05/23/23 15:28	
EPA 904.0	Radium-228	0.229 ± 0.387 (0.843)	pCi/L		05/19/23 14:26	
		C:NA T:93%				
		C:72%				
		T:83%				
Total Radium Calculation	Total Radium	0.592 ± 0.681 (1.01)	pCi/L		05/30/23 16:18	
SM 2320B	Alkalinity, Total as CaCO3	437	mg/L	10.0	05/04/23 20:17	
SM 2320B	Alkalinity,Bicarbonate (CaCO3)	437	mg/L	10.0	05/04/23 20:17	
SM 2540C	Total Dissolved Solids	1240	mg/L	20.0	05/05/23 08:25	
SM 4500-H+B	pH at 25 Degrees C	7.2	Std. Units	0.10	05/09/23 16:01	H3
EPA 353.2	Nitrogen, Nitrate	3.2	mg/L	0.10	05/03/23 19:34	
EPA 365.1	Phosphate as P04	0.27	mg/L	0.15	05/09/23 12:24	
SM 5310C	Total Organic Carbon	1.6	mg/L	1.0	05/09/23 01:11	
<b>50343777004</b>	<b>MW-8S</b>					
EPA 9056	Chloride	132	mg/L	25.0	05/07/23 12:57	
EPA 9056	Fluoride	0.30	mg/L	0.10	05/07/23 12:39	
EPA 9056	Sulfate	314	mg/L	25.0	05/07/23 12:57	
EPA 6010	Boron	1320	ug/L	100	05/05/23 18:06	
EPA 6010	Calcium	151000	ug/L	1000	05/05/23 18:06	
EPA 6010	Iron	100	ug/L	100	05/05/23 18:06	
EPA 6010	Lithium	46.4	ug/L	20.0	05/05/23 18:06	

### REPORT OF LABORATORY ANALYSIS

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### SUMMARY OF DETECTION

Project: Eagle Valley April 2023 P1R1

Pace Project No.: 50343777

Lab Sample ID Method	Client Sample ID Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
<b>50343777004</b>	<b>MW-8S</b>					
EPA 6010	Magnesium	36400	ug/L	1000	05/05/23 18:06	
EPA 6010	Manganese	12.1	ug/L	10.0	05/05/23 18:06	
EPA 6010	Potassium	7440	ug/L	1000	05/05/23 18:06	
EPA 6010	Silica	17500	ug/L	450	05/05/23 18:06	N2
EPA 6010	Sodium	118000	ug/L	1000	05/05/23 18:06	
EPA 6010	Molybdenum, Dissolved	64.2	ug/L	10.0	05/09/23 09:20	
EPA 6020	Arsenic	2.6	ug/L	1.0	05/09/23 13:16	
EPA 6020	Barium	111	ug/L	1.0	05/09/23 13:16	
EPA 6020	Molybdenum	69.3	ug/L	10.0	05/09/23 13:16	
EPA 903.1	Radium-226	-0.137 ± 0.313 (0.738) C:NA T:91%	pCi/L		05/23/23 15:28	
EPA 904.0	Radium-228	0.220 ± 0.321 (0.689) C:75% T:89%	pCi/L		05/19/23 14:25	
Total Radium Calculation	Total Radium	0.220 ± 0.634 (1.43)	pCi/L		05/30/23 16:18	
SM 2320B	Alkalinity, Total as CaCO3	249	mg/L	10.0	05/04/23 20:17	
SM 2320B	Alkalinity,Bicarbonate (CaCO3)	249	mg/L	10.0	05/04/23 20:17	
SM 2540C	Total Dissolved Solids	932	mg/L	20.0	05/05/23 08:26	
SM 4500-H+B	pH at 25 Degrees C	7.7	Std. Units	0.10	05/09/23 16:18	H3
EPA 365.1	Phosphate as P04	0.49	mg/L	0.15	05/09/23 12:25	
SM 5310C	Total Organic Carbon	1.9	mg/L	1.0	05/09/23 01:47	
SM 5310C	Dissolved Organic Carbon	2.0	mg/L	1.0	05/06/23 01:36	

### REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: Eagle Valley April 2023 P1R1

Pace Project No.: 50343777

Sample: MW-11D		Lab ID: 50343777001		Collected: 05/03/23 11:08		Received: 05/03/23 16:10		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>9056 IC Anions</b>		Analytical Method: EPA 9056 Pace Analytical Services - Indianapolis							
Chloride	83.0	mg/L	2.5	0.67	10		05/07/23 12:22	16887-00-6	
Fluoride	0.28	mg/L	0.10	0.017	1		05/07/23 12:04	16984-48-8	
Sulfate	75.4	mg/L	2.5	0.85	10		05/07/23 12:22	14808-79-8	
<b>6010 MET ICP</b>		Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis							
Aluminum	3290	ug/L	200	55.4	1	05/05/23 09:10	05/05/23 17:59	7429-90-5	
Boron	1380	ug/L	100	37.6	1	05/05/23 09:10	05/05/23 17:59	7440-42-8	
Calcium	71000	ug/L	1000	163	1	05/05/23 09:10	05/05/23 17:59	7440-70-2	
Iron	3760	ug/L	100	48.8	1	05/05/23 09:10	05/05/23 17:59	7439-89-6	
Lithium	79.2	ug/L	20.0	6.2	1	05/05/23 09:10	05/05/23 17:59	7439-93-2	
Magnesium	19900	ug/L	1000	71.8	1	05/05/23 09:10	05/05/23 17:59	7439-95-4	
Manganese	303	ug/L	10.0	2.5	1	05/05/23 09:10	05/05/23 17:59	7439-96-5	
Potassium	8060	ug/L	1000	281	1	05/05/23 09:10	05/05/23 17:59	7440-09-7	
Silica	23300	ug/L	450		1	05/05/23 09:10	05/05/23 17:59	7631-86-9	N2
Sodium	74600	ug/L	1000	214	1	05/05/23 09:10	05/05/23 17:59	7440-23-5	
<b>6010 MET ICP, Dissolved</b>		Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis							
Manganese, Dissolved	245	ug/L	10.0	5.4	1	05/07/23 15:50	05/09/23 09:15	7439-96-5	
Molybdenum, Dissolved	156	ug/L	10.0	2.0	1	05/07/23 15:50	05/09/23 09:15	7439-98-7	
<b>6020 MET ICPMS</b>		Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis							
Antimony	ND	ug/L	1.0	0.080	1	05/05/23 07:16	05/09/23 13:06	7440-36-0	
Arsenic	5.4	ug/L	1.0	0.12	1	05/05/23 07:16	05/09/23 13:06	7440-38-2	
Barium	64.5	ug/L	1.0	0.065	1	05/05/23 07:16	05/09/23 13:06	7440-39-3	
Beryllium	ND	ug/L	0.20	0.026	1	05/05/23 07:16	05/09/23 13:06	7440-41-7	
Cadmium	ND	ug/L	2.0	0.016	1	05/05/23 07:16	05/09/23 13:06	7440-43-9	
Chromium	ND	ug/L	10.0	0.18	1	05/05/23 07:16	05/09/23 13:06	7440-47-3	
Cobalt	1.4	ug/L	1.0	0.071	1	05/05/23 07:16	05/09/23 13:06	7440-48-4	
Lead	ND	ug/L	10.0	0.068	1	05/05/23 07:16	05/09/23 13:06	7439-92-1	
Molybdenum	149	ug/L	10.0	0.074	1	05/05/23 07:16	05/09/23 13:06	7439-98-7	
Selenium	ND	ug/L	1.0	0.19	1	05/05/23 07:16	05/09/23 13:06	7782-49-2	
Thallium	ND	ug/L	1.0	0.060	1	05/05/23 07:16	05/09/23 13:06	7440-28-0	
<b>7470 Mercury</b>		Analytical Method: EPA 7470 Preparation Method: EPA 7470 Pace Analytical Services - Indianapolis							
Mercury	ND	ug/L	0.20	0.091	1	05/08/23 11:15	05/08/23 15:48	7439-97-6	
<b>2320B Alkalinity</b>		Analytical Method: SM 2320B Pace Analytical Services - Indianapolis							
Alkalinity, Total as CaCO3	253	mg/L	10.0	10.0	1		05/04/23 20:17		
Alkalinity, Bicarbonate (CaCO3)	253	mg/L	10.0	10.0	1		05/04/23 20:17		

## REPORT OF LABORATORY ANALYSIS

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**ANALYTICAL RESULTS**

Project: Eagle Valley April 2023 P1R1  
 Pace Project No.: 50343777

Sample: MW-11D		Lab ID: 50343777001		Collected: 05/03/23 11:08	Received: 05/03/23 16:10	Matrix: Water			
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>2320B Alkalinity</b>									
Analytical Method: SM 2320B Pace Analytical Services - Indianapolis									
Alkalinity, Carbonate (CaCO3)	ND	mg/L	10.0	10.0	1		05/04/23 20:17		
<b>2540C Total Dissolved Solids</b>									
Analytical Method: SM 2540C Pace Analytical Services - Indianapolis									
Total Dissolved Solids	<b>450</b>	mg/L	10.0	10.0	1		05/05/23 08:25		
<b>4500H+ pH, Electrometric</b>									
Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis									
pH at 25 Degrees C	<b>7.7</b>	Std. Units	0.10	0.10	1		05/09/23 15:57		H3
<b>4500S2D Sulfide Water</b>									
Analytical Method: SM 4500-S2-D Pace Analytical Services - Indianapolis									
Sulfide	<b>0.097J</b>	mg/L	0.10	0.025	1		05/05/23 12:16	18496-25-8	
<b>Iron, Ferrous</b>									
Analytical Method: HACH 8146 Pace Analytical Services - Indianapolis									
Iron, Ferrous	ND	mg/L	0.20	0.035	1		05/04/23 15:18	15438-31-0	H3,N2
<b>353.2 Nitrogen, NO2/NO3 unpres</b>									
Analytical Method: EPA 353.2 Pace Analytical Services - Indianapolis									
Nitrogen, Nitrate	ND	mg/L	0.10	0.011	1		05/03/23 19:31	14797-55-8	
Nitrogen, Nitrite	ND	mg/L	0.10	0.0040	1		05/03/23 19:31	14797-65-0	
<b>365.1 Total Phosphorus</b>									
Analytical Method: EPA 365.1 Preparation Method: EPA 365.1 Pace Analytical Services - Indianapolis									
Phosphate as P04	<b>0.57</b>	mg/L	0.30	0.30	1	05/06/23 14:00	05/09/23 12:23		
<b>5310C TOC</b>									
Analytical Method: SM 5310C Pace Analytical Services - Indianapolis									
Total Organic Carbon	ND	mg/L	4.0	0.94	4		05/09/23 00:48	7440-44-0	D3
<b>5310C Dissolved Organic Carbon</b>									
Analytical Method: SM 5310C Pace Analytical Services - Indianapolis									
Dissolved Organic Carbon	<b>2.4</b>	mg/L	1.0	0.24	1		05/06/23 01:12		

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**ANALYTICAL RESULTS**

Project: Eagle Valley April 2023 P1R1  
 Pace Project No.: 50343777

**Sample: FB-2**      **Lab ID: 50343777002**      Collected: 05/03/23 12:15      Received: 05/03/23 16:10      Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>9056 IC Anions</b>									
Analytical Method: EPA 9056 Pace Analytical Services - Indianapolis									
Chloride	ND	mg/L	0.25	0.067	1		05/07/23 13:44	16887-00-6	
Fluoride	ND	mg/L	0.10	0.017	1		05/07/23 13:44	16984-48-8	
Sulfate	ND	mg/L	0.25	0.085	1		05/07/23 13:44	14808-79-8	
<b>6010 MET ICP</b>									
Analytical Method: EPA 6010      Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis									
Aluminum	ND	ug/L	200	55.4	1	05/05/23 09:10	05/05/23 18:02	7429-90-5	
Boron	ND	ug/L	100	37.6	1	05/05/23 09:10	05/05/23 18:02	7440-42-8	
Calcium	ND	ug/L	1000	163	1	05/05/23 09:10	05/05/23 18:02	7440-70-2	
Iron	ND	ug/L	100	48.8	1	05/05/23 09:10	05/05/23 18:02	7439-89-6	
Lithium	ND	ug/L	20.0	6.2	1	05/05/23 09:10	05/05/23 18:02	7439-93-2	
Magnesium	ND	ug/L	1000	71.8	1	05/05/23 09:10	05/05/23 18:02	7439-95-4	
Manganese	ND	ug/L	10.0	2.5	1	05/05/23 09:10	05/05/23 18:02	7439-96-5	
Potassium	ND	ug/L	1000	281	1	05/05/23 09:10	05/05/23 18:02	7440-09-7	
Silica	ND	ug/L	450		1	05/05/23 09:10	05/05/23 18:02	7631-86-9	N2
Sodium	ND	ug/L	1000	214	1	05/05/23 09:10	05/05/23 18:02	7440-23-5	
<b>6020 MET ICPMS</b>									
Analytical Method: EPA 6020      Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis									
Antimony	ND	ug/L	1.0	0.080	1	05/05/23 07:16	05/09/23 13:09	7440-36-0	
Arsenic	ND	ug/L	1.0	0.12	1	05/05/23 07:16	05/09/23 13:09	7440-38-2	
Barium	ND	ug/L	1.0	0.065	1	05/05/23 07:16	05/09/23 13:09	7440-39-3	
Beryllium	ND	ug/L	0.20	0.026	1	05/05/23 07:16	05/09/23 13:09	7440-41-7	
Cadmium	ND	ug/L	2.0	0.016	1	05/05/23 07:16	05/09/23 13:09	7440-43-9	
Chromium	ND	ug/L	10.0	0.18	1	05/05/23 07:16	05/09/23 13:09	7440-47-3	
Cobalt	ND	ug/L	1.0	0.071	1	05/05/23 07:16	05/09/23 13:09	7440-48-4	
Lead	ND	ug/L	10.0	0.068	1	05/05/23 07:16	05/09/23 13:09	7439-92-1	
Molybdenum	ND	ug/L	10.0	0.074	1	05/05/23 07:16	05/09/23 13:09	7439-98-7	
Selenium	ND	ug/L	1.0	0.19	1	05/05/23 07:16	05/09/23 13:09	7782-49-2	
Thallium	ND	ug/L	1.0	0.060	1	05/05/23 07:16	05/09/23 13:09	7440-28-0	
<b>7470 Mercury</b>									
Analytical Method: EPA 7470      Preparation Method: EPA 7470 Pace Analytical Services - Indianapolis									
Mercury	ND	ug/L	0.20	0.091	1	05/08/23 11:15	05/08/23 15:50	7439-97-6	
<b>2320B Alkalinity</b>									
Analytical Method: SM 2320B Pace Analytical Services - Indianapolis									
Alkalinity, Total as CaCO3	ND	mg/L	10.0	10.0	1		05/04/23 20:17		
Alkalinity,Bicarbonate (CaCO3)	ND	mg/L	10.0	10.0	1		05/04/23 20:17		
Alkalinity,Carbonate (CaCO3)	ND	mg/L	10.0	10.0	1		05/04/23 20:17		
<b>2540C Total Dissolved Solids</b>									
Analytical Method: SM 2540C Pace Analytical Services - Indianapolis									
Total Dissolved Solids	ND	mg/L	10.0	10.0	1		05/05/23 08:25		PL

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### ANALYTICAL RESULTS

Project: Eagle Valley April 2023 P1R1

Pace Project No.: 50343777

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>Sample: FB-2</b>									
<b>Lab ID: 50343777002</b>									
Collected: 05/03/23 12:15 Received: 05/03/23 16:10 Matrix: Water									
Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis									
pH at 25 Degrees C	6.1	Std. Units	0.10	0.10	1		05/09/23 15:59		H3
Analytical Method: SM 4500-S2-D Pace Analytical Services - Indianapolis									
Sulfide	ND	mg/L	0.10	0.025	1		05/05/23 12:16	18496-25-8	
Analytical Method: HACH 8146 Pace Analytical Services - Indianapolis									
Iron, Ferrous	ND	mg/L	0.20	0.035	1		05/04/23 15:18	15438-31-0	H3,N2
Analytical Method: EPA 353.2 Pace Analytical Services - Indianapolis									
Nitrogen, Nitrate	ND	mg/L	0.10	0.011	1		05/03/23 19:33	14797-55-8	
Nitrogen, Nitrite	ND	mg/L	0.10	0.0040	1		05/03/23 19:33	14797-65-0	
Analytical Method: EPA 365.1 Preparation Method: EPA 365.1 Pace Analytical Services - Indianapolis									
Phosphate as P04	ND	mg/L	0.15	0.15	1	05/06/23 14:00	05/09/23 12:23		
Analytical Method: SM 5310C Pace Analytical Services - Indianapolis									
Total Organic Carbon	ND	mg/L	1.0	0.24	1		05/09/23 01:01	7440-44-0	

### REPORT OF LABORATORY ANALYSIS

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**ANALYTICAL RESULTS**

Project: Eagle Valley April 2023 P1R1  
 Pace Project No.: 50343777

**Sample: MW-7S**      **Lab ID: 50343777003**      Collected: 05/03/23 13:28      Received: 05/03/23 16:10      Matrix: Water

Parameters	Results	Units	Report			Prepared	Analyzed	CAS No.	Qual
			Limit	MDL	DF				
<b>9056 IC Anions</b>									
Analytical Method: EPA 9056									
Pace Analytical Services - Indianapolis									
Chloride	120	mg/L	2.5	0.67	10		05/07/23 14:16	16887-00-6	
Fluoride	ND	mg/L	0.10	0.017	1		05/07/23 14:00	16984-48-8	
Sulfate	439	mg/L	2.5	0.85	10		05/07/23 14:16	14808-79-8	
<b>6010 MET ICP</b>									
Analytical Method: EPA 6010      Preparation Method: EPA 3010									
Pace Analytical Services - Indianapolis									
Aluminum	1170	ug/L	200	55.4	1	05/05/23 09:10	05/05/23 18:13	7429-90-5	
Boron	2420	ug/L	100	37.6	1	05/05/23 09:10	05/05/23 18:13	7440-42-8	
Calcium	251000	ug/L	2000	326	2	05/05/23 09:10	05/05/23 19:40	7440-70-2	
Iron	1660	ug/L	100	48.8	1	05/05/23 09:10	05/05/23 18:13	7439-89-6	
Lithium	37.6	ug/L	20.0	6.2	1	05/05/23 09:10	05/05/23 18:13	7439-93-2	
Magnesium	56400	ug/L	1000	71.8	1	05/05/23 09:10	05/05/23 18:13	7439-95-4	
Manganese	577	ug/L	10.0	2.5	1	05/05/23 09:10	05/05/23 18:13	7439-96-5	
Potassium	6600	ug/L	1000	281	1	05/05/23 09:10	05/05/23 18:13	7440-09-7	
Silica	19600	ug/L	450		1	05/05/23 09:10	05/05/23 18:13	7631-86-9	N2
Sodium	106000	ug/L	1000	214	1	05/05/23 09:10	05/05/23 18:13	7440-23-5	
<b>6010 MET ICP, Dissolved</b>									
Analytical Method: EPA 6010      Preparation Method: EPA 3010									
Pace Analytical Services - Indianapolis									
Manganese, Dissolved	409	ug/L	10.0	5.4	1	05/07/23 15:50	05/09/23 09:18	7439-96-5	
Molybdenum, Dissolved	29.2	ug/L	10.0	2.0	1	05/07/23 15:50	05/09/23 09:18	7439-98-7	
<b>6020 MET ICPMS</b>									
Analytical Method: EPA 6020      Preparation Method: EPA 200.2									
Pace Analytical Services - Indianapolis									
Antimony	2.9	ug/L	1.0	0.080	1	05/05/23 07:16	05/09/23 13:13	7440-36-0	
Arsenic	ND	ug/L	1.0	0.12	1	05/05/23 07:16	05/09/23 13:13	7440-38-2	
Barium	63.8	ug/L	1.0	0.065	1	05/05/23 07:16	05/09/23 13:13	7440-39-3	
Beryllium	ND	ug/L	0.20	0.026	1	05/05/23 07:16	05/09/23 13:13	7440-41-7	
Cadmium	ND	ug/L	2.0	0.016	1	05/05/23 07:16	05/09/23 13:13	7440-43-9	
Chromium	ND	ug/L	10.0	0.18	1	05/05/23 07:16	05/09/23 13:13	7440-47-3	
Cobalt	1.5	ug/L	1.0	0.071	1	05/05/23 07:16	05/09/23 13:13	7440-48-4	
Lead	ND	ug/L	10.0	0.068	1	05/05/23 07:16	05/09/23 13:13	7439-92-1	
Molybdenum	27.8	ug/L	10.0	0.074	1	05/05/23 07:16	05/09/23 13:13	7439-98-7	
Selenium	22.5	ug/L	1.0	0.19	1	05/05/23 07:16	05/09/23 13:13	7782-49-2	
Thallium	ND	ug/L	1.0	0.060	1	05/05/23 07:16	05/09/23 13:13	7440-28-0	
<b>7470 Mercury</b>									
Analytical Method: EPA 7470      Preparation Method: EPA 7470									
Pace Analytical Services - Indianapolis									
Mercury	ND	ug/L	0.20	0.091	1	05/08/23 11:15	05/08/23 15:53	7439-97-6	
<b>2320B Alkalinity</b>									
Analytical Method: SM 2320B									
Pace Analytical Services - Indianapolis									
Alkalinity, Total as CaCO3	437	mg/L	10.0	10.0	1		05/04/23 20:17		
Alkalinity,Bicarbonate (CaCO3)	437	mg/L	10.0	10.0	1		05/04/23 20:17		

**REPORT OF LABORATORY ANALYSIS**

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### ANALYTICAL RESULTS

Project: Eagle Valley April 2023 P1R1  
Pace Project No.: 50343777

Sample: MW-7S		Lab ID: 50343777003		Collected: 05/03/23 13:28	Received: 05/03/23 16:10	Matrix: Water			
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>2320B Alkalinity</b>		Analytical Method: SM 2320B Pace Analytical Services - Indianapolis							
Alkalinity, Carbonate (CaCO3)	ND	mg/L	10.0	10.0	1		05/04/23 20:17		
<b>2540C Total Dissolved Solids</b>		Analytical Method: SM 2540C Pace Analytical Services - Indianapolis							
Total Dissolved Solids	1240	mg/L	20.0	20.0	1		05/05/23 08:25		
<b>4500H+ pH, Electrometric</b>		Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis							
pH at 25 Degrees C	7.2	Std. Units	0.10	0.10	1		05/09/23 16:01		H3
<b>4500S2D Sulfide Water</b>		Analytical Method: SM 4500-S2-D Pace Analytical Services - Indianapolis							
Sulfide	ND	mg/L	0.10	0.025	1		05/05/23 12:16	18496-25-8	
<b>Iron, Ferrous</b>		Analytical Method: HACH 8146 Pace Analytical Services - Indianapolis							
Iron, Ferrous	ND	mg/L	0.20	0.035	1		05/04/23 15:18	15438-31-0	H3,N2
<b>353.2 Nitrogen, NO2/NO3 unpres</b>		Analytical Method: EPA 353.2 Pace Analytical Services - Indianapolis							
Nitrogen, Nitrate	3.2	mg/L	0.10	0.011	1		05/03/23 19:34	14797-55-8	
Nitrogen, Nitrite	ND	mg/L	0.10	0.0040	1		05/03/23 19:34	14797-65-0	
<b>365.1 Total Phosphorus</b>		Analytical Method: EPA 365.1 Preparation Method: EPA 365.1 Pace Analytical Services - Indianapolis							
Phosphate as P04	0.27	mg/L	0.15	0.15	1	05/06/23 14:00	05/09/23 12:24		
<b>5310C TOC</b>		Analytical Method: SM 5310C Pace Analytical Services - Indianapolis							
Total Organic Carbon	1.6	mg/L	1.0	0.24	1		05/09/23 01:11	7440-44-0	
<b>5310C Dissolved Organic Carbon</b>		Analytical Method: SM 5310C Pace Analytical Services - Indianapolis							
Dissolved Organic Carbon	ND	mg/L	4.0	0.94	4		05/06/23 10:30		D3

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## ANALYTICAL RESULTS

Project: Eagle Valley April 2023 P1R1

Pace Project No.: 50343777

Sample: MW-8S		Lab ID: 50343777004		Collected: 05/03/23 14:48		Received: 05/03/23 16:10		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>9056 IC Anions</b>		Analytical Method: EPA 9056 Pace Analytical Services - Indianapolis							
Chloride	132	mg/L	25.0	6.7	100		05/07/23 12:57	16887-00-6	
Fluoride	0.30	mg/L	0.10	0.017	1		05/07/23 12:39	16984-48-8	
Sulfate	314	mg/L	25.0	8.5	100		05/07/23 12:57	14808-79-8	
<b>6010 MET ICP</b>		Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis							
Aluminum	ND	ug/L	200	55.4	1	05/05/23 09:10	05/05/23 18:06	7429-90-5	
Boron	1320	ug/L	100	37.6	1	05/05/23 09:10	05/05/23 18:06	7440-42-8	
Calcium	151000	ug/L	1000	163	1	05/05/23 09:10	05/05/23 18:06	7440-70-2	
Iron	100	ug/L	100	48.8	1	05/05/23 09:10	05/05/23 18:06	7439-89-6	
Lithium	46.4	ug/L	20.0	6.2	1	05/05/23 09:10	05/05/23 18:06	7439-93-2	
Magnesium	36400	ug/L	1000	71.8	1	05/05/23 09:10	05/05/23 18:06	7439-95-4	
Manganese	12.1	ug/L	10.0	2.5	1	05/05/23 09:10	05/05/23 18:06	7439-96-5	
Potassium	7440	ug/L	1000	281	1	05/05/23 09:10	05/05/23 18:06	7440-09-7	
Silica	17500	ug/L	450		1	05/05/23 09:10	05/05/23 18:06	7631-86-9	N2
Sodium	118000	ug/L	1000	214	1	05/05/23 09:10	05/05/23 18:06	7440-23-5	
<b>6010 MET ICP, Dissolved</b>		Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis							
Manganese, Dissolved	ND	ug/L	10.0	5.4	1	05/07/23 15:50	05/09/23 09:20	7439-96-5	
Molybdenum, Dissolved	64.2	ug/L	10.0	2.0	1	05/07/23 15:50	05/09/23 09:20	7439-98-7	
<b>6020 MET ICPMS</b>		Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis							
Antimony	ND	ug/L	1.0	0.080	1	05/05/23 07:16	05/09/23 13:16	7440-36-0	
Arsenic	2.6	ug/L	1.0	0.12	1	05/05/23 07:16	05/09/23 13:16	7440-38-2	
Barium	111	ug/L	1.0	0.065	1	05/05/23 07:16	05/09/23 13:16	7440-39-3	
Beryllium	ND	ug/L	0.20	0.026	1	05/05/23 07:16	05/09/23 13:16	7440-41-7	
Cadmium	ND	ug/L	2.0	0.016	1	05/05/23 07:16	05/09/23 13:16	7440-43-9	
Chromium	ND	ug/L	10.0	0.18	1	05/05/23 07:16	05/09/23 13:16	7440-47-3	
Cobalt	ND	ug/L	1.0	0.071	1	05/05/23 07:16	05/09/23 13:16	7440-48-4	
Lead	ND	ug/L	10.0	0.068	1	05/05/23 07:16	05/09/23 13:16	7439-92-1	
Molybdenum	69.3	ug/L	10.0	0.074	1	05/05/23 07:16	05/09/23 13:16	7439-98-7	
Selenium	ND	ug/L	1.0	0.19	1	05/05/23 07:16	05/09/23 13:16	7782-49-2	
Thallium	ND	ug/L	1.0	0.060	1	05/05/23 07:16	05/09/23 13:16	7440-28-0	
<b>7470 Mercury</b>		Analytical Method: EPA 7470 Preparation Method: EPA 7470 Pace Analytical Services - Indianapolis							
Mercury	ND	ug/L	0.20	0.091	1	05/08/23 11:15	05/08/23 15:55	7439-97-6	
<b>2320B Alkalinity</b>		Analytical Method: SM 2320B Pace Analytical Services - Indianapolis							
Alkalinity, Total as CaCO3	249	mg/L	10.0	10.0	1		05/04/23 20:17		
Alkalinity, Bicarbonate (CaCO3)	249	mg/L	10.0	10.0	1		05/04/23 20:17		

## REPORT OF LABORATORY ANALYSIS

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**ANALYTICAL RESULTS**

Project: Eagle Valley April 2023 P1R1  
 Pace Project No.: 50343777

Sample: MW-8S		Lab ID: 50343777004		Collected: 05/03/23 14:48	Received: 05/03/23 16:10	Matrix: Water			
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>2320B Alkalinity</b>									
Analytical Method: SM 2320B Pace Analytical Services - Indianapolis									
Alkalinity, Carbonate (CaCO3)	ND	mg/L	10.0	10.0	1		05/04/23 20:17		
<b>2540C Total Dissolved Solids</b>									
Analytical Method: SM 2540C Pace Analytical Services - Indianapolis									
Total Dissolved Solids	<b>932</b>	mg/L	20.0	20.0	1		05/05/23 08:26		
<b>4500H+ pH, Electrometric</b>									
Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis									
pH at 25 Degrees C	<b>7.7</b>	Std. Units	0.10	0.10	1		05/09/23 16:18		H3
<b>4500S2D Sulfide Water</b>									
Analytical Method: SM 4500-S2-D Pace Analytical Services - Indianapolis									
Sulfide	ND	mg/L	0.10	0.025	1		05/05/23 12:16	18496-25-8	
<b>Iron, Ferrous</b>									
Analytical Method: HACH 8146 Pace Analytical Services - Indianapolis									
Iron, Ferrous	ND	mg/L	0.20	0.035	1		05/04/23 15:18	15438-31-0	H3,N2
<b>353.2 Nitrogen, NO2/NO3 unpres</b>									
Analytical Method: EPA 353.2 Pace Analytical Services - Indianapolis									
Nitrogen, Nitrate	ND	mg/L	0.10	0.011	1		05/03/23 19:36	14797-55-8	
Nitrogen, Nitrite	ND	mg/L	0.10	0.0040	1		05/03/23 19:36	14797-65-0	
<b>365.1 Total Phosphorus</b>									
Analytical Method: EPA 365.1 Preparation Method: EPA 365.1 Pace Analytical Services - Indianapolis									
Phosphate as P04	<b>0.49</b>	mg/L	0.15	0.15	1	05/06/23 14:00	05/09/23 12:25		
<b>5310C TOC</b>									
Analytical Method: SM 5310C Pace Analytical Services - Indianapolis									
Total Organic Carbon	<b>1.9</b>	mg/L	1.0	0.24	1		05/09/23 01:47	7440-44-0	
<b>5310C Dissolved Organic Carbon</b>									
Analytical Method: SM 5310C Pace Analytical Services - Indianapolis									
Dissolved Organic Carbon	<b>2.0</b>	mg/L	1.0	0.24	1		05/06/23 01:36		

**REPORT OF LABORATORY ANALYSIS**

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**QUALITY CONTROL DATA**

Project: Eagle Valley April 2023 P1R1  
 Pace Project No.: 50343777

QC Batch: 731947 Analysis Method: EPA 9056  
 QC Batch Method: EPA 9056 Analysis Description: 9056 IC Anions  
 Laboratory: Pace Analytical Services - Indianapolis  
 Associated Lab Samples: 50343777001, 50343777002, 50343777003, 50343777004

METHOD BLANK: 3359289 Matrix: Water  
 Associated Lab Samples: 50343777001, 50343777002, 50343777003, 50343777004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chloride	mg/L	ND	0.25	0.067	05/06/23 22:25	
Fluoride	mg/L	ND	0.10	0.017	05/06/23 22:25	
Sulfate	mg/L	ND	0.25	0.085	05/06/23 22:25	

LABORATORY CONTROL SAMPLE: 3359290

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	2.5	2.3	93	80-120	
Fluoride	mg/L	1	0.97	97	80-120	
Sulfate	mg/L	5	4.6	93	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3359291 3359292

Parameter	Units	MS		MSD		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		50343925001 Result	Spike Conc.	Spike Conc.	Result								
Chloride	mg/L	13.5	2.5	2.5	15.7	15.7	88	90	80-120	0	15		
Fluoride	mg/L	0.13	1	1	1.1	1.2	102	102	80-120	0	15		
Sulfate	mg/L	197	50	50	233	233	73	74	80-120	0	15	M0	

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**QUALITY CONTROL DATA**

Project: Eagle Valley April 2023 P1R1

Pace Project No.: 50343777

QC Batch:	731759	Analysis Method:	EPA 7470
QC Batch Method:	EPA 7470	Analysis Description:	7470 Mercury
		Laboratory:	Pace Analytical Services - Indianapolis
Associated Lab Samples:	50343777001, 50343777002, 50343777003, 50343777004		

METHOD BLANK: 3358351 Matrix: Water  
 Associated Lab Samples: 50343777001, 50343777002, 50343777003, 50343777004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Mercury	ug/L	ND	0.20	0.091	05/08/23 15:33	

LABORATORY CONTROL SAMPLE: 3358352

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury	ug/L	5	5.2	103	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3358353 3358354

Parameter	Units	50343943001		3358354		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result						
Mercury	ug/L	ND	5	5	5.0	4.7	100	94	75-125	7	20

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**QUALITY CONTROL DATA**

Project: Eagle Valley April 2023 P1R1

Pace Project No.: 50343777

QC Batch:	731766	Analysis Method:	EPA 6010
QC Batch Method:	EPA 3010	Analysis Description:	6010 MET
		Laboratory:	Pace Analytical Services - Indianapolis

Associated Lab Samples: 50343777001, 50343777002, 50343777003, 50343777004

METHOD BLANK: 3358579 Matrix: Water

Associated Lab Samples: 50343777001, 50343777002, 50343777003, 50343777004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Aluminum	ug/L	ND	200	55.4	05/05/23 17:21	
Boron	ug/L	ND	100	37.6	05/05/23 17:21	
Calcium	ug/L	ND	1000	163	05/05/23 17:21	
Iron	ug/L	ND	100	48.8	05/05/23 17:21	
Lithium	ug/L	ND	20.0	6.2	05/05/23 17:21	
Magnesium	ug/L	ND	1000	71.8	05/05/23 17:21	
Manganese	ug/L	ND	10.0	2.5	05/05/23 17:21	
Potassium	ug/L	ND	1000	281	05/05/23 17:21	
Silica	ug/L	ND	450		05/05/23 17:21	N2
Sodium	ug/L	ND	1000	214	05/05/23 17:21	

LABORATORY CONTROL SAMPLE: 3358580

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Aluminum	ug/L	10000	10000	100	80-120	
Boron	ug/L	1000	976	98	80-120	
Calcium	ug/L	10000	9820	98	80-120	
Iron	ug/L	10000	10100	101	80-120	
Lithium	ug/L	1000	1000	100	80-120	
Magnesium	ug/L	10000	9850	98	80-120	
Manganese	ug/L	1000	929	93	80-120	
Potassium	ug/L	10000	9950	100	80-120	
Silica	ug/L	10700	10200	95	80-120	N2
Sodium	ug/L	10000	9750	98	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3358581 3358582

Parameter	Units	MS		MSD		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		50343741001 Result	Spike Conc.	Spike Conc.	MS Result						
Aluminum	ug/L	534	10000	10000	10500	11000	100	105	75-125	5	20
Boron	ug/L	ND	1000	1000	1040	1090	99	104	75-125	4	20
Calcium	ug/L	101000	10000	10000	106000	109000	57	81	75-125	2	20 P6
Iron	ug/L	637	10000	10000	10500	10900	99	103	75-125	4	20
Lithium	ug/L	ND	1000	1000	1030	1050	103	104	75-125	2	20
Magnesium	ug/L	29600	10000	10000	38000	39500	84	99	75-125	4	20
Manganese	ug/L	31.9	1000	1000	955	986	92	95	75-125	3	20
Potassium	ug/L	ND	10000	10000	11100	11300	102	104	75-125	2	20

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### QUALITY CONTROL DATA

Project: Eagle Valley April 2023 P1R1

Pace Project No.: 50343777

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3358581 3358582												
Parameter	Units	50343741001 Result	MS	MSD	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max	Qual
			Spike Conc.	Spike Conc.							RPD	
Silica	ug/L	14800	10700	10700	24300	25100	90	97	75-125	3	20	N2
Sodium	ug/L	3870	10000	10000	13800	13900	99	100	75-125	1	20	

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**QUALITY CONTROL DATA**

Project: Eagle Valley April 2023 P1R1

Pace Project No.: 50343777

QC Batch:	731788	Analysis Method:	EPA 6010
QC Batch Method:	EPA 3010	Analysis Description:	6010 MET Dissolved
		Laboratory:	Pace Analytical Services - Indianapolis
Associated Lab Samples:	50343777001, 50343777003, 50343777004		

METHOD BLANK: 3358700 Matrix: Water

Associated Lab Samples: 50343777001, 50343777003, 50343777004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Manganese, Dissolved	ug/L	ND	10.0	5.4	05/09/23 08:59	
Molybdenum, Dissolved	ug/L	ND	10.0	2.0	05/09/23 08:59	

LABORATORY CONTROL SAMPLE: 3358701

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Manganese, Dissolved	ug/L	1000	1050	105	80-120	
Molybdenum, Dissolved	ug/L	1000	1060	106	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3358702 3358703

Parameter	Units	50343925001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Manganese, Dissolved	ug/L	ND	1000	1000	1020	1010	102	100	75-125	1	20	
Molybdenum, Dissolved	ug/L	ND	1000	1000	1070	1030	106	103	75-125	3	20	

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**QUALITY CONTROL DATA**

Project: Eagle Valley April 2023 P1R1  
Pace Project No.: 50343777

QC Batch: 731718 Analysis Method: EPA 6020  
QC Batch Method: EPA 200.2 Analysis Description: 6020 MET  
Laboratory: Pace Analytical Services - Indianapolis  
Associated Lab Samples: 50343777001, 50343777002, 50343777003, 50343777004

METHOD BLANK: 3358070 Matrix: Water  
Associated Lab Samples: 50343777001, 50343777002, 50343777003, 50343777004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Antimony	ug/L	ND	1.0	0.080	05/09/23 04:46	
Arsenic	ug/L	ND	1.0	0.12	05/09/23 04:46	
Barium	ug/L	ND	1.0	0.065	05/09/23 04:46	
Beryllium	ug/L	ND	0.20	0.026	05/09/23 04:46	
Cadmium	ug/L	ND	2.0	0.016	05/09/23 04:46	
Chromium	ug/L	ND	10.0	0.18	05/09/23 04:46	
Cobalt	ug/L	ND	1.0	0.071	05/09/23 04:46	
Lead	ug/L	ND	10.0	0.068	05/09/23 04:46	
Molybdenum	ug/L	ND	10.0	0.074	05/09/23 04:46	
Selenium	ug/L	ND	1.0	0.19	05/09/23 04:46	
Thallium	ug/L	ND	1.0	0.060	05/09/23 04:46	

LABORATORY CONTROL SAMPLE: 3358071

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Antimony	ug/L	40	42.7	107	80-120	
Arsenic	ug/L	40	38.8	97	80-120	
Barium	ug/L	40	39.5	99	80-120	
Beryllium	ug/L	40	39.2	98	80-120	
Cadmium	ug/L	40	39.1	98	80-120	
Chromium	ug/L	40	40.8	102	80-120	
Cobalt	ug/L	40	40.2	101	80-120	
Lead	ug/L	40	41.1	103	80-120	
Molybdenum	ug/L	40	40.2	101	80-120	
Selenium	ug/L	40	39.1	98	80-120	
Thallium	ug/L	40	41.7	104	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3358072 3358073

Parameter	Units	50343943001		3358072		3358073		% Rec	% Rec	% Rec Limits	RPD	Max RPD	Qual
		Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec						
Antimony	ug/L	ND	40	40	43.2	42.6	108	106	75-125	1	20		
Arsenic	ug/L	ND	40	40	39.6	39.0	98	97	75-125	1	20		
Barium	ug/L	27.9	40	40	67.6	67.6	99	99	75-125	0	20		
Beryllium	ug/L	ND	40	40	39.9	39.7	100	99	75-125	0	20		
Cadmium	ug/L	ND	40	40	38.4	38.2	96	96	75-125	0	20		
Chromium	ug/L	ND	40	40	41.7	41.2	103	102	75-125	1	20		

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### QUALITY CONTROL DATA

Project: Eagle Valley April 2023 P1R1

Pace Project No.: 50343777

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3358072 3358073											
Parameter	Units	50343943001 Result	MS	MSD	MS	MSD	MS	MSD	% Rec	Max	Qual
			Spike Conc.	Spike Conc.	Result	Result	% Rec	% Rec	Limits	RPD	
Cobalt	ug/L	ND	40	40	38.9	38.2	97	95	75-125	2	20
Lead	ug/L	ND	40	40	40.6	40.5	101	101	75-125	0	20
Molybdenum	ug/L	1.1	40	40	41.7	41.2	102	100	75-125	1	20
Selenium	ug/L	2.4	40	40	42.8	41.5	101	98	75-125	3	20
Thallium	ug/L	ND	40	40	41.5	41.6	104	104	75-125	0	20

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**QUALITY CONTROL DATA**

Project: Eagle Valley April 2023 P1R1

Pace Project No.: 50343777

QC Batch:	731723	Analysis Method:	SM 2320B
QC Batch Method:	SM 2320B	Analysis Description:	2320B Alkalinity
		Laboratory:	Pace Analytical Services - Indianapolis

Associated Lab Samples: 50343777001, 50343777002, 50343777003, 50343777004

METHOD BLANK: 3358089 Matrix: Water  
 Associated Lab Samples: 50343777001, 50343777002, 50343777003, 50343777004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Alkalinity, Total as CaCO3	mg/L	ND	10.0	10.0	05/04/23 20:17	
Alkalinity,Bicarbonate (CaCO3)	mg/L	ND	10.0	10.0	05/04/23 20:17	
Alkalinity,Carbonate (CaCO3)	mg/L	ND	10.0	10.0	05/04/23 20:17	

LABORATORY CONTROL SAMPLE: 3358090

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Alkalinity, Total as CaCO3	mg/L	50	49.3	99	90-110	

SAMPLE DUPLICATE: 3358091

Parameter	Units	50343740001 Result	Dup Result	RPD	Max RPD	Qualifiers
Alkalinity, Total as CaCO3	mg/L	321	325	1	20	
Alkalinity,Bicarbonate (CaCO3)	mg/L	321	325	1	20	
Alkalinity,Carbonate (CaCO3)	mg/L	ND	ND		20	

SAMPLE DUPLICATE: 3358092

Parameter	Units	50343690004 Result	Dup Result	RPD	Max RPD	Qualifiers
Alkalinity, Total as CaCO3	mg/L	412	419	2	20	
Alkalinity,Bicarbonate (CaCO3)	mg/L	412	419	2	20	
Alkalinity,Carbonate (CaCO3)	mg/L	ND	ND		20	

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QUALITY CONTROL DATA

Project: Eagle Valley April 2023 P1R1

Pace Project No.: 50343777

QC Batch:	731629	Analysis Method:	SM 2540C
QC Batch Method:	SM 2540C	Analysis Description:	2540C Total Dissolved Solids
		Laboratory:	Pace Analytical Services - Indianapolis
Associated Lab Samples:	50343777001, 50343777002, 50343777003, 50343777004		

METHOD BLANK: 3357519 Matrix: Water  
 Associated Lab Samples: 50343777001, 50343777002, 50343777003, 50343777004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	ND	10.0	10.0	05/05/23 08:21	

LABORATORY CONTROL SAMPLE: 3357520

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	300	268	89	80-120	

SAMPLE DUPLICATE: 3357521

Parameter	Units	50343741002 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	334	322	4	10	

SAMPLE DUPLICATE: 3357522

Parameter	Units	50343890001 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	3600	3590	0	10	

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### QUALITY CONTROL DATA

Project: Eagle Valley April 2023 P1R1

Pace Project No.: 50343777

QC Batch: 732456

Analysis Method: SM 4500-H+B

QC Batch Method: SM 4500-H+B

Analysis Description: 4500H+B pH

Laboratory: Pace Analytical Services - Indianapolis

Associated Lab Samples: 50343777001, 50343777002, 50343777003

SAMPLE DUPLICATE: 3361540

Parameter	Units	50343255002 Result	Dup Result	RPD	Max RPD	Qualifiers
pH at 25 Degrees C	Std. Units	7.4	7.4	0	2	H3

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### QUALITY CONTROL DATA

Project: Eagle Valley April 2023 P1R1

Pace Project No.: 50343777

QC Batch: 732457

Analysis Method: SM 4500-H+B

QC Batch Method: SM 4500-H+B

Analysis Description: 4500H+B pH

Laboratory: Pace Analytical Services - Indianapolis

Associated Lab Samples: 50343777004

SAMPLE DUPLICATE: 3361541

Parameter	Units	50343925001 Result	Dup Result	RPD	Max RPD	Qualifiers
pH at 25 Degrees C	Std. Units	7.3	7.3	0	2	H3

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**QUALITY CONTROL DATA**

Project: Eagle Valley April 2023 P1R1

Pace Project No.: 50343777

QC Batch:	731870	Analysis Method:	SM 4500-S2-D
QC Batch Method:	SM 4500-S2-D	Analysis Description:	4500S2D Sulfide Water
		Laboratory:	Pace Analytical Services - Indianapolis

Associated Lab Samples: 50343777001, 50343777002, 50343777003, 50343777004

METHOD BLANK: 3358960 Matrix: Water  
 Associated Lab Samples: 50343777001, 50343777002, 50343777003, 50343777004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Sulfide	mg/L	ND	0.10	0.025	05/05/23 12:16	

LABORATORY CONTROL SAMPLE: 3358961

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Sulfide	mg/L	0.5	0.50	100	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3358962 3358963

Parameter	Units	50343741001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Sulfide	mg/L	ND	0.5	0.5	0.56	0.59	111	116	90-110	4	20	M3

MATRIX SPIKE SAMPLE: 3358964

Parameter	Units	50343776001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Sulfide	mg/L	ND	0.5	0.52	102	90-110	

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**QUALITY CONTROL DATA**

Project: Eagle Valley April 2023 P1R1

Pace Project No.: 50343777

QC Batch:	731608	Analysis Method:	HACH 8146
QC Batch Method:	HACH 8146	Analysis Description:	Iron, Ferrous
		Laboratory:	Pace Analytical Services - Indianapolis
Associated Lab Samples: 50343777001, 50343777002, 50343777003, 50343777004			

METHOD BLANK: 3357468 Matrix: Water  
 Associated Lab Samples: 50343777001, 50343777002, 50343777003, 50343777004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Iron, Ferrous	mg/L	ND	0.20	0.035	05/04/23 15:15	H3,N2

LABORATORY CONTROL SAMPLE: 3357469

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Iron, Ferrous	mg/L	1	1.0	100	90-110	H3,N2

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3357470 3357471

Parameter	Units	50343746001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Iron, Ferrous	mg/L	0.046J	1	1	1.0	1.1	99	101	90-110	2	20	H3,N2

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3357772 3357773

Parameter	Units	50343863005 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Iron, Ferrous	mg/L	0.29	1	1	1.4	1.4	108	109	90-110	1	20	H3,N2

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**QUALITY CONTROL DATA**

Project: Eagle Valley April 2023 P1R1

Pace Project No.: 50343777

QC Batch:	731450	Analysis Method:	EPA 353.2
QC Batch Method:	EPA 353.2	Analysis Description:	353.2 Nitrate + Nitrite, Unpres.
		Laboratory:	Pace Analytical Services - Indianapolis

Associated Lab Samples: 50343777001, 50343777002, 50343777003, 50343777004

METHOD BLANK: 3356572 Matrix: Water  
 Associated Lab Samples: 50343777001, 50343777002, 50343777003, 50343777004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Nitrogen, Nitrate	mg/L	ND	0.10	0.011	05/03/23 19:08	
Nitrogen, Nitrite	mg/L	ND	0.10	0.0040	05/03/23 19:08	

LABORATORY CONTROL SAMPLE: 3356573

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Nitrogen, Nitrate	mg/L	1	1.0	101	90-110	
Nitrogen, Nitrite	mg/L	1	1.1	106	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3356574 3356575

Parameter	Units	50343748002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Nitrogen, Nitrate	mg/L	ND	1	1	0.99	1.0	99	99	90-110	0	20	
Nitrogen, Nitrite	mg/L	0.016J	1	1	1.1	1.1	104	104	90-110	0	20	

MATRIX SPIKE SAMPLE: 3356744

Parameter	Units	50343777004 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Nitrogen, Nitrate	mg/L	ND	1	1.0	100	90-110	
Nitrogen, Nitrite	mg/L	ND	1	1.0	104	90-110	

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**QUALITY CONTROL DATA**

Project: Eagle Valley April 2023 P1R1

Pace Project No.: 50343777

QC Batch:	732056	Analysis Method:	EPA 365.1
QC Batch Method:	EPA 365.1	Analysis Description:	365.1 Total Phosphorus
		Laboratory:	Pace Analytical Services - Indianapolis
Associated Lab Samples:	50343777001, 50343777002, 50343777003, 50343777004		

METHOD BLANK: 3359895 Matrix: Water  
 Associated Lab Samples: 50343777001, 50343777002, 50343777003, 50343777004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Phosphate as P04	mg/L	ND	0.15	0.15	05/09/23 12:34	

LABORATORY CONTROL SAMPLE: 3359896

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Phosphate as P04	mg/L		1.5			

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3359897 3359898

Parameter	Units	50343399002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Phosphate as P04	mg/L	25.3			61.9	60.8				2		

MATRIX SPIKE SAMPLE: 3359899

Parameter	Units	50343777003 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Phosphate as P04	mg/L	0.27		1.7			

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**QUALITY CONTROL DATA**

Project: Eagle Valley April 2023 P1R1

Pace Project No.: 50343777

QC Batch:	731953	Analysis Method:	SM 5310C
QC Batch Method:	SM 5310C	Analysis Description:	5310C Total Organic Carbon
		Laboratory:	Pace Analytical Services - Indianapolis

Associated Lab Samples: 50343777001, 50343777002, 50343777003, 50343777004

METHOD BLANK: 3359307 Matrix: Water  
 Associated Lab Samples: 50343777001, 50343777002, 50343777003, 50343777004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Organic Carbon	mg/L	ND	1.0	0.24	05/09/23 00:27	

LABORATORY CONTROL SAMPLE: 3359308

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Organic Carbon	mg/L	10	10.7	107	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3359309 3359310

Parameter	Units	50343925001		3359310		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		MS Result	MSD Spike Conc.	MS Result	MSD Spike Conc.						
Total Organic Carbon	mg/L	1.1	10	11.3	11.5	102	104	80-120	2	20	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3359311 3359312

Parameter	Units	50343330001		3359312		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		MS Result	MSD Spike Conc.	MS Result	MSD Spike Conc.						
Total Organic Carbon	mg/L	1.4	10	11.3	11.7	99	103	80-120	3	20	

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**QUALITY CONTROL DATA**

Project: Eagle Valley April 2023 P1R1

Pace Project No.: 50343777

QC Batch:	731678	Analysis Method:	SM 5310C
QC Batch Method:	SM 5310C	Analysis Description:	5310C Dissolved Organic Carbon
		Laboratory:	Pace Analytical Services - Indianapolis
Associated Lab Samples:	50343777001, 50343777003, 50343777004		

METHOD BLANK: 3357813 Matrix: Water

Associated Lab Samples: 50343777001, 50343777003, 50343777004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Dissolved Organic Carbon	mg/L	ND	1.0	0.24	05/05/23 21:26	

LABORATORY CONTROL SAMPLE: 3357814

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Dissolved Organic Carbon	mg/L	10	10.1	101	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3357815 3357816

Parameter	Units	50343737001		50343737002		50343737003		50343737004		% Rec Limits	RPD	Max RPD	Qual
		MS Result	MSD Result	MS Result	MSD Result	MS Result	MSD Result						
Dissolved Organic Carbon	mg/L	2.5	10	10	12.4	12.5	99	100	80-120	1	20		

MATRIX SPIKE SAMPLE: 3357817

Parameter	Units	50343737002 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Dissolved Organic Carbon	mg/L	1.2	10	11.3	101	80-120	

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**ANALYTICAL RESULTS - RADIOCHEMISTRY**

Project: Eagle Valley April 2023 P1R1

Pace Project No.: 50343777

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
<b>Sample: MW-11D</b> <b>Lab ID: 50343777001</b> Collected: 05/03/23 11:08      Received: 05/03/23 16:10      Matrix: Water PWS:      Site ID:      Sample Type:						
Pace Analytical Services - Greensburg						
Radium-226	EPA 903.1	<b>0.571 ± 0.659 (1.07)</b> <b>C:NA T:95%</b>	pCi/L	05/23/23 15:28	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 904.0	<b>1.11 ± 0.579 (1.02)</b> <b>C:71% T:76%</b>	pCi/L	05/19/23 14:26	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	<b>1.68 ± 1.24 (2.09)</b>	pCi/L	05/30/23 16:18	7440-14-4	

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Eagle Valley April 2023 P1R1

Pace Project No.: 50343777

**Sample: FB-2**                      **Lab ID: 50343777002**    Collected: 05/03/23 12:15    Received: 05/03/23 16:10    Matrix: Water  
 PWS:                                      Site ID:                                      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	<b>0.274 ± 0.331 (0.504)</b> <b>C:NA T:95%</b>	pCi/L	05/23/23 15:28	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	<b>0.226 ± 0.375 (0.816)</b> <b>C:74% T:81%</b>	pCi/L	05/19/23 14:26	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	<b>0.500 ± 0.706 (1.32)</b>	pCi/L	05/30/23 16:18	7440-14-4	

### REPORT OF LABORATORY ANALYSIS

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Eagle Valley April 2023 P1R1

Pace Project No.: 50343777

**Sample: MW-7S**      **Lab ID: 50343777003**      Collected: 05/03/23 13:28      Received: 05/03/23 16:10      Matrix: Water  
 PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	<b>0.363 ± 0.294 (0.164)</b> <b>C:NA T:93%</b>	pCi/L	05/23/23 15:28	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	<b>0.229 ± 0.387 (0.843)</b> <b>C:72% T:83%</b>	pCi/L	05/19/23 14:26	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	<b>0.592 ± 0.681 (1.01)</b>	pCi/L	05/30/23 16:18	7440-14-4	

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**ANALYTICAL RESULTS - RADIOCHEMISTRY**

Project: Eagle Valley April 2023 P1R1

Pace Project No.: 50343777

**Sample: MW-8S**      **Lab ID: 50343777004**      Collected: 05/03/23 14:48      Received: 05/03/23 16:10      Matrix: Water  
 PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	<b>-0.137 ± 0.313 (0.738)</b> <b>C:NA T:91%</b>	pCi/L	05/23/23 15:28	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	<b>0.220 ± 0.321 (0.689)</b> <b>C:75% T:89%</b>	pCi/L	05/19/23 14:25	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	<b>0.220 ± 0.634 (1.43)</b>	pCi/L	05/30/23 16:18	7440-14-4	

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### QUALITY CONTROL - RADIOCHEMISTRY

Project: Eagle Valley April 2023 P1R1

Pace Project No.: 50343777

QC Batch:	586494	Analysis Method:	EPA 904.0
QC Batch Method:	EPA 904.0	Analysis Description:	904.0 Radium 228
		Laboratory:	Pace Analytical Services - Greensburg

Associated Lab Samples: 50343777001, 50343777002, 50343777003, 50343777004

METHOD BLANK:	2849179	Matrix:	Water
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Associated Lab Samples: 50343777001, 50343777002, 50343777003, 50343777004

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.700 ± 0.413 (0.752) C:82% T:74%	pCi/L	05/19/23 11:17	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

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### QUALITY CONTROL - RADIOCHEMISTRY

Project: Eagle Valley April 2023 P1R1

Pace Project No.: 50343777

QC Batch: 586493

Analysis Method: EPA 903.1

QC Batch Method: EPA 903.1

Analysis Description: 903.1 Radium-226

Laboratory: Pace Analytical Services - Greensburg

Associated Lab Samples: 50343777001, 50343777002, 50343777003, 50343777004

METHOD BLANK: 2849171

Matrix: Water

Associated Lab Samples: 50343777001, 50343777002, 50343777003, 50343777004

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.0497 ± 0.227 (0.135) C:NA T:87%	pCi/L	05/23/23 14:49	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

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## QUALIFIERS

Project: Eagle Valley April 2023 P1R1

Pace Project No.: 50343777

### DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Reported results are not rounded until the final step prior to reporting. Therefore, calculated parameters that are typically reported as "Total" may vary slightly from the sum of the reported component parameters.

Act - Activity

Unc - Uncertainty: SDWA = 1.96 sigma count uncertainty, all other matrices = Expanded Uncertainty (95% confidence interval).

Gamma Spec = Expanded Uncertainty (95.4% Confidence Interval)

(MDC) - Minimum Detectable Concentration

Trac - Tracer Recovery (%)

Carr - Carrier Recovery (%)

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

### ANALYTE QUALIFIERS

D3 Sample was diluted due to the presence of high levels of non-target analytes or other matrix interference.

H3 Sample was received or analysis requested beyond the recognized method holding time.

M0 Matrix spike recovery and/or matrix spike duplicate recovery was outside laboratory control limits.

M3 Matrix spike recovery was outside laboratory control limits due to matrix interferences.

N2 The lab does not hold NELAC/TNI accreditation for this parameter but other accreditations/certifications may apply. A complete list of accreditations/certifications is available upon request.

P6 Matrix spike recovery was outside laboratory control limits due to a parent sample concentration notably higher than the spike level.

PL The minimum mass of dried residue of 2.5 mg could not be obtained using the routine sample volume of 100 mL.

## REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Eagle Valley April 2023 P1R1

Pace Project No.: 50343777

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
50343777001	MW-11D	EPA 9056	731947		
50343777002	FB-2	EPA 9056	731947		
50343777003	MW-7S	EPA 9056	731947		
50343777004	MW-8S	EPA 9056	731947		
50343777001	MW-11D	EPA 3010	731766	EPA 6010	731997
50343777002	FB-2	EPA 3010	731766	EPA 6010	731997
50343777003	MW-7S	EPA 3010	731766	EPA 6010	731997
50343777004	MW-8S	EPA 3010	731766	EPA 6010	731997
50343777001	MW-11D	EPA 3010	731788	EPA 6010	732262
50343777003	MW-7S	EPA 3010	731788	EPA 6010	732262
50343777004	MW-8S	EPA 3010	731788	EPA 6010	732262
50343777001	MW-11D	EPA 200.2	731718	EPA 6020	731908
50343777002	FB-2	EPA 200.2	731718	EPA 6020	731908
50343777003	MW-7S	EPA 200.2	731718	EPA 6020	731908
50343777004	MW-8S	EPA 200.2	731718	EPA 6020	731908
50343777001	MW-11D	EPA 7470	731759	EPA 7470	732270
50343777002	FB-2	EPA 7470	731759	EPA 7470	732270
50343777003	MW-7S	EPA 7470	731759	EPA 7470	732270
50343777004	MW-8S	EPA 7470	731759	EPA 7470	732270
50343777001	MW-11D	EPA 903.1	586493		
50343777002	FB-2	EPA 903.1	586493		
50343777003	MW-7S	EPA 903.1	586493		
50343777004	MW-8S	EPA 903.1	586493		
50343777001	MW-11D	EPA 904.0	586494		
50343777002	FB-2	EPA 904.0	586494		
50343777003	MW-7S	EPA 904.0	586494		
50343777004	MW-8S	EPA 904.0	586494		
50343777001	MW-11D	Total Radium Calculation	591473		
50343777002	FB-2	Total Radium Calculation	591473		
50343777003	MW-7S	Total Radium Calculation	591473		
50343777004	MW-8S	Total Radium Calculation	591473		
50343777001	MW-11D	SM 2320B	731723		
50343777002	FB-2	SM 2320B	731723		
50343777003	MW-7S	SM 2320B	731723		
50343777004	MW-8S	SM 2320B	731723		
50343777001	MW-11D	SM 2540C	731629		
50343777002	FB-2	SM 2540C	731629		
50343777003	MW-7S	SM 2540C	731629		
50343777004	MW-8S	SM 2540C	731629		
50343777001	MW-11D	SM 4500-H+B	732456		
50343777002	FB-2	SM 4500-H+B	732456		
50343777003	MW-7S	SM 4500-H+B	732456		
50343777004	MW-8S	SM 4500-H+B	732457		

REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Eagle Valley April 2023 P1R1

Pace Project No.: 50343777

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
50343777001	MW-11D	SM 4500-S2-D	731870		
50343777002	FB-2	SM 4500-S2-D	731870		
50343777003	MW-7S	SM 4500-S2-D	731870		
50343777004	MW-8S	SM 4500-S2-D	731870		
50343777001	MW-11D	HACH 8146	731608		
50343777002	FB-2	HACH 8146	731608		
50343777003	MW-7S	HACH 8146	731608		
50343777004	MW-8S	HACH 8146	731608		
50343777001	MW-11D	EPA 353.2	731450		
50343777002	FB-2	EPA 353.2	731450		
50343777003	MW-7S	EPA 353.2	731450		
50343777004	MW-8S	EPA 353.2	731450		
50343777001	MW-11D	EPA 365.1	732056	EPA 365.1	732481
50343777002	FB-2	EPA 365.1	732056	EPA 365.1	732481
50343777003	MW-7S	EPA 365.1	732056	EPA 365.1	732481
50343777004	MW-8S	EPA 365.1	732056	EPA 365.1	732481
50343777001	MW-11D	SM 5310C	731953		
50343777002	FB-2	SM 5310C	731953		
50343777003	MW-7S	SM 5310C	731953		
50343777004	MW-8S	SM 5310C	731953		
50343777001	MW-11D	SM 5310C	731678		
50343777003	MW-7S	SM 5310C	731678		
50343777004	MW-8S	SM 5310C	731678		

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**SAMPLE CONDITION UPON RECEIPT FORM**

Date/Time and Initials of person examining contents: IBTM 5/3/23 17:36

1. Courier:  FED EX  UPS  CLIENT  PACE  USPS  OTHER \_\_\_\_\_
2. Custody Seal on Cooler/Box Present:  Yes  No  
 (If yes)Seals Intact:  Yes  No (leave blank if no seals were present)
3. Thermometer: **1 2 3 4 5 6 A B C D E F**  
 (Initial/Corrected) 25/2.5 0.8/0.8
4. Cooler Temperature(s): **RECORD TEMPS OF ALL COOLERS RECEIVED (use Comments below to add more)**

5. Packing Material:  Bubble Wrap  Bubble Bags  
 None  Other plastic bag
6. Ice Type:  Wet  Blue  None
7. If temp. is over 6°C or under 0°C, was the PM notified?:  Yes  No  
 Cooler temp should be above freezing to 6°C

All discrepancies will be written out in the comments section below.

	Yes	No		Yes	No	N/A
USDA Regulated Soils? (HI, ID, NY, WA, OR, CA, NM, TX, OK, AR, LA, TN, AL, MS, NC, SC, GA, FL, or Puerto Rico)		X	All containers needing acid/base preservation have been pH CHECKED?: Exceptions: VOA, coliform, LLHg, O&G, RAD CHEM, and any container with a septum cap or preserved with HCl.			
Short Hold Time Analysis (48 hours or less)? Analysis: <u>Nitrate/Nitrite</u>	X		Circle: <u>HNO3 (&lt;2)</u> <u>H2SO4 (&lt;2)</u> NaOH (>10) <u>NaOH/ZnAc (&gt;9)</u> Any non-conformance to pH recommendations will be noted on the container count form	X		
Time 5035A TC placed in Freezer or Short Holds To Lab	Time:		Residual Chlorine Check (SVOC 625 Pest/PCB 608)	Present	Absent	N/A
Rush TAT Requested (4 days or less):		X	Residual Chlorine Check (Total/Amenable/Free Cyanide)		X	
Custody Signatures Present?	X		Headspace Wisconsin Sulfide?			X
Containers Intact?:	X		Headspace in VOA Vials (>6mm): See Container Count form for details	Present	Absent	No VOA Vials Sent
Sample Label (IDs/Dates/Times) Match COC?: Except TCs, which only require sample ID	X		Trip Blank Present?		X	
Extra labels on Terracore Vials? (soils only)			Trip Blank Custody Seals?:			X

COMMENTS:

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July 19, 2023

Mr. Mark Breting  
ATC Group Services  
7988 Centerpoint Drive  
Suite 100  
Indianapolis, IN 46256

RE: Project: Eagle Valley April 2023 P1R3  
Pace Project No.: 50343955

Dear Mr. Breting:

Enclosed are the analytical results for sample(s) received by the laboratory on May 04, 2023. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

The test results provided in this final report were generated by each of the following laboratories within the Pace Network:

- Pace Analytical Services - Indianapolis
- Pace Analytical Services - Greensburg

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Will Statz  
will.statz@pacelabs.com  
(317)228-3105  
Project Manager

Enclosures

cc: Mohammed Bazlamit, Atlas  
Mr. Robert Miller, Haley & Aldrich



## REPORT OF LABORATORY ANALYSIS

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### CERTIFICATIONS

Project: Eagle Valley April 2023 P1R3  
Pace Project No.: 50343955

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#### Pace Analytical Services Pennsylvania

1638 Roseytown Rd Suites 2,3&4, Greensburg, PA 15601  
ANAB DOD-ELAP Rad Accreditation #: L2417  
ANABISO/IEC 17025:2017 Rad Cert#: L24170  
Alabama Certification #: 41590  
Arizona Certification #: AZ0734  
Arkansas Certification  
California Certification #: 2950  
Colorado Certification #: PA01547  
Connecticut Certification #: PH-0694  
EPA Region 4 DW Rad  
Florida/TNI Certification #: E87683  
Georgia Certification #: C040  
Guam Certification  
Hawaii Certification  
Idaho Certification  
Illinois Certification  
Indiana Certification  
Iowa Certification #: 391  
Kansas Certification #: E-10358  
Kentucky Certification #: KY90133  
KY WW Permit #: KY0098221  
KY WW Permit #: KY0000221  
Louisiana DHH/TNI Certification #: LA010  
Louisiana DEQ/TNI Certification #: 04086  
Maine Certification #: 2023021  
Maryland Certification #: 308  
Massachusetts Certification #: M-PA1457  
Michigan/PADEP Certification #: 9991

Missouri Certification #: 235  
Montana Certification #: Cert0082  
Nebraska Certification #: NE-OS-29-14  
Nevada Certification #: PA014572023-03  
New Hampshire/TNI Certification #: 297622  
New Jersey/TNI Certification #: PA051  
New Mexico Certification #: PA01457  
New York/TNI Certification #: 10888  
North Carolina Certification #: 42706  
North Dakota Certification #: R-190  
Ohio EPA Rad Approval: #41249  
Oregon/TNI Certification #: PA200002-015  
Pennsylvania/TNI Certification #: 65-00282  
Puerto Rico Certification #: PA01457  
Rhode Island Certification #: 65-00282  
South Dakota Certification  
Tennessee Certification #: TN02867  
Texas/TNI Certification #: T104704188-22-18  
Utah/TNI Certification #: PA014572223-14  
USDA Soil Permit #: 525-23-67-77263  
Vermont Dept. of Health: ID# VT-0282  
Virgin Island/PADEP Certification  
Virginia/VELAP Certification #: 460198  
Washington Certification #: C868  
West Virginia DEP Certification #: 143  
West Virginia DHHR Certification #: 9964C  
Wisconsin Approve List for Rad

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#### Pace Analytical Services Indianapolis

7726 Moller Road, Indianapolis, IN 46268  
Illinois Accreditation #: 200074  
Indiana Drinking Water Laboratory #: C-49-06  
Kansas/TNI Certification #: E-10177  
Kentucky UST Agency Interest #: 80226  
Kentucky WW Laboratory ID #: 98019  
Michigan Drinking Water Laboratory #9050

Ohio VAP Certified Laboratory #: CL0065  
Oklahoma Laboratory #: 9204  
Texas Certification #: T104704355  
Wisconsin Laboratory #: 999788130  
USDA Foreign Soil Permit #: 525-23-13-23119  
USDA Compliance Agreement #: IN-SL-22-001

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### SAMPLE SUMMARY

Project: Eagle Valley April 2023 P1R3  
Pace Project No.: 50343955

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Lab ID	Sample ID	Matrix	Date Collected	Date Received
50343955001	MW-10D	Water	05/04/23 13:35	05/04/23 15:40

### REPORT OF LABORATORY ANALYSIS

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### SAMPLE ANALYTE COUNT

Project: Eagle Valley April 2023 P1R3

Pace Project No.: 50343955

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
50343955001	MW-10D	EPA 9056	RMR	3	PASI-I
		EPA 6010	JPK	10	PASI-I
		EPA 6010	MTM	2	PASI-I
		EPA 6020	DMT	11	PASI-I
		EPA 7470	EAE	1	PASI-I
		EPA 903.1	CLM	1	PASI-PA
		EPA 904.0	JJS1	1	PASI-PA
		Total Radium Calculation	LAL	1	PASI-PA
		SM 2320B	DAW	3	PASI-I
		SM 2540C	TRK	1	PASI-I
		SM 4500-H+B	LHZ	1	PASI-I
		SM 4500-S2-D	BEP	1	PASI-I
		HACH 8146	BEP	1	PASI-I
		EPA 353.2	ZM	2	PASI-I
		EPA 365.1	YAM	1	PASI-I
		SM 5310C	ATS	1	PASI-I
		SM 5310C	ATS	1	PASI-I

PASI-I = Pace Analytical Services - Indianapolis

PASI-PA = Pace Analytical Services - Greensburg

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**SUMMARY OF DETECTION**

Project: Eagle Valley April 2023 P1R3  
 Pace Project No.: 50343955

Lab Sample ID Method	Client Sample ID Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
<b>50343955001</b>	<b>MW-10D</b>					
EPA 9056	Chloride	86.1	mg/L	25.0	05/11/23 04:50	
EPA 9056	Fluoride	0.19	mg/L	0.10	05/11/23 04:31	
EPA 9056	Sulfate	100	mg/L	25.0	05/11/23 04:50	
EPA 6010	Aluminum	741	ug/L	200	05/11/23 22:04	
EPA 6010	Boron	209	ug/L	100	05/11/23 22:04	
EPA 6010	Calcium	96300	ug/L	1000	05/11/23 22:04	
EPA 6010	Iron	1740	ug/L	100	05/11/23 22:04	
EPA 6010	Lithium	49.0	ug/L	20.0	05/11/23 22:04	
EPA 6010	Magnesium	23100	ug/L	1000	05/11/23 22:04	
EPA 6010	Manganese	104	ug/L	10.0	05/11/23 22:04	
EPA 6010	Potassium	7290	ug/L	1000	05/11/23 22:04	
EPA 6010	Silica	13600	ug/L	450	05/11/23 22:04	N2
EPA 6010	Sodium	65000	ug/L	1000	05/11/23 22:04	
EPA 6010	Manganese, Dissolved	83.6	ug/L	10.0	05/11/23 12:18	
EPA 6010	Molybdenum, Dissolved	107	ug/L	10.0	05/11/23 12:18	
EPA 6020	Arsenic	1.2	ug/L	1.0	05/09/23 14:23	
EPA 6020	Barium	82.0	ug/L	1.0	05/09/23 14:23	
EPA 6020	Cobalt	1.2	ug/L	1.0	05/09/23 14:23	
EPA 6020	Molybdenum	104	ug/L	10.0	05/09/23 14:23	
EPA 903.1	Radium-226	0.412 ± 0.302 (0.337) C:NA T:83%	pCi/L		05/30/23 16:42	
EPA 904.0	Radium-228	0.395 ± 0.351 (0.713) C:87% T:83%	pCi/L		05/18/23 14:38	
Total Radium Calculation	Total Radium	0.807 ± 0.653 (1.05)	pCi/L		05/30/23 18:09	
SM 2320B	Alkalinity, Total as CaCO3	246	mg/L	10.0	05/05/23 22:40	
SM 2320B	Alkalinity,Bicarbonate (CaCO3)	246	mg/L	10.0	05/05/23 22:40	
SM 2540C	Total Dissolved Solids	524	mg/L	10.0	05/09/23 08:31	
SM 4500-H+B	pH at 25 Degrees C	7.9	Std. Units	0.10	05/09/23 16:41	H3
SM 5310C	Total Organic Carbon	1.1	mg/L	1.0	05/10/23 18:59	
SM 5310C	Dissolved Organic Carbon	1.5	mg/L	1.0	05/09/23 17:55	

**REPORT OF LABORATORY ANALYSIS**

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### ANALYTICAL RESULTS

Project: Eagle Valley April 2023 P1R3  
 Pace Project No.: 50343955

**Sample: MW-10D**      **Lab ID: 50343955001**      Collected: 05/04/23 13:35      Received: 05/04/23 15:40      Matrix: Water

Parameters	Results	Units	Report			Prepared	Analyzed	CAS No.	Qual
			Limit	MDL	DF				
<b>9056 IC Anions</b>									
Analytical Method: EPA 9056									
Pace Analytical Services - Indianapolis									
Chloride	86.1	mg/L	25.0	6.7	100		05/11/23 04:50	16887-00-6	
Fluoride	0.19	mg/L	0.10	0.017	1		05/11/23 04:31	16984-48-8	
Sulfate	100	mg/L	25.0	8.5	100		05/11/23 04:50	14808-79-8	
<b>6010 MET ICP</b>									
Analytical Method: EPA 6010      Preparation Method: EPA 3010									
Pace Analytical Services - Indianapolis									
Aluminum	741	ug/L	200	55.4	1	05/09/23 08:35	05/11/23 22:04	7429-90-5	
Boron	209	ug/L	100	37.6	1	05/09/23 08:35	05/11/23 22:04	7440-42-8	
Calcium	96300	ug/L	1000	163	1	05/09/23 08:35	05/11/23 22:04	7440-70-2	
Iron	1740	ug/L	100	48.8	1	05/09/23 08:35	05/11/23 22:04	7439-89-6	
Lithium	49.0	ug/L	20.0	6.2	1	05/09/23 08:35	05/11/23 22:04	7439-93-2	
Magnesium	23100	ug/L	1000	71.8	1	05/09/23 08:35	05/11/23 22:04	7439-95-4	
Manganese	104	ug/L	10.0	2.5	1	05/09/23 08:35	05/11/23 22:04	7439-96-5	
Potassium	7290	ug/L	1000	281	1	05/09/23 08:35	05/11/23 22:04	7440-09-7	
Silica	13600	ug/L	450		1	05/09/23 08:35	05/11/23 22:04	7631-86-9	N2
Sodium	65000	ug/L	1000	214	1	05/09/23 08:35	05/11/23 22:04	7440-23-5	
<b>6010 MET ICP, Dissolved</b>									
Analytical Method: EPA 6010      Preparation Method: EPA 3010									
Pace Analytical Services - Indianapolis									
Manganese, Dissolved	83.6	ug/L	10.0	2.5	1	05/09/23 08:02	05/11/23 12:18	7439-96-5	
Molybdenum, Dissolved	107	ug/L	10.0	3.7	1	05/09/23 08:02	05/11/23 12:18	7439-98-7	
<b>6020 MET ICPMS</b>									
Analytical Method: EPA 6020      Preparation Method: EPA 200.2									
Pace Analytical Services - Indianapolis									
Antimony	ND	ug/L	1.0	0.080	1	05/05/23 07:16	05/09/23 14:23	7440-36-0	
Arsenic	1.2	ug/L	1.0	0.12	1	05/05/23 07:16	05/09/23 14:23	7440-38-2	
Barium	82.0	ug/L	1.0	0.065	1	05/05/23 07:16	05/09/23 14:23	7440-39-3	
Beryllium	ND	ug/L	0.20	0.026	1	05/05/23 07:16	05/10/23 13:34	7440-41-7	
Cadmium	ND	ug/L	2.0	0.016	1	05/05/23 07:16	05/09/23 14:23	7440-43-9	
Chromium	ND	ug/L	10.0	0.18	1	05/05/23 07:16	05/09/23 14:23	7440-47-3	
Cobalt	1.2	ug/L	1.0	0.071	1	05/05/23 07:16	05/09/23 14:23	7440-48-4	
Lead	ND	ug/L	10.0	0.068	1	05/05/23 07:16	05/09/23 14:23	7439-92-1	
Molybdenum	104	ug/L	10.0	0.074	1	05/05/23 07:16	05/09/23 14:23	7439-98-7	
Selenium	ND	ug/L	1.0	0.19	1	05/05/23 07:16	05/09/23 14:23	7782-49-2	
Thallium	ND	ug/L	1.0	0.060	1	05/05/23 07:16	05/09/23 14:23	7440-28-0	
<b>7470 Mercury</b>									
Analytical Method: EPA 7470      Preparation Method: EPA 7470									
Pace Analytical Services - Indianapolis									
Mercury	ND	ug/L	0.20	0.091	1	05/09/23 11:16	05/09/23 19:06	7439-97-6	
<b>2320B Alkalinity</b>									
Analytical Method: SM 2320B									
Pace Analytical Services - Indianapolis									
Alkalinity, Total as CaCO3	246	mg/L	10.0	10.0	1		05/05/23 22:40		
Alkalinity,Bicarbonate (CaCO3)	246	mg/L	10.0	10.0	1		05/05/23 22:40		

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**ANALYTICAL RESULTS**

Project: Eagle Valley April 2023 P1R3  
 Pace Project No.: 50343955

Sample: MW-10D		Lab ID: 50343955001		Collected: 05/04/23 13:35	Received: 05/04/23 15:40	Matrix: Water			
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>2320B Alkalinity</b>		Analytical Method: SM 2320B Pace Analytical Services - Indianapolis							
Alkalinity, Carbonate (CaCO3)	ND	mg/L	10.0	10.0	1		05/05/23 22:40		
<b>2540C Total Dissolved Solids</b>		Analytical Method: SM 2540C Pace Analytical Services - Indianapolis							
Total Dissolved Solids	<b>524</b>	mg/L	10.0	10.0	1		05/09/23 08:31		
<b>4500H+ pH, Electrometric</b>		Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis							
pH at 25 Degrees C	<b>7.9</b>	Std. Units	0.10	0.10	1		05/09/23 16:41		H3
<b>4500S2D Sulfide Water</b>		Analytical Method: SM 4500-S2-D Pace Analytical Services - Indianapolis							
Sulfide	ND	mg/L	0.10	0.025	1		05/09/23 12:50	18496-25-8	
<b>Iron, Ferrous</b>		Analytical Method: HACH 8146 Pace Analytical Services - Indianapolis							
Iron, Ferrous	ND	mg/L	0.20	0.035	1		05/08/23 12:02	15438-31-0	H3,N2
<b>353.2 Nitrogen, NO2/NO3 unpres</b>		Analytical Method: EPA 353.2 Pace Analytical Services - Indianapolis							
Nitrogen, Nitrate	ND	mg/L	0.10	0.011	1		05/05/23 10:53	14797-55-8	
Nitrogen, Nitrite	ND	mg/L	0.10	0.0040	1		05/05/23 10:53	14797-65-0	
<b>365.1 Total Phosphorus</b>		Analytical Method: EPA 365.1 Preparation Method: EPA 365.1 Pace Analytical Services - Indianapolis							
Phosphate as P04	ND	mg/L	0.15	0.15	1	05/06/23 14:00	05/12/23 08:24		
<b>5310C TOC</b>		Analytical Method: SM 5310C Pace Analytical Services - Indianapolis							
Total Organic Carbon	<b>1.1</b>	mg/L	1.0	0.24	1		05/10/23 18:59	7440-44-0	
<b>5310C Dissolved Organic Carbon</b>		Analytical Method: SM 5310C Pace Analytical Services - Indianapolis							
Dissolved Organic Carbon	<b>1.5</b>	mg/L	1.0	0.24	1		05/09/23 17:55		

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**QUALITY CONTROL DATA**

Project: Eagle Valley April 2023 P1R3  
Pace Project No.: 50343955

QC Batch: 732229	Analysis Method: EPA 9056
QC Batch Method: EPA 9056	Analysis Description: 9056 IC Anions
	Laboratory: Pace Analytical Services - Indianapolis

Associated Lab Samples: 50343955001

METHOD BLANK: 3360569 Matrix: Water  
Associated Lab Samples: 50343955001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chloride	mg/L	ND	0.25	0.067	05/12/23 13:50	
Fluoride	mg/L	ND	0.10	0.017	05/12/23 13:50	
Sulfate	mg/L	ND	0.25	0.085	05/12/23 13:50	

LABORATORY CONTROL SAMPLE: 3360570

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	2.5	2.4	97	80-120	
Fluoride	mg/L	1	1.0	105	80-120	
Sulfate	mg/L	5	5.4	108	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3360571 3360572

Parameter	Units	50343399002		3360571		3360572		% Rec	% Rec	% Rec Limits	RPD	Max RPD	Qual
		MS Result	MSD Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result						
Chloride	mg/L	3480	2500	2500	4770	4780	52	52	80-120	0	15	M0	
Fluoride	mg/L	0.24J	10	10	7.6	7.6	73	74	80-120	1	15	M0	
Sulfate	mg/L	226	50	50	272	270	91	88	80-120	1	15		

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3360573 3360574

Parameter	Units	50343330001		3360573		3360574		% Rec	% Rec	% Rec Limits	RPD	Max RPD	Qual
		MS Result	MSD Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result						
Chloride	mg/L	20.5	2.5	2.5	23.2	23.1	105	104	80-120	0	15		
Fluoride	mg/L	2.2	1	1	3.3	3.3	113	113	80-120	0	15		
Sulfate	mg/L	<2.0	5	5	5.1	5.3	102	105	80-120	3	15		

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**QUALITY CONTROL DATA**

Project: Eagle Valley April 2023 P1R3

Pace Project No.: 50343955

QC Batch:	731914	Analysis Method:	EPA 7470
QC Batch Method:	EPA 7470	Analysis Description:	7470 Mercury
		Laboratory:	Pace Analytical Services - Indianapolis

Associated Lab Samples: 50343955001

METHOD BLANK: 3359151 Matrix: Water

Associated Lab Samples: 50343955001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Mercury	ug/L	ND	0.20	0.091	05/09/23 18:24	

LABORATORY CONTROL SAMPLE: 3359152

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury	ug/L	5	5.2	105	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3359153 3359154

Parameter	Units	50343791004		3359153		3359154		% Rec Limits	RPD	Max RPD	Qual
		MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec				
Mercury	ug/L	ND	5	5	5.2	5.1	104	101	75-125	2	20

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**QUALITY CONTROL DATA**

Project: Eagle Valley April 2023 P1R3

Pace Project No.: 50343955

QC Batch:	731969	Analysis Method:	EPA 6010
QC Batch Method:	EPA 3010	Analysis Description:	6010 MET
		Laboratory:	Pace Analytical Services - Indianapolis

Associated Lab Samples: 50343955001

METHOD BLANK: 3359364 Matrix: Water

Associated Lab Samples: 50343955001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Aluminum	ug/L	ND	200	55.4	05/11/23 21:51	
Boron	ug/L	ND	100	37.6	05/11/23 21:51	
Calcium	ug/L	ND	1000	163	05/11/23 21:51	
Iron	ug/L	ND	100	48.8	05/11/23 21:51	
Lithium	ug/L	ND	20.0	6.2	05/11/23 21:51	
Magnesium	ug/L	ND	1000	71.8	05/11/23 21:51	
Manganese	ug/L	ND	10.0	2.5	05/11/23 21:51	
Potassium	ug/L	ND	1000	281	05/11/23 21:51	
Silica	ug/L	ND	450		05/11/23 21:51	N2
Sodium	ug/L	ND	1000	214	05/11/23 21:51	

LABORATORY CONTROL SAMPLE: 3359365

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Aluminum	ug/L	10000	10100	101	80-120	
Boron	ug/L	1000	978	98	80-120	
Calcium	ug/L	10000	10300	103	80-120	
Iron	ug/L	10000	10200	102	80-120	
Lithium	ug/L	1000	1020	102	80-120	
Magnesium	ug/L	10000	10000	100	80-120	
Manganese	ug/L	1000	980	98	80-120	
Potassium	ug/L	10000	9990	100	80-120	
Silica	ug/L	10700	10600	99	80-120	N2
Sodium	ug/L	10000	10000	100	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3359366 3359367

Parameter	Units	MS		MSD		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		50343738002 Result	Spike Conc.	Spike Conc.	MS Result						
Aluminum	ug/L	ND	10000	10000	10800	10700	107	106	75-125	0	20
Boron	ug/L	ND	1000	1000	1080	1080	105	104	75-125	1	20
Calcium	ug/L	33800	10000	10000	44900	45500	112	117	75-125	1	20
Iron	ug/L	1720	10000	10000	12300	12400	106	107	75-125	1	20
Lithium	ug/L	94.0	1000	1000	1180	1190	108	109	75-125	1	20
Magnesium	ug/L	5180	10000	10000	15400	15500	102	104	75-125	1	20
Manganese	ug/L	122	1000	1000	1130	1140	101	102	75-125	1	20
Potassium	ug/L	8960	10000	10000	19900	20100	109	111	75-125	1	20

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### QUALITY CONTROL DATA

Project: Eagle Valley April 2023 P1R3

Pace Project No.: 50343955

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3359366 3359367													
Parameter	Units	50343738002 Result	MS	MSD	MS	MSD	MS	MSD	% Rec	Limits	RPD	Max RPD	Qual
			Spike Conc.	Spike Conc.	Result	Result	% Rec	% Rec					
Silica	ug/L	1980	10700	10700	13200	13200	105	105	75-125	0	20	N2	
Sodium	ug/L	42000	10000	10000	53100	53700	111	118	75-125	1	20		

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**QUALITY CONTROL DATA**

Project: Eagle Valley April 2023 P1R3

Pace Project No.: 50343955

QC Batch:	732032	Analysis Method:	EPA 6010
QC Batch Method:	EPA 3010	Analysis Description:	6010 MET Dissolved
		Laboratory:	Pace Analytical Services - Indianapolis

Associated Lab Samples: 50343955001

METHOD BLANK: 3359788 Matrix: Water

Associated Lab Samples: 50343955001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Manganese, Dissolved	ug/L	ND	10.0	2.5	05/11/23 11:35	
Molybdenum, Dissolved	ug/L	ND	10.0	3.7	05/11/23 11:35	

LABORATORY CONTROL SAMPLE: 3359789

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Manganese, Dissolved	ug/L	1000	949	95	80-120	
Molybdenum, Dissolved	ug/L	1000	1010	101	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3359790 3359791

Parameter	Units	50343475001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Manganese, Dissolved	ug/L	ND	1000	1000	924	930	92	93	75-125	1	20	
Molybdenum, Dissolved	ug/L	126	1000	1000	1140	1150	102	103	75-125	1	20	

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**QUALITY CONTROL DATA**

Project: Eagle Valley April 2023 P1R3

Pace Project No.: 50343955

QC Batch:	731718	Analysis Method:	EPA 6020
QC Batch Method:	EPA 200.2	Analysis Description:	6020 MET
		Laboratory:	Pace Analytical Services - Indianapolis

Associated Lab Samples: 50343955001

METHOD BLANK: 3358070 Matrix: Water

Associated Lab Samples: 50343955001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Antimony	ug/L	ND	1.0	0.080	05/09/23 04:46	
Arsenic	ug/L	ND	1.0	0.12	05/09/23 04:46	
Barium	ug/L	ND	1.0	0.065	05/09/23 04:46	
Beryllium	ug/L	ND	0.20	0.026	05/09/23 04:46	
Cadmium	ug/L	ND	2.0	0.016	05/09/23 04:46	
Chromium	ug/L	ND	10.0	0.18	05/09/23 04:46	
Cobalt	ug/L	ND	1.0	0.071	05/09/23 04:46	
Lead	ug/L	ND	10.0	0.068	05/09/23 04:46	
Molybdenum	ug/L	ND	10.0	0.074	05/09/23 04:46	
Selenium	ug/L	ND	1.0	0.19	05/09/23 04:46	
Thallium	ug/L	ND	1.0	0.060	05/09/23 04:46	

LABORATORY CONTROL SAMPLE: 3358071

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Antimony	ug/L	40	42.7	107	80-120	
Arsenic	ug/L	40	38.8	97	80-120	
Barium	ug/L	40	39.5	99	80-120	
Beryllium	ug/L	40	39.2	98	80-120	
Cadmium	ug/L	40	39.1	98	80-120	
Chromium	ug/L	40	40.8	102	80-120	
Cobalt	ug/L	40	40.2	101	80-120	
Lead	ug/L	40	41.1	103	80-120	
Molybdenum	ug/L	40	40.2	101	80-120	
Selenium	ug/L	40	39.1	98	80-120	
Thallium	ug/L	40	41.7	104	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3358072 3358073

Parameter	Units	MS		MSD		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual	
		50343943001 Result	Spike Conc.	Spike Conc.	MS Result							MSD Result
Antimony	ug/L	ND	40	40	43.2	42.6	108	106	75-125	1	20	
Arsenic	ug/L	ND	40	40	39.6	39.0	98	97	75-125	1	20	
Barium	ug/L	27.9	40	40	67.6	67.6	99	99	75-125	0	20	
Beryllium	ug/L	ND	40	40	39.9	39.7	100	99	75-125	0	20	
Cadmium	ug/L	ND	40	40	38.4	38.2	96	96	75-125	0	20	
Chromium	ug/L	ND	40	40	41.7	41.2	103	102	75-125	1	20	

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**QUALITY CONTROL DATA**

Project: Eagle Valley April 2023 P1R3

Pace Project No.: 50343955

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3358072 3358073													
Parameter	Units	50343943001 Result	MS	MSD	MS	MSD	MS	MSD	% Rec	Limits	RPD	Max RPD	Qual
			Spike Conc.	Spike Conc.	Result	Result	% Rec	% Rec					
Cobalt	ug/L	ND	40	40	38.9	38.2	97	95	75-125		2	20	
Lead	ug/L	ND	40	40	40.6	40.5	101	101	75-125		0	20	
Molybdenum	ug/L	1.1	40	40	41.7	41.2	102	100	75-125		1	20	
Selenium	ug/L	2.4	40	40	42.8	41.5	101	98	75-125		3	20	
Thallium	ug/L	ND	40	40	41.5	41.6	104	104	75-125		0	20	

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**QUALITY CONTROL DATA**

Project: Eagle Valley April 2023 P1R3

Pace Project No.: 50343955

QC Batch: 732022	Analysis Method: SM 2320B
QC Batch Method: SM 2320B	Analysis Description: 2320B Alkalinity
	Laboratory: Pace Analytical Services - Indianapolis

Associated Lab Samples: 50343955001

METHOD BLANK: 3359662 Matrix: Water

Associated Lab Samples: 50343955001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Alkalinity, Total as CaCO3	mg/L	ND	10.0	10.0	05/05/23 22:40	
Alkalinity,Bicarbonate (CaCO3)	mg/L	ND	10.0	10.0	05/05/23 22:40	
Alkalinity,Carbonate (CaCO3)	mg/L	ND	10.0	10.0	05/05/23 22:40	

LABORATORY CONTROL SAMPLE: 3359663

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Alkalinity, Total as CaCO3	mg/L	50	46.8	94	90-110	

SAMPLE DUPLICATE: 3359664

Parameter	Units	50344112005 Result	Dup Result	RPD	Max RPD	Qualifiers
Alkalinity, Total as CaCO3	mg/L	596	609	2	20	

SAMPLE DUPLICATE: 3359665

Parameter	Units	50343886002 Result	Dup Result	RPD	Max RPD	Qualifiers
Alkalinity, Total as CaCO3	mg/L	77.2	77.8	1	20	
Alkalinity,Bicarbonate (CaCO3)	mg/L	77.2	77.8	1	20	
Alkalinity,Carbonate (CaCO3)	mg/L	ND	ND		20	

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### QUALITY CONTROL DATA

Project: Eagle Valley April 2023 P1R3

Pace Project No.: 50343955

QC Batch: 732208

Analysis Method: SM 2540C

QC Batch Method: SM 2540C

Analysis Description: 2540C Total Dissolved Solids

Laboratory: Pace Analytical Services - Indianapolis

Associated Lab Samples: 50343955001

METHOD BLANK: 3360512

Matrix: Water

Associated Lab Samples: 50343955001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	ND	10.0	10.0	05/09/23 08:22	

LABORATORY CONTROL SAMPLE: 3360513

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	300	276	92	80-120	

SAMPLE DUPLICATE: 3360514

Parameter	Units	50344148002 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	605	604	0	10	

SAMPLE DUPLICATE: 3360515

Parameter	Units	50344148003 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	565	551	3	10	

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### REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL DATA

Project: Eagle Valley April 2023 P1R3

Pace Project No.: 50343955

QC Batch: 732519

Analysis Method: SM 4500-H+B

QC Batch Method: SM 4500-H+B

Analysis Description: 4500H+B pH

Laboratory: Pace Analytical Services - Indianapolis

Associated Lab Samples: 50343955001

SAMPLE DUPLICATE: 3361812

Parameter	Units	50343347003 Result	Dup Result	RPD	Max RPD	Qualifiers
pH at 25 Degrees C	Std. Units	7.0	7.0	1	2	H3

SAMPLE DUPLICATE: 3361813

Parameter	Units	50344061002 Result	Dup Result	RPD	Max RPD	Qualifiers
pH at 25 Degrees C	Std. Units	7.0	7.1	1	2	H3

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**QUALITY CONTROL DATA**

Project: Eagle Valley April 2023 P1R3

Pace Project No.: 50343955

QC Batch:	732403	Analysis Method:	SM 4500-S2-D
QC Batch Method:	SM 4500-S2-D	Analysis Description:	4500S2D Sulfide Water
		Laboratory:	Pace Analytical Services - Indianapolis

Associated Lab Samples: 50343955001

METHOD BLANK:	3361300	Matrix:	Water
Associated Lab Samples:	50343955001		

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Sulfide	mg/L	ND	0.10	0.025	05/09/23 12:50	

LABORATORY CONTROL SAMPLE:	3361301					
Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Sulfide	mg/L	0.5	0.50	100	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE:	3361302			3361303								
Parameter	Units	50344013007 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Sulfide	mg/L	ND	0.5	0.5	0.42	0.44	84	86	90-110	3	20	M3

MATRIX SPIKE SAMPLE:	3361304										
Parameter	Units	50344036001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers				
Sulfide	mg/L		ND	0.5	0.43	85	90-110 M0				

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**QUALITY CONTROL DATA**

Project: Eagle Valley April 2023 P1R3

Pace Project No.: 50343955

QC Batch:	732177	Analysis Method:	HACH 8146
QC Batch Method:	HACH 8146	Analysis Description:	Iron, Ferrous
		Laboratory:	Pace Analytical Services - Indianapolis

Associated Lab Samples: 50343955001

METHOD BLANK: 3360409 Matrix: Water

Associated Lab Samples: 50343955001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Iron, Ferrous	mg/L	ND	0.20	0.035	05/08/23 11:55	H3,N2

LABORATORY CONTROL SAMPLE: 3360410

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Iron, Ferrous	mg/L	1	1.0	101	90-110	H3,N2

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3360411 3360412

Parameter	Units	50343925001		3360412		% Rec	% Rec	% Rec Limits	RPD	Max RPD	Qual	
		MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result							
Iron, Ferrous	mg/L	ND	1	1	1.0	1.0	104	104	90-110	0	20	H3,N2

MATRIX SPIKE SAMPLE: 3360413

Parameter	Units	50343914001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Iron, Ferrous	mg/L	ND	1	1.1	110	90-110	H3,N2

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**QUALITY CONTROL DATA**

Project: Eagle Valley April 2023 P1R3

Pace Project No.: 50343955

QC Batch:	731708	Analysis Method:	EPA 353.2
QC Batch Method:	EPA 353.2	Analysis Description:	353.2 Nitrate + Nitrite, Unpres.
		Laboratory:	Pace Analytical Services - Indianapolis

Associated Lab Samples: 50343955001

METHOD BLANK: 3358001 Matrix: Water

Associated Lab Samples: 50343955001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Nitrogen, Nitrate	mg/L	ND	0.10	0.011	05/05/23 10:16	
Nitrogen, Nitrite	mg/L	ND	0.10	0.0040	05/05/23 10:16	

LABORATORY CONTROL SAMPLE: 3358002

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Nitrogen, Nitrate	mg/L	1	1.0	102	90-110	
Nitrogen, Nitrite	mg/L	1	1.1	107	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3358003 3358004

Parameter	Units	50343808006 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Nitrogen, Nitrate	mg/L	ND	1	1	1.0	1.0	104	104	90-110	0	20	
Nitrogen, Nitrite	mg/L	ND	1	1	1.1	1.1	108	109	90-110	0	20	

MATRIX SPIKE SAMPLE: 3358005

Parameter	Units	50343925008 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Nitrogen, Nitrate	mg/L	6.7	5	11.0	87	90-110	
Nitrogen, Nitrite	mg/L	ND	5	5.3	105	90-110	

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**QUALITY CONTROL DATA**

Project: Eagle Valley April 2023 P1R3

Pace Project No.: 50343955

QC Batch:	732057	Analysis Method:	EPA 365.1
QC Batch Method:	EPA 365.1	Analysis Description:	365.1 Total Phosphorus
		Laboratory:	Pace Analytical Services - Indianapolis

Associated Lab Samples: 50343955001

METHOD BLANK: 3359901 Matrix: Water

Associated Lab Samples: 50343955001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Phosphate as P04	mg/L	ND	0.15	0.15	05/12/23 08:16	

LABORATORY CONTROL SAMPLE: 3359902

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Phosphate as P04	mg/L		1.5			

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3359903 3359904

Parameter	Units	50343832001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Phosphate as P04	mg/L	4.6			5.9	5.9				0		

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**REPORT OF LABORATORY ANALYSIS**

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**QUALITY CONTROL DATA**

Project: Eagle Valley April 2023 P1R3

Pace Project No.: 50343955

QC Batch:	732315	Analysis Method:	SM 5310C
QC Batch Method:	SM 5310C	Analysis Description:	5310C Total Organic Carbon
		Laboratory:	Pace Analytical Services - Indianapolis

Associated Lab Samples: 50343955001

METHOD BLANK: 3360815 Matrix: Water

Associated Lab Samples: 50343955001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Organic Carbon	mg/L	ND	1.0	0.24	05/10/23 16:48	

LABORATORY CONTROL SAMPLE: 3360816

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Organic Carbon	mg/L	10	10.3	103	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3360817 3360818

Parameter	Units	50343425003		3360817		3360818		% Rec Limits	RPD	Max RPD	Qual	
		MS Result	MSD Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result					MS % Rec
Total Organic Carbon	mg/L	974 ug/L	974 ug/L	10	10	11.0	11.0	100	100	80-120	1	20

MATRIX SPIKE SAMPLE: 3360819

Parameter	Units	50343425004 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Total Organic Carbon	mg/L	1590 ug/L	10	11.9	103	80-120	

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**QUALITY CONTROL DATA**

Project: Eagle Valley April 2023 P1R3

Pace Project No.: 50343955

QC Batch:	731944	Analysis Method:	SM 5310C
QC Batch Method:	SM 5310C	Analysis Description:	5310C Dissolved Organic Carbon
		Laboratory:	Pace Analytical Services - Indianapolis

Associated Lab Samples: 50343955001

METHOD BLANK: 3359276 Matrix: Water  
 Associated Lab Samples: 50343955001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Dissolved Organic Carbon	mg/L	ND	1.0	0.24	05/09/23 14:07	

LABORATORY CONTROL SAMPLE: 3359277

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Dissolved Organic Carbon	mg/L	10	10.2	102	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3359278 3359279

Parameter	Units	50343925001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Dissolved Organic Carbon	mg/L	1.4	10	10	11.1	11.4	98	100	80-120	2	20	

MATRIX SPIKE SAMPLE: 3359280

Parameter	Units	50343925004 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Dissolved Organic Carbon	mg/L	4.3	10	14.7	104	80-120	

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Eagle Valley April 2023 P1R3

Pace Project No.: 50343955

**Sample: MW-10D**      **Lab ID: 50343955001**      Collected: 05/04/23 13:35      Received: 05/04/23 15:40      Matrix: Water  
 PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Radium-226	EPA 903.1	<b>0.412 ± 0.302 (0.337)</b> <b>C:NA T:83%</b>	pCi/L	05/30/23 16:42	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 904.0	<b>0.395 ± 0.351 (0.713)</b> <b>C:87% T:83%</b>	pCi/L	05/18/23 14:38	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	<b>0.807 ± 0.653 (1.05)</b>	pCi/L	05/30/23 18:09	7440-14-4	

### REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL - RADIOCHEMISTRY

Project: Eagle Valley April 2023 P1R3

Pace Project No.: 50343955

QC Batch: 587562

Analysis Method: EPA 903.1

QC Batch Method: EPA 903.1

Analysis Description: 903.1 Radium-226

Laboratory: Pace Analytical Services - Greensburg

Associated Lab Samples: 50343955001

METHOD BLANK: 2854465

Matrix: Water

Associated Lab Samples: 50343955001

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.0872 ± 0.210 (0.405) C:NA T:85%	pCi/L	05/30/23 16:23	

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### QUALITY CONTROL - RADIOCHEMISTRY

Project: Eagle Valley April 2023 P1R3

Pace Project No.: 50343955

QC Batch: 587564

Analysis Method: EPA 904.0

QC Batch Method: EPA 904.0

Analysis Description: 904.0 Radium 228

Laboratory: Pace Analytical Services - Greensburg

Associated Lab Samples: 50343955001

METHOD BLANK: 2854466

Matrix: Water

Associated Lab Samples: 50343955001

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.897 ± 0.384 (0.586) C:78% T:85%	pCi/L	05/18/23 11:30	

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## QUALIFIERS

Project: Eagle Valley April 2023 P1R3

Pace Project No.: 50343955

### DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Reported results are not rounded until the final step prior to reporting. Therefore, calculated parameters that are typically reported as "Total" may vary slightly from the sum of the reported component parameters.

Act - Activity

Unc - Uncertainty: SDWA = 1.96 sigma count uncertainty, all other matrices = Expanded Uncertainty (95% confidence interval).

Gamma Spec = Expanded Uncertainty (95.4% Confidence Interval)

(MDC) - Minimum Detectable Concentration

Trac - Tracer Recovery (%)

Carr - Carrier Recovery (%)

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

### ANALYTE QUALIFIERS

H3 Sample was received or analysis requested beyond the recognized method holding time.

M0 Matrix spike recovery and/or matrix spike duplicate recovery was outside laboratory control limits.

M3 Matrix spike recovery was outside laboratory control limits due to matrix interferences.

N2 The lab does not hold NELAC/TNI accreditation for this parameter but other accreditations/certifications may apply. A complete list of accreditations/certifications is available upon request.

## REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Eagle Valley April 2023 P1R3

Pace Project No.: 50343955

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
50343955001	MW-10D	EPA 9056	732229		
50343955001	MW-10D	EPA 3010	731969	EPA 6010	733077
50343955001	MW-10D	EPA 3010	732032	EPA 6010	732898
50343955001	MW-10D	EPA 200.2	731718	EPA 6020	731908
50343955001	MW-10D	EPA 7470	731914	EPA 7470	732527
50343955001	MW-10D	EPA 903.1	587562		
50343955001	MW-10D	EPA 904.0	587564		
50343955001	MW-10D	Total Radium Calculation	591495		
50343955001	MW-10D	SM 2320B	732022		
50343955001	MW-10D	SM 2540C	732208		
50343955001	MW-10D	SM 4500-H+B	732519		
50343955001	MW-10D	SM 4500-S2-D	732403		
50343955001	MW-10D	HACH 8146	732177		
50343955001	MW-10D	EPA 353.2	731708		
50343955001	MW-10D	EPA 365.1	732057	EPA 365.1	733212
50343955001	MW-10D	SM 5310C	732315		
50343955001	MW-10D	SM 5310C	731944		

### REPORT OF LABORATORY ANALYSIS

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**SAMPLE CONDITION UPON RECEIPT FORM**

Date/Time and Initials of person examining contents: 5/4/23 11 1850

1. Courier:  FED EX  UPS  CLIENT  PACE  USPS  OTHER

2. Custody Seal on Cooler/Box Present:  Yes  No  
 (If yes)Seals Intact:  Yes  No (leave blank if no seals were present)

3. Thermometer: **1 2 3 4 5 6 A B C D E F**  
 4. Cooler Temperature(s): 0.1/0.1      
 (Initial/Corrected) RECORD TEMPS OF ALL COOLERS RECEIVED (use Comments below to add more)

5. Packing Material:  Bubble Wrap  Bubble Bags  
 None  Other ziplocs

6. Ice Type:  Wet  Blue  None

7. If temp. is over 6°C or under 0°C, was the PM notified?:  Yes  No  
 Cooler temp should be above freezing to 6°C

All discrepancies will be written out in the comments section below.

	Yes	No		Yes	No	N/A
USDA Regulated Soils? (HI, ID, NY, WA, OR, CA, NM, TX, OK, AR, LA, TN, AL, MS, NC, SC, GA, FL, or Puerto Rico)		/	All containers needing acid/base preservation have been pH CHECKED?: Exceptions: VOA, coliform, LLHg, O&G, RAD CHEM, and any container with a septum cap or preserved with HCl.			
Short Hold Time Analysis (48 hours or less)? Analysis: <u>NO2/NO3</u>	/		Circle: <u>HNO3 (&lt;2)</u> <u>H2SO4 (&lt;2)</u> <u>NaOH (&gt;10)</u> <u>NaOH/ZnAc (&gt;9)</u> Any non-conformance to pH recommendations will be noted on the container count form	/		
Time 5035A TC placed in Freezer or Short Holds To Lab Time: <u>16:40</u>			Residual Chlorine Check (SVOC 625 Pest/PCB 608)	<u>Present</u>	<u>Absent</u>	<u>N/A</u>
Rush TAT Requested (4 days or less):		/	Residual Chlorine Check (Total/Amenable/Free Cyanide)			/
Custody Signatures Present?	/		Headspace Wisconsin Sulfide?			/
Containers Intact?:	/		Headspace in VOA Vials (>6mm): See Container Count form for details	<u>Present</u>	<u>Absent</u>	No VOA Vials Sent
Sample Label (IDs/Dates/Times) Match COC?: Except TCs, which only require sample ID	/		Trip Blank Present?		/	
Extra labels on Terracore Vials? (soils only)			Trip Blank Custody Seals?:			/

COMMENTS:

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July 19, 2023

Mr. Mark Breting  
ATC Group Services  
7988 Centerpoint Drive  
Suite 100  
Indianapolis, IN 46256

RE: Project: Eagle Valley April 2023 P1R1  
Pace Project No.: 50343956

Dear Mr. Breting:

Enclosed are the analytical results for sample(s) received by the laboratory on May 04, 2023. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

The test results provided in this final report were generated by each of the following laboratories within the Pace Network:

- Pace Analytical Services - Indianapolis
- Pace Analytical Services - Greensburg

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Will Statz  
will.statz@pacelabs.com  
(317)228-3105  
Project Manager

Enclosures

cc: Mohammed Bazlamit, Atlas  
Mr. Robert Miller, Haley & Aldrich



## REPORT OF LABORATORY ANALYSIS

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### CERTIFICATIONS

Project: Eagle Valley April 2023 P1R1  
Pace Project No.: 50343956

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#### Pace Analytical Services Pennsylvania

1638 Roseytown Rd Suites 2,3&4, Greensburg, PA 15601  
ANAB DOD-ELAP Rad Accreditation #: L2417  
ANABISO/IEC 17025:2017 Rad Cert#: L24170  
Alabama Certification #: 41590  
Arizona Certification #: AZ0734  
Arkansas Certification  
California Certification #: 2950  
Colorado Certification #: PA01547  
Connecticut Certification #: PH-0694  
EPA Region 4 DW Rad  
Florida/TNI Certification #: E87683  
Georgia Certification #: C040  
Guam Certification  
Hawaii Certification  
Idaho Certification  
Illinois Certification  
Indiana Certification  
Iowa Certification #: 391  
Kansas Certification #: E-10358  
Kentucky Certification #: KY90133  
KY WW Permit #: KY0098221  
KY WW Permit #: KY0000221  
Louisiana DHH/TNI Certification #: LA010  
Louisiana DEQ/TNI Certification #: 04086  
Maine Certification #: 2023021  
Maryland Certification #: 308  
Massachusetts Certification #: M-PA1457  
Michigan/PADEP Certification #: 9991

Missouri Certification #: 235  
Montana Certification #: Cert0082  
Nebraska Certification #: NE-OS-29-14  
Nevada Certification #: PA014572023-03  
New Hampshire/TNI Certification #: 297622  
New Jersey/TNI Certification #: PA051  
New Mexico Certification #: PA01457  
New York/TNI Certification #: 10888  
North Carolina Certification #: 42706  
North Dakota Certification #: R-190  
Ohio EPA Rad Approval: #41249  
Oregon/TNI Certification #: PA200002-015  
Pennsylvania/TNI Certification #: 65-00282  
Puerto Rico Certification #: PA01457  
Rhode Island Certification #: 65-00282  
South Dakota Certification  
Tennessee Certification #: TN02867  
Texas/TNI Certification #: T104704188-22-18  
Utah/TNI Certification #: PA014572223-14  
USDA Soil Permit #: 525-23-67-77263  
Vermont Dept. of Health: ID# VT-0282  
Virgin Island/PADEP Certification  
Virginia/VELAP Certification #: 460198  
Washington Certification #: C868  
West Virginia DEP Certification #: 143  
West Virginia DHHR Certification #: 9964C  
Wisconsin Approve List for Rad

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#### Pace Analytical Services Indianapolis

7726 Moller Road, Indianapolis, IN 46268  
Illinois Accreditation #: 200074  
Indiana Drinking Water Laboratory #: C-49-06  
Kansas/TNI Certification #: E-10177  
Kentucky UST Agency Interest #: 80226  
Kentucky WW Laboratory ID #: 98019  
Michigan Drinking Water Laboratory #9050

Ohio VAP Certified Laboratory #: CL0065  
Oklahoma Laboratory #: 9204  
Texas Certification #: T104704355  
Wisconsin Laboratory #: 999788130  
USDA Foreign Soil Permit #: 525-23-13-23119  
USDA Compliance Agreement #: IN-SL-22-001

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### REPORT OF LABORATORY ANALYSIS

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### SAMPLE SUMMARY

Project: Eagle Valley April 2023 P1R1  
Pace Project No.: 50343956

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Lab ID	Sample ID	Matrix	Date Collected	Date Received
50343956001	MW-10S	Water	05/04/23 10:29	05/04/23 15:40

### REPORT OF LABORATORY ANALYSIS

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### SAMPLE ANALYTE COUNT

Project: Eagle Valley April 2023 P1R1

Pace Project No.: 50343956

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
50343956001	MW-10S	EPA 9056	RMR	3	PASI-I
		EPA 6010	JPK	10	PASI-I
		EPA 6010	MTM	2	PASI-I
		EPA 6020	DMT	11	PASI-I
		EPA 7470	EAE	1	PASI-I
		EPA 903.1	CLM	1	PASI-PA
		EPA 904.0	JJS1	1	PASI-PA
		Total Radium Calculation	LAL	1	PASI-PA
		SM 2320B	DAW	3	PASI-I
		SM 2540C	TRK	1	PASI-I
		SM 4500-H+B	LHZ	1	PASI-I
		SM 4500-S2-D	BEP	1	PASI-I
		HACH 8146	BEP	1	PASI-I
		EPA 353.2	ZM	2	PASI-I
		EPA 365.1	YAM	1	PASI-I
		SM 5310C	ATS	1	PASI-I
		SM 5310C	ATS	1	PASI-I

PASI-I = Pace Analytical Services - Indianapolis

PASI-PA = Pace Analytical Services - Greensburg

### REPORT OF LABORATORY ANALYSIS

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### SUMMARY OF DETECTION

Project: Eagle Valley April 2023 P1R1

Pace Project No.: 50343956

Lab Sample ID	Client Sample ID	Result	Units	Report Limit	Analyzed	Qualifiers
Method	Parameters					
<b>50343956001</b>	<b>MW-10S</b>					
EPA 9056	Chloride	98.8	mg/L	25.0	05/11/23 06:05	
EPA 9056	Fluoride	0.19	mg/L	0.10	05/11/23 05:46	
EPA 9056	Sulfate	409	mg/L	25.0	05/11/23 06:05	
EPA 6010	Boron	6300	ug/L	100	05/11/23 22:06	
EPA 6010	Calcium	173000	ug/L	1000	05/11/23 22:06	
EPA 6010	Lithium	88.7	ug/L	20.0	05/11/23 22:06	
EPA 6010	Magnesium	38700	ug/L	1000	05/11/23 22:06	
EPA 6010	Manganese	16.3	ug/L	10.0	05/11/23 22:06	
EPA 6010	Potassium	10100	ug/L	1000	05/11/23 22:06	
EPA 6010	Silica	11900	ug/L	450	05/11/23 22:06	N2
EPA 6010	Sodium	108000	ug/L	1000	05/11/23 22:06	
EPA 6010	Molybdenum, Dissolved	59.9	ug/L	10.0	05/11/23 12:20	
EPA 6020	Antimony	2.4	ug/L	1.0	05/09/23 14:33	
EPA 6020	Barium	69.5	ug/L	1.0	05/09/23 14:33	
EPA 6020	Molybdenum	55.3	ug/L	10.0	05/09/23 14:33	
EPA 6020	Selenium	2.2	ug/L	1.0	05/09/23 14:33	
EPA 903.1	Radium-226	0.401 ± 0.318 (0.413)	pCi/L		05/30/23 16:59	
EPA 904.0	Radium-228	C:NA T:85% 0.927 ± 0.447 (0.769)	pCi/L		05/18/23 14:38	
		C:79% T:85%				
Total Radium Calculation	Total Radium	1.33 ± 0.765 (1.18)	pCi/L		05/30/23 18:09	
SM 2320B	Alkalinity, Total as CaCO3	307	mg/L	10.0	05/05/23 22:40	
SM 2320B	Alkalinity, Bicarbonate (CaCO3)	307	mg/L	10.0	05/05/23 22:40	
SM 2540C	Total Dissolved Solids	1040	mg/L	20.0	05/09/23 08:32	
SM 4500-H+B	pH at 25 Degrees C	7.7	Std. Units	0.10	05/09/23 16:41	H3
SM 5310C	Total Organic Carbon	1.2	mg/L	1.0	05/10/23 19:10	
SM 5310C	Dissolved Organic Carbon	1.8	mg/L	1.0	05/09/23 18:07	

### REPORT OF LABORATORY ANALYSIS

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**ANALYTICAL RESULTS**

Project: Eagle Valley April 2023 P1R1  
 Pace Project No.: 50343956

**Sample: MW-10S**      **Lab ID: 50343956001**      Collected: 05/04/23 10:29      Received: 05/04/23 15:40      Matrix: Water

Parameters	Results	Units	Report			Prepared	Analyzed	CAS No.	Qual
			Limit	MDL	DF				
<b>9056 IC Anions</b>									
Analytical Method: EPA 9056									
Pace Analytical Services - Indianapolis									
Chloride	98.8	mg/L	25.0	6.7	100		05/11/23 06:05	16887-00-6	
Fluoride	0.19	mg/L	0.10	0.017	1		05/11/23 05:46	16984-48-8	
Sulfate	409	mg/L	25.0	8.5	100		05/11/23 06:05	14808-79-8	
<b>6010 MET ICP</b>									
Analytical Method: EPA 6010      Preparation Method: EPA 3010									
Pace Analytical Services - Indianapolis									
Aluminum	ND	ug/L	200	55.4	1	05/09/23 08:35	05/11/23 22:06	7429-90-5	
Boron	6300	ug/L	100	37.6	1	05/09/23 08:35	05/11/23 22:06	7440-42-8	
Calcium	173000	ug/L	1000	163	1	05/09/23 08:35	05/11/23 22:06	7440-70-2	
Iron	ND	ug/L	100	48.8	1	05/09/23 08:35	05/11/23 22:06	7439-89-6	
Lithium	88.7	ug/L	20.0	6.2	1	05/09/23 08:35	05/11/23 22:06	7439-93-2	
Magnesium	38700	ug/L	1000	71.8	1	05/09/23 08:35	05/11/23 22:06	7439-95-4	
Manganese	16.3	ug/L	10.0	2.5	1	05/09/23 08:35	05/11/23 22:06	7439-96-5	
Potassium	10100	ug/L	1000	281	1	05/09/23 08:35	05/11/23 22:06	7440-09-7	
Silica	11900	ug/L	450		1	05/09/23 08:35	05/11/23 22:06	7631-86-9	N2
Sodium	108000	ug/L	1000	214	1	05/09/23 08:35	05/11/23 22:06	7440-23-5	
<b>6010 MET ICP, Dissolved</b>									
Analytical Method: EPA 6010      Preparation Method: EPA 3010									
Pace Analytical Services - Indianapolis									
Manganese, Dissolved	ND	ug/L	10.0	2.5	1	05/09/23 08:02	05/11/23 12:20	7439-96-5	
Molybdenum, Dissolved	59.9	ug/L	10.0	3.7	1	05/09/23 08:02	05/11/23 12:20	7439-98-7	
<b>6020 MET ICPMS</b>									
Analytical Method: EPA 6020      Preparation Method: EPA 200.2									
Pace Analytical Services - Indianapolis									
Antimony	2.4	ug/L	1.0	0.080	1	05/05/23 07:16	05/09/23 14:33	7440-36-0	
Arsenic	ND	ug/L	1.0	0.12	1	05/05/23 07:16	05/09/23 14:33	7440-38-2	
Barium	69.5	ug/L	1.0	0.065	1	05/05/23 07:16	05/09/23 14:33	7440-39-3	
Beryllium	ND	ug/L	0.20	0.026	1	05/05/23 07:16	05/10/23 13:38	7440-41-7	
Cadmium	ND	ug/L	2.0	0.016	1	05/05/23 07:16	05/09/23 14:33	7440-43-9	
Chromium	ND	ug/L	10.0	0.18	1	05/05/23 07:16	05/09/23 14:33	7440-47-3	
Cobalt	ND	ug/L	1.0	0.071	1	05/05/23 07:16	05/09/23 14:33	7440-48-4	
Lead	ND	ug/L	10.0	0.068	1	05/05/23 07:16	05/09/23 14:33	7439-92-1	
Molybdenum	55.3	ug/L	10.0	0.074	1	05/05/23 07:16	05/09/23 14:33	7439-98-7	
Selenium	2.2	ug/L	1.0	0.19	1	05/05/23 07:16	05/09/23 14:33	7782-49-2	
Thallium	ND	ug/L	1.0	0.060	1	05/05/23 07:16	05/09/23 14:33	7440-28-0	
<b>7470 Mercury</b>									
Analytical Method: EPA 7470      Preparation Method: EPA 7470									
Pace Analytical Services - Indianapolis									
Mercury	ND	ug/L	0.20	0.091	1	05/09/23 11:16	05/09/23 19:16	7439-97-6	
<b>2320B Alkalinity</b>									
Analytical Method: SM 2320B									
Pace Analytical Services - Indianapolis									
Alkalinity, Total as CaCO3	307	mg/L	10.0	10.0	1		05/05/23 22:40		
Alkalinity,Bicarbonate (CaCO3)	307	mg/L	10.0	10.0	1		05/05/23 22:40		

**REPORT OF LABORATORY ANALYSIS**

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**ANALYTICAL RESULTS**

Project: Eagle Valley April 2023 P1R1  
 Pace Project No.: 50343956

Sample: MW-10S		Lab ID: 50343956001		Collected: 05/04/23 10:29	Received: 05/04/23 15:40	Matrix: Water			
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>2320B Alkalinity</b>		Analytical Method: SM 2320B Pace Analytical Services - Indianapolis							
Alkalinity, Carbonate (CaCO3)	ND	mg/L	10.0	10.0	1		05/05/23 22:40		
<b>2540C Total Dissolved Solids</b>		Analytical Method: SM 2540C Pace Analytical Services - Indianapolis							
Total Dissolved Solids	<b>1040</b>	mg/L	20.0	20.0	1		05/09/23 08:32		
<b>4500H+ pH, Electrometric</b>		Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis							
pH at 25 Degrees C	<b>7.7</b>	Std. Units	0.10	0.10	1		05/09/23 16:41		H3
<b>4500S2D Sulfide Water</b>		Analytical Method: SM 4500-S2-D Pace Analytical Services - Indianapolis							
Sulfide	ND	mg/L	0.10	0.025	1		05/09/23 15:19	18496-25-8	
<b>Iron, Ferrous</b>		Analytical Method: HACH 8146 Pace Analytical Services - Indianapolis							
Iron, Ferrous	ND	mg/L	0.20	0.035	1		05/08/23 12:01	15438-31-0	H3,N2
<b>353.2 Nitrogen, NO2/NO3 unpres</b>		Analytical Method: EPA 353.2 Pace Analytical Services - Indianapolis							
Nitrogen, Nitrate	ND	mg/L	0.10	0.011	1		05/05/23 11:08	14797-55-8	
Nitrogen, Nitrite	ND	mg/L	0.10	0.0040	1		05/05/23 11:08	14797-65-0	
<b>365.1 Total Phosphorus</b>		Analytical Method: EPA 365.1 Preparation Method: EPA 365.1 Pace Analytical Services - Indianapolis							
Phosphate as P04	ND	mg/L	0.15	0.15	1	05/06/23 16:30	05/12/23 08:28		
<b>5310C TOC</b>		Analytical Method: SM 5310C Pace Analytical Services - Indianapolis							
Total Organic Carbon	<b>1.2</b>	mg/L	1.0	0.24	1		05/10/23 19:10	7440-44-0	
<b>5310C Dissolved Organic Carbon</b>		Analytical Method: SM 5310C Pace Analytical Services - Indianapolis							
Dissolved Organic Carbon	<b>1.8</b>	mg/L	1.0	0.24	1		05/09/23 18:07		

**REPORT OF LABORATORY ANALYSIS**

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**QUALITY CONTROL DATA**

Project: Eagle Valley April 2023 P1R1

Pace Project No.: 50343956

QC Batch:	732229	Analysis Method:	EPA 9056
QC Batch Method:	EPA 9056	Analysis Description:	9056 IC Anions
		Laboratory:	Pace Analytical Services - Indianapolis

Associated Lab Samples: 50343956001

METHOD BLANK: 3360569 Matrix: Water

Associated Lab Samples: 50343956001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chloride	mg/L	ND	0.25	0.067	05/12/23 13:50	
Fluoride	mg/L	ND	0.10	0.017	05/12/23 13:50	
Sulfate	mg/L	ND	0.25	0.085	05/12/23 13:50	

LABORATORY CONTROL SAMPLE: 3360570

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	2.5	2.4	97	80-120	
Fluoride	mg/L	1	1.0	105	80-120	
Sulfate	mg/L	5	5.4	108	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3360571 3360572

Parameter	Units	50343399002		3360571		3360572		% Rec	% Rec	% Rec Limits	RPD	Max RPD	Qual
		MS Result	MSD Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result						
Chloride	mg/L	3480	2500	2500	4770	4780	52	52	80-120	0	15	M0	
Fluoride	mg/L	0.24J	10	10	7.6	7.6	73	74	80-120	1	15	M0	
Sulfate	mg/L	226	50	50	272	270	91	88	80-120	1	15		

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3360573 3360574

Parameter	Units	50343330001		3360573		3360574		% Rec	% Rec	% Rec Limits	RPD	Max RPD	Qual
		MS Result	MSD Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result						
Chloride	mg/L	20.5	2.5	2.5	23.2	23.1	105	104	80-120	0	15		
Fluoride	mg/L	2.2	1	1	3.3	3.3	113	113	80-120	0	15		
Sulfate	mg/L	<2.0	5	5	5.1	5.3	102	105	80-120	3	15		

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**QUALITY CONTROL DATA**

Project: Eagle Valley April 2023 P1R1

Pace Project No.: 50343956

QC Batch: 731914	Analysis Method: EPA 7470
QC Batch Method: EPA 7470	Analysis Description: 7470 Mercury
	Laboratory: Pace Analytical Services - Indianapolis

Associated Lab Samples: 50343956001

METHOD BLANK: 3359151 Matrix: Water

Associated Lab Samples: 50343956001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Mercury	ug/L	ND	0.20	0.091	05/09/23 18:24	

LABORATORY CONTROL SAMPLE: 3359152

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury	ug/L	5	5.2	105	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3359153 3359154

Parameter	Units	50343791004		3359153		3359154		% Rec Limits	RPD	Max RPD	Qual
		MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec				
Mercury	ug/L	ND	5	5	5.2	5.1	104	101	75-125	2	20

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**QUALITY CONTROL DATA**

Project: Eagle Valley April 2023 P1R1  
Pace Project No.: 50343956

QC Batch: 731969 Analysis Method: EPA 6010  
QC Batch Method: EPA 3010 Analysis Description: 6010 MET  
Laboratory: Pace Analytical Services - Indianapolis

Associated Lab Samples: 50343956001

METHOD BLANK: 3359364 Matrix: Water  
Associated Lab Samples: 50343956001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Aluminum	ug/L	ND	200	55.4	05/11/23 21:51	
Boron	ug/L	ND	100	37.6	05/11/23 21:51	
Calcium	ug/L	ND	1000	163	05/11/23 21:51	
Iron	ug/L	ND	100	48.8	05/11/23 21:51	
Lithium	ug/L	ND	20.0	6.2	05/11/23 21:51	
Magnesium	ug/L	ND	1000	71.8	05/11/23 21:51	
Manganese	ug/L	ND	10.0	2.5	05/11/23 21:51	
Potassium	ug/L	ND	1000	281	05/11/23 21:51	
Silica	ug/L	ND	450		05/11/23 21:51	N2
Sodium	ug/L	ND	1000	214	05/11/23 21:51	

LABORATORY CONTROL SAMPLE: 3359365

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Aluminum	ug/L	10000	10100	101	80-120	
Boron	ug/L	1000	978	98	80-120	
Calcium	ug/L	10000	10300	103	80-120	
Iron	ug/L	10000	10200	102	80-120	
Lithium	ug/L	1000	1020	102	80-120	
Magnesium	ug/L	10000	10000	100	80-120	
Manganese	ug/L	1000	980	98	80-120	
Potassium	ug/L	10000	9990	100	80-120	
Silica	ug/L	10700	10600	99	80-120	N2
Sodium	ug/L	10000	10000	100	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3359366 3359367

Parameter	Units	MS		MSD		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual	
		50343738002 Result	Spike Conc.	Spike Conc.	MS Result							MSD Result
Aluminum	ug/L	ND	10000	10000	10800	10700	107	106	75-125	0	20	
Boron	ug/L	ND	1000	1000	1080	1080	105	104	75-125	1	20	
Calcium	ug/L	33800	10000	10000	44900	45500	112	117	75-125	1	20	
Iron	ug/L	1720	10000	10000	12300	12400	106	107	75-125	1	20	
Lithium	ug/L	94.0	1000	1000	1180	1190	108	109	75-125	1	20	
Magnesium	ug/L	5180	10000	10000	15400	15500	102	104	75-125	1	20	
Manganese	ug/L	122	1000	1000	1130	1140	101	102	75-125	1	20	
Potassium	ug/L	8960	10000	10000	19900	20100	109	111	75-125	1	20	

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**QUALITY CONTROL DATA**

Project: Eagle Valley April 2023 P1R1

Pace Project No.: 50343956

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3359366 3359367													
Parameter	Units	50343738002 Result	MS	MSD	MS	MSD	MS	MSD	% Rec	Limits	RPD	Max RPD	Qual
			Spike Conc.	Spike Conc.	Result	Result	% Rec	% Rec					
Silica	ug/L	1980	10700	10700	13200	13200	105	105	75-125	0	20	N2	
Sodium	ug/L	42000	10000	10000	53100	53700	111	118	75-125	1	20		

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**QUALITY CONTROL DATA**

Project: Eagle Valley April 2023 P1R1

Pace Project No.: 50343956

QC Batch:	732032	Analysis Method:	EPA 6010
QC Batch Method:	EPA 3010	Analysis Description:	6010 MET Dissolved
		Laboratory:	Pace Analytical Services - Indianapolis

Associated Lab Samples: 50343956001

METHOD BLANK: 3359788 Matrix: Water

Associated Lab Samples: 50343956001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Manganese, Dissolved	ug/L	ND	10.0	2.5	05/11/23 11:35	
Molybdenum, Dissolved	ug/L	ND	10.0	3.7	05/11/23 11:35	

LABORATORY CONTROL SAMPLE: 3359789

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Manganese, Dissolved	ug/L	1000	949	95	80-120	
Molybdenum, Dissolved	ug/L	1000	1010	101	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3359790 3359791

Parameter	Units	50343475001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Manganese, Dissolved	ug/L	ND	1000	1000	924	930	92	93	75-125	1	20	
Molybdenum, Dissolved	ug/L	126	1000	1000	1140	1150	102	103	75-125	1	20	

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**QUALITY CONTROL DATA**

Project: Eagle Valley April 2023 P1R1

Pace Project No.: 50343956

QC Batch: 731718

Analysis Method: EPA 6020

QC Batch Method: EPA 200.2

Analysis Description: 6020 MET

Laboratory: Pace Analytical Services - Indianapolis

Associated Lab Samples: 50343956001

METHOD BLANK: 3358070

Matrix: Water

Associated Lab Samples: 50343956001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Antimony	ug/L	ND	1.0	0.080	05/09/23 04:46	
Arsenic	ug/L	ND	1.0	0.12	05/09/23 04:46	
Barium	ug/L	ND	1.0	0.065	05/09/23 04:46	
Beryllium	ug/L	ND	0.20	0.026	05/09/23 04:46	
Cadmium	ug/L	ND	2.0	0.016	05/09/23 04:46	
Chromium	ug/L	ND	10.0	0.18	05/09/23 04:46	
Cobalt	ug/L	ND	1.0	0.071	05/09/23 04:46	
Lead	ug/L	ND	10.0	0.068	05/09/23 04:46	
Molybdenum	ug/L	ND	10.0	0.074	05/09/23 04:46	
Selenium	ug/L	ND	1.0	0.19	05/09/23 04:46	
Thallium	ug/L	ND	1.0	0.060	05/09/23 04:46	

LABORATORY CONTROL SAMPLE: 3358071

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Antimony	ug/L	40	42.7	107	80-120	
Arsenic	ug/L	40	38.8	97	80-120	
Barium	ug/L	40	39.5	99	80-120	
Beryllium	ug/L	40	39.2	98	80-120	
Cadmium	ug/L	40	39.1	98	80-120	
Chromium	ug/L	40	40.8	102	80-120	
Cobalt	ug/L	40	40.2	101	80-120	
Lead	ug/L	40	41.1	103	80-120	
Molybdenum	ug/L	40	40.2	101	80-120	
Selenium	ug/L	40	39.1	98	80-120	
Thallium	ug/L	40	41.7	104	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3358072 3358073

Parameter	Units	50343943001		3358072		3358073		% Rec	% Rec	% Rec Limits	RPD	Max RPD	Qual
		Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec						
Antimony	ug/L	ND	40	40	43.2	42.6	108	106	75-125	1	20		
Arsenic	ug/L	ND	40	40	39.6	39.0	98	97	75-125	1	20		
Barium	ug/L	27.9	40	40	67.6	67.6	99	99	75-125	0	20		
Beryllium	ug/L	ND	40	40	39.9	39.7	100	99	75-125	0	20		
Cadmium	ug/L	ND	40	40	38.4	38.2	96	96	75-125	0	20		
Chromium	ug/L	ND	40	40	41.7	41.2	103	102	75-125	1	20		

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**QUALITY CONTROL DATA**

Project: Eagle Valley April 2023 P1R1

Pace Project No.: 50343956

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3358072 3358073											
Parameter	Units	50343943001 Result	MS	MSD	MS	MSD	MS	MSD	% Rec	Max	Qual
			Spike Conc.	Spike Conc.	Result	Result	% Rec	% Rec	Limits	RPD	
Cobalt	ug/L	ND	40	40	38.9	38.2	97	95	75-125	2	20
Lead	ug/L	ND	40	40	40.6	40.5	101	101	75-125	0	20
Molybdenum	ug/L	1.1	40	40	41.7	41.2	102	100	75-125	1	20
Selenium	ug/L	2.4	40	40	42.8	41.5	101	98	75-125	3	20
Thallium	ug/L	ND	40	40	41.5	41.6	104	104	75-125	0	20

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### QUALITY CONTROL DATA

Project: Eagle Valley April 2023 P1R1

Pace Project No.: 50343956

QC Batch: 732022

Analysis Method: SM 2320B

QC Batch Method: SM 2320B

Analysis Description: 2320B Alkalinity

Laboratory: Pace Analytical Services - Indianapolis

Associated Lab Samples: 50343956001

METHOD BLANK: 3359662

Matrix: Water

Associated Lab Samples: 50343956001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Alkalinity, Total as CaCO3	mg/L	ND	10.0	10.0	05/05/23 22:40	
Alkalinity,Bicarbonate (CaCO3)	mg/L	ND	10.0	10.0	05/05/23 22:40	
Alkalinity,Carbonate (CaCO3)	mg/L	ND	10.0	10.0	05/05/23 22:40	

LABORATORY CONTROL SAMPLE: 3359663

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Alkalinity, Total as CaCO3	mg/L	50	46.8	94	90-110	

SAMPLE DUPLICATE: 3359664

Parameter	Units	50344112005 Result	Dup Result	RPD	Max RPD	Qualifiers
Alkalinity, Total as CaCO3	mg/L	596	609	2	20	

SAMPLE DUPLICATE: 3359665

Parameter	Units	50343886002 Result	Dup Result	RPD	Max RPD	Qualifiers
Alkalinity, Total as CaCO3	mg/L	77.2	77.8	1	20	
Alkalinity,Bicarbonate (CaCO3)	mg/L	77.2	77.8	1	20	
Alkalinity,Carbonate (CaCO3)	mg/L	ND	ND		20	

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QUALITY CONTROL DATA

Project: Eagle Valley April 2023 P1R1

Pace Project No.: 50343956

QC Batch: 732208

Analysis Method: SM 2540C

QC Batch Method: SM 2540C

Analysis Description: 2540C Total Dissolved Solids

Laboratory: Pace Analytical Services - Indianapolis

Associated Lab Samples: 50343956001

METHOD BLANK: 3360512

Matrix: Water

Associated Lab Samples: 50343956001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	ND	10.0	10.0	05/09/23 08:22	

LABORATORY CONTROL SAMPLE: 3360513

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	300	276	92	80-120	

SAMPLE DUPLICATE: 3360514

Parameter	Units	50344148002 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	605	604	0	10	

SAMPLE DUPLICATE: 3360515

Parameter	Units	50344148003 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	565	551	3	10	

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### QUALITY CONTROL DATA

Project: Eagle Valley April 2023 P1R1

Pace Project No.: 50343956

QC Batch: 732519

Analysis Method: SM 4500-H+B

QC Batch Method: SM 4500-H+B

Analysis Description: 4500H+B pH

Laboratory: Pace Analytical Services - Indianapolis

Associated Lab Samples: 50343956001

SAMPLE DUPLICATE: 3361812

Parameter	Units	50343347003 Result	Dup Result	RPD	Max RPD	Qualifiers
pH at 25 Degrees C	Std. Units	7.0	7.0	1	2	H3

SAMPLE DUPLICATE: 3361813

Parameter	Units	50344061002 Result	Dup Result	RPD	Max RPD	Qualifiers
pH at 25 Degrees C	Std. Units	7.0	7.1	1	2	H3

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**QUALITY CONTROL DATA**

Project: Eagle Valley April 2023 P1R1

Pace Project No.: 50343956

QC Batch:	732408	Analysis Method:	SM 4500-S2-D
QC Batch Method:	SM 4500-S2-D	Analysis Description:	4500S2D Sulfide Water
		Laboratory:	Pace Analytical Services - Indianapolis

Associated Lab Samples: 50343956001

METHOD BLANK: 3361318 Matrix: Water

Associated Lab Samples: 50343956001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Sulfide	mg/L	ND	0.10	0.025	05/09/23 15:19	

LABORATORY CONTROL SAMPLE: 3361319

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Sulfide	mg/L	0.5	0.52	105	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3361320 3361321

Parameter	Units	50343956001		3361321		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result						
Sulfide	mg/L	ND	0.5	0.5	0.44	0.44	87	88	90-110	1	20 M3

MATRIX SPIKE SAMPLE: 3361322

Parameter	Units	50344069001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Sulfide	mg/L	0.059J	0.5	0.72	133	90-110	M0

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**QUALITY CONTROL DATA**

Project: Eagle Valley April 2023 P1R1

Pace Project No.: 50343956

QC Batch:	732177	Analysis Method:	HACH 8146
QC Batch Method:	HACH 8146	Analysis Description:	Iron, Ferrous
		Laboratory:	Pace Analytical Services - Indianapolis

Associated Lab Samples: 50343956001

METHOD BLANK: 3360409 Matrix: Water

Associated Lab Samples: 50343956001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Iron, Ferrous	mg/L	ND	0.20	0.035	05/08/23 11:55	H3,N2

LABORATORY CONTROL SAMPLE: 3360410

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Iron, Ferrous	mg/L	1	1.0	101	90-110	H3,N2

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3360411 3360412

Parameter	Units	50343925001		3360412		% Rec	% Rec	% Rec Limits	RPD	Max RPD	Qual	
		MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result							
Iron, Ferrous	mg/L	ND	1	1	1.0	1.0	104	104	90-110	0	20	H3,N2

MATRIX SPIKE SAMPLE: 3360413

Parameter	Units	50343914001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Iron, Ferrous	mg/L	ND	1	1.1	110	90-110	H3,N2

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**QUALITY CONTROL DATA**

Project: Eagle Valley April 2023 P1R1

Pace Project No.: 50343956

QC Batch:	731708	Analysis Method:	EPA 353.2
QC Batch Method:	EPA 353.2	Analysis Description:	353.2 Nitrate + Nitrite, Unpres.
		Laboratory:	Pace Analytical Services - Indianapolis

Associated Lab Samples: 50343956001

METHOD BLANK: 3358001 Matrix: Water

Associated Lab Samples: 50343956001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Nitrogen, Nitrate	mg/L	ND	0.10	0.011	05/05/23 10:16	
Nitrogen, Nitrite	mg/L	ND	0.10	0.0040	05/05/23 10:16	

LABORATORY CONTROL SAMPLE: 3358002

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Nitrogen, Nitrate	mg/L	1	1.0	102	90-110	
Nitrogen, Nitrite	mg/L	1	1.1	107	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3358003 3358004

Parameter	Units	50343808006 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Nitrogen, Nitrate	mg/L	ND	1	1	1.0	1.0	104	104	90-110	0	20	
Nitrogen, Nitrite	mg/L	ND	1	1	1.1	1.1	108	109	90-110	0	20	

MATRIX SPIKE SAMPLE: 3358005

Parameter	Units	50343925008 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Nitrogen, Nitrate	mg/L	6.7	5	11.0	87	90-110	
Nitrogen, Nitrite	mg/L	ND	5	5.3	105	90-110	

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**QUALITY CONTROL DATA**

Project: Eagle Valley April 2023 P1R1  
 Pace Project No.: 50343956

QC Batch: 732070	Analysis Method: EPA 365.1
QC Batch Method: EPA 365.1	Analysis Description: 365.1 Total Phosphorus
	Laboratory: Pace Analytical Services - Indianapolis

Associated Lab Samples: 50343956001

METHOD BLANK: 3360013 Matrix: Water  
 Associated Lab Samples: 50343956001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Phosphate as P04	mg/L	ND	0.15	0.15	05/12/23 08:26	

LABORATORY CONTROL SAMPLE: 3360014

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Phosphate as P04	mg/L		1.4			

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3360015 3360016

Parameter	Units	50344061003 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Phosphate as P04	mg/L	0.65			2.0	2.0				2		

MATRIX SPIKE SAMPLE: 3360017

Parameter	Units	50344069002 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Phosphate as P04	mg/L	0.25		1.6			

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**QUALITY CONTROL DATA**

Project: Eagle Valley April 2023 P1R1

Pace Project No.: 50343956

QC Batch:	732315	Analysis Method:	SM 5310C
QC Batch Method:	SM 5310C	Analysis Description:	5310C Total Organic Carbon
		Laboratory:	Pace Analytical Services - Indianapolis

Associated Lab Samples: 50343956001

METHOD BLANK: 3360815 Matrix: Water

Associated Lab Samples: 50343956001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Organic Carbon	mg/L	ND	1.0	0.24	05/10/23 16:48	

LABORATORY CONTROL SAMPLE: 3360816

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Organic Carbon	mg/L	10	10.3	103	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3360817 3360818

Parameter	Units	50343425003		3360817		3360818		% Rec Limits	RPD	Max RPD	Qual	
		MS Result	MSD Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result					MS % Rec
Total Organic Carbon	mg/L	974 ug/L		10	10	11.0	11.0	100	100	80-120	1	20

MATRIX SPIKE SAMPLE: 3360819

Parameter	Units	50343425004 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Total Organic Carbon	mg/L	1590 ug/L	10	11.9	103	80-120	

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**QUALITY CONTROL DATA**

Project: Eagle Valley April 2023 P1R1

Pace Project No.: 50343956

QC Batch: 731944	Analysis Method: SM 5310C
QC Batch Method: SM 5310C	Analysis Description: 5310C Dissolved Organic Carbon
	Laboratory: Pace Analytical Services - Indianapolis

Associated Lab Samples: 50343956001

METHOD BLANK: 3359276 Matrix: Water

Associated Lab Samples: 50343956001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Dissolved Organic Carbon	mg/L	ND	1.0	0.24	05/09/23 14:07	

LABORATORY CONTROL SAMPLE: 3359277

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Dissolved Organic Carbon	mg/L	10	10.2	102	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3359278 3359279

Parameter	Units	50343925001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Dissolved Organic Carbon	mg/L	1.4	10	10	11.1	11.4	98	100	80-120	2	20	

MATRIX SPIKE SAMPLE: 3359280

Parameter	Units	50343925004 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Dissolved Organic Carbon	mg/L	4.3	10	14.7	104	80-120	

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**ANALYTICAL RESULTS - RADIOCHEMISTRY**

Project: Eagle Valley April 2023 P1R1

Pace Project No.: 50343956

**Sample: MW-10S**      **Lab ID: 50343956001**      Collected: 05/04/23 10:29      Received: 05/04/23 15:40      Matrix: Water  
 PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	<b>0.401 ± 0.318 (0.413)</b> <b>C:NA T:85%</b>	pCi/L	05/30/23 16:59	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	<b>0.927 ± 0.447 (0.769)</b> <b>C:79% T:85%</b>	pCi/L	05/18/23 14:38	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	<b>1.33 ± 0.765 (1.18)</b>	pCi/L	05/30/23 18:09	7440-14-4	

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### QUALITY CONTROL - RADIOCHEMISTRY

Project: Eagle Valley April 2023 P1R1

Pace Project No.: 50343956

QC Batch: 587562

Analysis Method: EPA 903.1

QC Batch Method: EPA 903.1

Analysis Description: 903.1 Radium-226

Laboratory: Pace Analytical Services - Greensburg

Associated Lab Samples: 50343956001

METHOD BLANK: 2854465

Matrix: Water

Associated Lab Samples: 50343956001

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.0872 ± 0.210 (0.405) C:NA T:85%	pCi/L	05/30/23 16:23	

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### QUALITY CONTROL - RADIOCHEMISTRY

Project: Eagle Valley April 2023 P1R1

Pace Project No.: 50343956

QC Batch: 587564

Analysis Method: EPA 904.0

QC Batch Method: EPA 904.0

Analysis Description: 904.0 Radium 228

Laboratory: Pace Analytical Services - Greensburg

Associated Lab Samples: 50343956001

METHOD BLANK: 2854466

Matrix: Water

Associated Lab Samples: 50343956001

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.897 ± 0.384 (0.586) C:78% T:85%	pCi/L	05/18/23 11:30	

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## QUALIFIERS

Project: Eagle Valley April 2023 P1R1  
Pace Project No.: 50343956

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### DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Reported results are not rounded until the final step prior to reporting. Therefore, calculated parameters that are typically reported as "Total" may vary slightly from the sum of the reported component parameters.

Act - Activity

Unc - Uncertainty: SDWA = 1.96 sigma count uncertainty, all other matrices = Expanded Uncertainty (95% confidence interval).

Gamma Spec = Expanded Uncertainty (95.4% Confidence Interval)

(MDC) - Minimum Detectable Concentration

Trac - Tracer Recovery (%)

Carr - Carrier Recovery (%)

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

### ANALYTE QUALIFIERS

H3 Sample was received or analysis requested beyond the recognized method holding time.

M0 Matrix spike recovery and/or matrix spike duplicate recovery was outside laboratory control limits.

M3 Matrix spike recovery was outside laboratory control limits due to matrix interferences.

N2 The lab does not hold NELAC/TNI accreditation for this parameter but other accreditations/certifications may apply. A complete list of accreditations/certifications is available upon request.

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### QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Eagle Valley April 2023 P1R1

Pace Project No.: 50343956

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
50343956001	MW-10S	EPA 9056	732229		
50343956001	MW-10S	EPA 3010	731969	EPA 6010	733077
50343956001	MW-10S	EPA 3010	732032	EPA 6010	732898
50343956001	MW-10S	EPA 200.2	731718	EPA 6020	731908
50343956001	MW-10S	EPA 7470	731914	EPA 7470	732527
50343956001	MW-10S	EPA 903.1	587562		
50343956001	MW-10S	EPA 904.0	587564		
50343956001	MW-10S	Total Radium Calculation	591495		
50343956001	MW-10S	SM 2320B	732022		
50343956001	MW-10S	SM 2540C	732208		
50343956001	MW-10S	SM 4500-H+B	732519		
50343956001	MW-10S	SM 4500-S2-D	732408		
50343956001	MW-10S	HACH 8146	732177		
50343956001	MW-10S	EPA 353.2	731708		
50343956001	MW-10S	EPA 365.1	732070	EPA 365.1	733214
50343956001	MW-10S	SM 5310C	732315		
50343956001	MW-10S	SM 5310C	731944		

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**SAMPLE CONDITION UPON RECEIPT FORM**

Date/Time and Initials of person examining contents: 5/4/23 11 1950

1. Courier:  FED EX  UPS  CLIENT  PACE  USPS  OTHER \_\_\_\_\_

2. Custody Seal on Cooler/Box Present:  Yes  No  
 (If yes)Seals Intact:  Yes  No (leave blank if no seals were present)

3. Thermometer: **1 2 3 4 5 6 A B C D E F**  
 4. Cooler Temperature(s): 0.1/0.1      
 (Initial/Corrected) RECORD TEMPS OF ALL COOLERS RECEIVED (use Comments below to add more)

5. Packing Material:  Bubble Wrap  Bubble Bags  
 None  Other ziplocs

6. Ice Type:  Wet  Blue  None

7. If temp. is over 6°C or under 0°C, was the PM notified?:  Yes  No  
 Cooler temp should be above freezing to 6°C

All discrepancies will be written out in the comments section below.

	Yes	No		Yes	No	N/A
USDA Regulated Soils? (HI, ID, NY, WA, OR, CA, NM, TX, OK, AR, LA, TN, AL, MS, NC, SC, GA, FL, or Puerto Rico)		<input checked="" type="checkbox"/>	All containers needing acid/base preservation have been pH CHECKED?: Exceptions: VOA, coliform, LLHg, O&G, RAD CHEM, and any container with a septum cap or preserved with HCl.			
Short Hold Time Analysis (48 hours or less)? Analysis: <u>NO2/NO3</u>	<input checked="" type="checkbox"/>		Circle: <u>HNO3 (&lt;2)</u> <u>H2SO4 (&lt;2)</u> <u>NaOH (&gt;10)</u> <u>NaOH/ZnAc (&gt;9)</u> Any non-conformance to pH recommendations will be noted on the container count form	<input checked="" type="checkbox"/>		
Time 5035A TC placed in Freezer or Short Holds To Lab Time: <u>16:40</u>			Residual Chlorine Check (SVOC 625 Pest/PCB 608)	<u>Present</u>	<u>Absent</u>	<u>N/A</u>
Rush TAT Requested (4 days or less):		<input checked="" type="checkbox"/>	Residual Chlorine Check (Total/Amenable/Free Cyanide)			<input checked="" type="checkbox"/>
Custody Signatures Present?	<input checked="" type="checkbox"/>		Headspace Wisconsin Sulfide?			<input checked="" type="checkbox"/>
Containers Intact?:	<input checked="" type="checkbox"/>		Headspace in VOA Vials (>6mm): See Container Count form for details	<u>Present</u>	<u>Absent</u>	<u>No VOA Vials Sent</u>
Sample Label (IDs/Dates/Times) Match COC?: Except TCs, which only require sample ID	<input checked="" type="checkbox"/>		Trip Blank Present?		<input checked="" type="checkbox"/>	
Extra labels on Terracore Vials? (soils only)			Trip Blank Custody Seals?:			<input checked="" type="checkbox"/>

COMMENTS:

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July 19, 2023

Mr. Mark Breting  
ATC Group Services  
7988 Centerpoint Drive  
Suite 100  
Indianapolis, IN 46256

RE: Project: Eagle Valley April 2023 P1R2  
Pace Project No.: 50344099

Dear Mr. Breting:

Enclosed are the analytical results for sample(s) received by the laboratory on May 05, 2023. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

The test results provided in this final report were generated by each of the following laboratories within the Pace Network:

- Pace Analytical Services - Indianapolis
- Pace Analytical Services - Greensburg

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Will Statz  
will.statz@pacelabs.com  
(317)228-3105  
Project Manager

Enclosures

cc: Mohammed Bazlamit, Atlas  
Mr. Robert Miller, Haley & Aldrich



## REPORT OF LABORATORY ANALYSIS

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### CERTIFICATIONS

Project: Eagle Valley April 2023 P1R2  
Pace Project No.: 50344099

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#### Pace Analytical Services Pennsylvania

1638 Roseytown Rd Suites 2,3&4, Greensburg, PA 15601  
ANAB DOD-ELAP Rad Accreditation #: L2417  
ANABISO/IEC 17025:2017 Rad Cert#: L24170  
Alabama Certification #: 41590  
Arizona Certification #: AZ0734  
Arkansas Certification  
California Certification #: 2950  
Colorado Certification #: PA01547  
Connecticut Certification #: PH-0694  
EPA Region 4 DW Rad  
Florida/TNI Certification #: E87683  
Georgia Certification #: C040  
Guam Certification  
Hawaii Certification  
Idaho Certification  
Illinois Certification  
Indiana Certification  
Iowa Certification #: 391  
Kansas Certification #: E-10358  
Kentucky Certification #: KY90133  
KY WW Permit #: KY0098221  
KY WW Permit #: KY0000221  
Louisiana DHH/TNI Certification #: LA010  
Louisiana DEQ/TNI Certification #: 04086  
Maine Certification #: 2023021  
Maryland Certification #: 308  
Massachusetts Certification #: M-PA1457  
Michigan/PADEP Certification #: 9991

Missouri Certification #: 235  
Montana Certification #: Cert0082  
Nebraska Certification #: NE-OS-29-14  
Nevada Certification #: PA014572023-03  
New Hampshire/TNI Certification #: 297622  
New Jersey/TNI Certification #: PA051  
New Mexico Certification #: PA01457  
New York/TNI Certification #: 10888  
North Carolina Certification #: 42706  
North Dakota Certification #: R-190  
Ohio EPA Rad Approval: #41249  
Oregon/TNI Certification #: PA200002-015  
Pennsylvania/TNI Certification #: 65-00282  
Puerto Rico Certification #: PA01457  
Rhode Island Certification #: 65-00282  
South Dakota Certification  
Tennessee Certification #: TN02867  
Texas/TNI Certification #: T104704188-22-18  
Utah/TNI Certification #: PA014572223-14  
USDA Soil Permit #: 525-23-67-77263  
Vermont Dept. of Health: ID# VT-0282  
Virgin Island/PADEP Certification  
Virginia/VELAP Certification #: 460198  
Washington Certification #: C868  
West Virginia DEP Certification #: 143  
West Virginia DHHR Certification #: 9964C  
Wisconsin Approve List for Rad

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#### Pace Analytical Services Indianapolis

7726 Moller Road, Indianapolis, IN 46268  
Illinois Accreditation #: 200074  
Indiana Drinking Water Laboratory #: C-49-06  
Kansas/TNI Certification #: E-10177  
Kentucky UST Agency Interest #: 80226  
Kentucky WW Laboratory ID #: 98019  
Michigan Drinking Water Laboratory #9050

Ohio VAP Certified Laboratory #: CL0065  
Oklahoma Laboratory #: 9204  
Texas Certification #: T104704355  
Wisconsin Laboratory #: 999788130  
USDA Foreign Soil Permit #: 525-23-13-23119  
USDA Compliance Agreement #: IN-SL-22-001

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### REPORT OF LABORATORY ANALYSIS

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### SAMPLE SUMMARY

Project: Eagle Valley April 2023 P1R2  
Pace Project No.: 50344099

Lab ID	Sample ID	Matrix	Date Collected	Date Received
50344099001	MW-25I	Water	05/04/23 10:25	05/05/23 14:40
50344099002	MW-25D	Water	05/04/23 09:35	05/05/23 14:40

### REPORT OF LABORATORY ANALYSIS

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**SAMPLE ANALYTE COUNT**

Project: Eagle Valley April 2023 P1R2

Pace Project No.: 50344099

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory		
50344099001	MW-25I	EPA 9056	ADM	3	PASI-I		
		EPA 6010	MTM	10	PASI-I		
		EPA 6010	JPK	2	PASI-I		
		EPA 6020	CAW	11	PASI-I		
		EPA 7470	ILP	1	PASI-I		
		EPA 903.1	JLJ	1	PASI-PA		
		EPA 904.0	VAL	1	PASI-PA		
		Total Radium Calculation	JAL	1	PASI-PA		
		SM 2320B	DAW	3	PASI-I		
		SM 2540C	AEL	1	PASI-I		
		SM 4500-H+B	LHZ	1	PASI-I		
		SM 4500-S2-D	BEP	1	PASI-I		
		HACH 8146	BEP	1	PASI-I		
		EPA 353.2	ZM	2	PASI-I		
		EPA 365.1	YAM	1	PASI-I		
		SM 5310C	ATS	1	PASI-I		
		SM 5310C	ATS	1	PASI-I		
		50344099002	MW-25D	EPA 9056	ADM	3	PASI-I
				EPA 6010	MTM	10	PASI-I
				EPA 6010	JPK	2	PASI-I
EPA 6020	CAW			11	PASI-I		
EPA 7470	ILP			1	PASI-I		
EPA 903.1	JLJ			1	PASI-PA		
EPA 904.0	VAL			1	PASI-PA		
Total Radium Calculation	JAL			1	PASI-PA		
SM 2320B	DAW			3	PASI-I		
SM 2540C	AEL			1	PASI-I		
SM 4500-H+B	LHZ			1	PASI-I		
SM 4500-S2-D	BEP			1	PASI-I		
HACH 8146	BEP			1	PASI-I		
EPA 353.2	ZM			2	PASI-I		
EPA 365.1	YAM			1	PASI-I		
SM 5310C	ATS			1	PASI-I		
SM 5310C	ATS			1	PASI-I		

PASI-I = Pace Analytical Services - Indianapolis  
PASI-PA = Pace Analytical Services - Greensburg

**REPORT OF LABORATORY ANALYSIS**

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### SUMMARY OF DETECTION

Project: Eagle Valley April 2023 P1R2

Pace Project No.: 50344099

Lab Sample ID	Client Sample ID	Result	Units	Report Limit	Analyzed	Qualifiers
Method	Parameters					
<b>50344099001</b>	<b>MW-25I</b>					
EPA 9056	Chloride	100	mg/L	2.5	05/12/23 02:24	
EPA 9056	Fluoride	0.14	mg/L	0.10	05/12/23 02:06	
EPA 9056	Sulfate	83.6	mg/L	2.5	05/12/23 02:24	
EPA 6010	Boron	1100	ug/L	100	05/12/23 11:28	
EPA 6010	Calcium	78200	ug/L	1000	05/12/23 11:28	
EPA 6010	Iron	1330	ug/L	100	05/12/23 11:28	
EPA 6010	Lithium	83.0	ug/L	20.0	05/12/23 11:28	
EPA 6010	Magnesium	20400	ug/L	1000	05/12/23 11:28	
EPA 6010	Manganese	189	ug/L	10.0	05/12/23 11:28	
EPA 6010	Potassium	6800	ug/L	1000	05/12/23 11:28	
EPA 6010	Silica	11700	ug/L	450	05/12/23 11:28	N2
EPA 6010	Sodium	76900	ug/L	1000	05/12/23 11:28	
EPA 6010	Manganese, Dissolved	195	ug/L	10.0	05/11/23 02:29	
EPA 6010	Molybdenum, Dissolved	144	ug/L	10.0	05/11/23 02:29	
EPA 6020	Barium	85.0	ug/L	1.0	05/10/23 01:56	
EPA 6020	Molybdenum	137	ug/L	10.0	05/10/23 01:56	
EPA 903.1	Radium-226	0.0621 ± 0.502 (0.985)	pCi/L		06/09/23 16:30	
EPA 904.0	Radium-228	C:NA T:84% 0.446 ± 0.335 (0.650)	pCi/L		05/18/23 14:43	
		C:85% T:84%				
Total Radium Calculation	Total Radium	0.508 ± 0.837 (1.64)	pCi/L		06/09/23 17:27	
SM 2320B	Alkalinity, Total as CaCO3	232	mg/L	10.0	05/08/23 20:33	
SM 2320B	Alkalinity,Bicarbonate (CaCO3)	232	mg/L	10.0	05/08/23 20:33	
SM 2540C	Total Dissolved Solids	488	mg/L	10.0	05/10/23 11:55	
SM 4500-H+B	pH at 25 Degrees C	7.6	Std. Units	0.10	05/10/23 15:30	H3
SM 4500-S2-D	Sulfide	0.076J	mg/L	0.10	05/09/23 16:07	
SM 5310C	Total Organic Carbon	1.1	mg/L	1.0	05/11/23 00:25	
SM 5310C	Dissolved Organic Carbon	1.5	mg/L	1.0	05/11/23 18:33	
<b>50344099002</b>	<b>MW-25D</b>					
EPA 9056	Chloride	147	mg/L	25.0	05/13/23 08:14	
EPA 9056	Fluoride	0.14	mg/L	0.10	05/12/23 02:41	
EPA 9056	Sulfate	89.9	mg/L	2.5	05/12/23 02:58	
EPA 6010	Boron	1900	ug/L	100	05/12/23 11:30	
EPA 6010	Calcium	76600	ug/L	1000	05/12/23 11:30	
EPA 6010	Iron	2180	ug/L	100	05/12/23 11:30	
EPA 6010	Lithium	70.1	ug/L	20.0	05/12/23 11:30	
EPA 6010	Magnesium	16300	ug/L	1000	05/12/23 11:30	
EPA 6010	Manganese	118	ug/L	10.0	05/12/23 11:30	
EPA 6010	Potassium	4000	ug/L	1000	05/12/23 11:30	
EPA 6010	Silica	12800	ug/L	450	05/12/23 11:30	N2
EPA 6010	Sodium	89200	ug/L	1000	05/12/23 11:30	
EPA 6010	Manganese, Dissolved	125	ug/L	10.0	05/11/23 02:31	

### REPORT OF LABORATORY ANALYSIS

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### SUMMARY OF DETECTION

Project: Eagle Valley April 2023 P1R2

Pace Project No.: 50344099

Lab Sample ID Method	Client Sample ID Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
<b>50344099002</b>	<b>MW-25D</b>					
EPA 6010	Molybdenum, Dissolved	184	ug/L	10.0	05/11/23 02:31	
EPA 6020	Barium	64.2	ug/L	1.0	05/10/23 02:06	
EPA 6020	Molybdenum	180	ug/L	10.0	05/10/23 02:06	
EPA 903.1	Radium-226	-0.109 ± 0.428 (0.909)	pCi/L		06/09/23 16:30	
EPA 904.0	Radium-228	C:NA T:86% 0.327 ± 0.340 (0.702)	pCi/L		05/18/23 14:43	
Total Radium Calculation	Total Radium	C:84% T:86% 0.327 ± 0.768 (1.61)	pCi/L		06/09/23 17:27	
SM 2320B	Alkalinity, Total as CaCO3	220	mg/L	10.0	05/08/23 20:33	
SM 2320B	Alkalinity,Bicarbonate (CaCO3)	220	mg/L	10.0	05/08/23 20:33	
SM 2540C	Total Dissolved Solids	457	mg/L	10.0	05/10/23 12:16	
SM 4500-H+B	pH at 25 Degrees C	7.6	Std. Units	0.10	05/10/23 15:31	H3
SM 5310C	Total Organic Carbon	1.2	mg/L	1.0	05/11/23 00:36	
SM 5310C	Dissolved Organic Carbon	1.2	mg/L	1.0	05/11/23 18:44	

### REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: Eagle Valley April 2023 P1R2

Pace Project No.: 50344099

Sample: MW-25I		Lab ID: 50344099001		Collected: 05/04/23 10:25		Received: 05/05/23 14:40		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>9056 IC Anions</b>		Analytical Method: EPA 9056 Pace Analytical Services - Indianapolis							
Chloride	100	mg/L	2.5	0.67	10		05/12/23 02:24	16887-00-6	
Fluoride	0.14	mg/L	0.10	0.017	1		05/12/23 02:06	16984-48-8	
Sulfate	83.6	mg/L	2.5	0.85	10		05/12/23 02:24	14808-79-8	
<b>6010 MET ICP</b>		Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis							
Aluminum	ND	ug/L	200	55.4	1	05/10/23 09:44	05/12/23 11:28	7429-90-5	
Boron	1100	ug/L	100	37.6	1	05/10/23 09:44	05/12/23 11:28	7440-42-8	
Calcium	78200	ug/L	1000	163	1	05/10/23 09:44	05/12/23 11:28	7440-70-2	
Iron	1330	ug/L	100	48.8	1	05/10/23 09:44	05/12/23 11:28	7439-89-6	
Lithium	83.0	ug/L	20.0	6.2	1	05/10/23 09:44	05/12/23 11:28	7439-93-2	
Magnesium	20400	ug/L	1000	71.8	1	05/10/23 09:44	05/12/23 11:28	7439-95-4	
Manganese	189	ug/L	10.0	2.5	1	05/10/23 09:44	05/12/23 11:28	7439-96-5	
Potassium	6800	ug/L	1000	281	1	05/10/23 09:44	05/12/23 11:28	7440-09-7	
Silica	11700	ug/L	450		1	05/10/23 09:44	05/12/23 11:28	7631-86-9	N2
Sodium	76900	ug/L	1000	214	1	05/10/23 09:44	05/12/23 11:28	7440-23-5	
<b>6010 MET ICP, Dissolved</b>		Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis							
Manganese, Dissolved	195	ug/L	10.0	2.5	1	05/10/23 15:30	05/11/23 02:29	7439-96-5	
Molybdenum, Dissolved	144	ug/L	10.0	3.7	1	05/10/23 15:30	05/11/23 02:29	7439-98-7	
<b>6020 MET ICPMS</b>		Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis							
Antimony	ND	ug/L	1.0	0.036	1	05/07/23 21:00	05/10/23 01:56	7440-36-0	
Arsenic	ND	ug/L	1.0	0.053	1	05/07/23 21:00	05/10/23 01:56	7440-38-2	
Barium	85.0	ug/L	1.0	0.051	1	05/07/23 21:00	05/10/23 01:56	7440-39-3	
Beryllium	ND	ug/L	0.20	0.028	1	05/07/23 21:00	05/10/23 01:56	7440-41-7	
Cadmium	ND	ug/L	2.0	0.0090	1	05/07/23 21:00	05/10/23 01:56	7440-43-9	
Chromium	ND	ug/L	10.0	0.13	1	05/07/23 21:00	05/10/23 01:56	7440-47-3	
Cobalt	ND	ug/L	1.0	0.032	1	05/07/23 21:00	05/10/23 01:56	7440-48-4	
Lead	ND	ug/L	10.0	0.034	1	05/07/23 21:00	05/10/23 01:56	7439-92-1	
Molybdenum	137	ug/L	10.0	0.048	1	05/07/23 21:00	05/10/23 01:56	7439-98-7	
Selenium	ND	ug/L	1.0	0.23	1	05/07/23 21:00	05/10/23 01:56	7782-49-2	
Thallium	ND	ug/L	1.0	0.033	1	05/07/23 21:00	05/10/23 01:56	7440-28-0	
<b>7470 Mercury</b>		Analytical Method: EPA 7470 Preparation Method: EPA 7470 Pace Analytical Services - Indianapolis							
Mercury	ND	ug/L	0.20	0.12	1	05/09/23 18:41	05/10/23 10:34	7439-97-6	
<b>2320B Alkalinity</b>		Analytical Method: SM 2320B Pace Analytical Services - Indianapolis							
Alkalinity, Total as CaCO3	232	mg/L	10.0	10.0	1		05/08/23 20:33		
Alkalinity,Bicarbonate (CaCO3)	232	mg/L	10.0	10.0	1		05/08/23 20:33		

## REPORT OF LABORATORY ANALYSIS

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### ANALYTICAL RESULTS

Project: Eagle Valley April 2023 P1R2

Pace Project No.: 50344099

Sample: MW-25I		Lab ID: 50344099001		Collected: 05/04/23 10:25	Received: 05/05/23 14:40	Matrix: Water			
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>2320B Alkalinity</b>		Analytical Method: SM 2320B Pace Analytical Services - Indianapolis							
Alkalinity, Carbonate (CaCO3)	ND	mg/L	10.0	10.0	1		05/08/23 20:33		
<b>2540C Total Dissolved Solids</b>		Analytical Method: SM 2540C Pace Analytical Services - Indianapolis							
Total Dissolved Solids	<b>488</b>	mg/L	10.0	10.0	1		05/10/23 11:55		
<b>4500H+ pH, Electrometric</b>		Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis							
pH at 25 Degrees C	<b>7.6</b>	Std. Units	0.10	0.10	1		05/10/23 15:30		H3
<b>4500S2D Sulfide Water</b>		Analytical Method: SM 4500-S2-D Pace Analytical Services - Indianapolis							
Sulfide	<b>0.076J</b>	mg/L	0.10	0.025	1		05/09/23 16:07	18496-25-8	
<b>Iron, Ferrous</b>		Analytical Method: HACH 8146 Pace Analytical Services - Indianapolis							
Iron, Ferrous	ND	mg/L	0.20	0.035	1		05/08/23 12:42	15438-31-0	H3,N2
<b>353.2 Nitrogen, NO2/NO3 unpres</b>		Analytical Method: EPA 353.2 Pace Analytical Services - Indianapolis							
Nitrogen, Nitrate	ND	mg/L	0.10	0.011	1		05/05/23 16:21	14797-55-8	
Nitrogen, Nitrite	ND	mg/L	0.10	0.0040	1		05/05/23 16:21	14797-65-0	
<b>365.1 Total Phosphorus</b>		Analytical Method: EPA 365.1 Preparation Method: EPA 365.1 Pace Analytical Services - Indianapolis							
Phosphate as P04	ND	mg/L	0.15	0.15	1	05/08/23 10:30	05/12/23 11:50		
<b>5310C TOC</b>		Analytical Method: SM 5310C Pace Analytical Services - Indianapolis							
Total Organic Carbon	<b>1.1</b>	mg/L	1.0	0.24	1		05/11/23 00:25	7440-44-0	
<b>5310C Dissolved Organic Carbon</b>		Analytical Method: SM 5310C Pace Analytical Services - Indianapolis							
Dissolved Organic Carbon	<b>1.5</b>	mg/L	1.0	0.24	1		05/11/23 18:33		

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## ANALYTICAL RESULTS

Project: Eagle Valley April 2023 P1R2

Pace Project No.: 50344099

Sample: MW-25D		Lab ID: 50344099002		Collected: 05/04/23 09:35		Received: 05/05/23 14:40		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>9056 IC Anions</b>		Analytical Method: EPA 9056 Pace Analytical Services - Indianapolis							
Chloride	147	mg/L	25.0	6.7	100		05/13/23 08:14	16887-00-6	
Fluoride	0.14	mg/L	0.10	0.017	1		05/12/23 02:41	16984-48-8	
Sulfate	89.9	mg/L	2.5	0.85	10		05/12/23 02:58	14808-79-8	
<b>6010 MET ICP</b>		Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis							
Aluminum	ND	ug/L	200	55.4	1	05/10/23 09:44	05/12/23 11:30	7429-90-5	
Boron	1900	ug/L	100	37.6	1	05/10/23 09:44	05/12/23 11:30	7440-42-8	
Calcium	76600	ug/L	1000	163	1	05/10/23 09:44	05/12/23 11:30	7440-70-2	
Iron	2180	ug/L	100	48.8	1	05/10/23 09:44	05/12/23 11:30	7439-89-6	
Lithium	70.1	ug/L	20.0	6.2	1	05/10/23 09:44	05/12/23 11:30	7439-93-2	
Magnesium	16300	ug/L	1000	71.8	1	05/10/23 09:44	05/12/23 11:30	7439-95-4	
Manganese	118	ug/L	10.0	2.5	1	05/10/23 09:44	05/12/23 11:30	7439-96-5	
Potassium	4000	ug/L	1000	281	1	05/10/23 09:44	05/12/23 11:30	7440-09-7	
Silica	12800	ug/L	450		1	05/10/23 09:44	05/12/23 11:30	7631-86-9	N2
Sodium	89200	ug/L	1000	214	1	05/10/23 09:44	05/12/23 11:30	7440-23-5	
<b>6010 MET ICP, Dissolved</b>		Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis							
Manganese, Dissolved	125	ug/L	10.0	2.5	1	05/10/23 15:30	05/11/23 02:31	7439-96-5	
Molybdenum, Dissolved	184	ug/L	10.0	3.7	1	05/10/23 15:30	05/11/23 02:31	7439-98-7	
<b>6020 MET ICPMS</b>		Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis							
Antimony	ND	ug/L	1.0	0.036	1	05/07/23 21:00	05/10/23 02:06	7440-36-0	
Arsenic	ND	ug/L	1.0	0.053	1	05/07/23 21:00	05/10/23 02:06	7440-38-2	
Barium	64.2	ug/L	1.0	0.051	1	05/07/23 21:00	05/10/23 02:06	7440-39-3	
Beryllium	ND	ug/L	0.20	0.028	1	05/07/23 21:00	05/10/23 02:06	7440-41-7	
Cadmium	ND	ug/L	2.0	0.0090	1	05/07/23 21:00	05/10/23 02:06	7440-43-9	
Chromium	ND	ug/L	10.0	0.13	1	05/07/23 21:00	05/10/23 02:06	7440-47-3	
Cobalt	ND	ug/L	1.0	0.032	1	05/07/23 21:00	05/10/23 02:06	7440-48-4	
Lead	ND	ug/L	10.0	0.034	1	05/07/23 21:00	05/10/23 02:06	7439-92-1	
Molybdenum	180	ug/L	10.0	0.048	1	05/07/23 21:00	05/10/23 02:06	7439-98-7	
Selenium	ND	ug/L	1.0	0.23	1	05/07/23 21:00	05/10/23 02:06	7782-49-2	
Thallium	ND	ug/L	1.0	0.033	1	05/07/23 21:00	05/10/23 02:06	7440-28-0	
<b>7470 Mercury</b>		Analytical Method: EPA 7470 Preparation Method: EPA 7470 Pace Analytical Services - Indianapolis							
Mercury	ND	ug/L	0.20	0.12	1	05/09/23 18:41	05/10/23 10:36	7439-97-6	
<b>2320B Alkalinity</b>		Analytical Method: SM 2320B Pace Analytical Services - Indianapolis							
Alkalinity, Total as CaCO3	220	mg/L	10.0	10.0	1		05/08/23 20:33		
Alkalinity,Bicarbonate (CaCO3)	220	mg/L	10.0	10.0	1		05/08/23 20:33		

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**ANALYTICAL RESULTS**

Project: Eagle Valley April 2023 P1R2  
 Pace Project No.: 50344099

Sample: MW-25D		Lab ID: 50344099002		Collected: 05/04/23 09:35	Received: 05/05/23 14:40	Matrix: Water			
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>2320B Alkalinity</b>		Analytical Method: SM 2320B Pace Analytical Services - Indianapolis							
Alkalinity, Carbonate (CaCO3)	ND	mg/L	10.0	10.0	1		05/08/23 20:33		
<b>2540C Total Dissolved Solids</b>		Analytical Method: SM 2540C Pace Analytical Services - Indianapolis							
Total Dissolved Solids	457	mg/L	10.0	10.0	1		05/10/23 12:16		
<b>4500H+ pH, Electrometric</b>		Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis							
pH at 25 Degrees C	7.6	Std. Units	0.10	0.10	1		05/10/23 15:31		H3
<b>4500S2D Sulfide Water</b>		Analytical Method: SM 4500-S2-D Pace Analytical Services - Indianapolis							
Sulfide	ND	mg/L	0.10	0.025	1		05/09/23 16:07	18496-25-8	
<b>Iron, Ferrous</b>		Analytical Method: HACH 8146 Pace Analytical Services - Indianapolis							
Iron, Ferrous	ND	mg/L	0.20	0.035	1		05/08/23 12:42	15438-31-0	H3,N2
<b>353.2 Nitrogen, NO2/NO3 unpres</b>		Analytical Method: EPA 353.2 Pace Analytical Services - Indianapolis							
Nitrogen, Nitrate	ND	mg/L	0.10	0.011	1		05/05/23 16:23	14797-55-8	
Nitrogen, Nitrite	ND	mg/L	0.10	0.0040	1		05/05/23 16:23	14797-65-0	
<b>365.1 Total Phosphorus</b>		Analytical Method: EPA 365.1 Preparation Method: EPA 365.1 Pace Analytical Services - Indianapolis							
Phosphate as P04	ND	mg/L	0.15	0.15	1	05/08/23 10:30	05/12/23 11:52		
<b>5310C TOC</b>		Analytical Method: SM 5310C Pace Analytical Services - Indianapolis							
Total Organic Carbon	1.2	mg/L	1.0	0.24	1		05/11/23 00:36	7440-44-0	
<b>5310C Dissolved Organic Carbon</b>		Analytical Method: SM 5310C Pace Analytical Services - Indianapolis							
Dissolved Organic Carbon	1.2	mg/L	1.0	0.24	1		05/11/23 18:44		

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**QUALITY CONTROL DATA**

Project: Eagle Valley April 2023 P1R2

Pace Project No.: 50344099

QC Batch:	732629	Analysis Method:	EPA 9056
QC Batch Method:	EPA 9056	Analysis Description:	9056 IC Anions
		Laboratory:	Pace Analytical Services - Indianapolis

Associated Lab Samples: 50344099001, 50344099002

METHOD BLANK: 3362305 Matrix: Water

Associated Lab Samples: 50344099001, 50344099002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chloride	mg/L	ND	0.25	0.067	05/12/23 09:57	
Fluoride	mg/L	ND	0.10	0.017	05/12/23 09:57	
Sulfate	mg/L	ND	0.25	0.085	05/12/23 09:57	

LABORATORY CONTROL SAMPLE: 3362306

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	2.5	2.4	97	80-120	
Fluoride	mg/L	1	1.0	102	80-120	
Sulfate	mg/L	5	4.8	96	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3362307 3362308

Parameter	Units	MS		MSD		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		50344191001 Result	Spike Conc.	Spike Conc.	Conc.								
Chloride	mg/L	9.9	2.5	2.5	13.1	13.2	129	129	80-120	0	15	E,M0	
Fluoride	mg/L	0.14	1	1	1.2	1.2	105	106	80-120	0	15		
Sulfate	mg/L	278	500	500	746	745	94	93	80-120	0	15		

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**QUALITY CONTROL DATA**

Project: Eagle Valley April 2023 P1R2

Pace Project No.: 50344099

QC Batch:	732422	Analysis Method:	EPA 7470
QC Batch Method:	EPA 7470	Analysis Description:	7470 Mercury
		Laboratory:	Pace Analytical Services - Indianapolis

Associated Lab Samples: 50344099001, 50344099002

METHOD BLANK: 3361374 Matrix: Water

Associated Lab Samples: 50344099001, 50344099002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Mercury	ug/L	ND	0.20	0.12	05/10/23 09:41	

LABORATORY CONTROL SAMPLE: 3361375

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury	ug/L	5	5.4	108	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3361376 3361377

Parameter	Units	50344001011		3361376		3361377		% Rec	% Rec	% Rec Limits	RPD	Max RPD	Qual
		MS Result	MSD Result	MS Result	MSD Result	MS Result	MSD Result						
Mercury	ug/L	52.1	5	5	61.4	46.2	186	-118	75-125	28	20	P6,R1	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3361378 3361379

Parameter	Units	50344191001		3361378		3361379		% Rec	% Rec	% Rec Limits	RPD	Max RPD	Qual
		MS Result	MSD Result	MS Result	MSD Result	MS Result	MSD Result						
Mercury	ug/L	ND	5	5	5.5	5.3	111	106	75-125	4	20		

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**QUALITY CONTROL DATA**

Project: Eagle Valley April 2023 P1R2  
Pace Project No.: 50344099

QC Batch: 732530 Analysis Method: EPA 6010  
QC Batch Method: EPA 3010 Analysis Description: 6010 MET  
Laboratory: Pace Analytical Services - Indianapolis

Associated Lab Samples: 50344099001, 50344099002

METHOD BLANK: 3361850 Matrix: Water

Associated Lab Samples: 50344099001, 50344099002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Aluminum	ug/L	ND	200	55.4	05/12/23 11:14	
Boron	ug/L	ND	100	37.6	05/12/23 11:14	
Calcium	ug/L	ND	1000	163	05/12/23 11:14	
Iron	ug/L	ND	100	48.8	05/12/23 11:14	
Lithium	ug/L	ND	20.0	6.2	05/12/23 11:14	
Magnesium	ug/L	ND	1000	71.8	05/12/23 11:14	
Manganese	ug/L	ND	10.0	2.5	05/12/23 11:14	
Potassium	ug/L	ND	1000	281	05/12/23 11:14	
Silica	ug/L	ND	450		05/12/23 11:14	N2
Sodium	ug/L	ND	1000	214	05/12/23 11:14	

LABORATORY CONTROL SAMPLE: 3361851

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Aluminum	ug/L	5000	5100	102	80-120	
Boron	ug/L	1000	972	97	80-120	
Calcium	ug/L	5000	5090	102	80-120	
Iron	ug/L	2500	2600	104	80-120	
Lithium	ug/L	1000	994	99	80-120	
Magnesium	ug/L	5000	4960	99	80-120	
Manganese	ug/L	1000	963	96	80-120	
Potassium	ug/L	5000	5000	100	80-120	
Silica	ug/L	5350	5340	100	80-120	N2
Sodium	ug/L	5000	4770	95	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3361852 3361853

Parameter	Units	MS		MSD		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual	
		50344191001 Result	Spike Conc.	Spike Conc.	MS Result							MSD Result
Aluminum	ug/L	ND	5000	5000	5410	5570	106	109	75-125	3	20	
Boron	ug/L	665	1000	1000	1660	1700	100	104	75-125	2	20	
Calcium	ug/L	161000	5000	5000	163000	166000	26	92	75-125	2	20	P6
Iron	ug/L	5180	2500	2500	7650	7820	99	106	75-125	2	20	
Lithium	ug/L	ND	1000	1000	1020	1060	102	106	75-125	3	20	
Magnesium	ug/L	56200	5000	5000	60100	61500	77	105	75-125	2	20	
Manganese	ug/L	1020	1000	1000	1960	2000	94	98	75-125	2	20	
Potassium	ug/L	ND	5000	5000	5700	5870	102	106	75-125	3	20	

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### QUALITY CONTROL DATA

Project: Eagle Valley April 2023 P1R2

Pace Project No.: 50344099

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3361852 3361853												
Parameter	Units	50344191001 Result	MS	MSD	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max	Qual
			Spike Conc.	Spike Conc.							RPD	
Silica	ug/L	16100	5350	5350	21100	21600	93	103	75-125	2	20	N2
Sodium	ug/L	8810	5000	5000	13500	13900	94	101	75-125	3	20	

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**QUALITY CONTROL DATA**

Project: Eagle Valley April 2023 P1R2

Pace Project No.: 50344099

QC Batch: 732523	Analysis Method: EPA 6010
QC Batch Method: EPA 3010	Analysis Description: 6010 MET Dissolved
	Laboratory: Pace Analytical Services - Indianapolis

Associated Lab Samples: 50344099001, 50344099002

METHOD BLANK: 3361834 Matrix: Water

Associated Lab Samples: 50344099001, 50344099002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Manganese, Dissolved	ug/L	ND	10.0	2.5	05/11/23 02:01	
Molybdenum, Dissolved	ug/L	ND	10.0	3.7	05/11/23 02:01	

LABORATORY CONTROL SAMPLE: 3361835

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Manganese, Dissolved	ug/L	1000	998	100	80-120	
Molybdenum, Dissolved	ug/L	1000	1060	106	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3361836 3361837

Parameter	Units	50344191001		3361837		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		Result	MS Spike Conc.	MSD Spike Conc.	MS Result						
Manganese, Dissolved	ug/L	1040	1000	1000	2030	2070	99	103	75-125	2	20
Molybdenum, Dissolved	ug/L	ND	1000	1000	1060	1060	106	106	75-125	0	20

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**QUALITY CONTROL DATA**

Project: Eagle Valley April 2023 P1R2

Pace Project No.: 50344099

QC Batch:	732045	Analysis Method:	EPA 6020
QC Batch Method:	EPA 200.2	Analysis Description:	6020 MET
		Laboratory:	Pace Analytical Services - Indianapolis

Associated Lab Samples: 50344099001, 50344099002

METHOD BLANK: 3359837 Matrix: Water

Associated Lab Samples: 50344099001, 50344099002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Antimony	ug/L	ND	1.0	0.036	05/09/23 17:23	
Arsenic	ug/L	ND	1.0	0.053	05/09/23 17:23	
Barium	ug/L	ND	1.0	0.051	05/09/23 17:23	
Beryllium	ug/L	ND	0.20	0.028	05/09/23 17:23	
Cadmium	ug/L	ND	2.0	0.0090	05/09/23 17:23	
Chromium	ug/L	ND	10.0	0.13	05/09/23 17:23	
Cobalt	ug/L	ND	1.0	0.032	05/09/23 17:23	
Lead	ug/L	ND	10.0	0.034	05/09/23 17:23	
Molybdenum	ug/L	ND	10.0	0.048	05/09/23 17:23	
Selenium	ug/L	ND	1.0	0.23	05/09/23 17:23	
Thallium	ug/L	ND	1.0	0.033	05/09/23 17:23	

LABORATORY CONTROL SAMPLE: 3359838

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Antimony	ug/L	40	41.2	103	80-120	
Arsenic	ug/L	40	39.2	98	80-120	
Barium	ug/L	40	39.3	98	80-120	
Beryllium	ug/L	40	41.2	103	80-120	
Cadmium	ug/L	40	39.2	98	80-120	
Chromium	ug/L	40	40.5	101	80-120	
Cobalt	ug/L	40	41.0	103	80-120	
Lead	ug/L	40	41.1	103	80-120	
Molybdenum	ug/L	40	41.0	103	80-120	
Selenium	ug/L	40	39.5	99	80-120	
Thallium	ug/L	40	41.6	104	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3359839 3359840

Parameter	Units	MS		MSD		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual	
		50344061001 Result	Spike Conc.	Spike Conc.	MS Result							MSD Result
Antimony	ug/L	ND	40	40	42.4	41.7	106	104	75-125	2	20	
Arsenic	ug/L	ND	40	40	38.9	38.8	96	95	75-125	0	20	
Barium	ug/L	22.4	40	40	60.7	60.4	96	95	75-125	1	20	
Beryllium	ug/L	ND	40	40	38.1	38.3	95	96	75-125	0	20	
Cadmium	ug/L	ND	40	40	38.2	38.2	95	95	75-125	0	20	
Chromium	ug/L	ND	40	40	40.3	40.3	100	100	75-125	0	20	

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### QUALITY CONTROL DATA

Project: Eagle Valley April 2023 P1R2

Pace Project No.: 50344099

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3359839 3359840												
Parameter	Units	50344061001		MS	MSD	MS		MSD		% Rec Limits	Max RPD	Qual
		Result	Spike Conc.	Spike Conc.	MS Result	MSD Result	% Rec	% Rec				
Cobalt	ug/L	ND	40	40	38.7	38.5	96	96	75-125	1	20	
Lead	ug/L	ND	40	40	41.1	41.0	103	102	75-125	0	20	
Molybdenum	ug/L	ND	40	40	42.0	42.5	103	105	75-125	1	20	
Selenium	ug/L	ND	40	40	39.3	39.1	98	98	75-125	0	20	
Thallium	ug/L	ND	40	40	42.0	42.3	105	106	75-125	1	20	

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### QUALITY CONTROL DATA

Project: Eagle Valley April 2023 P1R2

Pace Project No.: 50344099

QC Batch: 732316

Analysis Method: SM 2320B

QC Batch Method: SM 2320B

Analysis Description: 2320B Alkalinity

Laboratory: Pace Analytical Services - Indianapolis

Associated Lab Samples: 50344099001, 50344099002

METHOD BLANK: 3360820

Matrix: Water

Associated Lab Samples: 50344099001, 50344099002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Alkalinity, Total as CaCO3	mg/L	ND	10.0	10.0	05/08/23 20:33	
Alkalinity,Bicarbonate (CaCO3)	mg/L	ND	10.0	10.0	05/08/23 20:33	
Alkalinity,Carbonate (CaCO3)	mg/L	ND	10.0	10.0	05/08/23 20:33	

LABORATORY CONTROL SAMPLE: 3360821

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Alkalinity, Total as CaCO3	mg/L	50	45.4	91	90-110	

SAMPLE DUPLICATE: 3360822

Parameter	Units	50344191001 Result	Dup Result	RPD	Max RPD	Qualifiers
Alkalinity, Total as CaCO3	mg/L	316	320	1	20	
Alkalinity,Bicarbonate (CaCO3)	mg/L	316	320	1	20	
Alkalinity,Carbonate (CaCO3)	mg/L	ND	ND		20	

SAMPLE DUPLICATE: 3360823

Parameter	Units	50344013013 Result	Dup Result	RPD	Max RPD	Qualifiers
Alkalinity, Total as CaCO3	mg/L	359	365	2	20	
Alkalinity,Bicarbonate (CaCO3)	mg/L	359	365	2	20	
Alkalinity,Carbonate (CaCO3)	mg/L	ND	ND		20	

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**QUALITY CONTROL DATA**

Project: Eagle Valley April 2023 P1R2

Pace Project No.: 50344099

QC Batch: 732660	Analysis Method: SM 2540C
QC Batch Method: SM 2540C	Analysis Description: 2540C Total Dissolved Solids
	Laboratory: Pace Analytical Services - Indianapolis

Associated Lab Samples: 50344099001

METHOD BLANK: 3362490 Matrix: Water

Associated Lab Samples: 50344099001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	ND	10.0	10.0	05/10/23 11:49	

LABORATORY CONTROL SAMPLE: 3362491

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	300	286	95	80-120	

SAMPLE DUPLICATE: 3362492

Parameter	Units	50344068002 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	2460	2440	1	10	

SAMPLE DUPLICATE: 3362493

Parameter	Units	50344069001 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	711	685	4	10	

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### QUALITY CONTROL DATA

Project: Eagle Valley April 2023 P1R2

Pace Project No.: 50344099

QC Batch: 732670	Analysis Method: SM 2540C
QC Batch Method: SM 2540C	Analysis Description: 2540C Total Dissolved Solids
	Laboratory: Pace Analytical Services - Indianapolis

Associated Lab Samples: 50344099002

METHOD BLANK: 3362532 Matrix: Water

Associated Lab Samples: 50344099002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	ND	10.0	10.0	05/10/23 12:15	

LABORATORY CONTROL SAMPLE: 3362533

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	300	279	93	80-120	

SAMPLE DUPLICATE: 3362534

Parameter	Units	50344099002 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	457	467	2	10	

SAMPLE DUPLICATE: 3362535

Parameter	Units	50344100001 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	1950	1970	1	10	

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QUALITY CONTROL DATA

Project: Eagle Valley April 2023 P1R2

Pace Project No.: 50344099

QC Batch: 732729

Analysis Method: SM 4500-H+B

QC Batch Method: SM 4500-H+B

Analysis Description: 4500H+B pH

Laboratory: Pace Analytical Services - Indianapolis

Associated Lab Samples: 50344099001, 50344099002

SAMPLE DUPLICATE: 3362788

Parameter	Units	50344076005 Result	Dup Result	RPD	Max RPD	Qualifiers
pH at 25 Degrees C	Std. Units	6.8	6.9	1	2	H3

SAMPLE DUPLICATE: 3362789

Parameter	Units	50344191001 Result	Dup Result	RPD	Max RPD	Qualifiers
pH at 25 Degrees C	Std. Units	7.0	7.1	1	2	H3

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**QUALITY CONTROL DATA**

Project: Eagle Valley April 2023 P1R2

Pace Project No.: 50344099

QC Batch: 732409	Analysis Method: SM 4500-S2-D
QC Batch Method: SM 4500-S2-D	Analysis Description: 4500S2D Sulfide Water
	Laboratory: Pace Analytical Services - Indianapolis

Associated Lab Samples: 50344099001, 50344099002

METHOD BLANK: 3361327 Matrix: Water

Associated Lab Samples: 50344099001, 50344099002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Sulfide	mg/L	ND	0.10	0.025	05/09/23 16:07	

LABORATORY CONTROL SAMPLE: 3361328

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Sulfide	mg/L	0.5	0.52	104	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3361329 3361330

Parameter	Units	50344099001		3361330		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result						
Sulfide	mg/L	0.076J	0.5	0.5	0.58	0.57	100	98	90-110	2	20

MATRIX SPIKE SAMPLE: 3361331

Parameter	Units	50344101001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Sulfide	mg/L		ND	0.5	0.43	79	90-110 M0

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**REPORT OF LABORATORY ANALYSIS**

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**QUALITY CONTROL DATA**

Project: Eagle Valley April 2023 P1R2

Pace Project No.: 50344099

QC Batch: 732178	Analysis Method: HACH 8146
QC Batch Method: HACH 8146	Analysis Description: Iron, Ferrous
	Laboratory: Pace Analytical Services - Indianapolis

Associated Lab Samples: 50344099001, 50344099002

METHOD BLANK: 3360414 Matrix: Water

Associated Lab Samples: 50344099001, 50344099002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Iron, Ferrous	mg/L	ND	0.20	0.035	05/08/23 12:42	H3,N2

LABORATORY CONTROL SAMPLE: 3360415

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Iron, Ferrous	mg/L	1	1.0	102	90-110	H3,N2

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3360416 3360417

Parameter	Units	3360416		3360417		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual	
		50344191001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result							MSD Result
Iron, Ferrous	mg/L	ND	1	1	1.1	1.1	100	101	90-110	1	20	H3,N2

MATRIX SPIKE SAMPLE: 3360418

Parameter	Units	50344071001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Iron, Ferrous	mg/L	ND	1	1.1	107	90-110	H3,N2

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**QUALITY CONTROL DATA**

Project: Eagle Valley April 2023 P1R2

Pace Project No.: 50344099

QC Batch:	731708	Analysis Method:	EPA 353.2
QC Batch Method:	EPA 353.2	Analysis Description:	353.2 Nitrate + Nitrite, Unpres.
		Laboratory:	Pace Analytical Services - Indianapolis

Associated Lab Samples: 50344099001, 50344099002

METHOD BLANK: 3358001 Matrix: Water

Associated Lab Samples: 50344099001, 50344099002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Nitrogen, Nitrate	mg/L	ND	0.10	0.011	05/05/23 10:16	
Nitrogen, Nitrite	mg/L	ND	0.10	0.0040	05/05/23 10:16	

LABORATORY CONTROL SAMPLE: 3358002

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Nitrogen, Nitrate	mg/L	1	1.0	102	90-110	
Nitrogen, Nitrite	mg/L	1	1.1	107	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3358003 3358004

Parameter	Units	50343808006 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Nitrogen, Nitrate	mg/L	ND	1	1	1.0	1.0	104	104	90-110	0	20	
Nitrogen, Nitrite	mg/L	ND	1	1	1.1	1.1	108	109	90-110	0	20	

MATRIX SPIKE SAMPLE: 3358005

Parameter	Units	50343925008 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Nitrogen, Nitrate	mg/L	6.7	5	11.0	87	90-110	
Nitrogen, Nitrite	mg/L	ND	5	5.3	105	90-110	

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**QUALITY CONTROL DATA**

Project: Eagle Valley April 2023 P1R2  
 Pace Project No.: 50344099

QC Batch: 732162 Analysis Method: EPA 365.1  
 QC Batch Method: EPA 365.1 Analysis Description: 365.1 Total Phosphorus  
 Laboratory: Pace Analytical Services - Indianapolis

Associated Lab Samples: 50344099001, 50344099002

METHOD BLANK: 3360358 Matrix: Water  
 Associated Lab Samples: 50344099001, 50344099002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Phosphate as P04	mg/L	ND	0.15	0.15	05/12/23 11:42	

LABORATORY CONTROL SAMPLE: 3360359

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Phosphate as P04	mg/L		1.4			

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3360360 3360361

Parameter	Units	50344191001		3360361		% Rec Limits	RPD	Max RPD	Qual
		MS Result	MSD Spike Conc.	MS Result	MSD Spike Conc.				
Phosphate as P04	mg/L	0.28		1.7	1.7		0		

MATRIX SPIKE SAMPLE: 3360362

Parameter	Units	50344099001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Phosphate as P04	mg/L		ND	1.4			

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**QUALITY CONTROL DATA**

Project: Eagle Valley April 2023 P1R2  
 Pace Project No.: 50344099

QC Batch: 732685 Analysis Method: SM 5310C  
 QC Batch Method: SM 5310C Analysis Description: 5310C Total Organic Carbon  
 Laboratory: Pace Analytical Services - Indianapolis  
 Associated Lab Samples: 50344099001, 50344099002

METHOD BLANK: 3362582 Matrix: Water  
 Associated Lab Samples: 50344099001, 50344099002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Organic Carbon	mg/L	ND	1.0	0.24	05/10/23 22:11	

LABORATORY CONTROL SAMPLE: 3362583

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Organic Carbon	mg/L	10	10.2	102	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3362584 3362585

Parameter	Units	50344191001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Total Organic Carbon	mg/L	ND	10	10	10.8	11.1	98	101	80-120	3	20	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3362588 3362589

Parameter	Units	50344228001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Total Organic Carbon	mg/L	1.4	10	10	11.4	11.5	100	101	80-120	1	20	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3362590 3362591

Parameter	Units	50344229002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Total Organic Carbon	mg/L	1.4	10	10	11.8	11.8	104	104	80-120	0	20	

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**QUALITY CONTROL DATA**

Project: Eagle Valley April 2023 P1R2

Pace Project No.: 50344099

QC Batch:	732677	Analysis Method:	SM 5310C
QC Batch Method:	SM 5310C	Analysis Description:	5310C Dissolved Organic Carbon
		Laboratory:	Pace Analytical Services - Indianapolis

Associated Lab Samples: 50344099001, 50344099002

METHOD BLANK: 3362546 Matrix: Water

Associated Lab Samples: 50344099001, 50344099002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Dissolved Organic Carbon	mg/L	ND	1.0	0.24	05/11/23 15:36	

LABORATORY CONTROL SAMPLE: 3362547

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Dissolved Organic Carbon	mg/L	10	9.9	99	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3362548 3362549

Parameter	Units	50344191001		3362548		3362549		% Rec Limits	RPD	Max RPD	Qual	
		MS Result	MSD Spike Conc.	MS Result	MSD Spike Conc.	MS Result	MSD Result					
Dissolved Organic Carbon	mg/L	1.2	10	10	10	11.7	11.7	105	105	80-120	0	20

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3362550 3362551

Parameter	Units	50344228001		3362550		3362551		% Rec Limits	RPD	Max RPD	Qual	
		MS Result	MSD Spike Conc.	MS Result	MSD Spike Conc.	MS Result	MSD Result					
Dissolved Organic Carbon	mg/L	2.0	10	10	10	12.2	11.9	102	99	80-120	3	20

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3362552 3362553

Parameter	Units	50344229002		3362552		3362553		% Rec Limits	RPD	Max RPD	Qual	
		MS Result	MSD Spike Conc.	MS Result	MSD Spike Conc.	MS Result	MSD Result					
Dissolved Organic Carbon	mg/L	1.5	10	10	10	12.0	12.5	105	110	80-120	4	20

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**REPORT OF LABORATORY ANALYSIS**

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Eagle Valley April 2023 P1R2

Pace Project No.: 50344099

**Sample: MW-25I**      **Lab ID: 50344099001**      Collected: 05/04/23 10:25      Received: 05/05/23 14:40      Matrix: Water  
 PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	<b>0.0621 ± 0.502 (0.985)</b> <b>C:NA T:84%</b>	pCi/L	06/09/23 16:30	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	<b>0.446 ± 0.335 (0.650)</b> <b>C:85% T:84%</b>	pCi/L	05/18/23 14:43	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	<b>0.508 ± 0.837 (1.64)</b>	pCi/L	06/09/23 17:27	7440-14-4	

### REPORT OF LABORATORY ANALYSIS

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Eagle Valley April 2023 P1R2

Pace Project No.: 50344099

**Sample: MW-25D**      **Lab ID: 50344099002**      Collected: 05/04/23 09:35      Received: 05/05/23 14:40      Matrix: Water  
 PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	<b>-0.109 ± 0.428 (0.909)</b> <b>C:NA T:86%</b>	pCi/L	06/09/23 16:30	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	<b>0.327 ± 0.340 (0.702)</b> <b>C:84% T:86%</b>	pCi/L	05/18/23 14:43	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	<b>0.327 ± 0.768 (1.61)</b>	pCi/L	06/09/23 17:27	7440-14-4	

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### QUALITY CONTROL - RADIOCHEMISTRY

Project: Eagle Valley April 2023 P1R2

Pace Project No.: 50344099

QC Batch: 587560

Analysis Method: EPA 904.0

QC Batch Method: EPA 904.0

Analysis Description: 904.0 Radium 228

Laboratory: Pace Analytical Services - Greensburg

Associated Lab Samples: 50344099001, 50344099002

METHOD BLANK: 2854458

Matrix: Water

Associated Lab Samples: 50344099001, 50344099002

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.0502 ± 0.274 (0.630) C:84% T:81%	pCi/L	05/18/23 14:36	

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### QUALITY CONTROL - RADIOCHEMISTRY

Project: Eagle Valley April 2023 P1R2

Pace Project No.: 50344099

QC Batch: 587559

Analysis Method: EPA 903.1

QC Batch Method: EPA 903.1

Analysis Description: 903.1 Radium-226

Laboratory: Pace Analytical Services - Greensburg

Associated Lab Samples: 50344099001, 50344099002

METHOD BLANK: 2854457

Matrix: Water

Associated Lab Samples: 50344099001, 50344099002

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.234 ± 0.268 (0.158) C:NA T:81%	pCi/L	06/09/23 15:56	

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### QUALIFIERS

Project: Eagle Valley April 2023 P1R2

Pace Project No.: 50344099

#### DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Reported results are not rounded until the final step prior to reporting. Therefore, calculated parameters that are typically reported as "Total" may vary slightly from the sum of the reported component parameters.

Act - Activity

Unc - Uncertainty: SDWA = 1.96 sigma count uncertainty, all other matrices = Expanded Uncertainty (95% confidence interval).

Gamma Spec = Expanded Uncertainty (95.4% Confidence Interval)

(MDC) - Minimum Detectable Concentration

Trac - Tracer Recovery (%)

Carr - Carrier Recovery (%)

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

#### ANALYTE QUALIFIERS

E Analyte concentration exceeded the calibration range. The reported result is estimated.

H3 Sample was received or analysis requested beyond the recognized method holding time.

M0 Matrix spike recovery and/or matrix spike duplicate recovery was outside laboratory control limits.

N2 The lab does not hold NELAC/TNI accreditation for this parameter but other accreditations/certifications may apply. A complete list of accreditations/certifications is available upon request.

P6 Matrix spike recovery was outside laboratory control limits due to a parent sample concentration notably higher than the spike level.

R1 RPD value was outside control limits.

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### QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Eagle Valley April 2023 P1R2

Pace Project No.: 50344099

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
50344099001	MW-25I	EPA 9056	732629		
50344099002	MW-25D	EPA 9056	732629		
50344099001	MW-25I	EPA 3010	732530	EPA 6010	733161
50344099002	MW-25D	EPA 3010	732530	EPA 6010	733161
50344099001	MW-25I	EPA 3010	732523	EPA 6010	732818
50344099002	MW-25D	EPA 3010	732523	EPA 6010	732818
50344099001	MW-25I	EPA 200.2	732045	EPA 6020	732224
50344099002	MW-25D	EPA 200.2	732045	EPA 6020	732224
50344099001	MW-25I	EPA 7470	732422	EPA 7470	732580
50344099002	MW-25D	EPA 7470	732422	EPA 7470	732580
50344099001	MW-25I	EPA 903.1	587559		
50344099002	MW-25D	EPA 903.1	587559		
50344099001	MW-25I	EPA 904.0	587560		
50344099002	MW-25D	EPA 904.0	587560		
50344099001	MW-25I	Total Radium Calculation	593980		
50344099002	MW-25D	Total Radium Calculation	593980		
50344099001	MW-25I	SM 2320B	732316		
50344099002	MW-25D	SM 2320B	732316		
50344099001	MW-25I	SM 2540C	732660		
50344099002	MW-25D	SM 2540C	732670		
50344099001	MW-25I	SM 4500-H+B	732729		
50344099002	MW-25D	SM 4500-H+B	732729		
50344099001	MW-25I	SM 4500-S2-D	732409		
50344099002	MW-25D	SM 4500-S2-D	732409		
50344099001	MW-25I	HACH 8146	732178		
50344099002	MW-25D	HACH 8146	732178		
50344099001	MW-25I	EPA 353.2	731708		
50344099002	MW-25D	EPA 353.2	731708		
50344099001	MW-25I	EPA 365.1	732162	EPA 365.1	733276
50344099002	MW-25D	EPA 365.1	732162	EPA 365.1	733276
50344099001	MW-25I	SM 5310C	732685		
50344099002	MW-25D	SM 5310C	732685		
50344099001	MW-25I	SM 5310C	732677		
50344099002	MW-25D	SM 5310C	732677		

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**SAMPLE CONDITION UPON RECEIPT FORM**

Date/Time and Initials of person examining contents: DD 5/5/23 1512

- 1. Courier:  FED EX  UPS  CLIENT  PACE  USPS  OTHER
- 2. Custody Seal on Cooler/Box Present:  Yes  No  
(If yes)Seals Intact:  Yes  No (leave blank if no seals were present)
- 3. Thermometer: 1 2 3 4 5 6 A B C D E F
- 4. Cooler Temperature(s): 1,2/1,1     
(Initial/Corrected) RECORD TEMPS OF ALL COOLERS RECEIVED (use Comments below to add more)
- 5. Packing Material:  Bubble Wrap  Bubble Bags  
 None  Other
- 6. Ice Type:  Wet  Blue  None
- 7. If temp. is over 6°C or under 0°C, was the PM notified?:  Yes  No  
Cooler temp should be above freezing to 6°C

All discrepancies will be written out in the comments section below.

	Yes	No		Yes	No	N/A
USDA Regulated Soils? (HI, ID, NY, WA, OR, CA, NM, TX, OK, AR, LA, TN, AL, MS, NC, SC, GA, FL, or Puerto Rico)		/	All containers needing acid/base preservation have been pH CHECKED?: Exceptions: VOA, coliform, LLHg, O&G, RAD CHEM, and any container with a septum cap or preserved with HCl.			
Short Hold Time Analysis (48 hours or less)? Analysis: <u>N/A</u>	/	<u>DD 5/5/23</u>	Circle: HNO3 (<2) H2SO4 (<2) NaOH (>10) NaOH/ZnAc (>9) Any non-conformance to pH recommendations will be noted on the container count form	/		
Time 5035A TC placed in Freezer or Short Holds To Lab Time: <u>15:43</u>			Residual Chlorine Check (SVOC 625 Pest/PCB 608)	<u>Present</u>	<u>Absent</u>	<u>N/A</u>
Rush TAT Requested (4 days or less):		/	Residual Chlorine Check (Total/Amenable/Free Cyanide)			/
Custody Signatures Present?	/		Headspace Wisconsin Sulfide?			/
Containers Intact?:	/		Headspace in VOA Vials (>6mm): See Container Count form for details	<u>Present</u>	<u>Absent</u>	No VOA Vials Sent
Sample Label (IDs/Dates/Times) Match COC?: Except TCs, which only require sample ID	/		Trip Blank Present?		/	
Extra labels on Terracore Vials? (soils only)			Trip Blank Custody Seals?:			/

COMMENTS:

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July 19, 2023

Mr. Mark Breting  
ATC Group Services  
7988 Centerpoint Drive  
Suite 100  
Indianapolis, IN 46256

RE: Project: Eagle Valley April 2023 P1R1  
Pace Project No.: 50344100

Dear Mr. Breting:

Enclosed are the analytical results for sample(s) received by the laboratory on May 05, 2023. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

The test results provided in this final report were generated by each of the following laboratories within the Pace Network:

- Pace Analytical Services - Indianapolis
- Pace Analytical Services - Greensburg

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Will Statz  
will.statz@pacelabs.com  
(317)228-3105  
Project Manager

Enclosures

cc: Mohammed Bazlamit, Atlas  
Mr. Robert Miller, Haley & Aldrich



## REPORT OF LABORATORY ANALYSIS

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## CERTIFICATIONS

Project: Eagle Valley April 2023 P1R1  
Pace Project No.: 50344100

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### Pace Analytical Services Pennsylvania

1638 Roseytown Rd Suites 2,3&4, Greensburg, PA 15601  
ANAB DOD-ELAP Rad Accreditation #: L2417  
ANABISO/IEC 17025:2017 Rad Cert#: L24170  
Alabama Certification #: 41590  
Arizona Certification #: AZ0734  
Arkansas Certification  
California Certification #: 2950  
Colorado Certification #: PA01547  
Connecticut Certification #: PH-0694  
EPA Region 4 DW Rad  
Florida/TNI Certification #: E87683  
Georgia Certification #: C040  
Guam Certification  
Hawaii Certification  
Idaho Certification  
Illinois Certification  
Indiana Certification  
Iowa Certification #: 391  
Kansas Certification #: E-10358  
Kentucky Certification #: KY90133  
KY WW Permit #: KY0098221  
KY WW Permit #: KY0000221  
Louisiana DHH/TNI Certification #: LA010  
Louisiana DEQ/TNI Certification #: 04086  
Maine Certification #: 2023021  
Maryland Certification #: 308  
Massachusetts Certification #: M-PA1457  
Michigan/PADEP Certification #: 9991

Missouri Certification #: 235  
Montana Certification #: Cert0082  
Nebraska Certification #: NE-OS-29-14  
Nevada Certification #: PA014572023-03  
New Hampshire/TNI Certification #: 297622  
New Jersey/TNI Certification #: PA051  
New Mexico Certification #: PA01457  
New York/TNI Certification #: 10888  
North Carolina Certification #: 42706  
North Dakota Certification #: R-190  
Ohio EPA Rad Approval: #41249  
Oregon/TNI Certification #: PA200002-015  
Pennsylvania/TNI Certification #: 65-00282  
Puerto Rico Certification #: PA01457  
Rhode Island Certification #: 65-00282  
South Dakota Certification  
Tennessee Certification #: TN02867  
Texas/TNI Certification #: T104704188-22-18  
Utah/TNI Certification #: PA014572223-14  
USDA Soil Permit #: 525-23-67-77263  
Vermont Dept. of Health: ID# VT-0282  
Virgin Island/PADEP Certification  
Virginia/VELAP Certification #: 460198  
Washington Certification #: C868  
West Virginia DEP Certification #: 143  
West Virginia DHHR Certification #: 9964C  
Wisconsin Approve List for Rad

### Pace Analytical Services Indianapolis

7726 Moller Road, Indianapolis, IN 46268  
Illinois Accreditation #: 200074  
Indiana Drinking Water Laboratory #: C-49-06  
Kansas/TNI Certification #: E-10177  
Kentucky UST Agency Interest #: 80226  
Kentucky WW Laboratory ID #: 98019  
Michigan Drinking Water Laboratory #9050

Ohio VAP Certified Laboratory #: CL0065  
Oklahoma Laboratory #: 9204  
Texas Certification #: T104704355  
Wisconsin Laboratory #: 999788130  
USDA Foreign Soil Permit #: 525-23-13-23119  
USDA Compliance Agreement #: IN-SL-22-001

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## REPORT OF LABORATORY ANALYSIS

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### SAMPLE SUMMARY

Project: Eagle Valley April 2023 P1R1

Pace Project No.: 50344100

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Lab ID	Sample ID	Matrix	Date Collected	Date Received
50344100001	MW-26S	Water	05/04/23 13:00	05/05/23 14:40
50344100002	MW-26I	Water	05/04/23 12:10	05/05/23 14:40
50344100003	MW-26D	Water	05/04/23 11:20	05/05/23 14:40

### REPORT OF LABORATORY ANALYSIS

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### SAMPLE ANALYTE COUNT

Project: Eagle Valley April 2023 P1R1

Pace Project No.: 50344100

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
50344100001	MW-26S	EPA 9056	ADM	3	PASI-I
		EPA 6010	MTM	10	PASI-I
		EPA 6010	JPK	2	PASI-I
		EPA 6020	CAW	11	PASI-I
		EPA 7470	ILP	1	PASI-I
		EPA 903.1	CLM	1	PASI-PA
		EPA 904.0	JJS1	1	PASI-PA
		Total Radium Calculation	LAL	1	PASI-PA
		SM 2320B	DAW	3	PASI-I
		SM 2540C	AEL	1	PASI-I
		SM 4500-H+B	LHZ	1	PASI-I
		SM 4500-S2-D	BEP	1	PASI-I
		HACH 8146	BEP	1	PASI-I
		EPA 353.2	ZM	2	PASI-I
		EPA 365.1	YAM	1	PASI-I
		SM 5310C	ATS	1	PASI-I
		50344100002	MW-26I	EPA 9056	ADM
EPA 6010	MTM			10	PASI-I
EPA 6010	JPK			2	PASI-I
EPA 6020	CAW			11	PASI-I
EPA 7470	ILP			1	PASI-I
EPA 903.1	CLM			1	PASI-PA
EPA 904.0	JJS1			1	PASI-PA
Total Radium Calculation	LAL			1	PASI-PA
SM 2320B	DAW			3	PASI-I
SM 2540C	AEL			1	PASI-I
SM 4500-H+B	LHZ			1	PASI-I
SM 4500-S2-D	BEP			1	PASI-I
HACH 8146	BEP			1	PASI-I
EPA 353.2	ZM			2	PASI-I
EPA 365.1	YAM			1	PASI-I
SM 5310C	ATS			1	PASI-I
50344100003	MW-26D			EPA 9056	ADM
		EPA 6010	MTM	10	PASI-I
		EPA 6010	JPK	2	PASI-I

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### SAMPLE ANALYTE COUNT

Project: Eagle Valley April 2023 P1R1

Pace Project No.: 50344100

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
		EPA 6020	CAW	11	PASI-I
		EPA 7470	ILP	1	PASI-I
		EPA 903.1	CLM	1	PASI-PA
		EPA 904.0	JJS1	1	PASI-PA
		Total Radium Calculation	LAL	1	PASI-PA
		SM 2320B	DAW	3	PASI-I
		SM 2540C	AEL	1	PASI-I
		SM 4500-H+B	LHZ	1	PASI-I
		SM 4500-S2-D	BEP	1	PASI-I
		HACH 8146	BEP	1	PASI-I
		EPA 353.2	ZM	2	PASI-I
		EPA 365.1	YAM	1	PASI-I
		SM 5310C	ATS	1	PASI-I
		SM 5310C	ATS	1	PASI-I

PASI-I = Pace Analytical Services - Indianapolis

PASI-PA = Pace Analytical Services - Greensburg

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**SUMMARY OF DETECTION**

Project: Eagle Valley April 2023 P1R1  
 Pace Project No.: 50344100

Lab Sample ID	Client Sample ID	Result	Units	Report Limit	Analyzed	Qualifiers
Method	Parameters					
<b>50344100001</b>	<b>MW-26S</b>					
EPA 9056	Chloride	299	mg/L	25.0	05/12/23 03:33	
EPA 9056	Fluoride	0.30	mg/L	0.10	05/12/23 03:16	
EPA 9056	Sulfate	854	mg/L	25.0	05/12/23 03:33	
EPA 6010	Aluminum	360	ug/L	200	05/12/23 11:32	
EPA 6010	Boron	2990	ug/L	100	05/12/23 11:32	
EPA 6010	Calcium	292000	ug/L	2000	05/12/23 12:02	
EPA 6010	Iron	1240	ug/L	100	05/12/23 11:32	
EPA 6010	Lithium	87.6	ug/L	20.0	05/12/23 11:32	
EPA 6010	Magnesium	69600	ug/L	1000	05/12/23 11:32	
EPA 6010	Manganese	2180	ug/L	10.0	05/12/23 11:32	
EPA 6010	Potassium	17500	ug/L	1000	05/12/23 11:32	
EPA 6010	Silica	17400	ug/L	450	05/12/23 11:32	N2
EPA 6010	Sodium	253000	ug/L	2000	05/12/23 12:02	
EPA 6010	Manganese, Dissolved	2180	ug/L	10.0	05/11/23 02:33	
EPA 6010	Molybdenum, Dissolved	132	ug/L	10.0	05/11/23 02:33	
EPA 6020	Arsenic	2.1	ug/L	1.0	05/10/23 02:09	
EPA 6020	Barium	42.6	ug/L	1.0	05/10/23 02:09	
EPA 6020	Cobalt	3.3	ug/L	1.0	05/10/23 02:09	
EPA 6020	Molybdenum	131	ug/L	10.0	05/10/23 02:09	
EPA 903.1	Radium-226	0.607 ± 0.347 (0.319) C:NA T:81%	pCi/L		05/30/23 16:23	
EPA 904.0	Radium-228	0.954 ± 0.453 (0.768) C:79% T:81%	pCi/L		05/18/23 11:28	
Total Radium Calculation	Total Radium	1.56 ± 0.800 (1.09)	pCi/L		05/30/23 18:09	
SM 2320B	Alkalinity, Total as CaCO3	212	mg/L	10.0	05/08/23 20:33	
SM 2320B	Alkalinity,Bicarbonate (CaCO3)	212	mg/L	10.0	05/08/23 20:33	
SM 2540C	Total Dissolved Solids	1950	mg/L	20.0	05/10/23 12:16	
SM 4500-H+B	pH at 25 Degrees C	7.4	Std. Units	0.10	05/10/23 15:32	H3
<b>50344100002</b>	<b>MW-26I</b>					
EPA 9056	Chloride	250	mg/L	25.0	05/13/23 08:31	
EPA 9056	Fluoride	0.22	mg/L	0.10	05/12/23 03:51	
EPA 9056	Sulfate	733	mg/L	25.0	05/13/23 08:31	
EPA 6010	Boron	2430	ug/L	100	05/12/23 11:35	
EPA 6010	Calcium	249000	ug/L	2000	05/12/23 12:09	
EPA 6010	Iron	289	ug/L	100	05/12/23 11:35	
EPA 6010	Lithium	43.9	ug/L	20.0	05/12/23 11:35	
EPA 6010	Magnesium	65000	ug/L	1000	05/12/23 11:35	
EPA 6010	Manganese	109	ug/L	10.0	05/12/23 11:35	
EPA 6010	Potassium	8860	ug/L	1000	05/12/23 11:35	
EPA 6010	Silica	12600	ug/L	450	05/12/23 11:35	N2
EPA 6010	Sodium	209000	ug/L	2000	05/12/23 12:09	
EPA 6010	Manganese, Dissolved	110	ug/L	10.0	05/11/23 02:36	

**REPORT OF LABORATORY ANALYSIS**

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### SUMMARY OF DETECTION

Project: Eagle Valley April 2023 P1R1

Pace Project No.: 50344100

Lab Sample ID	Client Sample ID	Result	Units	Report Limit	Analyzed	Qualifiers
Method	Parameters					
<b>50344100002</b>	<b>MW-26I</b>					
EPA 6010	Molybdenum, Dissolved	68.9	ug/L	10.0	05/11/23 02:36	
EPA 6020	Barium	108	ug/L	1.0	05/10/23 02:13	
EPA 6020	Cobalt	1.0	ug/L	1.0	05/10/23 02:13	
EPA 6020	Molybdenum	67.3	ug/L	10.0	05/10/23 02:13	
EPA 903.1	Radium-226	0.401 ± 0.266 (0.121)	pCi/L		05/30/23 16:23	
EPA 904.0	Radium-228	C:NA T:86% 0.440 ± 0.370 (0.746)	pCi/L		05/18/23 11:30	
		C:84% T:86%				
Total Radium Calculation	Total Radium	0.841 ± 0.636 (0.867)	pCi/L		05/30/23 18:09	
SM 2320B	Alkalinity, Total as CaCO3	186	mg/L	10.0	05/08/23 20:33	
SM 2320B	Alkalinity,Bicarbonate (CaCO3)	186	mg/L	10.0	05/08/23 20:33	
SM 2540C	Total Dissolved Solids	1660	mg/L	20.0	05/10/23 12:17	
SM 4500-H+B	pH at 25 Degrees C	7.7	Std. Units	0.10	05/10/23 15:33	H3
EPA 353.2	Nitrogen, Nitrate	0.11	mg/L	0.10	05/05/23 16:30	
<b>50344100003</b>	<b>MW-26D</b>					
EPA 9056	Chloride	47.6	mg/L	2.5	05/12/23 05:18	
EPA 9056	Sulfate	43.9	mg/L	0.25	05/12/23 05:00	
EPA 6010	Aluminum	333	ug/L	200	05/12/23 11:42	
EPA 6010	Boron	117	ug/L	100	05/12/23 11:42	
EPA 6010	Calcium	107000	ug/L	1000	05/12/23 11:42	
EPA 6010	Iron	941	ug/L	100	05/12/23 11:42	
EPA 6010	Magnesium	29700	ug/L	1000	05/12/23 11:42	
EPA 6010	Manganese	88.6	ug/L	10.0	05/12/23 11:42	
EPA 6010	Potassium	3730	ug/L	1000	05/12/23 11:42	
EPA 6010	Silica	16300	ug/L	450	05/12/23 11:42	N2
EPA 6010	Sodium	39800	ug/L	1000	05/12/23 11:42	
EPA 6010	Manganese, Dissolved	81.6	ug/L	10.0	05/11/23 02:38	
EPA 6010	Molybdenum, Dissolved	30.5	ug/L	10.0	05/11/23 02:38	
EPA 6020	Arsenic	1.4	ug/L	1.0	05/10/23 02:16	
EPA 6020	Barium	106	ug/L	1.0	05/10/23 02:16	
EPA 6020	Molybdenum	29.3	ug/L	10.0	05/10/23 02:16	
EPA 903.1	Radium-226	0.125 ± 0.216 (0.386)	pCi/L		05/30/23 16:23	
EPA 904.0	Radium-228	C:NA T:85% 0.700 ± 0.439 (0.834)	pCi/L		05/18/23 11:28	
		C:78% T:85%				
Total Radium Calculation	Total Radium	0.825 ± 0.655 (1.22)	pCi/L		05/30/23 18:09	

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### SUMMARY OF DETECTION

Project: Eagle Valley April 2023 P1R1

Pace Project No.: 50344100

Lab Sample ID Method	Client Sample ID Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
<b>50344100003</b>	<b>MW-26D</b>					
SM 2320B	Alkalinity, Total as CaCO3	352	mg/L	10.0	05/08/23 20:33	
SM 2320B	Alkalinity,Bicarbonate (CaCO3)	352	mg/L	10.0	05/08/23 20:33	
SM 2540C	Total Dissolved Solids	454	mg/L	10.0	05/10/23 12:17	
SM 4500-H+B	pH at 25 Degrees C	7.7	Std. Units	0.10	05/10/23 15:34	H3
SM 4500-S2-D	Sulfide	0.076J	mg/L	0.10	05/09/23 16:07	
SM 5310C	Total Organic Carbon	1.3	mg/L	1.0	05/11/23 01:43	
SM 5310C	Dissolved Organic Carbon	2.5	mg/L	1.0	05/11/23 19:24	

### REPORT OF LABORATORY ANALYSIS

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**ANALYTICAL RESULTS**

Project: Eagle Valley April 2023 P1R1

Pace Project No.: 50344100

Sample: MW-26S		Lab ID: 50344100001		Collected: 05/04/23 13:00		Received: 05/05/23 14:40		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>9056 IC Anions</b>		Analytical Method: EPA 9056 Pace Analytical Services - Indianapolis							
Chloride	299	mg/L	25.0	6.7	100		05/12/23 03:33	16887-00-6	
Fluoride	0.30	mg/L	0.10	0.017	1		05/12/23 03:16	16984-48-8	
Sulfate	854	mg/L	25.0	8.5	100		05/12/23 03:33	14808-79-8	
<b>6010 MET ICP</b>		Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis							
Aluminum	360	ug/L	200	55.4	1	05/10/23 09:44	05/12/23 11:32	7429-90-5	
Boron	2990	ug/L	100	37.6	1	05/10/23 09:44	05/12/23 11:32	7440-42-8	
Calcium	292000	ug/L	2000	326	2	05/10/23 09:44	05/12/23 12:02	7440-70-2	
Iron	1240	ug/L	100	48.8	1	05/10/23 09:44	05/12/23 11:32	7439-89-6	
Lithium	87.6	ug/L	20.0	6.2	1	05/10/23 09:44	05/12/23 11:32	7439-93-2	
Magnesium	69600	ug/L	1000	71.8	1	05/10/23 09:44	05/12/23 11:32	7439-95-4	
Manganese	2180	ug/L	10.0	2.5	1	05/10/23 09:44	05/12/23 11:32	7439-96-5	
Potassium	17500	ug/L	1000	281	1	05/10/23 09:44	05/12/23 11:32	7440-09-7	
Silica	17400	ug/L	450		1	05/10/23 09:44	05/12/23 11:32	7631-86-9	N2
Sodium	253000	ug/L	2000	428	2	05/10/23 09:44	05/12/23 12:02	7440-23-5	
<b>6010 MET ICP, Dissolved</b>		Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis							
Manganese, Dissolved	2180	ug/L	10.0	2.5	1	05/10/23 15:30	05/11/23 02:33	7439-96-5	
Molybdenum, Dissolved	132	ug/L	10.0	3.7	1	05/10/23 15:30	05/11/23 02:33	7439-98-7	
<b>6020 MET ICPMS</b>		Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis							
Antimony	ND	ug/L	1.0	0.036	1	05/07/23 21:00	05/10/23 02:09	7440-36-0	
Arsenic	2.1	ug/L	1.0	0.053	1	05/07/23 21:00	05/10/23 02:09	7440-38-2	
Barium	42.6	ug/L	1.0	0.051	1	05/07/23 21:00	05/10/23 02:09	7440-39-3	
Beryllium	ND	ug/L	0.20	0.028	1	05/07/23 21:00	05/10/23 02:09	7440-41-7	
Cadmium	ND	ug/L	2.0	0.0090	1	05/07/23 21:00	05/10/23 02:09	7440-43-9	
Chromium	ND	ug/L	10.0	0.13	1	05/07/23 21:00	05/10/23 02:09	7440-47-3	
Cobalt	3.3	ug/L	1.0	0.032	1	05/07/23 21:00	05/10/23 02:09	7440-48-4	
Lead	ND	ug/L	10.0	0.034	1	05/07/23 21:00	05/10/23 02:09	7439-92-1	
Molybdenum	131	ug/L	10.0	0.048	1	05/07/23 21:00	05/10/23 02:09	7439-98-7	
Selenium	ND	ug/L	1.0	0.23	1	05/07/23 21:00	05/10/23 02:09	7782-49-2	
Thallium	ND	ug/L	1.0	0.033	1	05/07/23 21:00	05/10/23 02:09	7440-28-0	
<b>7470 Mercury</b>		Analytical Method: EPA 7470 Preparation Method: EPA 7470 Pace Analytical Services - Indianapolis							
Mercury	ND	ug/L	0.20	0.12	1	05/09/23 18:41	05/10/23 10:39	7439-97-6	
<b>2320B Alkalinity</b>		Analytical Method: SM 2320B Pace Analytical Services - Indianapolis							
Alkalinity, Total as CaCO3	212	mg/L	10.0	10.0	1		05/08/23 20:33		
Alkalinity,Bicarbonate (CaCO3)	212	mg/L	10.0	10.0	1		05/08/23 20:33		

**REPORT OF LABORATORY ANALYSIS**

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**ANALYTICAL RESULTS**

Project: Eagle Valley April 2023 P1R1  
 Pace Project No.: 50344100

Sample: MW-26S		Lab ID: 50344100001		Collected: 05/04/23 13:00	Received: 05/05/23 14:40	Matrix: Water			
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>2320B Alkalinity</b>		Analytical Method: SM 2320B Pace Analytical Services - Indianapolis							
Alkalinity, Carbonate (CaCO3)	ND	mg/L	10.0	10.0	1		05/08/23 20:33		
<b>2540C Total Dissolved Solids</b>		Analytical Method: SM 2540C Pace Analytical Services - Indianapolis							
Total Dissolved Solids	<b>1950</b>	mg/L	20.0	20.0	1		05/10/23 12:16		
<b>4500H+ pH, Electrometric</b>		Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis							
pH at 25 Degrees C	<b>7.4</b>	Std. Units	0.10	0.10	1		05/10/23 15:32		H3
<b>4500S2D Sulfide Water</b>		Analytical Method: SM 4500-S2-D Pace Analytical Services - Indianapolis							
Sulfide	ND	mg/L	0.10	0.025	1		05/09/23 16:07	18496-25-8	
<b>Iron, Ferrous</b>		Analytical Method: HACH 8146 Pace Analytical Services - Indianapolis							
Iron, Ferrous	ND	mg/L	0.20	0.035	1		05/08/23 12:44	15438-31-0	H3,N2
<b>353.2 Nitrogen, NO2/NO3 unpres</b>		Analytical Method: EPA 353.2 Pace Analytical Services - Indianapolis							
Nitrogen, Nitrate	ND	mg/L	0.10	0.011	1		05/05/23 16:24	14797-55-8	
Nitrogen, Nitrite	ND	mg/L	0.10	0.0040	1		05/05/23 16:24	14797-65-0	
<b>365.1 Total Phosphorus</b>		Analytical Method: EPA 365.1 Preparation Method: EPA 365.1 Pace Analytical Services - Indianapolis							
Phosphate as P04	ND	mg/L	0.15	0.15	1	05/08/23 10:30	05/12/23 11:52		
<b>5310C TOC</b>		Analytical Method: SM 5310C Pace Analytical Services - Indianapolis							
Total Organic Carbon	ND	mg/L	4.0	0.94	4		05/11/23 11:50	7440-44-0	D3
<b>5310C Dissolved Organic Carbon</b>		Analytical Method: SM 5310C Pace Analytical Services - Indianapolis							
Dissolved Organic Carbon	ND	mg/L	4.0	0.94	4		05/12/23 09:22		D3

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## ANALYTICAL RESULTS

Project: Eagle Valley April 2023 P1R1

Pace Project No.: 50344100

Sample: MW-26I Lab ID: 50344100002 Collected: 05/04/23 12:10 Received: 05/05/23 14:40 Matrix: Water

Parameters	Results	Units	Report			Prepared	Analyzed	CAS No.	Qual
			Limit	MDL	DF				
<b>9056 IC Anions</b>									
Analytical Method: EPA 9056									
Pace Analytical Services - Indianapolis									
Chloride	250	mg/L	25.0	6.7	100		05/13/23 08:31	16887-00-6	
Fluoride	0.22	mg/L	0.10	0.017	1		05/12/23 03:51	16984-48-8	
Sulfate	733	mg/L	25.0	8.5	100		05/13/23 08:31	14808-79-8	
<b>6010 MET ICP</b>									
Analytical Method: EPA 6010 Preparation Method: EPA 3010									
Pace Analytical Services - Indianapolis									
Aluminum	ND	ug/L	200	55.4	1	05/10/23 09:44	05/12/23 11:35	7429-90-5	
Boron	2430	ug/L	100	37.6	1	05/10/23 09:44	05/12/23 11:35	7440-42-8	
Calcium	249000	ug/L	2000	326	2	05/10/23 09:44	05/12/23 12:09	7440-70-2	
Iron	289	ug/L	100	48.8	1	05/10/23 09:44	05/12/23 11:35	7439-89-6	
Lithium	43.9	ug/L	20.0	6.2	1	05/10/23 09:44	05/12/23 11:35	7439-93-2	
Magnesium	65000	ug/L	1000	71.8	1	05/10/23 09:44	05/12/23 11:35	7439-95-4	
Manganese	109	ug/L	10.0	2.5	1	05/10/23 09:44	05/12/23 11:35	7439-96-5	
Potassium	8860	ug/L	1000	281	1	05/10/23 09:44	05/12/23 11:35	7440-09-7	
Silica	12600	ug/L	450		1	05/10/23 09:44	05/12/23 11:35	7631-86-9	N2
Sodium	209000	ug/L	2000	428	2	05/10/23 09:44	05/12/23 12:09	7440-23-5	
<b>6010 MET ICP, Dissolved</b>									
Analytical Method: EPA 6010 Preparation Method: EPA 3010									
Pace Analytical Services - Indianapolis									
Manganese, Dissolved	110	ug/L	10.0	2.5	1	05/10/23 15:30	05/11/23 02:36	7439-96-5	
Molybdenum, Dissolved	68.9	ug/L	10.0	3.7	1	05/10/23 15:30	05/11/23 02:36	7439-98-7	
<b>6020 MET ICPMS</b>									
Analytical Method: EPA 6020 Preparation Method: EPA 200.2									
Pace Analytical Services - Indianapolis									
Antimony	ND	ug/L	1.0	0.036	1	05/07/23 21:00	05/10/23 02:13	7440-36-0	
Arsenic	ND	ug/L	1.0	0.053	1	05/07/23 21:00	05/10/23 02:13	7440-38-2	
Barium	108	ug/L	1.0	0.051	1	05/07/23 21:00	05/10/23 02:13	7440-39-3	
Beryllium	ND	ug/L	0.20	0.028	1	05/07/23 21:00	05/10/23 02:13	7440-41-7	
Cadmium	ND	ug/L	2.0	0.0090	1	05/07/23 21:00	05/10/23 02:13	7440-43-9	
Chromium	ND	ug/L	10.0	0.13	1	05/07/23 21:00	05/10/23 02:13	7440-47-3	
Cobalt	1.0	ug/L	1.0	0.032	1	05/07/23 21:00	05/10/23 02:13	7440-48-4	
Lead	ND	ug/L	10.0	0.034	1	05/07/23 21:00	05/10/23 02:13	7439-92-1	
Molybdenum	67.3	ug/L	10.0	0.048	1	05/07/23 21:00	05/10/23 02:13	7439-98-7	
Selenium	ND	ug/L	1.0	0.23	1	05/07/23 21:00	05/10/23 02:13	7782-49-2	
Thallium	ND	ug/L	1.0	0.033	1	05/07/23 21:00	05/10/23 02:13	7440-28-0	
<b>7470 Mercury</b>									
Analytical Method: EPA 7470 Preparation Method: EPA 7470									
Pace Analytical Services - Indianapolis									
Mercury	ND	ug/L	0.20	0.12	1	05/09/23 18:41	05/10/23 10:41	7439-97-6	
<b>2320B Alkalinity</b>									
Analytical Method: SM 2320B									
Pace Analytical Services - Indianapolis									
Alkalinity, Total as CaCO3	186	mg/L	10.0	10.0	1		05/08/23 20:33		
Alkalinity,Bicarbonate (CaCO3)	186	mg/L	10.0	10.0	1		05/08/23 20:33		

## REPORT OF LABORATORY ANALYSIS

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**ANALYTICAL RESULTS**

Project: Eagle Valley April 2023 P1R1  
 Pace Project No.: 50344100

Sample: MW-26I		Lab ID: 50344100002		Collected: 05/04/23 12:10	Received: 05/05/23 14:40	Matrix: Water			
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>2320B Alkalinity</b>		Analytical Method: SM 2320B Pace Analytical Services - Indianapolis							
Alkalinity, Carbonate (CaCO3)	ND	mg/L	10.0	10.0	1		05/08/23 20:33		
<b>2540C Total Dissolved Solids</b>		Analytical Method: SM 2540C Pace Analytical Services - Indianapolis							
Total Dissolved Solids	1660	mg/L	20.0	20.0	1		05/10/23 12:17		
<b>4500H+ pH, Electrometric</b>		Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis							
pH at 25 Degrees C	7.7	Std. Units	0.10	0.10	1		05/10/23 15:33		H3
<b>4500S2D Sulfide Water</b>		Analytical Method: SM 4500-S2-D Pace Analytical Services - Indianapolis							
Sulfide	ND	mg/L	0.10	0.025	1		05/09/23 16:07	18496-25-8	
<b>Iron, Ferrous</b>		Analytical Method: HACH 8146 Pace Analytical Services - Indianapolis							
Iron, Ferrous	ND	mg/L	0.20	0.035	1		05/08/23 12:44	15438-31-0	H3,N2
<b>353.2 Nitrogen, NO2/NO3 unpres</b>		Analytical Method: EPA 353.2 Pace Analytical Services - Indianapolis							
Nitrogen, Nitrate	0.11	mg/L	0.10	0.011	1		05/05/23 16:30	14797-55-8	
Nitrogen, Nitrite	ND	mg/L	0.10	0.0040	1		05/05/23 16:30	14797-65-0	
<b>365.1 Total Phosphorus</b>		Analytical Method: EPA 365.1 Preparation Method: EPA 365.1 Pace Analytical Services - Indianapolis							
Phosphate as P04	ND	mg/L	0.15	0.15	1	05/08/23 10:30	05/12/23 11:53		
<b>5310C TOC</b>		Analytical Method: SM 5310C Pace Analytical Services - Indianapolis							
Total Organic Carbon	ND	mg/L	4.0	0.94	4		05/11/23 12:00	7440-44-0	D3
<b>5310C Dissolved Organic Carbon</b>		Analytical Method: SM 5310C Pace Analytical Services - Indianapolis							
Dissolved Organic Carbon	ND	mg/L	4.0	0.94	4		05/12/23 09:33		D3

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### ANALYTICAL RESULTS

Project: Eagle Valley April 2023 P1R1  
 Pace Project No.: 50344100

**Sample: MW-26D**      **Lab ID: 50344100003**      Collected: 05/04/23 11:20      Received: 05/05/23 14:40      Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
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**9056 IC Anions**

Analytical Method: EPA 9056  
 Pace Analytical Services - Indianapolis

Chloride	<b>47.6</b>	mg/L	2.5	0.67	10		05/12/23 05:18	16887-00-6	
Fluoride	ND	mg/L	0.10	0.017	1		05/12/23 05:00	16984-48-8	
Sulfate	<b>43.9</b>	mg/L	0.25	0.085	1		05/12/23 05:00	14808-79-8	

**6010 MET ICP**

Analytical Method: EPA 6010      Preparation Method: EPA 3010  
 Pace Analytical Services - Indianapolis

Aluminum	<b>333</b>	ug/L	200	55.4	1	05/10/23 09:44	05/12/23 11:42	7429-90-5	
Boron	<b>117</b>	ug/L	100	37.6	1	05/10/23 09:44	05/12/23 11:42	7440-42-8	
Calcium	<b>107000</b>	ug/L	1000	163	1	05/10/23 09:44	05/12/23 11:42	7440-70-2	
Iron	<b>941</b>	ug/L	100	48.8	1	05/10/23 09:44	05/12/23 11:42	7439-89-6	
Lithium	ND	ug/L	20.0	6.2	1	05/10/23 09:44	05/12/23 11:42	7439-93-2	
Magnesium	<b>29700</b>	ug/L	1000	71.8	1	05/10/23 09:44	05/12/23 11:42	7439-95-4	
Manganese	<b>88.6</b>	ug/L	10.0	2.5	1	05/10/23 09:44	05/12/23 11:42	7439-96-5	
Potassium	<b>3730</b>	ug/L	1000	281	1	05/10/23 09:44	05/12/23 11:42	7440-09-7	
Silica	<b>16300</b>	ug/L	450		1	05/10/23 09:44	05/12/23 11:42	7631-86-9	N2
Sodium	<b>39800</b>	ug/L	1000	214	1	05/10/23 09:44	05/12/23 11:42	7440-23-5	

**6010 MET ICP, Dissolved**

Analytical Method: EPA 6010      Preparation Method: EPA 3010  
 Pace Analytical Services - Indianapolis

Manganese, Dissolved	<b>81.6</b>	ug/L	10.0	2.5	1	05/10/23 15:30	05/11/23 02:38	7439-96-5	
Molybdenum, Dissolved	<b>30.5</b>	ug/L	10.0	3.7	1	05/10/23 15:30	05/11/23 02:38	7439-98-7	

**6020 MET ICPMS**

Analytical Method: EPA 6020      Preparation Method: EPA 200.2  
 Pace Analytical Services - Indianapolis

Antimony	ND	ug/L	1.0	0.036	1	05/07/23 21:00	05/10/23 02:16	7440-36-0	
Arsenic	<b>1.4</b>	ug/L	1.0	0.053	1	05/07/23 21:00	05/10/23 02:16	7440-38-2	
Barium	<b>106</b>	ug/L	1.0	0.051	1	05/07/23 21:00	05/10/23 02:16	7440-39-3	
Beryllium	ND	ug/L	0.20	0.028	1	05/07/23 21:00	05/10/23 02:16	7440-41-7	
Cadmium	ND	ug/L	2.0	0.0090	1	05/07/23 21:00	05/10/23 02:16	7440-43-9	
Chromium	ND	ug/L	10.0	0.13	1	05/07/23 21:00	05/10/23 02:16	7440-47-3	
Cobalt	ND	ug/L	1.0	0.032	1	05/07/23 21:00	05/10/23 02:16	7440-48-4	
Lead	ND	ug/L	10.0	0.034	1	05/07/23 21:00	05/10/23 02:16	7439-92-1	
Molybdenum	<b>29.3</b>	ug/L	10.0	0.048	1	05/07/23 21:00	05/10/23 02:16	7439-98-7	
Selenium	ND	ug/L	1.0	0.23	1	05/07/23 21:00	05/10/23 02:16	7782-49-2	
Thallium	ND	ug/L	1.0	0.033	1	05/07/23 21:00	05/10/23 02:16	7440-28-0	

**7470 Mercury**

Analytical Method: EPA 7470      Preparation Method: EPA 7470  
 Pace Analytical Services - Indianapolis

Mercury	ND	ug/L	0.20	0.12	1	05/09/23 18:41	05/10/23 10:44	7439-97-6	
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**2320B Alkalinity**

Analytical Method: SM 2320B  
 Pace Analytical Services - Indianapolis

Alkalinity, Total as CaCO3	<b>352</b>	mg/L	10.0	10.0	1		05/08/23 20:33		
Alkalinity,Bicarbonate (CaCO3)	<b>352</b>	mg/L	10.0	10.0	1		05/08/23 20:33		

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**ANALYTICAL RESULTS**

Project: Eagle Valley April 2023 P1R1  
 Pace Project No.: 50344100

Sample: MW-26D		Lab ID: 50344100003		Collected: 05/04/23 11:20	Received: 05/05/23 14:40	Matrix: Water			
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>2320B Alkalinity</b>									
Analytical Method: SM 2320B Pace Analytical Services - Indianapolis									
Alkalinity, Carbonate (CaCO3)	ND	mg/L	10.0	10.0	1		05/08/23 20:33		
<b>2540C Total Dissolved Solids</b>									
Analytical Method: SM 2540C Pace Analytical Services - Indianapolis									
Total Dissolved Solids	<b>454</b>	mg/L	10.0	10.0	1		05/10/23 12:17		
<b>4500H+ pH, Electrometric</b>									
Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis									
pH at 25 Degrees C	<b>7.7</b>	Std. Units	0.10	0.10	1		05/10/23 15:34		H3
<b>4500S2D Sulfide Water</b>									
Analytical Method: SM 4500-S2-D Pace Analytical Services - Indianapolis									
Sulfide	<b>0.076J</b>	mg/L	0.10	0.025	1		05/09/23 16:07	18496-25-8	
<b>Iron, Ferrous</b>									
Analytical Method: HACH 8146 Pace Analytical Services - Indianapolis									
Iron, Ferrous	ND	mg/L	0.20	0.035	1		05/08/23 12:43	15438-31-0	H3,N2
<b>353.2 Nitrogen, NO2/NO3 unpres</b>									
Analytical Method: EPA 353.2 Pace Analytical Services - Indianapolis									
Nitrogen, Nitrate	ND	mg/L	0.10	0.011	1		05/05/23 16:36	14797-55-8	
Nitrogen, Nitrite	ND	mg/L	0.10	0.0040	1		05/05/23 16:36	14797-65-0	
<b>365.1 Total Phosphorus</b>									
Analytical Method: EPA 365.1 Preparation Method: EPA 365.1 Pace Analytical Services - Indianapolis									
Phosphate as P04	ND	mg/L	0.15	0.15	1	05/08/23 10:30	05/12/23 11:54		
<b>5310C TOC</b>									
Analytical Method: SM 5310C Pace Analytical Services - Indianapolis									
Total Organic Carbon	<b>1.3</b>	mg/L	1.0	0.24	1		05/11/23 01:43	7440-44-0	
<b>5310C Dissolved Organic Carbon</b>									
Analytical Method: SM 5310C Pace Analytical Services - Indianapolis									
Dissolved Organic Carbon	<b>2.5</b>	mg/L	1.0	0.24	1		05/11/23 19:24		

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**QUALITY CONTROL DATA**

Project: Eagle Valley April 2023 P1R1

Pace Project No.: 50344100

QC Batch:	732629	Analysis Method:	EPA 9056
QC Batch Method:	EPA 9056	Analysis Description:	9056 IC Anions
		Laboratory:	Pace Analytical Services - Indianapolis

Associated Lab Samples: 50344100001, 50344100002, 50344100003

METHOD BLANK: 3362305 Matrix: Water

Associated Lab Samples: 50344100001, 50344100002, 50344100003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chloride	mg/L	ND	0.25	0.067	05/12/23 09:57	
Fluoride	mg/L	ND	0.10	0.017	05/12/23 09:57	
Sulfate	mg/L	ND	0.25	0.085	05/12/23 09:57	

LABORATORY CONTROL SAMPLE: 3362306

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	2.5	2.4	97	80-120	
Fluoride	mg/L	1	1.0	102	80-120	
Sulfate	mg/L	5	4.8	96	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3362307 3362308

Parameter	Units	MS		MSD		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		50344191001 Result	Spike Conc.	Spike Conc.	Conc.								
Chloride	mg/L	9.9	2.5	2.5	13.1	13.2	129	129	80-120	0	15	E,M0	
Fluoride	mg/L	0.14	1	1	1.2	1.2	105	106	80-120	0	15		
Sulfate	mg/L	278	500	500	746	745	94	93	80-120	0	15		

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**QUALITY CONTROL DATA**

Project: Eagle Valley April 2023 P1R1

Pace Project No.: 50344100

QC Batch: 732422	Analysis Method: EPA 7470
QC Batch Method: EPA 7470	Analysis Description: 7470 Mercury
	Laboratory: Pace Analytical Services - Indianapolis

Associated Lab Samples: 50344100001, 50344100002, 50344100003

METHOD BLANK: 3361374 Matrix: Water

Associated Lab Samples: 50344100001, 50344100002, 50344100003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Mercury	ug/L	ND	0.20	0.12	05/10/23 09:41	

LABORATORY CONTROL SAMPLE: 3361375

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury	ug/L	5	5.4	108	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3361376 3361377

Parameter	Units	50344001011		3361376		3361377		% Rec Limits	RPD	Max RPD	Qual	
		MS Result	MSD Result	MS Result	MSD Result	MS Result	MSD Result					
Mercury	ug/L	52.1	5	5	61.4	46.2	186	-118	75-125	28	20	P6,R1

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3361378 3361379

Parameter	Units	50344191001		3361378		3361379		% Rec Limits	RPD	Max RPD	Qual	
		MS Result	MSD Result	MS Result	MSD Result	MS Result	MSD Result					
Mercury	ug/L	ND	5	5	5.5	5.3	111	106	75-125	4	20	

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**QUALITY CONTROL DATA**

Project: Eagle Valley April 2023 P1R1  
Pace Project No.: 50344100

QC Batch: 732530 Analysis Method: EPA 6010  
QC Batch Method: EPA 3010 Analysis Description: 6010 MET  
Laboratory: Pace Analytical Services - Indianapolis

Associated Lab Samples: 50344100001, 50344100002, 50344100003

METHOD BLANK: 3361850 Matrix: Water

Associated Lab Samples: 50344100001, 50344100002, 50344100003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Aluminum	ug/L	ND	200	55.4	05/12/23 11:14	
Boron	ug/L	ND	100	37.6	05/12/23 11:14	
Calcium	ug/L	ND	1000	163	05/12/23 11:14	
Iron	ug/L	ND	100	48.8	05/12/23 11:14	
Lithium	ug/L	ND	20.0	6.2	05/12/23 11:14	
Magnesium	ug/L	ND	1000	71.8	05/12/23 11:14	
Manganese	ug/L	ND	10.0	2.5	05/12/23 11:14	
Potassium	ug/L	ND	1000	281	05/12/23 11:14	
Silica	ug/L	ND	450		05/12/23 11:14	N2
Sodium	ug/L	ND	1000	214	05/12/23 11:14	

LABORATORY CONTROL SAMPLE: 3361851

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Aluminum	ug/L	5000	5100	102	80-120	
Boron	ug/L	1000	972	97	80-120	
Calcium	ug/L	5000	5090	102	80-120	
Iron	ug/L	2500	2600	104	80-120	
Lithium	ug/L	1000	994	99	80-120	
Magnesium	ug/L	5000	4960	99	80-120	
Manganese	ug/L	1000	963	96	80-120	
Potassium	ug/L	5000	5000	100	80-120	
Silica	ug/L	5350	5340	100	80-120	N2
Sodium	ug/L	5000	4770	95	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3361852 3361853

Parameter	Units	MS		MSD		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual	
		50344191001 Result	Spike Conc.	Spike Conc.	MS Result							MSD Result
Aluminum	ug/L	ND	5000	5000	5410	5570	106	109	75-125	3	20	
Boron	ug/L	665	1000	1000	1660	1700	100	104	75-125	2	20	
Calcium	ug/L	161000	5000	5000	163000	166000	26	92	75-125	2	20	P6
Iron	ug/L	5180	2500	2500	7650	7820	99	106	75-125	2	20	
Lithium	ug/L	ND	1000	1000	1020	1060	102	106	75-125	3	20	
Magnesium	ug/L	56200	5000	5000	60100	61500	77	105	75-125	2	20	
Manganese	ug/L	1020	1000	1000	1960	2000	94	98	75-125	2	20	
Potassium	ug/L	ND	5000	5000	5700	5870	102	106	75-125	3	20	

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### QUALITY CONTROL DATA

Project: Eagle Valley April 2023 P1R1

Pace Project No.: 50344100

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3361852 3361853												
Parameter	Units	50344191001 Result	MS	MSD	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max	Qual
			Spike Conc.	Spike Conc.							RPD	
Silica	ug/L	16100	5350	5350	21100	21600	93	103	75-125	2	20	N2
Sodium	ug/L	8810	5000	5000	13500	13900	94	101	75-125	3	20	

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**QUALITY CONTROL DATA**

Project: Eagle Valley April 2023 P1R1

Pace Project No.: 50344100

QC Batch:	732523	Analysis Method:	EPA 6010
QC Batch Method:	EPA 3010	Analysis Description:	6010 MET Dissolved
		Laboratory:	Pace Analytical Services - Indianapolis
Associated Lab Samples:	50344100001, 50344100002, 50344100003		

METHOD BLANK: 3361834 Matrix: Water  
 Associated Lab Samples: 50344100001, 50344100002, 50344100003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Manganese, Dissolved	ug/L	ND	10.0	2.5	05/11/23 02:01	
Molybdenum, Dissolved	ug/L	ND	10.0	3.7	05/11/23 02:01	

LABORATORY CONTROL SAMPLE: 3361835

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Manganese, Dissolved	ug/L	1000	998	100	80-120	
Molybdenum, Dissolved	ug/L	1000	1060	106	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3361836 3361837

Parameter	Units	50344191001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Manganese, Dissolved	ug/L	1040	1000	1000	2030	2070	99	103	75-125	2	20	
Molybdenum, Dissolved	ug/L	ND	1000	1000	1060	1060	106	106	75-125	0	20	

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**QUALITY CONTROL DATA**

Project: Eagle Valley April 2023 P1R1  
Pace Project No.: 50344100

QC Batch: 732045 Analysis Method: EPA 6020  
QC Batch Method: EPA 200.2 Analysis Description: 6020 MET  
Laboratory: Pace Analytical Services - Indianapolis  
Associated Lab Samples: 50344100001, 50344100002, 50344100003

METHOD BLANK: 3359837 Matrix: Water  
Associated Lab Samples: 50344100001, 50344100002, 50344100003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Antimony	ug/L	ND	1.0	0.036	05/09/23 17:23	
Arsenic	ug/L	ND	1.0	0.053	05/09/23 17:23	
Barium	ug/L	ND	1.0	0.051	05/09/23 17:23	
Beryllium	ug/L	ND	0.20	0.028	05/09/23 17:23	
Cadmium	ug/L	ND	2.0	0.0090	05/09/23 17:23	
Chromium	ug/L	ND	10.0	0.13	05/09/23 17:23	
Cobalt	ug/L	ND	1.0	0.032	05/09/23 17:23	
Lead	ug/L	ND	10.0	0.034	05/09/23 17:23	
Molybdenum	ug/L	ND	10.0	0.048	05/09/23 17:23	
Selenium	ug/L	ND	1.0	0.23	05/09/23 17:23	
Thallium	ug/L	ND	1.0	0.033	05/09/23 17:23	

LABORATORY CONTROL SAMPLE: 3359838

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Antimony	ug/L	40	41.2	103	80-120	
Arsenic	ug/L	40	39.2	98	80-120	
Barium	ug/L	40	39.3	98	80-120	
Beryllium	ug/L	40	41.2	103	80-120	
Cadmium	ug/L	40	39.2	98	80-120	
Chromium	ug/L	40	40.5	101	80-120	
Cobalt	ug/L	40	41.0	103	80-120	
Lead	ug/L	40	41.1	103	80-120	
Molybdenum	ug/L	40	41.0	103	80-120	
Selenium	ug/L	40	39.5	99	80-120	
Thallium	ug/L	40	41.6	104	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3359839 3359840

Parameter	Units	MS		MSD		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		50344061001 Result	Spike Conc.	Spike Conc.	Conc.								
Antimony	ug/L	ND	40	40	42.4	41.7	106	104	75-125	2	20		
Arsenic	ug/L	ND	40	40	38.9	38.8	96	95	75-125	0	20		
Barium	ug/L	22.4	40	40	60.7	60.4	96	95	75-125	1	20		
Beryllium	ug/L	ND	40	40	38.1	38.3	95	96	75-125	0	20		
Cadmium	ug/L	ND	40	40	38.2	38.2	95	95	75-125	0	20		
Chromium	ug/L	ND	40	40	40.3	40.3	100	100	75-125	0	20		

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**QUALITY CONTROL DATA**

Project: Eagle Valley April 2023 P1R1

Pace Project No.: 50344100

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3359839 3359840											
Parameter	Units	50344061001		MS	MSD	MS	MSD	MS	MSD	% Rec	Max
		Result	Spike Conc.	Spike Conc.	Result	Result	% Rec	% Rec	Limits	RPD	RPD
Cobalt	ug/L	ND	40	40	38.7	38.5	96	96	75-125	1	20
Lead	ug/L	ND	40	40	41.1	41.0	103	102	75-125	0	20
Molybdenum	ug/L	ND	40	40	42.0	42.5	103	105	75-125	1	20
Selenium	ug/L	ND	40	40	39.3	39.1	98	98	75-125	0	20
Thallium	ug/L	ND	40	40	42.0	42.3	105	106	75-125	1	20

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### QUALITY CONTROL DATA

Project: Eagle Valley April 2023 P1R1

Pace Project No.: 50344100

QC Batch:	732316	Analysis Method:	SM 2320B
QC Batch Method:	SM 2320B	Analysis Description:	2320B Alkalinity
		Laboratory:	Pace Analytical Services - Indianapolis
Associated Lab Samples:	50344100001, 50344100002, 50344100003		

METHOD BLANK: 3360820 Matrix: Water  
 Associated Lab Samples: 50344100001, 50344100002, 50344100003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Alkalinity, Total as CaCO3	mg/L	ND	10.0	10.0	05/08/23 20:33	
Alkalinity,Bicarbonate (CaCO3)	mg/L	ND	10.0	10.0	05/08/23 20:33	
Alkalinity,Carbonate (CaCO3)	mg/L	ND	10.0	10.0	05/08/23 20:33	

LABORATORY CONTROL SAMPLE: 3360821

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Alkalinity, Total as CaCO3	mg/L	50	45.4	91	90-110	

SAMPLE DUPLICATE: 3360822

Parameter	Units	50344191001 Result	Dup Result	RPD	Max RPD	Qualifiers
Alkalinity, Total as CaCO3	mg/L	316	320	1	20	
Alkalinity,Bicarbonate (CaCO3)	mg/L	316	320	1	20	
Alkalinity,Carbonate (CaCO3)	mg/L	ND	ND		20	

SAMPLE DUPLICATE: 3360823

Parameter	Units	50344013013 Result	Dup Result	RPD	Max RPD	Qualifiers
Alkalinity, Total as CaCO3	mg/L	359	365	2	20	
Alkalinity,Bicarbonate (CaCO3)	mg/L	359	365	2	20	
Alkalinity,Carbonate (CaCO3)	mg/L	ND	ND		20	

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### QUALITY CONTROL DATA

Project: Eagle Valley April 2023 P1R1

Pace Project No.: 50344100

QC Batch:	732670	Analysis Method:	SM 2540C
QC Batch Method:	SM 2540C	Analysis Description:	2540C Total Dissolved Solids
		Laboratory:	Pace Analytical Services - Indianapolis
Associated Lab Samples:	50344100001, 50344100002, 50344100003		

METHOD BLANK: 3362532 Matrix: Water  
 Associated Lab Samples: 50344100001, 50344100002, 50344100003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	ND	10.0	10.0	05/10/23 12:15	

LABORATORY CONTROL SAMPLE: 3362533

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	300	279	93	80-120	

SAMPLE DUPLICATE: 3362534

Parameter	Units	50344099002 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	457	467	2	10	

SAMPLE DUPLICATE: 3362535

Parameter	Units	50344100001 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	1950	1970	1	10	

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### QUALITY CONTROL DATA

Project: Eagle Valley April 2023 P1R1

Pace Project No.: 50344100

QC Batch: 732729

Analysis Method: SM 4500-H+B

QC Batch Method: SM 4500-H+B

Analysis Description: 4500H+B pH

Laboratory: Pace Analytical Services - Indianapolis

Associated Lab Samples: 50344100001, 50344100002, 50344100003

SAMPLE DUPLICATE: 3362788

Parameter	Units	50344076005 Result	Dup Result	RPD	Max RPD	Qualifiers
pH at 25 Degrees C	Std. Units	6.8	6.9	1	2	H3

SAMPLE DUPLICATE: 3362789

Parameter	Units	50344191001 Result	Dup Result	RPD	Max RPD	Qualifiers
pH at 25 Degrees C	Std. Units	7.0	7.1	1	2	H3

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**QUALITY CONTROL DATA**

Project: Eagle Valley April 2023 P1R1

Pace Project No.: 50344100

QC Batch:	732409	Analysis Method:	SM 4500-S2-D
QC Batch Method:	SM 4500-S2-D	Analysis Description:	4500S2D Sulfide Water
		Laboratory:	Pace Analytical Services - Indianapolis
Associated Lab Samples:	50344100001, 50344100002, 50344100003		

METHOD BLANK: 3361327 Matrix: Water

Associated Lab Samples: 50344100001, 50344100002, 50344100003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Sulfide	mg/L	ND	0.10	0.025	05/09/23 16:07	

LABORATORY CONTROL SAMPLE: 3361328

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Sulfide	mg/L	0.5	0.52	104	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3361329 3361330

Parameter	Units	50344099001		3361330		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result						
Sulfide	mg/L	0.076J	0.5	0.5	0.58	0.57	100	98	90-110	2	20

MATRIX SPIKE SAMPLE: 3361331

Parameter	Units	50344101001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Sulfide	mg/L		ND	0.5	0.43	79	90-110 M0

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**QUALITY CONTROL DATA**

Project: Eagle Valley April 2023 P1R1

Pace Project No.: 50344100

QC Batch:	732178	Analysis Method:	HACH 8146
QC Batch Method:	HACH 8146	Analysis Description:	Iron, Ferrous
		Laboratory:	Pace Analytical Services - Indianapolis
Associated Lab Samples:	50344100001, 50344100002, 50344100003		

METHOD BLANK: 3360414 Matrix: Water

Associated Lab Samples: 50344100001, 50344100002, 50344100003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Iron, Ferrous	mg/L	ND	0.20	0.035	05/08/23 12:42	H3,N2

LABORATORY CONTROL SAMPLE: 3360415

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Iron, Ferrous	mg/L	1	1.0	102	90-110	H3,N2

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3360416 3360417

Parameter	Units	50344191001		3360417		% Rec	% Rec	% Rec Limits	RPD	Max RPD	Qual	
		MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result							
Iron, Ferrous	mg/L	ND	1	1	1.1	1.1	100	101	90-110	1	20	H3,N2

MATRIX SPIKE SAMPLE: 3360418

Parameter	Units	50344071001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Iron, Ferrous	mg/L	ND	1	1.1	107	90-110	H3,N2

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**QUALITY CONTROL DATA**

Project: Eagle Valley April 2023 P1R1

Pace Project No.: 50344100

QC Batch:	731708	Analysis Method:	EPA 353.2
QC Batch Method:	EPA 353.2	Analysis Description:	353.2 Nitrate + Nitrite, Unpres.
		Laboratory:	Pace Analytical Services - Indianapolis

Associated Lab Samples: 50344100001, 50344100002

METHOD BLANK: 3358001 Matrix: Water

Associated Lab Samples: 50344100001, 50344100002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Nitrogen, Nitrate	mg/L	ND	0.10	0.011	05/05/23 10:16	
Nitrogen, Nitrite	mg/L	ND	0.10	0.0040	05/05/23 10:16	

LABORATORY CONTROL SAMPLE: 3358002

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Nitrogen, Nitrate	mg/L	1	1.0	102	90-110	
Nitrogen, Nitrite	mg/L	1	1.1	107	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3358003 3358004

Parameter	Units	50343808006 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Nitrogen, Nitrate	mg/L	ND	1	1	1.0	1.0	104	104	90-110	0	20	
Nitrogen, Nitrite	mg/L	ND	1	1	1.1	1.1	108	109	90-110	0	20	

MATRIX SPIKE SAMPLE: 3358005

Parameter	Units	50343925008 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Nitrogen, Nitrate	mg/L	6.7	5	11.0	87	90-110	
Nitrogen, Nitrite	mg/L	ND	5	5.3	105	90-110	

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**QUALITY CONTROL DATA**

Project: Eagle Valley April 2023 P1R1

Pace Project No.: 50344100

QC Batch:	731990	Analysis Method:	EPA 353.2
QC Batch Method:	EPA 353.2	Analysis Description:	353.2 Nitrate + Nitrite, Unpres.
		Laboratory:	Pace Analytical Services - Indianapolis

Associated Lab Samples: 50344100003

METHOD BLANK: 3359430 Matrix: Water

Associated Lab Samples: 50344100003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Nitrogen, Nitrate	mg/L	ND	0.10	0.011	05/05/23 16:32	
Nitrogen, Nitrite	mg/L	ND	0.10	0.0040	05/05/23 16:32	

LABORATORY CONTROL SAMPLE: 3359431

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Nitrogen, Nitrate	mg/L	1	1.0	103	90-110	
Nitrogen, Nitrite	mg/L	1	1.1	108	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3359432 3359433

Parameter	Units	50344100003		3359433		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		Result	MS Spike Conc.	MSD Spike Conc.	MS Result						
Nitrogen, Nitrate	mg/L	ND	1	1	1.1	1.1	108	109	90-110	1	20
Nitrogen, Nitrite	mg/L	ND	1	1	1.1	1.1	114	114	90-110	0	20 M3

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**QUALITY CONTROL DATA**

Project: Eagle Valley April 2023 P1R1  
 Pace Project No.: 50344100

QC Batch: 732162 Analysis Method: EPA 365.1  
 QC Batch Method: EPA 365.1 Analysis Description: 365.1 Total Phosphorus  
 Laboratory: Pace Analytical Services - Indianapolis  
 Associated Lab Samples: 50344100001, 50344100002, 50344100003

METHOD BLANK: 3360358 Matrix: Water  
 Associated Lab Samples: 50344100001, 50344100002, 50344100003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Phosphate as P04	mg/L	ND	0.15	0.15	05/12/23 11:42	

LABORATORY CONTROL SAMPLE: 3360359

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Phosphate as P04	mg/L		1.4			

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3360360 3360361

Parameter	Units	50344191001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Phosphate as P04	mg/L	0.28			1.7	1.7				0		

MATRIX SPIKE SAMPLE: 3360362

Parameter	Units	50344099001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Phosphate as P04	mg/L		ND	1.4			

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**QUALITY CONTROL DATA**

Project: Eagle Valley April 2023 P1R1

Pace Project No.: 50344100

QC Batch:	732685	Analysis Method:	SM 5310C
QC Batch Method:	SM 5310C	Analysis Description:	5310C Total Organic Carbon
		Laboratory:	Pace Analytical Services - Indianapolis
Associated Lab Samples:	50344100001, 50344100002, 50344100003		

METHOD BLANK: 3362582 Matrix: Water  
 Associated Lab Samples: 50344100001, 50344100002, 50344100003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Organic Carbon	mg/L	ND	1.0	0.24	05/10/23 22:11	

LABORATORY CONTROL SAMPLE: 3362583

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Organic Carbon	mg/L	10	10.2	102	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3362584 3362585

Parameter	Units	50344191001		3362584		3362585		% Rec Limits	RPD	Max RPD	Qual
		MS Result	MSD Spike Conc.	MS Result	MSD Spike Conc.	MS Result	MSD Result				
Total Organic Carbon	mg/L	ND	10	10	10.8	11.1	98	101	80-120	3	20

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3362588 3362589

Parameter	Units	50344228001		3362588		3362589		% Rec Limits	RPD	Max RPD	Qual
		MS Result	MSD Spike Conc.	MS Result	MSD Spike Conc.	MS Result	MSD Result				
Total Organic Carbon	mg/L	1.4	10	10	11.4	11.5	100	101	80-120	1	20

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3362590 3362591

Parameter	Units	50344229002		3362590		3362591		% Rec Limits	RPD	Max RPD	Qual
		MS Result	MSD Spike Conc.	MS Result	MSD Spike Conc.	MS Result	MSD Result				
Total Organic Carbon	mg/L	1.4	10	10	11.8	11.8	104	104	80-120	0	20

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**QUALITY CONTROL DATA**

Project: Eagle Valley April 2023 P1R1

Pace Project No.: 50344100

QC Batch: 732677 Analysis Method: SM 5310C  
 QC Batch Method: SM 5310C Analysis Description: 5310C Dissolved Organic Carbon  
 Laboratory: Pace Analytical Services - Indianapolis  
 Associated Lab Samples: 50344100001, 50344100002, 50344100003

METHOD BLANK: 3362546 Matrix: Water  
 Associated Lab Samples: 50344100001, 50344100002, 50344100003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Dissolved Organic Carbon	mg/L	ND	1.0	0.24	05/11/23 15:36	

LABORATORY CONTROL SAMPLE: 3362547

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Dissolved Organic Carbon	mg/L	10	9.9	99	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3362548 3362549

Parameter	Units	50344191001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Dissolved Organic Carbon	mg/L	1.2	10	10	11.7	11.7	105	105	80-120	0	20	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3362550 3362551

Parameter	Units	50344228001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Dissolved Organic Carbon	mg/L	2.0	10	10	12.2	11.9	102	99	80-120	3	20	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3362552 3362553

Parameter	Units	50344229002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Dissolved Organic Carbon	mg/L	1.5	10	10	12.0	12.5	105	110	80-120	4	20	

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Eagle Valley April 2023 P1R1

Pace Project No.: 50344100

**Sample: MW-26S**      **Lab ID: 50344100001**      Collected: 05/04/23 13:00      Received: 05/05/23 14:40      Matrix: Water  
PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	<b>0.607 ± 0.347 (0.319)</b> <b>C:NA T:81%</b>	pCi/L	05/30/23 16:23	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	<b>0.954 ± 0.453 (0.768)</b> <b>C:79% T:81%</b>	pCi/L	05/18/23 11:28	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	<b>1.56 ± 0.800 (1.09)</b>	pCi/L	05/30/23 18:09	7440-14-4	

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**ANALYTICAL RESULTS - RADIOCHEMISTRY**

Project: Eagle Valley April 2023 P1R1

Pace Project No.: 50344100

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
<b>Sample: MW-26I</b> <b>Lab ID: 50344100002</b> Collected: 05/04/23 12:10      Received: 05/05/23 14:40      Matrix: Water PWS:      Site ID:      Sample Type:						
Pace Analytical Services - Greensburg						
Radium-226	EPA 903.1	<b>0.401 ± 0.266 (0.121)</b> <b>C:NA T:86%</b>	pCi/L	05/30/23 16:23	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 904.0	<b>0.440 ± 0.370 (0.746)</b> <b>C:84% T:86%</b>	pCi/L	05/18/23 11:30	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	<b>0.841 ± 0.636 (0.867)</b>	pCi/L	05/30/23 18:09	7440-14-4	

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**ANALYTICAL RESULTS - RADIOCHEMISTRY**

Project: Eagle Valley April 2023 P1R1

Pace Project No.: 50344100

**Sample: MW-26D**      **Lab ID: 50344100003**      Collected: 05/04/23 11:20      Received: 05/05/23 14:40      Matrix: Water  
 PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	<b>0.125 ± 0.216 (0.386)</b> <b>C:NA T:85%</b>	pCi/L	05/30/23 16:23	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	<b>0.700 ± 0.439 (0.834)</b> <b>C:78% T:85%</b>	pCi/L	05/18/23 11:28	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	<b>0.825 ± 0.655 (1.22)</b>	pCi/L	05/30/23 18:09	7440-14-4	

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### QUALITY CONTROL - RADIOCHEMISTRY

Project: Eagle Valley April 2023 P1R1

Pace Project No.: 50344100

QC Batch:	587562	Analysis Method:	EPA 903.1
QC Batch Method:	EPA 903.1	Analysis Description:	903.1 Radium-226
		Laboratory:	Pace Analytical Services - Greensburg

Associated Lab Samples: 50344100001, 50344100002, 50344100003

METHOD BLANK: 2854465 Matrix: Water

Associated Lab Samples: 50344100001, 50344100002, 50344100003

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.0872 ± 0.210 (0.405) C:NA T:85%	pCi/L	05/30/23 16:23	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

### REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL - RADIOCHEMISTRY

Project: Eagle Valley April 2023 P1R1

Pace Project No.: 50344100

QC Batch: 587564

Analysis Method: EPA 904.0

QC Batch Method: EPA 904.0

Analysis Description: 904.0 Radium 228

Laboratory: Pace Analytical Services - Greensburg

Associated Lab Samples: 50344100001, 50344100002, 50344100003

METHOD BLANK: 2854466

Matrix: Water

Associated Lab Samples: 50344100001, 50344100002, 50344100003

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.897 ± 0.384 (0.586) C:78% T:85%	pCi/L	05/18/23 11:30	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

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## QUALIFIERS

Project: Eagle Valley April 2023 P1R1

Pace Project No.: 50344100

### DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Reported results are not rounded until the final step prior to reporting. Therefore, calculated parameters that are typically reported as "Total" may vary slightly from the sum of the reported component parameters.

Act - Activity

Unc - Uncertainty: SDWA = 1.96 sigma count uncertainty, all other matrices = Expanded Uncertainty (95% confidence interval).

Gamma Spec = Expanded Uncertainty (95.4% Confidence Interval)

(MDC) - Minimum Detectable Concentration

Trac - Tracer Recovery (%)

Carr - Carrier Recovery (%)

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

### ANALYTE QUALIFIERS

D3 Sample was diluted due to the presence of high levels of non-target analytes or other matrix interference.

E Analyte concentration exceeded the calibration range. The reported result is estimated.

H3 Sample was received or analysis requested beyond the recognized method holding time.

M0 Matrix spike recovery and/or matrix spike duplicate recovery was outside laboratory control limits.

M3 Matrix spike recovery was outside laboratory control limits due to matrix interferences.

N2 The lab does not hold NELAC/TNI accreditation for this parameter but other accreditations/certifications may apply. A complete list of accreditations/certifications is available upon request.

P6 Matrix spike recovery was outside laboratory control limits due to a parent sample concentration notably higher than the spike level.

R1 RPD value was outside control limits.

## REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Eagle Valley April 2023 P1R1

Pace Project No.: 50344100

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
50344100001	MW-26S	EPA 9056	732629		
50344100002	MW-26I	EPA 9056	732629		
50344100003	MW-26D	EPA 9056	732629		
50344100001	MW-26S	EPA 3010	732530	EPA 6010	733161
50344100002	MW-26I	EPA 3010	732530	EPA 6010	733161
50344100003	MW-26D	EPA 3010	732530	EPA 6010	733161
50344100001	MW-26S	EPA 3010	732523	EPA 6010	732818
50344100002	MW-26I	EPA 3010	732523	EPA 6010	732818
50344100003	MW-26D	EPA 3010	732523	EPA 6010	732818
50344100001	MW-26S	EPA 200.2	732045	EPA 6020	732224
50344100002	MW-26I	EPA 200.2	732045	EPA 6020	732224
50344100003	MW-26D	EPA 200.2	732045	EPA 6020	732224
50344100001	MW-26S	EPA 7470	732422	EPA 7470	732580
50344100002	MW-26I	EPA 7470	732422	EPA 7470	732580
50344100003	MW-26D	EPA 7470	732422	EPA 7470	732580
50344100001	MW-26S	EPA 903.1	587562		
50344100002	MW-26I	EPA 903.1	587562		
50344100003	MW-26D	EPA 903.1	587562		
50344100001	MW-26S	EPA 904.0	587564		
50344100002	MW-26I	EPA 904.0	587564		
50344100003	MW-26D	EPA 904.0	587564		
50344100001	MW-26S	Total Radium Calculation	591495		
50344100002	MW-26I	Total Radium Calculation	591495		
50344100003	MW-26D	Total Radium Calculation	591495		
50344100001	MW-26S	SM 2320B	732316		
50344100002	MW-26I	SM 2320B	732316		
50344100003	MW-26D	SM 2320B	732316		
50344100001	MW-26S	SM 2540C	732670		
50344100002	MW-26I	SM 2540C	732670		
50344100003	MW-26D	SM 2540C	732670		
50344100001	MW-26S	SM 4500-H+B	732729		
50344100002	MW-26I	SM 4500-H+B	732729		
50344100003	MW-26D	SM 4500-H+B	732729		
50344100001	MW-26S	SM 4500-S2-D	732409		
50344100002	MW-26I	SM 4500-S2-D	732409		
50344100003	MW-26D	SM 4500-S2-D	732409		
50344100001	MW-26S	HACH 8146	732178		
50344100002	MW-26I	HACH 8146	732178		
50344100003	MW-26D	HACH 8146	732178		
50344100001	MW-26S	EPA 353.2	731708		
50344100002	MW-26I	EPA 353.2	731708		
50344100003	MW-26D	EPA 353.2	731990		

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### QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Eagle Valley April 2023 P1R1

Pace Project No.: 50344100

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
50344100001	MW-26S	EPA 365.1	732162	EPA 365.1	733276
50344100002	MW-26I	EPA 365.1	732162	EPA 365.1	733276
50344100003	MW-26D	EPA 365.1	732162	EPA 365.1	733276
50344100001	MW-26S	SM 5310C	732685		
50344100002	MW-26I	SM 5310C	732685		
50344100003	MW-26D	SM 5310C	732685		
50344100001	MW-26S	SM 5310C	732677		
50344100002	MW-26I	SM 5310C	732677		
50344100003	MW-26D	SM 5310C	732677		

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**SAMPLE CONDITION UPON RECEIPT FORM**

Date/Time and Initials of person examining contents: DD 5/5/23 1512

1. Courier:  FED EX  UPS  CLIENT  PACE  USPS  OTHER \_\_\_\_\_
2. Custody Seal on Cooler/Box Present:  Yes  No  
 (If yes)Seals Intact:  Yes  No (leave blank if no seals were present)
3. Thermometer: **1 2 3 4 5 6 A B C D E F**  
 1.6 WHS 5/5/23
4. Cooler Temperature(s):     
 (Initial/Corrected) RECORD TEMPS OF ALL COOLERS RECEIVED (use Comments below to add more)

5. Packing Material:  Bubble Wrap  Bubble Bags  
 None  Other \_\_\_\_\_
6. Ice Type:  Wet  Blue  None
7. If temp. is over 6°C or under 0°C, was the PM notified?:  Yes  No  
 Cooler temp should be above freezing to 6°C

**All discrepancies will be written out in the comments section below.**

	Yes	No		Yes	No	N/A
USDA Regulated Soils? (HI, ID, NY, WA, OR,CA, NM, TX, OK, AR, LA, TN, AL, MS, NC, SC, GA, FL, or Puerto Rico)		<input checked="" type="checkbox"/>	All containers needing acid/base preservation have been pH CHECKED?: Exceptions: VOA, coliform, LLHg, O&G, RAD CHEM, and any container with a septum cap or preserved with HCl.			
Short Hold Time Analysis (48 hours or less)? Analysis: Nitrate	<input checked="" type="checkbox"/>	5/5/23 <input checked="" type="checkbox"/>	Circle: HNO3 (<2) H2SO4 (<2) NaOH (>10) NaOH/ZnAc (>9) Any non-conformance to pH recommendations will be noted on the container count form	<input checked="" type="checkbox"/>		
Time 5035A TC placed in Freezer or Short Holds To Lab Time: 15:50			Residual Chlorine Check (SVOC 625 Pest/PCB 608)	Present	Absent	N/A
Rush TAT Requested (4 days or less):		<input checked="" type="checkbox"/>	Residual Chlorine Check (Total/Amenable/Free Cyanide)			<input checked="" type="checkbox"/>
Custody Signatures Present?	<input checked="" type="checkbox"/>		Headspace Wisconsin Sulfide?			<input checked="" type="checkbox"/>
Containers Intact?:	<input checked="" type="checkbox"/>		Headspace in VOA Vials (>6mm): See Containter Count form for details	Present	Absent	No VOA Vials Sent
Sample Label (IDs/Dates/Times) Match COC?: Except TCs, which only require sample ID	<input checked="" type="checkbox"/>		Trip Blank Present?		<input checked="" type="checkbox"/>	
Extra labels on Terracore Vials? (soils only)			Trip Blank Custody Seals?:			<input checked="" type="checkbox"/>

COMMENTS:

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July 19, 2023

Mr. Mark Breting  
ATC Group Services  
7988 Centerpoint Drive  
Suite 100  
Indianapolis, IN 46256

RE: Project: Eagle Valley April 2023 P1R1  
Pace Project No.: 50344254

Dear Mr. Breting:

Enclosed are the analytical results for sample(s) received by the laboratory on May 08, 2023. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

The test results provided in this final report were generated by each of the following laboratories within the Pace Network:

- Pace Analytical Services - Indianapolis
- Pace Analytical Services - Greensburg

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Will Statz  
will.statz@pacelabs.com  
(317)228-3105  
Project Manager

Enclosures

cc: Mohammed Bazlamit, Atlas  
Mr. Robert Miller, Haley & Aldrich



## REPORT OF LABORATORY ANALYSIS

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### CERTIFICATIONS

Project: Eagle Valley April 2023 P1R1

Pace Project No.: 50344254

#### Pace Analytical Services Pennsylvania

1638 Roseytown Rd Suites 2,3&4, Greensburg, PA 15601  
 ANAB DOD-ELAP Rad Accreditation #: L2417  
 ANABISO/IEC 17025:2017 Rad Cert#: L24170  
 Alabama Certification #: 41590  
 Arizona Certification #: AZ0734  
 Arkansas Certification  
 California Certification #: 2950  
 Colorado Certification #: PA01547  
 Connecticut Certification #: PH-0694  
 EPA Region 4 DW Rad  
 Florida/TNI Certification #: E87683  
 Georgia Certification #: C040  
 Guam Certification  
 Hawaii Certification  
 Idaho Certification  
 Illinois Certification  
 Indiana Certification  
 Iowa Certification #: 391  
 Kansas Certification #: E-10358  
 Kentucky Certification #: KY90133  
 KY WW Permit #: KY0098221  
 KY WW Permit #: KY0000221  
 Louisiana DHH/TNI Certification #: LA010  
 Louisiana DEQ/TNI Certification #: 04086  
 Maine Certification #: 2023021  
 Maryland Certification #: 308  
 Massachusetts Certification #: M-PA1457  
 Michigan/PADEP Certification #: 9991

Missouri Certification #: 235  
 Montana Certification #: Cert0082  
 Nebraska Certification #: NE-OS-29-14  
 Nevada Certification #: PA014572023-03  
 New Hampshire/TNI Certification #: 297622  
 New Jersey/TNI Certification #: PA051  
 New Mexico Certification #: PA01457  
 New York/TNI Certification #: 10888  
 North Carolina Certification #: 42706  
 North Dakota Certification #: R-190  
 Ohio EPA Rad Approval: #41249  
 Oregon/TNI Certification #: PA200002-015  
 Pennsylvania/TNI Certification #: 65-00282  
 Puerto Rico Certification #: PA01457  
 Rhode Island Certification #: 65-00282  
 South Dakota Certification  
 Tennessee Certification #: TN02867  
 Texas/TNI Certification #: T104704188-22-18  
 Utah/TNI Certification #: PA014572223-14  
 USDA Soil Permit #: 525-23-67-77263  
 Vermont Dept. of Health: ID# VT-0282  
 Virgin Island/PADEP Certification  
 Virginia/VELAP Certification #: 460198  
 Washington Certification #: C868  
 West Virginia DEP Certification #: 143  
 West Virginia DHHR Certification #: 9964C  
 Wisconsin Approve List for Rad

#### Pace Analytical Services Indianapolis

7726 Moller Road, Indianapolis, IN 46268  
 Illinois Accreditation #: 200074  
 Indiana Drinking Water Laboratory #: C-49-06  
 Kansas/TNI Certification #: E-10177  
 Kentucky UST Agency Interest #: 80226  
 Kentucky WW Laboratory ID #: 98019  
 Michigan Drinking Water Laboratory #9050

Ohio VAP Certified Laboratory #: CL0065  
 Oklahoma Laboratory #: 9204  
 Texas Certification #: T104704355  
 Wisconsin Laboratory #: 999788130  
 USDA Foreign Soil Permit #: 525-23-13-23119  
 USDA Compliance Agreement #: IN-SL-22-001

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### SAMPLE SUMMARY

Project: Eagle Valley April 2023 P1R1

Pace Project No.: 50344254

Lab ID	Sample ID	Matrix	Date Collected	Date Received
50344254001	MW-9S	Water	05/08/23 10:30	05/08/23 16:20
50344254002	MW-9I	Water	05/08/23 12:20	05/08/23 16:20
50344254003	MW-9D	Water	05/08/23 11:22	05/08/23 16:20

### REPORT OF LABORATORY ANALYSIS

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**SAMPLE ANALYTE COUNT**

Project: Eagle Valley April 2023 P1R1  
 Pace Project No.: 50344254

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory		
50344254001	MW-9S	EPA 9056	ADM, RMR	3	PASI-I		
		EPA 6010	MTM	10	PASI-I		
		EPA 6010	MTM	2	PASI-I		
		EPA 6020	CAW	11	PASI-I		
		EPA 7470	EAE	1	PASI-I		
		EPA 903.1	JLJ	1	PASI-PA		
		EPA 904.0	ZPC	1	PASI-PA		
		Total Radium Calculation	JAL	1	PASI-PA		
		SM 2320B	DAW	3	PASI-I		
		SM 2540C	AEL	1	PASI-I		
		SM 4500-H+B	LHZ	1	PASI-I		
		SM 4500-S2-D	STS	1	PASI-I		
		HACH 8146	BEP	1	PASI-I		
		EPA 353.2	ZM	2	PASI-I		
		EPA 365.1	YAM	1	PASI-I		
		SM 5310C	ATS	1	PASI-I		
		SM 5310C	ATS	1	PASI-I		
		50344254002	MW-9I	EPA 9056	ADM	3	PASI-I
				EPA 6010	MTM	10	PASI-I
				EPA 6010	MTM	2	PASI-I
EPA 6020	CAW			11	PASI-I		
EPA 7470	EAE			1	PASI-I		
EPA 903.1	JLJ			1	PASI-PA		
EPA 904.0	ZPC			1	PASI-PA		
Total Radium Calculation	JAL			1	PASI-PA		
SM 2320B	DAW			3	PASI-I		
SM 2540C	AEL			1	PASI-I		
SM 4500-H+B	LHZ			1	PASI-I		
SM 4500-S2-D	STS			1	PASI-I		
HACH 8146	BEP			1	PASI-I		
EPA 353.2	ZM			2	PASI-I		
EPA 365.1	YAM			1	PASI-I		
SM 5310C	ATS			1	PASI-I		
SM 5310C	ATS			1	PASI-I		
50344254003	MW-9D			EPA 9056	ADM, RMR	3	PASI-I
				EPA 6010	MTM	10	PASI-I
				EPA 6010	MTM	2	PASI-I

**REPORT OF LABORATORY ANALYSIS**

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### SAMPLE ANALYTE COUNT

Project: Eagle Valley April 2023 P1R1

Pace Project No.: 50344254

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
		EPA 6020	CAW	11	PASI-I
		EPA 7470	EAE	1	PASI-I
		EPA 903.1	JLJ	1	PASI-PA
		EPA 904.0	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
		SM 2320B	DAW	3	PASI-I
		SM 2540C	AEL	1	PASI-I
		SM 4500-H+B	LHZ	1	PASI-I
		SM 4500-S2-D	STS	1	PASI-I
		HACH 8146	BEP	1	PASI-I
		EPA 353.2	ZM	2	PASI-I
		EPA 365.1	YAM	1	PASI-I
		SM 5310C	ATS	1	PASI-I
		SM 5310C	ATS	1	PASI-I

PASI-I = Pace Analytical Services - Indianapolis

PASI-PA = Pace Analytical Services - Greensburg

### REPORT OF LABORATORY ANALYSIS

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### SUMMARY OF DETECTION

Project: Eagle Valley April 2023 P1R1

Pace Project No.: 50344254

Lab Sample ID	Client Sample ID	Result	Units	Report Limit	Analyzed	Qualifiers
Method	Parameters					
<b>50344254001</b>	<b>MW-9S</b>					
EPA 9056	Chloride	265	mg/L	25.0	05/16/23 12:19	
EPA 9056	Fluoride	0.65	mg/L	0.10	05/14/23 10:11	
EPA 9056	Sulfate	877	mg/L	25.0	05/16/23 12:19	
EPA 6010	Boron	3150	ug/L	100	05/12/23 16:26	
EPA 6010	Calcium	287000	ug/L	2000	05/12/23 16:53	
EPA 6010	Lithium	89.9	ug/L	20.0	05/12/23 16:26	
EPA 6010	Magnesium	70300	ug/L	1000	05/12/23 16:26	
EPA 6010	Manganese	59.7	ug/L	10.0	05/12/23 16:26	
EPA 6010	Potassium	16900	ug/L	1000	05/12/23 16:26	
EPA 6010	Silica	34500	ug/L	450	05/12/23 16:26	N2
EPA 6010	Sodium	215000	ug/L	2000	05/12/23 16:53	
EPA 6010	Molybdenum, Dissolved	202	ug/L	10.0	05/12/23 13:35	
EPA 6020	Arsenic	6.0	ug/L	1.0	05/12/23 19:00	
EPA 6020	Barium	116	ug/L	1.0	05/12/23 19:00	
EPA 6020	Molybdenum	188	ug/L	10.0	05/12/23 19:00	
EPA 6020	Selenium	2.1	ug/L	1.0	05/12/23 19:00	
EPA 903.1	Radium-226	0.247 ± 0.257 (0.383)	pCi/L		06/13/23 14:47	
EPA 904.0	Radium-228	C:NA T:96% 0.267 ± 0.254 (0.513)	pCi/L		05/31/23 15:18	
		C:79% T:96%				
Total Radium Calculation	Total Radium	0.514 ± 0.511 (0.896)	pCi/L		06/13/23 15:31	
SM 2320B	Alkalinity, Total as CaCO3	254	mg/L	10.0	05/09/23 18:29	
SM 2320B	Alkalinity, Bicarbonate (CaCO3)	254	mg/L	10.0	05/09/23 18:29	
SM 2540C	Total Dissolved Solids	1940	mg/L	20.0	05/11/23 08:48	
SM 4500-H+B	pH at 25 Degrees C	7.9	Std. Units	0.10	05/12/23 13:37	H3
EPA 353.2	Nitrogen, Nitrate	2.9	mg/L	0.10	05/09/23 21:40	
EPA 365.1	Phosphate as P04	1.3	mg/L	0.15	05/12/23 12:13	
<b>50344254002</b>	<b>MW-9I</b>					
EPA 9056	Chloride	52.9	mg/L	2.5	05/14/23 11:03	
EPA 9056	Fluoride	0.11	mg/L	0.10	05/14/23 10:46	
EPA 9056	Sulfate	49.4	mg/L	0.25	05/14/23 10:46	
EPA 6010	Calcium	141000	ug/L	1000	05/12/23 16:28	
EPA 6010	Magnesium	36100	ug/L	1000	05/12/23 16:28	
EPA 6010	Manganese	272	ug/L	10.0	05/12/23 16:28	
EPA 6010	Potassium	2440	ug/L	1000	05/12/23 16:28	
EPA 6010	Silica	14700	ug/L	450	05/12/23 16:28	N2
EPA 6010	Sodium	21800	ug/L	1000	05/12/23 16:28	
EPA 6010	Manganese, Dissolved	273	ug/L	10.0	05/12/23 13:37	
EPA 6020	Barium	122	ug/L	1.0	05/12/23 19:03	

### REPORT OF LABORATORY ANALYSIS

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### SUMMARY OF DETECTION

Project: Eagle Valley April 2023 P1R1

Pace Project No.: 50344254

Lab Sample ID	Client Sample ID	Result	Units	Report Limit	Analyzed	Qualifiers
Method	Parameters					
<b>50344254002</b>	<b>MW-9I</b>					
EPA 903.1	Radium-226	0.496 ± 0.438 (0.650) C:NA T:93%	pCi/L		06/13/23 14:47	
EPA 904.0	Radium-228	0.468 ± 0.309 (0.571) C:74% T:93%	pCi/L		05/31/23 15:18	
Total Radium Calculation	Total Radium	0.964 ± 0.747 (1.22)	pCi/L		06/13/23 15:31	
SM 2320B	Alkalinity, Total as CaCO3	405	mg/L	10.0	05/09/23 18:29	
SM 2320B	Alkalinity,Bicarbonate (CaCO3)	405	mg/L	10.0	05/09/23 18:29	
SM 2540C	Total Dissolved Solids	541	mg/L	10.0	05/11/23 08:49	
SM 4500-H+B	pH at 25 Degrees C	7.7	Std. Units	0.10	05/12/23 13:39	H3
SM 5310C	Dissolved Organic Carbon	3.2	mg/L	1.0	05/12/23 02:20	
<b>50344254003</b>	<b>MW-9D</b>					
EPA 9056	Chloride	212	mg/L	25.0	05/16/23 12:38	
EPA 9056	Fluoride	0.32	mg/L	0.10	05/14/23 13:18	
EPA 9056	Sulfate	497	mg/L	25.0	05/16/23 12:38	
EPA 6010	Boron	1060	ug/L	100	05/12/23 16:30	
EPA 6010	Calcium	167000	ug/L	1000	05/12/23 16:30	
EPA 6010	Lithium	23.0	ug/L	20.0	05/12/23 16:30	
EPA 6010	Magnesium	47700	ug/L	1000	05/12/23 16:30	
EPA 6010	Manganese	466	ug/L	10.0	05/12/23 16:30	
EPA 6010	Potassium	9240	ug/L	1000	05/12/23 16:30	
EPA 6010	Silica	11100	ug/L	450	05/12/23 16:30	N2
EPA 6010	Sodium	188000	ug/L	1000	05/12/23 16:30	
EPA 6010	Manganese, Dissolved	458	ug/L	10.0	05/12/23 13:39	
EPA 6010	Molybdenum, Dissolved	21.6	ug/L	10.0	05/12/23 13:39	
EPA 6020	Barium	59.9	ug/L	1.0	05/12/23 19:07	
EPA 6020	Cobalt	1.5	ug/L	1.0	05/12/23 19:07	
EPA 6020	Molybdenum	19.7	ug/L	10.0	05/12/23 19:07	
EPA 903.1	Radium-226	0.199 ± 0.259 (0.428) C:NA T:87%	pCi/L		06/07/23 15:51	
EPA 904.0	Radium-228	0.178 ± 0.323 (0.707) C:84% T:87%	pCi/L		05/30/23 15:18	
Total Radium Calculation	Total Radium	0.377 ± 0.582 (1.14)	pCi/L		06/08/23 12:58	
SM 2320B	Alkalinity, Total as CaCO3	223	mg/L	10.0	05/09/23 20:04	
SM 2320B	Alkalinity,Bicarbonate (CaCO3)	223	mg/L	10.0	05/09/23 20:04	
SM 2540C	Total Dissolved Solids	1250	mg/L	20.0	05/11/23 08:49	
SM 4500-H+B	pH at 25 Degrees C	7.7	Std. Units	0.10	05/12/23 13:40	H3

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### SUMMARY OF DETECTION

Project: Eagle Valley April 2023 P1R1

Pace Project No.: 50344254

Lab Sample ID Method	Client Sample ID Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
<b>50344254003</b>	<b>MW-9D</b>					
EPA 353.2	Nitrogen, Nitrate	1.0	mg/L	0.10	05/09/23 21:45	
EPA 353.2	Nitrogen, Nitrite	0.15	mg/L	0.10	05/09/23 21:45	
SM 5310C	Total Organic Carbon	1.9	mg/L	1.0	05/12/23 19:41	

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## ANALYTICAL RESULTS

Project: Eagle Valley April 2023 P1R1

Pace Project No.: 50344254

Sample: MW-9S		Lab ID: 50344254001		Collected: 05/08/23 10:30		Received: 05/08/23 16:20		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>9056 IC Anions</b>		Analytical Method: EPA 9056 Pace Analytical Services - Indianapolis							
Chloride	265	mg/L	25.0	6.7	100		05/16/23 12:19	16887-00-6	
Fluoride	0.65	mg/L	0.10	0.017	1		05/14/23 10:11	16984-48-8	
Sulfate	877	mg/L	25.0	8.5	100		05/16/23 12:19	14808-79-8	
<b>6010 MET ICP</b>		Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis							
Aluminum	ND	ug/L	200	55.4	1	05/11/23 08:51	05/12/23 16:26	7429-90-5	
Boron	3150	ug/L	100	37.6	1	05/11/23 08:51	05/12/23 16:26	7440-42-8	
Calcium	287000	ug/L	2000	326	2	05/11/23 08:51	05/12/23 16:53	7440-70-2	
Iron	ND	ug/L	100	48.8	1	05/11/23 08:51	05/12/23 16:26	7439-89-6	
Lithium	89.9	ug/L	20.0	6.2	1	05/11/23 08:51	05/12/23 16:26	7439-93-2	
Magnesium	70300	ug/L	1000	71.8	1	05/11/23 08:51	05/12/23 16:26	7439-95-4	
Manganese	59.7	ug/L	10.0	2.5	1	05/11/23 08:51	05/12/23 16:26	7439-96-5	
Potassium	16900	ug/L	1000	281	1	05/11/23 08:51	05/12/23 16:26	7440-09-7	
Silica	34500	ug/L	450		1	05/11/23 08:51	05/12/23 16:26	7631-86-9	N2
Sodium	215000	ug/L	2000	428	2	05/11/23 08:51	05/12/23 16:53	7440-23-5	
<b>6010 MET ICP, Dissolved</b>		Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis							
Manganese, Dissolved	ND	ug/L	10.0	2.5	1	05/11/23 07:44	05/12/23 13:35	7439-96-5	
Molybdenum, Dissolved	202	ug/L	10.0	3.7	1	05/11/23 07:44	05/12/23 13:35	7439-98-7	
<b>6020 MET ICPMS</b>		Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis							
Antimony	ND	ug/L	1.0	0.036	1	05/11/23 07:27	05/12/23 19:00	7440-36-0	
Arsenic	6.0	ug/L	1.0	0.053	1	05/11/23 07:27	05/12/23 19:00	7440-38-2	
Barium	116	ug/L	1.0	0.051	1	05/11/23 07:27	05/12/23 19:00	7440-39-3	
Beryllium	ND	ug/L	0.20	0.028	1	05/11/23 07:27	05/12/23 19:00	7440-41-7	
Cadmium	ND	ug/L	2.0	0.0090	1	05/11/23 07:27	05/12/23 19:00	7440-43-9	
Chromium	ND	ug/L	10.0	0.13	1	05/11/23 07:27	05/12/23 19:00	7440-47-3	
Cobalt	ND	ug/L	1.0	0.032	1	05/11/23 07:27	05/12/23 19:00	7440-48-4	
Lead	ND	ug/L	10.0	0.034	1	05/11/23 07:27	05/12/23 19:00	7439-92-1	
Molybdenum	188	ug/L	10.0	0.048	1	05/11/23 07:27	05/12/23 19:00	7439-98-7	
Selenium	2.1	ug/L	1.0	0.23	1	05/11/23 07:27	05/12/23 19:00	7782-49-2	
Thallium	ND	ug/L	1.0	0.033	1	05/11/23 07:27	05/12/23 19:00	7440-28-0	
<b>7470 Mercury</b>		Analytical Method: EPA 7470 Preparation Method: EPA 7470 Pace Analytical Services - Indianapolis							
Mercury	ND	ug/L	0.20	0.091	1	05/10/23 09:53	05/10/23 19:29	7439-97-6	
<b>2320B Alkalinity</b>		Analytical Method: SM 2320B Pace Analytical Services - Indianapolis							
Alkalinity, Total as CaCO3	254	mg/L	10.0	10.0	1		05/09/23 18:29		
Alkalinity, Bicarbonate (CaCO3)	254	mg/L	10.0	10.0	1		05/09/23 18:29		

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**ANALYTICAL RESULTS**

Project: Eagle Valley April 2023 P1R1  
 Pace Project No.: 50344254

Sample: MW-9S		Lab ID: 50344254001		Collected: 05/08/23 10:30	Received: 05/08/23 16:20	Matrix: Water			
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>2320B Alkalinity</b>		Analytical Method: SM 2320B Pace Analytical Services - Indianapolis							
Alkalinity, Carbonate (CaCO3)	ND	mg/L	10.0	10.0	1		05/09/23 18:29		
<b>2540C Total Dissolved Solids</b>		Analytical Method: SM 2540C Pace Analytical Services - Indianapolis							
Total Dissolved Solids	1940	mg/L	20.0	20.0	1		05/11/23 08:48		
<b>4500H+ pH, Electrometric</b>		Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis							
pH at 25 Degrees C	7.9	Std. Units	0.10	0.10	1		05/12/23 13:37		H3
<b>4500S2D Sulfide Water</b>		Analytical Method: SM 4500-S2-D Pace Analytical Services - Indianapolis							
Sulfide	ND	mg/L	0.10	0.025	1		05/10/23 15:20	18496-25-8	
<b>Iron, Ferrous</b>		Analytical Method: HACH 8146 Pace Analytical Services - Indianapolis							
Iron, Ferrous	ND	mg/L	0.20	0.035	1		05/10/23 15:11	15438-31-0	H3,N2
<b>353.2 Nitrogen, NO2/NO3 unpres</b>		Analytical Method: EPA 353.2 Pace Analytical Services - Indianapolis							
Nitrogen, Nitrate	2.9	mg/L	0.10	0.011	1		05/09/23 21:40	14797-55-8	
Nitrogen, Nitrite	ND	mg/L	0.10	0.0040	1		05/09/23 21:40	14797-65-0	
<b>365.1 Total Phosphorus</b>		Analytical Method: EPA 365.1 Preparation Method: EPA 365.1 Pace Analytical Services - Indianapolis							
Phosphate as P04	1.3	mg/L	0.15	0.15	1	05/10/23 08:30	05/12/23 12:13		
<b>5310C TOC</b>		Analytical Method: SM 5310C Pace Analytical Services - Indianapolis							
Total Organic Carbon	ND	mg/L	4.0	0.94	4		05/16/23 10:07	7440-44-0	D3
<b>5310C Dissolved Organic Carbon</b>		Analytical Method: SM 5310C Pace Analytical Services - Indianapolis							
Dissolved Organic Carbon	ND	mg/L	4.0	0.94	4		05/12/23 09:43		D3

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### ANALYTICAL RESULTS

Project: Eagle Valley April 2023 P1R1

Pace Project No.: 50344254

**Sample: MW-9I**      **Lab ID: 50344254002**      Collected: 05/08/23 12:20      Received: 05/08/23 16:20      Matrix: Water

Parameters	Results	Units	Report			Prepared	Analyzed	CAS No.	Qual
			Limit	MDL	DF				
<b>9056 IC Anions</b>									
Analytical Method: EPA 9056									
Pace Analytical Services - Indianapolis									
Chloride	52.9	mg/L	2.5	0.67	10		05/14/23 11:03	16887-00-6	
Fluoride	0.11	mg/L	0.10	0.017	1		05/14/23 10:46	16984-48-8	
Sulfate	49.4	mg/L	0.25	0.085	1		05/14/23 10:46	14808-79-8	
<b>6010 MET ICP</b>									
Analytical Method: EPA 6010      Preparation Method: EPA 3010									
Pace Analytical Services - Indianapolis									
Aluminum	ND	ug/L	200	55.4	1	05/11/23 08:51	05/12/23 16:28	7429-90-5	
Boron	ND	ug/L	100	37.6	1	05/11/23 08:51	05/12/23 16:28	7440-42-8	
Calcium	141000	ug/L	1000	163	1	05/11/23 08:51	05/12/23 16:28	7440-70-2	
Iron	ND	ug/L	100	48.8	1	05/11/23 08:51	05/12/23 16:28	7439-89-6	
Lithium	ND	ug/L	20.0	6.2	1	05/11/23 08:51	05/12/23 16:28	7439-93-2	
Magnesium	36100	ug/L	1000	71.8	1	05/11/23 08:51	05/12/23 16:28	7439-95-4	
Manganese	272	ug/L	10.0	2.5	1	05/11/23 08:51	05/12/23 16:28	7439-96-5	
Potassium	2440	ug/L	1000	281	1	05/11/23 08:51	05/12/23 16:28	7440-09-7	
Silica	14700	ug/L	450		1	05/11/23 08:51	05/12/23 16:28	7631-86-9	N2
Sodium	21800	ug/L	1000	214	1	05/11/23 08:51	05/12/23 16:28	7440-23-5	
<b>6010 MET ICP, Dissolved</b>									
Analytical Method: EPA 6010      Preparation Method: EPA 3010									
Pace Analytical Services - Indianapolis									
Manganese, Dissolved	273	ug/L	10.0	2.5	1	05/11/23 07:44	05/12/23 13:37	7439-96-5	
Molybdenum, Dissolved	ND	ug/L	10.0	3.7	1	05/11/23 07:44	05/12/23 13:37	7439-98-7	
<b>6020 MET ICPMS</b>									
Analytical Method: EPA 6020      Preparation Method: EPA 200.2									
Pace Analytical Services - Indianapolis									
Antimony	ND	ug/L	1.0	0.036	1	05/11/23 07:27	05/12/23 19:03	7440-36-0	
Arsenic	ND	ug/L	1.0	0.053	1	05/11/23 07:27	05/12/23 19:03	7440-38-2	
Barium	122	ug/L	1.0	0.051	1	05/11/23 07:27	05/12/23 19:03	7440-39-3	
Beryllium	ND	ug/L	0.20	0.028	1	05/11/23 07:27	05/12/23 19:03	7440-41-7	
Cadmium	ND	ug/L	2.0	0.0090	1	05/11/23 07:27	05/12/23 19:03	7440-43-9	
Chromium	ND	ug/L	10.0	0.13	1	05/11/23 07:27	05/12/23 19:03	7440-47-3	
Cobalt	ND	ug/L	1.0	0.032	1	05/11/23 07:27	05/12/23 19:03	7440-48-4	
Lead	ND	ug/L	10.0	0.034	1	05/11/23 07:27	05/12/23 19:03	7439-92-1	
Molybdenum	ND	ug/L	10.0	0.048	1	05/11/23 07:27	05/12/23 19:03	7439-98-7	
Selenium	ND	ug/L	1.0	0.23	1	05/11/23 07:27	05/12/23 19:03	7782-49-2	
Thallium	ND	ug/L	1.0	0.033	1	05/11/23 07:27	05/12/23 19:03	7440-28-0	
<b>7470 Mercury</b>									
Analytical Method: EPA 7470      Preparation Method: EPA 7470									
Pace Analytical Services - Indianapolis									
Mercury	ND	ug/L	0.20	0.091	1	05/10/23 09:53	05/10/23 19:31	7439-97-6	
<b>2320B Alkalinity</b>									
Analytical Method: SM 2320B									
Pace Analytical Services - Indianapolis									
Alkalinity, Total as CaCO3	405	mg/L	10.0	10.0	1		05/09/23 18:29		
Alkalinity,Bicarbonate (CaCO3)	405	mg/L	10.0	10.0	1		05/09/23 18:29		

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**ANALYTICAL RESULTS**

Project: Eagle Valley April 2023 P1R1  
 Pace Project No.: 50344254

Sample: MW-9I		Lab ID: 50344254002		Collected: 05/08/23 12:20	Received: 05/08/23 16:20	Matrix: Water			
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>2320B Alkalinity</b>		Analytical Method: SM 2320B Pace Analytical Services - Indianapolis							
Alkalinity, Carbonate (CaCO3)	ND	mg/L	10.0	10.0	1		05/09/23 18:29		
<b>2540C Total Dissolved Solids</b>		Analytical Method: SM 2540C Pace Analytical Services - Indianapolis							
Total Dissolved Solids	541	mg/L	10.0	10.0	1		05/11/23 08:49		
<b>4500H+ pH, Electrometric</b>		Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis							
pH at 25 Degrees C	7.7	Std. Units	0.10	0.10	1		05/12/23 13:39		H3
<b>4500S2D Sulfide Water</b>		Analytical Method: SM 4500-S2-D Pace Analytical Services - Indianapolis							
Sulfide	ND	mg/L	0.10	0.025	1		05/10/23 15:20	18496-25-8	
<b>Iron, Ferrous</b>		Analytical Method: HACH 8146 Pace Analytical Services - Indianapolis							
Iron, Ferrous	ND	mg/L	0.20	0.035	1		05/10/23 15:12	15438-31-0	H3,N2
<b>353.2 Nitrogen, NO2/NO3 unpres</b>		Analytical Method: EPA 353.2 Pace Analytical Services - Indianapolis							
Nitrogen, Nitrate	ND	mg/L	0.10	0.011	1		05/09/23 21:47	14797-55-8	
Nitrogen, Nitrite	ND	mg/L	0.10	0.0040	1		05/09/23 21:47	14797-65-0	
<b>365.1 Total Phosphorus</b>		Analytical Method: EPA 365.1 Preparation Method: EPA 365.1 Pace Analytical Services - Indianapolis							
Phosphate as P04	ND	mg/L	0.15	0.15	1	05/10/23 08:30	05/12/23 12:14		
<b>5310C TOC</b>		Analytical Method: SM 5310C Pace Analytical Services - Indianapolis							
Total Organic Carbon	ND	mg/L	1.0	0.24	1		05/12/23 19:15	7440-44-0	
<b>5310C Dissolved Organic Carbon</b>		Analytical Method: SM 5310C Pace Analytical Services - Indianapolis							
Dissolved Organic Carbon	3.2	mg/L	1.0	0.24	1		05/12/23 02:20		

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## ANALYTICAL RESULTS

Project: Eagle Valley April 2023 P1R1

Pace Project No.: 50344254

Sample: MW-9D		Lab ID: 50344254003		Collected: 05/08/23 11:22		Received: 05/08/23 16:20		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>9056 IC Anions</b>									
Analytical Method: EPA 9056									
Pace Analytical Services - Indianapolis									
Chloride	212	mg/L	25.0	6.7	100		05/16/23 12:38	16887-00-6	
Fluoride	0.32	mg/L	0.10	0.017	1		05/14/23 13:18	16984-48-8	
Sulfate	497	mg/L	25.0	8.5	100		05/16/23 12:38	14808-79-8	
<b>6010 MET ICP</b>									
Analytical Method: EPA 6010 Preparation Method: EPA 3010									
Pace Analytical Services - Indianapolis									
Aluminum	ND	ug/L	200	55.4	1	05/11/23 08:51	05/12/23 16:30	7429-90-5	
Boron	1060	ug/L	100	37.6	1	05/11/23 08:51	05/12/23 16:30	7440-42-8	
Calcium	167000	ug/L	1000	163	1	05/11/23 08:51	05/12/23 16:30	7440-70-2	
Iron	ND	ug/L	100	48.8	1	05/11/23 08:51	05/12/23 16:30	7439-89-6	
Lithium	23.0	ug/L	20.0	6.2	1	05/11/23 08:51	05/12/23 16:30	7439-93-2	
Magnesium	47700	ug/L	1000	71.8	1	05/11/23 08:51	05/12/23 16:30	7439-95-4	
Manganese	466	ug/L	10.0	2.5	1	05/11/23 08:51	05/12/23 16:30	7439-96-5	
Potassium	9240	ug/L	1000	281	1	05/11/23 08:51	05/12/23 16:30	7440-09-7	
Silica	11100	ug/L	450		1	05/11/23 08:51	05/12/23 16:30	7631-86-9	N2
Sodium	188000	ug/L	1000	214	1	05/11/23 08:51	05/12/23 16:30	7440-23-5	
<b>6010 MET ICP, Dissolved</b>									
Analytical Method: EPA 6010 Preparation Method: EPA 3010									
Pace Analytical Services - Indianapolis									
Manganese, Dissolved	458	ug/L	10.0	2.5	1	05/11/23 07:44	05/12/23 13:39	7439-96-5	
Molybdenum, Dissolved	21.6	ug/L	10.0	3.7	1	05/11/23 07:44	05/12/23 13:39	7439-98-7	
<b>6020 MET ICPMS</b>									
Analytical Method: EPA 6020 Preparation Method: EPA 200.2									
Pace Analytical Services - Indianapolis									
Antimony	ND	ug/L	1.0	0.036	1	05/11/23 07:27	05/12/23 19:07	7440-36-0	
Arsenic	ND	ug/L	1.0	0.053	1	05/11/23 07:27	05/12/23 19:07	7440-38-2	
Barium	59.9	ug/L	1.0	0.051	1	05/11/23 07:27	05/12/23 19:07	7440-39-3	
Beryllium	ND	ug/L	0.20	0.028	1	05/11/23 07:27	05/12/23 19:07	7440-41-7	
Cadmium	ND	ug/L	2.0	0.0090	1	05/11/23 07:27	05/12/23 19:07	7440-43-9	
Chromium	ND	ug/L	10.0	0.13	1	05/11/23 07:27	05/12/23 19:07	7440-47-3	
Cobalt	1.5	ug/L	1.0	0.032	1	05/11/23 07:27	05/12/23 19:07	7440-48-4	
Lead	ND	ug/L	10.0	0.034	1	05/11/23 07:27	05/12/23 19:07	7439-92-1	
Molybdenum	19.7	ug/L	10.0	0.048	1	05/11/23 07:27	05/12/23 19:07	7439-98-7	
Selenium	ND	ug/L	1.0	0.23	1	05/11/23 07:27	05/12/23 19:07	7782-49-2	
Thallium	ND	ug/L	1.0	0.033	1	05/11/23 07:27	05/12/23 19:07	7440-28-0	
<b>7470 Mercury</b>									
Analytical Method: EPA 7470 Preparation Method: EPA 7470									
Pace Analytical Services - Indianapolis									
Mercury	ND	ug/L	0.20	0.091	1	05/10/23 09:53	05/10/23 19:34	7439-97-6	
<b>2320B Alkalinity</b>									
Analytical Method: SM 2320B									
Pace Analytical Services - Indianapolis									
Alkalinity, Total as CaCO3	223	mg/L	10.0	10.0	1		05/09/23 20:04		
Alkalinity,Bicarbonate (CaCO3)	223	mg/L	10.0	10.0	1		05/09/23 20:04		

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**ANALYTICAL RESULTS**

Project: Eagle Valley April 2023 P1R1  
 Pace Project No.: 50344254

Sample: MW-9D		Lab ID: 50344254003		Collected: 05/08/23 11:22	Received: 05/08/23 16:20	Matrix: Water			
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>2320B Alkalinity</b>		Analytical Method: SM 2320B Pace Analytical Services - Indianapolis							
Alkalinity, Carbonate (CaCO3)	ND	mg/L	10.0	10.0	1		05/09/23 20:04		
<b>2540C Total Dissolved Solids</b>		Analytical Method: SM 2540C Pace Analytical Services - Indianapolis							
Total Dissolved Solids	1250	mg/L	20.0	20.0	1		05/11/23 08:49		
<b>4500H+ pH, Electrometric</b>		Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis							
pH at 25 Degrees C	7.7	Std. Units	0.10	0.10	1		05/12/23 13:40		H3
<b>4500S2D Sulfide Water</b>		Analytical Method: SM 4500-S2-D Pace Analytical Services - Indianapolis							
Sulfide	ND	mg/L	0.10	0.025	1		05/10/23 15:20	18496-25-8	
<b>Iron, Ferrous</b>		Analytical Method: HACH 8146 Pace Analytical Services - Indianapolis							
Iron, Ferrous	ND	mg/L	0.20	0.035	1		05/10/23 15:12	15438-31-0	H3,N2
<b>353.2 Nitrogen, NO2/NO3 unpres</b>		Analytical Method: EPA 353.2 Pace Analytical Services - Indianapolis							
Nitrogen, Nitrate	1.0	mg/L	0.10	0.011	1		05/09/23 21:45	14797-55-8	
Nitrogen, Nitrite	0.15	mg/L	0.10	0.0040	1		05/09/23 21:45	14797-65-0	
<b>365.1 Total Phosphorus</b>		Analytical Method: EPA 365.1 Preparation Method: EPA 365.1 Pace Analytical Services - Indianapolis							
Phosphate as P04	ND	mg/L	0.15	0.15	1	05/10/23 08:30	05/12/23 12:14		
<b>5310C TOC</b>		Analytical Method: SM 5310C Pace Analytical Services - Indianapolis							
Total Organic Carbon	1.9	mg/L	1.0	0.24	1		05/12/23 19:41	7440-44-0	
<b>5310C Dissolved Organic Carbon</b>		Analytical Method: SM 5310C Pace Analytical Services - Indianapolis							
Dissolved Organic Carbon	ND	mg/L	4.0	0.94	4		05/12/23 09:54		D3

**REPORT OF LABORATORY ANALYSIS**

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**QUALITY CONTROL DATA**

Project: Eagle Valley April 2023 P1R1  
 Pace Project No.: 50344254

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QC Batch: 732632 Analysis Method: EPA 9056  
 QC Batch Method: EPA 9056 Analysis Description: 9056 IC Anions  
 Laboratory: Pace Analytical Services - Indianapolis  
 Associated Lab Samples: 50344254001, 50344254002, 50344254003

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METHOD BLANK: 3362323 Matrix: Water  
 Associated Lab Samples: 50344254001, 50344254002, 50344254003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chloride	mg/L	ND	0.25	0.067	05/14/23 04:57	
Fluoride	mg/L	ND	0.10	0.017	05/14/23 04:57	
Sulfate	mg/L	ND	0.25	0.085	05/14/23 04:57	

LABORATORY CONTROL SAMPLE: 3362324

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	2.5	2.4	95	80-120	
Fluoride	mg/L	1	1.0	101	80-120	
Sulfate	mg/L	5	4.7	95	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3362325 3362326

Parameter	Units	MS		MSD		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		50344231001 Result	Spike Conc.	Spike Conc.	Conc.								
Chloride	mg/L	51.7	25	25	76.9	76.8	101	101	80-120	0	15		
Fluoride	mg/L	0.14	1	1	1.2	1.2	104	104	80-120	0	15		
Sulfate	mg/L	1420	500	500	1780	1770	72	71	80-120	0	15	M0	

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**QUALITY CONTROL DATA**

Project: Eagle Valley April 2023 P1R1

Pace Project No.: 50344254

QC Batch:	732424	Analysis Method:	EPA 7470
QC Batch Method:	EPA 7470	Analysis Description:	7470 Mercury
		Laboratory:	Pace Analytical Services - Indianapolis

Associated Lab Samples: 50344254001, 50344254002, 50344254003

METHOD BLANK: 3361384 Matrix: Water

Associated Lab Samples: 50344254001, 50344254002, 50344254003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Mercury	ug/L	ND	0.20	0.091	05/10/23 18:30	

LABORATORY CONTROL SAMPLE: 3361385

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury	ug/L	5	5.4	107	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3361386 3361387

Parameter	Units	50344230001 Result	MS	MSD	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
			Spike Conc.	Spike Conc.								
Mercury	ug/L	ND	5	5	5.4	5.4	107	107	75-125	0	20	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3361388 3361389

Parameter	Units	50344231001 Result	MS	MSD	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
			Spike Conc.	Spike Conc.								
Mercury	ug/L	ND	5	5	5.1	4.8	102	96	75-125	6	20	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3361390 3361391

Parameter	Units	50344232001 Result	MS	MSD	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
			Spike Conc.	Spike Conc.								
Mercury	ug/L	ND	5	5	5.1	4.9	102	98	75-125	3	20	

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**QUALITY CONTROL DATA**

Project: Eagle Valley April 2023 P1R1  
Pace Project No.: 50344254

QC Batch: 732539 Analysis Method: EPA 6010  
QC Batch Method: EPA 3010 Analysis Description: 6010 MET  
Laboratory: Pace Analytical Services - Indianapolis  
Associated Lab Samples: 50344254001, 50344254002, 50344254003

METHOD BLANK: 3361883 Matrix: Water  
Associated Lab Samples: 50344254001, 50344254002, 50344254003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Aluminum	ug/L	ND	200	55.4	05/12/23 15:22	
Boron	ug/L	ND	100	37.6	05/12/23 15:22	
Calcium	ug/L	ND	1000	163	05/12/23 15:22	
Iron	ug/L	ND	100	48.8	05/12/23 15:22	
Lithium	ug/L	ND	20.0	6.2	05/12/23 15:22	
Magnesium	ug/L	ND	1000	71.8	05/12/23 15:22	
Manganese	ug/L	ND	10.0	2.5	05/12/23 15:22	
Potassium	ug/L	ND	1000	281	05/12/23 15:22	
Silica	ug/L	ND	450		05/12/23 15:22	N2
Sodium	ug/L	ND	1000	214	05/12/23 15:22	

LABORATORY CONTROL SAMPLE: 3361884

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Aluminum	ug/L	5000	5090	102	80-120	
Boron	ug/L	1000	961	96	80-120	
Calcium	ug/L	5000	5150	103	80-120	
Iron	ug/L	2500	2560	103	80-120	
Lithium	ug/L	1000	991	99	80-120	
Magnesium	ug/L	5000	4980	100	80-120	
Manganese	ug/L	1000	972	97	80-120	
Potassium	ug/L	5000	5030	101	80-120	
Silica	ug/L	5350	5260	98	80-120	N2
Sodium	ug/L	5000	4950	99	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3361885 3361886

Parameter	Units	MS		MSD		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual	
		50344001011 Result	Spike Conc.	Spike Conc.	Result							Result
Aluminum	ug/L	22200	25000	25000	54400	48600	128	105	75-125	11	20	M0
Boron	ug/L	ND	5000	5000	4880	4890	96	96	75-125	0	20	
Calcium	ug/L	129000	25000	25000	133000	124000	15	-19	75-125	7	20	P6
Iron	ug/L	51400	12500	12500	68400	54000	136	20	75-125	24	20	P6,R1
Lithium	ug/L	ND	5000	5000	4860	4860	97	97	75-125	0	20	
Magnesium	ug/L	46000	25000	25000	64200	60600	73	58	75-125	6	20	M3
Manganese	ug/L	670	5000	5000	5320	5260	93	92	75-125	1	20	
Potassium	ug/L	7300	25000	25000	32000	30900	99	94	75-125	4	20	

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**QUALITY CONTROL DATA**

Project: Eagle Valley April 2023 P1R1

Pace Project No.: 50344254

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3361885												3361886	
Parameter	Units	50344001011 Result	MS	MSD	MS	MSD	MS	MSD	% Rec	Limits	RPD	Max RPD	Qual
			Spike Conc.	Spike Conc.	Result	Result	% Rec	% Rec					
Silica	ug/L	80100	26700	26700	142000	109000	231	110	75-125	26	20	N2	
Sodium	ug/L	6290	25000	25000	29100	29600	91	93	75-125	2	20		

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3361887												3361888	
Parameter	Units	50344109009 Result	MS	MSD	MS	MSD	MS	MSD	% Rec	Limits	RPD	Max RPD	Qual
			Spike Conc.	Spike Conc.	Result	Result	% Rec	% Rec					
Aluminum	ug/L	ND	5000	5000	5740	5710	111	111	75-125	1	20		
Boron	ug/L	439	1000	1000	1520	1530	108	109	75-125	0	20		
Calcium	ug/L	149000	5000	5000	155000	156000	124	138	75-125	0	20	P6	
Iron	ug/L	1880	2500	2500	4660	4660	111	111	75-125	0	20		
Lithium	ug/L	40.8	1000	1000	1120	1120	108	108	75-125	0	20		
Magnesium	ug/L	79800	5000	5000	86000	85700	124	118	75-125	0	20		
Manganese	ug/L	493	1000	1000	1520	1530	103	103	75-125	0	20		
Potassium	ug/L	5840	5000	5000	11400	11500	111	112	75-125	1	20		
Silica	ug/L	15100	5350	5350	21300	21200	115	115	75-125	0	20	N2	
Sodium	ug/L	69900	5000	5000	76500	76500	133	132	75-125	0	20	P6	

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**QUALITY CONTROL DATA**

Project: Eagle Valley April 2023 P1R1  
Pace Project No.: 50344254

QC Batch: 732528 Analysis Method: EPA 6010  
QC Batch Method: EPA 3010 Analysis Description: 6010 MET Dissolved  
Laboratory: Pace Analytical Services - Indianapolis  
Associated Lab Samples: 50344254001, 50344254002, 50344254003

METHOD BLANK: 3361842 Matrix: Water  
Associated Lab Samples: 50344254001, 50344254002, 50344254003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Manganese, Dissolved	ug/L	ND	10.0	2.5	05/12/23 12:13	
Molybdenum, Dissolved	ug/L	ND	10.0	3.7	05/12/23 12:13	

LABORATORY CONTROL SAMPLE: 3361843

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Manganese, Dissolved	ug/L	1000	1020	102	80-120	
Molybdenum, Dissolved	ug/L	1000	1100	110	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3361844 3361845

Parameter	Units	50344228001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Manganese, Dissolved	ug/L	2580	1000	1000	3440	3530	86	95	75-125	3	20	
Molybdenum, Dissolved	ug/L	ND	1000	1000	1020	1030	102	103	75-125	1	20	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3361846 3361847

Parameter	Units	50344229002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Manganese, Dissolved	ug/L	4600	1000	1000	5560	5600	97	100	75-125	1	20	
Molybdenum, Dissolved	ug/L	299	1000	1000	1310	1310	101	101	75-125	0	20	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3361848 3361849

Parameter	Units	50344001011 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Manganese, Dissolved	ug/L	290	1000	1000	1230	1220	94	94	75-125	0	20	
Molybdenum, Dissolved	ug/L	ND	1000	1000	1000	1010	100	100	75-125	0	20	

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**QUALITY CONTROL DATA**

Project: Eagle Valley April 2023 P1R1  
 Pace Project No.: 50344254

QC Batch: 732764 Analysis Method: EPA 6020  
 QC Batch Method: EPA 200.2 Analysis Description: 6020 MET  
 Laboratory: Pace Analytical Services - Indianapolis  
 Associated Lab Samples: 50344254001, 50344254002, 50344254003

METHOD BLANK: 3362945 Matrix: Water  
 Associated Lab Samples: 50344254001, 50344254002, 50344254003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Antimony	ug/L	ND	1.0	0.036	05/12/23 16:38	
Arsenic	ug/L	ND	1.0	0.053	05/12/23 16:38	
Barium	ug/L	ND	1.0	0.051	05/12/23 16:38	
Beryllium	ug/L	ND	0.20	0.028	05/12/23 16:38	
Cadmium	ug/L	ND	2.0	0.0090	05/12/23 16:38	
Chromium	ug/L	ND	10.0	0.13	05/12/23 16:38	
Cobalt	ug/L	ND	1.0	0.032	05/12/23 16:38	
Lead	ug/L	ND	10.0	0.034	05/12/23 16:38	
Molybdenum	ug/L	ND	10.0	0.048	05/12/23 16:38	
Selenium	ug/L	ND	1.0	0.23	05/12/23 16:38	
Thallium	ug/L	ND	1.0	0.033	05/12/23 16:38	

LABORATORY CONTROL SAMPLE: 3362946

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Antimony	ug/L	40	38.8	97	80-120	
Arsenic	ug/L	40	38.9	97	80-120	
Barium	ug/L	40	38.9	97	80-120	
Beryllium	ug/L	40	42.2	106	80-120	
Cadmium	ug/L	40	38.7	97	80-120	
Chromium	ug/L	40	40.8	102	80-120	
Cobalt	ug/L	40	40.8	102	80-120	
Lead	ug/L	40	40.6	101	80-120	
Molybdenum	ug/L	40	39.9	100	80-120	
Selenium	ug/L	40	39.8	100	80-120	
Thallium	ug/L	40	42.2	105	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3362947 3362948

Parameter	Units	MS		MSD		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual	
		50344396002 Result	Spike Conc.	Spike Conc.	MS Result							MSD Result
Antimony	ug/L	ND	40	40	40.5	39.9	101	100	75-125	2	20	
Arsenic	ug/L	14.8	40	40	53.1	52.5	96	94	75-125	1	20	
Barium	ug/L	45.4	40	40	85.9	84.9	101	99	75-125	1	20	
Beryllium	ug/L	ND	40	40	40.6	40.2	101	101	75-125	1	20	CL
Cadmium	ug/L	ND	40	40	36.9	36.5	92	91	75-125	1	20	
Chromium	ug/L	ND	40	40	38.6	38.5	96	96	75-125	0	20	

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**QUALITY CONTROL DATA**

Project: Eagle Valley April 2023 P1R1

Pace Project No.: 50344254

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3362947 3362948												
Parameter	Units	50344396002		MS	MSD	MS		MSD		% Rec Limits	Max RPD	Qual
		Result	Conc.	Spike Conc.	Spike Conc.	Result	Result	% Rec	% Rec			
Cobalt	ug/L	3.2	40	40	41.0	40.8	95	94	75-125	1	20	
Lead	ug/L	ND	40	40	40.0	39.9	100	100	75-125	0	20	
Molybdenum	ug/L	9.8	40	40	49.5	48.7	99	97	75-125	2	20	
Selenium	ug/L	ND	40	40	42.1	42.1	105	104	75-125	0	20	
Thallium	ug/L	ND	40	40	42.9	42.5	107	106	75-125	1	20	

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### QUALITY CONTROL DATA

Project: Eagle Valley April 2023 P1R1

Pace Project No.: 50344254

QC Batch:	732495	Analysis Method:	SM 2320B
QC Batch Method:	SM 2320B	Analysis Description:	2320B Alkalinity
		Laboratory:	Pace Analytical Services - Indianapolis

Associated Lab Samples: 50344254001, 50344254002

METHOD BLANK: 3361708 Matrix: Water

Associated Lab Samples: 50344254001, 50344254002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Alkalinity, Total as CaCO3	mg/L	ND	10.0	10.0	05/09/23 18:29	
Alkalinity,Bicarbonate (CaCO3)	mg/L	ND	10.0	10.0	05/09/23 18:29	
Alkalinity,Carbonate (CaCO3)	mg/L	ND	10.0	10.0	05/09/23 18:29	

LABORATORY CONTROL SAMPLE: 3361709

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Alkalinity, Total as CaCO3	mg/L	50	47.1	94	90-110	

SAMPLE DUPLICATE: 3361710

Parameter	Units	50344254001 Result	Dup Result	RPD	Max RPD	Qualifiers
Alkalinity, Total as CaCO3	mg/L	254	257	1	20	
Alkalinity,Bicarbonate (CaCO3)	mg/L	254	257	1	20	
Alkalinity,Carbonate (CaCO3)	mg/L	ND	ND		20	

SAMPLE DUPLICATE: 3361711

Parameter	Units	50344154003 Result	Dup Result	RPD	Max RPD	Qualifiers
Alkalinity, Total as CaCO3	mg/L	381	386	1	20	
Alkalinity,Bicarbonate (CaCO3)	mg/L	381	386	1	20	
Alkalinity,Carbonate (CaCO3)	mg/L	ND	ND		20	

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**QUALITY CONTROL DATA**

Project: Eagle Valley April 2023 P1R1

Pace Project No.: 50344254

QC Batch: 732543

Analysis Method: SM 2320B

QC Batch Method: SM 2320B

Analysis Description: 2320B Alkalinity

Laboratory: Pace Analytical Services - Indianapolis

Associated Lab Samples: 50344254003

METHOD BLANK: 3361911

Matrix: Water

Associated Lab Samples: 50344254003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Alkalinity, Total as CaCO3	mg/L	ND	10.0	10.0	05/09/23 20:04	
Alkalinity,Bicarbonate (CaCO3)	mg/L	ND	10.0	10.0	05/09/23 20:04	
Alkalinity,Carbonate (CaCO3)	mg/L	ND	10.0	10.0	05/09/23 20:04	

LABORATORY CONTROL SAMPLE: 3361912

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Alkalinity, Total as CaCO3	mg/L	50	52.1	104	90-110	

SAMPLE DUPLICATE: 3361913

Parameter	Units	50343700002 Result	Dup Result	RPD	Max RPD	Qualifiers
Alkalinity, Total as CaCO3	mg/L	139	141	1	20	
Alkalinity,Bicarbonate (CaCO3)	mg/L	139	141	1	20	
Alkalinity,Carbonate (CaCO3)	mg/L	ND	ND		20	

SAMPLE DUPLICATE: 3361914

Parameter	Units	50344178001 Result	Dup Result	RPD	Max RPD	Qualifiers
Alkalinity, Total as CaCO3	mg/L	139	141	2	20	
Alkalinity,Bicarbonate (CaCO3)	mg/L	139	141	2	20	
Alkalinity,Carbonate (CaCO3)	mg/L	ND	ND		20	

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**QUALITY CONTROL DATA**

Project: Eagle Valley April 2023 P1R1

Pace Project No.: 50344254

QC Batch:	732853	Analysis Method:	SM 2540C
QC Batch Method:	SM 2540C	Analysis Description:	2540C Total Dissolved Solids
		Laboratory:	Pace Analytical Services - Indianapolis
Associated Lab Samples:	50344254001, 50344254002, 50344254003		

METHOD BLANK: 3363586 Matrix: Water

Associated Lab Samples: 50344254001, 50344254002, 50344254003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	ND	10.0	10.0	05/11/23 08:43	

LABORATORY CONTROL SAMPLE: 3363587

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	300	287	96	80-120	

SAMPLE DUPLICATE: 3363588

Parameter	Units	50344230001 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	699	701	0	10	

SAMPLE DUPLICATE: 3363589

Parameter	Units	50344231001 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	1980	1930	3	10	

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### QUALITY CONTROL DATA

Project: Eagle Valley April 2023 P1R1

Pace Project No.: 50344254

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QC Batch:	733264	Analysis Method:	SM 4500-H+B
QC Batch Method:	SM 4500-H+B	Analysis Description:	4500H+B pH
		Laboratory:	Pace Analytical Services - Indianapolis

Associated Lab Samples: 50344254001, 50344254002, 50344254003

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SAMPLE DUPLICATE: 3365336

Parameter	Units	50343644001 Result	Dup Result	RPD	Max RPD	Qualifiers
pH at 25 Degrees C	Std. Units	8.6	8.7	1	2	H3

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SAMPLE DUPLICATE: 3365337

Parameter	Units	50343721001 Result	Dup Result	RPD	Max RPD	Qualifiers
pH at 25 Degrees C	Std. Units	7.7	7.6	1	2	H3

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**QUALITY CONTROL DATA**

Project: Eagle Valley April 2023 P1R1

Pace Project No.: 50344254

QC Batch:	732710	Analysis Method:	SM 4500-S2-D
QC Batch Method:	SM 4500-S2-D	Analysis Description:	4500S2D Sulfide Water
		Laboratory:	Pace Analytical Services - Indianapolis
Associated Lab Samples:	50344254001, 50344254002, 50344254003		

METHOD BLANK: 3362687 Matrix: Water  
 Associated Lab Samples: 50344254001, 50344254002, 50344254003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Sulfide	mg/L	ND	0.10	0.025	05/10/23 15:20	

LABORATORY CONTROL SAMPLE: 3362688

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Sulfide	mg/L	0.5	0.50	99	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3362689 3362690

Parameter	Units	50344229002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Sulfide	mg/L	ND	0.5	0.5	0.30	0.31	59	61	90-110	3	20	M3

MATRIX SPIKE SAMPLE: 3362691

Parameter	Units	50344269002 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Sulfide	mg/L	ND	0.5	0.49	96	90-110	

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**REPORT OF LABORATORY ANALYSIS**

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**QUALITY CONTROL DATA**

Project: Eagle Valley April 2023 P1R1

Pace Project No.: 50344254

QC Batch:	732725	Analysis Method:	HACH 8146
QC Batch Method:	HACH 8146	Analysis Description:	Iron, Ferrous
		Laboratory:	Pace Analytical Services - Indianapolis
Associated Lab Samples:	50344254001, 50344254002, 50344254003		

METHOD BLANK: 3362759 Matrix: Water  
 Associated Lab Samples: 50344254001, 50344254002, 50344254003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Iron, Ferrous	mg/L	ND	0.20	0.035	05/10/23 15:07	H3,N2

LABORATORY CONTROL SAMPLE: 3362760

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Iron, Ferrous	mg/L	1	1.0	101	90-110	H3,N2

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3362761 3362762

Parameter	Units	50344228001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Iron, Ferrous	mg/L	1.1	5	5	6.3	6.3	104	105	90-110	1	20	H3,N2

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3362763 3362764

Parameter	Units	50344229002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Iron, Ferrous	mg/L	ND	1	1	1.1	1.1	104	105	90-110	1	20	H3,N2

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**QUALITY CONTROL DATA**

Project: Eagle Valley April 2023 P1R1

Pace Project No.: 50344254

QC Batch:	732561	Analysis Method:	EPA 353.2
QC Batch Method:	EPA 353.2	Analysis Description:	353.2 Nitrate + Nitrite, Unpres.
		Laboratory:	Pace Analytical Services - Indianapolis
Associated Lab Samples:	50344254001, 50344254002, 50344254003		

METHOD BLANK: 3362033 Matrix: Water

Associated Lab Samples: 50344254001, 50344254002, 50344254003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Nitrogen, Nitrate	mg/L	ND	0.10	0.011	05/09/23 21:34	
Nitrogen, Nitrite	mg/L	ND	0.10	0.0040	05/09/23 21:34	

LABORATORY CONTROL SAMPLE: 3362034

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Nitrogen, Nitrate	mg/L	1	0.97	97	90-110	
Nitrogen, Nitrite	mg/L	1	1.0	101	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3362035 3362036

Parameter	Units	50344254001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Nitrogen, Nitrate	mg/L	2.9	1	1	3.9	3.9	101	99	90-110	0	20	
Nitrogen, Nitrite	mg/L	ND	1	1	1.0	1.0	102	102	90-110	0	20	

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**QUALITY CONTROL DATA**

Project: Eagle Valley April 2023 P1R1

Pace Project No.: 50344254

QC Batch:	732583	Analysis Method:	EPA 365.1
QC Batch Method:	EPA 365.1	Analysis Description:	365.1 Total Phosphorus
		Laboratory:	Pace Analytical Services - Indianapolis
Associated Lab Samples:	50344254001, 50344254002, 50344254003		

METHOD BLANK: 3362142 Matrix: Water  
 Associated Lab Samples: 50344254001, 50344254002, 50344254003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Phosphate as P04	mg/L	ND	0.15	0.15	05/12/23 11:59	

LABORATORY CONTROL SAMPLE: 3362143

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Phosphate as P04	mg/L		1.4			

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3362144 3362145

Parameter	Units	50343696001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Phosphate as P04	mg/L				1.5	1.5				0		

MATRIX SPIKE SAMPLE: 3362146

Parameter	Units	50344254001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Phosphate as P04	mg/L		1.3	2.7			

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**QUALITY CONTROL DATA**

Project: Eagle Valley April 2023 P1R1

Pace Project No.: 50344254

QC Batch:	733016	Analysis Method:	SM 5310C
QC Batch Method:	SM 5310C	Analysis Description:	5310C Total Organic Carbon
		Laboratory:	Pace Analytical Services - Indianapolis
Associated Lab Samples:	50344254001, 50344254002, 50344254003		

METHOD BLANK: 3364248 Matrix: Water

Associated Lab Samples: 50344254001, 50344254002, 50344254003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Organic Carbon	mg/L	ND	1.0	0.24	05/12/23 17:44	

LABORATORY CONTROL SAMPLE: 3364249

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Organic Carbon	mg/L	10	9.7	97	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3364250 3364251

Parameter	Units	50343691001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Total Organic Carbon	mg/L	0.98	10	10	10.9	10.9	99	99	80-120	0	20	

MATRIX SPIKE SAMPLE: 3364252

Parameter	Units	50343691003 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Total Organic Carbon	mg/L	1.1	10	11.0	99	80-120	

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**QUALITY CONTROL DATA**

Project: Eagle Valley April 2023 P1R1

Pace Project No.: 50344254

QC Batch:	733013	Analysis Method:	SM 5310C
QC Batch Method:	SM 5310C	Analysis Description:	5310C Dissolved Organic Carbon
		Laboratory:	Pace Analytical Services - Indianapolis
Associated Lab Samples:	50344254001, 50344254002, 50344254003		

METHOD BLANK: 3364218 Matrix: Water

Associated Lab Samples: 50344254001, 50344254002, 50344254003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Dissolved Organic Carbon	mg/L	ND	1.0	0.24	05/12/23 01:15	

LABORATORY CONTROL SAMPLE: 3364219

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Dissolved Organic Carbon	mg/L	10	10.1	101	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3364220 3364221

Parameter	Units	3364220		3364221		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual	
		MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result							
Dissolved Organic Carbon	mg/L	ND	10	10	12.2	12.3	90	91	80-120	1	20	

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**REPORT OF LABORATORY ANALYSIS**

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Eagle Valley April 2023 P1R1

Pace Project No.: 50344254

**Sample: MW-9S**      **Lab ID: 50344254001**      Collected: 05/08/23 10:30      Received: 05/08/23 16:20      Matrix: Water  
PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Radium-226	EPA 903.1	<b>0.247 ± 0.257 (0.383)</b> <b>C:NA T:96%</b>	pCi/L	06/13/23 14:47	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 904.0	<b>0.267 ± 0.254 (0.513)</b> <b>C:79% T:96%</b>	pCi/L	05/31/23 15:18	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	<b>0.514 ± 0.511 (0.896)</b>	pCi/L	06/13/23 15:31	7440-14-4	

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**ANALYTICAL RESULTS - RADIOCHEMISTRY**

Project: Eagle Valley April 2023 P1R1

Pace Project No.: 50344254

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Radium-226	EPA 903.1	<b>0.496 ± 0.438 (0.650)</b> <b>C:NA T:93%</b>	pCi/L	06/13/23 14:47	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 904.0	<b>0.468 ± 0.309 (0.571)</b> <b>C:74% T:93%</b>	pCi/L	05/31/23 15:18	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	<b>0.964 ± 0.747 (1.22)</b>	pCi/L	06/13/23 15:31	7440-14-4	

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Eagle Valley April 2023 P1R1

Pace Project No.: 50344254

**Sample: MW-9D**      **Lab ID: 50344254003**      Collected: 05/08/23 11:22      Received: 05/08/23 16:20      Matrix: Water  
 PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Radium-226	EPA 903.1	<b>0.199 ± 0.259 (0.428)</b> <b>C:NA T:87%</b>	pCi/L	06/07/23 15:51	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 904.0	<b>0.178 ± 0.323 (0.707)</b> <b>C:84% T:87%</b>	pCi/L	05/30/23 15:18	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	<b>0.377 ± 0.582 (1.14)</b>	pCi/L	06/08/23 12:58	7440-14-4	

### REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL - RADIOCHEMISTRY

Project: Eagle Valley April 2023 P1R1

Pace Project No.: 50344254

QC Batch: 588768

Analysis Method: EPA 904.0

QC Batch Method: EPA 904.0

Analysis Description: 904.0 Radium 228

Laboratory: Pace Analytical Services - Greensburg

Associated Lab Samples: 50344254003

METHOD BLANK: 2861034

Matrix: Water

Associated Lab Samples: 50344254003

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.470 ± 0.358 (0.700) C:87% T:78%	pCi/L	05/30/23 15:34	

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### QUALITY CONTROL - RADIOCHEMISTRY

Project: Eagle Valley April 2023 P1R1

Pace Project No.: 50344254

QC Batch: 588457

Analysis Method: EPA 903.1

QC Batch Method: EPA 903.1

Analysis Description: 903.1 Radium-226

Laboratory: Pace Analytical Services - Greensburg

Associated Lab Samples: 50344254001, 50344254002

METHOD BLANK: 2859398

Matrix: Water

Associated Lab Samples: 50344254001, 50344254002

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.0472 ± 0.216 (0.438) C:NA T:90%	pCi/L	06/13/23 14:05	

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### QUALITY CONTROL - RADIOCHEMISTRY

Project: Eagle Valley April 2023 P1R1

Pace Project No.: 50344254

QC Batch:	588458	Analysis Method:	EPA 904.0
QC Batch Method:	EPA 904.0	Analysis Description:	904.0 Radium 228
		Laboratory:	Pace Analytical Services - Greensburg

Associated Lab Samples: 50344254001, 50344254002

METHOD BLANK:	2859400	Matrix:	Water
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Associated Lab Samples: 50344254001, 50344254002

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.643 ± 0.344 (0.604) C:83% T:90%	pCi/L	05/31/23 15:19	

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### QUALITY CONTROL - RADIOCHEMISTRY

Project: Eagle Valley April 2023 P1R1

Pace Project No.: 50344254

QC Batch: 588767

Analysis Method: EPA 903.1

QC Batch Method: EPA 903.1

Analysis Description: 903.1 Radium-226

Laboratory: Pace Analytical Services - Greensburg

Associated Lab Samples: 50344254003

METHOD BLANK: 2861033

Matrix: Water

Associated Lab Samples: 50344254003

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.189 ± 0.263 (0.439) C:NA T:78%	pCi/L	06/07/23 15:51	

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### QUALIFIERS

Project: Eagle Valley April 2023 P1R1

Pace Project No.: 50344254

#### DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Reported results are not rounded until the final step prior to reporting. Therefore, calculated parameters that are typically reported as "Total" may vary slightly from the sum of the reported component parameters.

Act - Activity

Unc - Uncertainty: SDWA = 1.96 sigma count uncertainty, all other matrices = Expanded Uncertainty (95% confidence interval).

Gamma Spec = Expanded Uncertainty (95.4% Confidence Interval)

(MDC) - Minimum Detectable Concentration

Trac - Tracer Recovery (%)

Carr - Carrier Recovery (%)

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

#### ANALYTE QUALIFIERS

- CL The continuing calibration for this compound is outside of Pace Analytical acceptance limits. The results may be biased low.
- D3 Sample was diluted due to the presence of high levels of non-target analytes or other matrix interference.
- H3 Sample was received or analysis requested beyond the recognized method holding time.
- M0 Matrix spike recovery and/or matrix spike duplicate recovery was outside laboratory control limits.
- M3 Matrix spike recovery was outside laboratory control limits due to matrix interferences.
- N2 The lab does not hold NELAC/TNI accreditation for this parameter but other accreditations/certifications may apply. A complete list of accreditations/certifications is available upon request.
- P6 Matrix spike recovery was outside laboratory control limits due to a parent sample concentration notably higher than the spike level.
- R1 RPD value was outside control limits.

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Eagle Valley April 2023 P1R1

Pace Project No.: 50344254

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
50344254001	MW-9S	EPA 9056	732632		
50344254002	MW-9I	EPA 9056	732632		
50344254003	MW-9D	EPA 9056	732632		
50344254001	MW-9S	EPA 3010	732539	EPA 6010	733307
50344254002	MW-9I	EPA 3010	732539	EPA 6010	733307
50344254003	MW-9D	EPA 3010	732539	EPA 6010	733307
50344254001	MW-9S	EPA 3010	732528	EPA 6010	733203
50344254002	MW-9I	EPA 3010	732528	EPA 6010	733203
50344254003	MW-9D	EPA 3010	732528	EPA 6010	733203
50344254001	MW-9S	EPA 200.2	732764	EPA 6020	732968
50344254002	MW-9I	EPA 200.2	732764	EPA 6020	732968
50344254003	MW-9D	EPA 200.2	732764	EPA 6020	732968
50344254001	MW-9S	EPA 7470	732424	EPA 7470	732773
50344254002	MW-9I	EPA 7470	732424	EPA 7470	732773
50344254003	MW-9D	EPA 7470	732424	EPA 7470	732773
50344254001	MW-9S	EPA 903.1	588457		
50344254002	MW-9I	EPA 903.1	588457		
50344254003	MW-9D	EPA 903.1	588767		
50344254001	MW-9S	EPA 904.0	588458		
50344254002	MW-9I	EPA 904.0	588458		
50344254003	MW-9D	EPA 904.0	588768		
50344254001	MW-9S	Total Radium Calculation	594605		
50344254002	MW-9I	Total Radium Calculation	594605		
50344254003	MW-9D	Total Radium Calculation	593573		
50344254001	MW-9S	SM 2320B	732495		
50344254002	MW-9I	SM 2320B	732495		
50344254003	MW-9D	SM 2320B	732543		
50344254001	MW-9S	SM 2540C	732853		
50344254002	MW-9I	SM 2540C	732853		
50344254003	MW-9D	SM 2540C	732853		
50344254001	MW-9S	SM 4500-H+B	733264		
50344254002	MW-9I	SM 4500-H+B	733264		
50344254003	MW-9D	SM 4500-H+B	733264		
50344254001	MW-9S	SM 4500-S2-D	732710		
50344254002	MW-9I	SM 4500-S2-D	732710		
50344254003	MW-9D	SM 4500-S2-D	732710		
50344254001	MW-9S	HACH 8146	732725		
50344254002	MW-9I	HACH 8146	732725		
50344254003	MW-9D	HACH 8146	732725		
50344254001	MW-9S	EPA 353.2	732561		

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### QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Eagle Valley April 2023 P1R1

Pace Project No.: 50344254

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
50344254002	MW-9I	EPA 353.2	732561		
50344254003	MW-9D	EPA 353.2	732561		
50344254001	MW-9S	EPA 365.1	732583	EPA 365.1	733277
50344254002	MW-9I	EPA 365.1	732583	EPA 365.1	733277
50344254003	MW-9D	EPA 365.1	732583	EPA 365.1	733277
50344254001	MW-9S	SM 5310C	733016		
50344254002	MW-9I	SM 5310C	733016		
50344254003	MW-9D	SM 5310C	733016		
50344254001	MW-9S	SM 5310C	733013		
50344254002	MW-9I	SM 5310C	733013		
50344254003	MW-9D	SM 5310C	733013		

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**SAMPLE CONDITION UPON RECEIPT FORM**

Date/Time and Initials of person examining contents: 5/8/23 18:59 JG

1. Courier:  FED EX  UPS  CLIENT  PACE  USPS  OTHER \_\_\_\_\_

2. Custody Seal on Cooler/Box Present:  Yes  No  
 (If yes)Seals Intact:  Yes  No (leave blank if no seals were present)

3. Thermometer: **1 2 3 4 5 6 A B C D E F**

4. Cooler Temperature(s): 0.5/0.6     
 (Initial/Corrected) RECORD TEMPS OF ALL COOLERS RECEIVED (use Comments below to add more)

5. Packing Material:  Bubble Wrap  Bubble Bags  
 None  Other \_\_\_\_\_

6. Ice Type:  Wet  Blue  None

7. If temp. is over 6°C or under 0°C, was the PM notified?:  Yes  No  
 Cooler temp should be above freezing to 6°C

All discrepancies will be written out in the comments section below.

	Yes	No		Yes	No	N/A
USDA Regulated Soils? (HI, ID, NY, WA, OR, CA, NM, TX, OK, AR, LA, TN, AL, MS, NC, SC, GA, FL, or Puerto Rico)		<input checked="" type="checkbox"/>	All containers needing acid/base preservation have been pH CHECKED?: Exceptions: VOA, coliform, LLHg, O&G, RAD CHEM, and any container with a septum cap or preserved with HCl.			
Short Hold Time Analysis (48 hours or less)? Analysis: <u>Nitrate, Nitrite</u>	<input checked="" type="checkbox"/>		Circle: <u>HNO3 (&lt;2)</u> <u>H2SO4 (&lt;2)</u> NaOH (>10) <u>NaOH/ZnAc (&gt;9)</u> Any non-conformance to pH recommendations will be noted on the container count form	<input checked="" type="checkbox"/>		
Time 5035A TC placed in Freezer or Short Holds To Lab	Time:		Residual Chlorine Check (SVOC 625 Pest/PCB 608)	<u>Present</u>	<u>Absent</u>	<u>N/A</u>
Rush TAT Requested (4 days or less):		<input checked="" type="checkbox"/>	Residual Chlorine Check (Total/Amenable/Free Cyanide)			<input checked="" type="checkbox"/>
Custody Signatures Present?	<input checked="" type="checkbox"/>		Headspace Wisconsin Sulfide?			<input checked="" type="checkbox"/>
Containers Intact?:	<input checked="" type="checkbox"/>		Headspace in VOA Vials (>6mm): See Container Count form for details	<u>Present</u>	<u>Absent</u>	<u>No VOA Vials Sent</u>
Sample Label (IDs/Dates/Times) Match COC?: Except TCs, which only require sample ID	<input checked="" type="checkbox"/>		Trip Blank Present?		<input checked="" type="checkbox"/>	
Extra labels on Terracore Vials? (soils only)		<input checked="" type="checkbox"/>	Trip Blank Custody Seals?:			<input checked="" type="checkbox"/>

COMMENTS:

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Sample Container Count

\*\* Place a RED dot on containers that are out of conformance \*\*

COC Line Item	WGUFU	MeOH (only) SBS DI R	VIALS			AMBER GLASS			PLASTIC							OTHER			Matrix	Nitric Red	Sulfuric Yellow	Sodium Hydroxide Green	Sodium Hydroxide/ZnAc Black									
			DG9H	VG9H	VOA VIAL HS (>6mm)	VG9U	DG9U	VG9T	AG0U	AG1H	AG1U	AG2U	AG3S	AG3SF	AG3C	BP1U	BP1N	BP2U						BP3U	BP3N	BP3F	BP3S	BP3B	BP3Z	CG3H	CG3F	Syringe Kit
			HNO3 <2	H2SO4 <2	NaOH >10	NaOH/Zn Ac >9																										
1										1	1				2	1	2	1	1	1		1					WT	✓	✓		✓	
2										1	1				2	1	2	1	1	1		1					J	↓	↓		↓	
3										1	1				2	1	2	1	1	1		1					J	↓	↓		↓	
4																																
5																																
6																																
7																																
8																																
9																																
10																																
11																																
12																																

Container Codes

Glass			Plastic		
DG9H	40mL HCl amber voa vial	BG1T	1L Na Thiosulfate clear glass	BP1B	1L NaOH plastic
DG9P	40mL TSP amber vial	BG1U	1L unpreserved glass	BP1N	1L HNO3 plastic
DG9S	40mL H2SO4 amber vial	BG3H	250mL HCl Clear Glass	BP1S	1L H2SO4 plastic
DG9T	40mL Na Thio amber vial	BG3U	250mL Unpres Clear Glass	BP1U	1L unpreserved plastic
DG9U	40mL unpreserved amber vial	AG0U	100mL unpres amber glass	BP1Z	1L NaOH, Zn, Ac
VG9H	40mL HCl clear vial	AG1H	1L HCl amber glass	BP2N	500mL HNO3 plastic
VG9T	40mL Na Thio. clear vial	AG1S	1L H2SO4 amber glass	BP2C	500mL NaOH plastic
VG9U	40mL unpreserved clear vial	AG1T	1L Na Thiosulfate amber glass	BP2S	500mL H2SO4 plastic
I	40mL w/hexane wipe vial	AG1U	1liter unpres amber glass	BP2U	500mL unpreserved plastic
WGKU	8oz unpreserved clear jar	AG2N	500mL HNO3 amber glass	BP2Z	500mL NaOH, Zn Ac
WGUFU	4oz clear soil jar	AG2S	500mL H2SO4 amber glass	BP3B	250mL NaOH plastic
JGUFU	4oz unpreserved amber wide	AG2U	500mL unpres amber glass	BP3N	250mL HNO3 plastic
CG3H	250mL clear glass HCl	AG3S	250mL H2SO4 amber glass	BP3F	250mL HNO3 plastic-field filtered
CG3F	250mL clear glass HCl, Field Filter	AG3SF	250mL H2SO4 amb glass -field filtered	BP3U	250mL unpreserved plastic
BG1H	1L HCl clear glass	AG3U	250mL unpres amber glass	BP3S	250mL H2SO4 plastic
BG1S	1L H2SO4 clear glass	AG3C	250mL NaOH amber glass	BP3Z	250mL NaOH, ZnAc plastic
BP4U	125mL unpreserved plastic				
BP4N	125mL HNO3 plastic				
BP4S	125mL H2SO4 plastic				
<b>Miscellaneous</b>					
Syringe Kit	LL Cr+6 sampling kit				
ZPLC	Ziploc Bag				
R	Terracore Kit				
SP5T	120mL Coliform Sodium Thiosulfate				
GN	General Container				
U	Summa Can (air sample)				
WT	Water				
SL	Solid Solid				
OL	Oil				
NAL	Non-aqueous liquid				
WP	Wipe				



July 19, 2023

Mr. Mark Breting  
ATC Group Services  
7988 Centerpoint Drive  
Suite 100  
Indianapolis, IN 46256

RE: Project: Eagle Valley April 2023 P1R3  
Pace Project No.: 50344255

Dear Mr. Breting:

Enclosed are the analytical results for sample(s) received by the laboratory on May 08, 2023. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

The test results provided in this final report were generated by each of the following laboratories within the Pace Network:

- Pace Analytical Services - Indianapolis
- Pace Analytical Services - Greensburg

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Will Statz  
will.statz@pacelabs.com  
(317)228-3105  
Project Manager

Enclosures

cc: Mohammed Bazlamit, Atlas  
Mr. Robert Miller, Haley & Aldrich



## REPORT OF LABORATORY ANALYSIS

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### CERTIFICATIONS

Project: Eagle Valley April 2023 P1R3

Pace Project No.: 50344255

#### Pace Analytical Services Pennsylvania

1638 Roseytown Rd Suites 2,3&4, Greensburg, PA 15601  
 ANAB DOD-ELAP Rad Accreditation #: L2417  
 ANABISO/IEC 17025:2017 Rad Cert#: L24170  
 Alabama Certification #: 41590  
 Arizona Certification #: AZ0734  
 Arkansas Certification  
 California Certification #: 2950  
 Colorado Certification #: PA01547  
 Connecticut Certification #: PH-0694  
 EPA Region 4 DW Rad  
 Florida/TNI Certification #: E87683  
 Georgia Certification #: C040  
 Guam Certification  
 Hawaii Certification  
 Idaho Certification  
 Illinois Certification  
 Indiana Certification  
 Iowa Certification #: 391  
 Kansas Certification #: E-10358  
 Kentucky Certification #: KY90133  
 KY WW Permit #: KY0098221  
 KY WW Permit #: KY0000221  
 Louisiana DHH/TNI Certification #: LA010  
 Louisiana DEQ/TNI Certification #: 04086  
 Maine Certification #: 2023021  
 Maryland Certification #: 308  
 Massachusetts Certification #: M-PA1457  
 Michigan/PADEP Certification #: 9991

Missouri Certification #: 235  
 Montana Certification #: Cert0082  
 Nebraska Certification #: NE-OS-29-14  
 Nevada Certification #: PA014572023-03  
 New Hampshire/TNI Certification #: 297622  
 New Jersey/TNI Certification #: PA051  
 New Mexico Certification #: PA01457  
 New York/TNI Certification #: 10888  
 North Carolina Certification #: 42706  
 North Dakota Certification #: R-190  
 Ohio EPA Rad Approval: #41249  
 Oregon/TNI Certification #: PA200002-015  
 Pennsylvania/TNI Certification #: 65-00282  
 Puerto Rico Certification #: PA01457  
 Rhode Island Certification #: 65-00282  
 South Dakota Certification  
 Tennessee Certification #: TN02867  
 Texas/TNI Certification #: T104704188-22-18  
 Utah/TNI Certification #: PA014572223-14  
 USDA Soil Permit #: 525-23-67-77263  
 Vermont Dept. of Health: ID# VT-0282  
 Virgin Island/PADEP Certification  
 Virginia/VELAP Certification #: 460198  
 Washington Certification #: C868  
 West Virginia DEP Certification #: 143  
 West Virginia DHHR Certification #: 9964C  
 Wisconsin Approve List for Rad

#### Pace Analytical Services Indianapolis

7726 Moller Road, Indianapolis, IN 46268  
 Illinois Accreditation #: 200074  
 Indiana Drinking Water Laboratory #: C-49-06  
 Kansas/TNI Certification #: E-10177  
 Kentucky UST Agency Interest #: 80226  
 Kentucky WW Laboratory ID #: 98019  
 Michigan Drinking Water Laboratory #9050

Ohio VAP Certified Laboratory #: CL0065  
 Oklahoma Laboratory #: 9204  
 Texas Certification #: T104704355  
 Wisconsin Laboratory #: 999788130  
 USDA Foreign Soil Permit #: 525-23-13-23119  
 USDA Compliance Agreement #: IN-SL-22-001

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### SAMPLE SUMMARY

Project: Eagle Valley April 2023 P1R3  
Pace Project No.: 50344255

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Lab ID	Sample ID	Matrix	Date Collected	Date Received
50344255001	MW-10I	Water	05/08/23 14:07	05/08/23 16:20

### REPORT OF LABORATORY ANALYSIS

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### SAMPLE ANALYTE COUNT

Project: Eagle Valley April 2023 P1R3

Pace Project No.: 50344255

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
50344255001	MW-10I	EPA 9056	ADM, RMR	3	PASI-I
		EPA 6010	MTM	10	PASI-I
		EPA 6010	MTM	2	PASI-I
		EPA 6020	CAW	11	PASI-I
		EPA 7470	EAE	1	PASI-I
		EPA 903.1	JLJ	1	PASI-PA
		EPA 904.0	ZPC	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
		SM 2320B	DAW	3	PASI-I
		SM 2540C	AEL	1	PASI-I
		SM 4500-H+B	LHZ	1	PASI-I
		SM 4500-S2-D	STS	1	PASI-I
		HACH 8146	BEP	1	PASI-I
		EPA 353.2	ZM	2	PASI-I
		EPA 365.1	YAM	1	PASI-I
		SM 5310C	ATS	1	PASI-I
		SM 5310C	ATS	1	PASI-I

PASI-I = Pace Analytical Services - Indianapolis

PASI-PA = Pace Analytical Services - Greensburg

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### SUMMARY OF DETECTION

Project: Eagle Valley April 2023 P1R3

Pace Project No.: 50344255

Lab Sample ID Method	Client Sample ID Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
<b>50344255001</b>	<b>MW-10I</b>					
EPA 9056	Chloride	144	mg/L	25.0	05/16/23 12:57	
EPA 9056	Fluoride	0.29	mg/L	0.10	05/14/23 13:53	
EPA 9056	Sulfate	425	mg/L	25.0	05/16/23 12:57	
EPA 6010	Aluminum	400	ug/L	200	05/12/23 16:33	
EPA 6010	Boron	1110	ug/L	100	05/12/23 16:33	
EPA 6010	Calcium	195000	ug/L	1000	05/12/23 16:33	
EPA 6010	Iron	884	ug/L	100	05/12/23 16:33	
EPA 6010	Lithium	48.4	ug/L	20.0	05/12/23 16:33	
EPA 6010	Magnesium	39800	ug/L	1000	05/12/23 16:33	
EPA 6010	Manganese	83.7	ug/L	10.0	05/12/23 16:33	
EPA 6010	Potassium	10600	ug/L	1000	05/12/23 16:33	
EPA 6010	Silica	11400	ug/L	450	05/12/23 16:33	N2
EPA 6010	Sodium	118000	ug/L	1000	05/12/23 16:33	
EPA 6010	Manganese, Dissolved	73.5	ug/L	10.0	05/12/23 13:42	
EPA 6010	Molybdenum, Dissolved	131	ug/L	10.0	05/12/23 13:42	
EPA 6020	Barium	66.2	ug/L	1.0	05/12/23 19:17	
EPA 6020	Molybdenum	125	ug/L	10.0	05/12/23 19:17	
EPA 903.1	Radium-226	0.305 ± 0.509 (0.885)	pCi/L		06/13/23 14:28	
EPA 904.0	Radium-228	C:NA T:95% 0.407 ± 0.329 (0.651)	pCi/L		05/31/23 15:17	
		C:76% T:95%				
Total Radium Calculation	Total Radium	0.712 ± 0.838 (1.54)	pCi/L		06/14/23 17:30	
SM 2320B	Alkalinity, Total as CaCO3	246	mg/L	10.0	05/09/23 18:29	
SM 2320B	Alkalinity,Bicarbonate (CaCO3)	246	mg/L	10.0	05/09/23 18:29	
SM 2540C	Total Dissolved Solids	1070	mg/L	20.0	05/11/23 08:49	
SM 4500-H+B	pH at 25 Degrees C	7.7	Std. Units	0.10	05/12/23 13:41	H3
SM 5310C	Total Organic Carbon	1.2	mg/L	1.0	05/12/23 20:08	
SM 5310C	Dissolved Organic Carbon	1.6	mg/L	1.0	05/12/23 02:46	

### REPORT OF LABORATORY ANALYSIS

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**ANALYTICAL RESULTS**

Project: Eagle Valley April 2023 P1R3  
 Pace Project No.: 50344255

**Sample: MW-101**      **Lab ID: 50344255001**      Collected: 05/08/23 14:07      Received: 05/08/23 16:20      Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
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**9056 IC Anions**

Analytical Method: EPA 9056  
 Pace Analytical Services - Indianapolis

Chloride	144	mg/L	25.0	6.7	100		05/16/23 12:57	16887-00-6	
Fluoride	0.29	mg/L	0.10	0.017	1		05/14/23 13:53	16984-48-8	
Sulfate	425	mg/L	25.0	8.5	100		05/16/23 12:57	14808-79-8	

**6010 MET ICP**

Analytical Method: EPA 6010      Preparation Method: EPA 3010  
 Pace Analytical Services - Indianapolis

Aluminum	400	ug/L	200	55.4	1	05/11/23 08:51	05/12/23 16:33	7429-90-5	
Boron	1110	ug/L	100	37.6	1	05/11/23 08:51	05/12/23 16:33	7440-42-8	
Calcium	195000	ug/L	1000	163	1	05/11/23 08:51	05/12/23 16:33	7440-70-2	
Iron	884	ug/L	100	48.8	1	05/11/23 08:51	05/12/23 16:33	7439-89-6	
Lithium	48.4	ug/L	20.0	6.2	1	05/11/23 08:51	05/12/23 16:33	7439-93-2	
Magnesium	39800	ug/L	1000	71.8	1	05/11/23 08:51	05/12/23 16:33	7439-95-4	
Manganese	83.7	ug/L	10.0	2.5	1	05/11/23 08:51	05/12/23 16:33	7439-96-5	
Potassium	10600	ug/L	1000	281	1	05/11/23 08:51	05/12/23 16:33	7440-09-7	
Silica	11400	ug/L	450		1	05/11/23 08:51	05/12/23 16:33	7631-86-9	N2
Sodium	118000	ug/L	1000	214	1	05/11/23 08:51	05/12/23 16:33	7440-23-5	

**6010 MET ICP, Dissolved**

Analytical Method: EPA 6010      Preparation Method: EPA 3010  
 Pace Analytical Services - Indianapolis

Manganese, Dissolved	73.5	ug/L	10.0	2.5	1	05/11/23 07:44	05/12/23 13:42	7439-96-5	
Molybdenum, Dissolved	131	ug/L	10.0	3.7	1	05/11/23 07:44	05/12/23 13:42	7439-98-7	

**6020 MET ICPMS**

Analytical Method: EPA 6020      Preparation Method: EPA 200.2  
 Pace Analytical Services - Indianapolis

Antimony	ND	ug/L	1.0	0.036	1	05/11/23 07:27	05/12/23 19:17	7440-36-0	
Arsenic	ND	ug/L	1.0	0.053	1	05/11/23 07:27	05/12/23 19:17	7440-38-2	
Barium	66.2	ug/L	1.0	0.051	1	05/11/23 07:27	05/12/23 19:17	7440-39-3	
Beryllium	ND	ug/L	0.20	0.028	1	05/11/23 07:27	05/16/23 04:20	7440-41-7	
Cadmium	ND	ug/L	2.0	0.0090	1	05/11/23 07:27	05/12/23 19:17	7440-43-9	
Chromium	ND	ug/L	10.0	0.13	1	05/11/23 07:27	05/12/23 19:17	7440-47-3	
Cobalt	ND	ug/L	1.0	0.032	1	05/11/23 07:27	05/12/23 19:17	7440-48-4	
Lead	ND	ug/L	10.0	0.034	1	05/11/23 07:27	05/12/23 19:17	7439-92-1	
Molybdenum	125	ug/L	10.0	0.048	1	05/11/23 07:27	05/12/23 19:17	7439-98-7	
Selenium	ND	ug/L	1.0	0.23	1	05/11/23 07:27	05/12/23 19:17	7782-49-2	
Thallium	ND	ug/L	1.0	0.033	1	05/11/23 07:27	05/12/23 19:17	7440-28-0	

**7470 Mercury**

Analytical Method: EPA 7470      Preparation Method: EPA 7470  
 Pace Analytical Services - Indianapolis

Mercury	ND	ug/L	0.20	0.091	1	05/10/23 09:53	05/10/23 19:36	7439-97-6	
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**2320B Alkalinity**

Analytical Method: SM 2320B  
 Pace Analytical Services - Indianapolis

Alkalinity, Total as CaCO3	246	mg/L	10.0	10.0	1		05/09/23 18:29		
Alkalinity,Bicarbonate (CaCO3)	246	mg/L	10.0	10.0	1		05/09/23 18:29		

**REPORT OF LABORATORY ANALYSIS**

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### ANALYTICAL RESULTS

Project: Eagle Valley April 2023 P1R3  
 Pace Project No.: 50344255

Sample: MW-10I		Lab ID: 50344255001		Collected: 05/08/23 14:07	Received: 05/08/23 16:20	Matrix: Water			
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>2320B Alkalinity</b>		Analytical Method: SM 2320B Pace Analytical Services - Indianapolis							
Alkalinity, Carbonate (CaCO3)	ND	mg/L	10.0	10.0	1		05/09/23 18:29		
<b>2540C Total Dissolved Solids</b>		Analytical Method: SM 2540C Pace Analytical Services - Indianapolis							
Total Dissolved Solids	1070	mg/L	20.0	20.0	1		05/11/23 08:49		
<b>4500H+ pH, Electrometric</b>		Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis							
pH at 25 Degrees C	7.7	Std. Units	0.10	0.10	1		05/12/23 13:41		H3
<b>4500S2D Sulfide Water</b>		Analytical Method: SM 4500-S2-D Pace Analytical Services - Indianapolis							
Sulfide	ND	mg/L	0.10	0.025	1		05/10/23 15:20	18496-25-8	
<b>Iron, Ferrous</b>		Analytical Method: HACH 8146 Pace Analytical Services - Indianapolis							
Iron, Ferrous	ND	mg/L	0.20	0.035	1		05/10/23 15:12	15438-31-0	H3,N2
<b>353.2 Nitrogen, NO2/NO3 unpres</b>		Analytical Method: EPA 353.2 Pace Analytical Services - Indianapolis							
Nitrogen, Nitrate	ND	mg/L	0.10	0.011	1		05/09/23 21:49	14797-55-8	
Nitrogen, Nitrite	ND	mg/L	0.10	0.0040	1		05/09/23 21:49	14797-65-0	
<b>365.1 Total Phosphorus</b>		Analytical Method: EPA 365.1 Preparation Method: EPA 365.1 Pace Analytical Services - Indianapolis							
Phosphate as P04	ND	mg/L	0.15	0.15	1	05/10/23 08:30	05/12/23 12:15		
<b>5310C TOC</b>		Analytical Method: SM 5310C Pace Analytical Services - Indianapolis							
Total Organic Carbon	1.2	mg/L	1.0	0.24	1		05/12/23 20:08	7440-44-0	
<b>5310C Dissolved Organic Carbon</b>		Analytical Method: SM 5310C Pace Analytical Services - Indianapolis							
Dissolved Organic Carbon	1.6	mg/L	1.0	0.24	1		05/12/23 02:46		

### REPORT OF LABORATORY ANALYSIS

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**QUALITY CONTROL DATA**

Project: Eagle Valley April 2023 P1R3

Pace Project No.: 50344255

QC Batch:	732632	Analysis Method:	EPA 9056
QC Batch Method:	EPA 9056	Analysis Description:	9056 IC Anions
		Laboratory:	Pace Analytical Services - Indianapolis

Associated Lab Samples: 50344255001

METHOD BLANK: 3362323 Matrix: Water

Associated Lab Samples: 50344255001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chloride	mg/L	ND	0.25	0.067	05/14/23 04:57	
Fluoride	mg/L	ND	0.10	0.017	05/14/23 04:57	
Sulfate	mg/L	ND	0.25	0.085	05/14/23 04:57	

LABORATORY CONTROL SAMPLE: 3362324

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	2.5	2.4	95	80-120	
Fluoride	mg/L	1	1.0	101	80-120	
Sulfate	mg/L	5	4.7	95	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3362325 3362326

Parameter	Units	MS		MSD		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		50344231001 Result	Spike Conc.	Spike Conc.	Conc.								
Chloride	mg/L	51.7	25	25	76.9	76.8	101	101	80-120	0	15		
Fluoride	mg/L	0.14	1	1	1.2	1.2	104	104	80-120	0	15		
Sulfate	mg/L	1420	500	500	1780	1770	72	71	80-120	0	15	M0	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

**REPORT OF LABORATORY ANALYSIS**

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**QUALITY CONTROL DATA**

Project: Eagle Valley April 2023 P1R3

Pace Project No.: 50344255

QC Batch: 732424

Analysis Method: EPA 7470

QC Batch Method: EPA 7470

Analysis Description: 7470 Mercury

Laboratory: Pace Analytical Services - Indianapolis

Associated Lab Samples: 50344255001

METHOD BLANK: 3361384

Matrix: Water

Associated Lab Samples: 50344255001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Mercury	ug/L	ND	0.20	0.091	05/10/23 18:30	

LABORATORY CONTROL SAMPLE: 3361385

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury	ug/L	5	5.4	107	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3361386 3361387

Parameter	Units	50344230001		MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		Result	Conc.										
Mercury	ug/L	ND	5	5	5.4	5.4	107	107	75-125	0	20		

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3361388 3361389

Parameter	Units	50344231001		MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		Result	Conc.										
Mercury	ug/L	ND	5	5	5.1	4.8	102	96	75-125	6	20		

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3361390 3361391

Parameter	Units	50344232001		MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		Result	Conc.										
Mercury	ug/L	ND	5	5	5.1	4.9	102	98	75-125	3	20		

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**REPORT OF LABORATORY ANALYSIS**

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**QUALITY CONTROL DATA**

Project: Eagle Valley April 2023 P1R3  
 Pace Project No.: 50344255

QC Batch: 732539 Analysis Method: EPA 6010  
 QC Batch Method: EPA 3010 Analysis Description: 6010 MET  
 Laboratory: Pace Analytical Services - Indianapolis

Associated Lab Samples: 50344255001

METHOD BLANK: 3361883 Matrix: Water  
 Associated Lab Samples: 50344255001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Aluminum	ug/L	ND	200	55.4	05/12/23 15:22	
Boron	ug/L	ND	100	37.6	05/12/23 15:22	
Calcium	ug/L	ND	1000	163	05/12/23 15:22	
Iron	ug/L	ND	100	48.8	05/12/23 15:22	
Lithium	ug/L	ND	20.0	6.2	05/12/23 15:22	
Magnesium	ug/L	ND	1000	71.8	05/12/23 15:22	
Manganese	ug/L	ND	10.0	2.5	05/12/23 15:22	
Potassium	ug/L	ND	1000	281	05/12/23 15:22	
Silica	ug/L	ND	450		05/12/23 15:22	N2
Sodium	ug/L	ND	1000	214	05/12/23 15:22	

LABORATORY CONTROL SAMPLE: 3361884

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Aluminum	ug/L	5000	5090	102	80-120	
Boron	ug/L	1000	961	96	80-120	
Calcium	ug/L	5000	5150	103	80-120	
Iron	ug/L	2500	2560	103	80-120	
Lithium	ug/L	1000	991	99	80-120	
Magnesium	ug/L	5000	4980	100	80-120	
Manganese	ug/L	1000	972	97	80-120	
Potassium	ug/L	5000	5030	101	80-120	
Silica	ug/L	5350	5260	98	80-120	N2
Sodium	ug/L	5000	4950	99	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3361885 3361886

Parameter	Units	MS		MSD		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual	
		50344001011 Result	Spike Conc.	Spike Conc.	Result							Result
Aluminum	ug/L	22200	25000	25000	54400	48600	128	105	75-125	11	20	M0
Boron	ug/L	ND	5000	5000	4880	4890	96	96	75-125	0	20	
Calcium	ug/L	129000	25000	25000	133000	124000	15	-19	75-125	7	20	P6
Iron	ug/L	51400	12500	12500	68400	54000	136	20	75-125	24	20	P6,R1
Lithium	ug/L	ND	5000	5000	4860	4860	97	97	75-125	0	20	
Magnesium	ug/L	46000	25000	25000	64200	60600	73	58	75-125	6	20	M3
Manganese	ug/L	670	5000	5000	5320	5260	93	92	75-125	1	20	
Potassium	ug/L	7300	25000	25000	32000	30900	99	94	75-125	4	20	

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**QUALITY CONTROL DATA**

Project: Eagle Valley April 2023 P1R3

Pace Project No.: 50344255

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3361885												3361886	
Parameter	Units	50344001011 Result	MS	MSD	MS	MSD	MS	MSD	% Rec	Limits	RPD	Max RPD	Qual
			Spike Conc.	Spike Conc.	Result	Result	% Rec	% Rec					
Silica	ug/L	80100	26700	26700	142000	109000	231	110	75-125	26	20	N2	
Sodium	ug/L	6290	25000	25000	29100	29600	91	93	75-125	2	20		

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3361887												3361888	
Parameter	Units	50344109009 Result	MS	MSD	MS	MSD	MS	MSD	% Rec	Limits	RPD	Max RPD	Qual
			Spike Conc.	Spike Conc.	Result	Result	% Rec	% Rec					
Aluminum	ug/L	ND	5000	5000	5740	5710	111	111	75-125	1	20		
Boron	ug/L	439	1000	1000	1520	1530	108	109	75-125	0	20		
Calcium	ug/L	149000	5000	5000	155000	156000	124	138	75-125	0	20	P6	
Iron	ug/L	1880	2500	2500	4660	4660	111	111	75-125	0	20		
Lithium	ug/L	40.8	1000	1000	1120	1120	108	108	75-125	0	20		
Magnesium	ug/L	79800	5000	5000	86000	85700	124	118	75-125	0	20		
Manganese	ug/L	493	1000	1000	1520	1530	103	103	75-125	0	20		
Potassium	ug/L	5840	5000	5000	11400	11500	111	112	75-125	1	20		
Silica	ug/L	15100	5350	5350	21300	21200	115	115	75-125	0	20	N2	
Sodium	ug/L	69900	5000	5000	76500	76500	133	132	75-125	0	20	P6	

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**QUALITY CONTROL DATA**

Project: Eagle Valley April 2023 P1R3  
 Pace Project No.: 50344255

QC Batch: 732528 Analysis Method: EPA 6010  
 QC Batch Method: EPA 3010 Analysis Description: 6010 MET Dissolved  
 Laboratory: Pace Analytical Services - Indianapolis

Associated Lab Samples: 50344255001

METHOD BLANK: 3361842 Matrix: Water  
 Associated Lab Samples: 50344255001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Manganese, Dissolved	ug/L	ND	10.0	2.5	05/12/23 12:13	
Molybdenum, Dissolved	ug/L	ND	10.0	3.7	05/12/23 12:13	

LABORATORY CONTROL SAMPLE: 3361843

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Manganese, Dissolved	ug/L	1000	1020	102	80-120	
Molybdenum, Dissolved	ug/L	1000	1100	110	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3361844 3361845

Parameter	Units	50344228001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Manganese, Dissolved	ug/L	2580	1000	1000	3440	3530	86	95	75-125	3	20	
Molybdenum, Dissolved	ug/L	ND	1000	1000	1020	1030	102	103	75-125	1	20	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3361846 3361847

Parameter	Units	50344229002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Manganese, Dissolved	ug/L	4600	1000	1000	5560	5600	97	100	75-125	1	20	
Molybdenum, Dissolved	ug/L	299	1000	1000	1310	1310	101	101	75-125	0	20	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3361848 3361849

Parameter	Units	50344001011 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Manganese, Dissolved	ug/L	290	1000	1000	1230	1220	94	94	75-125	0	20	
Molybdenum, Dissolved	ug/L	ND	1000	1000	1000	1010	100	100	75-125	0	20	

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**QUALITY CONTROL DATA**

Project: Eagle Valley April 2023 P1R3

Pace Project No.: 50344255

QC Batch:	732764	Analysis Method:	EPA 6020
QC Batch Method:	EPA 200.2	Analysis Description:	6020 MET
		Laboratory:	Pace Analytical Services - Indianapolis

Associated Lab Samples: 50344255001

METHOD BLANK: 3362945 Matrix: Water

Associated Lab Samples: 50344255001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Antimony	ug/L	ND	1.0	0.036	05/12/23 16:38	
Arsenic	ug/L	ND	1.0	0.053	05/12/23 16:38	
Barium	ug/L	ND	1.0	0.051	05/12/23 16:38	
Beryllium	ug/L	ND	0.20	0.028	05/12/23 16:38	
Cadmium	ug/L	ND	2.0	0.0090	05/12/23 16:38	
Chromium	ug/L	ND	10.0	0.13	05/12/23 16:38	
Cobalt	ug/L	ND	1.0	0.032	05/12/23 16:38	
Lead	ug/L	ND	10.0	0.034	05/12/23 16:38	
Molybdenum	ug/L	ND	10.0	0.048	05/12/23 16:38	
Selenium	ug/L	ND	1.0	0.23	05/12/23 16:38	
Thallium	ug/L	ND	1.0	0.033	05/12/23 16:38	

LABORATORY CONTROL SAMPLE: 3362946

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Antimony	ug/L	40	38.8	97	80-120	
Arsenic	ug/L	40	38.9	97	80-120	
Barium	ug/L	40	38.9	97	80-120	
Beryllium	ug/L	40	42.2	106	80-120	
Cadmium	ug/L	40	38.7	97	80-120	
Chromium	ug/L	40	40.8	102	80-120	
Cobalt	ug/L	40	40.8	102	80-120	
Lead	ug/L	40	40.6	101	80-120	
Molybdenum	ug/L	40	39.9	100	80-120	
Selenium	ug/L	40	39.8	100	80-120	
Thallium	ug/L	40	42.2	105	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3362947 3362948

Parameter	Units	MS		MSD		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual	
		50344396002	Spike Conc.	Spike Conc.	Result							Result
Antimony	ug/L	ND	40	40	40.5	39.9	101	100	75-125	2	20	
Arsenic	ug/L	14.8	40	40	53.1	52.5	96	94	75-125	1	20	
Barium	ug/L	45.4	40	40	85.9	84.9	101	99	75-125	1	20	
Beryllium	ug/L	ND	40	40	40.6	40.2	101	101	75-125	1	20	CL
Cadmium	ug/L	ND	40	40	36.9	36.5	92	91	75-125	1	20	
Chromium	ug/L	ND	40	40	38.6	38.5	96	96	75-125	0	20	

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### QUALITY CONTROL DATA

Project: Eagle Valley April 2023 P1R3

Pace Project No.: 50344255

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3362947 3362948												
Parameter	Units	50344396002		MS	MSD	MS		MSD		% Rec Limits	Max RPD	Qual
		Result	Spike Conc.	Spike Conc.	Result	Result	% Rec	% Rec				
Cobalt	ug/L	3.2	40	40	41.0	40.8	95	94	75-125	1	20	
Lead	ug/L	ND	40	40	40.0	39.9	100	100	75-125	0	20	
Molybdenum	ug/L	9.8	40	40	49.5	48.7	99	97	75-125	2	20	
Selenium	ug/L	ND	40	40	42.1	42.1	105	104	75-125	0	20	
Thallium	ug/L	ND	40	40	42.9	42.5	107	106	75-125	1	20	

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### QUALITY CONTROL DATA

Project: Eagle Valley April 2023 P1R3

Pace Project No.: 50344255

QC Batch: 732495

Analysis Method: SM 2320B

QC Batch Method: SM 2320B

Analysis Description: 2320B Alkalinity

Laboratory: Pace Analytical Services - Indianapolis

Associated Lab Samples: 50344255001

METHOD BLANK: 3361708

Matrix: Water

Associated Lab Samples: 50344255001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Alkalinity, Total as CaCO3	mg/L	ND	10.0	10.0	05/09/23 18:29	
Alkalinity,Bicarbonate (CaCO3)	mg/L	ND	10.0	10.0	05/09/23 18:29	
Alkalinity,Carbonate (CaCO3)	mg/L	ND	10.0	10.0	05/09/23 18:29	

LABORATORY CONTROL SAMPLE: 3361709

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Alkalinity, Total as CaCO3	mg/L	50	47.1	94	90-110	

SAMPLE DUPLICATE: 3361710

Parameter	Units	50344254001 Result	Dup Result	RPD	Max RPD	Qualifiers
Alkalinity, Total as CaCO3	mg/L	254	257	1	20	
Alkalinity,Bicarbonate (CaCO3)	mg/L	254	257	1	20	
Alkalinity,Carbonate (CaCO3)	mg/L	ND	ND		20	

SAMPLE DUPLICATE: 3361711

Parameter	Units	50344154003 Result	Dup Result	RPD	Max RPD	Qualifiers
Alkalinity, Total as CaCO3	mg/L	381	386	1	20	
Alkalinity,Bicarbonate (CaCO3)	mg/L	381	386	1	20	
Alkalinity,Carbonate (CaCO3)	mg/L	ND	ND		20	

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**QUALITY CONTROL DATA**

Project: Eagle Valley April 2023 P1R3

Pace Project No.: 50344255

QC Batch: 732853	Analysis Method: SM 2540C
QC Batch Method: SM 2540C	Analysis Description: 2540C Total Dissolved Solids
	Laboratory: Pace Analytical Services - Indianapolis

Associated Lab Samples: 50344255001

METHOD BLANK: 3363586 Matrix: Water

Associated Lab Samples: 50344255001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	ND	10.0	10.0	05/11/23 08:43	

LABORATORY CONTROL SAMPLE: 3363587

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	300	287	96	80-120	

SAMPLE DUPLICATE: 3363588

Parameter	Units	50344230001 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	699	701	0	10	

SAMPLE DUPLICATE: 3363589

Parameter	Units	50344231001 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	1980	1930	3	10	

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### QUALITY CONTROL DATA

Project: Eagle Valley April 2023 P1R3

Pace Project No.: 50344255

QC Batch: 733264

Analysis Method: SM 4500-H+B

QC Batch Method: SM 4500-H+B

Analysis Description: 4500H+B pH

Laboratory: Pace Analytical Services - Indianapolis

Associated Lab Samples: 50344255001

SAMPLE DUPLICATE: 3365336

Parameter	Units	50343644001 Result	Dup Result	RPD	Max RPD	Qualifiers
pH at 25 Degrees C	Std. Units	8.6	8.7	1	2	H3

SAMPLE DUPLICATE: 3365337

Parameter	Units	50343721001 Result	Dup Result	RPD	Max RPD	Qualifiers
pH at 25 Degrees C	Std. Units	7.7	7.6	1	2	H3

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**QUALITY CONTROL DATA**

Project: Eagle Valley April 2023 P1R3

Pace Project No.: 50344255

QC Batch:	732710	Analysis Method:	SM 4500-S2-D
QC Batch Method:	SM 4500-S2-D	Analysis Description:	4500S2D Sulfide Water
		Laboratory:	Pace Analytical Services - Indianapolis

Associated Lab Samples: 50344255001

METHOD BLANK: 3362687 Matrix: Water  
 Associated Lab Samples: 50344255001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Sulfide	mg/L	ND	0.10	0.025	05/10/23 15:20	

LABORATORY CONTROL SAMPLE: 3362688

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Sulfide	mg/L	0.5	0.50	99	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3362689 3362690

Parameter	Units	50344229002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Sulfide	mg/L	ND	0.5	0.5	0.30	0.31	59	61	90-110	3	20	M3

MATRIX SPIKE SAMPLE: 3362691

Parameter	Units	50344269002 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Sulfide	mg/L	ND	0.5	0.49	96	90-110	

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**QUALITY CONTROL DATA**

Project: Eagle Valley April 2023 P1R3

Pace Project No.: 50344255

QC Batch:	732725	Analysis Method:	HACH 8146
QC Batch Method:	HACH 8146	Analysis Description:	Iron, Ferrous
		Laboratory:	Pace Analytical Services - Indianapolis

Associated Lab Samples: 50344255001

METHOD BLANK: 3362759 Matrix: Water  
 Associated Lab Samples: 50344255001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Iron, Ferrous	mg/L	ND	0.20	0.035	05/10/23 15:07	H3,N2

LABORATORY CONTROL SAMPLE: 3362760

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Iron, Ferrous	mg/L	1	1.0	101	90-110	H3,N2

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3362761 3362762

Parameter	Units	50344228001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Iron, Ferrous	mg/L	1.1	5	5	6.3	6.3	104	105	90-110	1	20	H3,N2

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3362763 3362764

Parameter	Units	50344229002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Iron, Ferrous	mg/L	ND	1	1	1.1	1.1	104	105	90-110	1	20	H3,N2

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**QUALITY CONTROL DATA**

Project: Eagle Valley April 2023 P1R3

Pace Project No.: 50344255

QC Batch:	732561	Analysis Method:	EPA 353.2
QC Batch Method:	EPA 353.2	Analysis Description:	353.2 Nitrate + Nitrite, Unpres.
		Laboratory:	Pace Analytical Services - Indianapolis

Associated Lab Samples: 50344255001

METHOD BLANK: 3362033 Matrix: Water

Associated Lab Samples: 50344255001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Nitrogen, Nitrate	mg/L	ND	0.10	0.011	05/09/23 21:34	
Nitrogen, Nitrite	mg/L	ND	0.10	0.0040	05/09/23 21:34	

LABORATORY CONTROL SAMPLE: 3362034

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Nitrogen, Nitrate	mg/L	1	0.97	97	90-110	
Nitrogen, Nitrite	mg/L	1	1.0	101	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3362035 3362036

Parameter	Units	50344254001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Nitrogen, Nitrate	mg/L	2.9	1	1	3.9	3.9	101	99	90-110	0	20	
Nitrogen, Nitrite	mg/L	ND	1	1	1.0	1.0	102	102	90-110	0	20	

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**QUALITY CONTROL DATA**

Project: Eagle Valley April 2023 P1R3

Pace Project No.: 50344255

QC Batch:	732583	Analysis Method:	EPA 365.1
QC Batch Method:	EPA 365.1	Analysis Description:	365.1 Total Phosphorus
		Laboratory:	Pace Analytical Services - Indianapolis

Associated Lab Samples: 50344255001

METHOD BLANK: 3362142 Matrix: Water

Associated Lab Samples: 50344255001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Phosphate as P04	mg/L	ND	0.15	0.15	05/12/23 11:59	

LABORATORY CONTROL SAMPLE: 3362143

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Phosphate as P04	mg/L		1.4			

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3362144 3362145

Parameter	Units	50343696001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Phosphate as P04	mg/L				1.5	1.5				0		

MATRIX SPIKE SAMPLE: 3362146

Parameter	Units	50344254001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Phosphate as P04	mg/L		1.3	2.7			

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**QUALITY CONTROL DATA**

Project: Eagle Valley April 2023 P1R3

Pace Project No.: 50344255

QC Batch:	733016	Analysis Method:	SM 5310C
QC Batch Method:	SM 5310C	Analysis Description:	5310C Total Organic Carbon
		Laboratory:	Pace Analytical Services - Indianapolis

Associated Lab Samples: 50344255001

METHOD BLANK: 3364248 Matrix: Water

Associated Lab Samples: 50344255001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Organic Carbon	mg/L	ND	1.0	0.24	05/12/23 17:44	

LABORATORY CONTROL SAMPLE: 3364249

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Organic Carbon	mg/L	10	9.7	97	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3364250 3364251

Parameter	Units	50343691001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Total Organic Carbon	mg/L	0.98	10	10	10.9	10.9	99	99	80-120	0	20	

MATRIX SPIKE SAMPLE: 3364252

Parameter	Units	50343691003 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Total Organic Carbon	mg/L	1.1	10	11.0	99	80-120	

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**REPORT OF LABORATORY ANALYSIS**

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**QUALITY CONTROL DATA**

Project: Eagle Valley April 2023 P1R3  
 Pace Project No.: 50344255

QC Batch: 733013	Analysis Method: SM 5310C
QC Batch Method: SM 5310C	Analysis Description: 5310C Dissolved Organic Carbon
	Laboratory: Pace Analytical Services - Indianapolis

Associated Lab Samples: 50344255001

METHOD BLANK: 3364218 Matrix: Water  
 Associated Lab Samples: 50344255001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Dissolved Organic Carbon	mg/L	ND	1.0	0.24	05/12/23 01:15	

LABORATORY CONTROL SAMPLE: 3364219

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Dissolved Organic Carbon	mg/L	10	10.1	101	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3364220 3364221

Parameter	Units	50344254001		3364221		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result						
Dissolved Organic Carbon	mg/L	ND	10	10	12.2	12.3	90	91	80-120	1	20

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Eagle Valley April 2023 P1R3

Pace Project No.: 50344255

<b>Sample: MW-101</b>	<b>Lab ID: 50344255001</b>	Collected: 05/08/23 14:07	Received: 05/08/23 16:20	Matrix: Water
PWS:	Site ID:	Sample Type:		

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Radium-226	EPA 903.1	<b>0.305 ± 0.509 (0.885)</b> <b>C:NA T:95%</b>	pCi/L	06/13/23 14:28	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 904.0	<b>0.407 ± 0.329 (0.651)</b> <b>C:76% T:95%</b>	pCi/L	05/31/23 15:17	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	<b>0.712 ± 0.838 (1.54)</b>	pCi/L	06/14/23 17:30	7440-14-4	

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### QUALITY CONTROL - RADIOCHEMISTRY

Project: Eagle Valley April 2023 P1R3

Pace Project No.: 50344255

QC Batch: 588457

Analysis Method: EPA 903.1

QC Batch Method: EPA 903.1

Analysis Description: 903.1 Radium-226

Laboratory: Pace Analytical Services - Greensburg

Associated Lab Samples: 50344255001

METHOD BLANK: 2859398

Matrix: Water

Associated Lab Samples: 50344255001

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.0472 ± 0.216 (0.438) C:NA T:90%	pCi/L	06/13/23 14:05	

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### QUALITY CONTROL - RADIOCHEMISTRY

Project: Eagle Valley April 2023 P1R3

Pace Project No.: 50344255

QC Batch: 588458

Analysis Method: EPA 904.0

QC Batch Method: EPA 904.0

Analysis Description: 904.0 Radium 228

Laboratory: Pace Analytical Services - Greensburg

Associated Lab Samples: 50344255001

METHOD BLANK: 2859400

Matrix: Water

Associated Lab Samples: 50344255001

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.643 ± 0.344 (0.604) C:83% T:90%	pCi/L	05/31/23 15:19	

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## QUALIFIERS

Project: Eagle Valley April 2023 P1R3

Pace Project No.: 50344255

### DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Reported results are not rounded until the final step prior to reporting. Therefore, calculated parameters that are typically reported as "Total" may vary slightly from the sum of the reported component parameters.

Act - Activity

Unc - Uncertainty: SDWA = 1.96 sigma count uncertainty, all other matrices = Expanded Uncertainty (95% confidence interval).

Gamma Spec = Expanded Uncertainty (95.4% Confidence Interval)

(MDC) - Minimum Detectable Concentration

Trac - Tracer Recovery (%)

Carr - Carrier Recovery (%)

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

### ANALYTE QUALIFIERS

CL	The continuing calibration for this compound is outside of Pace Analytical acceptance limits. The results may be biased low.
H3	Sample was received or analysis requested beyond the recognized method holding time.
M0	Matrix spike recovery and/or matrix spike duplicate recovery was outside laboratory control limits.
M3	Matrix spike recovery was outside laboratory control limits due to matrix interferences.
N2	The lab does not hold NELAC/TNI accreditation for this parameter but other accreditations/certifications may apply. A complete list of accreditations/certifications is available upon request.
P6	Matrix spike recovery was outside laboratory control limits due to a parent sample concentration notably higher than the spike level.
R1	RPD value was outside control limits.

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### QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Eagle Valley April 2023 P1R3

Pace Project No.: 50344255

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
50344255001	MW-10I	EPA 9056	732632		
50344255001	MW-10I	EPA 3010	732539	EPA 6010	733307
50344255001	MW-10I	EPA 3010	732528	EPA 6010	733203
50344255001	MW-10I	EPA 200.2	732764	EPA 6020	732968
50344255001	MW-10I	EPA 7470	732424	EPA 7470	732773
50344255001	MW-10I	EPA 903.1	588457		
50344255001	MW-10I	EPA 904.0	588458		
50344255001	MW-10I	Total Radium Calculation	594974		
50344255001	MW-10I	SM 2320B	732495		
50344255001	MW-10I	SM 2540C	732853		
50344255001	MW-10I	SM 4500-H+B	733264		
50344255001	MW-10I	SM 4500-S2-D	732710		
50344255001	MW-10I	HACH 8146	732725		
50344255001	MW-10I	EPA 353.2	732561		
50344255001	MW-10I	EPA 365.1	732583	EPA 365.1	733277
50344255001	MW-10I	SM 5310C	733016		
50344255001	MW-10I	SM 5310C	733013		

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**SAMPLE CONDITION UPON RECEIPT FORM**

Date/Time and Initials of person examining contents: 5/8/23 18:59 JG

1. Courier:  FED EX  UPS  CLIENT  PACE  USPS  OTHER \_\_\_\_\_

2. Custody Seal on Cooler/Box Present:  Yes  No  
 (If yes)Seals Intact:  Yes  No (leave blank if no seals were present)

3. Thermometer: **1 2 3 4 5 6 A B C D E F**

4. Cooler Temperature(s): 0.5/0.6     
 (Initial/Corrected) RECORD TEMPS OF ALL COOLERS RECEIVED (use Comments below to add more)

5. Packing Material:  Bubble Wrap  Bubble Bags  
 None  Other \_\_\_\_\_

6. Ice Type:  Wet  Blue  None

7. If temp. is over 6°C or under 0°C, was the PM notified?:  Yes  No  
 Cooler temp should be above freezing to 6°C

All discrepancies will be written out in the comments section below.

	Yes	No		Yes	No	N/A
USDA Regulated Soils? (HI, ID, NY, WA, OR,CA, NM, TX, OK, AR, LA, TN, AL, MS, NC, SC, GA, FL, or Puerto Rico)		<input checked="" type="checkbox"/>	All containers needing acid/base preservation have been pH CHECKED?: Exceptions: VOA, coliform, LLHg, O&G, RAD CHEM, and any container with a septum cap or preserved with HCl.			
Short Hold Time Analysis (48 hours or less)? Analysis: <u>Nitrate, Nitrite</u>	<input checked="" type="checkbox"/>		Circle: <u>HNO3 (&lt;2)</u> <u>H2SO4 (&lt;2)</u> NaOH (>10) <u>NaOH/ZnAc (&gt;9)</u> Any non-conformance to pH recommendations will be noted on the container count form	<input checked="" type="checkbox"/>		
Time 5035A TC placed in Freezer or Short Holds To Lab			Residual Chlorine Check (SVOC 625 Pest/PCB 608)	<u>Present</u>	<u>Absent</u>	<u>N/A</u>
Rush TAT Requested (4 days or less):		<input checked="" type="checkbox"/>	Residual Chlorine Check (Total/Amenable/Free Cyanide)			<u>—</u>
Custody Signatures Present?	<input checked="" type="checkbox"/>		Headspace Wisconsin Sulfide?			<u>—</u>
Containers Intact?:	<input checked="" type="checkbox"/>		Headspace in VOA Vials (>6mm): See Containter Count form for details	<u>Present</u>	<u>Absent</u>	<u>No VOA Vials Sent</u>
Sample Label (IDs/Dates/Times) Match COC?: Except TCs, which only require sample ID		<input checked="" type="checkbox"/>	Trip Blank Present?		<input checked="" type="checkbox"/>	
Extra labels on Terracore Vials? (soils only)		<input checked="" type="checkbox"/>	Trip Blank Custody Seals?:			<u>—</u>

COMMENTS: IDs on COC left out JG 5/8/23  
ID is MW-101



Sample Container Count

\*\* Place a RED dot on containers that are out of conformance \*\*

COC Line Item	WGUFU	MeOH (only)	VIALS						AMBER GLASS						PLASTIC						OTHER			Matrix	Nitric	Sulfuric	Sodium Hydroxide	Sodium Hydroxide/ZnAc									
		SBS	DG9H	VG9H	VOA VIAL HS (>6mm)	VG9U	DG9U	VG9T	AG0U	AG1H	AG1U	AG2U	AG3S	AG3SF	AG3C	BP1U	BP1N	BP2U	BP3U	BP3N	BP3F	BP3S	BP3B		BP3Z	CG3H	CG3F	Syringe Kit	Red	Yellow	Green	Black					
		DI	R																																		
1												1	1					2	1	2	1	1	1		1						WT	✓	✓		✓		
2																																					
3																																					
4																																					
5																																					
6																																					
7																																					
8																																					
9																																					
10																																					
11																																					
12																																					

Container Codes

Glass				Plastic			
DG9H	40mL HCl amber voa vial	BG1T	1L Na Thiosulfate clear glass	BP1B	1L NaOH plastic	BP4U	125mL unpreserved plastic
DG9P	40mL TSP amber vial	BG1U	1L unpreserved glass	BP1N	1L HNO3 plastic	BP4N	125mL HNO3 plastic
DG9S	40mL H2SO4 amber vial	BG3H	250mL HCl Clear Glass	BP1S	1L H2SO4 plastic	BP4S	125mL H2SO4 plastic
DG9T	40mL Na Thio amber vial	BG3U	250mL Unpres Clear Glass	BP1U	1L unpreserved plastic	<b>Miscellaneous</b>	
DG9U	40mL unpreserved amber vial	AG0U	100mL unpres amber glass	BP1Z	1L NaOH, Zn, Ac		
VG9H	40mL HCl clear vial	AG1H	1L HCl amber glass	BP2N	500mL HNO3 plastic	Syringe Kit	LL Cr+6 sampling kit
VG9T	40mL Na Thio. clear vial	AG1S	1L H2SO4 amber glass	BP2C	500mL NaOH plastic	ZPLC	Ziploc Bag
VG9U	40mL unpreserved clear vial	AG1T	1L Na Thiosulfate amber glass	BP2S	500mL H2SO4 plastic	R	Terracore Kit
I	40mL w/hexane wipe vial	AG1U	1liter unpres amber glass	BP2U	500mL unpreserved plastic	SP5T	120mL Coliform Sodium Thiosulfate
WGKU	8oz unpreserved clear jar	AG2N	500mL HNO3 amber glass	BP2Z	500mL NaOH, Zn Ac	GN	General Container
WGUFU	4oz clear soil jar	AG2S	500mL H2SO4 amber glass	BP3B	250mL NaOH plastic	U	Summa Can (air sample)
JGUFU	4oz unpreserved amber wide	AG2U	500mL unpres amber glass	BP3N	250mL HNO3 plastic	WT	Water
CG3H	250mL clear glass HCl	AG3S	250mL H2SO4 amber glass	BP3F	250mL HNO3 plastic-field filtered	SL	Solid Solid
CG3F	250mL clear glass HCl, Field Filter	AG3SF	250mL H2SO4 amb glass -field filtered	BP3U	250mL unpreserved plastic	OL:	Oil
BG1H	1L HCl clear glass	AG3U	250mL unpres amber glass	BP3S	250mL H2SO4 plastic	NAL	Non-aqueous liquid
BG1S	1L H2SO4 clear glass	AG3C	250mL NaOH amber glass	BP3Z	250mL NaOH, ZnAc plastic	WP	Wipe

**July 2023**



August 02, 2023

Mr. Mark Breting  
ATC Group Services  
7988 Centerpoint Drive  
Suite 100  
Indianapolis, IN 46256

RE: Project: Eagle Valley P1R1  
Pace Project No.: 50348628

Dear Mr. Breting:

Enclosed are the analytical results for sample(s) received by the laboratory on July 06, 2023. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

The test results provided in this final report were generated by each of the following laboratories within the Pace Network:

- Pace Analytical Services - Indianapolis
- Pace Analytical Services - Greensburg

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Will Statz  
will.statz@pacelabs.com  
(317)228-3105  
Project Manager

Enclosures

cc: Mohammed Bazlamit, Atlas  
Mr. Robert Miller, Haley & Aldrich



## REPORT OF LABORATORY ANALYSIS

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### CERTIFICATIONS

Project: Eagle Valley P1R1

Pace Project No.: 50348628

#### Pace Analytical Services Pennsylvania

1638 Roseytown Rd Suites 2,3&4, Greensburg, PA 15601  
 ANAB DOD-ELAP Rad Accreditation #: L2417  
 ANABISO/IEC 17025:2017 Rad Cert#: L24170  
 Alabama Certification #: 41590  
 Arizona Certification #: AZ0734  
 Arkansas Certification  
 California Certification #: 2950  
 Colorado Certification #: PA01547  
 Connecticut Certification #: PH-0694  
 EPA Region 4 DW Rad  
 Florida/TNI Certification #: E87683  
 Georgia Certification #: C040  
 Guam Certification  
 Hawaii Certification  
 Idaho Certification  
 Illinois Certification  
 Indiana Certification  
 Iowa Certification #: 391  
 Kansas Certification #: E-10358  
 Kentucky Certification #: KY90133  
 KY WW Permit #: KY0098221  
 KY WW Permit #: KY0000221  
 Louisiana DHH/TNI Certification #: LA010  
 Louisiana DEQ/TNI Certification #: 04086  
 Maine Certification #: 2023021  
 Maryland Certification #: 308  
 Massachusetts Certification #: M-PA1457  
 Michigan/PADEP Certification #: 9991

Missouri Certification #: 235  
 Montana Certification #: Cert0082  
 Nebraska Certification #: NE-OS-29-14  
 Nevada Certification #: PA014572023-03  
 New Hampshire/TNI Certification #: 297622  
 New Jersey/TNI Certification #: PA051  
 New Mexico Certification #: PA01457  
 New York/TNI Certification #: 10888  
 North Carolina Certification #: 42706  
 North Dakota Certification #: R-190  
 Ohio EPA Rad Approval: #41249  
 Oregon/TNI Certification #: PA200002-015  
 Pennsylvania/TNI Certification #: 65-00282  
 Puerto Rico Certification #: PA01457  
 Rhode Island Certification #: 65-00282  
 South Dakota Certification  
 Tennessee Certification #: TN02867  
 Texas/TNI Certification #: T104704188-22-18  
 Utah/TNI Certification #: PA014572223-14  
 USDA Soil Permit #: 525-23-67-77263  
 Vermont Dept. of Health: ID# VT-0282  
 Virgin Island/PADEP Certification  
 Virginia/VELAP Certification #: 460198  
 Washington Certification #: C868  
 West Virginia DEP Certification #: 143  
 West Virginia DHHR Certification #: 9964C  
 Wisconsin Approve List for Rad

#### Pace Analytical Services Indianapolis

7726 Moller Road, Indianapolis, IN 46268  
 Illinois Accreditation #: 200074  
 Indiana Drinking Water Laboratory #: C-49-06  
 Kansas/TNI Certification #: E-10177  
 Kentucky UST Agency Interest #: 80226  
 Kentucky WW Laboratory ID #: 98019  
 Michigan Drinking Water Laboratory #9050

Ohio VAP Certified Laboratory #: CL0065  
 Oklahoma Laboratory #: 9204  
 Texas Certification #: T104704355  
 Wisconsin Laboratory #: 999788130  
 USDA Foreign Soil Permit #: 525-23-13-23119  
 USDA Compliance Agreement #: IN-SL-22-001

### REPORT OF LABORATORY ANALYSIS

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### SAMPLE SUMMARY

Project: Eagle Valley P1R1  
Pace Project No.: 50348628

Lab ID	Sample ID	Matrix	Date Collected	Date Received
50348628001	MW-26S	Water	07/05/23 10:50	07/06/23 08:00
50348628002	MW-26I	Water	07/05/23 11:50	07/06/23 08:00
50348628003	MW-26D	Water	07/05/23 13:20	07/06/23 08:00

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### SAMPLE ANALYTE COUNT

Project: Eagle Valley P1R1

Pace Project No.: 50348628

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory		
50348628001	MW-26S	EPA 9056	ADM	3	PASI-I		
		EPA 6010	ELK	10	PASI-I		
		EPA 6010	ELK	2	PASI-I		
		EPA 6020	DMT	11	PASI-I		
		EPA 7470	EAE	1	PASI-I		
		EPA 903.1	MAR1	1	PASI-PA		
		EPA 904.0	JJS1	1	PASI-PA		
		Total Radium Calculation	JAL	1	PASI-PA		
		SM 2320B	DAW	3	PASI-I		
		SM 2540C	TRK	1	PASI-I		
		SM 4500-H+B	LHZ	1	PASI-I		
		SM 4500-S2-D	BEP	1	PASI-I		
		HACH 8146	BEP	1	PASI-I		
		EPA 353.2	DAW	2	PASI-I		
		EPA 365.1	YAM	1	PASI-I		
		SM 5310C	ATS	1	PASI-I		
		SM 5310C	ATS	1	PASI-I		
		50348628002	MW-26I	EPA 9056	ADM	3	PASI-I
				EPA 6010	ELK	10	PASI-I
				EPA 6010	ELK	2	PASI-I
EPA 6020	DMT			11	PASI-I		
EPA 7470	EAE			1	PASI-I		
EPA 903.1	MAR1			1	PASI-PA		
EPA 904.0	JJS1			1	PASI-PA		
Total Radium Calculation	JAL			1	PASI-PA		
SM 2320B	DAW			3	PASI-I		
SM 2540C	TRK			1	PASI-I		
SM 4500-H+B	LHZ			1	PASI-I		
SM 4500-S2-D	BEP			1	PASI-I		
HACH 8146	BEP			1	PASI-I		
EPA 353.2	DAW			2	PASI-I		
EPA 365.1	YAM			1	PASI-I		
SM 5310C	ATS			1	PASI-I		
SM 5310C	ATS			1	PASI-I		
50348628003	MW-26D			EPA 9056	ADM	3	PASI-I
				EPA 6010	ELK	10	PASI-I
				EPA 6010	ELK	2	PASI-I

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### SAMPLE ANALYTE COUNT

Project: Eagle Valley P1R1

Pace Project No.: 50348628

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
		EPA 6020	DMT	11	PASI-I
		EPA 7470	EAE	1	PASI-I
		EPA 903.1	MAR1	1	PASI-PA
		EPA 904.0	JJS1	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
		SM 2320B	DAW	3	PASI-I
		SM 2540C	TRK	1	PASI-I
		SM 4500-H+B	LHZ	1	PASI-I
		SM 4500-S2-D	BEP	1	PASI-I
		HACH 8146	BEP	1	PASI-I
		EPA 353.2	DAW	2	PASI-I
		EPA 365.1	YAM	1	PASI-I
		SM 5310C	ATS	1	PASI-I
		SM 5310C	ATS	1	PASI-I

PASI-I = Pace Analytical Services - Indianapolis

PASI-PA = Pace Analytical Services - Greensburg

### REPORT OF LABORATORY ANALYSIS

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### SUMMARY OF DETECTION

Project: Eagle Valley P1R1

Pace Project No.: 50348628

Lab Sample ID	Client Sample ID	Result	Units	Report Limit	Analyzed	Qualifiers
Method	Parameters					
<b>50348628001</b>	<b>MW-26S</b>					
EPA 9056	Chloride	205	mg/L	25.0	07/06/23 17:48	
EPA 9056	Fluoride	0.30	mg/L	0.10	07/06/23 17:15	
EPA 9056	Sulfate	584	mg/L	25.0	07/06/23 17:48	
EPA 6010	Boron	2280	ug/L	100	07/13/23 14:22	
EPA 6010	Calcium	236000	ug/L	2000	07/13/23 15:53	
EPA 6010	Iron	432	ug/L	100	07/13/23 14:22	
EPA 6010	Lithium	56.3	ug/L	20.0	07/13/23 14:22	
EPA 6010	Magnesium	53800	ug/L	1000	07/13/23 14:22	
EPA 6010	Manganese	1610	ug/L	10.0	07/13/23 14:22	
EPA 6010	Potassium	12600	ug/L	1000	07/13/23 14:22	
EPA 6010	Silica	16200	ug/L	450	07/13/23 14:22	N2
EPA 6010	Sodium	198000	ug/L	1000	07/13/23 14:22	
EPA 6010	Manganese, Dissolved	1710	ug/L	10.0	07/11/23 10:56	
EPA 6010	Molybdenum, Dissolved	121	ug/L	10.0	07/11/23 10:56	
EPA 6020	Barium	33.3	ug/L	1.0	07/11/23 02:16	
EPA 6020	Cobalt	2.6	ug/L	1.0	07/11/23 02:16	
EPA 6020	Molybdenum	117	ug/L	10.0	07/11/23 02:16	
EPA 903.1	Radium-226	0.134 ± 0.322 (0.621)	pCi/L		07/18/23 15:38	
EPA 904.0	Radium-228	C:NA T:94% 1.07 ± 0.530 (0.950) C:84% T:77%	pCi/L		07/18/23 14:26	
Total Radium Calculation	Total Radium	1.20 ± 0.852 (1.57)	pCi/L		07/25/23 12:00	
SM 2320B	Alkalinity, Total as CaCO3	261	mg/L	10.0	07/10/23 22:25	
SM 2320B	Alkalinity,Bicarbonate (CaCO3)	261	mg/L	10.0	07/10/23 22:25	
SM 2540C	Total Dissolved Solids	1570	mg/L	40.0	07/10/23 15:31	
SM 4500-H+B	pH at 25 Degrees C	6.9	Std. Units	0.10	07/07/23 15:22	H3
EPA 365.1	Phosphate as P04	0.16	mg/L	0.15	07/07/23 15:33	
<b>50348628002</b>	<b>MW-26I</b>					
EPA 9056	Chloride	134	mg/L	25.0	07/06/23 18:38	
EPA 9056	Fluoride	0.27	mg/L	0.10	07/06/23 18:05	
EPA 9056	Sulfate	142	mg/L	2.5	07/06/23 18:21	
EPA 6010	Boron	275	ug/L	100	07/13/23 14:24	
EPA 6010	Calcium	101000	ug/L	1000	07/13/23 14:24	
EPA 6010	Magnesium	31400	ug/L	1000	07/13/23 14:24	
EPA 6010	Manganese	29.8	ug/L	10.0	07/13/23 14:24	
EPA 6010	Potassium	5360	ug/L	1000	07/13/23 14:24	
EPA 6010	Silica	10500	ug/L	450	07/13/23 14:24	N2
EPA 6010	Sodium	93500	ug/L	1000	07/13/23 14:24	
EPA 6010	Manganese, Dissolved	34.3	ug/L	10.0	07/11/23 10:58	
EPA 6010	Molybdenum, Dissolved	40.6	ug/L	10.0	07/11/23 10:58	
EPA 6020	Barium	81.1	ug/L	1.0	07/11/23 02:19	
EPA 6020	Molybdenum	39.2	ug/L	10.0	07/11/23 02:19	

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**SUMMARY OF DETECTION**

Project: Eagle Valley P1R1

Pace Project No.: 50348628

Lab Sample ID	Client Sample ID	Result	Units	Report Limit	Analyzed	Qualifiers
Method	Parameters					
<b>50348628002</b>	<b>MW-26I</b>					
EPA 903.1	Radium-226	0.473 ± 0.849 (1.48) C:NA T:94%	pCi/L		07/18/23 15:38	
EPA 904.0	Radium-228	-0.0297 ± 0.362 (0.846) C:80% T:80%	pCi/L		07/18/23 14:26	
Total Radium Calculation	Total Radium	0.473 ± 1.21 (2.33)	pCi/L		07/25/23 12:00	
SM 2320B	Alkalinity, Total as CaCO3	221	mg/L	10.0	07/10/23 22:25	
SM 2320B	Alkalinity,Bicarbonate (CaCO3)	221	mg/L	10.0	07/10/23 22:25	
SM 2540C	Total Dissolved Solids	704	mg/L	20.0	07/10/23 15:31	
SM 4500-H+B	pH at 25 Degrees C	7.3	Std. Units	0.10	07/07/23 15:23	H3
EPA 353.2	Nitrogen, Nitrate	1.4	mg/L	0.10	07/06/23 21:40	
EPA 353.2	Nitrogen, Nitrite	0.29	mg/L	0.10	07/06/23 21:40	
<b>50348628003</b>	<b>MW-26D</b>					
EPA 9056	Chloride	45.5	mg/L	2.5	07/06/23 19:49	
EPA 9056	Sulfate	43.9	mg/L	0.25	07/06/23 19:32	
EPA 6010	Aluminum	779	ug/L	200	07/13/23 15:25	
EPA 6010	Boron	103	ug/L	100	07/13/23 15:25	
EPA 6010	Calcium	116000	ug/L	1000	07/13/23 15:25	
EPA 6010	Iron	1470	ug/L	100	07/13/23 15:25	
EPA 6010	Magnesium	31300	ug/L	1000	07/13/23 15:25	
EPA 6010	Manganese	78.6	ug/L	10.0	07/13/23 15:25	
EPA 6010	Potassium	3590	ug/L	1000	07/13/23 15:25	
EPA 6010	Silica	16500	ug/L	450	07/13/23 15:25	N2
EPA 6010	Sodium	33300	ug/L	1000	07/13/23 15:25	
EPA 6010	Manganese, Dissolved	57.5	ug/L	10.0	07/11/23 11:00	
EPA 6010	Molybdenum, Dissolved	27.4	ug/L	10.0	07/11/23 11:00	
EPA 6020	Barium	113	ug/L	1.0	07/11/23 02:22	
EPA 6020	Molybdenum	25.9	ug/L	10.0	07/11/23 02:22	
EPA 903.1	Radium-226	0.881 ± 0.616 (0.743) C:NA T:93%	pCi/L		07/18/23 15:38	
EPA 904.0	Radium-228	0.0215 ± 0.265 (0.621) C:79% T:87%	pCi/L		07/18/23 14:27	
Total Radium Calculation	Total Radium	0.903 ± 0.881 (1.36)	pCi/L		07/25/23 12:00	
SM 2320B	Alkalinity, Total as CaCO3	356	mg/L	10.0	07/10/23 22:25	
SM 2320B	Alkalinity,Bicarbonate (CaCO3)	356	mg/L	10.0	07/10/23 22:25	
SM 2540C	Total Dissolved Solids	500	mg/L	10.0	07/10/23 15:31	
SM 4500-H+B	pH at 25 Degrees C	7.5	Std. Units	0.10	07/07/23 15:25	H3
EPA 365.1	Phosphate as P04	0.45	mg/L	0.15	07/07/23 15:34	

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### SUMMARY OF DETECTION

Project: Eagle Valley P1R1

Pace Project No.: 50348628

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Lab Sample ID Method	Client Sample ID Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
<b>50348628003</b>	<b>MW-26D</b>					
SM 5310C	Total Organic Carbon	1.6	mg/L	1.0	07/07/23 19:27	
SM 5310C	Dissolved Organic Carbon	1.1	mg/L	1.0	07/08/23 04:42	

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## ANALYTICAL RESULTS

Project: Eagle Valley P1R1

Pace Project No.: 50348628

Sample: MW-26S		Lab ID: 50348628001		Collected: 07/05/23 10:50		Received: 07/06/23 08:00		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>9056 IC Anions</b>		Analytical Method: EPA 9056 Pace Analytical Services - Indianapolis							
Chloride	205	mg/L	25.0	6.7	100		07/06/23 17:48	16887-00-6	
Fluoride	0.30	mg/L	0.10	0.017	1		07/06/23 17:15	16984-48-8	
Sulfate	584	mg/L	25.0	8.5	100		07/06/23 17:48	14808-79-8	
<b>6010 MET ICP</b>		Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis							
Aluminum	ND	ug/L	200	54.4	1	07/09/23 19:30	07/13/23 14:22	7429-90-5	
Boron	2280	ug/L	100	61.4	1	07/09/23 19:30	07/13/23 14:22	7440-42-8	
Calcium	236000	ug/L	2000	177	2	07/09/23 19:30	07/13/23 15:53	7440-70-2	
Iron	432	ug/L	100	48.8	1	07/09/23 19:30	07/13/23 14:22	7439-89-6	
Lithium	56.3	ug/L	20.0	6.2	1	07/09/23 19:30	07/13/23 14:22	7439-93-2	
Magnesium	53800	ug/L	1000	43.0	1	07/09/23 19:30	07/13/23 14:22	7439-95-4	
Manganese	1610	ug/L	10.0	5.4	1	07/09/23 19:30	07/13/23 14:22	7439-96-5	
Potassium	12600	ug/L	1000	200	1	07/09/23 19:30	07/13/23 14:22	7440-09-7	
Silica	16200	ug/L	450		1	07/09/23 19:30	07/13/23 14:22	7631-86-9	N2
Sodium	198000	ug/L	1000	284	1	07/09/23 19:30	07/13/23 14:22	7440-23-5	
<b>6010 MET ICP, Dissolved</b>		Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis							
Manganese, Dissolved	1710	ug/L	10.0	2.5	1	07/10/23 08:23	07/11/23 10:56	7439-96-5	
Molybdenum, Dissolved	121	ug/L	10.0	3.7	1	07/10/23 08:23	07/11/23 10:56	7439-98-7	
<b>6020 MET ICPMS</b>		Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis							
Antimony	ND	ug/L	1.0	0.044	1	07/10/23 08:20	07/11/23 02:16	7440-36-0	
Arsenic	ND	ug/L	1.0	0.064	1	07/10/23 08:20	07/11/23 02:16	7440-38-2	
Barium	33.3	ug/L	1.0	0.067	1	07/10/23 08:20	07/11/23 02:16	7440-39-3	
Beryllium	ND	ug/L	0.20	0.026	1	07/10/23 08:20	07/11/23 02:16	7440-41-7	
Cadmium	ND	ug/L	2.0	0.011	1	07/10/23 08:20	07/11/23 02:16	7440-43-9	
Chromium	ND	ug/L	10.0	0.15	1	07/10/23 08:20	07/11/23 02:16	7440-47-3	
Cobalt	2.6	ug/L	1.0	0.024	1	07/10/23 08:20	07/11/23 02:16	7440-48-4	
Lead	ND	ug/L	10.0	0.018	1	07/10/23 08:20	07/11/23 02:16	7439-92-1	
Molybdenum	117	ug/L	10.0	0.031	1	07/10/23 08:20	07/11/23 02:16	7439-98-7	
Selenium	ND	ug/L	1.0	0.23	1	07/10/23 08:20	07/11/23 02:16	7782-49-2	
Thallium	ND	ug/L	1.0	0.042	1	07/10/23 08:20	07/11/23 02:16	7440-28-0	
<b>7470 Mercury</b>		Analytical Method: EPA 7470 Preparation Method: EPA 7470 Pace Analytical Services - Indianapolis							
Mercury	ND	ug/L	0.20	0.091	1	07/11/23 11:42	07/11/23 19:03	7439-97-6	
<b>2320B Alkalinity</b>		Analytical Method: SM 2320B Pace Analytical Services - Indianapolis							
Alkalinity, Total as CaCO3	261	mg/L	10.0	10.0	1		07/10/23 22:25		
Alkalinity, Bicarbonate (CaCO3)	261	mg/L	10.0	10.0	1		07/10/23 22:25		

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**ANALYTICAL RESULTS**

Project: Eagle Valley P1R1  
Pace Project No.: 50348628

Sample: MW-26S		Lab ID: 50348628001		Collected: 07/05/23 10:50	Received: 07/06/23 08:00	Matrix: Water			
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>2320B Alkalinity</b>		Analytical Method: SM 2320B Pace Analytical Services - Indianapolis							
Alkalinity, Carbonate (CaCO3)	ND	mg/L	10.0	10.0	1		07/10/23 22:25		
<b>2540C Total Dissolved Solids</b>		Analytical Method: SM 2540C Pace Analytical Services - Indianapolis							
Total Dissolved Solids	<b>1570</b>	mg/L	40.0	40.0	1		07/10/23 15:31		
<b>4500H+ pH, Electrometric</b>		Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis							
pH at 25 Degrees C	<b>6.9</b>	Std. Units	0.10	0.10	1		07/07/23 15:22		H3
<b>4500S2D Sulfide Water</b>		Analytical Method: SM 4500-S2-D Pace Analytical Services - Indianapolis							
Sulfide	ND	mg/L	0.10	0.025	1		07/11/23 09:50	18496-25-8	
<b>Iron, Ferrous</b>		Analytical Method: HACH 8146 Pace Analytical Services - Indianapolis							
Iron, Ferrous	ND	mg/L	0.20	0.035	1		07/11/23 14:31	15438-31-0	H3,N2
<b>353.2 Nitrogen, NO2/NO3 unpres</b>		Analytical Method: EPA 353.2 Pace Analytical Services - Indianapolis							
Nitrogen, Nitrate	ND	mg/L	0.10	0.011	1		07/06/23 21:35	14797-55-8	
Nitrogen, Nitrite	ND	mg/L	0.10	0.0040	1		07/06/23 21:35	14797-65-0	
<b>365.1 Total Phosphorus</b>		Analytical Method: EPA 365.1 Preparation Method: EPA 365.1 Pace Analytical Services - Indianapolis							
Phosphate as P04	<b>0.16</b>	mg/L	0.15	0.15	1	07/07/23 09:30	07/07/23 15:33		
<b>5310C TOC</b>		Analytical Method: SM 5310C Pace Analytical Services - Indianapolis							
Total Organic Carbon	ND	mg/L	4.0	0.94	4		07/10/23 13:08	7440-44-0	D3
<b>5310C Dissolved Organic Carbon</b>		Analytical Method: SM 5310C Pace Analytical Services - Indianapolis							
Dissolved Organic Carbon	ND	mg/L	4.0	0.94	4		07/10/23 19:10		D3

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## ANALYTICAL RESULTS

Project: Eagle Valley P1R1

Pace Project No.: 50348628

Sample: MW-261 Lab ID: 50348628002 Collected: 07/05/23 11:50 Received: 07/06/23 08:00 Matrix: Water

Parameters	Results	Units	Report			Prepared	Analyzed	CAS No.	Qual
			Limit	MDL	DF				
<b>9056 IC Anions</b>									
Analytical Method: EPA 9056									
Pace Analytical Services - Indianapolis									
Chloride	134	mg/L	25.0	6.7	100		07/06/23 18:38	16887-00-6	
Fluoride	0.27	mg/L	0.10	0.017	1		07/06/23 18:05	16984-48-8	
Sulfate	142	mg/L	2.5	0.85	10		07/06/23 18:21	14808-79-8	
<b>6010 MET ICP</b>									
Analytical Method: EPA 6010 Preparation Method: EPA 3010									
Pace Analytical Services - Indianapolis									
Aluminum	ND	ug/L	200	54.4	1	07/09/23 19:30	07/13/23 14:24	7429-90-5	
Boron	275	ug/L	100	61.4	1	07/09/23 19:30	07/13/23 14:24	7440-42-8	
Calcium	101000	ug/L	1000	88.4	1	07/09/23 19:30	07/13/23 14:24	7440-70-2	
Iron	ND	ug/L	100	48.8	1	07/09/23 19:30	07/13/23 14:24	7439-89-6	
Lithium	ND	ug/L	20.0	6.2	1	07/09/23 19:30	07/13/23 14:24	7439-93-2	
Magnesium	31400	ug/L	1000	43.0	1	07/09/23 19:30	07/13/23 14:24	7439-95-4	
Manganese	29.8	ug/L	10.0	5.4	1	07/09/23 19:30	07/13/23 14:24	7439-96-5	
Potassium	5360	ug/L	1000	200	1	07/09/23 19:30	07/13/23 14:24	7440-09-7	
Silica	10500	ug/L	450		1	07/09/23 19:30	07/13/23 14:24	7631-86-9	N2
Sodium	93500	ug/L	1000	284	1	07/09/23 19:30	07/13/23 14:24	7440-23-5	
<b>6010 MET ICP, Dissolved</b>									
Analytical Method: EPA 6010 Preparation Method: EPA 3010									
Pace Analytical Services - Indianapolis									
Manganese, Dissolved	34.3	ug/L	10.0	2.5	1	07/10/23 08:23	07/11/23 10:58	7439-96-5	
Molybdenum, Dissolved	40.6	ug/L	10.0	3.7	1	07/10/23 08:23	07/11/23 10:58	7439-98-7	
<b>6020 MET ICPMS</b>									
Analytical Method: EPA 6020 Preparation Method: EPA 200.2									
Pace Analytical Services - Indianapolis									
Antimony	ND	ug/L	1.0	0.044	1	07/10/23 08:20	07/11/23 02:19	7440-36-0	
Arsenic	ND	ug/L	1.0	0.064	1	07/10/23 08:20	07/11/23 02:19	7440-38-2	
Barium	81.1	ug/L	1.0	0.067	1	07/10/23 08:20	07/11/23 02:19	7440-39-3	
Beryllium	ND	ug/L	0.20	0.026	1	07/10/23 08:20	07/11/23 02:19	7440-41-7	
Cadmium	ND	ug/L	2.0	0.011	1	07/10/23 08:20	07/11/23 02:19	7440-43-9	
Chromium	ND	ug/L	10.0	0.15	1	07/10/23 08:20	07/11/23 02:19	7440-47-3	
Cobalt	ND	ug/L	1.0	0.024	1	07/10/23 08:20	07/11/23 02:19	7440-48-4	
Lead	ND	ug/L	10.0	0.018	1	07/10/23 08:20	07/11/23 02:19	7439-92-1	
Molybdenum	39.2	ug/L	10.0	0.031	1	07/10/23 08:20	07/11/23 02:19	7439-98-7	
Selenium	ND	ug/L	1.0	0.23	1	07/10/23 08:20	07/11/23 02:19	7782-49-2	
Thallium	ND	ug/L	1.0	0.042	1	07/10/23 08:20	07/11/23 02:19	7440-28-0	
<b>7470 Mercury</b>									
Analytical Method: EPA 7470 Preparation Method: EPA 7470									
Pace Analytical Services - Indianapolis									
Mercury	ND	ug/L	0.20	0.091	1	07/11/23 11:42	07/11/23 19:10	7439-97-6	
<b>2320B Alkalinity</b>									
Analytical Method: SM 2320B									
Pace Analytical Services - Indianapolis									
Alkalinity, Total as CaCO3	221	mg/L	10.0	10.0	1		07/10/23 22:25		
Alkalinity,Bicarbonate (CaCO3)	221	mg/L	10.0	10.0	1		07/10/23 22:25		

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### ANALYTICAL RESULTS

Project: Eagle Valley P1R1  
Pace Project No.: 50348628

Sample: MW-26I		Lab ID: 50348628002		Collected: 07/05/23 11:50	Received: 07/06/23 08:00	Matrix: Water				
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual	
<b>2320B Alkalinity</b>		Analytical Method: SM 2320B Pace Analytical Services - Indianapolis								
Alkalinity, Carbonate (CaCO3)	ND	mg/L	10.0	10.0	1		07/10/23 22:25			
<b>2540C Total Dissolved Solids</b>		Analytical Method: SM 2540C Pace Analytical Services - Indianapolis								
Total Dissolved Solids	<b>704</b>	mg/L	20.0	20.0	1		07/10/23 15:31			
<b>4500H+ pH, Electrometric</b>		Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis								
pH at 25 Degrees C	<b>7.3</b>	Std. Units	0.10	0.10	1		07/07/23 15:23		H3	
<b>4500S2D Sulfide Water</b>		Analytical Method: SM 4500-S2-D Pace Analytical Services - Indianapolis								
Sulfide	ND	mg/L	0.10	0.025	1		07/11/23 09:50	18496-25-8		
<b>Iron, Ferrous</b>		Analytical Method: HACH 8146 Pace Analytical Services - Indianapolis								
Iron, Ferrous	ND	mg/L	0.20	0.035	1		07/11/23 14:31	15438-31-0	H3,N2	
<b>353.2 Nitrogen, NO2/NO3 unpres</b>		Analytical Method: EPA 353.2 Pace Analytical Services - Indianapolis								
Nitrogen, Nitrate	<b>1.4</b>	mg/L	0.10	0.011	1		07/06/23 21:40	14797-55-8		
Nitrogen, Nitrite	<b>0.29</b>	mg/L	0.10	0.0040	1		07/06/23 21:40	14797-65-0		
<b>365.1 Total Phosphorus</b>		Analytical Method: EPA 365.1 Preparation Method: EPA 365.1 Pace Analytical Services - Indianapolis								
Phosphate as P04	ND	mg/L	0.15	0.15	1	07/07/23 09:30	07/07/23 15:34			
<b>5310C TOC</b>		Analytical Method: SM 5310C Pace Analytical Services - Indianapolis								
Total Organic Carbon	ND	mg/L	4.0	0.94	4		07/10/23 13:19	7440-44-0	D3	
<b>5310C Dissolved Organic Carbon</b>		Analytical Method: SM 5310C Pace Analytical Services - Indianapolis								
Dissolved Organic Carbon	ND	mg/L	4.0	0.94	4		07/10/23 19:20		D3	

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**ANALYTICAL RESULTS**

Project: Eagle Valley P1R1  
 Pace Project No.: 50348628

**Sample: MW-26D**      **Lab ID: 50348628003**      Collected: 07/05/23 13:20      Received: 07/06/23 08:00      Matrix: Water

Parameters	Results	Units	Report			Prepared	Analyzed	CAS No.	Qual
			Limit	MDL	DF				

**9056 IC Anions**

Analytical Method: EPA 9056  
 Pace Analytical Services - Indianapolis

Chloride	45.5	mg/L	2.5	0.67	10		07/06/23 19:49	16887-00-6	
Fluoride	ND	mg/L	0.10	0.017	1		07/06/23 19:32	16984-48-8	
Sulfate	43.9	mg/L	0.25	0.085	1		07/06/23 19:32	14808-79-8	

**6010 MET ICP**

Analytical Method: EPA 6010      Preparation Method: EPA 3010  
 Pace Analytical Services - Indianapolis

Aluminum	779	ug/L	200	54.4	1	07/09/23 19:30	07/13/23 15:25	7429-90-5	
Boron	103	ug/L	100	61.4	1	07/09/23 19:30	07/13/23 15:25	7440-42-8	
Calcium	116000	ug/L	1000	88.4	1	07/09/23 19:30	07/13/23 15:25	7440-70-2	
Iron	1470	ug/L	100	48.8	1	07/09/23 19:30	07/13/23 15:25	7439-89-6	
Lithium	ND	ug/L	20.0	6.2	1	07/09/23 19:30	07/13/23 15:25	7439-93-2	
Magnesium	31300	ug/L	1000	43.0	1	07/09/23 19:30	07/13/23 15:25	7439-95-4	
Manganese	78.6	ug/L	10.0	5.4	1	07/09/23 19:30	07/13/23 15:25	7439-96-5	
Potassium	3590	ug/L	1000	200	1	07/09/23 19:30	07/13/23 15:25	7440-09-7	
Silica	16500	ug/L	450		1	07/09/23 19:30	07/13/23 15:25	7631-86-9	N2
Sodium	33300	ug/L	1000	284	1	07/09/23 19:30	07/13/23 15:25	7440-23-5	

**6010 MET ICP, Dissolved**

Analytical Method: EPA 6010      Preparation Method: EPA 3010  
 Pace Analytical Services - Indianapolis

Manganese, Dissolved	57.5	ug/L	10.0	2.5	1	07/10/23 08:23	07/11/23 11:00	7439-96-5	
Molybdenum, Dissolved	27.4	ug/L	10.0	3.7	1	07/10/23 08:23	07/11/23 11:00	7439-98-7	

**6020 MET ICPMS**

Analytical Method: EPA 6020      Preparation Method: EPA 200.2  
 Pace Analytical Services - Indianapolis

Antimony	ND	ug/L	1.0	0.044	1	07/10/23 08:20	07/11/23 02:22	7440-36-0	
Arsenic	ND	ug/L	1.0	0.064	1	07/10/23 08:20	07/11/23 02:22	7440-38-2	
Barium	113	ug/L	1.0	0.067	1	07/10/23 08:20	07/11/23 02:22	7440-39-3	
Beryllium	ND	ug/L	0.20	0.026	1	07/10/23 08:20	07/11/23 02:22	7440-41-7	
Cadmium	ND	ug/L	2.0	0.011	1	07/10/23 08:20	07/11/23 02:22	7440-43-9	
Chromium	ND	ug/L	10.0	0.15	1	07/10/23 08:20	07/11/23 02:22	7440-47-3	
Cobalt	ND	ug/L	1.0	0.024	1	07/10/23 08:20	07/11/23 02:22	7440-48-4	
Lead	ND	ug/L	10.0	0.018	1	07/10/23 08:20	07/11/23 02:22	7439-92-1	
Molybdenum	25.9	ug/L	10.0	0.031	1	07/10/23 08:20	07/11/23 02:22	7439-98-7	
Selenium	ND	ug/L	1.0	0.23	1	07/10/23 08:20	07/11/23 02:22	7782-49-2	
Thallium	ND	ug/L	1.0	0.042	1	07/10/23 08:20	07/11/23 02:22	7440-28-0	

**7470 Mercury**

Analytical Method: EPA 7470      Preparation Method: EPA 7470  
 Pace Analytical Services - Indianapolis

Mercury	ND	ug/L	0.20	0.091	1	07/11/23 11:42	07/11/23 19:13	7439-97-6	
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**2320B Alkalinity**

Analytical Method: SM 2320B  
 Pace Analytical Services - Indianapolis

Alkalinity, Total as CaCO3	356	mg/L	10.0	10.0	1		07/10/23 22:25		
Alkalinity,Bicarbonate (CaCO3)	356	mg/L	10.0	10.0	1		07/10/23 22:25		

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### ANALYTICAL RESULTS

Project: Eagle Valley P1R1

Pace Project No.: 50348628

Sample: MW-26D		Lab ID: 50348628003		Collected: 07/05/23 13:20	Received: 07/06/23 08:00	Matrix: Water				
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual	
<b>2320B Alkalinity</b>		Analytical Method: SM 2320B Pace Analytical Services - Indianapolis								
Alkalinity, Carbonate (CaCO3)	ND	mg/L	10.0	10.0	1		07/10/23 22:25			
<b>2540C Total Dissolved Solids</b>		Analytical Method: SM 2540C Pace Analytical Services - Indianapolis								
Total Dissolved Solids	<b>500</b>	mg/L	10.0	10.0	1		07/10/23 15:31			
<b>4500H+ pH, Electrometric</b>		Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis								
pH at 25 Degrees C	<b>7.5</b>	Std. Units	0.10	0.10	1		07/07/23 15:25		H3	
<b>4500S2D Sulfide Water</b>		Analytical Method: SM 4500-S2-D Pace Analytical Services - Indianapolis								
Sulfide	ND	mg/L	0.10	0.025	1		07/11/23 09:50	18496-25-8		
<b>Iron, Ferrous</b>		Analytical Method: HACH 8146 Pace Analytical Services - Indianapolis								
Iron, Ferrous	ND	mg/L	0.20	0.035	1		07/11/23 14:32	15438-31-0	H3,N2	
<b>353.2 Nitrogen, NO2/NO3 unpres</b>		Analytical Method: EPA 353.2 Pace Analytical Services - Indianapolis								
Nitrogen, Nitrate	ND	mg/L	0.10	0.011	1		07/06/23 21:42	14797-55-8		
Nitrogen, Nitrite	ND	mg/L	0.10	0.0040	1		07/06/23 21:42	14797-65-0		
<b>365.1 Total Phosphorus</b>		Analytical Method: EPA 365.1 Preparation Method: EPA 365.1 Pace Analytical Services - Indianapolis								
Phosphate as P04	<b>0.45</b>	mg/L	0.15	0.15	1	07/07/23 09:30	07/07/23 15:34			
<b>5310C TOC</b>		Analytical Method: SM 5310C Pace Analytical Services - Indianapolis								
Total Organic Carbon	<b>1.6</b>	mg/L	1.0	0.24	1		07/07/23 19:27	7440-44-0		
<b>5310C Dissolved Organic Carbon</b>		Analytical Method: SM 5310C Pace Analytical Services - Indianapolis								
Dissolved Organic Carbon	<b>1.1</b>	mg/L	1.0	0.24	1		07/08/23 04:42			

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### QUALITY CONTROL DATA

Project: Eagle Valley P1R1

Pace Project No.: 50348628

QC Batch:	742493	Analysis Method:	EPA 9056
QC Batch Method:	EPA 9056	Analysis Description:	9056 IC Anions
		Laboratory:	Pace Analytical Services - Indianapolis

Associated Lab Samples: 50348628001, 50348628002, 50348628003

METHOD BLANK: 3405247 Matrix: Water

Associated Lab Samples: 50348628001, 50348628002, 50348628003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chloride	mg/L	ND	0.25	0.067	07/07/23 05:57	
Fluoride	mg/L	ND	0.10	0.017	07/07/23 05:57	
Sulfate	mg/L	ND	0.25	0.085	07/07/23 05:57	

LABORATORY CONTROL SAMPLE: 3405248

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	2.5	2.3	91	80-120	
Fluoride	mg/L	1	0.93	93	80-120	
Sulfate	mg/L	5	4.6	92	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3405249 3405250

Parameter	Units	MS		MSD		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		50348628003	Result	Spike Conc.	Spike Conc.								
Chloride	mg/L	45.5	25	25	70.5	71.6	100	104	80-120	1	15		
Fluoride	mg/L	ND	1	1	1.0	1.0	92	92	80-120	0	15		
Sulfate	mg/L	43.9	5	5	48.5	48.5	93	92	80-120	0	15		

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**QUALITY CONTROL DATA**

Project: Eagle Valley P1R1

Pace Project No.: 50348628

QC Batch:	743016	Analysis Method:	EPA 7470
QC Batch Method:	EPA 7470	Analysis Description:	7470 Mercury
		Laboratory:	Pace Analytical Services - Indianapolis

Associated Lab Samples: 50348628001, 50348628002, 50348628003

METHOD BLANK: 3407119 Matrix: Water

Associated Lab Samples: 50348628001, 50348628002, 50348628003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Mercury	ug/L	ND	0.20	0.091	07/11/23 18:26	

LABORATORY CONTROL SAMPLE: 3407120

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury	ug/L	5	5.1	101	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3407121 3407122

Parameter	Units	10659559008		3407121		3407122		% Rec Limits	RPD	Max RPD	Qual
		MS Result	MSD Spike Conc.	MS Result	MSD Spike Conc.	MS Result	MSD Result				
Mercury	ug/L	ND	5	5	4.3	4.6	85	92	75-125	7	20

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**QUALITY CONTROL DATA**

Project: Eagle Valley P1R1  
 Pace Project No.: 50348628

QC Batch: 742602 Analysis Method: EPA 6010  
 QC Batch Method: EPA 3010 Analysis Description: 6010 MET  
 Laboratory: Pace Analytical Services - Indianapolis  
 Associated Lab Samples: 50348628001, 50348628002, 50348628003

METHOD BLANK: 3405722 Matrix: Water  
 Associated Lab Samples: 50348628001, 50348628002, 50348628003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Aluminum	ug/L	ND	200	54.4	07/13/23 14:19	
Boron	ug/L	ND	100	61.4	07/13/23 14:19	
Calcium	ug/L	ND	1000	88.4	07/13/23 14:19	
Iron	ug/L	ND	100	48.8	07/13/23 14:19	
Lithium	ug/L	ND	20.0	6.2	07/13/23 14:19	
Magnesium	ug/L	ND	1000	43.0	07/13/23 14:19	
Manganese	ug/L	ND	10.0	5.4	07/13/23 14:19	
Potassium	ug/L	ND	1000	200	07/13/23 14:19	
Silica	ug/L	ND	450		07/13/23 14:19	N2
Sodium	ug/L	ND	1000	284	07/13/23 14:19	

LABORATORY CONTROL SAMPLE: 3405723

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Aluminum	ug/L	10000	9330	93	80-120	
Boron	ug/L	1000	924	92	80-120	
Calcium	ug/L	10000	9630	96	80-120	
Iron	ug/L	10000	9340	93	80-120	
Lithium	ug/L	1000	929	93	80-120	
Magnesium	ug/L	10000	9370	94	80-120	
Manganese	ug/L	1000	920	92	80-120	
Potassium	ug/L	10000	9380	94	80-120	
Silica	ug/L	10700	9700	91	80-120	N2
Sodium	ug/L	10000	9550	95	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3405724 3405725

Parameter	Units	MS		MSD		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual	
		50348604006 Result	Spike Conc.	Spike Conc.	Result							Result
Aluminum	ug/L	3720	10000	10000	14900	15300	111	116	75-125	3	20	
Boron	ug/L	196	1000	1000	1170	1210	97	102	75-125	4	20	
Calcium	ug/L	234000	10000	10000	233000	237000	-7	33	75-125	2	20	E,P6
Iron	ug/L	5700	10000	10000	15000	15500	93	98	75-125	3	20	
Lithium	ug/L	6.7J	1000	1000	1010	1040	101	103	75-125	2	20	
Magnesium	ug/L	74000	10000	10000	80600	83200	65	92	75-125	3	20	P6
Manganese	ug/L	291	1000	1000	1220	1260	93	97	75-125	3	20	
Potassium	ug/L	6040	10000	10000	16900	17200	108	112	75-125	2	20	

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**QUALITY CONTROL DATA**

Project: Eagle Valley P1R1

Pace Project No.: 50348628

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3405724 3405725												
Parameter	Units	50348604006 Result	MS	MSD	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max	Qual
			Spike Conc.	Spike Conc.							RPD	
Silica	ug/L	24500	10700	10700	45200	46100	194	202	75-125	2	20	N2
Sodium	ug/L	32600	10000	10000	41600	42300	90	97	75-125	2	20	

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**QUALITY CONTROL DATA**

Project: Eagle Valley P1R1

Pace Project No.: 50348628

QC Batch:	742728	Analysis Method:	EPA 6010
QC Batch Method:	EPA 3010	Analysis Description:	6010 MET Dissolved
		Laboratory:	Pace Analytical Services - Indianapolis

Associated Lab Samples: 50348628001, 50348628002, 50348628003

METHOD BLANK: 3406235 Matrix: Water

Associated Lab Samples: 50348628001, 50348628002, 50348628003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Manganese, Dissolved	ug/L	ND	10.0	2.5	07/11/23 10:37	
Molybdenum, Dissolved	ug/L	ND	10.0	3.7	07/11/23 10:37	

LABORATORY CONTROL SAMPLE: 3406236

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Manganese, Dissolved	ug/L	1000	975	97	80-120	
Molybdenum, Dissolved	ug/L	1000	1040	104	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3406237 3406238

Parameter	Units	50348745003 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Manganese, Dissolved	ug/L	278	1000	1000	1240	1250	96	97	75-125	1	20	
Molybdenum, Dissolved	ug/L	206	1000	1000	1230	1250	102	105	75-125	2	20	

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**QUALITY CONTROL DATA**

Project: Eagle Valley P1R1  
 Pace Project No.: 50348628

QC Batch: 742775 Analysis Method: EPA 6020  
 QC Batch Method: EPA 200.2 Analysis Description: 6020 MET  
 Laboratory: Pace Analytical Services - Indianapolis  
 Associated Lab Samples: 50348628001, 50348628002, 50348628003

METHOD BLANK: 3406373 Matrix: Water  
 Associated Lab Samples: 50348628001, 50348628002, 50348628003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Antimony	ug/L	ND	1.0	0.044	07/11/23 02:09	
Arsenic	ug/L	ND	1.0	0.064	07/11/23 02:09	
Barium	ug/L	ND	1.0	0.067	07/11/23 02:09	
Beryllium	ug/L	ND	0.20	0.026	07/11/23 02:09	
Cadmium	ug/L	ND	2.0	0.011	07/11/23 02:09	
Chromium	ug/L	ND	10.0	0.15	07/11/23 02:09	
Cobalt	ug/L	ND	1.0	0.024	07/11/23 02:09	
Lead	ug/L	ND	10.0	0.018	07/11/23 02:09	
Molybdenum	ug/L	ND	10.0	0.031	07/11/23 02:09	
Selenium	ug/L	ND	1.0	0.23	07/11/23 02:09	
Thallium	ug/L	ND	1.0	0.042	07/11/23 02:09	

LABORATORY CONTROL SAMPLE: 3406374

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Antimony	ug/L	40	41.6	104	80-120	
Arsenic	ug/L	40	39.1	98	80-120	
Barium	ug/L	40	39.4	98	80-120	
Beryllium	ug/L	40	41.5	104	80-120	
Cadmium	ug/L	40	38.6	97	80-120	
Chromium	ug/L	40	40.0	100	80-120	
Cobalt	ug/L	40	40.3	101	80-120	
Lead	ug/L	40	40.4	101	80-120	
Molybdenum	ug/L	40	40.5	101	80-120	
Selenium	ug/L	40	40.1	100	80-120	
Thallium	ug/L	40	42.2	106	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3406375 3406376

Parameter	Units	50348745003		3406376		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual	
		Result	MS Spike Conc.	MSD Spike Conc.	MS Result							MSD Result
Antimony	ug/L	ND	40	40	42.7	42.0	107	105	75-125	2	20	
Arsenic	ug/L	3.1	40	40	43.1	42.9	100	100	75-125	0	20	
Barium	ug/L	56.9	40	40	99.3	100	106	108	75-125	1	20	
Beryllium	ug/L	ND	40	40	42.5	43.1	106	108	75-125	1	20	
Cadmium	ug/L	ND	40	40	37.9	37.8	95	94	75-125	0	20	
Chromium	ug/L	ND	40	40	39.9	39.7	99	98	75-125	1	20	

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### QUALITY CONTROL DATA

Project: Eagle Valley P1R1

Pace Project No.: 50348628

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3406375 3406376														
Parameter	Units	50348745003 Result	MS		MSD		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	Max RPD	RPD	Qual
			Spike Conc.	Spike Conc.										
Cobalt	ug/L	ND	40	40	38.5	38.7	95	96	75-125	0	20			
Lead	ug/L	ND	40	40	40.7	40.3	101	100	75-125	1	20			
Molybdenum	ug/L	196	40	40	243	239	116	108	75-125	1	20			
Selenium	ug/L	ND	40	40	39.5	39.3	98	98	75-125	1	20			
Thallium	ug/L	ND	40	40	41.9	42.2	105	106	75-125	1	20			

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**QUALITY CONTROL DATA**

Project: Eagle Valley P1R1

Pace Project No.: 50348628

QC Batch: 743003 Analysis Method: SM 2320B  
 QC Batch Method: SM 2320B Analysis Description: 2320B Alkalinity  
 Laboratory: Pace Analytical Services - Indianapolis  
 Associated Lab Samples: 50348628001, 50348628002, 50348628003

METHOD BLANK: 3407076 Matrix: Water  
 Associated Lab Samples: 50348628001, 50348628002, 50348628003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Alkalinity, Total as CaCO3	mg/L	ND	10.0	10.0	07/10/23 22:25	
Alkalinity,Bicarbonate (CaCO3)	mg/L	ND	10.0	10.0	07/10/23 22:25	
Alkalinity,Carbonate (CaCO3)	mg/L	ND	10.0	10.0	07/10/23 22:25	

LABORATORY CONTROL SAMPLE: 3407077

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Alkalinity, Total as CaCO3	mg/L	50	48.6	97	90-110	

SAMPLE DUPLICATE: 3407078

Parameter	Units	50348805001 Result	Dup Result	RPD	Max RPD	Qualifiers
Alkalinity, Total as CaCO3	mg/L	250	251	1	20	
Alkalinity,Bicarbonate (CaCO3)	mg/L	250	251	1	20	
Alkalinity,Carbonate (CaCO3)	mg/L	ND	ND		20	

SAMPLE DUPLICATE: 3407079

Parameter	Units	50348745003 Result	Dup Result	RPD	Max RPD	Qualifiers
Alkalinity, Total as CaCO3	mg/L	221	227	2	20	
Alkalinity,Bicarbonate (CaCO3)	mg/L	221	221	0	20	
Alkalinity,Carbonate (CaCO3)	mg/L	ND	ND		20	

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**QUALITY CONTROL DATA**

Project: Eagle Valley P1R1

Pace Project No.: 50348628

QC Batch:	742956	Analysis Method:	SM 2540C
QC Batch Method:	SM 2540C	Analysis Description:	2540C Total Dissolved Solids
		Laboratory:	Pace Analytical Services - Indianapolis
Associated Lab Samples:	50348628001, 50348628002, 50348628003		

METHOD BLANK: 3406935 Matrix: Water  
 Associated Lab Samples: 50348628001, 50348628002, 50348628003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	ND	10.0	10.0	07/10/23 15:29	

LABORATORY CONTROL SAMPLE: 3406936

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	300	281	94	80-120	

SAMPLE DUPLICATE: 3406937

Parameter	Units	50348615001 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	1870	1850	1	10	

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### QUALITY CONTROL DATA

Project: Eagle Valley P1R1

Pace Project No.: 50348628

QC Batch: 742722

Analysis Method: SM 4500-H+B

QC Batch Method: SM 4500-H+B

Analysis Description: 4500H+B pH

Laboratory: Pace Analytical Services - Indianapolis

Associated Lab Samples: 50348628001, 50348628002, 50348628003

SAMPLE DUPLICATE: 3406212

Parameter	Units	50348461001 Result	Dup Result	RPD	Max RPD	Qualifiers
pH at 25 Degrees C	Std. Units	7.0	7.1	1	2	H3

SAMPLE DUPLICATE: 3406213

Parameter	Units	50348745003 Result	Dup Result	RPD	Max RPD	Qualifiers
pH at 25 Degrees C	Std. Units	7.4	7.5	1	2	H3

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**QUALITY CONTROL DATA**

Project: Eagle Valley P1R1  
 Pace Project No.: 50348628

QC Batch: 743053 Analysis Method: SM 4500-S2-D  
 QC Batch Method: SM 4500-S2-D Analysis Description: 4500S2D Sulfide Water  
 Laboratory: Pace Analytical Services - Indianapolis  
 Associated Lab Samples: 50348628001, 50348628002, 50348628003

METHOD BLANK: 3407189 Matrix: Water  
 Associated Lab Samples: 50348628001, 50348628002, 50348628003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Sulfide	mg/L	ND	0.10	0.025	07/11/23 09:50	

LABORATORY CONTROL SAMPLE: 3407190

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Sulfide	mg/L	0.5	0.50	100	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3407191 3407192

Parameter	Units	50348745003		3407191		3407192		% Rec Limits	RPD	Max RPD	Qual
		MS Result	MSD Spike Conc.	MS Result	MSD Spike Conc.	MS Result	MSD Spike Conc.				
Sulfide	mg/L	ND	0.5	0.5	0.53	0.52	107	103	90-110	3	20

MATRIX SPIKE SAMPLE: 3407193

Parameter	Units	50348805001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Sulfide	mg/L	ND	0.5	0.52	105	90-110	

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**QUALITY CONTROL DATA**

Project: Eagle Valley P1R1  
 Pace Project No.: 50348628

QC Batch: 743135 Analysis Method: HACH 8146  
 QC Batch Method: HACH 8146 Analysis Description: Iron, Ferrous  
 Laboratory: Pace Analytical Services - Indianapolis  
 Associated Lab Samples: 50348628001, 50348628002, 50348628003

METHOD BLANK: 3407542 Matrix: Water  
 Associated Lab Samples: 50348628001, 50348628002, 50348628003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Iron, Ferrous	mg/L	ND	0.20	0.035	07/11/23 14:26	H3,N2

LABORATORY CONTROL SAMPLE: 3407543

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Iron, Ferrous	mg/L	1	1.0	100	90-110	H3,N2

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3407544 3407545

Parameter	Units	50348607005		3407544		3407545		% Rec	% Rec	% Rec	Limits	RPD	Max RPD	Qual
		Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec							
Iron, Ferrous	mg/L	ND	1	1	1.1	1.1	107	108	90-110	1	20	H3,N2		

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3407546 3407547

Parameter	Units	50348745003		3407546		3407547		% Rec	% Rec	% Rec	Limits	RPD	Max RPD	Qual
		Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec							
Iron, Ferrous	mg/L	0.20	1	1	1.3	1.3	108	109	90-110	1	20	H3,N2		

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**QUALITY CONTROL DATA**

Project: Eagle Valley P1R1

Pace Project No.: 50348628

QC Batch:	742599	Analysis Method:	EPA 353.2
QC Batch Method:	EPA 353.2	Analysis Description:	353.2 Nitrate + Nitrite, Unpres.
		Laboratory:	Pace Analytical Services - Indianapolis

Associated Lab Samples: 50348628001, 50348628002, 50348628003

METHOD BLANK: 3405714 Matrix: Water

Associated Lab Samples: 50348628001, 50348628002, 50348628003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Nitrogen, Nitrate	mg/L	ND	0.10	0.011	07/06/23 21:29	
Nitrogen, Nitrite	mg/L	ND	0.10	0.0040	07/06/23 21:29	

LABORATORY CONTROL SAMPLE: 3405715

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Nitrogen, Nitrate	mg/L	1	0.94	94	90-110	
Nitrogen, Nitrite	mg/L	1	1.0	103	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3405716 3405717

Parameter	Units	50348628001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Nitrogen, Nitrate	mg/L	ND	1	1	0.95	0.95	94	95	90-110	0	20	
Nitrogen, Nitrite	mg/L	ND	1	1	1.0	1.0	103	103	90-110	1	20	

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**QUALITY CONTROL DATA**

Project: Eagle Valley P1R1

Pace Project No.: 50348628

QC Batch:	742631	Analysis Method:	EPA 365.1
QC Batch Method:	EPA 365.1	Analysis Description:	365.1 Total Phosphorus
		Laboratory:	Pace Analytical Services - Indianapolis
Associated Lab Samples:	50348628001, 50348628002, 50348628003		

METHOD BLANK: 3405803 Matrix: Water  
 Associated Lab Samples: 50348628001, 50348628002, 50348628003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Phosphate as P04	mg/L	ND	0.15	0.15	07/07/23 16:56	

LABORATORY CONTROL SAMPLE: 3405804

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Phosphate as P04	mg/L		1.6			

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3405805 3405806

Parameter	Units	50348569002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Phosphate as P04	mg/L	0.27			1.7	1.7					3	

MATRIX SPIKE SAMPLE: 3405809

Parameter	Units	50348628001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Phosphate as P04	mg/L	0.16		1.6			

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**QUALITY CONTROL DATA**

Project: Eagle Valley P1R1

Pace Project No.: 50348628

QC Batch:	742676	Analysis Method:	SM 5310C
QC Batch Method:	SM 5310C	Analysis Description:	5310C Total Organic Carbon
		Laboratory:	Pace Analytical Services - Indianapolis
Associated Lab Samples:	50348628001, 50348628002, 50348628003		

METHOD BLANK: 3405996 Matrix: Water  
 Associated Lab Samples: 50348628001, 50348628002, 50348628003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Organic Carbon	mg/L	ND	1.0	0.24	07/07/23 18:16	

LABORATORY CONTROL SAMPLE: 3405997

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Organic Carbon	mg/L	10	10.5	105	90-110	

MATRIX SPIKE SAMPLE: 3405998

Parameter	Units	50348745002 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Total Organic Carbon	mg/L		1.0	10	11.2	101	80-120

MATRIX SPIKE SAMPLE: 3405999

Parameter	Units	50348745003 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Total Organic Carbon	mg/L		1.9	10	12.0	101	80-120

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**QUALITY CONTROL DATA**

Project: Eagle Valley P1R1

Pace Project No.: 50348628

QC Batch:	742679	Analysis Method:	SM 5310C
QC Batch Method:	SM 5310C	Analysis Description:	5310C Dissolved Organic Carbon
		Laboratory:	Pace Analytical Services - Indianapolis
Associated Lab Samples:	50348628001, 50348628002, 50348628003		

METHOD BLANK: 3406017 Matrix: Water  
 Associated Lab Samples: 50348628001, 50348628002, 50348628003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Dissolved Organic Carbon	mg/L	ND	1.0	0.24	07/08/23 03:35	

LABORATORY CONTROL SAMPLE: 3406018

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Dissolved Organic Carbon	mg/L	10	10	100	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3406019 3406020

Parameter	Units	50348745003 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Dissolved Organic Carbon	mg/L	1.2	10	10	11.4	11.4	101	101	80-120	0	20	

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**REPORT OF LABORATORY ANALYSIS**

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Eagle Valley P1R1

Pace Project No.: 50348628

**Sample: MW-26S**      **Lab ID: 50348628001**      Collected: 07/05/23 10:50      Received: 07/06/23 08:00      Matrix: Water  
 PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	<b>0.134 ± 0.322 (0.621)</b> <b>C:NA T:94%</b>	pCi/L	07/18/23 15:38	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	<b>1.07 ± 0.530 (0.950)</b> <b>C:84% T:77%</b>	pCi/L	07/18/23 14:26	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	<b>1.20 ± 0.852 (1.57)</b>	pCi/L	07/25/23 12:00	7440-14-4	

### REPORT OF LABORATORY ANALYSIS

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**ANALYTICAL RESULTS - RADIOCHEMISTRY**

Project: Eagle Valley P1R1

Pace Project No.: 50348628

**Sample: MW-26I**      **Lab ID: 50348628002**      Collected: 07/05/23 11:50      Received: 07/06/23 08:00      Matrix: Water  
 PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Radium-226	EPA 903.1	<b>0.473 ± 0.849 (1.48)</b> <b>C:NA T:94%</b>	pCi/L	07/18/23 15:38	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 904.0	<b>-0.0297 ± 0.362 (0.846)</b> <b>C:80% T:80%</b>	pCi/L	07/18/23 14:26	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	<b>0.473 ± 1.21 (2.33)</b>	pCi/L	07/25/23 12:00	7440-14-4	

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Eagle Valley P1R1

Pace Project No.: 50348628

**Sample: MW-26D**      **Lab ID: 50348628003**      Collected: 07/05/23 13:20      Received: 07/06/23 08:00      Matrix: Water  
 PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Radium-226	EPA 903.1	<b>0.881 ± 0.616 (0.743)</b> <b>C:NA T:93%</b>	pCi/L	07/18/23 15:38	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 904.0	<b>0.0215 ± 0.265 (0.621)</b> <b>C:79% T:87%</b>	pCi/L	07/18/23 14:27	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	<b>0.903 ± 0.881 (1.36)</b>	pCi/L	07/25/23 12:00	7440-14-4	

### REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL - RADIOCHEMISTRY

Project: Eagle Valley P1R1

Pace Project No.: 50348628

QC Batch: 600790

Analysis Method: EPA 904.0

QC Batch Method: EPA 904.0

Analysis Description: 904.0 Radium 228

Laboratory: Pace Analytical Services - Greensburg

Associated Lab Samples: 50348628001, 50348628002, 50348628003

METHOD BLANK: 2919781

Matrix: Water

Associated Lab Samples: 50348628001, 50348628002, 50348628003

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.417 ± 0.326 (0.642) C:83% T:88%	pCi/L	07/18/23 11:19	

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### REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL - RADIOCHEMISTRY

Project: Eagle Valley P1R1

Pace Project No.: 50348628

QC Batch: 600788

Analysis Method: EPA 903.1

QC Batch Method: EPA 903.1

Analysis Description: 903.1 Radium-226

Laboratory: Pace Analytical Services - Greensburg

Associated Lab Samples: 50348628001, 50348628002, 50348628003

METHOD BLANK: 2919778

Matrix: Water

Associated Lab Samples: 50348628001, 50348628002, 50348628003

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.278 ± 0.335 (0.512) C:NA T:82%	pCi/L	07/18/23 15:09	

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## QUALIFIERS

Project: Eagle Valley P1R1

Pace Project No.: 50348628

### DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Reported results are not rounded until the final step prior to reporting. Therefore, calculated parameters that are typically reported as "Total" may vary slightly from the sum of the reported component parameters.

Act - Activity

Unc - Uncertainty: SDWA = 1.96 sigma count uncertainty, all other matrices = Expanded Uncertainty (95% confidence interval).

Gamma Spec = Expanded Uncertainty (95.4% Confidence Interval)

(MDC) - Minimum Detectable Concentration

Trac - Tracer Recovery (%)

Carr - Carrier Recovery (%)

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

### ANALYTE QUALIFIERS

D3 Sample was diluted due to the presence of high levels of non-target analytes or other matrix interference.

E Analyte concentration exceeded the calibration range. The reported result is estimated.

H3 Sample was received or analysis requested beyond the recognized method holding time.

N2 The lab does not hold NELAC/TNI accreditation for this parameter but other accreditations/certifications may apply. A complete list of accreditations/certifications is available upon request.

P6 Matrix spike recovery was outside laboratory control limits due to a parent sample concentration notably higher than the spike level.

## REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Eagle Valley P1R1

Pace Project No.: 50348628

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
50348628001	MW-26S	EPA 9056	742493		
50348628002	MW-26I	EPA 9056	742493		
50348628003	MW-26D	EPA 9056	742493		
50348628001	MW-26S	EPA 3010	742602	EPA 6010	743462
50348628002	MW-26I	EPA 3010	742602	EPA 6010	743462
50348628003	MW-26D	EPA 3010	742602	EPA 6010	743462
50348628001	MW-26S	EPA 3010	742728	EPA 6010	743081
50348628002	MW-26I	EPA 3010	742728	EPA 6010	743081
50348628003	MW-26D	EPA 3010	742728	EPA 6010	743081
50348628001	MW-26S	EPA 200.2	742775	EPA 6020	743012
50348628002	MW-26I	EPA 200.2	742775	EPA 6020	743012
50348628003	MW-26D	EPA 200.2	742775	EPA 6020	743012
50348628001	MW-26S	EPA 7470	743016	EPA 7470	743182
50348628002	MW-26I	EPA 7470	743016	EPA 7470	743182
50348628003	MW-26D	EPA 7470	743016	EPA 7470	743182
50348628001	MW-26S	EPA 903.1	600788		
50348628002	MW-26I	EPA 903.1	600788		
50348628003	MW-26D	EPA 903.1	600788		
50348628001	MW-26S	EPA 904.0	600790		
50348628002	MW-26I	EPA 904.0	600790		
50348628003	MW-26D	EPA 904.0	600790		
50348628001	MW-26S	Total Radium Calculation	603948		
50348628002	MW-26I	Total Radium Calculation	603948		
50348628003	MW-26D	Total Radium Calculation	603948		
50348628001	MW-26S	SM 2320B	743003		
50348628002	MW-26I	SM 2320B	743003		
50348628003	MW-26D	SM 2320B	743003		
50348628001	MW-26S	SM 2540C	742956		
50348628002	MW-26I	SM 2540C	742956		
50348628003	MW-26D	SM 2540C	742956		
50348628001	MW-26S	SM 4500-H+B	742722		
50348628002	MW-26I	SM 4500-H+B	742722		
50348628003	MW-26D	SM 4500-H+B	742722		
50348628001	MW-26S	SM 4500-S2-D	743053		
50348628002	MW-26I	SM 4500-S2-D	743053		
50348628003	MW-26D	SM 4500-S2-D	743053		
50348628001	MW-26S	HACH 8146	743135		
50348628002	MW-26I	HACH 8146	743135		
50348628003	MW-26D	HACH 8146	743135		
50348628001	MW-26S	EPA 353.2	742599		
50348628002	MW-26I	EPA 353.2	742599		
50348628003	MW-26D	EPA 353.2	742599		

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### QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Eagle Valley P1R1

Pace Project No.: 50348628

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
50348628001	MW-26S	EPA 365.1	742631	EPA 365.1	742741
50348628002	MW-26I	EPA 365.1	742631	EPA 365.1	742741
50348628003	MW-26D	EPA 365.1	742631	EPA 365.1	742741
50348628001	MW-26S	SM 5310C	742676		
50348628002	MW-26I	SM 5310C	742676		
50348628003	MW-26D	SM 5310C	742676		
50348628001	MW-26S	SM 5310C	742679		
50348628002	MW-26I	SM 5310C	742679		
50348628003	MW-26D	SM 5310C	742679		

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**SAMPLE CONDITION UPON RECEIPT FORM**

Date/Time and Initials of person examining contents: 7/6/23 0901

1. Courier:  FED EX  UPS  CLIENT  PACE  NOW/JETT  OTHER \_\_\_\_\_

2. Custody Seal on Cooler/Box Present:  Yes  No

(If yes)Seals Intact:  Yes  No (leave blank if no seals were present)

3. Thermometer: 1 2 3 4 5 6 7 8 A B C D E F G H

4. Cooler Temperature(s): (1.1) 0.9     
 (Initial/Corrected) RECORD TEMPS OF ALL COOLERS RECEIVED (use Comments below to add more)

5. Packing Material:  Bubble Wrap  Bubble Bags  
 None  Other plastic

6. Ice Type:  Wet  Blue  None

7. If temp. is over 6°C or under 0°C, was the PM notified?:  Yes  No  
 Cooler temp should be above freezing to 6°C

All discrepancies will be written out in the comments section below.

	Yes	No		Yes	No	N/A
USDA Regulated Soils? (HI, ID, NY, WA, OR, CA, NM, TX, OK, AR, LA, TN, AL, MS, NC, SC, GA, FL, or Puerto Rico)		/	All containers needing acid/base preservation have been pH CHECKED?: Exceptions: VOA, coliform, LLHg, O&G, RAD CHEM, and any container with a septum cap or preserved with HCl.	/		
Short Hold Time Analysis (48 hours or less)? Analysis: <u>NO3, NO2</u>	/		Circle: <u>HNO3 (&lt;2)</u> <u>H2SO4 (&gt;2)</u> NaOH (>10) <u>NaOH/ZnAc (&gt;9)</u> Any non-conformance to pH recommendations will be noted on the container count form			
Time 5035A TC placed in Freezer or Short Holds To Lab Time: <u>1046</u>			Residual Chlorine Check (SVOC 625 Pest/PCB 608)	Present	Absent	N/A
Rush TAT Requested (4 days or less):		/	Residual Chlorine Check (Total/Amenable/Free Cyanide)			/
Custody Signatures Present?	/		Headspace Wisconsin Sulfide?			/
Containers Intact?:	/		Headspace in VOA Vials (>6mm): See Container Count form for details	Present	Absent	No VOA Vials Sent
Sample Label (IDs/Dates/Times) Match COC?: Except TCs, which only require sample ID		/	Trip Blank Present?		/	
Extra labels on Terracore Vials? (soils only)			Trip Blank Custody Seals?:			/

COMMENTS: Times on all containers (1150) for sample TD MW-263 is different from COC (1150) 6/16/23 cert





July 25, 2023

Mr. Mark Breting  
ATC Group Services  
7988 Centerpoint Drive  
Suite 100  
Indianapolis, IN 46256

RE: Project: Eagle Valley P1R1  
Pace Project No.: 50348745

Dear Mr. Breting:

Enclosed are the analytical results for sample(s) received by the laboratory on July 07, 2023. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

The test results provided in this final report were generated by each of the following laboratories within the Pace Network:

- Pace Analytical Services - Indianapolis
- Pace Analytical Services - Greensburg

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Will Statz  
will.statz@pacelabs.com  
(317)228-3105  
Project Manager

Enclosures

cc: Mohammed Bazlamit, Atlas  
Mr. Robert Miller, Haley & Aldrich



## REPORT OF LABORATORY ANALYSIS

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### CERTIFICATIONS

Project: Eagle Valley P1R1  
Pace Project No.: 50348745

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#### Pace Analytical Services Pennsylvania

1638 Roseytown Rd Suites 2,3&4, Greensburg, PA 15601  
ANAB DOD-ELAP Rad Accreditation #: L2417  
ANABISO/IEC 17025:2017 Rad Cert#: L24170  
Alabama Certification #: 41590  
Arizona Certification #: AZ0734  
Arkansas Certification  
California Certification #: 2950  
Colorado Certification #: PA01547  
Connecticut Certification #: PH-0694  
EPA Region 4 DW Rad  
Florida/TNI Certification #: E87683  
Georgia Certification #: C040  
Guam Certification  
Hawaii Certification  
Idaho Certification  
Illinois Certification  
Indiana Certification  
Iowa Certification #: 391  
Kansas Certification #: E-10358  
Kentucky Certification #: KY90133  
KY WW Permit #: KY0098221  
KY WW Permit #: KY0000221  
Louisiana DHH/TNI Certification #: LA010  
Louisiana DEQ/TNI Certification #: 04086  
Maine Certification #: 2023021  
Maryland Certification #: 308  
Massachusetts Certification #: M-PA1457  
Michigan/PADEP Certification #: 9991

Missouri Certification #: 235  
Montana Certification #: Cert0082  
Nebraska Certification #: NE-OS-29-14  
Nevada Certification #: PA014572023-03  
New Hampshire/TNI Certification #: 297622  
New Jersey/TNI Certification #: PA051  
New Mexico Certification #: PA01457  
New York/TNI Certification #: 10888  
North Carolina Certification #: 42706  
North Dakota Certification #: R-190  
Ohio EPA Rad Approval: #41249  
Oregon/TNI Certification #: PA200002-015  
Pennsylvania/TNI Certification #: 65-00282  
Puerto Rico Certification #: PA01457  
Rhode Island Certification #: 65-00282  
South Dakota Certification  
Tennessee Certification #: TN02867  
Texas/TNI Certification #: T104704188-22-18  
Utah/TNI Certification #: PA014572223-14  
USDA Soil Permit #: 525-23-67-77263  
Vermont Dept. of Health: ID# VT-0282  
Virgin Island/PADEP Certification  
Virginia/VELAP Certification #: 460198  
Washington Certification #: C868  
West Virginia DEP Certification #: 143  
West Virginia DHHR Certification #: 9964C  
Wisconsin Approve List for Rad

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#### Pace Analytical Services Indianapolis

7726 Moller Road, Indianapolis, IN 46268  
Illinois Accreditation #: 200074  
Indiana Drinking Water Laboratory #: C-49-06  
Kansas/TNI Certification #: E-10177  
Kentucky UST Agency Interest #: 80226  
Kentucky WW Laboratory ID #: 98019  
Michigan Drinking Water Laboratory #9050

Ohio VAP Certified Laboratory #: CL0065  
Oklahoma Laboratory #: 9204  
Texas Certification #: T104704355  
Wisconsin Laboratory #: 999788130  
USDA Foreign Soil Permit #: 525-23-13-23119  
USDA Compliance Agreement #: IN-SL-22-001

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### REPORT OF LABORATORY ANALYSIS

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### SAMPLE SUMMARY

Project: Eagle Valley P1R1

Pace Project No.: 50348745

Lab ID	Sample ID	Matrix	Date Collected	Date Received
50348745001	MW-3D	Water	07/06/23 12:30	07/07/23 08:04
50348745002	MW-12I	Water	07/06/23 11:20	07/07/23 08:04
50348745003	MW-12D	Water	07/06/23 10:00	07/07/23 08:04
50348745004	Dup-1	Water	07/06/23 08:00	07/07/23 08:04
50348745005	FB-1	Water	07/06/23 13:00	07/07/23 08:04
50348745006	MW-12D MS	Water	07/06/23 10:00	07/07/23 08:04
50348745007	MW-12D MSD	Water	07/06/23 10:00	07/07/23 08:04

### REPORT OF LABORATORY ANALYSIS

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**SAMPLE ANALYTE COUNT**

Project: Eagle Valley P1R1

Pace Project No.: 50348745

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory		
50348745001	MW-3D	EPA 9056	ADM	3	PASI-I		
		EPA 6010	DJS	10	PASI-I		
		EPA 6010	ELK	2	PASI-I		
		EPA 6020	DMT	11	PASI-I		
		EPA 7470	ILP	1	PASI-I		
		EPA 903.1	CLM	1	PASI-PA		
		EPA 904.0	ZPC	1	PASI-PA		
		Total Radium Calculation	JAL	1	PASI-PA		
		SM 2320B	DAW	3	PASI-I		
		SM 2540C	TRK	1	PASI-I		
		SM 4500-H+B	LHZ	1	PASI-I		
		SM 4500-S2-D	BEP	1	PASI-I		
		HACH 8146	BEP	1	PASI-I		
		EPA 353.2	DAW	2	PASI-I		
		EPA 365.1	YAM	1	PASI-I		
		SM 5310C	ATS	1	PASI-I		
		SM 5310C	ATS	1	PASI-I		
		50348745002	MW-12I	EPA 9056	ADM	3	PASI-I
				EPA 6010	DJS	10	PASI-I
				EPA 6010	ELK	2	PASI-I
EPA 6020	DMT			11	PASI-I		
EPA 7470	ILP			1	PASI-I		
EPA 903.1	CLM			1	PASI-PA		
EPA 904.0	ZPC			1	PASI-PA		
Total Radium Calculation	JAL			1	PASI-PA		
SM 2320B	DAW			3	PASI-I		
SM 2540C	TRK			1	PASI-I		
SM 4500-H+B	LHZ			1	PASI-I		
SM 4500-S2-D	BEP			1	PASI-I		
HACH 8146	BEP			1	PASI-I		
EPA 353.2	DAW			2	PASI-I		
EPA 365.1	YAM			1	PASI-I		
SM 5310C	ATS			1	PASI-I		
SM 5310C	ATS			1	PASI-I		
50348745003	MW-12D			EPA 9056	ADM	3	PASI-I
				EPA 6010	DJS	10	PASI-I
				EPA 6010	ELK	2	PASI-I

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**SAMPLE ANALYTE COUNT**

Project: Eagle Valley P1R1

Pace Project No.: 50348745

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
		EPA 6020	DMT	11	PASI-I
		EPA 7470	ILP	1	PASI-I
		EPA 903.1	CLM	1	PASI-PA
		EPA 904.0	ZPC	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
		SM 2320B	DAW	3	PASI-I
		SM 2540C	TRK	1	PASI-I
		SM 4500-H+B	LHZ	1	PASI-I
		SM 4500-S2-D	BEP	1	PASI-I
		HACH 8146	BEP	1	PASI-I
		EPA 353.2	DAW	2	PASI-I
		EPA 365.1	YAM	1	PASI-I
		SM 5310C	ATS	1	PASI-I
		SM 5310C	ATS	1	PASI-I
50348745004	Dup-1	EPA 9056	ADM	3	PASI-I
		EPA 6010	DJS	10	PASI-I
		EPA 6010	ELK	2	PASI-I
		EPA 6020	DMT	11	PASI-I
		EPA 7470	ILP	1	PASI-I
		EPA 903.1	CLM	1	PASI-PA
		EPA 904.0	ZPC	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
		SM 2320B	DAW	3	PASI-I
		SM 2540C	TRK	1	PASI-I
		SM 4500-H+B	LHZ	1	PASI-I
		SM 4500-S2-D	BEP	1	PASI-I
		HACH 8146	BEP	1	PASI-I
		EPA 353.2	DAW	2	PASI-I
		EPA 365.1	YAM	1	PASI-I
		SM 5310C	ATS	1	PASI-I
		SM 5310C	ATS	1	PASI-I
50348745005	FB-1	EPA 9056	ADM	3	PASI-I
		EPA 6010	DJS	10	PASI-I
		EPA 6020	DMT	11	PASI-I
		EPA 7470	ILP	1	PASI-I
		EPA 903.1	CLM	1	PASI-PA
		EPA 904.0	ZPC	1	PASI-PA

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### SAMPLE ANALYTE COUNT

Project: Eagle Valley P1R1

Pace Project No.: 50348745

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
		Total Radium Calculation	JAL	1	PASI-PA
		SM 2320B	DAW	3	PASI-I
		SM 2540C	TRK	1	PASI-I
		SM 4500-H+B	LHZ	1	PASI-I
		SM 4500-S2-D	BEP	1	PASI-I
		HACH 8146	BEP	1	PASI-I
		EPA 353.2	DAW	2	PASI-I
		EPA 365.1	YAM	1	PASI-I
		SM 5310C	ATS	1	PASI-I
50348745006	MW-12D MS	EPA 903.1	CLM	1	PASI-PA
		EPA 904.0	ZPC	1	PASI-PA
50348745007	MW-12D MSD	EPA 903.1	CLM	1	PASI-PA
		EPA 904.0	ZPC	1	PASI-PA

PASI-I = Pace Analytical Services - Indianapolis

PASI-PA = Pace Analytical Services - Greensburg

### REPORT OF LABORATORY ANALYSIS

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**SUMMARY OF DETECTION**

Project: Eagle Valley P1R1  
 Pace Project No.: 50348745

Lab Sample ID	Client Sample ID	Result	Units	Report Limit	Analyzed	Qualifiers
Method	Parameters					
<b>50348745001</b>	<b>MW-3D</b>					
EPA 9056	Chloride	82.4	mg/L	2.5	07/12/23 04:17	
EPA 9056	Fluoride	0.23	mg/L	0.10	07/12/23 04:00	
EPA 9056	Sulfate	54.2	mg/L	2.5	07/12/23 04:17	
EPA 6010	Aluminum	689	ug/L	200	07/11/23 15:16	
EPA 6010	Boron	180	ug/L	100	07/11/23 15:16	
EPA 6010	Calcium	88600	ug/L	1000	07/11/23 15:16	
EPA 6010	Iron	2310	ug/L	100	07/11/23 15:16	
EPA 6010	Magnesium	27100	ug/L	1000	07/11/23 15:16	
EPA 6010	Manganese	217	ug/L	10.0	07/11/23 15:16	
EPA 6010	Potassium	5700	ug/L	1000	07/11/23 15:16	
EPA 6010	Silica	14400	ug/L	450	07/11/23 15:16	N2
EPA 6010	Sodium	61800	ug/L	1000	07/11/23 15:16	
EPA 6010	Manganese, Dissolved	209	ug/L	10.0	07/11/23 11:03	
EPA 6010	Molybdenum, Dissolved	21.8	ug/L	10.0	07/11/23 11:03	
EPA 6020	Arsenic	4.8	ug/L	1.0	07/11/23 02:49	
EPA 6020	Barium	81.8	ug/L	1.0	07/11/23 02:49	
EPA 6020	Molybdenum	18.3	ug/L	10.0	07/11/23 02:49	
EPA 903.1	Radium-226	0.614 ± 0.516 (0.737)	pCi/L		07/24/23 13:25	
EPA 904.0	Radium-228	C:NA T:92% 1.64 ± 0.588 (0.868)	pCi/L		07/20/23 11:45	
		C:79% T:76%				
Total Radium Calculation	Total Radium	2.25 ± 1.10 (1.61)	pCi/L		07/25/23 11:52	
SM 2320B	Alkalinity, Total as CaCO3	272	mg/L	10.0	07/10/23 22:25	
SM 2320B	Alkalinity,Bicarbonate (CaCO3)	272	mg/L	10.0	07/10/23 22:25	
SM 2540C	Total Dissolved Solids	499	mg/L	10.0	07/11/23 13:35	
SM 4500-H+B	pH at 25 Degrees C	6.8	Std. Units	0.10	07/07/23 15:31	H3
HACH 8146	Iron, Ferrous	0.57	mg/L	0.20	07/11/23 14:38	H3,N2
SM 5310C	Total Organic Carbon	1.4	mg/L	1.0	07/10/23 14:28	
SM 5310C	Dissolved Organic Carbon	1.1	mg/L	1.0	07/08/23 04:52	
<b>50348745002</b>	<b>MW-12I</b>					
EPA 9056	Chloride	72.0	mg/L	2.5	07/12/23 05:09	
EPA 9056	Fluoride	0.27	mg/L	0.10	07/12/23 04:52	
EPA 9056	Sulfate	279	mg/L	2.5	07/12/23 05:09	
EPA 6010	Aluminum	994	ug/L	200	07/11/23 15:19	
EPA 6010	Boron	2280	ug/L	100	07/11/23 15:19	
EPA 6010	Calcium	153000	ug/L	1000	07/11/23 15:19	
EPA 6010	Iron	1800	ug/L	100	07/11/23 15:19	
EPA 6010	Lithium	114	ug/L	20.0	07/11/23 15:19	
EPA 6010	Magnesium	35400	ug/L	1000	07/11/23 15:19	
EPA 6010	Manganese	362	ug/L	10.0	07/11/23 15:19	
EPA 6010	Potassium	12800	ug/L	1000	07/11/23 15:19	
EPA 6010	Silica	13800	ug/L	450	07/11/23 15:19	N2

**REPORT OF LABORATORY ANALYSIS**

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**SUMMARY OF DETECTION**

Project: Eagle Valley P1R1  
 Pace Project No.: 50348745

Lab Sample ID	Client Sample ID	Result	Units	Report Limit	Analyzed	Qualifiers
Method	Parameters					
<b>50348745002</b>	<b>MW-12I</b>					
EPA 6010	Sodium	95900	ug/L	1000	07/11/23 15:19	
EPA 6010	Manganese, Dissolved	311	ug/L	10.0	07/11/23 11:05	
EPA 6010	Molybdenum, Dissolved	204	ug/L	10.0	07/11/23 11:05	
EPA 6020	Barium	93.5	ug/L	1.0	07/11/23 02:53	
EPA 6020	Cobalt	1.1	ug/L	1.0	07/11/23 02:53	
EPA 6020	Molybdenum	196	ug/L	10.0	07/11/23 02:53	
EPA 903.1	Radium-226	0.599 ± 0.572 (0.872)	pCi/L		07/24/23 13:25	
EPA 904.0	Radium-228	C:NA T:84% 1.19 ± 0.569 (0.945)	pCi/L		07/20/23 15:18	
		C:70% T:68%				
Total Radium Calculation	Total Radium	1.79 ± 1.14 (1.82)	pCi/L		07/25/23 11:52	
SM 2320B	Alkalinity, Total as CaCO3	318	mg/L	10.0	07/10/23 22:25	
SM 2320B	Alkalinity, Bicarbonate (CaCO3)	318	mg/L	10.0	07/10/23 22:25	
SM 2540C	Total Dissolved Solids	832	mg/L	20.0	07/11/23 13:36	
SM 4500-H+B	pH at 25 Degrees C	7.2	Std. Units	0.10	07/07/23 15:33	H3
SM 5310C	Total Organic Carbon	1.0	mg/L	1.0	07/10/23 14:39	
SM 5310C	Dissolved Organic Carbon	1.1	mg/L	1.0	07/08/23 05:03	
<b>50348745003</b>	<b>MW-12D</b>					
EPA 9056	Chloride	78.8	mg/L	2.5	07/12/23 05:44	
EPA 9056	Fluoride	0.25	mg/L	0.10	07/12/23 05:27	
EPA 9056	Sulfate	83.1	mg/L	2.5	07/12/23 05:44	
EPA 6010	Boron	1750	ug/L	100	07/11/23 15:21	
EPA 6010	Calcium	81900	ug/L	1000	07/11/23 15:21	
EPA 6010	Iron	570	ug/L	100	07/11/23 15:21	
EPA 6010	Lithium	76.4	ug/L	20.0	07/11/23 15:21	
EPA 6010	Magnesium	14800	ug/L	1000	07/11/23 15:21	
EPA 6010	Manganese	291	ug/L	10.0	07/11/23 15:21	
EPA 6010	Potassium	5880	ug/L	1000	07/11/23 15:21	
EPA 6010	Silica	12000	ug/L	450	07/11/23 15:21	N2
EPA 6010	Sodium	82900	ug/L	1000	07/11/23 15:21	
EPA 6010	Manganese, Dissolved	278	ug/L	10.0	07/11/23 11:07	
EPA 6010	Molybdenum, Dissolved	206	ug/L	10.0	07/11/23 11:07	
EPA 6020	Arsenic	3.1	ug/L	1.0	07/11/23 02:56	
EPA 6020	Barium	56.9	ug/L	1.0	07/11/23 02:56	
EPA 6020	Molybdenum	196	ug/L	20.0	07/11/23 03:42	
EPA 903.1	Radium-226	0.232 ± 0.426 (0.760)	pCi/L		07/24/23 13:25	
EPA 904.0	Radium-228	C:NA T:86% 0.482 ± 0.414 (0.830)	pCi/L		07/20/23 15:18	
		C:75% T:81%				

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**SUMMARY OF DETECTION**

Project: Eagle Valley P1R1  
 Pace Project No.: 50348745

Lab Sample ID	Client Sample ID	Result	Units	Report Limit	Analyzed	Qualifiers
Method	Parameters					
<b>50348745003</b>	<b>MW-12D</b>					
Total Radium Calculation	Total Radium	0.714 ± 0.840 (1.59)	pCi/L		07/25/23 11:52	
SM 2320B	Alkalinity, Total as CaCO3	221	mg/L	10.0	07/10/23 22:25	
SM 2320B	Alkalinity,Bicarbonate (CaCO3)	221	mg/L	10.0	07/10/23 22:25	
SM 2540C	Total Dissolved Solids	491	mg/L	10.0	07/11/23 13:36	
SM 4500-H+B	pH at 25 Degrees C	7.4	Std. Units	0.10	07/07/23 15:33	H3
HACH 8146	Iron, Ferrous	0.20	mg/L	0.20	07/11/23 14:34	H3,N2
SM 5310C	Total Organic Carbon	1.9	mg/L	1.0	07/10/23 15:25	
SM 5310C	Dissolved Organic Carbon	1.2	mg/L	1.0	07/08/23 05:14	
<b>50348745004</b>	<b>Dup-1</b>					
EPA 9056	Chloride	69.9	mg/L	2.5	07/12/23 09:12	
EPA 9056	Fluoride	0.27	mg/L	0.10	07/12/23 08:55	
EPA 9056	Sulfate	270	mg/L	2.5	07/12/23 09:12	
EPA 6010	Aluminum	405	ug/L	200	07/11/23 15:38	
EPA 6010	Boron	2340	ug/L	100	07/11/23 15:38	
EPA 6010	Calcium	147000	ug/L	1000	07/11/23 15:38	
EPA 6010	Iron	890	ug/L	100	07/11/23 15:38	
EPA 6010	Lithium	112	ug/L	20.0	07/11/23 15:38	
EPA 6010	Magnesium	33800	ug/L	1000	07/11/23 15:38	
EPA 6010	Manganese	337	ug/L	10.0	07/11/23 15:38	
EPA 6010	Potassium	12600	ug/L	1000	07/11/23 15:38	
EPA 6010	Silica	12700	ug/L	450	07/11/23 15:38	N2
EPA 6010	Sodium	97300	ug/L	1000	07/11/23 15:38	
EPA 6010	Manganese, Dissolved	311	ug/L	10.0	07/11/23 11:22	
EPA 6010	Molybdenum, Dissolved	204	ug/L	10.0	07/11/23 11:22	
EPA 6020	Barium	92.7	ug/L	1.0	07/11/23 03:26	
EPA 6020	Molybdenum	196	ug/L	10.0	07/11/23 03:26	
EPA 903.1	Radium-226	1.07 ± 0.672 (0.894)	pCi/L		07/24/23 13:25	
EPA 904.0	Radium-228	C:NA T:89% 0.789 ± 0.423 (0.749) C:82% T:81%	pCi/L		07/20/23 15:18	
Total Radium Calculation	Total Radium	1.86 ± 1.10 (1.64)	pCi/L		07/25/23 11:52	
SM 2320B	Alkalinity, Total as CaCO3	307	mg/L	10.0	07/10/23 22:25	
SM 2320B	Alkalinity,Bicarbonate (CaCO3)	307	mg/L	10.0	07/10/23 22:25	
SM 2540C	Total Dissolved Solids	836	mg/L	20.0	07/11/23 13:37	
SM 4500-H+B	pH at 25 Degrees C	7.4	Std. Units	0.10	07/07/23 15:35	H3
SM 5310C	Total Organic Carbon	1.2	mg/L	1.0	07/10/23 16:00	
SM 5310C	Dissolved Organic Carbon	1.3	mg/L	1.0	07/08/23 05:47	

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**SUMMARY OF DETECTION**

Project: Eagle Valley P1R1

Pace Project No.: 50348745

Lab Sample ID Method	Client Sample ID Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
<b>50348745005</b>	<b>FB-1</b>					
EPA 903.1	Radium-226	0.0581 ± 0.522 (1.01) C:NA T:91%	pCi/L		07/24/23 13:25	
EPA 904.0	Radium-228	0.245 ± 0.396 (0.859) C:80% T:73%	pCi/L		07/20/23 15:18	
Total Radium Calculation	Total Radium	0.303 ± 0.918 (1.87)	pCi/L		07/25/23 11:52	
SM 4500-H+B	pH at 25 Degrees C	8.4	Std. Units	0.10	07/07/23 15:35	H3
<b>50348745006</b>	<b>MW-12D MS</b>					
EPA 903.1	Radium-226	92.66 %REC ± NA (NA) C:NA T:NA	pCi/L		07/24/23 13:36	
EPA 904.0	Radium-228	97.55 %REC ± NA (NA) C:NA T:NA	pCi/L		07/20/23 15:18	
<b>50348745007</b>	<b>MW-12D MSD</b>					
EPA 903.1	Radium-226	106.32 %REC 13.73RPD ± NA (NA) C:NA T:NA	pCi/L		07/24/23 13:25	
EPA 904.0	Radium-228	85.44 %REC 13.23RPD ± NA (NA) C:NA T:NA	pCi/L		07/20/23 15:18	

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**ANALYTICAL RESULTS**

Project: Eagle Valley P1R1  
 Pace Project No.: 50348745

**Sample: MW-3D**      **Lab ID: 50348745001**      Collected: 07/06/23 12:30      Received: 07/07/23 08:04      Matrix: Water

Parameters	Results	Units	Report			Prepared	Analyzed	CAS No.	Qual
			Limit	MDL	DF				
<b>9056 IC Anions</b>									
Analytical Method: EPA 9056									
Pace Analytical Services - Indianapolis									
Chloride	82.4	mg/L	2.5	0.67	10		07/12/23 04:17	16887-00-6	
Fluoride	0.23	mg/L	0.10	0.017	1		07/12/23 04:00	16984-48-8	
Sulfate	54.2	mg/L	2.5	0.85	10		07/12/23 04:17	14808-79-8	
<b>6010 MET ICP</b>									
Analytical Method: EPA 6010      Preparation Method: EPA 3010									
Pace Analytical Services - Indianapolis									
Aluminum	689	ug/L	200	54.4	1	07/10/23 15:45	07/11/23 15:16	7429-90-5	
Boron	180	ug/L	100	61.4	1	07/10/23 15:45	07/11/23 15:16	7440-42-8	
Calcium	88600	ug/L	1000	88.4	1	07/10/23 15:45	07/11/23 15:16	7440-70-2	
Iron	2310	ug/L	100	48.8	1	07/10/23 15:45	07/11/23 15:16	7439-89-6	
Lithium	ND	ug/L	20.0	6.2	1	07/10/23 15:45	07/11/23 15:16	7439-93-2	
Magnesium	27100	ug/L	1000	43.0	1	07/10/23 15:45	07/11/23 15:16	7439-95-4	
Manganese	217	ug/L	10.0	5.4	1	07/10/23 15:45	07/11/23 15:16	7439-96-5	
Potassium	5700	ug/L	1000	200	1	07/10/23 15:45	07/11/23 15:16	7440-09-7	
Silica	14400	ug/L	450		1	07/10/23 15:45	07/11/23 15:16	7631-86-9	N2
Sodium	61800	ug/L	1000	284	1	07/10/23 15:45	07/11/23 15:16	7440-23-5	
<b>6010 MET ICP, Dissolved</b>									
Analytical Method: EPA 6010      Preparation Method: EPA 3010									
Pace Analytical Services - Indianapolis									
Manganese, Dissolved	209	ug/L	10.0	2.5	1	07/10/23 08:23	07/11/23 11:03	7439-96-5	
Molybdenum, Dissolved	21.8	ug/L	10.0	3.7	1	07/10/23 08:23	07/11/23 11:03	7439-98-7	
<b>6020 MET ICPMS</b>									
Analytical Method: EPA 6020      Preparation Method: EPA 200.2									
Pace Analytical Services - Indianapolis									
Antimony	ND	ug/L	1.0	0.044	1	07/10/23 08:20	07/11/23 02:49	7440-36-0	
Arsenic	4.8	ug/L	1.0	0.064	1	07/10/23 08:20	07/11/23 02:49	7440-38-2	
Barium	81.8	ug/L	1.0	0.067	1	07/10/23 08:20	07/11/23 02:49	7440-39-3	
Beryllium	ND	ug/L	0.20	0.026	1	07/10/23 08:20	07/11/23 02:49	7440-41-7	
Cadmium	ND	ug/L	2.0	0.011	1	07/10/23 08:20	07/11/23 02:49	7440-43-9	
Chromium	ND	ug/L	10.0	0.15	1	07/10/23 08:20	07/11/23 02:49	7440-47-3	
Cobalt	ND	ug/L	1.0	0.024	1	07/10/23 08:20	07/11/23 02:49	7440-48-4	
Lead	ND	ug/L	10.0	0.018	1	07/10/23 08:20	07/11/23 02:49	7439-92-1	
Molybdenum	18.3	ug/L	10.0	0.031	1	07/10/23 08:20	07/11/23 02:49	7439-98-7	
Selenium	ND	ug/L	1.0	0.23	1	07/10/23 08:20	07/11/23 02:49	7782-49-2	
Thallium	ND	ug/L	1.0	0.042	1	07/10/23 08:20	07/11/23 02:49	7440-28-0	
<b>7470 Mercury</b>									
Analytical Method: EPA 7470      Preparation Method: EPA 7470									
Pace Analytical Services - Indianapolis									
Mercury	ND	ug/L	0.20	0.12	1	07/11/23 19:45	07/12/23 10:02	7439-97-6	
<b>2320B Alkalinity</b>									
Analytical Method: SM 2320B									
Pace Analytical Services - Indianapolis									
Alkalinity, Total as CaCO3	272	mg/L	10.0	10.0	1		07/10/23 22:25		
Alkalinity,Bicarbonate (CaCO3)	272	mg/L	10.0	10.0	1		07/10/23 22:25		

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### ANALYTICAL RESULTS

Project: Eagle Valley P1R1

Pace Project No.: 50348745

Sample: MW-3D		Lab ID: 50348745001		Collected: 07/06/23 12:30	Received: 07/07/23 08:04	Matrix: Water			
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>2320B Alkalinity</b>		Analytical Method: SM 2320B Pace Analytical Services - Indianapolis							
Alkalinity, Carbonate (CaCO3)	ND	mg/L	10.0	10.0	1		07/10/23 22:25		
<b>2540C Total Dissolved Solids</b>		Analytical Method: SM 2540C Pace Analytical Services - Indianapolis							
Total Dissolved Solids	499	mg/L	10.0	10.0	1		07/11/23 13:35		
<b>4500H+ pH, Electrometric</b>		Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis							
pH at 25 Degrees C	6.8	Std. Units	0.10	0.10	1		07/07/23 15:31		H3
<b>4500S2D Sulfide Water</b>		Analytical Method: SM 4500-S2-D Pace Analytical Services - Indianapolis							
Sulfide	ND	mg/L	0.10	0.025	1		07/11/23 09:50	18496-25-8	
<b>Iron, Ferrous</b>		Analytical Method: HACH 8146 Pace Analytical Services - Indianapolis							
Iron, Ferrous	0.57	mg/L	0.20	0.035	1		07/11/23 14:38	15438-31-0	H3,N2
<b>353.2 Nitrogen, NO2/NO3 unpres</b>		Analytical Method: EPA 353.2 Pace Analytical Services - Indianapolis							
Nitrogen, Nitrate	ND	mg/L	0.10	0.011	1		07/07/23 21:42	14797-55-8	
Nitrogen, Nitrite	ND	mg/L	0.10	0.0040	1		07/07/23 21:42	14797-65-0	
<b>365.1 Total Phosphorus</b>		Analytical Method: EPA 365.1 Preparation Method: EPA 365.1 Pace Analytical Services - Indianapolis							
Phosphate as P04	ND	mg/L	0.15	0.15	1	07/10/23 11:00	07/14/23 10:53		
<b>5310C TOC</b>		Analytical Method: SM 5310C Pace Analytical Services - Indianapolis							
Total Organic Carbon	1.4	mg/L	1.0	0.24	1		07/10/23 14:28	7440-44-0	
<b>5310C Dissolved Organic Carbon</b>		Analytical Method: SM 5310C Pace Analytical Services - Indianapolis							
Dissolved Organic Carbon	1.1	mg/L	1.0	0.24	1		07/08/23 04:52		

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## ANALYTICAL RESULTS

Project: Eagle Valley P1R1

Pace Project No.: 50348745

Sample: MW-121 Lab ID: 50348745002 Collected: 07/06/23 11:20 Received: 07/07/23 08:04 Matrix: Water

Parameters	Results	Units	Report			Prepared	Analyzed	CAS No.	Qual
			Limit	MDL	DF				
<b>9056 IC Anions</b>									
Analytical Method: EPA 9056									
Pace Analytical Services - Indianapolis									
Chloride	72.0	mg/L	2.5	0.67	10		07/12/23 05:09	16887-00-6	
Fluoride	0.27	mg/L	0.10	0.017	1		07/12/23 04:52	16984-48-8	
Sulfate	279	mg/L	2.5	0.85	10		07/12/23 05:09	14808-79-8	
<b>6010 MET ICP</b>									
Analytical Method: EPA 6010 Preparation Method: EPA 3010									
Pace Analytical Services - Indianapolis									
Aluminum	994	ug/L	200	54.4	1	07/10/23 15:45	07/11/23 15:19	7429-90-5	
Boron	2280	ug/L	100	61.4	1	07/10/23 15:45	07/11/23 15:19	7440-42-8	
Calcium	153000	ug/L	1000	88.4	1	07/10/23 15:45	07/11/23 15:19	7440-70-2	
Iron	1800	ug/L	100	48.8	1	07/10/23 15:45	07/11/23 15:19	7439-89-6	
Lithium	114	ug/L	20.0	6.2	1	07/10/23 15:45	07/11/23 15:19	7439-93-2	
Magnesium	35400	ug/L	1000	43.0	1	07/10/23 15:45	07/11/23 15:19	7439-95-4	
Manganese	362	ug/L	10.0	5.4	1	07/10/23 15:45	07/11/23 15:19	7439-96-5	
Potassium	12800	ug/L	1000	200	1	07/10/23 15:45	07/11/23 15:19	7440-09-7	
Silica	13800	ug/L	450		1	07/10/23 15:45	07/11/23 15:19	7631-86-9	N2
Sodium	95900	ug/L	1000	284	1	07/10/23 15:45	07/11/23 15:19	7440-23-5	
<b>6010 MET ICP, Dissolved</b>									
Analytical Method: EPA 6010 Preparation Method: EPA 3010									
Pace Analytical Services - Indianapolis									
Manganese, Dissolved	311	ug/L	10.0	2.5	1	07/10/23 08:23	07/11/23 11:05	7439-96-5	
Molybdenum, Dissolved	204	ug/L	10.0	3.7	1	07/10/23 08:23	07/11/23 11:05	7439-98-7	
<b>6020 MET ICPMS</b>									
Analytical Method: EPA 6020 Preparation Method: EPA 200.2									
Pace Analytical Services - Indianapolis									
Antimony	ND	ug/L	1.0	0.044	1	07/10/23 08:20	07/11/23 02:53	7440-36-0	
Arsenic	ND	ug/L	1.0	0.064	1	07/10/23 08:20	07/11/23 02:53	7440-38-2	
Barium	93.5	ug/L	1.0	0.067	1	07/10/23 08:20	07/11/23 02:53	7440-39-3	
Beryllium	ND	ug/L	0.20	0.026	1	07/10/23 08:20	07/11/23 02:53	7440-41-7	
Cadmium	ND	ug/L	2.0	0.011	1	07/10/23 08:20	07/11/23 02:53	7440-43-9	
Chromium	ND	ug/L	10.0	0.15	1	07/10/23 08:20	07/11/23 02:53	7440-47-3	
Cobalt	1.1	ug/L	1.0	0.024	1	07/10/23 08:20	07/11/23 02:53	7440-48-4	
Lead	ND	ug/L	10.0	0.018	1	07/10/23 08:20	07/11/23 02:53	7439-92-1	
Molybdenum	196	ug/L	10.0	0.031	1	07/10/23 08:20	07/11/23 02:53	7439-98-7	
Selenium	ND	ug/L	1.0	0.23	1	07/10/23 08:20	07/11/23 02:53	7782-49-2	
Thallium	ND	ug/L	1.0	0.042	1	07/10/23 08:20	07/11/23 02:53	7440-28-0	
<b>7470 Mercury</b>									
Analytical Method: EPA 7470 Preparation Method: EPA 7470									
Pace Analytical Services - Indianapolis									
Mercury	ND	ug/L	0.20	0.12	1	07/11/23 19:45	07/12/23 10:05	7439-97-6	
<b>2320B Alkalinity</b>									
Analytical Method: SM 2320B									
Pace Analytical Services - Indianapolis									
Alkalinity, Total as CaCO3	318	mg/L	10.0	10.0	1		07/10/23 22:25		
Alkalinity,Bicarbonate (CaCO3)	318	mg/L	10.0	10.0	1		07/10/23 22:25		

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### ANALYTICAL RESULTS

Project: Eagle Valley P1R1  
 Pace Project No.: 50348745

Sample: MW-12I		Lab ID: 50348745002		Collected: 07/06/23 11:20	Received: 07/07/23 08:04	Matrix: Water			
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>2320B Alkalinity</b>									
Analytical Method: SM 2320B Pace Analytical Services - Indianapolis									
Alkalinity, Carbonate (CaCO3)	ND	mg/L	10.0	10.0	1		07/10/23 22:25		
<b>2540C Total Dissolved Solids</b>									
Analytical Method: SM 2540C Pace Analytical Services - Indianapolis									
Total Dissolved Solids	<b>832</b>	mg/L	20.0	20.0	1		07/11/23 13:36		
<b>4500H+ pH, Electrometric</b>									
Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis									
pH at 25 Degrees C	<b>7.2</b>	Std. Units	0.10	0.10	1		07/07/23 15:33		H3
<b>4500S2D Sulfide Water</b>									
Analytical Method: SM 4500-S2-D Pace Analytical Services - Indianapolis									
Sulfide	ND	mg/L	0.10	0.025	1		07/11/23 09:50	18496-25-8	
<b>Iron, Ferrous</b>									
Analytical Method: HACH 8146 Pace Analytical Services - Indianapolis									
Iron, Ferrous	ND	mg/L	0.20	0.035	1		07/11/23 14:38	15438-31-0	H3,N2
<b>353.2 Nitrogen, NO2/NO3 unpres</b>									
Analytical Method: EPA 353.2 Pace Analytical Services - Indianapolis									
Nitrogen, Nitrate	ND	mg/L	0.10	0.011	1		07/07/23 21:40	14797-55-8	
Nitrogen, Nitrite	ND	mg/L	0.10	0.0040	1		07/07/23 21:40	14797-65-0	
<b>365.1 Total Phosphorus</b>									
Analytical Method: EPA 365.1 Preparation Method: EPA 365.1 Pace Analytical Services - Indianapolis									
Phosphate as P04	ND	mg/L	0.15	0.15	1	07/10/23 11:00	07/14/23 10:54		
<b>5310C TOC</b>									
Analytical Method: SM 5310C Pace Analytical Services - Indianapolis									
Total Organic Carbon	<b>1.0</b>	mg/L	1.0	0.24	1		07/10/23 14:39	7440-44-0	
<b>5310C Dissolved Organic Carbon</b>									
Analytical Method: SM 5310C Pace Analytical Services - Indianapolis									
Dissolved Organic Carbon	<b>1.1</b>	mg/L	1.0	0.24	1		07/08/23 05:03		

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**ANALYTICAL RESULTS**

Project: Eagle Valley P1R1  
 Pace Project No.: 50348745

**Sample: MW-12D**      **Lab ID: 50348745003**      Collected: 07/06/23 10:00      Received: 07/07/23 08:04      Matrix: Water

Parameters	Results	Units	Report			Prepared	Analyzed	CAS No.	Qual
			Limit	MDL	DF				

**9056 IC Anions**

Analytical Method: EPA 9056  
 Pace Analytical Services - Indianapolis

Chloride	<b>78.8</b>	mg/L	2.5	0.67	10		07/12/23 05:44	16887-00-6	
Fluoride	<b>0.25</b>	mg/L	0.10	0.017	1		07/12/23 05:27	16984-48-8	
Sulfate	<b>83.1</b>	mg/L	2.5	0.85	10		07/12/23 05:44	14808-79-8	

**6010 MET ICP**

Analytical Method: EPA 6010      Preparation Method: EPA 3010  
 Pace Analytical Services - Indianapolis

Aluminum	ND	ug/L	200	54.4	1	07/10/23 15:45	07/11/23 15:21	7429-90-5	
Boron	<b>1750</b>	ug/L	100	61.4	1	07/10/23 15:45	07/11/23 15:21	7440-42-8	
Calcium	<b>81900</b>	ug/L	1000	88.4	1	07/10/23 15:45	07/11/23 15:21	7440-70-2	
Iron	<b>570</b>	ug/L	100	48.8	1	07/10/23 15:45	07/11/23 15:21	7439-89-6	
Lithium	<b>76.4</b>	ug/L	20.0	6.2	1	07/10/23 15:45	07/11/23 15:21	7439-93-2	
Magnesium	<b>14800</b>	ug/L	1000	43.0	1	07/10/23 15:45	07/11/23 15:21	7439-95-4	
Manganese	<b>291</b>	ug/L	10.0	5.4	1	07/10/23 15:45	07/11/23 15:21	7439-96-5	
Potassium	<b>5880</b>	ug/L	1000	200	1	07/10/23 15:45	07/11/23 15:21	7440-09-7	
Silica	<b>12000</b>	ug/L	450		1	07/10/23 15:45	07/11/23 15:21	7631-86-9	N2
Sodium	<b>82900</b>	ug/L	1000	284	1	07/10/23 15:45	07/11/23 15:21	7440-23-5	

**6010 MET ICP, Dissolved**

Analytical Method: EPA 6010      Preparation Method: EPA 3010  
 Pace Analytical Services - Indianapolis

Manganese, Dissolved	<b>278</b>	ug/L	10.0	2.5	1	07/10/23 08:23	07/11/23 11:07	7439-96-5	
Molybdenum, Dissolved	<b>206</b>	ug/L	10.0	3.7	1	07/10/23 08:23	07/11/23 11:07	7439-98-7	

**6020 MET ICPMS**

Analytical Method: EPA 6020      Preparation Method: EPA 200.2  
 Pace Analytical Services - Indianapolis

Antimony	ND	ug/L	1.0	0.044	1	07/10/23 08:20	07/11/23 02:56	7440-36-0	
Arsenic	<b>3.1</b>	ug/L	1.0	0.064	1	07/10/23 08:20	07/11/23 02:56	7440-38-2	
Barium	<b>56.9</b>	ug/L	1.0	0.067	1	07/10/23 08:20	07/11/23 02:56	7440-39-3	
Beryllium	ND	ug/L	0.20	0.026	1	07/10/23 08:20	07/11/23 02:56	7440-41-7	
Cadmium	ND	ug/L	2.0	0.011	1	07/10/23 08:20	07/11/23 02:56	7440-43-9	
Chromium	ND	ug/L	10.0	0.15	1	07/10/23 08:20	07/11/23 02:56	7440-47-3	
Cobalt	ND	ug/L	1.0	0.024	1	07/10/23 08:20	07/11/23 02:56	7440-48-4	
Lead	ND	ug/L	10.0	0.018	1	07/10/23 08:20	07/11/23 02:56	7439-92-1	
Molybdenum	<b>196</b>	ug/L	20.0	0.062	2	07/10/23 08:20	07/11/23 03:42	7439-98-7	
Selenium	ND	ug/L	1.0	0.23	1	07/10/23 08:20	07/11/23 02:56	7782-49-2	
Thallium	ND	ug/L	1.0	0.042	1	07/10/23 08:20	07/11/23 02:56	7440-28-0	

**7470 Mercury**

Analytical Method: EPA 7470      Preparation Method: EPA 7470  
 Pace Analytical Services - Indianapolis

Mercury	ND	ug/L	0.20	0.12	1	07/11/23 19:45	07/12/23 10:07	7439-97-6	
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**2320B Alkalinity**

Analytical Method: SM 2320B  
 Pace Analytical Services - Indianapolis

Alkalinity, Total as CaCO3	<b>221</b>	mg/L	10.0	10.0	1		07/10/23 22:25		
Alkalinity,Bicarbonate (CaCO3)	<b>221</b>	mg/L	10.0	10.0	1		07/10/23 22:25		

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### ANALYTICAL RESULTS

Project: Eagle Valley P1R1

Pace Project No.: 50348745

Sample: MW-12D		Lab ID: 50348745003		Collected: 07/06/23 10:00	Received: 07/07/23 08:04	Matrix: Water			
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>2320B Alkalinity</b>									
Analytical Method: SM 2320B									
Pace Analytical Services - Indianapolis									
Alkalinity, Carbonate (CaCO3)	ND	mg/L	10.0	10.0	1		07/10/23 22:25		
<b>2540C Total Dissolved Solids</b>									
Analytical Method: SM 2540C									
Pace Analytical Services - Indianapolis									
Total Dissolved Solids	491	mg/L	10.0	10.0	1		07/11/23 13:36		
<b>4500H+ pH, Electrometric</b>									
Analytical Method: SM 4500-H+B									
Pace Analytical Services - Indianapolis									
pH at 25 Degrees C	7.4	Std. Units	0.10	0.10	1		07/07/23 15:33		H3
<b>4500S2D Sulfide Water</b>									
Analytical Method: SM 4500-S2-D									
Pace Analytical Services - Indianapolis									
Sulfide	ND	mg/L	0.10	0.025	1		07/11/23 09:50	18496-25-8	
<b>Iron, Ferrous</b>									
Analytical Method: HACH 8146									
Pace Analytical Services - Indianapolis									
Iron, Ferrous	0.20	mg/L	0.20	0.035	1		07/11/23 14:34	15438-31-0	H3,N2
<b>353.2 Nitrogen, NO2/NO3 unpres</b>									
Analytical Method: EPA 353.2									
Pace Analytical Services - Indianapolis									
Nitrogen, Nitrate	ND	mg/L	0.10	0.011	1		07/07/23 21:31	14797-55-8	
Nitrogen, Nitrite	ND	mg/L	0.10	0.0040	1		07/07/23 21:31	14797-65-0	
<b>365.1 Total Phosphorus</b>									
Analytical Method: EPA 365.1 Preparation Method: EPA 365.1									
Pace Analytical Services - Indianapolis									
Phosphate as P04	ND	mg/L	0.15	0.15	1	07/10/23 11:00	07/14/23 10:54		
<b>5310C TOC</b>									
Analytical Method: SM 5310C									
Pace Analytical Services - Indianapolis									
Total Organic Carbon	1.9	mg/L	1.0	0.24	1		07/10/23 15:25	7440-44-0	
<b>5310C Dissolved Organic Carbon</b>									
Analytical Method: SM 5310C									
Pace Analytical Services - Indianapolis									
Dissolved Organic Carbon	1.2	mg/L	1.0	0.24	1		07/08/23 05:14		

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## ANALYTICAL RESULTS

Project: Eagle Valley P1R1

Pace Project No.: 50348745

Sample: Dup-1 Lab ID: 50348745004 Collected: 07/06/23 08:00 Received: 07/07/23 08:04 Matrix: Water

Parameters	Results	Units	Report			Prepared	Analyzed	CAS No.	Qual
			Limit	MDL	DF				
<b>9056 IC Anions</b>									
Analytical Method: EPA 9056									
Pace Analytical Services - Indianapolis									
Chloride	69.9	mg/L	2.5	0.67	10		07/12/23 09:12	16887-00-6	
Fluoride	0.27	mg/L	0.10	0.017	1		07/12/23 08:55	16984-48-8	
Sulfate	270	mg/L	2.5	0.85	10		07/12/23 09:12	14808-79-8	
<b>6010 MET ICP</b>									
Analytical Method: EPA 6010 Preparation Method: EPA 3010									
Pace Analytical Services - Indianapolis									
Aluminum	405	ug/L	200	54.4	1	07/10/23 15:45	07/11/23 15:38	7429-90-5	
Boron	2340	ug/L	100	61.4	1	07/10/23 15:45	07/11/23 15:38	7440-42-8	
Calcium	147000	ug/L	1000	88.4	1	07/10/23 15:45	07/11/23 15:38	7440-70-2	
Iron	890	ug/L	100	48.8	1	07/10/23 15:45	07/11/23 15:38	7439-89-6	
Lithium	112	ug/L	20.0	6.2	1	07/10/23 15:45	07/11/23 15:38	7439-93-2	
Magnesium	33800	ug/L	1000	43.0	1	07/10/23 15:45	07/11/23 15:38	7439-95-4	
Manganese	337	ug/L	10.0	5.4	1	07/10/23 15:45	07/11/23 15:38	7439-96-5	
Potassium	12600	ug/L	1000	200	1	07/10/23 15:45	07/11/23 15:38	7440-09-7	
Silica	12700	ug/L	450		1	07/10/23 15:45	07/11/23 15:38	7631-86-9	N2
Sodium	97300	ug/L	1000	284	1	07/10/23 15:45	07/11/23 15:38	7440-23-5	
<b>6010 MET ICP, Dissolved</b>									
Analytical Method: EPA 6010 Preparation Method: EPA 3010									
Pace Analytical Services - Indianapolis									
Manganese, Dissolved	311	ug/L	10.0	2.5	1	07/10/23 08:23	07/11/23 11:22	7439-96-5	
Molybdenum, Dissolved	204	ug/L	10.0	3.7	1	07/10/23 08:23	07/11/23 11:22	7439-98-7	
<b>6020 MET ICPMS</b>									
Analytical Method: EPA 6020 Preparation Method: EPA 200.2									
Pace Analytical Services - Indianapolis									
Antimony	ND	ug/L	1.0	0.044	1	07/10/23 08:20	07/11/23 03:26	7440-36-0	
Arsenic	ND	ug/L	1.0	0.064	1	07/10/23 08:20	07/11/23 03:26	7440-38-2	
Barium	92.7	ug/L	1.0	0.067	1	07/10/23 08:20	07/11/23 03:26	7440-39-3	
Beryllium	ND	ug/L	0.20	0.026	1	07/10/23 08:20	07/11/23 03:26	7440-41-7	
Cadmium	ND	ug/L	2.0	0.011	1	07/10/23 08:20	07/11/23 03:26	7440-43-9	
Chromium	ND	ug/L	10.0	0.15	1	07/10/23 08:20	07/11/23 03:26	7440-47-3	
Cobalt	ND	ug/L	1.0	0.024	1	07/10/23 08:20	07/11/23 03:26	7440-48-4	
Lead	ND	ug/L	10.0	0.018	1	07/10/23 08:20	07/11/23 03:26	7439-92-1	
Molybdenum	196	ug/L	10.0	0.031	1	07/10/23 08:20	07/11/23 03:26	7439-98-7	
Selenium	ND	ug/L	1.0	0.23	1	07/10/23 08:20	07/11/23 03:26	7782-49-2	
Thallium	ND	ug/L	1.0	0.042	1	07/10/23 08:20	07/11/23 03:26	7440-28-0	
<b>7470 Mercury</b>									
Analytical Method: EPA 7470 Preparation Method: EPA 7470									
Pace Analytical Services - Indianapolis									
Mercury	ND	ug/L	0.20	0.12	1	07/11/23 19:45	07/12/23 10:14	7439-97-6	
<b>2320B Alkalinity</b>									
Analytical Method: SM 2320B									
Pace Analytical Services - Indianapolis									
Alkalinity, Total as CaCO3	307	mg/L	10.0	10.0	1		07/10/23 22:25		
Alkalinity,Bicarbonate (CaCO3)	307	mg/L	10.0	10.0	1		07/10/23 22:25		

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**ANALYTICAL RESULTS**

Project: Eagle Valley P1R1  
 Pace Project No.: 50348745

Sample: Dup-1      Lab ID: 50348745004      Collected: 07/06/23 08:00      Received: 07/07/23 08:04      Matrix: Water									
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>2320B Alkalinity</b>									
Analytical Method: SM 2320B Pace Analytical Services - Indianapolis									
Alkalinity, Carbonate (CaCO3)	ND	mg/L	10.0	10.0	1		07/10/23 22:25		
<b>2540C Total Dissolved Solids</b>									
Analytical Method: SM 2540C Pace Analytical Services - Indianapolis									
Total Dissolved Solids	836	mg/L	20.0	20.0	1		07/11/23 13:37		
<b>4500H+ pH, Electrometric</b>									
Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis									
pH at 25 Degrees C	7.4	Std. Units	0.10	0.10	1		07/07/23 15:35		H3
<b>4500S2D Sulfide Water</b>									
Analytical Method: SM 4500-S2-D Pace Analytical Services - Indianapolis									
Sulfide	ND	mg/L	0.10	0.025	1		07/11/23 09:50	18496-25-8	
<b>Iron, Ferrous</b>									
Analytical Method: HACH 8146 Pace Analytical Services - Indianapolis									
Iron, Ferrous	ND	mg/L	0.20	0.035	1		07/11/23 14:33	15438-31-0	H3,N2
<b>353.2 Nitrogen, NO2/NO3 unpres</b>									
Analytical Method: EPA 353.2 Pace Analytical Services - Indianapolis									
Nitrogen, Nitrate	ND	mg/L	0.10	0.011	1		07/07/23 21:29	14797-55-8	
Nitrogen, Nitrite	ND	mg/L	0.10	0.0040	1		07/07/23 21:29	14797-65-0	
<b>365.1 Total Phosphorus</b>									
Analytical Method: EPA 365.1      Preparation Method: EPA 365.1 Pace Analytical Services - Indianapolis									
Phosphate as P04	ND	mg/L	0.15	0.15	1	07/10/23 11:00	07/14/23 10:57		
<b>5310C TOC</b>									
Analytical Method: SM 5310C Pace Analytical Services - Indianapolis									
Total Organic Carbon	1.2	mg/L	1.0	0.24	1		07/10/23 16:00	7440-44-0	
<b>5310C Dissolved Organic Carbon</b>									
Analytical Method: SM 5310C Pace Analytical Services - Indianapolis									
Dissolved Organic Carbon	1.3	mg/L	1.0	0.24	1		07/08/23 05:47		

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**ANALYTICAL RESULTS**

Project: Eagle Valley P1R1

Pace Project No.: 50348745

**Sample: FB-1**      **Lab ID: 50348745005**      Collected: 07/06/23 13:00      Received: 07/07/23 08:04      Matrix: Water

Parameters	Results	Units	Report			Prepared	Analyzed	CAS No.	Qual
			Limit	MDL	DF				
<b>9056 IC Anions</b>									
Analytical Method: EPA 9056									
Pace Analytical Services - Indianapolis									
Chloride	ND	mg/L	0.25	0.067	1		07/13/23 00:02	16887-00-6	
Fluoride	ND	mg/L	0.10	0.017	1		07/13/23 00:02	16984-48-8	
Sulfate	ND	mg/L	0.25	0.085	1		07/13/23 00:02	14808-79-8	
<b>6010 MET ICP</b>									
Analytical Method: EPA 6010      Preparation Method: EPA 3010									
Pace Analytical Services - Indianapolis									
Aluminum	ND	ug/L	200	54.4	1	07/10/23 15:45	07/11/23 15:40	7429-90-5	
Boron	ND	ug/L	100	61.4	1	07/10/23 15:45	07/11/23 15:40	7440-42-8	
Calcium	ND	ug/L	1000	88.4	1	07/10/23 15:45	07/11/23 15:40	7440-70-2	
Iron	ND	ug/L	100	48.8	1	07/10/23 15:45	07/11/23 15:40	7439-89-6	
Lithium	ND	ug/L	20.0	6.2	1	07/10/23 15:45	07/11/23 15:40	7439-93-2	
Magnesium	ND	ug/L	1000	43.0	1	07/10/23 15:45	07/11/23 15:40	7439-95-4	
Manganese	ND	ug/L	10.0	5.4	1	07/10/23 15:45	07/11/23 15:40	7439-96-5	
Potassium	ND	ug/L	1000	200	1	07/10/23 15:45	07/11/23 15:40	7440-09-7	
Silica	ND	ug/L	450		1	07/10/23 15:45	07/11/23 15:40	7631-86-9	N2
Sodium	ND	ug/L	1000	284	1	07/10/23 15:45	07/11/23 15:40	7440-23-5	
<b>6020 MET ICPMS</b>									
Analytical Method: EPA 6020      Preparation Method: EPA 200.2									
Pace Analytical Services - Indianapolis									
Antimony	ND	ug/L	1.0	0.044	1	07/10/23 08:20	07/11/23 03:29	7440-36-0	
Arsenic	ND	ug/L	1.0	0.064	1	07/10/23 08:20	07/11/23 03:29	7440-38-2	
Barium	ND	ug/L	1.0	0.067	1	07/10/23 08:20	07/11/23 03:29	7440-39-3	
Beryllium	ND	ug/L	0.20	0.026	1	07/10/23 08:20	07/11/23 03:29	7440-41-7	
Cadmium	ND	ug/L	2.0	0.011	1	07/10/23 08:20	07/11/23 03:29	7440-43-9	
Chromium	ND	ug/L	10.0	0.15	1	07/10/23 08:20	07/11/23 03:29	7440-47-3	
Cobalt	ND	ug/L	1.0	0.024	1	07/10/23 08:20	07/11/23 03:29	7440-48-4	
Lead	ND	ug/L	10.0	0.018	1	07/10/23 08:20	07/11/23 03:29	7439-92-1	
Molybdenum	ND	ug/L	10.0	0.031	1	07/10/23 08:20	07/11/23 03:29	7439-98-7	
Selenium	ND	ug/L	1.0	0.23	1	07/10/23 08:20	07/11/23 03:29	7782-49-2	
Thallium	ND	ug/L	1.0	0.042	1	07/10/23 08:20	07/11/23 03:29	7440-28-0	
<b>7470 Mercury</b>									
Analytical Method: EPA 7470      Preparation Method: EPA 7470									
Pace Analytical Services - Indianapolis									
Mercury	ND	ug/L	0.20	0.12	1	07/11/23 19:45	07/12/23 10:17	7439-97-6	
<b>2320B Alkalinity</b>									
Analytical Method: SM 2320B									
Pace Analytical Services - Indianapolis									
Alkalinity, Total as CaCO3	ND	mg/L	10.0	10.0	1		07/10/23 22:25		
Alkalinity,Bicarbonate (CaCO3)	ND	mg/L	10.0	10.0	1		07/10/23 22:25		
Alkalinity,Carbonate (CaCO3)	ND	mg/L	10.0	10.0	1		07/10/23 22:25		
<b>2540C Total Dissolved Solids</b>									
Analytical Method: SM 2540C									
Pace Analytical Services - Indianapolis									
Total Dissolved Solids	ND	mg/L	10.0	10.0	1		07/11/23 13:37		PL

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### ANALYTICAL RESULTS

Project: Eagle Valley P1R1

Pace Project No.: 50348745

Sample: FB-1		Lab ID: 50348745005		Collected: 07/06/23 13:00	Received: 07/07/23 08:04	Matrix: Water			
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>4500H+ pH, Electrometric</b>		Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis							
pH at 25 Degrees C	8.4	Std. Units	0.10	0.10	1		07/07/23 15:35		H3
<b>4500S2D Sulfide Water</b>		Analytical Method: SM 4500-S2-D Pace Analytical Services - Indianapolis							
Sulfide	ND	mg/L	0.10	0.025	1		07/11/23 09:50	18496-25-8	
<b>Iron, Ferrous</b>		Analytical Method: HACH 8146 Pace Analytical Services - Indianapolis							
Iron, Ferrous	ND	mg/L	0.20	0.035	1		07/11/23 14:39	15438-31-0	H3,N2
<b>353.2 Nitrogen, NO2/NO3 unpres</b>		Analytical Method: EPA 353.2 Pace Analytical Services - Indianapolis							
Nitrogen, Nitrate	ND	mg/L	0.10	0.011	1		07/07/23 21:44	14797-55-8	
Nitrogen, Nitrite	ND	mg/L	0.10	0.0040	1		07/07/23 21:44	14797-65-0	
<b>365.1 Total Phosphorus</b>		Analytical Method: EPA 365.1 Preparation Method: EPA 365.1 Pace Analytical Services - Indianapolis							
Phosphate as P04	ND	mg/L	0.15	0.15	1	07/10/23 11:00	07/14/23 10:58		
<b>5310C TOC</b>		Analytical Method: SM 5310C Pace Analytical Services - Indianapolis							
Total Organic Carbon	ND	mg/L	1.0	0.24	1		07/10/23 16:10	7440-44-0	

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**QUALITY CONTROL DATA**

Project: Eagle Valley P1R1

Pace Project No.: 50348745

QC Batch:	742893	Analysis Method:	EPA 9056
QC Batch Method:	EPA 9056	Analysis Description:	9056 IC Anions
		Laboratory:	Pace Analytical Services - Indianapolis

Associated Lab Samples: 50348745001, 50348745002, 50348745003, 50348745004, 50348745005

METHOD BLANK: 3406717 Matrix: Water  
 Associated Lab Samples: 50348745001, 50348745002, 50348745003, 50348745004, 50348745005

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chloride	mg/L	ND	0.25	0.067	07/11/23 18:10	
Fluoride	mg/L	ND	0.10	0.017	07/11/23 18:10	
Sulfate	mg/L	ND	0.25	0.085	07/11/23 18:10	

LABORATORY CONTROL SAMPLE: 3406718

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	2.5	2.5	101	80-120	
Fluoride	mg/L	1	1.0	100	80-120	
Sulfate	mg/L	5	4.9	97	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3406719 3406720

Parameter	Units	MS		MSD		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		50348745003 Result	Spike Conc.	Spike Conc.	Result								
Chloride	mg/L	78.8	25	25	101	101	90	89	80-120	0	15		
Fluoride	mg/L	0.25	1	1	1.2	1.2	97	97	80-120	0	15		
Sulfate	mg/L	83.1	50	50	129	129	92	92	80-120	0	15		

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**QUALITY CONTROL DATA**

Project: Eagle Valley P1R1

Pace Project No.: 50348745

QC Batch:	743195	Analysis Method:	EPA 7470
QC Batch Method:	EPA 7470	Analysis Description:	7470 Mercury
		Laboratory:	Pace Analytical Services - Indianapolis

Associated Lab Samples: 50348745001, 50348745002, 50348745003, 50348745004, 50348745005

METHOD BLANK: 3407766 Matrix: Water  
 Associated Lab Samples: 50348745001, 50348745002, 50348745003, 50348745004, 50348745005

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Mercury	ug/L	ND	0.20	0.12	07/12/23 09:13	

LABORATORY CONTROL SAMPLE: 3407767

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury	ug/L	5	5.0	101	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3407768 3407769

Parameter	Units	50348496006 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Mercury	ug/L	ND	5	5	5.0	5.0	100	100	75-125	1	20	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3407770 3407771

Parameter	Units	50348745003 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Mercury	ug/L	ND	5	5	4.9	4.9	98	98	75-125	0	20	

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**QUALITY CONTROL DATA**

Project: Eagle Valley P1R1  
Pace Project No.: 50348745

QC Batch: 742733 Analysis Method: EPA 6010  
QC Batch Method: EPA 3010 Analysis Description: 6010 MET  
Laboratory: Pace Analytical Services - Indianapolis  
Associated Lab Samples: 50348745001, 50348745002, 50348745003, 50348745004, 50348745005

METHOD BLANK: 3406251 Matrix: Water  
Associated Lab Samples: 50348745001, 50348745002, 50348745003, 50348745004, 50348745005

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Aluminum	ug/L	ND	200	54.4	07/11/23 14:43	
Boron	ug/L	ND	100	61.4	07/11/23 14:43	
Calcium	ug/L	ND	1000	88.4	07/11/23 14:43	
Iron	ug/L	ND	100	48.8	07/11/23 14:43	
Lithium	ug/L	ND	20.0	6.2	07/11/23 14:43	
Magnesium	ug/L	ND	1000	43.0	07/11/23 14:43	
Manganese	ug/L	ND	10.0	5.4	07/11/23 14:43	
Potassium	ug/L	ND	1000	200	07/11/23 14:43	
Silica	ug/L	ND	450		07/11/23 14:43	N2
Sodium	ug/L	ND	1000	284	07/11/23 14:43	

LABORATORY CONTROL SAMPLE: 3406252

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Aluminum	ug/L	10000	10200	102	80-120	
Boron	ug/L	1000	1000	100	80-120	
Calcium	ug/L	10000	10400	104	80-120	
Iron	ug/L	10000	10400	104	80-120	
Lithium	ug/L	1000	1010	101	80-120	
Magnesium	ug/L	10000	10200	102	80-120	
Manganese	ug/L	1000	1000	100	80-120	
Potassium	ug/L	10000	9870	99	80-120	
Silica	ug/L	10700	10900	102	80-120	N2
Sodium	ug/L	10000	10100	101	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3406253 3406254

Parameter	Units	MS		MSD		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual	
		50348745003 Result	Spike Conc.	Spike Conc.	MS Result							MSD Result
Aluminum	ug/L	ND	10000	10000	10100	10000	100	99	75-125	1	20	
Boron	ug/L	1750	1000	1000	2760	2740	100	99	75-125	1	20	
Calcium	ug/L	81900	10000	10000	91100	91300	92	94	75-125	0	20	
Iron	ug/L	570	10000	10000	10700	10600	101	100	75-125	1	20	
Lithium	ug/L	76.4	1000	1000	1110	1100	104	103	75-125	1	20	
Magnesium	ug/L	14800	10000	10000	24600	24500	98	97	75-125	0	20	
Manganese	ug/L	291	1000	1000	1270	1260	98	97	75-125	1	20	
Potassium	ug/L	5880	10000	10000	16400	16300	105	104	75-125	1	20	

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### QUALITY CONTROL DATA

Project: Eagle Valley P1R1

Pace Project No.: 50348745

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3406253												3406254	
Parameter	Units	50348745003 Result	MS	MSD	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max	Qual	
			Spike Conc.	Spike Conc.							RPD		
Silica	ug/L	12000	10700	10700	22900	22900	102	102	75-125	0	20	N2	
Sodium	ug/L	82900	10000	10000	93000	92500	101	97	75-125	0	20		

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**QUALITY CONTROL DATA**

Project: Eagle Valley P1R1

Pace Project No.: 50348745

QC Batch:	742728	Analysis Method:	EPA 6010
QC Batch Method:	EPA 3010	Analysis Description:	6010 MET Dissolved
		Laboratory:	Pace Analytical Services - Indianapolis

Associated Lab Samples: 50348745001, 50348745002, 50348745003, 50348745004

METHOD BLANK: 3406235 Matrix: Water  
 Associated Lab Samples: 50348745001, 50348745002, 50348745003, 50348745004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Manganese, Dissolved	ug/L	ND	10.0	2.5	07/11/23 10:37	
Molybdenum, Dissolved	ug/L	ND	10.0	3.7	07/11/23 10:37	

LABORATORY CONTROL SAMPLE: 3406236

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Manganese, Dissolved	ug/L	1000	975	97	80-120	
Molybdenum, Dissolved	ug/L	1000	1040	104	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3406237 3406238

Parameter	Units	50348745003 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Manganese, Dissolved	ug/L	278	1000	1000	1240	1250	96	97	75-125	1	20	
Molybdenum, Dissolved	ug/L	206	1000	1000	1230	1250	102	105	75-125	2	20	

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**QUALITY CONTROL DATA**

Project: Eagle Valley P1R1  
 Pace Project No.: 50348745

QC Batch: 742775 Analysis Method: EPA 6020  
 QC Batch Method: EPA 200.2 Analysis Description: 6020 MET  
 Laboratory: Pace Analytical Services - Indianapolis  
 Associated Lab Samples: 50348745001, 50348745002, 50348745003, 50348745004, 50348745005

METHOD BLANK: 3406373 Matrix: Water  
 Associated Lab Samples: 50348745001, 50348745002, 50348745003, 50348745004, 50348745005

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Antimony	ug/L	ND	1.0	0.044	07/11/23 02:09	
Arsenic	ug/L	ND	1.0	0.064	07/11/23 02:09	
Barium	ug/L	ND	1.0	0.067	07/11/23 02:09	
Beryllium	ug/L	ND	0.20	0.026	07/11/23 02:09	
Cadmium	ug/L	ND	2.0	0.011	07/11/23 02:09	
Chromium	ug/L	ND	10.0	0.15	07/11/23 02:09	
Cobalt	ug/L	ND	1.0	0.024	07/11/23 02:09	
Lead	ug/L	ND	10.0	0.018	07/11/23 02:09	
Molybdenum	ug/L	ND	10.0	0.031	07/11/23 02:09	
Selenium	ug/L	ND	1.0	0.23	07/11/23 02:09	
Thallium	ug/L	ND	1.0	0.042	07/11/23 02:09	

LABORATORY CONTROL SAMPLE: 3406374

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Antimony	ug/L	40	41.6	104	80-120	
Arsenic	ug/L	40	39.1	98	80-120	
Barium	ug/L	40	39.4	98	80-120	
Beryllium	ug/L	40	41.5	104	80-120	
Cadmium	ug/L	40	38.6	97	80-120	
Chromium	ug/L	40	40.0	100	80-120	
Cobalt	ug/L	40	40.3	101	80-120	
Lead	ug/L	40	40.4	101	80-120	
Molybdenum	ug/L	40	40.5	101	80-120	
Selenium	ug/L	40	40.1	100	80-120	
Thallium	ug/L	40	42.2	106	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3406375 3406376

Parameter	Units	MS		MSD		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual	
		50348745003 Result	Spike Conc.	Spike Conc.	MS Result							MSD Result
Antimony	ug/L	ND	40	40	42.7	42.0	107	105	75-125	2	20	
Arsenic	ug/L	3.1	40	40	43.1	42.9	100	100	75-125	0	20	
Barium	ug/L	56.9	40	40	99.3	100	106	108	75-125	1	20	
Beryllium	ug/L	ND	40	40	42.5	43.1	106	108	75-125	1	20	
Cadmium	ug/L	ND	40	40	37.9	37.8	95	94	75-125	0	20	
Chromium	ug/L	ND	40	40	39.9	39.7	99	98	75-125	1	20	

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**QUALITY CONTROL DATA**

Project: Eagle Valley P1R1

Pace Project No.: 50348745

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3406375 3406376												
Parameter	Units	50348745003 Result	MS		MSD		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
			Spike Conc.	Spike Conc.	MS Result	MSD Result						
Cobalt	ug/L	ND	40	40	38.5	38.7	95	96	75-125	0	20	
Lead	ug/L	ND	40	40	40.7	40.3	101	100	75-125	1	20	
Molybdenum	ug/L	196	40	40	243	239	116	108	75-125	1	20	
Selenium	ug/L	ND	40	40	39.5	39.3	98	98	75-125	1	20	
Thallium	ug/L	ND	40	40	41.9	42.2	105	106	75-125	1	20	

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**QUALITY CONTROL DATA**

Project: Eagle Valley P1R1

Pace Project No.: 50348745

QC Batch:	743003	Analysis Method:	SM 2320B
QC Batch Method:	SM 2320B	Analysis Description:	2320B Alkalinity
		Laboratory:	Pace Analytical Services - Indianapolis
Associated Lab Samples:	50348745001, 50348745002, 50348745003, 50348745004, 50348745005		

METHOD BLANK: 3407076 Matrix: Water  
 Associated Lab Samples: 50348745001, 50348745002, 50348745003, 50348745004, 50348745005

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Alkalinity, Total as CaCO3	mg/L	ND	10.0	10.0	07/10/23 22:25	
Alkalinity,Bicarbonate (CaCO3)	mg/L	ND	10.0	10.0	07/10/23 22:25	
Alkalinity,Carbonate (CaCO3)	mg/L	ND	10.0	10.0	07/10/23 22:25	

LABORATORY CONTROL SAMPLE: 3407077

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Alkalinity, Total as CaCO3	mg/L	50	48.6	97	90-110	

SAMPLE DUPLICATE: 3407078

Parameter	Units	50348805001 Result	Dup Result	RPD	Max RPD	Qualifiers
Alkalinity, Total as CaCO3	mg/L	250	251	1	20	
Alkalinity,Bicarbonate (CaCO3)	mg/L	250	251	1	20	
Alkalinity,Carbonate (CaCO3)	mg/L	ND	ND		20	

SAMPLE DUPLICATE: 3407079

Parameter	Units	50348745003 Result	Dup Result	RPD	Max RPD	Qualifiers
Alkalinity, Total as CaCO3	mg/L	221	227	2	20	
Alkalinity,Bicarbonate (CaCO3)	mg/L	221	221	0	20	
Alkalinity,Carbonate (CaCO3)	mg/L	ND	ND		20	

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### QUALITY CONTROL DATA

Project: Eagle Valley P1R1

Pace Project No.: 50348745

QC Batch:	743131	Analysis Method:	SM 2540C
QC Batch Method:	SM 2540C	Analysis Description:	2540C Total Dissolved Solids
		Laboratory:	Pace Analytical Services - Indianapolis

Associated Lab Samples: 50348745001, 50348745002, 50348745003, 50348745004, 50348745005

METHOD BLANK: 3407526 Matrix: Water  
 Associated Lab Samples: 50348745001, 50348745002, 50348745003, 50348745004, 50348745005

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	ND	10.0	10.0	07/11/23 13:34	

LABORATORY CONTROL SAMPLE: 3407527

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	300	294	98	80-120	

SAMPLE DUPLICATE: 3407528

Parameter	Units	50348745001 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	499	493	1	10	

SAMPLE DUPLICATE: 3407529

Parameter	Units	50348745003 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	491	491	0	10	

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### QUALITY CONTROL DATA

Project: Eagle Valley P1R1

Pace Project No.: 50348745

QC Batch: 742722

Analysis Method: SM 4500-H+B

QC Batch Method: SM 4500-H+B

Analysis Description: 4500H+B pH

Laboratory: Pace Analytical Services - Indianapolis

Associated Lab Samples: 50348745001, 50348745002, 50348745003, 50348745004, 50348745005

SAMPLE DUPLICATE: 3406212

Parameter	Units	50348461001 Result	Dup Result	RPD	Max RPD	Qualifiers
pH at 25 Degrees C	Std. Units	7.0	7.1	1	2	H3

SAMPLE DUPLICATE: 3406213

Parameter	Units	50348745003 Result	Dup Result	RPD	Max RPD	Qualifiers
pH at 25 Degrees C	Std. Units	7.4	7.5	1	2	H3

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**QUALITY CONTROL DATA**

Project: Eagle Valley P1R1

Pace Project No.: 50348745

QC Batch:	743053	Analysis Method:	SM 4500-S2-D
QC Batch Method:	SM 4500-S2-D	Analysis Description:	4500S2D Sulfide Water
		Laboratory:	Pace Analytical Services - Indianapolis
Associated Lab Samples:	50348745001, 50348745002, 50348745003, 50348745004, 50348745005		

METHOD BLANK: 3407189 Matrix: Water  
 Associated Lab Samples: 50348745001, 50348745002, 50348745003, 50348745004, 50348745005

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Sulfide	mg/L	ND	0.10	0.025	07/11/23 09:50	

LABORATORY CONTROL SAMPLE: 3407190

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Sulfide	mg/L	0.5	0.50	100	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3407191 3407192

Parameter	Units	50348745003 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Sulfide	mg/L	ND	0.5	0.5	0.53	0.52	107	103	90-110	3	20	

MATRIX SPIKE SAMPLE: 3407193

Parameter	Units	50348805001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Sulfide	mg/L	ND	0.5	0.52	105	90-110	

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**QUALITY CONTROL DATA**

Project: Eagle Valley P1R1

Pace Project No.: 50348745

QC Batch:	743135	Analysis Method:	HACH 8146
QC Batch Method:	HACH 8146	Analysis Description:	Iron, Ferrous
		Laboratory:	Pace Analytical Services - Indianapolis
Associated Lab Samples:	50348745001, 50348745002, 50348745003, 50348745004, 50348745005		

METHOD BLANK:	3407542	Matrix:	Water
Associated Lab Samples:	50348745001, 50348745002, 50348745003, 50348745004, 50348745005		

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Iron, Ferrous	mg/L	ND	0.20	0.035	07/11/23 14:26	H3,N2

LABORATORY CONTROL SAMPLE: 3407543						
Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Iron, Ferrous	mg/L	1	1.0	100	90-110	H3,N2

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3407544													3407545	
Parameter	Units	50348607005 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual		
Iron, Ferrous	mg/L	ND	1	1	1.1	1.1	107	108	90-110	1	20	H3,N2		

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3407546													3407547	
Parameter	Units	50348745003 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual		
Iron, Ferrous	mg/L	0.20	1	1	1.3	1.3	108	109	90-110	1	20	H3,N2		

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**QUALITY CONTROL DATA**

Project: Eagle Valley P1R1

Pace Project No.: 50348745

QC Batch:	742758	Analysis Method:	EPA 353.2
QC Batch Method:	EPA 353.2	Analysis Description:	353.2 Nitrate + Nitrite, Unpres.
		Laboratory:	Pace Analytical Services - Indianapolis

Associated Lab Samples: 50348745001, 50348745002, 50348745003, 50348745004, 50348745005

METHOD BLANK: 3406318 Matrix: Water  
 Associated Lab Samples: 50348745001, 50348745002, 50348745003, 50348745004, 50348745005

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Nitrogen, Nitrate	mg/L	ND	0.10	0.011	07/07/23 21:25	
Nitrogen, Nitrite	mg/L	ND	0.10	0.0040	07/07/23 21:25	

LABORATORY CONTROL SAMPLE: 3406319

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Nitrogen, Nitrate	mg/L	1	0.97	97	90-110	
Nitrogen, Nitrite	mg/L	1	1.0	103	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3406320 3406321

Parameter	Units	50348745003 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Nitrogen, Nitrate	mg/L	ND	1	1	0.93	0.94	93	93	90-110	1	20	
Nitrogen, Nitrite	mg/L	ND	1	1	1.0	1.0	101	102	90-110	0	20	

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**QUALITY CONTROL DATA**

Project: Eagle Valley P1R1

Pace Project No.: 50348745

QC Batch: 742881 Analysis Method: EPA 365.1  
 QC Batch Method: EPA 365.1 Analysis Description: 365.1 Total Phosphorus  
 Laboratory: Pace Analytical Services - Indianapolis  
 Associated Lab Samples: 50348745001, 50348745002, 50348745003, 50348745004, 50348745005

METHOD BLANK: 3406682 Matrix: Water  
 Associated Lab Samples: 50348745001, 50348745002, 50348745003, 50348745004, 50348745005

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Phosphate as P04	mg/L	ND	0.15	0.15	07/14/23 10:50	

LABORATORY CONTROL SAMPLE: 3406683

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Phosphate as P04	mg/L		1.4			

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3406684 3406685

Parameter	Units	50348745003 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Phosphate as P04	mg/L	ND			1.4	1.5					5	

MATRIX SPIKE SAMPLE: 3406686

Parameter	Units	50348634001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Phosphate as P04	mg/L		<0.15	1.4			

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QUALITY CONTROL DATA

Project: Eagle Valley P1R1

Pace Project No.: 50348745

QC Batch: 742676

Analysis Method: SM 5310C

QC Batch Method: SM 5310C

Analysis Description: 5310C Total Organic Carbon

Laboratory: Pace Analytical Services - Indianapolis

Associated Lab Samples: 50348745001, 50348745002, 50348745003, 50348745004, 50348745005

METHOD BLANK: 3405996

Matrix: Water

Associated Lab Samples: 50348745001, 50348745002, 50348745003, 50348745004, 50348745005

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Organic Carbon	mg/L	ND	1.0	0.24	07/07/23 18:16	

LABORATORY CONTROL SAMPLE: 3405997

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Organic Carbon	mg/L	10	10.5	105	90-110	

MATRIX SPIKE SAMPLE: 3405998

Parameter	Units	50348745002 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Total Organic Carbon	mg/L		1.0	10	11.2	101	80-120

MATRIX SPIKE SAMPLE: 3405999

Parameter	Units	50348745003 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Total Organic Carbon	mg/L		1.9	10	12.0	101	80-120

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**QUALITY CONTROL DATA**

Project: Eagle Valley P1R1

Pace Project No.: 50348745

QC Batch:	742679	Analysis Method:	SM 5310C
QC Batch Method:	SM 5310C	Analysis Description:	5310C Dissolved Organic Carbon
		Laboratory:	Pace Analytical Services - Indianapolis
Associated Lab Samples:	50348745001, 50348745002, 50348745003, 50348745004		

METHOD BLANK: 3406017 Matrix: Water  
 Associated Lab Samples: 50348745001, 50348745002, 50348745003, 50348745004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Dissolved Organic Carbon	mg/L	ND	1.0	0.24	07/08/23 03:35	

LABORATORY CONTROL SAMPLE: 3406018

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Dissolved Organic Carbon	mg/L	10	10	100	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3406019 3406020

Parameter	Units	50348745003 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Dissolved Organic Carbon	mg/L	1.2	10	10	11.4	11.4	101	101	80-120	0	20	

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Eagle Valley P1R1

Pace Project No.: 50348745

**Sample: MW-3D**      **Lab ID: 50348745001**      Collected: 07/06/23 12:30      Received: 07/07/23 08:04      Matrix: Water  
PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	<b>0.614 ± 0.516 (0.737)</b> <b>C:NA T:92%</b>	pCi/L	07/24/23 13:25	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	<b>1.64 ± 0.588 (0.868)</b> <b>C:79% T:76%</b>	pCi/L	07/20/23 11:45	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	<b>2.25 ± 1.10 (1.61)</b>	pCi/L	07/25/23 11:52	7440-14-4	

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Eagle Valley P1R1

Pace Project No.: 50348745

**Sample: MW-12I**      **Lab ID: 50348745002**      Collected: 07/06/23 11:20      Received: 07/07/23 08:04      Matrix: Water  
 PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	<b>0.599 ± 0.572 (0.872)</b> <b>C:NA T:84%</b>	pCi/L	07/24/23 13:25	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	<b>1.19 ± 0.569 (0.945)</b> <b>C:70% T:68%</b>	pCi/L	07/20/23 15:18	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	<b>1.79 ± 1.14 (1.82)</b>	pCi/L	07/25/23 11:52	7440-14-4	

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Eagle Valley P1R1

Pace Project No.: 50348745

**Sample: MW-12D**      **Lab ID: 50348745003**      Collected: 07/06/23 10:00      Received: 07/07/23 08:04      Matrix: Water  
 PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	<b>0.232 ± 0.426 (0.760)</b> <b>C:NA T:86%</b>	pCi/L	07/24/23 13:25	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	<b>0.482 ± 0.414 (0.830)</b> <b>C:75% T:81%</b>	pCi/L	07/20/23 15:18	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	<b>0.714 ± 0.840 (1.59)</b>	pCi/L	07/25/23 11:52	7440-14-4	

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Eagle Valley P1R1

Pace Project No.: 50348745

**Sample: Dup-1**      **Lab ID: 50348745004**      Collected: 07/06/23 08:00      Received: 07/07/23 08:04      Matrix: Water  
 PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	<b>1.07 ± 0.672 (0.894)</b> <b>C:NA T:89%</b>	pCi/L	07/24/23 13:25	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	<b>0.789 ± 0.423 (0.749)</b> <b>C:82% T:81%</b>	pCi/L	07/20/23 15:18	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	<b>1.86 ± 1.10 (1.64)</b>	pCi/L	07/25/23 11:52	7440-14-4	

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**ANALYTICAL RESULTS - RADIOCHEMISTRY**

Project: Eagle Valley P1R1

Pace Project No.: 50348745

**Sample: FB-1**      **Lab ID: 50348745005**      Collected: 07/06/23 13:00      Received: 07/07/23 08:04      Matrix: Water  
 PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	<b>0.0581 ± 0.522 (1.01)</b> <b>C:NA T:91%</b>	pCi/L	07/24/23 13:25	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	<b>0.245 ± 0.396 (0.859)</b> <b>C:80% T:73%</b>	pCi/L	07/20/23 15:18	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	<b>0.303 ± 0.918 (1.87)</b>	pCi/L	07/25/23 11:52	7440-14-4	

**REPORT OF LABORATORY ANALYSIS**

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Eagle Valley P1R1

Pace Project No.: 50348745

<b>Sample:</b> MW-12D MS	<b>Lab ID:</b> 50348745006	Collected: 07/06/23 10:00	Received: 07/07/23 08:04	Matrix: Water
PWS:	Site ID:	Sample Type:		

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	<b>92.66 %REC ± NA (NA)</b> <b>C:NA T:NA</b>	pCi/L	07/24/23 13:36	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	<b>97.55 %REC ± NA (NA)</b> <b>C:NA T:NA</b>	pCi/L	07/20/23 15:18	15262-20-1	

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**ANALYTICAL RESULTS - RADIOCHEMISTRY**

Project: Eagle Valley P1R1

Pace Project No.: 50348745

**Sample: MW-12D MSD**      **Lab ID: 50348745007**      Collected: 07/06/23 10:00      Received: 07/07/23 08:04      Matrix: Water  
 PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Radium-226	EPA 903.1	<b>106.32 %REC</b> <b>13.73RPD ±</b> <b>NA (NA)</b> <b>C:NA T:NA</b>	pCi/L	07/24/23 13:25	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 904.0	<b>85.44 %REC</b> <b>13.23RPD ±</b> <b>NA (NA)</b> <b>C:NA T:NA</b>	pCi/L	07/20/23 15:18	15262-20-1	

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### QUALITY CONTROL - RADIOCHEMISTRY

Project: Eagle Valley P1R1

Pace Project No.: 50348745

QC Batch: 601212

Analysis Method: EPA 903.1

QC Batch Method: EPA 903.1

Analysis Description: 903.1 Radium-226

Laboratory: Pace Analytical Services - Greensburg

Associated Lab Samples: 50348745001, 50348745002, 50348745003, 50348745004, 50348745005, 50348745006, 50348745007

METHOD BLANK: 2922735

Matrix: Water

Associated Lab Samples: 50348745001, 50348745002, 50348745003, 50348745004, 50348745005, 50348745006, 50348745007

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.210 ± 0.194 (0.283) C:NA T:78%	pCi/L	07/24/23 12:33	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

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### QUALITY CONTROL - RADIOCHEMISTRY

Project: Eagle Valley P1R1

Pace Project No.: 50348745

QC Batch: 601214

Analysis Method: EPA 904.0

QC Batch Method: EPA 904.0

Analysis Description: 904.0 Radium 228

Laboratory: Pace Analytical Services - Greensburg

Associated Lab Samples: 50348745001, 50348745002, 50348745003, 50348745004, 50348745005, 50348745006, 50348745007

METHOD BLANK: 2922744

Matrix: Water

Associated Lab Samples: 50348745001, 50348745002, 50348745003, 50348745004, 50348745005, 50348745006, 50348745007

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.155 ± 0.250 (0.543) C:89% T:87%	pCi/L	07/20/23 11:43	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

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## QUALIFIERS

Project: Eagle Valley P1R1

Pace Project No.: 50348745

### DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Reported results are not rounded until the final step prior to reporting. Therefore, calculated parameters that are typically reported as "Total" may vary slightly from the sum of the reported component parameters.

Act - Activity

Unc - Uncertainty: SDWA = 1.96 sigma count uncertainty, all other matrices = Expanded Uncertainty (95% confidence interval).

Gamma Spec = Expanded Uncertainty (95.4% Confidence Interval)

(MDC) - Minimum Detectable Concentration

Trac - Tracer Recovery (%)

Carr - Carrier Recovery (%)

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

### ANALYTE QUALIFIERS

H3 Sample was received or analysis requested beyond the recognized method holding time.

N2 The lab does not hold NELAC/TNI accreditation for this parameter but other accreditations/certifications may apply. A complete list of accreditations/certifications is available upon request.

PL The minimum mass of dried residue of 2.5 mg could not be obtained using the routine sample volume of 100 mL.

## REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Eagle Valley P1R1

Pace Project No.: 50348745

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
50348745001	MW-3D	EPA 9056	742893		
50348745002	MW-12I	EPA 9056	742893		
50348745003	MW-12D	EPA 9056	742893		
50348745004	Dup-1	EPA 9056	742893		
50348745005	FB-1	EPA 9056	742893		
50348745001	MW-3D	EPA 3010	742733	EPA 6010	743121
50348745002	MW-12I	EPA 3010	742733	EPA 6010	743121
50348745003	MW-12D	EPA 3010	742733	EPA 6010	743121
50348745004	Dup-1	EPA 3010	742733	EPA 6010	743121
50348745005	FB-1	EPA 3010	742733	EPA 6010	743121
50348745001	MW-3D	EPA 3010	742728	EPA 6010	743081
50348745002	MW-12I	EPA 3010	742728	EPA 6010	743081
50348745003	MW-12D	EPA 3010	742728	EPA 6010	743081
50348745004	Dup-1	EPA 3010	742728	EPA 6010	743081
50348745001	MW-3D	EPA 200.2	742775	EPA 6020	743012
50348745002	MW-12I	EPA 200.2	742775	EPA 6020	743012
50348745003	MW-12D	EPA 200.2	742775	EPA 6020	743012
50348745004	Dup-1	EPA 200.2	742775	EPA 6020	743012
50348745005	FB-1	EPA 200.2	742775	EPA 6020	743012
50348745001	MW-3D	EPA 7470	743195	EPA 7470	743222
50348745002	MW-12I	EPA 7470	743195	EPA 7470	743222
50348745003	MW-12D	EPA 7470	743195	EPA 7470	743222
50348745004	Dup-1	EPA 7470	743195	EPA 7470	743222
50348745005	FB-1	EPA 7470	743195	EPA 7470	743222
50348745001	MW-3D	EPA 903.1	601212		
50348745002	MW-12I	EPA 903.1	601212		
50348745003	MW-12D	EPA 903.1	601212		
50348745004	Dup-1	EPA 903.1	601212		
50348745005	FB-1	EPA 903.1	601212		
50348745006	MW-12D MS	EPA 903.1	601212		
50348745007	MW-12D MSD	EPA 903.1	601212		
50348745001	MW-3D	EPA 904.0	601214		
50348745002	MW-12I	EPA 904.0	601214		
50348745003	MW-12D	EPA 904.0	601214		
50348745004	Dup-1	EPA 904.0	601214		
50348745005	FB-1	EPA 904.0	601214		
50348745006	MW-12D MS	EPA 904.0	601214		
50348745007	MW-12D MSD	EPA 904.0	601214		
50348745001	MW-3D	Total Radium Calculation	603943		
50348745002	MW-12I	Total Radium Calculation	603943		
50348745003	MW-12D	Total Radium Calculation	603943		
50348745004	Dup-1	Total Radium Calculation	603943		
50348745005	FB-1	Total Radium Calculation	603943		
50348745001	MW-3D	SM 2320B	743003		
50348745002	MW-12I	SM 2320B	743003		

### REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Eagle Valley P1R1

Pace Project No.: 50348745

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
50348745003	MW-12D	SM 2320B	743003		
50348745004	Dup-1	SM 2320B	743003		
50348745005	FB-1	SM 2320B	743003		
50348745001	MW-3D	SM 2540C	743131		
50348745002	MW-12I	SM 2540C	743131		
50348745003	MW-12D	SM 2540C	743131		
50348745004	Dup-1	SM 2540C	743131		
50348745005	FB-1	SM 2540C	743131		
50348745001	MW-3D	SM 4500-H+B	742722		
50348745002	MW-12I	SM 4500-H+B	742722		
50348745003	MW-12D	SM 4500-H+B	742722		
50348745004	Dup-1	SM 4500-H+B	742722		
50348745005	FB-1	SM 4500-H+B	742722		
50348745001	MW-3D	SM 4500-S2-D	743053		
50348745002	MW-12I	SM 4500-S2-D	743053		
50348745003	MW-12D	SM 4500-S2-D	743053		
50348745004	Dup-1	SM 4500-S2-D	743053		
50348745005	FB-1	SM 4500-S2-D	743053		
50348745001	MW-3D	HACH 8146	743135		
50348745002	MW-12I	HACH 8146	743135		
50348745003	MW-12D	HACH 8146	743135		
50348745004	Dup-1	HACH 8146	743135		
50348745005	FB-1	HACH 8146	743135		
50348745001	MW-3D	EPA 353.2	742758		
50348745002	MW-12I	EPA 353.2	742758		
50348745003	MW-12D	EPA 353.2	742758		
50348745004	Dup-1	EPA 353.2	742758		
50348745005	FB-1	EPA 353.2	742758		
50348745001	MW-3D	EPA 365.1	742881	EPA 365.1	743659
50348745002	MW-12I	EPA 365.1	742881	EPA 365.1	743659
50348745003	MW-12D	EPA 365.1	742881	EPA 365.1	743659
50348745004	Dup-1	EPA 365.1	742881	EPA 365.1	743659
50348745005	FB-1	EPA 365.1	742881	EPA 365.1	743659
50348745001	MW-3D	SM 5310C	742676		
50348745002	MW-12I	SM 5310C	742676		
50348745003	MW-12D	SM 5310C	742676		
50348745004	Dup-1	SM 5310C	742676		
50348745005	FB-1	SM 5310C	742676		
50348745001	MW-3D	SM 5310C	742679		
50348745002	MW-12I	SM 5310C	742679		
50348745003	MW-12D	SM 5310C	742679		
50348745004	Dup-1	SM 5310C	742679		

REPORT OF LABORATORY ANALYSIS

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WO#: 50348745



50348745

Analytical Request Document

Submitting a sample via this chain of custody constitutes acknowledgement of receipt of the sample. All fields must be completed accurately.

For more information, please visit: <https://info.pacelabs.com/hubfs/pas-standard-terms.pdf>.

<b>Section A</b> Required Client Information:		<b>Section B</b> Required Project Information:	
Company: Atlas Indianapolis	Address: 7988 Centerpoint Drive Suite 100, Indianapolis, IN 46256	Report To: Mark Breting	Copy To:
Email: mark.breting@oneatlas.com	Phone: 317-313-8306 Fax:	Purchase Order #:	Project Name: Eagle Valley P1R1
Requested Due Date:		Pace Project Manager: will.statz@pacelabs.com	Pace Profile #: 10498/40
		Company Name: Accounts Payable - Paula Sedam	Address: Atlas Indianapolis
		Pace Quote:	
		Regulatory Agency	
		State / Location	
		IN	

ITEM #	SAMPLE ID One Character per box. (A-Z, 0-9 / , -) Sample Ids must be unique	MATRIX Drinking Water Water Waste Water Product Soil/Solid Oil Wipe Air Other Tissue	CODE DW WT WW P SL OL WP AR OT TS	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED				SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives										Analyses Test Y/N	Requested Analysis Filtered (Y/N)										Residual Chlorine (Y/N)							
						START		END				Unpreserved	H2SO4	HNO3	HCl	NaOH	Na2S2O3	Methanol	Other	Metals, Total 6010 6020 7470	Field Filtered Mn, Mo 6010		TDS 2540C/pH 4500+B	TOC by 5310	DOC by 5310	Alkalinity/Ferrous Fe	Nitrate, Nitrite 353.2-WET	Sulfide 4500S2D	Phosphate 365.1	(Cl.F.S04) 9056	Rad-226/228 + Sum									
						DATE	TIME	DATE	TIME																															
1	MW-3D							7.6.23	1230	11																														
2	MW-12I								1120																															
3	MW-12D								1000																															
4	MS-1								1000																															
5	MSD-1								1000																															
6	Dup-1								-																															
7	FB-1								1300	9																														

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS			
NO2/NO3 has a SH time of 48 hours	J Hill / ATLAS	7.7.23	804	[Signature]	7/7/23	0804	See SW	4	2	4

FB-1 no filtered samples  
ms/msd-12D

SAMPLER NAME AND SIGNATURE		TEMP in C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)
PRINT Name of SAMPLER:	DATE Signed: 7.6.23				
SIGNATURE of SAMPLER: [Signature]					



**SAMPLE CONDITION UPON RECEIPT FORM**

Date/Time and Initials of person examining contents: MCS 7/7/23 0836

1. Courier:  FED EX  UPS  CLIENT  PACE  NOW/JETT  OTHER \_\_\_\_\_
2. Custody Seal on Cooler/Box Present:  Yes  No  
 (If yes)Seals Intact:  Yes  No (leave blank if no seals were present)
3. Thermometer: **1 2 3 4 5 6 7 8 A B C D E F G H**
4. Cooler Temperature(s): 3.5/3.5 4.2/4.2    
 (Initial/Corrected) RECORD TEMPS OF ALL COOLERS RECEIVED (use Comments below to add more)

5. Packing Material:  Bubble Wrap  Bubble Bags  
 None  Other \_\_\_\_\_
6. Ice Type:  Wet  Blue  None
7. If temp. is over 6°C or under 0°C, was the PM notified?:  Yes  No  
 Cooler temp should be above freezing to 6°C

All discrepancies will be written out in the comments section below.

	Yes	No		Yes	No	N/A
USDA Regulated Soils? (HI, ID, NY, WA, OR, CA, NM, TX, OK, AR, LA, TN, AL, MS, NC, SC, GA, FL, or Puerto Rico)		/	All containers needing acid/base preservation have been pH CHECKED?: Exceptions: VOA, coliform, LLHg, O&G, RAD CHEM, and any container with a septum cap or preserved with HCl.			
Short Hold Time Analysis (48 hours or less)? Analysis: <u>N02/N03</u>	/		Circle: HNO <sub>3</sub> (32) H <sub>2</sub> SO <sub>4</sub> (<2) NaOH (>10) NaOH/ZnAc (>9) Any non-conformance to pH recommendations will be noted on the container count form	✓		
Time 5035A TC placed in Freezer or Short Holds To Lab	Time:		Residual Chlorine Check (SVOC 625 Pest/PCB 608)	<u>Present</u>	<u>Absent</u>	<u>N/A</u>
Rush TAT Requested (4 days or less):		/	Residual Chlorine Check (Total/Amenable/Free Cyanide)			/
Custody Signatures Present?	/		Headspace Wisconsin Sulfide?			/
Containers Intact?:	/		Headspace in VOA Vials (>6mm): See Containter Count form for details	<u>Present</u>	<u>Absent</u>	<u>No VOA Vials Sent</u>
Sample Label (IDs/Dates/Times) Match COC?: Except TCs, which only require sample ID	/		Trip Blank Present?		/	
Extra labels on Terracore Vials? (soils only)			Trip Blank Custody Seals?:			/

COMMENTS:

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# Sample Container Count

\*\* Place a RED dot on containers that are out of conformance \*\*

COC Line Item	WGFU	WGKU	BG1U	MeOH (only)	DG9H	VG9H	VOA VIAL HS >6mm	VG9U	DG9U	VG9T	AMBER GLASS						PLASTIC							OTHER			Matrix	Nitric Red	Sulfuric Yellow	Sodium Hydroxide Green	Sodium Hydroxide/ZnAc Black																	
				SBS							AG0U	AG1H	AG1U	AG3U	AG3S	AG3SF	AG3B	BP1U	BP1N	BP2U	BP3U	BP3N	BP3F	BP3S	BP3B	BP3Z						CG3H	CG3F	Syringe Kit														
				DI							R	CG3H	CG3F	Syringe Kit	HNO3 <2	H2SO4 <2	NaOH >10	NaOH/Zn Ac >9																														
1												1	1				2	1	2	1	1					1										3	✓	✓		✓								
2												↓	↓				↓	↓	↓	↓	↓					↓																						
3												3	3				6	3	6	3	3					3																						
4																																																
5																																																
6												1	1				2	1	2	1	1					1																						
7												↓					↓	↓	↓	↓					↓		↓																					
8																																																
9																																																
10																																																
11																																																
12																																																

Container Codes

Glass	
DG9H	40mL HCl amber voa vial
DG9P	40mL TSP amber vial
DG9S	40mL H2SO4 amber vial
DG9T	40mL Na Thio amber vial
DG9U	40mL unpreserved amber vial
VG9H	40mL HCl clear vial
VG9T	40mL Na Thio. clear vial
VG9U	40mL unpreserved clear vial
I	40mL w/hexane wipe vial
WGKU	8oz unpreserved clear jar
WGFU	4oz clear soil jar
JGFU	4oz unpreserved amber wide
CG3H	250mL clear glass HCl
CG3F	250mL clear glass HCl, Field Filter
BG1H	1L HCl clear glass
BG1S	1L H2SO4 clear glass
BG1T	glass
BG1U	1L unpreserved glass
CG3U	250mL Unpres Clear Glass
AG0U	100mL unpres amber glass
AG1H	1L HCl amber glass
AG1S	1L H2SO4 amber glass
AG1T	1L Na Thiosulfate amber glass
AG1U	1liter unpres amber glass
AG2N	500mL HNO3 amber glass
AG2S	500mL H2SO4 amber glass
AG2U	500mL unpres amber glass
AG3S	250mL H2SO4 amber glass
AG3SF	250mL H2SO4 amb glass -field filtered
AG3U	250mL unpres amber glass
AG3B	250mL NaOH amber glass

Plastic	
BP1B	1L NaOH plastic
BP1N	1L HNO3 plastic
BP1S	1L H2SO4 plastic
BP1U	1L unpreserved plastic
BP1Z	1L NaOH, Zn, Ac
BP2N	500mL HNO3 plastic
BP2C	500mL NaOH plastic
BP2S	500mL H2SO4 plastic
BP2U	500mL unpreserved plastic
BP2Z	500mL NaOH, Zn Ac
BP3B	250mL NaOH plastic
BP3N	250mL HNO3 plastic
BP3F	250mL HNO3 plastic-field filtered
BP3U	250mL unpreserved plastic
BP3S	250mL H2SO4 plastic
BP3Z	250mL NaOH, ZnAc plastic
BP3R	250mL Unpres. FF SO4/OH buffer
BP4U	125mL unpreserved plastic
BP4N	125mL HNO3 plastic
BP4S	125mL H2SO4 plastic
<b>Miscellaneous</b>	
Syringe Kit	LL Cr+6 sampling kit
ZPLC	Ziploc Bag
R	Terracore Kit
SP5T	120mL Coliform Sodium Thiosulfate
GN	General Container
U	Summa Can (air sample)
WT	Water
SL	Solid
OL	Oil
NAL	Non-aqueous liquid
WP	Wipe



July 25, 2023

Mr. Mark Breting  
ATC Group Services  
7988 Centerpoint Drive  
Suite 100  
Indianapolis, IN 46256

RE: Project: Eagle Valley P1R2  
Pace Project No.: 50348805

Dear Mr. Breting:

Enclosed are the analytical results for sample(s) received by the laboratory on July 07, 2023. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

The test results provided in this final report were generated by each of the following laboratories within the Pace Network:

- Pace Analytical Services - Indianapolis
- Pace Analytical Services - Greensburg

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Will Statz  
will.statz@pacelabs.com  
(317)228-3105  
Project Manager

Enclosures

cc: Mohammed Bazlamit, Atlas  
Mr. Robert Miller, Haley & Aldrich



## REPORT OF LABORATORY ANALYSIS

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### CERTIFICATIONS

Project: Eagle Valley P1R2

Pace Project No.: 50348805

#### Pace Analytical Services Pennsylvania

1638 Roseytown Rd Suites 2,3&4, Greensburg, PA 15601  
 ANAB DOD-ELAP Rad Accreditation #: L2417  
 ANABISO/IEC 17025:2017 Rad Cert#: L24170  
 Alabama Certification #: 41590  
 Arizona Certification #: AZ0734  
 Arkansas Certification  
 California Certification #: 2950  
 Colorado Certification #: PA01547  
 Connecticut Certification #: PH-0694  
 EPA Region 4 DW Rad  
 Florida/TNI Certification #: E87683  
 Georgia Certification #: C040  
 Guam Certification  
 Hawaii Certification  
 Idaho Certification  
 Illinois Certification  
 Indiana Certification  
 Iowa Certification #: 391  
 Kansas Certification #: E-10358  
 Kentucky Certification #: KY90133  
 KY WW Permit #: KY0098221  
 KY WW Permit #: KY0000221  
 Louisiana DHH/TNI Certification #: LA010  
 Louisiana DEQ/TNI Certification #: 04086  
 Maine Certification #: 2023021  
 Maryland Certification #: 308  
 Massachusetts Certification #: M-PA1457  
 Michigan/PADEP Certification #: 9991

Missouri Certification #: 235  
 Montana Certification #: Cert0082  
 Nebraska Certification #: NE-OS-29-14  
 Nevada Certification #: PA014572023-03  
 New Hampshire/TNI Certification #: 297622  
 New Jersey/TNI Certification #: PA051  
 New Mexico Certification #: PA01457  
 New York/TNI Certification #: 10888  
 North Carolina Certification #: 42706  
 North Dakota Certification #: R-190  
 Ohio EPA Rad Approval: #41249  
 Oregon/TNI Certification #: PA200002-015  
 Pennsylvania/TNI Certification #: 65-00282  
 Puerto Rico Certification #: PA01457  
 Rhode Island Certification #: 65-00282  
 South Dakota Certification  
 Tennessee Certification #: TN02867  
 Texas/TNI Certification #: T104704188-22-18  
 Utah/TNI Certification #: PA014572223-14  
 USDA Soil Permit #: 525-23-67-77263  
 Vermont Dept. of Health: ID# VT-0282  
 Virgin Island/PADEP Certification  
 Virginia/VELAP Certification #: 460198  
 Washington Certification #: C868  
 West Virginia DEP Certification #: 143  
 West Virginia DHHR Certification #: 9964C  
 Wisconsin Approve List for Rad

#### Pace Analytical Services Indianapolis

7726 Moller Road, Indianapolis, IN 46268  
 Illinois Accreditation #: 200074  
 Indiana Drinking Water Laboratory #: C-49-06  
 Kansas/TNI Certification #: E-10177  
 Kentucky UST Agency Interest #: 80226  
 Kentucky WW Laboratory ID #: 98019  
 Michigan Drinking Water Laboratory #9050

Ohio VAP Certified Laboratory #: CL0065  
 Oklahoma Laboratory #: 9204  
 Texas Certification #: T104704355  
 Wisconsin Laboratory #: 999788130  
 USDA Foreign Soil Permit #: 525-23-13-23119  
 USDA Compliance Agreement #: IN-SL-22-001

### REPORT OF LABORATORY ANALYSIS

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### SAMPLE SUMMARY

Project: Eagle Valley P1R2

Pace Project No.: 50348805

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Lab ID	Sample ID	Matrix	Date Collected	Date Received
50348805001	MW-25S	Water	07/07/23 12:20	07/07/23 13:18
50348805002	MW-25I	Water	07/07/23 11:30	07/07/23 13:18
50348805003	MW-25D	Water	07/07/23 10:20	07/07/23 13:18

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**SAMPLE ANALYTE COUNT**

Project: Eagle Valley P1R2  
 Pace Project No.: 50348805

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory		
50348805001	MW-25S	EPA 9056	ADM	3	PASI-I		
		EPA 6010	DJS	10	PASI-I		
		EPA 6010	ELK	2	PASI-I		
		EPA 6020	DMT	11	PASI-I		
		EPA 7470	EAE	1	PASI-I		
		EPA 903.1	CLM	1	PASI-PA		
		EPA 904.0	ZPC	1	PASI-PA		
		Total Radium Calculation	JAL	1	PASI-PA		
		SM 2320B	DAW	3	PASI-I		
		SM 2540C	TRK	1	PASI-I		
		SM 4500-H+B	LHZ	1	PASI-I		
		SM 4500-S2-D	BEP	1	PASI-I		
		HACH 8146	BEP	1	PASI-I		
		EPA 353.2	DAW	2	PASI-I		
		EPA 365.1	YAM	1	PASI-I		
		SM 5310C	ATS	1	PASI-I		
		SM 5310C	ATS	1	PASI-I		
		50348805002	MW-25I	EPA 9056	ADM	3	PASI-I
				EPA 6010	DJS	10	PASI-I
				EPA 6010	ELK	2	PASI-I
EPA 6020	DMT			11	PASI-I		
EPA 7470	EAE			1	PASI-I		
EPA 903.1	CLM			1	PASI-PA		
EPA 904.0	ZPC			1	PASI-PA		
Total Radium Calculation	JAL			1	PASI-PA		
SM 2320B	DAW			3	PASI-I		
SM 2540C	TRK			1	PASI-I		
SM 4500-H+B	LHZ			1	PASI-I		
SM 4500-S2-D	BEP			1	PASI-I		
HACH 8146	BEP			1	PASI-I		
EPA 353.2	DAW			2	PASI-I		
EPA 365.1	YAM			1	PASI-I		
SM 5310C	ATS			1	PASI-I		
SM 5310C	ATS			1	PASI-I		
50348805003	MW-25D			EPA 9056	ADM	3	PASI-I
				EPA 6010	DJS	10	PASI-I
				EPA 6010	ELK	2	PASI-I

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### SAMPLE ANALYTE COUNT

Project: Eagle Valley P1R2

Pace Project No.: 50348805

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
		EPA 6020	DMT	11	PASI-I
		EPA 7470	EAE	1	PASI-I
		EPA 903.1	CLM	1	PASI-PA
		EPA 904.0	ZPC	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
		SM 2320B	DAW	3	PASI-I
		SM 2540C	TRK	1	PASI-I
		SM 4500-H+B	LHZ	1	PASI-I
		SM 4500-S2-D	BEP	1	PASI-I
		HACH 8146	BEP	1	PASI-I
		EPA 353.2	DAW	2	PASI-I
		EPA 365.1	YAM	1	PASI-I
		SM 5310C	ATS	1	PASI-I
		SM 5310C	ATS	1	PASI-I

PASI-I = Pace Analytical Services - Indianapolis

PASI-PA = Pace Analytical Services - Greensburg

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**SUMMARY OF DETECTION**

Project: Eagle Valley P1R2

Pace Project No.: 50348805

Lab Sample ID	Client Sample ID	Result	Units	Report Limit	Analyzed	Qualifiers
Method	Parameters					
<b>50348805001</b>	<b>MW-25S</b>					
EPA 9056	Chloride	75.2	mg/L	2.5	07/12/23 01:06	
EPA 9056	Fluoride	0.28	mg/L	0.10	07/12/23 00:49	
EPA 9056	Sulfate	64.1	mg/L	2.5	07/12/23 01:06	
EPA 6010	Boron	371	ug/L	100	07/11/23 15:08	
EPA 6010	Calcium	77800	ug/L	1000	07/11/23 15:08	
EPA 6010	Iron	329	ug/L	100	07/11/23 15:08	
EPA 6010	Lithium	56.8	ug/L	20.0	07/11/23 15:08	
EPA 6010	Magnesium	22100	ug/L	1000	07/11/23 15:08	
EPA 6010	Manganese	516	ug/L	10.0	07/11/23 15:08	
EPA 6010	Potassium	6390	ug/L	1000	07/11/23 15:08	
EPA 6010	Silica	10800	ug/L	450	07/11/23 15:08	N2
EPA 6010	Sodium	64500	ug/L	1000	07/11/23 15:08	
EPA 6010	Manganese, Dissolved	532	ug/L	10.0	07/11/23 13:46	
EPA 6010	Molybdenum, Dissolved	70.0	ug/L	10.0	07/11/23 13:46	
EPA 6020	Barium	86.0	ug/L	1.0	07/11/23 02:32	
EPA 6020	Molybdenum	68.5	ug/L	10.0	07/11/23 02:32	
EPA 903.1	Radium-226	0.120 ± 0.373 (0.721)	pCi/L		07/24/23 13:01	
EPA 904.0	Radium-228	C:NA T:87% 0.456 ± 0.354 (0.693)	pCi/L		07/20/23 11:44	
		C:81% T:81%				
Total Radium Calculation	Total Radium	0.576 ± 0.727 (1.41)	pCi/L		07/25/23 11:52	
SM 2320B	Alkalinity, Total as CaCO3	250	mg/L	10.0	07/10/23 22:25	
SM 2320B	Alkalinity, Bicarbonate (CaCO3)	250	mg/L	10.0	07/10/23 22:25	
SM 2540C	Total Dissolved Solids	403	mg/L	10.0	07/11/23 13:41	
SM 4500-H+B	pH at 25 Degrees C	7.4	Std. Units	0.10	07/13/23 16:06	H3
SM 5310C	Total Organic Carbon	1.2	mg/L	1.0	07/08/23 03:06	
SM 5310C	Dissolved Organic Carbon	1.0	mg/L	1.0	07/08/23 06:28	
<b>50348805002</b>	<b>MW-25I</b>					
EPA 9056	Chloride	86.8	mg/L	2.5	07/12/23 01:41	
EPA 9056	Fluoride	0.10	mg/L	0.10	07/12/23 01:24	
EPA 9056	Sulfate	81.3	mg/L	2.5	07/12/23 01:41	
EPA 6010	Aluminum	1140	ug/L	200	07/11/23 15:11	
EPA 6010	Boron	972	ug/L	100	07/11/23 15:11	
EPA 6010	Calcium	89200	ug/L	1000	07/11/23 15:11	
EPA 6010	Iron	3440	ug/L	100	07/11/23 15:11	
EPA 6010	Lithium	80.9	ug/L	20.0	07/11/23 15:11	
EPA 6010	Magnesium	23100	ug/L	1000	07/11/23 15:11	
EPA 6010	Manganese	241	ug/L	10.0	07/11/23 15:11	
EPA 6010	Potassium	6860	ug/L	1000	07/11/23 15:11	
EPA 6010	Silica	15300	ug/L	450	07/11/23 15:11	N2
EPA 6010	Sodium	76900	ug/L	1000	07/11/23 15:11	
EPA 6010	Manganese, Dissolved	193	ug/L	10.0	07/11/23 13:48	

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**SUMMARY OF DETECTION**

Project: Eagle Valley P1R2

Pace Project No.: 50348805

Lab Sample ID	Client Sample ID	Result	Units	Report Limit	Analyzed	Qualifiers
Method	Parameters					
<b>50348805002</b>	<b>MW-25I</b>					
EPA 6010	Molybdenum, Dissolved	137	ug/L	10.0	07/11/23 13:48	
EPA 6020	Arsenic	2.1	ug/L	1.0	07/11/23 02:36	
EPA 6020	Barium	90.4	ug/L	1.0	07/11/23 02:36	
EPA 6020	Cobalt	1.1	ug/L	1.0	07/11/23 02:36	
EPA 6020	Molybdenum	130	ug/L	10.0	07/11/23 02:36	
EPA 903.1	Radium-226	0.805 ± 0.537 (0.666)	pCi/L		07/24/23 13:01	
EPA 904.0	Radium-228	C:NA T:87% 1.31 ± 0.522 (0.838)	pCi/L		07/20/23 11:44	
		C:83% T:81%				
Total Radium Calculation	Total Radium	2.12 ± 1.06 (1.50)	pCi/L		07/25/23 11:52	
SM 2320B	Alkalinity, Total as CaCO3	247	mg/L	10.0	07/10/23 22:25	
SM 2320B	Alkalinity,Bicarbonate (CaCO3)	247	mg/L	10.0	07/10/23 22:25	
SM 2540C	Total Dissolved Solids	505	mg/L	10.0	07/11/23 13:41	
SM 4500-H+B	pH at 25 Degrees C	7.6	Std. Units	0.10	07/13/23 16:08	H3
HACH 8146	Iron, Ferrous	0.23	mg/L	0.20	07/11/23 14:39	H3,N2
EPA 365.1	Phosphate as P04	0.17	mg/L	0.15	07/14/23 10:52	
SM 5310C	Dissolved Organic Carbon	1.1	mg/L	1.0	07/08/23 06:50	
<b>50348805003</b>	<b>MW-25D</b>					
EPA 9056	Chloride	87.9	mg/L	2.5	07/12/23 02:33	
EPA 9056	Fluoride	0.10	mg/L	0.10	07/12/23 02:16	
EPA 9056	Sulfate	86.8	mg/L	2.5	07/12/23 02:33	
EPA 6010	Aluminum	681	ug/L	200	07/11/23 15:13	
EPA 6010	Boron	1800	ug/L	100	07/11/23 15:13	
EPA 6010	Calcium	79400	ug/L	1000	07/11/23 15:13	
EPA 6010	Iron	2460	ug/L	100	07/11/23 15:13	
EPA 6010	Lithium	65.9	ug/L	20.0	07/11/23 15:13	
EPA 6010	Magnesium	16800	ug/L	1000	07/11/23 15:13	
EPA 6010	Manganese	126	ug/L	10.0	07/11/23 15:13	
EPA 6010	Potassium	4020	ug/L	1000	07/11/23 15:13	
EPA 6010	Silica	14600	ug/L	450	07/11/23 15:13	N2
EPA 6010	Sodium	88400	ug/L	1000	07/11/23 15:13	
EPA 6010	Manganese, Dissolved	111	ug/L	10.0	07/11/23 13:50	
EPA 6010	Molybdenum, Dissolved	189	ug/L	10.0	07/11/23 13:50	
EPA 6020	Arsenic	1.3	ug/L	1.0	07/11/23 02:39	
EPA 6020	Barium	61.8	ug/L	1.0	07/11/23 02:39	
EPA 6020	Molybdenum	180	ug/L	10.0	07/11/23 02:39	
EPA 903.1	Radium-226	0.134 ± 0.558 (1.06) C:NA T:82%	pCi/L		07/24/23 13:01	

**REPORT OF LABORATORY ANALYSIS**

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**SUMMARY OF DETECTION**

Project: Eagle Valley P1R2

Pace Project No.: 50348805

Lab Sample ID Method	Client Sample ID Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
<b>50348805003</b>	<b>MW-25D</b>					
EPA 904.0	Radium-228	1.07 ± 0.460 (0.751) C:84% T:79%	pCi/L		07/20/23 11:44	
Total Radium Calculation	Total Radium	1.20 ± 1.02 (1.81)	pCi/L		07/25/23 11:52	
SM 2320B	Alkalinity, Total as CaCO3	219	mg/L	10.0	07/10/23 22:25	
SM 2320B	Alkalinity,Bicarbonate (CaCO3)	219	mg/L	10.0	07/10/23 22:25	
SM 2540C	Total Dissolved Solids	507	mg/L	10.0	07/11/23 13:42	
SM 4500-H+B	pH at 25 Degrees C	7.7	Std. Units	0.10	07/13/23 16:08	H3
SM 4500-S2-D	Sulfide	0.033J	mg/L	0.10	07/11/23 09:50	
HACH 8146	Iron, Ferrous	0.58	mg/L	0.20	07/11/23 14:39	H3,N2
EPA 365.1	Phosphate as P04	0.15	mg/L	0.15	07/14/23 10:52	
SM 5310C	Total Organic Carbon	1.3	mg/L	1.0	07/11/23 16:41	
SM 5310C	Dissolved Organic Carbon	1.3	mg/L	1.0	07/08/23 06:39	

**REPORT OF LABORATORY ANALYSIS**

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### ANALYTICAL RESULTS

Project: Eagle Valley P1R2  
 Pace Project No.: 50348805

**Sample: MW-25S**      **Lab ID: 50348805001**      Collected: 07/07/23 12:20      Received: 07/07/23 13:18      Matrix: Water

Parameters	Results	Units	Report			Prepared	Analyzed	CAS No.	Qual
			Limit	MDL	DF				
<b>9056 IC Anions</b>									
Analytical Method: EPA 9056									
Pace Analytical Services - Indianapolis									
Chloride	75.2	mg/L	2.5	0.67	10		07/12/23 01:06	16887-00-6	
Fluoride	0.28	mg/L	0.10	0.017	1		07/12/23 00:49	16984-48-8	
Sulfate	64.1	mg/L	2.5	0.85	10		07/12/23 01:06	14808-79-8	
<b>6010 MET ICP</b>									
Analytical Method: EPA 6010      Preparation Method: EPA 3010									
Pace Analytical Services - Indianapolis									
Aluminum	ND	ug/L	200	54.4	1	07/10/23 15:45	07/11/23 15:08	7429-90-5	
Boron	371	ug/L	100	61.4	1	07/10/23 15:45	07/11/23 15:08	7440-42-8	
Calcium	77800	ug/L	1000	88.4	1	07/10/23 15:45	07/11/23 15:08	7440-70-2	
Iron	329	ug/L	100	48.8	1	07/10/23 15:45	07/11/23 15:08	7439-89-6	
Lithium	56.8	ug/L	20.0	6.2	1	07/10/23 15:45	07/11/23 15:08	7439-93-2	
Magnesium	22100	ug/L	1000	43.0	1	07/10/23 15:45	07/11/23 15:08	7439-95-4	
Manganese	516	ug/L	10.0	5.4	1	07/10/23 15:45	07/11/23 15:08	7439-96-5	
Potassium	6390	ug/L	1000	200	1	07/10/23 15:45	07/11/23 15:08	7440-09-7	
Silica	10800	ug/L	450		1	07/10/23 15:45	07/11/23 15:08	7631-86-9	N2
Sodium	64500	ug/L	1000	284	1	07/10/23 15:45	07/11/23 15:08	7440-23-5	
<b>6010 MET ICP, Dissolved</b>									
Analytical Method: EPA 6010      Preparation Method: EPA 3010									
Pace Analytical Services - Indianapolis									
Manganese, Dissolved	532	ug/L	10.0	2.5	1	07/10/23 15:56	07/11/23 13:46	7439-96-5	
Molybdenum, Dissolved	70.0	ug/L	10.0	3.7	1	07/10/23 15:56	07/11/23 13:46	7439-98-7	
<b>6020 MET ICPMS</b>									
Analytical Method: EPA 6020      Preparation Method: EPA 200.2									
Pace Analytical Services - Indianapolis									
Antimony	ND	ug/L	1.0	0.044	1	07/10/23 08:20	07/11/23 02:32	7440-36-0	
Arsenic	ND	ug/L	1.0	0.064	1	07/10/23 08:20	07/11/23 02:32	7440-38-2	
Barium	86.0	ug/L	1.0	0.067	1	07/10/23 08:20	07/11/23 02:32	7440-39-3	
Beryllium	ND	ug/L	0.20	0.026	1	07/10/23 08:20	07/11/23 02:32	7440-41-7	
Cadmium	ND	ug/L	2.0	0.011	1	07/10/23 08:20	07/11/23 02:32	7440-43-9	
Chromium	ND	ug/L	10.0	0.15	1	07/10/23 08:20	07/11/23 02:32	7440-47-3	
Cobalt	ND	ug/L	1.0	0.024	1	07/10/23 08:20	07/11/23 02:32	7440-48-4	
Lead	ND	ug/L	10.0	0.018	1	07/10/23 08:20	07/11/23 02:32	7439-92-1	
Molybdenum	68.5	ug/L	10.0	0.031	1	07/10/23 08:20	07/11/23 02:32	7439-98-7	
Selenium	ND	ug/L	1.0	0.23	1	07/10/23 08:20	07/11/23 02:32	7782-49-2	
Thallium	ND	ug/L	1.0	0.042	1	07/10/23 08:20	07/11/23 02:32	7440-28-0	
<b>7470 Mercury</b>									
Analytical Method: EPA 7470      Preparation Method: EPA 7470									
Pace Analytical Services - Indianapolis									
Mercury	ND	ug/L	0.20	0.091	1	07/11/23 11:42	07/11/23 19:15	7439-97-6	
<b>2320B Alkalinity</b>									
Analytical Method: SM 2320B									
Pace Analytical Services - Indianapolis									
Alkalinity, Total as CaCO3	250	mg/L	10.0	10.0	1		07/10/23 22:25		
Alkalinity,Bicarbonate (CaCO3)	250	mg/L	10.0	10.0	1		07/10/23 22:25		

### REPORT OF LABORATORY ANALYSIS

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### ANALYTICAL RESULTS

Project: Eagle Valley P1R2

Pace Project No.: 50348805

Sample: MW-25S		Lab ID: 50348805001		Collected: 07/07/23 12:20	Received: 07/07/23 13:18	Matrix: Water			
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>2320B Alkalinity</b>									
Analytical Method: SM 2320B									
Pace Analytical Services - Indianapolis									
Alkalinity, Carbonate (CaCO3)	ND	mg/L	10.0	10.0	1		07/10/23 22:25		
<b>2540C Total Dissolved Solids</b>									
Analytical Method: SM 2540C									
Pace Analytical Services - Indianapolis									
Total Dissolved Solids	<b>403</b>	mg/L	10.0	10.0	1		07/11/23 13:41		
<b>4500H+ pH, Electrometric</b>									
Analytical Method: SM 4500-H+B									
Pace Analytical Services - Indianapolis									
pH at 25 Degrees C	<b>7.4</b>	Std. Units	0.10	0.10	1		07/13/23 16:06		H3
<b>4500S2D Sulfide Water</b>									
Analytical Method: SM 4500-S2-D									
Pace Analytical Services - Indianapolis									
Sulfide	ND	mg/L	0.10	0.025	1		07/11/23 09:50	18496-25-8	
<b>Iron, Ferrous</b>									
Analytical Method: HACH 8146									
Pace Analytical Services - Indianapolis									
Iron, Ferrous	ND	mg/L	0.20	0.035	1		07/11/23 14:40	15438-31-0	H3,N2
<b>353.2 Nitrogen, NO2/NO3 unpres</b>									
Analytical Method: EPA 353.2									
Pace Analytical Services - Indianapolis									
Nitrogen, Nitrate	ND	mg/L	0.10	0.011	1		07/07/23 21:50	14797-55-8	
Nitrogen, Nitrite	ND	mg/L	0.10	0.0040	1		07/07/23 21:50	14797-65-0	
<b>365.1 Total Phosphorus</b>									
Analytical Method: EPA 365.1 Preparation Method: EPA 365.1									
Pace Analytical Services - Indianapolis									
Phosphate as P04	ND	mg/L	0.15	0.15	1	07/10/23 11:00	07/14/23 10:51		
<b>5310C TOC</b>									
Analytical Method: SM 5310C									
Pace Analytical Services - Indianapolis									
Total Organic Carbon	<b>1.2</b>	mg/L	1.0	0.24	1		07/08/23 03:06	7440-44-0	
<b>5310C Dissolved Organic Carbon</b>									
Analytical Method: SM 5310C									
Pace Analytical Services - Indianapolis									
Dissolved Organic Carbon	<b>1.0</b>	mg/L	1.0	0.24	1		07/08/23 06:28		

### REPORT OF LABORATORY ANALYSIS

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**ANALYTICAL RESULTS**

Project: Eagle Valley P1R2  
 Pace Project No.: 50348805

**Sample: MW-25I**      **Lab ID: 50348805002**      Collected: 07/07/23 11:30      Received: 07/07/23 13:18      Matrix: Water

Parameters	Results	Units	Report			Prepared	Analyzed	CAS No.	Qual
			Limit	MDL	DF				
<b>9056 IC Anions</b>									
Analytical Method: EPA 9056									
Pace Analytical Services - Indianapolis									
Chloride	86.8	mg/L	2.5	0.67	10		07/12/23 01:41	16887-00-6	
Fluoride	0.10	mg/L	0.10	0.017	1		07/12/23 01:24	16984-48-8	
Sulfate	81.3	mg/L	2.5	0.85	10		07/12/23 01:41	14808-79-8	
<b>6010 MET ICP</b>									
Analytical Method: EPA 6010      Preparation Method: EPA 3010									
Pace Analytical Services - Indianapolis									
Aluminum	1140	ug/L	200	54.4	1	07/10/23 15:45	07/11/23 15:11	7429-90-5	
Boron	972	ug/L	100	61.4	1	07/10/23 15:45	07/11/23 15:11	7440-42-8	
Calcium	89200	ug/L	1000	88.4	1	07/10/23 15:45	07/11/23 15:11	7440-70-2	
Iron	3440	ug/L	100	48.8	1	07/10/23 15:45	07/11/23 15:11	7439-89-6	
Lithium	80.9	ug/L	20.0	6.2	1	07/10/23 15:45	07/11/23 15:11	7439-93-2	
Magnesium	23100	ug/L	1000	43.0	1	07/10/23 15:45	07/11/23 15:11	7439-95-4	
Manganese	241	ug/L	10.0	5.4	1	07/10/23 15:45	07/11/23 15:11	7439-96-5	
Potassium	6860	ug/L	1000	200	1	07/10/23 15:45	07/11/23 15:11	7440-09-7	
Silica	15300	ug/L	450		1	07/10/23 15:45	07/11/23 15:11	7631-86-9	N2
Sodium	76900	ug/L	1000	284	1	07/10/23 15:45	07/11/23 15:11	7440-23-5	
<b>6010 MET ICP, Dissolved</b>									
Analytical Method: EPA 6010      Preparation Method: EPA 3010									
Pace Analytical Services - Indianapolis									
Manganese, Dissolved	193	ug/L	10.0	2.5	1	07/10/23 15:56	07/11/23 13:48	7439-96-5	
Molybdenum, Dissolved	137	ug/L	10.0	3.7	1	07/10/23 15:56	07/11/23 13:48	7439-98-7	
<b>6020 MET ICPMS</b>									
Analytical Method: EPA 6020      Preparation Method: EPA 200.2									
Pace Analytical Services - Indianapolis									
Antimony	ND	ug/L	1.0	0.044	1	07/10/23 08:20	07/11/23 02:36	7440-36-0	
Arsenic	2.1	ug/L	1.0	0.064	1	07/10/23 08:20	07/11/23 02:36	7440-38-2	
Barium	90.4	ug/L	1.0	0.067	1	07/10/23 08:20	07/11/23 02:36	7440-39-3	
Beryllium	ND	ug/L	0.20	0.026	1	07/10/23 08:20	07/11/23 02:36	7440-41-7	
Cadmium	ND	ug/L	2.0	0.011	1	07/10/23 08:20	07/11/23 02:36	7440-43-9	
Chromium	ND	ug/L	10.0	0.15	1	07/10/23 08:20	07/11/23 02:36	7440-47-3	
Cobalt	1.1	ug/L	1.0	0.024	1	07/10/23 08:20	07/11/23 02:36	7440-48-4	
Lead	ND	ug/L	10.0	0.018	1	07/10/23 08:20	07/11/23 02:36	7439-92-1	
Molybdenum	130	ug/L	10.0	0.031	1	07/10/23 08:20	07/11/23 02:36	7439-98-7	
Selenium	ND	ug/L	1.0	0.23	1	07/10/23 08:20	07/11/23 02:36	7782-49-2	
Thallium	ND	ug/L	1.0	0.042	1	07/10/23 08:20	07/11/23 02:36	7440-28-0	
<b>7470 Mercury</b>									
Analytical Method: EPA 7470      Preparation Method: EPA 7470									
Pace Analytical Services - Indianapolis									
Mercury	ND	ug/L	0.20	0.091	1	07/11/23 11:42	07/11/23 19:18	7439-97-6	
<b>2320B Alkalinity</b>									
Analytical Method: SM 2320B									
Pace Analytical Services - Indianapolis									
Alkalinity, Total as CaCO3	247	mg/L	10.0	10.0	1		07/10/23 22:25		
Alkalinity,Bicarbonate (CaCO3)	247	mg/L	10.0	10.0	1		07/10/23 22:25		

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**ANALYTICAL RESULTS**

Project: Eagle Valley P1R2  
 Pace Project No.: 50348805

Sample: MW-251 Lab ID: 50348805002 Collected: 07/07/23 11:30 Received: 07/07/23 13:18 Matrix: Water									
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>2320B Alkalinity</b> Analytical Method: SM 2320B Pace Analytical Services - Indianapolis									
Alkalinity, Carbonate (CaCO3)	ND	mg/L	10.0	10.0	1		07/10/23 22:25		
<b>2540C Total Dissolved Solids</b> Analytical Method: SM 2540C Pace Analytical Services - Indianapolis									
Total Dissolved Solids	505	mg/L	10.0	10.0	1		07/11/23 13:41		
<b>4500H+ pH, Electrometric</b> Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis									
pH at 25 Degrees C	7.6	Std. Units	0.10	0.10	1		07/13/23 16:08		H3
<b>4500S2D Sulfide Water</b> Analytical Method: SM 4500-S2-D Pace Analytical Services - Indianapolis									
Sulfide	ND	mg/L	0.10	0.025	1		07/11/23 09:50	18496-25-8	
<b>Iron, Ferrous</b> Analytical Method: HACH 8146 Pace Analytical Services - Indianapolis									
Iron, Ferrous	0.23	mg/L	0.20	0.035	1		07/11/23 14:39	15438-31-0	H3,N2
<b>353.2 Nitrogen, NO2/NO3 unpres</b> Analytical Method: EPA 353.2 Pace Analytical Services - Indianapolis									
Nitrogen, Nitrate	ND	mg/L	0.10	0.011	1		07/07/23 21:48	14797-55-8	
Nitrogen, Nitrite	ND	mg/L	0.10	0.0040	1		07/07/23 21:48	14797-65-0	
<b>365.1 Total Phosphorus</b> Analytical Method: EPA 365.1 Preparation Method: EPA 365.1 Pace Analytical Services - Indianapolis									
Phosphate as P04	0.17	mg/L	0.15	0.15	1	07/10/23 11:00	07/14/23 10:52		
<b>5310C TOC</b> Analytical Method: SM 5310C Pace Analytical Services - Indianapolis									
Total Organic Carbon	ND	mg/L	4.0	0.94	4		07/08/23 03:22	7440-44-0	D3
<b>5310C Dissolved Organic Carbon</b> Analytical Method: SM 5310C Pace Analytical Services - Indianapolis									
Dissolved Organic Carbon	1.1	mg/L	1.0	0.24	1		07/08/23 06:50		

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**ANALYTICAL RESULTS**

Project: Eagle Valley P1R2  
 Pace Project No.: 50348805

**Sample: MW-25D**      **Lab ID: 50348805003**      Collected: 07/07/23 10:20      Received: 07/07/23 13:18      Matrix: Water

Parameters	Results	Units	Report			Prepared	Analyzed	CAS No.	Qual
			Limit	MDL	DF				

**9056 IC Anions**

Analytical Method: EPA 9056  
 Pace Analytical Services - Indianapolis

Chloride	<b>87.9</b>	mg/L	2.5	0.67	10		07/12/23 02:33	16887-00-6	
Fluoride	<b>0.10</b>	mg/L	0.10	0.017	1		07/12/23 02:16	16984-48-8	
Sulfate	<b>86.8</b>	mg/L	2.5	0.85	10		07/12/23 02:33	14808-79-8	

**6010 MET ICP**

Analytical Method: EPA 6010      Preparation Method: EPA 3010  
 Pace Analytical Services - Indianapolis

Aluminum	<b>681</b>	ug/L	200	54.4	1	07/10/23 15:45	07/11/23 15:13	7429-90-5	
Boron	<b>1800</b>	ug/L	100	61.4	1	07/10/23 15:45	07/11/23 15:13	7440-42-8	
Calcium	<b>79400</b>	ug/L	1000	88.4	1	07/10/23 15:45	07/11/23 15:13	7440-70-2	
Iron	<b>2460</b>	ug/L	100	48.8	1	07/10/23 15:45	07/11/23 15:13	7439-89-6	
Lithium	<b>65.9</b>	ug/L	20.0	6.2	1	07/10/23 15:45	07/11/23 15:13	7439-93-2	
Magnesium	<b>16800</b>	ug/L	1000	43.0	1	07/10/23 15:45	07/11/23 15:13	7439-95-4	
Manganese	<b>126</b>	ug/L	10.0	5.4	1	07/10/23 15:45	07/11/23 15:13	7439-96-5	
Potassium	<b>4020</b>	ug/L	1000	200	1	07/10/23 15:45	07/11/23 15:13	7440-09-7	
Silica	<b>14600</b>	ug/L	450		1	07/10/23 15:45	07/11/23 15:13	7631-86-9	N2
Sodium	<b>88400</b>	ug/L	1000	284	1	07/10/23 15:45	07/11/23 15:13	7440-23-5	

**6010 MET ICP, Dissolved**

Analytical Method: EPA 6010      Preparation Method: EPA 3010  
 Pace Analytical Services - Indianapolis

Manganese, Dissolved	<b>111</b>	ug/L	10.0	2.5	1	07/10/23 15:56	07/11/23 13:50	7439-96-5	
Molybdenum, Dissolved	<b>189</b>	ug/L	10.0	3.7	1	07/10/23 15:56	07/11/23 13:50	7439-98-7	

**6020 MET ICPMS**

Analytical Method: EPA 6020      Preparation Method: EPA 200.2  
 Pace Analytical Services - Indianapolis

Antimony	ND	ug/L	1.0	0.044	1	07/10/23 08:20	07/11/23 02:39	7440-36-0	
Arsenic	<b>1.3</b>	ug/L	1.0	0.064	1	07/10/23 08:20	07/11/23 02:39	7440-38-2	
Barium	<b>61.8</b>	ug/L	1.0	0.067	1	07/10/23 08:20	07/11/23 02:39	7440-39-3	
Beryllium	ND	ug/L	0.20	0.026	1	07/10/23 08:20	07/11/23 02:39	7440-41-7	
Cadmium	ND	ug/L	2.0	0.011	1	07/10/23 08:20	07/11/23 02:39	7440-43-9	
Chromium	ND	ug/L	10.0	0.15	1	07/10/23 08:20	07/11/23 02:39	7440-47-3	
Cobalt	ND	ug/L	1.0	0.024	1	07/10/23 08:20	07/11/23 02:39	7440-48-4	
Lead	ND	ug/L	10.0	0.018	1	07/10/23 08:20	07/11/23 02:39	7439-92-1	
Molybdenum	<b>180</b>	ug/L	10.0	0.031	1	07/10/23 08:20	07/11/23 02:39	7439-98-7	
Selenium	ND	ug/L	1.0	0.23	1	07/10/23 08:20	07/11/23 02:39	7782-49-2	
Thallium	ND	ug/L	1.0	0.042	1	07/10/23 08:20	07/11/23 02:39	7440-28-0	

**7470 Mercury**

Analytical Method: EPA 7470      Preparation Method: EPA 7470  
 Pace Analytical Services - Indianapolis

Mercury	ND	ug/L	0.20	0.091	1	07/11/23 11:42	07/11/23 19:20	7439-97-6	
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**2320B Alkalinity**

Analytical Method: SM 2320B  
 Pace Analytical Services - Indianapolis

Alkalinity, Total as CaCO3	<b>219</b>	mg/L	10.0	10.0	1		07/10/23 22:25		
Alkalinity,Bicarbonate (CaCO3)	<b>219</b>	mg/L	10.0	10.0	1		07/10/23 22:25		

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**ANALYTICAL RESULTS**

Project: Eagle Valley P1R2  
 Pace Project No.: 50348805

Sample: MW-25D		Lab ID: 50348805003		Collected: 07/07/23 10:20	Received: 07/07/23 13:18	Matrix: Water			
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>2320B Alkalinity</b>		Analytical Method: SM 2320B Pace Analytical Services - Indianapolis							
Alkalinity, Carbonate (CaCO3)	ND	mg/L	10.0	10.0	1		07/10/23 22:25		
<b>2540C Total Dissolved Solids</b>		Analytical Method: SM 2540C Pace Analytical Services - Indianapolis							
Total Dissolved Solids	<b>507</b>	mg/L	10.0	10.0	1		07/11/23 13:42		
<b>4500H+ pH, Electrometric</b>		Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis							
pH at 25 Degrees C	<b>7.7</b>	Std. Units	0.10	0.10	1		07/13/23 16:08		H3
<b>4500S2D Sulfide Water</b>		Analytical Method: SM 4500-S2-D Pace Analytical Services - Indianapolis							
Sulfide	<b>0.033J</b>	mg/L	0.10	0.025	1		07/11/23 09:50	18496-25-8	
<b>Iron, Ferrous</b>		Analytical Method: HACH 8146 Pace Analytical Services - Indianapolis							
Iron, Ferrous	<b>0.58</b>	mg/L	0.20	0.035	1		07/11/23 14:39	15438-31-0	H3,N2
<b>353.2 Nitrogen, NO2/NO3 unpres</b>		Analytical Method: EPA 353.2 Pace Analytical Services - Indianapolis							
Nitrogen, Nitrate	ND	mg/L	0.10	0.011	1		07/07/23 21:46	14797-55-8	
Nitrogen, Nitrite	ND	mg/L	0.10	0.0040	1		07/07/23 21:46	14797-65-0	
<b>365.1 Total Phosphorus</b>		Analytical Method: EPA 365.1 Preparation Method: EPA 365.1 Pace Analytical Services - Indianapolis							
Phosphate as P04	<b>0.15</b>	mg/L	0.15	0.15	1	07/10/23 11:00	07/14/23 10:52		
<b>5310C TOC</b>		Analytical Method: SM 5310C Pace Analytical Services - Indianapolis							
Total Organic Carbon	<b>1.3</b>	mg/L	1.0	0.24	1		07/11/23 16:41	7440-44-0	
<b>5310C Dissolved Organic Carbon</b>		Analytical Method: SM 5310C Pace Analytical Services - Indianapolis							
Dissolved Organic Carbon	<b>1.3</b>	mg/L	1.0	0.24	1		07/08/23 06:39		

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**QUALITY CONTROL DATA**

Project: Eagle Valley P1R2

Pace Project No.: 50348805

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QC Batch:	742893	Analysis Method:	EPA 9056
QC Batch Method:	EPA 9056	Analysis Description:	9056 IC Anions
		Laboratory:	Pace Analytical Services - Indianapolis

Associated Lab Samples: 50348805001, 50348805002, 50348805003

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METHOD BLANK: 3406717 Matrix: Water

Associated Lab Samples: 50348805001, 50348805002, 50348805003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chloride	mg/L	ND	0.25	0.067	07/11/23 18:10	
Fluoride	mg/L	ND	0.10	0.017	07/11/23 18:10	
Sulfate	mg/L	ND	0.25	0.085	07/11/23 18:10	

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LABORATORY CONTROL SAMPLE: 3406718

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	2.5	2.5	101	80-120	
Fluoride	mg/L	1	1.0	100	80-120	
Sulfate	mg/L	5	4.9	97	80-120	

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MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3406719 3406720

Parameter	Units	MS		MSD		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		50348745003	Result	Spike Conc.	Spike Conc.								
Chloride	mg/L	78.8	25	25	101	101	90	89	80-120	0	15		
Fluoride	mg/L	0.25	1	1	1.2	1.2	97	97	80-120	0	15		
Sulfate	mg/L	83.1	50	50	129	129	92	92	80-120	0	15		

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**QUALITY CONTROL DATA**

Project: Eagle Valley P1R2

Pace Project No.: 50348805

QC Batch:	743016	Analysis Method:	EPA 7470
QC Batch Method:	EPA 7470	Analysis Description:	7470 Mercury
		Laboratory:	Pace Analytical Services - Indianapolis
Associated Lab Samples:	50348805001, 50348805002, 50348805003		

METHOD BLANK: 3407119 Matrix: Water

Associated Lab Samples: 50348805001, 50348805002, 50348805003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Mercury	ug/L	ND	0.20	0.091	07/11/23 18:26	

LABORATORY CONTROL SAMPLE: 3407120

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury	ug/L	5	5.1	101	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3407121 3407122

Parameter	Units	10659559008		3407121		3407122		% Rec Limits	RPD	Max RPD	Qual
		MS Result	MSD Spike Conc.	MS Result	MSD Spike Conc.	MS % Rec	MSD % Rec				
Mercury	ug/L	ND	5	5	4.3	4.6	85	92	75-125	7	20

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**QUALITY CONTROL DATA**

Project: Eagle Valley P1R2  
Pace Project No.: 50348805

QC Batch: 742733 Analysis Method: EPA 6010  
QC Batch Method: EPA 3010 Analysis Description: 6010 MET  
Laboratory: Pace Analytical Services - Indianapolis  
Associated Lab Samples: 50348805001, 50348805002, 50348805003

METHOD BLANK: 3406251 Matrix: Water  
Associated Lab Samples: 50348805001, 50348805002, 50348805003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Aluminum	ug/L	ND	200	54.4	07/11/23 14:43	
Boron	ug/L	ND	100	61.4	07/11/23 14:43	
Calcium	ug/L	ND	1000	88.4	07/11/23 14:43	
Iron	ug/L	ND	100	48.8	07/11/23 14:43	
Lithium	ug/L	ND	20.0	6.2	07/11/23 14:43	
Magnesium	ug/L	ND	1000	43.0	07/11/23 14:43	
Manganese	ug/L	ND	10.0	5.4	07/11/23 14:43	
Potassium	ug/L	ND	1000	200	07/11/23 14:43	
Silica	ug/L	ND	450		07/11/23 14:43	N2
Sodium	ug/L	ND	1000	284	07/11/23 14:43	

LABORATORY CONTROL SAMPLE: 3406252

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Aluminum	ug/L	10000	10200	102	80-120	
Boron	ug/L	1000	1000	100	80-120	
Calcium	ug/L	10000	10400	104	80-120	
Iron	ug/L	10000	10400	104	80-120	
Lithium	ug/L	1000	1010	101	80-120	
Magnesium	ug/L	10000	10200	102	80-120	
Manganese	ug/L	1000	1000	100	80-120	
Potassium	ug/L	10000	9870	99	80-120	
Silica	ug/L	10700	10900	102	80-120	N2
Sodium	ug/L	10000	10100	101	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3406253 3406254

Parameter	Units	MS		MSD		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual	
		50348745003 Result	Spike Conc.	Spike Conc.	Result							Result
Aluminum	ug/L	ND	10000	10000	10100	10000	100	99	75-125	1	20	
Boron	ug/L	1750	1000	1000	2760	2740	100	99	75-125	1	20	
Calcium	ug/L	81900	10000	10000	91100	91300	92	94	75-125	0	20	
Iron	ug/L	570	10000	10000	10700	10600	101	100	75-125	1	20	
Lithium	ug/L	76.4	1000	1000	1110	1100	104	103	75-125	1	20	
Magnesium	ug/L	14800	10000	10000	24600	24500	98	97	75-125	0	20	
Manganese	ug/L	291	1000	1000	1270	1260	98	97	75-125	1	20	
Potassium	ug/L	5880	10000	10000	16400	16300	105	104	75-125	1	20	

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### QUALITY CONTROL DATA

Project: Eagle Valley P1R2

Pace Project No.: 50348805

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3406253												3406254	
Parameter	Units	50348745003 Result	MS	MSD	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max	Qual	
			Spike Conc.	Spike Conc.							RPD		
Silica	ug/L	12000	10700	10700	22900	22900	102	102	75-125	0	20	N2	
Sodium	ug/L	82900	10000	10000	93000	92500	101	97	75-125	0	20		

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**QUALITY CONTROL DATA**

Project: Eagle Valley P1R2

Pace Project No.: 50348805

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QC Batch:	742730	Analysis Method:	EPA 6010
QC Batch Method:	EPA 3010	Analysis Description:	6010 MET Dissolved
		Laboratory:	Pace Analytical Services - Indianapolis

Associated Lab Samples: 50348805001, 50348805002, 50348805003

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METHOD BLANK: 3406239 Matrix: Water

Associated Lab Samples: 50348805001, 50348805002, 50348805003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Manganese, Dissolved	ug/L	ND	10.0	2.5	07/11/23 14:28	
Molybdenum, Dissolved	ug/L	ND	10.0	3.7	07/11/23 14:28	

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LABORATORY CONTROL SAMPLE: 3406240

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Manganese, Dissolved	ug/L	1000	977	98	80-120	
Molybdenum, Dissolved	ug/L	1000	1020	102	80-120	

---

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3406241 3406242

Parameter	Units	50347796001		3406241		3406242		% Rec Limits	RPD	Max RPD	Qual
		Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec				
Manganese, Dissolved	ug/L	0.041 mg/L	1000	1000	1000	1010	96	97	75-125	1	20
Molybdenum, Dissolved	ug/L	ND	1000	1000	1040	1040	104	104	75-125	0	20

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**QUALITY CONTROL DATA**

Project: Eagle Valley P1R2

Pace Project No.: 50348805

QC Batch:	742775	Analysis Method:	EPA 6020
QC Batch Method:	EPA 200.2	Analysis Description:	6020 MET
		Laboratory:	Pace Analytical Services - Indianapolis

Associated Lab Samples: 50348805001, 50348805002, 50348805003

METHOD BLANK: 3406373 Matrix: Water

Associated Lab Samples: 50348805001, 50348805002, 50348805003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Antimony	ug/L	ND	1.0	0.044	07/11/23 02:09	
Arsenic	ug/L	ND	1.0	0.064	07/11/23 02:09	
Barium	ug/L	ND	1.0	0.067	07/11/23 02:09	
Beryllium	ug/L	ND	0.20	0.026	07/11/23 02:09	
Cadmium	ug/L	ND	2.0	0.011	07/11/23 02:09	
Chromium	ug/L	ND	10.0	0.15	07/11/23 02:09	
Cobalt	ug/L	ND	1.0	0.024	07/11/23 02:09	
Lead	ug/L	ND	10.0	0.018	07/11/23 02:09	
Molybdenum	ug/L	ND	10.0	0.031	07/11/23 02:09	
Selenium	ug/L	ND	1.0	0.23	07/11/23 02:09	
Thallium	ug/L	ND	1.0	0.042	07/11/23 02:09	

LABORATORY CONTROL SAMPLE: 3406374

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Antimony	ug/L	40	41.6	104	80-120	
Arsenic	ug/L	40	39.1	98	80-120	
Barium	ug/L	40	39.4	98	80-120	
Beryllium	ug/L	40	41.5	104	80-120	
Cadmium	ug/L	40	38.6	97	80-120	
Chromium	ug/L	40	40.0	100	80-120	
Cobalt	ug/L	40	40.3	101	80-120	
Lead	ug/L	40	40.4	101	80-120	
Molybdenum	ug/L	40	40.5	101	80-120	
Selenium	ug/L	40	40.1	100	80-120	
Thallium	ug/L	40	42.2	106	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3406375 3406376

Parameter	Units	50348745003		3406376		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual	
		Result	MS Spike Conc.	MSD Spike Conc.	MS Result							MSD Result
Antimony	ug/L	ND	40	40	42.7	42.0	107	105	75-125	2	20	
Arsenic	ug/L	3.1	40	40	43.1	42.9	100	100	75-125	0	20	
Barium	ug/L	56.9	40	40	99.3	100	106	108	75-125	1	20	
Beryllium	ug/L	ND	40	40	42.5	43.1	106	108	75-125	1	20	
Cadmium	ug/L	ND	40	40	37.9	37.8	95	94	75-125	0	20	
Chromium	ug/L	ND	40	40	39.9	39.7	99	98	75-125	1	20	

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### QUALITY CONTROL DATA

Project: Eagle Valley P1R2

Pace Project No.: 50348805

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3406375 3406376														
Parameter	Units	50348745003 Result	MS		MSD		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	Max RPD	RPD	Qual
			Spike Conc.	Spike Conc.										
Cobalt	ug/L	ND	40	40	38.5	38.7	95	96	75-125	0	20			
Lead	ug/L	ND	40	40	40.7	40.3	101	100	75-125	1	20			
Molybdenum	ug/L	196	40	40	243	239	116	108	75-125	1	20			
Selenium	ug/L	ND	40	40	39.5	39.3	98	98	75-125	1	20			
Thallium	ug/L	ND	40	40	41.9	42.2	105	106	75-125	1	20			

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**QUALITY CONTROL DATA**

Project: Eagle Valley P1R2

Pace Project No.: 50348805

QC Batch:	743003	Analysis Method:	SM 2320B
QC Batch Method:	SM 2320B	Analysis Description:	2320B Alkalinity
		Laboratory:	Pace Analytical Services - Indianapolis
Associated Lab Samples:	50348805001, 50348805002, 50348805003		

METHOD BLANK: 3407076 Matrix: Water

Associated Lab Samples: 50348805001, 50348805002, 50348805003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Alkalinity, Total as CaCO3	mg/L	ND	10.0	10.0	07/10/23 22:25	
Alkalinity,Bicarbonate (CaCO3)	mg/L	ND	10.0	10.0	07/10/23 22:25	
Alkalinity,Carbonate (CaCO3)	mg/L	ND	10.0	10.0	07/10/23 22:25	

LABORATORY CONTROL SAMPLE: 3407077

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Alkalinity, Total as CaCO3	mg/L	50	48.6	97	90-110	

SAMPLE DUPLICATE: 3407078

Parameter	Units	50348805001 Result	Dup Result	RPD	Max RPD	Qualifiers
Alkalinity, Total as CaCO3	mg/L	250	251	1	20	
Alkalinity,Bicarbonate (CaCO3)	mg/L	250	251	1	20	
Alkalinity,Carbonate (CaCO3)	mg/L	ND	ND		20	

SAMPLE DUPLICATE: 3407079

Parameter	Units	50348745003 Result	Dup Result	RPD	Max RPD	Qualifiers
Alkalinity, Total as CaCO3	mg/L	221	227	2	20	
Alkalinity,Bicarbonate (CaCO3)	mg/L	221	221	0	20	
Alkalinity,Carbonate (CaCO3)	mg/L	ND	ND		20	

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### QUALITY CONTROL DATA

Project: Eagle Valley P1R2

Pace Project No.: 50348805

QC Batch: 743131

Analysis Method: SM 2540C

QC Batch Method: SM 2540C

Analysis Description: 2540C Total Dissolved Solids

Laboratory: Pace Analytical Services - Indianapolis

Associated Lab Samples: 50348805001, 50348805002, 50348805003

METHOD BLANK: 3407526

Matrix: Water

Associated Lab Samples: 50348805001, 50348805002, 50348805003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	ND	10.0	10.0	07/11/23 13:34	

LABORATORY CONTROL SAMPLE: 3407527

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	300	294	98	80-120	

SAMPLE DUPLICATE: 3407528

Parameter	Units	50348745001 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	499	493	1	10	

SAMPLE DUPLICATE: 3407529

Parameter	Units	50348745003 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	491	491	0	10	

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### QUALITY CONTROL DATA

Project: Eagle Valley P1R2

Pace Project No.: 50348805

QC Batch: 743544

Analysis Method: SM 4500-H+B

QC Batch Method: SM 4500-H+B

Analysis Description: 4500H+B pH

Laboratory: Pace Analytical Services - Indianapolis

Associated Lab Samples: 50348805001, 50348805002, 50348805003

SAMPLE DUPLICATE: 3409500

Parameter	Units	50348805001 Result	Dup Result	RPD	Max RPD	Qualifiers
pH at 25 Degrees C	Std. Units	7.4	7.5	1	2	H3

SAMPLE DUPLICATE: 3409501

Parameter	Units	50348991002 Result	Dup Result	RPD	Max RPD	Qualifiers
pH at 25 Degrees C	Std. Units	7.7	7.6	1	2	H3

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**QUALITY CONTROL DATA**

Project: Eagle Valley P1R2  
 Pace Project No.: 50348805

QC Batch: 743053 Analysis Method: SM 4500-S2-D  
 QC Batch Method: SM 4500-S2-D Analysis Description: 4500S2D Sulfide Water  
 Laboratory: Pace Analytical Services - Indianapolis  
 Associated Lab Samples: 50348805001, 50348805002, 50348805003

METHOD BLANK: 3407189 Matrix: Water  
 Associated Lab Samples: 50348805001, 50348805002, 50348805003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Sulfide	mg/L	ND	0.10	0.025	07/11/23 09:50	

LABORATORY CONTROL SAMPLE: 3407190

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Sulfide	mg/L	0.5	0.50	100	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3407191 3407192

Parameter	Units	50348745003		3407191		3407192		% Rec Limits	RPD	Max RPD	Qual
		MS Result	MSD Spike Conc.	MS Result	MSD Spike Conc.	MS Result	MSD Result				
Sulfide	mg/L	ND	0.5	0.5	0.53	0.52	107	103	90-110	3	20

MATRIX SPIKE SAMPLE: 3407193

Parameter	Units	50348805001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Sulfide	mg/L	ND	0.5	0.52	105	90-110	

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**QUALITY CONTROL DATA**

Project: Eagle Valley P1R2  
 Pace Project No.: 50348805

QC Batch: 743135 Analysis Method: HACH 8146  
 QC Batch Method: HACH 8146 Analysis Description: Iron, Ferrous  
 Laboratory: Pace Analytical Services - Indianapolis  
 Associated Lab Samples: 50348805001, 50348805002, 50348805003

METHOD BLANK: 3407542 Matrix: Water  
 Associated Lab Samples: 50348805001, 50348805002, 50348805003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Iron, Ferrous	mg/L	ND	0.20	0.035	07/11/23 14:26	H3,N2

LABORATORY CONTROL SAMPLE: 3407543

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Iron, Ferrous	mg/L	1	1.0	100	90-110	H3,N2

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3407544 3407545

Parameter	Units	50348607005		3407544		3407545		% Rec	% Rec	Limits	RPD	Max RPD	Qual
		Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec						
Iron, Ferrous	mg/L	ND	1	1	1.1	1.1	107	108	90-110	1	20	H3,N2	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3407546 3407547

Parameter	Units	50348745003		3407546		3407547		% Rec	% Rec	Limits	RPD	Max RPD	Qual
		Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec						
Iron, Ferrous	mg/L	0.20	1	1	1.3	1.3	108	109	90-110	1	20	H3,N2	

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**QUALITY CONTROL DATA**

Project: Eagle Valley P1R2

Pace Project No.: 50348805

QC Batch:	742758	Analysis Method:	EPA 353.2
QC Batch Method:	EPA 353.2	Analysis Description:	353.2 Nitrate + Nitrite, Unpres.
		Laboratory:	Pace Analytical Services - Indianapolis

Associated Lab Samples: 50348805001, 50348805002, 50348805003

METHOD BLANK: 3406318 Matrix: Water

Associated Lab Samples: 50348805001, 50348805002, 50348805003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Nitrogen, Nitrate	mg/L	ND	0.10	0.011	07/07/23 21:25	
Nitrogen, Nitrite	mg/L	ND	0.10	0.0040	07/07/23 21:25	

LABORATORY CONTROL SAMPLE: 3406319

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Nitrogen, Nitrate	mg/L	1	0.97	97	90-110	
Nitrogen, Nitrite	mg/L	1	1.0	103	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3406320 3406321

Parameter	Units	50348745003		3406321		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		Result	MS Spike Conc.	MSD Spike Conc.	MS Result						
Nitrogen, Nitrate	mg/L	ND	1	1	0.93	0.94	93	93	90-110	1	20
Nitrogen, Nitrite	mg/L	ND	1	1	1.0	1.0	101	102	90-110	0	20

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**QUALITY CONTROL DATA**

Project: Eagle Valley P1R2

Pace Project No.: 50348805

QC Batch:	742881	Analysis Method:	EPA 365.1
QC Batch Method:	EPA 365.1	Analysis Description:	365.1 Total Phosphorus
		Laboratory:	Pace Analytical Services - Indianapolis

Associated Lab Samples: 50348805001, 50348805002, 50348805003

METHOD BLANK: 3406682 Matrix: Water

Associated Lab Samples: 50348805001, 50348805002, 50348805003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Phosphate as P04	mg/L	ND	0.15	0.15	07/14/23 10:50	

LABORATORY CONTROL SAMPLE: 3406683

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Phosphate as P04	mg/L		1.4			

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3406684 3406685

Parameter	Units	50348745003 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Phosphate as P04	mg/L	ND			1.4	1.5					5	

MATRIX SPIKE SAMPLE: 3406686

Parameter	Units	50348634001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Phosphate as P04	mg/L	<0.15		1.4			

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**QUALITY CONTROL DATA**

Project: Eagle Valley P1R2

Pace Project No.: 50348805

QC Batch: 742678	Analysis Method: SM 5310C
QC Batch Method: SM 5310C	Analysis Description: 5310C Total Organic Carbon
	Laboratory: Pace Analytical Services - Indianapolis

Associated Lab Samples: 50348805001, 50348805002

METHOD BLANK: 3406013 Matrix: Water

Associated Lab Samples: 50348805001, 50348805002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Organic Carbon	mg/L	ND	1.0	0.24	07/10/23 20:05	

LABORATORY CONTROL SAMPLE: 3406014

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Organic Carbon	mg/L	10	10.5	105	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3406015 3406016

Parameter	Units	3406015		3406016		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		50348731001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result						
Total Organic Carbon	mg/L	2.7	40	40	45.4	44.6	107	105	80-120	2	20

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**QUALITY CONTROL DATA**

Project: Eagle Valley P1R2

Pace Project No.: 50348805

QC Batch:	743122	Analysis Method:	SM 5310C
QC Batch Method:	SM 5310C	Analysis Description:	5310C Total Organic Carbon
		Laboratory:	Pace Analytical Services - Indianapolis

Associated Lab Samples: 50348805003

METHOD BLANK: 3407495 Matrix: Water

Associated Lab Samples: 50348805003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Organic Carbon	mg/L	ND	1.0	0.24	07/11/23 16:20	

LABORATORY CONTROL SAMPLE: 3407496

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Organic Carbon	mg/L	10	10.2	102	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3407497 3407498

Parameter	Units	3407497		3407498		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		50348805003 Result	MS Spike Conc.	MSD Spike Conc.	MS Result						
Total Organic Carbon	mg/L	1.3	10	10	11.3	11.1	100	98	80-120	2	20

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**QUALITY CONTROL DATA**

Project: Eagle Valley P1R2

Pace Project No.: 50348805

QC Batch:	742679	Analysis Method:	SM 5310C
QC Batch Method:	SM 5310C	Analysis Description:	5310C Dissolved Organic Carbon
		Laboratory:	Pace Analytical Services - Indianapolis

Associated Lab Samples: 50348805001, 50348805002, 50348805003

METHOD BLANK: 3406017 Matrix: Water

Associated Lab Samples: 50348805001, 50348805002, 50348805003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Dissolved Organic Carbon	mg/L	ND	1.0	0.24	07/08/23 03:35	

LABORATORY CONTROL SAMPLE: 3406018

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Dissolved Organic Carbon	mg/L	10	10	100	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3406019 3406020

Parameter	Units	3406019		3406020		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result						
Dissolved Organic Carbon	mg/L	1.2	10	11.4	11.4	101	101	80-120	0	20	

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Eagle Valley P1R2

Pace Project No.: 50348805

**Sample: MW-25S**      **Lab ID: 50348805001**      Collected: 07/07/23 12:20      Received: 07/07/23 13:18      Matrix: Water  
 PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	<b>0.120 ± 0.373 (0.721)</b> <b>C:NA T:87%</b>	pCi/L	07/24/23 13:01	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	<b>0.456 ± 0.354 (0.693)</b> <b>C:81% T:81%</b>	pCi/L	07/20/23 11:44	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	<b>0.576 ± 0.727 (1.41)</b>	pCi/L	07/25/23 11:52	7440-14-4	

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**ANALYTICAL RESULTS - RADIOCHEMISTRY**

Project: Eagle Valley P1R2

Pace Project No.: 50348805

**Sample: MW-25I**      **Lab ID: 50348805002**      Collected: 07/07/23 11:30      Received: 07/07/23 13:18      Matrix: Water  
 PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	<b>0.805 ± 0.537 (0.666)</b> <b>C:NA T:87%</b>	pCi/L	07/24/23 13:01	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	<b>1.31 ± 0.522 (0.838)</b> <b>C:83% T:81%</b>	pCi/L	07/20/23 11:44	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	<b>2.12 ± 1.06 (1.50)</b>	pCi/L	07/25/23 11:52	7440-14-4	

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**ANALYTICAL RESULTS - RADIOCHEMISTRY**

Project: Eagle Valley P1R2

Pace Project No.: 50348805

**Sample: MW-25D**      **Lab ID: 50348805003**      Collected: 07/07/23 10:20      Received: 07/07/23 13:18      Matrix: Water  
 PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	<b>0.134 ± 0.558 (1.06)</b> <b>C:NA T:82%</b>	pCi/L	07/24/23 13:01	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	<b>1.07 ± 0.460 (0.751)</b> <b>C:84% T:79%</b>	pCi/L	07/20/23 11:44	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	<b>1.20 ± 1.02 (1.81)</b>	pCi/L	07/25/23 11:52	7440-14-4	

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### QUALITY CONTROL - RADIOCHEMISTRY

Project: Eagle Valley P1R2

Pace Project No.: 50348805

QC Batch: 601212

Analysis Method: EPA 903.1

QC Batch Method: EPA 903.1

Analysis Description: 903.1 Radium-226

Laboratory: Pace Analytical Services - Greensburg

Associated Lab Samples: 50348805001, 50348805002, 50348805003

METHOD BLANK: 2922735

Matrix: Water

Associated Lab Samples: 50348805001, 50348805002, 50348805003

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.210 ± 0.194 (0.283) C:NA T:78%	pCi/L	07/24/23 12:33	

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### QUALITY CONTROL - RADIOCHEMISTRY

Project: Eagle Valley P1R2

Pace Project No.: 50348805

QC Batch: 601214

Analysis Method: EPA 904.0

QC Batch Method: EPA 904.0

Analysis Description: 904.0 Radium 228

Laboratory: Pace Analytical Services - Greensburg

Associated Lab Samples: 50348805001, 50348805002, 50348805003

METHOD BLANK: 2922744

Matrix: Water

Associated Lab Samples: 50348805001, 50348805002, 50348805003

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.155 ± 0.250 (0.543) C:89% T:87%	pCi/L	07/20/23 11:43	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

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## QUALIFIERS

Project: Eagle Valley P1R2

Pace Project No.: 50348805

### DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Reported results are not rounded until the final step prior to reporting. Therefore, calculated parameters that are typically reported as "Total" may vary slightly from the sum of the reported component parameters.

Act - Activity

Unc - Uncertainty: SDWA = 1.96 sigma count uncertainty, all other matrices = Expanded Uncertainty (95% confidence interval).

Gamma Spec = Expanded Uncertainty (95.4% Confidence Interval)

(MDC) - Minimum Detectable Concentration

Trac - Tracer Recovery (%)

Carr - Carrier Recovery (%)

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

### ANALYTE QUALIFIERS

D3 Sample was diluted due to the presence of high levels of non-target analytes or other matrix interference.

H3 Sample was received or analysis requested beyond the recognized method holding time.

N2 The lab does not hold NELAC/TNI accreditation for this parameter but other accreditations/certifications may apply. A complete list of accreditations/certifications is available upon request.

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### QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Eagle Valley P1R2

Pace Project No.: 50348805

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
50348805001	MW-25S	EPA 9056	742893		
50348805002	MW-25I	EPA 9056	742893		
50348805003	MW-25D	EPA 9056	742893		
50348805001	MW-25S	EPA 3010	742733	EPA 6010	743121
50348805002	MW-25I	EPA 3010	742733	EPA 6010	743121
50348805003	MW-25D	EPA 3010	742733	EPA 6010	743121
50348805001	MW-25S	EPA 3010	742730	EPA 6010	743082
50348805002	MW-25I	EPA 3010	742730	EPA 6010	743082
50348805003	MW-25D	EPA 3010	742730	EPA 6010	743082
50348805001	MW-25S	EPA 200.2	742775	EPA 6020	743012
50348805002	MW-25I	EPA 200.2	742775	EPA 6020	743012
50348805003	MW-25D	EPA 200.2	742775	EPA 6020	743012
50348805001	MW-25S	EPA 7470	743016	EPA 7470	743182
50348805002	MW-25I	EPA 7470	743016	EPA 7470	743182
50348805003	MW-25D	EPA 7470	743016	EPA 7470	743182
50348805001	MW-25S	EPA 903.1	601212		
50348805002	MW-25I	EPA 903.1	601212		
50348805003	MW-25D	EPA 903.1	601212		
50348805001	MW-25S	EPA 904.0	601214		
50348805002	MW-25I	EPA 904.0	601214		
50348805003	MW-25D	EPA 904.0	601214		
50348805001	MW-25S	Total Radium Calculation	603943		
50348805002	MW-25I	Total Radium Calculation	603943		
50348805003	MW-25D	Total Radium Calculation	603943		
50348805001	MW-25S	SM 2320B	743003		
50348805002	MW-25I	SM 2320B	743003		
50348805003	MW-25D	SM 2320B	743003		
50348805001	MW-25S	SM 2540C	743131		
50348805002	MW-25I	SM 2540C	743131		
50348805003	MW-25D	SM 2540C	743131		
50348805001	MW-25S	SM 4500-H+B	743544		
50348805002	MW-25I	SM 4500-H+B	743544		
50348805003	MW-25D	SM 4500-H+B	743544		
50348805001	MW-25S	SM 4500-S2-D	743053		
50348805002	MW-25I	SM 4500-S2-D	743053		
50348805003	MW-25D	SM 4500-S2-D	743053		
50348805001	MW-25S	HACH 8146	743135		
50348805002	MW-25I	HACH 8146	743135		
50348805003	MW-25D	HACH 8146	743135		
50348805001	MW-25S	EPA 353.2	742758		
50348805002	MW-25I	EPA 353.2	742758		
50348805003	MW-25D	EPA 353.2	742758		

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### QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Eagle Valley P1R2

Pace Project No.: 50348805

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
50348805001	MW-25S	EPA 365.1	742881	EPA 365.1	743659
50348805002	MW-25I	EPA 365.1	742881	EPA 365.1	743659
50348805003	MW-25D	EPA 365.1	742881	EPA 365.1	743659
50348805001	MW-25S	SM 5310C	742678		
50348805002	MW-25I	SM 5310C	742678		
50348805003	MW-25D	SM 5310C	743122		
50348805001	MW-25S	SM 5310C	742679		
50348805002	MW-25I	SM 5310C	742679		
50348805003	MW-25D	SM 5310C	742679		

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## SAMPLE CONDITION UPON RECEIPT FORM

Date/Time and Initials of person examining contents: BC 7-7-23 13:29

1. Courier:  FED EX  UPS  CLIENT  PACE  NOW/JETT  OTHER \_\_\_\_\_

2. Custody Seal on Cooler/Box Present:  Yes  No

(If yes)Seals Intact:  Yes  No (leave blank if no seals were present)

3. Thermometer: **1 2 3 4 5 6 7 8 A B C D E F G H**

4. Cooler Temperature(s): 11.3/11.3        
 (Initial/Corrected) RECORD TEMPS OF ALL COOLERS RECEIVED (use Comments below to add more)

5. Packing Material:  Bubble Wrap  Bubble Bags  
 None  Other \_\_\_\_\_

6. Ice Type:  Wet  Blue  None

7. If temp. is over 6°C or under 0°C, was the PM notified?:  Yes  No  
 Cooler temp should be above freezing to 6°C

All discrepancies will be written out in the comments section below.

	Yes	No		Yes	No	N/A
USDA Regulated Soils? (HI, ID, NY, WA, OR, CA, NM, TX, OK, AR, LA, TN, AL, MS, NC, SC, GA, FL, or Puerto Rico)		✓	All containers needing acid/base preservation have been pH CHECKED?: Exceptions: VOA, coliform, LLHg, O&G, RAD CHEM, and any container with a septum cap or preserved with HCl.			
Short Hold Time Analysis (48 hours or less)? Analysis: <u>NO3</u>	✓		Circle: <u>HNO3 (&lt;2)</u> , <u>H2SO4 (&lt;2)</u> , NaOH (>10), <u>NaOH/ZnAc (&gt;9)</u> Any non-conformance to pH recommendations will be noted on the container count form	✓		
Time 5035A TC placed in Freezer or Short Holds To Lab			Time: <u>1356</u>	Present	Absent	N/A
Rush TAT Requested (4 days or less):		✓	Residual Chlorine Check (SVOC 625 Pest/PCB 608)			✓
Custody Signatures Present?	✓		Residual Chlorine Check (Total/Amenable/Free Cyanide)			✓
Containers Intact?:	✓		Headspace Wisconsin Sulfide?			✓
Sample Label (IDs/Dates/Times) Match COC?: Except TCs, which only require sample ID	✓		Headspace in VOA Vials (>6mm): See Containter Count form for details	Present	Absent	No VOA Vials Sent
Extra labels on Terracore Vials? (soils only)			Trip Blank Present?		✓	
			Trip Blank Custody Seals?:			✓

COMMENTS:

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July 26, 2023

Mr. Mark Breting  
ATC Group Services  
7988 Centerpoint Drive  
Suite 100  
Indianapolis, IN 46256

RE: Project: Eagle Valley P1R2  
Pace Project No.: 50348991

Dear Mr. Breting:

Enclosed are the analytical results for sample(s) received by the laboratory on July 11, 2023. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

The test results provided in this final report were generated by each of the following laboratories within the Pace Network:

- Pace Analytical Services - Indianapolis
- Pace Analytical Services - Greensburg

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Will Statz  
will.statz@pacelabs.com  
(317)228-3105  
Project Manager

Enclosures

cc: Mohammed Bazlamit, Atlas  
Mr. Robert Miller, Haley & Aldrich



## REPORT OF LABORATORY ANALYSIS

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### CERTIFICATIONS

Project: Eagle Valley P1R2

Pace Project No.: 50348991

#### Pace Analytical Services Pennsylvania

1638 Roseytown Rd Suites 2,3&4, Greensburg, PA 15601  
 ANAB DOD-ELAP Rad Accreditation #: L2417  
 ANABISO/IEC 17025:2017 Rad Cert#: L24170  
 Alabama Certification #: 41590  
 Arizona Certification #: AZ0734  
 Arkansas Certification  
 California Certification #: 2950  
 Colorado Certification #: PA01547  
 Connecticut Certification #: PH-0694  
 EPA Region 4 DW Rad  
 Florida/TNI Certification #: E87683  
 Georgia Certification #: C040  
 Guam Certification  
 Hawaii Certification  
 Idaho Certification  
 Illinois Certification  
 Indiana Certification  
 Iowa Certification #: 391  
 Kansas Certification #: E-10358  
 Kentucky Certification #: KY90133  
 KY WW Permit #: KY0098221  
 KY WW Permit #: KY0000221  
 Louisiana DHH/TNI Certification #: LA010  
 Louisiana DEQ/TNI Certification #: 04086  
 Maine Certification #: 2023021  
 Maryland Certification #: 308  
 Massachusetts Certification #: M-PA1457  
 Michigan/PADEP Certification #: 9991

Missouri Certification #: 235  
 Montana Certification #: Cert0082  
 Nebraska Certification #: NE-OS-29-14  
 Nevada Certification #: PA014572023-03  
 New Hampshire/TNI Certification #: 297622  
 New Jersey/TNI Certification #: PA051  
 New Mexico Certification #: PA01457  
 New York/TNI Certification #: 10888  
 North Carolina Certification #: 42706  
 North Dakota Certification #: R-190  
 Ohio EPA Rad Approval: #41249  
 Oregon/TNI Certification #: PA200002-015  
 Pennsylvania/TNI Certification #: 65-00282  
 Puerto Rico Certification #: PA01457  
 Rhode Island Certification #: 65-00282  
 South Dakota Certification  
 Tennessee Certification #: TN02867  
 Texas/TNI Certification #: T104704188-22-18  
 Utah/TNI Certification #: PA014572223-14  
 USDA Soil Permit #: 525-23-67-77263  
 Vermont Dept. of Health: ID# VT-0282  
 Virgin Island/PADEP Certification  
 Virginia/VELAP Certification #: 460198  
 Washington Certification #: C868  
 West Virginia DEP Certification #: 143  
 West Virginia DHHR Certification #: 9964C  
 Wisconsin Approve List for Rad

#### Pace Analytical Services Indianapolis

7726 Moller Road, Indianapolis, IN 46268  
 Illinois Accreditation #: 200074  
 Indiana Drinking Water Laboratory #: C-49-06  
 Kansas/TNI Certification #: E-10177  
 Kentucky UST Agency Interest #: 80226  
 Kentucky WW Laboratory ID #: 98019  
 Michigan Drinking Water Laboratory #9050

Ohio VAP Certified Laboratory #: CL0065  
 Oklahoma Laboratory #: 9204  
 Texas Certification #: T104704355  
 Wisconsin Laboratory #: 999788130  
 USDA Foreign Soil Permit #: 525-23-13-23119  
 USDA Compliance Agreement #: IN-SL-22-001

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### SAMPLE SUMMARY

Project: Eagle Valley P1R2

Pace Project No.: 50348991

Lab ID	Sample ID	Matrix	Date Collected	Date Received
50348991001	MW-24S	Water	07/10/23 13:00	07/11/23 14:55
50348991002	MW-24I	Water	07/10/23 11:45	07/11/23 14:55
50348991003	MW-24I MS	Water	07/10/23 11:45	07/11/23 14:55
50348991004	MW-24I MSD	Water	07/10/23 11:45	07/11/23 14:55
50348991005	MW-24D	Water	07/10/23 10:35	07/11/23 14:55
50348991006	Dup-2	Water	07/10/23 08:00	07/11/23 14:55
50348991007	FB-2	Water	07/10/23 10:30	07/11/23 14:55

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### SAMPLE ANALYTE COUNT

Project: Eagle Valley P1R2

Pace Project No.: 50348991

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory		
50348991001	MW-24S	EPA 9056	ADM	3	PASI-I		
		EPA 6010	DJS	10	PASI-I		
		EPA 6010	MTM	2	PASI-I		
		EPA 6020	CAW	11	PASI-I		
		EPA 7470	EAE	1	PASI-I		
		EPA 903.1	MAR1	1	PASI-PA		
		EPA 904.0	VAL	1	PASI-PA		
		Total Radium Calculation	JAL	1	PASI-PA		
		SM 2320B	DAW	3	PASI-I		
		SM 2540C	TRK	1	PASI-I		
		SM 4500-H+B	LHZ	1	PASI-I		
		SM 4500-S2-D	BEP	1	PASI-I		
		HACH 8146	BEP	1	PASI-I		
		EPA 353.2	DAW	2	PASI-I		
		EPA 365.1	YAM	1	PASI-I		
		SM 5310C	ATS	1	PASI-I		
		SM 5310C	ATS	1	PASI-I		
		50348991002	MW-24I	EPA 9056	ADM	3	PASI-I
				EPA 6010	DJS	10	PASI-I
				EPA 6010	MTM	2	PASI-I
EPA 6020	CAW			11	PASI-I		
EPA 7470	EAE			1	PASI-I		
EPA 903.1	MAR1			1	PASI-PA		
EPA 904.0	VAL			1	PASI-PA		
Total Radium Calculation	JAL			1	PASI-PA		
SM 2320B	DAW			3	PASI-I		
SM 2540C	TRK			1	PASI-I		
SM 4500-H+B	LHZ			1	PASI-I		
SM 4500-S2-D	BEP			1	PASI-I		
HACH 8146	BEP			1	PASI-I		
EPA 353.2	DAW			2	PASI-I		
EPA 365.1	YAM			1	PASI-I		
SM 5310C	ATS			1	PASI-I		
SM 5310C	ATS			1	PASI-I		
50348991003	MW-24I MS			EPA 903.1	MAR1	1	PASI-PA
				EPA 904.0	VAL	1	PASI-PA
50348991004	MW-24I MSD			EPA 903.1	MAR1	1	PASI-PA

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### SAMPLE ANALYTE COUNT

Project: Eagle Valley P1R2

Pace Project No.: 50348991

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
50348991005	MW-24D	EPA 904.0	VAL	1	PASI-PA
		EPA 9056	ADM	3	PASI-I
		EPA 6010	DJS	10	PASI-I
		EPA 6010	MTM	2	PASI-I
		EPA 6020	CAW	11	PASI-I
		EPA 7470	EAE	1	PASI-I
		EPA 903.1	MAR1	1	PASI-PA
		EPA 904.0	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
		SM 2320B	DAW	3	PASI-I
		SM 2540C	TRK	1	PASI-I
		SM 4500-H+B	LHZ	1	PASI-I
		SM 4500-S2-D	BEP	1	PASI-I
		HACH 8146	BEP	1	PASI-I
		EPA 353.2	DAW	2	PASI-I
		EPA 365.1	YAM	1	PASI-I
		50348991006	Dup-2	SM 5310C	ATS
SM 5310C	ATS			1	PASI-I
EPA 9056	ADM			3	PASI-I
EPA 6010	DJS			10	PASI-I
EPA 6010	MTM			2	PASI-I
EPA 6020	CAW			11	PASI-I
EPA 7470	EAE			1	PASI-I
EPA 903.1	MAR1			1	PASI-PA
EPA 904.0	VAL			1	PASI-PA
Total Radium Calculation	JAL			1	PASI-PA
SM 2320B	DAW			3	PASI-I
SM 2540C	TRK			1	PASI-I
SM 4500-H+B	LHZ			1	PASI-I
SM 4500-S2-D	BEP			1	PASI-I
HACH 8146	BEP			1	PASI-I
EPA 353.2	DAW			2	PASI-I
EPA 365.1	YAM			1	PASI-I
50348991007	FB-2	SM 5310C	ATS	1	PASI-I
		SM 5310C	ATS	1	PASI-I
		EPA 9056	ADM	3	PASI-I
		EPA 6010	DJS	10	PASI-I

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### SAMPLE ANALYTE COUNT

Project: Eagle Valley P1R2

Pace Project No.: 50348991

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
		EPA 6020	CAW	11	PASI-I
		EPA 7470	EAE	1	PASI-I
		EPA 903.1	MAR1	1	PASI-PA
		EPA 904.0	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
		SM 2320B	DAW	3	PASI-I
		SM 2540C	TRK	1	PASI-I
		SM 4500-H+B	LHZ	1	PASI-I
		SM 4500-S2-D	BEP	1	PASI-I
		HACH 8146	BEP	1	PASI-I
		EPA 353.2	DAW	2	PASI-I
		EPA 365.1	YAM	1	PASI-I
		SM 5310C	ATS	1	PASI-I

PASI-I = Pace Analytical Services - Indianapolis

PASI-PA = Pace Analytical Services - Greensburg

### REPORT OF LABORATORY ANALYSIS

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### SUMMARY OF DETECTION

Project: Eagle Valley P1R2

Pace Project No.: 50348991

Lab Sample ID	Client Sample ID	Result	Units	Report Limit	Analyzed	Qualifiers
Method	Parameters					
<b>50348991001</b>	<b>MW-24S</b>					
EPA 9056	Chloride	78.8	mg/L	2.5	07/14/23 03:13	
EPA 9056	Fluoride	0.38	mg/L	0.10	07/14/23 02:56	
EPA 9056	Sulfate	69.3	mg/L	2.5	07/14/23 03:13	
EPA 6010	Aluminum	299	ug/L	200	07/17/23 12:07	
EPA 6010	Boron	116	ug/L	100	07/17/23 12:07	
EPA 6010	Calcium	69000	ug/L	1000	07/17/23 12:07	
EPA 6010	Iron	546	ug/L	100	07/17/23 12:07	
EPA 6010	Magnesium	20900	ug/L	1000	07/17/23 12:07	
EPA 6010	Manganese	76.4	ug/L	10.0	07/17/23 12:07	
EPA 6010	Potassium	4130	ug/L	1000	07/17/23 12:07	
EPA 6010	Silica	9870	ug/L	450	07/17/23 12:07	N2
EPA 6010	Sodium	77500	ug/L	1000	07/17/23 12:07	
EPA 6010	Manganese, Dissolved	65.5	ug/L	10.0	07/13/23 16:27	
EPA 6010	Molybdenum, Dissolved	65.5	ug/L	10.0	07/13/23 16:27	
EPA 6020	Arsenic	2.1	ug/L	1.0	07/14/23 19:05	
EPA 6020	Barium	86.8	ug/L	1.0	07/14/23 19:05	
EPA 6020	Molybdenum	58.5	ug/L	10.0	07/14/23 19:05	
EPA 903.1	Radium-226	-0.175 ± 0.842 (1.71) C:NA T:94%	pCi/L		07/24/23 15:42	
EPA 904.0	Radium-228	0.302 ± 0.387 (0.825) C:87% T:80%	pCi/L		07/24/23 15:40	
Total Radium Calculation	Total Radium	0.302 ± 1.23 (2.54)	pCi/L		07/25/23 17:06	
SM 2320B	Alkalinity, Total as CaCO3	221	mg/L	10.0	07/11/23 19:58	
SM 2320B	Alkalinity, Bicarbonate (CaCO3)	221	mg/L	10.0	07/11/23 19:58	
SM 2540C	Total Dissolved Solids	457	mg/L	10.0	07/12/23 15:06	
SM 4500-H+B	pH at 25 Degrees C	7.6	Std. Units	0.10	07/19/23 14:36	H3
EPA 353.2	Nitrogen, Nitrate	1.5	mg/L	0.10	07/11/23 23:58	
SM 5310C	Total Organic Carbon	1.4	mg/L	1.0	07/12/23 17:48	
SM 5310C	Dissolved Organic Carbon	1.5	mg/L	1.0	07/12/23 23:42	
<b>50348991002</b>	<b>MW-24I</b>					
EPA 9056	Chloride	110	mg/L	2.5	07/14/23 04:40	
EPA 9056	Fluoride	0.36	mg/L	0.10	07/14/23 04:22	
EPA 9056	Sulfate	105	mg/L	2.5	07/14/23 04:40	
EPA 6010	Aluminum	229	ug/L	200	07/17/23 12:10	
EPA 6010	Boron	130	ug/L	100	07/17/23 12:10	
EPA 6010	Calcium	86000	ug/L	1000	07/17/23 12:10	
EPA 6010	Iron	1580	ug/L	100	07/17/23 12:10	
EPA 6010	Magnesium	26500	ug/L	1000	07/17/23 12:10	
EPA 6010	Manganese	206	ug/L	10.0	07/17/23 12:10	
EPA 6010	Potassium	6780	ug/L	1000	07/17/23 12:10	
EPA 6010	Silica	12000	ug/L	450	07/17/23 12:10	N2
EPA 6010	Sodium	90500	ug/L	1000	07/17/23 12:10	

### REPORT OF LABORATORY ANALYSIS

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**SUMMARY OF DETECTION**

Project: Eagle Valley P1R2

Pace Project No.: 50348991

Lab Sample ID	Client Sample ID	Result	Units	Report Limit	Analyzed	Qualifiers
Method	Parameters					
<b>50348991002</b>	<b>MW-24I</b>					
EPA 6010	Manganese, Dissolved	184	ug/L	10.0	07/13/23 16:29	
EPA 6010	Molybdenum, Dissolved	62.3	ug/L	10.0	07/13/23 16:29	
EPA 6020	Arsenic	2.1	ug/L	1.0	07/14/23 19:09	
EPA 6020	Barium	87.0	ug/L	1.0	07/14/23 19:09	
EPA 6020	Molybdenum	59.0	ug/L	10.0	07/14/23 19:09	
EPA 903.1	Radium-226	0.625 ± 0.464 (0.581) C:NA T:90%	pCi/L		07/24/23 15:42	
EPA 904.0	Radium-228	0.429 ± 0.483 (1.02) C:76% T:82%	pCi/L		07/24/23 15:40	
Total Radium Calculation	Total Radium	1.05 ± 0.947 (1.60)	pCi/L		07/25/23 17:06	
SM 2320B	Alkalinity, Total as CaCO3	244	mg/L	10.0	07/11/23 19:58	
SM 2320B	Alkalinity,Bicarbonate (CaCO3)	244	mg/L	10.0	07/11/23 19:58	
SM 2540C	Total Dissolved Solids	578	mg/L	10.0	07/12/23 15:06	
SM 4500-H+B	pH at 25 Degrees C	7.7	Std. Units	0.10	07/13/23 16:33	H3
SM 5310C	Total Organic Carbon	2.8	mg/L	1.0	07/12/23 17:59	
SM 5310C	Dissolved Organic Carbon	2.3	mg/L	1.0	07/12/23 23:53	
<b>50348991003</b>	<b>MW-24I MS</b>					
EPA 903.1	Radium-226	126.12 %REC ± NA (NA) C:NA T:NA	pCi/L		07/24/23 15:42	
EPA 904.0	Radium-228	103.33 %REC ± NA (NA) C:NA T:NA	pCi/L		07/24/23 15:41	
<b>50348991004</b>	<b>MW-24I MSD</b>					
EPA 903.1	Radium-226	92.78 %REC 30.47RPD ± NA (NA) C:NA T:NA	pCi/L		07/24/23 15:42	
EPA 904.0	Radium-228	90.16 %REC 13.62RPD ± NA (NA) C:NA T:NA	pCi/L		07/24/23 15:41	
<b>50348991005</b>	<b>MW-24D</b>					
EPA 9056	Chloride	57.6	mg/L	2.5	07/14/23 08:08	
EPA 9056	Fluoride	0.30	mg/L	0.10	07/14/23 07:51	
EPA 9056	Sulfate	52.8	mg/L	2.5	07/14/23 08:08	
EPA 6010	Aluminum	699	ug/L	200	07/17/23 12:17	
EPA 6010	Calcium	66200	ug/L	1000	07/17/23 12:17	
EPA 6010	Iron	1720	ug/L	100	07/17/23 12:17	

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**SUMMARY OF DETECTION**

Project: Eagle Valley P1R2  
Pace Project No.: 50348991

Lab Sample ID	Client Sample ID	Result	Units	Report Limit	Analyzed	Qualifiers
Method	Parameters					
<b>50348991005</b>	<b>MW-24D</b>					
EPA 6010	Magnesium	20600	ug/L	1000	07/17/23 12:17	
EPA 6010	Manganese	140	ug/L	10.0	07/17/23 12:17	
EPA 6010	Potassium	4990	ug/L	1000	07/17/23 12:17	
EPA 6010	Silica	11700	ug/L	450	07/17/23 12:17	N2
EPA 6010	Sodium	55100	ug/L	1000	07/17/23 12:17	
EPA 6010	Manganese, Dissolved	134	ug/L	10.0	07/13/23 16:44	
EPA 6010	Molybdenum, Dissolved	15.2	ug/L	10.0	07/13/23 16:44	
EPA 6020	Arsenic	1.9	ug/L	1.0	07/14/23 19:38	
EPA 6020	Barium	62.7	ug/L	1.0	07/14/23 19:38	
EPA 6020	Molybdenum	14.7	ug/L	10.0	07/14/23 19:38	
EPA 903.1	Radium-226	0.322 ± 0.548 (0.968)	pCi/L		07/24/23 15:42	
		C:NA T:91%				
EPA 904.0	Radium-228	0.709 ± 0.381 (0.677)	pCi/L		07/24/23 15:41	
		C:84% T:83%				
Total Radium Calculation	Total Radium	1.03 ± 0.929 (1.65)	pCi/L		07/25/23 17:06	
SM 2320B	Alkalinity, Total as CaCO3	221	mg/L	10.0	07/11/23 19:58	
SM 2320B	Alkalinity,Bicarbonate (CaCO3)	221	mg/L	10.0	07/11/23 19:58	
SM 2540C	Total Dissolved Solids	387	mg/L	10.0	07/12/23 15:07	
SM 4500-H+B	pH at 25 Degrees C	7.9	Std. Units	0.10	07/13/23 16:14	H3
SM 5310C	Total Organic Carbon	1.5	mg/L	1.0	07/12/23 19:04	
SM 5310C	Dissolved Organic Carbon	1.4	mg/L	1.0	07/13/23 00:28	
<b>50348991006</b>	<b>Dup-2</b>					
EPA 9056	Chloride	79.2	mg/L	2.5	07/14/23 08:43	
EPA 9056	Fluoride	0.37	mg/L	0.10	07/14/23 08:25	
EPA 9056	Sulfate	69.4	mg/L	2.5	07/14/23 08:43	
EPA 6010	Aluminum	290	ug/L	200	07/17/23 12:24	
EPA 6010	Boron	118	ug/L	100	07/17/23 12:24	
EPA 6010	Calcium	70800	ug/L	1000	07/17/23 12:24	
EPA 6010	Iron	527	ug/L	100	07/17/23 12:24	
EPA 6010	Magnesium	21600	ug/L	1000	07/17/23 12:24	
EPA 6010	Manganese	77.3	ug/L	10.0	07/17/23 12:24	
EPA 6010	Potassium	4300	ug/L	1000	07/17/23 12:24	
EPA 6010	Silica	9950	ug/L	450	07/17/23 12:24	N2
EPA 6010	Sodium	78500	ug/L	1000	07/17/23 12:24	
EPA 6010	Manganese, Dissolved	64.4	ug/L	10.0	07/13/23 16:46	
EPA 6010	Molybdenum, Dissolved	63.5	ug/L	10.0	07/13/23 16:46	
EPA 6020	Barium	61.2	ug/L	1.0	07/14/23 19:42	
EPA 6020	Molybdenum	60.4	ug/L	10.0	07/14/23 19:42	
EPA 903.1	Radium-226	0.494 ± 0.514 (0.765)	pCi/L		07/24/23 15:42	
		C:NA T:89%				

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### SUMMARY OF DETECTION

Project: Eagle Valley P1R2

Pace Project No.: 50348991

Lab Sample ID Method	Client Sample ID Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
<b>50348991006</b>	<b>Dup-2</b>					
EPA 904.0	Radium-228	0.380 ± 0.310 (0.613) C:83% T:87%	pCi/L		07/24/23 15:41	
Total Radium Calculation	Total Radium	0.874 ± 0.824 (1.38)	pCi/L		07/25/23 17:06	
SM 2320B	Alkalinity, Total as CaCO3	222	mg/L	10.0	07/11/23 19:58	
SM 2320B	Alkalinity,Bicarbonate (CaCO3)	222	mg/L	10.0	07/11/23 19:58	
SM 2540C	Total Dissolved Solids	463	mg/L	10.0	07/12/23 15:07	
SM 4500-H+B	pH at 25 Degrees C	7.7	Std. Units	0.10	07/13/23 16:19	H3
EPA 353.2	Nitrogen, Nitrate	1.5	mg/L	0.10	07/11/23 23:46	
SM 5310C	Total Organic Carbon	1.5	mg/L	1.0	07/12/23 19:26	
SM 5310C	Dissolved Organic Carbon	1.4	mg/L	1.0	07/13/23 00:39	
<b>50348991007</b>	<b>FB-2</b>					
EPA 903.1	Radium-226	-0.175 ± 0.727 (1.52) C:NA T:90%	pCi/L		07/24/23 15:42	
EPA 904.0	Radium-228	0.180 ± 0.314 (0.685) C:82% T:84%	pCi/L		07/24/23 15:41	
Total Radium Calculation	Total Radium	0.180 ± 1.04 (2.21)	pCi/L		07/25/23 17:06	
SM 4500-H+B	pH at 25 Degrees C	7.9	Std. Units	0.10	07/13/23 16:24	H3

### REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: Eagle Valley P1R2

Pace Project No.: 50348991

Sample: MW-24S		Lab ID: 50348991001		Collected: 07/10/23 13:00		Received: 07/11/23 14:55		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>9056 IC Anions</b>		Analytical Method: EPA 9056 Pace Analytical Services - Indianapolis							
Chloride	78.8	mg/L	2.5	0.67	10		07/14/23 03:13	16887-00-6	
Fluoride	0.38	mg/L	0.10	0.017	1		07/14/23 02:56	16984-48-8	
Sulfate	69.3	mg/L	2.5	0.85	10		07/14/23 03:13	14808-79-8	
<b>6010 MET ICP</b>		Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis							
Aluminum	299	ug/L	200	54.4	1	07/16/23 18:29	07/17/23 12:07	7429-90-5	
Boron	116	ug/L	100	61.4	1	07/16/23 18:29	07/17/23 12:07	7440-42-8	
Calcium	69000	ug/L	1000	88.4	1	07/16/23 18:29	07/17/23 12:07	7440-70-2	
Iron	546	ug/L	100	48.8	1	07/16/23 18:29	07/17/23 12:07	7439-89-6	
Lithium	ND	ug/L	20.0	6.2	1	07/16/23 18:29	07/18/23 08:22	7439-93-2	
Magnesium	20900	ug/L	1000	43.0	1	07/16/23 18:29	07/17/23 12:07	7439-95-4	
Manganese	76.4	ug/L	10.0	5.4	1	07/16/23 18:29	07/17/23 12:07	7439-96-5	
Potassium	4130	ug/L	1000	200	1	07/16/23 18:29	07/17/23 12:07	7440-09-7	
Silica	9870	ug/L	450		1	07/16/23 18:29	07/17/23 12:07	7631-86-9	N2
Sodium	77500	ug/L	1000	284	1	07/16/23 18:29	07/17/23 12:07	7440-23-5	
<b>6010 MET ICP, Dissolved</b>		Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis							
Manganese, Dissolved	65.5	ug/L	10.0	2.5	1	07/13/23 08:24	07/13/23 16:27	7439-96-5	
Molybdenum, Dissolved	65.5	ug/L	10.0	3.7	1	07/13/23 08:24	07/13/23 16:27	7439-98-7	
<b>6020 MET ICPMS</b>		Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis							
Antimony	ND	ug/L	1.0	0.036	1	07/14/23 08:20	07/14/23 19:05	7440-36-0	
Arsenic	2.1	ug/L	1.0	0.053	1	07/14/23 08:20	07/14/23 19:05	7440-38-2	
Barium	86.8	ug/L	1.0	0.051	1	07/14/23 08:20	07/14/23 19:05	7440-39-3	
Beryllium	ND	ug/L	0.20	0.028	1	07/14/23 08:20	07/14/23 19:05	7440-41-7	
Cadmium	ND	ug/L	2.0	0.0090	1	07/14/23 08:20	07/14/23 19:05	7440-43-9	
Chromium	ND	ug/L	10.0	0.13	1	07/14/23 08:20	07/14/23 19:05	7440-47-3	
Cobalt	ND	ug/L	1.0	0.032	1	07/14/23 08:20	07/14/23 19:05	7440-48-4	
Lead	ND	ug/L	10.0	0.034	1	07/14/23 08:20	07/14/23 19:05	7439-92-1	
Molybdenum	58.5	ug/L	10.0	0.048	1	07/14/23 08:20	07/14/23 19:05	7439-98-7	
Selenium	ND	ug/L	1.0	0.23	1	07/14/23 08:20	07/14/23 19:05	7782-49-2	
Thallium	ND	ug/L	1.0	0.033	1	07/14/23 08:20	07/14/23 19:05	7440-28-0	
<b>7470 Mercury</b>		Analytical Method: EPA 7470 Preparation Method: EPA 7470 Pace Analytical Services - Indianapolis							
Mercury	ND	ug/L	0.20	0.091	1	07/13/23 10:44	07/13/23 18:21	7439-97-6	
<b>2320B Alkalinity</b>		Analytical Method: SM 2320B Pace Analytical Services - Indianapolis							
Alkalinity, Total as CaCO3	221	mg/L	10.0	10.0	1		07/11/23 19:58		
Alkalinity,Bicarbonate (CaCO3)	221	mg/L	10.0	10.0	1		07/11/23 19:58		

## REPORT OF LABORATORY ANALYSIS

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**ANALYTICAL RESULTS**

Project: Eagle Valley P1R2  
 Pace Project No.: 50348991

Sample: MW-24S		Lab ID: 50348991001		Collected: 07/10/23 13:00	Received: 07/11/23 14:55	Matrix: Water			
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>2320B Alkalinity</b>		Analytical Method: SM 2320B Pace Analytical Services - Indianapolis							
Alkalinity, Carbonate (CaCO3)	ND	mg/L	10.0	10.0	1		07/11/23 19:58		
<b>2540C Total Dissolved Solids</b>		Analytical Method: SM 2540C Pace Analytical Services - Indianapolis							
Total Dissolved Solids	457	mg/L	10.0	10.0	1		07/12/23 15:06		
<b>4500H+ pH, Electrometric</b>		Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis							
pH at 25 Degrees C	7.6	Std. Units	0.10	0.10	1		07/19/23 14:36		H3
<b>4500S2D Sulfide Water</b>		Analytical Method: SM 4500-S2-D Pace Analytical Services - Indianapolis							
Sulfide	ND	mg/L	0.10	0.025	1		07/14/23 16:09	18496-25-8	
<b>Iron, Ferrous</b>		Analytical Method: HACH 8146 Pace Analytical Services - Indianapolis							
Iron, Ferrous	ND	mg/L	0.20	0.035	1		07/18/23 12:19	15438-31-0	H3,N2
<b>353.2 Nitrogen, NO2/NO3 unpres</b>		Analytical Method: EPA 353.2 Pace Analytical Services - Indianapolis							
Nitrogen, Nitrate	1.5	mg/L	0.10	0.011	1		07/11/23 23:58	14797-55-8	
Nitrogen, Nitrite	ND	mg/L	0.10	0.0040	1		07/11/23 23:58	14797-65-0	
<b>365.1 Total Phosphorus</b>		Analytical Method: EPA 365.1 Preparation Method: EPA 365.1 Pace Analytical Services - Indianapolis							
Phosphate as P04	ND	mg/L	0.15	0.15	1	07/12/23 11:00	07/14/23 12:44		
<b>5310C TOC</b>		Analytical Method: SM 5310C Pace Analytical Services - Indianapolis							
Total Organic Carbon	1.4	mg/L	1.0	0.24	1		07/12/23 17:48	7440-44-0	
<b>5310C Dissolved Organic Carbon</b>		Analytical Method: SM 5310C Pace Analytical Services - Indianapolis							
Dissolved Organic Carbon	1.5	mg/L	1.0	0.24	1		07/12/23 23:42		

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## ANALYTICAL RESULTS

Project: Eagle Valley P1R2

Pace Project No.: 50348991

Sample: MW-24I		Lab ID: 50348991002		Collected: 07/10/23 11:45		Received: 07/11/23 14:55		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>9056 IC Anions</b>									
Analytical Method: EPA 9056									
Pace Analytical Services - Indianapolis									
Chloride	110	mg/L	2.5	0.67	10		07/14/23 04:40	16887-00-6	
Fluoride	0.36	mg/L	0.10	0.017	1		07/14/23 04:22	16984-48-8	
Sulfate	105	mg/L	2.5	0.85	10		07/14/23 04:40	14808-79-8	
<b>6010 MET ICP</b>									
Analytical Method: EPA 6010 Preparation Method: EPA 3010									
Pace Analytical Services - Indianapolis									
Aluminum	229	ug/L	200	54.4	1	07/16/23 18:29	07/17/23 12:10	7429-90-5	
Boron	130	ug/L	100	61.4	1	07/16/23 18:29	07/17/23 12:10	7440-42-8	
Calcium	86000	ug/L	1000	88.4	1	07/16/23 18:29	07/17/23 12:10	7440-70-2	
Iron	1580	ug/L	100	48.8	1	07/16/23 18:29	07/17/23 12:10	7439-89-6	
Lithium	ND	ug/L	20.0	6.2	1	07/16/23 18:29	07/18/23 08:25	7439-93-2	
Magnesium	26500	ug/L	1000	43.0	1	07/16/23 18:29	07/17/23 12:10	7439-95-4	
Manganese	206	ug/L	10.0	5.4	1	07/16/23 18:29	07/17/23 12:10	7439-96-5	
Potassium	6780	ug/L	1000	200	1	07/16/23 18:29	07/17/23 12:10	7440-09-7	
Silica	12000	ug/L	450		1	07/16/23 18:29	07/17/23 12:10	7631-86-9	N2
Sodium	90500	ug/L	1000	284	1	07/16/23 18:29	07/17/23 12:10	7440-23-5	
<b>6010 MET ICP, Dissolved</b>									
Analytical Method: EPA 6010 Preparation Method: EPA 3010									
Pace Analytical Services - Indianapolis									
Manganese, Dissolved	184	ug/L	10.0	2.5	1	07/13/23 08:24	07/13/23 16:29	7439-96-5	
Molybdenum, Dissolved	62.3	ug/L	10.0	3.7	1	07/13/23 08:24	07/13/23 16:29	7439-98-7	
<b>6020 MET ICPMS</b>									
Analytical Method: EPA 6020 Preparation Method: EPA 200.2									
Pace Analytical Services - Indianapolis									
Antimony	ND	ug/L	1.0	0.036	1	07/14/23 08:20	07/14/23 19:09	7440-36-0	
Arsenic	2.1	ug/L	1.0	0.053	1	07/14/23 08:20	07/14/23 19:09	7440-38-2	
Barium	87.0	ug/L	1.0	0.051	1	07/14/23 08:20	07/14/23 19:09	7440-39-3	
Beryllium	ND	ug/L	0.20	0.028	1	07/14/23 08:20	07/14/23 19:09	7440-41-7	
Cadmium	ND	ug/L	2.0	0.0090	1	07/14/23 08:20	07/14/23 19:09	7440-43-9	
Chromium	ND	ug/L	10.0	0.13	1	07/14/23 08:20	07/14/23 19:09	7440-47-3	
Cobalt	ND	ug/L	1.0	0.032	1	07/14/23 08:20	07/14/23 19:09	7440-48-4	
Lead	ND	ug/L	10.0	0.034	1	07/14/23 08:20	07/14/23 19:09	7439-92-1	
Molybdenum	59.0	ug/L	10.0	0.048	1	07/14/23 08:20	07/14/23 19:09	7439-98-7	
Selenium	ND	ug/L	1.0	0.23	1	07/14/23 08:20	07/14/23 19:09	7782-49-2	
Thallium	ND	ug/L	1.0	0.033	1	07/14/23 08:20	07/14/23 19:09	7440-28-0	
<b>7470 Mercury</b>									
Analytical Method: EPA 7470 Preparation Method: EPA 7470									
Pace Analytical Services - Indianapolis									
Mercury	ND	ug/L	0.20	0.091	1	07/13/23 10:44	07/13/23 18:24	7439-97-6	
<b>2320B Alkalinity</b>									
Analytical Method: SM 2320B									
Pace Analytical Services - Indianapolis									
Alkalinity, Total as CaCO3	244	mg/L	10.0	10.0	1		07/11/23 19:58		
Alkalinity,Bicarbonate (CaCO3)	244	mg/L	10.0	10.0	1		07/11/23 19:58		

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**ANALYTICAL RESULTS**

Project: Eagle Valley P1R2  
 Pace Project No.: 50348991

Sample: MW-241		Lab ID: 50348991002		Collected: 07/10/23 11:45	Received: 07/11/23 14:55	Matrix: Water			
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>2320B Alkalinity</b>		Analytical Method: SM 2320B Pace Analytical Services - Indianapolis							
Alkalinity, Carbonate (CaCO3)	ND	mg/L	10.0	10.0	1		07/11/23 19:58		
<b>2540C Total Dissolved Solids</b>		Analytical Method: SM 2540C Pace Analytical Services - Indianapolis							
Total Dissolved Solids	<b>578</b>	mg/L	10.0	10.0	1		07/12/23 15:06		
<b>4500H+ pH, Electrometric</b>		Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis							
pH at 25 Degrees C	<b>7.7</b>	Std. Units	0.10	0.10	1		07/13/23 16:33		H3
<b>4500S2D Sulfide Water</b>		Analytical Method: SM 4500-S2-D Pace Analytical Services - Indianapolis							
Sulfide	ND	mg/L	0.10	0.025	1		07/14/23 16:09	18496-25-8	
<b>Iron, Ferrous</b>		Analytical Method: HACH 8146 Pace Analytical Services - Indianapolis							
Iron, Ferrous	ND	mg/L	0.20	0.035	1		07/18/23 12:18	15438-31-0	H3,N2
<b>353.2 Nitrogen, NO2/NO3 unpres</b>		Analytical Method: EPA 353.2 Pace Analytical Services - Indianapolis							
Nitrogen, Nitrate	ND	mg/L	0.10	0.011	1		07/11/23 23:52	14797-55-8	
Nitrogen, Nitrite	ND	mg/L	0.10	0.0040	1		07/11/23 23:52	14797-65-0	
<b>365.1 Total Phosphorus</b>		Analytical Method: EPA 365.1 Preparation Method: EPA 365.1 Pace Analytical Services - Indianapolis							
Phosphate as P04	ND	mg/L	0.15	0.15	1	07/12/23 11:00	07/14/23 12:45		
<b>5310C TOC</b>		Analytical Method: SM 5310C Pace Analytical Services - Indianapolis							
Total Organic Carbon	<b>2.8</b>	mg/L	1.0	0.24	1		07/12/23 17:59	7440-44-0	
<b>5310C Dissolved Organic Carbon</b>		Analytical Method: SM 5310C Pace Analytical Services - Indianapolis							
Dissolved Organic Carbon	<b>2.3</b>	mg/L	1.0	0.24	1		07/12/23 23:53		

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**ANALYTICAL RESULTS**

Project: Eagle Valley P1R2  
 Pace Project No.: 50348991

**Sample: MW-24D**      **Lab ID: 50348991005**      Collected: 07/10/23 10:35      Received: 07/11/23 14:55      Matrix: Water

Parameters	Results	Units	Report			Prepared	Analyzed	CAS No.	Qual
			Limit	MDL	DF				

**9056 IC Anions**

Analytical Method: EPA 9056  
 Pace Analytical Services - Indianapolis

Chloride	57.6	mg/L	2.5	0.67	10		07/14/23 08:08	16887-00-6	
Fluoride	0.30	mg/L	0.10	0.017	1		07/14/23 07:51	16984-48-8	
Sulfate	52.8	mg/L	2.5	0.85	10		07/14/23 08:08	14808-79-8	

**6010 MET ICP**

Analytical Method: EPA 6010      Preparation Method: EPA 3010  
 Pace Analytical Services - Indianapolis

Aluminum	699	ug/L	200	54.4	1	07/16/23 18:29	07/17/23 12:17	7429-90-5	
Boron	ND	ug/L	100	61.4	1	07/16/23 18:29	07/17/23 12:17	7440-42-8	
Calcium	66200	ug/L	1000	88.4	1	07/16/23 18:29	07/17/23 12:17	7440-70-2	
Iron	1720	ug/L	100	48.8	1	07/16/23 18:29	07/17/23 12:17	7439-89-6	
Lithium	ND	ug/L	20.0	6.2	1	07/16/23 18:29	07/18/23 08:32	7439-93-2	
Magnesium	20600	ug/L	1000	43.0	1	07/16/23 18:29	07/17/23 12:17	7439-95-4	
Manganese	140	ug/L	10.0	5.4	1	07/16/23 18:29	07/17/23 12:17	7439-96-5	
Potassium	4990	ug/L	1000	200	1	07/16/23 18:29	07/17/23 12:17	7440-09-7	
Silica	11700	ug/L	450		1	07/16/23 18:29	07/17/23 12:17	7631-86-9	N2
Sodium	55100	ug/L	1000	284	1	07/16/23 18:29	07/17/23 12:17	7440-23-5	

**6010 MET ICP, Dissolved**

Analytical Method: EPA 6010      Preparation Method: EPA 3010  
 Pace Analytical Services - Indianapolis

Manganese, Dissolved	134	ug/L	10.0	2.5	1	07/13/23 08:24	07/13/23 16:44	7439-96-5	
Molybdenum, Dissolved	15.2	ug/L	10.0	3.7	1	07/13/23 08:24	07/13/23 16:44	7439-98-7	

**6020 MET ICPMS**

Analytical Method: EPA 6020      Preparation Method: EPA 200.2  
 Pace Analytical Services - Indianapolis

Antimony	ND	ug/L	1.0	0.036	1	07/14/23 08:20	07/14/23 19:38	7440-36-0	
Arsenic	1.9	ug/L	1.0	0.053	1	07/14/23 08:20	07/14/23 19:38	7440-38-2	
Barium	62.7	ug/L	1.0	0.051	1	07/14/23 08:20	07/14/23 19:38	7440-39-3	
Beryllium	ND	ug/L	0.20	0.028	1	07/14/23 08:20	07/14/23 19:38	7440-41-7	
Cadmium	ND	ug/L	2.0	0.0090	1	07/14/23 08:20	07/14/23 19:38	7440-43-9	
Chromium	ND	ug/L	10.0	0.13	1	07/14/23 08:20	07/14/23 19:38	7440-47-3	
Cobalt	ND	ug/L	1.0	0.032	1	07/14/23 08:20	07/14/23 19:38	7440-48-4	
Lead	ND	ug/L	10.0	0.034	1	07/14/23 08:20	07/14/23 19:38	7439-92-1	
Molybdenum	14.7	ug/L	10.0	0.048	1	07/14/23 08:20	07/14/23 19:38	7439-98-7	
Selenium	ND	ug/L	1.0	0.23	1	07/14/23 08:20	07/14/23 19:38	7782-49-2	
Thallium	ND	ug/L	1.0	0.033	1	07/14/23 08:20	07/14/23 19:38	7440-28-0	

**7470 Mercury**

Analytical Method: EPA 7470      Preparation Method: EPA 7470  
 Pace Analytical Services - Indianapolis

Mercury	ND	ug/L	0.20	0.091	1	07/13/23 10:44	07/13/23 18:31	7439-97-6	
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**2320B Alkalinity**

Analytical Method: SM 2320B  
 Pace Analytical Services - Indianapolis

Alkalinity, Total as CaCO3	221	mg/L	10.0	10.0	1		07/11/23 19:58		
Alkalinity,Bicarbonate (CaCO3)	221	mg/L	10.0	10.0	1		07/11/23 19:58		

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**ANALYTICAL RESULTS**

Project: Eagle Valley P1R2  
 Pace Project No.: 50348991

Sample: MW-24D		Lab ID: 50348991005		Collected: 07/10/23 10:35	Received: 07/11/23 14:55	Matrix: Water			
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>2320B Alkalinity</b>		Analytical Method: SM 2320B Pace Analytical Services - Indianapolis							
Alkalinity, Carbonate (CaCO3)	ND	mg/L	10.0	10.0	1		07/11/23 19:58		
<b>2540C Total Dissolved Solids</b>		Analytical Method: SM 2540C Pace Analytical Services - Indianapolis							
Total Dissolved Solids	<b>387</b>	mg/L	10.0	10.0	1		07/12/23 15:07		
<b>4500H+ pH, Electrometric</b>		Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis							
pH at 25 Degrees C	<b>7.9</b>	Std. Units	0.10	0.10	1		07/13/23 16:14		H3
<b>4500S2D Sulfide Water</b>		Analytical Method: SM 4500-S2-D Pace Analytical Services - Indianapolis							
Sulfide	ND	mg/L	0.10	0.025	1		07/14/23 16:09	18496-25-8	
<b>Iron, Ferrous</b>		Analytical Method: HACH 8146 Pace Analytical Services - Indianapolis							
Iron, Ferrous	ND	mg/L	0.20	0.035	1		07/18/23 12:18	15438-31-0	H3,N2
<b>353.2 Nitrogen, NO2/NO3 unpres</b>		Analytical Method: EPA 353.2 Pace Analytical Services - Indianapolis							
Nitrogen, Nitrate	ND	mg/L	0.10	0.011	1		07/11/23 23:50	14797-55-8	
Nitrogen, Nitrite	ND	mg/L	0.10	0.0040	1		07/11/23 23:50	14797-65-0	
<b>365.1 Total Phosphorus</b>		Analytical Method: EPA 365.1 Preparation Method: EPA 365.1 Pace Analytical Services - Indianapolis							
Phosphate as P04	ND	mg/L	0.15	0.15	1	07/12/23 11:00	07/14/23 12:48		
<b>5310C TOC</b>		Analytical Method: SM 5310C Pace Analytical Services - Indianapolis							
Total Organic Carbon	<b>1.5</b>	mg/L	1.0	0.24	1		07/12/23 19:04	7440-44-0	
<b>5310C Dissolved Organic Carbon</b>		Analytical Method: SM 5310C Pace Analytical Services - Indianapolis							
Dissolved Organic Carbon	<b>1.4</b>	mg/L	1.0	0.24	1		07/13/23 00:28		

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### ANALYTICAL RESULTS

Project: Eagle Valley P1R2  
 Pace Project No.: 50348991

**Sample: Dup-2**      **Lab ID: 50348991006**      Collected: 07/10/23 08:00      Received: 07/11/23 14:55      Matrix: Water

Parameters	Results	Units	Report			Prepared	Analyzed	CAS No.	Qual
			Limit	MDL	DF				
<b>9056 IC Anions</b>									
Analytical Method: EPA 9056									
Pace Analytical Services - Indianapolis									
Chloride	79.2	mg/L	2.5	0.67	10		07/14/23 08:43	16887-00-6	
Fluoride	0.37	mg/L	0.10	0.017	1		07/14/23 08:25	16984-48-8	
Sulfate	69.4	mg/L	2.5	0.85	10		07/14/23 08:43	14808-79-8	
<b>6010 MET ICP</b>									
Analytical Method: EPA 6010      Preparation Method: EPA 3010									
Pace Analytical Services - Indianapolis									
Aluminum	290	ug/L	200	54.4	1	07/16/23 18:29	07/17/23 12:24	7429-90-5	
Boron	118	ug/L	100	61.4	1	07/16/23 18:29	07/17/23 12:24	7440-42-8	
Calcium	70800	ug/L	1000	88.4	1	07/16/23 18:29	07/17/23 12:24	7440-70-2	
Iron	527	ug/L	100	48.8	1	07/16/23 18:29	07/17/23 12:24	7439-89-6	
Lithium	ND	ug/L	20.0	6.2	1	07/16/23 18:29	07/18/23 08:35	7439-93-2	
Magnesium	21600	ug/L	1000	43.0	1	07/16/23 18:29	07/17/23 12:24	7439-95-4	
Manganese	77.3	ug/L	10.0	5.4	1	07/16/23 18:29	07/17/23 12:24	7439-96-5	
Potassium	4300	ug/L	1000	200	1	07/16/23 18:29	07/17/23 12:24	7440-09-7	
Silica	9950	ug/L	450		1	07/16/23 18:29	07/17/23 12:24	7631-86-9	N2
Sodium	78500	ug/L	1000	284	1	07/16/23 18:29	07/17/23 12:24	7440-23-5	
<b>6010 MET ICP, Dissolved</b>									
Analytical Method: EPA 6010      Preparation Method: EPA 3010									
Pace Analytical Services - Indianapolis									
Manganese, Dissolved	64.4	ug/L	10.0	2.5	1	07/13/23 08:24	07/13/23 16:46	7439-96-5	
Molybdenum, Dissolved	63.5	ug/L	10.0	3.7	1	07/13/23 08:24	07/13/23 16:46	7439-98-7	
<b>6020 MET ICPMS</b>									
Analytical Method: EPA 6020      Preparation Method: EPA 200.2									
Pace Analytical Services - Indianapolis									
Antimony	ND	ug/L	1.0	0.036	1	07/14/23 08:20	07/14/23 19:42	7440-36-0	
Arsenic	ND	ug/L	1.0	0.053	1	07/14/23 08:20	07/14/23 19:42	7440-38-2	
Barium	61.2	ug/L	1.0	0.051	1	07/14/23 08:20	07/14/23 19:42	7440-39-3	
Beryllium	ND	ug/L	0.20	0.028	1	07/14/23 08:20	07/14/23 19:42	7440-41-7	
Cadmium	ND	ug/L	2.0	0.0090	1	07/14/23 08:20	07/14/23 19:42	7440-43-9	
Chromium	ND	ug/L	10.0	0.13	1	07/14/23 08:20	07/14/23 19:42	7440-47-3	
Cobalt	ND	ug/L	1.0	0.032	1	07/14/23 08:20	07/14/23 19:42	7440-48-4	
Lead	ND	ug/L	10.0	0.034	1	07/14/23 08:20	07/14/23 19:42	7439-92-1	
Molybdenum	60.4	ug/L	10.0	0.048	1	07/14/23 08:20	07/14/23 19:42	7439-98-7	
Selenium	ND	ug/L	1.0	0.23	1	07/14/23 08:20	07/14/23 19:42	7782-49-2	
Thallium	ND	ug/L	1.0	0.033	1	07/14/23 08:20	07/14/23 19:42	7440-28-0	
<b>7470 Mercury</b>									
Analytical Method: EPA 7470      Preparation Method: EPA 7470									
Pace Analytical Services - Indianapolis									
Mercury	ND	ug/L	0.20	0.091	1	07/13/23 10:44	07/13/23 18:41	7439-97-6	
<b>2320B Alkalinity</b>									
Analytical Method: SM 2320B									
Pace Analytical Services - Indianapolis									
Alkalinity, Total as CaCO3	222	mg/L	10.0	10.0	1		07/11/23 19:58		
Alkalinity,Bicarbonate (CaCO3)	222	mg/L	10.0	10.0	1		07/11/23 19:58		

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**ANALYTICAL RESULTS**

Project: Eagle Valley P1R2  
 Pace Project No.: 50348991

Sample: Dup-2		Lab ID: 50348991006		Collected: 07/10/23 08:00	Received: 07/11/23 14:55	Matrix: Water			
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>2320B Alkalinity</b>		Analytical Method: SM 2320B Pace Analytical Services - Indianapolis							
Alkalinity, Carbonate (CaCO3)	ND	mg/L	10.0	10.0	1		07/11/23 19:58		
<b>2540C Total Dissolved Solids</b>		Analytical Method: SM 2540C Pace Analytical Services - Indianapolis							
Total Dissolved Solids	<b>463</b>	mg/L	10.0	10.0	1		07/12/23 15:07		
<b>4500H+ pH, Electrometric</b>		Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis							
pH at 25 Degrees C	<b>7.7</b>	Std. Units	0.10	0.10	1		07/13/23 16:19		H3
<b>4500S2D Sulfide Water</b>		Analytical Method: SM 4500-S2-D Pace Analytical Services - Indianapolis							
Sulfide	ND	mg/L	0.10	0.025	1		07/14/23 16:09	18496-25-8	
<b>Iron, Ferrous</b>		Analytical Method: HACH 8146 Pace Analytical Services - Indianapolis							
Iron, Ferrous	ND	mg/L	0.20	0.035	1		07/18/23 12:17	15438-31-0	H3,N2
<b>353.2 Nitrogen, NO2/NO3 unpres</b>		Analytical Method: EPA 353.2 Pace Analytical Services - Indianapolis							
Nitrogen, Nitrate	<b>1.5</b>	mg/L	0.10	0.011	1		07/11/23 23:46	14797-55-8	
Nitrogen, Nitrite	ND	mg/L	0.10	0.0040	1		07/11/23 23:46	14797-65-0	
<b>365.1 Total Phosphorus</b>		Analytical Method: EPA 365.1 Preparation Method: EPA 365.1 Pace Analytical Services - Indianapolis							
Phosphate as P04	ND	mg/L	0.15	0.15	1	07/12/23 11:00	07/14/23 12:48		
<b>5310C TOC</b>		Analytical Method: SM 5310C Pace Analytical Services - Indianapolis							
Total Organic Carbon	<b>1.5</b>	mg/L	1.0	0.24	1		07/12/23 19:26	7440-44-0	
<b>5310C Dissolved Organic Carbon</b>		Analytical Method: SM 5310C Pace Analytical Services - Indianapolis							
Dissolved Organic Carbon	<b>1.4</b>	mg/L	1.0	0.24	1		07/13/23 00:39		

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**ANALYTICAL RESULTS**

Project: Eagle Valley P1R2  
 Pace Project No.: 50348991

**Sample: FB-2**      **Lab ID: 50348991007**      Collected: 07/10/23 10:30      Received: 07/11/23 14:55      Matrix: Water

Parameters	Results	Units	Report			Prepared	Analyzed	CAS No.	Qual
			Limit	MDL	DF				
<b>9056 IC Anions</b>									
Analytical Method: EPA 9056									
Pace Analytical Services - Indianapolis									
Chloride	ND	mg/L	0.25	0.067	1		07/14/23 06:59	16887-00-6	
Fluoride	ND	mg/L	0.10	0.017	1		07/14/23 06:59	16984-48-8	
Sulfate	ND	mg/L	0.25	0.085	1		07/14/23 06:59	14808-79-8	
<b>6010 MET ICP</b>									
Analytical Method: EPA 6010      Preparation Method: EPA 3010									
Pace Analytical Services - Indianapolis									
Aluminum	ND	ug/L	200	54.4	1	07/16/23 18:29	07/17/23 12:27	7429-90-5	
Boron	ND	ug/L	100	61.4	1	07/16/23 18:29	07/17/23 12:27	7440-42-8	
Calcium	ND	ug/L	1000	88.4	1	07/16/23 18:29	07/17/23 12:27	7440-70-2	
Iron	ND	ug/L	100	48.8	1	07/16/23 18:29	07/17/23 12:27	7439-89-6	
Lithium	ND	ug/L	20.0	6.2	1	07/16/23 18:29	07/18/23 08:37	7439-93-2	
Magnesium	ND	ug/L	1000	43.0	1	07/16/23 18:29	07/17/23 12:27	7439-95-4	
Manganese	ND	ug/L	10.0	5.4	1	07/16/23 18:29	07/17/23 12:27	7439-96-5	
Potassium	ND	ug/L	1000	200	1	07/16/23 18:29	07/17/23 12:27	7440-09-7	
Silica	ND	ug/L	450		1	07/16/23 18:29	07/17/23 12:27	7631-86-9	N2
Sodium	ND	ug/L	1000	284	1	07/16/23 18:29	07/17/23 12:27	7440-23-5	
<b>6020 MET ICPMS</b>									
Analytical Method: EPA 6020      Preparation Method: EPA 200.2									
Pace Analytical Services - Indianapolis									
Antimony	ND	ug/L	1.0	0.036	1	07/14/23 08:20	07/14/23 19:45	7440-36-0	
Arsenic	ND	ug/L	1.0	0.053	1	07/14/23 08:20	07/14/23 19:45	7440-38-2	
Barium	ND	ug/L	1.0	0.051	1	07/14/23 08:20	07/14/23 19:45	7440-39-3	
Beryllium	ND	ug/L	0.20	0.028	1	07/14/23 08:20	07/14/23 19:45	7440-41-7	
Cadmium	ND	ug/L	2.0	0.0090	1	07/14/23 08:20	07/14/23 19:45	7440-43-9	
Chromium	ND	ug/L	10.0	0.13	1	07/14/23 08:20	07/14/23 19:45	7440-47-3	
Cobalt	ND	ug/L	1.0	0.032	1	07/14/23 08:20	07/14/23 19:45	7440-48-4	
Lead	ND	ug/L	10.0	0.034	1	07/14/23 08:20	07/14/23 19:45	7439-92-1	
Molybdenum	ND	ug/L	10.0	0.048	1	07/14/23 08:20	07/14/23 19:45	7439-98-7	
Selenium	ND	ug/L	1.0	0.23	1	07/14/23 08:20	07/14/23 19:45	7782-49-2	
Thallium	ND	ug/L	1.0	0.033	1	07/14/23 08:20	07/14/23 19:45	7440-28-0	
<b>7470 Mercury</b>									
Analytical Method: EPA 7470      Preparation Method: EPA 7470									
Pace Analytical Services - Indianapolis									
Mercury	ND	ug/L	0.20	0.091	1	07/13/23 10:44	07/13/23 18:43	7439-97-6	
<b>2320B Alkalinity</b>									
Analytical Method: SM 2320B									
Pace Analytical Services - Indianapolis									
Alkalinity, Total as CaCO3	ND	mg/L	10.0	10.0	1		07/11/23 19:58		
Alkalinity,Bicarbonate (CaCO3)	ND	mg/L	10.0	10.0	1		07/11/23 19:58		
Alkalinity,Carbonate (CaCO3)	ND	mg/L	10.0	10.0	1		07/11/23 19:58		
<b>2540C Total Dissolved Solids</b>									
Analytical Method: SM 2540C									
Pace Analytical Services - Indianapolis									
Total Dissolved Solids	ND	mg/L	10.0	10.0	1		07/12/23 15:07		PL

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### ANALYTICAL RESULTS

Project: Eagle Valley P1R2

Pace Project No.: 50348991

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>Sample: FB-2</b>									
<b>Lab ID: 50348991007</b>									
Collected: 07/10/23 10:30									
Received: 07/11/23 14:55									
Matrix: Water									
<b>4500H+ pH, Electrometric</b>									
Analytical Method: SM 4500-H+B									
Pace Analytical Services - Indianapolis									
pH at 25 Degrees C	7.9	Std. Units	0.10	0.10	1		07/13/23 16:24		H3
<b>4500S2D Sulfide Water</b>									
Analytical Method: SM 4500-S2-D									
Pace Analytical Services - Indianapolis									
Sulfide	ND	mg/L	0.10	0.025	1		07/14/23 16:09	18496-25-8	
<b>Iron, Ferrous</b>									
Analytical Method: HACH 8146									
Pace Analytical Services - Indianapolis									
Iron, Ferrous	ND	mg/L	0.20	0.035	1		07/18/23 12:17	15438-31-0	H3,N2
<b>353.2 Nitrogen, NO2/NO3 unpres</b>									
Analytical Method: EPA 353.2									
Pace Analytical Services - Indianapolis									
Nitrogen, Nitrate	ND	mg/L	0.10	0.011	1		07/11/23 23:48	14797-55-8	
Nitrogen, Nitrite	ND	mg/L	0.10	0.0040	1		07/11/23 23:48	14797-65-0	
<b>365.1 Total Phosphorus</b>									
Analytical Method: EPA 365.1 Preparation Method: EPA 365.1									
Pace Analytical Services - Indianapolis									
Phosphate as P04	ND	mg/L	0.15	0.15	1	07/12/23 11:00	07/14/23 12:49		
<b>5310C TOC</b>									
Analytical Method: SM 5310C									
Pace Analytical Services - Indianapolis									
Total Organic Carbon	ND	mg/L	1.0	0.24	1		07/12/23 19:36	7440-44-0	

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**QUALITY CONTROL DATA**

Project: Eagle Valley P1R2

Pace Project No.: 50348991

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QC Batch: 743500 Analysis Method: EPA 9056  
 QC Batch Method: EPA 9056 Analysis Description: 9056 IC Anions  
 Laboratory: Pace Analytical Services - Indianapolis  
 Associated Lab Samples: 50348991001, 50348991002, 50348991005, 50348991006, 50348991007

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METHOD BLANK: 3409241 Matrix: Water  
 Associated Lab Samples: 50348991001, 50348991002, 50348991005, 50348991006, 50348991007

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chloride	mg/L	ND	0.25	0.067	07/14/23 09:18	
Fluoride	mg/L	ND	0.10	0.017	07/14/23 09:18	
Sulfate	mg/L	ND	0.25	0.085	07/14/23 09:18	

LABORATORY CONTROL SAMPLE: 3409242

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	2.5	2.5	101	80-120	
Fluoride	mg/L	1	1.0	100	80-120	
Sulfate	mg/L	5	4.8	96	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3409243 3409244

Parameter	Units	MS		MSD		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		50348991002 Result	Spike Conc.	Spike Conc.	Conc.								
Chloride	mg/L	110	25	25	128	128	72	72	80-120	0	15	M0	
Fluoride	mg/L	0.36	1	1	1.4	1.4	100	99	80-120	0	15		
Sulfate	mg/L	105	50	50	147	147	84	84	80-120	0	15		

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**QUALITY CONTROL DATA**

Project: Eagle Valley P1R2  
 Pace Project No.: 50348991

QC Batch: 743387 Analysis Method: EPA 7470  
 QC Batch Method: EPA 7470 Analysis Description: 7470 Mercury  
 Laboratory: Pace Analytical Services - Indianapolis  
 Associated Lab Samples: 50348991001, 50348991002, 50348991005, 50348991006, 50348991007

METHOD BLANK: 3408774 Matrix: Water  
 Associated Lab Samples: 50348991001, 50348991002, 50348991005, 50348991006, 50348991007

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Mercury	ug/L	ND	0.20	0.091	07/13/23 17:40	

LABORATORY CONTROL SAMPLE: 3408775

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury	ug/L	5	5.0	99	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3408776 3408777

Parameter	Units	50348565025		3408776		3408777		% Rec	% Rec	% Rec Limits	RPD	Max RPD	Qual
		MS Result	MSD Spike Conc.	MS Result	MSD Spike Conc.	MS Result	MSD Spike Conc.						
Mercury	ug/L	<0.091	5	5	4.7	4.7	94	94	75-125	0	20		

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3408778 3408779

Parameter	Units	50348991002		3408778		3408779		% Rec	% Rec	% Rec Limits	RPD	Max RPD	Qual
		MS Result	MSD Spike Conc.	MS Result	MSD Spike Conc.	MS Result	MSD Spike Conc.						
Mercury	ug/L	ND	5	5	5.1	4.9	102	98	75-125	4	20		

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**QUALITY CONTROL DATA**

Project: Eagle Valley P1R2

Pace Project No.: 50348991

QC Batch:	743203	Analysis Method:	EPA 6010
QC Batch Method:	EPA 3010	Analysis Description:	6010 MET
		Laboratory:	Pace Analytical Services - Indianapolis

Associated Lab Samples: 50348991001, 50348991002, 50348991005, 50348991006, 50348991007

METHOD BLANK: 3407845 Matrix: Water

Associated Lab Samples: 50348991001, 50348991002, 50348991005, 50348991006, 50348991007

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Aluminum	ug/L	ND	200	54.4	07/17/23 12:04	
Boron	ug/L	ND	100	61.4	07/17/23 12:04	
Calcium	ug/L	ND	1000	88.4	07/17/23 12:04	
Iron	ug/L	ND	100	48.8	07/17/23 12:04	
Lithium	ug/L	ND	20.0	6.2	07/18/23 08:17	
Magnesium	ug/L	ND	1000	43.0	07/17/23 12:04	
Manganese	ug/L	ND	10.0	5.4	07/17/23 12:04	
Potassium	ug/L	ND	1000	200	07/17/23 12:04	
Silica	ug/L	ND	450		07/17/23 12:04	N2
Sodium	ug/L	ND	1000	284	07/17/23 12:04	

LABORATORY CONTROL SAMPLE: 3407846

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Aluminum	ug/L	10000	9720	97	80-120	
Boron	ug/L	1000	910	91	80-120	
Calcium	ug/L	10000	9690	97	80-120	
Iron	ug/L	10000	9640	96	80-120	
Lithium	ug/L	1000	968	97	80-120	
Magnesium	ug/L	10000	9380	94	80-120	
Manganese	ug/L	1000	910	91	80-120	
Potassium	ug/L	10000	9650	96	80-120	
Silica	ug/L	10700	9650	90	80-120	N2
Sodium	ug/L	10000	9520	95	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3407847 3407848

Parameter	Units	MS		MSD		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		50348991002 Result	Spike Conc.	Spike Conc.	MS Result						
Aluminum	ug/L	229	10000	10000	10200	10200	100	100	75-125	0	20
Boron	ug/L	130	1000	1000	1090	1100	96	97	75-125	0	20
Calcium	ug/L	86000	10000	10000	93400	91400	74	54	75-125	2	20 P6
Iron	ug/L	1580	10000	10000	11100	11000	96	94	75-125	1	20
Lithium	ug/L	ND	1000	1000	1030	1030	101	102	75-125	1	20
Magnesium	ug/L	26500	10000	10000	35300	34500	88	80	75-125	2	20
Manganese	ug/L	206	1000	1000	1120	1110	91	91	75-125	1	20
Potassium	ug/L	6780	10000	10000	16800	16900	100	102	75-125	1	20

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**QUALITY CONTROL DATA**

Project: Eagle Valley P1R2

Pace Project No.: 50348991

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3407847													3407848	
Parameter	Units	50348991002 Result	MS	MSD	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max			
			Spike Conc.	Spike Conc.							RPD	Qual		
Silica	ug/L	12000	10700	10700	22300	22300	97	97	75-125	0	20	N2		
Sodium	ug/L	90500	10000	10000	97800	97600	73	71	75-125	0	20	P6		

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3407849													3407850	
Parameter	Units	50348921009 Result	MS	MSD	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max			
			Spike Conc.	Spike Conc.							RPD	Qual		
Aluminum	ug/L	99300	10000	10000	140000	126000	411	269	75-125	11	20	P6		
Boron	ug/L	<61.4	1000	1000	984	961	93	91	75-125	2	20			
Calcium	ug/L	157000	10000	10000	174000	165000	173	79	75-125	6	20	P6		
Iron	ug/L	117000	10000	10000	139000	128000	218	110	75-125	8	20	P6		
Lithium	ug/L	80.3	1000	1000	1120	1100	104	102	75-125	2	20	F5		
Magnesium	ug/L	21500	10000	10000	33200	31100	117	96	75-125	7	20			
Manganese	ug/L	9850	1000	1000	11400	10700	157	87	75-125	6	20	P6		
Potassium	ug/L	19300	10000	10000	35000	32500	157	132	75-125	7	20	M3		
Silica	ug/L	90100	10700	10700	195000	193000	980	966	75-125	1	20	N2		
Sodium	ug/L	3010	10000	10000	14000	13500	110	105	75-125	4	20			

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**QUALITY CONTROL DATA**

Project: Eagle Valley P1R2

Pace Project No.: 50348991

QC Batch:	743361	Analysis Method:	EPA 6010
QC Batch Method:	EPA 3010	Analysis Description:	6010 MET Dissolved
		Laboratory:	Pace Analytical Services - Indianapolis

Associated Lab Samples: 50348991001, 50348991002, 50348991005, 50348991006

METHOD BLANK: 3408653 Matrix: Water

Associated Lab Samples: 50348991001, 50348991002, 50348991005, 50348991006

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Manganese, Dissolved	ug/L	ND	10.0	2.5	07/13/23 15:48	
Molybdenum, Dissolved	ug/L	ND	10.0	3.7	07/13/23 15:48	

LABORATORY CONTROL SAMPLE: 3408654

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Manganese, Dissolved	ug/L	1000	944	94	80-120	
Molybdenum, Dissolved	ug/L	1000	1020	102	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3408655 3408656

Parameter	Units	50348991002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Manganese, Dissolved	ug/L	184	1000	1000	1150	1180	97	99	75-125	2	20	
Molybdenum, Dissolved	ug/L	62.3	1000	1000	1120	1140	106	108	75-125	2	20	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3408657 3408658

Parameter	Units	50348921009 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Manganese, Dissolved	ug/L	2.6J	1000	1000	930	972	93	97	75-125	4	20	
Molybdenum, Dissolved	ug/L	7.4J	1000	1000	1010	1050	100	104	75-125	4	20	

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**QUALITY CONTROL DATA**

Project: Eagle Valley P1R2  
 Pace Project No.: 50348991

QC Batch: 743287 Analysis Method: EPA 6020  
 QC Batch Method: EPA 200.2 Analysis Description: 6020 MET  
 Laboratory: Pace Analytical Services - Indianapolis  
 Associated Lab Samples: 50348991001, 50348991002, 50348991005, 50348991006, 50348991007

METHOD BLANK: 3408131 Matrix: Water  
 Associated Lab Samples: 50348991001, 50348991002, 50348991005, 50348991006, 50348991007

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Antimony	ug/L	ND	1.0	0.036	07/14/23 18:59	
Arsenic	ug/L	ND	1.0	0.053	07/14/23 18:59	
Barium	ug/L	ND	1.0	0.051	07/14/23 18:59	
Beryllium	ug/L	ND	0.20	0.028	07/14/23 18:59	
Cadmium	ug/L	ND	2.0	0.0090	07/14/23 18:59	
Chromium	ug/L	ND	10.0	0.13	07/14/23 18:59	
Cobalt	ug/L	ND	1.0	0.032	07/14/23 18:59	
Lead	ug/L	ND	10.0	0.034	07/14/23 18:59	
Molybdenum	ug/L	ND	10.0	0.048	07/14/23 18:59	
Selenium	ug/L	ND	1.0	0.23	07/14/23 18:59	
Thallium	ug/L	ND	1.0	0.033	07/14/23 18:59	

LABORATORY CONTROL SAMPLE: 3408132

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Antimony	ug/L	40	40.9	102	80-120	
Arsenic	ug/L	40	38.3	96	80-120	
Barium	ug/L	40	38.4	96	80-120	
Beryllium	ug/L	40	39.2	98	80-120	
Cadmium	ug/L	40	38.2	95	80-120	
Chromium	ug/L	40	40.2	101	80-120	
Cobalt	ug/L	40	40.7	102	80-120	
Lead	ug/L	40	39.8	100	80-120	
Molybdenum	ug/L	40	40.8	102	80-120	
Selenium	ug/L	40	39.3	98	80-120	
Thallium	ug/L	40	40.3	101	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3408133 3408134

Parameter	Units	MS		MSD		MS		MSD		% Rec Limits	RPD	Max RPD	Qual
		50348991002	Spike Conc.	Spike Conc.	Result	Result	% Rec	% Rec					
Antimony	ug/L	ND	40	40	41.1	40.9	103	102	75-125	1	20		
Arsenic	ug/L	2.1	40	40	40.3	40.9	96	97	75-125	2	20		
Barium	ug/L	87.0	40	40	125	125	94	95	75-125	0	20		
Beryllium	ug/L	ND	40	40	40.5	40.0	101	100	75-125	1	20		
Cadmium	ug/L	ND	40	40	37.2	37.4	93	93	75-125	0	20		
Chromium	ug/L	ND	40	40	39.9	41.6	98	102	75-125	4	20		

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### QUALITY CONTROL DATA

Project: Eagle Valley P1R2

Pace Project No.: 50348991

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3408133 3408134											
Parameter	Units	50348991002		3408133		3408134		% Rec	% Rec	% Rec	Max
		Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec				
Cobalt	ug/L	ND	40	40	38.6	39.1	96	97	75-125	1	20
Lead	ug/L	ND	40	40	40.0	40.6	99	101	75-125	1	20
Molybdenum	ug/L	59.0	40	40	96.8	98.1	95	98	75-125	1	20
Selenium	ug/L	ND	40	40	35.5	37.2	88	93	75-125	5	20
Thallium	ug/L	ND	40	40	40.5	41.2	101	103	75-125	2	20

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**QUALITY CONTROL DATA**

Project: Eagle Valley P1R2

Pace Project No.: 50348991

QC Batch: 743196

Analysis Method: SM 2320B

QC Batch Method: SM 2320B

Analysis Description: 2320B Alkalinity

Laboratory: Pace Analytical Services - Indianapolis

Associated Lab Samples: 50348991001, 50348991002, 50348991005, 50348991006, 50348991007

METHOD BLANK: 3407773

Matrix: Water

Associated Lab Samples: 50348991001, 50348991002, 50348991005, 50348991006, 50348991007

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Alkalinity, Total as CaCO3	mg/L	ND	10.0	10.0	07/11/23 19:58	
Alkalinity,Bicarbonate (CaCO3)	mg/L	ND	10.0	10.0	07/11/23 19:58	
Alkalinity,Carbonate (CaCO3)	mg/L	ND	10.0	10.0	07/11/23 19:58	

LABORATORY CONTROL SAMPLE: 3407774

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Alkalinity, Total as CaCO3	mg/L	50	47.6	95	90-110	

SAMPLE DUPLICATE: 3407775

Parameter	Units	50348991002 Result	Dup Result	RPD	Max RPD	Qualifiers
Alkalinity, Total as CaCO3	mg/L	244	246	1	20	
Alkalinity,Bicarbonate (CaCO3)	mg/L	244	246	1	20	
Alkalinity,Carbonate (CaCO3)	mg/L	ND	ND		20	

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### QUALITY CONTROL DATA

Project: Eagle Valley P1R2

Pace Project No.: 50348991

QC Batch:	743327	Analysis Method:	SM 2540C
QC Batch Method:	SM 2540C	Analysis Description:	2540C Total Dissolved Solids
		Laboratory:	Pace Analytical Services - Indianapolis

Associated Lab Samples: 50348991001, 50348991002, 50348991005, 50348991006, 50348991007

METHOD BLANK: 3408347 Matrix: Water  
 Associated Lab Samples: 50348991001, 50348991002, 50348991005, 50348991006, 50348991007

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	ND	10.0	10.0	07/12/23 15:04	

LABORATORY CONTROL SAMPLE: 3408348

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	300	284	95	80-120	

SAMPLE DUPLICATE: 3408349

Parameter	Units	50348947001 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	200	204	2	10	

SAMPLE DUPLICATE: 3408350

Parameter	Units	50348991002 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	578	576	0	10	

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### QUALITY CONTROL DATA

Project: Eagle Valley P1R2

Pace Project No.: 50348991

QC Batch: 743544

Analysis Method: SM 4500-H+B

QC Batch Method: SM 4500-H+B

Analysis Description: 4500H+B pH

Laboratory: Pace Analytical Services - Indianapolis

Associated Lab Samples: 50348991002, 50348991005, 50348991006, 50348991007

SAMPLE DUPLICATE: 3409500

Parameter	Units	50348805001 Result	Dup Result	RPD	Max RPD	Qualifiers
pH at 25 Degrees C	Std. Units	7.4	7.5	1	2	H3

SAMPLE DUPLICATE: 3409501

Parameter	Units	50348991002 Result	Dup Result	RPD	Max RPD	Qualifiers
pH at 25 Degrees C	Std. Units	7.7	7.6	1	2	H3

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### QUALITY CONTROL DATA

Project: Eagle Valley P1R2

Pace Project No.: 50348991

QC Batch: 744330

Analysis Method: SM 4500-H+B

QC Batch Method: SM 4500-H+B

Analysis Description: 4500H+B pH

Laboratory: Pace Analytical Services - Indianapolis

Associated Lab Samples: 50348991001

SAMPLE DUPLICATE: 3412825

Parameter	Units	50348991001 Result	Dup Result	RPD	Max RPD	Qualifiers
pH at 25 Degrees C	Std. Units	7.6	7.6	1	2	H3

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**QUALITY CONTROL DATA**

Project: Eagle Valley P1R2

Pace Project No.: 50348991

QC Batch: 743621 Analysis Method: SM 4500-S2-D  
 QC Batch Method: SM 4500-S2-D Analysis Description: 4500S2D Sulfide Water  
 Laboratory: Pace Analytical Services - Indianapolis  
 Associated Lab Samples: 50348991001, 50348991002, 50348991005, 50348991006, 50348991007

METHOD BLANK: 3409899 Matrix: Water  
 Associated Lab Samples: 50348991001, 50348991002, 50348991005, 50348991006, 50348991007

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Sulfide	mg/L	ND	0.10	0.025	07/14/23 16:09	

LABORATORY CONTROL SAMPLE: 3409900

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Sulfide	mg/L	0.5	0.54	108	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3409901 3409902

Parameter	Units	50348991002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Sulfide	mg/L	ND	0.5	0.5	0.63	0.66	111	116	90-110	4	20	M3

MATRIX SPIKE SAMPLE: 3409903

Parameter	Units	50349186001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Sulfide	mg/L	ND	0.5	0.45	89	90-110	M0

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**QUALITY CONTROL DATA**

Project: Eagle Valley P1R2

Pace Project No.: 50348991

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QC Batch:	744038	Analysis Method:	HACH 8146
QC Batch Method:	HACH 8146	Analysis Description:	Iron, Ferrous
		Laboratory:	Pace Analytical Services - Indianapolis

Associated Lab Samples: 50348991001, 50348991002, 50348991005, 50348991006, 50348991007

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METHOD BLANK: 3411593 Matrix: Water

Associated Lab Samples: 50348991001, 50348991002, 50348991005, 50348991006, 50348991007

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Iron, Ferrous	mg/L	ND	0.20	0.035	07/18/23 12:17	H3,N2

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LABORATORY CONTROL SAMPLE: 3411594

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Iron, Ferrous	mg/L	1	1.0	101	90-110	H3,N2

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MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3411595 3411596

Parameter	Units	50348991002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Iron, Ferrous	mg/L	ND	1	1	1.1	1.1	108	108	90-110	0	20	H3,N2

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**QUALITY CONTROL DATA**

Project: Eagle Valley P1R2

Pace Project No.: 50348991

QC Batch: 743194 Analysis Method: EPA 353.2  
 QC Batch Method: EPA 353.2 Analysis Description: 353.2 Nitrate + Nitrite, Unpres.  
 Laboratory: Pace Analytical Services - Indianapolis  
 Associated Lab Samples: 50348991001, 50348991002, 50348991005, 50348991006, 50348991007

METHOD BLANK: 3407761 Matrix: Water  
 Associated Lab Samples: 50348991001, 50348991002, 50348991005, 50348991006, 50348991007

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Nitrogen, Nitrate	mg/L	ND	0.10	0.011	07/11/23 23:43	
Nitrogen, Nitrite	mg/L	ND	0.10	0.0040	07/11/23 23:43	

LABORATORY CONTROL SAMPLE: 3407762

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Nitrogen, Nitrate	mg/L	1	1.0	101	90-110	
Nitrogen, Nitrite	mg/L	1	1.0	102	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3407763 3407764

Parameter	Units	50348991002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Nitrogen, Nitrate	mg/L	ND	1	1	1.0	1.0	100	101	90-110	1	20	
Nitrogen, Nitrite	mg/L	ND	1	1	1.0	1.0	102	103	90-110	0	20	

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**QUALITY CONTROL DATA**

Project: Eagle Valley P1R2

Pace Project No.: 50348991

QC Batch:	743255	Analysis Method:	EPA 365.1
QC Batch Method:	EPA 365.1	Analysis Description:	365.1 Total Phosphorus
		Laboratory:	Pace Analytical Services - Indianapolis
Associated Lab Samples:	50348991001, 50348991002, 50348991005, 50348991006, 50348991007		

METHOD BLANK:	3407971	Matrix:	Water
Associated Lab Samples:	50348991001, 50348991002, 50348991005, 50348991006, 50348991007		

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Phosphate as P04	mg/L	ND	0.15	0.15	07/14/23 12:43	

LABORATORY CONTROL SAMPLE: 3407972						
Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Phosphate as P04	mg/L		1.5			

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3407973											3407974		
Parameter	Units	50348991002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual	
Phosphate as P04	mg/L	ND			1.5	1.5				0			

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**QUALITY CONTROL DATA**

Project: Eagle Valley P1R2

Pace Project No.: 50348991

QC Batch:	743276	Analysis Method:	SM 5310C
QC Batch Method:	SM 5310C	Analysis Description:	5310C Total Organic Carbon
		Laboratory:	Pace Analytical Services - Indianapolis

Associated Lab Samples: 50348991001, 50348991002, 50348991005, 50348991006, 50348991007

METHOD BLANK: 3408055 Matrix: Water  
 Associated Lab Samples: 50348991001, 50348991002, 50348991005, 50348991006, 50348991007

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Organic Carbon	mg/L	ND	1.0	0.24	07/12/23 13:47	

LABORATORY CONTROL SAMPLE: 3408056

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Organic Carbon	mg/L	10	10.3	103	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3408059 3408060

Parameter	Units	50348991002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Total Organic Carbon	mg/L	2.8	10	10	12.6	12.7	97	98	80-120	1	20	

MATRIX SPIKE SAMPLE: 3408061

Parameter	Units	50348991005 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Total Organic Carbon	mg/L	1.5	10	11.2	97	80-120	

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**QUALITY CONTROL DATA**

Project: Eagle Valley P1R2

Pace Project No.: 50348991

QC Batch:	743278	Analysis Method:	SM 5310C
QC Batch Method:	SM 5310C	Analysis Description:	5310C Dissolved Organic Carbon
		Laboratory:	Pace Analytical Services - Indianapolis
Associated Lab Samples:	50348991001, 50348991002, 50348991005, 50348991006		

METHOD BLANK: 3408076 Matrix: Water  
 Associated Lab Samples: 50348991001, 50348991002, 50348991005, 50348991006

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Dissolved Organic Carbon	mg/L	ND	1.0	0.24	07/12/23 23:01	

LABORATORY CONTROL SAMPLE: 3408077

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Dissolved Organic Carbon	mg/L	10	10	100	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3408078 3408079

Parameter	Units	50348991002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Dissolved Organic Carbon	mg/L	2.3	10	10	12.3	12.2	100	99	80-120	0	20	

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Eagle Valley P1R2

Pace Project No.: 50348991

<b>Sample: MW-24S</b>	<b>Lab ID: 50348991001</b>	Collected: 07/10/23 13:00	Received: 07/11/23 14:55	Matrix: Water
PWS:	Site ID:	Sample Type:		

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	<b>-0.175 ± 0.842 (1.71)</b> <b>C:NA T:94%</b>	pCi/L	07/24/23 15:42	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	<b>0.302 ± 0.387 (0.825)</b> <b>C:87% T:80%</b>	pCi/L	07/24/23 15:40	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	<b>0.302 ± 1.23 (2.54)</b>	pCi/L	07/25/23 17:06	7440-14-4	

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Eagle Valley P1R2

Pace Project No.: 50348991

**Sample: MW-24I**      **Lab ID: 50348991002**      Collected: 07/10/23 11:45      Received: 07/11/23 14:55      Matrix: Water  
PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	<b>0.625 ± 0.464 (0.581)</b> <b>C:NA T:90%</b>	pCi/L	07/24/23 15:42	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	<b>0.429 ± 0.483 (1.02)</b> <b>C:76% T:82%</b>	pCi/L	07/24/23 15:40	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	<b>1.05 ± 0.947 (1.60)</b>	pCi/L	07/25/23 17:06	7440-14-4	

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Eagle Valley P1R2

Pace Project No.: 50348991

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
<b>Sample: MW-24I MS</b> <b>Lab ID: 50348991003</b> Collected: 07/10/23 11:45      Received: 07/11/23 14:55      Matrix: Water PWS:      Site ID:      Sample Type:						
Pace Analytical Services - Greensburg						
Radium-226	EPA 903.1	<b>126.12 %REC ± NA (NA)</b> <b>C:NA T:NA</b>	pCi/L	07/24/23 15:42	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 904.0	<b>103.33 %REC ± NA (NA)</b> <b>C:NA T:NA</b>	pCi/L	07/24/23 15:41	15262-20-1	

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Eagle Valley P1R2

Pace Project No.: 50348991

**Sample: MW-24I MSD**      **Lab ID: 50348991004**      Collected: 07/10/23 11:45      Received: 07/11/23 14:55      Matrix: Water  
 PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Radium-226	EPA 903.1	<b>92.78 %REC 30.47RPD ±</b> <b>NA (NA)</b> <b>C:NA T:NA</b>	pCi/L	07/24/23 15:42	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 904.0	<b>90.16 %REC 13.62RPD ±</b> <b>NA (NA)</b> <b>C:NA T:NA</b>	pCi/L	07/24/23 15:41	15262-20-1	

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**ANALYTICAL RESULTS - RADIOCHEMISTRY**

Project: Eagle Valley P1R2

Pace Project No.: 50348991

**Sample: MW-24D**      **Lab ID: 50348991005**      Collected: 07/10/23 10:35      Received: 07/11/23 14:55      Matrix: Water  
 PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	<b>0.322 ± 0.548 (0.968)</b> <b>C:NA T:91%</b>	pCi/L	07/24/23 15:42	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	<b>0.709 ± 0.381 (0.677)</b> <b>C:84% T:83%</b>	pCi/L	07/24/23 15:41	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	<b>1.03 ± 0.929 (1.65)</b>	pCi/L	07/25/23 17:06	7440-14-4	

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Eagle Valley P1R2

Pace Project No.: 50348991

**Sample: Dup-2**      **Lab ID: 50348991006**      Collected: 07/10/23 08:00      Received: 07/11/23 14:55      Matrix: Water  
PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	<b>0.494 ± 0.514 (0.765)</b> <b>C:NA T:89%</b>	pCi/L	07/24/23 15:42	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	<b>0.380 ± 0.310 (0.613)</b> <b>C:83% T:87%</b>	pCi/L	07/24/23 15:41	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	<b>0.874 ± 0.824 (1.38)</b>	pCi/L	07/25/23 17:06	7440-14-4	

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Eagle Valley P1R2

Pace Project No.: 50348991

**Sample: FB-2**      **Lab ID: 50348991007**      Collected: 07/10/23 10:30      Received: 07/11/23 14:55      Matrix: Water  
 PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	<b>-0.175 ± 0.727 (1.52)</b> <b>C:NA T:90%</b>	pCi/L	07/24/23 15:42	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	<b>0.180 ± 0.314 (0.685)</b> <b>C:82% T:84%</b>	pCi/L	07/24/23 15:41	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	<b>0.180 ± 1.04 (2.21)</b>	pCi/L	07/25/23 17:06	7440-14-4	

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### QUALITY CONTROL - RADIOCHEMISTRY

Project: Eagle Valley P1R2

Pace Project No.: 50348991

QC Batch: 602350

Analysis Method: EPA 904.0

QC Batch Method: EPA 904.0

Analysis Description: 904.0 Radium 228

Laboratory: Pace Analytical Services - Greensburg

Associated Lab Samples: 50348991001, 50348991002, 50348991003, 50348991004, 50348991005, 50348991006, 50348991007

METHOD BLANK: 2928699

Matrix: Water

Associated Lab Samples: 50348991001, 50348991002, 50348991003, 50348991004, 50348991005, 50348991006, 50348991007

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.106 ± 0.297 (0.668) C:83% T:83%	pCi/L	07/24/23 15:41	

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### QUALITY CONTROL - RADIOCHEMISTRY

Project: Eagle Valley P1R2

Pace Project No.: 50348991

QC Batch: 602348

Analysis Method: EPA 903.1

QC Batch Method: EPA 903.1

Analysis Description: 903.1 Radium-226

Laboratory: Pace Analytical Services - Greensburg

Associated Lab Samples: 50348991001, 50348991002, 50348991003, 50348991004, 50348991005, 50348991006, 50348991007

METHOD BLANK: 2928697

Matrix: Water

Associated Lab Samples: 50348991001, 50348991002, 50348991003, 50348991004, 50348991005, 50348991006, 50348991007

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.0614 ± 0.280 (0.452) C:NA T:91%	pCi/L	07/24/23 15:42	

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## QUALIFIERS

Project: Eagle Valley P1R2

Pace Project No.: 50348991

### DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Reported results are not rounded until the final step prior to reporting. Therefore, calculated parameters that are typically reported as "Total" may vary slightly from the sum of the reported component parameters.

Act - Activity

Unc - Uncertainty: SDWA = 1.96 sigma count uncertainty, all other matrices = Expanded Uncertainty (95% confidence interval).

Gamma Spec = Expanded Uncertainty (95.4% Confidence Interval)

(MDC) - Minimum Detectable Concentration

Trac - Tracer Recovery (%)

Carr - Carrier Recovery (%)

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

### ANALYTE QUALIFIERS

- F5 The recovery of the analyte in the CRDL standard (also known as the reporting limit verification) did not meet the acceptance criteria.
- H3 Sample was received or analysis requested beyond the recognized method holding time.
- M0 Matrix spike recovery and/or matrix spike duplicate recovery was outside laboratory control limits.
- M3 Matrix spike recovery was outside laboratory control limits due to matrix interferences.
- N2 The lab does not hold NELAC/TNI accreditation for this parameter but other accreditations/certifications may apply. A complete list of accreditations/certifications is available upon request.
- P6 Matrix spike recovery was outside laboratory control limits due to a parent sample concentration notably higher than the spike level.
- PL The minimum mass of dried residue of 2.5 mg could not be obtained using the routine sample volume of 100 mL.

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**QUALITY CONTROL DATA CROSS REFERENCE TABLE**

Project: Eagle Valley P1R2

Pace Project No.: 50348991

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
50348991001	MW-24S	EPA 9056	743500		
50348991002	MW-24I	EPA 9056	743500		
50348991005	MW-24D	EPA 9056	743500		
50348991006	Dup-2	EPA 9056	743500		
50348991007	FB-2	EPA 9056	743500		
50348991001	MW-24S	EPA 3010	743203	EPA 6010	743872
50348991002	MW-24I	EPA 3010	743203	EPA 6010	743872
50348991005	MW-24D	EPA 3010	743203	EPA 6010	743872
50348991006	Dup-2	EPA 3010	743203	EPA 6010	743872
50348991007	FB-2	EPA 3010	743203	EPA 6010	743872
50348991001	MW-24S	EPA 3010	743361	EPA 6010	743539
50348991002	MW-24I	EPA 3010	743361	EPA 6010	743539
50348991005	MW-24D	EPA 3010	743361	EPA 6010	743539
50348991006	Dup-2	EPA 3010	743361	EPA 6010	743539
50348991001	MW-24S	EPA 200.2	743287	EPA 6020	743692
50348991002	MW-24I	EPA 200.2	743287	EPA 6020	743692
50348991005	MW-24D	EPA 200.2	743287	EPA 6020	743692
50348991006	Dup-2	EPA 200.2	743287	EPA 6020	743692
50348991007	FB-2	EPA 200.2	743287	EPA 6020	743692
50348991001	MW-24S	EPA 7470	743387	EPA 7470	743543
50348991002	MW-24I	EPA 7470	743387	EPA 7470	743543
50348991005	MW-24D	EPA 7470	743387	EPA 7470	743543
50348991006	Dup-2	EPA 7470	743387	EPA 7470	743543
50348991007	FB-2	EPA 7470	743387	EPA 7470	743543
50348991001	MW-24S	EPA 903.1	602348		
50348991002	MW-24I	EPA 903.1	602348		
50348991003	MW-24I MS	EPA 903.1	602348		
50348991004	MW-24I MSD	EPA 903.1	602348		
50348991005	MW-24D	EPA 903.1	602348		
50348991006	Dup-2	EPA 903.1	602348		
50348991007	FB-2	EPA 903.1	602348		
50348991001	MW-24S	EPA 904.0	602350		
50348991002	MW-24I	EPA 904.0	602350		
50348991003	MW-24I MS	EPA 904.0	602350		
50348991004	MW-24I MSD	EPA 904.0	602350		
50348991005	MW-24D	EPA 904.0	602350		
50348991006	Dup-2	EPA 904.0	602350		
50348991007	FB-2	EPA 904.0	602350		
50348991001	MW-24S	Total Radium Calculation	604098		
50348991002	MW-24I	Total Radium Calculation	604098		
50348991005	MW-24D	Total Radium Calculation	604098		
50348991006	Dup-2	Total Radium Calculation	604098		
50348991007	FB-2	Total Radium Calculation	604098		
50348991001	MW-24S	SM 2320B	743196		
50348991002	MW-24I	SM 2320B	743196		

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Eagle Valley P1R2

Pace Project No.: 50348991

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
50348991005	MW-24D	SM 2320B	743196		
50348991006	Dup-2	SM 2320B	743196		
50348991007	FB-2	SM 2320B	743196		
50348991001	MW-24S	SM 2540C	743327		
50348991002	MW-24I	SM 2540C	743327		
50348991005	MW-24D	SM 2540C	743327		
50348991006	Dup-2	SM 2540C	743327		
50348991007	FB-2	SM 2540C	743327		
50348991001	MW-24S	SM 4500-H+B	744330		
50348991002	MW-24I	SM 4500-H+B	743544		
50348991005	MW-24D	SM 4500-H+B	743544		
50348991006	Dup-2	SM 4500-H+B	743544		
50348991007	FB-2	SM 4500-H+B	743544		
50348991001	MW-24S	SM 4500-S2-D	743621		
50348991002	MW-24I	SM 4500-S2-D	743621		
50348991005	MW-24D	SM 4500-S2-D	743621		
50348991006	Dup-2	SM 4500-S2-D	743621		
50348991007	FB-2	SM 4500-S2-D	743621		
50348991001	MW-24S	HACH 8146	744038		
50348991002	MW-24I	HACH 8146	744038		
50348991005	MW-24D	HACH 8146	744038		
50348991006	Dup-2	HACH 8146	744038		
50348991007	FB-2	HACH 8146	744038		
50348991001	MW-24S	EPA 353.2	743194		
50348991002	MW-24I	EPA 353.2	743194		
50348991005	MW-24D	EPA 353.2	743194		
50348991006	Dup-2	EPA 353.2	743194		
50348991007	FB-2	EPA 353.2	743194		
50348991001	MW-24S	EPA 365.1	743255	EPA 365.1	743725
50348991002	MW-24I	EPA 365.1	743255	EPA 365.1	743725
50348991005	MW-24D	EPA 365.1	743255	EPA 365.1	743725
50348991006	Dup-2	EPA 365.1	743255	EPA 365.1	743725
50348991007	FB-2	EPA 365.1	743255	EPA 365.1	743725
50348991001	MW-24S	SM 5310C	743276		
50348991002	MW-24I	SM 5310C	743276		
50348991005	MW-24D	SM 5310C	743276		
50348991006	Dup-2	SM 5310C	743276		
50348991007	FB-2	SM 5310C	743276		
50348991001	MW-24S	SM 5310C	743278		
50348991002	MW-24I	SM 5310C	743278		
50348991005	MW-24D	SM 5310C	743278		
50348991006	Dup-2	SM 5310C	743278		

REPORT OF LABORATORY ANALYSIS

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**SAMPLE CONDITION UPON RECEIPT FORM**

Date/Time and Initials of person examining contents: RC 7-11-23 15:07

1. Courier:  FED EX  UPS  CLIENT  PACE  NOW/JETT  OTHER \_\_\_\_\_

2. Custody Seal on Cooler/Box Present:  Yes  No  
 (If yes)Seals Intact:  Yes  No (leave blank if no seals were present)

3. Thermometer: **1 2 3 4 5 6 7 8 A B C D E F G H**

4. Cooler Temperature(s): 0.7/0.7 2.4/2.4    
 (Initial/Corrected) RECORD TEMPS OF ALL COOLERS RECEIVED (use Comments below to add more)

5. Packing Material:  Bubble Wrap  Bubble Bags  
 None  Other \_\_\_\_\_  
RC 7-11-23

6. Ice Type:  Wet  Blue  None

7. If temp. is over 6°C or under 0°C, was the PM notified?:  Yes  No  
 Cooler temp should be above freezing to 6°C

**All discrepancies will be written out in the comments section below.**

	Yes	No		Yes	No	N/A
USDA Regulated Soils? (HI, ID, NY, WA, OR, CA, NM, TX, OK, AR, LA, TN, AL, MS, NC, SC, GA, FL, or Puerto Rico)		✓	All containers needing acid/base preservation have been pH CHECKED?: Exceptions: VOA, coliform, LLHg, O&G, RAD CHEM, and any container with a septum cap or preserved with HCl.			
Short Hold Time Analysis (48 hours or less)? Analysis: <u>NO3</u>	✓		Circle: <u>NO3 (&lt;2)</u> <u>H2SO4 (&lt;2)</u> NaOH (>10) <u>NaOH/ZnAc (&gt;9)</u> Any non-conformance to pH recommendations will be noted on the container count form	✓		
Time 5035A TC placed in Freezer or Short Holds To Lab			Time: <u>16:35</u>	Present	Absent	N/A
Rush TAT Requested (4 days or less):		✓	Residual Chlorine Check (SVOC 625 Pest/PCB 608)			✓
Custody Signatures Present?	✓		Residual Chlorine Check (Total/Amenable/Free Cyanide)			✓
Containers Intact?:	✓		Headspace Wisconsin Sulfide?			✓
Sample Label (IDs/Dates/Times) Match COC?: Except TCs, which only require sample ID	✓		Headspace in VOA Vials (>6mm): See Container Count form for details	Present	Absent	No VOA Vials Sent
Extra labels on Terracore Vials? (soils only)			Trip Blank Present?		✓	
			Trip Blank Custody Seals?:			✓

COMMENTS:

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Sample Container Count

\*\* Place a RED dot on containers that are out of conformance \*\*

COC Line Item	WGKU	WGKU	BG1U	MeOH (only)			AMBER GLASS										PLASTIC										OTHER			Conformance							
				R	DG9H	VG9H	VOA VIAL HS >6mm	VG9U	DG9U	VG9T	AG0U	AG1H	AG1U	AG3U	AG3S	AG3SF	AG3B	BP1U	BP1N	BP2U	BP3U	BP3N	BP3F	BP3S	BP3B	BP3Z	CG3H	CG3F	Syringe Kit	Matrix	Nitric	Sulfuric	Sodium Hydroxide	Sodium Hydroxide/ZnAc			
																															Red	Yellow	Green	Black			
1													1	1				2	1	2	1	1	1		1						WT	✓	✓		✓		
2													3	3				6	3	6	3	3	3		3												
3													1	1				2	1	2	1	1	1		1												
4																																					
5																																					
6													1	1				2	1	2	1	1	1		1					WT	✓	✓		✓			
7													1					1	1	1	1		1		1												
8																																					
9																																					
10																																					
11																																					
12																																					

Container Codes

Glass	
DG9H	40mL HCl amber voa vial
DG9P	40mL TSP amber vial
DG9S	40mL H2SO4 amber vial
DG9T	40mL Na Thio amber vial
DG9U	40mL unpreserved amber vial
VG9H	40mL HCl clear vial
VG9T	40mL Na Thio. clear vial
VG9U	40mL unpreserved clear vial
I	40mL w/hexane wipe vial
WGKU	8oz unpreserved clear jar
WGFL	4oz clear soil jar
JGFL	4oz unpreserved amber wide
CG3H	250mL clear glass HCl
CG3F	250mL clear glass HCl, Field Filter
BG1H	1L HCl clear glass
BG1S	1L H2SO4 clear glass
BG1T	glass
BG1U	1L unpreserved glass
CG3U	250mL Unpres Clear Glass
AG0U	100mL unpres amber glass
AG1H	1L HCl amber glass
AG1S	1L H2SO4 amber glass
AG1T	1L Na Thiosulfate amber glass
AG1U	1liter unpres amber glass
AG2N	500mL HNO3 amber glass
AG2S	500mL H2SO4 amber glass
AG2U	500mL unpres amber glass
AG3S	250mL H2SO4 amber glass
AG3SF	250mL H2SO4 amb glass -field filtered
AG3U	250mL unpres amber glass
AG3B	250mL NaOH amber glass

Plastic	
BP1B	1L NaOH plastic
BP1N	1L HNO3 plastic
BP1S	1L H2SO4 plastic
BP1U	1L unpreserved plastic
BP1Z	1L NaOH, Zn, Ac
BP2N	500mL HNO3 plastic
BP2C	500mL NaOH plastic
BP2S	500mL H2SO4 plastic
BP2U	500mL unpreserved plastic
BP2Z	500mL NaOH, Zn Ac
BP3B	250mL NaOH plastic
BP3N	250mL HNO3 plastic
BP3F	250mL HNO3 plastic-field filtered
BP3U	250mL unpreserved plastic
BP3S	250mL H2SO4 plastic
BP3Z	250mL NaOH, ZnAc plastic
BP3R	250mL Unpres. FF SO4/OH buffer
BP4U	125mL unpreserved plastic
BP4N	125mL HNO3 plastic
BP4S	125mL H2SO4 plastic
<b>Miscellaneous</b>	
Syringe Kit	LL Cr+6 sampling kit
ZPLC	Ziploc Bag
R	Terracore Kit
SP5T	120mL Coliform Sodium Thiosulfate
GN	General Container
U	Summa Can (air sample)
WT	Water
SL	Solid
OL	Oil
NAL	Non-aqueous liquid
WP	Wipe

## **Appendix C: Statistical Analyses – Prediction Limits Documentation**

**November 2022**

**Table C-1**

**Upgradient Data**

Constituent	Units	Well	Date		Result	Adjusted	
Antimony, Total	ug/L	MW-13S	08/08/2019	ND	1.0000		
Antimony, Total	ug/L	MW-13S	09/25/2019	ND	1.0000		
Antimony, Total	ug/L	MW-13S	05/07/2020	ND	6.0000	1.0000	**
Antimony, Total	ug/L	MW-13S	11/12/2020	ND	1.0000		
Antimony, Total	ug/L	MW-13S	02/25/2021	ND	1.0000		
Antimony, Total	ug/L	MW-13S	03/29/2021	ND	1.0000		
Antimony, Total	ug/L	MW-13S	05/20/2021	ND	1.0000		
Antimony, Total	ug/L	MW-13S	06/22/2021	ND	1.0000		
Antimony, Total	ug/L	MW-13S	07/27/2021	ND	1.0000		
Antimony, Total	ug/L	MW-13S	11/16/2021	ND	1.0000		
Antimony, Total	ug/L	MW-13S	05/19/2022	ND	1.0000		
Antimony, Total	ug/L	MW-13S	11/18/2022	ND	1.0000		
Arsenic, Total	ug/L	MW-13S	08/08/2019	ND	1.0000		
Arsenic, Total	ug/L	MW-13S	09/25/2019		5.8000		
Arsenic, Total	ug/L	MW-13S	05/07/2020	ND	10.0000	1.0000	**
Arsenic, Total	ug/L	MW-13S	11/12/2020	ND	1.0000		
Arsenic, Total	ug/L	MW-13S	02/25/2021	ND	1.0000		
Arsenic, Total	ug/L	MW-13S	03/29/2021	ND	1.0000		
Arsenic, Total	ug/L	MW-13S	05/20/2021	ND	1.0000		
Arsenic, Total	ug/L	MW-13S	06/22/2021	ND	1.0000		
Arsenic, Total	ug/L	MW-13S	07/27/2021	ND	1.0000		
Arsenic, Total	ug/L	MW-13S	11/16/2021	ND	1.0000		
Arsenic, Total	ug/L	MW-13S	05/19/2022	ND	1.0000		
Arsenic, Total	ug/L	MW-13S	11/18/2022	ND	1.0000		
Barium, Total	ug/L	MW-13S	08/08/2019		50.0000		
Barium, Total	ug/L	MW-13S	09/25/2019		69.3000		
Barium, Total	ug/L	MW-13S	05/07/2020		56.4000		
Barium, Total	ug/L	MW-13S	11/12/2020		44.5000		
Barium, Total	ug/L	MW-13S	02/25/2021		53.3000		
Barium, Total	ug/L	MW-13S	03/29/2021		60.3000		
Barium, Total	ug/L	MW-13S	05/20/2021		51.0000		
Barium, Total	ug/L	MW-13S	06/22/2021		44.5000		
Barium, Total	ug/L	MW-13S	07/27/2021		48.3000		
Barium, Total	ug/L	MW-13S	11/16/2021		50.4000		
Barium, Total	ug/L	MW-13S	05/19/2022		58.6000		
Barium, Total	ug/L	MW-13S	11/18/2022		52.6000		
Beryllium, Total	ug/L	MW-13S	08/08/2019	ND	0.2000		
Beryllium, Total	ug/L	MW-13S	09/25/2019	ND	0.2000		
Beryllium, Total	ug/L	MW-13S	05/07/2020	ND	4.0000	0.2000	**
Beryllium, Total	ug/L	MW-13S	11/12/2020	ND	0.2000		
Beryllium, Total	ug/L	MW-13S	02/25/2021	ND	0.2000		

\* - Outlier for that well and constituent.  
 \*\* - ND value replaced with median RL.  
 \*\*\* - ND value replaced with manual RL.  
 ND = Not detected, Result = detection limit.

**Table C-1**

**Upgradient Data**

Constituent	Units	Well	Date		Result	Adjusted	
Beryllium, Total	ug/L	MW-13S	03/29/2021	ND	0.2000		
Beryllium, Total	ug/L	MW-13S	05/20/2021	ND	0.2000		
Beryllium, Total	ug/L	MW-13S	06/22/2021	ND	0.2000		
Beryllium, Total	ug/L	MW-13S	07/27/2021	ND	0.2000		
Beryllium, Total	ug/L	MW-13S	05/19/2022	ND	0.2000		
Cadmium, Total	ug/L	MW-13S	08/08/2019	ND	2.0000		
Cadmium, Total	ug/L	MW-13S	09/25/2019	ND	2.0000		
Cadmium, Total	ug/L	MW-13S	05/07/2020	ND	2.0000		
Cadmium, Total	ug/L	MW-13S	11/12/2020	ND	2.0000		
Cadmium, Total	ug/L	MW-13S	02/25/2021	ND	2.0000		
Cadmium, Total	ug/L	MW-13S	03/29/2021	ND	2.0000		
Cadmium, Total	ug/L	MW-13S	05/20/2021	ND	2.0000		
Cadmium, Total	ug/L	MW-13S	06/22/2021	ND	2.0000		
Cadmium, Total	ug/L	MW-13S	07/27/2021	ND	2.0000		
Cadmium, Total	ug/L	MW-13S	05/19/2022	ND	2.0000		
Chromium, Total	ug/L	MW-13S	08/08/2019	ND	10.0000		
Chromium, Total	ug/L	MW-13S	09/25/2019	ND	10.0000		
Chromium, Total	ug/L	MW-13S	05/07/2020	ND	10.0000		
Chromium, Total	ug/L	MW-13S	11/12/2020	ND	10.0000		
Chromium, Total	ug/L	MW-13S	02/25/2021	ND	10.0000		
Chromium, Total	ug/L	MW-13S	03/29/2021	ND	10.0000		
Chromium, Total	ug/L	MW-13S	05/20/2021	ND	10.0000		
Chromium, Total	ug/L	MW-13S	06/22/2021	ND	10.0000		
Chromium, Total	ug/L	MW-13S	07/27/2021	ND	10.0000		
Chromium, Total	ug/L	MW-13S	05/19/2022	ND	10.0000		
Cobalt, Total	ug/L	MW-13S	08/08/2019	ND	1.0000		
Cobalt, Total	ug/L	MW-13S	09/25/2019		5.8000		
Cobalt, Total	ug/L	MW-13S	05/07/2020	ND	10.0000	1.0000	**
Cobalt, Total	ug/L	MW-13S	11/12/2020	ND	1.0000		
Cobalt, Total	ug/L	MW-13S	02/25/2021	ND	1.0000		
Cobalt, Total	ug/L	MW-13S	03/29/2021	ND	1.0000		
Cobalt, Total	ug/L	MW-13S	05/20/2021	ND	1.0000		
Cobalt, Total	ug/L	MW-13S	06/22/2021	ND	1.0000		
Cobalt, Total	ug/L	MW-13S	07/27/2021	ND	1.0000		
Cobalt, Total	ug/L	MW-13S	11/16/2021	ND	1.0000		
Cobalt, Total	ug/L	MW-13S	05/19/2022	ND	1.0000		
Fluoride	mg/L	MW-13S	08/08/2019	ND	0.1000		
Fluoride	mg/L	MW-13S	09/25/2019	ND	0.1000		
Fluoride	mg/L	MW-13S	05/07/2020	ND	0.1000		
Fluoride	mg/L	MW-13S	11/12/2020	ND	0.1000		
Fluoride	mg/L	MW-13S	02/25/2021	ND	0.1000		

\* - Outlier for that well and constituent.  
 \*\* - ND value replaced with median RL.  
 \*\*\* - ND value replaced with manual RL.  
 ND = Not detected, Result = detection limit.



**Table C-1**

**Upgradient Data**

Constituent	Units	Well	Date		Result	Adjusted	
Fluoride	mg/L	MW-13S	03/29/2021	ND	0.1000		
Fluoride	mg/L	MW-13S	05/20/2021	ND	0.1000		
Fluoride	mg/L	MW-13S	06/22/2021	ND	0.1000		
Fluoride	mg/L	MW-13S	07/27/2021	ND	0.1000		
Fluoride	mg/L	MW-13S	11/16/2021	ND	0.1000		
Fluoride	mg/L	MW-13S	05/19/2022	ND	0.1000		
Fluoride	mg/L	MW-13S	11/18/2022	ND	0.1000		
Lead, Total	ug/L	MW-13S	08/08/2019	ND	10.0000		
Lead, Total	ug/L	MW-13S	09/25/2019	ND	10.0000		
Lead, Total	ug/L	MW-13S	05/07/2020	ND	10.0000		
Lead, Total	ug/L	MW-13S	11/12/2020	ND	10.0000		
Lead, Total	ug/L	MW-13S	02/25/2021	ND	10.0000		
Lead, Total	ug/L	MW-13S	03/29/2021	ND	10.0000		
Lead, Total	ug/L	MW-13S	05/20/2021	ND	10.0000		
Lead, Total	ug/L	MW-13S	06/22/2021	ND	10.0000		
Lead, Total	ug/L	MW-13S	07/27/2021	ND	10.0000		
Lead, Total	ug/L	MW-13S	05/19/2022	ND	10.0000		
Lithium, Total	ug/L	MW-13S	08/08/2019	ND	20.0000		
Lithium, Total	ug/L	MW-13S	09/25/2019	ND	20.0000		
Lithium, Total	ug/L	MW-13S	05/07/2020	ND	20.0000		
Lithium, Total	ug/L	MW-13S	11/12/2020	ND	20.0000		
Lithium, Total	ug/L	MW-13S	02/25/2021	ND	20.0000		
Lithium, Total	ug/L	MW-13S	03/29/2021	ND	20.0000		
Lithium, Total	ug/L	MW-13S	05/20/2021	ND	20.0000		
Lithium, Total	ug/L	MW-13S	06/22/2021	ND	20.0000		
Lithium, Total	ug/L	MW-13S	07/27/2021	ND	20.0000		
Lithium, Total	ug/L	MW-13S	11/16/2021	ND	20.0000		
Lithium, Total	ug/L	MW-13S	05/19/2022	ND	20.0000		
Lithium, Total	ug/L	MW-13S	11/18/2022	ND	20.0000		
Mercury	ug/L	MW-13S	08/08/2019	ND	2.0000		
Mercury	ug/L	MW-13S	09/25/2019	ND	2.0000		
Mercury	ug/L	MW-13S	11/12/2020	ND	2.0000		
Mercury	ug/L	MW-13S	02/25/2021	ND	2.0000		
Mercury	ug/L	MW-13S	03/29/2021	ND	2.0000		
Mercury	ug/L	MW-13S	05/20/2021	ND	2.0000		
Mercury	ug/L	MW-13S	06/22/2021	ND	2.0000		
Mercury	ug/L	MW-13S	07/27/2021	ND	2.0000		
Mercury	ug/L	MW-13S	05/19/2022	ND	0.2000	2.0000	**
Molybdenum, Total	ug/L	MW-13S	08/08/2019	ND	10.0000		
Molybdenum, Total	ug/L	MW-13S	09/25/2019	ND	10.0000		
Molybdenum, Total	ug/L	MW-13S	05/07/2020	ND	10.0000		

\* - Outlier for that well and constituent.  
 \*\* - ND value replaced with median RL.  
 \*\*\* - ND value replaced with manual RL.  
 ND = Not detected, Result = detection limit.

**Table C-1**

**Upgradient Data**

Constituent	Units	Well	Date		Result	Adjusted	
Molybdenum, Total	ug/L	MW-13S	11/12/2020	ND	10.0000		
Molybdenum, Total	ug/L	MW-13S	02/25/2021	ND	10.0000		
Molybdenum, Total	ug/L	MW-13S	03/29/2021	ND	10.0000		
Molybdenum, Total	ug/L	MW-13S	05/20/2021	ND	10.0000		
Molybdenum, Total	ug/L	MW-13S	06/22/2021	ND	10.0000		
Molybdenum, Total	ug/L	MW-13S	07/27/2021	ND	10.0000		
Molybdenum, Total	ug/L	MW-13S	11/16/2021	ND	10.0000		
Molybdenum, Total	ug/L	MW-13S	05/19/2022	ND	10.0000		
Molybdenum, Total	ug/L	MW-13S	11/18/2022	ND	10.0000		
Selenium, Total	ug/L	MW-13S	08/08/2019	ND	1.0000		
Selenium, Total	ug/L	MW-13S	09/25/2019	ND	1.0000		
Selenium, Total	ug/L	MW-13S	05/07/2020	ND	10.0000	1.0000	**
Selenium, Total	ug/L	MW-13S	11/12/2020	ND	1.0000		
Selenium, Total	ug/L	MW-13S	02/25/2021	ND	1.0000		
Selenium, Total	ug/L	MW-13S	03/29/2021	ND	1.0000		
Selenium, Total	ug/L	MW-13S	05/20/2021	ND	1.0000		
Selenium, Total	ug/L	MW-13S	06/22/2021	ND	1.0000		
Selenium, Total	ug/L	MW-13S	07/27/2021	ND	1.0000		
Selenium, Total	ug/L	MW-13S	11/16/2021	ND	1.0000		
Selenium, Total	ug/L	MW-13S	05/19/2022	ND	1.0000		
Selenium, Total	ug/L	MW-13S	11/18/2022	ND	1.0000		
Thallium, Total	ug/L	MW-13S	08/08/2019	ND	1.0000		
Thallium, Total	ug/L	MW-13S	09/25/2019	ND	1.0000		
Thallium, Total	ug/L	MW-13S	05/07/2020	ND	10.0000	1.0000	**
Thallium, Total	ug/L	MW-13S	11/12/2020	ND	1.0000		
Thallium, Total	ug/L	MW-13S	02/25/2021	ND	1.0000		
Thallium, Total	ug/L	MW-13S	03/29/2021	ND	1.0000		
Thallium, Total	ug/L	MW-13S	05/20/2021	ND	1.0000		
Thallium, Total	ug/L	MW-13S	06/22/2021	ND	1.0000		
Thallium, Total	ug/L	MW-13S	07/27/2021	ND	1.0000		
Thallium, Total	ug/L	MW-13S	05/19/2022	ND	1.0000		
Total Radium	pCi/L	MW-13S	08/08/2019		0.4940		
Total Radium	pCi/L	MW-13S	09/25/2019		1.7800		
Total Radium	pCi/L	MW-13S	11/12/2020		1.1700		
Total Radium	pCi/L	MW-13S	02/25/2021		0.8130		
Total Radium	pCi/L	MW-13S	03/29/2021	ND	1.6500	1.3900	**
Total Radium	pCi/L	MW-13S	05/20/2021	ND	2.1500	1.3900	**
Total Radium	pCi/L	MW-13S	06/22/2021		0.7480		
Total Radium	pCi/L	MW-13S	07/27/2021	ND	1.1900	1.3900	**
Total Radium	pCi/L	MW-13S	11/16/2021	ND	1.2200	1.3900	**
Total Radium	pCi/L	MW-13S	05/19/2022	ND	2.0300	1.3900	**

\* - Outlier for that well and constituent.  
 \*\* - ND value replaced with median RL.  
 \*\*\* - ND value replaced with manual RL.  
 ND = Not detected, Result = detection limit.

**Table C-1**

**Upgradient Data**

Constituent	Units	Well	Date		Result	Adjusted	
Total Radium	pCi/L	MW-13S	11/18/2022	ND	1.3900		

\* - Outlier for that well and constituent.  
 \*\* - ND value replaced with median RL.  
 \*\*\* - ND value replaced with manual RL.  
 ND = Not detected, Result = detection limit.

**Table C-2**

**Most Current Downgradient Monitoring Data**

Constituent	Units	Well	Date		Result		Pred. Limit
Antimony, Total	ug/L	MW-10S	05/18/2022		2.2000	***	1.0000
Antimony, Total	ug/L	MW-11S	11/21/2022		1.3000	***	1.0000
Antimony, Total	ug/L	MW-12S	11/15/2022		1.5000	***	1.0000
Antimony, Total	ug/L	MW-1S	11/22/2022		2.7000	***	1.0000
Antimony, Total	ug/L	MW-2S	11/15/2022	ND	1.0000		1.0000
Antimony, Total	ug/L	MW-3S	11/16/2022	ND	1.0000	**	1.0000
Antimony, Total	ug/L	MW-6S	05/11/2022	ND	1.0000	**	1.0000
Antimony, Total	ug/L	MW-7S	11/16/2022		2.6000	***	1.0000
Arsenic, Total	ug/L	MW-10S	05/18/2022	ND	1.0000		5.8000
Arsenic, Total	ug/L	MW-11S	11/21/2022		49.2000	***	5.8000
Arsenic, Total	ug/L	MW-12S	11/15/2022		1.5000		5.8000
Arsenic, Total	ug/L	MW-1S	11/22/2022		8.1000	*	5.8000
Arsenic, Total	ug/L	MW-2S	11/15/2022		6.2000	***	5.8000
Arsenic, Total	ug/L	MW-3S	11/16/2022	ND	1.0000		5.8000
Arsenic, Total	ug/L	MW-6S	05/11/2022	ND	1.0000		5.8000
Arsenic, Total	ug/L	MW-7S	11/16/2022	ND	1.0000		5.8000
Barium, Total	ug/L	MW-10S	05/18/2022		80.1000	***	73.1883
Barium, Total	ug/L	MW-11S	11/21/2022		152.0000	***	73.1883
Barium, Total	ug/L	MW-12S	11/15/2022		120.0000	***	73.1883
Barium, Total	ug/L	MW-1S	11/22/2022		110.0000	***	73.1883
Barium, Total	ug/L	MW-2S	11/15/2022		97.4000	***	73.1883
Barium, Total	ug/L	MW-3S	11/16/2022		81.2000	***	73.1883
Barium, Total	ug/L	MW-6S	05/11/2022		92.5000	***	73.1883
Barium, Total	ug/L	MW-7S	11/16/2022		100.0000	***	73.1883
Beryllium, Total	ug/L	MW-10S	05/18/2022	ND	0.2000		0.2000
Beryllium, Total	ug/L	MW-11S	05/12/2022	ND	0.2000		0.2000
Beryllium, Total	ug/L	MW-12S	05/12/2022	ND	0.2000		0.2000
Beryllium, Total	ug/L	MW-1S	05/10/2022	ND	0.2000		0.2000
Beryllium, Total	ug/L	MW-2S	05/11/2022	ND	0.2000		0.2000
Beryllium, Total	ug/L	MW-3S	05/11/2022	ND	0.2000		0.2000
Beryllium, Total	ug/L	MW-6S	05/11/2022	ND	0.2000		0.2000
Beryllium, Total	ug/L	MW-7S	05/12/2022	ND	0.2000		0.2000
Cadmium, Total	ug/L	MW-10S	05/18/2022	ND	2.0000		2.0000
Cadmium, Total	ug/L	MW-11S	05/12/2022	ND	2.0000		2.0000
Cadmium, Total	ug/L	MW-12S	05/12/2022	ND	2.0000		2.0000
Cadmium, Total	ug/L	MW-1S	05/10/2022	ND	2.0000		2.0000
Cadmium, Total	ug/L	MW-2S	05/11/2022	ND	2.0000		2.0000
Cadmium, Total	ug/L	MW-3S	05/11/2022	ND	2.0000		2.0000
Cadmium, Total	ug/L	MW-6S	05/11/2022	ND	2.0000		2.0000

\* - Current value failed - awaiting verification.  
 \*\* - Current value passed - previous exceedance not verified.  
 \*\*\* - Current value failed - exceedance verified.  
 \*\*\*\* - Current value passed - awaiting one more verification.  
 \*\*\*\*\* - Insufficient background data to compute prediction limit.  
 ND = Not Detected, Result = detection limit.

**Table C-2**

**Most Current Downgradient Monitoring Data**

Constituent	Units	Well	Date		Result		Pred. Limit
Cadmium, Total	ug/L	MW-7S	05/12/2022	ND	2.0000		2.0000
Chromium, Total	ug/L	MW-10S	05/18/2022	ND	10.0000		10.0000
Chromium, Total	ug/L	MW-11S	05/12/2022	ND	10.0000		10.0000
Chromium, Total	ug/L	MW-12S	05/12/2022	ND	10.0000		10.0000
Chromium, Total	ug/L	MW-1S	05/10/2022	ND	10.0000		10.0000
Chromium, Total	ug/L	MW-2S	05/11/2022	ND	10.0000		10.0000
Chromium, Total	ug/L	MW-3S	05/11/2022	ND	10.0000		10.0000
Chromium, Total	ug/L	MW-6S	05/11/2022	ND	10.0000		10.0000
Chromium, Total	ug/L	MW-7S	05/12/2022	ND	10.0000		10.0000
Cobalt, Total	ug/L	MW-10S	05/18/2022	ND	1.0000		5.8000
Cobalt, Total	ug/L	MW-11S	05/12/2022	ND	1.0000		5.8000
Cobalt, Total	ug/L	MW-12S	05/12/2022	ND	1.0000		5.8000
Cobalt, Total	ug/L	MW-1S	05/10/2022	ND	1.0000		5.8000
Cobalt, Total	ug/L	MW-2S	05/11/2022	ND	1.0000		5.8000
Cobalt, Total	ug/L	MW-3S	05/11/2022	ND	1.0000		5.8000
Cobalt, Total	ug/L	MW-6S	05/11/2022	ND	1.0000		5.8000
Cobalt, Total	ug/L	MW-7S	05/12/2022	ND	1.0000		5.8000
Fluoride	mg/L	MW-10S	05/18/2022		0.2300	***	0.1000
Fluoride	mg/L	MW-11S	11/21/2022		0.2000	***	0.1000
Fluoride	mg/L	MW-12S	11/15/2022		0.2400	***	0.1000
Fluoride	mg/L	MW-1S	11/22/2022		0.2000	***	0.1000
Fluoride	mg/L	MW-2S	11/15/2022		0.1400	***	0.1000
Fluoride	mg/L	MW-3S	11/16/2022		0.3000	***	0.1000
Fluoride	mg/L	MW-6S	05/11/2022		0.2500	***	0.1000
Fluoride	mg/L	MW-7S	11/16/2022	ND	0.1000		0.1000
Lead, Total	ug/L	MW-10S	05/18/2022	ND	10.0000		10.0000
Lead, Total	ug/L	MW-11S	05/12/2022	ND	10.0000		10.0000
Lead, Total	ug/L	MW-12S	05/12/2022	ND	10.0000		10.0000
Lead, Total	ug/L	MW-1S	05/10/2022	ND	10.0000		10.0000
Lead, Total	ug/L	MW-2S	05/11/2022	ND	10.0000		10.0000
Lead, Total	ug/L	MW-3S	05/11/2022	ND	10.0000		10.0000
Lead, Total	ug/L	MW-6S	05/11/2022	ND	10.0000		10.0000
Lead, Total	ug/L	MW-7S	05/12/2022	ND	10.0000		10.0000
Lithium, Total	ug/L	MW-10S	05/18/2022		108.0000	***	20.0000
Lithium, Total	ug/L	MW-11S	11/21/2022		142.0000	***	20.0000
Lithium, Total	ug/L	MW-12S	11/15/2022		138.0000	***	20.0000
Lithium, Total	ug/L	MW-1S	11/22/2022		83.8000	***	20.0000
Lithium, Total	ug/L	MW-2S	11/15/2022		49.2000	***	20.0000
Lithium, Total	ug/L	MW-3S	11/16/2022	ND	20.0000	**	20.0000

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 \*\* - Current value passed - previous exceedance not verified.  
 \*\*\* - Current value failed - exceedance verified.  
 \*\*\*\* - Current value passed - awaiting one more verification.  
 \*\*\*\*\* - Insufficient background data to compute prediction limit.  
 ND = Not Detected, Result = detection limit.

**Table C-2**

**Most Current Downgradient Monitoring Data**

Constituent	Units	Well	Date		Result		Pred. Limit
Lithium, Total	ug/L	MW-6S	05/11/2022		68.6000	***	20.0000
Lithium, Total	ug/L	MW-7S	11/16/2022		30.9000	***	20.0000
Mercury	ug/L	MW-10S	05/18/2022	ND	0.2000		2.0000
Mercury	ug/L	MW-11S	05/12/2022	ND	0.2000		2.0000
Mercury	ug/L	MW-12S	05/12/2022	ND	0.2000		2.0000
Mercury	ug/L	MW-1S	05/10/2022	ND	0.2000		2.0000
Mercury	ug/L	MW-2S	05/11/2022	ND	0.2000		2.0000
Mercury	ug/L	MW-3S	05/11/2022	ND	0.2000		2.0000
Mercury	ug/L	MW-6S	05/11/2022	ND	0.2000		2.0000
Mercury	ug/L	MW-7S	05/12/2022	ND	0.2000		2.0000
Molybdenum, Total	ug/L	MW-10S	05/18/2022		60.3000	***	10.0000
Molybdenum, Total	ug/L	MW-11S	11/21/2022		56.4000	***	10.0000
Molybdenum, Total	ug/L	MW-12S	11/15/2022		36.4000	***	10.0000
Molybdenum, Total	ug/L	MW-1S	11/22/2022		30.7000	***	10.0000
Molybdenum, Total	ug/L	MW-2S	11/15/2022	ND	10.0000	**	10.0000
Molybdenum, Total	ug/L	MW-3S	11/16/2022		53.4000	***	10.0000
Molybdenum, Total	ug/L	MW-6S	05/11/2022		81.4000	***	10.0000
Molybdenum, Total	ug/L	MW-7S	11/16/2022		42.8000	***	10.0000
Selenium, Total	ug/L	MW-10S	05/18/2022		2.1000	***	1.0000
Selenium, Total	ug/L	MW-11S	11/21/2022		13.9000	***	1.0000
Selenium, Total	ug/L	MW-12S	11/15/2022		32.4000	***	1.0000
Selenium, Total	ug/L	MW-1S	11/22/2022		28.0000	***	1.0000
Selenium, Total	ug/L	MW-2S	11/15/2022		7.7000	***	1.0000
Selenium, Total	ug/L	MW-3S	11/16/2022		1.8000	***	1.0000
Selenium, Total	ug/L	MW-6S	05/11/2022		16.8000	***	1.0000
Selenium, Total	ug/L	MW-7S	11/16/2022		17.7000	***	1.0000
Thallium, Total	ug/L	MW-10S	05/18/2022	ND	1.0000		1.0000
Thallium, Total	ug/L	MW-11S	05/12/2022	ND	1.0000		1.0000
Thallium, Total	ug/L	MW-12S	05/12/2022	ND	1.0000		1.0000
Thallium, Total	ug/L	MW-1S	05/10/2022	ND	1.0000		1.0000
Thallium, Total	ug/L	MW-2S	05/11/2022	ND	1.0000		1.0000
Thallium, Total	ug/L	MW-3S	05/11/2022	ND	1.0000		1.0000
Thallium, Total	ug/L	MW-6S	05/11/2022	ND	1.0000		1.0000
Thallium, Total	ug/L	MW-7S	05/12/2022	ND	1.0000		1.0000
Total Radium	pCi/L	MW-10S	05/18/2022		1.3500		1.7800
Total Radium	pCi/L	MW-11S	11/21/2022		0.8240		1.7800
Total Radium	pCi/L	MW-12S	11/15/2022		1.1600		1.7800
Total Radium	pCi/L	MW-1S	11/22/2022	ND	1.7800		1.7800
Total Radium	pCi/L	MW-2S	11/15/2022	ND	1.3900		1.7800

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 \*\* - Current value passed - previous exceedance not verified.  
 \*\*\* - Current value failed - exceedance verified.  
 \*\*\*\* - Current value passed - awaiting one more verification.  
 \*\*\*\*\* - Insufficient background data to compute prediction limit.  
 ND = Not Detected, Result = detection limit.

**Table C-2**

**Most Current Downgradient Monitoring Data**

Constituent	Units	Well	Date		Result	Pred. Limit
Total Radium	pCi/L	MW-3S	11/16/2022	ND	1.0800	1.7800
Total Radium	pCi/L	MW-6S	05/11/2022		1.4500	1.7800
Total Radium	pCi/L	MW-7S	11/16/2022		0.9460	1.7800

- \* - Current value failed - awaiting verification.
  - \*\* - Current value passed - previous exceedance not verified.
  - \*\*\* - Current value failed - exceedance verified.
  - \*\*\*\* - Current value passed - awaiting one more verification.
  - \*\*\*\*\* - Insufficient background data to compute prediction limit.
- ND = Not Detected, Result = detection limit.

**Table C-3**

**Detection Frequencies in Upgradient and Downgradient Wells**

Constituent	Upgradient			Downgradient		
	Detect	N	Proportion	Detect	N	Proportion
Antimony, Total	0	12	0.000	56	138	0.406
Arsenic, Total	1	12	0.083	55	137	0.401
Barium, Total	12	12	1.000	138	138	1.000
Beryllium, Total	0	10	0.000	0	104	0.000
Cadmium, Total	0	10	0.000	0	104	0.000
Chromium, Total	0	10	0.000	0	104	0.000
Cobalt, Total	1	11	0.091	4	132	0.030
Fluoride	0	12	0.000	137	146	0.938
Lead, Total	0	10	0.000	3	104	0.029
Lithium, Total	0	12	0.000	133	138	0.964
Mercury	0	9	0.000	0	104	0.000
Molybdenum, Total	0	12	0.000	135	138	0.978
Selenium, Total	0	12	0.000	81	138	0.587
Thallium, Total	0	10	0.000	0	104	0.000
Total Radium	5	11	0.455	86	138	0.623

N = Total number of measurements in all wells.  
 Detect = Total number of detections in all wells.  
 Proportion = Detect/N.



**Table C-4**

**Shapiro-Wilk Multiple Group Test of Normality**

Constituent	Detect	N	Detect Freq	G raw	G log	G cbrt	G sqrt	G sqr	G cub	Crit Value	Dist Form	Model Type
Antimony, Total	0	12	0.000	3.731	3.731					2.326	non-norm	nonpar
Arsenic, Total	1	12	0.083	21.797	21.797					2.326	non-norm	nonpar
Barium, Total	12	12	1.000	0.323	0.392					2.326	normal	normal
Beryllium, Total	0	10	0.000	3.262	3.262					2.326	non-norm	nonpar
Cadmium, Total	0	10	0.000	3.262	3.262					2.326	non-norm	nonpar
Chromium, Total	0	10	0.000	3.262	3.262					2.326	non-norm	nonpar
Cobalt, Total	1	11	0.091	3.485	3.485					2.326	non-norm	nonpar
Fluoride	0	12	0.000	3.731	3.731					2.326	non-norm	nonpar
Lead, Total	0	10	0.000	3.262	3.262					2.326	non-norm	nonpar
Lithium, Total	0	12	0.000	3.731	3.731					2.326	non-norm	nonpar
Mercury	0	9	0.000	2.968	2.968					2.326	non-norm	nonpar
Molybdenum, Total	0	12	0.000	3.731	3.731					2.326	non-norm	nonpar
Selenium, Total	0	12	0.000	3.731	3.731					2.326	non-norm	nonpar
Thallium, Total	0	10	0.000	3.262	3.262					2.326	non-norm	nonpar
Total Radium	5	11	0.455	1.598	2.221					2.326	normal	nonpar

\* - Distribution override for that constituent.  
 Fit to distribution is confirmed if G <= critical value.  
 Model type may not match distributional form when detection frequency < 50%.

**Table C-5**

**Summary Statistics and Prediction Limits**

Constituent	Units	Detect	N	Mean	SD	alpha	Factor	Pred Limit	Type		Conf
Antimony, Total	ug/L	0	12					1.0000	nonpar	***	0.92
Arsenic, Total	ug/L	1	12					5.8000	nonpar		0.92
Barium, Total	ug/L	12	12	53.2667	7.0559	0.0100	2.8234	73.1883	normal		
Beryllium, Total	ug/L	0	10					0.2000	nonpar	***	0.90
Cadmium, Total	ug/L	0	10					2.0000	nonpar	***	0.90
Chromium, Total	ug/L	0	10					10.0000	nonpar	***	0.90
Cobalt, Total	ug/L	1	11					5.8000	nonpar		0.91
Fluoride	mg/L	0	12					0.1000	nonpar	***	0.92
Lead, Total	ug/L	0	10					10.0000	nonpar	***	0.90
Lithium, Total	ug/L	0	12					20.0000	nonpar	***	0.92
Mercury	ug/L	0	9					2.0000	nonpar	***	0.88
Molybdenum, Total	ug/L	0	12					10.0000	nonpar	***	0.92
Selenium, Total	ug/L	0	12					1.0000	nonpar	***	0.92
Thallium, Total	ug/L	0	10					1.0000	nonpar	***	0.90
Total Radium	pCi/L	5	11					1.7800	nonpar		0.91

Conf = confidence level for passing initial test or one verification resample at all downgradient wells for a single constituent (nonparametric test only).

\* - Insufficient Data.

\*\* - Calculated limit raised to Manual Reporting Limit.

\*\*\* - Nonparametric limit based on ND value.

For transformed data, mean and SD in transformed units and prediction limit in original units.

All sample sizes and statistics are based on outlier free data.

For nonparametric limits, median reporting limits are substituted for extreme reporting limit values.

**Table C-6**

**Dixon's Test Outliers  
1% Significance Level**

Constituent	Units	Well	Date	Result	ND Qualifier	Date Range	N	Critical Value
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N = Total number of independent measurements in background at each well.

Date Range = Dates of the first and last measurements included in background at each well.

Critical Value depends on the significance level and on N-1 when the two most extreme values are tested or N for the most extreme value.

Table C-7

**Historical Downgradient Data for Constituent-Well Combinations  
that Failed the Current Statistical Evaluation or  
are in Verification Resampling Mode**

Constituent	Units	Well	Date		Result		Pred. Limit
Antimony, Total	ug/L	MW-10S	04/21/2016	ND	6.0000		1.0000
Antimony, Total	ug/L	MW-10S	05/31/2016	ND	6.0000		1.0000
Antimony, Total	ug/L	MW-10S	08/11/2016	ND	6.0000		1.0000
Antimony, Total	ug/L	MW-10S	09/29/2016	ND	6.0000		1.0000
Antimony, Total	ug/L	MW-10S	11/30/2016	ND	6.0000		1.0000
Antimony, Total	ug/L	MW-10S	01/30/2017	ND	6.0000		1.0000
Antimony, Total	ug/L	MW-10S	05/24/2017	ND	6.0000		1.0000
Antimony, Total	ug/L	MW-10S	08/09/2017	ND	6.0000		1.0000
Antimony, Total	ug/L	MW-10S	05/23/2018		1.0000	**	1.0000
Antimony, Total	ug/L	MW-10S	09/11/2018		1.4000	*	1.0000
Antimony, Total	ug/L	MW-10S	05/07/2019		1.6000	*	1.0000
Antimony, Total	ug/L	MW-10S	05/07/2020		2.1000	*	1.0000
Antimony, Total	ug/L	MW-10S	11/11/2020		3.1000	*	1.0000
Antimony, Total	ug/L	MW-10S	05/21/2021		2.2000	*	1.0000
Antimony, Total	ug/L	MW-10S	11/12/2021		1.8000	*	1.0000
Antimony, Total	ug/L	MW-10S	05/18/2022		2.2000	*	1.0000
Antimony, Total	ug/L	MW-11S	04/20/2016	ND	6.0000		1.0000
Antimony, Total	ug/L	MW-11S	06/02/2016	ND	6.0000		1.0000
Antimony, Total	ug/L	MW-11S	08/12/2016	ND	6.0000		1.0000
Antimony, Total	ug/L	MW-11S	09/30/2016		6.3000	*	1.0000
Antimony, Total	ug/L	MW-11S	12/01/2016	ND	6.0000		1.0000
Antimony, Total	ug/L	MW-11S	01/31/2017	ND	6.0000		1.0000
Antimony, Total	ug/L	MW-11S	05/25/2017	ND	6.0000		1.0000
Antimony, Total	ug/L	MW-11S	08/10/2017	ND	6.0000		1.0000
Antimony, Total	ug/L	MW-11S	05/23/2018		1.9000	*	1.0000
Antimony, Total	ug/L	MW-11S	09/11/2018		1.8000	*	1.0000
Antimony, Total	ug/L	MW-11S	05/08/2019		1.7000	*	1.0000
Antimony, Total	ug/L	MW-11S	05/07/2020		1.6000	*	1.0000
Antimony, Total	ug/L	MW-11S	11/12/2020		1.4000	*	1.0000
Antimony, Total	ug/L	MW-11S	05/17/2021		1.5000	*	1.0000
Antimony, Total	ug/L	MW-11S	11/17/2021		1.4000	*	1.0000
Antimony, Total	ug/L	MW-11S	05/12/2022		1.4000	*	1.0000
Antimony, Total	ug/L	MW-11S	11/21/2022		1.3000	*	1.0000
Antimony, Total	ug/L	MW-12S	04/20/2016	ND	6.0000		1.0000
Antimony, Total	ug/L	MW-12S	06/01/2016	ND	6.0000		1.0000
Antimony, Total	ug/L	MW-12S	08/11/2016	ND	6.0000		1.0000
Antimony, Total	ug/L	MW-12S	09/29/2016	ND	6.0000		1.0000
Antimony, Total	ug/L	MW-12S	12/01/2016	ND	6.0000		1.0000

\* - Significantly increased over background.  
 \*\* - Detect at limit for 100% NDs in background (NPPL only).  
 \*\*\* - Manual exclusion.  
 ND = Not Detected, Result = detection limit.

**Table C-7**

**Historical Downgradient Data for Constituent-Well Combinations  
that Failed the Current Statistical Evaluation or  
are in Verification Resampling Mode**

Constituent	Units	Well	Date		Result		Pred. Limit
Antimony, Total	ug/L	MW-12S	01/30/2017	ND	6.0000		1.0000
Antimony, Total	ug/L	MW-12S	05/25/2017	ND	6.0000		1.0000
Antimony, Total	ug/L	MW-12S	08/10/2017	ND	6.0000		1.0000
Antimony, Total	ug/L	MW-12S	05/23/2018		1.2000	*	1.0000
Antimony, Total	ug/L	MW-12S	09/12/2018		1.5000	*	1.0000
Antimony, Total	ug/L	MW-12S	05/08/2019		1.5000	*	1.0000
Antimony, Total	ug/L	MW-12S	05/08/2020		1.4000	*	1.0000
Antimony, Total	ug/L	MW-12S	11/12/2020		1.3000	*	1.0000
Antimony, Total	ug/L	MW-12S	05/13/2021		1.2000	*	1.0000
Antimony, Total	ug/L	MW-12S	11/10/2021		1.5000	*	1.0000
Antimony, Total	ug/L	MW-12S	05/12/2022		1.4000	*	1.0000
Antimony, Total	ug/L	MW-12S	11/15/2022		1.5000	*	1.0000
Antimony, Total	ug/L	MW-1S	04/19/2016	ND	6.0000		1.0000
Antimony, Total	ug/L	MW-1S	06/02/2016	ND	6.0000		1.0000
Antimony, Total	ug/L	MW-1S	08/10/2016	ND	6.0000		1.0000
Antimony, Total	ug/L	MW-1S	09/30/2016		6.3000	*	1.0000
Antimony, Total	ug/L	MW-1S	12/02/2016	ND	6.0000		1.0000
Antimony, Total	ug/L	MW-1S	01/31/2017	ND	6.0000		1.0000
Antimony, Total	ug/L	MW-1S	05/26/2017	ND	6.0000		1.0000
Antimony, Total	ug/L	MW-1S	08/11/2017	ND	6.0000		1.0000
Antimony, Total	ug/L	MW-1S	05/23/2018		4.2000	*	1.0000
Antimony, Total	ug/L	MW-1S	09/11/2018		4.4000	*	1.0000
Antimony, Total	ug/L	MW-1S	05/08/2019		1.8000	*	1.0000
Antimony, Total	ug/L	MW-1S	11/14/2019		3.5000	*	1.0000
Antimony, Total	ug/L	MW-1S	05/05/2020		2.6000	*	1.0000
Antimony, Total	ug/L	MW-1S	11/11/2020		2.9000	*	1.0000
Antimony, Total	ug/L	MW-1S	05/25/2021		1.9000	*	1.0000
Antimony, Total	ug/L	MW-1S	11/09/2021		1.8000	*	1.0000
Antimony, Total	ug/L	MW-1S	05/10/2022		1.7000	*	1.0000
Antimony, Total	ug/L	MW-1S	11/22/2022		2.7000	*	1.0000
Antimony, Total	ug/L	MW-3S	04/20/2016	ND	6.0000		1.0000
Antimony, Total	ug/L	MW-3S	06/01/2016	ND	6.0000		1.0000
Antimony, Total	ug/L	MW-3S	08/11/2016	ND	6.0000		1.0000
Antimony, Total	ug/L	MW-3S	09/30/2016	ND	6.0000		1.0000
Antimony, Total	ug/L	MW-3S	12/02/2016	ND	6.0000		1.0000
Antimony, Total	ug/L	MW-3S	01/31/2017	ND	6.0000		1.0000
Antimony, Total	ug/L	MW-3S	05/25/2017	ND	6.0000		1.0000
Antimony, Total	ug/L	MW-3S	08/11/2017	ND	6.0000		1.0000

\* - Significantly increased over background.  
 \*\* - Detect at limit for 100% NDs in background (NPPL only).  
 \*\*\* - Manual exclusion.  
 ND = Not Detected, Result = detection limit.

**Table C-7**

**Historical Downgradient Data for Constituent-Well Combinations  
that Failed the Current Statistical Evaluation or  
are in Verification Resampling Mode**

Constituent	Units	Well	Date		Result		Pred. Limit
Antimony, Total	ug/L	MW-3S	05/22/2018	ND	1.0000		1.0000
Antimony, Total	ug/L	MW-3S	09/11/2018	ND	1.0000		1.0000
Antimony, Total	ug/L	MW-3S	05/09/2019		1.4000	*	1.0000
Antimony, Total	ug/L	MW-3S	11/13/2019	ND	1.0000		1.0000
Antimony, Total	ug/L	MW-3S	05/05/2020	ND	1.0000		1.0000
Antimony, Total	ug/L	MW-3S	11/10/2020	ND	1.0000		1.0000
Antimony, Total	ug/L	MW-3S	05/12/2021	ND	1.0000		1.0000
Antimony, Total	ug/L	MW-3S	11/18/2021	ND	1.0000		1.0000
Antimony, Total	ug/L	MW-3S	05/11/2022		1.1000	*	1.0000
Antimony, Total	ug/L	MW-3S	11/16/2022	ND	1.0000		1.0000
Antimony, Total	ug/L	MW-6S	04/20/2016	ND	6.0000		1.0000
Antimony, Total	ug/L	MW-6S	06/01/2016	ND	6.0000		1.0000
Antimony, Total	ug/L	MW-6S	08/11/2016	ND	6.0000		1.0000
Antimony, Total	ug/L	MW-6S	09/29/2016	ND	6.0000		1.0000
Antimony, Total	ug/L	MW-6S	12/01/2016	ND	6.0000		1.0000
Antimony, Total	ug/L	MW-6S	01/30/2017	ND	6.0000		1.0000
Antimony, Total	ug/L	MW-6S	05/25/2017	ND	6.0000		1.0000
Antimony, Total	ug/L	MW-6S	08/10/2017	ND	6.0000		1.0000
Antimony, Total	ug/L	MW-6S	05/22/2018		1.1000	*	1.0000
Antimony, Total	ug/L	MW-6S	09/11/2018		1.6000	*	1.0000
Antimony, Total	ug/L	MW-6S	05/08/2019	ND	1.0000		1.0000
Antimony, Total	ug/L	MW-6S	11/13/2019		1.5000	*	1.0000
Antimony, Total	ug/L	MW-6S	05/08/2020		1.1000	*	1.0000
Antimony, Total	ug/L	MW-6S	11/19/2020		1.4000	*	1.0000
Antimony, Total	ug/L	MW-6S	05/18/2021		1.4000	*	1.0000
Antimony, Total	ug/L	MW-6S	11/09/2021		1.2000	*	1.0000
Antimony, Total	ug/L	MW-6S	05/11/2022	ND	1.0000		1.0000
Antimony, Total	ug/L	MW-7S	04/20/2016	ND	6.0000		1.0000
Antimony, Total	ug/L	MW-7S	06/01/2016	ND	6.0000		1.0000
Antimony, Total	ug/L	MW-7S	08/11/2016	ND	6.0000		1.0000
Antimony, Total	ug/L	MW-7S	09/29/2016	ND	6.0000		1.0000
Antimony, Total	ug/L	MW-7S	12/01/2016	ND	6.0000		1.0000
Antimony, Total	ug/L	MW-7S	01/30/2017	ND	6.0000		1.0000
Antimony, Total	ug/L	MW-7S	05/25/2017	ND	6.0000		1.0000
Antimony, Total	ug/L	MW-7S	08/10/2017	ND	6.0000		1.0000
Antimony, Total	ug/L	MW-7S	05/23/2018		3.3000	*	1.0000
Antimony, Total	ug/L	MW-7S	09/11/2018		2.8000	*	1.0000
Antimony, Total	ug/L	MW-7S	05/07/2019		1.7000	*	1.0000

\* - Significantly increased over background.  
 \*\* - Detect at limit for 100% NDs in background (NPPL only).  
 \*\*\* - Manual exclusion.  
 ND = Not Detected, Result = detection limit.

**Table C-7**

**Historical Downgradient Data for Constituent-Well Combinations  
that Failed the Current Statistical Evaluation or  
are in Verification Resampling Mode**

Constituent	Units	Well	Date		Result		Pred. Limit
Antimony, Total	ug/L	MW-7S	05/07/2020		2.5000	*	1.0000
Antimony, Total	ug/L	MW-7S	11/11/2020		3.1000	*	1.0000
Antimony, Total	ug/L	MW-7S	05/17/2021		2.7000	*	1.0000
Antimony, Total	ug/L	MW-7S	11/18/2021		3.8000	*	1.0000
Antimony, Total	ug/L	MW-7S	05/12/2022		2.3000	*	1.0000
Antimony, Total	ug/L	MW-7S	11/16/2022		2.6000	*	1.0000
Arsenic, Total	ug/L	MW-11S	04/20/2016		146.0000	*	5.8000
Arsenic, Total	ug/L	MW-11S	06/02/2016		100.0000	*	5.8000
Arsenic, Total	ug/L	MW-11S	08/12/2016		61.0000	*	5.8000
Arsenic, Total	ug/L	MW-11S	09/30/2016		64.5000	*	5.8000
Arsenic, Total	ug/L	MW-11S	12/01/2016		41.6000	*	5.8000
Arsenic, Total	ug/L	MW-11S	01/31/2017		107.0000	*	5.8000
Arsenic, Total	ug/L	MW-11S	05/25/2017		115.0000	*	5.8000
Arsenic, Total	ug/L	MW-11S	08/10/2017		130.0000	*	5.8000
Arsenic, Total	ug/L	MW-11S	05/23/2018		126.0000	*	5.8000
Arsenic, Total	ug/L	MW-11S	09/11/2018		63.2000	*	5.8000
Arsenic, Total	ug/L	MW-11S	05/08/2019		79.6000	*	5.8000
Arsenic, Total	ug/L	MW-11S	05/07/2020		108.0000	*	5.8000
Arsenic, Total	ug/L	MW-11S	11/12/2020		141.0000	*	5.8000
Arsenic, Total	ug/L	MW-11S	05/17/2021		110.0000	*	5.8000
Arsenic, Total	ug/L	MW-11S	11/17/2021		77.8000	*	5.8000
Arsenic, Total	ug/L	MW-11S	05/12/2022		103.0000	*	5.8000
Arsenic, Total	ug/L	MW-11S	11/21/2022		49.2000	*	5.8000
Arsenic, Total	ug/L	MW-1S	04/19/2016	ND	10.0000		5.8000
Arsenic, Total	ug/L	MW-1S	06/02/2016	ND	10.0000		5.8000
Arsenic, Total	ug/L	MW-1S	08/10/2016		15.9000	*	5.8000
Arsenic, Total	ug/L	MW-1S	09/30/2016		14.2000	*	5.8000
Arsenic, Total	ug/L	MW-1S	12/02/2016		16.8000	*	5.8000
Arsenic, Total	ug/L	MW-1S	01/31/2017	ND	10.0000		5.8000
Arsenic, Total	ug/L	MW-1S	05/26/2017	ND	10.0000		5.8000
Arsenic, Total	ug/L	MW-1S	08/11/2017		12.2000	*	5.8000
Arsenic, Total	ug/L	MW-1S	05/23/2018		12.8000	*	5.8000
Arsenic, Total	ug/L	MW-1S	09/11/2018		11.6000	*	5.8000
Arsenic, Total	ug/L	MW-1S	05/08/2019		3.0000	*	5.8000
Arsenic, Total	ug/L	MW-1S	11/14/2019		10.5000	*	5.8000
Arsenic, Total	ug/L	MW-1S	05/05/2020		5.1000	*	5.8000
Arsenic, Total	ug/L	MW-1S	11/11/2020		6.7000	*	5.8000
Arsenic, Total	ug/L	MW-1S	05/25/2021		4.5000	*	5.8000

\* - Significantly increased over background.  
 \*\* - Detect at limit for 100% NDs in background (NPPL only).  
 \*\*\* - Manual exclusion.  
 ND = Not Detected, Result = detection limit.

**Table C-7**

**Historical Downgradient Data for Constituent-Well Combinations  
that Failed the Current Statistical Evaluation or  
are in Verification Resampling Mode**

Constituent	Units	Well	Date		Result		Pred. Limit
Arsenic, Total	ug/L	MW-1S	11/09/2021		4.1000		5.8000
Arsenic, Total	ug/L	MW-1S	05/10/2022		3.8000		5.8000
Arsenic, Total	ug/L	MW-1S	11/22/2022		8.1000 *		5.8000
Arsenic, Total	ug/L	MW-2S	04/19/2016		15.9000 *		5.8000
Arsenic, Total	ug/L	MW-2S	06/01/2016	ND	10.0000		5.8000
Arsenic, Total	ug/L	MW-2S	08/11/2016		16.9000 *		5.8000
Arsenic, Total	ug/L	MW-2S	09/30/2016		19.8000 *		5.8000
Arsenic, Total	ug/L	MW-2S	12/02/2016		21.7000 *		5.8000
Arsenic, Total	ug/L	MW-2S	01/31/2017		17.0000 *		5.8000
Arsenic, Total	ug/L	MW-2S	05/26/2017	ND	10.0000		5.8000
Arsenic, Total	ug/L	MW-2S	08/11/2017	ND	10.0000		5.8000
Arsenic, Total	ug/L	MW-2S	05/22/2018		28.5000 *		5.8000
Arsenic, Total	ug/L	MW-2S	09/11/2018		60.3000 ***		5.8000
Arsenic, Total	ug/L	MW-2S	05/09/2019		15.1000 *		5.8000
Arsenic, Total	ug/L	MW-2S	11/14/2019		8.4000 *		5.8000
Arsenic, Total	ug/L	MW-2S	05/08/2020		15.0000 *		5.8000
Arsenic, Total	ug/L	MW-2S	11/11/2020		8.9000 *		5.8000
Arsenic, Total	ug/L	MW-2S	05/11/2021		12.4000 *		5.8000
Arsenic, Total	ug/L	MW-2S	11/10/2021		13.7000 *		5.8000
Arsenic, Total	ug/L	MW-2S	05/11/2022		13.3000 *		5.8000
Arsenic, Total	ug/L	MW-2S	11/15/2022		6.2000 *		5.8000
Barium, Total	ug/L	MW-10S	04/21/2016		78.3000 *		73.1883
Barium, Total	ug/L	MW-10S	05/31/2016		76.6000 *		73.1883
Barium, Total	ug/L	MW-10S	08/11/2016		68.2000		73.1883
Barium, Total	ug/L	MW-10S	09/29/2016		66.5000		73.1883
Barium, Total	ug/L	MW-10S	11/30/2016		73.1000		73.1883
Barium, Total	ug/L	MW-10S	01/30/2017		67.4000		73.1883
Barium, Total	ug/L	MW-10S	05/24/2017		69.6000		73.1883
Barium, Total	ug/L	MW-10S	08/09/2017		69.3000		73.1883
Barium, Total	ug/L	MW-10S	05/23/2018		65.4000		73.1883
Barium, Total	ug/L	MW-10S	09/11/2018		67.0000		73.1883
Barium, Total	ug/L	MW-10S	05/07/2019		91.2000 *		73.1883
Barium, Total	ug/L	MW-10S	05/07/2020		93.4000 *		73.1883
Barium, Total	ug/L	MW-10S	11/11/2020		95.0000 *		73.1883
Barium, Total	ug/L	MW-10S	05/21/2021		73.7000 *		73.1883
Barium, Total	ug/L	MW-10S	11/12/2021		83.6000 *		73.1883
Barium, Total	ug/L	MW-10S	05/18/2022		80.1000 *		73.1883
Barium, Total	ug/L	MW-11S	04/20/2016		107.0000 *		73.1883

\* - Significantly increased over background.  
 \*\* - Detect at limit for 100% NDs in background (NPPL only).  
 \*\*\* - Manual exclusion.  
 ND = Not Detected, Result = detection limit.



**Table C-7**

**Historical Downgradient Data for Constituent-Well Combinations  
that Failed the Current Statistical Evaluation or  
are in Verification Resampling Mode**

Constituent	Units	Well	Date	Result	Pred. Limit
Barium, Total	ug/L	MW-11S	06/02/2016	72.1000	73.1883
Barium, Total	ug/L	MW-11S	08/12/2016	76.2000 *	73.1883
Barium, Total	ug/L	MW-11S	09/30/2016	70.6000	73.1883
Barium, Total	ug/L	MW-11S	12/01/2016	66.9000	73.1883
Barium, Total	ug/L	MW-11S	01/31/2017	72.2000	73.1883
Barium, Total	ug/L	MW-11S	05/25/2017	73.8000 *	73.1883
Barium, Total	ug/L	MW-11S	08/10/2017	74.1000 *	73.1883
Barium, Total	ug/L	MW-11S	05/23/2018	66.5000	73.1883
Barium, Total	ug/L	MW-11S	09/11/2018	63.9000	73.1883
Barium, Total	ug/L	MW-11S	05/08/2019	85.4000 *	73.1883
Barium, Total	ug/L	MW-11S	05/07/2020	84.3000 *	73.1883
Barium, Total	ug/L	MW-11S	11/12/2020	133.0000 *	73.1883
Barium, Total	ug/L	MW-11S	05/17/2021	123.0000 *	73.1883
Barium, Total	ug/L	MW-11S	11/17/2021	106.0000 *	73.1883
Barium, Total	ug/L	MW-11S	05/12/2022	88.3000 *	73.1883
Barium, Total	ug/L	MW-11S	11/21/2022	152.0000 *	73.1883
Barium, Total	ug/L	MW-12S	04/20/2016	123.0000 *	73.1883
Barium, Total	ug/L	MW-12S	06/01/2016	81.1000 *	73.1883
Barium, Total	ug/L	MW-12S	08/11/2016	68.8000	73.1883
Barium, Total	ug/L	MW-12S	09/29/2016	60.3000	73.1883
Barium, Total	ug/L	MW-12S	12/01/2016	67.4000	73.1883
Barium, Total	ug/L	MW-12S	01/30/2017	67.3000	73.1883
Barium, Total	ug/L	MW-12S	05/25/2017	87.3000 *	73.1883
Barium, Total	ug/L	MW-12S	08/10/2017	113.0000 *	73.1883
Barium, Total	ug/L	MW-12S	05/23/2018	123.0000 *	73.1883
Barium, Total	ug/L	MW-12S	09/12/2018	78.1000 *	73.1883
Barium, Total	ug/L	MW-12S	05/08/2019	119.0000 *	73.1883
Barium, Total	ug/L	MW-12S	05/08/2020	131.0000 *	73.1883
Barium, Total	ug/L	MW-12S	11/12/2020	112.0000 *	73.1883
Barium, Total	ug/L	MW-12S	05/13/2021	99.4000 *	73.1883
Barium, Total	ug/L	MW-12S	11/10/2021	127.0000 *	73.1883
Barium, Total	ug/L	MW-12S	05/12/2022	125.0000 *	73.1883
Barium, Total	ug/L	MW-12S	11/15/2022	120.0000 *	73.1883
Barium, Total	ug/L	MW-1S	04/19/2016	74.8000 *	73.1883
Barium, Total	ug/L	MW-1S	06/02/2016	73.3000 *	73.1883
Barium, Total	ug/L	MW-1S	08/10/2016	75.0000 *	73.1883
Barium, Total	ug/L	MW-1S	09/30/2016	83.4000 *	73.1883
Barium, Total	ug/L	MW-1S	12/02/2016	82.8000 *	73.1883

\* - Significantly increased over background.  
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 ND = Not Detected, Result = detection limit.

**Table C-7**

**Historical Downgradient Data for Constituent-Well Combinations  
that Failed the Current Statistical Evaluation or  
are in Verification Resampling Mode**

Constituent	Units	Well	Date	Result	Pred. Limit
Barium, Total	ug/L	MW-1S	01/31/2017	88.1000 *	73.1883
Barium, Total	ug/L	MW-1S	05/26/2017	73.8000 *	73.1883
Barium, Total	ug/L	MW-1S	08/11/2017	72.1000	73.1883
Barium, Total	ug/L	MW-1S	05/23/2018	81.1000 *	73.1883
Barium, Total	ug/L	MW-1S	09/11/2018	73.8000 *	73.1883
Barium, Total	ug/L	MW-1S	05/08/2019	53.5000	73.1883
Barium, Total	ug/L	MW-1S	11/14/2019	99.2000 *	73.1883
Barium, Total	ug/L	MW-1S	05/05/2020	72.0000	73.1883
Barium, Total	ug/L	MW-1S	11/11/2020	97.9000 *	73.1883
Barium, Total	ug/L	MW-1S	05/25/2021	69.9000	73.1883
Barium, Total	ug/L	MW-1S	11/09/2021	73.7000 *	73.1883
Barium, Total	ug/L	MW-1S	05/10/2022	79.7000 *	73.1883
Barium, Total	ug/L	MW-1S	11/22/2022	110.0000 *	73.1883
Barium, Total	ug/L	MW-2S	04/19/2016	115.0000 *	73.1883
Barium, Total	ug/L	MW-2S	06/01/2016	117.0000 *	73.1883
Barium, Total	ug/L	MW-2S	08/11/2016	111.0000 *	73.1883
Barium, Total	ug/L	MW-2S	09/30/2016	124.0000 *	73.1883
Barium, Total	ug/L	MW-2S	12/02/2016	179.0000 *	73.1883
Barium, Total	ug/L	MW-2S	01/31/2017	137.0000 *	73.1883
Barium, Total	ug/L	MW-2S	05/26/2017	160.0000 *	73.1883
Barium, Total	ug/L	MW-2S	08/11/2017	189.0000 *	73.1883
Barium, Total	ug/L	MW-2S	05/22/2018	222.0000 *	73.1883
Barium, Total	ug/L	MW-2S	09/11/2018	186.0000 *	73.1883
Barium, Total	ug/L	MW-2S	05/09/2019	218.0000 *	73.1883
Barium, Total	ug/L	MW-2S	11/14/2019	122.0000 *	73.1883
Barium, Total	ug/L	MW-2S	05/08/2020	195.0000 *	73.1883
Barium, Total	ug/L	MW-2S	11/11/2020	110.0000 *	73.1883
Barium, Total	ug/L	MW-2S	05/11/2021	116.0000 *	73.1883
Barium, Total	ug/L	MW-2S	11/10/2021	143.0000 *	73.1883
Barium, Total	ug/L	MW-2S	05/11/2022	132.0000 *	73.1883
Barium, Total	ug/L	MW-2S	11/15/2022	97.4000 *	73.1883
Barium, Total	ug/L	MW-3S	04/20/2016	92.6000 *	73.1883
Barium, Total	ug/L	MW-3S	06/01/2016	86.9000 *	73.1883
Barium, Total	ug/L	MW-3S	08/11/2016	106.0000 *	73.1883
Barium, Total	ug/L	MW-3S	09/30/2016	90.4000 *	73.1883
Barium, Total	ug/L	MW-3S	12/02/2016	101.0000 *	73.1883
Barium, Total	ug/L	MW-3S	01/31/2017	85.9000 *	73.1883
Barium, Total	ug/L	MW-3S	05/25/2017	80.0000 *	73.1883

\* - Significantly increased over background.  
 \*\* - Detect at limit for 100% NDs in background (NPPL only).  
 \*\*\* - Manual exclusion.  
 ND = Not Detected, Result = detection limit.

**Table C-7**

**Historical Downgradient Data for Constituent-Well Combinations  
that Failed the Current Statistical Evaluation or  
are in Verification Resampling Mode**

Constituent	Units	Well	Date	Result	Pred. Limit
Barium, Total	ug/L	MW-3S	08/11/2017	75.3000 *	73.1883
Barium, Total	ug/L	MW-3S	05/22/2018	73.9000 *	73.1883
Barium, Total	ug/L	MW-3S	09/11/2018	92.3000 *	73.1883
Barium, Total	ug/L	MW-3S	05/09/2019	97.0000 *	73.1883
Barium, Total	ug/L	MW-3S	11/13/2019	76.5000 *	73.1883
Barium, Total	ug/L	MW-3S	05/05/2020	131.0000 *	73.1883
Barium, Total	ug/L	MW-3S	11/10/2020	80.0000 *	73.1883
Barium, Total	ug/L	MW-3S	05/12/2021	114.0000 *	73.1883
Barium, Total	ug/L	MW-3S	11/18/2021	94.3000 *	73.1883
Barium, Total	ug/L	MW-3S	05/11/2022	141.0000 *	73.1883
Barium, Total	ug/L	MW-3S	11/16/2022	81.2000 *	73.1883
Barium, Total	ug/L	MW-6S	04/20/2016	190.0000 *	73.1883
Barium, Total	ug/L	MW-6S	06/01/2016	130.0000 *	73.1883
Barium, Total	ug/L	MW-6S	08/11/2016	133.0000 *	73.1883
Barium, Total	ug/L	MW-6S	09/29/2016	114.0000 *	73.1883
Barium, Total	ug/L	MW-6S	12/01/2016	108.0000 *	73.1883
Barium, Total	ug/L	MW-6S	01/30/2017	161.0000 *	73.1883
Barium, Total	ug/L	MW-6S	05/25/2017	147.0000 *	73.1883
Barium, Total	ug/L	MW-6S	08/10/2017	158.0000 *	73.1883
Barium, Total	ug/L	MW-6S	05/22/2018	115.0000 *	73.1883
Barium, Total	ug/L	MW-6S	09/11/2018	84.7000 *	73.1883
Barium, Total	ug/L	MW-6S	05/08/2019	67.4000 *	73.1883
Barium, Total	ug/L	MW-6S	11/13/2019	122.0000 *	73.1883
Barium, Total	ug/L	MW-6S	05/08/2020	110.0000 *	73.1883
Barium, Total	ug/L	MW-6S	11/19/2020	115.0000 *	73.1883
Barium, Total	ug/L	MW-6S	05/18/2021	89.7000 *	73.1883
Barium, Total	ug/L	MW-6S	11/09/2021	86.4000 *	73.1883
Barium, Total	ug/L	MW-6S	05/11/2022	92.5000 *	73.1883
Barium, Total	ug/L	MW-7S	04/20/2016	164.0000 *	73.1883
Barium, Total	ug/L	MW-7S	06/01/2016	145.0000 *	73.1883
Barium, Total	ug/L	MW-7S	08/11/2016	149.0000 *	73.1883
Barium, Total	ug/L	MW-7S	09/29/2016	132.0000 *	73.1883
Barium, Total	ug/L	MW-7S	12/01/2016	142.0000 *	73.1883
Barium, Total	ug/L	MW-7S	01/30/2017	129.0000 *	73.1883
Barium, Total	ug/L	MW-7S	05/25/2017	128.0000 *	73.1883
Barium, Total	ug/L	MW-7S	08/10/2017	115.0000 *	73.1883
Barium, Total	ug/L	MW-7S	05/23/2018	117.0000 *	73.1883
Barium, Total	ug/L	MW-7S	09/11/2018	102.0000 *	73.1883

\* - Significantly increased over background.  
 \*\* - Detect at limit for 100% NDs in background (NPPL only).  
 \*\*\* - Manual exclusion.  
 ND = Not Detected, Result = detection limit.

**Table C-7**

**Historical Downgradient Data for Constituent-Well Combinations  
that Failed the Current Statistical Evaluation or  
are in Verification Resampling Mode**

Constituent	Units	Well	Date	Result	Pred. Limit
Barium, Total	ug/L	MW-7S	05/07/2019	95.1000 *	73.1883
Barium, Total	ug/L	MW-7S	05/07/2020	63.3000	73.1883
Barium, Total	ug/L	MW-7S	11/11/2020	64.0000	73.1883
Barium, Total	ug/L	MW-7S	05/17/2021	106.0000 *	73.1883
Barium, Total	ug/L	MW-7S	11/18/2021	89.2000 *	73.1883
Barium, Total	ug/L	MW-7S	05/12/2022	80.5000 *	73.1883
Barium, Total	ug/L	MW-7S	11/16/2022	100.0000 *	73.1883
Fluoride	mg/L	MW-10S	04/21/2016	0.3900 *	0.1000
Fluoride	mg/L	MW-10S	05/31/2016	0.3600 *	0.1000
Fluoride	mg/L	MW-10S	08/11/2016	0.3700 *	0.1000
Fluoride	mg/L	MW-10S	09/29/2016	0.4100 *	0.1000
Fluoride	mg/L	MW-10S	11/30/2016	0.4100 *	0.1000
Fluoride	mg/L	MW-10S	01/30/2017	0.3600 *	0.1000
Fluoride	mg/L	MW-10S	05/24/2017	0.3600 *	0.1000
Fluoride	mg/L	MW-10S	08/09/2017	0.3600 *	0.1000
Fluoride	mg/L	MW-10S	09/28/2017	0.3700 *	0.1000
Fluoride	mg/L	MW-10S	05/23/2018	0.3600 *	0.1000
Fluoride	mg/L	MW-10S	09/11/2018	0.3600 *	0.1000
Fluoride	mg/L	MW-10S	05/07/2019	0.2400 *	0.1000
Fluoride	mg/L	MW-10S	05/07/2020	0.3000 *	0.1000
Fluoride	mg/L	MW-10S	11/11/2020	0.2300 *	0.1000
Fluoride	mg/L	MW-10S	05/21/2021	0.2200 *	0.1000
Fluoride	mg/L	MW-10S	11/12/2021	0.2000 *	0.1000
Fluoride	mg/L	MW-10S	05/18/2022	0.2300 *	0.1000
Fluoride	mg/L	MW-11S	04/20/2016	0.3200 *	0.1000
Fluoride	mg/L	MW-11S	06/02/2016	0.3400 *	0.1000
Fluoride	mg/L	MW-11S	08/12/2016	0.3500 *	0.1000
Fluoride	mg/L	MW-11S	09/30/2016	0.4000 *	0.1000
Fluoride	mg/L	MW-11S	12/01/2016	0.4400 *	0.1000
Fluoride	mg/L	MW-11S	01/31/2017	0.3100 *	0.1000
Fluoride	mg/L	MW-11S	05/25/2017	0.3300 *	0.1000
Fluoride	mg/L	MW-11S	08/10/2017	0.3300 *	0.1000
Fluoride	mg/L	MW-11S	09/28/2017	0.4000 *	0.1000
Fluoride	mg/L	MW-11S	05/23/2018	0.3000 *	0.1000
Fluoride	mg/L	MW-11S	09/11/2018	0.2900 *	0.1000
Fluoride	mg/L	MW-11S	05/08/2019	0.2300 *	0.1000
Fluoride	mg/L	MW-11S	05/07/2020	0.2200 *	0.1000
Fluoride	mg/L	MW-11S	11/12/2020	0.2000 *	0.1000

\* - Significantly increased over background.  
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 \*\*\* - Manual exclusion.  
 ND = Not Detected, Result = detection limit.

**Table C-7**

**Historical Downgradient Data for Constituent-Well Combinations  
that Failed the Current Statistical Evaluation or  
are in Verification Resampling Mode**

Constituent	Units	Well	Date		Result		Pred. Limit
Fluoride	mg/L	MW-11S	05/17/2021		0.1600 *		0.1000
Fluoride	mg/L	MW-11S	11/17/2021		0.1500 *		0.1000
Fluoride	mg/L	MW-11S	05/12/2022		0.1700 *		0.1000
Fluoride	mg/L	MW-11S	11/21/2022		0.2000 *		0.1000
Fluoride	mg/L	MW-12S	04/20/2016		0.5800 *		0.1000
Fluoride	mg/L	MW-12S	06/01/2016		0.5700 *		0.1000
Fluoride	mg/L	MW-12S	08/11/2016		0.4700 *		0.1000
Fluoride	mg/L	MW-12S	09/29/2016		0.5100 *		0.1000
Fluoride	mg/L	MW-12S	12/01/2016		0.5200 *		0.1000
Fluoride	mg/L	MW-12S	01/30/2017		0.5200 *		0.1000
Fluoride	mg/L	MW-12S	05/25/2017		0.5400 *		0.1000
Fluoride	mg/L	MW-12S	08/10/2017		0.4000 *		0.1000
Fluoride	mg/L	MW-12S	09/27/2017		0.4400 *		0.1000
Fluoride	mg/L	MW-12S	05/23/2018		0.3300 *		0.1000
Fluoride	mg/L	MW-12S	09/12/2018		0.3200 *		0.1000
Fluoride	mg/L	MW-12S	05/08/2019		0.2800 *		0.1000
Fluoride	mg/L	MW-12S	05/08/2020		0.2100 *		0.1000
Fluoride	mg/L	MW-12S	11/12/2020		0.2800 *		0.1000
Fluoride	mg/L	MW-12S	05/13/2021		0.2800 *		0.1000
Fluoride	mg/L	MW-12S	11/10/2021		0.2200 *		0.1000
Fluoride	mg/L	MW-12S	05/12/2022		0.2300 *		0.1000
Fluoride	mg/L	MW-12S	11/15/2022		0.2400 *		0.1000
Fluoride	mg/L	MW-1S	04/19/2016		0.3300 *		0.1000
Fluoride	mg/L	MW-1S	06/02/2016		0.5200 *		0.1000
Fluoride	mg/L	MW-1S	08/10/2016		0.5500 *		0.1000
Fluoride	mg/L	MW-1S	09/30/2016		0.5100 *		0.1000
Fluoride	mg/L	MW-1S	12/02/2016		0.4900 *		0.1000
Fluoride	mg/L	MW-1S	01/31/2017		0.3000 *		0.1000
Fluoride	mg/L	MW-1S	05/26/2017		0.2900 *		0.1000
Fluoride	mg/L	MW-1S	08/11/2017		0.4700 *		0.1000
Fluoride	mg/L	MW-1S	09/28/2017		0.5300 *		0.1000
Fluoride	mg/L	MW-1S	05/23/2018		0.3400 *		0.1000
Fluoride	mg/L	MW-1S	09/11/2018		0.2500 *		0.1000
Fluoride	mg/L	MW-1S	05/08/2019		0.1300 *		0.1000
Fluoride	mg/L	MW-1S	11/14/2019		0.2900 *		0.1000
Fluoride	mg/L	MW-1S	05/05/2020		0.2600 *		0.1000
Fluoride	mg/L	MW-1S	11/11/2020		0.2400 *		0.1000
Fluoride	mg/L	MW-1S	05/25/2021	ND	0.1000		0.1000

\* - Significantly increased over background.  
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 \*\*\* - Manual exclusion.  
 ND = Not Detected, Result = detection limit.

**Table C-7**

**Historical Downgradient Data for Constituent-Well Combinations  
that Failed the Current Statistical Evaluation or  
are in Verification Resampling Mode**

Constituent	Units	Well	Date	Result	Pred. Limit
Fluoride	mg/L	MW-1S	11/09/2021	0.1300 *	0.1000
Fluoride	mg/L	MW-1S	05/10/2022	0.1200 *	0.1000
Fluoride	mg/L	MW-1S	11/22/2022	0.2000 *	0.1000
Fluoride	mg/L	MW-2S	04/19/2016	0.4200 *	0.1000
Fluoride	mg/L	MW-2S	06/01/2016	0.4000 *	0.1000
Fluoride	mg/L	MW-2S	08/11/2016	0.3700 *	0.1000
Fluoride	mg/L	MW-2S	09/30/2016	0.3500 *	0.1000
Fluoride	mg/L	MW-2S	12/02/2016	0.3100 *	0.1000
Fluoride	mg/L	MW-2S	01/31/2017	0.3800 *	0.1000
Fluoride	mg/L	MW-2S	05/26/2017	0.3500 *	0.1000
Fluoride	mg/L	MW-2S	08/11/2017	0.3300 *	0.1000
Fluoride	mg/L	MW-2S	09/27/2017	0.2500 *	0.1000
Fluoride	mg/L	MW-2S	05/22/2018	0.2300 *	0.1000
Fluoride	mg/L	MW-2S	09/11/2018	0.1300 *	0.1000
Fluoride	mg/L	MW-2S	05/09/2019	0.1500 *	0.1000
Fluoride	mg/L	MW-2S	11/14/2019	0.1700 *	0.1000
Fluoride	mg/L	MW-2S	05/08/2020	0.1200 *	0.1000
Fluoride	mg/L	MW-2S	11/11/2020	0.1500 *	0.1000
Fluoride	mg/L	MW-2S	05/11/2021	0.1100 *	0.1000
Fluoride	mg/L	MW-2S	11/10/2021	0.1600 *	0.1000
Fluoride	mg/L	MW-2S	05/11/2022	0.1300 *	0.1000
Fluoride	mg/L	MW-2S	11/15/2022	0.1400 *	0.1000
Fluoride	mg/L	MW-3S	04/20/2016	0.2600 *	0.1000
Fluoride	mg/L	MW-3S	06/01/2016	0.2800 *	0.1000
Fluoride	mg/L	MW-3S	08/11/2016	0.2500 *	0.1000
Fluoride	mg/L	MW-3S	09/30/2016	0.2700 *	0.1000
Fluoride	mg/L	MW-3S	12/02/2016	0.3000 *	0.1000
Fluoride	mg/L	MW-3S	01/31/2017	0.2400 *	0.1000
Fluoride	mg/L	MW-3S	05/25/2017	0.2500 *	0.1000
Fluoride	mg/L	MW-3S	08/11/2017	0.3000 *	0.1000
Fluoride	mg/L	MW-3S	09/27/2017	0.3100 *	0.1000
Fluoride	mg/L	MW-3S	05/22/2018	0.2800 *	0.1000
Fluoride	mg/L	MW-3S	09/11/2018	0.2700 *	0.1000
Fluoride	mg/L	MW-3S	05/09/2019	0.2000 *	0.1000
Fluoride	mg/L	MW-3S	11/13/2019	0.3900 *	0.1000
Fluoride	mg/L	MW-3S	05/05/2020	0.3300 *	0.1000
Fluoride	mg/L	MW-3S	11/10/2020	0.3900 *	0.1000
Fluoride	mg/L	MW-3S	05/12/2021	0.3000 *	0.1000

\* - Significantly increased over background.  
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 ND = Not Detected, Result = detection limit.

**Table C-7**

**Historical Downgradient Data for Constituent-Well Combinations  
that Failed the Current Statistical Evaluation or  
are in Verification Resampling Mode**

Constituent	Units	Well	Date	Result	Pred. Limit
Fluoride	mg/L	MW-3S	11/18/2021	0.2900 *	0.1000
Fluoride	mg/L	MW-3S	05/11/2022	0.2000 *	0.1000
Fluoride	mg/L	MW-3S	11/16/2022	0.3000 *	0.1000
Fluoride	mg/L	MW-6S	04/20/2016	0.2400 *	0.1000
Fluoride	mg/L	MW-6S	06/01/2016	0.2300 *	0.1000
Fluoride	mg/L	MW-6S	08/11/2016	0.2200 *	0.1000
Fluoride	mg/L	MW-6S	09/29/2016	0.2500 *	0.1000
Fluoride	mg/L	MW-6S	12/01/2016	0.2600 *	0.1000
Fluoride	mg/L	MW-6S	01/30/2017	0.2200 *	0.1000
Fluoride	mg/L	MW-6S	05/25/2017	0.2000 *	0.1000
Fluoride	mg/L	MW-6S	08/10/2017	0.2100 *	0.1000
Fluoride	mg/L	MW-6S	09/27/2017	0.2300 *	0.1000
Fluoride	mg/L	MW-6S	05/22/2018	0.1600 *	0.1000
Fluoride	mg/L	MW-6S	09/11/2018	0.2100 *	0.1000
Fluoride	mg/L	MW-6S	05/08/2019	0.1700 *	0.1000
Fluoride	mg/L	MW-6S	11/13/2019	0.2300 *	0.1000
Fluoride	mg/L	MW-6S	05/08/2020	0.1700 *	0.1000
Fluoride	mg/L	MW-6S	11/19/2020	0.2600 *	0.1000
Fluoride	mg/L	MW-6S	05/18/2021	0.1900 *	0.1000
Fluoride	mg/L	MW-6S	11/09/2021	0.2500 *	0.1000
Fluoride	mg/L	MW-6S	05/11/2022	0.2500 *	0.1000
Lithium, Total	ug/L	MW-10S	04/21/2016	124.0000 *	20.0000
Lithium, Total	ug/L	MW-10S	05/31/2016	110.0000 *	20.0000
Lithium, Total	ug/L	MW-10S	08/11/2016	100.0000 *	20.0000
Lithium, Total	ug/L	MW-10S	09/29/2016	99.8000 *	20.0000
Lithium, Total	ug/L	MW-10S	11/30/2016	102.0000 *	20.0000
Lithium, Total	ug/L	MW-10S	01/30/2017	102.0000 *	20.0000
Lithium, Total	ug/L	MW-10S	05/24/2017	110.0000 *	20.0000
Lithium, Total	ug/L	MW-10S	08/09/2017	102.0000 *	20.0000
Lithium, Total	ug/L	MW-10S	05/23/2018	91.9000 *	20.0000
Lithium, Total	ug/L	MW-10S	09/11/2018	74.0000 *	20.0000
Lithium, Total	ug/L	MW-10S	05/07/2019	98.8000 *	20.0000
Lithium, Total	ug/L	MW-10S	05/07/2020	114.0000 *	20.0000
Lithium, Total	ug/L	MW-10S	11/11/2020	96.2000 *	20.0000
Lithium, Total	ug/L	MW-10S	05/21/2021	96.6000 *	20.0000
Lithium, Total	ug/L	MW-10S	11/12/2021	93.0000 *	20.0000
Lithium, Total	ug/L	MW-10S	05/18/2022	108.0000 *	20.0000
Lithium, Total	ug/L	MW-11S	04/20/2016	115.0000 *	20.0000

\* - Significantly increased over background.  
 \*\* - Detect at limit for 100% NDs in background (NPPL only).  
 \*\*\* - Manual exclusion.  
 ND = Not Detected, Result = detection limit.

**Table C-7**

**Historical Downgradient Data for Constituent-Well Combinations  
that Failed the Current Statistical Evaluation or  
are in Verification Resampling Mode**

Constituent	Units	Well	Date		Result		Pred. Limit
Lithium, Total	ug/L	MW-11S	06/02/2016		119.0000	*	20.0000
Lithium, Total	ug/L	MW-11S	08/12/2016		105.0000	*	20.0000
Lithium, Total	ug/L	MW-11S	09/30/2016		104.0000	*	20.0000
Lithium, Total	ug/L	MW-11S	12/01/2016		99.6000	*	20.0000
Lithium, Total	ug/L	MW-11S	01/31/2017		101.0000	*	20.0000
Lithium, Total	ug/L	MW-11S	05/25/2017		103.0000	*	20.0000
Lithium, Total	ug/L	MW-11S	08/10/2017		108.0000	*	20.0000
Lithium, Total	ug/L	MW-11S	05/23/2018		102.0000	*	20.0000
Lithium, Total	ug/L	MW-11S	09/11/2018		109.0000	*	20.0000
Lithium, Total	ug/L	MW-11S	05/08/2019		111.0000	*	20.0000
Lithium, Total	ug/L	MW-11S	05/07/2020		111.0000	*	20.0000
Lithium, Total	ug/L	MW-11S	11/12/2020		136.0000	*	20.0000
Lithium, Total	ug/L	MW-11S	05/17/2021		114.0000	*	20.0000
Lithium, Total	ug/L	MW-11S	11/17/2021		122.0000	*	20.0000
Lithium, Total	ug/L	MW-11S	05/12/2022		99.0000	*	20.0000
Lithium, Total	ug/L	MW-11S	11/21/2022		142.0000	*	20.0000
Lithium, Total	ug/L	MW-12S	04/20/2016		94.5000	*	20.0000
Lithium, Total	ug/L	MW-12S	06/01/2016		91.7000	*	20.0000
Lithium, Total	ug/L	MW-12S	08/11/2016		82.1000	*	20.0000
Lithium, Total	ug/L	MW-12S	09/29/2016		83.5000	*	20.0000
Lithium, Total	ug/L	MW-12S	12/01/2016		94.9000	*	20.0000
Lithium, Total	ug/L	MW-12S	01/30/2017		80.6000	*	20.0000
Lithium, Total	ug/L	MW-12S	05/25/2017		90.0000	*	20.0000
Lithium, Total	ug/L	MW-12S	08/10/2017		91.1000	*	20.0000
Lithium, Total	ug/L	MW-12S	05/23/2018		105.0000	*	20.0000
Lithium, Total	ug/L	MW-12S	09/12/2018		86.2000	*	20.0000
Lithium, Total	ug/L	MW-12S	05/08/2019		97.3000	*	20.0000
Lithium, Total	ug/L	MW-12S	05/08/2020		117.0000	*	20.0000
Lithium, Total	ug/L	MW-12S	11/12/2020		126.0000	*	20.0000
Lithium, Total	ug/L	MW-12S	05/13/2021		113.0000	*	20.0000
Lithium, Total	ug/L	MW-12S	11/10/2021		129.0000	*	20.0000
Lithium, Total	ug/L	MW-12S	05/12/2022		117.0000	*	20.0000
Lithium, Total	ug/L	MW-12S	11/15/2022		138.0000	*	20.0000
Lithium, Total	ug/L	MW-1S	04/19/2016		100.0000	*	20.0000
Lithium, Total	ug/L	MW-1S	06/02/2016		110.0000	*	20.0000
Lithium, Total	ug/L	MW-1S	08/10/2016		107.0000	*	20.0000
Lithium, Total	ug/L	MW-1S	09/30/2016		92.2000	*	20.0000
Lithium, Total	ug/L	MW-1S	12/02/2016		93.8000	*	20.0000

\* - Significantly increased over background.  
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 \*\*\* - Manual exclusion.  
 ND = Not Detected, Result = detection limit.



**Table C-7**

**Historical Downgradient Data for Constituent-Well Combinations  
that Failed the Current Statistical Evaluation or  
are in Verification Resampling Mode**

Constituent	Units	Well	Date	Result	Pred. Limit
Lithium, Total	ug/L	MW-1S	01/31/2017	98.9000 *	20.0000
Lithium, Total	ug/L	MW-1S	05/26/2017	104.0000 *	20.0000
Lithium, Total	ug/L	MW-1S	08/11/2017	111.0000 *	20.0000
Lithium, Total	ug/L	MW-1S	05/23/2018	128.0000 *	20.0000
Lithium, Total	ug/L	MW-1S	09/11/2018	90.0000 *	20.0000
Lithium, Total	ug/L	MW-1S	05/08/2019	83.4000 *	20.0000
Lithium, Total	ug/L	MW-1S	11/14/2019	115.0000 *	20.0000
Lithium, Total	ug/L	MW-1S	05/05/2020	124.0000 *	20.0000
Lithium, Total	ug/L	MW-1S	11/11/2020	114.0000 *	20.0000
Lithium, Total	ug/L	MW-1S	05/25/2021	70.0000 *	20.0000
Lithium, Total	ug/L	MW-1S	11/09/2021	99.8000 *	20.0000
Lithium, Total	ug/L	MW-1S	05/10/2022	102.0000 *	20.0000
Lithium, Total	ug/L	MW-1S	11/22/2022	83.8000 *	20.0000
Lithium, Total	ug/L	MW-2S	04/19/2016	86.0000 *	20.0000
Lithium, Total	ug/L	MW-2S	06/01/2016	79.6000 *	20.0000
Lithium, Total	ug/L	MW-2S	08/11/2016	79.2000 *	20.0000
Lithium, Total	ug/L	MW-2S	09/30/2016	88.8000 *	20.0000
Lithium, Total	ug/L	MW-2S	12/02/2016	105.0000 *	20.0000
Lithium, Total	ug/L	MW-2S	01/31/2017	91.6000 *	20.0000
Lithium, Total	ug/L	MW-2S	05/26/2017	101.0000 *	20.0000
Lithium, Total	ug/L	MW-2S	08/11/2017	100.0000 *	20.0000
Lithium, Total	ug/L	MW-2S	05/22/2018	107.0000 *	20.0000
Lithium, Total	ug/L	MW-2S	09/11/2018	78.7000 *	20.0000
Lithium, Total	ug/L	MW-2S	05/09/2019	102.0000 *	20.0000
Lithium, Total	ug/L	MW-2S	11/14/2019	91.9000 *	20.0000
Lithium, Total	ug/L	MW-2S	05/08/2020	92.6000 *	20.0000
Lithium, Total	ug/L	MW-2S	11/11/2020	74.8000 *	20.0000
Lithium, Total	ug/L	MW-2S	05/11/2021	42.3000 *	20.0000
Lithium, Total	ug/L	MW-2S	11/10/2021	63.2000 *	20.0000
Lithium, Total	ug/L	MW-2S	05/11/2022	52.0000 *	20.0000
Lithium, Total	ug/L	MW-2S	11/15/2022	49.2000 *	20.0000
Lithium, Total	ug/L	MW-3S	04/20/2016	89.6000 *	20.0000
Lithium, Total	ug/L	MW-3S	06/01/2016	90.5000 *	20.0000
Lithium, Total	ug/L	MW-3S	08/11/2016	67.5000 *	20.0000
Lithium, Total	ug/L	MW-3S	09/30/2016	83.8000 *	20.0000
Lithium, Total	ug/L	MW-3S	12/02/2016	66.9000 *	20.0000
Lithium, Total	ug/L	MW-3S	01/31/2017	61.4000 *	20.0000
Lithium, Total	ug/L	MW-3S	05/25/2017	55.7000 *	20.0000

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 \*\* - Detect at limit for 100% NDs in background (NPPL only).  
 \*\*\* - Manual exclusion.  
 ND = Not Detected, Result = detection limit.

**Table C-7**

**Historical Downgradient Data for Constituent-Well Combinations  
that Failed the Current Statistical Evaluation or  
are in Verification Resampling Mode**

Constituent	Units	Well	Date		Result		Pred. Limit
Lithium, Total	ug/L	MW-3S	08/11/2017		50.6000	*	20.0000
Lithium, Total	ug/L	MW-3S	05/22/2018		25.3000	*	20.0000
Lithium, Total	ug/L	MW-3S	09/11/2018	ND	20.0000		20.0000
Lithium, Total	ug/L	MW-3S	05/09/2019		29.8000	*	20.0000
Lithium, Total	ug/L	MW-3S	11/13/2019	ND	20.0000		20.0000
Lithium, Total	ug/L	MW-3S	05/05/2020		24.3000	*	20.0000
Lithium, Total	ug/L	MW-3S	11/10/2020	ND	20.0000		20.0000
Lithium, Total	ug/L	MW-3S	05/12/2021	ND	20.0000		20.0000
Lithium, Total	ug/L	MW-3S	11/18/2021		26.4000	*	20.0000
Lithium, Total	ug/L	MW-3S	05/11/2022		24.7000	*	20.0000
Lithium, Total	ug/L	MW-3S	11/16/2022	ND	20.0000		20.0000
Lithium, Total	ug/L	MW-6S	04/20/2016		75.6000	*	20.0000
Lithium, Total	ug/L	MW-6S	06/01/2016		70.9000	*	20.0000
Lithium, Total	ug/L	MW-6S	08/11/2016		73.6000	*	20.0000
Lithium, Total	ug/L	MW-6S	09/29/2016		76.4000	*	20.0000
Lithium, Total	ug/L	MW-6S	12/01/2016		82.1000	*	20.0000
Lithium, Total	ug/L	MW-6S	01/30/2017		79.3000	*	20.0000
Lithium, Total	ug/L	MW-6S	05/25/2017		68.7000	*	20.0000
Lithium, Total	ug/L	MW-6S	08/10/2017		53.6000	*	20.0000
Lithium, Total	ug/L	MW-6S	05/22/2018		68.8000	*	20.0000
Lithium, Total	ug/L	MW-6S	09/11/2018		69.4000	*	20.0000
Lithium, Total	ug/L	MW-6S	05/08/2019		21.5000	*	20.0000
Lithium, Total	ug/L	MW-6S	11/13/2019		77.2000	*	20.0000
Lithium, Total	ug/L	MW-6S	05/08/2020		79.4000	*	20.0000
Lithium, Total	ug/L	MW-6S	11/19/2020		91.2000	*	20.0000
Lithium, Total	ug/L	MW-6S	05/18/2021		99.5000	*	20.0000
Lithium, Total	ug/L	MW-6S	11/09/2021		91.6000	*	20.0000
Lithium, Total	ug/L	MW-6S	05/11/2022		68.6000	*	20.0000
Lithium, Total	ug/L	MW-7S	04/20/2016		126.0000	*	20.0000
Lithium, Total	ug/L	MW-7S	06/01/2016		162.0000	*	20.0000
Lithium, Total	ug/L	MW-7S	08/11/2016		170.0000	*	20.0000
Lithium, Total	ug/L	MW-7S	09/29/2016		164.0000	*	20.0000
Lithium, Total	ug/L	MW-7S	12/01/2016		166.0000	*	20.0000
Lithium, Total	ug/L	MW-7S	01/30/2017		148.0000	*	20.0000
Lithium, Total	ug/L	MW-7S	05/25/2017		149.0000	*	20.0000
Lithium, Total	ug/L	MW-7S	08/10/2017		153.0000	*	20.0000
Lithium, Total	ug/L	MW-7S	05/23/2018		136.0000	*	20.0000
Lithium, Total	ug/L	MW-7S	09/11/2018		103.0000	*	20.0000

\* - Significantly increased over background.  
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 ND = Not Detected, Result = detection limit.

**Table C-7**

**Historical Downgradient Data for Constituent-Well Combinations  
that Failed the Current Statistical Evaluation or  
are in Verification Resampling Mode**

Constituent	Units	Well	Date		Result		Pred. Limit
Lithium, Total	ug/L	MW-7S	05/07/2019		30.7000	*	20.0000
Lithium, Total	ug/L	MW-7S	05/07/2020		31.2000	*	20.0000
Lithium, Total	ug/L	MW-7S	11/11/2020		25.6000	*	20.0000
Lithium, Total	ug/L	MW-7S	05/17/2021		31.1000	*	20.0000
Lithium, Total	ug/L	MW-7S	11/18/2021		31.8000	*	20.0000
Lithium, Total	ug/L	MW-7S	05/12/2022		31.6000	*	20.0000
Lithium, Total	ug/L	MW-7S	11/16/2022		30.9000	*	20.0000
Molybdenum, Total	ug/L	MW-10S	04/21/2016		155.0000	*	10.0000
Molybdenum, Total	ug/L	MW-10S	05/31/2016		174.0000	*	10.0000
Molybdenum, Total	ug/L	MW-10S	08/11/2016		204.0000	*	10.0000
Molybdenum, Total	ug/L	MW-10S	09/29/2016		223.0000	*	10.0000
Molybdenum, Total	ug/L	MW-10S	11/30/2016		202.0000	*	10.0000
Molybdenum, Total	ug/L	MW-10S	01/30/2017		198.0000	*	10.0000
Molybdenum, Total	ug/L	MW-10S	05/24/2017		188.0000	*	10.0000
Molybdenum, Total	ug/L	MW-10S	08/09/2017		182.0000	*	10.0000
Molybdenum, Total	ug/L	MW-10S	05/23/2018		168.0000	*	10.0000
Molybdenum, Total	ug/L	MW-10S	09/11/2018		185.0000	*	10.0000
Molybdenum, Total	ug/L	MW-10S	05/07/2019		86.2000	*	10.0000
Molybdenum, Total	ug/L	MW-10S	05/07/2020		98.6000	*	10.0000
Molybdenum, Total	ug/L	MW-10S	11/11/2020		90.0000	*	10.0000
Molybdenum, Total	ug/L	MW-10S	05/21/2021		91.8000	*	10.0000
Molybdenum, Total	ug/L	MW-10S	11/12/2021		77.6000	*	10.0000
Molybdenum, Total	ug/L	MW-10S	05/18/2022		60.3000	*	10.0000
Molybdenum, Total	ug/L	MW-11S	04/20/2016		181.0000	*	10.0000
Molybdenum, Total	ug/L	MW-11S	06/02/2016		218.0000	*	10.0000
Molybdenum, Total	ug/L	MW-11S	08/12/2016		256.0000	*	10.0000
Molybdenum, Total	ug/L	MW-11S	09/30/2016		266.0000	*	10.0000
Molybdenum, Total	ug/L	MW-11S	12/01/2016		334.0000	*	10.0000
Molybdenum, Total	ug/L	MW-11S	01/31/2017		224.0000	*	10.0000
Molybdenum, Total	ug/L	MW-11S	05/25/2017		248.0000	*	10.0000
Molybdenum, Total	ug/L	MW-11S	08/10/2017		268.0000	*	10.0000
Molybdenum, Total	ug/L	MW-11S	05/23/2018		269.0000	*	10.0000
Molybdenum, Total	ug/L	MW-11S	09/11/2018		242.0000	*	10.0000
Molybdenum, Total	ug/L	MW-11S	05/08/2019		147.0000	*	10.0000
Molybdenum, Total	ug/L	MW-11S	05/07/2020		118.0000	*	10.0000
Molybdenum, Total	ug/L	MW-11S	11/12/2020		74.0000	*	10.0000
Molybdenum, Total	ug/L	MW-11S	05/17/2021		69.3000	*	10.0000
Molybdenum, Total	ug/L	MW-11S	11/17/2021		75.2000	*	10.0000

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 ND = Not Detected, Result = detection limit.

**Table C-7**

**Historical Downgradient Data for Constituent-Well Combinations  
that Failed the Current Statistical Evaluation or  
are in Verification Resampling Mode**

Constituent	Units	Well	Date		Result		Pred. Limit
Molybdenum, Total	ug/L	MW-11S	05/12/2022		75.5000	*	10.0000
Molybdenum, Total	ug/L	MW-11S	11/21/2022		56.4000	*	10.0000
Molybdenum, Total	ug/L	MW-12S	04/20/2016		118.0000	*	10.0000
Molybdenum, Total	ug/L	MW-12S	06/01/2016		138.0000	*	10.0000
Molybdenum, Total	ug/L	MW-12S	08/11/2016		136.0000	*	10.0000
Molybdenum, Total	ug/L	MW-12S	09/29/2016		123.0000	*	10.0000
Molybdenum, Total	ug/L	MW-12S	12/01/2016		154.0000	*	10.0000
Molybdenum, Total	ug/L	MW-12S	01/30/2017		98.5000	*	10.0000
Molybdenum, Total	ug/L	MW-12S	05/25/2017		104.0000	*	10.0000
Molybdenum, Total	ug/L	MW-12S	08/10/2017		83.2000	*	10.0000
Molybdenum, Total	ug/L	MW-12S	05/23/2018		51.5000	*	10.0000
Molybdenum, Total	ug/L	MW-12S	09/12/2018		77.0000	*	10.0000
Molybdenum, Total	ug/L	MW-12S	05/08/2019		42.4000	*	10.0000
Molybdenum, Total	ug/L	MW-12S	05/08/2020		50.4000	*	10.0000
Molybdenum, Total	ug/L	MW-12S	11/12/2020		63.8000	*	10.0000
Molybdenum, Total	ug/L	MW-12S	05/13/2021		69.5000	*	10.0000
Molybdenum, Total	ug/L	MW-12S	11/10/2021		33.8000	*	10.0000
Molybdenum, Total	ug/L	MW-12S	05/12/2022		21.9000	*	10.0000
Molybdenum, Total	ug/L	MW-12S	11/15/2022		36.4000	*	10.0000
Molybdenum, Total	ug/L	MW-1S	04/19/2016		32.6000	*	10.0000
Molybdenum, Total	ug/L	MW-1S	06/02/2016		71.7000	*	10.0000
Molybdenum, Total	ug/L	MW-1S	08/10/2016		91.3000	*	10.0000
Molybdenum, Total	ug/L	MW-1S	09/30/2016		71.5000	*	10.0000
Molybdenum, Total	ug/L	MW-1S	12/02/2016		68.1000	*	10.0000
Molybdenum, Total	ug/L	MW-1S	01/31/2017		41.0000	*	10.0000
Molybdenum, Total	ug/L	MW-1S	05/26/2017		36.1000	*	10.0000
Molybdenum, Total	ug/L	MW-1S	08/11/2017		67.9000	*	10.0000
Molybdenum, Total	ug/L	MW-1S	05/23/2018		57.4000	*	10.0000
Molybdenum, Total	ug/L	MW-1S	09/11/2018		33.1000	*	10.0000
Molybdenum, Total	ug/L	MW-1S	05/08/2019		15.1000	*	10.0000
Molybdenum, Total	ug/L	MW-1S	11/14/2019		55.4000	*	10.0000
Molybdenum, Total	ug/L	MW-1S	05/05/2020		39.1000	*	10.0000
Molybdenum, Total	ug/L	MW-1S	11/11/2020		55.1000	*	10.0000
Molybdenum, Total	ug/L	MW-1S	05/25/2021		19.1000	*	10.0000
Molybdenum, Total	ug/L	MW-1S	11/09/2021		24.4000	*	10.0000
Molybdenum, Total	ug/L	MW-1S	05/10/2022		24.8000	*	10.0000
Molybdenum, Total	ug/L	MW-1S	11/22/2022		30.7000	*	10.0000
Molybdenum, Total	ug/L	MW-2S	04/19/2016		69.2000	*	10.0000

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**Table C-7**

**Historical Downgradient Data for Constituent-Well Combinations  
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Constituent	Units	Well	Date		Result		Pred. Limit
Molybdenum, Total	ug/L	MW-2S	06/01/2016		72.2000	*	10.0000
Molybdenum, Total	ug/L	MW-2S	08/11/2016		62.0000	*	10.0000
Molybdenum, Total	ug/L	MW-2S	09/30/2016		48.5000	*	10.0000
Molybdenum, Total	ug/L	MW-2S	12/02/2016		21.7000	*	10.0000
Molybdenum, Total	ug/L	MW-2S	01/31/2017		60.2000	*	10.0000
Molybdenum, Total	ug/L	MW-2S	05/26/2017		58.5000	*	10.0000
Molybdenum, Total	ug/L	MW-2S	08/11/2017		59.1000	*	10.0000
Molybdenum, Total	ug/L	MW-2S	05/22/2018		19.3000	*	10.0000
Molybdenum, Total	ug/L	MW-2S	09/11/2018		15.8000	*	10.0000
Molybdenum, Total	ug/L	MW-2S	05/09/2019		10.3000	*	10.0000
Molybdenum, Total	ug/L	MW-2S	11/14/2019		11.8000	*	10.0000
Molybdenum, Total	ug/L	MW-2S	05/08/2020	ND	10.0000		10.0000
Molybdenum, Total	ug/L	MW-2S	11/11/2020	ND	10.0000		10.0000
Molybdenum, Total	ug/L	MW-2S	05/11/2021		13.9000	*	10.0000
Molybdenum, Total	ug/L	MW-2S	11/10/2021		10.9000	*	10.0000
Molybdenum, Total	ug/L	MW-2S	05/11/2022		13.4000	*	10.0000
Molybdenum, Total	ug/L	MW-2S	11/15/2022	ND	10.0000		10.0000
Molybdenum, Total	ug/L	MW-3S	04/20/2016		54.5000	*	10.0000
Molybdenum, Total	ug/L	MW-3S	06/01/2016		68.6000	*	10.0000
Molybdenum, Total	ug/L	MW-3S	08/11/2016		48.7000	*	10.0000
Molybdenum, Total	ug/L	MW-3S	09/30/2016		41.3000	*	10.0000
Molybdenum, Total	ug/L	MW-3S	12/02/2016		39.0000	*	10.0000
Molybdenum, Total	ug/L	MW-3S	01/31/2017		45.6000	*	10.0000
Molybdenum, Total	ug/L	MW-3S	05/25/2017		43.3000	*	10.0000
Molybdenum, Total	ug/L	MW-3S	08/11/2017		49.9000	*	10.0000
Molybdenum, Total	ug/L	MW-3S	05/22/2018		39.3000	*	10.0000
Molybdenum, Total	ug/L	MW-3S	09/11/2018		38.4000	*	10.0000
Molybdenum, Total	ug/L	MW-3S	05/09/2019		38.9000	*	10.0000
Molybdenum, Total	ug/L	MW-3S	11/13/2019		64.2000	*	10.0000
Molybdenum, Total	ug/L	MW-3S	05/05/2020		61.7000	*	10.0000
Molybdenum, Total	ug/L	MW-3S	11/10/2020		77.4000	*	10.0000
Molybdenum, Total	ug/L	MW-3S	05/12/2021		56.0000	*	10.0000
Molybdenum, Total	ug/L	MW-3S	11/18/2021		47.0000	*	10.0000
Molybdenum, Total	ug/L	MW-3S	05/11/2022		52.6000	*	10.0000
Molybdenum, Total	ug/L	MW-3S	11/16/2022		53.4000	*	10.0000
Molybdenum, Total	ug/L	MW-6S	04/20/2016		93.6000	*	10.0000
Molybdenum, Total	ug/L	MW-6S	06/01/2016		101.0000	*	10.0000
Molybdenum, Total	ug/L	MW-6S	08/11/2016		116.0000	*	10.0000

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**Table C-7**

**Historical Downgradient Data for Constituent-Well Combinations  
that Failed the Current Statistical Evaluation or  
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Constituent	Units	Well	Date		Result		Pred. Limit
Molybdenum, Total	ug/L	MW-6S	09/29/2016		119.0000	*	10.0000
Molybdenum, Total	ug/L	MW-6S	12/01/2016		127.0000	*	10.0000
Molybdenum, Total	ug/L	MW-6S	01/30/2017		104.0000	*	10.0000
Molybdenum, Total	ug/L	MW-6S	05/25/2017		77.9000	*	10.0000
Molybdenum, Total	ug/L	MW-6S	08/10/2017		85.9000	*	10.0000
Molybdenum, Total	ug/L	MW-6S	05/22/2018		80.1000	*	10.0000
Molybdenum, Total	ug/L	MW-6S	09/11/2018		143.0000	*	10.0000
Molybdenum, Total	ug/L	MW-6S	05/08/2019		39.6000	*	10.0000
Molybdenum, Total	ug/L	MW-6S	11/13/2019		144.0000	*	10.0000
Molybdenum, Total	ug/L	MW-6S	05/08/2020		90.7000	*	10.0000
Molybdenum, Total	ug/L	MW-6S	11/19/2020		164.0000	*	10.0000
Molybdenum, Total	ug/L	MW-6S	05/18/2021		138.0000	*	10.0000
Molybdenum, Total	ug/L	MW-6S	11/09/2021		161.0000	*	10.0000
Molybdenum, Total	ug/L	MW-6S	05/11/2022		81.4000	*	10.0000
Molybdenum, Total	ug/L	MW-7S	04/20/2016		130.0000	*	10.0000
Molybdenum, Total	ug/L	MW-7S	06/01/2016		195.0000	*	10.0000
Molybdenum, Total	ug/L	MW-7S	08/11/2016		202.0000	*	10.0000
Molybdenum, Total	ug/L	MW-7S	09/29/2016		189.0000	*	10.0000
Molybdenum, Total	ug/L	MW-7S	12/01/2016		194.0000	*	10.0000
Molybdenum, Total	ug/L	MW-7S	01/30/2017		183.0000	*	10.0000
Molybdenum, Total	ug/L	MW-7S	05/25/2017		187.0000	*	10.0000
Molybdenum, Total	ug/L	MW-7S	08/10/2017		192.0000	*	10.0000
Molybdenum, Total	ug/L	MW-7S	05/23/2018		195.0000	*	10.0000
Molybdenum, Total	ug/L	MW-7S	09/11/2018		121.0000	*	10.0000
Molybdenum, Total	ug/L	MW-7S	05/07/2019		39.2000	*	10.0000
Molybdenum, Total	ug/L	MW-7S	05/07/2020		42.2000	*	10.0000
Molybdenum, Total	ug/L	MW-7S	11/11/2020		45.6000	*	10.0000
Molybdenum, Total	ug/L	MW-7S	05/17/2021		39.9000	*	10.0000
Molybdenum, Total	ug/L	MW-7S	11/18/2021		72.9000	*	10.0000
Molybdenum, Total	ug/L	MW-7S	05/12/2022		45.6000	*	10.0000
Molybdenum, Total	ug/L	MW-7S	11/16/2022		42.8000	*	10.0000
Selenium, Total	ug/L	MW-10S	04/21/2016	ND	10.0000		1.0000
Selenium, Total	ug/L	MW-10S	05/31/2016	ND	10.0000		1.0000
Selenium, Total	ug/L	MW-10S	08/11/2016	ND	10.0000		1.0000
Selenium, Total	ug/L	MW-10S	09/29/2016	ND	10.0000		1.0000
Selenium, Total	ug/L	MW-10S	11/30/2016	ND	10.0000		1.0000
Selenium, Total	ug/L	MW-10S	01/30/2017	ND	10.0000		1.0000
Selenium, Total	ug/L	MW-10S	05/24/2017	ND	10.0000		1.0000

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**Table C-7**

**Historical Downgradient Data for Constituent-Well Combinations  
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Constituent	Units	Well	Date		Result		Pred. Limit
Selenium, Total	ug/L	MW-10S	08/09/2017	ND	10.0000		1.0000
Selenium, Total	ug/L	MW-10S	05/23/2018		2.8000	*	1.0000
Selenium, Total	ug/L	MW-10S	09/11/2018	ND	1.0000		1.0000
Selenium, Total	ug/L	MW-10S	05/07/2019		1.3000	*	1.0000
Selenium, Total	ug/L	MW-10S	05/07/2020		12.5000	*	1.0000
Selenium, Total	ug/L	MW-10S	11/11/2020		1.8000	*	1.0000
Selenium, Total	ug/L	MW-10S	05/21/2021		1.1000	*	1.0000
Selenium, Total	ug/L	MW-10S	11/12/2021		1.8000	*	1.0000
Selenium, Total	ug/L	MW-10S	05/18/2022		2.1000	*	1.0000
Selenium, Total	ug/L	MW-11S	04/20/2016	ND	10.0000		1.0000
Selenium, Total	ug/L	MW-11S	06/02/2016	ND	10.0000		1.0000
Selenium, Total	ug/L	MW-11S	08/12/2016	ND	10.0000		1.0000
Selenium, Total	ug/L	MW-11S	09/30/2016	ND	10.0000		1.0000
Selenium, Total	ug/L	MW-11S	12/01/2016	ND	10.0000		1.0000
Selenium, Total	ug/L	MW-11S	01/31/2017	ND	10.0000		1.0000
Selenium, Total	ug/L	MW-11S	05/25/2017	ND	10.0000		1.0000
Selenium, Total	ug/L	MW-11S	08/10/2017	ND	10.0000		1.0000
Selenium, Total	ug/L	MW-11S	05/23/2018		6.0000	*	1.0000
Selenium, Total	ug/L	MW-11S	09/11/2018		9.3000	*	1.0000
Selenium, Total	ug/L	MW-11S	05/08/2019		8.9000	*	1.0000
Selenium, Total	ug/L	MW-11S	05/07/2020		11.8000	*	1.0000
Selenium, Total	ug/L	MW-11S	11/12/2020		2.6000	*	1.0000
Selenium, Total	ug/L	MW-11S	05/17/2021		11.1000	*	1.0000
Selenium, Total	ug/L	MW-11S	11/17/2021		8.6000	*	1.0000
Selenium, Total	ug/L	MW-11S	05/12/2022		10.4000	*	1.0000
Selenium, Total	ug/L	MW-11S	11/21/2022		13.9000	*	1.0000
Selenium, Total	ug/L	MW-12S	04/20/2016	ND	10.0000		1.0000
Selenium, Total	ug/L	MW-12S	06/01/2016	ND	10.0000		1.0000
Selenium, Total	ug/L	MW-12S	08/11/2016	ND	10.0000		1.0000
Selenium, Total	ug/L	MW-12S	09/29/2016	ND	10.0000		1.0000
Selenium, Total	ug/L	MW-12S	12/01/2016	ND	10.0000		1.0000
Selenium, Total	ug/L	MW-12S	01/30/2017	ND	10.0000		1.0000
Selenium, Total	ug/L	MW-12S	05/25/2017	ND	10.0000		1.0000
Selenium, Total	ug/L	MW-12S	08/10/2017	ND	10.0000		1.0000
Selenium, Total	ug/L	MW-12S	05/23/2018	ND	1.0000		1.0000
Selenium, Total	ug/L	MW-12S	09/12/2018		2.0000	*	1.0000
Selenium, Total	ug/L	MW-12S	05/08/2019		30.3000	*	1.0000
Selenium, Total	ug/L	MW-12S	05/08/2020		41.6000	*	1.0000

\* - Significantly increased over background.  
 \*\* - Detect at limit for 100% NDs in background (NPPL only).  
 \*\*\* - Manual exclusion.  
 ND = Not Detected, Result = detection limit.

**Table C-7**

**Historical Downgradient Data for Constituent-Well Combinations  
that Failed the Current Statistical Evaluation or  
are in Verification Resampling Mode**

Constituent	Units	Well	Date		Result		Pred. Limit
Selenium, Total	ug/L	MW-12S	11/12/2020		16.7000	*	1.0000
Selenium, Total	ug/L	MW-12S	05/13/2021		12.4000	*	1.0000
Selenium, Total	ug/L	MW-12S	11/10/2021		15.3000	*	1.0000
Selenium, Total	ug/L	MW-12S	05/12/2022		16.2000	*	1.0000
Selenium, Total	ug/L	MW-12S	11/15/2022		32.4000	*	1.0000
Selenium, Total	ug/L	MW-1S	04/19/2016		16.8000	*	1.0000
Selenium, Total	ug/L	MW-1S	06/02/2016	ND	10.0000	*	1.0000
Selenium, Total	ug/L	MW-1S	08/10/2016		14.0000	*	1.0000
Selenium, Total	ug/L	MW-1S	09/30/2016	ND	10.0000	*	1.0000
Selenium, Total	ug/L	MW-1S	12/02/2016	ND	10.0000	*	1.0000
Selenium, Total	ug/L	MW-1S	01/31/2017		16.2000	*	1.0000
Selenium, Total	ug/L	MW-1S	05/26/2017		15.7000	*	1.0000
Selenium, Total	ug/L	MW-1S	08/11/2017		11.2000	*	1.0000
Selenium, Total	ug/L	MW-1S	05/23/2018		23.5000	*	1.0000
Selenium, Total	ug/L	MW-1S	09/11/2018		10.7000	*	1.0000
Selenium, Total	ug/L	MW-1S	05/08/2019		21.0000	*	1.0000
Selenium, Total	ug/L	MW-1S	11/14/2019		6.9000	*	1.0000
Selenium, Total	ug/L	MW-1S	05/05/2020		9.6000	*	1.0000
Selenium, Total	ug/L	MW-1S	11/11/2020		6.6000	*	1.0000
Selenium, Total	ug/L	MW-1S	05/25/2021		24.4000	*	1.0000
Selenium, Total	ug/L	MW-1S	11/09/2021		21.7000	*	1.0000
Selenium, Total	ug/L	MW-1S	05/10/2022		19.8000	*	1.0000
Selenium, Total	ug/L	MW-1S	11/22/2022		28.0000	*	1.0000
Selenium, Total	ug/L	MW-2S	04/19/2016	ND	10.0000		1.0000
Selenium, Total	ug/L	MW-2S	06/01/2016	ND	10.0000		1.0000
Selenium, Total	ug/L	MW-2S	08/11/2016	ND	10.0000		1.0000
Selenium, Total	ug/L	MW-2S	09/30/2016	ND	10.0000		1.0000
Selenium, Total	ug/L	MW-2S	12/02/2016	ND	10.0000		1.0000
Selenium, Total	ug/L	MW-2S	01/31/2017	ND	10.0000		1.0000
Selenium, Total	ug/L	MW-2S	05/26/2017	ND	10.0000		1.0000
Selenium, Total	ug/L	MW-2S	08/11/2017	ND	10.0000		1.0000
Selenium, Total	ug/L	MW-2S	05/22/2018		2.4000	*	1.0000
Selenium, Total	ug/L	MW-2S	09/11/2018		2.5000	*	1.0000
Selenium, Total	ug/L	MW-2S	05/09/2019		21.9000	*	1.0000
Selenium, Total	ug/L	MW-2S	11/14/2019		11.4000	*	1.0000
Selenium, Total	ug/L	MW-2S	05/08/2020		97.6000	*	1.0000
Selenium, Total	ug/L	MW-2S	11/11/2020		9.6000	*	1.0000
Selenium, Total	ug/L	MW-2S	05/11/2021		5.5000	*	1.0000

\* - Significantly increased over background.  
 \*\* - Detect at limit for 100% NDs in background (NPPL only).  
 \*\*\* - Manual exclusion.  
 ND = Not Detected, Result = detection limit.



**Table C-7**

**Historical Downgradient Data for Constituent-Well Combinations  
that Failed the Current Statistical Evaluation or  
are in Verification Resampling Mode**

Constituent	Units	Well	Date		Result		Pred. Limit
Selenium, Total	ug/L	MW-2S	11/10/2021		28.7000	*	1.0000
Selenium, Total	ug/L	MW-2S	05/11/2022		23.7000	*	1.0000
Selenium, Total	ug/L	MW-2S	11/15/2022		7.7000	*	1.0000
Selenium, Total	ug/L	MW-3S	04/20/2016	ND	10.0000		1.0000
Selenium, Total	ug/L	MW-3S	06/01/2016	ND	10.0000		1.0000
Selenium, Total	ug/L	MW-3S	08/11/2016	ND	10.0000		1.0000
Selenium, Total	ug/L	MW-3S	09/30/2016	ND	10.0000		1.0000
Selenium, Total	ug/L	MW-3S	12/02/2016	ND	10.0000		1.0000
Selenium, Total	ug/L	MW-3S	01/31/2017		10.7000	*	1.0000
Selenium, Total	ug/L	MW-3S	05/25/2017		13.9000	*	1.0000
Selenium, Total	ug/L	MW-3S	08/11/2017	ND	10.0000		1.0000
Selenium, Total	ug/L	MW-3S	05/22/2018		1.1000	*	1.0000
Selenium, Total	ug/L	MW-3S	09/11/2018	ND	1.0000		1.0000
Selenium, Total	ug/L	MW-3S	05/09/2019		8.1000	*	1.0000
Selenium, Total	ug/L	MW-3S	11/13/2019	ND	1.0000		1.0000
Selenium, Total	ug/L	MW-3S	05/05/2020	ND	1.0000		1.0000
Selenium, Total	ug/L	MW-3S	11/10/2020	ND	1.0000		1.0000
Selenium, Total	ug/L	MW-3S	05/12/2021	ND	1.0000		1.0000
Selenium, Total	ug/L	MW-3S	11/18/2021		5.9000	*	1.0000
Selenium, Total	ug/L	MW-3S	05/11/2022		17.9000	*	1.0000
Selenium, Total	ug/L	MW-3S	11/16/2022		1.8000	*	1.0000
Selenium, Total	ug/L	MW-6S	04/20/2016		15.5000	*	1.0000
Selenium, Total	ug/L	MW-6S	06/01/2016		12.4000	*	1.0000
Selenium, Total	ug/L	MW-6S	08/11/2016		11.0000	*	1.0000
Selenium, Total	ug/L	MW-6S	09/29/2016		12.0000	*	1.0000
Selenium, Total	ug/L	MW-6S	12/01/2016		12.9000	*	1.0000
Selenium, Total	ug/L	MW-6S	01/30/2017		14.0000	*	1.0000
Selenium, Total	ug/L	MW-6S	05/25/2017		12.3000	*	1.0000
Selenium, Total	ug/L	MW-6S	08/10/2017	ND	10.0000		1.0000
Selenium, Total	ug/L	MW-6S	05/22/2018		11.8000	*	1.0000
Selenium, Total	ug/L	MW-6S	09/11/2018		1.2000	*	1.0000
Selenium, Total	ug/L	MW-6S	05/08/2019		6.5000	*	1.0000
Selenium, Total	ug/L	MW-6S	11/13/2019		6.9000	*	1.0000
Selenium, Total	ug/L	MW-6S	05/08/2020		14.8000	*	1.0000
Selenium, Total	ug/L	MW-6S	11/19/2020		9.7000	*	1.0000
Selenium, Total	ug/L	MW-6S	05/18/2021		14.2000	*	1.0000
Selenium, Total	ug/L	MW-6S	11/09/2021		2.2000	*	1.0000
Selenium, Total	ug/L	MW-6S	05/11/2022		16.8000	*	1.0000

\* - Significantly increased over background.  
 \*\* - Detect at limit for 100% NDs in background (NPPL only).  
 \*\*\* - Manual exclusion.  
 ND = Not Detected, Result = detection limit.

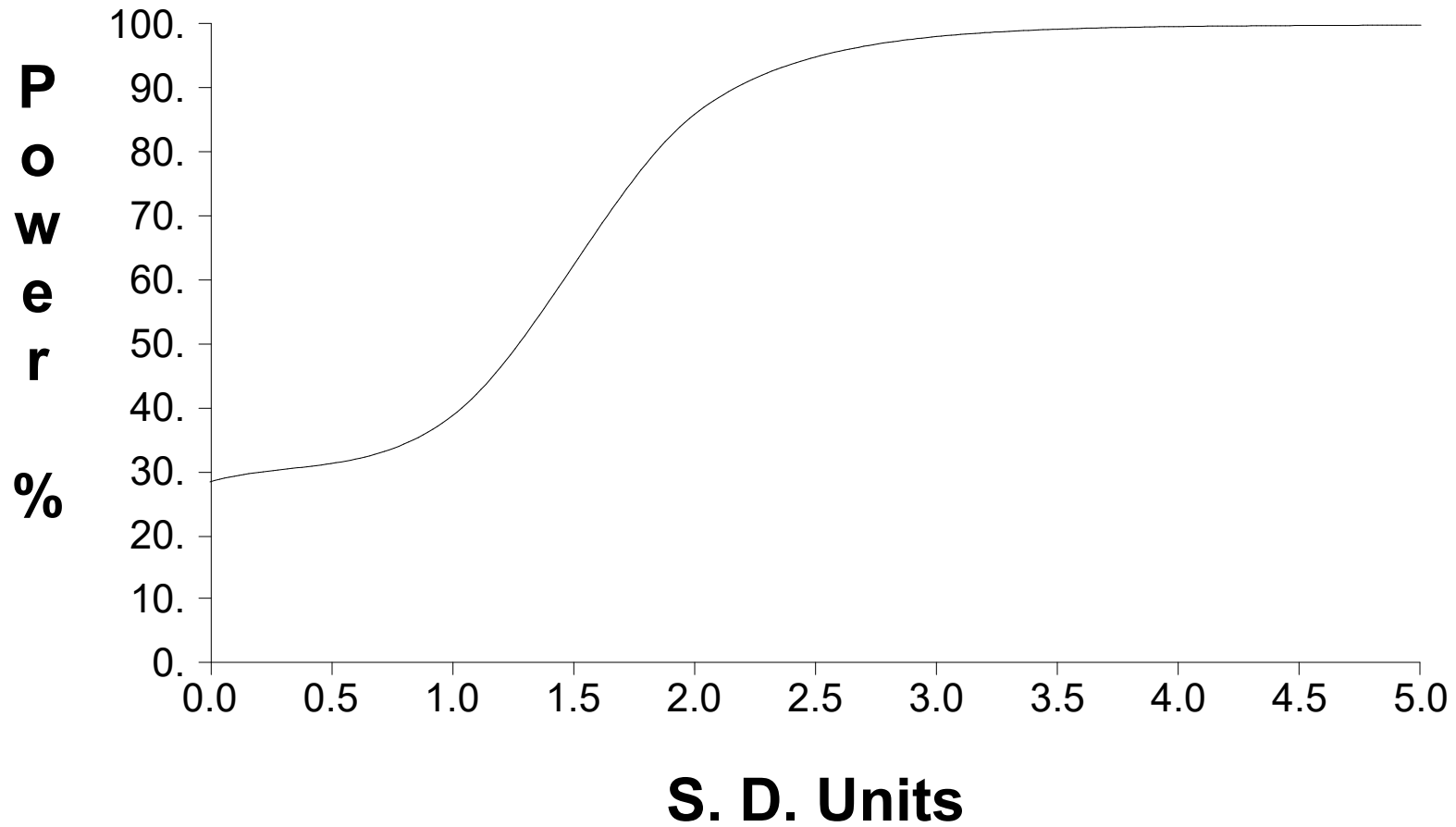
**Table C-7**

**Historical Downgradient Data for Constituent-Well Combinations  
that Failed the Current Statistical Evaluation or  
are in Verification Resampling Mode**

Constituent	Units	Well	Date		Result		Pred. Limit
Selenium, Total	ug/L	MW-7S	04/20/2016	ND	10.0000		1.0000
Selenium, Total	ug/L	MW-7S	06/01/2016	ND	10.0000		1.0000
Selenium, Total	ug/L	MW-7S	08/11/2016	ND	10.0000		1.0000
Selenium, Total	ug/L	MW-7S	09/29/2016	ND	10.0000		1.0000
Selenium, Total	ug/L	MW-7S	12/01/2016	ND	10.0000		1.0000
Selenium, Total	ug/L	MW-7S	01/30/2017	ND	10.0000		1.0000
Selenium, Total	ug/L	MW-7S	05/25/2017	ND	10.0000		1.0000
Selenium, Total	ug/L	MW-7S	08/10/2017	ND	10.0000		1.0000
Selenium, Total	ug/L	MW-7S	05/23/2018		6.0000	*	1.0000
Selenium, Total	ug/L	MW-7S	09/11/2018		12.0000	*	1.0000
Selenium, Total	ug/L	MW-7S	05/07/2019		6.0000	*	1.0000
Selenium, Total	ug/L	MW-7S	05/07/2020		19.2000	*	1.0000
Selenium, Total	ug/L	MW-7S	11/11/2020		12.0000	*	1.0000
Selenium, Total	ug/L	MW-7S	05/17/2021		22.7000	*	1.0000
Selenium, Total	ug/L	MW-7S	11/18/2021		40.6000	*	1.0000
Selenium, Total	ug/L	MW-7S	05/12/2022		25.8000	*	1.0000
Selenium, Total	ug/L	MW-7S	11/16/2022		17.7000	*	1.0000

\* - Significantly increased over background.  
 \*\* - Detect at limit for 100% NDs in background (NPPL only).  
 \*\*\* - Manual exclusion.  
 ND = Not Detected, Result = detection limit.

# False Positive and False Negative Rates for Current Upgradient vs. Downgradient Monitoring Program



**Table C-1**

**Upgradient Data**

Constituent	Units	Well	Date		Result	Adjusted	
Antimony, Total	ug/L	MW-13I	08/08/2019	ND	1.0000		
Antimony, Total	ug/L	MW-13I	09/24/2019	ND	1.0000		
Antimony, Total	ug/L	MW-13I	05/07/2020	ND	6.0000	1.0000	**
Antimony, Total	ug/L	MW-13I	11/12/2020	ND	1.0000		
Antimony, Total	ug/L	MW-13I	02/25/2021	ND	1.0000		
Antimony, Total	ug/L	MW-13I	03/29/2021	ND	1.0000		
Antimony, Total	ug/L	MW-13I	05/20/2021	ND	1.0000		
Antimony, Total	ug/L	MW-13I	06/22/2021	ND	1.0000		
Antimony, Total	ug/L	MW-13I	07/27/2021	ND	1.0000		
Antimony, Total	ug/L	MW-13I	11/16/2021	ND	1.0000		
Antimony, Total	ug/L	MW-13I	05/19/2022	ND	1.0000		
Antimony, Total	ug/L	MW-13I	11/18/2022	ND	1.0000		
Arsenic, Total	ug/L	MW-13I	08/08/2019	ND	1.0000		
Arsenic, Total	ug/L	MW-13I	09/24/2019	ND	1.0000		
Arsenic, Total	ug/L	MW-13I	05/07/2020	ND	10.0000	1.0000	**
Arsenic, Total	ug/L	MW-13I	11/12/2020		2.0000		
Arsenic, Total	ug/L	MW-13I	02/25/2021	ND	1.0000		
Arsenic, Total	ug/L	MW-13I	03/29/2021	ND	1.0000		
Arsenic, Total	ug/L	MW-13I	05/20/2021	ND	1.0000		
Arsenic, Total	ug/L	MW-13I	06/22/2021	ND	1.0000		
Arsenic, Total	ug/L	MW-13I	07/27/2021	ND	1.0000		
Arsenic, Total	ug/L	MW-13I	11/16/2021	ND	1.0000		
Arsenic, Total	ug/L	MW-13I	05/19/2022	ND	1.0000		
Arsenic, Total	ug/L	MW-13I	11/18/2022	ND	1.0000		
Barium, Total	ug/L	MW-13I	08/08/2019		36.0000		
Barium, Total	ug/L	MW-13I	09/24/2019		35.6000		
Barium, Total	ug/L	MW-13I	05/07/2020		38.1000		
Barium, Total	ug/L	MW-13I	11/12/2020		38.0000		
Barium, Total	ug/L	MW-13I	02/25/2021		42.2000		
Barium, Total	ug/L	MW-13I	03/29/2021		46.0000		
Barium, Total	ug/L	MW-13I	05/20/2021		42.4000		
Barium, Total	ug/L	MW-13I	06/22/2021		41.3000		
Barium, Total	ug/L	MW-13I	07/27/2021		43.6000		
Barium, Total	ug/L	MW-13I	11/16/2021		37.9000		
Barium, Total	ug/L	MW-13I	05/19/2022		44.0000		
Barium, Total	ug/L	MW-13I	11/18/2022		42.2000		
Beryllium, Total	ug/L	MW-13I	08/08/2019	ND	0.2000		
Beryllium, Total	ug/L	MW-13I	09/24/2019	ND	0.2000		
Beryllium, Total	ug/L	MW-13I	05/07/2020	ND	4.0000	0.2000	**
Beryllium, Total	ug/L	MW-13I	11/12/2020	ND	0.2000		
Beryllium, Total	ug/L	MW-13I	02/25/2021	ND	0.2000		

\* - Outlier for that well and constituent.  
 \*\* - ND value replaced with median RL.  
 \*\*\* - ND value replaced with manual RL.  
 ND = Not detected, Result = detection limit.

**Table C-1**

**Upgradient Data**

Constituent	Units	Well	Date		Result	Adjusted	
Beryllium, Total	ug/L	MW-13I	03/29/2021	ND	0.2000		
Beryllium, Total	ug/L	MW-13I	05/20/2021	ND	0.2000		
Beryllium, Total	ug/L	MW-13I	06/22/2021	ND	0.2000		
Beryllium, Total	ug/L	MW-13I	07/27/2021	ND	0.2000		
Beryllium, Total	ug/L	MW-13I	05/19/2022	ND	0.2000		
Cadmium, Total	ug/L	MW-13I	08/08/2019	ND	2.0000		
Cadmium, Total	ug/L	MW-13I	09/24/2019	ND	2.0000		
Cadmium, Total	ug/L	MW-13I	05/07/2020	ND	2.0000		
Cadmium, Total	ug/L	MW-13I	11/12/2020	ND	2.0000		
Cadmium, Total	ug/L	MW-13I	02/25/2021	ND	2.0000		
Cadmium, Total	ug/L	MW-13I	03/29/2021	ND	2.0000		
Cadmium, Total	ug/L	MW-13I	05/20/2021	ND	2.0000		
Cadmium, Total	ug/L	MW-13I	06/22/2021	ND	2.0000		
Cadmium, Total	ug/L	MW-13I	07/27/2021	ND	2.0000		
Cadmium, Total	ug/L	MW-13I	05/19/2022	ND	2.0000		
Chromium, Total	ug/L	MW-13I	08/08/2019	ND	10.0000		
Chromium, Total	ug/L	MW-13I	09/24/2019	ND	10.0000		
Chromium, Total	ug/L	MW-13I	05/07/2020	ND	10.0000		
Chromium, Total	ug/L	MW-13I	11/12/2020	ND	10.0000		
Chromium, Total	ug/L	MW-13I	02/25/2021	ND	10.0000		
Chromium, Total	ug/L	MW-13I	03/29/2021	ND	10.0000		
Chromium, Total	ug/L	MW-13I	05/20/2021	ND	10.0000		
Chromium, Total	ug/L	MW-13I	06/22/2021	ND	10.0000		
Chromium, Total	ug/L	MW-13I	07/27/2021	ND	10.0000		
Chromium, Total	ug/L	MW-13I	05/19/2022	ND	10.0000		
Cobalt, Total	ug/L	MW-13I	08/08/2019	ND	1.0000		
Cobalt, Total	ug/L	MW-13I	09/24/2019	ND	1.0000		
Cobalt, Total	ug/L	MW-13I	05/07/2020	ND	10.0000	1.0000	**
Cobalt, Total	ug/L	MW-13I	11/12/2020		1.0000		
Cobalt, Total	ug/L	MW-13I	02/25/2021	ND	1.0000		
Cobalt, Total	ug/L	MW-13I	03/29/2021	ND	1.0000		
Cobalt, Total	ug/L	MW-13I	05/20/2021	ND	1.0000		
Cobalt, Total	ug/L	MW-13I	06/22/2021	ND	1.0000		
Cobalt, Total	ug/L	MW-13I	07/27/2021	ND	1.0000		
Cobalt, Total	ug/L	MW-13I	11/16/2021	ND	1.0000		
Cobalt, Total	ug/L	MW-13I	05/19/2022	ND	1.0000		
Fluoride	mg/L	MW-13I	08/08/2019	ND	0.1000		
Fluoride	mg/L	MW-13I	09/24/2019	ND	0.1000		
Fluoride	mg/L	MW-13I	05/07/2020	ND	0.1000		
Fluoride	mg/L	MW-13I	11/12/2020	ND	0.1000		
Fluoride	mg/L	MW-13I	02/25/2021	ND	0.1000		

\* - Outlier for that well and constituent.  
 \*\* - ND value replaced with median RL.  
 \*\*\* - ND value replaced with manual RL.  
 ND = Not detected, Result = detection limit.

**Table C-1**

**Upgradient Data**

Constituent	Units	Well	Date		Result	Adjusted	
Fluoride	mg/L	MW-13I	03/29/2021	ND	0.1000		
Fluoride	mg/L	MW-13I	05/20/2021	ND	0.1000		
Fluoride	mg/L	MW-13I	06/22/2021	ND	0.1000		
Fluoride	mg/L	MW-13I	07/27/2021	ND	0.1000		
Fluoride	mg/L	MW-13I	11/16/2021	ND	0.1000		
Fluoride	mg/L	MW-13I	05/19/2022	ND	0.1000		
Fluoride	mg/L	MW-13I	11/18/2022	ND	0.1000		
Lead, Total	ug/L	MW-13I	08/08/2019	ND	10.0000		
Lead, Total	ug/L	MW-13I	09/24/2019	ND	10.0000		
Lead, Total	ug/L	MW-13I	05/07/2020	ND	10.0000		
Lead, Total	ug/L	MW-13I	11/12/2020	ND	10.0000		
Lead, Total	ug/L	MW-13I	02/25/2021	ND	10.0000		
Lead, Total	ug/L	MW-13I	03/29/2021	ND	10.0000		
Lead, Total	ug/L	MW-13I	05/20/2021	ND	10.0000		
Lead, Total	ug/L	MW-13I	06/22/2021	ND	10.0000		
Lead, Total	ug/L	MW-13I	07/27/2021	ND	10.0000		
Lead, Total	ug/L	MW-13I	05/19/2022	ND	10.0000		
Lithium, Total	ug/L	MW-13I	08/08/2019	ND	20.0000		
Lithium, Total	ug/L	MW-13I	09/24/2019	ND	20.0000		
Lithium, Total	ug/L	MW-13I	05/07/2020	ND	20.0000		
Lithium, Total	ug/L	MW-13I	11/12/2020	ND	20.0000		
Lithium, Total	ug/L	MW-13I	02/25/2021	ND	20.0000		
Lithium, Total	ug/L	MW-13I	03/29/2021	ND	20.0000		
Lithium, Total	ug/L	MW-13I	05/20/2021	ND	20.0000		
Lithium, Total	ug/L	MW-13I	06/22/2021	ND	20.0000		
Lithium, Total	ug/L	MW-13I	07/27/2021	ND	20.0000		
Lithium, Total	ug/L	MW-13I	11/16/2021	ND	20.0000		
Lithium, Total	ug/L	MW-13I	05/19/2022	ND	20.0000		
Lithium, Total	ug/L	MW-13I	11/18/2022	ND	20.0000		
Mercury	ug/L	MW-13I	08/08/2019	ND	2.0000		
Mercury	ug/L	MW-13I	09/24/2019	ND	2.0000		
Mercury	ug/L	MW-13I	11/12/2020	ND	2.0000		
Mercury	ug/L	MW-13I	02/25/2021	ND	2.0000		
Mercury	ug/L	MW-13I	03/29/2021	ND	2.0000		
Mercury	ug/L	MW-13I	05/20/2021	ND	2.0000		
Mercury	ug/L	MW-13I	06/22/2021	ND	2.0000		
Mercury	ug/L	MW-13I	07/27/2021	ND	2.0000		
Mercury	ug/L	MW-13I	05/19/2022	ND	0.2000	2.0000	**
Molybdenum, Total	ug/L	MW-13I	08/08/2019	ND	10.0000		
Molybdenum, Total	ug/L	MW-13I	09/24/2019	ND	10.0000		
Molybdenum, Total	ug/L	MW-13I	05/07/2020	ND	10.0000		

\* - Outlier for that well and constituent.  
 \*\* - ND value replaced with median RL.  
 \*\*\* - ND value replaced with manual RL.  
 ND = Not detected, Result = detection limit.

Table C-1

Upgradient Data

Constituent	Units	Well	Date		Result	Adjusted	
Molybdenum, Total	ug/L	MW-13I	11/12/2020	ND	10.0000		
Molybdenum, Total	ug/L	MW-13I	02/25/2021	ND	10.0000		
Molybdenum, Total	ug/L	MW-13I	03/29/2021	ND	10.0000		
Molybdenum, Total	ug/L	MW-13I	05/20/2021	ND	10.0000		
Molybdenum, Total	ug/L	MW-13I	06/22/2021	ND	10.0000		
Molybdenum, Total	ug/L	MW-13I	07/27/2021	ND	10.0000		
Molybdenum, Total	ug/L	MW-13I	11/16/2021	ND	10.0000		
Molybdenum, Total	ug/L	MW-13I	05/19/2022	ND	10.0000		
Molybdenum, Total	ug/L	MW-13I	11/18/2022	ND	10.0000		
Selenium, Total	ug/L	MW-13I	08/08/2019	ND	1.0000		
Selenium, Total	ug/L	MW-13I	09/24/2019	ND	1.0000		
Selenium, Total	ug/L	MW-13I	05/07/2020	ND	10.0000	1.0000	**
Selenium, Total	ug/L	MW-13I	11/12/2020	ND	1.0000		
Selenium, Total	ug/L	MW-13I	02/25/2021	ND	1.0000		
Selenium, Total	ug/L	MW-13I	03/29/2021	ND	1.0000		
Selenium, Total	ug/L	MW-13I	05/20/2021	ND	1.0000		
Selenium, Total	ug/L	MW-13I	06/22/2021	ND	1.0000		
Selenium, Total	ug/L	MW-13I	07/27/2021	ND	1.0000		
Selenium, Total	ug/L	MW-13I	11/16/2021	ND	1.0000		
Selenium, Total	ug/L	MW-13I	05/19/2022	ND	1.0000		
Selenium, Total	ug/L	MW-13I	11/18/2022	ND	1.0000		
Thallium, Total	ug/L	MW-13I	08/08/2019	ND	1.0000		
Thallium, Total	ug/L	MW-13I	09/24/2019	ND	1.0000		
Thallium, Total	ug/L	MW-13I	05/07/2020	ND	10.0000	1.0000	**
Thallium, Total	ug/L	MW-13I	11/12/2020	ND	1.0000		
Thallium, Total	ug/L	MW-13I	02/25/2021	ND	1.0000		
Thallium, Total	ug/L	MW-13I	03/29/2021	ND	1.0000		
Thallium, Total	ug/L	MW-13I	05/20/2021	ND	1.0000		
Thallium, Total	ug/L	MW-13I	06/22/2021	ND	1.0000		
Thallium, Total	ug/L	MW-13I	07/27/2021	ND	1.0000		
Thallium, Total	ug/L	MW-13I	05/19/2022	ND	1.0000		
Total Radium	pCi/L	MW-13I	08/08/2019		0.8760		
Total Radium	pCi/L	MW-13I	09/24/2019		1.1500		
Total Radium	pCi/L	MW-13I	11/12/2020		0.7030		
Total Radium	pCi/L	MW-13I	02/25/2021		1.0800		
Total Radium	pCi/L	MW-13I	03/29/2021	ND	1.4900		
Total Radium	pCi/L	MW-13I	05/20/2021	ND	2.0100	1.4900	**
Total Radium	pCi/L	MW-13I	06/22/2021		0.8170		
Total Radium	pCi/L	MW-13I	07/27/2021	ND	1.3500	1.4900	**
Total Radium	pCi/L	MW-13I	11/16/2021		0.5810		
Total Radium	pCi/L	MW-13I	05/19/2022		1.2800		

\* - Outlier for that well and constituent.  
 \*\* - ND value replaced with median RL.  
 \*\*\* - ND value replaced with manual RL.  
 ND = Not detected, Result = detection limit.

**Table C-1**

**Upgradient Data**

Constituent	Units	Well	Date		Result	Adjusted	
Total Radium	pCi/L	MW-13I	11/18/2022		1.0300		

\* - Outlier for that well and constituent.  
\*\* - ND value replaced with median RL.  
\*\*\* - ND value replaced with manual RL.  
ND = Not detected, Result = detection limit.



**Table C-2**

**Most Current Downgradient Monitoring Data**

Constituent	Units	Well	Date		Result		Pred. Limit
Antimony, Total	ug/L	MW-111	11/21/2022	ND	1.0000		1.0000
Antimony, Total	ug/L	MW-11	11/22/2022	ND	1.0000		1.0000
Antimony, Total	ug/L	MW-2I	11/15/2022	ND	1.0000		1.0000
Antimony, Total	ug/L	MW-3I	11/15/2022	ND	1.0000		1.0000
Antimony, Total	ug/L	MW-6I	11/15/2022	ND	1.0000		1.0000
Arsenic, Total	ug/L	MW-111	11/21/2022		1.7000		2.0000
Arsenic, Total	ug/L	MW-11	11/22/2022	ND	1.0000		2.0000
Arsenic, Total	ug/L	MW-2I	11/15/2022	ND	1.0000		2.0000
Arsenic, Total	ug/L	MW-3I	11/15/2022	ND	1.0000		2.0000
Arsenic, Total	ug/L	MW-6I	11/15/2022	ND	1.0000		2.0000
Barium, Total	ug/L	MW-111	11/21/2022		73.2000	***	50.1271
Barium, Total	ug/L	MW-11	11/22/2022		81.9000	***	50.1271
Barium, Total	ug/L	MW-2I	11/15/2022		109.0000	***	50.1271
Barium, Total	ug/L	MW-3I	11/15/2022		84.5000	***	50.1271
Barium, Total	ug/L	MW-6I	11/15/2022		67.1000	***	50.1271
Beryllium, Total	ug/L	MW-111	05/12/2022	ND	0.2000		0.2000
Beryllium, Total	ug/L	MW-11	05/10/2022	ND	0.2000		0.2000
Beryllium, Total	ug/L	MW-2I	05/11/2022	ND	0.2000		0.2000
Beryllium, Total	ug/L	MW-3I	05/11/2022	ND	0.2000		0.2000
Beryllium, Total	ug/L	MW-6I	05/11/2022	ND	0.2000		0.2000
Cadmium, Total	ug/L	MW-111	05/12/2022	ND	2.0000		2.0000
Cadmium, Total	ug/L	MW-11	05/10/2022	ND	2.0000		2.0000
Cadmium, Total	ug/L	MW-2I	05/11/2022	ND	2.0000		2.0000
Cadmium, Total	ug/L	MW-3I	05/11/2022	ND	2.0000		2.0000
Cadmium, Total	ug/L	MW-6I	05/11/2022	ND	2.0000		2.0000
Chromium, Total	ug/L	MW-111	05/12/2022	ND	10.0000		10.0000
Chromium, Total	ug/L	MW-11	05/10/2022	ND	10.0000		10.0000
Chromium, Total	ug/L	MW-2I	05/11/2022	ND	10.0000		10.0000
Chromium, Total	ug/L	MW-3I	05/11/2022	ND	10.0000		10.0000
Chromium, Total	ug/L	MW-6I	05/11/2022	ND	10.0000		10.0000
Cobalt, Total	ug/L	MW-111	05/12/2022	ND	1.0000		1.0000
Cobalt, Total	ug/L	MW-11	05/10/2022	ND	1.0000		1.0000
Cobalt, Total	ug/L	MW-2I	05/11/2022	ND	1.0000		1.0000
Cobalt, Total	ug/L	MW-3I	05/11/2022	ND	1.0000		1.0000
Cobalt, Total	ug/L	MW-6I	05/11/2022	ND	1.0000		1.0000
Fluoride	mg/L	MW-111	11/21/2022		0.4200	***	0.1000
Fluoride	mg/L	MW-11	11/22/2022		0.3200	***	0.1000
Fluoride	mg/L	MW-2I	11/15/2022		0.2400	***	0.1000
Fluoride	mg/L	MW-3I	11/15/2022		0.2800	***	0.1000

\* - Current value failed - awaiting verification.  
 \*\* - Current value passed - previous exceedance not verified.  
 \*\*\* - Current value failed - exceedance verified.  
 \*\*\*\* - Current value passed - awaiting one more verification.  
 \*\*\*\*\* - Insufficient background data to compute prediction limit.  
 ND = Not Detected, Result = detection limit.

**Table C-2**

**Most Current Downgradient Monitoring Data**

Constituent	Units	Well	Date		Result		Pred. Limit
Fluoride	mg/L	MW-6I	11/15/2022		0.2900	***	0.1000
Lead, Total	ug/L	MW-11I	05/12/2022	ND	10.0000		10.0000
Lead, Total	ug/L	MW-1I	05/10/2022	ND	10.0000		10.0000
Lead, Total	ug/L	MW-2I	05/11/2022	ND	10.0000		10.0000
Lead, Total	ug/L	MW-3I	05/11/2022	ND	10.0000		10.0000
Lead, Total	ug/L	MW-6I	05/11/2022	ND	10.0000		10.0000
Lithium, Total	ug/L	MW-11I	11/21/2022		122.0000	***	20.0000
Lithium, Total	ug/L	MW-1I	11/22/2022		94.7000	***	20.0000
Lithium, Total	ug/L	MW-2I	11/15/2022		52.3000	***	20.0000
Lithium, Total	ug/L	MW-3I	11/15/2022		21.5000	***	20.0000
Lithium, Total	ug/L	MW-6I	11/15/2022		104.0000	***	20.0000
Mercury	ug/L	MW-11I	05/12/2022	ND	0.2000		2.0000
Mercury	ug/L	MW-1I	05/10/2022	ND	0.2000		2.0000
Mercury	ug/L	MW-2I	05/11/2022	ND	0.2000		2.0000
Mercury	ug/L	MW-3I	05/11/2022	ND	0.2000		2.0000
Mercury	ug/L	MW-6I	05/11/2022	ND	0.2000		2.0000
Molybdenum, Total	ug/L	MW-11I	11/21/2022		127.0000	***	10.0000
Molybdenum, Total	ug/L	MW-1I	11/22/2022		87.0000	***	10.0000
Molybdenum, Total	ug/L	MW-2I	11/15/2022		59.7000	***	10.0000
Molybdenum, Total	ug/L	MW-3I	11/15/2022		56.0000	***	10.0000
Molybdenum, Total	ug/L	MW-6I	11/15/2022		191.0000	***	10.0000
Selenium, Total	ug/L	MW-11I	11/21/2022	ND	1.0000		1.0000
Selenium, Total	ug/L	MW-1I	11/22/2022	ND	1.0000		1.0000
Selenium, Total	ug/L	MW-2I	11/15/2022	ND	1.0000		1.0000
Selenium, Total	ug/L	MW-3I	11/15/2022	ND	1.0000		1.0000
Selenium, Total	ug/L	MW-6I	11/15/2022	ND	1.0000		1.0000
Thallium, Total	ug/L	MW-11I	05/12/2022	ND	1.0000		1.0000
Thallium, Total	ug/L	MW-1I	05/10/2022	ND	1.0000		1.0000
Thallium, Total	ug/L	MW-2I	05/11/2022	ND	1.0000		1.0000
Thallium, Total	ug/L	MW-3I	05/11/2022	ND	1.0000		1.0000
Thallium, Total	ug/L	MW-6I	05/11/2022	ND	1.0000		1.0000
Total Radium	pCi/L	MW-11I	11/21/2022	ND	1.9300		2.0776
Total Radium	pCi/L	MW-1I	11/22/2022		1.8900		2.0776
Total Radium	pCi/L	MW-2I	11/15/2022		1.5800	**	2.0776
Total Radium	pCi/L	MW-3I	11/15/2022		1.1600		2.0776
Total Radium	pCi/L	MW-6I	11/15/2022		1.6300		2.0776

\* - Current value failed - awaiting verification.  
 \*\* - Current value passed - previous exceedance not verified.  
 \*\*\* - Current value failed - exceedance verified.  
 \*\*\*\* - Current value passed - awaiting one more verification.  
 \*\*\*\*\* - Insufficient background data to compute prediction limit.  
 ND = Not Detected, Result = detection limit.

**Table C-3**

**Detection Frequencies in Upgradient and Downgradient Wells**

Constituent	Upgradient			Downgradient		
	Detect	N	Proportion	Detect	N	Proportion
Antimony, Total	0	12	0.000	0	90	0.000
Arsenic, Total	1	12	0.083	6	90	0.067
Barium, Total	12	12	1.000	90	90	1.000
Beryllium, Total	0	10	0.000	0	65	0.000
Cadmium, Total	0	10	0.000	0	65	0.000
Chromium, Total	0	10	0.000	0	65	0.000
Cobalt, Total	1	11	0.091	0	85	0.000
Fluoride	0	12	0.000	95	95	1.000
Lead, Total	0	10	0.000	0	65	0.000
Lithium, Total	0	12	0.000	87	90	0.967
Mercury	0	9	0.000	0	65	0.000
Molybdenum, Total	0	12	0.000	90	90	1.000
Selenium, Total	0	12	0.000	0	90	0.000
Thallium, Total	0	10	0.000	0	65	0.000
Total Radium	8	11	0.727	80	90	0.889

N = Total number of measurements in all wells.  
 Detect = Total number of detections in all wells.  
 Proportion = Detect/N.

**Table C-4**

**Shapiro-Wilk Multiple Group Test of Normality**

Constituent	Detect	N	Detect Freq	G raw	G log	G cbrt	G sqrt	G sqr	G cub	Crit Value	Dist Form	Model Type
Antimony, Total	0	12	0.000	3.731	3.731					2.326	non-norm	nonpar
Arsenic, Total	1	12	0.083	21.797	21.797					2.326	non-norm	nonpar
Barium, Total	12	12	1.000	0.297	0.411					2.326	normal	normal
Beryllium, Total	0	10	0.000	3.262	3.262					2.326	non-norm	nonpar
Cadmium, Total	0	10	0.000	3.262	3.262					2.326	non-norm	nonpar
Chromium, Total	0	10	0.000	3.262	3.262					2.326	non-norm	nonpar
Cobalt, Total	1	11	0.091	3.485	3.485					2.326	non-norm	nonpar
Fluoride	0	12	0.000	3.731	3.731					2.326	non-norm	nonpar
Lead, Total	0	10	0.000	3.262	3.262					2.326	non-norm	nonpar
Lithium, Total	0	12	0.000	3.731	3.731					2.326	non-norm	nonpar
Mercury	0	9	0.000	2.968	2.968					2.326	non-norm	nonpar
Molybdenum, Total	0	12	0.000	3.731	3.731					2.326	non-norm	nonpar
Selenium, Total	0	12	0.000	3.731	3.731					2.326	non-norm	nonpar
Thallium, Total	0	10	0.000	3.262	3.262					2.326	non-norm	nonpar
Total Radium	8	11	0.727	0.323	0.315					2.326	normal	normal

\* - Distribution override for that constituent.  
 Fit to distribution is confirmed if G <= critical value.  
 Model type may not match distributional form when detection frequency < 50%.

**Table C-5**

**Summary Statistics and Prediction Limits**

Constituent	Units	Detect	N	Mean	SD	alpha	Factor	Pred Limit	Type		Conf
Antimony, Total	ug/L	0	12					1.0000	nonpar	***	0.95
Arsenic, Total	ug/L	1	12					2.0000	nonpar		0.95
Barium, Total	ug/L	12	12	40.6083	3.3714	0.0100	2.8234	50.1271	normal		
Beryllium, Total	ug/L	0	10					0.2000	nonpar	***	0.93
Cadmium, Total	ug/L	0	10					2.0000	nonpar	***	0.93
Chromium, Total	ug/L	0	10					10.0000	nonpar	***	0.93
Cobalt, Total	ug/L	1	11					1.0000	nonpar	***	0.94
Fluoride	mg/L	0	12					0.1000	nonpar	***	0.95
Lead, Total	ug/L	0	10					10.0000	nonpar	***	0.93
Lithium, Total	ug/L	0	12					20.0000	nonpar	***	0.95
Mercury	ug/L	0	9					2.0000	nonpar	***	0.92
Molybdenum, Total	ug/L	0	12					10.0000	nonpar	***	0.95
Selenium, Total	ug/L	0	12					1.0000	nonpar	***	0.95
Thallium, Total	ug/L	0	10					1.0000	nonpar	***	0.93
Total Radium	pCi/L	8	11	0.6834	0.4830	0.0100	2.8863	2.0776	normal		

Conf = confidence level for passing initial test or one verification resample at all downgradient wells for a single constituent (nonparametric test only).

\* - Insufficient Data.

\*\* - Calculated limit raised to Manual Reporting Limit.

\*\*\* - Nonparametric limit based on ND value.

For transformed data, mean and SD in transformed units and prediction limit in original units.

All sample sizes and statistics are based on outlier free data.

For nonparametric limits, median reporting limits are substituted for extreme reporting limit values.

**Table C-6**

**Dixon's Test Outliers  
1% Significance Level**

Constituent	Units	Well	Date	Result	ND Qualifier	Date Range	N	Critical Value
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N = Total number of independent measurements in background at each well.

Date Range = Dates of the first and last measurements included in background at each well.

Critical Value depends on the significance level and on N-1 when the two most extreme values are tested or N for the most extreme value.

**Table C-7**

**Historical Downgradient Data for Constituent-Well Combinations  
that Failed the Current Statistical Evaluation or  
are in Verification Resampling Mode**

Constituent	Units	Well	Date	Result	Pred. Limit
Barium, Total	ug/L	MW-111	04/20/2016	72.6000 *	50.1271
Barium, Total	ug/L	MW-111	06/02/2016	68.4000 *	50.1271
Barium, Total	ug/L	MW-111	08/12/2016	69.2000 *	50.1271
Barium, Total	ug/L	MW-111	09/30/2016	67.5000 *	50.1271
Barium, Total	ug/L	MW-111	12/01/2016	74.8000 *	50.1271
Barium, Total	ug/L	MW-111	01/31/2017	65.3000 *	50.1271
Barium, Total	ug/L	MW-111	05/25/2017	71.5000 *	50.1271
Barium, Total	ug/L	MW-111	08/10/2017	65.1000 *	50.1271
Barium, Total	ug/L	MW-111	05/22/2018	66.1000 *	50.1271
Barium, Total	ug/L	MW-111	09/12/2018	72.6000 *	50.1271
Barium, Total	ug/L	MW-111	05/08/2019	65.1000 *	50.1271
Barium, Total	ug/L	MW-111	11/14/2019	64.1000 *	50.1271
Barium, Total	ug/L	MW-111	05/07/2020	55.8000 *	50.1271
Barium, Total	ug/L	MW-111	11/12/2020	43.0000	50.1271
Barium, Total	ug/L	MW-111	05/17/2021	53.0000 *	50.1271
Barium, Total	ug/L	MW-111	11/17/2021	62.3000 *	50.1271
Barium, Total	ug/L	MW-111	05/12/2022	50.3000 *	50.1271
Barium, Total	ug/L	MW-111	11/21/2022	73.2000 *	50.1271
Barium, Total	ug/L	MW-11	04/19/2016	52.8000 *	50.1271
Barium, Total	ug/L	MW-11	06/02/2016	50.4000 *	50.1271
Barium, Total	ug/L	MW-11	08/10/2016	54.4000 *	50.1271
Barium, Total	ug/L	MW-11	09/30/2016	56.2000 *	50.1271
Barium, Total	ug/L	MW-11	12/02/2016	60.0000 *	50.1271
Barium, Total	ug/L	MW-11	01/31/2017	52.0000 *	50.1271
Barium, Total	ug/L	MW-11	05/26/2017	49.8000	50.1271
Barium, Total	ug/L	MW-11	08/11/2017	56.5000 *	50.1271
Barium, Total	ug/L	MW-11	05/23/2018	75.6000 *	50.1271
Barium, Total	ug/L	MW-11	09/11/2018	65.7000 *	50.1271
Barium, Total	ug/L	MW-11	05/08/2019	59.4000 *	50.1271
Barium, Total	ug/L	MW-11	11/14/2019	57.6000 *	50.1271
Barium, Total	ug/L	MW-11	05/05/2020	55.0000 *	50.1271
Barium, Total	ug/L	MW-11	11/11/2020	55.2000 *	50.1271
Barium, Total	ug/L	MW-11	05/25/2021	55.4000 *	50.1271
Barium, Total	ug/L	MW-11	11/09/2021	50.4000 *	50.1271
Barium, Total	ug/L	MW-11	05/10/2022	54.1000 *	50.1271
Barium, Total	ug/L	MW-11	11/22/2022	81.9000 *	50.1271
Barium, Total	ug/L	MW-21	04/19/2016	76.3000 *	50.1271
Barium, Total	ug/L	MW-21	06/01/2016	61.9000 *	50.1271

\* - Significantly increased over background.  
 \*\* - Detect at limit for 100% NDs in background (NPPL only).  
 \*\*\* - Manual exclusion.  
 ND = Not Detected, Result = detection limit.

**Table C-7**

**Historical Downgradient Data for Constituent-Well Combinations  
that Failed the Current Statistical Evaluation or  
are in Verification Resampling Mode**

Constituent	Units	Well	Date	Result	Pred. Limit
Barium, Total	ug/L	MW-2I	08/11/2016	65.0000 *	50.1271
Barium, Total	ug/L	MW-2I	09/30/2016	59.7000 *	50.1271
Barium, Total	ug/L	MW-2I	12/02/2016	66.5000 *	50.1271
Barium, Total	ug/L	MW-2I	01/31/2017	74.4000 *	50.1271
Barium, Total	ug/L	MW-2I	05/26/2017	82.4000 *	50.1271
Barium, Total	ug/L	MW-2I	08/11/2017	85.2000 *	50.1271
Barium, Total	ug/L	MW-2I	05/22/2018	64.6000 *	50.1271
Barium, Total	ug/L	MW-2I	09/11/2018	53.7000 *	50.1271
Barium, Total	ug/L	MW-2I	05/09/2019	61.8000 *	50.1271
Barium, Total	ug/L	MW-2I	11/13/2019	65.2000 *	50.1271
Barium, Total	ug/L	MW-2I	05/05/2020	60.1000 *	50.1271
Barium, Total	ug/L	MW-2I	11/11/2020	69.2000 *	50.1271
Barium, Total	ug/L	MW-2I	05/11/2021	82.3000 *	50.1271
Barium, Total	ug/L	MW-2I	11/10/2021	69.3000 *	50.1271
Barium, Total	ug/L	MW-2I	05/11/2022	67.9000 *	50.1271
Barium, Total	ug/L	MW-2I	11/15/2022	109.0000 *	50.1271
Barium, Total	ug/L	MW-3I	04/20/2016	73.9000 *	50.1271
Barium, Total	ug/L	MW-3I	06/01/2016	72.2000 *	50.1271
Barium, Total	ug/L	MW-3I	08/11/2016	72.7000 *	50.1271
Barium, Total	ug/L	MW-3I	09/30/2016	76.8000 *	50.1271
Barium, Total	ug/L	MW-3I	12/02/2016	76.5000 *	50.1271
Barium, Total	ug/L	MW-3I	01/31/2017	71.3000 *	50.1271
Barium, Total	ug/L	MW-3I	05/25/2017	66.8000 *	50.1271
Barium, Total	ug/L	MW-3I	08/11/2017	71.3000 *	50.1271
Barium, Total	ug/L	MW-3I	05/22/2018	63.8000 *	50.1271
Barium, Total	ug/L	MW-3I	09/11/2018	53.9000 *	50.1271
Barium, Total	ug/L	MW-3I	05/09/2019	58.2000 *	50.1271
Barium, Total	ug/L	MW-3I	11/13/2019	51.8000 *	50.1271
Barium, Total	ug/L	MW-3I	05/05/2020	56.7000 *	50.1271
Barium, Total	ug/L	MW-3I	11/11/2020	60.0000 *	50.1271
Barium, Total	ug/L	MW-3I	05/11/2021	91.1000 *	50.1271
Barium, Total	ug/L	MW-3I	11/18/2021	93.9000 *	50.1271
Barium, Total	ug/L	MW-3I	05/11/2022	93.3000 *	50.1271
Barium, Total	ug/L	MW-3I	11/15/2022	84.5000 *	50.1271
Barium, Total	ug/L	MW-6I	04/20/2016	64.0000 *	50.1271
Barium, Total	ug/L	MW-6I	06/01/2016	59.4000 *	50.1271
Barium, Total	ug/L	MW-6I	08/11/2016	55.5000 *	50.1271
Barium, Total	ug/L	MW-6I	09/29/2016	56.6000 *	50.1271

\* - Significantly increased over background.  
 \*\* - Detect at limit for 100% NDs in background (NPPL only).  
 \*\*\* - Manual exclusion.  
 ND = Not Detected, Result = detection limit.



**Table C-7**

**Historical Downgradient Data for Constituent-Well Combinations  
that Failed the Current Statistical Evaluation or  
are in Verification Resampling Mode**

Constituent	Units	Well	Date	Result	Pred. Limit
Barium, Total	ug/L	MW-6I	12/01/2016	62.9000 *	50.1271
Barium, Total	ug/L	MW-6I	01/30/2017	64.2000 *	50.1271
Barium, Total	ug/L	MW-6I	05/25/2017	60.5000 *	50.1271
Barium, Total	ug/L	MW-6I	08/10/2017	58.7000 *	50.1271
Barium, Total	ug/L	MW-6I	05/22/2018	42.4000	50.1271
Barium, Total	ug/L	MW-6I	09/12/2018	42.3000	50.1271
Barium, Total	ug/L	MW-6I	05/08/2019	60.8000 *	50.1271
Barium, Total	ug/L	MW-6I	11/14/2019	57.1000 *	50.1271
Barium, Total	ug/L	MW-6I	05/08/2020	52.7000 *	50.1271
Barium, Total	ug/L	MW-6I	11/10/2020	49.3000	50.1271
Barium, Total	ug/L	MW-6I	05/18/2021	52.9000 *	50.1271
Barium, Total	ug/L	MW-6I	11/09/2021	65.0000 *	50.1271
Barium, Total	ug/L	MW-6I	05/11/2022	62.6000 *	50.1271
Barium, Total	ug/L	MW-6I	11/15/2022	67.1000 *	50.1271
Fluoride	mg/L	MW-11I	04/20/2016	0.3900 *	0.1000
Fluoride	mg/L	MW-11I	06/02/2016	0.3900 *	0.1000
Fluoride	mg/L	MW-11I	08/12/2016	0.3600 *	0.1000
Fluoride	mg/L	MW-11I	09/30/2016	0.3900 *	0.1000
Fluoride	mg/L	MW-11I	12/01/2016	0.4000 *	0.1000
Fluoride	mg/L	MW-11I	01/31/2017	0.3900 *	0.1000
Fluoride	mg/L	MW-11I	05/25/2017	0.3800 *	0.1000
Fluoride	mg/L	MW-11I	08/10/2017	0.4100 *	0.1000
Fluoride	mg/L	MW-11I	09/28/2017	0.4100 *	0.1000
Fluoride	mg/L	MW-11I	05/22/2018	0.3700 *	0.1000
Fluoride	mg/L	MW-11I	09/12/2018	0.2900 *	0.1000
Fluoride	mg/L	MW-11I	05/08/2019	0.3400 *	0.1000
Fluoride	mg/L	MW-11I	11/14/2019	0.3400 *	0.1000
Fluoride	mg/L	MW-11I	05/07/2020	0.4000 *	0.1000
Fluoride	mg/L	MW-11I	11/12/2020	0.4100 *	0.1000
Fluoride	mg/L	MW-11I	05/17/2021	0.4000 *	0.1000
Fluoride	mg/L	MW-11I	11/17/2021	0.3500 *	0.1000
Fluoride	mg/L	MW-11I	05/12/2022	0.4400 *	0.1000
Fluoride	mg/L	MW-11I	11/21/2022	0.4200 *	0.1000
Fluoride	mg/L	MW-1I	04/19/2016	0.4200 *	0.1000
Fluoride	mg/L	MW-1I	06/02/2016	0.4200 *	0.1000
Fluoride	mg/L	MW-1I	08/10/2016	0.4000 *	0.1000
Fluoride	mg/L	MW-1I	09/30/2016	0.4200 *	0.1000
Fluoride	mg/L	MW-1I	12/02/2016	0.4300 *	0.1000

\* - Significantly increased over background.  
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 \*\*\* - Manual exclusion.  
 ND = Not Detected, Result = detection limit.

**Table C-7**

**Historical Downgradient Data for Constituent-Well Combinations  
that Failed the Current Statistical Evaluation or  
are in Verification Resampling Mode**

Constituent	Units	Well	Date	Result	Pred. Limit
Fluoride	mg/L	MW-11	01/31/2017	0.3900 *	0.1000
Fluoride	mg/L	MW-11	05/26/2017	0.3700 *	0.1000
Fluoride	mg/L	MW-11	08/11/2017	0.4000 *	0.1000
Fluoride	mg/L	MW-11	09/28/2017	0.4000 *	0.1000
Fluoride	mg/L	MW-11	05/23/2018	0.3400 *	0.1000
Fluoride	mg/L	MW-11	09/11/2018	0.2900 *	0.1000
Fluoride	mg/L	MW-11	05/08/2019	0.3300 *	0.1000
Fluoride	mg/L	MW-11	11/14/2019	0.3500 *	0.1000
Fluoride	mg/L	MW-11	05/05/2020	0.3500 *	0.1000
Fluoride	mg/L	MW-11	11/11/2020	0.3100 *	0.1000
Fluoride	mg/L	MW-11	05/25/2021	0.2600 *	0.1000
Fluoride	mg/L	MW-11	11/09/2021	0.2800 *	0.1000
Fluoride	mg/L	MW-11	05/10/2022	0.2900 *	0.1000
Fluoride	mg/L	MW-11	11/22/2022	0.3200 *	0.1000
Fluoride	mg/L	MW-21	04/19/2016	0.4600 *	0.1000
Fluoride	mg/L	MW-21	06/01/2016	0.4500 *	0.1000
Fluoride	mg/L	MW-21	08/11/2016	0.4000 *	0.1000
Fluoride	mg/L	MW-21	09/30/2016	0.4200 *	0.1000
Fluoride	mg/L	MW-21	12/02/2016	0.4400 *	0.1000
Fluoride	mg/L	MW-21	01/31/2017	0.3900 *	0.1000
Fluoride	mg/L	MW-21	05/26/2017	0.3600 *	0.1000
Fluoride	mg/L	MW-21	08/11/2017	0.3600 *	0.1000
Fluoride	mg/L	MW-21	09/27/2017	0.3300 *	0.1000
Fluoride	mg/L	MW-21	05/22/2018	0.3200 *	0.1000
Fluoride	mg/L	MW-21	09/11/2018	0.2700 *	0.1000
Fluoride	mg/L	MW-21	05/09/2019	0.2900 *	0.1000
Fluoride	mg/L	MW-21	11/13/2019	0.2900 *	0.1000
Fluoride	mg/L	MW-21	05/05/2020	0.3100 *	0.1000
Fluoride	mg/L	MW-21	11/11/2020	0.2900 *	0.1000
Fluoride	mg/L	MW-21	05/11/2021	0.1800 *	0.1000
Fluoride	mg/L	MW-21	11/10/2021	0.2900 *	0.1000
Fluoride	mg/L	MW-21	05/11/2022	0.2700 *	0.1000
Fluoride	mg/L	MW-21	11/15/2022	0.2400 *	0.1000
Fluoride	mg/L	MW-31	04/20/2016	0.3300 *	0.1000
Fluoride	mg/L	MW-31	06/01/2016	0.2900 *	0.1000
Fluoride	mg/L	MW-31	08/11/2016	0.2800 *	0.1000
Fluoride	mg/L	MW-31	09/30/2016	0.2700 *	0.1000
Fluoride	mg/L	MW-31	12/02/2016	0.3300 *	0.1000

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 ND = Not Detected, Result = detection limit.

**Table C-7**

**Historical Downgradient Data for Constituent-Well Combinations  
that Failed the Current Statistical Evaluation or  
are in Verification Resampling Mode**

Constituent	Units	Well	Date	Result	Pred. Limit
Fluoride	mg/L	MW-3I	01/31/2017	0.2800 *	0.1000
Fluoride	mg/L	MW-3I	05/25/2017	0.3100 *	0.1000
Fluoride	mg/L	MW-3I	08/11/2017	0.2800 *	0.1000
Fluoride	mg/L	MW-3I	09/27/2017	0.3000 *	0.1000
Fluoride	mg/L	MW-3I	05/22/2018	0.2800 *	0.1000
Fluoride	mg/L	MW-3I	09/11/2018	0.2500 *	0.1000
Fluoride	mg/L	MW-3I	05/09/2019	0.2900 *	0.1000
Fluoride	mg/L	MW-3I	11/13/2019	0.3000 *	0.1000
Fluoride	mg/L	MW-3I	05/05/2020	0.3200 *	0.1000
Fluoride	mg/L	MW-3I	11/11/2020	0.2900 *	0.1000
Fluoride	mg/L	MW-3I	05/11/2021	0.1600 *	0.1000
Fluoride	mg/L	MW-3I	11/18/2021	0.2200 *	0.1000
Fluoride	mg/L	MW-3I	05/11/2022	0.3200 *	0.1000
Fluoride	mg/L	MW-3I	11/15/2022	0.2800 *	0.1000
Fluoride	mg/L	MW-6I	04/20/2016	0.3400 *	0.1000
Fluoride	mg/L	MW-6I	06/01/2016	0.3200 *	0.1000
Fluoride	mg/L	MW-6I	08/11/2016	0.3200 *	0.1000
Fluoride	mg/L	MW-6I	09/29/2016	0.3300 *	0.1000
Fluoride	mg/L	MW-6I	12/01/2016	0.3300 *	0.1000
Fluoride	mg/L	MW-6I	01/30/2017	0.2900 *	0.1000
Fluoride	mg/L	MW-6I	05/25/2017	0.2900 *	0.1000
Fluoride	mg/L	MW-6I	08/10/2017	0.3100 *	0.1000
Fluoride	mg/L	MW-6I	09/27/2017	0.3400 *	0.1000
Fluoride	mg/L	MW-6I	05/22/2018	0.2200 *	0.1000
Fluoride	mg/L	MW-6I	09/12/2018	0.2600 *	0.1000
Fluoride	mg/L	MW-6I	05/08/2019	0.2500 *	0.1000
Fluoride	mg/L	MW-6I	11/14/2019	0.2600 *	0.1000
Fluoride	mg/L	MW-6I	05/08/2020	0.2400 *	0.1000
Fluoride	mg/L	MW-6I	11/10/2020	0.2900 *	0.1000
Fluoride	mg/L	MW-6I	05/18/2021	0.3000 *	0.1000
Fluoride	mg/L	MW-6I	11/09/2021	0.2700 *	0.1000
Fluoride	mg/L	MW-6I	05/11/2022	0.3500 *	0.1000
Fluoride	mg/L	MW-6I	11/15/2022	0.2900 *	0.1000
Lithium, Total	ug/L	MW-11I	04/20/2016	120.0000 *	20.0000
Lithium, Total	ug/L	MW-11I	06/02/2016	124.0000 *	20.0000
Lithium, Total	ug/L	MW-11I	08/12/2016	115.0000 *	20.0000
Lithium, Total	ug/L	MW-11I	09/30/2016	116.0000 *	20.0000
Lithium, Total	ug/L	MW-11I	12/01/2016	123.0000 *	20.0000

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 ND = Not Detected, Result = detection limit.

**Table C-7**

**Historical Downgradient Data for Constituent-Well Combinations  
that Failed the Current Statistical Evaluation or  
are in Verification Resampling Mode**

Constituent	Units	Well	Date	Result	Pred. Limit
Lithium, Total	ug/L	MW-111	01/31/2017	111.0000 *	20.0000
Lithium, Total	ug/L	MW-111	05/25/2017	123.0000 *	20.0000
Lithium, Total	ug/L	MW-111	08/10/2017	114.0000 *	20.0000
Lithium, Total	ug/L	MW-111	05/22/2018	109.0000 *	20.0000
Lithium, Total	ug/L	MW-111	09/12/2018	107.0000 *	20.0000
Lithium, Total	ug/L	MW-111	05/08/2019	104.0000 *	20.0000
Lithium, Total	ug/L	MW-111	11/14/2019	102.0000 *	20.0000
Lithium, Total	ug/L	MW-111	05/07/2020	102.0000 *	20.0000
Lithium, Total	ug/L	MW-111	11/12/2020	93.2000 *	20.0000
Lithium, Total	ug/L	MW-111	05/17/2021	107.0000 *	20.0000
Lithium, Total	ug/L	MW-111	11/17/2021	118.0000 *	20.0000
Lithium, Total	ug/L	MW-111	05/12/2022	102.0000 *	20.0000
Lithium, Total	ug/L	MW-111	11/21/2022	122.0000 *	20.0000
Lithium, Total	ug/L	MW-11	04/19/2016	100.0000 *	20.0000
Lithium, Total	ug/L	MW-11	06/02/2016	96.2000 *	20.0000
Lithium, Total	ug/L	MW-11	08/10/2016	92.3000 *	20.0000
Lithium, Total	ug/L	MW-11	09/30/2016	92.5000 *	20.0000
Lithium, Total	ug/L	MW-11	12/02/2016	86.8000 *	20.0000
Lithium, Total	ug/L	MW-11	01/31/2017	90.7000 *	20.0000
Lithium, Total	ug/L	MW-11	05/26/2017	97.5000 *	20.0000
Lithium, Total	ug/L	MW-11	08/11/2017	99.3000 *	20.0000
Lithium, Total	ug/L	MW-11	05/23/2018	120.0000 *	20.0000
Lithium, Total	ug/L	MW-11	09/11/2018	98.2000 *	20.0000
Lithium, Total	ug/L	MW-11	05/08/2019	116.0000 *	20.0000
Lithium, Total	ug/L	MW-11	11/14/2019	100.0000 *	20.0000
Lithium, Total	ug/L	MW-11	05/05/2020	106.0000 *	20.0000
Lithium, Total	ug/L	MW-11	11/11/2020	92.4000 *	20.0000
Lithium, Total	ug/L	MW-11	05/25/2021	87.7000 *	20.0000
Lithium, Total	ug/L	MW-11	11/09/2021	92.5000 *	20.0000
Lithium, Total	ug/L	MW-11	05/10/2022	86.9000 *	20.0000
Lithium, Total	ug/L	MW-11	11/22/2022	94.7000 *	20.0000
Lithium, Total	ug/L	MW-21	04/19/2016	126.0000 *	20.0000
Lithium, Total	ug/L	MW-21	06/01/2016	116.0000 *	20.0000
Lithium, Total	ug/L	MW-21	08/11/2016	114.0000 *	20.0000
Lithium, Total	ug/L	MW-21	09/30/2016	116.0000 *	20.0000
Lithium, Total	ug/L	MW-21	12/02/2016	124.0000 *	20.0000
Lithium, Total	ug/L	MW-21	01/31/2017	124.0000 *	20.0000
Lithium, Total	ug/L	MW-21	05/26/2017	127.0000 *	20.0000

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 \*\*\* - Manual exclusion.  
 ND = Not Detected, Result = detection limit.

**Table C-7**

**Historical Downgradient Data for Constituent-Well Combinations  
that Failed the Current Statistical Evaluation or  
are in Verification Resampling Mode**

Constituent	Units	Well	Date		Result		Pred. Limit
Lithium, Total	ug/L	MW-2I	08/11/2017		109.0000	*	20.0000
Lithium, Total	ug/L	MW-2I	05/22/2018		88.8000	*	20.0000
Lithium, Total	ug/L	MW-2I	09/11/2018		68.4000	*	20.0000
Lithium, Total	ug/L	MW-2I	05/09/2019		86.5000	*	20.0000
Lithium, Total	ug/L	MW-2I	11/13/2019		78.4000	*	20.0000
Lithium, Total	ug/L	MW-2I	05/05/2020		77.7000	*	20.0000
Lithium, Total	ug/L	MW-2I	11/11/2020		61.3000	*	20.0000
Lithium, Total	ug/L	MW-2I	05/11/2021		58.1000	*	20.0000
Lithium, Total	ug/L	MW-2I	11/10/2021		54.8000	*	20.0000
Lithium, Total	ug/L	MW-2I	05/11/2022		47.4000	*	20.0000
Lithium, Total	ug/L	MW-2I	11/15/2022		52.3000	*	20.0000
Lithium, Total	ug/L	MW-3I	04/20/2016		86.1000	*	20.0000
Lithium, Total	ug/L	MW-3I	06/01/2016		67.1000	*	20.0000
Lithium, Total	ug/L	MW-3I	08/11/2016		68.2000	*	20.0000
Lithium, Total	ug/L	MW-3I	09/30/2016		84.7000	*	20.0000
Lithium, Total	ug/L	MW-3I	12/02/2016		107.0000	*	20.0000
Lithium, Total	ug/L	MW-3I	01/31/2017		92.9000	*	20.0000
Lithium, Total	ug/L	MW-3I	05/25/2017		87.6000	*	20.0000
Lithium, Total	ug/L	MW-3I	08/11/2017		79.4000	*	20.0000
Lithium, Total	ug/L	MW-3I	05/22/2018		57.1000	*	20.0000
Lithium, Total	ug/L	MW-3I	09/11/2018		34.1000	*	20.0000
Lithium, Total	ug/L	MW-3I	05/09/2019		29.0000	*	20.0000
Lithium, Total	ug/L	MW-3I	11/13/2019	ND	20.0000		20.0000
Lithium, Total	ug/L	MW-3I	05/05/2020		21.3000	*	20.0000
Lithium, Total	ug/L	MW-3I	11/11/2020	ND	20.0000		20.0000
Lithium, Total	ug/L	MW-3I	05/11/2021	ND	20.0000		20.0000
Lithium, Total	ug/L	MW-3I	11/18/2021		20.6000	*	20.0000
Lithium, Total	ug/L	MW-3I	05/11/2022		20.9000	*	20.0000
Lithium, Total	ug/L	MW-3I	11/15/2022		21.5000	*	20.0000
Lithium, Total	ug/L	MW-6I	04/20/2016		148.0000	*	20.0000
Lithium, Total	ug/L	MW-6I	06/01/2016		146.0000	*	20.0000
Lithium, Total	ug/L	MW-6I	08/11/2016		133.0000	*	20.0000
Lithium, Total	ug/L	MW-6I	09/29/2016		136.0000	*	20.0000
Lithium, Total	ug/L	MW-6I	12/01/2016		138.0000	*	20.0000
Lithium, Total	ug/L	MW-6I	01/30/2017		140.0000	*	20.0000
Lithium, Total	ug/L	MW-6I	05/25/2017		139.0000	*	20.0000
Lithium, Total	ug/L	MW-6I	08/10/2017		129.0000	*	20.0000
Lithium, Total	ug/L	MW-6I	05/22/2018		101.0000	*	20.0000

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 \*\* - Detect at limit for 100% NDs in background (NPPL only).  
 \*\*\* - Manual exclusion.  
 ND = Not Detected, Result = detection limit.

**Table C-7**

**Historical Downgradient Data for Constituent-Well Combinations  
that Failed the Current Statistical Evaluation or  
are in Verification Resampling Mode**

Constituent	Units	Well	Date	Result	Pred. Limit
Lithium, Total	ug/L	MW-6I	09/12/2018	90.1000 *	20.0000
Lithium, Total	ug/L	MW-6I	05/08/2019	112.0000 *	20.0000
Lithium, Total	ug/L	MW-6I	11/14/2019	97.8000 *	20.0000
Lithium, Total	ug/L	MW-6I	05/08/2020	114.0000 *	20.0000
Lithium, Total	ug/L	MW-6I	11/10/2020	122.0000 *	20.0000
Lithium, Total	ug/L	MW-6I	05/18/2021	102.0000 *	20.0000
Lithium, Total	ug/L	MW-6I	11/09/2021	115.0000 *	20.0000
Lithium, Total	ug/L	MW-6I	05/11/2022	113.0000 *	20.0000
Lithium, Total	ug/L	MW-6I	11/15/2022	104.0000 *	20.0000
Molybdenum, Total	ug/L	MW-11I	04/20/2016	179.0000 *	10.0000
Molybdenum, Total	ug/L	MW-11I	06/02/2016	180.0000 *	10.0000
Molybdenum, Total	ug/L	MW-11I	08/12/2016	173.0000 *	10.0000
Molybdenum, Total	ug/L	MW-11I	09/30/2016	172.0000 *	10.0000
Molybdenum, Total	ug/L	MW-11I	12/01/2016	177.0000 *	10.0000
Molybdenum, Total	ug/L	MW-11I	01/31/2017	164.0000 *	10.0000
Molybdenum, Total	ug/L	MW-11I	05/25/2017	174.0000 *	10.0000
Molybdenum, Total	ug/L	MW-11I	08/10/2017	181.0000 *	10.0000
Molybdenum, Total	ug/L	MW-11I	05/22/2018	170.0000 *	10.0000
Molybdenum, Total	ug/L	MW-11I	09/12/2018	165.0000 *	10.0000
Molybdenum, Total	ug/L	MW-11I	05/08/2019	169.0000 *	10.0000
Molybdenum, Total	ug/L	MW-11I	11/14/2019	156.0000 *	10.0000
Molybdenum, Total	ug/L	MW-11I	05/07/2020	170.0000 *	10.0000
Molybdenum, Total	ug/L	MW-11I	11/12/2020	164.0000 *	10.0000
Molybdenum, Total	ug/L	MW-11I	05/17/2021	152.0000 *	10.0000
Molybdenum, Total	ug/L	MW-11I	11/17/2021	149.0000 *	10.0000
Molybdenum, Total	ug/L	MW-11I	05/12/2022	148.0000 *	10.0000
Molybdenum, Total	ug/L	MW-11I	11/21/2022	127.0000 *	10.0000
Molybdenum, Total	ug/L	MW-1I	04/19/2016	126.0000 *	10.0000
Molybdenum, Total	ug/L	MW-1I	06/02/2016	126.0000 *	10.0000
Molybdenum, Total	ug/L	MW-1I	08/10/2016	124.0000 *	10.0000
Molybdenum, Total	ug/L	MW-1I	09/30/2016	123.0000 *	10.0000
Molybdenum, Total	ug/L	MW-1I	12/02/2016	120.0000 *	10.0000
Molybdenum, Total	ug/L	MW-1I	01/31/2017	125.0000 *	10.0000
Molybdenum, Total	ug/L	MW-1I	05/26/2017	123.0000 *	10.0000
Molybdenum, Total	ug/L	MW-1I	08/11/2017	124.0000 *	10.0000
Molybdenum, Total	ug/L	MW-1I	05/23/2018	107.0000 *	10.0000
Molybdenum, Total	ug/L	MW-1I	09/11/2018	100.0000 *	10.0000
Molybdenum, Total	ug/L	MW-1I	05/08/2019	114.0000 *	10.0000

\* - Significantly increased over background.  
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 \*\*\* - Manual exclusion.  
 ND = Not Detected, Result = detection limit.

**Table C-7**

**Historical Downgradient Data for Constituent-Well Combinations  
that Failed the Current Statistical Evaluation or  
are in Verification Resampling Mode**

Constituent	Units	Well	Date	Result	Pred. Limit
Molybdenum, Total	ug/L	MW-11	11/14/2019	109.0000 *	10.0000
Molybdenum, Total	ug/L	MW-11	05/05/2020	109.0000 *	10.0000
Molybdenum, Total	ug/L	MW-11	11/11/2020	99.9000 *	10.0000
Molybdenum, Total	ug/L	MW-11	05/25/2021	97.5000 *	10.0000
Molybdenum, Total	ug/L	MW-11	11/09/2021	107.0000 *	10.0000
Molybdenum, Total	ug/L	MW-11	05/10/2022	96.3000 *	10.0000
Molybdenum, Total	ug/L	MW-11	11/22/2022	87.0000 *	10.0000
Molybdenum, Total	ug/L	MW-21	04/19/2016	102.0000 *	10.0000
Molybdenum, Total	ug/L	MW-21	06/01/2016	115.0000 *	10.0000
Molybdenum, Total	ug/L	MW-21	08/11/2016	111.0000 *	10.0000
Molybdenum, Total	ug/L	MW-21	09/30/2016	109.0000 *	10.0000
Molybdenum, Total	ug/L	MW-21	12/02/2016	111.0000 *	10.0000
Molybdenum, Total	ug/L	MW-21	01/31/2017	104.0000 *	10.0000
Molybdenum, Total	ug/L	MW-21	05/26/2017	92.0000 *	10.0000
Molybdenum, Total	ug/L	MW-21	08/11/2017	84.3000 *	10.0000
Molybdenum, Total	ug/L	MW-21	05/22/2018	75.4000 *	10.0000
Molybdenum, Total	ug/L	MW-21	09/11/2018	56.1000 *	10.0000
Molybdenum, Total	ug/L	MW-21	05/09/2019	67.1000 *	10.0000
Molybdenum, Total	ug/L	MW-21	11/13/2019	62.2000 *	10.0000
Molybdenum, Total	ug/L	MW-21	05/05/2020	64.6000 *	10.0000
Molybdenum, Total	ug/L	MW-21	11/11/2020	63.8000 *	10.0000
Molybdenum, Total	ug/L	MW-21	05/11/2021	64.1000 *	10.0000
Molybdenum, Total	ug/L	MW-21	11/10/2021	57.0000 *	10.0000
Molybdenum, Total	ug/L	MW-21	05/11/2022	65.4000 *	10.0000
Molybdenum, Total	ug/L	MW-21	11/15/2022	59.7000 *	10.0000
Molybdenum, Total	ug/L	MW-31	04/20/2016	71.1000 *	10.0000
Molybdenum, Total	ug/L	MW-31	06/01/2016	66.3000 *	10.0000
Molybdenum, Total	ug/L	MW-31	08/11/2016	64.0000 *	10.0000
Molybdenum, Total	ug/L	MW-31	09/30/2016	57.5000 *	10.0000
Molybdenum, Total	ug/L	MW-31	12/02/2016	58.8000 *	10.0000
Molybdenum, Total	ug/L	MW-31	01/31/2017	60.0000 *	10.0000
Molybdenum, Total	ug/L	MW-31	05/25/2017	57.8000 *	10.0000
Molybdenum, Total	ug/L	MW-31	08/11/2017	58.4000 *	10.0000
Molybdenum, Total	ug/L	MW-31	05/22/2018	79.7000 *	10.0000
Molybdenum, Total	ug/L	MW-31	09/11/2018	75.9000 *	10.0000
Molybdenum, Total	ug/L	MW-31	05/09/2019	91.9000 *	10.0000
Molybdenum, Total	ug/L	MW-31	11/13/2019	78.9000 *	10.0000
Molybdenum, Total	ug/L	MW-31	05/05/2020	80.3000 *	10.0000

\* - Significantly increased over background.  
 \*\* - Detect at limit for 100% NDs in background (NPPL only).  
 \*\*\* - Manual exclusion.  
 ND = Not Detected, Result = detection limit.

**Table C-7**

**Historical Downgradient Data for Constituent-Well Combinations  
that Failed the Current Statistical Evaluation or  
are in Verification Resampling Mode**

Constituent	Units	Well	Date		Result		Pred. Limit
Molybdenum, Total	ug/L	MW-3I	11/11/2020		69.2000	*	10.0000
Molybdenum, Total	ug/L	MW-3I	05/11/2021		59.5000	*	10.0000
Molybdenum, Total	ug/L	MW-3I	11/18/2021		61.0000	*	10.0000
Molybdenum, Total	ug/L	MW-3I	05/11/2022		60.0000	*	10.0000
Molybdenum, Total	ug/L	MW-3I	11/15/2022		56.0000	*	10.0000
Molybdenum, Total	ug/L	MW-6I	04/20/2016		201.0000	*	10.0000
Molybdenum, Total	ug/L	MW-6I	06/01/2016		198.0000	*	10.0000
Molybdenum, Total	ug/L	MW-6I	08/11/2016		215.0000	*	10.0000
Molybdenum, Total	ug/L	MW-6I	09/29/2016		214.0000	*	10.0000
Molybdenum, Total	ug/L	MW-6I	12/01/2016		204.0000	*	10.0000
Molybdenum, Total	ug/L	MW-6I	01/30/2017		194.0000	*	10.0000
Molybdenum, Total	ug/L	MW-6I	05/25/2017		189.0000	*	10.0000
Molybdenum, Total	ug/L	MW-6I	08/10/2017		207.0000	*	10.0000
Molybdenum, Total	ug/L	MW-6I	05/22/2018		257.0000	*	10.0000
Molybdenum, Total	ug/L	MW-6I	09/12/2018		191.0000	*	10.0000
Molybdenum, Total	ug/L	MW-6I	05/08/2019		169.0000	*	10.0000
Molybdenum, Total	ug/L	MW-6I	11/14/2019		186.0000	*	10.0000
Molybdenum, Total	ug/L	MW-6I	05/08/2020		207.0000	*	10.0000
Molybdenum, Total	ug/L	MW-6I	11/10/2020		229.0000	*	10.0000
Molybdenum, Total	ug/L	MW-6I	05/18/2021		231.0000	*	10.0000
Molybdenum, Total	ug/L	MW-6I	11/09/2021		219.0000	*	10.0000
Molybdenum, Total	ug/L	MW-6I	05/11/2022		209.0000	*	10.0000
Molybdenum, Total	ug/L	MW-6I	11/15/2022		191.0000	*	10.0000
Total Radium	pCi/L	MW-2I	04/19/2016	ND	1.5800		2.0776
Total Radium	pCi/L	MW-2I	06/01/2016		1.6300		2.0776
Total Radium	pCi/L	MW-2I	08/11/2016		1.3500		2.0776
Total Radium	pCi/L	MW-2I	09/30/2016		1.2400		2.0776
Total Radium	pCi/L	MW-2I	12/02/2016		1.2000		2.0776
Total Radium	pCi/L	MW-2I	01/31/2017	ND	2.3500		2.0776
Total Radium	pCi/L	MW-2I	05/26/2017		1.6500		2.0776
Total Radium	pCi/L	MW-2I	08/11/2017		2.0600		2.0776
Total Radium	pCi/L	MW-2I	05/22/2018		1.6400		2.0776
Total Radium	pCi/L	MW-2I	09/11/2018		1.9400		2.0776
Total Radium	pCi/L	MW-2I	05/09/2019		2.4800	*	2.0776
Total Radium	pCi/L	MW-2I	11/13/2019		2.5100	*	2.0776
Total Radium	pCi/L	MW-2I	05/05/2020		2.2600	*	2.0776
Total Radium	pCi/L	MW-2I	11/11/2020	ND	1.9000		2.0776
Total Radium	pCi/L	MW-2I	05/11/2021		1.3000		2.0776

\* - Significantly increased over background.  
 \*\* - Detect at limit for 100% NDs in background (NPPL only).  
 \*\*\* - Manual exclusion.  
 ND = Not Detected, Result = detection limit.



**Table C-7**

**Historical Downgradient Data for Constituent-Well Combinations  
that Failed the Current Statistical Evaluation or  
are in Verification Resampling Mode**

Constituent	Units	Well	Date	Result	Pred. Limit
Total Radium	pCi/L	MW-2I	11/10/2021	1.5900	2.0776
Total Radium	pCi/L	MW-2I	05/11/2022	2.3800 *	2.0776
Total Radium	pCi/L	MW-2I	11/15/2022	1.5800	2.0776

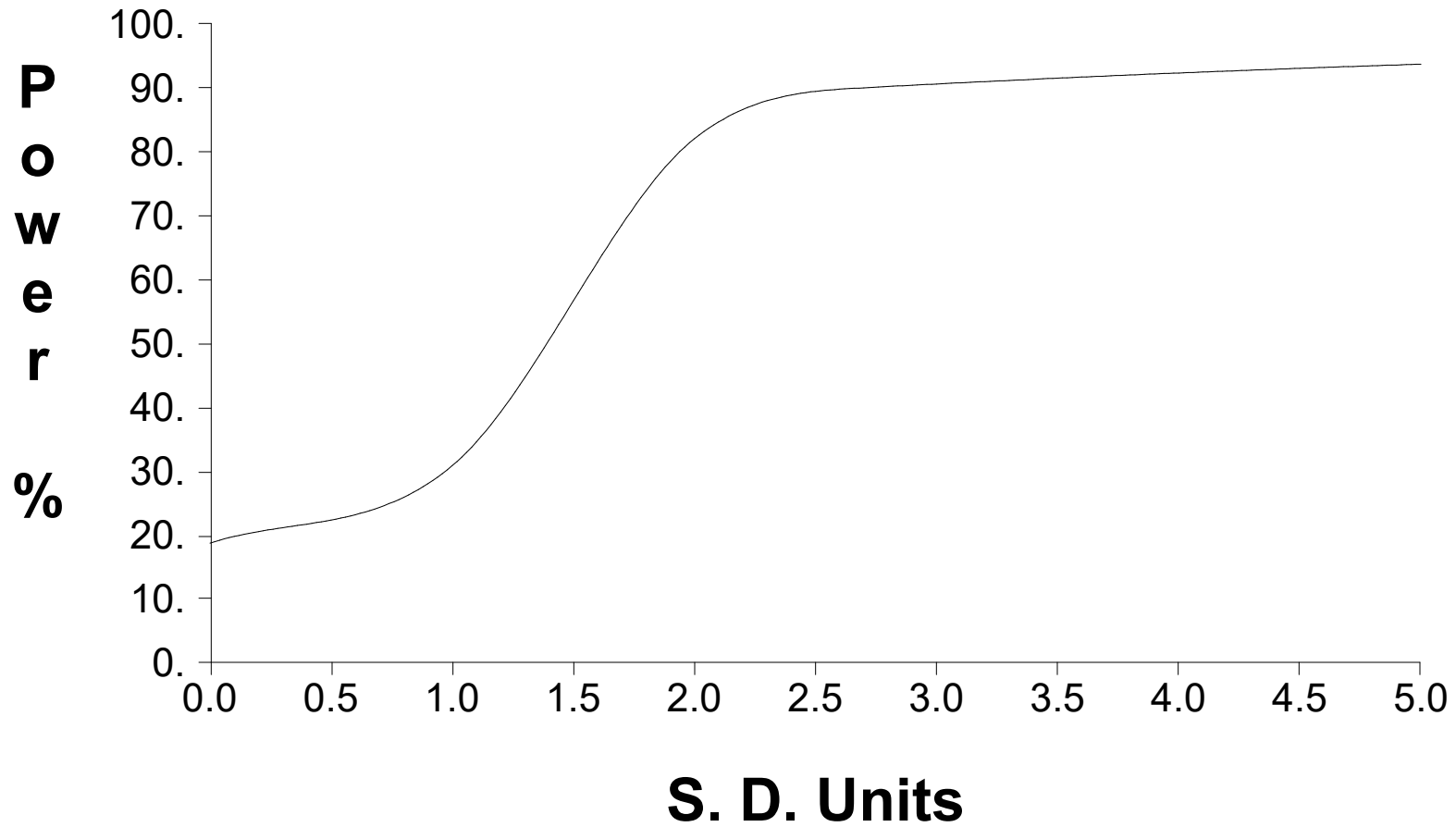
\* - Significantly increased over background.

\*\* - Detect at limit for 100% NDs in background (NPPL only).

\*\*\* - Manual exclusion.

ND = Not Detected, Result = detection limit.

# False Positive and False Negative Rates for Current Upgradient vs. Downgradient Monitoring Program



**Table C-1**

**Upgradient Data**

Constituent	Units	Well	Date		Result	Adjusted	
Antimony, Total	ug/L	MW-13D	08/08/2019	ND	1.0000		
Antimony, Total	ug/L	MW-13D	09/25/2019	ND	1.0000		
Antimony, Total	ug/L	MW-13D	05/07/2020	ND	6.0000	1.0000	**
Antimony, Total	ug/L	MW-13D	11/12/2020	ND	1.0000		
Antimony, Total	ug/L	MW-13D	02/25/2021	ND	1.0000		
Antimony, Total	ug/L	MW-13D	03/29/2021	ND	1.0000		
Antimony, Total	ug/L	MW-13D	05/20/2021	ND	1.0000		
Antimony, Total	ug/L	MW-13D	06/22/2021	ND	1.0000		
Antimony, Total	ug/L	MW-13D	07/27/2021	ND	1.0000		
Antimony, Total	ug/L	MW-13D	11/16/2021	ND	1.0000		
Antimony, Total	ug/L	MW-13D	05/19/2022	ND	1.0000		
Antimony, Total	ug/L	MW-13D	11/18/2022	ND	1.0000		
Arsenic, Total	ug/L	MW-13D	08/08/2019	ND	1.0000		
Arsenic, Total	ug/L	MW-13D	09/25/2019	ND	1.0000		
Arsenic, Total	ug/L	MW-13D	05/07/2020	ND	10.0000	1.0000	**
Arsenic, Total	ug/L	MW-13D	11/12/2020		1.3000		
Arsenic, Total	ug/L	MW-13D	02/25/2021	ND	1.0000		
Arsenic, Total	ug/L	MW-13D	03/29/2021	ND	1.0000		
Arsenic, Total	ug/L	MW-13D	05/20/2021	ND	1.0000		
Arsenic, Total	ug/L	MW-13D	06/22/2021	ND	1.0000		
Arsenic, Total	ug/L	MW-13D	07/27/2021	ND	1.0000		
Arsenic, Total	ug/L	MW-13D	11/16/2021	ND	1.0000		
Arsenic, Total	ug/L	MW-13D	05/19/2022	ND	1.0000		
Arsenic, Total	ug/L	MW-13D	11/18/2022	ND	1.0000		
Barium, Total	ug/L	MW-13D	08/08/2019		53.2000		
Barium, Total	ug/L	MW-13D	09/25/2019		47.4000		
Barium, Total	ug/L	MW-13D	05/07/2020		53.1000		
Barium, Total	ug/L	MW-13D	11/12/2020		57.9000		
Barium, Total	ug/L	MW-13D	02/25/2021		57.0000		
Barium, Total	ug/L	MW-13D	03/29/2021		60.9000		
Barium, Total	ug/L	MW-13D	05/20/2021		60.3000		
Barium, Total	ug/L	MW-13D	06/22/2021		59.3000		
Barium, Total	ug/L	MW-13D	07/27/2021		64.5000		
Barium, Total	ug/L	MW-13D	11/16/2021		64.6000		
Barium, Total	ug/L	MW-13D	05/19/2022		62.4000		
Barium, Total	ug/L	MW-13D	11/18/2022		64.5000		
Beryllium, Total	ug/L	MW-13D	08/08/2019	ND	0.2000		
Beryllium, Total	ug/L	MW-13D	09/25/2019	ND	0.2000		
Beryllium, Total	ug/L	MW-13D	05/07/2020	ND	4.0000	0.2000	**
Beryllium, Total	ug/L	MW-13D	11/12/2020	ND	0.2000		
Beryllium, Total	ug/L	MW-13D	02/25/2021	ND	0.2000		

\* - Outlier for that well and constituent.  
 \*\* - ND value replaced with median RL.  
 \*\*\* - ND value replaced with manual RL.  
 ND = Not detected, Result = detection limit.

**Table C-1**

**Upgradient Data**

Constituent	Units	Well	Date		Result	Adjusted	
Beryllium, Total	ug/L	MW-13D	03/29/2021	ND	0.2000		
Beryllium, Total	ug/L	MW-13D	05/20/2021	ND	0.2000		
Beryllium, Total	ug/L	MW-13D	06/22/2021	ND	0.2000		
Beryllium, Total	ug/L	MW-13D	07/27/2021	ND	0.2000		
Beryllium, Total	ug/L	MW-13D	05/19/2022	ND	0.2000		
Cadmium, Total	ug/L	MW-13D	08/08/2019	ND	2.0000		
Cadmium, Total	ug/L	MW-13D	09/25/2019	ND	2.0000		
Cadmium, Total	ug/L	MW-13D	05/07/2020	ND	2.0000		
Cadmium, Total	ug/L	MW-13D	11/12/2020	ND	2.0000		
Cadmium, Total	ug/L	MW-13D	02/25/2021	ND	2.0000		
Cadmium, Total	ug/L	MW-13D	03/29/2021	ND	2.0000		
Cadmium, Total	ug/L	MW-13D	05/20/2021	ND	2.0000		
Cadmium, Total	ug/L	MW-13D	06/22/2021	ND	2.0000		
Cadmium, Total	ug/L	MW-13D	07/27/2021	ND	2.0000		
Cadmium, Total	ug/L	MW-13D	05/19/2022	ND	2.0000		
Chromium, Total	ug/L	MW-13D	08/08/2019	ND	10.0000		
Chromium, Total	ug/L	MW-13D	09/25/2019	ND	10.0000		
Chromium, Total	ug/L	MW-13D	05/07/2020	ND	10.0000		
Chromium, Total	ug/L	MW-13D	11/12/2020	ND	10.0000		
Chromium, Total	ug/L	MW-13D	02/25/2021	ND	10.0000		
Chromium, Total	ug/L	MW-13D	03/29/2021	ND	10.0000		
Chromium, Total	ug/L	MW-13D	05/20/2021	ND	10.0000		
Chromium, Total	ug/L	MW-13D	06/22/2021	ND	10.0000		
Chromium, Total	ug/L	MW-13D	07/27/2021	ND	10.0000		
Chromium, Total	ug/L	MW-13D	05/19/2022	ND	10.0000		
Cobalt, Total	ug/L	MW-13D	08/08/2019	ND	1.0000		
Cobalt, Total	ug/L	MW-13D	09/25/2019	ND	1.0000		
Cobalt, Total	ug/L	MW-13D	05/07/2020	ND	10.0000	1.0000	**
Cobalt, Total	ug/L	MW-13D	11/12/2020		1.2000		
Cobalt, Total	ug/L	MW-13D	02/25/2021	ND	1.0000		
Cobalt, Total	ug/L	MW-13D	03/29/2021	ND	1.0000		
Cobalt, Total	ug/L	MW-13D	05/20/2021	ND	1.0000		
Cobalt, Total	ug/L	MW-13D	06/22/2021	ND	1.0000		
Cobalt, Total	ug/L	MW-13D	07/27/2021	ND	1.0000		
Cobalt, Total	ug/L	MW-13D	11/16/2021	ND	1.0000		
Cobalt, Total	ug/L	MW-13D	05/19/2022	ND	1.0000		
Fluoride	mg/L	MW-13D	08/08/2019	ND	0.1000		
Fluoride	mg/L	MW-13D	09/25/2019		0.1100		
Fluoride	mg/L	MW-13D	05/07/2020		0.1100		
Fluoride	mg/L	MW-13D	11/12/2020	ND	0.1000		
Fluoride	mg/L	MW-13D	02/25/2021	ND	0.1000		

\* - Outlier for that well and constituent.  
 \*\* - ND value replaced with median RL.  
 \*\*\* - ND value replaced with manual RL.  
 ND = Not detected, Result = detection limit.

**Table C-1**

**Upgradient Data**

Constituent	Units	Well	Date		Result	Adjusted	
Fluoride	mg/L	MW-13D	03/29/2021	ND	0.1000		
Fluoride	mg/L	MW-13D	05/20/2021	ND	0.1000		
Fluoride	mg/L	MW-13D	06/22/2021		0.1200		
Fluoride	mg/L	MW-13D	07/27/2021		0.1200		
Fluoride	mg/L	MW-13D	11/16/2021	ND	0.1000		
Fluoride	mg/L	MW-13D	05/19/2022		0.1000		
Fluoride	mg/L	MW-13D	11/18/2022		0.1100		
Lead, Total	ug/L	MW-13D	08/08/2019	ND	10.0000		
Lead, Total	ug/L	MW-13D	09/25/2019	ND	10.0000		
Lead, Total	ug/L	MW-13D	05/07/2020	ND	10.0000		
Lead, Total	ug/L	MW-13D	11/12/2020	ND	10.0000		
Lead, Total	ug/L	MW-13D	02/25/2021	ND	10.0000		
Lead, Total	ug/L	MW-13D	03/29/2021	ND	10.0000		
Lead, Total	ug/L	MW-13D	05/20/2021	ND	10.0000		
Lead, Total	ug/L	MW-13D	06/22/2021	ND	10.0000		
Lead, Total	ug/L	MW-13D	07/27/2021	ND	10.0000		
Lead, Total	ug/L	MW-13D	05/19/2022	ND	10.0000		
Lithium, Total	ug/L	MW-13D	08/08/2019	ND	20.0000		
Lithium, Total	ug/L	MW-13D	09/25/2019	ND	20.0000		
Lithium, Total	ug/L	MW-13D	05/07/2020	ND	20.0000		
Lithium, Total	ug/L	MW-13D	11/12/2020	ND	20.0000		
Lithium, Total	ug/L	MW-13D	02/25/2021	ND	20.0000		
Lithium, Total	ug/L	MW-13D	03/29/2021	ND	20.0000		
Lithium, Total	ug/L	MW-13D	05/20/2021	ND	20.0000		
Lithium, Total	ug/L	MW-13D	06/22/2021	ND	20.0000		
Lithium, Total	ug/L	MW-13D	07/27/2021	ND	20.0000		
Lithium, Total	ug/L	MW-13D	11/16/2021	ND	20.0000		
Lithium, Total	ug/L	MW-13D	05/19/2022	ND	20.0000		
Lithium, Total	ug/L	MW-13D	11/18/2022	ND	20.0000		
Mercury	ug/L	MW-13D	08/08/2019	ND	2.0000		
Mercury	ug/L	MW-13D	09/25/2019	ND	2.0000		
Mercury	ug/L	MW-13D	11/12/2020	ND	2.0000		
Mercury	ug/L	MW-13D	02/25/2021	ND	2.0000		
Mercury	ug/L	MW-13D	03/29/2021	ND	2.0000		
Mercury	ug/L	MW-13D	05/20/2021	ND	2.0000		
Mercury	ug/L	MW-13D	06/22/2021	ND	2.0000		
Mercury	ug/L	MW-13D	07/27/2021	ND	2.0000		
Mercury	ug/L	MW-13D	05/19/2022	ND	0.2000	2.0000	**
Molybdenum, Total	ug/L	MW-13D	08/08/2019	ND	10.0000		
Molybdenum, Total	ug/L	MW-13D	09/25/2019	ND	10.0000		
Molybdenum, Total	ug/L	MW-13D	05/07/2020	ND	10.0000		

\* - Outlier for that well and constituent.  
 \*\* - ND value replaced with median RL.  
 \*\*\* - ND value replaced with manual RL.  
 ND = Not detected, Result = detection limit.

Table C-1

Upgradient Data

Constituent	Units	Well	Date		Result	Adjusted	
Molybdenum, Total	ug/L	MW-13D	11/12/2020	ND	10.0000		
Molybdenum, Total	ug/L	MW-13D	02/25/2021	ND	10.0000		
Molybdenum, Total	ug/L	MW-13D	03/29/2021	ND	10.0000		
Molybdenum, Total	ug/L	MW-13D	05/20/2021	ND	10.0000		
Molybdenum, Total	ug/L	MW-13D	06/22/2021	ND	10.0000		
Molybdenum, Total	ug/L	MW-13D	07/27/2021	ND	10.0000		
Molybdenum, Total	ug/L	MW-13D	11/16/2021	ND	10.0000		
Molybdenum, Total	ug/L	MW-13D	05/19/2022	ND	10.0000		
Molybdenum, Total	ug/L	MW-13D	11/18/2022	ND	10.0000		
Selenium, Total	ug/L	MW-13D	08/08/2019	ND	1.0000		
Selenium, Total	ug/L	MW-13D	09/25/2019	ND	1.0000		
Selenium, Total	ug/L	MW-13D	05/07/2020	ND	10.0000		*
Selenium, Total	ug/L	MW-13D	11/12/2020		1.2000		
Selenium, Total	ug/L	MW-13D	02/25/2021	ND	1.0000		
Selenium, Total	ug/L	MW-13D	03/29/2021	ND	1.0000		
Selenium, Total	ug/L	MW-13D	05/20/2021		1.2000		
Selenium, Total	ug/L	MW-13D	06/22/2021		1.2000		
Selenium, Total	ug/L	MW-13D	07/27/2021		1.3000		
Selenium, Total	ug/L	MW-13D	11/16/2021		1.3000		
Selenium, Total	ug/L	MW-13D	05/19/2022	ND	1.0000		
Selenium, Total	ug/L	MW-13D	11/18/2022	ND	1.0000		
Thallium, Total	ug/L	MW-13D	08/08/2019	ND	1.0000		
Thallium, Total	ug/L	MW-13D	09/25/2019	ND	1.0000		
Thallium, Total	ug/L	MW-13D	05/07/2020	ND	10.0000	1.0000	**
Thallium, Total	ug/L	MW-13D	11/12/2020	ND	1.0000		
Thallium, Total	ug/L	MW-13D	02/25/2021	ND	1.0000		
Thallium, Total	ug/L	MW-13D	03/29/2021	ND	1.0000		
Thallium, Total	ug/L	MW-13D	05/20/2021	ND	1.0000		
Thallium, Total	ug/L	MW-13D	06/22/2021	ND	1.0000		
Thallium, Total	ug/L	MW-13D	07/27/2021	ND	1.0000		
Thallium, Total	ug/L	MW-13D	05/19/2022	ND	1.0000		
Total Radium	pCi/L	MW-13D	08/08/2019	ND	1.5900		
Total Radium	pCi/L	MW-13D	09/25/2019		0.9060		
Total Radium	pCi/L	MW-13D	11/12/2020		1.1000		
Total Radium	pCi/L	MW-13D	02/25/2021		0.5860		
Total Radium	pCi/L	MW-13D	03/29/2021	ND	1.6600	1.5900	**
Total Radium	pCi/L	MW-13D	05/20/2021	ND	2.1400	1.5900	**
Total Radium	pCi/L	MW-13D	06/22/2021	ND	1.5900		
Total Radium	pCi/L	MW-13D	07/27/2021		0.7950		
Total Radium	pCi/L	MW-13D	11/16/2021		0.5500		
Total Radium	pCi/L	MW-13D	05/19/2022		0.9330		

\* - Outlier for that well and constituent.  
 \*\* - ND value replaced with median RL.  
 \*\*\* - ND value replaced with manual RL.  
 ND = Not detected, Result = detection limit.

**Table C-1**

**Upgradient Data**

Constituent	Units	Well	Date		Result	Adjusted	
Total Radium	pCi/L	MW-13D	11/18/2022		0.6980		

\* - Outlier for that well and constituent.  
\*\* - ND value replaced with median RL.  
\*\*\* - ND value replaced with manual RL.  
ND = Not detected, Result = detection limit.

**Table C-2**

**Most Current Downgradient Monitoring Data**

Constituent	Units	Well	Date		Result		Pred. Limit
Antimony, Total	ug/L	MW-11D	11/29/2022	ND	1.0000		1.0000
Antimony, Total	ug/L	MW-1D	11/22/2022	ND	1.0000		1.0000
Antimony, Total	ug/L	MW-2D	11/15/2022	ND	1.0000		1.0000
Antimony, Total	ug/L	MW-6D	11/15/2022	ND	1.0000	**	1.0000
Arsenic, Total	ug/L	MW-11D	11/29/2022		5.0000	***	1.3000
Arsenic, Total	ug/L	MW-1D	11/22/2022		2.5000	***	1.3000
Arsenic, Total	ug/L	MW-2D	11/15/2022		4.1000	***	1.3000
Arsenic, Total	ug/L	MW-6D	11/15/2022	ND	1.0000		1.3000
Barium, Total	ug/L	MW-11D	11/29/2022		57.6000		73.8990
Barium, Total	ug/L	MW-1D	11/22/2022		63.1000		73.8990
Barium, Total	ug/L	MW-2D	11/15/2022		74.0000	*	73.8990
Barium, Total	ug/L	MW-6D	11/15/2022		63.1000		73.8990
Beryllium, Total	ug/L	MW-11D	05/12/2022	ND	0.2000		0.2000
Beryllium, Total	ug/L	MW-1D	05/10/2022	ND	0.2000		0.2000
Beryllium, Total	ug/L	MW-2D	05/11/2022	ND	0.2000		0.2000
Beryllium, Total	ug/L	MW-6D	05/11/2022	ND	0.2000		0.2000
Cadmium, Total	ug/L	MW-11D	05/12/2022	ND	2.0000		2.0000
Cadmium, Total	ug/L	MW-1D	05/10/2022	ND	2.0000		2.0000
Cadmium, Total	ug/L	MW-2D	05/11/2022	ND	2.0000		2.0000
Cadmium, Total	ug/L	MW-6D	05/11/2022	ND	2.0000		2.0000
Chromium, Total	ug/L	MW-11D	05/12/2022	ND	10.0000		10.0000
Chromium, Total	ug/L	MW-1D	05/10/2022	ND	10.0000		10.0000
Chromium, Total	ug/L	MW-2D	05/11/2022	ND	10.0000		10.0000
Chromium, Total	ug/L	MW-6D	05/11/2022	ND	10.0000		10.0000
Cobalt, Total	ug/L	MW-11D	05/12/2022	ND	1.0000		1.2000
Cobalt, Total	ug/L	MW-1D	05/10/2022	ND	1.0000		1.2000
Cobalt, Total	ug/L	MW-2D	05/11/2022	ND	1.0000		1.2000
Cobalt, Total	ug/L	MW-6D	05/11/2022	ND	1.0000		1.2000
Fluoride	mg/L	MW-11D	11/29/2022		0.2800	***	0.1200
Fluoride	mg/L	MW-1D	11/22/2022		0.3800	***	0.1200
Fluoride	mg/L	MW-2D	11/15/2022		0.2800	***	0.1200
Fluoride	mg/L	MW-6D	11/15/2022		0.1800	***	0.1200
Lead, Total	ug/L	MW-11D	05/12/2022	ND	10.0000		10.0000
Lead, Total	ug/L	MW-1D	05/10/2022	ND	10.0000		10.0000
Lead, Total	ug/L	MW-2D	05/11/2022	ND	10.0000		10.0000
Lead, Total	ug/L	MW-6D	05/11/2022	ND	10.0000		10.0000
Lithium, Total	ug/L	MW-11D	11/29/2022		81.9000	***	20.0000
Lithium, Total	ug/L	MW-1D	11/22/2022		80.9000	***	20.0000
Lithium, Total	ug/L	MW-2D	11/15/2022		49.2000	***	20.0000

\* - Current value failed - awaiting verification.  
 \*\* - Current value passed - previous exceedance not verified.  
 \*\*\* - Current value failed - exceedance verified.  
 \*\*\*\* - Current value passed - awaiting one more verification.  
 \*\*\*\*\* - Insufficient background data to compute prediction limit.  
 ND = Not Detected, Result = detection limit.



**Table C-2**

**Most Current Downgradient Monitoring Data**

Constituent	Units	Well	Date		Result		Pred. Limit
Lithium, Total	ug/L	MW-6D	11/15/2022		81.2000	***	20.0000
Mercury	ug/L	MW-11D	05/12/2022	ND	0.2000		2.0000
Mercury	ug/L	MW-1D	05/10/2022	ND	0.2000		2.0000
Mercury	ug/L	MW-2D	05/11/2022	ND	0.2000		2.0000
Mercury	ug/L	MW-6D	05/11/2022	ND	0.2000		2.0000
Molybdenum, Total	ug/L	MW-11D	11/29/2022		159.0000	***	10.0000
Molybdenum, Total	ug/L	MW-1D	11/22/2022		101.0000	***	10.0000
Molybdenum, Total	ug/L	MW-2D	11/15/2022		52.9000	***	10.0000
Molybdenum, Total	ug/L	MW-6D	11/15/2022		210.0000	***	10.0000
Selenium, Total	ug/L	MW-11D	11/29/2022	ND	1.0000		1.3000
Selenium, Total	ug/L	MW-1D	11/22/2022	ND	1.0000		1.3000
Selenium, Total	ug/L	MW-2D	11/15/2022	ND	1.0000		1.3000
Selenium, Total	ug/L	MW-6D	11/15/2022	ND	1.0000		1.3000
Thallium, Total	ug/L	MW-11D	05/12/2022	ND	1.0000		1.0000
Thallium, Total	ug/L	MW-1D	05/10/2022	ND	1.0000		1.0000
Thallium, Total	ug/L	MW-2D	05/11/2022	ND	1.0000		1.0000
Thallium, Total	ug/L	MW-6D	05/11/2022	ND	1.0000		1.0000
Total Radium	pCi/L	MW-11D	11/29/2022		0.8940		1.7518
Total Radium	pCi/L	MW-1D	11/22/2022	ND	1.6700		1.7518
Total Radium	pCi/L	MW-2D	11/15/2022		0.8250		1.7518
Total Radium	pCi/L	MW-6D	11/15/2022		0.8880		1.7518

\* - Current value failed - awaiting verification.  
 \*\* - Current value passed - previous exceedance not verified.  
 \*\*\* - Current value failed - exceedance verified.  
 \*\*\*\* - Current value passed - awaiting one more verification.  
 \*\*\*\*\* - Insufficient background data to compute prediction limit.  
 ND = Not Detected, Result = detection limit.

**Table C-3**

**Detection Frequencies in Upgradient and Downgradient Wells**

Constituent	Upgradient			Downgradient		
	Detect	N	Proportion	Detect	N	Proportion
Antimony, Total	0	12	0.000	1	72	0.014
Arsenic, Total	1	12	0.083	30	72	0.417
Barium, Total	12	12	1.000	72	72	1.000
Beryllium, Total	0	10	0.000	0	52	0.000
Cadmium, Total	0	10	0.000	0	52	0.000
Chromium, Total	0	10	0.000	1	52	0.019
Cobalt, Total	1	11	0.091	1	68	0.015
Fluoride	6	12	0.500	76	76	1.000
Lead, Total	0	10	0.000	2	52	0.038
Lithium, Total	0	12	0.000	72	72	1.000
Mercury	0	9	0.000	0	52	0.000
Molybdenum, Total	0	12	0.000	72	72	1.000
Selenium, Total	5	11	0.455	0	72	0.000
Thallium, Total	0	10	0.000	0	52	0.000
Total Radium	7	11	0.636	67	72	0.931

N = Total number of measurements in all wells.  
 Detect = Total number of detections in all wells.  
 Proportion = Detect/N.

**Table C-4**

**Shapiro-Wilk Multiple Group Test of Normality**

Constituent	Detect	N	Detect Freq	G raw	G log	G cbrt	G sqrt	G sqr	G cub	Crit Value	Dist Form	Model Type
Antimony, Total	0	12	0.000	3.731	3.731					2.326	non-norm	nonpar
Arsenic, Total	1	12	0.083	21.797	21.797					2.326	non-norm	nonpar
Barium, Total	12	12	1.000	0.670	0.984					2.326	normal	normal
Beryllium, Total	0	10	0.000	3.262	3.262					2.326	non-norm	nonpar
Cadmium, Total	0	10	0.000	3.262	3.262					2.326	non-norm	nonpar
Chromium, Total	0	10	0.000	3.262	3.262					2.326	non-norm	nonpar
Cobalt, Total	1	11	0.091	3.485	3.485					2.326	non-norm	nonpar
Fluoride	6	12	0.500	3.111	3.093					2.326	non-norm	nonpar
Lead, Total	0	10	0.000	3.262	3.262					2.326	non-norm	nonpar
Lithium, Total	0	12	0.000	3.731	3.731					2.326	non-norm	nonpar
Mercury	0	9	0.000	2.968	2.968					2.326	non-norm	nonpar
Molybdenum, Total	0	12	0.000	3.731	3.731					2.326	non-norm	nonpar
Selenium, Total	5	11	0.455	2.794	2.845					2.326	non-norm	nonpar
Thallium, Total	0	10	0.000	3.262	3.262					2.326	non-norm	nonpar
Total Radium	7	11	0.636	1.787	1.266					2.326	normal	normal

\* - Distribution override for that constituent.  
 Fit to distribution is confirmed if G <= critical value.  
 Model type may not match distributional form when detection frequency < 50%.

**Table C-5**

**Summary Statistics and Prediction Limits**

Constituent	Units	Detect	N	Mean	SD	alpha	Factor	Pred Limit	Type		Conf
Antimony, Total	ug/L	0	12					1.0000	nonpar	***	0.96
Arsenic, Total	ug/L	1	12					1.3000	nonpar		0.96
Barium, Total	ug/L	12	12	58.7583	5.3626	0.0100	2.8234	73.8990	normal		
Beryllium, Total	ug/L	0	10					0.2000	nonpar	***	0.94
Cadmium, Total	ug/L	0	10					2.0000	nonpar	***	0.94
Chromium, Total	ug/L	0	10					10.0000	nonpar	***	0.94
Cobalt, Total	ug/L	1	11					1.2000	nonpar		0.95
Fluoride	mg/L	6	12					0.1200	nonpar		0.96
Lead, Total	ug/L	0	10					10.0000	nonpar	***	0.94
Lithium, Total	ug/L	0	12					20.0000	nonpar	***	0.96
Mercury	ug/L	0	9					2.0000	nonpar	***	0.93
Molybdenum, Total	ug/L	0	12					10.0000	nonpar	***	0.96
Selenium, Total	ug/L	5	11					1.3000	nonpar		0.95
Thallium, Total	ug/L	0	10					1.0000	nonpar	***	0.94
Total Radium	pCi/L	7	11	0.5062	0.4316	0.0100	2.8863	1.7518	normal		

Conf = confidence level for passing initial test or one verification resample at all downgradient wells for a single constituent (nonparametric test only).

\* - Insufficient Data.

\*\* - Calculated limit raised to Manual Reporting Limit.

\*\*\* - Nonparametric limit based on ND value.

For transformed data, mean and SD in transformed units and prediction limit in original units.

All sample sizes and statistics are based on outlier free data.

For nonparametric limits, median reporting limits are substituted for extreme reporting limit values.

**Table C-6**

**Dixon's Test Outliers  
1% Significance Level**

Constituent	Units	Well	Date	Result	ND Qualifier	Date Range	N	Critical Value
Selenium, Total	ug/L	MW-13D	05/07/2020	10.0000	< 10.0000	08/08/2019-11/18/2022	12	0.6425

N = Total number of independent measurements in background at each well.

Date Range = Dates of the first and last measurements included in background at each well.

Critical Value depends on the significance level and on N-1 when the two most extreme values are tested or N for the most extreme value.

**Table C-7**

**Historical Downgradient Data for Constituent-Well Combinations  
that Failed the Current Statistical Evaluation or  
are in Verification Resampling Mode**

Constituent	Units	Well	Date		Result	Pred. Limit
Antimony, Total	ug/L	MW-6D	04/20/2016	ND	6.0000	1.0000
Antimony, Total	ug/L	MW-6D	06/01/2016	ND	6.0000	1.0000
Antimony, Total	ug/L	MW-6D	08/11/2016	ND	6.0000	1.0000
Antimony, Total	ug/L	MW-6D	09/29/2016	ND	6.0000	1.0000
Antimony, Total	ug/L	MW-6D	12/01/2016	ND	6.0000	1.0000
Antimony, Total	ug/L	MW-6D	01/30/2017	ND	6.0000	1.0000
Antimony, Total	ug/L	MW-6D	05/25/2017	ND	6.0000	1.0000
Antimony, Total	ug/L	MW-6D	08/10/2017	ND	6.0000	1.0000
Antimony, Total	ug/L	MW-6D	05/22/2018	ND	1.0000	1.0000
Antimony, Total	ug/L	MW-6D	09/10/2018	ND	1.0000	1.0000
Antimony, Total	ug/L	MW-6D	05/08/2019	ND	1.0000	1.0000
Antimony, Total	ug/L	MW-6D	11/14/2019	ND	1.0000	1.0000
Antimony, Total	ug/L	MW-6D	05/08/2020	ND	1.0000	1.0000
Antimony, Total	ug/L	MW-6D	11/10/2020	ND	1.0000	1.0000
Antimony, Total	ug/L	MW-6D	05/18/2021	ND	1.0000	1.0000
Antimony, Total	ug/L	MW-6D	11/09/2021	ND	1.0000	1.0000
Antimony, Total	ug/L	MW-6D	05/11/2022		1.3000 *	1.0000
Antimony, Total	ug/L	MW-6D	11/15/2022	ND	1.0000	1.0000
Arsenic, Total	ug/L	MW-11D	04/20/2016	ND	10.0000	1.3000
Arsenic, Total	ug/L	MW-11D	06/02/2016	ND	10.0000	1.3000
Arsenic, Total	ug/L	MW-11D	08/12/2016	ND	10.0000	1.3000
Arsenic, Total	ug/L	MW-11D	09/30/2016	ND	10.0000	1.3000
Arsenic, Total	ug/L	MW-11D	12/01/2016	ND	10.0000	1.3000
Arsenic, Total	ug/L	MW-11D	01/31/2017	ND	10.0000	1.3000
Arsenic, Total	ug/L	MW-11D	05/25/2017		24.4000 *	1.3000
Arsenic, Total	ug/L	MW-11D	08/10/2017	ND	10.0000	1.3000
Arsenic, Total	ug/L	MW-11D	05/22/2018		6.1000 *	1.3000
Arsenic, Total	ug/L	MW-11D	09/12/2018		5.3000 *	1.3000
Arsenic, Total	ug/L	MW-11D	05/08/2019		5.1000 *	1.3000
Arsenic, Total	ug/L	MW-11D	11/14/2019		5.0000 *	1.3000
Arsenic, Total	ug/L	MW-11D	05/07/2020		5.6000 *	1.3000
Arsenic, Total	ug/L	MW-11D	11/12/2020		4.6000 *	1.3000
Arsenic, Total	ug/L	MW-11D	05/17/2021		5.1000 *	1.3000
Arsenic, Total	ug/L	MW-11D	11/17/2021		6.2000 *	1.3000
Arsenic, Total	ug/L	MW-11D	05/12/2022		5.2000 *	1.3000
Arsenic, Total	ug/L	MW-11D	11/29/2022		5.0000 *	1.3000
Arsenic, Total	ug/L	MW-1D	04/19/2016	ND	10.0000	1.3000
Arsenic, Total	ug/L	MW-1D	06/02/2016	ND	10.0000	1.3000

\* - Significantly increased over background.  
 \*\* - Detect at limit for 100% NDs in background (NPPL only).  
 \*\*\* - Manual exclusion.  
 ND = Not Detected, Result = detection limit.

**Table C-7**

**Historical Downgradient Data for Constituent-Well Combinations  
that Failed the Current Statistical Evaluation or  
are in Verification Resampling Mode**

Constituent	Units	Well	Date		Result	Pred. Limit
Arsenic, Total	ug/L	MW-1D	08/10/2016	ND	10.0000	1.3000
Arsenic, Total	ug/L	MW-1D	09/30/2016	ND	10.0000	1.3000
Arsenic, Total	ug/L	MW-1D	12/02/2016	ND	10.0000	1.3000
Arsenic, Total	ug/L	MW-1D	01/31/2017	ND	10.0000	1.3000
Arsenic, Total	ug/L	MW-1D	05/26/2017	ND	10.0000	1.3000
Arsenic, Total	ug/L	MW-1D	08/11/2017	ND	10.0000	1.3000
Arsenic, Total	ug/L	MW-1D	05/23/2018		1.6000 *	1.3000
Arsenic, Total	ug/L	MW-1D	09/11/2018		1.6000 *	1.3000
Arsenic, Total	ug/L	MW-1D	05/08/2019		1.5000 *	1.3000
Arsenic, Total	ug/L	MW-1D	11/14/2019		3.6000 *	1.3000
Arsenic, Total	ug/L	MW-1D	05/05/2020		1.9000 *	1.3000
Arsenic, Total	ug/L	MW-1D	11/11/2020		4.2000 *	1.3000
Arsenic, Total	ug/L	MW-1D	05/25/2021		2.3000 *	1.3000
Arsenic, Total	ug/L	MW-1D	11/09/2021		2.1000 *	1.3000
Arsenic, Total	ug/L	MW-1D	05/10/2022		3.7000 *	1.3000
Arsenic, Total	ug/L	MW-1D	11/22/2022		2.5000 *	1.3000
Arsenic, Total	ug/L	MW-2D	04/19/2016	ND	10.0000	1.3000
Arsenic, Total	ug/L	MW-2D	06/02/2016	ND	10.0000	1.3000
Arsenic, Total	ug/L	MW-2D	08/11/2016	ND	10.0000	1.3000
Arsenic, Total	ug/L	MW-2D	09/30/2016	ND	10.0000	1.3000
Arsenic, Total	ug/L	MW-2D	12/02/2016	ND	10.0000	1.3000
Arsenic, Total	ug/L	MW-2D	01/31/2017	ND	10.0000	1.3000
Arsenic, Total	ug/L	MW-2D	05/26/2017	ND	10.0000	1.3000
Arsenic, Total	ug/L	MW-2D	08/11/2017	ND	10.0000	1.3000
Arsenic, Total	ug/L	MW-2D	05/22/2018		3.2000 *	1.3000
Arsenic, Total	ug/L	MW-2D	09/11/2018		3.9000 *	1.3000
Arsenic, Total	ug/L	MW-2D	05/09/2019		3.2000 *	1.3000
Arsenic, Total	ug/L	MW-2D	11/13/2019		3.7000 *	1.3000
Arsenic, Total	ug/L	MW-2D	05/05/2020		3.5000 *	1.3000
Arsenic, Total	ug/L	MW-2D	11/11/2020		4.0000 *	1.3000
Arsenic, Total	ug/L	MW-2D	05/11/2021		4.5000 *	1.3000
Arsenic, Total	ug/L	MW-2D	11/10/2021	ND	1.0000	1.3000
Arsenic, Total	ug/L	MW-2D	05/11/2022		3.7000 *	1.3000
Arsenic, Total	ug/L	MW-2D	11/15/2022		4.1000 *	1.3000
Barium, Total	ug/L	MW-2D	04/19/2016		71.7000	73.8990
Barium, Total	ug/L	MW-2D	06/02/2016		62.2000	73.8990
Barium, Total	ug/L	MW-2D	08/11/2016		65.6000	73.8990
Barium, Total	ug/L	MW-2D	09/30/2016		60.7000	73.8990

\* - Significantly increased over background.  
 \*\* - Detect at limit for 100% NDs in background (NPPL only).  
 \*\*\* - Manual exclusion.  
 ND = Not Detected, Result = detection limit.

**Table C-7**

**Historical Downgradient Data for Constituent-Well Combinations  
that Failed the Current Statistical Evaluation or  
are in Verification Resampling Mode**

Constituent	Units	Well	Date	Result	Pred. Limit
Barium, Total	ug/L	MW-2D	12/02/2016	65.6000	73.8990
Barium, Total	ug/L	MW-2D	01/31/2017	65.2000	73.8990
Barium, Total	ug/L	MW-2D	05/26/2017	62.5000	73.8990
Barium, Total	ug/L	MW-2D	08/11/2017	64.0000	73.8990
Barium, Total	ug/L	MW-2D	05/22/2018	53.2000	73.8990
Barium, Total	ug/L	MW-2D	09/11/2018	40.7000	73.8990
Barium, Total	ug/L	MW-2D	05/09/2019	48.6000	73.8990
Barium, Total	ug/L	MW-2D	11/13/2019	52.1000	73.8990
Barium, Total	ug/L	MW-2D	05/05/2020	56.9000	73.8990
Barium, Total	ug/L	MW-2D	11/11/2020	62.5000	73.8990
Barium, Total	ug/L	MW-2D	05/11/2021	74.2000 *	73.8990
Barium, Total	ug/L	MW-2D	11/10/2021	65.4000	73.8990
Barium, Total	ug/L	MW-2D	05/11/2022	69.7000	73.8990
Barium, Total	ug/L	MW-2D	11/15/2022	74.0000 *	73.8990
Fluoride	mg/L	MW-11D	04/20/2016	0.2600 *	0.1200
Fluoride	mg/L	MW-11D	06/02/2016	0.2300 *	0.1200
Fluoride	mg/L	MW-11D	08/12/2016	0.2100 *	0.1200
Fluoride	mg/L	MW-11D	09/30/2016	0.2300 *	0.1200
Fluoride	mg/L	MW-11D	12/01/2016	0.2200 *	0.1200
Fluoride	mg/L	MW-11D	01/31/2017	0.2400 *	0.1200
Fluoride	mg/L	MW-11D	05/25/2017	0.2500 *	0.1200
Fluoride	mg/L	MW-11D	08/10/2017	0.2300 *	0.1200
Fluoride	mg/L	MW-11D	09/28/2017	0.1900 *	0.1200
Fluoride	mg/L	MW-11D	05/22/2018	0.2000 *	0.1200
Fluoride	mg/L	MW-11D	09/12/2018	0.1700 *	0.1200
Fluoride	mg/L	MW-11D	05/08/2019	0.2000 *	0.1200
Fluoride	mg/L	MW-11D	11/14/2019	0.2000 *	0.1200
Fluoride	mg/L	MW-11D	05/07/2020	0.2400 *	0.1200
Fluoride	mg/L	MW-11D	11/12/2020	0.2500 *	0.1200
Fluoride	mg/L	MW-11D	05/17/2021	0.2500 *	0.1200
Fluoride	mg/L	MW-11D	11/17/2021	0.2300 *	0.1200
Fluoride	mg/L	MW-11D	05/12/2022	0.3000 *	0.1200
Fluoride	mg/L	MW-11D	11/29/2022	0.2800 *	0.1200
Fluoride	mg/L	MW-1D	04/19/2016	0.4400 *	0.1200
Fluoride	mg/L	MW-1D	06/02/2016	0.4400 *	0.1200
Fluoride	mg/L	MW-1D	08/10/2016	0.4200 *	0.1200
Fluoride	mg/L	MW-1D	09/30/2016	0.4600 *	0.1200
Fluoride	mg/L	MW-1D	12/02/2016	0.4600 *	0.1200

\* - Significantly increased over background.  
 \*\* - Detect at limit for 100% NDs in background (NPPL only).  
 \*\*\* - Manual exclusion.  
 ND = Not Detected, Result = detection limit.



**Table C-7**

**Historical Downgradient Data for Constituent-Well Combinations  
that Failed the Current Statistical Evaluation or  
are in Verification Resampling Mode**

Constituent	Units	Well	Date	Result	Pred. Limit
Fluoride	mg/L	MW-1D	01/31/2017	0.4100 *	0.1200
Fluoride	mg/L	MW-1D	05/26/2017	0.4200 *	0.1200
Fluoride	mg/L	MW-1D	08/11/2017	0.4200 *	0.1200
Fluoride	mg/L	MW-1D	09/28/2017	0.4200 *	0.1200
Fluoride	mg/L	MW-1D	05/23/2018	0.3600 *	0.1200
Fluoride	mg/L	MW-1D	09/11/2018	0.3200 *	0.1200
Fluoride	mg/L	MW-1D	05/08/2019	0.3500 *	0.1200
Fluoride	mg/L	MW-1D	11/14/2019	0.3700 *	0.1200
Fluoride	mg/L	MW-1D	05/05/2020	0.3700 *	0.1200
Fluoride	mg/L	MW-1D	11/11/2020	0.3700 *	0.1200
Fluoride	mg/L	MW-1D	05/25/2021	0.3100 *	0.1200
Fluoride	mg/L	MW-1D	11/09/2021	0.3000 *	0.1200
Fluoride	mg/L	MW-1D	05/10/2022	0.3200 *	0.1200
Fluoride	mg/L	MW-1D	11/22/2022	0.3800 *	0.1200
Fluoride	mg/L	MW-2D	04/19/2016	0.4200 *	0.1200
Fluoride	mg/L	MW-2D	06/02/2016	0.4100 *	0.1200
Fluoride	mg/L	MW-2D	08/11/2016	0.3800 *	0.1200
Fluoride	mg/L	MW-2D	09/30/2016	0.3900 *	0.1200
Fluoride	mg/L	MW-2D	12/02/2016	0.4100 *	0.1200
Fluoride	mg/L	MW-2D	01/31/2017	0.3600 *	0.1200
Fluoride	mg/L	MW-2D	05/26/2017	0.3800 *	0.1200
Fluoride	mg/L	MW-2D	08/11/2017	0.3800 *	0.1200
Fluoride	mg/L	MW-2D	09/27/2017	0.3600 *	0.1200
Fluoride	mg/L	MW-2D	05/22/2018	0.3200 *	0.1200
Fluoride	mg/L	MW-2D	09/11/2018	0.2900 *	0.1200
Fluoride	mg/L	MW-2D	05/09/2019	0.3200 *	0.1200
Fluoride	mg/L	MW-2D	11/13/2019	0.3300 *	0.1200
Fluoride	mg/L	MW-2D	05/05/2020	0.3500 *	0.1200
Fluoride	mg/L	MW-2D	11/11/2020	0.3400 *	0.1200
Fluoride	mg/L	MW-2D	05/11/2021	0.1900 *	0.1200
Fluoride	mg/L	MW-2D	11/10/2021	0.2700 *	0.1200
Fluoride	mg/L	MW-2D	05/11/2022	0.2900 *	0.1200
Fluoride	mg/L	MW-2D	11/15/2022	0.2800 *	0.1200
Fluoride	mg/L	MW-6D	04/20/2016	0.2000 *	0.1200
Fluoride	mg/L	MW-6D	06/01/2016	0.1800 *	0.1200
Fluoride	mg/L	MW-6D	08/11/2016	0.1700 *	0.1200
Fluoride	mg/L	MW-6D	09/29/2016	0.1800 *	0.1200
Fluoride	mg/L	MW-6D	12/01/2016	0.2000 *	0.1200

\* - Significantly increased over background.  
 \*\* - Detect at limit for 100% NDs in background (NPPL only).  
 \*\*\* - Manual exclusion.  
 ND = Not Detected, Result = detection limit.

**Table C-7**

**Historical Downgradient Data for Constituent-Well Combinations  
that Failed the Current Statistical Evaluation or  
are in Verification Resampling Mode**

Constituent	Units	Well	Date	Result	Pred. Limit
Fluoride	mg/L	MW-6D	01/30/2017	0.1800 *	0.1200
Fluoride	mg/L	MW-6D	05/25/2017	0.1800 *	0.1200
Fluoride	mg/L	MW-6D	08/10/2017	0.1900 *	0.1200
Fluoride	mg/L	MW-6D	09/27/2017	0.1900 *	0.1200
Fluoride	mg/L	MW-6D	05/22/2018	0.1200	0.1200
Fluoride	mg/L	MW-6D	09/10/2018	0.1200	0.1200
Fluoride	mg/L	MW-6D	05/08/2019	0.1600 *	0.1200
Fluoride	mg/L	MW-6D	11/14/2019	0.1400 *	0.1200
Fluoride	mg/L	MW-6D	05/08/2020	0.1300 *	0.1200
Fluoride	mg/L	MW-6D	11/10/2020	0.1700 *	0.1200
Fluoride	mg/L	MW-6D	05/18/2021	0.1600 *	0.1200
Fluoride	mg/L	MW-6D	11/09/2021	0.1800 *	0.1200
Fluoride	mg/L	MW-6D	05/11/2022	0.2000 *	0.1200
Fluoride	mg/L	MW-6D	11/15/2022	0.1800 *	0.1200
Lithium, Total	ug/L	MW-11D	04/20/2016	102.0000 *	20.0000
Lithium, Total	ug/L	MW-11D	06/02/2016	99.6000 *	20.0000
Lithium, Total	ug/L	MW-11D	08/12/2016	91.7000 *	20.0000
Lithium, Total	ug/L	MW-11D	09/30/2016	95.9000 *	20.0000
Lithium, Total	ug/L	MW-11D	12/01/2016	97.4000 *	20.0000
Lithium, Total	ug/L	MW-11D	01/31/2017	88.3000 *	20.0000
Lithium, Total	ug/L	MW-11D	05/25/2017	134.0000 *	20.0000
Lithium, Total	ug/L	MW-11D	08/10/2017	98.8000 *	20.0000
Lithium, Total	ug/L	MW-11D	05/22/2018	91.9000 *	20.0000
Lithium, Total	ug/L	MW-11D	09/12/2018	83.0000 *	20.0000
Lithium, Total	ug/L	MW-11D	05/08/2019	93.0000 *	20.0000
Lithium, Total	ug/L	MW-11D	11/14/2019	93.0000 *	20.0000
Lithium, Total	ug/L	MW-11D	05/07/2020	94.1000 *	20.0000
Lithium, Total	ug/L	MW-11D	11/12/2020	85.7000 *	20.0000
Lithium, Total	ug/L	MW-11D	05/17/2021	84.1000 *	20.0000
Lithium, Total	ug/L	MW-11D	11/17/2021	82.7000 *	20.0000
Lithium, Total	ug/L	MW-11D	05/12/2022	88.1000 *	20.0000
Lithium, Total	ug/L	MW-11D	11/29/2022	81.9000 *	20.0000
Lithium, Total	ug/L	MW-1D	04/19/2016	108.0000 *	20.0000
Lithium, Total	ug/L	MW-1D	06/02/2016	99.0000 *	20.0000
Lithium, Total	ug/L	MW-1D	08/10/2016	91.0000 *	20.0000
Lithium, Total	ug/L	MW-1D	09/30/2016	90.9000 *	20.0000
Lithium, Total	ug/L	MW-1D	12/02/2016	90.8000 *	20.0000
Lithium, Total	ug/L	MW-1D	01/31/2017	88.6000 *	20.0000

\* - Significantly increased over background.  
 \*\* - Detect at limit for 100% NDs in background (NPPL only).  
 \*\*\* - Manual exclusion.  
 ND = Not Detected, Result = detection limit.

**Table C-7**

**Historical Downgradient Data for Constituent-Well Combinations  
that Failed the Current Statistical Evaluation or  
are in Verification Resampling Mode**

Constituent	Units	Well	Date	Result	Pred. Limit
Lithium, Total	ug/L	MW-1D	05/26/2017	94.2000 *	20.0000
Lithium, Total	ug/L	MW-1D	08/11/2017	92.0000 *	20.0000
Lithium, Total	ug/L	MW-1D	05/23/2018	99.2000 *	20.0000
Lithium, Total	ug/L	MW-1D	09/11/2018	89.0000 *	20.0000
Lithium, Total	ug/L	MW-1D	05/08/2019	99.7000 *	20.0000
Lithium, Total	ug/L	MW-1D	11/14/2019	90.2000 *	20.0000
Lithium, Total	ug/L	MW-1D	05/05/2020	94.3000 *	20.0000
Lithium, Total	ug/L	MW-1D	11/11/2020	83.2000 *	20.0000
Lithium, Total	ug/L	MW-1D	05/25/2021	82.6000 *	20.0000
Lithium, Total	ug/L	MW-1D	11/09/2021	93.6000 *	20.0000
Lithium, Total	ug/L	MW-1D	05/10/2022	84.5000 *	20.0000
Lithium, Total	ug/L	MW-1D	11/22/2022	80.9000 *	20.0000
Lithium, Total	ug/L	MW-2D	04/19/2016	115.0000 *	20.0000
Lithium, Total	ug/L	MW-2D	06/02/2016	110.0000 *	20.0000
Lithium, Total	ug/L	MW-2D	08/11/2016	109.0000 *	20.0000
Lithium, Total	ug/L	MW-2D	09/30/2016	106.0000 *	20.0000
Lithium, Total	ug/L	MW-2D	12/02/2016	108.0000 *	20.0000
Lithium, Total	ug/L	MW-2D	01/31/2017	105.0000 *	20.0000
Lithium, Total	ug/L	MW-2D	05/26/2017	106.0000 *	20.0000
Lithium, Total	ug/L	MW-2D	08/11/2017	102.0000 *	20.0000
Lithium, Total	ug/L	MW-2D	05/22/2018	91.1000 *	20.0000
Lithium, Total	ug/L	MW-2D	09/11/2018	69.2000 *	20.0000
Lithium, Total	ug/L	MW-2D	05/09/2019	86.5000 *	20.0000
Lithium, Total	ug/L	MW-2D	11/13/2019	76.5000 *	20.0000
Lithium, Total	ug/L	MW-2D	05/05/2020	74.4000 *	20.0000
Lithium, Total	ug/L	MW-2D	11/11/2020	52.7000 *	20.0000
Lithium, Total	ug/L	MW-2D	05/11/2021	51.0000 *	20.0000
Lithium, Total	ug/L	MW-2D	11/10/2021	49.6000 *	20.0000
Lithium, Total	ug/L	MW-2D	05/11/2022	51.2000 *	20.0000
Lithium, Total	ug/L	MW-2D	11/15/2022	49.2000 *	20.0000
Lithium, Total	ug/L	MW-6D	04/20/2016	155.0000 *	20.0000
Lithium, Total	ug/L	MW-6D	06/01/2016	134.0000 *	20.0000
Lithium, Total	ug/L	MW-6D	08/11/2016	138.0000 *	20.0000
Lithium, Total	ug/L	MW-6D	09/29/2016	137.0000 *	20.0000
Lithium, Total	ug/L	MW-6D	12/01/2016	132.0000 *	20.0000
Lithium, Total	ug/L	MW-6D	01/30/2017	132.0000 *	20.0000
Lithium, Total	ug/L	MW-6D	05/25/2017	134.0000 *	20.0000
Lithium, Total	ug/L	MW-6D	08/10/2017	121.0000 *	20.0000

\* - Significantly increased over background.  
 \*\* - Detect at limit for 100% NDs in background (NPPL only).  
 \*\*\* - Manual exclusion.  
 ND = Not Detected, Result = detection limit.

**Table C-7**

**Historical Downgradient Data for Constituent-Well Combinations  
that Failed the Current Statistical Evaluation or  
are in Verification Resampling Mode**

Constituent	Units	Well	Date	Result	Pred. Limit
Lithium, Total	ug/L	MW-6D	05/22/2018	105.0000 *	20.0000
Lithium, Total	ug/L	MW-6D	09/10/2018	90.6000 *	20.0000
Lithium, Total	ug/L	MW-6D	05/08/2019	113.0000 *	20.0000
Lithium, Total	ug/L	MW-6D	11/14/2019	97.3000 *	20.0000
Lithium, Total	ug/L	MW-6D	05/08/2020	99.0000 *	20.0000
Lithium, Total	ug/L	MW-6D	11/10/2020	81.7000 *	20.0000
Lithium, Total	ug/L	MW-6D	05/18/2021	84.5000 *	20.0000
Lithium, Total	ug/L	MW-6D	11/09/2021	86.3000 *	20.0000
Lithium, Total	ug/L	MW-6D	05/11/2022	80.7000 *	20.0000
Lithium, Total	ug/L	MW-6D	11/15/2022	81.2000 *	20.0000
Molybdenum, Total	ug/L	MW-11D	04/20/2016	202.0000 *	10.0000
Molybdenum, Total	ug/L	MW-11D	06/02/2016	200.0000 *	10.0000
Molybdenum, Total	ug/L	MW-11D	08/12/2016	189.0000 *	10.0000
Molybdenum, Total	ug/L	MW-11D	09/30/2016	189.0000 *	10.0000
Molybdenum, Total	ug/L	MW-11D	12/01/2016	191.0000 *	10.0000
Molybdenum, Total	ug/L	MW-11D	01/31/2017	182.0000 *	10.0000
Molybdenum, Total	ug/L	MW-11D	05/25/2017	183.0000 *	10.0000
Molybdenum, Total	ug/L	MW-11D	08/10/2017	194.0000 *	10.0000
Molybdenum, Total	ug/L	MW-11D	05/22/2018	189.0000 *	10.0000
Molybdenum, Total	ug/L	MW-11D	09/12/2018	156.0000 *	10.0000
Molybdenum, Total	ug/L	MW-11D	05/08/2019	175.0000 *	10.0000
Molybdenum, Total	ug/L	MW-11D	11/14/2019	162.0000 *	10.0000
Molybdenum, Total	ug/L	MW-11D	05/07/2020	176.0000 *	10.0000
Molybdenum, Total	ug/L	MW-11D	11/12/2020	170.0000 *	10.0000
Molybdenum, Total	ug/L	MW-11D	05/17/2021	173.0000 *	10.0000
Molybdenum, Total	ug/L	MW-11D	11/17/2021	183.0000 *	10.0000
Molybdenum, Total	ug/L	MW-11D	05/12/2022	169.0000 *	10.0000
Molybdenum, Total	ug/L	MW-11D	11/29/2022	159.0000 *	10.0000
Molybdenum, Total	ug/L	MW-1D	04/19/2016	108.0000 *	10.0000
Molybdenum, Total	ug/L	MW-1D	06/02/2016	118.0000 *	10.0000
Molybdenum, Total	ug/L	MW-1D	08/10/2016	128.0000 *	10.0000
Molybdenum, Total	ug/L	MW-1D	09/30/2016	126.0000 *	10.0000
Molybdenum, Total	ug/L	MW-1D	12/02/2016	123.0000 *	10.0000
Molybdenum, Total	ug/L	MW-1D	01/31/2017	125.0000 *	10.0000
Molybdenum, Total	ug/L	MW-1D	05/26/2017	119.0000 *	10.0000
Molybdenum, Total	ug/L	MW-1D	08/11/2017	118.0000 *	10.0000
Molybdenum, Total	ug/L	MW-1D	05/23/2018	107.0000 *	10.0000
Molybdenum, Total	ug/L	MW-1D	09/11/2018	111.0000 *	10.0000

\* - Significantly increased over background.  
 \*\* - Detect at limit for 100% NDs in background (NPPL only).  
 \*\*\* - Manual exclusion.  
 ND = Not Detected, Result = detection limit.

**Table C-7**

**Historical Downgradient Data for Constituent-Well Combinations  
that Failed the Current Statistical Evaluation or  
are in Verification Resampling Mode**

Constituent	Units	Well	Date	Result	Pred. Limit
Molybdenum, Total	ug/L	MW-1D	05/08/2019	122.0000 *	10.0000
Molybdenum, Total	ug/L	MW-1D	11/14/2019	118.0000 *	10.0000
Molybdenum, Total	ug/L	MW-1D	05/05/2020	119.0000 *	10.0000
Molybdenum, Total	ug/L	MW-1D	11/11/2020	113.0000 *	10.0000
Molybdenum, Total	ug/L	MW-1D	05/25/2021	106.0000 *	10.0000
Molybdenum, Total	ug/L	MW-1D	11/09/2021	112.0000 *	10.0000
Molybdenum, Total	ug/L	MW-1D	05/10/2022	104.0000 *	10.0000
Molybdenum, Total	ug/L	MW-1D	11/22/2022	101.0000 *	10.0000
Molybdenum, Total	ug/L	MW-2D	04/19/2016	103.0000 *	10.0000
Molybdenum, Total	ug/L	MW-2D	06/02/2016	107.0000 *	10.0000
Molybdenum, Total	ug/L	MW-2D	08/11/2016	102.0000 *	10.0000
Molybdenum, Total	ug/L	MW-2D	09/30/2016	99.4000 *	10.0000
Molybdenum, Total	ug/L	MW-2D	12/02/2016	110.0000 *	10.0000
Molybdenum, Total	ug/L	MW-2D	01/31/2017	117.0000 *	10.0000
Molybdenum, Total	ug/L	MW-2D	05/26/2017	120.0000 *	10.0000
Molybdenum, Total	ug/L	MW-2D	08/11/2017	120.0000 *	10.0000
Molybdenum, Total	ug/L	MW-2D	05/22/2018	128.0000 *	10.0000
Molybdenum, Total	ug/L	MW-2D	09/11/2018	101.0000 *	10.0000
Molybdenum, Total	ug/L	MW-2D	05/09/2019	94.8000 *	10.0000
Molybdenum, Total	ug/L	MW-2D	11/13/2019	93.3000 *	10.0000
Molybdenum, Total	ug/L	MW-2D	05/05/2020	92.0000 *	10.0000
Molybdenum, Total	ug/L	MW-2D	11/11/2020	76.0000 *	10.0000
Molybdenum, Total	ug/L	MW-2D	05/11/2021	67.5000 *	10.0000
Molybdenum, Total	ug/L	MW-2D	11/10/2021	67.2000 *	10.0000
Molybdenum, Total	ug/L	MW-2D	05/11/2022	59.6000 *	10.0000
Molybdenum, Total	ug/L	MW-2D	11/15/2022	52.9000 *	10.0000
Molybdenum, Total	ug/L	MW-6D	04/20/2016	184.0000 *	10.0000
Molybdenum, Total	ug/L	MW-6D	06/01/2016	185.0000 *	10.0000
Molybdenum, Total	ug/L	MW-6D	08/11/2016	188.0000 *	10.0000
Molybdenum, Total	ug/L	MW-6D	09/29/2016	180.0000 *	10.0000
Molybdenum, Total	ug/L	MW-6D	12/01/2016	188.0000 *	10.0000
Molybdenum, Total	ug/L	MW-6D	01/30/2017	194.0000 *	10.0000
Molybdenum, Total	ug/L	MW-6D	05/25/2017	208.0000 *	10.0000
Molybdenum, Total	ug/L	MW-6D	08/10/2017	213.0000 *	10.0000
Molybdenum, Total	ug/L	MW-6D	05/22/2018	208.0000 *	10.0000
Molybdenum, Total	ug/L	MW-6D	09/10/2018	190.0000 *	10.0000
Molybdenum, Total	ug/L	MW-6D	05/08/2019	198.0000 *	10.0000
Molybdenum, Total	ug/L	MW-6D	11/14/2019	175.0000 *	10.0000

\* - Significantly increased over background.  
 \*\* - Detect at limit for 100% NDs in background (NPPL only).  
 \*\*\* - Manual exclusion.  
 ND = Not Detected, Result = detection limit.

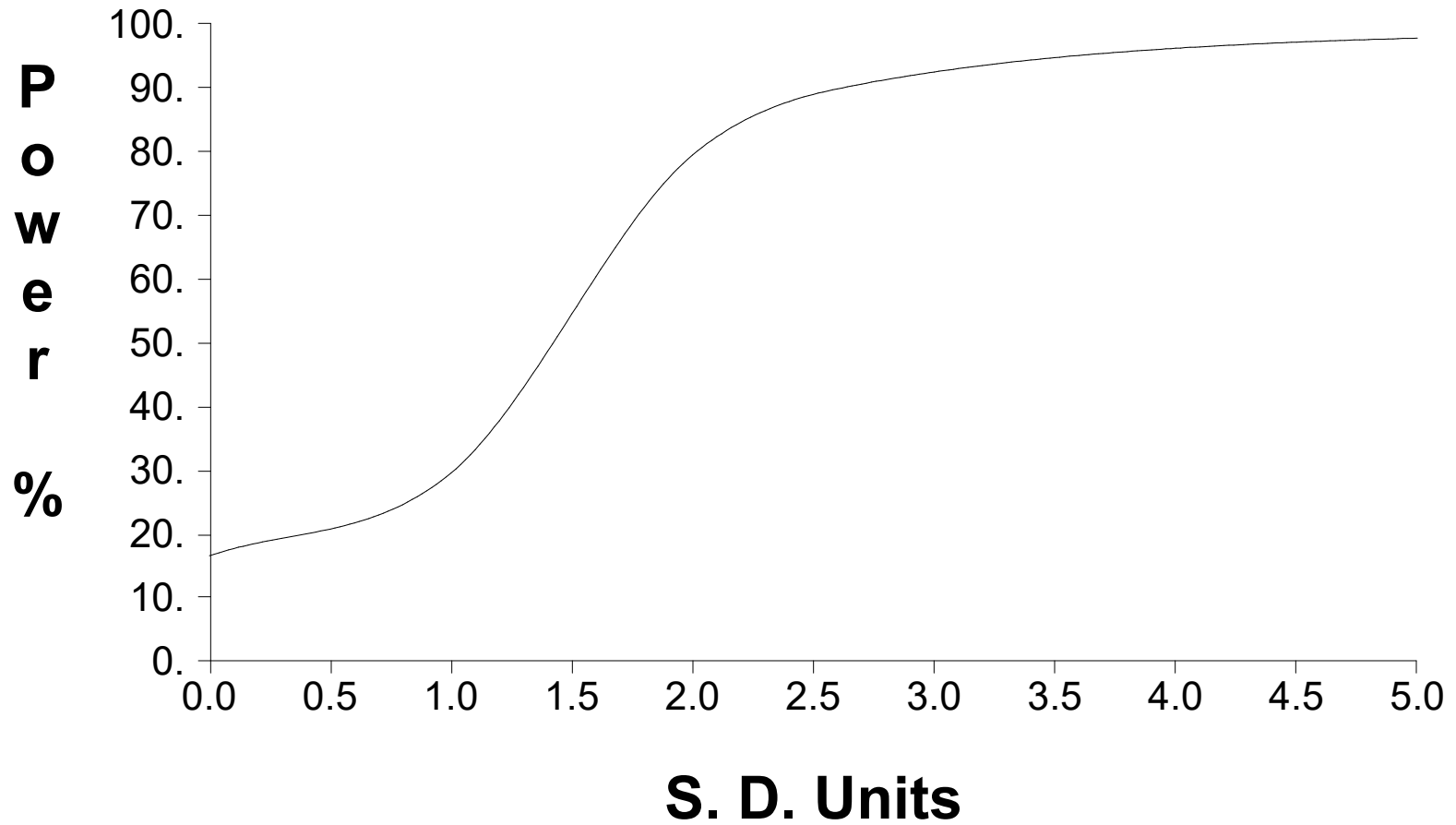
**Table C-7**

**Historical Downgradient Data for Constituent-Well Combinations  
that Failed the Current Statistical Evaluation or  
are in Verification Resampling Mode**

Constituent	Units	Well	Date		Result	Pred. Limit
Molybdenum, Total	ug/L	MW-6D	05/08/2020		188.0000 *	10.0000
Molybdenum, Total	ug/L	MW-6D	11/10/2020		210.0000 *	10.0000
Molybdenum, Total	ug/L	MW-6D	05/18/2021		219.0000 *	10.0000
Molybdenum, Total	ug/L	MW-6D	11/09/2021		244.0000 *	10.0000
Molybdenum, Total	ug/L	MW-6D	05/11/2022		209.0000 *	10.0000
Molybdenum, Total	ug/L	MW-6D	11/15/2022		210.0000 *	10.0000

\* - Significantly increased over background.  
 \*\* - Detect at limit for 100% NDs in background (NPPL only).  
 \*\*\* - Manual exclusion.  
 ND = Not Detected, Result = detection limit.

# False Positive and False Negative Rates for Current Upgradient vs. Downgradient Monitoring Program



**April 2023**



**Table C-1**

**Upgradient Data**

Constituent	Units	Well	Date		Result	Adjusted	
Antimony, Total	ug/L	MW-13S	08/08/2019	ND	1.0000		
Antimony, Total	ug/L	MW-13S	09/25/2019	ND	1.0000		
Antimony, Total	ug/L	MW-13S	05/07/2020	ND	6.0000	1.0000	**
Antimony, Total	ug/L	MW-13S	11/12/2020	ND	1.0000		
Antimony, Total	ug/L	MW-13S	02/25/2021	ND	1.0000		
Antimony, Total	ug/L	MW-13S	03/29/2021	ND	1.0000		
Antimony, Total	ug/L	MW-13S	05/20/2021	ND	1.0000		
Antimony, Total	ug/L	MW-13S	06/22/2021	ND	1.0000		
Antimony, Total	ug/L	MW-13S	07/27/2021	ND	1.0000		
Antimony, Total	ug/L	MW-13S	11/16/2021	ND	1.0000		
Antimony, Total	ug/L	MW-13S	05/19/2022	ND	1.0000		
Antimony, Total	ug/L	MW-13S	11/18/2022	ND	1.0000		
Antimony, Total	ug/L	MW-13S	04/18/2023	ND	1.0000		
Arsenic, Total	ug/L	MW-13S	08/08/2019	ND	1.0000		
Arsenic, Total	ug/L	MW-13S	09/25/2019		5.8000		
Arsenic, Total	ug/L	MW-13S	05/07/2020	ND	10.0000	1.0000	**
Arsenic, Total	ug/L	MW-13S	11/12/2020	ND	1.0000		
Arsenic, Total	ug/L	MW-13S	02/25/2021	ND	1.0000		
Arsenic, Total	ug/L	MW-13S	03/29/2021	ND	1.0000		
Arsenic, Total	ug/L	MW-13S	05/20/2021	ND	1.0000		
Arsenic, Total	ug/L	MW-13S	06/22/2021	ND	1.0000		
Arsenic, Total	ug/L	MW-13S	07/27/2021	ND	1.0000		
Arsenic, Total	ug/L	MW-13S	11/16/2021	ND	1.0000		
Arsenic, Total	ug/L	MW-13S	05/19/2022	ND	1.0000		
Arsenic, Total	ug/L	MW-13S	11/18/2022	ND	1.0000		
Arsenic, Total	ug/L	MW-13S	04/18/2023	ND	1.0000		
Barium, Total	ug/L	MW-13S	08/08/2019		50.0000		
Barium, Total	ug/L	MW-13S	09/25/2019		69.3000		
Barium, Total	ug/L	MW-13S	05/07/2020		56.4000		
Barium, Total	ug/L	MW-13S	11/12/2020		44.5000		
Barium, Total	ug/L	MW-13S	02/25/2021		53.3000		
Barium, Total	ug/L	MW-13S	03/29/2021		60.3000		
Barium, Total	ug/L	MW-13S	05/20/2021		51.0000		
Barium, Total	ug/L	MW-13S	06/22/2021		44.5000		
Barium, Total	ug/L	MW-13S	07/27/2021		48.3000		
Barium, Total	ug/L	MW-13S	11/16/2021		50.4000		
Barium, Total	ug/L	MW-13S	05/19/2022		58.6000		
Barium, Total	ug/L	MW-13S	11/18/2022		52.6000		
Barium, Total	ug/L	MW-13S	04/18/2023		50.7000		
Beryllium, Total	ug/L	MW-13S	08/08/2019	ND	0.2000		
Beryllium, Total	ug/L	MW-13S	09/25/2019	ND	0.2000		

\* - Outlier for that well and constituent.  
 \*\* - ND value replaced with median RL.  
 \*\*\* - ND value replaced with manual RL.  
 ND = Not detected, Result = detection limit.

**Table C-1**

**Upgradient Data**

Constituent	Units	Well	Date		Result	Adjusted	
Beryllium, Total	ug/L	MW-13S	05/07/2020	ND	4.0000	0.2000	**
Beryllium, Total	ug/L	MW-13S	11/12/2020	ND	0.2000		
Beryllium, Total	ug/L	MW-13S	02/25/2021	ND	0.2000		
Beryllium, Total	ug/L	MW-13S	03/29/2021	ND	0.2000		
Beryllium, Total	ug/L	MW-13S	05/20/2021	ND	0.2000		
Beryllium, Total	ug/L	MW-13S	06/22/2021	ND	0.2000		
Beryllium, Total	ug/L	MW-13S	07/27/2021	ND	0.2000		
Beryllium, Total	ug/L	MW-13S	05/19/2022	ND	0.2000		
Beryllium, Total	ug/L	MW-13S	04/18/2023	ND	0.2000		
Cadmium, Total	ug/L	MW-13S	08/08/2019	ND	2.0000		
Cadmium, Total	ug/L	MW-13S	09/25/2019	ND	2.0000		
Cadmium, Total	ug/L	MW-13S	05/07/2020	ND	2.0000		
Cadmium, Total	ug/L	MW-13S	11/12/2020	ND	2.0000		
Cadmium, Total	ug/L	MW-13S	02/25/2021	ND	2.0000		
Cadmium, Total	ug/L	MW-13S	03/29/2021	ND	2.0000		
Cadmium, Total	ug/L	MW-13S	05/20/2021	ND	2.0000		
Cadmium, Total	ug/L	MW-13S	06/22/2021	ND	2.0000		
Cadmium, Total	ug/L	MW-13S	07/27/2021	ND	2.0000		
Cadmium, Total	ug/L	MW-13S	05/19/2022	ND	2.0000		
Cadmium, Total	ug/L	MW-13S	04/18/2023	ND	2.0000		
Chromium, Total	ug/L	MW-13S	08/08/2019	ND	10.0000		
Chromium, Total	ug/L	MW-13S	09/25/2019	ND	10.0000		
Chromium, Total	ug/L	MW-13S	05/07/2020	ND	10.0000		
Chromium, Total	ug/L	MW-13S	11/12/2020	ND	10.0000		
Chromium, Total	ug/L	MW-13S	02/25/2021	ND	10.0000		
Chromium, Total	ug/L	MW-13S	03/29/2021	ND	10.0000		
Chromium, Total	ug/L	MW-13S	05/20/2021	ND	10.0000		
Chromium, Total	ug/L	MW-13S	06/22/2021	ND	10.0000		
Chromium, Total	ug/L	MW-13S	07/27/2021	ND	10.0000		
Chromium, Total	ug/L	MW-13S	05/19/2022	ND	10.0000		
Chromium, Total	ug/L	MW-13S	04/18/2023	ND	10.0000		
Cobalt, Total	ug/L	MW-13S	08/08/2019	ND	1.0000		
Cobalt, Total	ug/L	MW-13S	09/25/2019		5.8000		
Cobalt, Total	ug/L	MW-13S	05/07/2020	ND	10.0000	1.0000	**
Cobalt, Total	ug/L	MW-13S	11/12/2020	ND	1.0000		
Cobalt, Total	ug/L	MW-13S	02/25/2021	ND	1.0000		
Cobalt, Total	ug/L	MW-13S	03/29/2021	ND	1.0000		
Cobalt, Total	ug/L	MW-13S	05/20/2021	ND	1.0000		
Cobalt, Total	ug/L	MW-13S	06/22/2021	ND	1.0000		
Cobalt, Total	ug/L	MW-13S	07/27/2021	ND	1.0000		
Cobalt, Total	ug/L	MW-13S	11/16/2021	ND	1.0000		

\* - Outlier for that well and constituent.  
 \*\* - ND value replaced with median RL.  
 \*\*\* - ND value replaced with manual RL.  
 ND = Not detected, Result = detection limit.

**Table C-1**

**Upgradient Data**

Constituent	Units	Well	Date		Result	Adjusted
Cobalt, Total	ug/L	MW-13S	05/19/2022	ND	1.0000	
Cobalt, Total	ug/L	MW-13S	04/18/2023	ND	1.0000	
Fluoride	mg/L	MW-13S	08/08/2019	ND	0.1000	
Fluoride	mg/L	MW-13S	09/25/2019	ND	0.1000	
Fluoride	mg/L	MW-13S	05/07/2020	ND	0.1000	
Fluoride	mg/L	MW-13S	11/12/2020	ND	0.1000	
Fluoride	mg/L	MW-13S	02/25/2021	ND	0.1000	
Fluoride	mg/L	MW-13S	03/29/2021	ND	0.1000	
Fluoride	mg/L	MW-13S	05/20/2021	ND	0.1000	
Fluoride	mg/L	MW-13S	06/22/2021	ND	0.1000	
Fluoride	mg/L	MW-13S	07/27/2021	ND	0.1000	
Fluoride	mg/L	MW-13S	11/16/2021	ND	0.1000	
Fluoride	mg/L	MW-13S	05/19/2022	ND	0.1000	
Fluoride	mg/L	MW-13S	11/18/2022	ND	0.1000	
Fluoride	mg/L	MW-13S	04/18/2023	ND	0.1000	
Lead, Total	ug/L	MW-13S	08/08/2019	ND	10.0000	
Lead, Total	ug/L	MW-13S	09/25/2019	ND	10.0000	
Lead, Total	ug/L	MW-13S	05/07/2020	ND	10.0000	
Lead, Total	ug/L	MW-13S	11/12/2020	ND	10.0000	
Lead, Total	ug/L	MW-13S	02/25/2021	ND	10.0000	
Lead, Total	ug/L	MW-13S	03/29/2021	ND	10.0000	
Lead, Total	ug/L	MW-13S	05/20/2021	ND	10.0000	
Lead, Total	ug/L	MW-13S	06/22/2021	ND	10.0000	
Lead, Total	ug/L	MW-13S	07/27/2021	ND	10.0000	
Lead, Total	ug/L	MW-13S	05/19/2022	ND	10.0000	
Lead, Total	ug/L	MW-13S	04/18/2023	ND	10.0000	
Lithium, Total	ug/L	MW-13S	08/08/2019	ND	20.0000	
Lithium, Total	ug/L	MW-13S	09/25/2019	ND	20.0000	
Lithium, Total	ug/L	MW-13S	05/07/2020	ND	20.0000	
Lithium, Total	ug/L	MW-13S	11/12/2020	ND	20.0000	
Lithium, Total	ug/L	MW-13S	02/25/2021	ND	20.0000	
Lithium, Total	ug/L	MW-13S	03/29/2021	ND	20.0000	
Lithium, Total	ug/L	MW-13S	05/20/2021	ND	20.0000	
Lithium, Total	ug/L	MW-13S	06/22/2021	ND	20.0000	
Lithium, Total	ug/L	MW-13S	07/27/2021	ND	20.0000	
Lithium, Total	ug/L	MW-13S	11/16/2021	ND	20.0000	
Lithium, Total	ug/L	MW-13S	05/19/2022	ND	20.0000	
Lithium, Total	ug/L	MW-13S	11/18/2022	ND	20.0000	
Lithium, Total	ug/L	MW-13S	04/18/2023	ND	20.0000	
Mercury	ug/L	MW-13S	08/08/2019	ND	2.0000	
Mercury	ug/L	MW-13S	09/25/2019	ND	2.0000	

\* - Outlier for that well and constituent.  
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 \*\*\* - ND value replaced with manual RL.  
 ND = Not detected, Result = detection limit.

**Table C-1**

**Upgradient Data**

Constituent	Units	Well	Date		Result	Adjusted	
Mercury	ug/L	MW-13S	11/12/2020	ND	2.0000		
Mercury	ug/L	MW-13S	02/25/2021	ND	2.0000		
Mercury	ug/L	MW-13S	03/29/2021	ND	2.0000		
Mercury	ug/L	MW-13S	05/20/2021	ND	2.0000		
Mercury	ug/L	MW-13S	06/22/2021	ND	2.0000		
Mercury	ug/L	MW-13S	07/27/2021	ND	2.0000		
Mercury	ug/L	MW-13S	05/19/2022	ND	0.2000	2.0000	**
Mercury	ug/L	MW-13S	04/18/2023	ND	0.2000	2.0000	**
Molybdenum, Total	ug/L	MW-13S	08/08/2019	ND	10.0000		
Molybdenum, Total	ug/L	MW-13S	09/25/2019	ND	10.0000		
Molybdenum, Total	ug/L	MW-13S	05/07/2020	ND	10.0000		
Molybdenum, Total	ug/L	MW-13S	11/12/2020	ND	10.0000		
Molybdenum, Total	ug/L	MW-13S	02/25/2021	ND	10.0000		
Molybdenum, Total	ug/L	MW-13S	03/29/2021	ND	10.0000		
Molybdenum, Total	ug/L	MW-13S	05/20/2021	ND	10.0000		
Molybdenum, Total	ug/L	MW-13S	06/22/2021	ND	10.0000		
Molybdenum, Total	ug/L	MW-13S	07/27/2021	ND	10.0000		
Molybdenum, Total	ug/L	MW-13S	11/16/2021	ND	10.0000		
Molybdenum, Total	ug/L	MW-13S	05/19/2022	ND	10.0000		
Molybdenum, Total	ug/L	MW-13S	11/18/2022	ND	10.0000		
Molybdenum, Total	ug/L	MW-13S	04/18/2023	ND	10.0000		
Selenium, Total	ug/L	MW-13S	08/08/2019	ND	1.0000		
Selenium, Total	ug/L	MW-13S	09/25/2019	ND	1.0000		
Selenium, Total	ug/L	MW-13S	05/07/2020	ND	10.0000	1.0000	**
Selenium, Total	ug/L	MW-13S	11/12/2020	ND	1.0000		
Selenium, Total	ug/L	MW-13S	02/25/2021	ND	1.0000		
Selenium, Total	ug/L	MW-13S	03/29/2021	ND	1.0000		
Selenium, Total	ug/L	MW-13S	05/20/2021	ND	1.0000		
Selenium, Total	ug/L	MW-13S	06/22/2021	ND	1.0000		
Selenium, Total	ug/L	MW-13S	07/27/2021	ND	1.0000		
Selenium, Total	ug/L	MW-13S	11/16/2021	ND	1.0000		
Selenium, Total	ug/L	MW-13S	05/19/2022	ND	1.0000		
Selenium, Total	ug/L	MW-13S	11/18/2022	ND	1.0000		
Selenium, Total	ug/L	MW-13S	04/18/2023	ND	1.0000		
Thallium, Total	ug/L	MW-13S	08/08/2019	ND	1.0000		
Thallium, Total	ug/L	MW-13S	09/25/2019	ND	1.0000		
Thallium, Total	ug/L	MW-13S	05/07/2020	ND	10.0000	1.0000	**
Thallium, Total	ug/L	MW-13S	11/12/2020	ND	1.0000		
Thallium, Total	ug/L	MW-13S	02/25/2021	ND	1.0000		
Thallium, Total	ug/L	MW-13S	03/29/2021	ND	1.0000		
Thallium, Total	ug/L	MW-13S	05/20/2021	ND	1.0000		

\* - Outlier for that well and constituent.  
 \*\* - ND value replaced with median RL.  
 \*\*\* - ND value replaced with manual RL.  
 ND = Not detected, Result = detection limit.

**Table C-1**

**Upgradient Data**

Constituent	Units	Well	Date		Result	Adjusted	
Thallium, Total	ug/L	MW-13S	06/22/2021	ND	1.0000		
Thallium, Total	ug/L	MW-13S	07/27/2021	ND	1.0000		
Thallium, Total	ug/L	MW-13S	05/19/2022	ND	1.0000		
Thallium, Total	ug/L	MW-13S	04/18/2023	ND	1.0000		
Total Radium	pCi/L	MW-13S	08/08/2019		0.4940		
Total Radium	pCi/L	MW-13S	09/25/2019		1.7800		
Total Radium	pCi/L	MW-13S	11/12/2020		1.1700		
Total Radium	pCi/L	MW-13S	02/25/2021		0.8130		
Total Radium	pCi/L	MW-13S	03/29/2021	ND	1.6500	1.3900	**
Total Radium	pCi/L	MW-13S	05/20/2021	ND	2.1500	1.3900	**
Total Radium	pCi/L	MW-13S	06/22/2021		0.7480		
Total Radium	pCi/L	MW-13S	07/27/2021	ND	1.1900	1.3900	**
Total Radium	pCi/L	MW-13S	11/16/2021	ND	1.2200	1.3900	**
Total Radium	pCi/L	MW-13S	05/19/2022	ND	2.0300	1.3900	**
Total Radium	pCi/L	MW-13S	11/18/2022	ND	1.3900		
Total Radium	pCi/L	MW-13S	04/18/2023	ND	1.0600	1.3900	**

\* - Outlier for that well and constituent.  
 \*\* - ND value replaced with median RL.  
 \*\*\* - ND value replaced with manual RL.  
 ND = Not detected, Result = detection limit.

**Table C-2**

**Most Current Downgradient Monitoring Data**

Constituent	Units	Well	Date		Result		Pred. Limit
Antimony, Total	ug/L	MW-10S	05/04/2023		2.4000	***	1.0000
Antimony, Total	ug/L	MW-11S	05/02/2023		1.4000	***	1.0000
Antimony, Total	ug/L	MW-12S	04/27/2023		1.5000	***	1.0000
Antimony, Total	ug/L	MW-1S	04/23/2023		1.4000	***	1.0000
Antimony, Total	ug/L	MW-2S	04/18/2023	ND	1.0000		1.0000
Antimony, Total	ug/L	MW-3S	04/18/2023	ND	1.0000		1.0000
Antimony, Total	ug/L	MW-6S	05/01/2023		1.0000	*	1.0000
Antimony, Total	ug/L	MW-7S	05/03/2023		2.9000	***	1.0000
Arsenic, Total	ug/L	MW-10S	05/04/2023	ND	1.0000		5.8000
Arsenic, Total	ug/L	MW-11S	05/02/2023		59.8000	***	5.8000
Arsenic, Total	ug/L	MW-12S	04/27/2023		1.8000		5.8000
Arsenic, Total	ug/L	MW-1S	04/23/2023		3.4000	**	5.8000
Arsenic, Total	ug/L	MW-2S	04/18/2023		13.9000	***	5.8000
Arsenic, Total	ug/L	MW-3S	04/18/2023	ND	1.0000		5.8000
Arsenic, Total	ug/L	MW-6S	05/01/2023	ND	1.0000		5.8000
Arsenic, Total	ug/L	MW-7S	05/03/2023	ND	1.0000		5.8000
Barium, Total	ug/L	MW-10S	05/04/2023		69.5000	**	71.9391
Barium, Total	ug/L	MW-11S	05/02/2023		77.1000	***	71.9391
Barium, Total	ug/L	MW-12S	04/27/2023		122.0000	***	71.9391
Barium, Total	ug/L	MW-1S	04/23/2023		62.8000	**	71.9391
Barium, Total	ug/L	MW-2S	04/18/2023		175.0000	***	71.9391
Barium, Total	ug/L	MW-3S	04/18/2023		116.0000	***	71.9391
Barium, Total	ug/L	MW-6S	05/01/2023		73.1000	***	71.9391
Barium, Total	ug/L	MW-7S	05/03/2023		63.8000	**	71.9391
Beryllium, Total	ug/L	MW-10S	05/04/2023	ND	0.2000		0.2000
Beryllium, Total	ug/L	MW-11S	05/02/2023	ND	0.2000		0.2000
Beryllium, Total	ug/L	MW-12S	04/27/2023	ND	0.2000		0.2000
Beryllium, Total	ug/L	MW-1S	04/23/2023	ND	0.2000		0.2000
Beryllium, Total	ug/L	MW-2S	04/18/2023	ND	0.2000		0.2000
Beryllium, Total	ug/L	MW-3S	04/18/2023	ND	0.2000		0.2000
Beryllium, Total	ug/L	MW-6S	05/01/2023	ND	0.2000		0.2000
Beryllium, Total	ug/L	MW-7S	05/03/2023	ND	0.2000		0.2000
Cadmium, Total	ug/L	MW-10S	05/04/2023	ND	2.0000		2.0000
Cadmium, Total	ug/L	MW-11S	05/02/2023	ND	2.0000		2.0000
Cadmium, Total	ug/L	MW-12S	04/27/2023	ND	2.0000		2.0000
Cadmium, Total	ug/L	MW-1S	04/23/2023	ND	2.0000		2.0000
Cadmium, Total	ug/L	MW-2S	04/18/2023	ND	2.0000		2.0000
Cadmium, Total	ug/L	MW-3S	04/18/2023	ND	2.0000		2.0000
Cadmium, Total	ug/L	MW-6S	05/01/2023	ND	2.0000		2.0000
Cadmium, Total	ug/L	MW-7S	05/03/2023	ND	2.0000		2.0000

\* - Current value failed - awaiting verification.  
 \*\* - Current value passed - previous exceedance not verified.  
 \*\*\* - Current value failed - exceedance verified.  
 \*\*\*\* - Current value passed - awaiting one more verification.  
 \*\*\*\*\* - Insufficient background data to compute prediction limit.  
 ND = Not Detected, Result = detection limit.

**Table C-2**

**Most Current Downgradient Monitoring Data**

Constituent	Units	Well	Date		Result		Pred. Limit
Cadmium, Total	ug/L	MW-7S	05/03/2023	ND	2.0000		2.0000
Chromium, Total	ug/L	MW-10S	05/04/2023	ND	10.0000		10.0000
Chromium, Total	ug/L	MW-11S	05/02/2023	ND	10.0000		10.0000
Chromium, Total	ug/L	MW-12S	04/27/2023	ND	10.0000		10.0000
Chromium, Total	ug/L	MW-1S	04/23/2023	ND	10.0000		10.0000
Chromium, Total	ug/L	MW-2S	04/18/2023	ND	10.0000		10.0000
Chromium, Total	ug/L	MW-3S	04/18/2023	ND	10.0000		10.0000
Chromium, Total	ug/L	MW-6S	05/01/2023	ND	10.0000		10.0000
Chromium, Total	ug/L	MW-7S	05/03/2023	ND	10.0000		10.0000
Cobalt, Total	ug/L	MW-10S	05/04/2023	ND	1.0000		5.8000
Cobalt, Total	ug/L	MW-11S	05/02/2023	ND	1.0000		5.8000
Cobalt, Total	ug/L	MW-12S	04/27/2023	ND	1.0000		5.8000
Cobalt, Total	ug/L	MW-1S	04/23/2023	ND	1.0000		5.8000
Cobalt, Total	ug/L	MW-2S	04/18/2023	ND	1.0000		5.8000
Cobalt, Total	ug/L	MW-3S	04/18/2023	ND	1.0000		5.8000
Cobalt, Total	ug/L	MW-6S	05/01/2023	ND	1.0000		5.8000
Cobalt, Total	ug/L	MW-7S	05/03/2023		1.5000		5.8000
Fluoride	mg/L	MW-10S	05/04/2023		0.1900	***	0.1000
Fluoride	mg/L	MW-11S	05/02/2023		0.2100	***	0.1000
Fluoride	mg/L	MW-12S	04/27/2023		0.2400	***	0.1000
Fluoride	mg/L	MW-1S	04/23/2023		0.1700	***	0.1000
Fluoride	mg/L	MW-2S	04/18/2023		0.1600	***	0.1000
Fluoride	mg/L	MW-3S	04/18/2023		0.2000	***	0.1000
Fluoride	mg/L	MW-6S	05/01/2023		0.2500	***	0.1000
Fluoride	mg/L	MW-7S	05/03/2023	ND	0.1000		0.1000
Lead, Total	ug/L	MW-10S	05/04/2023	ND	10.0000		10.0000
Lead, Total	ug/L	MW-11S	05/02/2023	ND	10.0000		10.0000
Lead, Total	ug/L	MW-12S	04/27/2023	ND	10.0000		10.0000
Lead, Total	ug/L	MW-1S	04/23/2023	ND	10.0000		10.0000
Lead, Total	ug/L	MW-2S	04/18/2023	ND	10.0000		10.0000
Lead, Total	ug/L	MW-3S	04/18/2023	ND	10.0000		10.0000
Lead, Total	ug/L	MW-6S	05/01/2023	ND	10.0000		10.0000
Lead, Total	ug/L	MW-7S	05/03/2023	ND	10.0000		10.0000
Lithium, Total	ug/L	MW-10S	05/04/2023		88.7000	***	20.0000
Lithium, Total	ug/L	MW-11S	05/02/2023		51.4000	***	20.0000
Lithium, Total	ug/L	MW-12S	04/27/2023		97.7000	***	20.0000
Lithium, Total	ug/L	MW-1S	04/23/2023		64.5000	***	20.0000
Lithium, Total	ug/L	MW-2S	04/18/2023		38.8000	***	20.0000
Lithium, Total	ug/L	MW-3S	04/18/2023	ND	20.0000		20.0000

\* - Current value failed - awaiting verification.  
 \*\* - Current value passed - previous exceedance not verified.  
 \*\*\* - Current value failed - exceedance verified.  
 \*\*\*\* - Current value passed - awaiting one more verification.  
 \*\*\*\*\* - Insufficient background data to compute prediction limit.  
 ND = Not Detected, Result = detection limit.

**Table C-2**

**Most Current Downgradient Monitoring Data**

Constituent	Units	Well	Date		Result		Pred. Limit
Lithium, Total	ug/L	MW-6S	05/01/2023		52.2000	***	20.0000
Lithium, Total	ug/L	MW-7S	05/03/2023		37.6000	***	20.0000
Mercury	ug/L	MW-10S	05/04/2023	ND	0.2000		2.0000
Mercury	ug/L	MW-11S	05/02/2023	ND	0.2000		2.0000
Mercury	ug/L	MW-12S	04/27/2023	ND	0.2000		2.0000
Mercury	ug/L	MW-1S	04/23/2023	ND	0.2000		2.0000
Mercury	ug/L	MW-2S	04/18/2023	ND	0.2000		2.0000
Mercury	ug/L	MW-3S	04/18/2023	ND	0.2000		2.0000
Mercury	ug/L	MW-6S	05/01/2023	ND	0.2000		2.0000
Mercury	ug/L	MW-7S	05/03/2023	ND	0.2000		2.0000
Molybdenum, Total	ug/L	MW-10S	05/04/2023		55.3000	***	10.0000
Molybdenum, Total	ug/L	MW-11S	05/02/2023		56.0000	***	10.0000
Molybdenum, Total	ug/L	MW-12S	04/27/2023		35.9000	***	10.0000
Molybdenum, Total	ug/L	MW-1S	04/23/2023		13.5000	***	10.0000
Molybdenum, Total	ug/L	MW-2S	04/18/2023	ND	10.0000		10.0000
Molybdenum, Total	ug/L	MW-3S	04/18/2023		21.1000	***	10.0000
Molybdenum, Total	ug/L	MW-6S	05/01/2023		83.8000	***	10.0000
Molybdenum, Total	ug/L	MW-7S	05/03/2023		27.8000	***	10.0000
Selenium, Total	ug/L	MW-10S	05/04/2023		2.2000	***	1.0000
Selenium, Total	ug/L	MW-11S	05/02/2023		11.3000	***	1.0000
Selenium, Total	ug/L	MW-12S	04/27/2023		8.3000	***	1.0000
Selenium, Total	ug/L	MW-1S	04/23/2023		28.2000	***	1.0000
Selenium, Total	ug/L	MW-2S	04/18/2023		25.7000	***	1.0000
Selenium, Total	ug/L	MW-3S	04/18/2023		7.3000	***	1.0000
Selenium, Total	ug/L	MW-6S	05/01/2023		36.4000	***	1.0000
Selenium, Total	ug/L	MW-7S	05/03/2023		22.5000	***	1.0000
Thallium, Total	ug/L	MW-10S	05/04/2023	ND	1.0000		1.0000
Thallium, Total	ug/L	MW-11S	05/02/2023	ND	1.0000		1.0000
Thallium, Total	ug/L	MW-12S	04/27/2023	ND	1.0000		1.0000
Thallium, Total	ug/L	MW-1S	04/23/2023	ND	1.0000		1.0000
Thallium, Total	ug/L	MW-2S	04/18/2023	ND	1.0000		1.0000
Thallium, Total	ug/L	MW-3S	04/18/2023	ND	1.0000		1.0000
Thallium, Total	ug/L	MW-6S	05/01/2023	ND	1.0000		1.0000
Thallium, Total	ug/L	MW-7S	05/03/2023	ND	1.0000		1.0000
Total Radium	pCi/L	MW-10S	05/04/2023		1.3300		1.7800
Total Radium	pCi/L	MW-11S	05/02/2023	ND	1.7300		1.7800
Total Radium	pCi/L	MW-12S	04/27/2023		1.1400		1.7800
Total Radium	pCi/L	MW-1S	04/23/2023	ND	1.6400		1.7800
Total Radium	pCi/L	MW-2S	04/18/2023	ND	1.4400		1.7800

\* - Current value failed - awaiting verification.  
 \*\* - Current value passed - previous exceedance not verified.  
 \*\*\* - Current value failed - exceedance verified.  
 \*\*\*\* - Current value passed - awaiting one more verification.  
 \*\*\*\*\* - Insufficient background data to compute prediction limit.  
 ND = Not Detected, Result = detection limit.



**Table C-2**

**Most Current Downgradient Monitoring Data**

Constituent	Units	Well	Date		Result	Pred. Limit
Total Radium	pCi/L	MW-3S	04/18/2023	ND	1.5800	1.7800
Total Radium	pCi/L	MW-6S	05/01/2023	ND	1.4900	1.7800
Total Radium	pCi/L	MW-7S	05/03/2023		0.5920	1.7800

- \* - Current value failed - awaiting verification.
  - \*\* - Current value passed - previous exceedance not verified.
  - \*\*\* - Current value failed - exceedance verified.
  - \*\*\*\* - Current value passed - awaiting one more verification.
  - \*\*\*\*\* - Insufficient background data to compute prediction limit.
- ND = Not Detected, Result = detection limit.

**Table C-3**

**Detection Frequencies in Upgradient and Downgradient Wells**

Constituent	Upgradient			Downgradient		
	Detect	N	Proportion	Detect	N	Proportion
Antimony, Total	0	13	0.000	62	146	0.425
Arsenic, Total	1	13	0.077	59	145	0.407
Barium, Total	13	13	1.000	146	146	1.000
Beryllium, Total	0	11	0.000	0	112	0.000
Cadmium, Total	0	11	0.000	0	112	0.000
Chromium, Total	0	11	0.000	0	112	0.000
Cobalt, Total	1	12	0.083	5	140	0.036
Fluoride	0	13	0.000	144	154	0.935
Lead, Total	0	11	0.000	3	112	0.027
Lithium, Total	0	13	0.000	140	146	0.959
Mercury	0	10	0.000	0	112	0.000
Molybdenum, Total	0	13	0.000	142	146	0.973
Selenium, Total	0	13	0.000	89	146	0.610
Thallium, Total	0	11	0.000	0	112	0.000
Total Radium	5	12	0.417	89	146	0.610

N = Total number of measurements in all wells.  
 Detect = Total number of detections in all wells.  
 Proportion = Detect/N.

**Table C-4**

**Shapiro-Wilk Multiple Group Test of Normality**

Constituent	Detect	N	Detect Freq	G raw	G log	G cbrt	G sqrt	G sqr	G cub	Crit Value	Dist Form	Model Type
Antimony, Total	0	13	0.000	3.936	3.936					2.326	non-norm	nonpar
Arsenic, Total	1	13	0.077	20.692	20.692					2.326	non-norm	nonpar
Barium, Total	13	13	1.000	0.715	0.015					2.326	normal	normal
Beryllium, Total	0	11	0.000	3.485	3.485					2.326	non-norm	nonpar
Cadmium, Total	0	11	0.000	3.485	3.485					2.326	non-norm	nonpar
Chromium, Total	0	11	0.000	3.485	3.485					2.326	non-norm	nonpar
Cobalt, Total	1	12	0.083	21.797	21.797					2.326	non-norm	nonpar
Fluoride	0	13	0.000	3.936	3.936					2.326	non-norm	nonpar
Lead, Total	0	11	0.000	3.485	3.485					2.326	non-norm	nonpar
Lithium, Total	0	13	0.000	3.936	3.936					2.326	non-norm	nonpar
Mercury	0	10	0.000	3.262	3.262					2.326	non-norm	nonpar
Molybdenum, Total	0	13	0.000	3.936	3.936					2.326	non-norm	nonpar
Selenium, Total	0	13	0.000	3.936	3.936					2.326	non-norm	nonpar
Thallium, Total	0	11	0.000	3.485	3.485					2.326	non-norm	nonpar
Total Radium	5	12	0.417	2.079	2.688					2.326	normal	nonpar

\* - Distribution override for that constituent.  
 Fit to distribution is confirmed if G <= critical value.  
 Model type may not match distributional form when detection frequency < 50%.

**Table C-5**

**Summary Statistics and Prediction Limits**

Constituent	Units	Detect	N	Mean	SD	alpha	Factor	Pred Limit	Type	Conf	
Antimony, Total	ug/L	0	13					1.0000	nonpar	***	0.93
Arsenic, Total	ug/L	1	13					5.8000	nonpar		0.93
Barium, Total	ug/L	13	13	53.0692	6.7929	0.0100	2.7779	71.9391	normal		
Beryllium, Total	ug/L	0	11					0.2000	nonpar	***	0.91
Cadmium, Total	ug/L	0	11					2.0000	nonpar	***	0.91
Chromium, Total	ug/L	0	11					10.0000	nonpar	***	0.91
Cobalt, Total	ug/L	1	12					5.8000	nonpar		0.92
Fluoride	mg/L	0	13					0.1000	nonpar	***	0.93
Lead, Total	ug/L	0	11					10.0000	nonpar	***	0.91
Lithium, Total	ug/L	0	13					20.0000	nonpar	***	0.93
Mercury	ug/L	0	10					2.0000	nonpar	***	0.90
Molybdenum, Total	ug/L	0	13					10.0000	nonpar	***	0.93
Selenium, Total	ug/L	0	13					1.0000	nonpar	***	0.93
Thallium, Total	ug/L	0	11					1.0000	nonpar	***	0.91
Total Radium	pCi/L	5	12					1.7800	nonpar		0.92

Conf = confidence level for passing initial test or one verification resample at all downgradient wells for a single constituent (nonparametric test only).

\* - Insufficient Data.

\*\* - Calculated limit raised to Manual Reporting Limit.

\*\*\* - Nonparametric limit based on ND value.

For transformed data, mean and SD in transformed units and prediction limit in original units.

All sample sizes and statistics are based on outlier free data.

For nonparametric limits, median reporting limits are substituted for extreme reporting limit values.

**Table C-6**

**Dixon's Test Outliers  
1% Significance Level**

Constituent	Units	Well	Date	Result	ND Qualifier	Date Range	N	Critical Value
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N = Total number of independent measurements in background at each well.

Date Range = Dates of the first and last measurements included in background at each well.

Critical Value depends on the significance level and on N-1 when the two most extreme values are tested or N for the most extreme value.

**Table C-7**

**Historical Downgradient Data for Constituent-Well Combinations  
that Failed the Current Statistical Evaluation or  
are in Verification Resampling Mode**

Constituent	Units	Well	Date		Result		Pred. Limit
Antimony, Total	ug/L	MW-10S	04/21/2016	ND	6.0000		1.0000
Antimony, Total	ug/L	MW-10S	05/31/2016	ND	6.0000		1.0000
Antimony, Total	ug/L	MW-10S	08/11/2016	ND	6.0000		1.0000
Antimony, Total	ug/L	MW-10S	09/29/2016	ND	6.0000		1.0000
Antimony, Total	ug/L	MW-10S	11/30/2016	ND	6.0000		1.0000
Antimony, Total	ug/L	MW-10S	01/30/2017	ND	6.0000		1.0000
Antimony, Total	ug/L	MW-10S	05/24/2017	ND	6.0000		1.0000
Antimony, Total	ug/L	MW-10S	08/09/2017	ND	6.0000		1.0000
Antimony, Total	ug/L	MW-10S	05/23/2018		1.0000	**	1.0000
Antimony, Total	ug/L	MW-10S	09/11/2018		1.4000	*	1.0000
Antimony, Total	ug/L	MW-10S	05/07/2019		1.6000	*	1.0000
Antimony, Total	ug/L	MW-10S	05/07/2020		2.1000	*	1.0000
Antimony, Total	ug/L	MW-10S	11/11/2020		3.1000	*	1.0000
Antimony, Total	ug/L	MW-10S	05/21/2021		2.2000	*	1.0000
Antimony, Total	ug/L	MW-10S	11/12/2021		1.8000	*	1.0000
Antimony, Total	ug/L	MW-10S	05/18/2022		2.2000	*	1.0000
Antimony, Total	ug/L	MW-10S	05/04/2023		2.4000	*	1.0000
Antimony, Total	ug/L	MW-11S	04/20/2016	ND	6.0000		1.0000
Antimony, Total	ug/L	MW-11S	06/02/2016	ND	6.0000		1.0000
Antimony, Total	ug/L	MW-11S	08/12/2016	ND	6.0000		1.0000
Antimony, Total	ug/L	MW-11S	09/30/2016		6.3000	*	1.0000
Antimony, Total	ug/L	MW-11S	12/01/2016	ND	6.0000		1.0000
Antimony, Total	ug/L	MW-11S	01/31/2017	ND	6.0000		1.0000
Antimony, Total	ug/L	MW-11S	05/25/2017	ND	6.0000		1.0000
Antimony, Total	ug/L	MW-11S	08/10/2017	ND	6.0000		1.0000
Antimony, Total	ug/L	MW-11S	05/23/2018		1.9000	*	1.0000
Antimony, Total	ug/L	MW-11S	09/11/2018		1.8000	*	1.0000
Antimony, Total	ug/L	MW-11S	05/08/2019		1.7000	*	1.0000
Antimony, Total	ug/L	MW-11S	05/07/2020		1.6000	*	1.0000
Antimony, Total	ug/L	MW-11S	11/12/2020		1.4000	*	1.0000
Antimony, Total	ug/L	MW-11S	05/17/2021		1.5000	*	1.0000
Antimony, Total	ug/L	MW-11S	11/17/2021		1.4000	*	1.0000
Antimony, Total	ug/L	MW-11S	05/12/2022		1.4000	*	1.0000
Antimony, Total	ug/L	MW-11S	11/21/2022		1.3000	*	1.0000
Antimony, Total	ug/L	MW-11S	05/02/2023		1.4000	*	1.0000
Antimony, Total	ug/L	MW-12S	04/20/2016	ND	6.0000		1.0000
Antimony, Total	ug/L	MW-12S	06/01/2016	ND	6.0000		1.0000
Antimony, Total	ug/L	MW-12S	08/11/2016	ND	6.0000		1.0000

\* - Significantly increased over background.  
 \*\* - Detect at limit for 100% NDs in background (NPPL only).  
 \*\*\* - Manual exclusion.  
 ND = Not Detected, Result = detection limit.

**Table C-7**

**Historical Downgradient Data for Constituent-Well Combinations  
that Failed the Current Statistical Evaluation or  
are in Verification Resampling Mode**

Constituent	Units	Well	Date		Result		Pred. Limit
Antimony, Total	ug/L	MW-12S	09/29/2016	ND	6.0000		1.0000
Antimony, Total	ug/L	MW-12S	12/01/2016	ND	6.0000		1.0000
Antimony, Total	ug/L	MW-12S	01/30/2017	ND	6.0000		1.0000
Antimony, Total	ug/L	MW-12S	05/25/2017	ND	6.0000		1.0000
Antimony, Total	ug/L	MW-12S	08/10/2017	ND	6.0000		1.0000
Antimony, Total	ug/L	MW-12S	05/23/2018		1.2000	*	1.0000
Antimony, Total	ug/L	MW-12S	09/12/2018		1.5000	*	1.0000
Antimony, Total	ug/L	MW-12S	05/08/2019		1.5000	*	1.0000
Antimony, Total	ug/L	MW-12S	05/08/2020		1.4000	*	1.0000
Antimony, Total	ug/L	MW-12S	11/12/2020		1.3000	*	1.0000
Antimony, Total	ug/L	MW-12S	05/13/2021		1.2000	*	1.0000
Antimony, Total	ug/L	MW-12S	11/10/2021		1.5000	*	1.0000
Antimony, Total	ug/L	MW-12S	05/12/2022		1.4000	*	1.0000
Antimony, Total	ug/L	MW-12S	11/15/2022		1.5000	*	1.0000
Antimony, Total	ug/L	MW-12S	04/27/2023		1.5000	*	1.0000
Antimony, Total	ug/L	MW-1S	04/19/2016	ND	6.0000		1.0000
Antimony, Total	ug/L	MW-1S	06/02/2016	ND	6.0000		1.0000
Antimony, Total	ug/L	MW-1S	08/10/2016	ND	6.0000		1.0000
Antimony, Total	ug/L	MW-1S	09/30/2016		6.3000	*	1.0000
Antimony, Total	ug/L	MW-1S	12/02/2016	ND	6.0000		1.0000
Antimony, Total	ug/L	MW-1S	01/31/2017	ND	6.0000		1.0000
Antimony, Total	ug/L	MW-1S	05/26/2017	ND	6.0000		1.0000
Antimony, Total	ug/L	MW-1S	08/11/2017	ND	6.0000		1.0000
Antimony, Total	ug/L	MW-1S	05/23/2018		4.2000	*	1.0000
Antimony, Total	ug/L	MW-1S	09/11/2018		4.4000	*	1.0000
Antimony, Total	ug/L	MW-1S	05/08/2019		1.8000	*	1.0000
Antimony, Total	ug/L	MW-1S	11/14/2019		3.5000	*	1.0000
Antimony, Total	ug/L	MW-1S	05/05/2020		2.6000	*	1.0000
Antimony, Total	ug/L	MW-1S	11/11/2020		2.9000	*	1.0000
Antimony, Total	ug/L	MW-1S	05/25/2021		1.9000	*	1.0000
Antimony, Total	ug/L	MW-1S	11/09/2021		1.8000	*	1.0000
Antimony, Total	ug/L	MW-1S	05/10/2022		1.7000	*	1.0000
Antimony, Total	ug/L	MW-1S	11/22/2022		2.7000	*	1.0000
Antimony, Total	ug/L	MW-1S	04/23/2023		1.4000	*	1.0000
Antimony, Total	ug/L	MW-6S	04/20/2016	ND	6.0000		1.0000
Antimony, Total	ug/L	MW-6S	06/01/2016	ND	6.0000		1.0000
Antimony, Total	ug/L	MW-6S	08/11/2016	ND	6.0000		1.0000
Antimony, Total	ug/L	MW-6S	09/29/2016	ND	6.0000		1.0000

\* - Significantly increased over background.  
 \*\* - Detect at limit for 100% NDs in background (NPPL only).  
 \*\*\* - Manual exclusion.  
 ND = Not Detected, Result = detection limit.

**Table C-7**

**Historical Downgradient Data for Constituent-Well Combinations  
that Failed the Current Statistical Evaluation or  
are in Verification Resampling Mode**

Constituent	Units	Well	Date		Result		Pred. Limit
Antimony, Total	ug/L	MW-6S	12/01/2016	ND	6.0000		1.0000
Antimony, Total	ug/L	MW-6S	01/30/2017	ND	6.0000		1.0000
Antimony, Total	ug/L	MW-6S	05/25/2017	ND	6.0000		1.0000
Antimony, Total	ug/L	MW-6S	08/10/2017	ND	6.0000		1.0000
Antimony, Total	ug/L	MW-6S	05/22/2018		1.1000	*	1.0000
Antimony, Total	ug/L	MW-6S	09/11/2018		1.6000	*	1.0000
Antimony, Total	ug/L	MW-6S	05/08/2019	ND	1.0000		1.0000
Antimony, Total	ug/L	MW-6S	11/13/2019		1.5000	*	1.0000
Antimony, Total	ug/L	MW-6S	05/08/2020		1.1000	*	1.0000
Antimony, Total	ug/L	MW-6S	11/19/2020		1.4000	*	1.0000
Antimony, Total	ug/L	MW-6S	05/18/2021		1.4000	*	1.0000
Antimony, Total	ug/L	MW-6S	11/09/2021		1.2000	*	1.0000
Antimony, Total	ug/L	MW-6S	05/11/2022	ND	1.0000		1.0000
Antimony, Total	ug/L	MW-6S	05/01/2023		1.0000	**	1.0000
Antimony, Total	ug/L	MW-7S	04/20/2016	ND	6.0000		1.0000
Antimony, Total	ug/L	MW-7S	06/01/2016	ND	6.0000		1.0000
Antimony, Total	ug/L	MW-7S	08/11/2016	ND	6.0000		1.0000
Antimony, Total	ug/L	MW-7S	09/29/2016	ND	6.0000		1.0000
Antimony, Total	ug/L	MW-7S	12/01/2016	ND	6.0000		1.0000
Antimony, Total	ug/L	MW-7S	01/30/2017	ND	6.0000		1.0000
Antimony, Total	ug/L	MW-7S	05/25/2017	ND	6.0000		1.0000
Antimony, Total	ug/L	MW-7S	08/10/2017	ND	6.0000		1.0000
Antimony, Total	ug/L	MW-7S	05/23/2018		3.3000	*	1.0000
Antimony, Total	ug/L	MW-7S	09/11/2018		2.8000	*	1.0000
Antimony, Total	ug/L	MW-7S	05/07/2019		1.7000	*	1.0000
Antimony, Total	ug/L	MW-7S	05/07/2020		2.5000	*	1.0000
Antimony, Total	ug/L	MW-7S	11/11/2020		3.1000	*	1.0000
Antimony, Total	ug/L	MW-7S	05/17/2021		2.7000	*	1.0000
Antimony, Total	ug/L	MW-7S	11/18/2021		3.8000	*	1.0000
Antimony, Total	ug/L	MW-7S	05/12/2022		2.3000	*	1.0000
Antimony, Total	ug/L	MW-7S	11/16/2022		2.6000	*	1.0000
Antimony, Total	ug/L	MW-7S	05/03/2023		2.9000	*	1.0000
Arsenic, Total	ug/L	MW-11S	04/20/2016		146.0000	*	5.8000
Arsenic, Total	ug/L	MW-11S	06/02/2016		100.0000	*	5.8000
Arsenic, Total	ug/L	MW-11S	08/12/2016		61.0000	*	5.8000
Arsenic, Total	ug/L	MW-11S	09/30/2016		64.5000	*	5.8000
Arsenic, Total	ug/L	MW-11S	12/01/2016		41.6000	*	5.8000
Arsenic, Total	ug/L	MW-11S	01/31/2017		107.0000	*	5.8000

\* - Significantly increased over background.  
 \*\* - Detect at limit for 100% NDs in background (NPPL only).  
 \*\*\* - Manual exclusion.  
 ND = Not Detected, Result = detection limit.



**Table C-7**

**Historical Downgradient Data for Constituent-Well Combinations  
that Failed the Current Statistical Evaluation or  
are in Verification Resampling Mode**

Constituent	Units	Well	Date		Result		Pred. Limit
Arsenic, Total	ug/L	MW-11S	05/25/2017		115.0000	*	5.8000
Arsenic, Total	ug/L	MW-11S	08/10/2017		130.0000	*	5.8000
Arsenic, Total	ug/L	MW-11S	05/23/2018		126.0000	*	5.8000
Arsenic, Total	ug/L	MW-11S	09/11/2018		63.2000	*	5.8000
Arsenic, Total	ug/L	MW-11S	05/08/2019		79.6000	*	5.8000
Arsenic, Total	ug/L	MW-11S	05/07/2020		108.0000	*	5.8000
Arsenic, Total	ug/L	MW-11S	11/12/2020		141.0000	*	5.8000
Arsenic, Total	ug/L	MW-11S	05/17/2021		110.0000	*	5.8000
Arsenic, Total	ug/L	MW-11S	11/17/2021		77.8000	*	5.8000
Arsenic, Total	ug/L	MW-11S	05/12/2022		103.0000	*	5.8000
Arsenic, Total	ug/L	MW-11S	11/21/2022		49.2000	*	5.8000
Arsenic, Total	ug/L	MW-11S	05/02/2023		59.8000	*	5.8000
Arsenic, Total	ug/L	MW-1S	04/19/2016	ND	10.0000		5.8000
Arsenic, Total	ug/L	MW-1S	06/02/2016	ND	10.0000		5.8000
Arsenic, Total	ug/L	MW-1S	08/10/2016		15.9000	*	5.8000
Arsenic, Total	ug/L	MW-1S	09/30/2016		14.2000	*	5.8000
Arsenic, Total	ug/L	MW-1S	12/02/2016		16.8000	*	5.8000
Arsenic, Total	ug/L	MW-1S	01/31/2017	ND	10.0000		5.8000
Arsenic, Total	ug/L	MW-1S	05/26/2017	ND	10.0000		5.8000
Arsenic, Total	ug/L	MW-1S	08/11/2017		12.2000	*	5.8000
Arsenic, Total	ug/L	MW-1S	05/23/2018		12.8000	*	5.8000
Arsenic, Total	ug/L	MW-1S	09/11/2018		11.6000	*	5.8000
Arsenic, Total	ug/L	MW-1S	05/08/2019		3.0000	*	5.8000
Arsenic, Total	ug/L	MW-1S	11/14/2019		10.5000	*	5.8000
Arsenic, Total	ug/L	MW-1S	05/05/2020		5.1000	*	5.8000
Arsenic, Total	ug/L	MW-1S	11/11/2020		6.7000	*	5.8000
Arsenic, Total	ug/L	MW-1S	05/25/2021		4.5000	*	5.8000
Arsenic, Total	ug/L	MW-1S	11/09/2021		4.1000	*	5.8000
Arsenic, Total	ug/L	MW-1S	05/10/2022		3.8000	*	5.8000
Arsenic, Total	ug/L	MW-1S	11/22/2022		8.1000	*	5.8000
Arsenic, Total	ug/L	MW-1S	04/23/2023		3.4000	*	5.8000
Arsenic, Total	ug/L	MW-2S	04/19/2016		15.9000	*	5.8000
Arsenic, Total	ug/L	MW-2S	06/01/2016	ND	10.0000		5.8000
Arsenic, Total	ug/L	MW-2S	08/11/2016		16.9000	*	5.8000
Arsenic, Total	ug/L	MW-2S	09/30/2016		19.8000	*	5.8000
Arsenic, Total	ug/L	MW-2S	12/02/2016		21.7000	*	5.8000
Arsenic, Total	ug/L	MW-2S	01/31/2017		17.0000	*	5.8000
Arsenic, Total	ug/L	MW-2S	05/26/2017	ND	10.0000		5.8000

\* - Significantly increased over background.  
 \*\* - Detect at limit for 100% NDs in background (NPPL only).  
 \*\*\* - Manual exclusion.  
 ND = Not Detected, Result = detection limit.

**Table C-7**

**Historical Downgradient Data for Constituent-Well Combinations  
that Failed the Current Statistical Evaluation or  
are in Verification Resampling Mode**

Constituent	Units	Well	Date		Result		Pred. Limit
Arsenic, Total	ug/L	MW-2S	08/11/2017	ND	10.0000		5.8000
Arsenic, Total	ug/L	MW-2S	05/22/2018		28.5000	*	5.8000
Arsenic, Total	ug/L	MW-2S	09/11/2018		60.3000	***	5.8000
Arsenic, Total	ug/L	MW-2S	05/09/2019		15.1000	*	5.8000
Arsenic, Total	ug/L	MW-2S	11/14/2019		8.4000	*	5.8000
Arsenic, Total	ug/L	MW-2S	05/08/2020		15.0000	*	5.8000
Arsenic, Total	ug/L	MW-2S	11/11/2020		8.9000	*	5.8000
Arsenic, Total	ug/L	MW-2S	05/11/2021		12.4000	*	5.8000
Arsenic, Total	ug/L	MW-2S	11/10/2021		13.7000	*	5.8000
Arsenic, Total	ug/L	MW-2S	05/11/2022		13.3000	*	5.8000
Arsenic, Total	ug/L	MW-2S	11/15/2022		6.2000	*	5.8000
Arsenic, Total	ug/L	MW-2S	04/18/2023		13.9000	*	5.8000
Barium, Total	ug/L	MW-10S	04/21/2016		78.3000	*	71.9391
Barium, Total	ug/L	MW-10S	05/31/2016		76.6000	*	71.9391
Barium, Total	ug/L	MW-10S	08/11/2016		68.2000		71.9391
Barium, Total	ug/L	MW-10S	09/29/2016		66.5000		71.9391
Barium, Total	ug/L	MW-10S	11/30/2016		73.1000	*	71.9391
Barium, Total	ug/L	MW-10S	01/30/2017		67.4000		71.9391
Barium, Total	ug/L	MW-10S	05/24/2017		69.6000		71.9391
Barium, Total	ug/L	MW-10S	08/09/2017		69.3000		71.9391
Barium, Total	ug/L	MW-10S	05/23/2018		65.4000		71.9391
Barium, Total	ug/L	MW-10S	09/11/2018		67.0000		71.9391
Barium, Total	ug/L	MW-10S	05/07/2019		91.2000	*	71.9391
Barium, Total	ug/L	MW-10S	05/07/2020		93.4000	*	71.9391
Barium, Total	ug/L	MW-10S	11/11/2020		95.0000	*	71.9391
Barium, Total	ug/L	MW-10S	05/21/2021		73.7000	*	71.9391
Barium, Total	ug/L	MW-10S	11/12/2021		83.6000	*	71.9391
Barium, Total	ug/L	MW-10S	05/18/2022		80.1000	*	71.9391
Barium, Total	ug/L	MW-10S	05/04/2023		69.5000		71.9391
Barium, Total	ug/L	MW-11S	04/20/2016		107.0000	*	71.9391
Barium, Total	ug/L	MW-11S	06/02/2016		72.1000	*	71.9391
Barium, Total	ug/L	MW-11S	08/12/2016		76.2000	*	71.9391
Barium, Total	ug/L	MW-11S	09/30/2016		70.6000		71.9391
Barium, Total	ug/L	MW-11S	12/01/2016		66.9000		71.9391
Barium, Total	ug/L	MW-11S	01/31/2017		72.2000	*	71.9391
Barium, Total	ug/L	MW-11S	05/25/2017		73.8000	*	71.9391
Barium, Total	ug/L	MW-11S	08/10/2017		74.1000	*	71.9391
Barium, Total	ug/L	MW-11S	05/23/2018		66.5000		71.9391

\* - Significantly increased over background.  
 \*\* - Detect at limit for 100% NDs in background (NPPL only).  
 \*\*\* - Manual exclusion.  
 ND = Not Detected, Result = detection limit.

**Table C-7**

**Historical Downgradient Data for Constituent-Well Combinations  
that Failed the Current Statistical Evaluation or  
are in Verification Resampling Mode**

Constituent	Units	Well	Date	Result	Pred. Limit
Barium, Total	ug/L	MW-11S	09/11/2018	63.9000	71.9391
Barium, Total	ug/L	MW-11S	05/08/2019	85.4000 *	71.9391
Barium, Total	ug/L	MW-11S	05/07/2020	84.3000 *	71.9391
Barium, Total	ug/L	MW-11S	11/12/2020	133.0000 *	71.9391
Barium, Total	ug/L	MW-11S	05/17/2021	123.0000 *	71.9391
Barium, Total	ug/L	MW-11S	11/17/2021	106.0000 *	71.9391
Barium, Total	ug/L	MW-11S	05/12/2022	88.3000 *	71.9391
Barium, Total	ug/L	MW-11S	11/21/2022	152.0000 *	71.9391
Barium, Total	ug/L	MW-11S	05/02/2023	77.1000 *	71.9391
Barium, Total	ug/L	MW-12S	04/20/2016	123.0000 *	71.9391
Barium, Total	ug/L	MW-12S	06/01/2016	81.1000 *	71.9391
Barium, Total	ug/L	MW-12S	08/11/2016	68.8000	71.9391
Barium, Total	ug/L	MW-12S	09/29/2016	60.3000	71.9391
Barium, Total	ug/L	MW-12S	12/01/2016	67.4000	71.9391
Barium, Total	ug/L	MW-12S	01/30/2017	67.3000	71.9391
Barium, Total	ug/L	MW-12S	05/25/2017	87.3000 *	71.9391
Barium, Total	ug/L	MW-12S	08/10/2017	113.0000 *	71.9391
Barium, Total	ug/L	MW-12S	05/23/2018	123.0000 *	71.9391
Barium, Total	ug/L	MW-12S	09/12/2018	78.1000 *	71.9391
Barium, Total	ug/L	MW-12S	05/08/2019	119.0000 *	71.9391
Barium, Total	ug/L	MW-12S	05/08/2020	131.0000 *	71.9391
Barium, Total	ug/L	MW-12S	11/12/2020	112.0000 *	71.9391
Barium, Total	ug/L	MW-12S	05/13/2021	99.4000 *	71.9391
Barium, Total	ug/L	MW-12S	11/10/2021	127.0000 *	71.9391
Barium, Total	ug/L	MW-12S	05/12/2022	125.0000 *	71.9391
Barium, Total	ug/L	MW-12S	11/15/2022	120.0000 *	71.9391
Barium, Total	ug/L	MW-12S	04/27/2023	122.0000 *	71.9391
Barium, Total	ug/L	MW-1S	04/19/2016	74.8000 *	71.9391
Barium, Total	ug/L	MW-1S	06/02/2016	73.3000 *	71.9391
Barium, Total	ug/L	MW-1S	08/10/2016	75.0000 *	71.9391
Barium, Total	ug/L	MW-1S	09/30/2016	83.4000 *	71.9391
Barium, Total	ug/L	MW-1S	12/02/2016	82.8000 *	71.9391
Barium, Total	ug/L	MW-1S	01/31/2017	88.1000 *	71.9391
Barium, Total	ug/L	MW-1S	05/26/2017	73.8000 *	71.9391
Barium, Total	ug/L	MW-1S	08/11/2017	72.1000 *	71.9391
Barium, Total	ug/L	MW-1S	05/23/2018	81.1000 *	71.9391
Barium, Total	ug/L	MW-1S	09/11/2018	73.8000 *	71.9391
Barium, Total	ug/L	MW-1S	05/08/2019	53.5000	71.9391

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 ND = Not Detected, Result = detection limit.

**Table C-7**

**Historical Downgradient Data for Constituent-Well Combinations  
that Failed the Current Statistical Evaluation or  
are in Verification Resampling Mode**

Constituent	Units	Well	Date	Result	Pred. Limit
Barium, Total	ug/L	MW-1S	11/14/2019	99.2000 *	71.9391
Barium, Total	ug/L	MW-1S	05/05/2020	72.0000 *	71.9391
Barium, Total	ug/L	MW-1S	11/11/2020	97.9000 *	71.9391
Barium, Total	ug/L	MW-1S	05/25/2021	69.9000 *	71.9391
Barium, Total	ug/L	MW-1S	11/09/2021	73.7000 *	71.9391
Barium, Total	ug/L	MW-1S	05/10/2022	79.7000 *	71.9391
Barium, Total	ug/L	MW-1S	11/22/2022	110.0000 *	71.9391
Barium, Total	ug/L	MW-1S	04/23/2023	62.8000 *	71.9391
Barium, Total	ug/L	MW-2S	04/19/2016	115.0000 *	71.9391
Barium, Total	ug/L	MW-2S	06/01/2016	117.0000 *	71.9391
Barium, Total	ug/L	MW-2S	08/11/2016	111.0000 *	71.9391
Barium, Total	ug/L	MW-2S	09/30/2016	124.0000 *	71.9391
Barium, Total	ug/L	MW-2S	12/02/2016	179.0000 *	71.9391
Barium, Total	ug/L	MW-2S	01/31/2017	137.0000 *	71.9391
Barium, Total	ug/L	MW-2S	05/26/2017	160.0000 *	71.9391
Barium, Total	ug/L	MW-2S	08/11/2017	189.0000 *	71.9391
Barium, Total	ug/L	MW-2S	05/22/2018	222.0000 *	71.9391
Barium, Total	ug/L	MW-2S	09/11/2018	186.0000 *	71.9391
Barium, Total	ug/L	MW-2S	05/09/2019	218.0000 *	71.9391
Barium, Total	ug/L	MW-2S	11/14/2019	122.0000 *	71.9391
Barium, Total	ug/L	MW-2S	05/08/2020	195.0000 *	71.9391
Barium, Total	ug/L	MW-2S	11/11/2020	110.0000 *	71.9391
Barium, Total	ug/L	MW-2S	05/11/2021	116.0000 *	71.9391
Barium, Total	ug/L	MW-2S	11/10/2021	143.0000 *	71.9391
Barium, Total	ug/L	MW-2S	05/11/2022	132.0000 *	71.9391
Barium, Total	ug/L	MW-2S	11/15/2022	97.4000 *	71.9391
Barium, Total	ug/L	MW-2S	04/18/2023	175.0000 *	71.9391
Barium, Total	ug/L	MW-3S	04/20/2016	92.6000 *	71.9391
Barium, Total	ug/L	MW-3S	06/01/2016	86.9000 *	71.9391
Barium, Total	ug/L	MW-3S	08/11/2016	106.0000 *	71.9391
Barium, Total	ug/L	MW-3S	09/30/2016	90.4000 *	71.9391
Barium, Total	ug/L	MW-3S	12/02/2016	101.0000 *	71.9391
Barium, Total	ug/L	MW-3S	01/31/2017	85.9000 *	71.9391
Barium, Total	ug/L	MW-3S	05/25/2017	80.0000 *	71.9391
Barium, Total	ug/L	MW-3S	08/11/2017	75.3000 *	71.9391
Barium, Total	ug/L	MW-3S	05/22/2018	73.9000 *	71.9391
Barium, Total	ug/L	MW-3S	09/11/2018	92.3000 *	71.9391
Barium, Total	ug/L	MW-3S	05/09/2019	97.0000 *	71.9391

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 ND = Not Detected, Result = detection limit.

**Table C-7**

**Historical Downgradient Data for Constituent-Well Combinations  
that Failed the Current Statistical Evaluation or  
are in Verification Resampling Mode**

Constituent	Units	Well	Date		Result		Pred. Limit
Barium, Total	ug/L	MW-3S	11/13/2019		76.5000	*	71.9391
Barium, Total	ug/L	MW-3S	05/05/2020		131.0000	*	71.9391
Barium, Total	ug/L	MW-3S	11/10/2020		80.0000	*	71.9391
Barium, Total	ug/L	MW-3S	05/12/2021		114.0000	*	71.9391
Barium, Total	ug/L	MW-3S	11/18/2021		94.3000	*	71.9391
Barium, Total	ug/L	MW-3S	05/11/2022		141.0000	*	71.9391
Barium, Total	ug/L	MW-3S	11/16/2022		81.2000	*	71.9391
Barium, Total	ug/L	MW-3S	04/18/2023		116.0000	*	71.9391
Barium, Total	ug/L	MW-6S	04/20/2016		190.0000	*	71.9391
Barium, Total	ug/L	MW-6S	06/01/2016		130.0000	*	71.9391
Barium, Total	ug/L	MW-6S	08/11/2016		133.0000	*	71.9391
Barium, Total	ug/L	MW-6S	09/29/2016		114.0000	*	71.9391
Barium, Total	ug/L	MW-6S	12/01/2016		108.0000	*	71.9391
Barium, Total	ug/L	MW-6S	01/30/2017		161.0000	*	71.9391
Barium, Total	ug/L	MW-6S	05/25/2017		147.0000	*	71.9391
Barium, Total	ug/L	MW-6S	08/10/2017		158.0000	*	71.9391
Barium, Total	ug/L	MW-6S	05/22/2018		115.0000	*	71.9391
Barium, Total	ug/L	MW-6S	09/11/2018		84.7000	*	71.9391
Barium, Total	ug/L	MW-6S	05/08/2019		67.4000	*	71.9391
Barium, Total	ug/L	MW-6S	11/13/2019		122.0000	*	71.9391
Barium, Total	ug/L	MW-6S	05/08/2020		110.0000	*	71.9391
Barium, Total	ug/L	MW-6S	11/19/2020		115.0000	*	71.9391
Barium, Total	ug/L	MW-6S	05/18/2021		89.7000	*	71.9391
Barium, Total	ug/L	MW-6S	11/09/2021		86.4000	*	71.9391
Barium, Total	ug/L	MW-6S	05/11/2022		92.5000	*	71.9391
Barium, Total	ug/L	MW-6S	05/01/2023		73.1000	*	71.9391
Barium, Total	ug/L	MW-7S	04/20/2016		164.0000	*	71.9391
Barium, Total	ug/L	MW-7S	06/01/2016		145.0000	*	71.9391
Barium, Total	ug/L	MW-7S	08/11/2016		149.0000	*	71.9391
Barium, Total	ug/L	MW-7S	09/29/2016		132.0000	*	71.9391
Barium, Total	ug/L	MW-7S	12/01/2016		142.0000	*	71.9391
Barium, Total	ug/L	MW-7S	01/30/2017		129.0000	*	71.9391
Barium, Total	ug/L	MW-7S	05/25/2017		128.0000	*	71.9391
Barium, Total	ug/L	MW-7S	08/10/2017		115.0000	*	71.9391
Barium, Total	ug/L	MW-7S	05/23/2018		117.0000	*	71.9391
Barium, Total	ug/L	MW-7S	09/11/2018		102.0000	*	71.9391
Barium, Total	ug/L	MW-7S	05/07/2019		95.1000	*	71.9391
Barium, Total	ug/L	MW-7S	05/07/2020		63.3000	*	71.9391

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 ND = Not Detected, Result = detection limit.

**Table C-7**

**Historical Downgradient Data for Constituent-Well Combinations  
that Failed the Current Statistical Evaluation or  
are in Verification Resampling Mode**

Constituent	Units	Well	Date		Result		Pred. Limit
Barium, Total	ug/L	MW-7S	11/11/2020		64.0000		71.9391
Barium, Total	ug/L	MW-7S	05/17/2021		106.0000	*	71.9391
Barium, Total	ug/L	MW-7S	11/18/2021		89.2000	*	71.9391
Barium, Total	ug/L	MW-7S	05/12/2022		80.5000	*	71.9391
Barium, Total	ug/L	MW-7S	11/16/2022		100.0000	*	71.9391
Barium, Total	ug/L	MW-7S	05/03/2023		63.8000		71.9391
Fluoride	mg/L	MW-10S	04/21/2016		0.3900	*	0.1000
Fluoride	mg/L	MW-10S	05/31/2016		0.3600	*	0.1000
Fluoride	mg/L	MW-10S	08/11/2016		0.3700	*	0.1000
Fluoride	mg/L	MW-10S	09/29/2016		0.4100	*	0.1000
Fluoride	mg/L	MW-10S	11/30/2016		0.4100	*	0.1000
Fluoride	mg/L	MW-10S	01/30/2017		0.3600	*	0.1000
Fluoride	mg/L	MW-10S	05/24/2017		0.3600	*	0.1000
Fluoride	mg/L	MW-10S	08/09/2017		0.3600	*	0.1000
Fluoride	mg/L	MW-10S	09/28/2017		0.3700	*	0.1000
Fluoride	mg/L	MW-10S	05/23/2018		0.3600	*	0.1000
Fluoride	mg/L	MW-10S	09/11/2018		0.3600	*	0.1000
Fluoride	mg/L	MW-10S	05/07/2019		0.2400	*	0.1000
Fluoride	mg/L	MW-10S	05/07/2020		0.3000	*	0.1000
Fluoride	mg/L	MW-10S	11/11/2020		0.2300	*	0.1000
Fluoride	mg/L	MW-10S	05/21/2021		0.2200	*	0.1000
Fluoride	mg/L	MW-10S	11/12/2021		0.2000	*	0.1000
Fluoride	mg/L	MW-10S	05/18/2022		0.2300	*	0.1000
Fluoride	mg/L	MW-10S	05/04/2023		0.1900	*	0.1000
Fluoride	mg/L	MW-11S	04/20/2016		0.3200	*	0.1000
Fluoride	mg/L	MW-11S	06/02/2016		0.3400	*	0.1000
Fluoride	mg/L	MW-11S	08/12/2016		0.3500	*	0.1000
Fluoride	mg/L	MW-11S	09/30/2016		0.4000	*	0.1000
Fluoride	mg/L	MW-11S	12/01/2016		0.4400	*	0.1000
Fluoride	mg/L	MW-11S	01/31/2017		0.3100	*	0.1000
Fluoride	mg/L	MW-11S	05/25/2017		0.3300	*	0.1000
Fluoride	mg/L	MW-11S	08/10/2017		0.3300	*	0.1000
Fluoride	mg/L	MW-11S	09/28/2017		0.4000	*	0.1000
Fluoride	mg/L	MW-11S	05/23/2018		0.3000	*	0.1000
Fluoride	mg/L	MW-11S	09/11/2018		0.2900	*	0.1000
Fluoride	mg/L	MW-11S	05/08/2019		0.2300	*	0.1000
Fluoride	mg/L	MW-11S	05/07/2020		0.2200	*	0.1000
Fluoride	mg/L	MW-11S	11/12/2020		0.2000	*	0.1000

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 \*\*\* - Manual exclusion.  
 ND = Not Detected, Result = detection limit.

**Table C-7**

**Historical Downgradient Data for Constituent-Well Combinations  
that Failed the Current Statistical Evaluation or  
are in Verification Resampling Mode**

Constituent	Units	Well	Date	Result	Pred. Limit
Fluoride	mg/L	MW-11S	05/17/2021	0.1600 *	0.1000
Fluoride	mg/L	MW-11S	11/17/2021	0.1500 *	0.1000
Fluoride	mg/L	MW-11S	05/12/2022	0.1700 *	0.1000
Fluoride	mg/L	MW-11S	11/21/2022	0.2000 *	0.1000
Fluoride	mg/L	MW-11S	05/02/2023	0.2100 *	0.1000
Fluoride	mg/L	MW-12S	04/20/2016	0.5800 *	0.1000
Fluoride	mg/L	MW-12S	06/01/2016	0.5700 *	0.1000
Fluoride	mg/L	MW-12S	08/11/2016	0.4700 *	0.1000
Fluoride	mg/L	MW-12S	09/29/2016	0.5100 *	0.1000
Fluoride	mg/L	MW-12S	12/01/2016	0.5200 *	0.1000
Fluoride	mg/L	MW-12S	01/30/2017	0.5200 *	0.1000
Fluoride	mg/L	MW-12S	05/25/2017	0.5400 *	0.1000
Fluoride	mg/L	MW-12S	08/10/2017	0.4000 *	0.1000
Fluoride	mg/L	MW-12S	09/27/2017	0.4400 *	0.1000
Fluoride	mg/L	MW-12S	05/23/2018	0.3300 *	0.1000
Fluoride	mg/L	MW-12S	09/12/2018	0.3200 *	0.1000
Fluoride	mg/L	MW-12S	05/08/2019	0.2800 *	0.1000
Fluoride	mg/L	MW-12S	05/08/2020	0.2100 *	0.1000
Fluoride	mg/L	MW-12S	11/12/2020	0.2800 *	0.1000
Fluoride	mg/L	MW-12S	05/13/2021	0.2800 *	0.1000
Fluoride	mg/L	MW-12S	11/10/2021	0.2200 *	0.1000
Fluoride	mg/L	MW-12S	05/12/2022	0.2300 *	0.1000
Fluoride	mg/L	MW-12S	11/15/2022	0.2400 *	0.1000
Fluoride	mg/L	MW-12S	04/27/2023	0.2400 *	0.1000
Fluoride	mg/L	MW-1S	04/19/2016	0.3300 *	0.1000
Fluoride	mg/L	MW-1S	06/02/2016	0.5200 *	0.1000
Fluoride	mg/L	MW-1S	08/10/2016	0.5500 *	0.1000
Fluoride	mg/L	MW-1S	09/30/2016	0.5100 *	0.1000
Fluoride	mg/L	MW-1S	12/02/2016	0.4900 *	0.1000
Fluoride	mg/L	MW-1S	01/31/2017	0.3000 *	0.1000
Fluoride	mg/L	MW-1S	05/26/2017	0.2900 *	0.1000
Fluoride	mg/L	MW-1S	08/11/2017	0.4700 *	0.1000
Fluoride	mg/L	MW-1S	09/28/2017	0.5300 *	0.1000
Fluoride	mg/L	MW-1S	05/23/2018	0.3400 *	0.1000
Fluoride	mg/L	MW-1S	09/11/2018	0.2500 *	0.1000
Fluoride	mg/L	MW-1S	05/08/2019	0.1300 *	0.1000
Fluoride	mg/L	MW-1S	11/14/2019	0.2900 *	0.1000
Fluoride	mg/L	MW-1S	05/05/2020	0.2600 *	0.1000

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 ND = Not Detected, Result = detection limit.

**Table C-7**

**Historical Downgradient Data for Constituent-Well Combinations  
that Failed the Current Statistical Evaluation or  
are in Verification Resampling Mode**

Constituent	Units	Well	Date		Result		Pred. Limit
Fluoride	mg/L	MW-1S	11/11/2020	ND	0.2400 *		0.1000
Fluoride	mg/L	MW-1S	05/25/2021		0.1000		0.1000
Fluoride	mg/L	MW-1S	11/09/2021		0.1300 *		0.1000
Fluoride	mg/L	MW-1S	05/10/2022		0.1200 *		0.1000
Fluoride	mg/L	MW-1S	11/22/2022		0.2000 *		0.1000
Fluoride	mg/L	MW-1S	04/23/2023		0.1700 *		0.1000
Fluoride	mg/L	MW-2S	04/19/2016		0.4200 *		0.1000
Fluoride	mg/L	MW-2S	06/01/2016		0.4000 *		0.1000
Fluoride	mg/L	MW-2S	08/11/2016		0.3700 *		0.1000
Fluoride	mg/L	MW-2S	09/30/2016		0.3500 *		0.1000
Fluoride	mg/L	MW-2S	12/02/2016		0.3100 *		0.1000
Fluoride	mg/L	MW-2S	01/31/2017		0.3800 *		0.1000
Fluoride	mg/L	MW-2S	05/26/2017		0.3500 *		0.1000
Fluoride	mg/L	MW-2S	08/11/2017		0.3300 *		0.1000
Fluoride	mg/L	MW-2S	09/27/2017		0.2500 *		0.1000
Fluoride	mg/L	MW-2S	05/22/2018		0.2300 *		0.1000
Fluoride	mg/L	MW-2S	09/11/2018		0.1300 *		0.1000
Fluoride	mg/L	MW-2S	05/09/2019		0.1500 *		0.1000
Fluoride	mg/L	MW-2S	11/14/2019		0.1700 *		0.1000
Fluoride	mg/L	MW-2S	05/08/2020		0.1200 *		0.1000
Fluoride	mg/L	MW-2S	11/11/2020		0.1500 *		0.1000
Fluoride	mg/L	MW-2S	05/11/2021		0.1100 *		0.1000
Fluoride	mg/L	MW-2S	11/10/2021		0.1600 *		0.1000
Fluoride	mg/L	MW-2S	05/11/2022		0.1300 *		0.1000
Fluoride	mg/L	MW-2S	11/15/2022		0.1400 *		0.1000
Fluoride	mg/L	MW-2S	04/18/2023		0.1600 *		0.1000
Fluoride	mg/L	MW-3S	04/20/2016		0.2600 *		0.1000
Fluoride	mg/L	MW-3S	06/01/2016		0.2800 *		0.1000
Fluoride	mg/L	MW-3S	08/11/2016		0.2500 *		0.1000
Fluoride	mg/L	MW-3S	09/30/2016		0.2700 *		0.1000
Fluoride	mg/L	MW-3S	12/02/2016		0.3000 *		0.1000
Fluoride	mg/L	MW-3S	01/31/2017		0.2400 *		0.1000
Fluoride	mg/L	MW-3S	05/25/2017		0.2500 *		0.1000
Fluoride	mg/L	MW-3S	08/11/2017		0.3000 *		0.1000
Fluoride	mg/L	MW-3S	09/27/2017		0.3100 *		0.1000
Fluoride	mg/L	MW-3S	05/22/2018		0.2800 *		0.1000
Fluoride	mg/L	MW-3S	09/11/2018		0.2700 *		0.1000
Fluoride	mg/L	MW-3S	05/09/2019		0.2000 *		0.1000

\* - Significantly increased over background.  
 \*\* - Detect at limit for 100% NDs in background (NPPL only).  
 \*\*\* - Manual exclusion.  
 ND = Not Detected, Result = detection limit.



**Table C-7**

**Historical Downgradient Data for Constituent-Well Combinations  
that Failed the Current Statistical Evaluation or  
are in Verification Resampling Mode**

Constituent	Units	Well	Date	Result	Pred. Limit
Fluoride	mg/L	MW-3S	11/13/2019	0.3900 *	0.1000
Fluoride	mg/L	MW-3S	05/05/2020	0.3300 *	0.1000
Fluoride	mg/L	MW-3S	11/10/2020	0.3900 *	0.1000
Fluoride	mg/L	MW-3S	05/12/2021	0.3000 *	0.1000
Fluoride	mg/L	MW-3S	11/18/2021	0.2900 *	0.1000
Fluoride	mg/L	MW-3S	05/11/2022	0.2000 *	0.1000
Fluoride	mg/L	MW-3S	11/16/2022	0.3000 *	0.1000
Fluoride	mg/L	MW-3S	04/18/2023	0.2000 *	0.1000
Fluoride	mg/L	MW-6S	04/20/2016	0.2400 *	0.1000
Fluoride	mg/L	MW-6S	06/01/2016	0.2300 *	0.1000
Fluoride	mg/L	MW-6S	08/11/2016	0.2200 *	0.1000
Fluoride	mg/L	MW-6S	09/29/2016	0.2500 *	0.1000
Fluoride	mg/L	MW-6S	12/01/2016	0.2600 *	0.1000
Fluoride	mg/L	MW-6S	01/30/2017	0.2200 *	0.1000
Fluoride	mg/L	MW-6S	05/25/2017	0.2000 *	0.1000
Fluoride	mg/L	MW-6S	08/10/2017	0.2100 *	0.1000
Fluoride	mg/L	MW-6S	09/27/2017	0.2300 *	0.1000
Fluoride	mg/L	MW-6S	05/22/2018	0.1600 *	0.1000
Fluoride	mg/L	MW-6S	09/11/2018	0.2100 *	0.1000
Fluoride	mg/L	MW-6S	05/08/2019	0.1700 *	0.1000
Fluoride	mg/L	MW-6S	11/13/2019	0.2300 *	0.1000
Fluoride	mg/L	MW-6S	05/08/2020	0.1700 *	0.1000
Fluoride	mg/L	MW-6S	11/19/2020	0.2600 *	0.1000
Fluoride	mg/L	MW-6S	05/18/2021	0.1900 *	0.1000
Fluoride	mg/L	MW-6S	11/09/2021	0.2500 *	0.1000
Fluoride	mg/L	MW-6S	05/11/2022	0.2500 *	0.1000
Fluoride	mg/L	MW-6S	05/01/2023	0.2500 *	0.1000
Lithium, Total	ug/L	MW-10S	04/21/2016	124.0000 *	20.0000
Lithium, Total	ug/L	MW-10S	05/31/2016	110.0000 *	20.0000
Lithium, Total	ug/L	MW-10S	08/11/2016	100.0000 *	20.0000
Lithium, Total	ug/L	MW-10S	09/29/2016	99.8000 *	20.0000
Lithium, Total	ug/L	MW-10S	11/30/2016	102.0000 *	20.0000
Lithium, Total	ug/L	MW-10S	01/30/2017	102.0000 *	20.0000
Lithium, Total	ug/L	MW-10S	05/24/2017	110.0000 *	20.0000
Lithium, Total	ug/L	MW-10S	08/09/2017	102.0000 *	20.0000
Lithium, Total	ug/L	MW-10S	05/23/2018	91.9000 *	20.0000
Lithium, Total	ug/L	MW-10S	09/11/2018	74.0000 *	20.0000
Lithium, Total	ug/L	MW-10S	05/07/2019	98.8000 *	20.0000

\* - Significantly increased over background.  
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 \*\*\* - Manual exclusion.  
 ND = Not Detected, Result = detection limit.

**Table C-7**

**Historical Downgradient Data for Constituent-Well Combinations  
that Failed the Current Statistical Evaluation or  
are in Verification Resampling Mode**

Constituent	Units	Well	Date		Result		Pred. Limit
Lithium, Total	ug/L	MW-10S	05/07/2020		114.0000	*	20.0000
Lithium, Total	ug/L	MW-10S	11/11/2020		96.2000	*	20.0000
Lithium, Total	ug/L	MW-10S	05/21/2021		96.6000	*	20.0000
Lithium, Total	ug/L	MW-10S	11/12/2021		93.0000	*	20.0000
Lithium, Total	ug/L	MW-10S	05/18/2022		108.0000	*	20.0000
Lithium, Total	ug/L	MW-10S	05/04/2023		88.7000	*	20.0000
Lithium, Total	ug/L	MW-11S	04/20/2016		115.0000	*	20.0000
Lithium, Total	ug/L	MW-11S	06/02/2016		119.0000	*	20.0000
Lithium, Total	ug/L	MW-11S	08/12/2016		105.0000	*	20.0000
Lithium, Total	ug/L	MW-11S	09/30/2016		104.0000	*	20.0000
Lithium, Total	ug/L	MW-11S	12/01/2016		99.6000	*	20.0000
Lithium, Total	ug/L	MW-11S	01/31/2017		101.0000	*	20.0000
Lithium, Total	ug/L	MW-11S	05/25/2017		103.0000	*	20.0000
Lithium, Total	ug/L	MW-11S	08/10/2017		108.0000	*	20.0000
Lithium, Total	ug/L	MW-11S	05/23/2018		102.0000	*	20.0000
Lithium, Total	ug/L	MW-11S	09/11/2018		109.0000	*	20.0000
Lithium, Total	ug/L	MW-11S	05/08/2019		111.0000	*	20.0000
Lithium, Total	ug/L	MW-11S	05/07/2020		111.0000	*	20.0000
Lithium, Total	ug/L	MW-11S	11/12/2020		136.0000	*	20.0000
Lithium, Total	ug/L	MW-11S	05/17/2021		114.0000	*	20.0000
Lithium, Total	ug/L	MW-11S	11/17/2021		122.0000	*	20.0000
Lithium, Total	ug/L	MW-11S	05/12/2022		99.0000	*	20.0000
Lithium, Total	ug/L	MW-11S	11/21/2022		142.0000	*	20.0000
Lithium, Total	ug/L	MW-11S	05/02/2023		51.4000	*	20.0000
Lithium, Total	ug/L	MW-12S	04/20/2016		94.5000	*	20.0000
Lithium, Total	ug/L	MW-12S	06/01/2016		91.7000	*	20.0000
Lithium, Total	ug/L	MW-12S	08/11/2016		82.1000	*	20.0000
Lithium, Total	ug/L	MW-12S	09/29/2016		83.5000	*	20.0000
Lithium, Total	ug/L	MW-12S	12/01/2016		94.9000	*	20.0000
Lithium, Total	ug/L	MW-12S	01/30/2017		80.6000	*	20.0000
Lithium, Total	ug/L	MW-12S	05/25/2017		90.0000	*	20.0000
Lithium, Total	ug/L	MW-12S	08/10/2017		91.1000	*	20.0000
Lithium, Total	ug/L	MW-12S	05/23/2018		105.0000	*	20.0000
Lithium, Total	ug/L	MW-12S	09/12/2018		86.2000	*	20.0000
Lithium, Total	ug/L	MW-12S	05/08/2019		97.3000	*	20.0000
Lithium, Total	ug/L	MW-12S	05/08/2020		117.0000	*	20.0000
Lithium, Total	ug/L	MW-12S	11/12/2020		126.0000	*	20.0000
Lithium, Total	ug/L	MW-12S	05/13/2021		113.0000	*	20.0000

\* - Significantly increased over background.  
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 \*\*\* - Manual exclusion.  
 ND = Not Detected, Result = detection limit.

**Table C-7**

**Historical Downgradient Data for Constituent-Well Combinations  
that Failed the Current Statistical Evaluation or  
are in Verification Resampling Mode**

Constituent	Units	Well	Date		Result		Pred. Limit
Lithium, Total	ug/L	MW-12S	11/10/2021		129.0000	*	20.0000
Lithium, Total	ug/L	MW-12S	05/12/2022		117.0000	*	20.0000
Lithium, Total	ug/L	MW-12S	11/15/2022		138.0000	*	20.0000
Lithium, Total	ug/L	MW-12S	04/27/2023		97.7000	*	20.0000
Lithium, Total	ug/L	MW-1S	04/19/2016		100.0000	*	20.0000
Lithium, Total	ug/L	MW-1S	06/02/2016		110.0000	*	20.0000
Lithium, Total	ug/L	MW-1S	08/10/2016		107.0000	*	20.0000
Lithium, Total	ug/L	MW-1S	09/30/2016		92.2000	*	20.0000
Lithium, Total	ug/L	MW-1S	12/02/2016		93.8000	*	20.0000
Lithium, Total	ug/L	MW-1S	01/31/2017		98.9000	*	20.0000
Lithium, Total	ug/L	MW-1S	05/26/2017		104.0000	*	20.0000
Lithium, Total	ug/L	MW-1S	08/11/2017		111.0000	*	20.0000
Lithium, Total	ug/L	MW-1S	05/23/2018		128.0000	*	20.0000
Lithium, Total	ug/L	MW-1S	09/11/2018		90.0000	*	20.0000
Lithium, Total	ug/L	MW-1S	05/08/2019		83.4000	*	20.0000
Lithium, Total	ug/L	MW-1S	11/14/2019		115.0000	*	20.0000
Lithium, Total	ug/L	MW-1S	05/05/2020		124.0000	*	20.0000
Lithium, Total	ug/L	MW-1S	11/11/2020		114.0000	*	20.0000
Lithium, Total	ug/L	MW-1S	05/25/2021		70.0000	*	20.0000
Lithium, Total	ug/L	MW-1S	11/09/2021		99.8000	*	20.0000
Lithium, Total	ug/L	MW-1S	05/10/2022		102.0000	*	20.0000
Lithium, Total	ug/L	MW-1S	11/22/2022		83.8000	*	20.0000
Lithium, Total	ug/L	MW-1S	04/23/2023		64.5000	*	20.0000
Lithium, Total	ug/L	MW-2S	04/19/2016		86.0000	*	20.0000
Lithium, Total	ug/L	MW-2S	06/01/2016		79.6000	*	20.0000
Lithium, Total	ug/L	MW-2S	08/11/2016		79.2000	*	20.0000
Lithium, Total	ug/L	MW-2S	09/30/2016		88.8000	*	20.0000
Lithium, Total	ug/L	MW-2S	12/02/2016		105.0000	*	20.0000
Lithium, Total	ug/L	MW-2S	01/31/2017		91.6000	*	20.0000
Lithium, Total	ug/L	MW-2S	05/26/2017		101.0000	*	20.0000
Lithium, Total	ug/L	MW-2S	08/11/2017		100.0000	*	20.0000
Lithium, Total	ug/L	MW-2S	05/22/2018		107.0000	*	20.0000
Lithium, Total	ug/L	MW-2S	09/11/2018		78.7000	*	20.0000
Lithium, Total	ug/L	MW-2S	05/09/2019		102.0000	*	20.0000
Lithium, Total	ug/L	MW-2S	11/14/2019		91.9000	*	20.0000
Lithium, Total	ug/L	MW-2S	05/08/2020		92.6000	*	20.0000
Lithium, Total	ug/L	MW-2S	11/11/2020		74.8000	*	20.0000
Lithium, Total	ug/L	MW-2S	05/11/2021		42.3000	*	20.0000

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 ND = Not Detected, Result = detection limit.

**Table C-7**

**Historical Downgradient Data for Constituent-Well Combinations  
that Failed the Current Statistical Evaluation or  
are in Verification Resampling Mode**

Constituent	Units	Well	Date	Result	Pred. Limit
Lithium, Total	ug/L	MW-2S	11/10/2021	63.2000 *	20.0000
Lithium, Total	ug/L	MW-2S	05/11/2022	52.0000 *	20.0000
Lithium, Total	ug/L	MW-2S	11/15/2022	49.2000 *	20.0000
Lithium, Total	ug/L	MW-2S	04/18/2023	38.8000 *	20.0000
Lithium, Total	ug/L	MW-6S	04/20/2016	75.6000 *	20.0000
Lithium, Total	ug/L	MW-6S	06/01/2016	70.9000 *	20.0000
Lithium, Total	ug/L	MW-6S	08/11/2016	73.6000 *	20.0000
Lithium, Total	ug/L	MW-6S	09/29/2016	76.4000 *	20.0000
Lithium, Total	ug/L	MW-6S	12/01/2016	82.1000 *	20.0000
Lithium, Total	ug/L	MW-6S	01/30/2017	79.3000 *	20.0000
Lithium, Total	ug/L	MW-6S	05/25/2017	68.7000 *	20.0000
Lithium, Total	ug/L	MW-6S	08/10/2017	53.6000 *	20.0000
Lithium, Total	ug/L	MW-6S	05/22/2018	68.8000 *	20.0000
Lithium, Total	ug/L	MW-6S	09/11/2018	69.4000 *	20.0000
Lithium, Total	ug/L	MW-6S	05/08/2019	21.5000 *	20.0000
Lithium, Total	ug/L	MW-6S	11/13/2019	77.2000 *	20.0000
Lithium, Total	ug/L	MW-6S	05/08/2020	79.4000 *	20.0000
Lithium, Total	ug/L	MW-6S	11/19/2020	91.2000 *	20.0000
Lithium, Total	ug/L	MW-6S	05/18/2021	99.5000 *	20.0000
Lithium, Total	ug/L	MW-6S	11/09/2021	91.6000 *	20.0000
Lithium, Total	ug/L	MW-6S	05/11/2022	68.6000 *	20.0000
Lithium, Total	ug/L	MW-6S	05/01/2023	52.2000 *	20.0000
Lithium, Total	ug/L	MW-7S	04/20/2016	126.0000 *	20.0000
Lithium, Total	ug/L	MW-7S	06/01/2016	162.0000 *	20.0000
Lithium, Total	ug/L	MW-7S	08/11/2016	170.0000 *	20.0000
Lithium, Total	ug/L	MW-7S	09/29/2016	164.0000 *	20.0000
Lithium, Total	ug/L	MW-7S	12/01/2016	166.0000 *	20.0000
Lithium, Total	ug/L	MW-7S	01/30/2017	148.0000 *	20.0000
Lithium, Total	ug/L	MW-7S	05/25/2017	149.0000 *	20.0000
Lithium, Total	ug/L	MW-7S	08/10/2017	153.0000 *	20.0000
Lithium, Total	ug/L	MW-7S	05/23/2018	136.0000 *	20.0000
Lithium, Total	ug/L	MW-7S	09/11/2018	103.0000 *	20.0000
Lithium, Total	ug/L	MW-7S	05/07/2019	30.7000 *	20.0000
Lithium, Total	ug/L	MW-7S	05/07/2020	31.2000 *	20.0000
Lithium, Total	ug/L	MW-7S	11/11/2020	25.6000 *	20.0000
Lithium, Total	ug/L	MW-7S	05/17/2021	31.1000 *	20.0000
Lithium, Total	ug/L	MW-7S	11/18/2021	31.8000 *	20.0000
Lithium, Total	ug/L	MW-7S	05/12/2022	31.6000 *	20.0000

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 \*\*\* - Manual exclusion.  
 ND = Not Detected, Result = detection limit.

**Table C-7**

**Historical Downgradient Data for Constituent-Well Combinations  
that Failed the Current Statistical Evaluation or  
are in Verification Resampling Mode**

Constituent	Units	Well	Date	Result	Pred. Limit
Lithium, Total	ug/L	MW-7S	11/16/2022	30.9000 *	20.0000
Lithium, Total	ug/L	MW-7S	05/03/2023	37.6000 *	20.0000
Molybdenum, Total	ug/L	MW-10S	04/21/2016	155.0000 *	10.0000
Molybdenum, Total	ug/L	MW-10S	05/31/2016	174.0000 *	10.0000
Molybdenum, Total	ug/L	MW-10S	08/11/2016	204.0000 *	10.0000
Molybdenum, Total	ug/L	MW-10S	09/29/2016	223.0000 *	10.0000
Molybdenum, Total	ug/L	MW-10S	11/30/2016	202.0000 *	10.0000
Molybdenum, Total	ug/L	MW-10S	01/30/2017	198.0000 *	10.0000
Molybdenum, Total	ug/L	MW-10S	05/24/2017	188.0000 *	10.0000
Molybdenum, Total	ug/L	MW-10S	08/09/2017	182.0000 *	10.0000
Molybdenum, Total	ug/L	MW-10S	05/23/2018	168.0000 *	10.0000
Molybdenum, Total	ug/L	MW-10S	09/11/2018	185.0000 *	10.0000
Molybdenum, Total	ug/L	MW-10S	05/07/2019	86.2000 *	10.0000
Molybdenum, Total	ug/L	MW-10S	05/07/2020	98.6000 *	10.0000
Molybdenum, Total	ug/L	MW-10S	11/11/2020	90.0000 *	10.0000
Molybdenum, Total	ug/L	MW-10S	05/21/2021	91.8000 *	10.0000
Molybdenum, Total	ug/L	MW-10S	11/12/2021	77.6000 *	10.0000
Molybdenum, Total	ug/L	MW-10S	05/18/2022	60.3000 *	10.0000
Molybdenum, Total	ug/L	MW-10S	05/04/2023	55.3000 *	10.0000
Molybdenum, Total	ug/L	MW-11S	04/20/2016	181.0000 *	10.0000
Molybdenum, Total	ug/L	MW-11S	06/02/2016	218.0000 *	10.0000
Molybdenum, Total	ug/L	MW-11S	08/12/2016	256.0000 *	10.0000
Molybdenum, Total	ug/L	MW-11S	09/30/2016	266.0000 *	10.0000
Molybdenum, Total	ug/L	MW-11S	12/01/2016	334.0000 *	10.0000
Molybdenum, Total	ug/L	MW-11S	01/31/2017	224.0000 *	10.0000
Molybdenum, Total	ug/L	MW-11S	05/25/2017	248.0000 *	10.0000
Molybdenum, Total	ug/L	MW-11S	08/10/2017	268.0000 *	10.0000
Molybdenum, Total	ug/L	MW-11S	05/23/2018	269.0000 *	10.0000
Molybdenum, Total	ug/L	MW-11S	09/11/2018	242.0000 *	10.0000
Molybdenum, Total	ug/L	MW-11S	05/08/2019	147.0000 *	10.0000
Molybdenum, Total	ug/L	MW-11S	05/07/2020	118.0000 *	10.0000
Molybdenum, Total	ug/L	MW-11S	11/12/2020	74.0000 *	10.0000
Molybdenum, Total	ug/L	MW-11S	05/17/2021	69.3000 *	10.0000
Molybdenum, Total	ug/L	MW-11S	11/17/2021	75.2000 *	10.0000
Molybdenum, Total	ug/L	MW-11S	05/12/2022	75.5000 *	10.0000
Molybdenum, Total	ug/L	MW-11S	11/21/2022	56.4000 *	10.0000
Molybdenum, Total	ug/L	MW-11S	05/02/2023	56.0000 *	10.0000
Molybdenum, Total	ug/L	MW-12S	04/20/2016	118.0000 *	10.0000

\* - Significantly increased over background.  
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 \*\*\* - Manual exclusion.  
 ND = Not Detected, Result = detection limit.

**Table C-7**

**Historical Downgradient Data for Constituent-Well Combinations  
that Failed the Current Statistical Evaluation or  
are in Verification Resampling Mode**

Constituent	Units	Well	Date	Result	Pred. Limit
Molybdenum, Total	ug/L	MW-12S	06/01/2016	138.0000 *	10.0000
Molybdenum, Total	ug/L	MW-12S	08/11/2016	136.0000 *	10.0000
Molybdenum, Total	ug/L	MW-12S	09/29/2016	123.0000 *	10.0000
Molybdenum, Total	ug/L	MW-12S	12/01/2016	154.0000 *	10.0000
Molybdenum, Total	ug/L	MW-12S	01/30/2017	98.5000 *	10.0000
Molybdenum, Total	ug/L	MW-12S	05/25/2017	104.0000 *	10.0000
Molybdenum, Total	ug/L	MW-12S	08/10/2017	83.2000 *	10.0000
Molybdenum, Total	ug/L	MW-12S	05/23/2018	51.5000 *	10.0000
Molybdenum, Total	ug/L	MW-12S	09/12/2018	77.0000 *	10.0000
Molybdenum, Total	ug/L	MW-12S	05/08/2019	42.4000 *	10.0000
Molybdenum, Total	ug/L	MW-12S	05/08/2020	50.4000 *	10.0000
Molybdenum, Total	ug/L	MW-12S	11/12/2020	63.8000 *	10.0000
Molybdenum, Total	ug/L	MW-12S	05/13/2021	69.5000 *	10.0000
Molybdenum, Total	ug/L	MW-12S	11/10/2021	33.8000 *	10.0000
Molybdenum, Total	ug/L	MW-12S	05/12/2022	21.9000 *	10.0000
Molybdenum, Total	ug/L	MW-12S	11/15/2022	36.4000 *	10.0000
Molybdenum, Total	ug/L	MW-12S	04/27/2023	35.9000 *	10.0000
Molybdenum, Total	ug/L	MW-1S	04/19/2016	32.6000 *	10.0000
Molybdenum, Total	ug/L	MW-1S	06/02/2016	71.7000 *	10.0000
Molybdenum, Total	ug/L	MW-1S	08/10/2016	91.3000 *	10.0000
Molybdenum, Total	ug/L	MW-1S	09/30/2016	71.5000 *	10.0000
Molybdenum, Total	ug/L	MW-1S	12/02/2016	68.1000 *	10.0000
Molybdenum, Total	ug/L	MW-1S	01/31/2017	41.0000 *	10.0000
Molybdenum, Total	ug/L	MW-1S	05/26/2017	36.1000 *	10.0000
Molybdenum, Total	ug/L	MW-1S	08/11/2017	67.9000 *	10.0000
Molybdenum, Total	ug/L	MW-1S	05/23/2018	57.4000 *	10.0000
Molybdenum, Total	ug/L	MW-1S	09/11/2018	33.1000 *	10.0000
Molybdenum, Total	ug/L	MW-1S	05/08/2019	15.1000 *	10.0000
Molybdenum, Total	ug/L	MW-1S	11/14/2019	55.4000 *	10.0000
Molybdenum, Total	ug/L	MW-1S	05/05/2020	39.1000 *	10.0000
Molybdenum, Total	ug/L	MW-1S	11/11/2020	55.1000 *	10.0000
Molybdenum, Total	ug/L	MW-1S	05/25/2021	19.1000 *	10.0000
Molybdenum, Total	ug/L	MW-1S	11/09/2021	24.4000 *	10.0000
Molybdenum, Total	ug/L	MW-1S	05/10/2022	24.8000 *	10.0000
Molybdenum, Total	ug/L	MW-1S	11/22/2022	30.7000 *	10.0000
Molybdenum, Total	ug/L	MW-1S	04/23/2023	13.5000 *	10.0000
Molybdenum, Total	ug/L	MW-3S	04/20/2016	54.5000 *	10.0000
Molybdenum, Total	ug/L	MW-3S	06/01/2016	68.6000 *	10.0000

\* - Significantly increased over background.  
 \*\* - Detect at limit for 100% NDs in background (NPPL only).  
 \*\*\* - Manual exclusion.  
 ND = Not Detected, Result = detection limit.

**Table C-7**

**Historical Downgradient Data for Constituent-Well Combinations  
that Failed the Current Statistical Evaluation or  
are in Verification Resampling Mode**

Constituent	Units	Well	Date		Result		Pred. Limit
Molybdenum, Total	ug/L	MW-3S	08/11/2016		48.7000	*	10.0000
Molybdenum, Total	ug/L	MW-3S	09/30/2016		41.3000	*	10.0000
Molybdenum, Total	ug/L	MW-3S	12/02/2016		39.0000	*	10.0000
Molybdenum, Total	ug/L	MW-3S	01/31/2017		45.6000	*	10.0000
Molybdenum, Total	ug/L	MW-3S	05/25/2017		43.3000	*	10.0000
Molybdenum, Total	ug/L	MW-3S	08/11/2017		49.9000	*	10.0000
Molybdenum, Total	ug/L	MW-3S	05/22/2018		39.3000	*	10.0000
Molybdenum, Total	ug/L	MW-3S	09/11/2018		38.4000	*	10.0000
Molybdenum, Total	ug/L	MW-3S	05/09/2019		38.9000	*	10.0000
Molybdenum, Total	ug/L	MW-3S	11/13/2019		64.2000	*	10.0000
Molybdenum, Total	ug/L	MW-3S	05/05/2020		61.7000	*	10.0000
Molybdenum, Total	ug/L	MW-3S	11/10/2020		77.4000	*	10.0000
Molybdenum, Total	ug/L	MW-3S	05/12/2021		56.0000	*	10.0000
Molybdenum, Total	ug/L	MW-3S	11/18/2021		47.0000	*	10.0000
Molybdenum, Total	ug/L	MW-3S	05/11/2022		52.6000	*	10.0000
Molybdenum, Total	ug/L	MW-3S	11/16/2022		53.4000	*	10.0000
Molybdenum, Total	ug/L	MW-3S	04/18/2023		21.1000	*	10.0000
Molybdenum, Total	ug/L	MW-6S	04/20/2016		93.6000	*	10.0000
Molybdenum, Total	ug/L	MW-6S	06/01/2016		101.0000	*	10.0000
Molybdenum, Total	ug/L	MW-6S	08/11/2016		116.0000	*	10.0000
Molybdenum, Total	ug/L	MW-6S	09/29/2016		119.0000	*	10.0000
Molybdenum, Total	ug/L	MW-6S	12/01/2016		127.0000	*	10.0000
Molybdenum, Total	ug/L	MW-6S	01/30/2017		104.0000	*	10.0000
Molybdenum, Total	ug/L	MW-6S	05/25/2017		77.9000	*	10.0000
Molybdenum, Total	ug/L	MW-6S	08/10/2017		85.9000	*	10.0000
Molybdenum, Total	ug/L	MW-6S	05/22/2018		80.1000	*	10.0000
Molybdenum, Total	ug/L	MW-6S	09/11/2018		143.0000	*	10.0000
Molybdenum, Total	ug/L	MW-6S	05/08/2019		39.6000	*	10.0000
Molybdenum, Total	ug/L	MW-6S	11/13/2019		144.0000	*	10.0000
Molybdenum, Total	ug/L	MW-6S	05/08/2020		90.7000	*	10.0000
Molybdenum, Total	ug/L	MW-6S	11/19/2020		164.0000	*	10.0000
Molybdenum, Total	ug/L	MW-6S	05/18/2021		138.0000	*	10.0000
Molybdenum, Total	ug/L	MW-6S	11/09/2021		161.0000	*	10.0000
Molybdenum, Total	ug/L	MW-6S	05/11/2022		81.4000	*	10.0000
Molybdenum, Total	ug/L	MW-6S	05/01/2023		83.8000	*	10.0000
Molybdenum, Total	ug/L	MW-7S	04/20/2016		130.0000	*	10.0000
Molybdenum, Total	ug/L	MW-7S	06/01/2016		195.0000	*	10.0000
Molybdenum, Total	ug/L	MW-7S	08/11/2016		202.0000	*	10.0000

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 ND = Not Detected, Result = detection limit.

**Table C-7**

**Historical Downgradient Data for Constituent-Well Combinations  
that Failed the Current Statistical Evaluation or  
are in Verification Resampling Mode**

Constituent	Units	Well	Date		Result		Pred. Limit
Molybdenum, Total	ug/L	MW-7S	09/29/2016		189.0000	*	10.0000
Molybdenum, Total	ug/L	MW-7S	12/01/2016		194.0000	*	10.0000
Molybdenum, Total	ug/L	MW-7S	01/30/2017		183.0000	*	10.0000
Molybdenum, Total	ug/L	MW-7S	05/25/2017		187.0000	*	10.0000
Molybdenum, Total	ug/L	MW-7S	08/10/2017		192.0000	*	10.0000
Molybdenum, Total	ug/L	MW-7S	05/23/2018		195.0000	*	10.0000
Molybdenum, Total	ug/L	MW-7S	09/11/2018		121.0000	*	10.0000
Molybdenum, Total	ug/L	MW-7S	05/07/2019		39.2000	*	10.0000
Molybdenum, Total	ug/L	MW-7S	05/07/2020		42.2000	*	10.0000
Molybdenum, Total	ug/L	MW-7S	11/11/2020		45.6000	*	10.0000
Molybdenum, Total	ug/L	MW-7S	05/17/2021		39.9000	*	10.0000
Molybdenum, Total	ug/L	MW-7S	11/18/2021		72.9000	*	10.0000
Molybdenum, Total	ug/L	MW-7S	05/12/2022		45.6000	*	10.0000
Molybdenum, Total	ug/L	MW-7S	11/16/2022		42.8000	*	10.0000
Molybdenum, Total	ug/L	MW-7S	05/03/2023		27.8000	*	10.0000
Selenium, Total	ug/L	MW-10S	04/21/2016	ND	10.0000		1.0000
Selenium, Total	ug/L	MW-10S	05/31/2016	ND	10.0000		1.0000
Selenium, Total	ug/L	MW-10S	08/11/2016	ND	10.0000		1.0000
Selenium, Total	ug/L	MW-10S	09/29/2016	ND	10.0000		1.0000
Selenium, Total	ug/L	MW-10S	11/30/2016	ND	10.0000		1.0000
Selenium, Total	ug/L	MW-10S	01/30/2017	ND	10.0000		1.0000
Selenium, Total	ug/L	MW-10S	05/24/2017	ND	10.0000		1.0000
Selenium, Total	ug/L	MW-10S	08/09/2017	ND	10.0000		1.0000
Selenium, Total	ug/L	MW-10S	05/23/2018		2.8000	*	1.0000
Selenium, Total	ug/L	MW-10S	09/11/2018	ND	1.0000		1.0000
Selenium, Total	ug/L	MW-10S	05/07/2019		1.3000	*	1.0000
Selenium, Total	ug/L	MW-10S	05/07/2020		12.5000	*	1.0000
Selenium, Total	ug/L	MW-10S	11/11/2020		1.8000	*	1.0000
Selenium, Total	ug/L	MW-10S	05/21/2021		1.1000	*	1.0000
Selenium, Total	ug/L	MW-10S	11/12/2021		1.8000	*	1.0000
Selenium, Total	ug/L	MW-10S	05/18/2022		2.1000	*	1.0000
Selenium, Total	ug/L	MW-10S	05/04/2023		2.2000	*	1.0000
Selenium, Total	ug/L	MW-11S	04/20/2016	ND	10.0000		1.0000
Selenium, Total	ug/L	MW-11S	06/02/2016	ND	10.0000		1.0000
Selenium, Total	ug/L	MW-11S	08/12/2016	ND	10.0000		1.0000
Selenium, Total	ug/L	MW-11S	09/30/2016	ND	10.0000		1.0000
Selenium, Total	ug/L	MW-11S	12/01/2016	ND	10.0000		1.0000
Selenium, Total	ug/L	MW-11S	01/31/2017	ND	10.0000		1.0000

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 \*\*\* - Manual exclusion.  
 ND = Not Detected, Result = detection limit.



**Table C-7**

**Historical Downgradient Data for Constituent-Well Combinations  
that Failed the Current Statistical Evaluation or  
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Constituent	Units	Well	Date		Result		Pred. Limit
Selenium, Total	ug/L	MW-11S	05/25/2017	ND	10.0000		1.0000
Selenium, Total	ug/L	MW-11S	08/10/2017	ND	10.0000		1.0000
Selenium, Total	ug/L	MW-11S	05/23/2018		6.0000	*	1.0000
Selenium, Total	ug/L	MW-11S	09/11/2018		9.3000	*	1.0000
Selenium, Total	ug/L	MW-11S	05/08/2019		8.9000	*	1.0000
Selenium, Total	ug/L	MW-11S	05/07/2020		11.8000	*	1.0000
Selenium, Total	ug/L	MW-11S	11/12/2020		2.6000	*	1.0000
Selenium, Total	ug/L	MW-11S	05/17/2021		11.1000	*	1.0000
Selenium, Total	ug/L	MW-11S	11/17/2021		8.6000	*	1.0000
Selenium, Total	ug/L	MW-11S	05/12/2022		10.4000	*	1.0000
Selenium, Total	ug/L	MW-11S	11/21/2022		13.9000	*	1.0000
Selenium, Total	ug/L	MW-11S	05/02/2023		11.3000	*	1.0000
Selenium, Total	ug/L	MW-12S	04/20/2016	ND	10.0000		1.0000
Selenium, Total	ug/L	MW-12S	06/01/2016	ND	10.0000		1.0000
Selenium, Total	ug/L	MW-12S	08/11/2016	ND	10.0000		1.0000
Selenium, Total	ug/L	MW-12S	09/29/2016	ND	10.0000		1.0000
Selenium, Total	ug/L	MW-12S	12/01/2016	ND	10.0000		1.0000
Selenium, Total	ug/L	MW-12S	01/30/2017	ND	10.0000		1.0000
Selenium, Total	ug/L	MW-12S	05/25/2017	ND	10.0000		1.0000
Selenium, Total	ug/L	MW-12S	08/10/2017	ND	10.0000		1.0000
Selenium, Total	ug/L	MW-12S	05/23/2018	ND	1.0000		1.0000
Selenium, Total	ug/L	MW-12S	09/12/2018		2.0000	*	1.0000
Selenium, Total	ug/L	MW-12S	05/08/2019		30.3000	*	1.0000
Selenium, Total	ug/L	MW-12S	05/08/2020		41.6000	*	1.0000
Selenium, Total	ug/L	MW-12S	11/12/2020		16.7000	*	1.0000
Selenium, Total	ug/L	MW-12S	05/13/2021		12.4000	*	1.0000
Selenium, Total	ug/L	MW-12S	11/10/2021		15.3000	*	1.0000
Selenium, Total	ug/L	MW-12S	05/12/2022		16.2000	*	1.0000
Selenium, Total	ug/L	MW-12S	11/15/2022		32.4000	*	1.0000
Selenium, Total	ug/L	MW-12S	04/27/2023		8.3000	*	1.0000
Selenium, Total	ug/L	MW-1S	04/19/2016		16.8000	*	1.0000
Selenium, Total	ug/L	MW-1S	06/02/2016	ND	10.0000		1.0000
Selenium, Total	ug/L	MW-1S	08/10/2016		14.0000	*	1.0000
Selenium, Total	ug/L	MW-1S	09/30/2016	ND	10.0000		1.0000
Selenium, Total	ug/L	MW-1S	12/02/2016	ND	10.0000		1.0000
Selenium, Total	ug/L	MW-1S	01/31/2017		16.2000	*	1.0000
Selenium, Total	ug/L	MW-1S	05/26/2017		15.7000	*	1.0000
Selenium, Total	ug/L	MW-1S	08/11/2017		11.2000	*	1.0000

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 ND = Not Detected, Result = detection limit.

**Table C-7**

**Historical Downgradient Data for Constituent-Well Combinations  
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Constituent	Units	Well	Date		Result		Pred. Limit
Selenium, Total	ug/L	MW-1S	05/23/2018		23.5000	*	1.0000
Selenium, Total	ug/L	MW-1S	09/11/2018		10.7000	*	1.0000
Selenium, Total	ug/L	MW-1S	05/08/2019		21.0000	*	1.0000
Selenium, Total	ug/L	MW-1S	11/14/2019		6.9000	*	1.0000
Selenium, Total	ug/L	MW-1S	05/05/2020		9.6000	*	1.0000
Selenium, Total	ug/L	MW-1S	11/11/2020		6.6000	*	1.0000
Selenium, Total	ug/L	MW-1S	05/25/2021		24.4000	*	1.0000
Selenium, Total	ug/L	MW-1S	11/09/2021		21.7000	*	1.0000
Selenium, Total	ug/L	MW-1S	05/10/2022		19.8000	*	1.0000
Selenium, Total	ug/L	MW-1S	11/22/2022		28.0000	*	1.0000
Selenium, Total	ug/L	MW-1S	04/23/2023		28.2000	*	1.0000
Selenium, Total	ug/L	MW-2S	04/19/2016	ND	10.0000		1.0000
Selenium, Total	ug/L	MW-2S	06/01/2016	ND	10.0000		1.0000
Selenium, Total	ug/L	MW-2S	08/11/2016	ND	10.0000		1.0000
Selenium, Total	ug/L	MW-2S	09/30/2016	ND	10.0000		1.0000
Selenium, Total	ug/L	MW-2S	12/02/2016	ND	10.0000		1.0000
Selenium, Total	ug/L	MW-2S	01/31/2017	ND	10.0000		1.0000
Selenium, Total	ug/L	MW-2S	05/26/2017	ND	10.0000		1.0000
Selenium, Total	ug/L	MW-2S	08/11/2017	ND	10.0000		1.0000
Selenium, Total	ug/L	MW-2S	05/22/2018		2.4000	*	1.0000
Selenium, Total	ug/L	MW-2S	09/11/2018		2.5000	*	1.0000
Selenium, Total	ug/L	MW-2S	05/09/2019		21.9000	*	1.0000
Selenium, Total	ug/L	MW-2S	11/14/2019		11.4000	*	1.0000
Selenium, Total	ug/L	MW-2S	05/08/2020		97.6000	*	1.0000
Selenium, Total	ug/L	MW-2S	11/11/2020		9.6000	*	1.0000
Selenium, Total	ug/L	MW-2S	05/11/2021		5.5000	*	1.0000
Selenium, Total	ug/L	MW-2S	11/10/2021		28.7000	*	1.0000
Selenium, Total	ug/L	MW-2S	05/11/2022		23.7000	*	1.0000
Selenium, Total	ug/L	MW-2S	11/15/2022		7.7000	*	1.0000
Selenium, Total	ug/L	MW-2S	04/18/2023		25.7000	*	1.0000
Selenium, Total	ug/L	MW-3S	04/20/2016	ND	10.0000		1.0000
Selenium, Total	ug/L	MW-3S	06/01/2016	ND	10.0000		1.0000
Selenium, Total	ug/L	MW-3S	08/11/2016	ND	10.0000		1.0000
Selenium, Total	ug/L	MW-3S	09/30/2016	ND	10.0000		1.0000
Selenium, Total	ug/L	MW-3S	12/02/2016	ND	10.0000		1.0000
Selenium, Total	ug/L	MW-3S	01/31/2017		10.7000	*	1.0000
Selenium, Total	ug/L	MW-3S	05/25/2017		13.9000	*	1.0000
Selenium, Total	ug/L	MW-3S	08/11/2017	ND	10.0000		1.0000

\* - Significantly increased over background.  
 \*\* - Detect at limit for 100% NDs in background (NPPL only).  
 \*\*\* - Manual exclusion.  
 ND = Not Detected, Result = detection limit.

**Table C-7**

**Historical Downgradient Data for Constituent-Well Combinations  
that Failed the Current Statistical Evaluation or  
are in Verification Resampling Mode**

Constituent	Units	Well	Date		Result		Pred. Limit
Selenium, Total	ug/L	MW-3S	05/22/2018		1.1000	*	1.0000
Selenium, Total	ug/L	MW-3S	09/11/2018	ND	1.0000		1.0000
Selenium, Total	ug/L	MW-3S	05/09/2019		8.1000	*	1.0000
Selenium, Total	ug/L	MW-3S	11/13/2019	ND	1.0000		1.0000
Selenium, Total	ug/L	MW-3S	05/05/2020	ND	1.0000		1.0000
Selenium, Total	ug/L	MW-3S	11/10/2020	ND	1.0000		1.0000
Selenium, Total	ug/L	MW-3S	05/12/2021	ND	1.0000		1.0000
Selenium, Total	ug/L	MW-3S	11/18/2021		5.9000	*	1.0000
Selenium, Total	ug/L	MW-3S	05/11/2022		17.9000	*	1.0000
Selenium, Total	ug/L	MW-3S	11/16/2022		1.8000	*	1.0000
Selenium, Total	ug/L	MW-3S	04/18/2023		7.3000	*	1.0000
Selenium, Total	ug/L	MW-6S	04/20/2016		15.5000	*	1.0000
Selenium, Total	ug/L	MW-6S	06/01/2016		12.4000	*	1.0000
Selenium, Total	ug/L	MW-6S	08/11/2016		11.0000	*	1.0000
Selenium, Total	ug/L	MW-6S	09/29/2016		12.0000	*	1.0000
Selenium, Total	ug/L	MW-6S	12/01/2016		12.9000	*	1.0000
Selenium, Total	ug/L	MW-6S	01/30/2017		14.0000	*	1.0000
Selenium, Total	ug/L	MW-6S	05/25/2017		12.3000	*	1.0000
Selenium, Total	ug/L	MW-6S	08/10/2017	ND	10.0000		1.0000
Selenium, Total	ug/L	MW-6S	05/22/2018		11.8000	*	1.0000
Selenium, Total	ug/L	MW-6S	09/11/2018		1.2000	*	1.0000
Selenium, Total	ug/L	MW-6S	05/08/2019		6.5000	*	1.0000
Selenium, Total	ug/L	MW-6S	11/13/2019		6.9000	*	1.0000
Selenium, Total	ug/L	MW-6S	05/08/2020		14.8000	*	1.0000
Selenium, Total	ug/L	MW-6S	11/19/2020		9.7000	*	1.0000
Selenium, Total	ug/L	MW-6S	05/18/2021		14.2000	*	1.0000
Selenium, Total	ug/L	MW-6S	11/09/2021		2.2000	*	1.0000
Selenium, Total	ug/L	MW-6S	05/11/2022		16.8000	*	1.0000
Selenium, Total	ug/L	MW-6S	05/01/2023		36.4000	*	1.0000
Selenium, Total	ug/L	MW-7S	04/20/2016	ND	10.0000		1.0000
Selenium, Total	ug/L	MW-7S	06/01/2016	ND	10.0000		1.0000
Selenium, Total	ug/L	MW-7S	08/11/2016	ND	10.0000		1.0000
Selenium, Total	ug/L	MW-7S	09/29/2016	ND	10.0000		1.0000
Selenium, Total	ug/L	MW-7S	12/01/2016	ND	10.0000		1.0000
Selenium, Total	ug/L	MW-7S	01/30/2017	ND	10.0000		1.0000
Selenium, Total	ug/L	MW-7S	05/25/2017	ND	10.0000		1.0000
Selenium, Total	ug/L	MW-7S	08/10/2017	ND	10.0000		1.0000
Selenium, Total	ug/L	MW-7S	05/23/2018		6.0000	*	1.0000

\* - Significantly increased over background.  
 \*\* - Detect at limit for 100% NDs in background (NPPL only).  
 \*\*\* - Manual exclusion.  
 ND = Not Detected, Result = detection limit.

**Table C-7**

**Historical Downgradient Data for Constituent-Well Combinations  
that Failed the Current Statistical Evaluation or  
are in Verification Resampling Mode**

Constituent	Units	Well	Date		Result		Pred. Limit
Selenium, Total	ug/L	MW-7S	09/11/2018		12.0000 *		1.0000
Selenium, Total	ug/L	MW-7S	05/07/2019		6.0000 *		1.0000
Selenium, Total	ug/L	MW-7S	05/07/2020		19.2000 *		1.0000
Selenium, Total	ug/L	MW-7S	11/11/2020		12.0000 *		1.0000
Selenium, Total	ug/L	MW-7S	05/17/2021		22.7000 *		1.0000
Selenium, Total	ug/L	MW-7S	11/18/2021		40.6000 *		1.0000
Selenium, Total	ug/L	MW-7S	05/12/2022		25.8000 *		1.0000
Selenium, Total	ug/L	MW-7S	11/16/2022		17.7000 *		1.0000
Selenium, Total	ug/L	MW-7S	05/03/2023		22.5000 *		1.0000

\* - Significantly increased over background.  
 \*\* - Detect at limit for 100% NDs in background (NPPL only).  
 \*\*\* - Manual exclusion.  
 ND = Not Detected, Result = detection limit.

# False Positive and False Negative Rates for Current Upgradient vs. Downgradient Monitoring Program

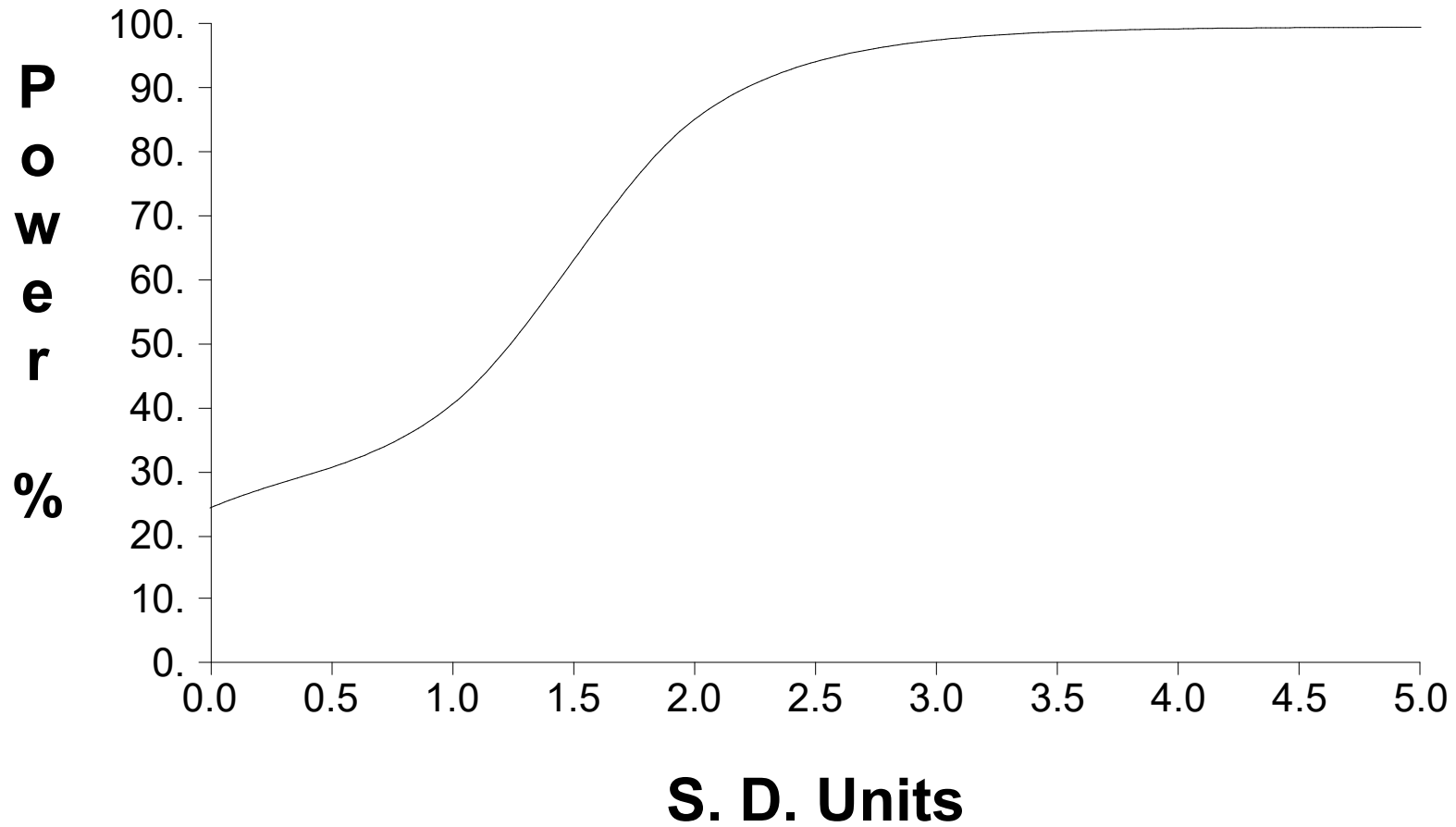


Table C-1

Upgradient Data

Constituent	Units	Well	Date		Result	Adjusted	
Antimony, Total	ug/L	MW-13I	08/08/2019	ND	1.0000		
Antimony, Total	ug/L	MW-13I	09/24/2019	ND	1.0000		
Antimony, Total	ug/L	MW-13I	05/07/2020	ND	6.0000	1.0000	**
Antimony, Total	ug/L	MW-13I	11/12/2020	ND	1.0000		
Antimony, Total	ug/L	MW-13I	02/25/2021	ND	1.0000		
Antimony, Total	ug/L	MW-13I	03/29/2021	ND	1.0000		
Antimony, Total	ug/L	MW-13I	05/20/2021	ND	1.0000		
Antimony, Total	ug/L	MW-13I	06/22/2021	ND	1.0000		
Antimony, Total	ug/L	MW-13I	07/27/2021	ND	1.0000		
Antimony, Total	ug/L	MW-13I	11/16/2021	ND	1.0000		
Antimony, Total	ug/L	MW-13I	05/19/2022	ND	1.0000		
Antimony, Total	ug/L	MW-13I	11/18/2022	ND	1.0000		
Antimony, Total	ug/L	MW-13I	04/18/2023	ND	1.0000		
Arsenic, Total	ug/L	MW-13I	08/08/2019	ND	1.0000		
Arsenic, Total	ug/L	MW-13I	09/24/2019	ND	1.0000		
Arsenic, Total	ug/L	MW-13I	05/07/2020	ND	10.0000	1.0000	**
Arsenic, Total	ug/L	MW-13I	11/12/2020		2.0000		
Arsenic, Total	ug/L	MW-13I	02/25/2021	ND	1.0000		
Arsenic, Total	ug/L	MW-13I	03/29/2021	ND	1.0000		
Arsenic, Total	ug/L	MW-13I	05/20/2021	ND	1.0000		
Arsenic, Total	ug/L	MW-13I	06/22/2021	ND	1.0000		
Arsenic, Total	ug/L	MW-13I	07/27/2021	ND	1.0000		
Arsenic, Total	ug/L	MW-13I	11/16/2021	ND	1.0000		
Arsenic, Total	ug/L	MW-13I	05/19/2022	ND	1.0000		
Arsenic, Total	ug/L	MW-13I	11/18/2022	ND	1.0000		
Arsenic, Total	ug/L	MW-13I	04/18/2023	ND	1.0000		
Barium, Total	ug/L	MW-13I	08/08/2019		36.0000		
Barium, Total	ug/L	MW-13I	09/24/2019		35.6000		
Barium, Total	ug/L	MW-13I	05/07/2020		38.1000		
Barium, Total	ug/L	MW-13I	11/12/2020		38.0000		
Barium, Total	ug/L	MW-13I	02/25/2021		42.2000		
Barium, Total	ug/L	MW-13I	03/29/2021		46.0000		
Barium, Total	ug/L	MW-13I	05/20/2021		42.4000		
Barium, Total	ug/L	MW-13I	06/22/2021		41.3000		
Barium, Total	ug/L	MW-13I	07/27/2021		43.6000		
Barium, Total	ug/L	MW-13I	11/16/2021		37.9000		
Barium, Total	ug/L	MW-13I	05/19/2022		44.0000		
Barium, Total	ug/L	MW-13I	11/18/2022		42.2000		
Barium, Total	ug/L	MW-13I	04/18/2023		37.8000		
Beryllium, Total	ug/L	MW-13I	08/08/2019	ND	0.2000		
Beryllium, Total	ug/L	MW-13I	09/24/2019	ND	0.2000		

\* - Outlier for that well and constituent.  
 \*\* - ND value replaced with median RL.  
 \*\*\* - ND value replaced with manual RL.  
 ND = Not detected, Result = detection limit.

**Table C-1**

**Upgradient Data**

Constituent	Units	Well	Date		Result	Adjusted	
Beryllium, Total	ug/L	MW-13I	05/07/2020	ND	4.0000	0.2000	**
Beryllium, Total	ug/L	MW-13I	11/12/2020	ND	0.2000		
Beryllium, Total	ug/L	MW-13I	02/25/2021	ND	0.2000		
Beryllium, Total	ug/L	MW-13I	03/29/2021	ND	0.2000		
Beryllium, Total	ug/L	MW-13I	05/20/2021	ND	0.2000		
Beryllium, Total	ug/L	MW-13I	06/22/2021	ND	0.2000		
Beryllium, Total	ug/L	MW-13I	07/27/2021	ND	0.2000		
Beryllium, Total	ug/L	MW-13I	05/19/2022	ND	0.2000		
Beryllium, Total	ug/L	MW-13I	04/18/2023	ND	0.2000		
Cadmium, Total	ug/L	MW-13I	08/08/2019	ND	2.0000		
Cadmium, Total	ug/L	MW-13I	09/24/2019	ND	2.0000		
Cadmium, Total	ug/L	MW-13I	05/07/2020	ND	2.0000		
Cadmium, Total	ug/L	MW-13I	11/12/2020	ND	2.0000		
Cadmium, Total	ug/L	MW-13I	02/25/2021	ND	2.0000		
Cadmium, Total	ug/L	MW-13I	03/29/2021	ND	2.0000		
Cadmium, Total	ug/L	MW-13I	05/20/2021	ND	2.0000		
Cadmium, Total	ug/L	MW-13I	06/22/2021	ND	2.0000		
Cadmium, Total	ug/L	MW-13I	07/27/2021	ND	2.0000		
Cadmium, Total	ug/L	MW-13I	05/19/2022	ND	2.0000		
Cadmium, Total	ug/L	MW-13I	04/18/2023	ND	2.0000		
Chromium, Total	ug/L	MW-13I	08/08/2019	ND	10.0000		
Chromium, Total	ug/L	MW-13I	09/24/2019	ND	10.0000		
Chromium, Total	ug/L	MW-13I	05/07/2020	ND	10.0000		
Chromium, Total	ug/L	MW-13I	11/12/2020	ND	10.0000		
Chromium, Total	ug/L	MW-13I	02/25/2021	ND	10.0000		
Chromium, Total	ug/L	MW-13I	03/29/2021	ND	10.0000		
Chromium, Total	ug/L	MW-13I	05/20/2021	ND	10.0000		
Chromium, Total	ug/L	MW-13I	06/22/2021	ND	10.0000		
Chromium, Total	ug/L	MW-13I	07/27/2021	ND	10.0000		
Chromium, Total	ug/L	MW-13I	05/19/2022	ND	10.0000		
Chromium, Total	ug/L	MW-13I	04/18/2023	ND	10.0000		
Cobalt, Total	ug/L	MW-13I	08/08/2019	ND	1.0000		
Cobalt, Total	ug/L	MW-13I	09/24/2019	ND	1.0000		
Cobalt, Total	ug/L	MW-13I	05/07/2020	ND	10.0000	1.0000	**
Cobalt, Total	ug/L	MW-13I	11/12/2020		1.0000		
Cobalt, Total	ug/L	MW-13I	02/25/2021	ND	1.0000		
Cobalt, Total	ug/L	MW-13I	03/29/2021	ND	1.0000		
Cobalt, Total	ug/L	MW-13I	05/20/2021	ND	1.0000		
Cobalt, Total	ug/L	MW-13I	06/22/2021	ND	1.0000		
Cobalt, Total	ug/L	MW-13I	07/27/2021	ND	1.0000		
Cobalt, Total	ug/L	MW-13I	11/16/2021	ND	1.0000		

\* - Outlier for that well and constituent.  
 \*\* - ND value replaced with median RL.  
 \*\*\* - ND value replaced with manual RL.  
 ND = Not detected, Result = detection limit.

**Table C-1**

**Upgradient Data**

Constituent	Units	Well	Date		Result	Adjusted
Cobalt, Total	ug/L	MW-13I	05/19/2022	ND	1.0000	
Cobalt, Total	ug/L	MW-13I	04/18/2023	ND	1.0000	
Fluoride	mg/L	MW-13I	08/08/2019	ND	0.1000	
Fluoride	mg/L	MW-13I	09/24/2019	ND	0.1000	
Fluoride	mg/L	MW-13I	05/07/2020	ND	0.1000	
Fluoride	mg/L	MW-13I	11/12/2020	ND	0.1000	
Fluoride	mg/L	MW-13I	02/25/2021	ND	0.1000	
Fluoride	mg/L	MW-13I	03/29/2021	ND	0.1000	
Fluoride	mg/L	MW-13I	05/20/2021	ND	0.1000	
Fluoride	mg/L	MW-13I	06/22/2021	ND	0.1000	
Fluoride	mg/L	MW-13I	07/27/2021	ND	0.1000	
Fluoride	mg/L	MW-13I	11/16/2021	ND	0.1000	
Fluoride	mg/L	MW-13I	05/19/2022	ND	0.1000	
Fluoride	mg/L	MW-13I	11/18/2022	ND	0.1000	
Fluoride	mg/L	MW-13I	04/18/2023	ND	0.1000	
Lead, Total	ug/L	MW-13I	08/08/2019	ND	10.0000	
Lead, Total	ug/L	MW-13I	09/24/2019	ND	10.0000	
Lead, Total	ug/L	MW-13I	05/07/2020	ND	10.0000	
Lead, Total	ug/L	MW-13I	11/12/2020	ND	10.0000	
Lead, Total	ug/L	MW-13I	02/25/2021	ND	10.0000	
Lead, Total	ug/L	MW-13I	03/29/2021	ND	10.0000	
Lead, Total	ug/L	MW-13I	05/20/2021	ND	10.0000	
Lead, Total	ug/L	MW-13I	06/22/2021	ND	10.0000	
Lead, Total	ug/L	MW-13I	07/27/2021	ND	10.0000	
Lead, Total	ug/L	MW-13I	05/19/2022	ND	10.0000	
Lead, Total	ug/L	MW-13I	04/18/2023	ND	10.0000	
Lithium, Total	ug/L	MW-13I	08/08/2019	ND	20.0000	
Lithium, Total	ug/L	MW-13I	09/24/2019	ND	20.0000	
Lithium, Total	ug/L	MW-13I	05/07/2020	ND	20.0000	
Lithium, Total	ug/L	MW-13I	11/12/2020	ND	20.0000	
Lithium, Total	ug/L	MW-13I	02/25/2021	ND	20.0000	
Lithium, Total	ug/L	MW-13I	03/29/2021	ND	20.0000	
Lithium, Total	ug/L	MW-13I	05/20/2021	ND	20.0000	
Lithium, Total	ug/L	MW-13I	06/22/2021	ND	20.0000	
Lithium, Total	ug/L	MW-13I	07/27/2021	ND	20.0000	
Lithium, Total	ug/L	MW-13I	11/16/2021	ND	20.0000	
Lithium, Total	ug/L	MW-13I	05/19/2022	ND	20.0000	
Lithium, Total	ug/L	MW-13I	11/18/2022	ND	20.0000	
Lithium, Total	ug/L	MW-13I	04/18/2023	ND	20.0000	
Mercury	ug/L	MW-13I	08/08/2019	ND	2.0000	
Mercury	ug/L	MW-13I	09/24/2019	ND	2.0000	

\* - Outlier for that well and constituent.  
 \*\* - ND value replaced with median RL.  
 \*\*\* - ND value replaced with manual RL.  
 ND = Not detected, Result = detection limit.



**Table C-1**

**Upgradient Data**

Constituent	Units	Well	Date		Result	Adjusted	
Mercury	ug/L	MW-13I	11/12/2020	ND	2.0000		
Mercury	ug/L	MW-13I	02/25/2021	ND	2.0000		
Mercury	ug/L	MW-13I	03/29/2021	ND	2.0000		
Mercury	ug/L	MW-13I	05/20/2021	ND	2.0000		
Mercury	ug/L	MW-13I	06/22/2021	ND	2.0000		
Mercury	ug/L	MW-13I	07/27/2021	ND	2.0000		
Mercury	ug/L	MW-13I	05/19/2022	ND	0.2000	2.0000	**
Mercury	ug/L	MW-13I	04/18/2023	ND	0.2000	2.0000	**
Molybdenum, Total	ug/L	MW-13I	08/08/2019	ND	10.0000		
Molybdenum, Total	ug/L	MW-13I	09/24/2019	ND	10.0000		
Molybdenum, Total	ug/L	MW-13I	05/07/2020	ND	10.0000		
Molybdenum, Total	ug/L	MW-13I	11/12/2020	ND	10.0000		
Molybdenum, Total	ug/L	MW-13I	02/25/2021	ND	10.0000		
Molybdenum, Total	ug/L	MW-13I	03/29/2021	ND	10.0000		
Molybdenum, Total	ug/L	MW-13I	05/20/2021	ND	10.0000		
Molybdenum, Total	ug/L	MW-13I	06/22/2021	ND	10.0000		
Molybdenum, Total	ug/L	MW-13I	07/27/2021	ND	10.0000		
Molybdenum, Total	ug/L	MW-13I	11/16/2021	ND	10.0000		
Molybdenum, Total	ug/L	MW-13I	05/19/2022	ND	10.0000		
Molybdenum, Total	ug/L	MW-13I	11/18/2022	ND	10.0000		
Molybdenum, Total	ug/L	MW-13I	04/18/2023	ND	10.0000		
Selenium, Total	ug/L	MW-13I	08/08/2019	ND	1.0000		
Selenium, Total	ug/L	MW-13I	09/24/2019	ND	1.0000		
Selenium, Total	ug/L	MW-13I	05/07/2020	ND	10.0000	1.0000	**
Selenium, Total	ug/L	MW-13I	11/12/2020	ND	1.0000		
Selenium, Total	ug/L	MW-13I	02/25/2021	ND	1.0000		
Selenium, Total	ug/L	MW-13I	03/29/2021	ND	1.0000		
Selenium, Total	ug/L	MW-13I	05/20/2021	ND	1.0000		
Selenium, Total	ug/L	MW-13I	06/22/2021	ND	1.0000		
Selenium, Total	ug/L	MW-13I	07/27/2021	ND	1.0000		
Selenium, Total	ug/L	MW-13I	11/16/2021	ND	1.0000		
Selenium, Total	ug/L	MW-13I	05/19/2022	ND	1.0000		
Selenium, Total	ug/L	MW-13I	11/18/2022	ND	1.0000		
Selenium, Total	ug/L	MW-13I	04/18/2023	ND	1.0000		
Thallium, Total	ug/L	MW-13I	08/08/2019	ND	1.0000		
Thallium, Total	ug/L	MW-13I	09/24/2019	ND	1.0000		
Thallium, Total	ug/L	MW-13I	05/07/2020	ND	10.0000	1.0000	**
Thallium, Total	ug/L	MW-13I	11/12/2020	ND	1.0000		
Thallium, Total	ug/L	MW-13I	02/25/2021	ND	1.0000		
Thallium, Total	ug/L	MW-13I	03/29/2021	ND	1.0000		
Thallium, Total	ug/L	MW-13I	05/20/2021	ND	1.0000		

\* - Outlier for that well and constituent.  
 \*\* - ND value replaced with median RL.  
 \*\*\* - ND value replaced with manual RL.  
 ND = Not detected, Result = detection limit.

**Table C-1**

**Upgradient Data**

Constituent	Units	Well	Date		Result	Adjusted	
Thallium, Total	ug/L	MW-13I	06/22/2021	ND	1.0000		
Thallium, Total	ug/L	MW-13I	07/27/2021	ND	1.0000		
Thallium, Total	ug/L	MW-13I	05/19/2022	ND	1.0000		
Thallium, Total	ug/L	MW-13I	04/18/2023	ND	1.0000		
Total Radium	pCi/L	MW-13I	08/08/2019		0.8760		
Total Radium	pCi/L	MW-13I	09/24/2019		1.1500		
Total Radium	pCi/L	MW-13I	11/12/2020		0.7030		
Total Radium	pCi/L	MW-13I	02/25/2021		1.0800		
Total Radium	pCi/L	MW-13I	03/29/2021	ND	1.4900		
Total Radium	pCi/L	MW-13I	05/20/2021	ND	2.0100	1.4900	**
Total Radium	pCi/L	MW-13I	06/22/2021		0.8170		
Total Radium	pCi/L	MW-13I	07/27/2021	ND	1.3500	1.4900	**
Total Radium	pCi/L	MW-13I	11/16/2021		0.5810		
Total Radium	pCi/L	MW-13I	05/19/2022		1.2800		
Total Radium	pCi/L	MW-13I	11/18/2022		1.0300		
Total Radium	pCi/L	MW-13I	04/18/2023	ND	1.8800	1.4900	**

\* - Outlier for that well and constituent.  
 \*\* - ND value replaced with median RL.  
 \*\*\* - ND value replaced with manual RL.  
 ND = Not detected, Result = detection limit.

**Table C-2**

**Most Current Downgradient Monitoring Data**

Constituent	Units	Well	Date		Result		Pred. Limit
Antimony, Total	ug/L	MW-11I	05/02/2023	ND	1.0000		1.0000
Antimony, Total	ug/L	MW-1I	04/19/2023	ND	1.0000		1.0000
Antimony, Total	ug/L	MW-2I	04/19/2023	ND	1.0000		1.0000
Antimony, Total	ug/L	MW-3I	04/17/2023	ND	1.0000		1.0000
Antimony, Total	ug/L	MW-6I	05/01/2023	ND	1.0000		1.0000
Arsenic, Total	ug/L	MW-11I	05/02/2023		1.0000		2.0000
Arsenic, Total	ug/L	MW-1I	04/19/2023	ND	1.0000		2.0000
Arsenic, Total	ug/L	MW-2I	04/19/2023	ND	1.0000		2.0000
Arsenic, Total	ug/L	MW-3I	04/17/2023	ND	1.0000		2.0000
Arsenic, Total	ug/L	MW-6I	05/01/2023	ND	1.0000		2.0000
Barium, Total	ug/L	MW-11I	05/02/2023		51.0000	***	49.6163
Barium, Total	ug/L	MW-1I	04/19/2023		52.7000	***	49.6163
Barium, Total	ug/L	MW-2I	04/19/2023		94.9000	***	49.6163
Barium, Total	ug/L	MW-3I	04/17/2023		62.4000	***	49.6163
Barium, Total	ug/L	MW-6I	05/01/2023		73.8000	***	49.6163
Beryllium, Total	ug/L	MW-11I	05/02/2023	ND	0.2000		0.2000
Beryllium, Total	ug/L	MW-1I	04/19/2023	ND	0.2000		0.2000
Beryllium, Total	ug/L	MW-2I	04/19/2023	ND	0.2000		0.2000
Beryllium, Total	ug/L	MW-3I	04/17/2023	ND	0.2000		0.2000
Beryllium, Total	ug/L	MW-6I	05/01/2023	ND	0.2000		0.2000
Cadmium, Total	ug/L	MW-11I	05/02/2023	ND	2.0000		2.0000
Cadmium, Total	ug/L	MW-1I	04/19/2023	ND	2.0000		2.0000
Cadmium, Total	ug/L	MW-2I	04/19/2023	ND	2.0000		2.0000
Cadmium, Total	ug/L	MW-3I	04/17/2023	ND	2.0000		2.0000
Cadmium, Total	ug/L	MW-6I	05/01/2023	ND	2.0000		2.0000
Chromium, Total	ug/L	MW-11I	05/02/2023	ND	10.0000		10.0000
Chromium, Total	ug/L	MW-1I	04/19/2023	ND	10.0000		10.0000
Chromium, Total	ug/L	MW-2I	04/19/2023	ND	10.0000		10.0000
Chromium, Total	ug/L	MW-3I	04/17/2023	ND	10.0000		10.0000
Chromium, Total	ug/L	MW-6I	05/01/2023	ND	10.0000		10.0000
Cobalt, Total	ug/L	MW-11I	05/02/2023	ND	1.0000		1.0000
Cobalt, Total	ug/L	MW-1I	04/19/2023	ND	1.0000		1.0000
Cobalt, Total	ug/L	MW-2I	04/19/2023	ND	1.0000		1.0000
Cobalt, Total	ug/L	MW-3I	04/17/2023	ND	1.0000		1.0000
Cobalt, Total	ug/L	MW-6I	05/01/2023	ND	1.0000		1.0000
Fluoride	mg/L	MW-11I	05/02/2023		0.4200	***	0.1000
Fluoride	mg/L	MW-1I	04/19/2023		0.2800	***	0.1000
Fluoride	mg/L	MW-2I	04/19/2023		0.2800	***	0.1000
Fluoride	mg/L	MW-3I	04/17/2023		0.3400	***	0.1000

\* - Current value failed - awaiting verification.  
 \*\* - Current value passed - previous exceedance not verified.  
 \*\*\* - Current value failed - exceedance verified.  
 \*\*\*\* - Current value passed - awaiting one more verification.  
 \*\*\*\*\* - Insufficient background data to compute prediction limit.  
 ND = Not Detected, Result = detection limit.

**Table C-2**

**Most Current Downgradient Monitoring Data**

Constituent	Units	Well	Date		Result		Pred. Limit
Fluoride	mg/L	MW-6I	05/01/2023		0.3200	***	0.1000
Lead, Total	ug/L	MW-11I	05/02/2023	ND	10.0000		10.0000
Lead, Total	ug/L	MW-1I	04/19/2023	ND	10.0000		10.0000
Lead, Total	ug/L	MW-2I	04/19/2023	ND	10.0000		10.0000
Lead, Total	ug/L	MW-3I	04/17/2023	ND	10.0000		10.0000
Lead, Total	ug/L	MW-6I	05/01/2023	ND	10.0000		10.0000
Lithium, Total	ug/L	MW-11I	05/02/2023		97.4000	***	20.0000
Lithium, Total	ug/L	MW-1I	04/19/2023		87.2000	***	20.0000
Lithium, Total	ug/L	MW-2I	04/19/2023		47.9000	***	20.0000
Lithium, Total	ug/L	MW-3I	04/17/2023	ND	20.0000	**	20.0000
Lithium, Total	ug/L	MW-6I	05/01/2023		99.5000	***	20.0000
Mercury	ug/L	MW-11I	05/02/2023	ND	0.2000		2.0000
Mercury	ug/L	MW-1I	04/19/2023	ND	0.2000		2.0000
Mercury	ug/L	MW-2I	04/19/2023	ND	0.2000		2.0000
Mercury	ug/L	MW-3I	04/17/2023	ND	0.2000		2.0000
Mercury	ug/L	MW-6I	05/01/2023	ND	0.2000		2.0000
Molybdenum, Total	ug/L	MW-11I	05/02/2023		128.0000	***	10.0000
Molybdenum, Total	ug/L	MW-1I	04/19/2023		87.9000	***	10.0000
Molybdenum, Total	ug/L	MW-2I	04/19/2023		73.7000	***	10.0000
Molybdenum, Total	ug/L	MW-3I	04/17/2023		68.1000	***	10.0000
Molybdenum, Total	ug/L	MW-6I	05/01/2023		173.0000	***	10.0000
Selenium, Total	ug/L	MW-11I	05/02/2023	ND	1.0000		1.0000
Selenium, Total	ug/L	MW-1I	04/19/2023	ND	1.0000		1.0000
Selenium, Total	ug/L	MW-2I	04/19/2023	ND	1.0000		1.0000
Selenium, Total	ug/L	MW-3I	04/17/2023	ND	1.0000		1.0000
Selenium, Total	ug/L	MW-6I	05/01/2023	ND	1.0000		1.0000
Thallium, Total	ug/L	MW-11I	05/02/2023	ND	1.0000		1.0000
Thallium, Total	ug/L	MW-1I	04/19/2023	ND	1.0000		1.0000
Thallium, Total	ug/L	MW-2I	04/19/2023	ND	1.0000		1.0000
Thallium, Total	ug/L	MW-3I	04/17/2023	ND	1.0000		1.0000
Thallium, Total	ug/L	MW-6I	05/01/2023	ND	1.0000		1.0000
Total Radium	pCi/L	MW-11I	05/02/2023		0.8580		2.0419
Total Radium	pCi/L	MW-1I	04/19/2023		1.6100		2.0419
Total Radium	pCi/L	MW-2I	04/19/2023		1.3700		2.0419
Total Radium	pCi/L	MW-3I	04/17/2023		0.9120		2.0419
Total Radium	pCi/L	MW-6I	05/01/2023		1.8800		2.0419

\* - Current value failed - awaiting verification.  
 \*\* - Current value passed - previous exceedance not verified.  
 \*\*\* - Current value failed - exceedance verified.  
 \*\*\*\* - Current value passed - awaiting one more verification.  
 \*\*\*\*\* - Insufficient background data to compute prediction limit.  
 ND = Not Detected, Result = detection limit.

**Table C-3**

**Detection Frequencies in Upgradient and Downgradient Wells**

Constituent	Upgradient			Downgradient		
	Detect	N	Proportion	Detect	N	Proportion
Antimony, Total	0	13	0.000	0	95	0.000
Arsenic, Total	1	13	0.077	7	95	0.074
Barium, Total	13	13	1.000	95	95	1.000
Beryllium, Total	0	11	0.000	0	70	0.000
Cadmium, Total	0	11	0.000	0	70	0.000
Chromium, Total	0	11	0.000	0	70	0.000
Cobalt, Total	1	12	0.083	0	90	0.000
Fluoride	0	13	0.000	100	100	1.000
Lead, Total	0	11	0.000	0	70	0.000
Lithium, Total	0	13	0.000	91	95	0.958
Mercury	0	10	0.000	0	70	0.000
Molybdenum, Total	0	13	0.000	95	95	1.000
Selenium, Total	0	13	0.000	0	95	0.000
Thallium, Total	0	11	0.000	0	70	0.000
Total Radium	8	12	0.667	85	95	0.895

N = Total number of measurements in all wells.  
 Detect = Total number of detections in all wells.  
 Proportion = Detect/N.

**Table C-4**

**Shapiro-Wilk Multiple Group Test of Normality**

Constituent	Detect	N	Detect Freq	G raw	G log	G cbrt	G sqrt	G sqr	G cub	Crit Value	Dist Form	Model Type
Antimony, Total	0	13	0.000	3.936	3.936					2.326	non-norm	nonpar
Arsenic, Total	1	13	0.077	20.692	20.692					2.326	non-norm	nonpar
Barium, Total	13	13	1.000	0.462	0.501					2.326	normal	normal
Beryllium, Total	0	11	0.000	3.485	3.485					2.326	non-norm	nonpar
Cadmium, Total	0	11	0.000	3.485	3.485					2.326	non-norm	nonpar
Chromium, Total	0	11	0.000	3.485	3.485					2.326	non-norm	nonpar
Cobalt, Total	1	12	0.083	3.731	3.731					2.326	non-norm	nonpar
Fluoride	0	13	0.000	3.936	3.936					2.326	non-norm	nonpar
Lead, Total	0	11	0.000	3.485	3.485					2.326	non-norm	nonpar
Lithium, Total	0	13	0.000	3.936	3.936					2.326	non-norm	nonpar
Mercury	0	10	0.000	3.262	3.262					2.326	non-norm	nonpar
Molybdenum, Total	0	13	0.000	3.936	3.936					2.326	non-norm	nonpar
Selenium, Total	0	13	0.000	3.936	3.936					2.326	non-norm	nonpar
Thallium, Total	0	11	0.000	3.485	3.485					2.326	non-norm	nonpar
Total Radium	8	12	0.667	0.960	0.990					2.326	normal	normal

\* - Distribution override for that constituent.  
 Fit to distribution is confirmed if G <= critical value.  
 Model type may not match distributional form when detection frequency < 50%.

**Table C-5**

**Summary Statistics and Prediction Limits**

Constituent	Units	Detect	N	Mean	SD	alpha	Factor	Pred Limit	Type		Conf
Antimony, Total	ug/L	0	13					1.0000	nonpar	***	0.96
Arsenic, Total	ug/L	1	13					2.0000	nonpar		0.96
Barium, Total	ug/L	13	13	40.3923	3.3205	0.0100	2.7779	49.6163	normal		
Beryllium, Total	ug/L	0	11					0.2000	nonpar	***	0.94
Cadmium, Total	ug/L	0	11					2.0000	nonpar	***	0.94
Chromium, Total	ug/L	0	11					10.0000	nonpar	***	0.94
Cobalt, Total	ug/L	1	12					1.0000	nonpar	***	0.95
Fluoride	mg/L	0	13					0.1000	nonpar	***	0.96
Lead, Total	ug/L	0	11					10.0000	nonpar	***	0.94
Lithium, Total	ug/L	0	13					20.0000	nonpar	***	0.96
Mercury	ug/L	0	10					2.0000	nonpar	***	0.93
Molybdenum, Total	ug/L	0	13					10.0000	nonpar	***	0.96
Selenium, Total	ug/L	0	13					1.0000	nonpar	***	0.96
Thallium, Total	ug/L	0	11					1.0000	nonpar	***	0.94
Total Radium	pCi/L	8	12	0.6264	0.5013	0.0100	2.8234	2.0419	normal		

Conf = confidence level for passing initial test or one verification resample at all downgradient wells for a single constituent (nonparametric test only).

\* - Insufficient Data.

\*\* - Calculated limit raised to Manual Reporting Limit.

\*\*\* - Nonparametric limit based on ND value.

For transformed data, mean and SD in transformed units and prediction limit in original units.

All sample sizes and statistics are based on outlier free data.

For nonparametric limits, median reporting limits are substituted for extreme reporting limit values.

**Table C-6**

**Dixon's Test Outliers  
1% Significance Level**

Constituent	Units	Well	Date	Result	ND Qualifier	Date Range	N	Critical Value
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N = Total number of independent measurements in background at each well.

Date Range = Dates of the first and last measurements included in background at each well.

Critical Value depends on the significance level and on N-1 when the two most extreme values are tested or N for the most extreme value.



**Table C-7**

**Historical Downgradient Data for Constituent-Well Combinations  
that Failed the Current Statistical Evaluation or  
are in Verification Resampling Mode**

Constituent	Units	Well	Date	Result	Pred. Limit
Barium, Total	ug/L	MW-111	04/20/2016	72.6000 *	49.6163
Barium, Total	ug/L	MW-111	06/02/2016	68.4000 *	49.6163
Barium, Total	ug/L	MW-111	08/12/2016	69.2000 *	49.6163
Barium, Total	ug/L	MW-111	09/30/2016	67.5000 *	49.6163
Barium, Total	ug/L	MW-111	12/01/2016	74.8000 *	49.6163
Barium, Total	ug/L	MW-111	01/31/2017	65.3000 *	49.6163
Barium, Total	ug/L	MW-111	05/25/2017	71.5000 *	49.6163
Barium, Total	ug/L	MW-111	08/10/2017	65.1000 *	49.6163
Barium, Total	ug/L	MW-111	05/22/2018	66.1000 *	49.6163
Barium, Total	ug/L	MW-111	09/12/2018	72.6000 *	49.6163
Barium, Total	ug/L	MW-111	05/08/2019	65.1000 *	49.6163
Barium, Total	ug/L	MW-111	11/14/2019	64.1000 *	49.6163
Barium, Total	ug/L	MW-111	05/07/2020	55.8000 *	49.6163
Barium, Total	ug/L	MW-111	11/12/2020	43.0000	49.6163
Barium, Total	ug/L	MW-111	05/17/2021	53.0000 *	49.6163
Barium, Total	ug/L	MW-111	11/17/2021	62.3000 *	49.6163
Barium, Total	ug/L	MW-111	05/12/2022	50.3000 *	49.6163
Barium, Total	ug/L	MW-111	11/21/2022	73.2000 *	49.6163
Barium, Total	ug/L	MW-111	05/02/2023	51.0000 *	49.6163
Barium, Total	ug/L	MW-11	04/19/2016	52.8000 *	49.6163
Barium, Total	ug/L	MW-11	06/02/2016	50.4000 *	49.6163
Barium, Total	ug/L	MW-11	08/10/2016	54.4000 *	49.6163
Barium, Total	ug/L	MW-11	09/30/2016	56.2000 *	49.6163
Barium, Total	ug/L	MW-11	12/02/2016	60.0000 *	49.6163
Barium, Total	ug/L	MW-11	01/31/2017	52.0000 *	49.6163
Barium, Total	ug/L	MW-11	05/26/2017	49.8000 *	49.6163
Barium, Total	ug/L	MW-11	08/11/2017	56.5000 *	49.6163
Barium, Total	ug/L	MW-11	05/23/2018	75.6000 *	49.6163
Barium, Total	ug/L	MW-11	09/11/2018	65.7000 *	49.6163
Barium, Total	ug/L	MW-11	05/08/2019	59.4000 *	49.6163
Barium, Total	ug/L	MW-11	11/14/2019	57.6000 *	49.6163
Barium, Total	ug/L	MW-11	05/05/2020	55.0000 *	49.6163
Barium, Total	ug/L	MW-11	11/11/2020	55.2000 *	49.6163
Barium, Total	ug/L	MW-11	05/25/2021	55.4000 *	49.6163
Barium, Total	ug/L	MW-11	11/09/2021	50.4000 *	49.6163
Barium, Total	ug/L	MW-11	05/10/2022	54.1000 *	49.6163
Barium, Total	ug/L	MW-11	11/22/2022	81.9000 *	49.6163
Barium, Total	ug/L	MW-11	04/19/2023	52.7000 *	49.6163

\* - Significantly increased over background.  
 \*\* - Detect at limit for 100% NDs in background (NPPL only).  
 \*\*\* - Manual exclusion.  
 ND = Not Detected, Result = detection limit.

**Table C-7**

**Historical Downgradient Data for Constituent-Well Combinations  
that Failed the Current Statistical Evaluation or  
are in Verification Resampling Mode**

Constituent	Units	Well	Date	Result	Pred. Limit
Barium, Total	ug/L	MW-21	04/19/2016	76.3000 *	49.6163
Barium, Total	ug/L	MW-21	06/01/2016	61.9000 *	49.6163
Barium, Total	ug/L	MW-21	08/11/2016	65.0000 *	49.6163
Barium, Total	ug/L	MW-21	09/30/2016	59.7000 *	49.6163
Barium, Total	ug/L	MW-21	12/02/2016	66.5000 *	49.6163
Barium, Total	ug/L	MW-21	01/31/2017	74.4000 *	49.6163
Barium, Total	ug/L	MW-21	05/26/2017	82.4000 *	49.6163
Barium, Total	ug/L	MW-21	08/11/2017	85.2000 *	49.6163
Barium, Total	ug/L	MW-21	05/22/2018	64.6000 *	49.6163
Barium, Total	ug/L	MW-21	09/11/2018	53.7000 *	49.6163
Barium, Total	ug/L	MW-21	05/09/2019	61.8000 *	49.6163
Barium, Total	ug/L	MW-21	11/13/2019	65.2000 *	49.6163
Barium, Total	ug/L	MW-21	05/05/2020	60.1000 *	49.6163
Barium, Total	ug/L	MW-21	11/11/2020	69.2000 *	49.6163
Barium, Total	ug/L	MW-21	05/11/2021	82.3000 *	49.6163
Barium, Total	ug/L	MW-21	11/10/2021	69.3000 *	49.6163
Barium, Total	ug/L	MW-21	05/11/2022	67.9000 *	49.6163
Barium, Total	ug/L	MW-21	11/15/2022	109.0000 *	49.6163
Barium, Total	ug/L	MW-21	04/19/2023	94.9000 *	49.6163
Barium, Total	ug/L	MW-31	04/20/2016	73.9000 *	49.6163
Barium, Total	ug/L	MW-31	06/01/2016	72.2000 *	49.6163
Barium, Total	ug/L	MW-31	08/11/2016	72.7000 *	49.6163
Barium, Total	ug/L	MW-31	09/30/2016	76.8000 *	49.6163
Barium, Total	ug/L	MW-31	12/02/2016	76.5000 *	49.6163
Barium, Total	ug/L	MW-31	01/31/2017	71.3000 *	49.6163
Barium, Total	ug/L	MW-31	05/25/2017	66.8000 *	49.6163
Barium, Total	ug/L	MW-31	08/11/2017	71.3000 *	49.6163
Barium, Total	ug/L	MW-31	05/22/2018	63.8000 *	49.6163
Barium, Total	ug/L	MW-31	09/11/2018	53.9000 *	49.6163
Barium, Total	ug/L	MW-31	05/09/2019	58.2000 *	49.6163
Barium, Total	ug/L	MW-31	11/13/2019	51.8000 *	49.6163
Barium, Total	ug/L	MW-31	05/05/2020	56.7000 *	49.6163
Barium, Total	ug/L	MW-31	11/11/2020	60.0000 *	49.6163
Barium, Total	ug/L	MW-31	05/11/2021	91.1000 *	49.6163
Barium, Total	ug/L	MW-31	11/18/2021	93.9000 *	49.6163
Barium, Total	ug/L	MW-31	05/11/2022	93.3000 *	49.6163
Barium, Total	ug/L	MW-31	11/15/2022	84.5000 *	49.6163
Barium, Total	ug/L	MW-31	04/17/2023	62.4000 *	49.6163

\* - Significantly increased over background.  
 \*\* - Detect at limit for 100% NDs in background (NPPL only).  
 \*\*\* - Manual exclusion.  
 ND = Not Detected, Result = detection limit.

**Table C-7**

**Historical Downgradient Data for Constituent-Well Combinations  
that Failed the Current Statistical Evaluation or  
are in Verification Resampling Mode**

Constituent	Units	Well	Date	Result	Pred. Limit
Barium, Total	ug/L	MW-6I	04/20/2016	64.0000 *	49.6163
Barium, Total	ug/L	MW-6I	06/01/2016	59.4000 *	49.6163
Barium, Total	ug/L	MW-6I	08/11/2016	55.5000 *	49.6163
Barium, Total	ug/L	MW-6I	09/29/2016	56.6000 *	49.6163
Barium, Total	ug/L	MW-6I	12/01/2016	62.9000 *	49.6163
Barium, Total	ug/L	MW-6I	01/30/2017	64.2000 *	49.6163
Barium, Total	ug/L	MW-6I	05/25/2017	60.5000 *	49.6163
Barium, Total	ug/L	MW-6I	08/10/2017	58.7000 *	49.6163
Barium, Total	ug/L	MW-6I	05/22/2018	42.4000	49.6163
Barium, Total	ug/L	MW-6I	09/12/2018	42.3000	49.6163
Barium, Total	ug/L	MW-6I	05/08/2019	60.8000 *	49.6163
Barium, Total	ug/L	MW-6I	11/14/2019	57.1000 *	49.6163
Barium, Total	ug/L	MW-6I	05/08/2020	52.7000 *	49.6163
Barium, Total	ug/L	MW-6I	11/10/2020	49.3000	49.6163
Barium, Total	ug/L	MW-6I	05/18/2021	52.9000 *	49.6163
Barium, Total	ug/L	MW-6I	11/09/2021	65.0000 *	49.6163
Barium, Total	ug/L	MW-6I	05/11/2022	62.6000 *	49.6163
Barium, Total	ug/L	MW-6I	11/15/2022	67.1000 *	49.6163
Barium, Total	ug/L	MW-6I	05/01/2023	73.8000 *	49.6163
Fluoride	mg/L	MW-11I	04/20/2016	0.3900 *	0.1000
Fluoride	mg/L	MW-11I	06/02/2016	0.3900 *	0.1000
Fluoride	mg/L	MW-11I	08/12/2016	0.3600 *	0.1000
Fluoride	mg/L	MW-11I	09/30/2016	0.3900 *	0.1000
Fluoride	mg/L	MW-11I	12/01/2016	0.4000 *	0.1000
Fluoride	mg/L	MW-11I	01/31/2017	0.3900 *	0.1000
Fluoride	mg/L	MW-11I	05/25/2017	0.3800 *	0.1000
Fluoride	mg/L	MW-11I	08/10/2017	0.4100 *	0.1000
Fluoride	mg/L	MW-11I	09/28/2017	0.4100 *	0.1000
Fluoride	mg/L	MW-11I	05/22/2018	0.3700 *	0.1000
Fluoride	mg/L	MW-11I	09/12/2018	0.2900 *	0.1000
Fluoride	mg/L	MW-11I	05/08/2019	0.3400 *	0.1000
Fluoride	mg/L	MW-11I	11/14/2019	0.3400 *	0.1000
Fluoride	mg/L	MW-11I	05/07/2020	0.4000 *	0.1000
Fluoride	mg/L	MW-11I	11/12/2020	0.4100 *	0.1000
Fluoride	mg/L	MW-11I	05/17/2021	0.4000 *	0.1000
Fluoride	mg/L	MW-11I	11/17/2021	0.3500 *	0.1000
Fluoride	mg/L	MW-11I	05/12/2022	0.4400 *	0.1000
Fluoride	mg/L	MW-11I	11/21/2022	0.4200 *	0.1000

\* - Significantly increased over background.  
 \*\* - Detect at limit for 100% NDs in background (NPPL only).  
 \*\*\* - Manual exclusion.  
 ND = Not Detected, Result = detection limit.

**Table C-7**

**Historical Downgradient Data for Constituent-Well Combinations that Failed the Current Statistical Evaluation or are in Verification Resampling Mode**

Constituent	Units	Well	Date	Result	Pred. Limit
Fluoride	mg/L	MW-11I	05/02/2023	0.4200 *	0.1000
Fluoride	mg/L	MW-11	04/19/2016	0.4200 *	0.1000
Fluoride	mg/L	MW-11	06/02/2016	0.4200 *	0.1000
Fluoride	mg/L	MW-11	08/10/2016	0.4000 *	0.1000
Fluoride	mg/L	MW-11	09/30/2016	0.4200 *	0.1000
Fluoride	mg/L	MW-11	12/02/2016	0.4300 *	0.1000
Fluoride	mg/L	MW-11	01/31/2017	0.3900 *	0.1000
Fluoride	mg/L	MW-11	05/26/2017	0.3700 *	0.1000
Fluoride	mg/L	MW-11	08/11/2017	0.4000 *	0.1000
Fluoride	mg/L	MW-11	09/28/2017	0.4000 *	0.1000
Fluoride	mg/L	MW-11	05/23/2018	0.3400 *	0.1000
Fluoride	mg/L	MW-11	09/11/2018	0.2900 *	0.1000
Fluoride	mg/L	MW-11	05/08/2019	0.3300 *	0.1000
Fluoride	mg/L	MW-11	11/14/2019	0.3500 *	0.1000
Fluoride	mg/L	MW-11	05/05/2020	0.3500 *	0.1000
Fluoride	mg/L	MW-11	11/11/2020	0.3100 *	0.1000
Fluoride	mg/L	MW-11	05/25/2021	0.2600 *	0.1000
Fluoride	mg/L	MW-11	11/09/2021	0.2800 *	0.1000
Fluoride	mg/L	MW-11	05/10/2022	0.2900 *	0.1000
Fluoride	mg/L	MW-11	11/22/2022	0.3200 *	0.1000
Fluoride	mg/L	MW-11	04/19/2023	0.2800 *	0.1000
Fluoride	mg/L	MW-21	04/19/2016	0.4600 *	0.1000
Fluoride	mg/L	MW-21	06/01/2016	0.4500 *	0.1000
Fluoride	mg/L	MW-21	08/11/2016	0.4000 *	0.1000
Fluoride	mg/L	MW-21	09/30/2016	0.4200 *	0.1000
Fluoride	mg/L	MW-21	12/02/2016	0.4400 *	0.1000
Fluoride	mg/L	MW-21	01/31/2017	0.3900 *	0.1000
Fluoride	mg/L	MW-21	05/26/2017	0.3600 *	0.1000
Fluoride	mg/L	MW-21	08/11/2017	0.3600 *	0.1000
Fluoride	mg/L	MW-21	09/27/2017	0.3300 *	0.1000
Fluoride	mg/L	MW-21	05/22/2018	0.3200 *	0.1000
Fluoride	mg/L	MW-21	09/11/2018	0.2700 *	0.1000
Fluoride	mg/L	MW-21	05/09/2019	0.2900 *	0.1000
Fluoride	mg/L	MW-21	11/13/2019	0.2900 *	0.1000
Fluoride	mg/L	MW-21	05/05/2020	0.3100 *	0.1000
Fluoride	mg/L	MW-21	11/11/2020	0.2900 *	0.1000
Fluoride	mg/L	MW-21	05/11/2021	0.1800 *	0.1000
Fluoride	mg/L	MW-21	11/10/2021	0.2900 *	0.1000

\* - Significantly increased over background.  
 \*\* - Detect at limit for 100% NDs in background (NPPL only).  
 \*\*\* - Manual exclusion.  
 ND = Not Detected, Result = detection limit.

**Table C-7**

**Historical Downgradient Data for Constituent-Well Combinations  
that Failed the Current Statistical Evaluation or  
are in Verification Resampling Mode**

Constituent	Units	Well	Date	Result	Pred. Limit
Fluoride	mg/L	MW-21	05/11/2022	0.2700 *	0.1000
Fluoride	mg/L	MW-21	11/15/2022	0.2400 *	0.1000
Fluoride	mg/L	MW-21	04/19/2023	0.2800 *	0.1000
Fluoride	mg/L	MW-31	04/20/2016	0.3300 *	0.1000
Fluoride	mg/L	MW-31	06/01/2016	0.2900 *	0.1000
Fluoride	mg/L	MW-31	08/11/2016	0.2800 *	0.1000
Fluoride	mg/L	MW-31	09/30/2016	0.2700 *	0.1000
Fluoride	mg/L	MW-31	12/02/2016	0.3300 *	0.1000
Fluoride	mg/L	MW-31	01/31/2017	0.2800 *	0.1000
Fluoride	mg/L	MW-31	05/25/2017	0.3100 *	0.1000
Fluoride	mg/L	MW-31	08/11/2017	0.2800 *	0.1000
Fluoride	mg/L	MW-31	09/27/2017	0.3000 *	0.1000
Fluoride	mg/L	MW-31	05/22/2018	0.2800 *	0.1000
Fluoride	mg/L	MW-31	09/11/2018	0.2500 *	0.1000
Fluoride	mg/L	MW-31	05/09/2019	0.2900 *	0.1000
Fluoride	mg/L	MW-31	11/13/2019	0.3000 *	0.1000
Fluoride	mg/L	MW-31	05/05/2020	0.3200 *	0.1000
Fluoride	mg/L	MW-31	11/11/2020	0.2900 *	0.1000
Fluoride	mg/L	MW-31	05/11/2021	0.1600 *	0.1000
Fluoride	mg/L	MW-31	11/18/2021	0.2200 *	0.1000
Fluoride	mg/L	MW-31	05/11/2022	0.3200 *	0.1000
Fluoride	mg/L	MW-31	11/15/2022	0.2800 *	0.1000
Fluoride	mg/L	MW-31	04/17/2023	0.3400 *	0.1000
Fluoride	mg/L	MW-61	04/20/2016	0.3400 *	0.1000
Fluoride	mg/L	MW-61	06/01/2016	0.3200 *	0.1000
Fluoride	mg/L	MW-61	08/11/2016	0.3200 *	0.1000
Fluoride	mg/L	MW-61	09/29/2016	0.3300 *	0.1000
Fluoride	mg/L	MW-61	12/01/2016	0.3300 *	0.1000
Fluoride	mg/L	MW-61	01/30/2017	0.2900 *	0.1000
Fluoride	mg/L	MW-61	05/25/2017	0.2900 *	0.1000
Fluoride	mg/L	MW-61	08/10/2017	0.3100 *	0.1000
Fluoride	mg/L	MW-61	09/27/2017	0.3400 *	0.1000
Fluoride	mg/L	MW-61	05/22/2018	0.2200 *	0.1000
Fluoride	mg/L	MW-61	09/12/2018	0.2600 *	0.1000
Fluoride	mg/L	MW-61	05/08/2019	0.2500 *	0.1000
Fluoride	mg/L	MW-61	11/14/2019	0.2600 *	0.1000
Fluoride	mg/L	MW-61	05/08/2020	0.2400 *	0.1000
Fluoride	mg/L	MW-61	11/10/2020	0.2900 *	0.1000

\* - Significantly increased over background.  
 \*\* - Detect at limit for 100% NDs in background (NPPL only).  
 \*\*\* - Manual exclusion.  
 ND = Not Detected, Result = detection limit.

**Table C-7**

**Historical Downgradient Data for Constituent-Well Combinations  
that Failed the Current Statistical Evaluation or  
are in Verification Resampling Mode**

Constituent	Units	Well	Date	Result	Pred. Limit
Fluoride	mg/L	MW-6I	05/18/2021	0.3000 *	0.1000
Fluoride	mg/L	MW-6I	11/09/2021	0.2700 *	0.1000
Fluoride	mg/L	MW-6I	05/11/2022	0.3500 *	0.1000
Fluoride	mg/L	MW-6I	11/15/2022	0.2900 *	0.1000
Fluoride	mg/L	MW-6I	05/01/2023	0.3200 *	0.1000
Lithium, Total	ug/L	MW-11I	04/20/2016	120.0000 *	20.0000
Lithium, Total	ug/L	MW-11I	06/02/2016	124.0000 *	20.0000
Lithium, Total	ug/L	MW-11I	08/12/2016	115.0000 *	20.0000
Lithium, Total	ug/L	MW-11I	09/30/2016	116.0000 *	20.0000
Lithium, Total	ug/L	MW-11I	12/01/2016	123.0000 *	20.0000
Lithium, Total	ug/L	MW-11I	01/31/2017	111.0000 *	20.0000
Lithium, Total	ug/L	MW-11I	05/25/2017	123.0000 *	20.0000
Lithium, Total	ug/L	MW-11I	08/10/2017	114.0000 *	20.0000
Lithium, Total	ug/L	MW-11I	05/22/2018	109.0000 *	20.0000
Lithium, Total	ug/L	MW-11I	09/12/2018	107.0000 *	20.0000
Lithium, Total	ug/L	MW-11I	05/08/2019	104.0000 *	20.0000
Lithium, Total	ug/L	MW-11I	11/14/2019	102.0000 *	20.0000
Lithium, Total	ug/L	MW-11I	05/07/2020	102.0000 *	20.0000
Lithium, Total	ug/L	MW-11I	11/12/2020	93.2000 *	20.0000
Lithium, Total	ug/L	MW-11I	05/17/2021	107.0000 *	20.0000
Lithium, Total	ug/L	MW-11I	11/17/2021	118.0000 *	20.0000
Lithium, Total	ug/L	MW-11I	05/12/2022	102.0000 *	20.0000
Lithium, Total	ug/L	MW-11I	11/21/2022	122.0000 *	20.0000
Lithium, Total	ug/L	MW-11I	05/02/2023	97.4000 *	20.0000
Lithium, Total	ug/L	MW-1I	04/19/2016	100.0000 *	20.0000
Lithium, Total	ug/L	MW-1I	06/02/2016	96.2000 *	20.0000
Lithium, Total	ug/L	MW-1I	08/10/2016	92.3000 *	20.0000
Lithium, Total	ug/L	MW-1I	09/30/2016	92.5000 *	20.0000
Lithium, Total	ug/L	MW-1I	12/02/2016	86.8000 *	20.0000
Lithium, Total	ug/L	MW-1I	01/31/2017	90.7000 *	20.0000
Lithium, Total	ug/L	MW-1I	05/26/2017	97.5000 *	20.0000
Lithium, Total	ug/L	MW-1I	08/11/2017	99.3000 *	20.0000
Lithium, Total	ug/L	MW-1I	05/23/2018	120.0000 *	20.0000
Lithium, Total	ug/L	MW-1I	09/11/2018	98.2000 *	20.0000
Lithium, Total	ug/L	MW-1I	05/08/2019	116.0000 *	20.0000
Lithium, Total	ug/L	MW-1I	11/14/2019	100.0000 *	20.0000
Lithium, Total	ug/L	MW-1I	05/05/2020	106.0000 *	20.0000
Lithium, Total	ug/L	MW-1I	11/11/2020	92.4000 *	20.0000

\* - Significantly increased over background.  
 \*\* - Detect at limit for 100% NDs in background (NPPL only).  
 \*\*\* - Manual exclusion.  
 ND = Not Detected, Result = detection limit.

**Table C-7**

**Historical Downgradient Data for Constituent-Well Combinations  
that Failed the Current Statistical Evaluation or  
are in Verification Resampling Mode**

Constituent	Units	Well	Date		Result		Pred. Limit
Lithium, Total	ug/L	MW-11	05/25/2021		87.7000	*	20.0000
Lithium, Total	ug/L	MW-11	11/09/2021		92.5000	*	20.0000
Lithium, Total	ug/L	MW-11	05/10/2022		86.9000	*	20.0000
Lithium, Total	ug/L	MW-11	11/22/2022		94.7000	*	20.0000
Lithium, Total	ug/L	MW-11	04/19/2023		87.2000	*	20.0000
Lithium, Total	ug/L	MW-21	04/19/2016		126.0000	*	20.0000
Lithium, Total	ug/L	MW-21	06/01/2016		116.0000	*	20.0000
Lithium, Total	ug/L	MW-21	08/11/2016		114.0000	*	20.0000
Lithium, Total	ug/L	MW-21	09/30/2016		116.0000	*	20.0000
Lithium, Total	ug/L	MW-21	12/02/2016		124.0000	*	20.0000
Lithium, Total	ug/L	MW-21	01/31/2017		124.0000	*	20.0000
Lithium, Total	ug/L	MW-21	05/26/2017		127.0000	*	20.0000
Lithium, Total	ug/L	MW-21	08/11/2017		109.0000	*	20.0000
Lithium, Total	ug/L	MW-21	05/22/2018		88.8000	*	20.0000
Lithium, Total	ug/L	MW-21	09/11/2018		68.4000	*	20.0000
Lithium, Total	ug/L	MW-21	05/09/2019		86.5000	*	20.0000
Lithium, Total	ug/L	MW-21	11/13/2019		78.4000	*	20.0000
Lithium, Total	ug/L	MW-21	05/05/2020		77.7000	*	20.0000
Lithium, Total	ug/L	MW-21	11/11/2020		61.3000	*	20.0000
Lithium, Total	ug/L	MW-21	05/11/2021		58.1000	*	20.0000
Lithium, Total	ug/L	MW-21	11/10/2021		54.8000	*	20.0000
Lithium, Total	ug/L	MW-21	05/11/2022		47.4000	*	20.0000
Lithium, Total	ug/L	MW-21	11/15/2022		52.3000	*	20.0000
Lithium, Total	ug/L	MW-21	04/19/2023		47.9000	*	20.0000
Lithium, Total	ug/L	MW-31	04/20/2016		86.1000	*	20.0000
Lithium, Total	ug/L	MW-31	06/01/2016		67.1000	*	20.0000
Lithium, Total	ug/L	MW-31	08/11/2016		68.2000	*	20.0000
Lithium, Total	ug/L	MW-31	09/30/2016		84.7000	*	20.0000
Lithium, Total	ug/L	MW-31	12/02/2016		107.0000	*	20.0000
Lithium, Total	ug/L	MW-31	01/31/2017		92.9000	*	20.0000
Lithium, Total	ug/L	MW-31	05/25/2017		87.6000	*	20.0000
Lithium, Total	ug/L	MW-31	08/11/2017		79.4000	*	20.0000
Lithium, Total	ug/L	MW-31	05/22/2018		57.1000	*	20.0000
Lithium, Total	ug/L	MW-31	09/11/2018		34.1000	*	20.0000
Lithium, Total	ug/L	MW-31	05/09/2019		29.0000	*	20.0000
Lithium, Total	ug/L	MW-31	11/13/2019	ND	20.0000		20.0000
Lithium, Total	ug/L	MW-31	05/05/2020		21.3000	*	20.0000
Lithium, Total	ug/L	MW-31	11/11/2020	ND	20.0000		20.0000

\* - Significantly increased over background.  
 \*\* - Detect at limit for 100% NDs in background (NPPL only).  
 \*\*\* - Manual exclusion.  
 ND = Not Detected, Result = detection limit.

**Table C-7**

**Historical Downgradient Data for Constituent-Well Combinations  
that Failed the Current Statistical Evaluation or  
are in Verification Resampling Mode**

Constituent	Units	Well	Date		Result	Pred. Limit
Lithium, Total	ug/L	MW-31	05/11/2021	ND	20.0000	20.0000
Lithium, Total	ug/L	MW-31	11/18/2021		20.6000 *	20.0000
Lithium, Total	ug/L	MW-31	05/11/2022		20.9000 *	20.0000
Lithium, Total	ug/L	MW-31	11/15/2022		21.5000 *	20.0000
Lithium, Total	ug/L	MW-31	04/17/2023	ND	20.0000	20.0000
Lithium, Total	ug/L	MW-61	04/20/2016		148.0000 *	20.0000
Lithium, Total	ug/L	MW-61	06/01/2016		146.0000 *	20.0000
Lithium, Total	ug/L	MW-61	08/11/2016		133.0000 *	20.0000
Lithium, Total	ug/L	MW-61	09/29/2016		136.0000 *	20.0000
Lithium, Total	ug/L	MW-61	12/01/2016		138.0000 *	20.0000
Lithium, Total	ug/L	MW-61	01/30/2017		140.0000 *	20.0000
Lithium, Total	ug/L	MW-61	05/25/2017		139.0000 *	20.0000
Lithium, Total	ug/L	MW-61	08/10/2017		129.0000 *	20.0000
Lithium, Total	ug/L	MW-61	05/22/2018		101.0000 *	20.0000
Lithium, Total	ug/L	MW-61	09/12/2018		90.1000 *	20.0000
Lithium, Total	ug/L	MW-61	05/08/2019		112.0000 *	20.0000
Lithium, Total	ug/L	MW-61	11/14/2019		97.8000 *	20.0000
Lithium, Total	ug/L	MW-61	05/08/2020		114.0000 *	20.0000
Lithium, Total	ug/L	MW-61	11/10/2020		122.0000 *	20.0000
Lithium, Total	ug/L	MW-61	05/18/2021		102.0000 *	20.0000
Lithium, Total	ug/L	MW-61	11/09/2021		115.0000 *	20.0000
Lithium, Total	ug/L	MW-61	05/11/2022		113.0000 *	20.0000
Lithium, Total	ug/L	MW-61	11/15/2022		104.0000 *	20.0000
Lithium, Total	ug/L	MW-61	05/01/2023		99.5000 *	20.0000
Molybdenum, Total	ug/L	MW-111	04/20/2016		179.0000 *	10.0000
Molybdenum, Total	ug/L	MW-111	06/02/2016		180.0000 *	10.0000
Molybdenum, Total	ug/L	MW-111	08/12/2016		173.0000 *	10.0000
Molybdenum, Total	ug/L	MW-111	09/30/2016		172.0000 *	10.0000
Molybdenum, Total	ug/L	MW-111	12/01/2016		177.0000 *	10.0000
Molybdenum, Total	ug/L	MW-111	01/31/2017		164.0000 *	10.0000
Molybdenum, Total	ug/L	MW-111	05/25/2017		174.0000 *	10.0000
Molybdenum, Total	ug/L	MW-111	08/10/2017		181.0000 *	10.0000
Molybdenum, Total	ug/L	MW-111	05/22/2018		170.0000 *	10.0000
Molybdenum, Total	ug/L	MW-111	09/12/2018		165.0000 *	10.0000
Molybdenum, Total	ug/L	MW-111	05/08/2019		169.0000 *	10.0000
Molybdenum, Total	ug/L	MW-111	11/14/2019		156.0000 *	10.0000
Molybdenum, Total	ug/L	MW-111	05/07/2020		170.0000 *	10.0000
Molybdenum, Total	ug/L	MW-111	11/12/2020		164.0000 *	10.0000

\* - Significantly increased over background.  
 \*\* - Detect at limit for 100% NDs in background (NPPL only).  
 \*\*\* - Manual exclusion.  
 ND = Not Detected, Result = detection limit.



**Table C-7**

**Historical Downgradient Data for Constituent-Well Combinations  
that Failed the Current Statistical Evaluation or  
are in Verification Resampling Mode**

Constituent	Units	Well	Date	Result	Pred. Limit
Molybdenum, Total	ug/L	MW-111	05/17/2021	152.0000 *	10.0000
Molybdenum, Total	ug/L	MW-111	11/17/2021	149.0000 *	10.0000
Molybdenum, Total	ug/L	MW-111	05/12/2022	148.0000 *	10.0000
Molybdenum, Total	ug/L	MW-111	11/21/2022	127.0000 *	10.0000
Molybdenum, Total	ug/L	MW-111	05/02/2023	128.0000 *	10.0000
Molybdenum, Total	ug/L	MW-11	04/19/2016	126.0000 *	10.0000
Molybdenum, Total	ug/L	MW-11	06/02/2016	126.0000 *	10.0000
Molybdenum, Total	ug/L	MW-11	08/10/2016	124.0000 *	10.0000
Molybdenum, Total	ug/L	MW-11	09/30/2016	123.0000 *	10.0000
Molybdenum, Total	ug/L	MW-11	12/02/2016	120.0000 *	10.0000
Molybdenum, Total	ug/L	MW-11	01/31/2017	125.0000 *	10.0000
Molybdenum, Total	ug/L	MW-11	05/26/2017	123.0000 *	10.0000
Molybdenum, Total	ug/L	MW-11	08/11/2017	124.0000 *	10.0000
Molybdenum, Total	ug/L	MW-11	05/23/2018	107.0000 *	10.0000
Molybdenum, Total	ug/L	MW-11	09/11/2018	100.0000 *	10.0000
Molybdenum, Total	ug/L	MW-11	05/08/2019	114.0000 *	10.0000
Molybdenum, Total	ug/L	MW-11	11/14/2019	109.0000 *	10.0000
Molybdenum, Total	ug/L	MW-11	05/05/2020	109.0000 *	10.0000
Molybdenum, Total	ug/L	MW-11	11/11/2020	99.9000 *	10.0000
Molybdenum, Total	ug/L	MW-11	05/25/2021	97.5000 *	10.0000
Molybdenum, Total	ug/L	MW-11	11/09/2021	107.0000 *	10.0000
Molybdenum, Total	ug/L	MW-11	05/10/2022	96.3000 *	10.0000
Molybdenum, Total	ug/L	MW-11	11/22/2022	87.0000 *	10.0000
Molybdenum, Total	ug/L	MW-11	04/19/2023	87.9000 *	10.0000
Molybdenum, Total	ug/L	MW-21	04/19/2016	102.0000 *	10.0000
Molybdenum, Total	ug/L	MW-21	06/01/2016	115.0000 *	10.0000
Molybdenum, Total	ug/L	MW-21	08/11/2016	111.0000 *	10.0000
Molybdenum, Total	ug/L	MW-21	09/30/2016	109.0000 *	10.0000
Molybdenum, Total	ug/L	MW-21	12/02/2016	111.0000 *	10.0000
Molybdenum, Total	ug/L	MW-21	01/31/2017	104.0000 *	10.0000
Molybdenum, Total	ug/L	MW-21	05/26/2017	92.0000 *	10.0000
Molybdenum, Total	ug/L	MW-21	08/11/2017	84.3000 *	10.0000
Molybdenum, Total	ug/L	MW-21	05/22/2018	75.4000 *	10.0000
Molybdenum, Total	ug/L	MW-21	09/11/2018	56.1000 *	10.0000
Molybdenum, Total	ug/L	MW-21	05/09/2019	67.1000 *	10.0000
Molybdenum, Total	ug/L	MW-21	11/13/2019	62.2000 *	10.0000
Molybdenum, Total	ug/L	MW-21	05/05/2020	64.6000 *	10.0000
Molybdenum, Total	ug/L	MW-21	11/11/2020	63.8000 *	10.0000

\* - Significantly increased over background.  
 \*\* - Detect at limit for 100% NDs in background (NPPL only).  
 \*\*\* - Manual exclusion.  
 ND = Not Detected, Result = detection limit.

**Table C-7**

**Historical Downgradient Data for Constituent-Well Combinations  
that Failed the Current Statistical Evaluation or  
are in Verification Resampling Mode**

Constituent	Units	Well	Date	Result	Pred. Limit
Molybdenum, Total	ug/L	MW-21	05/11/2021	64.1000 *	10.0000
Molybdenum, Total	ug/L	MW-21	11/10/2021	57.0000 *	10.0000
Molybdenum, Total	ug/L	MW-21	05/11/2022	65.4000 *	10.0000
Molybdenum, Total	ug/L	MW-21	11/15/2022	59.7000 *	10.0000
Molybdenum, Total	ug/L	MW-21	04/19/2023	73.7000 *	10.0000
Molybdenum, Total	ug/L	MW-31	04/20/2016	71.1000 *	10.0000
Molybdenum, Total	ug/L	MW-31	06/01/2016	66.3000 *	10.0000
Molybdenum, Total	ug/L	MW-31	08/11/2016	64.0000 *	10.0000
Molybdenum, Total	ug/L	MW-31	09/30/2016	57.5000 *	10.0000
Molybdenum, Total	ug/L	MW-31	12/02/2016	58.8000 *	10.0000
Molybdenum, Total	ug/L	MW-31	01/31/2017	60.0000 *	10.0000
Molybdenum, Total	ug/L	MW-31	05/25/2017	57.8000 *	10.0000
Molybdenum, Total	ug/L	MW-31	08/11/2017	58.4000 *	10.0000
Molybdenum, Total	ug/L	MW-31	05/22/2018	79.7000 *	10.0000
Molybdenum, Total	ug/L	MW-31	09/11/2018	75.9000 *	10.0000
Molybdenum, Total	ug/L	MW-31	05/09/2019	91.9000 *	10.0000
Molybdenum, Total	ug/L	MW-31	11/13/2019	78.9000 *	10.0000
Molybdenum, Total	ug/L	MW-31	05/05/2020	80.3000 *	10.0000
Molybdenum, Total	ug/L	MW-31	11/11/2020	69.2000 *	10.0000
Molybdenum, Total	ug/L	MW-31	05/11/2021	59.5000 *	10.0000
Molybdenum, Total	ug/L	MW-31	11/18/2021	61.0000 *	10.0000
Molybdenum, Total	ug/L	MW-31	05/11/2022	60.0000 *	10.0000
Molybdenum, Total	ug/L	MW-31	11/15/2022	56.0000 *	10.0000
Molybdenum, Total	ug/L	MW-31	04/17/2023	68.1000 *	10.0000
Molybdenum, Total	ug/L	MW-61	04/20/2016	201.0000 *	10.0000
Molybdenum, Total	ug/L	MW-61	06/01/2016	198.0000 *	10.0000
Molybdenum, Total	ug/L	MW-61	08/11/2016	215.0000 *	10.0000
Molybdenum, Total	ug/L	MW-61	09/29/2016	214.0000 *	10.0000
Molybdenum, Total	ug/L	MW-61	12/01/2016	204.0000 *	10.0000
Molybdenum, Total	ug/L	MW-61	01/30/2017	194.0000 *	10.0000
Molybdenum, Total	ug/L	MW-61	05/25/2017	189.0000 *	10.0000
Molybdenum, Total	ug/L	MW-61	08/10/2017	207.0000 *	10.0000
Molybdenum, Total	ug/L	MW-61	05/22/2018	257.0000 *	10.0000
Molybdenum, Total	ug/L	MW-61	09/12/2018	191.0000 *	10.0000
Molybdenum, Total	ug/L	MW-61	05/08/2019	169.0000 *	10.0000
Molybdenum, Total	ug/L	MW-61	11/14/2019	186.0000 *	10.0000
Molybdenum, Total	ug/L	MW-61	05/08/2020	207.0000 *	10.0000
Molybdenum, Total	ug/L	MW-61	11/10/2020	229.0000 *	10.0000

\* - Significantly increased over background.  
 \*\* - Detect at limit for 100% NDs in background (NPPL only).  
 \*\*\* - Manual exclusion.  
 ND = Not Detected, Result = detection limit.

**Table C-7**

**Historical Downgradient Data for Constituent-Well Combinations  
that Failed the Current Statistical Evaluation or  
are in Verification Resampling Mode**

Constituent	Units	Well	Date	Result	Pred. Limit
Molybdenum, Total	ug/L	MW-6I	05/18/2021	231.0000 *	10.0000
Molybdenum, Total	ug/L	MW-6I	11/09/2021	219.0000 *	10.0000
Molybdenum, Total	ug/L	MW-6I	05/11/2022	209.0000 *	10.0000
Molybdenum, Total	ug/L	MW-6I	11/15/2022	191.0000 *	10.0000
Molybdenum, Total	ug/L	MW-6I	05/01/2023	173.0000 *	10.0000

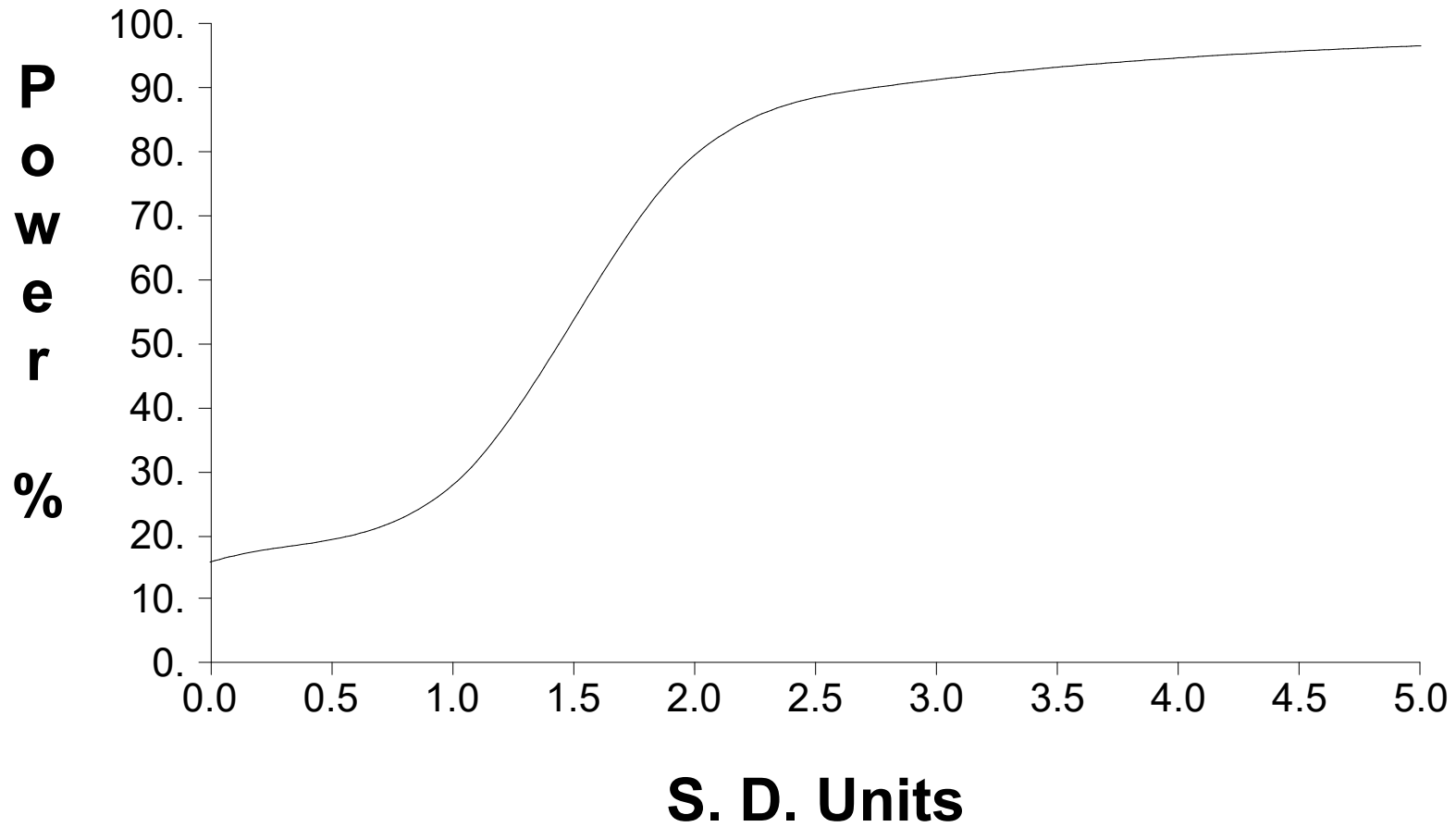
\* - Significantly increased over background.

\*\* - Detect at limit for 100% NDs in background (NPPL only).

\*\*\* - Manual exclusion.

ND = Not Detected, Result = detection limit.

# False Positive and False Negative Rates for Current Upgradient vs. Downgradient Monitoring Program



**Table C-1**

**Upgradient Data**

Constituent	Units	Well	Date		Result	Adjusted	
Antimony, Total	ug/L	MW-13D	08/08/2019	ND	1.0000		
Antimony, Total	ug/L	MW-13D	09/25/2019	ND	1.0000		
Antimony, Total	ug/L	MW-13D	05/07/2020	ND	6.0000	1.0000	**
Antimony, Total	ug/L	MW-13D	11/12/2020	ND	1.0000		
Antimony, Total	ug/L	MW-13D	02/25/2021	ND	1.0000		
Antimony, Total	ug/L	MW-13D	03/29/2021	ND	1.0000		
Antimony, Total	ug/L	MW-13D	05/20/2021	ND	1.0000		
Antimony, Total	ug/L	MW-13D	06/22/2021	ND	1.0000		
Antimony, Total	ug/L	MW-13D	07/27/2021	ND	1.0000		
Antimony, Total	ug/L	MW-13D	11/16/2021	ND	1.0000		
Antimony, Total	ug/L	MW-13D	05/19/2022	ND	1.0000		
Antimony, Total	ug/L	MW-13D	11/18/2022	ND	1.0000		
Antimony, Total	ug/L	MW-13D	04/17/2023	ND	1.0000		
Arsenic, Total	ug/L	MW-13D	08/08/2019	ND	1.0000		
Arsenic, Total	ug/L	MW-13D	09/25/2019	ND	1.0000		
Arsenic, Total	ug/L	MW-13D	05/07/2020	ND	10.0000	1.0000	**
Arsenic, Total	ug/L	MW-13D	11/12/2020		1.3000		
Arsenic, Total	ug/L	MW-13D	02/25/2021	ND	1.0000		
Arsenic, Total	ug/L	MW-13D	03/29/2021	ND	1.0000		
Arsenic, Total	ug/L	MW-13D	05/20/2021	ND	1.0000		
Arsenic, Total	ug/L	MW-13D	06/22/2021	ND	1.0000		
Arsenic, Total	ug/L	MW-13D	07/27/2021	ND	1.0000		
Arsenic, Total	ug/L	MW-13D	11/16/2021	ND	1.0000		
Arsenic, Total	ug/L	MW-13D	05/19/2022	ND	1.0000		
Arsenic, Total	ug/L	MW-13D	11/18/2022	ND	1.0000		
Arsenic, Total	ug/L	MW-13D	04/17/2023	ND	1.0000		
Barium, Total	ug/L	MW-13D	08/08/2019		53.2000		
Barium, Total	ug/L	MW-13D	09/25/2019		47.4000		
Barium, Total	ug/L	MW-13D	05/07/2020		53.1000		
Barium, Total	ug/L	MW-13D	11/12/2020		57.9000		
Barium, Total	ug/L	MW-13D	02/25/2021		57.0000		
Barium, Total	ug/L	MW-13D	03/29/2021		60.9000		
Barium, Total	ug/L	MW-13D	05/20/2021		60.3000		
Barium, Total	ug/L	MW-13D	06/22/2021		59.3000		
Barium, Total	ug/L	MW-13D	07/27/2021		64.5000		
Barium, Total	ug/L	MW-13D	11/16/2021		64.6000		
Barium, Total	ug/L	MW-13D	05/19/2022		62.4000		
Barium, Total	ug/L	MW-13D	11/18/2022		64.5000		
Barium, Total	ug/L	MW-13D	04/17/2023		59.4000		
Beryllium, Total	ug/L	MW-13D	08/08/2019	ND	0.2000		
Beryllium, Total	ug/L	MW-13D	09/25/2019	ND	0.2000		

\* - Outlier for that well and constituent.  
 \*\* - ND value replaced with median RL.  
 \*\*\* - ND value replaced with manual RL.  
 ND = Not detected, Result = detection limit.

**Table C-1**

**Upgradient Data**

Constituent	Units	Well	Date		Result	Adjusted	
Beryllium, Total	ug/L	MW-13D	05/07/2020	ND	4.0000	0.2000	**
Beryllium, Total	ug/L	MW-13D	11/12/2020	ND	0.2000		
Beryllium, Total	ug/L	MW-13D	02/25/2021	ND	0.2000		
Beryllium, Total	ug/L	MW-13D	03/29/2021	ND	0.2000		
Beryllium, Total	ug/L	MW-13D	05/20/2021	ND	0.2000		
Beryllium, Total	ug/L	MW-13D	06/22/2021	ND	0.2000		
Beryllium, Total	ug/L	MW-13D	07/27/2021	ND	0.2000		
Beryllium, Total	ug/L	MW-13D	05/19/2022	ND	0.2000		
Beryllium, Total	ug/L	MW-13D	04/17/2023	ND	0.2000		
Cadmium, Total	ug/L	MW-13D	08/08/2019	ND	2.0000		
Cadmium, Total	ug/L	MW-13D	09/25/2019	ND	2.0000		
Cadmium, Total	ug/L	MW-13D	05/07/2020	ND	2.0000		
Cadmium, Total	ug/L	MW-13D	11/12/2020	ND	2.0000		
Cadmium, Total	ug/L	MW-13D	02/25/2021	ND	2.0000		
Cadmium, Total	ug/L	MW-13D	03/29/2021	ND	2.0000		
Cadmium, Total	ug/L	MW-13D	05/20/2021	ND	2.0000		
Cadmium, Total	ug/L	MW-13D	06/22/2021	ND	2.0000		
Cadmium, Total	ug/L	MW-13D	07/27/2021	ND	2.0000		
Cadmium, Total	ug/L	MW-13D	05/19/2022	ND	2.0000		
Cadmium, Total	ug/L	MW-13D	04/17/2023	ND	2.0000		
Chromium, Total	ug/L	MW-13D	08/08/2019	ND	10.0000		
Chromium, Total	ug/L	MW-13D	09/25/2019	ND	10.0000		
Chromium, Total	ug/L	MW-13D	05/07/2020	ND	10.0000		
Chromium, Total	ug/L	MW-13D	11/12/2020	ND	10.0000		
Chromium, Total	ug/L	MW-13D	02/25/2021	ND	10.0000		
Chromium, Total	ug/L	MW-13D	03/29/2021	ND	10.0000		
Chromium, Total	ug/L	MW-13D	05/20/2021	ND	10.0000		
Chromium, Total	ug/L	MW-13D	06/22/2021	ND	10.0000		
Chromium, Total	ug/L	MW-13D	07/27/2021	ND	10.0000		
Chromium, Total	ug/L	MW-13D	05/19/2022	ND	10.0000		
Chromium, Total	ug/L	MW-13D	04/17/2023	ND	10.0000		
Cobalt, Total	ug/L	MW-13D	08/08/2019	ND	1.0000		
Cobalt, Total	ug/L	MW-13D	09/25/2019	ND	1.0000		
Cobalt, Total	ug/L	MW-13D	05/07/2020	ND	10.0000	1.0000	**
Cobalt, Total	ug/L	MW-13D	11/12/2020		1.2000		
Cobalt, Total	ug/L	MW-13D	02/25/2021	ND	1.0000		
Cobalt, Total	ug/L	MW-13D	03/29/2021	ND	1.0000		
Cobalt, Total	ug/L	MW-13D	05/20/2021	ND	1.0000		
Cobalt, Total	ug/L	MW-13D	06/22/2021	ND	1.0000		
Cobalt, Total	ug/L	MW-13D	07/27/2021	ND	1.0000		
Cobalt, Total	ug/L	MW-13D	11/16/2021	ND	1.0000		

\* - Outlier for that well and constituent.  
 \*\* - ND value replaced with median RL.  
 \*\*\* - ND value replaced with manual RL.  
 ND = Not detected, Result = detection limit.

**Table C-1**

**Upgradient Data**

Constituent	Units	Well	Date		Result	Adjusted
Cobalt, Total	ug/L	MW-13D	05/19/2022	ND	1.0000	
Cobalt, Total	ug/L	MW-13D	04/17/2023	ND	1.0000	
Fluoride	mg/L	MW-13D	08/08/2019	ND	0.1000	
Fluoride	mg/L	MW-13D	09/25/2019		0.1100	
Fluoride	mg/L	MW-13D	05/07/2020		0.1100	
Fluoride	mg/L	MW-13D	11/12/2020	ND	0.1000	
Fluoride	mg/L	MW-13D	02/25/2021	ND	0.1000	
Fluoride	mg/L	MW-13D	03/29/2021	ND	0.1000	
Fluoride	mg/L	MW-13D	05/20/2021	ND	0.1000	
Fluoride	mg/L	MW-13D	06/22/2021		0.1200	
Fluoride	mg/L	MW-13D	07/27/2021		0.1200	
Fluoride	mg/L	MW-13D	11/16/2021	ND	0.1000	
Fluoride	mg/L	MW-13D	05/19/2022		0.1000	
Fluoride	mg/L	MW-13D	11/18/2022		0.1100	
Fluoride	mg/L	MW-13D	04/17/2023	ND	0.1000	
Lead, Total	ug/L	MW-13D	08/08/2019	ND	10.0000	
Lead, Total	ug/L	MW-13D	09/25/2019	ND	10.0000	
Lead, Total	ug/L	MW-13D	05/07/2020	ND	10.0000	
Lead, Total	ug/L	MW-13D	11/12/2020	ND	10.0000	
Lead, Total	ug/L	MW-13D	02/25/2021	ND	10.0000	
Lead, Total	ug/L	MW-13D	03/29/2021	ND	10.0000	
Lead, Total	ug/L	MW-13D	05/20/2021	ND	10.0000	
Lead, Total	ug/L	MW-13D	06/22/2021	ND	10.0000	
Lead, Total	ug/L	MW-13D	07/27/2021	ND	10.0000	
Lead, Total	ug/L	MW-13D	05/19/2022	ND	10.0000	
Lead, Total	ug/L	MW-13D	04/17/2023	ND	10.0000	
Lithium, Total	ug/L	MW-13D	08/08/2019	ND	20.0000	
Lithium, Total	ug/L	MW-13D	09/25/2019	ND	20.0000	
Lithium, Total	ug/L	MW-13D	05/07/2020	ND	20.0000	
Lithium, Total	ug/L	MW-13D	11/12/2020	ND	20.0000	
Lithium, Total	ug/L	MW-13D	02/25/2021	ND	20.0000	
Lithium, Total	ug/L	MW-13D	03/29/2021	ND	20.0000	
Lithium, Total	ug/L	MW-13D	05/20/2021	ND	20.0000	
Lithium, Total	ug/L	MW-13D	06/22/2021	ND	20.0000	
Lithium, Total	ug/L	MW-13D	07/27/2021	ND	20.0000	
Lithium, Total	ug/L	MW-13D	11/16/2021	ND	20.0000	
Lithium, Total	ug/L	MW-13D	05/19/2022	ND	20.0000	
Lithium, Total	ug/L	MW-13D	11/18/2022	ND	20.0000	
Lithium, Total	ug/L	MW-13D	04/17/2023	ND	20.0000	
Mercury	ug/L	MW-13D	08/08/2019	ND	2.0000	
Mercury	ug/L	MW-13D	09/25/2019	ND	2.0000	

\* - Outlier for that well and constituent.  
 \*\* - ND value replaced with median RL.  
 \*\*\* - ND value replaced with manual RL.  
 ND = Not detected, Result = detection limit.

**Table C-1**

**Upgradient Data**

Constituent	Units	Well	Date		Result	Adjusted	
Mercury	ug/L	MW-13D	11/12/2020	ND	2.0000		
Mercury	ug/L	MW-13D	02/25/2021	ND	2.0000		
Mercury	ug/L	MW-13D	03/29/2021	ND	2.0000		
Mercury	ug/L	MW-13D	05/20/2021	ND	2.0000		
Mercury	ug/L	MW-13D	06/22/2021	ND	2.0000		
Mercury	ug/L	MW-13D	07/27/2021	ND	2.0000		
Mercury	ug/L	MW-13D	05/19/2022	ND	0.2000	2.0000	**
Mercury	ug/L	MW-13D	04/17/2023	ND	0.2000	2.0000	**
Molybdenum, Total	ug/L	MW-13D	08/08/2019	ND	10.0000		
Molybdenum, Total	ug/L	MW-13D	09/25/2019	ND	10.0000		
Molybdenum, Total	ug/L	MW-13D	05/07/2020	ND	10.0000		
Molybdenum, Total	ug/L	MW-13D	11/12/2020	ND	10.0000		
Molybdenum, Total	ug/L	MW-13D	02/25/2021	ND	10.0000		
Molybdenum, Total	ug/L	MW-13D	03/29/2021	ND	10.0000		
Molybdenum, Total	ug/L	MW-13D	05/20/2021	ND	10.0000		
Molybdenum, Total	ug/L	MW-13D	06/22/2021	ND	10.0000		
Molybdenum, Total	ug/L	MW-13D	07/27/2021	ND	10.0000		
Molybdenum, Total	ug/L	MW-13D	11/16/2021	ND	10.0000		
Molybdenum, Total	ug/L	MW-13D	05/19/2022	ND	10.0000		
Molybdenum, Total	ug/L	MW-13D	11/18/2022	ND	10.0000		
Molybdenum, Total	ug/L	MW-13D	04/17/2023	ND	10.0000		
Selenium, Total	ug/L	MW-13D	08/08/2019	ND	1.0000		
Selenium, Total	ug/L	MW-13D	09/25/2019	ND	1.0000		
Selenium, Total	ug/L	MW-13D	05/07/2020	ND	10.0000		*
Selenium, Total	ug/L	MW-13D	11/12/2020		1.2000		
Selenium, Total	ug/L	MW-13D	02/25/2021	ND	1.0000		
Selenium, Total	ug/L	MW-13D	03/29/2021	ND	1.0000		
Selenium, Total	ug/L	MW-13D	05/20/2021		1.2000		
Selenium, Total	ug/L	MW-13D	06/22/2021		1.2000		
Selenium, Total	ug/L	MW-13D	07/27/2021		1.3000		
Selenium, Total	ug/L	MW-13D	11/16/2021		1.3000		
Selenium, Total	ug/L	MW-13D	05/19/2022	ND	1.0000		
Selenium, Total	ug/L	MW-13D	11/18/2022	ND	1.0000		
Selenium, Total	ug/L	MW-13D	04/17/2023		1.2000		
Thallium, Total	ug/L	MW-13D	08/08/2019	ND	1.0000		
Thallium, Total	ug/L	MW-13D	09/25/2019	ND	1.0000		
Thallium, Total	ug/L	MW-13D	05/07/2020	ND	10.0000	1.0000	**
Thallium, Total	ug/L	MW-13D	11/12/2020	ND	1.0000		
Thallium, Total	ug/L	MW-13D	02/25/2021	ND	1.0000		
Thallium, Total	ug/L	MW-13D	03/29/2021	ND	1.0000		
Thallium, Total	ug/L	MW-13D	05/20/2021	ND	1.0000		

\* - Outlier for that well and constituent.  
 \*\* - ND value replaced with median RL.  
 \*\*\* - ND value replaced with manual RL.  
 ND = Not detected, Result = detection limit.



**Table C-1**

**Upgradient Data**

Constituent	Units	Well	Date		Result	Adjusted	
Thallium, Total	ug/L	MW-13D	06/22/2021	ND	1.0000		
Thallium, Total	ug/L	MW-13D	07/27/2021	ND	1.0000		
Thallium, Total	ug/L	MW-13D	05/19/2022	ND	1.0000		
Thallium, Total	ug/L	MW-13D	04/17/2023	ND	1.0000		
Total Radium	pCi/L	MW-13D	08/08/2019	ND	1.5900		
Total Radium	pCi/L	MW-13D	09/25/2019		0.9060		
Total Radium	pCi/L	MW-13D	11/12/2020		1.1000		
Total Radium	pCi/L	MW-13D	02/25/2021		0.5860		
Total Radium	pCi/L	MW-13D	03/29/2021	ND	1.6600	1.5900	**
Total Radium	pCi/L	MW-13D	05/20/2021	ND	2.1400	1.5900	**
Total Radium	pCi/L	MW-13D	06/22/2021	ND	1.5900		
Total Radium	pCi/L	MW-13D	07/27/2021		0.7950		
Total Radium	pCi/L	MW-13D	11/16/2021		0.5500		
Total Radium	pCi/L	MW-13D	05/19/2022		0.9330		
Total Radium	pCi/L	MW-13D	11/18/2022		0.6980		
Total Radium	pCi/L	MW-13D	04/17/2023		1.9500		

\* - Outlier for that well and constituent.  
 \*\* - ND value replaced with median RL.  
 \*\*\* - ND value replaced with manual RL.  
 ND = Not detected, Result = detection limit.

**Table C-2**

**Most Current Downgradient Monitoring Data**

Constituent	Units	Well	Date		Result		Pred. Limit
Antimony, Total	ug/L	MW-11D	05/03/2023	ND	1.0000		1.0000
Antimony, Total	ug/L	MW-1D	04/19/2023	ND	1.0000		1.0000
Antimony, Total	ug/L	MW-2D	04/18/2023	ND	1.0000		1.0000
Antimony, Total	ug/L	MW-6D	05/01/2023	ND	1.0000		1.0000
Arsenic, Total	ug/L	MW-11D	05/03/2023		5.4000	***	1.3000
Arsenic, Total	ug/L	MW-1D	04/19/2023		1.7000	***	1.3000
Arsenic, Total	ug/L	MW-2D	04/18/2023		3.8000	***	1.3000
Arsenic, Total	ug/L	MW-6D	05/01/2023	ND	1.0000		1.3000
Barium, Total	ug/L	MW-11D	05/03/2023		64.5000		73.0786
Barium, Total	ug/L	MW-1D	04/19/2023		59.9000		73.0786
Barium, Total	ug/L	MW-2D	04/18/2023		79.0000	***	73.0786
Barium, Total	ug/L	MW-6D	05/01/2023		57.9000		73.0786
Beryllium, Total	ug/L	MW-11D	05/03/2023	ND	0.2000		0.2000
Beryllium, Total	ug/L	MW-1D	04/19/2023	ND	0.2000		0.2000
Beryllium, Total	ug/L	MW-2D	04/18/2023	ND	0.2000		0.2000
Beryllium, Total	ug/L	MW-6D	05/01/2023	ND	0.2000		0.2000
Cadmium, Total	ug/L	MW-11D	05/03/2023	ND	2.0000		2.0000
Cadmium, Total	ug/L	MW-1D	04/19/2023	ND	2.0000		2.0000
Cadmium, Total	ug/L	MW-2D	04/18/2023	ND	2.0000		2.0000
Cadmium, Total	ug/L	MW-6D	05/01/2023	ND	2.0000		2.0000
Chromium, Total	ug/L	MW-11D	05/03/2023	ND	10.0000		10.0000
Chromium, Total	ug/L	MW-1D	04/19/2023	ND	10.0000		10.0000
Chromium, Total	ug/L	MW-2D	04/18/2023	ND	10.0000		10.0000
Chromium, Total	ug/L	MW-6D	05/01/2023	ND	10.0000		10.0000
Cobalt, Total	ug/L	MW-11D	05/03/2023		1.4000	*	1.2000
Cobalt, Total	ug/L	MW-1D	04/19/2023	ND	1.0000		1.2000
Cobalt, Total	ug/L	MW-2D	04/18/2023	ND	1.0000		1.2000
Cobalt, Total	ug/L	MW-6D	05/01/2023	ND	1.0000		1.2000
Fluoride	mg/L	MW-11D	05/03/2023		0.2800	***	0.1200
Fluoride	mg/L	MW-1D	04/19/2023		0.3400	***	0.1200
Fluoride	mg/L	MW-2D	04/18/2023		0.3200	***	0.1200
Fluoride	mg/L	MW-6D	05/01/2023		0.2200	***	0.1200
Lead, Total	ug/L	MW-11D	05/03/2023	ND	10.0000		10.0000
Lead, Total	ug/L	MW-1D	04/19/2023	ND	10.0000		10.0000
Lead, Total	ug/L	MW-2D	04/18/2023	ND	10.0000		10.0000
Lead, Total	ug/L	MW-6D	05/01/2023	ND	10.0000		10.0000
Lithium, Total	ug/L	MW-11D	05/03/2023		79.2000	***	20.0000
Lithium, Total	ug/L	MW-1D	04/19/2023		88.9000	***	20.0000
Lithium, Total	ug/L	MW-2D	04/18/2023		47.9000	***	20.0000

\* - Current value failed - awaiting verification.  
 \*\* - Current value passed - previous exceedance not verified.  
 \*\*\* - Current value failed - exceedance verified.  
 \*\*\*\* - Current value passed - awaiting one more verification.  
 \*\*\*\*\* - Insufficient background data to compute prediction limit.  
 ND = Not Detected, Result = detection limit.

**Table C-2**

**Most Current Downgradient Monitoring Data**

Constituent	Units	Well	Date		Result		Pred. Limit
Lithium, Total	ug/L	MW-6D	05/01/2023		70.0000	***	20.0000
Mercury	ug/L	MW-11D	05/03/2023	ND	0.2000		2.0000
Mercury	ug/L	MW-1D	04/19/2023	ND	0.2000		2.0000
Mercury	ug/L	MW-2D	04/18/2023	ND	0.2000		2.0000
Mercury	ug/L	MW-6D	05/01/2023	ND	0.2000		2.0000
Molybdenum, Total	ug/L	MW-11D	05/03/2023		149.0000	***	10.0000
Molybdenum, Total	ug/L	MW-1D	04/19/2023		96.6000	***	10.0000
Molybdenum, Total	ug/L	MW-2D	04/18/2023		47.6000	***	10.0000
Molybdenum, Total	ug/L	MW-6D	05/01/2023		212.0000	***	10.0000
Selenium, Total	ug/L	MW-11D	05/03/2023	ND	1.0000		1.3000
Selenium, Total	ug/L	MW-1D	04/19/2023	ND	1.0000		1.3000
Selenium, Total	ug/L	MW-2D	04/18/2023	ND	1.0000		1.3000
Selenium, Total	ug/L	MW-6D	05/01/2023	ND	1.0000		1.3000
Thallium, Total	ug/L	MW-11D	05/03/2023	ND	1.0000		1.0000
Thallium, Total	ug/L	MW-1D	04/19/2023	ND	1.0000		1.0000
Thallium, Total	ug/L	MW-2D	04/18/2023	ND	1.0000		1.0000
Thallium, Total	ug/L	MW-6D	05/01/2023	ND	1.0000		1.0000
Total Radium	pCi/L	MW-11D	05/03/2023		1.6800		2.2916
Total Radium	pCi/L	MW-1D	04/19/2023		1.8700		2.2916
Total Radium	pCi/L	MW-2D	04/18/2023		0.7860		2.2916
Total Radium	pCi/L	MW-6D	05/01/2023		1.4500		2.2916

\* - Current value failed - awaiting verification.  
 \*\* - Current value passed - previous exceedance not verified.  
 \*\*\* - Current value failed - exceedance verified.  
 \*\*\*\* - Current value passed - awaiting one more verification.  
 \*\*\*\*\* - Insufficient background data to compute prediction limit.  
 ND = Not Detected, Result = detection limit.

**Table C-3**

**Detection Frequencies in Upgradient and Downgradient Wells**

Constituent	Upgradient			Downgradient		
	Detect	N	Proportion	Detect	N	Proportion
Antimony, Total	0	13	0.000	1	76	0.013
Arsenic, Total	1	13	0.077	33	76	0.434
Barium, Total	13	13	1.000	76	76	1.000
Beryllium, Total	0	11	0.000	0	56	0.000
Cadmium, Total	0	11	0.000	0	56	0.000
Chromium, Total	0	11	0.000	1	56	0.018
Cobalt, Total	1	12	0.083	2	72	0.028
Fluoride	6	13	0.462	80	80	1.000
Lead, Total	0	11	0.000	2	56	0.036
Lithium, Total	0	13	0.000	76	76	1.000
Mercury	0	10	0.000	0	56	0.000
Molybdenum, Total	0	13	0.000	76	76	1.000
Selenium, Total	6	12	0.500	0	76	0.000
Thallium, Total	0	11	0.000	0	56	0.000
Total Radium	8	12	0.667	71	76	0.934

N = Total number of measurements in all wells.  
 Detect = Total number of detections in all wells.  
 Proportion = Detect/N.

**Table C-4**

**Shapiro-Wilk Multiple Group Test of Normality**

Constituent	Detect	N	Detect Freq	G raw	G log	G cbrt	G sqrt	G sqr	G cub	Crit Value	Dist Form	Model Type
Antimony, Total	0	13	0.000	3.936	3.936					2.326	non-norm	nonpar
Arsenic, Total	1	13	0.077	20.692	20.692					2.326	non-norm	nonpar
Barium, Total	13	13	1.000	0.736	1.101					2.326	normal	normal
Beryllium, Total	0	11	0.000	3.485	3.485					2.326	non-norm	nonpar
Cadmium, Total	0	11	0.000	3.485	3.485					2.326	non-norm	nonpar
Chromium, Total	0	11	0.000	3.485	3.485					2.326	non-norm	nonpar
Cobalt, Total	1	12	0.083	21.797	21.797					2.326	non-norm	nonpar
Fluoride	6	13	0.462	3.465	3.445					2.326	non-norm	nonpar
Lead, Total	0	11	0.000	3.485	3.485					2.326	non-norm	nonpar
Lithium, Total	0	13	0.000	3.936	3.936					2.326	non-norm	nonpar
Mercury	0	10	0.000	3.262	3.262					2.326	non-norm	nonpar
Molybdenum, Total	0	13	0.000	3.936	3.936					2.326	non-norm	nonpar
Selenium, Total	6	12	0.500	2.773	2.841					2.326	non-norm	nonpar
Thallium, Total	0	11	0.000	3.485	3.485					2.326	non-norm	nonpar
Total Radium	8	12	0.667	1.106	0.822					2.326	normal	normal

\* - Distribution override for that constituent.  
 Fit to distribution is confirmed if G <= critical value.  
 Model type may not match distributional form when detection frequency < 50%.

**Table C-5**

**Summary Statistics and Prediction Limits**

Constituent	Units	Detect	N	Mean	SD	alpha	Factor	Pred Limit	Type	Conf
Antimony, Total	ug/L	0	13					1.0000	nonpar	*** 0.96
Arsenic, Total	ug/L	1	13					1.3000	nonpar	*** 0.96
Barium, Total	ug/L	13	13	58.8077	5.1374	0.0100	2.7779	73.0786	normal	*** 0.95
Beryllium, Total	ug/L	0	11					0.2000	nonpar	*** 0.95
Cadmium, Total	ug/L	0	11					2.0000	nonpar	*** 0.95
Chromium, Total	ug/L	0	11					10.0000	nonpar	*** 0.96
Cobalt, Total	ug/L	1	12					1.2000	nonpar	*** 0.96
Fluoride	mg/L	6	13					0.1200	nonpar	*** 0.96
Lead, Total	ug/L	0	11					10.0000	nonpar	*** 0.95
Lithium, Total	ug/L	0	13					20.0000	nonpar	*** 0.96
Mercury	ug/L	0	10					2.0000	nonpar	*** 0.94
Molybdenum, Total	ug/L	0	13					10.0000	nonpar	*** 0.96
Selenium, Total	ug/L	6	12					1.3000	nonpar	*** 0.96
Thallium, Total	ug/L	0	11					1.0000	nonpar	*** 0.95
Total Radium	pCi/L	8	12	0.6265	0.5897	0.0100	2.8234	2.2916	normal	*** 0.96

Conf = confidence level for passing initial test or one verification resample at all downgradient wells for a single constituent (nonparametric test only).

\* - Insufficient Data.

\*\* - Calculated limit raised to Manual Reporting Limit.

\*\*\* - Nonparametric limit based on ND value.

For transformed data, mean and SD in transformed units and prediction limit in original units.

All sample sizes and statistics are based on outlier free data.

For nonparametric limits, median reporting limits are substituted for extreme reporting limit values.

**Table C-6**

**Dixon's Test Outliers  
1% Significance Level**

Constituent	Units	Well	Date	Result	ND Qualifier	Date Range	N	Critical Value
Selenium, Total	ug/L	MW-13D	05/07/2020	10.0000	< 10.0000	08/08/2019-04/17/2023	13	0.6174

N = Total number of independent measurements in background at each well.

Date Range = Dates of the first and last measurements included in background at each well.

Critical Value depends on the significance level and on N-1 when the two most extreme values are tested or N for the most extreme value.

**Table C-7**

**Historical Downgradient Data for Constituent-Well Combinations  
that Failed the Current Statistical Evaluation or  
are in Verification Resampling Mode**

Constituent	Units	Well	Date		Result	Pred. Limit
Arsenic, Total	ug/L	MW-11D	04/20/2016	ND	10.0000	1.3000
Arsenic, Total	ug/L	MW-11D	06/02/2016	ND	10.0000	1.3000
Arsenic, Total	ug/L	MW-11D	08/12/2016	ND	10.0000	1.3000
Arsenic, Total	ug/L	MW-11D	09/30/2016	ND	10.0000	1.3000
Arsenic, Total	ug/L	MW-11D	12/01/2016	ND	10.0000	1.3000
Arsenic, Total	ug/L	MW-11D	01/31/2017	ND	10.0000	1.3000
Arsenic, Total	ug/L	MW-11D	05/25/2017		24.4000 *	1.3000
Arsenic, Total	ug/L	MW-11D	08/10/2017	ND	10.0000	1.3000
Arsenic, Total	ug/L	MW-11D	05/22/2018		6.1000 *	1.3000
Arsenic, Total	ug/L	MW-11D	09/12/2018		5.3000 *	1.3000
Arsenic, Total	ug/L	MW-11D	05/08/2019		5.1000 *	1.3000
Arsenic, Total	ug/L	MW-11D	11/14/2019		5.0000 *	1.3000
Arsenic, Total	ug/L	MW-11D	05/07/2020		5.6000 *	1.3000
Arsenic, Total	ug/L	MW-11D	11/12/2020		4.6000 *	1.3000
Arsenic, Total	ug/L	MW-11D	05/17/2021		5.1000 *	1.3000
Arsenic, Total	ug/L	MW-11D	11/17/2021		6.2000 *	1.3000
Arsenic, Total	ug/L	MW-11D	05/12/2022		5.2000 *	1.3000
Arsenic, Total	ug/L	MW-11D	11/29/2022		5.0000 *	1.3000
Arsenic, Total	ug/L	MW-11D	05/03/2023		5.4000 *	1.3000
Arsenic, Total	ug/L	MW-1D	04/19/2016	ND	10.0000	1.3000
Arsenic, Total	ug/L	MW-1D	06/02/2016	ND	10.0000	1.3000
Arsenic, Total	ug/L	MW-1D	08/10/2016	ND	10.0000	1.3000
Arsenic, Total	ug/L	MW-1D	09/30/2016	ND	10.0000	1.3000
Arsenic, Total	ug/L	MW-1D	12/02/2016	ND	10.0000	1.3000
Arsenic, Total	ug/L	MW-1D	01/31/2017	ND	10.0000	1.3000
Arsenic, Total	ug/L	MW-1D	05/26/2017	ND	10.0000	1.3000
Arsenic, Total	ug/L	MW-1D	08/11/2017	ND	10.0000	1.3000
Arsenic, Total	ug/L	MW-1D	05/23/2018		1.6000 *	1.3000
Arsenic, Total	ug/L	MW-1D	09/11/2018		1.6000 *	1.3000
Arsenic, Total	ug/L	MW-1D	05/08/2019		1.5000 *	1.3000
Arsenic, Total	ug/L	MW-1D	11/14/2019		3.6000 *	1.3000
Arsenic, Total	ug/L	MW-1D	05/05/2020		1.9000 *	1.3000
Arsenic, Total	ug/L	MW-1D	11/11/2020		4.2000 *	1.3000
Arsenic, Total	ug/L	MW-1D	05/25/2021		2.3000 *	1.3000
Arsenic, Total	ug/L	MW-1D	11/09/2021		2.1000 *	1.3000
Arsenic, Total	ug/L	MW-1D	05/10/2022		3.7000 *	1.3000
Arsenic, Total	ug/L	MW-1D	11/22/2022		2.5000 *	1.3000
Arsenic, Total	ug/L	MW-1D	04/19/2023		1.7000 *	1.3000

\* - Significantly increased over background.  
 \*\* - Detect at limit for 100% NDs in background (NPPL only).  
 \*\*\* - Manual exclusion.  
 ND = Not Detected, Result = detection limit.



**Table C-7**

**Historical Downgradient Data for Constituent-Well Combinations  
that Failed the Current Statistical Evaluation or  
are in Verification Resampling Mode**

Constituent	Units	Well	Date		Result	Pred. Limit
Arsenic, Total	ug/L	MW-2D	04/19/2016	ND	10.0000	1.3000
Arsenic, Total	ug/L	MW-2D	06/02/2016	ND	10.0000	1.3000
Arsenic, Total	ug/L	MW-2D	08/11/2016	ND	10.0000	1.3000
Arsenic, Total	ug/L	MW-2D	09/30/2016	ND	10.0000	1.3000
Arsenic, Total	ug/L	MW-2D	12/02/2016	ND	10.0000	1.3000
Arsenic, Total	ug/L	MW-2D	01/31/2017	ND	10.0000	1.3000
Arsenic, Total	ug/L	MW-2D	05/26/2017	ND	10.0000	1.3000
Arsenic, Total	ug/L	MW-2D	08/11/2017	ND	10.0000	1.3000
Arsenic, Total	ug/L	MW-2D	05/22/2018		3.2000 *	1.3000
Arsenic, Total	ug/L	MW-2D	09/11/2018		3.9000 *	1.3000
Arsenic, Total	ug/L	MW-2D	05/09/2019		3.2000 *	1.3000
Arsenic, Total	ug/L	MW-2D	11/13/2019		3.7000 *	1.3000
Arsenic, Total	ug/L	MW-2D	05/05/2020		3.5000 *	1.3000
Arsenic, Total	ug/L	MW-2D	11/11/2020		4.0000 *	1.3000
Arsenic, Total	ug/L	MW-2D	05/11/2021		4.5000 *	1.3000
Arsenic, Total	ug/L	MW-2D	11/10/2021	ND	1.0000	1.3000
Arsenic, Total	ug/L	MW-2D	05/11/2022		3.7000 *	1.3000
Arsenic, Total	ug/L	MW-2D	11/15/2022		4.1000 *	1.3000
Arsenic, Total	ug/L	MW-2D	04/18/2023		3.8000 *	1.3000
Barium, Total	ug/L	MW-2D	04/19/2016		71.7000	73.0786
Barium, Total	ug/L	MW-2D	06/02/2016		62.2000	73.0786
Barium, Total	ug/L	MW-2D	08/11/2016		65.6000	73.0786
Barium, Total	ug/L	MW-2D	09/30/2016		60.7000	73.0786
Barium, Total	ug/L	MW-2D	12/02/2016		65.6000	73.0786
Barium, Total	ug/L	MW-2D	01/31/2017		65.2000	73.0786
Barium, Total	ug/L	MW-2D	05/26/2017		62.5000	73.0786
Barium, Total	ug/L	MW-2D	08/11/2017		64.0000	73.0786
Barium, Total	ug/L	MW-2D	05/22/2018		53.2000	73.0786
Barium, Total	ug/L	MW-2D	09/11/2018		40.7000	73.0786
Barium, Total	ug/L	MW-2D	05/09/2019		48.6000	73.0786
Barium, Total	ug/L	MW-2D	11/13/2019		52.1000	73.0786
Barium, Total	ug/L	MW-2D	05/05/2020		56.9000	73.0786
Barium, Total	ug/L	MW-2D	11/11/2020		62.5000	73.0786
Barium, Total	ug/L	MW-2D	05/11/2021		74.2000 *	73.0786
Barium, Total	ug/L	MW-2D	11/10/2021		65.4000	73.0786
Barium, Total	ug/L	MW-2D	05/11/2022		69.7000	73.0786
Barium, Total	ug/L	MW-2D	11/15/2022		74.0000 *	73.0786
Barium, Total	ug/L	MW-2D	04/18/2023		79.0000 *	73.0786

\* - Significantly increased over background.  
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 \*\*\* - Manual exclusion.  
 ND = Not Detected, Result = detection limit.

**Table C-7**

**Historical Downgradient Data for Constituent-Well Combinations  
that Failed the Current Statistical Evaluation or  
are in Verification Resampling Mode**

Constituent	Units	Well	Date		Result	Pred. Limit
Cobalt, Total	ug/L	MW-11D	04/20/2016	ND	10.0000	1.2000
Cobalt, Total	ug/L	MW-11D	06/02/2016	ND	5.0000	1.2000
Cobalt, Total	ug/L	MW-11D	08/12/2016	ND	5.0000	1.2000
Cobalt, Total	ug/L	MW-11D	09/30/2016	ND	5.0000	1.2000
Cobalt, Total	ug/L	MW-11D	12/01/2016	ND	5.0000	1.2000
Cobalt, Total	ug/L	MW-11D	01/31/2017	ND	5.0000	1.2000
Cobalt, Total	ug/L	MW-11D	05/25/2017		11.2000 *	1.2000
Cobalt, Total	ug/L	MW-11D	08/10/2017	ND	5.0000	1.2000
Cobalt, Total	ug/L	MW-11D	05/22/2018	ND	1.0000	1.2000
Cobalt, Total	ug/L	MW-11D	09/12/2018	ND	1.0000	1.2000
Cobalt, Total	ug/L	MW-11D	05/08/2019	ND	1.0000	1.2000
Cobalt, Total	ug/L	MW-11D	11/14/2019	ND	1.0000	1.2000
Cobalt, Total	ug/L	MW-11D	05/07/2020	ND	1.0000	1.2000
Cobalt, Total	ug/L	MW-11D	11/12/2020	ND	1.0000	1.2000
Cobalt, Total	ug/L	MW-11D	05/17/2021	ND	1.0000	1.2000
Cobalt, Total	ug/L	MW-11D	11/17/2021	ND	1.0000	1.2000
Cobalt, Total	ug/L	MW-11D	05/12/2022	ND	1.0000	1.2000
Cobalt, Total	ug/L	MW-11D	05/03/2023		1.4000 *	1.2000
Fluoride	mg/L	MW-11D	04/20/2016		0.2600 *	0.1200
Fluoride	mg/L	MW-11D	06/02/2016		0.2300 *	0.1200
Fluoride	mg/L	MW-11D	08/12/2016		0.2100 *	0.1200
Fluoride	mg/L	MW-11D	09/30/2016		0.2300 *	0.1200
Fluoride	mg/L	MW-11D	12/01/2016		0.2200 *	0.1200
Fluoride	mg/L	MW-11D	01/31/2017		0.2400 *	0.1200
Fluoride	mg/L	MW-11D	05/25/2017		0.2500 *	0.1200
Fluoride	mg/L	MW-11D	08/10/2017		0.2300 *	0.1200
Fluoride	mg/L	MW-11D	09/28/2017		0.1900 *	0.1200
Fluoride	mg/L	MW-11D	05/22/2018		0.2000 *	0.1200
Fluoride	mg/L	MW-11D	09/12/2018		0.1700 *	0.1200
Fluoride	mg/L	MW-11D	05/08/2019		0.2000 *	0.1200
Fluoride	mg/L	MW-11D	11/14/2019		0.2000 *	0.1200
Fluoride	mg/L	MW-11D	05/07/2020		0.2400 *	0.1200
Fluoride	mg/L	MW-11D	11/12/2020		0.2500 *	0.1200
Fluoride	mg/L	MW-11D	05/17/2021		0.2500 *	0.1200
Fluoride	mg/L	MW-11D	11/17/2021		0.2300 *	0.1200
Fluoride	mg/L	MW-11D	05/12/2022		0.3000 *	0.1200
Fluoride	mg/L	MW-11D	11/29/2022		0.2800 *	0.1200
Fluoride	mg/L	MW-11D	05/03/2023		0.2800 *	0.1200

\* - Significantly increased over background.  
 \*\* - Detect at limit for 100% NDs in background (NPPL only).  
 \*\*\* - Manual exclusion.  
 ND = Not Detected, Result = detection limit.

**Table C-7**

**Historical Downgradient Data for Constituent-Well Combinations that Failed the Current Statistical Evaluation or are in Verification Resampling Mode**

Constituent	Units	Well	Date	Result	Pred. Limit
Fluoride	mg/L	MW-1D	04/19/2016	0.4400 *	0.1200
Fluoride	mg/L	MW-1D	06/02/2016	0.4400 *	0.1200
Fluoride	mg/L	MW-1D	08/10/2016	0.4200 *	0.1200
Fluoride	mg/L	MW-1D	09/30/2016	0.4600 *	0.1200
Fluoride	mg/L	MW-1D	12/02/2016	0.4600 *	0.1200
Fluoride	mg/L	MW-1D	01/31/2017	0.4100 *	0.1200
Fluoride	mg/L	MW-1D	05/26/2017	0.4200 *	0.1200
Fluoride	mg/L	MW-1D	08/11/2017	0.4200 *	0.1200
Fluoride	mg/L	MW-1D	09/28/2017	0.4200 *	0.1200
Fluoride	mg/L	MW-1D	05/23/2018	0.3600 *	0.1200
Fluoride	mg/L	MW-1D	09/11/2018	0.3200 *	0.1200
Fluoride	mg/L	MW-1D	05/08/2019	0.3500 *	0.1200
Fluoride	mg/L	MW-1D	11/14/2019	0.3700 *	0.1200
Fluoride	mg/L	MW-1D	05/05/2020	0.3700 *	0.1200
Fluoride	mg/L	MW-1D	11/11/2020	0.3700 *	0.1200
Fluoride	mg/L	MW-1D	05/25/2021	0.3100 *	0.1200
Fluoride	mg/L	MW-1D	11/09/2021	0.3000 *	0.1200
Fluoride	mg/L	MW-1D	05/10/2022	0.3200 *	0.1200
Fluoride	mg/L	MW-1D	11/22/2022	0.3800 *	0.1200
Fluoride	mg/L	MW-1D	04/19/2023	0.3400 *	0.1200
Fluoride	mg/L	MW-2D	04/19/2016	0.4200 *	0.1200
Fluoride	mg/L	MW-2D	06/02/2016	0.4100 *	0.1200
Fluoride	mg/L	MW-2D	08/11/2016	0.3800 *	0.1200
Fluoride	mg/L	MW-2D	09/30/2016	0.3900 *	0.1200
Fluoride	mg/L	MW-2D	12/02/2016	0.4100 *	0.1200
Fluoride	mg/L	MW-2D	01/31/2017	0.3600 *	0.1200
Fluoride	mg/L	MW-2D	05/26/2017	0.3800 *	0.1200
Fluoride	mg/L	MW-2D	08/11/2017	0.3800 *	0.1200
Fluoride	mg/L	MW-2D	09/27/2017	0.3600 *	0.1200
Fluoride	mg/L	MW-2D	05/22/2018	0.3200 *	0.1200
Fluoride	mg/L	MW-2D	09/11/2018	0.2900 *	0.1200
Fluoride	mg/L	MW-2D	05/09/2019	0.3200 *	0.1200
Fluoride	mg/L	MW-2D	11/13/2019	0.3300 *	0.1200
Fluoride	mg/L	MW-2D	05/05/2020	0.3500 *	0.1200
Fluoride	mg/L	MW-2D	11/11/2020	0.3400 *	0.1200
Fluoride	mg/L	MW-2D	05/11/2021	0.1900 *	0.1200
Fluoride	mg/L	MW-2D	11/10/2021	0.2700 *	0.1200
Fluoride	mg/L	MW-2D	05/11/2022	0.2900 *	0.1200

\* - Significantly increased over background.  
 \*\* - Detect at limit for 100% NDs in background (NPPL only).  
 \*\*\* - Manual exclusion.  
 ND = Not Detected, Result = detection limit.

**Table C-7**

**Historical Downgradient Data for Constituent-Well Combinations  
that Failed the Current Statistical Evaluation or  
are in Verification Resampling Mode**

Constituent	Units	Well	Date	Result	Pred. Limit
Fluoride	mg/L	MW-2D	11/15/2022	0.2800 *	0.1200
Fluoride	mg/L	MW-2D	04/18/2023	0.3200 *	0.1200
Fluoride	mg/L	MW-6D	04/20/2016	0.2000 *	0.1200
Fluoride	mg/L	MW-6D	06/01/2016	0.1800 *	0.1200
Fluoride	mg/L	MW-6D	08/11/2016	0.1700 *	0.1200
Fluoride	mg/L	MW-6D	09/29/2016	0.1800 *	0.1200
Fluoride	mg/L	MW-6D	12/01/2016	0.2000 *	0.1200
Fluoride	mg/L	MW-6D	01/30/2017	0.1800 *	0.1200
Fluoride	mg/L	MW-6D	05/25/2017	0.1800 *	0.1200
Fluoride	mg/L	MW-6D	08/10/2017	0.1900 *	0.1200
Fluoride	mg/L	MW-6D	09/27/2017	0.1900 *	0.1200
Fluoride	mg/L	MW-6D	05/22/2018	0.1200	0.1200
Fluoride	mg/L	MW-6D	09/10/2018	0.1200	0.1200
Fluoride	mg/L	MW-6D	05/08/2019	0.1600 *	0.1200
Fluoride	mg/L	MW-6D	11/14/2019	0.1400 *	0.1200
Fluoride	mg/L	MW-6D	05/08/2020	0.1300 *	0.1200
Fluoride	mg/L	MW-6D	11/10/2020	0.1700 *	0.1200
Fluoride	mg/L	MW-6D	05/18/2021	0.1600 *	0.1200
Fluoride	mg/L	MW-6D	11/09/2021	0.1800 *	0.1200
Fluoride	mg/L	MW-6D	05/11/2022	0.2000 *	0.1200
Fluoride	mg/L	MW-6D	11/15/2022	0.1800 *	0.1200
Fluoride	mg/L	MW-6D	05/01/2023	0.2200 *	0.1200
Lithium, Total	ug/L	MW-11D	04/20/2016	102.0000 *	20.0000
Lithium, Total	ug/L	MW-11D	06/02/2016	99.6000 *	20.0000
Lithium, Total	ug/L	MW-11D	08/12/2016	91.7000 *	20.0000
Lithium, Total	ug/L	MW-11D	09/30/2016	95.9000 *	20.0000
Lithium, Total	ug/L	MW-11D	12/01/2016	97.4000 *	20.0000
Lithium, Total	ug/L	MW-11D	01/31/2017	88.3000 *	20.0000
Lithium, Total	ug/L	MW-11D	05/25/2017	134.0000 *	20.0000
Lithium, Total	ug/L	MW-11D	08/10/2017	98.8000 *	20.0000
Lithium, Total	ug/L	MW-11D	05/22/2018	91.9000 *	20.0000
Lithium, Total	ug/L	MW-11D	09/12/2018	83.0000 *	20.0000
Lithium, Total	ug/L	MW-11D	05/08/2019	93.0000 *	20.0000
Lithium, Total	ug/L	MW-11D	11/14/2019	93.0000 *	20.0000
Lithium, Total	ug/L	MW-11D	05/07/2020	94.1000 *	20.0000
Lithium, Total	ug/L	MW-11D	11/12/2020	85.7000 *	20.0000
Lithium, Total	ug/L	MW-11D	05/17/2021	84.1000 *	20.0000
Lithium, Total	ug/L	MW-11D	11/17/2021	82.7000 *	20.0000

\* - Significantly increased over background.  
 \*\* - Detect at limit for 100% NDs in background (NPPL only).  
 \*\*\* - Manual exclusion.  
 ND = Not Detected, Result = detection limit.

**Table C-7**

**Historical Downgradient Data for Constituent-Well Combinations  
that Failed the Current Statistical Evaluation or  
are in Verification Resampling Mode**

Constituent	Units	Well	Date	Result	Pred. Limit
Lithium, Total	ug/L	MW-11D	05/12/2022	88.1000 *	20.0000
Lithium, Total	ug/L	MW-11D	11/29/2022	81.9000 *	20.0000
Lithium, Total	ug/L	MW-11D	05/03/2023	79.2000 *	20.0000
Lithium, Total	ug/L	MW-1D	04/19/2016	108.0000 *	20.0000
Lithium, Total	ug/L	MW-1D	06/02/2016	99.0000 *	20.0000
Lithium, Total	ug/L	MW-1D	08/10/2016	91.0000 *	20.0000
Lithium, Total	ug/L	MW-1D	09/30/2016	90.9000 *	20.0000
Lithium, Total	ug/L	MW-1D	12/02/2016	90.8000 *	20.0000
Lithium, Total	ug/L	MW-1D	01/31/2017	88.6000 *	20.0000
Lithium, Total	ug/L	MW-1D	05/26/2017	94.2000 *	20.0000
Lithium, Total	ug/L	MW-1D	08/11/2017	92.0000 *	20.0000
Lithium, Total	ug/L	MW-1D	05/23/2018	99.2000 *	20.0000
Lithium, Total	ug/L	MW-1D	09/11/2018	89.0000 *	20.0000
Lithium, Total	ug/L	MW-1D	05/08/2019	99.7000 *	20.0000
Lithium, Total	ug/L	MW-1D	11/14/2019	90.2000 *	20.0000
Lithium, Total	ug/L	MW-1D	05/05/2020	94.3000 *	20.0000
Lithium, Total	ug/L	MW-1D	11/11/2020	83.2000 *	20.0000
Lithium, Total	ug/L	MW-1D	05/25/2021	82.6000 *	20.0000
Lithium, Total	ug/L	MW-1D	11/09/2021	93.6000 *	20.0000
Lithium, Total	ug/L	MW-1D	05/10/2022	84.5000 *	20.0000
Lithium, Total	ug/L	MW-1D	11/22/2022	80.9000 *	20.0000
Lithium, Total	ug/L	MW-1D	04/19/2023	88.9000 *	20.0000
Lithium, Total	ug/L	MW-2D	04/19/2016	115.0000 *	20.0000
Lithium, Total	ug/L	MW-2D	06/02/2016	110.0000 *	20.0000
Lithium, Total	ug/L	MW-2D	08/11/2016	109.0000 *	20.0000
Lithium, Total	ug/L	MW-2D	09/30/2016	106.0000 *	20.0000
Lithium, Total	ug/L	MW-2D	12/02/2016	108.0000 *	20.0000
Lithium, Total	ug/L	MW-2D	01/31/2017	105.0000 *	20.0000
Lithium, Total	ug/L	MW-2D	05/26/2017	106.0000 *	20.0000
Lithium, Total	ug/L	MW-2D	08/11/2017	102.0000 *	20.0000
Lithium, Total	ug/L	MW-2D	05/22/2018	91.1000 *	20.0000
Lithium, Total	ug/L	MW-2D	09/11/2018	69.2000 *	20.0000
Lithium, Total	ug/L	MW-2D	05/09/2019	86.5000 *	20.0000
Lithium, Total	ug/L	MW-2D	11/13/2019	76.5000 *	20.0000
Lithium, Total	ug/L	MW-2D	05/05/2020	74.4000 *	20.0000
Lithium, Total	ug/L	MW-2D	11/11/2020	52.7000 *	20.0000
Lithium, Total	ug/L	MW-2D	05/11/2021	51.0000 *	20.0000
Lithium, Total	ug/L	MW-2D	11/10/2021	49.6000 *	20.0000

\* - Significantly increased over background.  
 \*\* - Detect at limit for 100% NDs in background (NPPL only).  
 \*\*\* - Manual exclusion.  
 ND = Not Detected, Result = detection limit.

**Table C-7**

**Historical Downgradient Data for Constituent-Well Combinations  
that Failed the Current Statistical Evaluation or  
are in Verification Resampling Mode**

Constituent	Units	Well	Date	Result	Pred. Limit
Lithium, Total	ug/L	MW-2D	05/11/2022	51.2000 *	20.0000
Lithium, Total	ug/L	MW-2D	11/15/2022	49.2000 *	20.0000
Lithium, Total	ug/L	MW-2D	04/18/2023	47.9000 *	20.0000
Lithium, Total	ug/L	MW-6D	04/20/2016	155.0000 *	20.0000
Lithium, Total	ug/L	MW-6D	06/01/2016	134.0000 *	20.0000
Lithium, Total	ug/L	MW-6D	08/11/2016	138.0000 *	20.0000
Lithium, Total	ug/L	MW-6D	09/29/2016	137.0000 *	20.0000
Lithium, Total	ug/L	MW-6D	12/01/2016	132.0000 *	20.0000
Lithium, Total	ug/L	MW-6D	01/30/2017	132.0000 *	20.0000
Lithium, Total	ug/L	MW-6D	05/25/2017	134.0000 *	20.0000
Lithium, Total	ug/L	MW-6D	08/10/2017	121.0000 *	20.0000
Lithium, Total	ug/L	MW-6D	05/22/2018	105.0000 *	20.0000
Lithium, Total	ug/L	MW-6D	09/10/2018	90.6000 *	20.0000
Lithium, Total	ug/L	MW-6D	05/08/2019	113.0000 *	20.0000
Lithium, Total	ug/L	MW-6D	11/14/2019	97.3000 *	20.0000
Lithium, Total	ug/L	MW-6D	05/08/2020	99.0000 *	20.0000
Lithium, Total	ug/L	MW-6D	11/10/2020	81.7000 *	20.0000
Lithium, Total	ug/L	MW-6D	05/18/2021	84.5000 *	20.0000
Lithium, Total	ug/L	MW-6D	11/09/2021	86.3000 *	20.0000
Lithium, Total	ug/L	MW-6D	05/11/2022	80.7000 *	20.0000
Lithium, Total	ug/L	MW-6D	11/15/2022	81.2000 *	20.0000
Lithium, Total	ug/L	MW-6D	05/01/2023	70.0000 *	20.0000
Molybdenum, Total	ug/L	MW-11D	04/20/2016	202.0000 *	10.0000
Molybdenum, Total	ug/L	MW-11D	06/02/2016	200.0000 *	10.0000
Molybdenum, Total	ug/L	MW-11D	08/12/2016	189.0000 *	10.0000
Molybdenum, Total	ug/L	MW-11D	09/30/2016	189.0000 *	10.0000
Molybdenum, Total	ug/L	MW-11D	12/01/2016	191.0000 *	10.0000
Molybdenum, Total	ug/L	MW-11D	01/31/2017	182.0000 *	10.0000
Molybdenum, Total	ug/L	MW-11D	05/25/2017	183.0000 *	10.0000
Molybdenum, Total	ug/L	MW-11D	08/10/2017	194.0000 *	10.0000
Molybdenum, Total	ug/L	MW-11D	05/22/2018	189.0000 *	10.0000
Molybdenum, Total	ug/L	MW-11D	09/12/2018	156.0000 *	10.0000
Molybdenum, Total	ug/L	MW-11D	05/08/2019	175.0000 *	10.0000
Molybdenum, Total	ug/L	MW-11D	11/14/2019	162.0000 *	10.0000
Molybdenum, Total	ug/L	MW-11D	05/07/2020	176.0000 *	10.0000
Molybdenum, Total	ug/L	MW-11D	11/12/2020	170.0000 *	10.0000
Molybdenum, Total	ug/L	MW-11D	05/17/2021	173.0000 *	10.0000
Molybdenum, Total	ug/L	MW-11D	11/17/2021	183.0000 *	10.0000

\* - Significantly increased over background.  
 \*\* - Detect at limit for 100% NDs in background (NPPL only).  
 \*\*\* - Manual exclusion.  
 ND = Not Detected, Result = detection limit.

**Table C-7**

**Historical Downgradient Data for Constituent-Well Combinations  
that Failed the Current Statistical Evaluation or  
are in Verification Resampling Mode**

Constituent	Units	Well	Date	Result	Pred. Limit
Molybdenum, Total	ug/L	MW-11D	05/12/2022	169.0000 *	10.0000
Molybdenum, Total	ug/L	MW-11D	11/29/2022	159.0000 *	10.0000
Molybdenum, Total	ug/L	MW-11D	05/03/2023	149.0000 *	10.0000
Molybdenum, Total	ug/L	MW-1D	04/19/2016	108.0000 *	10.0000
Molybdenum, Total	ug/L	MW-1D	06/02/2016	118.0000 *	10.0000
Molybdenum, Total	ug/L	MW-1D	08/10/2016	128.0000 *	10.0000
Molybdenum, Total	ug/L	MW-1D	09/30/2016	126.0000 *	10.0000
Molybdenum, Total	ug/L	MW-1D	12/02/2016	123.0000 *	10.0000
Molybdenum, Total	ug/L	MW-1D	01/31/2017	125.0000 *	10.0000
Molybdenum, Total	ug/L	MW-1D	05/26/2017	119.0000 *	10.0000
Molybdenum, Total	ug/L	MW-1D	08/11/2017	118.0000 *	10.0000
Molybdenum, Total	ug/L	MW-1D	05/23/2018	107.0000 *	10.0000
Molybdenum, Total	ug/L	MW-1D	09/11/2018	111.0000 *	10.0000
Molybdenum, Total	ug/L	MW-1D	05/08/2019	122.0000 *	10.0000
Molybdenum, Total	ug/L	MW-1D	11/14/2019	118.0000 *	10.0000
Molybdenum, Total	ug/L	MW-1D	05/05/2020	119.0000 *	10.0000
Molybdenum, Total	ug/L	MW-1D	11/11/2020	113.0000 *	10.0000
Molybdenum, Total	ug/L	MW-1D	05/25/2021	106.0000 *	10.0000
Molybdenum, Total	ug/L	MW-1D	11/09/2021	112.0000 *	10.0000
Molybdenum, Total	ug/L	MW-1D	05/10/2022	104.0000 *	10.0000
Molybdenum, Total	ug/L	MW-1D	11/22/2022	101.0000 *	10.0000
Molybdenum, Total	ug/L	MW-1D	04/19/2023	96.6000 *	10.0000
Molybdenum, Total	ug/L	MW-2D	04/19/2016	103.0000 *	10.0000
Molybdenum, Total	ug/L	MW-2D	06/02/2016	107.0000 *	10.0000
Molybdenum, Total	ug/L	MW-2D	08/11/2016	102.0000 *	10.0000
Molybdenum, Total	ug/L	MW-2D	09/30/2016	99.4000 *	10.0000
Molybdenum, Total	ug/L	MW-2D	12/02/2016	110.0000 *	10.0000
Molybdenum, Total	ug/L	MW-2D	01/31/2017	117.0000 *	10.0000
Molybdenum, Total	ug/L	MW-2D	05/26/2017	120.0000 *	10.0000
Molybdenum, Total	ug/L	MW-2D	08/11/2017	120.0000 *	10.0000
Molybdenum, Total	ug/L	MW-2D	05/22/2018	128.0000 *	10.0000
Molybdenum, Total	ug/L	MW-2D	09/11/2018	101.0000 *	10.0000
Molybdenum, Total	ug/L	MW-2D	05/09/2019	94.8000 *	10.0000
Molybdenum, Total	ug/L	MW-2D	11/13/2019	93.3000 *	10.0000
Molybdenum, Total	ug/L	MW-2D	05/05/2020	92.0000 *	10.0000
Molybdenum, Total	ug/L	MW-2D	11/11/2020	76.0000 *	10.0000
Molybdenum, Total	ug/L	MW-2D	05/11/2021	67.5000 *	10.0000
Molybdenum, Total	ug/L	MW-2D	11/10/2021	67.2000 *	10.0000

\* - Significantly increased over background.  
 \*\* - Detect at limit for 100% NDs in background (NPPL only).  
 \*\*\* - Manual exclusion.  
 ND = Not Detected, Result = detection limit.

**Table C-7**

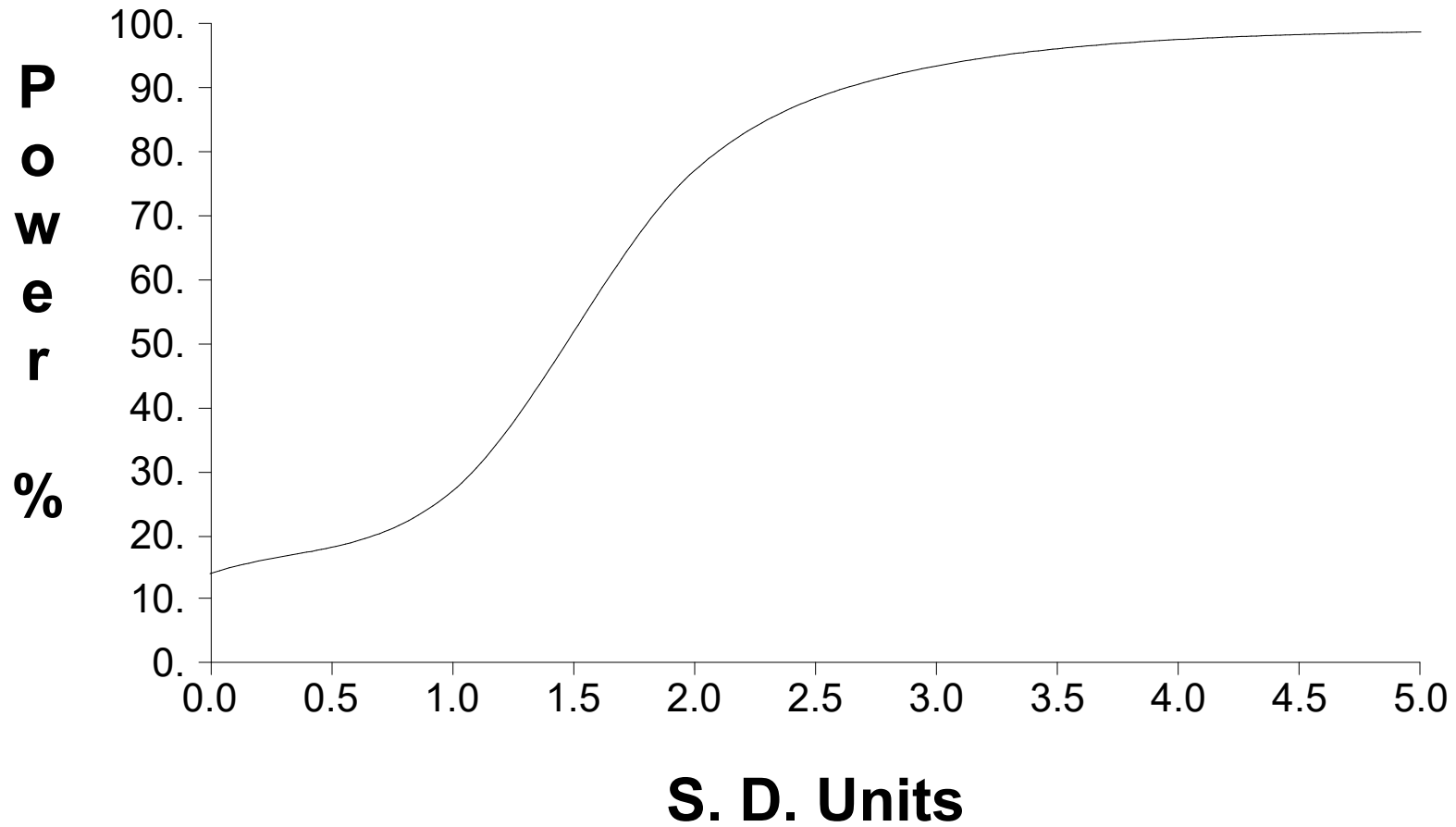
**Historical Downgradient Data for Constituent-Well Combinations  
that Failed the Current Statistical Evaluation or  
are in Verification Resampling Mode**

Constituent	Units	Well	Date	Result	Pred. Limit
Molybdenum, Total	ug/L	MW-2D	05/11/2022	59.6000 *	10.0000
Molybdenum, Total	ug/L	MW-2D	11/15/2022	52.9000 *	10.0000
Molybdenum, Total	ug/L	MW-2D	04/18/2023	47.6000 *	10.0000
Molybdenum, Total	ug/L	MW-6D	04/20/2016	184.0000 *	10.0000
Molybdenum, Total	ug/L	MW-6D	06/01/2016	185.0000 *	10.0000
Molybdenum, Total	ug/L	MW-6D	08/11/2016	188.0000 *	10.0000
Molybdenum, Total	ug/L	MW-6D	09/29/2016	180.0000 *	10.0000
Molybdenum, Total	ug/L	MW-6D	12/01/2016	188.0000 *	10.0000
Molybdenum, Total	ug/L	MW-6D	01/30/2017	194.0000 *	10.0000
Molybdenum, Total	ug/L	MW-6D	05/25/2017	208.0000 *	10.0000
Molybdenum, Total	ug/L	MW-6D	08/10/2017	213.0000 *	10.0000
Molybdenum, Total	ug/L	MW-6D	05/22/2018	208.0000 *	10.0000
Molybdenum, Total	ug/L	MW-6D	09/10/2018	190.0000 *	10.0000
Molybdenum, Total	ug/L	MW-6D	05/08/2019	198.0000 *	10.0000
Molybdenum, Total	ug/L	MW-6D	11/14/2019	175.0000 *	10.0000
Molybdenum, Total	ug/L	MW-6D	05/08/2020	188.0000 *	10.0000
Molybdenum, Total	ug/L	MW-6D	11/10/2020	210.0000 *	10.0000
Molybdenum, Total	ug/L	MW-6D	05/18/2021	219.0000 *	10.0000
Molybdenum, Total	ug/L	MW-6D	11/09/2021	244.0000 *	10.0000
Molybdenum, Total	ug/L	MW-6D	05/11/2022	209.0000 *	10.0000
Molybdenum, Total	ug/L	MW-6D	11/15/2022	210.0000 *	10.0000
Molybdenum, Total	ug/L	MW-6D	05/01/2023	212.0000 *	10.0000

\* - Significantly increased over background.  
 \*\* - Detect at limit for 100% NDs in background (NPPL only).  
 \*\*\* - Manual exclusion.  
 ND = Not Detected, Result = detection limit.



# False Positive and False Negative Rates for Current Upgradient vs. Downgradient Monitoring Program



## **Appendix C: Statistical Analyses – 95% Lower Confidence Limit Documentation**

**November 2022**

Table 1

**Confidence Intervals for Comparing the Mean of the Last 4 Measurements to an Assessment Monitoring Standard**

Constituent	Units	Well	N	Mean	SD	Factor	95% LCL	95% UCL	Standard	Trend
Antimony, Total	ug/L	MW-10S	4	2.325	0.550	1.176	1.678	2.972	6.000	dec
Antimony, Total	ug/L	MW-11S	4	1.400	0.082	1.176	1.304	1.496	6.000	
Antimony, Total	ug/L	MW-12S	4	1.400	0.141	1.176	1.234	1.566	6.000	
Antimony, Total	ug/L	MW-1S	4	2.025	0.457	1.176	1.487	2.563	6.000	
Antimony, Total	ug/L	MW-2S	4	0.500	0.000	1.176	0.500	0.500	6.000	
Antimony, Total	ug/L	MW-3S	4	0.650	0.300	1.176	0.297	1.003	6.000	
Antimony, Total	ug/L	MW-6S	4	1.750	0.839	1.176	0.764	2.736	6.000	
Antimony, Total	ug/L	MW-7S	4	2.850	0.656	1.176	2.079	3.621	6.000	
Arsenic, Total	ug/L	MW-10S	4	0.500	0.000	1.176	0.500	0.500	10.000	**
Arsenic, Total	ug/L	MW-11S	4	85.000	27.583	1.176	52.554	117.446	10.000	
Arsenic, Total	ug/L	MW-12S	4	2.375	1.752	1.176	0.314	4.436	10.000	
Arsenic, Total	ug/L	MW-1S	4	5.125	2.004	1.176	2.768	7.482	10.000	
Arsenic, Total	ug/L	MW-2S	4	11.400	3.509	1.176	7.272	15.528	10.000	
Arsenic, Total	ug/L	MW-3S	4	0.500	0.000	1.176	0.500	0.500	10.000	
Arsenic, Total	ug/L	MW-6S	4	0.500	0.000	1.176	0.500	0.500	10.000	
Arsenic, Total	ug/L	MW-7S	4	4.350	1.300	1.176	2.821	5.879	10.000	
Barium, Total	ug/L	MW-10S	4	83.100	8.930	1.176	72.596	93.604	2000.000	dec
Barium, Total	ug/L	MW-11S	4	117.325	27.113	1.176	85.433	149.217	2000.000	
Barium, Total	ug/L	MW-12S	4	117.850	12.647	1.176	102.973	132.727	2000.000	
Barium, Total	ug/L	MW-1S	4	83.325	18.235	1.176	61.875	104.775	2000.000	
Barium, Total	ug/L	MW-2S	4	122.100	19.850	1.176	98.750	145.450	2000.000	
Barium, Total	ug/L	MW-3S	4	107.625	26.015	1.176	77.024	138.226	2000.000	
Barium, Total	ug/L	MW-6S	4	95.900	12.975	1.176	80.638	111.162	2000.000	
Barium, Total	ug/L	MW-7S	4	93.925	11.332	1.176	80.595	107.255	2000.000	
Beryllium, Total	ug/L	MW-10S	4	0.100	0.000	1.176	0.100	0.100	4.000	
Beryllium, Total	ug/L	MW-11S	4	2.000	0.000	1.176	2.000	2.000	4.000	
Beryllium, Total	ug/L	MW-12S	4	2.000	0.000	1.176	2.000	2.000	4.000	
Beryllium, Total	ug/L	MW-1S	4	2.000	0.000	1.176	2.000	2.000	4.000	
Beryllium, Total	ug/L	MW-2S	4	2.000	0.000	1.176	2.000	2.000	4.000	
Beryllium, Total	ug/L	MW-3S	4	2.000	0.000	1.176	2.000	2.000	4.000	
Beryllium, Total	ug/L	MW-6S	4	2.000	0.000	1.176	2.000	2.000	4.000	
Beryllium, Total	ug/L	MW-7S	4	2.000	0.000	1.176	2.000	2.000	4.000	
Cadmium, Total	ug/L	MW-10S	4	1.000	0.000	1.176	1.000	1.000	5.000	
Cadmium, Total	ug/L	MW-11S	4	1.000	0.000	1.176	1.000	1.000	5.000	
Cadmium, Total	ug/L	MW-12S	4	1.000	0.000	1.176	1.000	1.000	5.000	
Cadmium, Total	ug/L	MW-1S	4	1.000	0.000	1.176	1.000	1.000	5.000	
Cadmium, Total	ug/L	MW-2S	4	1.000	0.000	1.176	1.000	1.000	5.000	
Cadmium, Total	ug/L	MW-3S	4	1.000	0.000	1.176	1.000	1.000	5.000	
Cadmium, Total	ug/L	MW-6S	4	1.000	0.000	1.176	1.000	1.000	5.000	
Cadmium, Total	ug/L	MW-7S	4	1.000	0.000	1.176	1.000	1.000	5.000	

\* - Insufficient Data  
 \*\* - Significant Exceedance  
 LCL = Lower Confidence Limit  
 UCL = Upper Confidence Limit

Table 1

**Confidence Intervals for Comparing the Mean of the Last 4 Measurements to an Assessment Monitoring Standard**

Constituent	Units	Well	N	Mean	SD	Factor	95% LCL	95% UCL	Standard	Trend	
Chromium, Total	ug/L	MW-10S	4	5.000	0.000	1.176	5.000	5.000	100.000		
Chromium, Total	ug/L	MW-11S	4	5.000	0.000	1.176	5.000	5.000	100.000		
Chromium, Total	ug/L	MW-12S	4	5.000	0.000	1.176	5.000	5.000	100.000		
Chromium, Total	ug/L	MW-1S	4	5.000	0.000	1.176	5.000	5.000	100.000		
Chromium, Total	ug/L	MW-2S	4	5.000	0.000	1.176	5.000	5.000	100.000		
Chromium, Total	ug/L	MW-3S	4	5.000	0.000	1.176	5.000	5.000	100.000		
Chromium, Total	ug/L	MW-6S	4	5.000	0.000	1.176	5.000	5.000	100.000		
Chromium, Total	ug/L	MW-7S	4	5.000	0.000	1.176	5.000	5.000	100.000		
Cobalt, Total	ug/L	MW-10S	4	0.500	0.000	1.176	0.500	0.500	6.000		
Cobalt, Total	ug/L	MW-11S	4	0.500	0.000	1.176	0.500	0.500	6.000		
Cobalt, Total	ug/L	MW-12S	4	0.500	0.000	1.176	0.500	0.500	6.000		
Cobalt, Total	ug/L	MW-1S	4	0.500	0.000	1.176	0.500	0.500	6.000		
Cobalt, Total	ug/L	MW-2S	4	0.500	0.000	1.176	0.500	0.500	6.000		
Cobalt, Total	ug/L	MW-3S	4	0.500	0.000	1.176	0.500	0.500	6.000		
Cobalt, Total	ug/L	MW-6S	4	0.500	0.000	1.176	0.500	0.500	6.000		
Cobalt, Total	ug/L	MW-7S	4	2.850	0.839	1.176	1.864	3.836	6.000		
Fluoride	mg/L	MW-10S	4	0.220	0.014	1.176	0.203	0.237	4.000		
Fluoride	mg/L	MW-11S	4	0.170	0.022	1.176	0.145	0.195	4.000	dec	
Fluoride	mg/L	MW-12S	4	0.243	0.026	1.176	0.212	0.273	4.000	dec	
Fluoride	mg/L	MW-1S	4	0.125	0.061	1.176	0.053	0.197	4.000	dec	
Fluoride	mg/L	MW-2S	4	0.135	0.021	1.176	0.111	0.159	4.000	dec	
Fluoride	mg/L	MW-3S	4	0.273	0.049	1.176	0.215	0.330	4.000		
Fluoride	mg/L	MW-6S	4	0.238	0.032	1.176	0.200	0.275	4.000		
Fluoride	mg/L	MW-7S	4	0.050	0.000	1.176	0.050	0.050	4.000	dec	
Lead, Total	ug/L	MW-10S	4	5.000	0.000	1.176	5.000	5.000	15.000		
Lead, Total	ug/L	MW-11S	4	5.000	0.000	1.176	5.000	5.000	15.000		
Lead, Total	ug/L	MW-12S	4	5.000	0.000	1.176	5.000	5.000	15.000		
Lead, Total	ug/L	MW-1S	4	5.000	0.000	1.176	5.000	5.000	15.000		
Lead, Total	ug/L	MW-2S	4	5.000	0.000	1.176	5.000	5.000	15.000		
Lead, Total	ug/L	MW-3S	4	5.000	0.000	1.176	5.000	5.000	15.000		
Lead, Total	ug/L	MW-6S	4	5.000	0.000	1.176	5.000	5.000	15.000		
Lead, Total	ug/L	MW-7S	4	5.000	0.000	1.176	5.000	5.000	15.000		
Lithium, Total	ug/L	MW-10S	4	98.450	6.567	1.176	90.725	106.175	40.000		**
Lithium, Total	ug/L	MW-11S	4	119.250	17.914	1.176	98.178	140.322	40.000		**
Lithium, Total	ug/L	MW-12S	4	124.250	11.413	1.176	110.825	137.675	40.000	inc	**
Lithium, Total	ug/L	MW-1S	4	88.900	14.985	1.176	71.273	106.527	40.000		**
Lithium, Total	ug/L	MW-2S	4	51.675	8.698	1.176	41.444	61.906	40.000		**
Lithium, Total	ug/L	MW-3S	4	17.775	9.005	1.176	7.183	28.367	40.000	dec	**
Lithium, Total	ug/L	MW-6S	4	87.725	13.310	1.176	72.068	103.382	40.000		**
Lithium, Total	ug/L	MW-7S	4	31.350	0.420	1.176	30.856	31.844	40.000	dec	

\* - Insufficient Data  
 \*\* - Significant Exceedance  
 LCL = Lower Confidence Limit  
 UCL = Upper Confidence Limit

**Table 1**

**Confidence Intervals for Comparing the Mean of the Last 4 Measurements to an Assessment Monitoring Standard**

Constituent	Units	Well	N	Mean	SD	Factor	95% LCL	95% UCL	Standard	Trend
Mercury	ug/L	MW-10S	4	1.000	0.000	1.176	1.000	1.000	2.000	
Mercury	ug/L	MW-11S	4	1.000	0.000	1.176	1.000	1.000	2.000	
Mercury	ug/L	MW-12S	4	1.000	0.000	1.176	1.000	1.000	2.000	
Mercury	ug/L	MW-1S	4	1.000	0.000	1.176	1.000	1.000	2.000	
Mercury	ug/L	MW-2S	4	1.000	0.000	1.176	1.000	1.000	2.000	
Mercury	ug/L	MW-3S	4	1.000	0.000	1.176	1.000	1.000	2.000	
Mercury	ug/L	MW-6S	4	1.000	0.000	1.176	1.000	1.000	2.000	
Mercury	ug/L	MW-7S	4	1.000	0.000	1.176	1.000	1.000	2.000	
Molybdenum, Total	ug/L	MW-10S	4	79.925	14.527	1.176	62.838	97.012	100.000	
Molybdenum, Total	ug/L	MW-11S	4	69.100	8.935	1.176	58.590	79.610	100.000	dec
Molybdenum, Total	ug/L	MW-12S	4	40.400	20.401	1.176	16.402	64.398	100.000	dec
Molybdenum, Total	ug/L	MW-1S	4	24.750	4.742	1.176	19.172	30.328	100.000	dec
Molybdenum, Total	ug/L	MW-2S	4	10.800	4.083	1.176	5.997	15.603	100.000	dec
Molybdenum, Total	ug/L	MW-3S	4	52.250	3.789	1.176	47.793	56.707	100.000	
Molybdenum, Total	ug/L	MW-6S	4	136.100	38.271	1.176	91.082	181.118	100.000	
Molybdenum, Total	ug/L	MW-7S	4	50.300	15.245	1.176	32.367	68.233	100.000	dec
Selenium, Total	ug/L	MW-10S	4	1.700	0.424	1.176	1.201	2.199	50.000	
Selenium, Total	ug/L	MW-11S	4	11.000	2.202	1.176	8.410	13.590	50.000	
Selenium, Total	ug/L	MW-12S	4	19.075	9.030	1.176	8.453	29.697	50.000	
Selenium, Total	ug/L	MW-1S	4	23.475	3.558	1.176	19.289	27.661	50.000	
Selenium, Total	ug/L	MW-2S	4	16.400	11.534	1.176	2.833	29.967	50.000	
Selenium, Total	ug/L	MW-3S	4	7.650	7.056	1.176	0.000	15.950	50.000	
Selenium, Total	ug/L	MW-6S	4	10.725	6.396	1.176	3.202	18.248	50.000	
Selenium, Total	ug/L	MW-7S	4	26.700	9.849	1.176	15.115	38.285	50.000	inc
Thallium, Total	ug/L	MW-10S	4	0.500	0.000	1.176	0.500	0.500	2.000	
Thallium, Total	ug/L	MW-11S	4	1.000	0.000	1.176	1.000	1.000	2.000	
Thallium, Total	ug/L	MW-12S	4	1.000	0.000	1.176	1.000	1.000	2.000	
Thallium, Total	ug/L	MW-1S	4	1.000	0.000	1.176	1.000	1.000	2.000	
Thallium, Total	ug/L	MW-2S	4	1.000	0.000	1.176	1.000	1.000	2.000	
Thallium, Total	ug/L	MW-3S	4	1.000	0.000	1.176	1.000	1.000	2.000	
Thallium, Total	ug/L	MW-6S	4	1.000	0.000	1.176	1.000	1.000	2.000	
Thallium, Total	ug/L	MW-7S	4	1.000	0.000	1.176	1.000	1.000	2.000	
Total Radium	pCi/L	MW-10S	4	1.095	0.278	1.176	0.767	1.422	5.000	
Total Radium	pCi/L	MW-11S	4	0.738	0.057	1.176	0.671	0.806	5.000	
Total Radium	pCi/L	MW-12S	4	0.771	0.281	1.176	0.440	1.102	5.000	
Total Radium	pCi/L	MW-1S	4	0.837	0.075	1.176	0.750	0.925	5.000	
Total Radium	pCi/L	MW-2S	4	0.908	0.375	1.176	0.466	1.349	5.000	
Total Radium	pCi/L	MW-3S	4	0.825	0.050	1.176	0.766	0.884	5.000	
Total Radium	pCi/L	MW-6S	4	1.095	0.237	1.176	0.816	1.373	5.000	
Total Radium	pCi/L	MW-7S	4	0.841	0.226	1.176	0.576	1.107	5.000	

\* - Insufficient Data  
 \*\* - Significant Exceedance  
 LCL = Lower Confidence Limit  
 UCL = Upper Confidence Limit

Table 1

**Confidence Intervals for Comparing the Mean of the Last 15 Measurements to an Assessment Monitoring Standard**

Constituent	Units	Well	N	Mean	SD	Factor	95% LCL	95% UCL	Standard	Trend	
Antimony, Total	ug/L	MW-10S	7	2.057	0.553	0.734	1.651	2.463	6.000		
Antimony, Total	ug/L	MW-11S	15	2.353	1.302	0.455	1.761	2.945	6.000	dec	
Antimony, Total	ug/L	MW-12S	15	2.033	0.823	0.455	1.659	2.407	6.000		
Antimony, Total	ug/L	MW-1S	15	3.053	1.211	0.455	2.503	3.604	6.000		
Antimony, Total	ug/L	MW-2S	15	0.500	0.000	0.455	0.500	0.500	6.000		
Antimony, Total	ug/L	MW-3S	15	0.600	0.270	0.455	0.477	0.723	6.000		
Antimony, Total	ug/L	MW-6S	15	2.220	0.873	0.455	1.823	2.617	6.000		
Antimony, Total	ug/L	MW-7S	15	2.853	0.473	0.455	2.638	3.069	6.000		
Arsenic, Total	ug/L	MW-10S	7	0.500	0.000	0.734	0.500	0.500	10.000		
Arsenic, Total	ug/L	MW-11S	15	91.793	31.316	0.455	77.555	106.032	10.000		**
Arsenic, Total	ug/L	MW-12S	15	3.167	1.788	0.455	2.354	3.979	10.000		
Arsenic, Total	ug/L	MW-1S	15	8.227	4.418	0.455	6.218	10.235	10.000		
Arsenic, Total	ug/L	MW-2S	15	13.793	6.577	0.453	10.817	16.770	10.000		**
Arsenic, Total	ug/L	MW-3S	15	0.500	0.000	0.455	0.500	0.500	10.000		
Arsenic, Total	ug/L	MW-6S	15	0.500	0.000	0.455	0.500	0.500	10.000		
Arsenic, Total	ug/L	MW-7S	15	4.607	1.046	0.455	4.131	5.082	10.000		
Barium, Total	ug/L	MW-10S	7	83.429	10.562	0.734	75.675	91.182	2000.000		
Barium, Total	ug/L	MW-11S	15	89.080	27.055	0.455	76.779	101.381	2000.000		
Barium, Total	ug/L	MW-12S	15	99.907	25.691	0.455	88.225	111.588	2000.000		
Barium, Total	ug/L	MW-1S	15	80.733	13.925	0.455	74.402	87.064	2000.000		
Barium, Total	ug/L	MW-2S	15	155.360	40.253	0.455	137.058	173.662	2000.000		
Barium, Total	ug/L	MW-3S	15	94.253	20.235	0.455	85.053	103.454	2000.000		
Barium, Total	ug/L	MW-6S	15	113.580	27.458	0.455	101.096	126.064	2000.000		
Barium, Total	ug/L	MW-7S	15	107.473	26.314	0.455	95.509	119.438	2000.000	dec	
Beryllium, Total	ug/L	MW-10S	4	0.100	0.000	1.176	0.100	0.100	4.000		
Beryllium, Total	ug/L	MW-11S	13	2.000	0.000	0.494	2.000	2.000	4.000		
Beryllium, Total	ug/L	MW-12S	13	2.000	0.000	0.494	2.000	2.000	4.000		
Beryllium, Total	ug/L	MW-1S	13	2.000	0.000	0.494	2.000	2.000	4.000		
Beryllium, Total	ug/L	MW-2S	11	2.000	0.000	0.546	2.000	2.000	4.000		
Beryllium, Total	ug/L	MW-3S	13	2.000	0.000	0.494	2.000	2.000	4.000		
Beryllium, Total	ug/L	MW-6S	13	2.000	0.000	0.494	2.000	2.000	4.000		
Beryllium, Total	ug/L	MW-7S	13	2.000	0.000	0.494	2.000	2.000	4.000		
Cadmium, Total	ug/L	MW-10S	4	1.000	0.000	1.176	1.000	1.000	5.000		
Cadmium, Total	ug/L	MW-11S	13	1.000	0.000	0.494	1.000	1.000	5.000		
Cadmium, Total	ug/L	MW-12S	13	1.000	0.000	0.494	1.000	1.000	5.000		
Cadmium, Total	ug/L	MW-1S	13	1.000	0.000	0.494	1.000	1.000	5.000		
Cadmium, Total	ug/L	MW-2S	11	1.000	0.000	0.546	1.000	1.000	5.000		
Cadmium, Total	ug/L	MW-3S	13	1.000	0.000	0.494	1.000	1.000	5.000		
Cadmium, Total	ug/L	MW-6S	13	1.000	0.000	0.494	1.000	1.000	5.000		
Cadmium, Total	ug/L	MW-7S	13	1.000	0.000	0.494	1.000	1.000	5.000		
Chromium, Total	ug/L	MW-10S	4	5.000	0.000	1.176	5.000	5.000	100.000		
Chromium, Total	ug/L	MW-11S	13	5.000	0.000	0.494	5.000	5.000	100.000		
Chromium, Total	ug/L	MW-12S	13	5.000	0.000	0.494	5.000	5.000	100.000		
Chromium, Total	ug/L	MW-1S	13	5.000	0.000	0.494	5.000	5.000	100.000		
Chromium, Total	ug/L	MW-2S	11	5.000	0.000	0.546	5.000	5.000	100.000		
Chromium, Total	ug/L	MW-3S	13	5.000	0.000	0.494	5.000	5.000	100.000		
Chromium, Total	ug/L	MW-6S	13	5.000	0.000	0.494	5.000	5.000	100.000		
Chromium, Total	ug/L	MW-7S	13	5.000	0.000	0.494	5.000	5.000	100.000		
Cobalt, Total	ug/L	MW-10S	7	0.500	0.000	0.734	0.500	0.500	6.000		
Cobalt, Total	ug/L	MW-11S	15	0.500	0.000	0.455	0.500	0.500	6.000		
Cobalt, Total	ug/L	MW-12S	15	0.500	0.000	0.455	0.500	0.500	6.000		
Cobalt, Total	ug/L	MW-1S	15	0.500	0.000	0.455	0.500	0.500	6.000		
Cobalt, Total	ug/L	MW-2S	15	0.533	0.129	0.455	0.475	0.592	6.000		
Cobalt, Total	ug/L	MW-3S	15	0.500	0.000	0.455	0.500	0.500	6.000		
Cobalt, Total	ug/L	MW-6S	15	0.500	0.000	0.455	0.500	0.500	6.000		
Cobalt, Total	ug/L	MW-7S	15	2.867	1.115	0.455	2.360	3.373	6.000		
Fluoride	mg/L	MW-10S	7	0.254	0.056	0.734	0.213	0.295	4.000		
Fluoride	mg/L	MW-11S	15	0.275	0.094	0.455	0.233	0.318	4.000	dec	
Fluoride	mg/L	MW-12S	15	0.355	0.122	0.455	0.299	0.410	4.000	dec	
Fluoride	mg/L	MW-1S	15	0.273	0.141	0.455	0.208	0.337	4.000	dec	
Fluoride	mg/L	MW-2S	15	0.207	0.093	0.455	0.165	0.250	4.000	dec	
Fluoride	mg/L	MW-3S	15	0.290	0.056	0.455	0.265	0.315	4.000		

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 \*\* - Significant Exceedance  
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Table 1

**Confidence Intervals for Comparing the Mean of the Last 15 Measurements to an Assessment Monitoring Standard**

Constituent	Units	Well	N	Mean	SD	Factor	95% LCL	95% UCL	Standard	Trend	
Fluoride	mg/L	MW-6S	15	0.217	0.034	0.455	0.202	0.233	4.000		
Fluoride	mg/L	MW-7S	15	0.093	0.048	0.455	0.071	0.115	4.000	dec	
Lead, Total	ug/L	MW-10S	4	5.000	0.000	1.176	5.000	5.000	15.000		
Lead, Total	ug/L	MW-11S	13	5.000	0.000	0.494	5.000	5.000	15.000		
Lead, Total	ug/L	MW-12S	13	5.000	0.000	0.494	5.000	5.000	15.000		
Lead, Total	ug/L	MW-1S	13	5.000	0.000	0.494	5.000	5.000	15.000		
Lead, Total	ug/L	MW-2S	11	5.000	0.000	0.546	5.000	5.000	15.000		
Lead, Total	ug/L	MW-3S	13	5.000	0.000	0.494	5.000	5.000	15.000		
Lead, Total	ug/L	MW-6S	13	5.000	0.000	0.494	5.000	5.000	15.000		
Lead, Total	ug/L	MW-7S	13	6.477	2.858	0.494	5.065	7.889	15.000		
Lithium, Total	ug/L	MW-10S	7	97.229	12.640	0.734	87.949	106.508	40.000		**
Lithium, Total	ug/L	MW-11S	15	111.107	12.908	0.455	105.238	116.976	40.000	inc	**
Lithium, Total	ug/L	MW-12S	15	103.380	18.772	0.455	94.845	111.915	40.000		**
Lithium, Total	ug/L	MW-1S	15	100.660	15.933	0.455	93.416	107.904	40.000		**
Lithium, Total	ug/L	MW-2S	15	82.673	21.628	0.455	72.839	92.507	40.000		**
Lithium, Total	ug/L	MW-3S	15	33.260	24.294	0.455	22.214	44.306	40.000	dec	**
Lithium, Total	ug/L	MW-6S	15	73.393	18.258	0.455	65.092	81.695	40.000		**
Lithium, Total	ug/L	MW-7S	15	93.460	62.936	0.455	64.845	122.075	40.000	dec	**
Mercury	ug/L	MW-10S	4	1.000	0.000	1.176	1.000	1.000	2.000		
Mercury	ug/L	MW-11S	13	1.000	0.000	0.494	1.000	1.000	2.000		
Mercury	ug/L	MW-12S	13	1.000	0.000	0.494	1.000	1.000	2.000		
Mercury	ug/L	MW-1S	13	1.000	0.000	0.494	1.000	1.000	2.000		
Mercury	ug/L	MW-2S	11	1.000	0.000	0.546	1.000	1.000	2.000		
Mercury	ug/L	MW-3S	13	1.000	0.000	0.494	1.000	1.000	2.000		
Mercury	ug/L	MW-6S	13	1.000	0.000	0.494	1.000	1.000	2.000		
Mercury	ug/L	MW-7S	13	1.000	0.000	0.494	1.000	1.000	2.000		
Molybdenum, Total	ug/L	MW-10S	7	98.500	40.097	0.734	69.064	127.936	100.000		**
Molybdenum, Total	ug/L	MW-11S	15	181.493	95.815	0.455	137.929	225.058	100.000	dec	**
Molybdenum, Total	ug/L	MW-12S	15	76.360	39.718	0.455	58.301	94.419	100.000	dec	**
Molybdenum, Total	ug/L	MW-1S	15	42.587	18.728	0.455	34.072	51.102	100.000	dec	**
Molybdenum, Total	ug/L	MW-2S	15	23.893	21.100	0.455	14.300	33.487	100.000	dec	**
Molybdenum, Total	ug/L	MW-3S	15	49.867	11.293	0.455	44.732	55.001	100.000		**
Molybdenum, Total	ug/L	MW-6S	15	111.440	35.465	0.455	95.315	127.565	100.000		**
Molybdenum, Total	ug/L	MW-7S	15	119.413	72.934	0.455	86.252	152.574	100.000	dec	**
Selenium, Total	ug/L	MW-10S	7	3.014	4.217	0.734	0.000	6.110	50.000		
Selenium, Total	ug/L	MW-11S	15	7.507	3.284	0.455	6.014	9.000	50.000		
Selenium, Total	ug/L	MW-12S	15	13.460	12.215	0.455	7.906	19.014	50.000		
Selenium, Total	ug/L	MW-1S	15	15.020	7.717	0.455	11.511	18.529	50.000		
Selenium, Total	ug/L	MW-2S	15	15.733	24.093	0.455	4.779	26.688	50.000		
Selenium, Total	ug/L	MW-3S	15	6.627	4.426	0.455	4.614	8.639	50.000		
Selenium, Total	ug/L	MW-6S	15	10.087	4.705	0.455	7.947	12.226	50.000		
Selenium, Total	ug/L	MW-7S	15	12.800	10.568	0.455	7.995	17.605	50.000	inc	
Thallium, Total	ug/L	MW-10S	4	0.500	0.000	1.176	0.500	0.500	2.000		
Thallium, Total	ug/L	MW-11S	13	1.000	0.000	0.494	1.000	1.000	2.000		
Thallium, Total	ug/L	MW-12S	13	1.000	0.000	0.494	1.000	1.000	2.000		
Thallium, Total	ug/L	MW-1S	13	1.000	0.000	0.494	1.000	1.000	2.000		
Thallium, Total	ug/L	MW-2S	11	1.000	0.000	0.546	1.000	1.000	2.000		
Thallium, Total	ug/L	MW-3S	13	1.000	0.000	0.494	1.000	1.000	2.000		
Thallium, Total	ug/L	MW-6S	13	1.000	0.000	0.494	1.000	1.000	2.000		
Thallium, Total	ug/L	MW-7S	13	1.000	0.000	0.494	1.000	1.000	2.000		
Total Radium	pCi/L	MW-10S	7	1.231	0.392	0.734	0.943	1.518	5.000		
Total Radium	pCi/L	MW-11S	15	0.868	0.212	0.455	0.771	0.964	5.000		
Total Radium	pCi/L	MW-12S	15	0.952	0.407	0.455	0.767	1.137	5.000		
Total Radium	pCi/L	MW-1S	15	0.868	0.305	0.455	0.729	1.007	5.000		
Total Radium	pCi/L	MW-2S	15	1.180	0.646	0.455	0.886	1.474	5.000		
Total Radium	pCi/L	MW-3S	15	0.845	0.109	0.455	0.795	0.894	5.000		
Total Radium	pCi/L	MW-6S	15	1.055	0.339	0.455	0.901	1.209	5.000		
Total Radium	pCi/L	MW-7S	15	1.298	0.675	0.455	0.991	1.605	5.000		

\* - Insufficient Data  
 \*\* - Significant Exceedance  
 LCL = Lower Confidence Limit  
 UCL = Upper Confidence Limit



**Table 1**

**Confidence Intervals for Comparing the Mean of the Last 4 Measurements to an Assessment Monitoring Standard**

Constituent	Units	Well	N	Mean	SD	Factor	95% LCL	95% UCL	Standard	Trend
Antimony, Total	ug/L	MW-11I	4	0.500	0.000	1.176	0.500	0.500	6.000	
Antimony, Total	ug/L	MW-1I	4	0.500	0.000	1.176	0.500	0.500	6.000	
Antimony, Total	ug/L	MW-2I	4	0.500	0.000	1.176	0.500	0.500	6.000	
Antimony, Total	ug/L	MW-3I	4	0.500	0.000	1.176	0.500	0.500	6.000	
Antimony, Total	ug/L	MW-6I	4	0.500	0.000	1.176	0.500	0.500	6.000	
Arsenic, Total	ug/L	MW-11I	4	3.225	2.060	1.176	0.802	5.648	10.000	
Arsenic, Total	ug/L	MW-1I	4	0.500	0.000	1.176	0.500	0.500	10.000	
Arsenic, Total	ug/L	MW-2I	4	1.250	1.500	1.176	0.000	3.014	10.000	
Arsenic, Total	ug/L	MW-3I	4	0.500	0.000	1.176	0.500	0.500	10.000	
Arsenic, Total	ug/L	MW-6I	4	0.500	0.000	1.176	0.500	0.500	10.000	
Barium, Total	ug/L	MW-11I	4	59.700	10.364	1.176	47.509	71.891	2000.000	dec
Barium, Total	ug/L	MW-1I	4	60.450	14.456	1.176	43.446	77.454	2000.000	
Barium, Total	ug/L	MW-2I	4	82.125	19.054	1.176	59.712	104.538	2000.000	
Barium, Total	ug/L	MW-3I	4	90.700	4.305	1.176	85.636	95.764	2000.000	
Barium, Total	ug/L	MW-6I	4	61.900	6.275	1.176	54.518	69.282	2000.000	
Beryllium, Total	ug/L	MW-11I	4	2.000	0.000	1.176	2.000	2.000	4.000	
Beryllium, Total	ug/L	MW-1I	4	0.100	0.000	1.176	0.100	0.100	4.000	
Beryllium, Total	ug/L	MW-2I	4	2.000	0.000	1.176	2.000	2.000	4.000	
Beryllium, Total	ug/L	MW-3I	4	2.000	0.000	1.176	2.000	2.000	4.000	
Beryllium, Total	ug/L	MW-6I	4	2.000	0.000	1.176	2.000	2.000	4.000	
Cadmium, Total	ug/L	MW-11I	4	1.000	0.000	1.176	1.000	1.000	5.000	
Cadmium, Total	ug/L	MW-1I	4	1.000	0.000	1.176	1.000	1.000	5.000	
Cadmium, Total	ug/L	MW-2I	4	1.000	0.000	1.176	1.000	1.000	5.000	
Cadmium, Total	ug/L	MW-3I	4	1.000	0.000	1.176	1.000	1.000	5.000	
Cadmium, Total	ug/L	MW-6I	4	1.000	0.000	1.176	1.000	1.000	5.000	
Chromium, Total	ug/L	MW-11I	4	5.000	0.000	1.176	5.000	5.000	100.000	
Chromium, Total	ug/L	MW-1I	4	5.000	0.000	1.176	5.000	5.000	100.000	
Chromium, Total	ug/L	MW-2I	4	5.000	0.000	1.176	5.000	5.000	100.000	
Chromium, Total	ug/L	MW-3I	4	5.000	0.000	1.176	5.000	5.000	100.000	
Chromium, Total	ug/L	MW-6I	4	5.000	0.000	1.176	5.000	5.000	100.000	
Cobalt, Total	ug/L	MW-11I	4	0.500	0.000	1.176	0.500	0.500	6.000	
Cobalt, Total	ug/L	MW-1I	4	0.500	0.000	1.176	0.500	0.500	6.000	
Cobalt, Total	ug/L	MW-2I	4	0.500	0.000	1.176	0.500	0.500	6.000	
Cobalt, Total	ug/L	MW-3I	4	0.500	0.000	1.176	0.500	0.500	6.000	
Cobalt, Total	ug/L	MW-6I	4	0.500	0.000	1.176	0.500	0.500	6.000	
Fluoride	mg/L	MW-11I	4	0.402	0.039	1.176	0.357	0.448	4.000	
Fluoride	mg/L	MW-1I	4	0.288	0.025	1.176	0.258	0.317	4.000	
Fluoride	mg/L	MW-2I	4	0.245	0.048	1.176	0.189	0.301	4.000	dec
Fluoride	mg/L	MW-3I	4	0.245	0.070	1.176	0.163	0.327	4.000	
Fluoride	mg/L	MW-6I	4	0.303	0.034	1.176	0.262	0.343	4.000	

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**Table 1**

**Confidence Intervals for Comparing the Mean of the Last 4 Measurements to an Assessment Monitoring Standard**

Constituent	Units	Well	N	Mean	SD	Factor	95% LCL	95% UCL	Standard	Trend	
Lead, Total	ug/L	MW-11I	4	5.000	0.000	1.176	5.000	5.000	15.000		
Lead, Total	ug/L	MW-1I	4	5.000	0.000	1.176	5.000	5.000	15.000		
Lead, Total	ug/L	MW-2I	4	5.000	0.000	1.176	5.000	5.000	15.000		
Lead, Total	ug/L	MW-3I	4	5.000	0.000	1.176	5.000	5.000	15.000		
Lead, Total	ug/L	MW-6I	4	5.000	0.000	1.176	5.000	5.000	15.000		
Lithium, Total	ug/L	MW-11I	4	112.250	9.323	1.176	101.284	123.216	40.000		**
Lithium, Total	ug/L	MW-1I	4	90.450	3.761	1.176	86.026	94.874	40.000	dec	**
Lithium, Total	ug/L	MW-2I	4	53.150	4.510	1.176	47.845	58.455	40.000	dec	**
Lithium, Total	ug/L	MW-3I	4	18.250	5.513	1.176	11.765	24.735	40.000	dec	**
Lithium, Total	ug/L	MW-6I	4	108.500	6.455	1.176	100.907	116.093	40.000	dec	**
Mercury	ug/L	MW-11I	4	1.000	0.000	1.176	1.000	1.000	2.000		
Mercury	ug/L	MW-1I	4	1.000	0.000	1.176	1.000	1.000	2.000		
Mercury	ug/L	MW-2I	4	1.000	0.000	1.176	1.000	1.000	2.000		
Mercury	ug/L	MW-3I	4	1.000	0.000	1.176	1.000	1.000	2.000		
Mercury	ug/L	MW-6I	4	1.000	0.000	1.176	1.000	1.000	2.000		
Molybdenum, Total	ug/L	MW-11I	4	144.000	11.460	1.176	130.520	157.480	100.000	dec	**
Molybdenum, Total	ug/L	MW-1I	4	96.950	8.180	1.176	87.328	106.572	100.000	dec	**
Molybdenum, Total	ug/L	MW-2I	4	61.550	3.892	1.176	56.972	66.128	100.000		
Molybdenum, Total	ug/L	MW-3I	4	59.125	2.175	1.176	56.567	61.683	100.000		
Molybdenum, Total	ug/L	MW-6I	4	212.500	16.921	1.176	192.596	232.404	100.000		**
Selenium, Total	ug/L	MW-11I	4	0.500	0.000	1.176	0.500	0.500	50.000		
Selenium, Total	ug/L	MW-1I	4	0.500	0.000	1.176	0.500	0.500	50.000		
Selenium, Total	ug/L	MW-2I	4	0.500	0.000	1.176	0.500	0.500	50.000		
Selenium, Total	ug/L	MW-3I	4	0.500	0.000	1.176	0.500	0.500	50.000		
Selenium, Total	ug/L	MW-6I	4	0.500	0.000	1.176	0.500	0.500	50.000		
Thallium, Total	ug/L	MW-11I	4	1.000	0.000	1.176	1.000	1.000	2.000		
Thallium, Total	ug/L	MW-1I	4	0.500	0.000	1.176	0.500	0.500	2.000		
Thallium, Total	ug/L	MW-2I	4	1.000	0.000	1.176	1.000	1.000	2.000		
Thallium, Total	ug/L	MW-3I	4	1.000	0.000	1.176	1.000	1.000	2.000		
Thallium, Total	ug/L	MW-6I	4	1.000	0.000	1.176	1.000	1.000	2.000		
Total Radium	pCi/L	MW-11I	4	1.541	0.461	1.176	0.999	2.083	5.000		
Total Radium	pCi/L	MW-1I	4	1.419	0.578	1.176	0.739	2.099	5.000		
Total Radium	pCi/L	MW-2I	4	1.713	0.465	1.176	1.166	2.259	5.000		
Total Radium	pCi/L	MW-3I	4	1.095	0.224	1.176	0.831	1.358	5.000		
Total Radium	pCi/L	MW-6I	4	1.765	0.514	1.176	1.161	2.369	5.000		

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**Table 1**

**Confidence Intervals for Comparing the Mean of the Last 4 Measurements to an Assessment Monitoring Standard**

Constituent	Units	Well	N	Mean	SD	Factor	95% LCL	95% UCL	Standard	Trend	
Antimony, Total	ug/L	MW-11D	4	0.500	0.000	1.176	0.500	0.500	6.000		
Antimony, Total	ug/L	MW-1D	4	0.500	0.000	1.176	0.500	0.500	6.000		
Antimony, Total	ug/L	MW-2D	4	0.500	0.000	1.176	0.500	0.500	6.000		
Antimony, Total	ug/L	MW-6D	4	0.700	0.400	1.176	0.229	1.171	6.000		
Arsenic, Total	ug/L	MW-11D	4	5.375	0.556	1.176	4.721	6.029	10.000		
Arsenic, Total	ug/L	MW-1D	4	2.650	0.719	1.176	1.804	3.496	10.000		
Arsenic, Total	ug/L	MW-2D	4	3.200	1.829	1.176	1.048	5.352	10.000		
Arsenic, Total	ug/L	MW-6D	4	0.500	0.000	1.176	0.500	0.500	10.000		
Barium, Total	ug/L	MW-11D	4	55.300	2.772	1.176	52.039	58.561	2000.000	dec	
Barium, Total	ug/L	MW-1D	4	60.425	2.029	1.176	58.039	62.811	2000.000	inc	
Barium, Total	ug/L	MW-2D	4	70.825	4.170	1.176	65.920	75.730	2000.000		
Barium, Total	ug/L	MW-6D	4	57.300	4.806	1.176	51.647	62.953	2000.000		
Beryllium, Total	ug/L	MW-11D	4	2.000	0.000	1.176	2.000	2.000	4.000		
Beryllium, Total	ug/L	MW-1D	4	2.000	0.000	1.176	2.000	2.000	4.000		
Beryllium, Total	ug/L	MW-2D	4	0.100	0.000	1.176	0.100	0.100	4.000		
Beryllium, Total	ug/L	MW-6D	4	2.000	0.000	1.176	2.000	2.000	4.000		
Cadmium, Total	ug/L	MW-11D	4	1.000	0.000	1.176	1.000	1.000	5.000		
Cadmium, Total	ug/L	MW-1D	4	1.000	0.000	1.176	1.000	1.000	5.000		
Cadmium, Total	ug/L	MW-2D	4	1.000	0.000	1.176	1.000	1.000	5.000		
Cadmium, Total	ug/L	MW-6D	4	1.000	0.000	1.176	1.000	1.000	5.000		
Chromium, Total	ug/L	MW-11D	4	5.000	0.000	1.176	5.000	5.000	100.000		
Chromium, Total	ug/L	MW-1D	4	5.000	0.000	1.176	5.000	5.000	100.000		
Chromium, Total	ug/L	MW-2D	4	5.000	0.000	1.176	5.000	5.000	100.000		
Chromium, Total	ug/L	MW-6D	4	5.000	0.000	1.176	5.000	5.000	100.000		
Cobalt, Total	ug/L	MW-11D	4	0.500	0.000	1.176	0.500	0.500	6.000		
Cobalt, Total	ug/L	MW-1D	4	0.500	0.000	1.176	0.500	0.500	6.000		
Cobalt, Total	ug/L	MW-2D	4	0.500	0.000	1.176	0.500	0.500	6.000		
Cobalt, Total	ug/L	MW-6D	4	0.500	0.000	1.176	0.500	0.500	6.000		
Fluoride	mg/L	MW-11D	4	0.265	0.031	1.176	0.228	0.302	4.000	dec	
Fluoride	mg/L	MW-1D	4	0.328	0.036	1.176	0.285	0.370	4.000		
Fluoride	mg/L	MW-2D	4	0.258	0.046	1.176	0.204	0.311	4.000		
Fluoride	mg/L	MW-6D	4	0.180	0.016	1.176	0.161	0.199	4.000		
Lead, Total	ug/L	MW-11D	4	5.000	0.000	1.176	5.000	5.000	15.000		
Lead, Total	ug/L	MW-1D	4	5.000	0.000	1.176	5.000	5.000	15.000		
Lead, Total	ug/L	MW-2D	4	5.000	0.000	1.176	5.000	5.000	15.000		
Lead, Total	ug/L	MW-6D	4	5.000	0.000	1.176	5.000	5.000	15.000		
Lithium, Total	ug/L	MW-11D	4	84.200	2.754	1.176	80.960	87.440	40.000	dec	**
Lithium, Total	ug/L	MW-1D	4	85.400	5.661	1.176	78.741	92.059	40.000		**
Lithium, Total	ug/L	MW-2D	4	50.250	0.998	1.176	49.076	51.424	40.000	dec	**
Lithium, Total	ug/L	MW-6D	4	83.175	2.680	1.176	80.023	86.327	40.000	dec	**

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**Table 1**

**Confidence Intervals for Comparing the Mean of the Last 4 Measurements to an Assessment Monitoring Standard**

Constituent	Units	Well	N	Mean	SD	Factor	95% LCL	95% UCL	Standard	Trend	
Mercury	ug/L	MW-11D	4	1.000	0.000	1.176	1.000	1.000	2.000		
Mercury	ug/L	MW-1D	4	1.000	0.000	1.176	1.000	1.000	2.000		
Mercury	ug/L	MW-2D	4	1.000	0.000	1.176	1.000	1.000	2.000		
Mercury	ug/L	MW-6D	4	1.000	0.000	1.176	1.000	1.000	2.000		
Molybdenum, Total	ug/L	MW-11D	4	171.000	9.933	1.176	159.316	182.684	100.000	dec	**
Molybdenum, Total	ug/L	MW-1D	4	105.750	4.646	1.176	100.285	111.215	100.000	dec	**
Molybdenum, Total	ug/L	MW-2D	4	61.800	6.969	1.176	53.602	69.998	100.000	dec	
Molybdenum, Total	ug/L	MW-6D	4	220.500	16.299	1.176	201.327	239.673	100.000	inc	**
Selenium, Total	ug/L	MW-11D	4	0.500	0.000	1.176	0.500	0.500	50.000		
Selenium, Total	ug/L	MW-1D	4	0.500	0.000	1.176	0.500	0.500	50.000		
Selenium, Total	ug/L	MW-2D	4	0.500	0.000	1.176	0.500	0.500	50.000		
Selenium, Total	ug/L	MW-6D	4	0.500	0.000	1.176	0.500	0.500	50.000		
Thallium, Total	ug/L	MW-11D	4	1.000	0.000	1.176	1.000	1.000	2.000		
Thallium, Total	ug/L	MW-1D	4	1.000	0.000	1.176	1.000	1.000	2.000		
Thallium, Total	ug/L	MW-2D	4	0.500	0.000	1.176	0.500	0.500	2.000		
Thallium, Total	ug/L	MW-6D	4	1.000	0.000	1.176	1.000	1.000	2.000		
Total Radium	pCi/L	MW-11D	4	2.624	2.997	1.176	0.000	6.148	5.000		
Total Radium	pCi/L	MW-1D	4	1.063	0.593	1.176	0.366	1.761	5.000		
Total Radium	pCi/L	MW-2D	4	1.200	0.405	1.176	0.723	1.677	5.000		
Total Radium	pCi/L	MW-6D	4	1.098	0.230	1.176	0.827	1.369	5.000		

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 LCL = Lower Confidence Limit  
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**Table 1: 95% LCL Compared to GWPS  
Shallow Zone  
Multiunit Ash Pond System  
AES Indiana  
Eagle Valley Generating Station, Martinsville, Indiana  
ATC Project No. 170LF01276**

Sample ID	Through Sample Date	Antimony	Arsenic	Barium	Beryllium	Cadmium	Chromium	Cobalt	Fluoride	Lead	Lithium	Mercury	Molybdenum	Selenium	Thallium	Radium 226/228 Combined
		ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	mg/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	pCi/L
	GWPS (greater of MCL/USEPA Amendment Level, or background PL)	<b>6</b>	<b>10</b>	<b>2000</b>	<b>4</b>	<b>5</b>	<b>100</b>	<b>6</b>	<b>4</b>	<b>15</b>	<b>40</b>	<b>2</b>	<b>100</b>	<b>50</b>	<b>2</b>	<b>5</b>
	MCL	6	10	2000	4	5	100	-	4	15	-	2	-	50	2	5
	USEPA'S Amendments to the National Minimum Criteria*	-	-	-	-	-	-	6	-	15	40	-	100	-	-	-
	Prediction Limit (based on background data through November 2022)	1	5.8	73.1883	0.2	2	10	5.8	0.1	10	20	2	10	1	1	1.78
MW-1S	September 2018	3	6	70	2	1	5	2.5	0.249	5	<b>89.667</b>	1	28.867	8	1	0.179
	May 2019	2	4	56	2	1	5	2.5	0.114	5	<b>79.165</b>	1	15.347	9	1	0.195
	November 2019	2	4	55	2	1	5	2.5	0.147	5	<b>79.451</b>	1	16.653	6	1	0.195
	May 2020	2	3	53	2	1	5	2.5	0.150	5	<b>80.189</b>	1	16.100	5	1	0.704
	November 2020	2	3	55	2	1	5	2.5	0.148	5	<b>88.264</b>	1	18.852	3	1	0.705
	May 2021	2	4	66	2	1	5	2.5	0.082	5	<b>77.22</b>	1	21.985	2	1	0.800
	November 2021	1.670	3.755 4.746 (N=8)	62.955	2.000	1.000	5.000	0.500	0.054	5.000	<b>74.307</b>	1.000	15.401	5.239	1.000	0.750
	May 2022	1.421	3.228	65.705	2.000	1.000	5.000	0.500	0.043	5.000	<b>74.448</b>	1.000	11.589	8.818	1.000	0.750
November 2022	1.487	2.768	61.875	2.000	1.000	5.000	0.500	0.053	5.000	<b>71.273</b>	1.000	19.172	19.289	1.000	0.750	
MW-2S	September 2018	3	0	159	2	1	5	2.5	0.138	5	<b>82.118</b>	1	10.109	2	1	0.787
	May 2019	3	0	182	2	1	5	2.5	0.121	5	<b>82.220</b>	1	0	0	1	0.915
	November 2019	3	1	133	2	1	5	1.243	0.119	5	<b>80.204</b>	1	9.522	0	1	1.011
	May 2020	3	0	132	2	1	5	1.243	0.116	5	<b>80.032</b>	1	5.47	0	1	0.678
	November 2020	3	7	99	2	1	5	1.243	0.123	5	<b>77.000</b>	1	3.854	0	1	0.284
	May 2021	3	8	89	2	1	5	1.243	0.105	5	<b>47.696</b>	1	3.499	0	1	0.170
	November 2021	0.500	9.413 9.766 (N=7) 8.724 (N=8) <b>10.853 (N=16)</b>	95.412	2.000	1.000	5.000	2.500	0.107	5.000	<b>43.414</b>	1.000	3.472	0.000	1.000	0.170
	May 2022	0.500	9.504 <b>10.317 (N=8)</b>	107.557	2.000	1.000	5.000	0.500	0.111	5.000	<b>41.555</b>	1.000	5.997	3.834	1.000	0.315
November 2022	0.500	7.272 9.383 (N=8) <b>10.817 (N=15)</b>	98.750	2.000	1.000	5.000	0.500	0.111	5.000	<b>41.444</b>	1.000	5.997	2.833	1.000	0.466	
MW-3S	September 2018	3	5	71	2	1	5	2.5	0.269	5	10.077	1	36.566	0	1	0.578
	May 2019	2	5	71	2	1	5	2.5	0.210	5	9.220	1	35.121	1	1	0.621
	November 2019	2	5	71	2	1	5	2.5	0.193	5	6.662	1	30.294	1	1	0.621
	May 2020	2	5	72	2	1	5	2.5	0.202	5	6.648	1	34.252	4	1	0.785
	November 2020	2	5	67	2	1	5	2.5	0.222	5	6.648	1	41.738	4	1	0.802
	May 2021	3	5	69	2	1	5	2.5	0.300	5	5.165	1	54.17	5	1	0.850
	November 2021	3.000	0.500	78.554	2.000	1.000	5.000	0.500	0.275	5.000	7.202	1.000	45.499	4.696	1.000	0.766
	May 2022	1.408	0.500	76.241	2.000	1.000	5.000	0.500	0.204	5.000	7.183	1.000	42.611	1.023	1.000	0.766
November 2022	0.297	0.500	77.024	2.000	1.000	5.000	0.500	0.215	5.000	7.183	1.000	47.793	0.000	1.000	0.766	

**Table 1: 95% LCL Compared to GWPS  
Shallow Zone  
Multiunit Ash Pond System  
AES Indiana  
Eagle Valley Generating Station, Martinsville, Indiana  
ATC Project No. 170LF01276**

Sample ID	Through Sample Date	Antimony	Arsenic	Barium	Beryllium	Cadmium	Chromium	Cobalt	Fluoride	Lead	Lithium	Mercury	Molybdenum	Selenium	Thallium	Radium 226/228 Combined
		ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	mg/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	pCi/L
	GWPS (greater of MCL/USEPA Amendment Level, or background PL)	<b>6</b>	<b>10</b>	<b>2000</b>	<b>4</b>	<b>5</b>	<b>100</b>	<b>6</b>	<b>4</b>	<b>15</b>	<b>40</b>	<b>2</b>	<b>100</b>	<b>50</b>	<b>2</b>	<b>5</b>
	MCL	6	10	2000	4	5	100	-	4	15	-	2	-	50	2	5
	USEPA'S Amendments to the National Minimum Criteria*	-	-	-	-	-	-	6	-	15	40	-	100	-	-	-
	Prediction Limit (based on background data through November 2022)	1	5.8	73.1883	0.2	2	10	5.8	0.1	10	20	2	10	1	1	1.78
MW-6S	September 2018	1	5	87	2	1	5	2.5	0.167	5	<b>56.080</b>	1	60.220	1	1	0.390
	May 2019	1	5	60	2	1	5	2.5	0.154	5	26.928	1	37.099	1	1	0.397
	November 2019	1	5	67	2	1	5	2.5	0.154	5	29.301	1	41.627	2	1	0.451
	May 2020	1	5	67	2	1	5	2.5	0.160	5	29.814	1	45.727	1	1	0.542
	November 2020	1	5	75	2	1	5	2.5	0.155	5	30.669	1	43.731	5	1	0.697
	May 2021	1	5	93	2	1	5	2.5	0.165	5	<b>74.534</b>	1	97.661	7	1	0.653
	November 2021	1.099	0.500	83.423	2.000	1.000	5.000	0.500	0.165	5.000	<b>80.680</b>	1.000	98.584 90.137 (N=8)	3.386	1.000	0.765
	May 2022	0.764	0.500	80.638	2.000	1.000	5.000	0.500	0.200	5.000	<b>72.068</b>	1.000	91.082 90.410 (N=8) 95.731 (N=16)	3.202	1.000	0.816
November 2022	DRY WELL; NOT SAMPLED															
MW-7S	September 2018	3	5	103	2	1	5	2.5	0.060	5	<b>108.558</b>	1	<b>132.202</b>	3	1	1.017
	May 2019	2	5	95	2	1	5	2.5	0.035	5	<b>42.012</b>	1	50.335	3	1	0.847
	November 2019	2	5	95	2	1	5	2.5	0.035	5	<b>42.012</b>	1	50.335	3	1	0.847
	May 2020	2	5	68	2	1	5	2.5	0.030	5	13.035	1	12.109	3	1	0.747
	November 2020	2	2	57	2	1	5	2.332	0.050	5	4.098	1	15.631	6	1	0.299
	May 2021	2	2	56	2	1	5	2.332	0.050	5	26.464	1	38.333	6	1	0.142
	November 2021	2.350	1.494	56.195	2.000	1.000	5.000	1.864	0.050	5.000	26.514	1.000	32.098	9.319	1.000	0.209
	May 2022	2.223	1.494	64.327	2.000	1.000	5.000	1.864	0.050	5.000	26.538	1.000	33.538	11.39	1.000	0.000
November 2022	2.079	2.821	80.595	2.000	1.000	5.000	1.864	0.050	5.000	30.856	1.000	32.367	15.115	1.000	0.576	
MW-10S	September 2018	1	5	65	2	1	5	2.5	0.357	5	<b>76.208</b>	1	<b>170.345</b>	3	1	0.722
	May 2019	1	5	59	2	1	5	2.5	0.260	5	<b>76.955</b>	1	<b>100.416</b>	1	1	0.779
	November 2019	1	5	59	2	1	5	2.5	0.260	5	<b>76.955</b>	1	<b>100.416</b>	1	1	0.779
	May 2020	1	5	61	2	1	5	2.5	0.247	5	<b>75.161</b>	1	76.448	0	1	0.775
	November 2020	1	5	71	2	1	5	2.5	0.212	5	<b>76.355</b>	1	59.679	0	1	0.875
	May 2021	2	5	77	2	1	5	2.5	0.205	5	<b>91.428</b>	1	85.547	0	1	0.788
	November 2021	1.642	5.000	74.818	2.000	1.000	5.000	2.500	0.186	5.000	<b>88.77</b>	1.000	79.201 90.962 (N=8)	0.000	1.000	0.674
	May 2022	1.678	0.500	72.596	0.100	1.000	5.000	0.500	0.203	5.000	<b>90.725</b>	1.000	62.838 69.064 (N=7)	1.201	0.500	0.767
November 2022	DRY WELL; NOT SAMPLED															

**Table 1: 95% LCL Compared to GWPS  
Shallow Zone  
Multiunit Ash Pond System  
AES Indiana  
Eagle Valley Generating Station, Martinsville, Indiana  
ATC Project No. 170LF01276**

Sample ID	Through Sample Date	Antimony	Arsenic	Barium	Beryllium	Cadmium	Chromium	Cobalt	Fluoride	Lead	Lithium	Mercury	Molybdenum	Selenium	Thallium	Radium 226/228 Combined
		ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	mg/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	pCi/L
	GWPS (greater of MCL/USEPA Amendment Level, or background PL)	<b>6</b>	<b>10</b>	<b>2000</b>	<b>4</b>	<b>5</b>	<b>100</b>	<b>6</b>	<b>4</b>	<b>15</b>	<b>40</b>	<b>2</b>	<b>100</b>	<b>50</b>	<b>2</b>	<b>5</b>
	MCL	6	10	2000	4	5	100	-	4	15	-	2	-	50	2	5
	USEPA'S Amendments to the National Minimum Criteria*	-	-	-	-	-	-	6	-	15	40	-	100	-	-	-
	Prediction Limit (based on background data through November 2022)	1	5.8	73.1883	0.2	2	10	5.8	0.1	10	20	2	10	1	1	1.78
MW-11S	September 2018	2	<b>72</b>	64	2	1	5	2.5	0.272	5	<b>101.369</b>	1	<b>240.525</b>	4	1	0.542
	May 2019	1	<b>60</b>	61	2	1	5	2.5	0.222	5	<b>102.944</b>	1	<b>163.624</b>	5	1	0.710
	November 2019	1	<b>60</b>	61	2	1	5	2.5	0.222	5	<b>102.944</b>	1	<b>163.624</b>	5	1	0.710
	May 2020	2	<b>61</b>	62	2	1	5	2.5	0.212	5	<b>103.225</b>	1	<b>108.327</b>	6	1	0.956
	November 2020	1	<b>58</b>	57	2	1	5	2.5	0.189	5	<b>101.614</b>	1	61.569	4	1	0.786
	May 2021	1	<b>80</b>	77	2	1	5	2.5	0.166	5	<b>103.787</b>	1	58.408	4	1	0.658
	November 2021	1.362	<b>78.834</b>	86.488	2.000	1.000	5.000	2.500	0.144	5.000	<b>107.603</b>	1.000	57.392 98.452 (N=8)	3.606	1.000	0.651
	May 2022	1.366	<b>77.351</b>	89.461	0.100	1.000	5.000	0.500	0.145	5.000	<b>99.568</b>	1.000	70.119 67.929 (N=7)	3.631	0.500	0.767
November 2022	1.304	<b>52.554</b>	85.433	2.000	1.000	5.000	0.500	0.145	5.000	<b>98.178</b>	1.000	58.590	8.410	1.000	0.671	
MW-12S	September 2018	1	1	76	2	1	5	2.5	0.305	5	<b>83.403</b>	1	53.488	2	1	0.378
	May 2019	1	0	84	2	1	5	2.5	0.262	5	<b>85.346</b>	1	40.399	0	1	0.289
	November 2019	1	0	84	2	1	5	2.5	0.262	5	<b>85.346</b>	1	40.399	0	1	0.289
	May 2020	1	1	85	2	1	5	2.5	0.221	5	<b>86.126</b>	1	37.671	0	1	0.257
	November 2020	1	1	83	2	1	5	2.5	0.219	5	<b>85.287</b>	1	40.495	3	1	0.435
	May 2021	1	0	100	2	1	5	2.5	0.221	5	<b>99.225</b>	1	41.986	10	1	0.795
	November 2021	1.198	0.349	100.300	2.000	1.000	5.000	2.500	0.203	5.000	<b>112.428</b>	1.000	35.693	5.598	1.000	0.600
	May 2022	1.198	0.269	100.764	2.000	1.000	5.000	0.500	0.215	5.000	<b>112.428</b>	1.000	20.149	12.888	1.000	0.523
November 2022	1.234	0.314	102.973	2.000	1.000	5.000	0.500	0.212	5.000	<b>110.825</b>	1.000	16.402	8.453	1.000	0.440	

Notes:

MCL - Maximum Contaminant Level based on National Primary Drinking Water Regulations

GWPS - Groundwater Protection Standard

LCL = Lower Confidence Limit

**Bold font with gray shading indicates 95% LCL of the mean of the last four measurements that is in exceedance of GWPS.**

**Bold font with green shading indicates 95% LCL of the mean of the last eight measurements that is in exceedance of GWPS.**

**Bold font with gold shading indicates 95% LCL of the mean based on a qualitative evaluation of dataset that may or may not have triggered a mean/LCL conflict but visually warranted evaluation of a larger dataset.**

ug/L = micrograms per liter (ppb)

mg/L = milligrams per liter (ppm)

Std. Units = Standard Units

\*USEPA'S Amendments to the National Minimum Criteria (Phase One, Part One), Disposal of Coal Combustion Residuals from Electric Utilities; effective August 29, 2018 (page 36444).

Background prediction limits are re-calculated after each sampling event. If a background prediction limit value is utilized as the GWPS, the GWPS for the current summary may be different from previous events.

The 95% LCL statistic is based on the rolling set of the four most recent individual sample results for a parameter.

LCL calculations utilize 1/2 the median non-detect (ND) reporting limit (RL) from the full date range of non-detect sample results. If RL levels changed over time, the current calculated LCL value may be larger than the most recent four ND results.

DUMPStat summary table output limits the number of significant digits reported for a calculated LCL. An exceedingly small calculated LCL value (e.g. 0.00001 mg/L) may simply be reported as 0 in the output summary.

Reporting units of measure for certain constituents in DUMPStat output tables were changed from units of mg/L (ppm) to ug/L (ppb) beginning with November 2021 LCL analysis to allow for reporting of calculated LCLs to more significant digits.

**Table updated to include November 2022 assessment sampling results.**

**Table 2: 95% LCL Compared to GWPS  
Intermediate Zone  
Multiunit Ash Pond System  
AES Indiana  
Eagle Valley Generating Station, Martinsville, Indiana  
ATC Project No. 170LF01276**

Sample ID	Through Sample Date	Antimony	Arsenic	Barium	Beryllium	Cadmium	Chromium	Cobalt	Fluoride	Lead	Lithium	Mercury	Molybdenum	Selenium	Thallium	Radium 226/228 Combined
		ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	mg/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	pCi/L
	GWPS (greater of MCL/USEPA Amendment Level, or background PL)	<b>6</b>	<b>10</b>	<b>2000</b>	<b>4</b>	<b>5</b>	<b>100</b>	<b>6</b>	<b>4</b>	<b>15</b>	<b>40</b>	<b>2</b>	<b>100</b>	<b>50</b>	<b>2</b>	<b>5</b>
	MCL	6	10	2000	4	5	100	-	4	15	-	2	-	50	2	5
	USEPA'S Amendments to the National Minimum Criteria*	-	-	-	-	-	-	6	-	15	40	-	100	-	-	-
	Prediction Limit (based on background data through November 2022)	1	2	50.1271	0.2	2	10	1	0.1	10	20	2	10	1	1	2.0776
MW-11	September 2018	3	5	49	2	1	5	2.5	0.295	5	<b>90.977</b>	1	99.499	5	1	1.468
	May 2019	3	5	54	2	1	5	2.5	0.287	5	<b>95.151</b>	1	99.201	5	1	1.389
	November 2019	3	5	55	2	1	5	2.5	0.297	5	<b>95.543</b>	1	<b>100.675</b>	5	1	1.333
	May 2020	3	5	54	2	1	5	2.5	0.297	5	<b>95.610</b>	1	<b>101.141</b>	5	1	1.421
	November 2020	3	5	54	2	1	5	2.5	0.312	5	<b>91.878</b>	1	<b>101.062</b>	5	1	1.34
	May 2021	3	5	54	2	1	5	2.5	0.267	5	<b>86.999</b>	1	96.761	5	1	1.358
	November 2021	0.500	0.500	51.170	2.000	1.000	5.000	0.500	0.254	5.000	<b>85.368</b>	1.000	96.858 <b>101.612 (N=8)</b>	0.500	1.000	0.906
	May 2022	0.500	0.500	51.044	0.100	1.000	5.000	0.500	0.261	5.000	<b>86.356</b>	1.000	94.541 99.709 (N=7)	0.500	0.500	0.73
November 2022	0.500	0.500	43.446	0.100	1.000	5.000	0.500	0.258	5.000	<b>86.026</b>	1.000	87.328	0.500	0.500	0.739	
MW-21	September 2018	3	5	54	2	1	5	2.5	0.276	5	<b>68.523</b>	1	58.757	5	1	1.822
	May 2019	3	5	51	2	1	5	2.5	0.270	5	<b>68.634</b>	1	56.590	5	1	1.620
	November 2019	3	5	55	2	1	5	2.5	0.268	5	<b>69.665</b>	1	55.609	5	1	1.642
	May 2020	3	5	55	2	1	5	2.5	0.271	5	<b>69.042</b>	1	56.957	5	1	1.988
	November 2020	3	5	59	2	1	5	2.5	0.283	5	<b>63.545</b>	1	62.021	5	1	1.177
	May 2021	3	5	58	2	1	5	2.5	0.198	5	<b>56.314</b>	1	62.455	5	1	0.875
	November 2021	0.500	3.743	59.482	2.000	1.000	5.000	0.500	0.198	5.000	<b>51.013</b>	1.000	58.142	0.500	1.000	0.872
	May 2022	0.500	0	64.2	2.000	1.000	5.000	0.500	0.196	5.000	<b>48.393</b>	1.000	58.127	0.500	1.000	0.839
November 2022	0.500	0.000	59.712	2.000	1.000	5.000	0.500	0.189	5.000	<b>47.845</b>	1.000	56.972	0.500	1.000	1.166	
MW-31	September 2018	3	5	55	2	1	5	2.5	0.253	5	36.266	1	54.444	5	1	1.310
	May 2019	3	5	53	2	1	5	2.5	0.255	5	22.662	1	60.185	5	1	1.032
	November 2019	3	5	51	2	1	5	2.5	0.255	5	9.759	1	73.297	5	1	0.919
	May 2020	3	5	52	2	1	5	2.5	0.255	5	11.269	1	73.503	5	1	0.926
	November 2020	3	5	53	2	1	5	2.5	0.283	5	6.642	1	69.134	5	1	0.839
	May 2021	3	5	44	2	1	5	2.5	0.182	5	6.179	1	60.599	5	1	0.734
	November 2021	0.500	0.500	52.140	2.000	1.000	5.000	0.500	0.163	5.000	8.031 13.184 (N=8)	1.000	56.279	0.500	1.000	0.714
	May 2022	0.500	0.500	65.252	0.100	1.000	5.000	0.500	0.163	5.000	8.073	1.000	57.062	0.500	0.500	0.799
November 2022	0.500	0.500	85.636	2.000	1.000	5.000	0.500	0.163	5.000	11.765	1.000	56.567	0.500	1.000	0.831	



**Table 2: 95% LCL Compared to GWPS  
Intermediate Zone  
Multiunit Ash Pond System  
AES Indiana  
Eagle Valley Generating Station, Martinsville, Indiana  
ATC Project No. 170LF01276**

Sample ID	Through Sample Date	Antimony	Arsenic	Barium	Beryllium	Cadmium	Chromium	Cobalt	Fluoride	Lead	Lithium	Mercury	Molybdenum	Selenium	Thallium	Radium 226/228 Combined
		ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	mg/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	pCi/L
	GWPS (greater of MCL/USEPA Amendment Level, or background PL)	<b>6</b>	<b>10</b>	<b>2000</b>	<b>4</b>	<b>5</b>	<b>100</b>	<b>6</b>	<b>4</b>	<b>15</b>	<b>40</b>	<b>2</b>	<b>100</b>	<b>50</b>	<b>2</b>	<b>5</b>
	MCL	6	10	2000	4	5	100	-	4	15	-	2	-	50	2	5
	USEPA'S Amendments to the National Minimum Criteria*	-	-	-	-	-	-	6	-	15	40	-	100	-	-	-
	Prediction Limit (based on background data through November 2022)	1	2	50.1271	0.2	2	10	1	0.1	10	20	2	10	1	1	2.0776
MW-6I	September 2018	3	5	39	2	1	5	2.5	0.220	5	<b>87.713</b>	1	<b>173.703</b>	5	1	1.870
	May 2019	3	5	39	2	1	5	2.5	0.207	5	<b>88.502</b>	1	<b>162.008</b>	5	1	0.817
	November 2019	3	5	39	2	1	5	2.5	0.225	5	<b>89.538</b>	1	<b>155.270</b>	5	1	0.893
	May 2020	3	5	44	2	1	5	2.5	0.241	5	<b>89.985</b>	1	<b>169.841</b>	5	1	0.848
	November 2020	3	5	49	2	1	5	2.5	0.235	5	<b>99.601</b>	1	<b>167.176</b>	5	1	0.709
	May 2021	3	5	49	2	1	5	2.5	0.24	5	<b>95.914</b>	1	<b>188.346</b>	5	1	1.066
	November 2021	0.500	0.500	46.877	2.000	1.000	5.000	0.500	0.244	5.000	<b>103.485</b>	1.000	<b>208.561</b>	0.500	1.000	1.066
	May 2022	0.500	0.500	48.578	2.000	1.000	5.000	0.500	0.262	5.000	<b>103.253</b>	1.000	<b>210.081</b>	0.500	1.000	0.9
November 2022	0.500	0.500	54.518	2.000	1.000	5.000	0.500	0.262	5.000	<b>100.907</b>	1.000	<b>192.596</b>	0.500	1.000	1.161	
MW-11I	September 2018	3	5	64	2	1	5	2.5	0.303	5	<b>104.856</b>	1	<b>164.551</b>	5	1	1.823
	May 2019	3	5	63	2	1	5	2.5	0.293	5	<b>103.556</b>	1	<b>163.193</b>	5	1	1.727
	November 2019	3	2	62	2	1	5	2.5	0.296	5	<b>101.843</b>	1	<b>157.499</b>	5	1	1.198
	May 2020	3	0	56	2	1	5	2.5	0.29	5	<b>100.971</b>	1	<b>157.499</b>	5	1	1.053
	November 2020	3	0	45	2	1	5	2.5	0.328	5	<b>94.623</b>	1	<b>157.226</b>	5	1	0.886
	May 2021	3	1	44	2	1	5	2.5	0.35	5	<b>94.299</b>	1	<b>151.016</b>	5	1	0.977
	November 2021	0.500	0.000	44.085	2.000	1.000	5.000	0.500	0.358	5.000	<b>92.878</b>	1.000	<b>147.090</b>	0.500	1.000	1.067
	May 2022	0.500	0.519	42.767	2.000	1.000	5.000	0.500	0.356	5.000	<b>92.878</b>	1.000	<b>144.586</b>	0.500	1.000	1.118
November 2022	0.500	0.802	47.509	2.000	1.000	5.000	0.500	0.357	5.000	<b>101.284</b>	1.000	<b>130.520</b>	0.500	1.000	0.999	

**Table 2: 95% LCL Compared to GWPS  
Intermediate Zone  
Multiunit Ash Pond System  
AES Indiana  
Eagle Valley Generating Station, Martinsville, Indiana  
ATC Project No. 170LF01276**

Sample ID	Through Sample Date	Antimony	Arsenic	Barium	Beryllium	Cadmium	Chromium	Cobalt	Fluoride	Lead	Lithium	Mercury	Molybdenum	Selenium	Thallium	Radium 226/228 Combined
		ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	mg/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	pCi/L
	GWPS (greater of MCL/USEPA Amendment Level, or background PL)	<b>6</b>	<b>10</b>	<b>2000</b>	<b>4</b>	<b>5</b>	<b>100</b>	<b>6</b>	<b>4</b>	<b>15</b>	<b>40</b>	<b>2</b>	<b>100</b>	<b>50</b>	<b>2</b>	<b>5</b>
	MCL	6	10	2000	4	5	100	-	4	15	-	2	-	50	2	5
	USEPA'S Amendments to the National Minimum Criteria*	-	-	-	-	-	-	6	-	15	40	-	100	-	-	-
	Prediction Limit (based on background data through November 2022)	1	2	50.1271	0.2	2	10	1	0.1	10	20	2	10	1	1	2.0776

Notes:

MCL - Maximum Contaminant Level based on National Primary Drinking Water Regulations

GWPS - Groundwater Protection Standard

LCL = Lower Confidence Limit

**Bold font with gray shading** indicates 95% LCL of the mean of the last four measurements that is in exceedance of GWPS.

**Bold font with green shading** indicates 95% LCL of the mean of the last eight measurements that is in exceedance of GWPS.

**Bold font with gold shading** indicates 95% LCL of the mean based on a qualitative evaluation of dataset that may or may not have triggered a mean/LCL conflict but visually warranted evaluation of a larger dataset.

ug/L = micrograms per liter (ppb)

mg/L = milligrams per liter (ppm)

Std. Units = Standard Units

\*USEPA'S *Amendments to the National Minimum Criteria (Phase One, Part One), Disposal of Coal Combustion Residuals from Electric Utilities*; effective August 29, 2018 (page 36444).

Background prediction limits are re-calculated after each sampling event. If a background prediction limit value is utilized as the GWPS, the GWPS for the current summary may be different from previous events.

The 95% LCL statistic is based on the rolling set of the four most recent individual sample results for a parameter.

LCL calculations utilize 1/2 the median non-detect (ND) reporting limit (RL) from the full date range of non-detect sample results. If RL levels changed over time, the current calculated LCL value may be larger than the most recent four ND results.

DUMPStat summary table output limits the number of significant digits reported for a calculated LCL. An exceedingly small calculated LCL value (e.g. 0.00001 mg/L) may simply be reported as 0 in the output summary.

Reporting units of measure for certain constituents in DUMPStat output tables were changed from units of mg/L (ppm) to ug/L (ppb) beginning with November 2021 LCL analysis to allow for reporting of calculated LCLs to more significant digits.

**Table updated to include November 2022 assessment sampling results.**

**Table 3: 95% LCL Compared to GWPS  
Deep Zone  
Multiunit Ash Pond System  
AES Indiana  
Eagle Valley Generating Station, Martinsville, Indiana  
ATC Project No. 170LF01276**

Sample ID	Through Sample Date	Antimony	Arsenic	Barium	Beryllium	Cadmium	Chromium	Cobalt	Fluoride	Lead	Lithium	Mercury	Molybdenum	Selenium	Thallium	Radium 226/228 Combined
		ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	mg/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	pCi/L
	GWPS (greater of MCL/USEPA Amendment Level, or background PL)	<b>6</b>	<b>10</b>	<b>2000</b>	<b>4</b>	<b>5</b>	<b>100</b>	<b>6</b>	<b>4</b>	<b>15</b>	<b>40</b>	<b>2</b>	<b>100</b>	<b>50</b>	<b>2</b>	<b>5</b>
	MCL	6	10	2000	4	5	100	-	4	15	-	2	-	50	2	5
	USEPA'S Amendments to the National Minimum Criteria*	-	-	-	-	-	-	6	-	15	40	-	100	-	-	-
	Prediction Limit (based on background data through November 2022)	1	1.3	73.899	0.2	2	10	1.2	0.12	10	20	2	10	1.3	1	1.7518
MW-1D	September 2018	3	1	68	2	1	5	2.5	0.322	5	<b>88.543</b>	1	<b>107.001</b>	5	1	1.191
	May 2019	3	0	68	2	1	5	2.5	0.313	5	<b>88.724</b>	1	<b>106.551</b>	5	1	1.241
	November 2019	3	1	67	2	1	5	2.5	0.325	5	<b>87.806</b>	1	<b>106.551</b>	5	1	0.852
	May 2020	3	1	65	2	1	5	2.5	0.325	5	<b>87.616</b>	1	<b>112.025</b>	5	1	0.884
	November 2020	3	1	59	2	1	5	2.5	0.353	5	<b>83.667</b>	1	<b>113.599</b>	5	1	0.741
	May 2021	3	2	56	2	1	5	2.5	0.320	5	<b>80.921</b>	1	<b>107.008</b>	5	1	0.897
	November 2021	0.500	1.375	57.460	2.000	1.000	5.000	0.500	0.293	5.000	<b>80.908</b>	1.000	<b>106.239</b>	0.500	1.000	0.832
	May 2022	0.500	1.859	58.295	2.000	1.000	5.000	0.500	0.288	5.000	<b>79.923</b>	1.000	<b>103.545</b>	0.500	1.000	0.425
November 2022	0.500	1.804	58.039	2.000	1.000	5.000	0.500	0.285	5.000	<b>78.741</b>	1.000	<b>100.285</b>	0.500	1.000	0.366	
MW-2D	September 2018	3	3	42	2	1	5	2.5	0.290	5	<b>72.668</b>	1	<b>103.757</b>	5	1	1.668
	May 2019	3	3	40	2	1	5	2.5	0.289	5	<b>71.147</b>	1	92.570	5	1	1.351
	November 2019	3	3	42	2	1	5	2.5	0.295	5	<b>69.227</b>	1	85.261	5	1	1.382
	May 2020	3	3	42	2	1	5	2.5	0.293	5	<b>68.124</b>	1	90.588	5	1	1.387
	November 2020	3	3	48	2	1	5	2.5	0.32	5	<b>55.784</b>	1	78.723	5	1	0.953
	May 2021	3	3	50	2	1	5	2.5	0.214	5	<b>47.570</b>	1	67.418	5	1	0.770
	November 2021	0.500	3.491	56.257	2.000	1.000	5.000	0.500	0.200	5.000	<b>43.140</b>	1.000	62.003 76.519 (N=8)	0.500	1.000	0.768
	May 2022	0.500	1.042	61.939	0.100	1.000	5.000	0.500	0.199	5.000	<b>49.633</b>	1.000	59.692	0.500	0.500	0.802
November 2022	0.500	1.048	65.920	0.100	1.000	5.000	0.500	0.204	5.000	<b>49.076</b>	1.000	53.602	0.500	0.500	0.723	
MW-6D	September 2018	3	5	48	2	1	5	2.5	0.107	5	<b>90.432</b>	1	<b>192.856</b>	5	1	0.758
	May 2019	3	5	48	2	1	5	2.5	0.107	5	<b>92.149</b>	1	<b>190.163</b>	5	1	1.004
	November 2019	3	5	48	2	1	5	2.5	0.112	5	<b>90.092</b>	1	<b>176.356</b>	5	1	0.968
	May 2020	3	5	51	2	1	5	2.5	0.117	5	<b>88.906</b>	1	<b>176.534</b>	5	1	1.265
	November 2020	3	5	50	2	1	5	2.5	0.129	5	<b>82.687</b>	1	<b>175.267</b>	5	1	1.098
	May 2021	3	5	48	2	1	5	2.5	0.129	5	<b>80.284</b>	1	<b>174.337</b>	5	1	0.994
	November 2021	0.500	0.500	48.419	2.000	1.000	5.000	0.500	0.135	5.000	<b>78.871</b>	1.000	<b>187.994</b>	0.500	1.000	0.931
	May 2022	0.229	0.500	48.469	2.000	1.000	5.000	0.500	0.157	5.000	<b>80.281</b>	1.000	<b>201.327</b>	0.500	1.000	0.924
November 2022	0.229	0.500	51.647	2.000	1.000	5.000	0.500	0.161	5.000	<b>80.023</b>	1.000	<b>201.327</b>	0.500	1.000	0.827	

**Table 3: 95% LCL Compared to GWPS**  
**Deep Zone**  
 Multiunit Ash Pond System  
 AES Indiana  
 Eagle Valley Generating Station, Martinsville, Indiana  
 ATC Project No. 170LF01276

Sample ID	Through Sample Date	Antimony	Arsenic	Barium	Beryllium	Cadmium	Chromium	Cobalt	Fluoride	Lead	Lithium	Mercury	Molybdenum	Selenium	Thallium	Radium 226/228 Combined
		ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	mg/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	pCi/L
	GWPS (greater of MCL/USEPA Amendment Level, or background PL)	<b>6</b>	<b>10</b>	<b>2000</b>	<b>4</b>	<b>5</b>	<b>100</b>	<b>6</b>	<b>4</b>	<b>15</b>	<b>40</b>	<b>2</b>	<b>100</b>	<b>50</b>	<b>2</b>	<b>5</b>
	MCL	6	10	2000	4	5	100	-	4	15	-	2	-	50	2	5
	USEPA'S Amendments to the National Minimum Criteria*	-	-	-	-	-	-	6	-	15	40	-	100	-	-	-
	Prediction Limit (based on background data through November 2022)	1	1.3	73.899	0.2	2	10	1.2	0.12	10	20	2	10	1.3	1	1.7518
MW-11D	September 2018	3	0	30	2	1	0	0	0.168	0	<b>75.647</b>	1	<b>160.572</b>	5	1	0.976
	May 2019	3	5	67	2	1	0	2.5	0.173	0	<b>83.997</b>	1	<b>158.480</b>	5	1	0.936
	November 2019	3	5	68	2	1	0	2.5	0.175	0	<b>84.526</b>	1	<b>153.252</b>	5	1	0.901
	May 2020	3	5	64	2	1	5	2.5	0.169	5	<b>84.647</b>	1	<b>155.670</b>	5	1	0.778
	November 2020	3	5	54	2	1	5	2.5	0.192	5	<b>86.900</b>	1	<b>163.226</b>	5	1	0.763
	May 2021	3	5	50	2	1	5	0.5	0.207	5	<b>83.277</b>	1	<b>163.168</b>	5	1	0
	November 2021	0.500	4.569	51.020	2.000	1.000	5.000	0.500	0.231	5.000	<b>80.633</b>	1.000	<b>168.951</b>	0.500	1.000	0
	May 2022	0.500	4.487	50.747	2.000	1.000	5.000	0.500	0.222	5.000	<b>82.424</b>	1.000	<b>166.226</b>	0.500	1.000	0
November 2022	0.500	4.721	52.039	2.000	1.000	5.000	0.500	0.228	5.000	<b>80.960</b>	1.000	<b>159.316</b>	0.500	1.000	0.000	

Notes:  
 MCL - Maximum Contaminant Level based on National Primary Drinking Water Regulations  
 GWPS - Groundwater Protection Standard  
 LCL = Lower Confidence Limit  
**Bold font with gray shading indicates 95% LCL of the mean of the last four measurements that is in exceedance of GWPS.**  
**Bold font with green shading indicates 95% LCL of the mean of the last eight measurements that is in exceedance of GWPS.**  
**Bold font with gold shading indicates 95% LCL of the mean based on a qualitative evaluation of dataset that may or may not have triggered a mean/LCL conflict but visually warranted evaluation of a larger dataset.**  
 ug/L = micrograms per liter (ppb)  
 mg/L = milligrams per liter (ppm)  
 Std. Units = Standard Units  
 \*USEPA'S *Amendments to the National Minimum Criteria (Phase One, Part One), Disposal of Coal Combust.*  
 Background prediction limits are re-calculated after each sampling event. If a background prediction limit value is utilized as the GWPS, the GWPS for the current summary may be different from previous events.  
 The 95% LCL statistic is based on the rolling set of the four most recent individual sample results for a parameter.  
 LCL calculations utilize 1/2 the median non-detect (ND) reporting limit (RL) from the full date range of non-detect sample results. If RL levels changed over time, the current calculated LCL value may be larger than the most recent four ND results.  
 DUMPStat summary table output limits the number of significant digits reported for a calculated LCL. An exceedingly small calculated LCL value (e.g. 0.00001 mg/L) may simply be reported as 0 in the output summary.  
 Reporting units of measure for certain constituents in DUMPStat output tables were changed from units of mg/L (ppm) to ug/L (ppb) beginning with November 2021 LCL analysis to allow for reporting of calculated LCLs to more significant digits.  
**Table updated to include November 2022 assessment sampling results.**

**April 2023**

**Table 1**

**Confidence Intervals for Comparing the Mean of the Last 4 Measurements to an Assessment Monitoring Standard**

Constituent	Units	Well	N	Mean	SD	Factor	95% LCL	95% UCL	Standard	Trend
Antimony, Total	ug/L	MW-10S	4	2.150	0.252	1.176	1.854	2.446	6.000	dec
Antimony, Total	ug/L	MW-11S	4	1.375	0.050	1.176	1.316	1.434	6.000	
Antimony, Total	ug/L	MW-12S	4	1.475	0.050	1.176	1.416	1.534	6.000	
Antimony, Total	ug/L	MW-1S	4	1.900	0.560	1.176	1.242	2.558	6.000	
Antimony, Total	ug/L	MW-2S	4	0.500	0.000	1.176	0.500	0.500	6.000	
Antimony, Total	ug/L	MW-3S	4	0.650	0.300	1.176	0.297	1.003	6.000	
Antimony, Total	ug/L	MW-6S	4	1.650	0.915	1.176	0.574	2.726	6.000	
Antimony, Total	ug/L	MW-7S	4	2.900	0.648	1.176	2.138	3.662	6.000	
Arsenic, Total	ug/L	MW-10S	4	0.500	0.000	1.176	0.500	0.500	10.000	**
Arsenic, Total	ug/L	MW-11S	4	72.450	23.541	1.176	44.759	100.141	10.000	
Arsenic, Total	ug/L	MW-12S	4	1.575	0.171	1.176	1.374	1.776	10.000	
Arsenic, Total	ug/L	MW-1S	4	4.850	2.186	1.176	2.279	7.421	10.000	
Arsenic, Total	ug/L	MW-2S	4	11.775	3.725	1.176	7.393	16.157	10.000	
Arsenic, Total	ug/L	MW-3S	4	0.500	0.000	1.176	0.500	0.500	10.000	
Arsenic, Total	ug/L	MW-6S	4	0.500	0.000	1.176	0.500	0.500	10.000	
Arsenic, Total	ug/L	MW-7S	4	0.975	0.950	1.176	0.000	2.092	10.000	
Barium, Total	ug/L	MW-10S	4	76.725	6.325	1.176	69.285	84.165	2000.000	dec dec
Barium, Total	ug/L	MW-11S	4	105.850	32.987	1.176	67.048	144.652	2000.000	
Barium, Total	ug/L	MW-12S	4	123.500	3.109	1.176	119.843	127.157	2000.000	
Barium, Total	ug/L	MW-1S	4	81.550	20.216	1.176	57.771	105.329	2000.000	
Barium, Total	ug/L	MW-2S	4	136.850	32.006	1.176	99.202	174.498	2000.000	
Barium, Total	ug/L	MW-3S	4	108.125	26.197	1.176	77.310	138.940	2000.000	
Barium, Total	ug/L	MW-6S	4	85.425	8.587	1.176	75.325	95.525	2000.000	
Barium, Total	ug/L	MW-7S	4	83.375	15.295	1.176	65.384	101.366	2000.000	
Beryllium, Total	ug/L	MW-10S	4	0.100	0.000	1.176	0.100	0.100	4.000	
Beryllium, Total	ug/L	MW-11S	4	2.000	0.000	1.176	2.000	2.000	4.000	
Beryllium, Total	ug/L	MW-12S	4	2.000	0.000	1.176	2.000	2.000	4.000	
Beryllium, Total	ug/L	MW-1S	4	2.000	0.000	1.176	2.000	2.000	4.000	
Beryllium, Total	ug/L	MW-2S	4	0.100	0.000	1.176	0.100	0.100	4.000	
Beryllium, Total	ug/L	MW-3S	4	2.000	0.000	1.176	2.000	2.000	4.000	
Beryllium, Total	ug/L	MW-6S	4	2.000	0.000	1.176	2.000	2.000	4.000	
Beryllium, Total	ug/L	MW-7S	4	2.000	0.000	1.176	2.000	2.000	4.000	
Cadmium, Total	ug/L	MW-10S	4	1.000	0.000	1.176	1.000	1.000	5.000	
Cadmium, Total	ug/L	MW-11S	4	1.000	0.000	1.176	1.000	1.000	5.000	
Cadmium, Total	ug/L	MW-12S	4	1.000	0.000	1.176	1.000	1.000	5.000	
Cadmium, Total	ug/L	MW-1S	4	1.000	0.000	1.176	1.000	1.000	5.000	
Cadmium, Total	ug/L	MW-2S	4	1.000	0.000	1.176	1.000	1.000	5.000	
Cadmium, Total	ug/L	MW-3S	4	1.000	0.000	1.176	1.000	1.000	5.000	
Cadmium, Total	ug/L	MW-6S	4	1.000	0.000	1.176	1.000	1.000	5.000	
Cadmium, Total	ug/L	MW-7S	4	1.000	0.000	1.176	1.000	1.000	5.000	

\* - Insufficient Data  
 \*\* - Significant Exceedance  
 LCL = Lower Confidence Limit  
 UCL = Upper Confidence Limit

Table 1

**Confidence Intervals for Comparing the Mean of the Last 4 Measurements to an Assessment Monitoring Standard**

Constituent	Units	Well	N	Mean	SD	Factor	95% LCL	95% UCL	Standard	Trend	
Chromium, Total	ug/L	MW-10S	4	5.000	0.000	1.176	5.000	5.000	100.000		
Chromium, Total	ug/L	MW-11S	4	5.000	0.000	1.176	5.000	5.000	100.000		
Chromium, Total	ug/L	MW-12S	4	5.000	0.000	1.176	5.000	5.000	100.000		
Chromium, Total	ug/L	MW-1S	4	5.000	0.000	1.176	5.000	5.000	100.000		
Chromium, Total	ug/L	MW-2S	4	5.000	0.000	1.176	5.000	5.000	100.000		
Chromium, Total	ug/L	MW-3S	4	5.000	0.000	1.176	5.000	5.000	100.000		
Chromium, Total	ug/L	MW-6S	4	5.000	0.000	1.176	5.000	5.000	100.000		
Chromium, Total	ug/L	MW-7S	4	5.000	0.000	1.176	5.000	5.000	100.000		
Cobalt, Total	ug/L	MW-10S	4	0.500	0.000	1.176	0.500	0.500	6.000		
Cobalt, Total	ug/L	MW-11S	4	0.500	0.000	1.176	0.500	0.500	6.000		
Cobalt, Total	ug/L	MW-12S	4	0.500	0.000	1.176	0.500	0.500	6.000		
Cobalt, Total	ug/L	MW-1S	4	0.500	0.000	1.176	0.500	0.500	6.000		
Cobalt, Total	ug/L	MW-2S	4	0.500	0.000	1.176	0.500	0.500	6.000		
Cobalt, Total	ug/L	MW-3S	4	0.500	0.000	1.176	0.500	0.500	6.000		
Cobalt, Total	ug/L	MW-6S	4	0.500	0.000	1.176	0.500	0.500	6.000		
Cobalt, Total	ug/L	MW-7S	4	2.650	1.075	1.176	1.385	3.915	6.000		
Fluoride	mg/L	MW-10S	4	0.210	0.018	1.176	0.189	0.231	4.000	dec	
Fluoride	mg/L	MW-11S	4	0.183	0.028	1.176	0.150	0.215	4.000	dec	
Fluoride	mg/L	MW-12S	4	0.232	0.010	1.176	0.221	0.244	4.000	dec	
Fluoride	mg/L	MW-1S	4	0.155	0.037	1.176	0.112	0.198	4.000	dec	
Fluoride	mg/L	MW-2S	4	0.148	0.015	1.176	0.130	0.165	4.000	dec	
Fluoride	mg/L	MW-3S	4	0.248	0.055	1.176	0.183	0.312	4.000		
Fluoride	mg/L	MW-6S	4	0.235	0.030	1.176	0.200	0.270	4.000		
Fluoride	mg/L	MW-7S	4	0.050	0.000	1.176	0.050	0.050	4.000	dec	
Lead, Total	ug/L	MW-10S	4	5.000	0.000	1.176	5.000	5.000	15.000		
Lead, Total	ug/L	MW-11S	4	5.000	0.000	1.176	5.000	5.000	15.000		
Lead, Total	ug/L	MW-12S	4	5.000	0.000	1.176	5.000	5.000	15.000		
Lead, Total	ug/L	MW-1S	4	5.000	0.000	1.176	5.000	5.000	15.000		
Lead, Total	ug/L	MW-2S	4	5.000	0.000	1.176	5.000	5.000	15.000		
Lead, Total	ug/L	MW-3S	4	5.000	0.000	1.176	5.000	5.000	15.000		
Lead, Total	ug/L	MW-6S	4	5.000	0.000	1.176	5.000	5.000	15.000		
Lead, Total	ug/L	MW-7S	4	5.000	0.000	1.176	5.000	5.000	15.000		
Lithium, Total	ug/L	MW-10S	4	96.575	8.273	1.176	86.844	106.306	40.000		**
Lithium, Total	ug/L	MW-11S	4	103.600	38.983	1.176	57.744	149.456	40.000		**
Lithium, Total	ug/L	MW-12S	4	120.425	17.422	1.176	99.932	140.918	40.000	inc	**
Lithium, Total	ug/L	MW-1S	4	87.525	17.361	1.176	67.103	107.947	40.000		**
Lithium, Total	ug/L	MW-2S	4	50.800	10.029	1.176	39.003	62.597	40.000	dec	
Lithium, Total	ug/L	MW-3S	4	17.775	9.005	1.176	7.183	28.367	40.000	dec	
Lithium, Total	ug/L	MW-6S	4	77.975	21.612	1.176	52.553	103.397	40.000		**
Lithium, Total	ug/L	MW-7S	4	32.975	3.107	1.176	29.320	36.630	40.000	dec	

\* - Insufficient Data  
 \*\* - Significant Exceedance  
 LCL = Lower Confidence Limit  
 UCL = Upper Confidence Limit

Table 1

**Confidence Intervals for Comparing the Mean of the Last 4 Measurements to an Assessment Monitoring Standard**

Constituent	Units	Well	N	Mean	SD	Factor	95% LCL	95% UCL	Standard	Trend
Mercury	ug/L	MW-10S	4	1.000	0.000	1.176	1.000	1.000	2.000	
Mercury	ug/L	MW-11S	4	1.000	0.000	1.176	1.000	1.000	2.000	
Mercury	ug/L	MW-12S	4	1.000	0.000	1.176	1.000	1.000	2.000	
Mercury	ug/L	MW-1S	4	1.000	0.000	1.176	1.000	1.000	2.000	
Mercury	ug/L	MW-2S	4	1.000	0.000	1.176	1.000	1.000	2.000	
Mercury	ug/L	MW-3S	4	1.000	0.000	1.176	1.000	1.000	2.000	
Mercury	ug/L	MW-6S	4	1.000	0.000	1.176	1.000	1.000	2.000	
Mercury	ug/L	MW-7S	4	1.000	0.000	1.176	1.000	1.000	2.000	
Molybdenum, Total	ug/L	MW-10S	4	71.250	16.703	1.176	51.603	90.897	100.000	dec
Molybdenum, Total	ug/L	MW-11S	4	65.775	11.058	1.176	52.767	78.783	100.000	dec
Molybdenum, Total	ug/L	MW-12S	4	32.000	6.827	1.176	23.970	40.030	100.000	dec
Molybdenum, Total	ug/L	MW-1S	4	23.350	7.171	1.176	14.915	31.785	100.000	dec
Molybdenum, Total	ug/L	MW-2S	4	8.575	4.252	1.176	3.573	13.577	100.000	dec
Molybdenum, Total	ug/L	MW-3S	4	43.525	15.219	1.176	25.623	61.427	100.000	
Molybdenum, Total	ug/L	MW-6S	4	116.050	39.762	1.176	69.279	162.821	100.000	
Molybdenum, Total	ug/L	MW-7S	4	47.275	18.786	1.176	25.177	69.373	100.000	dec
Selenium, Total	ug/L	MW-10S	4	1.800	0.497	1.176	1.216	2.384	50.000	
Selenium, Total	ug/L	MW-11S	4	11.050	2.207	1.176	8.454	13.646	50.000	
Selenium, Total	ug/L	MW-12S	4	18.050	10.198	1.176	6.055	30.045	50.000	
Selenium, Total	ug/L	MW-1S	4	24.425	4.315	1.176	19.350	29.500	50.000	
Selenium, Total	ug/L	MW-2S	4	21.450	9.394	1.176	10.400	32.500	50.000	
Selenium, Total	ug/L	MW-3S	4	8.225	6.859	1.176	0.157	16.293	50.000	
Selenium, Total	ug/L	MW-6S	4	17.400	14.173	1.176	0.728	34.072	50.000	
Selenium, Total	ug/L	MW-7S	4	26.650	9.877	1.176	15.032	38.268	50.000	inc
Thallium, Total	ug/L	MW-10S	4	0.500	0.000	1.176	0.500	0.500	2.000	
Thallium, Total	ug/L	MW-11S	4	1.000	0.000	1.176	1.000	1.000	2.000	
Thallium, Total	ug/L	MW-12S	4	1.000	0.000	1.176	1.000	1.000	2.000	
Thallium, Total	ug/L	MW-1S	4	1.000	0.000	1.176	1.000	1.000	2.000	
Thallium, Total	ug/L	MW-2S	4	0.500	0.000	1.176	0.500	0.500	2.000	
Thallium, Total	ug/L	MW-3S	4	1.000	0.000	1.176	1.000	1.000	2.000	
Thallium, Total	ug/L	MW-6S	4	1.000	0.000	1.176	1.000	1.000	2.000	
Thallium, Total	ug/L	MW-7S	4	1.000	0.000	1.176	1.000	1.000	2.000	
Total Radium	pCi/L	MW-10S	4	1.115	0.296	1.176	0.767	1.462	5.000	
Total Radium	pCi/L	MW-11S	4	0.738	0.057	1.176	0.671	0.806	5.000	
Total Radium	pCi/L	MW-12S	4	0.857	0.338	1.176	0.459	1.255	5.000	
Total Radium	pCi/L	MW-1S	4	0.852	0.065	1.176	0.776	0.928	5.000	
Total Radium	pCi/L	MW-2S	4	0.908	0.375	1.176	0.466	1.349	5.000	
Total Radium	pCi/L	MW-3S	4	0.825	0.050	1.176	0.766	0.884	5.000	
Total Radium	pCi/L	MW-6S	4	1.095	0.237	1.176	0.816	1.373	5.000	
Total Radium	pCi/L	MW-7S	4	0.826	0.244	1.176	0.538	1.113	5.000	dec

\* - Insufficient Data  
 \*\* - Significant Exceedance  
 LCL = Lower Confidence Limit  
 UCL = Upper Confidence Limit



Table 1

**Confidence Intervals for Comparing the Mean of the Last 16 Measurements to an Assessment Monitoring Standard**

Constituent	Units	Well	N	Mean	SD	Factor	95% LCL	95% UCL	Standard	Trend
Antimony, Total	ug/L	MW-10S	8	2.100	0.526	0.670	1.747	2.453	6.000	
Antimony, Total	ug/L	MW-11S	16	2.294	1.280	0.438	1.733	2.855	6.000	dec
Antimony, Total	ug/L	MW-12S	16	2.000	0.806	0.438	1.647	2.353	6.000	
Antimony, Total	ug/L	MW-1S	16	2.950	1.241	0.438	2.406	3.494	6.000	
Antimony, Total	ug/L	MW-2S	16	0.500	0.000	0.438	0.500	0.500	6.000	
Antimony, Total	ug/L	MW-3S	16	0.594	0.262	0.438	0.479	0.709	6.000	
Antimony, Total	ug/L	MW-6S	16	2.144	0.897	0.438	1.751	2.537	6.000	
Antimony, Total	ug/L	MW-7S	16	2.856	0.457	0.438	2.656	3.057	6.000	
Arsenic, Total	ug/L	MW-10S	8	0.500	0.000	0.670	0.500	0.500	10.000	
Arsenic, Total	ug/L	MW-11S	16	89.794	31.293	0.438	76.081	103.506	10.000	**
Arsenic, Total	ug/L	MW-12S	16	3.081	1.760	0.438	2.310	3.853	10.000	
Arsenic, Total	ug/L	MW-1S	16	7.925	4.435	0.438	5.982	9.868	10.000	
Arsenic, Total	ug/L	MW-2S	16	13.800	6.354	0.436	11.027	16.573	10.000	**
Arsenic, Total	ug/L	MW-3S	16	0.500	0.000	0.438	0.500	0.500	10.000	
Arsenic, Total	ug/L	MW-6S	16	0.500	0.000	0.438	0.500	0.500	10.000	
Arsenic, Total	ug/L	MW-7S	16	0.694	0.545	0.438	0.455	0.932	10.000	
Barium, Total	ug/L	MW-10S	8	81.688	10.949	0.670	74.354	89.021	2000.000	
Barium, Total	ug/L	MW-11S	16	88.331	26.309	0.438	76.803	99.859	2000.000	
Barium, Total	ug/L	MW-12S	16	101.288	25.427	0.438	90.146	112.429	2000.000	
Barium, Total	ug/L	MW-1S	16	79.613	14.180	0.438	73.399	85.826	2000.000	
Barium, Total	ug/L	MW-2S	16	156.588	39.197	0.438	139.412	173.763	2000.000	
Barium, Total	ug/L	MW-3S	16	95.613	20.291	0.438	86.721	104.504	2000.000	
Barium, Total	ug/L	MW-6S	16	111.050	28.391	0.438	98.609	123.491	2000.000	dec
Barium, Total	ug/L	MW-7S	16	104.744	27.667	0.438	92.620	116.867	2000.000	dec
Beryllium, Total	ug/L	MW-10S	5	0.100	0.000	0.953	0.100	0.100	4.000	
Beryllium, Total	ug/L	MW-11S	14	2.000	0.000	0.473	2.000	2.000	4.000	
Beryllium, Total	ug/L	MW-12S	14	2.000	0.000	0.473	2.000	2.000	4.000	
Beryllium, Total	ug/L	MW-1S	14	2.000	0.000	0.473	2.000	2.000	4.000	
Beryllium, Total	ug/L	MW-2S	12	0.100	0.000	0.518	0.100	0.100	4.000	
Beryllium, Total	ug/L	MW-3S	14	2.000	0.000	0.473	2.000	2.000	4.000	
Beryllium, Total	ug/L	MW-6S	14	2.000	0.000	0.473	2.000	2.000	4.000	
Beryllium, Total	ug/L	MW-7S	14	2.000	0.000	0.473	2.000	2.000	4.000	
Cadmium, Total	ug/L	MW-10S	5	1.000	0.000	0.953	1.000	1.000	5.000	
Cadmium, Total	ug/L	MW-11S	14	1.000	0.000	0.473	1.000	1.000	5.000	
Cadmium, Total	ug/L	MW-12S	14	1.000	0.000	0.473	1.000	1.000	5.000	
Cadmium, Total	ug/L	MW-1S	14	1.000	0.000	0.473	1.000	1.000	5.000	
Cadmium, Total	ug/L	MW-2S	12	1.000	0.000	0.518	1.000	1.000	5.000	
Cadmium, Total	ug/L	MW-3S	14	1.000	0.000	0.473	1.000	1.000	5.000	
Cadmium, Total	ug/L	MW-6S	14	1.000	0.000	0.473	1.000	1.000	5.000	
Cadmium, Total	ug/L	MW-7S	14	1.000	0.000	0.473	1.000	1.000	5.000	

\* - Insufficient Data  
 \*\* - Significant Exceedance  
 LCL = Lower Confidence Limit  
 UCL = Upper Confidence Limit

Table 1

**Confidence Intervals for Comparing the Mean of the Last 16 Measurements to an Assessment Monitoring Standard**

Constituent	Units	Well	N	Mean	SD	Factor	95% LCL	95% UCL	Standard	Trend	
Chromium, Total	ug/L	MW-10S	5	5.000	0.000	0.953	5.000	5.000	100.000		
Chromium, Total	ug/L	MW-11S	14	5.000	0.000	0.473	5.000	5.000	100.000		
Chromium, Total	ug/L	MW-12S	14	5.000	0.000	0.473	5.000	5.000	100.000		
Chromium, Total	ug/L	MW-1S	14	5.000	0.000	0.473	5.000	5.000	100.000		
Chromium, Total	ug/L	MW-2S	12	5.000	0.000	0.518	5.000	5.000	100.000		
Chromium, Total	ug/L	MW-3S	14	5.000	0.000	0.473	5.000	5.000	100.000		
Chromium, Total	ug/L	MW-6S	14	5.000	0.000	0.473	5.000	5.000	100.000		
Chromium, Total	ug/L	MW-7S	14	5.000	0.000	0.473	5.000	5.000	100.000		
Cobalt, Total	ug/L	MW-10S	8	0.500	0.000	0.670	0.500	0.500	6.000		
Cobalt, Total	ug/L	MW-11S	16	0.500	0.000	0.438	0.500	0.500	6.000		
Cobalt, Total	ug/L	MW-12S	16	0.500	0.000	0.438	0.500	0.500	6.000		
Cobalt, Total	ug/L	MW-1S	16	0.500	0.000	0.438	0.500	0.500	6.000		
Cobalt, Total	ug/L	MW-2S	16	0.531	0.125	0.438	0.476	0.586	6.000		
Cobalt, Total	ug/L	MW-3S	16	0.500	0.000	0.438	0.500	0.500	6.000		
Cobalt, Total	ug/L	MW-6S	16	0.500	0.000	0.438	0.500	0.500	6.000		
Cobalt, Total	ug/L	MW-7S	16	2.781	1.130	0.438	2.286	3.276	6.000		
Fluoride	mg/L	MW-10S	8	0.246	0.057	0.670	0.208	0.284	4.000	dec	
Fluoride	mg/L	MW-11S	16	0.271	0.092	0.438	0.231	0.312	4.000	dec	
Fluoride	mg/L	MW-12S	16	0.348	0.121	0.438	0.294	0.401	4.000	dec	
Fluoride	mg/L	MW-1S	16	0.266	0.139	0.438	0.205	0.327	4.000	dec	
Fluoride	mg/L	MW-2S	16	0.204	0.091	0.438	0.165	0.244	4.000	dec	
Fluoride	mg/L	MW-3S	16	0.284	0.058	0.438	0.259	0.310	4.000		
Fluoride	mg/L	MW-6S	16	0.219	0.034	0.438	0.205	0.234	4.000		
Fluoride	mg/L	MW-7S	16	0.090	0.048	0.438	0.069	0.111	4.000	dec	
Lead, Total	ug/L	MW-10S	5	5.000	0.000	0.953	5.000	5.000	15.000		
Lead, Total	ug/L	MW-11S	14	5.000	0.000	0.473	5.000	5.000	15.000		
Lead, Total	ug/L	MW-12S	14	5.000	0.000	0.473	5.000	5.000	15.000		
Lead, Total	ug/L	MW-1S	14	5.000	0.000	0.473	5.000	5.000	15.000		
Lead, Total	ug/L	MW-2S	12	5.000	0.000	0.518	5.000	5.000	15.000		
Lead, Total	ug/L	MW-3S	14	5.000	0.000	0.473	5.000	5.000	15.000		
Lead, Total	ug/L	MW-6S	14	5.000	0.000	0.473	5.000	5.000	15.000		
Lead, Total	ug/L	MW-7S	14	6.371	2.774	0.473	5.059	7.684	15.000		
Lithium, Total	ug/L	MW-10S	8	96.163	12.085	0.670	88.068	104.257	40.000		**
Lithium, Total	ug/L	MW-11S	16	107.375	19.451	0.438	98.852	115.898	40.000		**
Lithium, Total	ug/L	MW-12S	16	103.025	18.191	0.438	95.054	110.996	40.000	inc	**
Lithium, Total	ug/L	MW-1S	16	98.400	17.851	0.438	90.578	106.222	40.000		**
Lithium, Total	ug/L	MW-2S	16	79.931	23.599	0.438	69.590	90.272	40.000	dec	**
Lithium, Total	ug/L	MW-3S	16	31.806	24.180	0.438	21.211	42.402	40.000	dec	**
Lithium, Total	ug/L	MW-6S	16	72.069	18.418	0.438	63.998	80.139	40.000		**
Lithium, Total	ug/L	MW-7S	16	89.969	62.385	0.438	62.633	117.305	40.000	dec	**

\* - Insufficient Data  
 \*\* - Significant Exceedance  
 LCL = Lower Confidence Limit  
 UCL = Upper Confidence Limit

Table 1

**Confidence Intervals for Comparing the Mean of the Last 16 Measurements to an Assessment Monitoring Standard**

Constituent	Units	Well	N	Mean	SD	Factor	95% LCL	95% UCL	Standard	Trend	
Mercury	ug/L	MW-10S	5	1.000	0.000	0.953	1.000	1.000	2.000		
Mercury	ug/L	MW-11S	14	1.000	0.000	0.473	1.000	1.000	2.000		
Mercury	ug/L	MW-12S	14	1.000	0.000	0.473	1.000	1.000	2.000		
Mercury	ug/L	MW-1S	14	1.000	0.000	0.473	1.000	1.000	2.000		
Mercury	ug/L	MW-2S	12	1.000	0.000	0.518	1.000	1.000	2.000		
Mercury	ug/L	MW-3S	14	1.000	0.000	0.473	1.000	1.000	2.000		
Mercury	ug/L	MW-6S	14	1.000	0.000	0.473	1.000	1.000	2.000		
Mercury	ug/L	MW-7S	14	1.000	0.000	0.473	1.000	1.000	2.000		
Molybdenum, Total	ug/L	MW-10S	8	93.100	40.142	0.670	66.212	119.988	100.000	dec	
Molybdenum, Total	ug/L	MW-11S	16	173.650	97.738	0.438	130.822	216.478	100.000	dec	**
Molybdenum, Total	ug/L	MW-12S	16	73.831	39.682	0.438	56.443	91.220	100.000	dec	
Molybdenum, Total	ug/L	MW-1S	16	40.769	19.499	0.438	32.224	49.313	100.000	dec	
Molybdenum, Total	ug/L	MW-2S	16	22.713	20.925	0.438	13.544	31.881	100.000	dec	
Molybdenum, Total	ug/L	MW-3S	16	48.069	13.067	0.438	42.343	53.795	100.000		
Molybdenum, Total	ug/L	MW-6S	16	109.713	34.952	0.438	94.397	125.028	100.000		
Molybdenum, Total	ug/L	MW-7S	16	113.688	74.089	0.438	81.222	146.153	100.000	dec	
Selenium, Total	ug/L	MW-10S	8	2.913	3.915	0.670	0.290	5.535	50.000		
Selenium, Total	ug/L	MW-11S	16	7.744	3.311	0.438	6.293	9.195	50.000		
Selenium, Total	ug/L	MW-12S	16	13.138	11.871	0.438	7.936	18.339	50.000		
Selenium, Total	ug/L	MW-1S	16	15.844	8.151	0.438	12.272	19.415	50.000		
Selenium, Total	ug/L	MW-2S	16	16.356	23.409	0.438	6.099	26.614	50.000		
Selenium, Total	ug/L	MW-3S	16	6.669	4.280	0.438	4.794	8.544	50.000		
Selenium, Total	ug/L	MW-6S	16	11.731	7.996	0.438	8.227	15.235	50.000		
Selenium, Total	ug/L	MW-7S	16	13.406	10.494	0.438	8.808	18.005	50.000	inc	
Thallium, Total	ug/L	MW-10S	5	0.500	0.000	0.953	0.500	0.500	2.000		
Thallium, Total	ug/L	MW-11S	14	1.000	0.000	0.473	1.000	1.000	2.000		
Thallium, Total	ug/L	MW-12S	14	1.000	0.000	0.473	1.000	1.000	2.000		
Thallium, Total	ug/L	MW-1S	14	1.000	0.000	0.473	1.000	1.000	2.000		
Thallium, Total	ug/L	MW-2S	12	0.500	0.000	0.518	0.500	0.500	2.000		
Thallium, Total	ug/L	MW-3S	14	1.000	0.000	0.473	1.000	1.000	2.000		
Thallium, Total	ug/L	MW-6S	14	1.000	0.000	0.473	1.000	1.000	2.000		
Thallium, Total	ug/L	MW-7S	14	1.000	0.000	0.473	1.000	1.000	2.000		
Total Radium	pCi/L	MW-10S	8	1.243	0.364	0.670	0.999	1.487	5.000		
Total Radium	pCi/L	MW-11S	16	0.858	0.208	0.438	0.766	0.949	5.000		
Total Radium	pCi/L	MW-12S	16	0.963	0.396	0.438	0.790	1.137	5.000		
Total Radium	pCi/L	MW-1S	16	0.876	0.293	0.438	0.748	1.005	5.000		
Total Radium	pCi/L	MW-2S	16	1.152	0.635	0.438	0.873	1.430	5.000		
Total Radium	pCi/L	MW-3S	16	0.845	0.105	0.438	0.799	0.891	5.000		
Total Radium	pCi/L	MW-6S	16	1.050	0.328	0.438	0.906	1.194	5.000		
Total Radium	pCi/L	MW-7S	16	1.254	0.675	0.438	0.958	1.550	5.000	dec	

\* - Insufficient Data  
 \*\* - Significant Exceedance  
 LCL = Lower Confidence Limit  
 UCL = Upper Confidence Limit

**Table 1**

**Confidence Intervals for Comparing the Mean of the Last 4 Measurements to an Assessment Monitoring Standard**

Constituent	Units	Well	N	Mean	SD	Factor	95% LCL	95% UCL	Standard	Trend
Antimony, Total	ug/L	MW-111	4	0.500	0.000	1.176	0.500	0.500	6.000	
Antimony, Total	ug/L	MW-11	4	0.500	0.000	1.176	0.500	0.500	6.000	
Antimony, Total	ug/L	MW-2I	4	0.500	0.000	1.176	0.500	0.500	6.000	
Antimony, Total	ug/L	MW-3I	4	0.500	0.000	1.176	0.500	0.500	6.000	
Antimony, Total	ug/L	MW-6I	4	0.500	0.000	1.176	0.500	0.500	6.000	
Arsenic, Total	ug/L	MW-111	4	3.175	2.127	1.176	0.673	5.677	10.000	
Arsenic, Total	ug/L	MW-11	4	0.500	0.000	1.176	0.500	0.500	10.000	
Arsenic, Total	ug/L	MW-2I	4	1.250	1.500	1.176	0.000	3.014	10.000	
Arsenic, Total	ug/L	MW-3I	4	0.500	0.000	1.176	0.500	0.500	10.000	
Arsenic, Total	ug/L	MW-6I	4	0.500	0.000	1.176	0.500	0.500	10.000	
Barium, Total	ug/L	MW-111	4	59.200	10.833	1.176	46.457	71.943	2000.000	dec
Barium, Total	ug/L	MW-11	4	59.775	14.829	1.176	42.332	77.218	2000.000	
Barium, Total	ug/L	MW-2I	4	85.275	20.105	1.176	61.626	108.924	2000.000	
Barium, Total	ug/L	MW-3I	4	83.525	14.724	1.176	66.205	100.845	2000.000	
Barium, Total	ug/L	MW-6I	4	67.125	4.815	1.176	61.461	72.789	2000.000	
Beryllium, Total	ug/L	MW-111	4	2.000	0.000	1.176	2.000	2.000	4.000	
Beryllium, Total	ug/L	MW-11	4	0.100	0.000	1.176	0.100	0.100	4.000	
Beryllium, Total	ug/L	MW-2I	4	2.000	0.000	1.176	2.000	2.000	4.000	
Beryllium, Total	ug/L	MW-3I	4	2.000	0.000	1.176	2.000	2.000	4.000	
Beryllium, Total	ug/L	MW-6I	4	2.000	0.000	1.176	2.000	2.000	4.000	
Cadmium, Total	ug/L	MW-111	4	1.000	0.000	1.176	1.000	1.000	5.000	
Cadmium, Total	ug/L	MW-11	4	1.000	0.000	1.176	1.000	1.000	5.000	
Cadmium, Total	ug/L	MW-2I	4	1.000	0.000	1.176	1.000	1.000	5.000	
Cadmium, Total	ug/L	MW-3I	4	1.000	0.000	1.176	1.000	1.000	5.000	
Cadmium, Total	ug/L	MW-6I	4	1.000	0.000	1.176	1.000	1.000	5.000	
Chromium, Total	ug/L	MW-111	4	5.000	0.000	1.176	5.000	5.000	100.000	
Chromium, Total	ug/L	MW-11	4	5.000	0.000	1.176	5.000	5.000	100.000	
Chromium, Total	ug/L	MW-2I	4	5.000	0.000	1.176	5.000	5.000	100.000	
Chromium, Total	ug/L	MW-3I	4	5.000	0.000	1.176	5.000	5.000	100.000	
Chromium, Total	ug/L	MW-6I	4	5.000	0.000	1.176	5.000	5.000	100.000	
Cobalt, Total	ug/L	MW-111	4	0.500	0.000	1.176	0.500	0.500	6.000	
Cobalt, Total	ug/L	MW-11	4	0.500	0.000	1.176	0.500	0.500	6.000	
Cobalt, Total	ug/L	MW-2I	4	0.500	0.000	1.176	0.500	0.500	6.000	
Cobalt, Total	ug/L	MW-3I	4	0.500	0.000	1.176	0.500	0.500	6.000	
Cobalt, Total	ug/L	MW-6I	4	0.500	0.000	1.176	0.500	0.500	6.000	
Fluoride	mg/L	MW-111	4	0.408	0.039	1.176	0.361	0.454	4.000	
Fluoride	mg/L	MW-11	4	0.293	0.019	1.176	0.270	0.315	4.000	
Fluoride	mg/L	MW-2I	4	0.270	0.022	1.176	0.245	0.295	4.000	dec
Fluoride	mg/L	MW-3I	4	0.290	0.053	1.176	0.228	0.352	4.000	
Fluoride	mg/L	MW-6I	4	0.308	0.035	1.176	0.266	0.349	4.000	

\* - Insufficient Data  
 \*\* - Significant Exceedance  
 LCL = Lower Confidence Limit  
 UCL = Upper Confidence Limit

**Table 1**

**Confidence Intervals for Comparing the Mean of the Last 4 Measurements to an Assessment Monitoring Standard**

Constituent	Units	Well	N	Mean	SD	Factor	95% LCL	95% UCL	Standard	Trend	
Lead, Total	ug/L	MW-111	4	5.000	0.000	1.176	5.000	5.000	15.000		
Lead, Total	ug/L	MW-11	4	5.000	0.000	1.176	5.000	5.000	15.000		
Lead, Total	ug/L	MW-21	4	5.000	0.000	1.176	5.000	5.000	15.000		
Lead, Total	ug/L	MW-31	4	5.000	0.000	1.176	5.000	5.000	15.000		
Lead, Total	ug/L	MW-61	4	5.000	0.000	1.176	5.000	5.000	15.000		
Lithium, Total	ug/L	MW-111	4	109.850	11.982	1.176	95.756	123.944	40.000	dec	**
Lithium, Total	ug/L	MW-11	4	90.325	3.889	1.176	85.751	94.899	40.000	dec	**
Lithium, Total	ug/L	MW-21	4	50.600	3.562	1.176	46.410	54.790	40.000	dec	**
Lithium, Total	ug/L	MW-31	4	18.250	5.513	1.176	11.765	24.735	40.000	dec	
Lithium, Total	ug/L	MW-61	4	107.875	7.353	1.176	99.226	116.524	40.000	dec	**
Mercury	ug/L	MW-111	4	1.000	0.000	1.176	1.000	1.000	2.000		
Mercury	ug/L	MW-11	4	1.000	0.000	1.176	1.000	1.000	2.000		
Mercury	ug/L	MW-21	4	1.000	0.000	1.176	1.000	1.000	2.000		
Mercury	ug/L	MW-31	4	1.000	0.000	1.176	1.000	1.000	2.000		
Mercury	ug/L	MW-61	4	1.000	0.000	1.176	1.000	1.000	2.000		
Molybdenum, Total	ug/L	MW-111	4	138.000	12.138	1.176	123.722	152.278	100.000	dec	**
Molybdenum, Total	ug/L	MW-11	4	94.550	9.297	1.176	83.614	105.486	100.000	dec	
Molybdenum, Total	ug/L	MW-21	4	63.950	7.383	1.176	55.265	72.635	100.000	dec	
Molybdenum, Total	ug/L	MW-31	4	61.275	5.037	1.176	55.350	67.200	100.000		
Molybdenum, Total	ug/L	MW-61	4	198.000	20.298	1.176	174.124	221.876	100.000		**
Selenium, Total	ug/L	MW-111	4	0.500	0.000	1.176	0.500	0.500	50.000		
Selenium, Total	ug/L	MW-11	4	0.500	0.000	1.176	0.500	0.500	50.000		
Selenium, Total	ug/L	MW-21	4	0.500	0.000	1.176	0.500	0.500	50.000		
Selenium, Total	ug/L	MW-31	4	0.500	0.000	1.176	0.500	0.500	50.000		
Selenium, Total	ug/L	MW-61	4	0.500	0.000	1.176	0.500	0.500	50.000		
Thallium, Total	ug/L	MW-111	4	1.000	0.000	1.176	1.000	1.000	2.000		
Thallium, Total	ug/L	MW-11	4	0.500	0.000	1.176	0.500	0.500	2.000		
Thallium, Total	ug/L	MW-21	4	1.000	0.000	1.176	1.000	1.000	2.000		
Thallium, Total	ug/L	MW-31	4	1.000	0.000	1.176	1.000	1.000	2.000		
Thallium, Total	ug/L	MW-61	4	1.000	0.000	1.176	1.000	1.000	2.000		
Total Radium	pCi/L	MW-111	4	1.331	0.548	1.176	0.686	1.975	5.000		
Total Radium	pCi/L	MW-11	4	1.346	0.512	1.176	0.744	1.948	5.000		
Total Radium	pCi/L	MW-21	4	1.730	0.445	1.176	1.206	2.254	5.000		
Total Radium	pCi/L	MW-31	4	1.083	0.235	1.176	0.806	1.359	5.000		
Total Radium	pCi/L	MW-61	4	1.605	0.210	1.176	1.358	1.852	5.000		

\* - Insufficient Data

\*\* - Significant Exceedance

LCL = Lower Confidence Limit

UCL = Upper Confidence Limit

**Table 1**

**Confidence Intervals for Comparing the Mean of the Last 4 Measurements to an Assessment Monitoring Standard**

Constituent	Units	Well	N	Mean	SD	Factor	95% LCL	95% UCL	Standard	Trend	
Antimony, Total	ug/L	MW-11D	4	0.500	0.000	1.176	0.500	0.500	6.000		
Antimony, Total	ug/L	MW-1D	4	0.500	0.000	1.176	0.500	0.500	6.000		
Antimony, Total	ug/L	MW-2D	4	0.500	0.000	1.176	0.500	0.500	6.000		
Antimony, Total	ug/L	MW-6D	4	0.700	0.400	1.176	0.229	1.171	6.000		
Arsenic, Total	ug/L	MW-11D	4	5.450	0.526	1.176	4.831	6.069	10.000		
Arsenic, Total	ug/L	MW-1D	4	2.500	0.864	1.176	1.484	3.516	10.000		
Arsenic, Total	ug/L	MW-2D	4	3.025	1.692	1.176	1.035	5.015	10.000		
Arsenic, Total	ug/L	MW-6D	4	0.500	0.000	1.176	0.500	0.500	10.000		
Barium, Total	ug/L	MW-11D	4	57.675	5.324	1.176	51.412	63.938	2000.000	dec	
Barium, Total	ug/L	MW-1D	4	60.675	1.830	1.176	58.522	62.828	2000.000	inc	
Barium, Total	ug/L	MW-2D	4	72.025	5.827	1.176	65.171	78.879	2000.000		
Barium, Total	ug/L	MW-6D	4	58.900	2.930	1.176	55.453	62.347	2000.000		
Beryllium, Total	ug/L	MW-11D	4	2.000	0.000	1.176	2.000	2.000	4.000		
Beryllium, Total	ug/L	MW-1D	4	2.000	0.000	1.176	2.000	2.000	4.000		
Beryllium, Total	ug/L	MW-2D	4	0.100	0.000	1.176	0.100	0.100	4.000		
Beryllium, Total	ug/L	MW-6D	4	2.000	0.000	1.176	2.000	2.000	4.000		
Cadmium, Total	ug/L	MW-11D	4	1.000	0.000	1.176	1.000	1.000	5.000		
Cadmium, Total	ug/L	MW-1D	4	1.000	0.000	1.176	1.000	1.000	5.000		
Cadmium, Total	ug/L	MW-2D	4	1.000	0.000	1.176	1.000	1.000	5.000		
Cadmium, Total	ug/L	MW-6D	4	1.000	0.000	1.176	1.000	1.000	5.000		
Chromium, Total	ug/L	MW-11D	4	5.000	0.000	1.176	5.000	5.000	100.000		
Chromium, Total	ug/L	MW-1D	4	5.000	0.000	1.176	5.000	5.000	100.000		
Chromium, Total	ug/L	MW-2D	4	5.000	0.000	1.176	5.000	5.000	100.000		
Chromium, Total	ug/L	MW-6D	4	5.000	0.000	1.176	5.000	5.000	100.000		
Cobalt, Total	ug/L	MW-11D	4	0.725	0.450	1.176	0.196	1.254	6.000		
Cobalt, Total	ug/L	MW-1D	4	0.500	0.000	1.176	0.500	0.500	6.000		
Cobalt, Total	ug/L	MW-2D	4	0.500	0.000	1.176	0.500	0.500	6.000		
Cobalt, Total	ug/L	MW-6D	4	0.500	0.000	1.176	0.500	0.500	6.000		
Fluoride	mg/L	MW-11D	4	0.273	0.030	1.176	0.237	0.308	4.000	dec	
Fluoride	mg/L	MW-1D	4	0.335	0.034	1.176	0.295	0.375	4.000		
Fluoride	mg/L	MW-2D	4	0.290	0.022	1.176	0.265	0.315	4.000		
Fluoride	mg/L	MW-6D	4	0.195	0.019	1.176	0.172	0.218	4.000		
Lead, Total	ug/L	MW-11D	4	5.000	0.000	1.176	5.000	5.000	15.000		
Lead, Total	ug/L	MW-1D	4	5.000	0.000	1.176	5.000	5.000	15.000		
Lead, Total	ug/L	MW-2D	4	5.000	0.000	1.176	5.000	5.000	15.000		
Lead, Total	ug/L	MW-6D	4	5.000	0.000	1.176	5.000	5.000	15.000		
Lithium, Total	ug/L	MW-11D	4	82.975	3.730	1.176	78.587	87.363	40.000	dec	**
Lithium, Total	ug/L	MW-1D	4	86.975	5.496	1.176	80.510	93.440	40.000		**
Lithium, Total	ug/L	MW-2D	4	49.475	1.360	1.176	47.875	51.075	40.000	dec	**
Lithium, Total	ug/L	MW-6D	4	79.550	6.851	1.176	71.491	87.609	40.000	dec	**

\* - Insufficient Data  
 \*\* - Significant Exceedance  
 LCL = Lower Confidence Limit  
 UCL = Upper Confidence Limit

**Table 1**

**Confidence Intervals for Comparing the Mean of the Last 4 Measurements to an Assessment Monitoring Standard**

Constituent	Units	Well	N	Mean	SD	Factor	95% LCL	95% UCL	Standard	Trend	
Mercury	ug/L	MW-11D	4	1.000	0.000	1.176	1.000	1.000	2.000		
Mercury	ug/L	MW-1D	4	1.000	0.000	1.176	1.000	1.000	2.000		
Mercury	ug/L	MW-2D	4	1.000	0.000	1.176	1.000	1.000	2.000		
Mercury	ug/L	MW-6D	4	1.000	0.000	1.176	1.000	1.000	2.000		
Molybdenum, Total	ug/L	MW-11D	4	165.000	14.514	1.176	147.927	182.073	100.000	dec	**
Molybdenum, Total	ug/L	MW-1D	4	103.400	6.489	1.176	95.767	111.033	100.000	dec	
Molybdenum, Total	ug/L	MW-2D	4	56.825	8.482	1.176	46.847	66.803	100.000	dec	
Molybdenum, Total	ug/L	MW-6D	4	218.750	16.879	1.176	198.895	238.605	100.000	inc	**
Selenium, Total	ug/L	MW-11D	4	0.500	0.000	1.176	0.500	0.500	50.000		
Selenium, Total	ug/L	MW-1D	4	0.500	0.000	1.176	0.500	0.500	50.000		
Selenium, Total	ug/L	MW-2D	4	0.500	0.000	1.176	0.500	0.500	50.000		
Selenium, Total	ug/L	MW-6D	4	0.500	0.000	1.176	0.500	0.500	50.000		
Thallium, Total	ug/L	MW-11D	4	1.000	0.000	1.176	1.000	1.000	2.000		
Thallium, Total	ug/L	MW-1D	4	1.000	0.000	1.176	1.000	1.000	2.000		
Thallium, Total	ug/L	MW-2D	4	0.500	0.000	1.176	0.500	0.500	2.000		
Thallium, Total	ug/L	MW-6D	4	1.000	0.000	1.176	1.000	1.000	2.000		
Total Radium	pCi/L	MW-11D	4	1.266	0.331	1.176	0.877	1.655	5.000		
Total Radium	pCi/L	MW-1D	4	1.043	0.553	1.176	0.392	1.694	5.000		
Total Radium	pCi/L	MW-2D	4	1.145	0.452	1.176	0.613	1.677	5.000		
Total Radium	pCi/L	MW-6D	4	1.163	0.293	1.176	0.818	1.508	5.000		

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 \*\* - Significant Exceedance  
 LCL = Lower Confidence Limit  
 UCL = Upper Confidence Limit

**Table 1**

**Confidence Intervals for Comparing the Mean of the Last 8 Measurements to an Assessment Monitoring Standard**

Constituent	Units	Well	N	Mean	SD	Factor	95% LCL	95% UCL	Standard	Trend	
Antimony, Total	ug/L	MW-11D	8	0.500	0.000	0.670	0.500	0.500	6.000		
Antimony, Total	ug/L	MW-1D	8	0.500	0.000	0.670	0.500	0.500	6.000		
Antimony, Total	ug/L	MW-2D	8	0.500	0.000	0.670	0.500	0.500	6.000		
Antimony, Total	ug/L	MW-6D	8	0.600	0.283	0.670	0.411	0.789	6.000		
Arsenic, Total	ug/L	MW-11D	8	5.262	0.481	0.670	4.940	5.585	10.000		
Arsenic, Total	ug/L	MW-1D	8	2.750	0.944	0.670	2.118	3.382	10.000		
Arsenic, Total	ug/L	MW-2D	8	3.475	1.241	0.670	2.644	4.306	10.000		
Arsenic, Total	ug/L	MW-6D	8	0.500	0.000	0.670	0.500	0.500	10.000		
Barium, Total	ug/L	MW-11D	8	58.975	6.671	0.670	54.507	63.443	2000.000	dec	
Barium, Total	ug/L	MW-1D	8	62.187	4.839	0.670	58.946	65.429	2000.000	inc	
Barium, Total	ug/L	MW-2D	8	66.725	9.246	0.670	60.532	72.918	2000.000		
Barium, Total	ug/L	MW-6D	8	57.225	5.147	0.670	53.778	60.672	2000.000		
Beryllium, Total	ug/L	MW-11D	8	2.000	0.000	0.670	2.000	2.000	4.000		
Beryllium, Total	ug/L	MW-1D	8	2.000	0.000	0.670	2.000	2.000	4.000		
Beryllium, Total	ug/L	MW-2D	6	0.100	0.000	0.822	0.100	0.100	4.000		
Beryllium, Total	ug/L	MW-6D	8	2.000	0.000	0.670	2.000	2.000	4.000		
Cadmium, Total	ug/L	MW-11D	8	1.000	0.000	0.670	1.000	1.000	5.000		
Cadmium, Total	ug/L	MW-1D	8	1.000	0.000	0.670	1.000	1.000	5.000		
Cadmium, Total	ug/L	MW-2D	6	1.000	0.000	0.822	1.000	1.000	5.000		
Cadmium, Total	ug/L	MW-6D	8	1.000	0.000	0.670	1.000	1.000	5.000		
Chromium, Total	ug/L	MW-11D	8	7.413	6.824	0.670	2.842	11.983	100.000		
Chromium, Total	ug/L	MW-1D	8	5.000	0.000	0.670	5.000	5.000	100.000		
Chromium, Total	ug/L	MW-2D	6	5.000	0.000	0.822	5.000	5.000	100.000		
Chromium, Total	ug/L	MW-6D	8	5.000	0.000	0.670	5.000	5.000	100.000		
Cobalt, Total	ug/L	MW-11D	8	0.613	0.318	0.670	0.399	0.826	6.000		
Cobalt, Total	ug/L	MW-1D	8	0.500	0.000	0.670	0.500	0.500	6.000		
Cobalt, Total	ug/L	MW-2D	8	0.500	0.000	0.670	0.500	0.500	6.000		
Cobalt, Total	ug/L	MW-6D	8	0.500	0.000	0.670	0.500	0.500	6.000		
Fluoride	mg/L	MW-11D	8	0.254	0.032	0.670	0.232	0.275	4.000	dec	
Fluoride	mg/L	MW-1D	8	0.345	0.032	0.670	0.324	0.366	4.000		
Fluoride	mg/L	MW-2D	8	0.296	0.052	0.670	0.262	0.331	4.000		
Fluoride	mg/L	MW-6D	8	0.173	0.030	0.670	0.153	0.192	4.000		
Lead, Total	ug/L	MW-11D	8	8.763	10.642	0.670	1.634	15.891	15.000		
Lead, Total	ug/L	MW-1D	8	5.000	0.000	0.670	5.000	5.000	15.000		
Lead, Total	ug/L	MW-2D	6	5.000	0.000	0.822	5.000	5.000	15.000		
Lead, Total	ug/L	MW-6D	8	5.000	0.000	0.670	5.000	5.000	15.000		
Lithium, Total	ug/L	MW-11D	8	86.100	5.299	0.670	82.550	89.650	40.000	dec	**
Lithium, Total	ug/L	MW-1D	8	87.275	5.173	0.670	83.810	90.740	40.000		**
Lithium, Total	ug/L	MW-2D	8	56.563	11.760	0.670	48.686	64.439	40.000	dec	**
Lithium, Total	ug/L	MW-6D	8	85.088	9.396	0.670	78.794	91.381	40.000	dec	**

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 LCL = Lower Confidence Limit  
 UCL = Upper Confidence Limit



**Table 1**

**Confidence Intervals for Comparing the Mean of the Last 8 Measurements to an Assessment Monitoring Standard**

Constituent	Units	Well	N	Mean	SD	Factor	95% LCL	95% UCL	Standard	Trend	
Mercury	ug/L	MW-11D	8	1.000	0.000	0.670	1.000	1.000	2.000		
Mercury	ug/L	MW-1D	8	1.000	0.000	0.670	1.000	1.000	2.000		
Mercury	ug/L	MW-2D	6	1.000	0.000	0.822	1.000	1.000	2.000		
Mercury	ug/L	MW-6D	8	1.000	0.000	0.670	1.000	1.000	2.000		
Molybdenum, Total	ug/L	MW-11D	8	167.625	10.663	0.670	160.483	174.767	100.000	dec	**
Molybdenum, Total	ug/L	MW-1D	8	108.700	8.080	0.670	103.288	114.112	100.000	dec	**
Molybdenum, Total	ug/L	MW-2D	8	69.513	16.807	0.670	58.255	80.770	100.000	dec	
Molybdenum, Total	ug/L	MW-6D	8	208.375	20.459	0.670	194.672	222.078	100.000	inc	**
Selenium, Total	ug/L	MW-11D	8	0.500	0.000	0.670	0.500	0.500	50.000		
Selenium, Total	ug/L	MW-1D	8	0.500	0.000	0.670	0.500	0.500	50.000		
Selenium, Total	ug/L	MW-2D	8	0.500	0.000	0.670	0.500	0.500	50.000		
Selenium, Total	ug/L	MW-6D	8	0.500	0.000	0.670	0.500	0.500	50.000		
Thallium, Total	ug/L	MW-11D	8	1.000	0.000	0.670	1.000	1.000	2.000		
Thallium, Total	ug/L	MW-1D	8	1.000	0.000	0.670	1.000	1.000	2.000		
Thallium, Total	ug/L	MW-2D	6	0.500	0.000	0.822	0.500	0.500	2.000		
Thallium, Total	ug/L	MW-6D	8	1.000	0.000	0.670	1.000	1.000	2.000		
Total Radium	pCi/L	MW-11D	8	1.947	2.104	0.670	0.538	3.357	5.000		
Total Radium	pCi/L	MW-1D	8	1.394	0.703	0.670	0.923	1.865	5.000		
Total Radium	pCi/L	MW-2D	8	1.357	0.580	0.670	0.969	1.746	5.000		
Total Radium	pCi/L	MW-6D	8	1.254	0.291	0.670	1.059	1.448	5.000		

\* - Insufficient Data  
 \*\* - Significant Exceedance  
 LCL = Lower Confidence Limit  
 UCL = Upper Confidence Limit

**Table 1: 95% LCL Compared to GWPS  
Shallow Zone  
Multiunit Ash Pond System  
AES Indiana  
Eagle Valley Generating Station, Martinsville, Indiana  
ATC Project No. 170LF01502**

Sample ID	Through Sample Date	Antimony	Arsenic	Barium	Beryllium	Cadmium	Chromium	Cobalt	Fluoride	Lead	Lithium	Mercury	Molybdenum	Selenium	Thallium	Radium 226/228 Combined
		ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	mg/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	pCi/L
	GWPS (greater of MCL/USEPA Amendment Level, or background PL)	<b>6</b>	<b>10</b>	<b>2000</b>	<b>4</b>	<b>5</b>	<b>100</b>	<b>6</b>	<b>4</b>	<b>15</b>	<b>40</b>	<b>2</b>	<b>100</b>	<b>50</b>	<b>2</b>	<b>5</b>
	MCL	6	10	2000	4	5	100	-	4	15	-	2	-	50	2	5
	USEPA'S Amendments to the National Minimum Criteria*	-	-	-	-	-	-	6	-	15	40	-	100	-	-	-
	Prediction Limit (based on background data through April 2023)	1	5.8	71.9391	0.2	2	10	5.8	0.1	10	20	2	10	1	1	1.78
MW-1S	September 2018	3	6	70	2	1	5	2.5	0.249	5	<b>89.667</b>	1	28.867	8	1	0.179
	May 2019	2	4	56	2	1	5	2.5	0.114	5	<b>79.165</b>	1	15.347	9	1	0.195
	November 2019	2	4	55	2	1	5	2.5	0.147	5	<b>79.451</b>	1	16.653	6	1	0.195
	May 2020	2	3	53	2	1	5	2.5	0.150	5	<b>80.189</b>	1	16.100	5	1	0.704
	November 2020	2	3	55	2	1	5	2.5	0.148	5	<b>88.264</b>	1	18.852	3	1	0.705
	May 2021	2	4	66	2	1	5	2.5	0.082	5	<b>77.22</b>	1	21.985	2	1	0.800
	November 2021	1.670	3.755 4.746 (N=8)	62.955	2.000	1.000	5.000	0.500	0.054	5.000	<b>74.307</b>	1.000	15.401	5.239	1.000	0.750
	May 2022	1.421	3.228	65.705	2.000	1.000	5.000	0.500	0.043	5.000	<b>74.448</b>	1.000	11.589	8.818	1.000	0.750
	November 2022	1.487	2.768	61.875	2.000	1.000	5.000	0.500	0.053	5.000	<b>71.273</b>	1.000	19.172	19.289	1.000	0.750
April 2023	1.242	2.279	57.771	2.000	1.000	5.000	0.500	0.112	5.000	<b>67.103</b>	1.000	14.915	19.350	1.000	0.776	
MW-2S	September 2018	3	0	159	2	1	5	2.5	0.138	5	<b>82.118</b>	1	10.109	2	1	0.787
	May 2019	3	0	182	2	1	5	2.5	0.121	5	<b>82.220</b>	1	0	0	1	0.915
	November 2019	3	1	133	2	1	5	1.243	0.119	5	<b>80.204</b>	1	9.522	0	1	1.011
	May 2020	3	0	132	2	1	5	1.243	0.116	5	<b>80.032</b>	1	5.47	0	1	0.678
	November 2020	3	7	99	2	1	5	1.243	0.123	5	<b>77.000</b>	1	3.854	0	1	0.284
	May 2021	3	8	89	2	1	5	1.243	0.105	5	<b>47.696</b>	1	3.499	0	1	0.170
	November 2021	0.500	9.413 9.766 (N=7) 8.724 (N=8) <b>10.853 (N=16)</b>	95.412	2.000	1.000	5.000	2.500	0.107	5.000	<b>43.414</b>	1.000	3.472	0.000	1.000	0.170
	May 2022	0.500	9.504 <b>10.317 (N=8)</b>	107.557	2.000	1.000	5.000	0.500	0.111	5.000	<b>41.555</b>	1.000	5.997	3.834	1.000	0.315
	November 2022	0.500	7.272 9.383 (N=8) <b>10.817 (N=15)</b>	98.750	2.000	1.000	5.000	0.500	0.111	5.000	<b>41.444</b>	1.000	5.997	2.833	1.000	0.466
April 2023	0.500	7.393 9.336 (N=8) <b>11.027 (N=16)</b>	99.202	0.100	1.000	5.000	0.500	0.130	5.000	39.003 <b>48.832 (N=8)</b>	1.000	3.573	10.400	0.500	0.466	

**Table 1: 95% LCL Compared to GWPS  
Shallow Zone  
Multiunit Ash Pond System  
AES Indiana  
Eagle Valley Generating Station, Martinsville, Indiana  
ATC Project No. 170LF01502**

Sample ID	Through Sample Date	Antimony	Arsenic	Barium	Beryllium	Cadmium	Chromium	Cobalt	Fluoride	Lead	Lithium	Mercury	Molybdenum	Selenium	Thallium	Radium 226/228 Combined
		ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	mg/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	pCi/L
	GWPS (greater of MCL/USEPA Amendment Level, or background PL)	<b>6</b>	<b>10</b>	<b>2000</b>	<b>4</b>	<b>5</b>	<b>100</b>	<b>6</b>	<b>4</b>	<b>15</b>	<b>40</b>	<b>2</b>	<b>100</b>	<b>50</b>	<b>2</b>	<b>5</b>
	MCL	6	10	2000	4	5	100	-	4	15	-	2	-	50	2	5
	USEPA'S Amendments to the National Minimum Criteria*	-	-	-	-	-	-	6	-	15	40	-	100	-	-	-
	Prediction Limit (based on background data through April 2023)	1	5.8	71.9391	0.2	2	10	5.8	0.1	10	20	2	10	1	1	1.78
MW-3S	September 2018	3	5	71	2	1	5	2.5	0.269	5	10.077	1	36.566	0	1	0.578
	May 2019	2	5	71	2	1	5	2.5	0.210	5	9.220	1	35.121	1	1	0.621
	November 2019	2	5	71	2	1	5	2.5	0.193	5	6.662	1	30.294	1	1	0.621
	May 2020	2	5	72	2	1	5	2.5	0.202	5	6.648	1	34.252	4	1	0.785
	November 2020	2	5	67	2	1	5	2.5	0.222	5	6.648	1	41.738	4	1	0.802
	May 2021	3	5	69	2	1	5	2.5	0.300	5	5.165	1	54.17	5	1	0.850
	November 2021	3.000	0.500	78.554	2.000	1.000	5.000	0.500	0.275	5.000	7.202	1.000	45.499	4.696	1.000	0.766
	May 2022	1.408	0.500	76.241	2.000	1.000	5.000	0.500	0.204	5.000	7.183	1.000	42.611	1.023	1.000	0.766
	November 2022	0.297	0.500	77.024	2.000	1.000	5.000	0.500	0.215	5.000	7.183	1.000	47.793	0.000	1.000	0.766
April 2023	0.297	0.500	77.310	2.000	1.000	5.000	0.500	0.183	5.000	7.183	1.000	25.623	0.157	1.000	0.766	
MW-6S	September 2018	1	5	87	2	1	5	2.5	0.167	5	<b>56.080</b>	1	60.220	1	1	0.390
	May 2019	1	5	60	2	1	5	2.5	0.154	5	26.928	1	37.099	1	1	0.397
	November 2019	1	5	67	2	1	5	2.5	0.154	5	29.301	1	41.627	2	1	0.451
	May 2020	1	5	67	2	1	5	2.5	0.160	5	29.814	1	45.727	1	1	0.542
	November 2020	1	5	75	2	1	5	2.5	0.155	5	30.669	1	43.731	5	1	0.697
	May 2021	1	5	93	2	1	5	2.5	0.165	5	<b>74.534</b>	1	97.661	7	1	0.653
	November 2021	1.099	0.500	83.423	2.000	1.000	5.000	0.500	0.165	5.000	<b>80.680</b>	1.000	98.584 90.137 (N=8)	3.386	1.000	0.765
	May 2022	0.764	0.500	80.638	2.000	1.000	5.000	0.500	0.200	5.000	<b>72.068</b>	1.000	91.082 90.410 (N=8) 95.731 (N=16)	3.202	1.000	0.816
	November 2022										DRY WELL; NOT SAMPLED					
April 2023	0.574	0.5	75.325	2	1	5	0.5	0.2	5	<b>52.553</b>	1	69.279 82.616 (N=8) 94.397 (N=16)	0.728	1	0.816	
MW-7S	September 2018	3	5	103	2	1	5	2.5	0.060	5	<b>108.558</b>	1	<b>132.202</b>	3	1	1.017
	May 2019	2	5	95	2	1	5	2.5	0.035	5	<b>42.012</b>	1	50.335	3	1	0.847
	November 2019	2	5	95	2	1	5	2.5	0.035	5	<b>42.012</b>	1	50.335	3	1	0.847
	May 2020	2	5	68	2	1	5	2.5	0.030	5	13.035	1	12.109	3	1	0.747
	November 2020	2	2	57	2	1	5	2.332	0.050	5	4.098	1	15.631	6	1	0.299
	May 2021	2	2	56	2	1	5	2.332	0.050	5	26.464	1	38.333	6	1	0.142
	November 2021	2.350	1.494	56.195	2.000	1.000	5.000	1.864	0.050	5.000	26.514	1.000	32.098	9.319	1.000	0.209
	May 2022	2.223	1.494	64.327	2.000	1.000	5.000	1.864	0.050	5.000	26.538	1.000	33.538	11.39	1.000	0.000
	November 2022	2.079	2.821	80.595	2.000	1.000	5.000	1.864	0.050	5.000	30.856	1.000	32.367	15.115	1.000	0.576
April 2023	2.138	0.000	65.384	2.000	1.000	5.000	1.385	0.050	5.000	29.320	1.000	25.177	15.032	1.000	0.538	

**Table 1: 95% LCL Compared to GWPS  
Shallow Zone  
Multiunit Ash Pond System  
AES Indiana  
Eagle Valley Generating Station, Martinsville, Indiana  
ATC Project No. 170LF01502**

Sample ID	Through Sample Date	Antimony	Arsenic	Barium	Beryllium	Cadmium	Chromium	Cobalt	Fluoride	Lead	Lithium	Mercury	Molybdenum	Selenium	Thallium	Radium 226/228 Combined
		ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	mg/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	pCi/L
	GWPS (greater of MCL/USEPA Amendment Level, or background PL)	<b>6</b>	<b>10</b>	<b>2000</b>	<b>4</b>	<b>5</b>	<b>100</b>	<b>6</b>	<b>4</b>	<b>15</b>	<b>40</b>	<b>2</b>	<b>100</b>	<b>50</b>	<b>2</b>	<b>5</b>
	MCL	6	10	2000	4	5	100	-	4	15	-	2	-	50	2	5
	USEPA'S Amendments to the National Minimum Criteria*	-	-	-	-	-	-	6	-	15	40	-	100	-	-	-
	Prediction Limit (based on background data through April 2023)	1	5.8	71.9391	0.2	2	10	5.8	0.1	10	20	2	10	1	1	1.78
MW-10S	September 2018	1	5	65	2	1	5	2.5	0.357	5	<b>76.208</b>	1	<b>170.345</b>	3	1	0.722
	May 2019	1	5	59	2	1	5	2.5	0.260	5	<b>76.955</b>	1	<b>100.416</b>	1	1	0.779
	November 2019	1	5	59	2	1	5	2.5	0.260	5	<b>76.955</b>	1	<b>100.416</b>	1	1	0.779
	May 2020	1	5	61	2	1	5	2.5	0.247	5	<b>75.161</b>	1	76.448	0	1	0.775
	November 2020	1	5	71	2	1	5	2.5	0.212	5	<b>76.355</b>	1	59.679	0	1	0.875
	May 2021	2	5	77	2	1	5	2.5	0.205	5	<b>91.428</b>	1	85.547	0	1	0.788
	November 2021	1.642	5.000	74.818	2.000	1.000	5.000	2.500	0.186	5.000	<b>88.77</b>	1.000	79.201 90.962 (N=8)	0.000	1.000	0.674
	May 2022	1.678	0.500	72.596	0.100	1.000	5.000	0.500	0.203	5.000	<b>90.725</b>	1.000	62.838 69.064 (N=7)	1.201	0.500	0.767
	November 2022	DRY WELL; NOT SAMPLED														
April 2023	1.854	0.5	69.285	0.1	1	5	0.5	0.189	5	<b>86.844</b>	1	51.603	1.216	0.5	0.767	
MW-11S	September 2018	2	<b>72</b>	64	2	1	5	2.5	0.272	5	<b>101.369</b>	1	<b>240.525</b>	4	1	0.542
	May 2019	1	<b>60</b>	61	2	1	5	2.5	0.222	5	<b>102.944</b>	1	<b>163.624</b>	5	1	0.710
	November 2019	1	<b>60</b>	61	2	1	5	2.5	0.222	5	<b>102.944</b>	1	<b>163.624</b>	5	1	0.710
	May 2020	2	<b>61</b>	62	2	1	5	2.5	0.212	5	<b>103.225</b>	1	<b>108.327</b>	6	1	0.956
	November 2020	1	<b>58</b>	57	2	1	5	2.5	0.189	5	<b>101.614</b>	1	61.569	4	1	0.786
	May 2021	1	<b>80</b>	77	2	1	5	2.5	0.166	5	<b>103.787</b>	1	58.408	4	1	0.658
	November 2021	1.362	<b>78.834</b>	86.488	2.000	1.000	5.000	2.500	0.144	5.000	<b>107.603</b>	1.000	57.392 98.452 (N=8)	3.606	1.000	0.651
	May 2022	1.366	<b>77.351</b>	89.461	0.100	1.000	5.000	0.500	0.145	5.000	<b>99.568</b>	1.000	70.119 67.929 (N=7)	3.631	0.500	0.767
	November 2022	1.304	<b>52.554</b>	85.433	2.000	1.000	5.000	0.500	0.145	5.000	<b>98.178</b>	1.000	58.590	8.410	1.000	0.671
April 2023	1.316	<b>44.759</b>	67.048	2.000	1.000	5.000	0.500	0.150	5.000	<b>57.744</b>	1.000	52.767	8.454	1.000	0.671	

**Table 1: 95% LCL Compared to GWPS**  
**Shallow Zone**  
 Multiunit Ash Pond System  
 AES Indiana  
 Eagle Valley Generating Station, Martinsville, Indiana  
 ATC Project No. 170LF01502

Sample ID	Through Sample Date	Antimony	Arsenic	Barium	Beryllium	Cadmium	Chromium	Cobalt	Fluoride	Lead	Lithium	Mercury	Molybdenum	Selenium	Thallium	Radium 226/228 Combined
		ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	mg/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	pCi/L
	GWPS (greater of MCL/USEPA Amendment Level, or background PL)	<b>6</b>	<b>10</b>	<b>2000</b>	<b>4</b>	<b>5</b>	<b>100</b>	<b>6</b>	<b>4</b>	<b>15</b>	<b>40</b>	<b>2</b>	<b>100</b>	<b>50</b>	<b>2</b>	<b>5</b>
	MCL	6	10	2000	4	5	100	-	4	15	-	2	-	50	2	5
	USEPA'S Amendments to the National Minimum Criteria*	-	-	-	-	-	-	6	-	15	40	-	100	-	-	-
	Prediction Limit (based on background data through April 2023)	1	5.8	71.9391	0.2	2	10	5.8	0.1	10	20	2	10	1	1	1.78
MW-12S	September 2018	1	1	76	2	1	5	2.5	0.305	5	<b>83.403</b>	1	53.488	2	1	0.378
	May 2019	1	0	84	2	1	5	2.5	0.262	5	<b>85.346</b>	1	40.399	0	1	0.289
	November 2019	1	0	84	2	1	5	2.5	0.262	5	<b>85.346</b>	1	40.399	0	1	0.289
	May 2020	1	1	85	2	1	5	2.5	0.221	5	<b>86.126</b>	1	37.671	0	1	0.257
	November 2020	1	1	83	2	1	5	2.5	0.219	5	<b>85.287</b>	1	40.495	3	1	0.435
	May 2021	1	0	100	2	1	5	2.5	0.221	5	<b>99.225</b>	1	41.986	10	1	0.795
	November 2021	1.198	0.349	100.300	2.000	1.000	5.000	2.500	0.203	5.000	<b>112.428</b>	1.000	35.693	5.598	1.000	0.600
	May 2022	1.198	0.269	100.764	2.000	1.000	5.000	0.500	0.215	5.000	<b>112.428</b>	1.000	20.149	12.888	1.000	0.523
	November 2022	1.234	0.314	102.973	2.000	1.000	5.000	0.500	0.212	5.000	<b>110.825</b>	1.000	16.402	8.453	1.000	0.440
April 2023	1.416	1.374	119.843	2.000	1.000	5.000	0.500	0.221	5.000	<b>99.932</b>	1.000	23.970	6.055	1.000	0.459	

Notes:  
 MCL - Maximum Contaminant Level based on National Primary Drinking Water Regulations  
 GWPS - Groundwater Protection Standard  
 LCL = Lower Confidence Limit  
**Bold font with gray shading indicates 95% LCL of the mean of the last four measurements that is in exceedance of GWPS.**  
**Bold font with green shading indicates 95% LCL of the mean of the last eight measurements that is in exceedance of GWPS.**  
**Bold font with gold shading indicates 95% LCL of the mean based on a qualitative evaluation of dataset that may or may not have triggered a mean/LCL conflict but visually warranted evaluation of a larger dataset.**  
 ug/L = micrograms per liter (ppb)  
 mg/L = milligrams per liter (ppm)  
 Std. Units = Standard Units  
 \*USEPA'S Amendments to the National Minimum Criteria (Phase One, Part One), Disposal of Coal Combustion Residuals from Electric Utilities; effective August 29, 2018 (page 36444).  
 Background prediction limits are re-calculated after each sampling event. If a background prediction limit value is utilized as the GWPS, the GWPS for the current summary may be different from previous events.  
 The 95% LCL statistic is based on the rolling set of the four most recent individual sample results for a parameter.  
 LCL calculations utilize 1/2 the median non-detect (ND) reporting limit (RL) from the full date range of non-detect sample results. If RL levels changed over time, the current calculated LCL value may be larger than the most recent four ND results.  
 DUMPStat summary table output limits the number of significant digits reported for a calculated LCL. An exceedingly small calculated LCL value (e.g. 0.00001 mg/L) may simply be reported as 0 in the output summary.  
 Reporting units of measure for certain constituents in DUMPStat output tables were changed from units of mg/L (ppm) to ug/L (ppb) beginning with November 2021 LCL analysis to allow for reporting of calculated LCLs to more significant digits.  
**Table updated to include April 2023 assessment sampling results.**

**Table 2: 95% LCL Compared to GWPS  
Intermediate Zone  
Multiunit Ash Pond System  
AES Indiana  
Eagle Valley Generating Station, Martinsville, Indiana  
ATC Project No. 170LF01502**

Sample ID	Through Sample Date	Antimony	Arsenic	Barium	Beryllium	Cadmium	Chromium	Cobalt	Fluoride	Lead	Lithium	Mercury	Molybdenum	Selenium	Thallium	Radium 226/228 Combined
		ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	mg/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	pCi/L
	GWPS (greater of MCL/USEPA Amendment Level, or background PL)	<b>6</b>	<b>10</b>	<b>2000</b>	<b>4</b>	<b>5</b>	<b>100</b>	<b>6</b>	<b>4</b>	<b>15</b>	<b>40</b>	<b>2</b>	<b>100</b>	<b>50</b>	<b>2</b>	<b>5</b>
	MCL	6	10	2000	4	5	100	-	4	15	-	2	-	50	2	5
	USEPA'S Amendments to the National Minimum Criteria*	-	-	-	-	-	-	6	-	15	40	-	100	-	-	-
	Prediction Limit (based on background data through April 2023)	1	2	49.6163	0.2	2	10	1	0.1	10	20	2	10	1	1	2.0419
MW-11	September 2018	3	5	49	2	1	5	2.5	0.295	5	<b>90.977</b>	1	99.499	5	1	1.468
	May 2019	3	5	54	2	1	5	2.5	0.287	5	<b>95.151</b>	1	99.201	5	1	1.389
	November 2019	3	5	55	2	1	5	2.5	0.297	5	<b>95.543</b>	1	<b>100.675</b>	5	1	1.333
	May 2020	3	5	54	2	1	5	2.5	0.297	5	<b>95.610</b>	1	<b>101.141</b>	5	1	1.421
	November 2020	3	5	54	2	1	5	2.5	0.312	5	<b>91.878</b>	1	<b>101.062</b>	5	1	1.34
	May 2021	3	5	54	2	1	5	2.5	0.267	5	<b>86.999</b>	1	96.761	5	1	1.358
	November 2021	0.500	0.500	51.170	2.000	1.000	5.000	0.500	0.254	5.000	<b>85.368</b>	1.000	96.858 <b>101.612 (N=8)</b>	0.500	1.000	0.906
	May 2022	0.500	0.500	51.044	0.100	1.000	5.000	0.500	0.261	5.000	<b>86.356</b>	1.000	94.541 99.709 (N=7)	0.500	0.500	0.73
	November 2022	0.500	0.500	43.446	0.100	1.000	5.000	0.500	0.258	5.000	<b>86.026</b>	1.000	87.328	0.500	0.500	0.739
April 2023	0.500	0.500	42.332	0.100	1.000	5.000	0.500	0.270	5.000	<b>85.751</b>	1.000	83.614	0.500	0.500	0.744	
MW-21	September 2018	3	5	54	2	1	5	2.5	0.276	5	<b>68.523</b>	1	58.757	5	1	1.822
	May 2019	3	5	51	2	1	5	2.5	0.270	5	<b>68.634</b>	1	56.590	5	1	1.620
	November 2019	3	5	55	2	1	5	2.5	0.268	5	<b>69.665</b>	1	55.609	5	1	1.642
	May 2020	3	5	55	2	1	5	2.5	0.271	5	<b>69.042</b>	1	56.957	5	1	1.988
	November 2020	3	5	59	2	1	5	2.5	0.283	5	<b>63.545</b>	1	62.021	5	1	1.177
	May 2021	3	5	58	2	1	5	2.5	0.198	5	<b>56.314</b>	1	62.455	5	1	0.875
	November 2021	0.500	3.743	59.482	2.000	1.000	5.000	0.500	0.198	5.000	<b>51.013</b>	1.000	58.142	0.500	1.000	0.872
	May 2022	0.500	0	64.2	2.000	1.000	5.000	0.500	0.196	5.000	<b>48.393</b>	1.000	58.127	0.500	1.000	0.839
	November 2022	0.500	0.000	59.712	2.000	1.000	5.000	0.500	0.189	5.000	<b>47.845</b>	1.000	56.972	0.500	1.000	1.166
April 2023	0.500	0.000	61.626	2.000	1.000	5.000	0.500	0.245	5.000	<b>46.410</b>	1.000	55.265	0.500	1.000	1.206	
MW-31	September 2018	3	5	55	2	1	5	2.5	0.253	5	36.266	1	54.444	5	1	1.310
	May 2019	3	5	53	2	1	5	2.5	0.255	5	22.662	1	60.185	5	1	1.032
	November 2019	3	5	51	2	1	5	2.5	0.255	5	9.759	1	73.297	5	1	0.919
	May 2020	3	5	52	2	1	5	2.5	0.255	5	11.269	1	73.503	5	1	0.926
	November 2020	3	5	53	2	1	5	2.5	0.283	5	6.642	1	69.134	5	1	0.839
	May 2021	3	5	44	2	1	5	2.5	0.182	5	6.179	1	60.599	5	1	0.734
	November 2021	0.500	0.500	52.140	2.000	1.000	5.000	0.500	0.163	5.000	8.031 13.184 (N=8)	1.000	56.279	0.500	1.000	0.714
	May 2022	0.500	0.500	65.252	0.100	1.000	5.000	0.500	0.163	5.000	8.073	1.000	57.062	0.500	0.500	0.799
	November 2022	0.500	0.500	85.636	2.000	1.000	5.000	0.500	0.163	5.000	11.765	1.000	56.567	0.500	1.000	0.831
April 2023	0.500	0.500	66.205	2.000	1.000	5.000	0.500	0.228	5.000	11.765	1.000	55.350	0.500	1.000	0.806	

**Table 2: 95% LCL Compared to GWPS  
Intermediate Zone  
Multiunit Ash Pond System  
AES Indiana  
Eagle Valley Generating Station, Martinsville, Indiana  
ATC Project No. 170LF01502**

Sample ID	Through Sample Date	Antimony	Arsenic	Barium	Beryllium	Cadmium	Chromium	Cobalt	Fluoride	Lead	Lithium	Mercury	Molybdenum	Selenium	Thallium	Radium 226/228 Combined
		ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	mg/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	pCi/L
	GWPS (greater of MCL/USEPA Amendment Level, or background PL)	<b>6</b>	<b>10</b>	<b>2000</b>	<b>4</b>	<b>5</b>	<b>100</b>	<b>6</b>	<b>4</b>	<b>15</b>	<b>40</b>	<b>2</b>	<b>100</b>	<b>50</b>	<b>2</b>	<b>5</b>
	MCL	6	10	2000	4	5	100	-	4	15	-	2	-	50	2	5
	USEPA'S Amendments to the National Minimum Criteria*	-	-	-	-	-	-	6	-	15	40	-	100	-	-	-
	Prediction Limit (based on background data through April 2023)	1	2	49.6163	0.2	2	10	1	0.1	10	20	2	10	1	1	2.0419
MW-6I	September 2018	3	5	39	2	1	5	2.5	0.220	5	<b>87.713</b>	1	<b>173.703</b>	5	1	1.870
	May 2019	3	5	39	2	1	5	2.5	0.207	5	<b>88.502</b>	1	<b>162.008</b>	5	1	0.817
	November 2019	3	5	39	2	1	5	2.5	0.225	5	<b>89.538</b>	1	<b>155.270</b>	5	1	0.893
	May 2020	3	5	44	2	1	5	2.5	0.241	5	<b>89.985</b>	1	<b>169.841</b>	5	1	0.848
	November 2020	3	5	49	2	1	5	2.5	0.235	5	<b>99.601</b>	1	<b>167.176</b>	5	1	0.709
	May 2021	3	5	49	2	1	5	2.5	0.24	5	<b>95.914</b>	1	<b>188.346</b>	5	1	1.066
	November 2021	0.500	0.500	46.877	2.000	1.000	5.000	0.500	0.244	5.000	<b>103.485</b>	1.000	<b>208.561</b>	0.500	1.000	1.066
	May 2022	0.500	0.500	48.578	2.000	1.000	5.000	0.500	0.262	5.000	<b>103.253</b>	1.000	<b>210.081</b>	0.500	1.000	0.9
	November 2022	0.500	0.500	54.518	2.000	1.000	5.000	0.500	0.262	5.000	<b>100.907</b>	1.000	<b>192.596</b>	0.500	1.000	1.161
April 2023	0.500	0.500	61.461	2.000	1.000	5.000	0.500	0.266	5.000	<b>99.226</b>	1.000	<b>174.124</b>	0.500	1.000	1.358	
MW-11I	September 2018	3	5	64	2	1	5	2.5	0.303	5	<b>104.856</b>	1	<b>164.551</b>	5	1	1.823
	May 2019	3	5	63	2	1	5	2.5	0.293	5	<b>103.556</b>	1	<b>163.193</b>	5	1	1.727
	November 2019	3	2	62	2	1	5	2.5	0.296	5	<b>101.843</b>	1	<b>157.499</b>	5	1	1.198
	May 2020	3	0	56	2	1	5	2.5	0.29	5	<b>100.971</b>	1	<b>157.499</b>	5	1	1.053
	November 2020	3	0	45	2	1	5	2.5	0.328	5	<b>94.623</b>	1	<b>157.226</b>	5	1	0.886
	May 2021	3	1	44	2	1	5	2.5	0.35	5	<b>94.299</b>	1	<b>151.016</b>	5	1	0.977
	November 2021	0.500	0.000	44.085	2.000	1.000	5.000	0.500	0.358	5.000	<b>92.878</b>	1.000	<b>147.090</b>	0.500	1.000	1.067
	May 2022	0.500	0.519	42.767	2.000	1.000	5.000	0.500	0.356	5.000	<b>92.878</b>	1.000	<b>144.586</b>	0.500	1.000	1.118
	November 2022	0.500	0.802	47.509	2.000	1.000	5.000	0.500	0.357	5.000	<b>101.284</b>	1.000	<b>130.520</b>	0.500	1.000	0.999
April 2023	0.500	0.673	46.457	2.000	1.000	5.000	0.500	0.361	5.000	<b>95.756</b>	1.000	<b>123.722</b>	0.500	1.000	0.686	

**Table 2: 95% LCL Compared to GWPS  
Intermediate Zone  
Multiunit Ash Pond System  
AES Indiana  
Eagle Valley Generating Station, Martinsville, Indiana  
ATC Project No. 170LF01502**

Sample ID	Through Sample Date	Antimony	Arsenic	Barium	Beryllium	Cadmium	Chromium	Cobalt	Fluoride	Lead	Lithium	Mercury	Molybdenum	Selenium	Thallium	Radium 226/228 Combined
		ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	mg/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	pCi/L
	GWPS (greater of MCL/USEPA Amendment Level, or background PL)	<b>6</b>	<b>10</b>	<b>2000</b>	<b>4</b>	<b>5</b>	<b>100</b>	<b>6</b>	<b>4</b>	<b>15</b>	<b>40</b>	<b>2</b>	<b>100</b>	<b>50</b>	<b>2</b>	<b>5</b>
	MCL	6	10	2000	4	5	100	-	4	15	-	2	-	50	2	5
	USEPA'S Amendments to the National Minimum Criteria*	-	-	-	-	-	-	6	-	15	40	-	100	-	-	-
	Prediction Limit (based on background data through April 2023)	1	2	49.6163	0.2	2	10	1	0.1	10	20	2	10	1	1	2.0419

Notes:

MCL - Maximum Contaminant Level based on National Primary Drinking Water Regulations

GWPS - Groundwater Protection Standard

LCL = Lower Confidence Limit

**Bold font with gray shading** indicates 95% LCL of the mean of the last four measurements that is in exceedance of GWPS.

**Bold font with green shading** indicates 95% LCL of the mean of the last eight measurements that is in exceedance of GWPS.

**Bold font with gold shading** indicates 95% LCL of the mean based on a qualitative evaluation of dataset that may or may not have triggered a mean/LCL conflict but visually warranted evaluation of a larger dataset.

ug/L = micrograms per liter (ppb)

mg/L = milligrams per liter (ppm)

Std. Units = Standard Units

\*USEPA'S *Amendments to the National Minimum Criteria (Phase One, Part One), Disposal of Coal Combustion Residuals from Electric Utilities*; effective August 29, 2018 (page 36444).

Background prediction limits are re-calculated after each sampling event. If a background prediction limit value is utilized as the GWPS, the GWPS for the current summary may be different from previous events.

The 95% LCL statistic is based on the rolling set of the four most recent individual sample results for a parameter.

LCL calculations utilize 1/2 the median non-detect (ND) reporting limit (RL) from the full date range of non-detect sample results. If RL levels changed over time, the current calculated LCL value may be larger than the most recent four ND results.

DUMPStat summary table output limits the number of significant digits reported for a calculated LCL. An exceedingly small calculated LCL value (e.g. 0.00001 mg/L) may simply be reported as 0 in the output summary.

Reporting units of measure for certain constituents in DUMPStat output tables were changed from units of mg/L (ppm) to ug/L (ppb) beginning with November 2021 LCL analysis to allow for reporting of calculated LCLs to more significant digits.

**Table updated to include April 2023 assessment sampling results.**



**Table 3: 95% LCL Compared to GWPS  
Deep Zone  
Multiunit Ash Pond System  
AES Indiana  
Eagle Valley Generating Station, Martinsville, Indiana  
ATC Project No. 170LF01502**

Sample ID	Through Sample Date	Antimony	Arsenic	Barium	Beryllium	Cadmium	Chromium	Cobalt	Fluoride	Lead	Lithium	Mercury	Molybdenum	Selenium	Thallium	Radium 226/228 Combined
		ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	mg/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	pCi/L
	GWPS (greater of MCL/USEPA Amendment Level, or background PL)	6	10	2000	4	5	100	6	4	15	40	2	100	50	2	5
	MCL	6	10	2000	4	5	100	-	4	15	-	2	-	50	2	5
	USEPA'S Amendments to the National Minimum Criteria*	-	-	-	-	-	-	6	-	15	40	-	100	-	-	-
	Prediction Limit (based on background data through April 2023)	1	1.3	73.0786	0.2	2	10	1.2	0.12	10	20	2	10	1.3	1	2.2916
MW-1D	September 2018	3	1	68	2	1	5	2.5	0.322	5	88.543	1	107.001	5	1	1.191
	May 2019	3	0	68	2	1	5	2.5	0.313	5	88.724	1	106.551	5	1	1.241
	November 2019	3	1	67	2	1	5	2.5	0.325	5	87.806	1	106.551	5	1	0.852
	May 2020	3	1	65	2	1	5	2.5	0.325	5	87.616	1	112.025	5	1	0.884
	November 2020	3	1	59	2	1	5	2.5	0.353	5	83.667	1	113.599	5	1	0.741
	May 2021	3	2	56	2	1	5	2.5	0.320	5	80.921	1	107.008	5	1	0.897
	November 2021	0.500	1.375	57.460	2.000	1.000	5.000	0.500	0.293	5.000	80.908	1.000	106.239	0.500	1.000	0.832
	May 2022	0.500	1.859	58.295	2.000	1.000	5.000	0.500	0.288	5.000	79.923	1.000	103.545	0.500	1.000	0.425
	November 2022	0.500	1.804	58.039	2.000	1.000	5.000	0.500	0.285	5.000	78.741	1.000	100.285	0.500	1.000	0.366
April 2023	0.500	1.484	58.522	2.000	1.000	5.000	0.500	0.295	5.000	80.510	1.000	95.767 103.288 (N=8)	0.500	1.000	0.392	
MW-2D	September 2018	3	3	42	2	1	5	2.5	0.290	5	72.668	1	103.757	5	1	1.668
	May 2019	3	3	40	2	1	5	2.5	0.289	5	71.147	1	92.570	5	1	1.351
	November 2019	3	3	42	2	1	5	2.5	0.295	5	69.227	1	85.261	5	1	1.382
	May 2020	3	3	42	2	1	5	2.5	0.293	5	68.124	1	90.588	5	1	1.387
	November 2020	3	3	48	2	1	5	2.5	0.32	5	55.784	1	78.723	5	1	0.953
	May 2021	3	3	50	2	1	5	2.5	0.214	5	47.570	1	67.418	5	1	0.770
	November 2021	0.500	3.491	56.257	2.000	1.000	5.000	0.500	0.200	5.000	43.140	1.000	62.003 76.519 (N=8)	0.500	1.000	0.768
	May 2022	0.500	1.042	61.939	0.100	1.000	5.000	0.500	0.199	5.000	49.633	1.000	59.692	0.500	0.500	0.802
	November 2022	0.500	1.048	65.920	0.100	1.000	5.000	0.500	0.204	5.000	49.076	1.000	53.602	0.500	0.500	0.723
April 2023	0.500	1.035	65.171	0.100	1.000	5.000	0.500	0.265	5.000	47.875	1.000	46.847	0.500	0.500	0.613	
MW-6D	September 2018	3	5	48	2	1	5	2.5	0.107	5	90.432	1	192.856	5	1	0.758
	May 2019	3	5	48	2	1	5	2.5	0.107	5	92.149	1	190.163	5	1	1.004
	November 2019	3	5	48	2	1	5	2.5	0.112	5	90.092	1	176.356	5	1	0.968
	May 2020	3	5	51	2	1	5	2.5	0.117	5	88.906	1	176.534	5	1	1.265
	November 2020	3	5	50	2	1	5	2.5	0.129	5	82.687	1	175.267	5	1	1.098
	May 2021	3	5	48	2	1	5	2.5	0.129	5	80.284	1	174.337	5	1	0.994
	November 2021	0.500	0.500	48.419	2.000	1.000	5.000	0.500	0.135	5.000	78.871	1.000	187.994	0.500	1.000	0.931
	May 2022	0.229	0.500	48.469	2.000	1.000	5.000	0.500	0.157	5.000	80.281	1.000	201.327	0.500	1.000	0.924
	November 2022	0.229	0.500	51.647	2.000	1.000	5.000	0.500	0.161	5.000	80.023	1.000	201.327	0.500	1.000	0.827
April 2023	0.229	0.500	55.453	2.000	1.000	5.000	0.500	0.172	5.000	71.491	1.000	198.895	0.500	1.000	0.818	

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Deep Zone  
Multiunit Ash Pond System  
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Sample ID	Through Sample Date	Antimony	Arsenic	Barium	Beryllium	Cadmium	Chromium	Cobalt	Fluoride	Lead	Lithium	Mercury	Molybdenum	Selenium	Thallium	Radium 226/228 Combined
		ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	mg/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	pCi/L
	GWPS (greater of MCL/USEPA Amendment Level, or background PL)	<b>6</b>	<b>10</b>	<b>2000</b>	<b>4</b>	<b>5</b>	<b>100</b>	<b>6</b>	<b>4</b>	<b>15</b>	<b>40</b>	<b>2</b>	<b>100</b>	<b>50</b>	<b>2</b>	<b>5</b>
	MCL	6	10	2000	4	5	100	-	4	15	-	2	-	50	2	5
	USEPA'S Amendments to the National Minimum Criteria*	-	-	-	-	-	-	6	-	15	40	-	100	-	-	-
	Prediction Limit (based on background data through April 2023)	1	1.3	73.0786	0.2	2	10	1.2	0.12	10	20	2	10	1.3	1	2.2916
MW-11D	September 2018	3	0	30	2	1	0	0	0.168	0	<b>75.647</b>	1	<b>160.572</b>	5	1	0.976
	May 2019	3	5	67	2	1	0	2.5	0.173	0	<b>83.997</b>	1	<b>158.480</b>	5	1	0.936
	November 2019	3	5	68	2	1	0	2.5	0.175	0	<b>84.526</b>	1	<b>153.252</b>	5	1	0.901
	May 2020	3	5	64	2	1	5	2.5	0.169	5	<b>84.647</b>	1	<b>155.670</b>	5	1	0.778
	November 2020	3	5	54	2	1	5	2.5	0.192	5	<b>86.900</b>	1	<b>163.226</b>	5	1	0.763
	May 2021	3	5	50	2	1	5	0.5	0.207	5	<b>83.277</b>	1	<b>163.168</b>	5	1	0
	November 2021	0.500	4.569	51.020	2.000	1.000	5.000	0.500	0.231	5.000	<b>80.633</b>	1.000	<b>168.951</b>	0.500	1.000	0
	May 2022	0.500	4.487	50.747	2.000	1.000	5.000	0.500	0.222	5.000	<b>82.424</b>	1.000	<b>166.226</b>	0.500	1.000	0
	November 2022	0.500	4.721	52.039	2.000	1.000	5.000	0.500	0.228	5.000	<b>80.960</b>	1.000	<b>159.316</b>	0.500	1.000	0.000
April 2023	0.500	4.831	51.412	2.000	1.000	5.000	0.196	0.237	5.000	<b>78.587</b>	1.000	<b>147.927</b>	0.500	1.000	0.877	

Notes:

MCL - Maximum Contaminant Level based on National Primary Drinking Water Regulations

GWPS - Groundwater Protection Standard

LCL = Lower Confidence Limit

**Bold font with gray shading** indicates 95% LCL of the mean of the last four measurements that is in exceedance of GWPS.

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mg/L = milligrams per liter (ppm)

Std. Units = Standard Units

\*USEPA'S *Amendments to the National Minimum Criteria (Phase One, Part One), Disposal of Coal Combust.*

Background prediction limits are re-calculated after each sampling event. If a background prediction limit value is utilized as the GWPS, the GWPS for the current summary may be different from previous events.

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LCL calculations utilize 1/2 the median non-detect (ND) reporting limit (RL) from the full date range of non-detect sample results. If RL levels changed over time, the current calculated LCL value may be larger than the most recent four ND results.

DUMPStat summary table output limits the number of significant digits reported for a calculated LCL. An exceedingly small calculated LCL value (e.g. 0.00001 mg/L) may simply be reported as 0 in the output summary.

Reporting units of measure for certain constituents in DUMPStat output tables were changed from units of mg/L (ppm) to ug/L (ppb) beginning with November 2021 LCL analysis to allow for reporting of calculated LCLs to more significant digits.

**Table updated to include April 2023 assessment sampling results.**