



ANNUAL GROUNDWATER  
MONITORING REPORT

# ACTIVE COAL COMBUSTION RESIDUALS LANDFILL

## ANNUAL GROUNDWATER MONITORING REPORT – 2017

Escalante Generating Station

Prewitt, New Mexico

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## 1.0 INTRODUCTION

Golder Associates Inc. (Golder) has prepared this report to describe the 2017 groundwater monitoring activities and comparative statistical analysis for the active coal combustion residuals (CCR) landfill at Escalante Generating Station (the site), which is owned and operated by Tri-State Generation and Transmission Association, Inc. (Tri-State). This report was written to meet the requirements of 40 CFR 257.90(e).

### 1.1 Facility Information

Escalante Generating Station is a 270-megawatt coal-fired electric generation facility located near Prewitt, New Mexico. The active CCR landfill at the site contains fly ash, bottom ash, and flue gas desulfurization solids (scrubber solids).

### 1.2 Purpose

The CCR rule established specific requirements for reporting of groundwater monitoring and corrective action in 40 CFR 257.90. Per part (e) of 40 CFR 257.90, no later than January 31, 2018, and annually thereafter, owners or operators of CCR units must prepare an annual groundwater monitoring and corrective action report.



## 2.0 GROUNDWATER MONITORING NETWORK PROGRAM STATUS

The groundwater monitoring system for the active CCR landfill at Escalante Generating Station consists of six monitoring wells, as shown on Figure 1. The two upgradient monitoring wells are TRcpc-1 and TRcpc-2. The four downgradient monitoring wells are TRcpc-15, TRcpc-16, TRcpc-17, and TRcpc-18 (Golder 2017a).

### 2.1 Completed Key Actions in 2017

The following key actions were completed in 2017:

- The Groundwater Monitoring System Certification was finalized and placed within the operating record and on Tri-State's publicly accessible CCR website.
- The Groundwater Monitoring Statistical Methods Certification was finalized and placed within the operating record and on Tri-State's publicly accessible CCR website.
- Collection of baseline samples was conducted. Baseline samples were analyzed for the Appendix III and Appendix IV constituent lists associated with the CCR rule.
- The first detection monitoring sampling event was performed.

### 2.2 Installation and Decommissioning of Monitoring Wells

No monitoring wells were installed or decommissioned for the active CCR landfill at Escalante Generating Station in 2017.

### 2.3 Problems and Resolutions

Laboratory analytical results for samples collected from Trcpc-1 on November 10, 2016, had numerous inconsistencies with the remaining data set and were considered unreliable. Therefore, an additional baseline sampling event was conducted on August 14, 2017, for TRcpc-1.

### 2.4 Proposed Key Activities for 2018

The following key actions are expected to be completed in 2018:

- Detection monitoring sampling events are planned to occur in the first and third quarters of 2018.



### 3.0 GROUNDWATER MONITORING PROGRAM STATUS

Activities associated with the groundwater monitoring program are described below.

#### 3.1 Groundwater Flow

Groundwater elevations were measured in each well prior to purging during each sampling event. Elevations are presented in Table 1 through Table 6. Groundwater elevations from the March 2017 and August 2017 sampling events are shown on Figure 1 and Figure 2, respectively. Groundwater elevations for the other sampling events are relatively consistent with those measured in March 2017 and August 2017.

Based on the March 2017 and August 2017 groundwater elevations, the groundwater in the Correo Sandstone generally flows east with localized northerly flow component under the active CCR landfill.

The groundwater flow rate was estimated with the equation  $V_s = k \times i/n_e$ , where:

- $V_s$  is the groundwater flow rate, in feet per day (ft/day);
- $k$  is the hydraulic conductivity estimated from site pumping test data, in ft/day;
- $i$  is the hydraulic gradient calculated based on groundwater elevations between TRcpc-1 and TRcpc-16, in feet per feet (ft/ft);
- $n_e$  is the effective porosity, estimated to be 0.33 based on historical testing results for samples of Correo Sandstone obtained on site.

Groundwater flow velocity estimates range from 0.0004 ft/day to 0.19 ft/day for the March 2017 and August 2017 sampling events.

#### 3.2 Monitoring Data (Analytical Results)

Analytical results for the baseline period, including Appendix III and Appendix IV results, are shown in Table 1 through Table 6. Table 1 through Table 6 also include Appendix III detection monitoring results for the August 2017 monitoring event.

#### 3.3 Samples Collected

Baseline samples were collected on an approximately monthly basis between September 7, 2016, and May 25, 2017, at each of the two upgradient and four downgradient monitoring wells. As noted in Section 2.3, the November 10, 2016, analytical test results for the sample collected from TRcpc-1 had numerous inconsistencies with the remaining data set and were considered unreliable; therefore, an additional baseline sampling event was conducted on August 14, 2017, for TRcpc-1. The first detection monitoring sampling event for Appendix III constituents was conducted on August 31, 2017. For informational purposes only, Appendix IV constituents were also analyzed for the samples collected on August 31, 2017.



### 3.4 Comparative Statistical Analysis

The comparative statistical analysis is summarized below, and the results are presented in Table 7 through Table 12. A full description of the steps taken for the comparative statistical analysis can be found in the Groundwater Monitoring Statistical Methods Certification (Golder 2017b).

#### 3.4.1 Definitions

The following definitions are used in discussion of the comparative statistical analysis:

- SSI – is a statistically significant increase (SSI) and is defined as an analytical result that exceeds the parametric or non-parametric statistical limit established by the baseline statistical analysis.
- False-positive SSI – is defined as an analytical result that exceeds the statistical limit but can clearly be attributed to laboratory error or changes in analytical precision or is invalidated through confirmatory resampling.
- Confirmatory resampling – is designated as the resampling event that occurs within 90 days of detecting an SSI over the statistical limit for determination of a verified SSI.
- Verified SSI – is interpreted as two consecutive SSIs (the original sample and the confirmatory resample for analytical results) for the same constituent at the same well.

#### 3.4.2 Unverified Statistically Significant Increases

Three new unverified SSIs were identified for the August 2017 sampling event. These include field pH at TRcpc-2 and TRcpc-15 and total recoverable calcium at TRcpc-18. Laboratory pH values for TRcpc-2 and TRcpc-15 indicate that the field pH values are potentially erroneous.

Per the Groundwater Monitoring Statistical Methods Certification (Golder 2017b), a confirmatory resampling event for these unverified SSI is scheduled to occur within 90 days of the SSI determination, during the first quarter of 2018.

#### 3.4.3 False-positive Statistically Significant Increases

Since only one detection monitoring event has occurred to date, there were no false-positive SSIs identified for samples collected during the reporting period.

#### 3.4.4 Verified Statistically Significant Increases

Since only one detection monitoring event has occurred to date, no verified SSIs were identified for samples collected during the reporting.



## **4.0 PROGRAM TRANSITIONS**

Beginning in third quarter of 2017, the active CCR landfill groundwater monitoring program at Escalante Generating Station transitioned from the baseline period to detection monitoring. During the baseline period, eight independent samples from each well in the program were collected and analyzed for the constituents listed in Appendix III and Appendix IV of the rule prior to October 17, 2017, as specified in 40 CFR 257.94(b).

### **4.1.1 Detection Monitoring**

Samples for the detection monitoring program will be collected on a semi-annual basis, beginning with the sample collected in August 2017. Tri-State plans to collect semi-annual samples for the detection monitoring program in the first and third quarters of 2018.

### **4.1.2 Assessment Monitoring**

The groundwater monitoring program for the active CCR landfill at Escalante Generating Station is not in assessment monitoring. Assessment monitoring has not been triggered as described in 40 CFR 257.95. No alternative source demonstrations have been made, and no actions are required.

### **4.1.3 Corrective Measures and Assessment**

The groundwater monitoring program for the active CCR landfill at Escalante Generating Station does not indicate the need for corrective measures. An assessment of corrective measures, as described in 40 CFR 257.96, is not required. No alternative source demonstrations have been made, and no actions are required.



## 5.0 RECOMMENDATIONS AND CLOSING

This report presents the groundwater monitoring activities and results from the baseline period and the first detection monitoring event for the active CCR landfill at Escalante Generating Station, along with the comparative statistical analysis. Three unverified SSIs were identified based on the results of the first detection monitoring sampling event, and confirmatory resampling is scheduled for the first quarter of 2018. As described in the Groundwater Monitoring System Certification (Golder 2017a) and the Groundwater Monitoring Statistical Methods Certification (Golder 2017b), the groundwater monitoring and analytical procedures meet the requirements of the CCR rule, and modifications to the monitoring network and sampling program are not recommended at this time.

### GOLDER ASSOCIATES INC.

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## 6.0 REFERENCES

Golder Associates Inc., 2017a. Active Coal Combustion Residuals Landfill Groundwater Monitoring System Certification, Escalante Generating Station. Report prepared for Tri-State Generation and Transmission Association, Inc. October 13, 2017.

Golder Associates Inc., 2017b. Active Coal Combustion Residuals Landfill Groundwater Statistical Method Certification, Escalante Generating Station. Report prepared for Tri-State Generation and Transmission Association, Inc. October 13, 2017.

## **TABLES**

**Table 1. Sample Results Summary Table – TRcpc-1**

| Analytes                      | Units    | 9/7/2016  | 10/6/2016    | 11/10/2016 * | 12/14/2016 | 1/25/2017     | 3/8/2017      | 4/13/2017 | 5/15/2017 | 8/14/2017 | 8/31/2017     |
|-------------------------------|----------|-----------|--------------|--------------|------------|---------------|---------------|-----------|-----------|-----------|---------------|
| Static Water Elevation        | ft amsl  | 6862.1    | 6863.2       | 6863.2       | 6863.2     | 6863.1        | 6863.3        | 6863.3    | 6863.3    | 6862.2    | 6861.8        |
| <b>Appendix III</b>           |          |           |              |              |            |               |               |           |           |           |               |
| Boron, Total Recoverable      | mg/L     | 1.6       | 1.5          | 0.61         | 1.6        | 1.5           | 1.5           | 1.6       | 1.5 B     | 1.5       | 1.5           |
| Calcium, Total Recoverable    | mg/L     | 12 B      | 12           | 6.50         | 13         | 12            | 12            | 12        | 12        | 12        | 12            |
| Chloride                      | mg/L     | 620       | 620          | 380          | 620        | 620           | 600           | 660 B     | 620       | 630       | 530 B         |
| Fluoride                      | mg/L     | 1.8       | 1.8          | 0.1          | 1.8        | 1.8           | 1.7           | 1.4       | 1.8       | 1.6       | 1.5           |
| pH, Field-Measured            | pH units | 8.4       | 8.4          | 8.3          | 8.4        | 8.5           | 8.3           | 8.5       | 8.6       | 9.1       | 8.9           |
| Sulfate                       | mg/L     | 820       | 820          | 210          | 820        | 830           | 800           | 910 B     | 810       | 830       | 760           |
| Total Dissolved Solids        | mg/L     | 2600      | 2400         | 3900         | 2500       | 2600          | 2400          | 2600      | 2500      | 2600      | 2400          |
| <b>Appendix IV</b>            |          |           |              |              |            |               |               |           |           |           |               |
| Antimony, Total Recoverable   | mg/L     | <0.002 U  | <0.002 U     | <0.002 U     | <0.002 U   | <0.002 U      | 0.00045 J     | 0.00074 J | 0.00067 J | 0.00064 J | <0.002 U      |
| Arsenic, Total Recoverable    | mg/L     | <0.005    | 0.00043 J    | 0.00045 J    | 0.0004 J   | 0.00035 J     | 0.00043 J     | 0.00038 J | 0.00039 J | 0.00047 J | 0.00048 J     |
| Barium, Total Recoverable     | mg/L     | 0.0077    | 0.0076       | 0.029        | 0.0072     | 0.0085        | 0.007         | 0.0072 B  | 0.0076    | 0.007     | 0.0087        |
| Beryllium, Total Recoverable  | mg/L     | <0.001 U  | <0.001 U     | <0.001 U     | <0.001 U   | <0.001 U      | <0.001 U      | <0.001 U  | <0.001 U  | <0.001 U  | <0.001 U      |
| Cadmium, Total Recoverable    | mg/L     | <0.001 U  | <0.001 U     | <0.001 U     | <0.001 U   | <0.001 U      | <0.001 U      | <0.001 U  | <0.001 U  | <0.001 U  | <0.001 U      |
| Chromium, Total Recoverable   | mg/L     | 0.00069 J | <0.002 U     | 0.0078       | <0.002 U   | <0.002 U      | <0.002 U      | <0.002 U  | <0.002 U  | <0.002 U  | <0.002 U      |
| Cobalt, Total Recoverable     | mg/L     | <0.001 U  | <0.001 U     | 0.0007       | <0.001 U   | <0.001 U      | <0.001 U      | <0.001 U  | <0.001 U  | <0.001 U  | <0.001 U      |
| Fluoride                      | mg/L     | 1.8       | 1.8          | 0.13         | 1.8        | 1.8           | 1.7           | 1.4       | 1.8       | 1.6       | 1.5           |
| Lead, Total Recoverable       | mg/L     | 0.031     | 0.0058       | 0.0031       | 0.0021     | 0.002 B       | 0.0019        | 0.002     | 0.0018    | 0.0018    | 0.0018        |
| Lithium, Total Recoverable    | mg/L     | 0.48      | 0.46         | 0.20         | 0.45       | 0.49          | 0.46          | 0.46      | 0.45      | 0.45      | 0.47          |
| Mercury, Total Recoverable    | mg/L     | <0.0002 U | <0.0002 U    | <0.0002 U    | <0.0002 U  | <0.0002 U     | <0.0002 U     | <0.0002 U | <0.0002 U | <0.0002 U | <0.0002 U     |
| Molybdenum, Total Recoverable | mg/L     | 0.18      | 0.18         | 0.003        | 0.16       | 0.17          | 0.17          | 0.17      | 0.17      | 0.16      | 0.19          |
| Radium-226 + Radium-228       | pCi/L    | <0.0357 U | 1.01 ± 0.355 | <0.445 U     | <0.526 U   | 0.500 ± 0.289 | 0.534 ± 0.274 | <0.24 U   | <0.0231 U | 0.196 U   | 0.481 ± 0.321 |
| Selenium, Total Recoverable   | mg/L     | 0.0049 J  | 0.0061       | 0.016        | 0.005      | 0.0051        | 0.0047 J      | 0.0036 J  | 0.0051    | 0.0048 J  | 0.0049 J      |
| Thallium, Total Recoverable   | mg/L     | <0.001 U  | <0.001 U     | <0.001 U     | <0.001 U   | <0.001 U      | <0.001 U      | <0.001 U  | <0.001 U  | <0.001 U  | <0.001 U      |

**NOTES:**

ft amsl, feet above mean sea level

mg/L, milligrams per liter

pCi/L, picocuries per liter

Non-detects have been listed with a "<" at the practical quantitation limit

U, Analyte not detected above the practical quantitation limit

J, Analyte detected between the method detection limit and practical quantitation limit

B, Analyte detected in the method blank

\* A quality control issue was identified for the 11/10/2016 sample; the data is not used in the baseline data set.

**Table 2. Sample Results Summary Table – TRcpc-2**

| Analytes                      | Units    | 9/8/2016      | 10/6/2016     | 11/10/2016   | 12/14/2016    | 1/26/2017     | 3/8/2017      | 4/12/2017     | 5/25/2017     | 8/31/2017 |
|-------------------------------|----------|---------------|---------------|--------------|---------------|---------------|---------------|---------------|---------------|-----------|
| Static Water Elevation        | ft amsl  | 6853.5        | 6853.5        | 6853.5       | 6853.5        | 6853.5        | 6853.5        | 6853.4        | 6853.4        | 6853.2    |
| <b>Appendix III</b>           |          |               |               |              |               |               |               |               |               |           |
| Boron, Total Recoverable      | mg/L     | 1.5           | 1.4           | 1.6          | 1.5           | 1.4           | 1.5           | 1.5           | 1.4           | 1.5       |
| Calcium, Total Recoverable    | mg/L     | 13 B          | 14            | 14           | 14            | 14            | 15            | 13            | 14            | 15        |
| Chloride                      | mg/L     | 1100          | 1100          | 1100         | 1100          | 1100          | 1100          | 1200 B        | 1200          | 990 B     |
| Fluoride                      | mg/L     | 2.1           | 2             | 2.1          | 2.1           | 2             | 2.1           | 1.7           | 2.2           | 2.1       |
| pH, Field-Measured            | pH units | 8.3           | 8.4           | 8.4          | 8.5           | 8.5           | 8.4           | 8.5           | 8.2           | 9.4       |
| Sulfate                       | mg/L     | 530           | 540           | 530          | 540           | 540           | 530           | 540 B         | 590           | 480       |
| Total Dissolved Solids        | mg/L     | 2800          | 2700          | 2900         | 2700          | 2700          | 2800          | 2800          | 2800          | 2700      |
| <b>Appendix IV</b>            |          |               |               |              |               |               |               |               |               |           |
| Antimony, Total Recoverable   | mg/L     | <0.002 U      | <0.002 U      | <0.002 U     | <0.002 U      | <0.002 U      | <0.002 U      | <0.002 U      | <0.002 U      | 0.00046 J |
| Arsenic, Total Recoverable    | mg/L     | <0.005 U      | <0.005 U      | <0.005 U     | <0.005 U      | <0.005 U      | <0.005 U      | <0.005 U      | <0.005 U      | <0.005 U  |
| Barium, Total Recoverable     | mg/L     | 0.018         | 0.018         | 0.017        | 0.017         | 0.016         | 0.015         | 0.017 B       | 0.017         | 0.017     |
| Beryllium, Total Recoverable  | mg/L     | <0.001 U      | <0.001 U      | <0.001 U     | <0.001 U      | <0.001 U      | 0.00029 J     | <0.001 U      | <0.001 U      | <0.001 U  |
| Cadmium, Total Recoverable    | mg/L     | <0.001 U      | <0.001 U      | <0.001 U     | <0.001 U      | <0.001 U      | <0.001 U      | <0.001 U      | <0.001 U      | <0.001 U  |
| Chromium, Total Recoverable   | mg/L     | <0.002 U      | <0.002 U      | <0.002 U     | <0.002 U      | <0.002 U      | <0.002 U      | <0.002 U      | <0.002 U      | <0.002 U  |
| Cobalt, Total Recoverable     | mg/L     | <0.001 U      | 0.00006 J     | <0.001 U     | <0.001 U      | <0.001 U      | 0.00009 J     | <0.001 U      | <0.001 U      | <0.001 U  |
| Fluoride                      | mg/L     | 2.1           | 2             | 2.1          | 2.1           | 2             | 2.1           | 1.7           | 2.2           | 2.1       |
| Lead, Total Recoverable       | mg/L     | 0.0012        | 0.0025        | 0.00093 J    | 0.0002 J      | 0.00022 J     | 0.00024 J     | 0.00032 J     | 0.00029 J     | 0.00027 J |
| Lithium, Total Recoverable    | mg/L     | 0.49          | 0.5           | 0.48         | 0.47          | 0.5           | 0.5           | 0.49          | 0.49          | 0.52      |
| Mercury, Total Recoverable    | mg/L     | <0.0002 U     | <0.0002 U     | <0.0002 U    | <0.0002 U     | <0.0002 U     | <0.0002 U     | <0.0002 U     | <0.0002 U     | <0.0002 U |
| Molybdenum, Total Recoverable | mg/L     | 0.054         | 0.052         | 0.05         | 0.053         | 0.051         | 0.052         | 0.053         | 0.048         | 0.057     |
| Radium-226 + Radium-228       | pCi/L    | 0.647 ± 0.328 | 0.921 ± 0.369 | 1.07 ± 0.422 | 0.645 ± 0.389 | 0.489 ± 0.355 | 0.548 ± 0.272 | 0.553 ± 0.283 | 0.326 ± 0.212 | <0.355 U  |
| Selenium, Total Recoverable   | mg/L     | <0.005 U      | 0.0015 J      | 0.0019 J     | <0.005 U      | <0.005 U      | <0.005 U      | <0.005 U      | <0.005 U      | <0.005 U  |
| Thallium, Total Recoverable   | mg/L     | <0.001 U      | <0.001 U      | <0.001 U     | <0.001 U      | <0.001 U      | 0.000084 J    | <0.001 U      | <0.001 U      | <0.001 U  |

NOTES:

ft amsl, feet above mean sea level

mg/L, milligrams per liter

pCi/L, picocuries per liter

Non-detects have been listed with a "<" at the practical quantitation limit

U, Analyte not detected above the practical quantitation limit

J, Analyte detected between the method detection limit and practical quantitation limit

B, Analyte detected in the method blank



**Table 3. Sample Results Summary Table – TRcpc-15**

| Analytes                      | Units    | 9/8/2016      | 10/4/2016 | 11/9/2016 | 12/21/2016    | 1/25/2017     | 3/8/2017   | 4/10/2017  | 5/15/2017  | 8/31/2017  |
|-------------------------------|----------|---------------|-----------|-----------|---------------|---------------|------------|------------|------------|------------|
| Static Water Elevation        | ft amsl  | 6830.7        | 6830.7    | 6830.7    | 6830.7        | 6830.7        | 6830.7     | 6830.7     | 6830.7     | 6830.6     |
| <b>Appendix III</b>           |          |               |           |           |               |               |            |            |            |            |
| Boron, Total Recoverable      | mg/L     | 1.4           | 1.3       | 1.4       | 1.4           | 1.3           | 1.3        | 1.4        | 1.5 B      | 1.4        |
| Calcium, Total Recoverable    | mg/L     | 7.2 B         | 7.8       | 7.4       | 7.9           | 7.5           | 7.5        | 7.1        | 7.7        | 7.5        |
| Chloride                      | mg/L     | 550           | 550       | 540       | 540           | 540           | 550        | 520 B      | 590        | 500 B      |
| Fluoride                      | mg/L     | 2.9           | 3         | 2.9       | 2.9           | 2.9           | 2.9        | 2.4        | 2.9        | 2.8        |
| pH, Field-Measured            | pH units | 8.6           | 8.6       | 8.5       | 8.6           | 8.7           | 8.6        | 8.7        | 8.5        | 8.8        |
| Sulfate                       | mg/L     | 250           | 250       | 250       | 240           | 250           | 250        | 240 B      | 270        | 230        |
| Total Dissolved Solids        | mg/L     | 1700          | 1500      | 1600      | 2200          | 1600          | 1600       | 1600       | 1600       | 1500       |
| <b>Appendix IV</b>            |          |               |           |           |               |               |            |            |            |            |
| Antimony, Total Recoverable   | mg/L     | <0.002 U      | <0.002 U  | <0.002 U  | <0.002 U      | <0.002 U      | <0.002 U   | <0.002 U   | <0.002 U   | <0.002 U   |
| Arsenic, Total Recoverable    | mg/L     | 0.0042 J      | 0.0044 J  | 0.0046 J  | 0.0049 J      | 0.0055        | 0.0058     | 0.007      | 0.0071     | 0.0089     |
| Barium, Total Recoverable     | mg/L     | 0.032         | 0.03      | 0.03      | 0.028         | 0.03          | 0.028      | 0.031 B    | 0.03       | 0.035      |
| Beryllium, Total Recoverable  | mg/L     | <0.001 U      | <0.001 U  | <0.001 U  | <0.001 U      | <0.001 U      | <0.001 U   | <0.001 U   | <0.001 U   | <0.001 U   |
| Cadmium, Total Recoverable    | mg/L     | <0.001 U      | <0.001 U  | <0.001 U  | <0.001 U      | <0.001 U      | <0.001 U   | <0.001 U   | <0.001 U   | <0.001 U   |
| Chromium, Total Recoverable   | mg/L     | 0.00074 J     | <0.002 U  | 0.00053 J | <0.002 U      | <0.002 U      | <0.002 U   | <0.002 U   | <0.002 U   | <0.002 U   |
| Cobalt, Total Recoverable     | mg/L     | 0.00023 J     | 0.00015 J | 0.00016 J | 0.00011 J     | 0.000084 J    | 0.000075 J | 0.000067 J | 0.000058 J | 0.000071 J |
| Fluoride                      | mg/L     | 2.9           | 3         | 2.9       | 2.9           | 2.9           | 2.9        | 2.4        | 2.9        | 2.8        |
| Lead, Total Recoverable       | mg/L     | 0.00032 J     | 0.00025 J | 0.00018 J | <0.001 U      | <0.001 U      | <0.001 U   | <0.001 U   | <0.001 U   | <0.001 U   |
| Lithium, Total Recoverable    | mg/L     | 0.25          | 0.25      | 0.25      | 0.25          | 0.26          | 0.25       | 0.26       | 0.28       | 0.28       |
| Mercury, Total Recoverable    | mg/L     | <0.0002 U     | <0.0002 U | <0.0002 U | <0.0002 U     | <0.0002 U     | <0.0002 U  | <0.0002 U  | <0.0002 U  | <0.0002 U  |
| Molybdenum, Total Recoverable | mg/L     | 0.032         | 0.032     | 0.03      | 0.03          | 0.032         | 0.031      | 0.033      | 0.03       | 0.034      |
| Radium-226 + Radium-228       | pCi/L    | 0.547 ± 0.343 | <0.453 U  | <0.483 U  | 0.784 ± 0.387 | 0.505 ± 0.371 | <0.141 U   | <0.0248 U  | <0.267 U   | <0.367 U   |
| Selenium, Total Recoverable   | mg/L     | <0.005 U      | <0.005 U  | 0.0015 J  | <0.005 U      | <0.005 U      | <0.005 U   | <0.005 U   | <0.005 U   | <0.005 U   |
| Thallium, Total Recoverable   | mg/L     | <0.001 U      | <0.001 U  | <0.001 U  | <0.001 U      | <0.001 U      | <0.001 U   | <0.001 U   | <0.001 U   | <0.001 U   |

NOTES:

ft amsl, feet above mean sea level

mg/L, milligrams per liter

pCi/L, picocuries per liter

Non-detects have been listed with a "<" at the practical quantitation limit

U, Analyte not detected above the practical quantitation limit

J, Analyte detected between the method detection limit and practical quantitation limit

B, Analyte detected in the method blank

**Table 4. Sample Results Summary Table – TRcpc-16**

| Analytes                      | Units    | 9/7/2016  | 10/12/2016    | 11/9/2016 | 12/21/2016 | 1/25/2017     | 3/8/2017  | 4/10/2017 | 5/15/2017  | 8/31/2017     |
|-------------------------------|----------|-----------|---------------|-----------|------------|---------------|-----------|-----------|------------|---------------|
| Static Water Elevation        | ft amsl  | 6829.8    | 6829.8        | 6829.8    | 6829.8     | 6829.8        | 6829.8    | 6829.8    | 6829.8     | 6829.5        |
| <b>Appendix III</b>           |          |           |               |           |            |               |           |           |            |               |
| Boron, Total Recoverable      | mg/L     | 1.5       | 1.6           | 1.6       | 1.5        | 1.4           | 1.4       | 1.5       | 1.5 B      | 1.5           |
| Calcium, Total Recoverable    | mg/L     | 5.7 B     | 6.5           | 6         | 5.9        | 5.4           | 5.6       | 5         | 5.4        | 5.2           |
| Chloride                      | mg/L     | 460       | 470           | 460       | 460        | 460           | 470       | 480 B     | 480        | 410 B         |
| Fluoride                      | mg/L     | 3.6       | 3.5           | 3.6       | 3.5        | 3.6           | 3.5       | 2.9       | 3.6        | 3.4           |
| pH, Field-Measured            | pH units | 8.4       | 8.6           | 8.7       | 8.6        | 8.6           | 8.6       | 8.6       | 8.6        | 8.8           |
| Sulfate                       | mg/L     | 280       | 290           | 280       | 280        | 280           | 270       | 270 B     | 280        | 250           |
| Total Dissolved Solids        | mg/L     | 1600      | 1600          | 1600      | 2200       | 1600          | 1500      | 1600      | 1600       | 1400          |
| <b>Appendix IV</b>            |          |           |               |           |            |               |           |           |            |               |
| Antimony, Total Recoverable   | mg/L     | <0.002 U  | <0.002 U      | <0.002 U  | <0.002 U   | <0.002 U      | <0.002 U  | <0.002 U  | <0.002 U   | <0.002 U      |
| Arsenic, Total Recoverable    | mg/L     | 0.0054    | 0.0054        | 0.0049 J  | 0.0051     | 0.0047 J      | 0.0046 J  | 0.0052    | 0.0052     | 0.0056        |
| Barium, Total Recoverable     | mg/L     | 0.027     | 0.024 B       | 0.022     | 0.024      | 0.023         | 0.021     | 0.022 B   | 0.022      | 0.023         |
| Beryllium, Total Recoverable  | mg/L     | <0.001 U  | 0.000086 J    | <0.001 U  | <0.001 U   | <0.001 U      | <0.001 U  | <0.001 U  | <0.001 U   | <0.001 U      |
| Cadmium, Total Recoverable    | mg/L     | <0.001 U  | <0.001 U      | <0.001 U  | <0.001 U   | <0.001 U      | <0.001 U  | <0.001 U  | <0.001 U   | <0.001 U      |
| Chromium, Total Recoverable   | mg/L     | <0.002 U  | <0.002 U      | <0.002 U  | <0.002 U   | <0.002 U      | <0.002 U  | <0.002 U  | <0.002 U   | <0.002 U      |
| Cobalt, Total Recoverable     | mg/L     | 0.00018 J | 0.00017 J     | 0.00015 J | 0.00011 J  | 0.00011 J     | 0.00011 J | 0.00011 J | 0.000093 J | 0.000088 J    |
| Fluoride                      | mg/L     | 3.6       | 3.5           | 3.6       | 3.5        | 3.6           | 3.5       | 2.9       | 3.6        | 3.4           |
| Lead, Total Recoverable       | mg/L     | 0.00062 J | 0.00054 J     | 0.00039 J | 0.00033 J  | 0.0003 J      | 0.00024 J | 0.00026 J | 0.00025 J  | 0.00023 J     |
| Lithium, Total Recoverable    | mg/L     | 0.24      | 0.26          | 0.25      | 0.24       | 0.24          | 0.25      | 0.24      | 0.25       | 0.26          |
| Mercury, Total Recoverable    | mg/L     | <0.0002 U | <0.0002 U     | <0.0002 U | <0.0002 U  | <0.0002 U     | <0.0002 U | <0.0002 U | <0.0002 U  | <0.0002 U     |
| Molybdenum, Total Recoverable | mg/L     | 0.045     | 0.047         | 0.043     | 0.045      | 0.047         | 0.043     | 0.045     | 0.043      | 0.047         |
| Radium-226 + Radium-228       | pCi/L    | <0.732 U  | 0.836 ± 0.322 | <0.642 U  | <0.213 U   | 0.576 ± 0.320 | <0.37 U   | <0.0315 U | <0.135 U   | 0.739 ± 0.442 |
| Selenium, Total Recoverable   | mg/L     | <0.005 U  | 0.0007 J      | 0.0022 J  | <0.005 U   | <0.005 U      | <0.005 U  | <0.005 U  | <0.005 U   | <0.005 U      |
| Thallium, Total Recoverable   | mg/L     | <0.001 U  | 0.00007 J     | <0.001 U  | <0.001 U   | <0.001 U      | <0.001 U  | <0.001 U  | <0.001 U   | <0.001 U      |

NOTES:

ft amsl, feet above mean sea level

mg/L, milligrams per liter

pCi/L, picocuries per liter

Non-detects have been listed with a "<" at the practical quantitation limit

U, Analyte not detected above the practical quantitation limit

J, Analyte detected between the method detection limit and practical quantitation limit

B, Analyte detected in the method blank

Table 5. Sample Results Summary Table – TRcpc-17

| Analytes                      | Units    | 9/7/2016     | 10/12/2016   | 11/9/2016    | 12/21/2016   | 1/25/2017    | 3/8/2017     | 4/10/2017     | 5/15/2017    | 8/31/2017    |
|-------------------------------|----------|--------------|--------------|--------------|--------------|--------------|--------------|---------------|--------------|--------------|
| Static Water Elevation        | ft amsl  | 6831.9       | 6831.9       | 6831.9       | 6831.9       | 6831.9       | 6831.9       | 6831.9        | 6831.9       | 6833.1       |
| <b>Appendix III</b>           |          |              |              |              |              |              |              |               |              |              |
| Boron, Total Recoverable      | mg/L     | 1.4          | 1.4          | 1.4          | 1.3          | 1.3          | 1.3          | 1.3           | 1.3 B        | 1.4          |
| Calcium, Total Recoverable    | mg/L     | 20 B         | 21           | 20           | 20           | 19           | 18           | 17            | 17           | 18           |
| Chloride                      | mg/L     | 1600         | 1700         | 1600         | 1600         | 1600         | 1600         | 1500 B        | 1600         | 1500 B       |
| Fluoride                      | mg/L     | 2.5          | 2.6          | 2.6          | 2.6          | 2.6          | 2.6          | 2.3           | 2.7          | 2.7          |
| pH, Field-Measured            | pH units | 8.0          | 8.1          | 8.0          | 8.1          | 8.1          | 8.2          | 8.2           | 8.3          | 8.8          |
| Sulfate                       | mg/L     | 360          | 360          | 350          | 350          | 340          | 330          | 370 B         | 350          | 340          |
| Total Dissolved Solids        | mg/L     | 3600         | 3200         | 3000         | 3300         | 3100         | 3100         | 3100          | 3200         | 3100         |
| <b>Appendix IV</b>            |          |              |              |              |              |              |              |               |              |              |
| Antimony, Total Recoverable   | mg/L     | <0.002 U     | 0.00042 J    | <0.002 U     | <0.002 U     | <0.002 U     | <0.002 U     | <0.002 U      | <0.002 U     | <0.002 U     |
| Arsenic, Total Recoverable    | mg/L     | 0.0035 J     | 0.0039 J     | 0.0041 J     | 0.0036 J     | 0.0041 J     | 0.0044 J     | 0.0048 J      | 0.0048 J     | 0.0059       |
| Barium, Total Recoverable     | mg/L     | 0.07         | 0.07 B       | 0.066        | 0.065        | 0.057        | 0.054        | 0.056 B       | 0.051        | 0.055        |
| Beryllium, Total Recoverable  | mg/L     | <0.001 U     | <0.001 U     | <0.001 U     | <0.001 U     | <0.001 U     | <0.001 U     | <0.001 U      | <0.001 U     | <0.001 U     |
| Cadmium, Total Recoverable    | mg/L     | <0.001 U     | <0.001 U     | <0.001 U     | <0.001 U     | <0.001 U     | <0.001 U     | <0.001 U      | <0.001 U     | <0.001 U     |
| Chromium, Total Recoverable   | mg/L     | <0.002 U     | <0.002 U     | <0.002 U     | <0.002 U     | <0.002 U     | <0.002 U     | <0.002 U      | <0.002 U     | <0.002 U     |
| Cobalt, Total Recoverable     | mg/L     | 0.00034 J    | 0.00046 J    | 0.00042 J    | 0.00038 J    | 0.00031 J    | 0.00028 J    | 0.00026 J     | 0.00019 J    | 0.00018 J    |
| Fluoride                      | mg/L     | 2.5          | 2.6          | 2.6          | 2.6          | 2.6          | 2.6          | 2.3           | 2.7          | 2.7          |
| Lead, Total Recoverable       | mg/L     | 0.0002 J     | 0.00039 J    | <0.001 U     | <0.001 U     | <0.001 U     | <0.001 U     | <0.001 U      | <0.001 U     | <0.001 U     |
| Lithium, Total Recoverable    | mg/L     | 0.63         | 0.63         | 0.61         | 0.58         | 0.63         | 0.57         | 0.57          | 0.56         | 0.6          |
| Mercury, Total Recoverable    | mg/L     | <0.0002 U    | <0.0002 U    | <0.0002 U    | <0.0002 U    | <0.0002 U    | <0.0002 U    | <0.0002 U     | <0.0002 U    | <0.0002 U    |
| Molybdenum, Total Recoverable | mg/L     | 0.039        | 0.038        | 0.037        | 0.036        | 0.038        | 0.038        | 0.038         | 0.035        | 0.041        |
| Radium-226 + Radium-228       | pCi/L    | 1.89 ± 0.417 | 1.35 ± 0.347 | 1.47 ± 0.412 | 1.78 ± 0.498 | 1.09 ± 0.395 | 1.00 ± 0.299 | 0.971 ± 0.284 | 1.18 ± 0.362 | 1.28 ± 0.425 |
| Selenium, Total Recoverable   | mg/L     | <0.005 U     | <0.005 U     | 0.0021 J     | <0.005 U     | <0.005 U     | <0.005 U     | <0.005 U      | <0.005 U     | <0.005 U     |
| Thallium, Total Recoverable   | mg/L     | <0.001 U     | <0.001 U     | <0.001 U     | <0.001 U     | <0.001 U     | <0.001 U     | <0.001 U      | <0.001 U     | <0.001 U     |

## NOTES:

ft amsl, feet above mean sea level

mg/L, milligrams per liter

pCi/L, picocuries per liter

Non-detects have been listed with a "&lt;" at the practical quantitation limit

U, Analyte not detected above the practical quantitation limit

J, Analyte detected between the method detection limit and practical quantitation limit

B, Analyte detected in the method blank

**Table 6. Sample Results Summary Table – TRcpc-18**

| Analytes                      | Units    | 9/8/2016      | 10/12/2016 | 11/9/2016  | 12/21/2016 | 1/25/2017 | 3/8/2017  | 4/11/2017 | 5/15/2017 | 8/31/2017     |
|-------------------------------|----------|---------------|------------|------------|------------|-----------|-----------|-----------|-----------|---------------|
| Static Water Elevation        | ft amsl  | 6843.1        | 6843.1     | 6843.1     | 6843.1     | 6843.1    | 6843.1    | 6843.1    | 6843.1    | 6842.7        |
| <b>Appendix III</b>           |          |               |            |            |            |           |           |           |           |               |
| Boron, Total Recoverable      | mg/L     | 0.76          | 0.83       | 0.84       | 0.77       | 0.71      | 0.75      | 0.84      | 0.83 B    | 0.79          |
| Calcium, Total Recoverable    | mg/L     | 3.6 B         | 4.2        | 4.1        | 4.2        | 4         | 4.2       | 4.2       | 4.2       | 4.9           |
| Chloride                      | mg/L     | 380           | 380        | 380        | 380        | 380       | 380       | 380 B     | 370       | 320 B         |
| Fluoride                      | mg/L     | 1.8           | 1.9        | 2          | 1.9        | 1.8       | 1.7       | 1.4       | 1.9       | 1.6           |
| pH, Field-Measured            | pH units | 11.2          | 10.6       | 10.6       | 10.7       | 10.4      | 10.6      | 10.7      | 10.0      | 9.6           |
| Sulfate                       | mg/L     | 210           | 210        | 210        | 210        | 210       | 210       | 200 B     | 200       | 180           |
| Total Dissolved Solids        | mg/L     | 1300          | 1400       | 1400       | 1300       | 1300      | 1300      | 1200      | 1300      | 1200          |
| <b>Appendix IV</b>            |          |               |            |            |            |           |           |           |           |               |
| Antimony, Total Recoverable   | mg/L     | 0.0011 J      | 0.0017 J   | 0.00071 J  | 0.00064 J  | 0.00061 J | 0.00062 J | 0.00078 J | 0.00078 J | 0.0007 J      |
| Arsenic, Total Recoverable    | mg/L     | 0.029         | 0.029      | 0.027      | 0.024      | 0.025     | 0.021     | 0.025     | 0.024     | 0.021         |
| Barium, Total Recoverable     | mg/L     | 0.025         | 0.021 B    | 0.021      | 0.02       | 0.019     | 0.02      | 0.021 B   | 0.019     | 0.024         |
| Beryllium, Total Recoverable  | mg/L     | 0.00035 J     | <0.001 U   | <0.001 U   | <0.001 U   | <0.001 U  | <0.001 U  | <0.001 U  | <0.001 U  | <0.001 U      |
| Cadmium, Total Recoverable    | mg/L     | <0.001 U      | <0.001 U   | <0.001 U   | <0.001 U   | <0.001 U  | <0.001 U  | <0.001 U  | <0.001 U  | <0.001 U      |
| Chromium, Total Recoverable   | mg/L     | 0.0034        | 0.0026     | 0.0027     | 0.0022     | 0.0014 J  | 0.001 J   | 0.00078 J | 0.00072 J | 0.00064 J     |
| Cobalt, Total Recoverable     | mg/L     | 0.0004 J      | 0.00031 J  | 0.00029 J  | 0.00025 J  | 0.0002 J  | 0.00016 J | 0.00013 J | 0.00012 J | 0.00015 J     |
| Fluoride                      | mg/L     | 1.8           | 1.9        | 2          | 1.9        | 1.8       | 1.7       | 1.4       | 1.9       | 1.6           |
| Lead, Total Recoverable       | mg/L     | 0.00057 J     | 0.00052 J  | 0.00051 J  | 0.00052 J  | 0.00053 J | 0.00074 J | 0.00098 J | 0.00083 J | 0.0022        |
| Lithium, Total Recoverable    | mg/L     | 0.089         | 0.097      | 0.096      | 0.1        | 0.1       | 0.12      | 0.12      | 0.11      | 0.13          |
| Mercury, Total Recoverable    | mg/L     | <0.0002 U     | <0.0002 U  | 0.000058 J | <0.0002 U  | <0.0002 U | <0.0002 U | <0.0002 U | <0.0002 U | <0.0002 U     |
| Molybdenum, Total Recoverable | mg/L     | 0.025         | 0.025      | 0.022      | 0.022      | 0.024     | 0.024     | 0.025     | 0.024     | 0.027         |
| Radium-226 + Radium-228       | pCi/L    | 0.357 ± 0.342 | <0.459 U   | <0.492 U   | <0.349 U   | <0.386 U  | <0.131 U  | <0.137 U  | <0.0753 U | 0.523 ± 0.425 |
| Selenium, Total Recoverable   | mg/L     | 0.017         | 0.017      | 0.017 B    | 0.014      | 0.014     | 0.012     | 0.014     | 0.013     | 0.0089        |
| Thallium, Total Recoverable   | mg/L     | 0.00014 J     | 0.000053 J | <0.001 U   | <0.001 U   | <0.001 U  | <0.001 U  | <0.001 U  | <0.001 U  | <0.001 U      |

NOTES:

ft amsl, feet above mean sea level

mg/L, milligrams per liter

pCi/L, picocuries per liter

Non-detects have been listed with a "<" at the practical quantitation limit

U, Analyte not detected above the practical quantitation limit

J, Analyte detected between the method detection limit and practical quantitation limit

B, Analyte detected in the method blank



**Table 7. Statistics Summary Table – TRcpc-1**

| Analytes                   | Units    | Selected Statistical Method | Statistical Limit | Compliance Data Point (8/31/2017) | SSI Determination |
|----------------------------|----------|-----------------------------|-------------------|-----------------------------------|-------------------|
| <b>Appendix III</b>        |          |                             |                   |                                   |                   |
| Boron, Total Recoverable   | mg/L     | NP-PL                       | 1.6               | 1.5                               | No                |
| Calcium, Total Recoverable | mg/L     | NP-PL                       | 13                | 12                                | No                |
| Chloride                   | mg/L     | NP-PL                       | 660               | 530 B                             | No                |
| Fluoride                   | mg/L     | NP-PL                       | 1.8               | 1.5                               | No                |
| pH, Field-Measured         | pH units | NP-PL                       | 8.3, 9.1          | 8.9                               | No                |
| Sulfate                    | mg/L     | NP-PL                       | 910               | 760                               | No                |
| Total Dissolved Solids     | mg/L     | NP-PL                       | 2600              | 2400                              | No                |

NOTES:

P-PL, Parametric Prediction Limit

NP-PL, Non-parametric Prediction Limit

mg/L, milligrams per liter

B, Analyte detected in the method blank

**Table 8. Statistics Summary Table – TRcpc-2**

| Analytes                   | Units    | Selected Statistical Method | Statistical Limit | Compliance Data Point (8/31/2017) | SSI Determination |
|----------------------------|----------|-----------------------------|-------------------|-----------------------------------|-------------------|
| <b>Appendix III</b>        |          |                             |                   |                                   |                   |
| Boron, Total Recoverable   | mg/L     | P-PL                        | 1.73              | 1.5                               | No                |
| Calcium, Total Recoverable | mg/L     | NP-PL                       | 15                | 15                                | No                |
| Chloride                   | mg/L     | NP-PL                       | 1200              | 990 B                             | No                |
| Fluoride                   | mg/L     | NP-PL                       | 2.2               | 2.1                               | No                |
| pH, Field-Measured         | pH units | P-PL                        | 8.1, 8.7          | 9.4                               | Unverified SSI    |
| Sulfate                    | mg/L     | NP-PL                       | 590               | 480                               | No                |
| Total Dissolved Solids     | mg/L     | P-PL                        | 3025              | 2700                              | No                |

NOTES:

P-PL, Parametric Prediction Limit

NP-PL, Non-parametric Prediction Limit

mg/L, milligrams per liter

B, Analyte detected in the method blank

**Table 9. Statistics Summary Table – TRcpc-15**

| Analytes                   | Units    | Selected Statistical Method | Statistical Limit | Compliance Data Point (8/31/2017) | SSI Determination |
|----------------------------|----------|-----------------------------|-------------------|-----------------------------------|-------------------|
| <b>Appendix III</b>        |          |                             |                   |                                   |                   |
| Boron, Total Recoverable   | mg/L     | P-PL                        | 1.63              | 1.4                               | No                |
| Calcium, Total Recoverable | mg/L     | P-PL                        | 8.5               | 7.5                               | No                |
| Chloride                   | mg/L     | P-PL                        | 618               | 500 B                             | No                |
| Fluoride                   | mg/L     | NP-PL                       | 3                 | 2.8                               | No                |
| pH, Field-Measured         | pH units | P-PL                        | 8.4, 8.8          | 8.8                               | No                |
| Sulfate                    | mg/L     | NP-PL                       | 270               | 230                               | No                |
| Total Dissolved Solids     | mg/L     | NP-PL                       | 2200              | 1500                              | No                |

## NOTES:

P-PL, Parametric Prediction Limit

NP-PL, Non-parametric Prediction Limit

mg/L, milligrams per liter

B, Analyte detected in the method blank

**Table 10. Statistics Summary Table – TRcpc-16**

| Analytes                   | Units    | Selected Statistical Method | Statistical Limit | Compliance Data Point (8/31/2017) | SSI Determination |
|----------------------------|----------|-----------------------------|-------------------|-----------------------------------|-------------------|
| <b>Appendix III</b>        |          |                             |                   |                                   |                   |
| Boron, Total Recoverable   | mg/L     | P-PL                        | 1.77              | 1.5                               | No                |
| Calcium, Total Recoverable | mg/L     | P-PL                        | 7.3               | 5.2                               | No                |
| Chloride                   | mg/L     | NP-PL                       | 480               | 410 B                             | No                |
| Fluoride                   | mg/L     | NP-PL                       | 3.6               | 3.4                               | No                |
| pH, Field-Measured         | pH units | P-PL                        | 8.3, 8.9          | 8.8                               | No                |
| Sulfate                    | mg/L     | NP-PL                       | 290               | 250                               | No                |
| Total Dissolved Solids     | mg/L     | NP-PL                       | 2200              | 1400                              | No                |

NOTES:

P-PL, Parametric Prediction Limit

NP-PL, Non-parametric Prediction Limit

mg/L, milligrams per liter

B, Analyte detected in the method blank

Table 11. Statistics Summary Table – TRcpc-17

| Analytes                        | Units    | Selected Statistical Method | Statistical Limit | Compliance Data Point (8/31/2017) | SSI Determination |
|---------------------------------|----------|-----------------------------|-------------------|-----------------------------------|-------------------|
| <b>Appendix III</b>             |          |                             |                   |                                   |                   |
| Boron, Total Recoverable        | mg/L     | NP-PL                       | 1.4               | 1.4                               | No                |
| Calcium, Total Recoverable      | mg/L     | Trend <sup>1</sup>          | -                 | 18                                | No                |
| Chloride                        | mg/L     | NP-PL                       | 1700              | 1500 B                            | No                |
| Fluoride                        | mg/L     | NP-PL                       | 2.7               | 2.7                               | No                |
| pH, Field-Measured <sup>2</sup> | pH units | P-PL                        | 8.1, 8.2          | 8.8 (8.5)                         | Unverified SSI    |
| Sulfate                         | mg/L     | P-PL                        | 395.3             | 340                               | No                |
| Total Dissolved Solids          | mg/L     | P-PL                        | 3855              | 3100                              | No                |

## NOTES:

P-PL, Parametric Prediction Limit

NP-PL, Non-parametric Prediction Limit

mg/L, milligrams per liter

B, Analyte detected in the method blank

1. Trend analysis used for the determination of SSIs.

2. A statistical limit was established using detrended data. Compliance data is detrended for comparison to statistical limit. Detrended value is shown in parentheses.

**Table 12. Statistics Summary Table – TRcpc-18**

| Analytes                   | Units    | Selected Statistical Method | Statistical Limit | Compliance Data Point (8/31/2017) | SSI Determination |
|----------------------------|----------|-----------------------------|-------------------|-----------------------------------|-------------------|
| <b>Appendix III</b>        |          |                             |                   |                                   |                   |
| Boron, Total Recoverable   | mg/L     | P-PL                        | 0.97              | 0.79                              | No                |
| Calcium, Total Recoverable | mg/L     | NP-PL                       | 4.2               | 4.9                               | Unverified SSI    |
| Chloride                   | mg/L     | NP-PL                       | 380               | 320 B                             | No                |
| Fluoride                   | mg/L     | P-PL                        | 2.46              | 1.6                               | No                |
| pH, Field-Measured         | pH units | P-PL                        | 9.4, 11.8         | 9.6                               | No                |
| Sulfate                    | mg/L     | NP-PL                       | 210               | 180                               | No                |
| Total Dissolved Solids     | mg/L     | NP-PL                       | 1400              | 1200                              | No                |

NOTES:

P-PL, Parametric Prediction Limit

NP-PL, Non-parametric Prediction Limit

mg/L, milligrams per liter

B, Analyte detected in the method blank

## FIGURES





**LEGEND**

|             |          |                                    |
|-------------|----------|------------------------------------|
|             | TRcpc-1  | UPGRADIENT MONITORING WELL         |
|             | TRcpc-18 | DOWNGRADIENT MONITORING WELL       |
| <b>6860</b> |          | GROUNDWATER ELEVATION (MARCH 2017) |



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|------------|------------|
| YYYY-MM-DD | 2018-01-26 |
| DESIGNED   | DVS        |
| PREPARED   | KAC        |
| REVIEWED   | JEO        |
| APPROVED   | RRJ        |

PROJECT

ESCALANTE GENERATING STATION  
ACTIVE COAL COMBUSTION RESIDUALS LANDFILL  
ANNUAL GROUNDWATER MONITORING REPORT

TITLE

MONITORING WELL LOCATIONS AND GROUNDWATER ELEVATIONS (MARCH 2017)

PROJECT NO.  
1783558

REV.  
B

FIGURE  
1

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

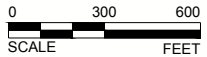




Path: \\Denver.golder.com\gis\shared\151533418\PRODUCTION\1 File Name: 1533418A001\_CCR wells only\_ white land\_CW\_Con\_Aug17.dwg

**LEGEND**

|   |          |                                     |
|---|----------|-------------------------------------|
|  | TRcpc-1  | UPGRADIENT MONITORING WELL          |
|  | TRcpc-18 | DOWNGRADIENT MONITORING WELL        |
| 6860  |          | GROUNDWATER ELEVATION (AUGUST 2017) |



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|------------|------------|
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| DESIGNED   | DVS        |
| PREPARED   | KAC        |
| REVIEWED   | JEO        |
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PROJECT  
**ESCALANTE GENERATING STATION  
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 ANNUAL GROUNDWATER MONITORING REPORT**

TITLE  
**MONITORING WELL LOCATIONS AND GROUNDWATER  
 ELEVATIONS (AUGUST 2017)**

PROJECT NO.  
**1783558**

REV. **B**

1 in IF THIS MEASUREMENT DOES NOT MATCH WHAT IS SHOWN, THE SHEET SIZE HAS BEEN MODIFIED FROM A4S D



Established in 1960, Golder Associates is a global, employee-owned organization that helps clients find sustainable solutions to the challenges of finite resources, energy and water supply and management, waste management, urbanization, and climate change. We provide a wide range of independent consulting, design, and construction services in our specialist areas of earth, environment, and energy. By building strong relationships and meeting the needs of clients, our people have created one of the most trusted professional services organizations in the world.

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**Engineering Earth's Development, Preserving Earth's Integrity**