MITIGATION PERFORMANCE REVIEW FOR 2023

MITIGATION ORDER ON CONSENT DOCKET NO. P-121-07

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April 24, 2024

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1.0 INTRODUCTION

This mitigation performance review for 2023 evaluates the effectiveness of the mitigation action conducted by Freeport Minerals Corporation Copper Queen Branch (CQB) to address the potential for sulfate in groundwater to affect[1] drinking water supplies in the vicinity of the former Concentrator Tailing Storage Area (CTSA) near Naco, Arizona. Figure 1 shows the sulfate plume, CTSA, and local features in the vicinity of Naco.

The aquifer near Naco contains a groundwater plume of sulfate due to historical seepage from the CTSA. Currently, concentrations of sulfate in drinking water supplies do not exceed the mitigation action objective of 250 milligrams per liter (mg/L). However, the future migration of the plume could cause the concentration of sulfate in drinking water supplies to exceed 250 mg/L at which point they would require mitigation.

The objective of the mitigation action is to prevent the average sulfate concentration of a drinking water supply from exceeding 250 mg/L at the point of use, if the sulfate originated at the CTSA. The mitigation action consists of groundwater monitoring and contingency[2] mitigation planning. Groundwater monitoring tracks the location of the plume and documents sulfate concentrations in drinking water supply wells in the vicinity of the plume. Contingency mitigation planning consists of work to anticipate potential affects to public drinking water supplies near Naco and develop mitigation actions that could be used if needed.

CQB is implementing the mitigation action pursuant to Mitigation Order on Consent Docket No. P-121-07 between Arizona Department of Environmental Quality (ADEQ) and CQB (ADEQ, 2007). The performance review is a stipulation of the Mitigation Plan (Clear Creek Associates, 2015a) which was submitted to ADEQ in March 2015. The Mitigation Plan describes the mitigation actions for sulfate in drinking water supplies. CQB has implemented certain elements

[1] The terms “affect”, “affects” and “affected”, with reference to a drinking water supply, are defined for the purpose of the Mitigation Plan as indicating a water supply with an average sulfate concentration exceeding 250 milligrams per liter due to sulfate originating from the Concentrator Tailing Storage Area.

[2] As described in the Feasibility Study and the Mitigation Plan, the terms “contingent” and “contingency” are used because it is uncertain whether a drinking water supply will be affected in the future. CQB monitors public and private drinking water supplies under the long-term plume monitoring program (Section 2.2) and would mitigate a drinking water supply that monitoring data indicate has an average concentration of sulfate greater than 250 mg/L.

of the Mitigation Plan, which is not yet approved by ADEQ. Project correspondence and reports submitted to ADEQ are available online at the CQB Internet Document Repository (https://fcx.com/Bisbee) or at the Copper Queen Library in Bisbee, Arizona.

1.1 Background

The groundwater plume of sulfate is expected to migrate slowly westward over time to the vicinity of public drinking water supplies in the Naco area. Pursuant to the Mitigation Order, CQB completed various required work to determine the nature and extent of the sulfate plume, mitigate historical affects to drinking water supplies, and propose a long-term plan for mitigation of potential future affects to drinking water supplies[3]. The Mitigation Plan was developed to accomplish the long-term protection of drinking water supplies under the Mitigation Order.

The Mitigation Plan describes the process being followed to implement the mitigation action[4] for sulfate in groundwater that may affect existing drinking water supplies in the future. CQB mitigated previously affected drinking water supplies (CQB, 2013) under a separate plan (Clear Creek Associates, 2012) approved by ADEQ (ADEQ, 2012).

The mitigation action being implemented is the recommended alternative of the Feasibility Study (Clear Creek Associates, 2014) submitted to and approved by ADEQ (ADEQ, 2014). The mitigation action contains the following components:

- expanded groundwater monitoring to track plume migration in the vicinity of the Arizona Water Company (AWC) and Naco Water Company (NWC) public water supplies near Naco for the purposes of establishing sentinel wells with action levels that, if exceeded, would trigger a contingent mitigation action at a public supply, if needed,

- long-term plume monitoring to document sulfate concentrations at public and private drinking water supplies, and to describe the groundwater flow system and large-scale geometry of the plume over time,

[3] Technical information on the hydrogeology of the sulfate plume and an analysis of potential mitigation actions is contained in the Aquifer Characterization Report (Clear Creek Associates, 2010) and the Feasibility Study for Drinking Water Supplies that may be Affected by Sulfate in the Future (Clear Creek Associates, 2014).

[4] The term mitigation action encompasses all actions implemented under the Mitigation Plan. If a contingent mitigation measure is implemented or implemented measures are changed due to adaptive management, then the term mitigation action encompasses the contingency or change.

- a water supply study to identify a potential alternate groundwater source for mitigation of a public water supply, if needed,

- annual review of Arizona Department of Water Resources (ADWR) well registry records for wells within a mile of the plume edge to identify new drinking water supply wells for sampling, and

- implementation of contingent mitigation actions, if needed.

A review of the status of mitigation action components in 2023 is in Section 2. Additionally, per the Mitigation Plan, groundwater monitoring reports are submitted to ADEQ annually and Community Advisory Group meetings between CQB, ADEQ, and stakeholders are conducted annually.

1.2 Mitigation Action Objective

The mitigation action objective defined in the Mitigation Order and described in the Feasibility Study is to "practically and cost effectively provide a drinking water supply that meets applicable standards and with sulfate concentrations less than 250 mg/L to the owner(s)/operator(s) of existing drinking water supplies determined…to have an average sulfate concentration in excess of 250 mg/L…as a result of the sulfate plume originating from the PDCTSA".[5] A key measure of effectiveness of the mitigation action is that private and public drinking water supplies meet the mitigation action objective by having a sulfate concentration less than 250 mg/L.

1.3 Role and Scope of the Mitigation Performance Review

The Mitigation Plan specifies that mitigation performance reviews will assess whether the Mitigation Plan actions are performing as expected with respect to the mitigation action objective. The performance review also evaluates whether the Mitigation Plan actions need modification to meet the mitigation action objective or can be terminated.

The mitigation performance review analyzes the data collected under the expanded groundwater monitoring program (EGMP) and the long-term plume monitoring program. The sulfate data are used to evaluate sulfate concentration trends at monitoring and drinking water supply wells. Water level data are used to interpret the apparent groundwater flow direction in the vicinity of the plume.

[5] PDCTSA stands for Phelps Dodge Concentrator Tailing Storage Area. Phelps Dodge Corporation operated the Copper Queen Branch when the Mitigation Order was issued.

The performance review may recommend modifications to the EGMP and long-term groundwater monitoring program if warranted, based on prevailing conditions. As described in the Mitigation Plan, adaptive management would be used to evaluate and modify the mitigation actions in the event that conditions assumed for the Mitigation Plan change or the performance review analysis determines that the plume is migrating in a way that is significantly different from previous predictions.

The Mitigation Plan specifies mitigation performance reviews annually for the first five years of the Mitigation Plan actions[6] and every five years thereafter. This mitigation performance review for 2023 is the sixth performance review submitted under the Mitigation Plan and the first submitted on the five-year schedule. The next performance review report will be the performance review for 2028 due in April 2029.

Per the Mitigation Plan, the frequency of mitigation performance reviews would revert back to annual if an action level established pursuant to the EGMP is exceeded at a time when mitigation performance reviews are submitted every five years. The annual reporting frequency would continue until a contingency action is taken or sulfate consistently drops below the action level, after which the frequency for mitigation performance reviews would return to every five years.

[6] Performance review reports were submitted for 2014, 2015, 2016, 2017, and 2018 (Clear Creek Associates, 2015b, 2016b, 2017, and 2018, 2019).

2.0 REVIEW OF MITIGATION PLAN ACTIONS IN 2023

Mitigation Plan actions conducted in 2023 include expanded groundwater monitoring, long-term plume monitoring, and the ADWR well registry review. The expanded groundwater monitoring and long-term groundwater monitoring programs gather information on sulfate concentrations and groundwater levels using a network of groundwater monitoring and private wells in the vicinity of the plume. Figures 2 and 3 show the locations of wells monitored under the Mitigation Plan and discussed in this report.

2.1 Expanded Groundwater Monitoring

The EGMP monitors the position of the westward migrating plume in the immediate vicinity of the existing AWC and NWC public water supplies near Naco. An objective of the EGMP is to collect information on the rate of plume movement for use in contingency mitigation planning.

The EGMP uses groundwater monitoring data from monitor wells installed by CQB, unused private wells, and public and private drinking water supply wells at the front of the plume to track plume movement and sulfate concentration trends for assessment of the potential for sulfate to affect a public drinking water supply. The original intent of the EGMP was to determine the in-situ velocity of the plume by measuring the time it takes for the plume to move between monitoring wells. Data for the in-situ plume velocity, the rate of change of sulfate at the front, and the time needed to implement a contingent mitigation for the AWC water supply were to be used to recommend sentinel well locations and sulfate action levels that would trigger contingent mitigation activities.

The Mitigation Plan identified contingency mitigation planning tasks for the EGMP including installation of additional monitoring wells at the front of the plume, a water supply study to identify alternate water sources for the AWC supply, and a conceptual design and estimation of an implementation timeframe for a contingent mitigation action. The following table lists the schedule and submittal dates for these tasks.

CONTINGENCY MITIGATION ACTION PLANNING	DUE DATE	DATE SUBMITTED TO ADEQ
Expanded Groundwater Monitoring Program	October 1, 2015	August 19, 2015
Water Supply Study	July 1, 2016	February 5, 2016
Implementation Schedule for an Alternate Water Supply	July 1, 2017	June 22, 2017
Sentinel Well and Action Level Recommendations	To Be Determined	To Be Determined

Installation and testing of twelve wells (EGMP wells) was completed in March 2015 (Clear Creek Associates, 2015c). On completion of eight quarters of baseline monitoring, the EGMP wells were added to the long-term groundwater monitoring schedule (Table 1) for sampling twice per year per the recommendation in the performance review for 2016 (Clear Creek Associates, 2017b).

The water supply study submitted to ADEQ in February 2016 (Clear Creek Associates, 2016a) identified a feasible alternate water supply in the basin fill aquifer south of the AWC wellfield. In 2017, CQB prepared and submitted to ADEQ a preliminary design and implementation schedule for an alternate water supply consisting of new extraction wells, and piping and pumping infrastructure (Clear Creek Associates and WestLand Resources, Inc., 2017) (Section 2.4).

In February 2018, CQB requested that the sentinel well and action level report be postponed to allow time for additional groundwater monitoring (CQB, 2018). The additional time for monitoring was needed because the in-situ plume velocity had not been measured due to the slow movement of the plume and the complex spatial pattern of sulfate at the front of the plume. ADEQ approved the request to postpone submittal of the action level report (ADEQ, 2018). Sections 3.2, 4.2.1, and 4.3 discuss the concentration and distribution of sulfate in wells and the interpretation of the monitoring data, respectively.

2.2 Long-term Plume Monitoring

The long-term plume monitoring program collects information on the distribution of sulfate and water level conditions in and around the plume. Public and private drinking water supplies are monitored to determine their sulfate concentration with respect to the 250 mg/L mitigation action objective. Water level and sulfate measurements are collected at monitoring wells throughout the plume to track the large-scale geometry and concentration of the plume over time. The objectives of long-term plume monitoring are:

- determination of the sulfate concentration in drinking water supplies within a one-mile radius of the outer edge of the sulfate plume (i.e., the 250 mg/L sulfate concentration contour),
- identification of the plume margin for ongoing delineation of the plume extent and assessment of plume migration (plume edge monitoring),
- documentation of the sulfate concentrations in the plume and areas distal to the plume to monitor long-term concentration trends (regional monitoring), and
- measurement of water levels in the vicinity of the plume to document potentiometric conditions.

Long-term plume monitoring pursuant to the Mitigation Plan was implemented in 2015. Figure 4 shows well locations and sampling frequencies for long-term plume monitoring. The results of groundwater monitoring from 2019 through 2023 were reported to ADEQ in annual groundwater monitoring reports (Clear Creek Associates, 2020, 2021, 2022, 2023, and 2024). Appendices A and B contain analytical data and groundwater level data collected at the site since 2008, respectively.

2.3 Annual ADWR Well Registry Records Review

Groundwater wells installed in Arizona are required to be registered with ADWR. Under the Mitigation Plan, the ADWR well registry records are reviewed annually to identify new existing wells installed within one mile of the plume. The water use at new wells is determined from the ADWR registry record and by inquiry with the well owner. CQB offers to sample new drinking water supply wells within a mile of the plume and adds the wells to the long-term plume monitoring schedule. The ability to sample any new wells is dependent on permission from the well owner to access the well.

The results of the well registry reviews from 2019 to 2023 were reported in the annual groundwater monitoring reports for those years (Clear Creek Associates, 2020, 2021, 2022, 2023, and 2024). The well registry reviews identified six well records within a mile of the plume since 2018. The well reviews identified one Notice of Intent to Install a Well, one late registration for an inactive well and four private wells that were added to the mitigation order sampling program with owner permission. The results of the of the well records review are summarized in the table below.

Well Registry Number	Well Name	Owner Name	Installed	Sampling Start Date	Usage	Mitigation Order Groundwater Monitoring Frequency
232146	RUIZ 146	David Ruiz	4/2020	8/12/2020	Private Drinking Water Supply	Semiannual
232988	COOPER 988	Theresa Cooper	12/2020	7/16/2021	Private Drinking Water Supply	Semiannual
234101	TERRY 101	James Terry	4/2021	9/3/2021	Private Drinking Water Supply	Annual
240093	BONADUCE 093	Gretchan Bonaduce	--	--	--	Semiannual if Installed
810080	OSBORN	Cynthia Osborn	Before 1980	--	Not Operational	--
236750	LAIR	Linda Lair	7/2022	1/31/2023	Private Drinking Water Supply	Annual

The initial samples for each of the four active private drinking water supply wells had sulfate concentrations below the 250 mg/L mitigation action objective and below 135 mg/L, which is the trigger for monthly monitoring and trend analysis in Section 2.3.1 of the Mitigation Plan. The four private drinking water supply wells were added to the long-term plume monitoring schedule with sampling frequencies based on location and usage.

2.4 Contingent Mitigation of Drinking Water Supplies

Section III.E of the Mitigation Order indicates that drinking water supply mitigation applies to existing drinking water supplies that are determined to be affected based on the results of water sampling and analysis. Contingent mitigation of drinking water supplies, if needed, would be used to provide a drinking water supply meeting the mitigation action objective of 250 mg/L sulfate. The Mitigation Plan set a temporary action level of 150 mg/L sulfate at the AWC extraction wells. No mitigation actions were initiated between 2018 and 2023 because there were no monitored drinking water supply wells with concentrations that exceeded 250 mg/L sulfate and concentrations at AWC wells were less than the 150 mg/L temporary action level set by the Mitigation Plan.

Although there was no work needed for the implementation schedule in between 2018 and 2023, the completed work is reviewed below as it is critical for showing the status of contingency planning for the AWC water supply. The water supply study submitted to ADEQ concluded that the basin fill aquifer south of the AWC wellfield has good potential as an alternate water supply based on the hydraulic and water quality testing results (Clear Creek Associates, 2016a). In 2017, CQB developed a preliminary design and implementation schedule for development of an alternate supply, if needed (Clear Creek Associates and WestLand Resources, Inc., 2017). The implementation schedule was submitted to ADEQ June 2017 in accordance with the deliverable date in the Mitigation Plan.

The design and implementation schedule assumed that groundwater extraction wells would be installed on property approximately one mile south of the existing AWC wellfield and that a pipeline would be constructed to connect the extraction wells to the existing AWC wellfield infrastructure. In 2017, CQB proactively acquired land contiguous with and south of the existing AWC wellfield that could be used for the extraction wells and pipeline corridor of an alternate water supply, if needed. The land acquisition was not a requirement of the Mitigation Plan.

The implementation schedule estimated the time needed to develop an alternate drinking water supply on the CQB property and connect it to the existing AWC facilities. The implementation schedule considered activities such as right-of-way development, permitting, well drilling,

engineering design, contractor selection, construction of infrastructure, and post-construction approvals and commissioning that would be needed to develop the alternate drinking water supply and connect it to the existing AWC system. The implementation schedule indicates 48 months would be required to permit, build, and start the alternate water supply, if needed.

3.0 ANALYSIS OF GROUNDWATER MONITORING DATA

The results of groundwater monitoring through 2023 are evaluated in this section to characterize hydrogeologic conditions, compliance with the mitigation action objective at drinking water supply wells, and the extent of the plume. Maps of sulfate concentration and time series concentration data for monitoring wells are used to estimate the migration of the plume.

3.1 Hydrogeologic Setting

The hydrogeology in the vicinity of the plume is described in detail in the Aquifer Characterization Report (ACR) (Clear Creek Associates, 2010) prepared for the Mitigation Order. The following summary is provided to describe a generalized hydrogeologic framework in which the mitigation action is conducted.

The CTSA is in the northeastern portion of the Bisbee-Naco physiographic basin south of the Mule Mountains (Figure 1). The Mule Mountains, Cerro La Muela, and Sierra San Jose form the northern, eastern, and southern margins of the basin, respectively. Approximately one-half of the physiographic basin lies in Mexico. The mountains surrounding the basin are composed of bedrock materials, and the basin area consists of clastic sediment, called basin fill, which is underlain by bedrock. Surface runoff from the Bisbee-Naco watershed drains into Greenbush Draw, which flows west to the Upper San Pedro River.

Groundwater occurs in two hydrostratigraphic units in the vicinity of the sulfate plume: basin fill and bedrock of the Bisbee Group. Figure 5 is a map of the surface geology of the area in the vicinity of the sulfate plume based on Hayes and Landis (1964).

Basin fill is relatively permeable and consists of poorly to moderately cemented sand and gravel deposits formed by alluvial fans emanating from the mountains. The basin fill thickness increases from zero at the mountain fronts to approximately 635 feet in the central portion of the basin north of Naco. The basin fill aquifer is the primary source of the water pumped for the public water supplies near Naco.

Bedrock of the Bisbee Group underlies the basin fill and consists of (from younger to older) the Cintura Formation, Mural Limestone, Morita Formation, and Glance Conglomerate. In the vicinity of the plume the Bisbee Group is composed primarily of clastic sedimentary rocks such as conglomerate, sandstone, and shale with limestone being a minor component. The bedrock has a low to moderate permeability compared to the basin fill, and massively bedded portions of the Mural Limestone may be relatively impermeable. The bedrock aquifer provides water to private

domestic water supplies, but does not have sufficient permeability to support large capacity pumping such as needed for public water supplies.

Groundwater flows from east to west in the area of the plume. The sulfate plume migrated westward in the groundwater flow system and extends southwest and south from the former evaporation ponds to the vicinity of Naco and Bisbee Junction (Figure 1). West of the Black Gap fault (Figure 5), the sulfate plume is contained primarily within the basin fill, although elevated sulfate concentrations do extend into the underlying undifferentiated Bisbee Group in the central and northern portions of the plume. East of the Black Gap fault the sulfate plume is entirely within bedrock because the basin fill is unsaturated. On an area-wide basis, approximately half of the plume is contained in bedrock.

3.2 Sulfate Concentration Data

Sulfate concentration data through 2023 were used to create contour maps and time series graphs for evaluation of the plume extent and sulfate concentration trends over time. The sulfate data are collected for both the monitoring of drinking water supplies and for plume characterization. The determination of sulfate concentrations at public and private drinking water supplies measures attainment of the mitigation action objective.

Sulfate data for plume characterization are collected at wells differentiated according to three monitoring purposes: lateral plume edge monitoring, plume edge monitoring beneath the plume, and regional monitoring, as identified in Table 1. Plume edge monitoring tracks the migration of the plume. Regional monitoring provides data for describing the long-term evolution of the plume. The sulfate data used for this performance review are reported in the annual groundwater monitoring report for 2023 (Clear Creek Associates, 2024).

3.2.1 Contour Map of Sulfate Concentrations

Figures 6 and 7 are maps of inferred sulfate concentration contours for the third quarter of 2023, the most recent data set. Figure 6 shows the site-wide distribution of sulfate, whereas Figure 7 focuses on the western, downgradient edge of the plume. The third quarter 2023 was a biennial sampling event (Table 1) which has the largest number and geographic distribution of sulfate measurements of any of the monitoring events. Sulfate concentration contour maps for the site-wide distribution of sulfate and of the west edge of the plume for the first and third quarters of 2019 through 2023 are provided in the annual groundwater monitoring reports submitted to ADEQ (Clear Creek Associates, 2020, 2021, 2022, 2023, and 2024). Appendix A is a compilation of sulfate concentration data included in the annual reports.

The extent of the sulfate plume is defined to be the 250 mg/L sulfate concentration contour based on previous reporting for the Mitigation Order (e.g., Clear Creek Associates, 2010 and 2014). The sulfate plume as shown on Figure 6 is approximately 3.7 miles long in the northeast-southwest direction and 1.8 miles across in the northwest-southeast direction. The plume edge is generally smooth except at the southwestern edge, which is irregular with several protrusions and embayments (Figure 7).

To illustrate changes in the plume shape over time, Figure 8 shows the sulfate concentration contour map reported for the third quarter of 2008 for comparison with the map for the third quarter of 2023. Figures 6 and 8 show that the overall footprint of the plume in 2023 is similar to that in 2008. The primary differences between the 250 mg/L sulfate contours for 2023 and 2008 are an apparent westward migration of the eastern plume edge at wells NOTEMAN and PANAGAKOS, and an apparent westward migration of the western leading edge of the plume.

The apparent migration of the west edge of the plume is partly due the addition of the EGMP wells at the front of the plume in 2014 and 2015. The increased density of sulfate concentration data from EGMP wells provided a better definition of the 250 mg/L sulfate concentration contour at the leading edge of the plume than was available in 2008. Concentration trends for monitoring wells at the lateral plume edge are discussed in Sections 3.2.4.1 and 3.2.4.3.

As discussed in the ACR (Clear Creek Associates, 2010), the plume has a vertical dimension. The vertical extent of the plume is determined from co-located wells where only one of the wells exceeds 250 mg/L sulfate. These wells are evident on Figures 6, 7, and 8, as wells within the 250 mg/L sulfate concentration contour that have sulfate concentrations less than 250 mg/L. Co-located wells that show the vertical distribution of sulfate include basin fill/bedrock pairs installed in 2008 and basin fill well pairs installed for the EGMP. Concentration trends for monitoring wells below the plume are discussed in Section 3.2.4.3. Concentration trends for EGMP well pairs that show vertical distribution of sulfate in the basin fill are discussed in Section 3.2.4.2. Appendix C contains well construction data for BMO monitor wells including the depths of screened intervals.

3.2.2 Sulfate Concentration at Public Drinking Water Supply Wells

Time series graphs of sulfate concentrations at public drinking water are shown on Figure 9. The sulfate data indicate that concentrations are less than the 250 mg/L mitigation action objective in all public drinking water supply wells and that the mitigation action objective is being met. The calculated rates of sulfate concentration change discussed in this section and Section 3.2.4 are based on the trendline analyses in Appendix D. The line of best fit was calculated for sulfate values

since sampling began at each well. Table D.1 shows the slope and r-squared (coefficient of determination) value for each trendline. The slopes of the trendlines show the rate of change in sulfate concentration over the period of record but may not represent variability in the data or changes in the trend over shorter intervals. R-squared is a measure of the variability in the data. In general, higher r-squared values indicate that the data fit the trendline better and lower values represent data with more variability.

Sulfate concentrations at the AWC wellfield wells, AWC-02, AWC-03, AWC-04, and AWC-05, were less than 74 mg/L in 2023, and less than the 150 mg/L temporary action level set for AWC wellfield wells. The highest sulfate concentration measured in the AWC wellfield was 87.2 mg/L in the July 2021 sample from AWC-03. Sulfate concentrations have been relatively steady[7] over time at AWC-02, AWC-04, and AWC-05 whereas the sulfate concentrations at AWC-03 show an increasing trend since 2008. The sulfate concentration at AWC-03 has ranged from 37 to 87 mg/L and increased at approximately 2.5 mg/L per year for the period of record, although the rate of increase between 2017 and 2023 was less at 1.7 mg/L per year.

The NWC wells, NWC-02 and NWC-06, near Naco have had sulfate concentrations less than 10 mg/L since 2008. Sulfate concentrations in NWC-02 and NWC-06 have been steady over time and may represent groundwater flow from Mexico which is relatively low in sulfate. NWC-02 and NWC-06 are believed to be outside the future flow path of the plume and are not expected to be affected by the plume, as discussed in the Feasibility Study (Clear Creek, 2014).

Sulfate concentrations at NWC-04, near Bisbee Junction, which is believed to be at the receding edge of the plume, ranged between 174 mg/L and 199 mg/L in 2023. The highest sulfate concentration at NWC-04 since 2018 was 200 mg/L in July 2020. The sulfate concentration since 2008 has ranged between 162 and 240 mg/L.

3.2.3 Sulfate Concentrations at Private Drinking Water Supply Wells

Table 1 identifies the private drinking water supply wells and their sampling frequency. Sulfate concentration and water elevation data for these wells are listed in Appendices A and B, respectively. Sulfate concentrations at private drinking water supply wells are evaluated on a sample-by-sample basis after each sampling. Samples collected from private drinking supply wells

[7] Sulfate concentrations are considered to be steady if concentrations change less than 1 mg/L per year.

between 2019 and 2023 had concentrations of sulfate less than 250 mg/L indicating the mitigation action objective is being met.

3.2.4 Sulfate Concentration at Monitoring Wells

The monitoring purpose of wells sampled for the Mitigation Plan is listed on Table 1. Time series graphs for plume edge monitoring wells on Figures 10 through 13 illustrate sulfate trends in wells outside of and proximal to the plume. Plots for selected regional monitoring wells on Figure 14 illustrate sulfate trends within the plume. Appendix C includes well construction information for BMO monitor wells. The calculated rates of sulfate concentration change discussed in this section are based on trendline analyses in Appendix D.

3.2.4.1 Plume Edge Monitoring Wells North, South, and East of the Plume

Sulfate concentrations over time for wells north, south, and east of the plume are shown on Figure 10. Sulfate concentrations for wells TM-07 and BMO-2008-11G (north of the plume), COB WL (northeast of the plume), BMO-2008-1G and BMO-2012-1M (east of the plume), and BMO-2008-3B (south of the plume) are less than 250 mg/L, demonstrating that these wells remain outside the plume. Wells TM-07 and BMO-2008-3B display more variability in sulfate concentration over time compared to BMO-2008-1G, BMO-2008-11G, BMO-2012-1M and COB WL due to the prevailing hydrogeologic conditions at the wells. BMO-2012-1M and TM-07 are the only wells that display increasing trends since sampling began at each well. BMO-2012-1M has a rate of increase of 1.5 mg/L per year since 2008. TM-07 has increased at a rate of 4.6 mg/L since 2008 but has been decreasing at a rate of 3.4 mg/L since 2016. Sulfate concentrations at BMO-2008-3B were steady based on a trendline analysis of samples between 2008 and 2023, but have increased at a rate of 3.6 mg/L per year in samples between 2014 and 2023. Sulfate concentrations are generally not expected to increase in wells north, east, and south of the plume because the groundwater flow direction is primarily to the west based on the prevailing hydraulic gradient (Section 3.3); however, dissolved constituents like sulfate can migrate transverse to groundwater flow direction due to dispersion.

3.2.4.2 Plume Edge Wells West of the Plume

Sulfate data for lateral plume edge monitoring wells on the west side of the plume, excluding wells installed for the EGMP, are shown on Figure 11. Figure 12 is a graph of sulfate concentrations over time in EGMP wells in basin fill on the west edge of the plume.

Sulfate concentrations at BMO-2008-6B, BMO-2010-3B, BMO-2010-3M, COB MW-2, and TVI 236 west of the plume are less than 50 mg/L (Figure 11). Western plume edge wells

BMO-2008-5B, BMO-2008-5M, and BMO-2008-6M display increasing sulfate concentrations over the period of record (Appendix D). Linear trend lines through the sulfate data for BMO-2008-5B and BMO-2008-5M have calculated rates of increase of 6.4 mg/L per year and 4.3 mg/L per year, respectively, with BMO-2008-5B exceeding 250 mg/L for the first time in February 2018. The trend of sulfate concentrations at BMO-2008-6M is complicated because it had an increasing trend similar to BMO-2008-5B from 2008 through 2017 followed by a decreasing trend from January 2018 through 2023, resulting in an interpolated rate of increase of 1.7 mg/L per year. The increase rates in these wells are summarized on the following table.

WELL	RATE OF CHANGE (MG/L PER YEAR)	SULFATE THIRD QUARTER 2023 (MG/L)
BMO-2008-5B	6.4	275
BMO-2008-5M	4.3	178
BMO-2008-6M	1.7	196

Sulfate concentrations in the twelve EGMP wells[8] at the west end of the plume (Figures 3, 6, and 7) are shown on Figure 12. The EGMP wells straddle the front of the plume as shown on Figures 6 and 7 and by the range of concentrations on Figure 12. Four expanded groundwater monitoring wells (BMO-2014-2BL, BMO-2015-1BL, BMO-2015-2B, and BMO-2015-2BL) have sulfate concentrations greater than 250 mg/L and are considered to be in the plume. BMO-2014-2BU and BMO-2015-1B do not exceed 250 mg/L but are depicted within the horizontal extent of the plume because a co-located well exceeds 250 mg/L. Sulfate values greater and less than 250 mg/L in co-located well pairs demonstrate that the plume is of a limited vertical extent at those locations. For example, the sulfate concentration in BMO-2014-2BU, screened from 127 to 276 feet below land surface (ft bls), was 76.9 mg/L in the third quarter 2023 whereas the co-located BMO-2014-3BL, screened from 297 to 396 ft bls was 471 mg/L.

[8] These wells consist of six pairs of two wells that are screened in basin fill with different screened intervals. Well pairs labelled with the suffixes BL and BU have non-overlapping screens in the lower and upper half of the saturated basin fill at that location. Well pairs with suffixes B and BL have overlapping screens with the B well screened across the entire saturated thickness of basin fill and the BL well screened over a short depth interval at the base of the basin fill. Well construction and screened interval data are in Appendix C.

Linear trendlines were fit to the sulfate data for the EGMP wells to evaluate rates of change of sulfate concentration (Appendix D). The results are summarized in the following table sorted from largest to smallest rate of change.

WELL	RATE OF CHANGE (MG/L PER YEAR)	Q3 2023 SO4 (MG/L)
BMO-2015-1BL	5.7	274
BMO-2015-2BL	4.4	328
BMO-2015-1B	2.5	194
BMO-2015-2B	1.9	288
BMO-2014-1BL	1.4	182
BMO-2014-2BU	1.4	76.9
BMO-2014-4B	1.1	67.3
BMO-2014-1BU	0.11	192
BMO-2014-3BL	-0.01	8.73
BMO-2014-3BU	-0.07	8.16
BMO-2014-2BL	-2.8	471
BMO-2014-4BL	-4.1	130

The trendline analysis found seven wells had increasing trends ranging from 1.1 mg/L per year to 5.66 mg/L per year and that five wells were steady or had decreasing trends. EGMP wells with increasing sulfate trends had second quarter 2023 concentrations ranging from 67.3 mg/L to 328 mg/L. Decreasing concentrations occur at BMO-2014-2BL which is inside the plume and BMO-2014-4BL which is outside the plume. The only well pair that had decreasing concentrations in both wells is BMO-2014-3BU/3BL, the southern-most EGMP wells. The four highest rates of increase (1.9 mg/L per year to 5.7 mg/L per year) occurred in well pairs BMO-2015-1B/1BL and BMO-2015-2B/2BL which had third quarter 2023 sulfate concentrations ranging from 194 mg/L to 328 mg/L.

Sulfate data from the monitoring wells on the west edge of the plume show that the horizontal extent of the plume has changed slightly since 2015. Those changes occurred when concentrations exceeded 250 mg/L at BMO-2015-1BL in 2017 and at BMO-2008-5B in 2018.

These data are consistent with the conceptual model used for the Mitigation Plan, that the west edge of the plume is the advancing front of the plume which will continue migrating westward over time. Thus, the increasing trends in the sulfate concentrations of some wells on the west edge

of the plume is an expected continuation of trends existing since groundwater monitoring under the Mitigation Order began in 2008. The highest rates of sulfate increase at the front of the plume occurred in wells BMO-2008-5B/5M, BMO-2015-1B/1BL, and BMO-2015-2B/2BL which range from 1.9 mg/L per year to 6.4 mg/L per year and average 4.2 mg/L per year.

3.2.4.3 Plume Edge Monitoring Wells Below the Plume

Sulfate concentrations for plume edge monitoring wells below the plume are shown on Figure 13. Five BMO monitoring wells are used to monitor sulfate concentrations below the plume. Wells BMO-2008-4B, BMO-2008-7M and BMO-2008-8M are west of the black gap fault and wells BMO-2008-9M and BMO-2010-1M are east of the fault.

Sulfate concentrations in BMO-2008-4B and BMO-2008-7M have been steady over time. Sulfate concentrations at BMO-2008-8M were below 100 mg/L from 2013 to 2019 and increased to 830 mg/L in 2021. The 2023 sulfate concentration was 1,030 mg/L. The co-located basin fill well BMO-2008-8B is within the plume and has had sulfate concentrations over 1,000 mg/L since its installation in 2008. The nearest downgradient bedrock monitor well, BMO-2008-13M, has had concentrations over 250 mg/L since its installation in 2008.

Sulfate concentrations in samples from BMO-2008-9M and BMO-2010-1M increased from 2008 to 2023. The August 2023 sulfate concentrations in BMO-2008-9M and BMO-2010-1M in 2023 were 101 mg/L and 192 mg/L, respectively. Linear trend lines through the sulfate data for BMO-2008-9M and BMO-2010-1M indicate rates of increase of 3.9 mg/L per year and 4.4 mg/L per year, respectively.

3.2.4.4 Regional Monitoring Wells in the Plume

Sulfate concentrations over time for selected regional monitor wells in the plume are shown on Figure 14. The regional monitoring wells are distributed along the axis of the plume from the vicinity of the CTSA to the downgradient edge of the plume. All regional plume monitoring wells exceed 250 mg/L sulfate.

Sulfate concentrations in the upgradient well BMO-2008-10GL declined from 1,320 mg/L in 2008 to 442 mg/L in 2014. Concentrations increased to 1,810 mg/L in 2017 and have ranged from 1,770 mg/L to 1,960 mg/L in biennial samples since 2017. Recent concentrations in BMO-2008-10GL are slightly less than and trend with concentrations in the shallower BMO-2008-10GU well, which has increased at a rate of approximately 16 mg/L per year since 2008. As discussed in the 2017 Mitigation Performance Review (Clear Creek, 2018b), the increase in sulfate concentration at BMO-2008-10GL was coincident with a water level increase in both wells.

BMO-2008-8B, BMO-2008-13B, and BMO-2008-13M are in the middle of the plume, downgradient from the BMO-2008-10 series wells. Sulfate concentrations in BMO-2008-8B have declined overall since 2008 and ranged from 1,130 mg/L to 1,140 mg/L in the last three biennial samples collected since 2019. Sulfate concentrations at BMO-2008-13B have increased at 9.1 mg/L since 2008; however, the rate of increase since 2012 is lower at 2.3 mg/L. Sulfate concentrations at BMO-2008-13M have increased at 1.8 mg/L per year since 2008.

Four regional monitoring wells that are within the plume near the leading edge include COOPER C, HOBAN, TVI 875, and WEISKOPF 802. TVI 875 and WEISKOPF 802 are the farthest downgradient but both wells were last sampled in 2019 because the wells are inoperable. Sulfate concentrations in COOPER C declined from 2008 to 2014 and have averaged 652 mg/L since 2014 (Figure 14). The sulfate concentrations in HOBAN increased from 2008 to 2018 and declined from 2018 to 2023 with values below 500 mg/L for the last three years (Figure 14). Sulfate concentrations in WEISKOPF 802 were steady but variable from 2008 to 2014, increased in 2015, and ranged from 657 to 702 from 2015 to 2019 with a decreasing trend of 10 mg/L per year. TVI 875 is the farthest downgradient regional monitoring well in the plume. The sulfate concentration in TVI 875 ranged from 226 to 355 mg/L between 2008 and 2019 and averaged 275 mg/L (Figure 14). A linear trendline through the data for TVI 875 (Appendix D) indicates an increasing trend of about 6.0 mg/L per year.

Regional monitor wells show a complex combination of sulfate concentration trends over time since 2008. Generally, regional wells in the upgradient and middle portions of the plume have increasing trends and relatively high concentrations. Regional monitor wells at the front of the plume have sulfate concentrations that have consistently increased since 2008 (TVI 875), consistently decreased since 2008 (COOPER C) and combined trends (WEISKOPF 802 and HOBAN).

3.3 Groundwater Elevation Data

Groundwater elevation data are calculated using measurements of depth to water from surveyed measuring points at wells. The measurements of depth to water are made under static (non-pumping) conditions whenever possible. Water levels measured at wells that have been pumping, such as drinking water supply wells, may have a component of residual drawdown even though they were inactive when the water level was measured. Residual drawdown occurs when the water level in a well has not yet returned to its static level after pumping stops. In practice, the water level recovery in a well after pumping is a site-specific characteristic depending on the hydraulic properties of the aquifer and the well. Some degree of residual drawdown may affect

measurements made at both the public and private drinking water supply wells. Appendix B contains a compilation of the water elevation data.

3.3.1 Contour Map of Groundwater Elevations

A site-wide water elevation contour map for the third quarter of 2023 is shown by Figure 15. Figure 16 is the water elevation map for the third quarter of 2008 for comparison with the 2023 map. The overall pattern of water elevation contours in the third quarter of 2023 is similar to the pattern exhibited by groundwater monitoring data since 2008.

In general, the groundwater elevation decreases from east to west, indicating groundwater flow to the west. The lateral hydraulic gradient, or change in water elevation per unit distance, is higher east of the Black Gap fault where the basin fill is unsaturated and groundwater is in bedrock which is less permeable than basin fill. The lateral hydraulic gradient decreases west of the Black Gap fault where saturated basin fill overlies the bedrock and groundwater is in the more permeable basin fill.

Figure 17 shows water elevations in basin fill at the west edge of the plume in the third quarter 2023. The groundwater flow direction is westerly at the west edge of the plume, except at the AWC wellfield where a cone of depression occurs around the AWC extraction wells. Groundwater flow within the cone of depression is radially inward to the extraction wells.

Maps of site-wide groundwater elevations and at the west edge of the plume for the first and third quarters from 2019 to 2023 are in the annual groundwater monitoring report (Clear Creek Associates, 2020, 2021, 2022, 2023, and 2024). The 2023 water table conditions depicted by Figures 15 and 17 are typical of conditions from 2019 to 2022.

3.3.2 Hydrographs for Basin Fill Wells

Figure 18 shows hydrographs for selected BMO monitoring wells in basin fill. These wells are distributed over the western portion of the plume. Groundwater elevations in basin fill monitor wells decreased from approximately 2008 to 2013, were relatively steady from 2013 to 2016, and declined from 2017 through 2023. A seasonal pattern characterized by summer low and winter high water levels is evident at some of the basin fill wells. The magnitude of the water elevation difference between hydrographs for the basin fill wells is relatively uniform over time, indicating that the hydraulic gradient between the wells remains relatively steady over time.

The cause of the decline in water elevations in the basin fill wells since 2008 is interpreted to be a long-term regional drought condition that has reduced the amount of natural recharge to the aquifer in combination with groundwater pumping. The decline in water elevations temporarily stopped in 2013 due to increased groundwater recharge from the relatively high annual precipitation from 2013 to 2015.

Hydrographs for the EGMP wells installed in basin fill at the west edge of the plume are shown on Figure 19. Water elevation data for late 2016 through 2023 for the expanded groundwater monitoring wells show the declining trend of other basin fill wells. The magnitude of the water elevation changes is consistent between the wells at the front of the plume indicating that groundwater flow directions and hydraulic gradients are not changing over time.

3.3.3 Hydrographs for Bedrock Wells

Hydrographs for BMO series monitoring wells in bedrock are shown on Figure 20. Although the scale of the groundwater elevation axis of Figure 20 obscures small scale patterns, the graph does show that large water level increases occurred at BMO-2008-10GU and BMO-2008-10GL between 2013 and 2017. These co-located wells are at the south end of the CTSA. Figure 20 also shows a long-term decreasing trend at BMO-2008-1G and a long-term increasing trend at BMO-2008-11G. As explained in the ACR (Clear Creek, 2010), BMO-2008-11G is interpreted to be completed in a different aquifer unit than the other bedrock wells.

Figure 21 shows groundwater elevations for the group of bedrock wells with water elevations between 4,420 feet and 4,510 feet, excluding BMO-2008-10GU and BMO-2010-10GL. The graph illustrates two water elevation patterns associated with the hydrostratigraphy on the east and west sides of the Black Gap fault. Wells BMO-2008-9M, BMO-2010-1M, BMO-2010-2M, and BMO-2012-1M had decreasing elevations until 2013, then increased between 10 and 20 feet through the beginning of 2016, then decreasing elevations trends from 2016 through 2023. These wells are east of the Black Gap fault where the basin fill is unsaturated. In contrast to the wells east of the Black Gap fault, water elevations in wells BMO-2008-5M, BMO-2008-6M, BMO-2008-7M, BMO-2008-8M, BMO-2008-13M, and BMO-2010-3M, west of the Black Gap fault, declined until 2013 were relatively steady from 2013 to 2016, and declined from 2016 to 2023.

The groundwater surface in bedrock wells east of the Black Gap fault is in bedrock overlain by unsaturated basin fill. Thus, recharge occurs directly to the bedrock, with the water level increase per unit of recharge being a function of the hydraulic properties of the bedrock. Bedrock wells

west of the Black Gap fault are overlain by saturated basin fill. Basin fill wells have higher groundwater elevations than co-located bedrock wells in this area except at BMO-2008-8B/8M since August 2021. The basin fill provides a continuous source of recharge to the bedrock such that the amount of water level increase in the bedrock per unit recharge is a function of the hydraulic properties of the basin fill.

The water level changes in bedrock wells west of the Black Gap fault since 2013 are on the order of several feet, rather than 10 to 20 feet like bedrock wells east of the fault, and exhibit patterns similar to water levels in the basin fill monitoring wells (Figure 20). The differing water level patterns between bedrock wells east and west of the Black Gap fault result from the difference in the saturation of the basin fill overlying bedrock and the difference in hydraulic properties for bedrock and basin fill.

3.4 Assessment of Plume Migration

The overall site-wide footprint of the plume has not changed significantly since 2008 as shown by a comparison of the sulfate concentration contour maps for 2023 and 2008 (Figures 6 and 8). However, three areas have displayed apparent changes in the plume extent between 2019 and 2023: the west edge of the plume, the base of the plume at BMO-2008-8M, and the east edge of the plume.

3.4.1 West Edge of Plume

The western edge of the plume is expected to migrate to the west under the prevailing hydraulic gradient (Clear Creek Associates, 2014). Detailing conditions at the western edge of the plume for the purpose of contingency mitigation planning is the objective of the EGMP. Based on data from the EGMP wells the western plume edge was determined to be irregularly shaped. Also, the plume edge was found to be further downgradient than had been inferred prior to installation of the EGMP wells in 2014 and 2015 (Figures 6 and 8). For this reason, some of the apparent migration of the west edge since 2008 is due to having more complete information from wells installed at the front for the purpose of delineating the plume edge.

The original intent of the EGMP wells was to install sets of wells outside the plume so that the arrival of a 250 mg/L sulfate front could be measured successively in upgradient and downgradient wells to allow direct measurement of the in-situ plume velocity. This expectation has not been fully realized because some wells were unexpectedly in the plume when they were installed (e.g., BMO-2015-2B/BL) or because the irregular shape of the plume causes a downgradient well pair to be in the plume while the upgradient well pair is not (e.g., BMO-2015-1B/1BL and

BMO-2014-4B/BL or BMO-2015-2B/BL and BMO-2008-5B). Given the conditions at the west edge of the plume, it is infeasible to measure the in-situ velocity of the plume as originally intended except at the southern transect of BMO-2014-1BU/1BL and BMO-2010-3B along Greenbush Draw.

Two wells, BMO-2008-5B and BMO-2015-1BL, exceeded 250 mg/L sulfate after their installation and initial sampling, and are considered to represent expansions of the plume. BMO-2008-5B began consistently exceeding 250 mg/L sulfate in 2021 (Figure 11). BMO-2015-1BL began consistently exceeding 250 mg/L sulfate in 2017 (Figure 12). These wells could not be used to calculate in-situ plume velocity, however, because BMO-2008-5B was upgradient of the plume (BMO-2015-2B/2BL) at the time it exceeded and BMO-2015-1BL is downgradient of wells BMO-2014-4B/4BL which are outside the plume.

Quantifying plume migration at the west edge is complicated by both the irregular shape of the plume edge and the apparent slow expansion of the plume. Many wells have only small concentration increases over time while a few wells are decreasing in concentration (Section 3.2.4.2). Wells that are increasing in concentration do so at rates up to 6.4 mg/L per year which means that unless their concentrations are close to 250 mg/L it can take years to show as an expansion of the plume. The gradual increases in sulfate concentration at the front suggests a diffuse plume edge rather than a sharp concentration front which would be associated with a more rapid concentration increase than has been observed.

A data gap with respect to monitoring the westward expansion of the plume is the uncertain position of the plume downgradient of BMO-2015-1BL and BMO-2015-2B/2BL. Sulfate concentrations in those wells exceed 250 mg/L and the plume location downgradient of the wells is estimated.

3.4.2 Base of Plume at BMO-2008-8M

Sulfate data for BMO-2008-8M indicate the possibility of sulfate migration from the basin fill to the bedrock in the northeast portion of the plume. BMO-2008-8M is near the former evaporation pond and began exceeding 250 mg/L sulfate in 2021. Bedrock monitoring wells BMO-2008-10-GL, BMO-2008-10GU and BMO-200-8-13M, which are upgradient and downgradient of BMO-2008-8M have exceeded 250 mg/L sulfate since they were installed in 2008. Other nearby bedrock monitoring wells, BMO-2008-7M and BMO-2008-9M, do not exceed 250 mg/L sulfate. BMO-2008-8M was the only one of the wells used to monitor the base of the plume that has exceeded 250 mg/L sulfate since 2018.

3.4.3 East Edge of Plume

There is an apparent westward migration of the east plume edge based on reductions in the sulfate concentration at wells NOTEMAN and PANAGAKOS as discussed in Section 3.2.1. A westward migration of the east plume edge is expected as the east edge is considered the receding or trailing edge of the plume. Whether these observations represent a long-term reduction of sulfate at these wells or a transient reduction will be verified by ongoing groundwater monitoring.

4.0 ASSESSMENT OF MITIGATION ACTION PERFORMANCE

The performance of the mitigation action is assessed based on the attainment of the mitigation action objective (Section 4.1), the adequacy of the groundwater monitoring programs (Section 4.2), and the status of contingency mitigation planning activities (Section 4.3).

4.1 Mitigation Action Objective

The mitigation action objective was met at public and private drinking water supply wells from 2019 to 2023 (Appendix A). Groundwater monitoring programs that assess ongoing attainment of the mitigation action objective at drinking water supplies are in place per the Mitigation Plan. Groundwater monitoring data do not show evidence of plume migration that would present a near-term risk (within the 5-year performance review cycle from 2024 to 2029) of exceeding the mitigation action objective at either public or private drinking water supplies as discussed in Section 4.3.

Meeting the mitigation action objective at the AWC water supply is a priority for the mitigation. An alternate water supply is the most likely mitigation action based on the water supply study (Section 2.1). In 2017 a preliminary design and implementation schedule for an alternate water supply were completed as contingency planning for the AWC water supply (Section 2.4). CQB acquired land south of the AWC wellfield where an alternate water supply would be located, if needed (Clear Creek Associates and WestLand Resources, 2017). Thus, a large portion of the contingency mitigation planning in the Mitigation Plan is complete (Section 2.1). The remaining contingency planning step is the recommendation of sentinel well locations and action levels which is discussed in Section 4.3.

4.2 Groundwater Monitoring Programs

The groundwater monitoring programs work together to collect and report the sulfate concentration and water level data. These data are used to evaluate the sulfate concentrations in drinking water supplies, document hydrogeologic conditions, and interpret plume migration.

4.2.1 Expanded Groundwater Monitoring

The EGMP is an ongoing study that tests drinking water supply wells and monitoring wells at the leading edge of the plume to quantify hydrogeologic conditions, sulfate concentration trends, and the rate of plume migration in the vicinity of Naco area public water supplies. The intent of the EGMP was to use groundwater monitoring data to estimate the in-situ plume velocity and the rate of change of sulfate, to identify sentinel well locations, and to set action levels at sentinel and

drinking water extraction wells. In February 2018, CQB asked ADEQ to postpone submittal of the sentinel well and action level report because groundwater monitoring results were insufficient for calculation of the in-situ plume velocity (CQB, 2018). ADEQ approved CQB's request (ADEQ, 2018).

The EGMP is effective in collecting the water level and sulfate concentration data needed to develop sentinel well locations and action levels and should continue as identified on Table 1. The review of groundwater monitoring data in Sections 3.2.4.2 and 3.4.1 identified data gaps and uncertainties in the EGMP data. These data gaps and uncertainties are discussed in Section 4.3.4 in a review of approaches for estimating the migration rate of the plume and predicting potential future changes in sulfate concentration at the front of the plume. Section 4.3.4 recommends additional work under the EGMP to address the data gaps and uncertainties.

4.2.2 Long-term Plume Monitoring

The long-term plume monitoring program collects data and reports sulfate concentrations in drinking water supplies, and sulfate concentration and water level data for plume evaluation. The groundwater monitoring program met its objectives (Section 2.2) of documenting sulfate concentrations in drinking water supply wells and providing the data used to evaluate sulfate concentration and water elevations for the mitigation action (Sections 3.2 and 3.3) from 2019 to 2023. The ADWR well registry reviews identified six new well records and four private wells were added to the long-term plume monitoring as a result of the review (Section 2.3). The well registry review is meeting the objective of identifying new drinking water supplies within a mile of the plume for sampling.

There is no need to revise the long-term plume monitoring program overall; however, minor changes were made to the groundwater monitoring schedule (Table 1). COOPER, OSBORN and RUIZ were replaced by COOPER 988, LAIR, and RUIZ 146, respectively, and are not being used as drinking water supply wells. The wells were removed from the schedule because they are inoperable and water levels cannot be collected due to the configuration of the wellheads. BARTON 919 was removed from the schedule because water levels cannot be collected. The well is obstructed and no water levels have been measured since January 2020.

4.3 Estimation of Plume Migration Rate

The direction and rate of movement of the plume are important factors for contingency mitigation planning. As will be discussed in this section, there are several variables that influence, not only

the rate of plume migration, but also the rate at which concentrations may change in the AWC wellfield and vicinity.

Water level data at EGMP and long-term plume monitoring wells indicate that the westward groundwater flow direction and hydraulic gradients have not changed significantly at the front of the plume between 2008 and 2023 (Figures 17 and 19) despite the site-wide decline in water levels. The implication of consistent flow directions and hydraulic gradient is that the direction and rate of groundwater flow and inferred plume migration have been steady over time and remain consistent with the conceptual site model described in the ACR (Clear Creek, 2010).

Groundwater monitoring data available through 2023 indicate that sulfate concentrations are increasing slowly (less than 7 mg/L per year) at the front of the plume (Sections 3.2.2, 3.2.3 and 3.2.4) and that developing an in-situ velocity estimate for portions of the front is infeasible (Section 3.4.1). In lieu of having in-situ velocity measurements at the front, groundwater flow velocity calculations and rates of change in sulfate concentration in wells at the front of the plume are evaluated with respect to their implications for the timing of potential affects at the AWC wellfield. The information from these analyses informs the ongoing development of a conceptual model for sentinel well and action level recommendations.

Three general approaches are used to evaluate plume migration: direct measurement, average groundwater velocity calculations, and observed rates of concentration change. The implications and uncertainties of these approaches are discussed below to identify critical considerations for quantifying the timing and data gaps to be addressed to refine predictions of sulfate changes at the front of the plume.

4.3.1 Direct Measurement

Direct measurement of in-situ plume velocity was the intent of the EGMP. Direct measurement is used here to mean measurement of the time for the 250 mg/L level of the plume to migrate between two or more locations. Direct measurement of plume movement is possible along the transect of wells from BMO-2014-1BU/1BL to BMO-2010-3B and that remains an objective of the EGMP. However, direct measurement is not feasible along transects that include BMO-2015-1B/1BL or BMO-2015-2B/2BL in the central and northern part of the EGMP well array for the reasons discussed in Section 3.4.1. Additional wells between the existing EGMP wells and AWC wellfield in the down gradient of the northern and central EGMP wells may allow a future opportunity for direct measurement depending on the sulfate concentrations encountered.

4.3.2 Average Groundwater Velocity Calculations

Dissolved sulfate is expected to migrate to the west at the average groundwater flow velocity because sulfate is assumed to behave as a soluble salt that does not adsorb, precipitate in, or solubilize from the aquifer. The average groundwater velocity can be an approximation of the rate of plume migration if there are no sources of dilution from recharge in the area over which the velocity is calculated. If a significant source of dilution occurs, it can reduce the sulfate mass flux rate relative to the groundwater flow rate, causing the plume to move more slowly than the groundwater velocity.

The average groundwater velocity in the basin fill aquifer was calculated based on the hydraulic gradient, hydraulic conductivity, and porosity of the aquifer materials. The hydraulic gradient and hydraulic conductivity are measured parameters. The aquifer porosity is an assumed value based on the aquifer material type. Appendix E describes the method and results of velocity calculations conducted for the front of the plume.

Groundwater velocity calculations were made using hydraulic gradients for the first quarter of 2023, a hydraulic conductivity of 33.4 feet per day (ft/d) for basin fill wells at the front of the plume (including the EGMP wells), and an assumed porosity of 25%. The calculations were conducted using water level data along three hydraulic profiles representing potential flow paths for the sulfate at the plume front as shown by Figure 22. Appendix E includes cross-section plots of the hydraulic profiles, showing water level elevation as a function of distance from the western-most well, LADD 977.

The hydraulic profiles in Appendix E indicate two hydraulic gradient regimes at the front of the plume: a regional regime distal from the AWC wellfield and a regime proximal to the AWC wellfield. The regime proximal to the AWC wellfield has steeper hydraulic gradients than the regional regime because it includes the inferred cone of depression of the wellfield where the groundwater level is lowered by pumping. The calculated groundwater flow velocities along the north, central, and south profiles are summarized below.

HYDRAULIC PROFILE	GROUNDWATER VELOCITY (ft/yr)		DISTANCE TRAVELED IN 48 MONTHS (feet)
	REGIONAL REGIME	PROXIMAL REGIME	
North	24	385	1,540
Central	54	454	1,816
South	39	600	2,400

The velocity calculations indicate that groundwater migrates at 24 to 54 feet per year (ft/yr) in the regional regime and increases to 385 to 600 ft/yr under the steeper hydraulic gradients of the proximal regime. The hydraulic profiles in Appendix E show that the assumed boundary between the regional and proximal regimes is at the monitoring wells closest to the AWC wellfield. However, it is possible that the regional regime extends west of those wells. Based on the available data, the sulfate plume occurs in the proximal regime along the north and central hydraulic profiles whereas it is in the regional regime along the south hydraulic profile.

The table above lists the calculated distance that groundwater would travel in 48 months assuming the velocity of the proximal zone. Assuming sulfate is transported conservatively in groundwater under idealized conditions (i.e. no mixing, dilution, or recharge), the 48-month travel distance signifies the approximate distance upgradient of the AWC wellfield at which dissolved sulfate would take 48 months (the implementation timeframe) to flow to the AWC wellfield. The 48-month travel distance may be a useful location for future sentinel wells.

The groundwater velocity can be used to estimate minimum travel times between the current plume edge and the AWC wellfield along each of the hydraulic profiles, assuming the idealized conditions described above. The sulfate plume is within the inferred proximal regime in the north and central profiles and the travel time between the upgradient EGMP wells and the wellfield (represented by the actual or projected location of AWC-05) along those profiles is 7 to 11 years. The plume is in the regional regime in the southern profile so the minimum travel time along that profile is approximately 75 years. The minimum travel time of 7 years indicates an arrival time in 2022 based on the installation dates of the EGMP wells.

Previously, the migration rate of the plume front was estimated to be approximately 50 to 100 ft/yr based on hydraulic gradients in 2010 and 2011, a hydraulic conductivity of 28.1 ft/d, and a porosity of 25% (Clear Creek Associates, 2014). The prior estimates are equivalent but slightly higher than the velocities for the regional regime calculated for 2023. The difference in the values is due to differences in assumed parameters and because there were insufficient data to quantify two hydraulic gradient regimes until the installation of the EGMP wells.

There are several uncertainties in the groundwater velocity calculations which are described below.

1. The exact value of the hydraulic conductivity is not known. The 95% upper confidence limit of the arithmetic mean of 17 measurements (33.4 ft/d) was used to approximate conditions at the front. The geometric mean is commonly used to approximate hydraulic conductivity in heterogeneous media. Use of the 95% upper confidence limit is

conservative in that it yields faster velocities (overestimates plume velocity) than would the geometric mean of 17.7 ft/d or arithmetic mean of 24.4 ft/d.

2. The porosity of the basin fill is unknown and impractical to measure. Published compilations of porosity for different unconsolidated sand and gravel media like the basin fill aquifer indicate that representative values of porosity are between 25% and 40%. The value assumed for the calculations is at the low end of the range and is conservative (overestimates plume velocity) compared to assumption of a higher porosity.
3. The location of the cone of depression from the AWC wellfield and the slope of the water table near the wellfield may be different than assumed for the hydraulic profiles. For example, the regional gradient could extend farther westward than can be inferred from the available data implying that sulfate transport to the AWC wellfield would be slower and take longer.
4. There are potential sources of recharge at the front of the plume that may impact the use of groundwater velocity to approximate the rate of plume migration. In addition to surface recharge from precipitation, runoff and, irrigation; the City of Bisbee San Jose Wastewater Treatment Plant releases treated effluent (permitted discharge rate is approximately 850 gallons per minute) to the surface of Greenbush Draw on a continuous basis. The effluent flows down Greenbush Draw until it infiltrates to the subsurface or evaporates. Surface water recharge at the front of the plume may retard the rate of plume migration relative to the groundwater velocity.
5. Travel time estimates based on groundwater velocity do not account for dilution expected to occur within the AWC wellfield. The AWC wellfield pumps groundwater from both the area of the approaching plume to the east and the area to the south with low concentrations of sulfate (Figures 6 and 7). Groundwater with different sulfate concentrations will mix in the aquifer and in the blended water produced by the wellfield and delivered to the point of use. For example, if AWC-03 were to contain 250 mg/L sulfate today, while other extraction wells maintain their current concentrations, the mixed wellfield water at the point of use would not exceed the mitigation action objective. This realization points to the need to begin tracking the pumping rates of individual wells at the AWC wellfield and collection of samples at the point of use to understand blending in the wellfield as it relates to the sulfate concentration at the point of use and contingency planning.

Taken together, the uncertainties suggest that assuming the groundwater velocity is equal to the velocity of plume migration may overestimate the rate of sulfate migration and is not entirely representative of the timing of affects at the point of use.

4.3.3 Rates of Concentration Change

Analysis of time series data for sulfate in wells at the front of the plume indicates that the wells that are increasing in sulfate concentration do so linearly over time (Appendix D). Although the rates of change of sulfate measured at the front of the plume are not direct measurements of in-situ plume velocity, they may be predictive of future concentrations if the rates are uniformly distributed in a geographic domain at the front of the plume. For example, it is unlikely that sulfate concentrations at the AWC wells would increase faster than concentrations in the upgradient EGMP and nearby wells, which monitor groundwater flowing towards the AWC wellfield.

One of the four AWC supply wells, AWC-03, has a sulfate concentration that increases at 2.5 mg/L per year (Figure 9 and Appendix D). At this rate, AWC-03 would reach the 150 mg/L temporary action level in 2052 (28 years) and the 250 mg/L mitigation action objective in 2092 (68 years). However, wells upgradient of AWC-03 have increase rates up to 6.4 mg/L per year. If the concentration at AWC-03 were to start increasing at 6.4 mg/L per year in 2024, it would meet the temporary action level in 2035 (11 years) and the mitigation action objective in 2050 (26 years). Figure 23 shows hypothetical future sulfate concentrations at AWC-03 under the current and maximum increase rate. In this simplified hypothetical scenario, assuming the maximum rate of increase, a 48-month implementation timeframe would need to commence in 2048 to mitigate the AWC-03 well. This hypothetical scenario also assumes mitigation is based on a single well exceedance rather than an exceedance at the point of use as stipulated in the Mitigation Plan. Dilution due to mixing in the AWC wellfield (Section 4.3.2) also needs to be considered for contingency mitigation planning.

This analysis of AWC-03 which is based on rates of change in concentration at AWC-03 and the closest upgradient wells is an indirect means of assessing plume migration. Faster rates of sulfate increase (tens of mg/L per year) are observed in wells near Naco Highway east of the EGMP wells. It is possible that the rates of increase at the EGMP wells will increase in the future as groundwater from more upgradient portions of the plume flows to and displaces groundwater currently at the front.

The rate of increase in sulfate at the front of the plume is the result of multiple processes including the rate of sulfate mass flux from the upgradient plume and dilution processes at the front. Dilution processes include advective and dispersive mixing in groundwater at the plume edge, surface recharge of precipitation and runoff (including runoff to Greenbush Draw), and infiltration of water released to Greenbush Draw from the City of Bisbee San Jose Wastewater Treatment Plant. An additional consideration for the rate of change of sulfate at the AWC wellfield is mixing within the wellfield and between well waters blended for distribution. The rates of increase are expected

to be a good empirical estimate of near-term sulfate concentration because they represent existing conditions in the aquifer at the front of the plume.

4.3.4 Plume Migration Summary and Recommendations

The purpose of evaluating plume migration and future sulfate concentrations at the front of the plume is to anticipate the need for contingent mitigation at the AWC wellfield. Although final recommendations are yet to be made, the Mitigation Plan envisioned that action levels would be set at both sentinel wells and at the point of use of the public water supplies, and that two action levels would be set at each, to trigger different actions at specific sulfate concentrations. The first action level would trigger written notice to ADEQ and the water supply operator, and development of a 90% engineering design for the mitigation action. The second action level would trigger additional written notice to ADEQ and the water supply operator, finalization of a 100% engineering design, development of a bid specification, contractor selection, and initiation of permitting, procurement, and construction.

The foregoing discussion of plume migration considers different ways of estimating future concentration changes at the AWC wellfield for the purpose of contingency planning. There are advantages (typically related to the ease of measurement) and disadvantages (uncertainties and bias) associated with each approach due to the complex nature of sulfate transport at the front of the plume. The combined findings of the evaluations are summarized below.

1. Measurement of the in-situ plume migration is feasible along the south profile but not the north and central profiles. The presence of the plume in the downgradient EGMP wells of the north and central profiles and complicated geometry of the plume front make in-situ measurement infeasible along those profiles.
2. The updated groundwater flow velocity calculations distinguish two hydraulic gradient regimes: a proximal regime within the cone of depression of the AWC wellfield having velocities ranging from 385 to 600 ft/yr and a regional regime which is distal to the cone of depression and has velocities ranging from 24 to 54 ft/yr. The presence of the plume at downgradient EGMP wells of the north and central profiles suggests that the plume could be in the proximal regime with faster flow rates, although the eastern extent of the proximal regime is uncertain.
3. The analysis of rates of change of sulfate at the AWC wellfield and nearby upgradient wells indicate that AWC-03 could potentially exceed 250 mg/L sulfate in 2050 or in 26 years, assuming the current maximum rate of increase at the front of the plume. The rates of sulfate increase at the AWC and groundwater monitoring wells at the western front are

indicators of near-term future sulfate transport from the area of the western groundwater monitoring wells to the AWC wellfield. The rate of change in sulfate at all wells at the front of the plume should be calculated after each monitoring event to check for variations in the rates.

The available data for conditions at the front of the sulfate plume support an interpretation that there is no significant risk of exceeding the mitigation action objective at the point of use of the AWC water supply in the next 5 years.

The data review and analysis for this performance review identified areas of uncertainty that prevent recommendation of sentinel wells and action levels at this time. The concepts and processes of sulfate transport described in this section constitute elements of a preliminary conceptual model with which to evaluate potential future concentrations at the AWC wellfield. The following work is recommended to address uncertainties and support the recommendation of sentinel wells and action levels.

1. Install two new monitoring wells near Willson Road; one each on the north and central profiles. The wells should be installed in the basin fill aquifer and be screened across the entire saturated thickness. Pumping tests should be conducted at the wells to provide additional estimates of hydraulic conductivity. Groundwater monitoring data from the wells will allow better estimation of the hydraulic gradient for groundwater velocity calculations, determine the sulfate concentration in this area where the plume edge is uncertain, and quantify rates of change of sulfate near the AWC wellfield.
2. Collect pumping rate data for the AWC wells to calculate the sulfate concentration at the point of distribution from the wellfield. The pumping rate and sulfate concentration data for individual wells will be used in a mixing model to calculate a volume weighted average concentration for the wellfield. Water samples should be collected from the point of use for the water supply. The point of use samples will be used to verify the mixing model. The mixing model will allow analysis of the sensitivity of the sulfate concentration at the point of delivery to the pumping rates and sulfate concentrations of individual pumping wells.
3. Collect monthly discharge data for the City of Bisbee San Jose Wastewater Treatment Plant for conceptual model development of dilution processes at the front of the plume. Treated water is release to Greenbush Draw near Naco Highway and the extent of the surface flow should be added to the monitoring schedule for the EGMP.

The work recommended above would be conducted during the next 5-year performance review period. During this period groundwater monitoring will continue and the temporary action level

for the AWC wellfield will be in effect per the Mitigation Plan. The results of this work will be reported to ADEQ and AWC through annual groundwater monitoring reports, the annual in-person Community Advisory Group meeting, and the next 5-year performance review report in 2029.

4.4 Assessment of Mitigation Performance

The mitigation action is meeting the mitigation action objective and is judged to be performing as expected based on the results of groundwater monitoring and the progress of contingency mitigation action planning. The contingency planning components of the Mitigation Plan (including mitigation action identification and acquisition) were completed on schedule. Sentinel well and action level recommendations will be completed when adequate data are available as discussed above. Additional work is recommended at the front of the plume during the next 5-year performance review period to further define hydrogeologic conditions and allow additional contingency planning. Groundwater monitoring within the plume and at public and private drinking water supplies is ongoing. Contingency mitigation is not required at this time but would be conducted per the Mitigation Plan if needed based on monitoring data. Based on the currently available information, there is no need to modify the mitigation action at this time.

5.0 REFERENCES

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TABLE

TABLE 1
Groundwater Monitoring Schedule

Well Name	ADWR 55 Registry Number	Well Use	Monitoring Purpose	Semiannual Sampling First Quarter	Annual Sampling Third Quarter	Biennial Sampling Third Quarter of Odd Numbered Years
ANDERSON 396	613396	PNDW	RM	WLO	WLO	✓
ANDERSON 458	221458	PDWS	DWS (Mit)		✓	
ASLD 435	616435	STOCK	RM	WLO	WLO	
AWC-02	616586	PWS	DWS (>2000)	✓	✓	
AWC-03	616585	PWS	DWS (>2000)	✓	✓	
AWC-04	616584	PWS	DWS (>2000)	✓	✓	
AWC-05	590620	PWS	DWS (>2000)	✓	✓	
BANKS 986	647986	PDWS	DWS (>2000)		✓	
BANKS 987	647987	PNDW	RM	WLO	WLO	
BIMA	577927	PNDW	RM			✓
BMO-2008-1G	909474	MW	PE (Lateral)	✓	✓	
BMO-2008-3B	909147	MW	PE (Lateral)	✓	✓	
BMO-2008-4B	910096	IRR	PE (Below)	WLO	✓	
BMO-2008-5B[1]	909653	PNDWS	PE (Lateral)	✓	✓	
BMO-2008-5M	909552	MW	PE (Lateral)	✓	✓	
BMO-2008-6B	909146	MW	PE (Lateral)	✓	✓	
BMO-2008-6M	909019	MW	PE (Lateral)	✓	✓	
BMO-2008-7M	908794	MW	PE (Below)	WLO	✓	
BMO-2008-8B	910097	MW	RM	WLO	WLO	✓
BMO-2008-8M	909711	MW	PE (Below)	WLO	✓	
BMO-2008-9M	909255	MW	PE (Below)	WLO	✓	
BMO-2008-10GL	909435	MW	RM	WLO	WLO	✓
BMO-2008-10GU	909272	MW	RM	WLO	WLO	✓
BMO-2008-11G	909434	MW	PE (Lateral)	✓	✓	
BMO-2008-13B	909551	MW	RM	WLO	WLO	✓
BMO-2008-13M	909760	MW	RM	WLO	WLO	✓
BMO-2010-1M	219957	MW	PE (Below)	WLO	✓	
BMO-2010-2M	219958	MW	RM	WLO	WLO	✓
BMO-2010-3B	219970	MW	PE (Lateral)	✓	✓	
BMO-2010-3M	219969	MW	PE (Lateral)	✓	✓	
BMO-2012-1M	221388	MW	PE (Lateral)	✓	✓	
BMO-2014-1BL	917393	MW	PE (Lateral)	✓	✓	
BMO-2014-1BU	917394	MW	PE (Lateral)	✓	✓	
BMO-2014-2BL	917452	MW	PE (Lateral)	✓	✓	
BMO-2014-2BU	917453	MW	PE (Lateral)	✓	✓	
BMO-2014-3BL	917527	MW	PE (Lateral)	✓	✓	
BMO-2014-3BU	917494	MW	PE (Lateral)	✓	✓	
BMO-2014-4B	917620	MW	PE (Lateral)	✓	✓	
BMO-2014-4BL	917619	MW	PE (Lateral)	✓	✓	
BMO-2015-1B	917622	MW	PE (Lateral)	✓	✓	
BMO-2015-1BL	917621	MW	PE (Lateral)	✓	✓	
BMO-2015-2B	917827	MW	PE (Lateral)	✓	✓	
BMO-2015-2BL	917828	MW	PE (Lateral)	✓	✓	
BOOTH	914931	PDWS	DWS (<2000)	✓	✓	
BURKE	212268	PDWS	DWS (>2000)		✓	
CHAMBERS	629807	PDWS	DWS (>2000)		✓	
COB MW-1B	225906	MW	RM	WLO	WLO	✓
COB MW-2	903984	MW	PE (Lateral)	✓	✓	
COB MW-3	906823	MW	RM	WLO	✓	
COB WL	593116	MW	PE (Lateral)	✓	✓	
COOPER 988	232988	PDWS	DWS (<2000)	✓	✓	
COOPER C	637069	MW	RM		✓	
DODSON	644927	PDWS	DWS (<2000)	✓	✓	

TABLE 1
Groundwater Monitoring Schedule

Well Name	ADWR 55 Registry Number	Well Use	Monitoring Purpose	Semiannual Sampling First Quarter	Annual Sampling Third Quarter	Biennial Sampling Third Quarter of Odd Numbered Years
DOUGLASS 791	592791	PNDW	RM		WLO	
DOUGLASS 792	592792	PNDW	RM		WLO	
EAST	599796	PDWS	DWS (>2000)		✓	
ECHAVE	219449	PDWS	DWS (>2000)	WLO	✓	
EPPELE 641	805641	PDWS	DWS (>2000)		✓	
FRANCO 383	221383	PNDW	RM		✓	
FULTZ	212447	PDWS	RM		✓	
GARNER 557	558557	PNDW	RM	WLO	WLO	
GARNER 635	587635	PDWS	DWS (Mit)		✓	
GOAR RANCH	610695	PNDW	RM	WLO	WLO	
HOBAN	805290	MW	RM	WLO	✓	
HOWARD NR	NR	PNDW	RM	WLO	WLO	✓
HOWARD 312	221312	PDWS	DWS (Mit)		✓	
KEEFER	209744	PDWS	DWS (>2000)	✓	✓	
LADD 251	520251	PNDW	RM	WLO	WLO	
LADD 538	505538	PNDW	RM	WLO	WLO	
LADD 635	224635	STOCK	RM	WLO	WLO	
LADD 837	519837	PNDW	RM	WLO	WLO	
LADD 977	642977	STOCK	RM	WLO	WLO	
LAIR	643436	PDWS	DWS (>2000)		✓	
MARCELL	NR	PNDW	RM			✓
MCCONNELL 265	539265	PNDW	RM	WLO	WLO	✓
MCCONNELL 459	221459	PDWS	DWS (Mit)		✓	
METZLER	35-71891	PNDW	RM	WLO	WLO	
MOORE	538847	PDWS	DWS (>2000)		✓	
NESS	509127	PDWS	DWS (>2000)		✓	
NOTEMAN	212483	PNDW	RM			✓
NSD-02	527587	MW	RM	WLO	WLO	
NSD-03	527586	MW	RM	WLO	WLO	
NWC-02	562944	PWS	DWS (>2000)	✓	✓	
NWC-03 CAP	627684	PNDW	RM	WLO	WLO	
NWC-04	551849	PWS	DWS (<2000)	Quarterly		
NWC-06	575700	PWS	DWS (>2000)	✓	✓	
OLMOS	224745	PDWS	DWS	WLO	✓	
PALMER	578819	PDWS	DWS (>2000)		✓	
PANAGAKOS	35-76413	PNDW	PE (Lateral)	✓	✓	
PARRA	576415	PNDW	RM			✓
PIONKE 395	613395	PNDW	RM	WLO	WLO	✓
PIONKE 517	221517	PDWS	DWS (Mit)		✓	
POOL	509518	PDWS	DWS (>2000)		✓	
POWER 639	222639	PDWS	DWS (<2000)	✓	✓	
RAMIREZ	216425	PDWS	DWS (>2000)	WLO	✓	
RAY	803772	PDWS	DWS (>2000)		✓	
ROGERS 596	573596	PNDW	RM	✓	✓	
ROGERS 803	641803	PNDW	RM	✓	✓	
ROGERS E	216018	PDWS	DWS (<2000)	✓	✓	
RUIZ 146	232146	PDWS	DWS (<2000)	✓	✓	
SCHWARTZ	210865	PDWS	DWS (<2000)	✓	✓	
STEPHENS	808560	PNDW	RM	WLO	WLO	
SWAN	810034	PDWS	DWS (>2000)		✓	
TERRY	NR	PNDW	RM		✓	
TERRY 101	234101	PDWS	DWS (>2000)		✓	
THOMPSON 151	612151	PNDW	RM	WLO	WLO	

TABLE 1
Groundwater Monitoring Schedule

Well Name	ADWR 55 Registry Number	Well Use	Monitoring Purpose	Semiannual Sampling First Quarter	Annual Sampling Third Quarter	Biennial Sampling Third Quarter of Odd Numbered Years
THOMPSON 341	218341	PDWS	DWS (>2000)		✓	
TM-02A	522574	MW	RM	WLO	WLO	✓
TM-06 MILLER	522695	MW	RM	WLO	WLO	✓
TM-07	522576	MW	PE (Lateral)	✓	✓	
TM-10 USBP	522696	MW	RM	✓	✓	
TM-15 MILLER	522699	MW	RM		✓	
TM-16	522578	MW	RM	WLO	WLO	✓
TM-19A	522580	MW	RM		✓	
TM-42	562554	MW	RM	WLO	WLO	✓
TVI 236	802236	IRR	PE (Lateral)	✓	✓	
TVI 713	567713	PNDW	RM	WLO	WLO	
TVI 875	568875	IRR	RM		✓	
WEED	544535	PDWS	DWS (<2000)	✓	✓	
WEISKOPF 802	641802	PNDW	RM	WLO	WLO	✓
WEISKOPF 897	220897	PDWS	DWS (Mit)		✓	
ZANDER	205126	PDWS	DWS (>2000)	WLO	✓	

Notes:

1	In September 2018 BMO-2008-5B was verified as not being used for drinking water supply based on discussion with the property owner.
35-71891	ADWR 35 Database
ADWR	Arizona Department of Water Resources
NR	No Record

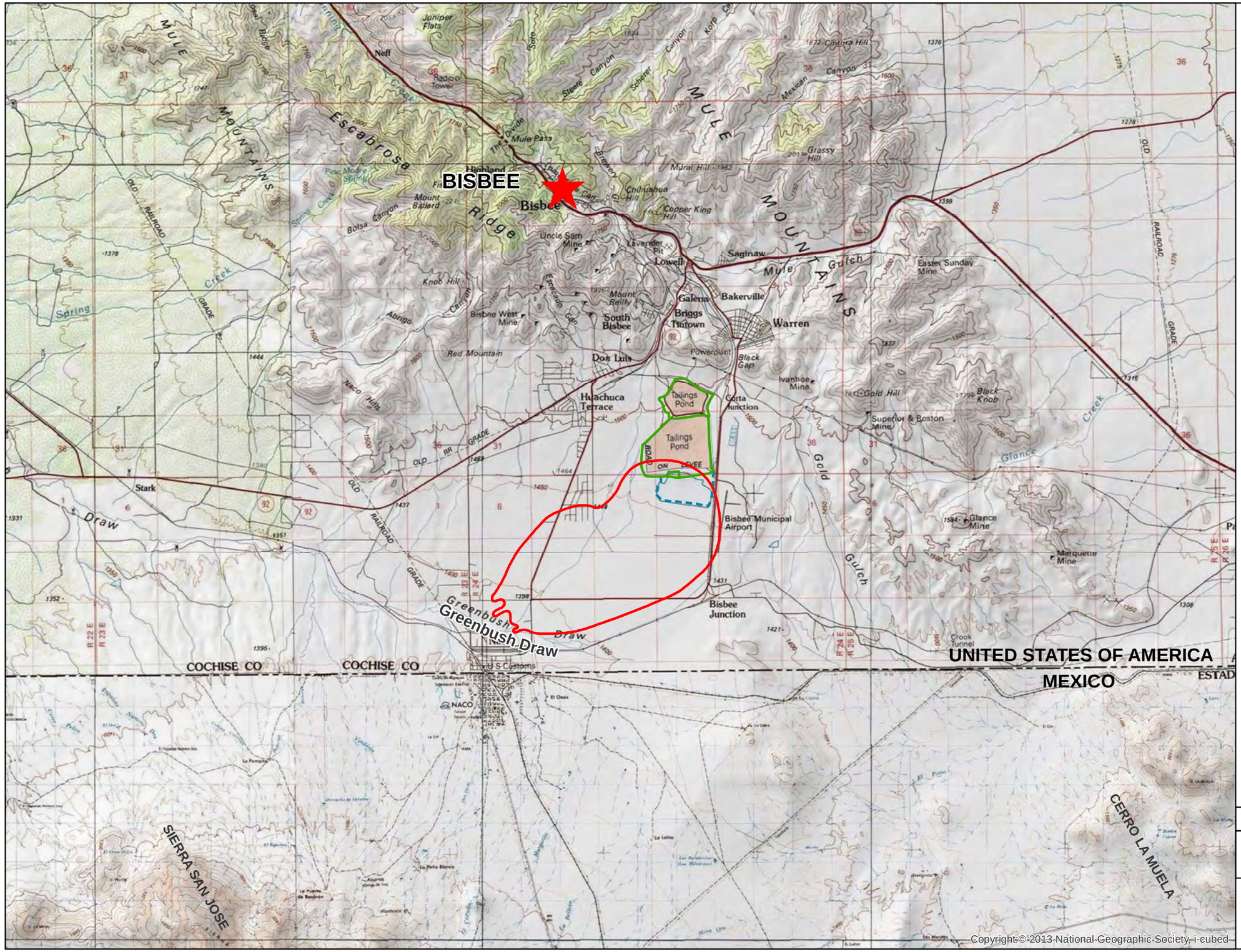
Well Use

PWS	Public Water Supply
PDWS	Private Drinking Water Supply
PNDW	Private Non-Drinking Water
IRR	Irrigation
MW	Monitoring Well
STOCK	Stock-Wildlife Watering

Monitoring Purpose

DWS (<2000)	Drinking Water Supply, Greater than 2000 feet from the plume
DWS (>2000)	Drinking Water Supply, Less than 2000 feet from the plume
DWS (Mit)	Drinking Water Supply, Mitigation well installed below plume
PE (Lateral)	Plume Edge Monitoring, Lateral to plume
PE (Below)	Plume Edge Monitoring, Below plume
RM	Regional Monitoring
WLO	Water Level Only

FIGURES



Legend

- CTSA Facility
- Former Evaporation Ponds
- Estimated 250 mg/L Sulfate Concentration Contour for Third Quarter 2023

Miles

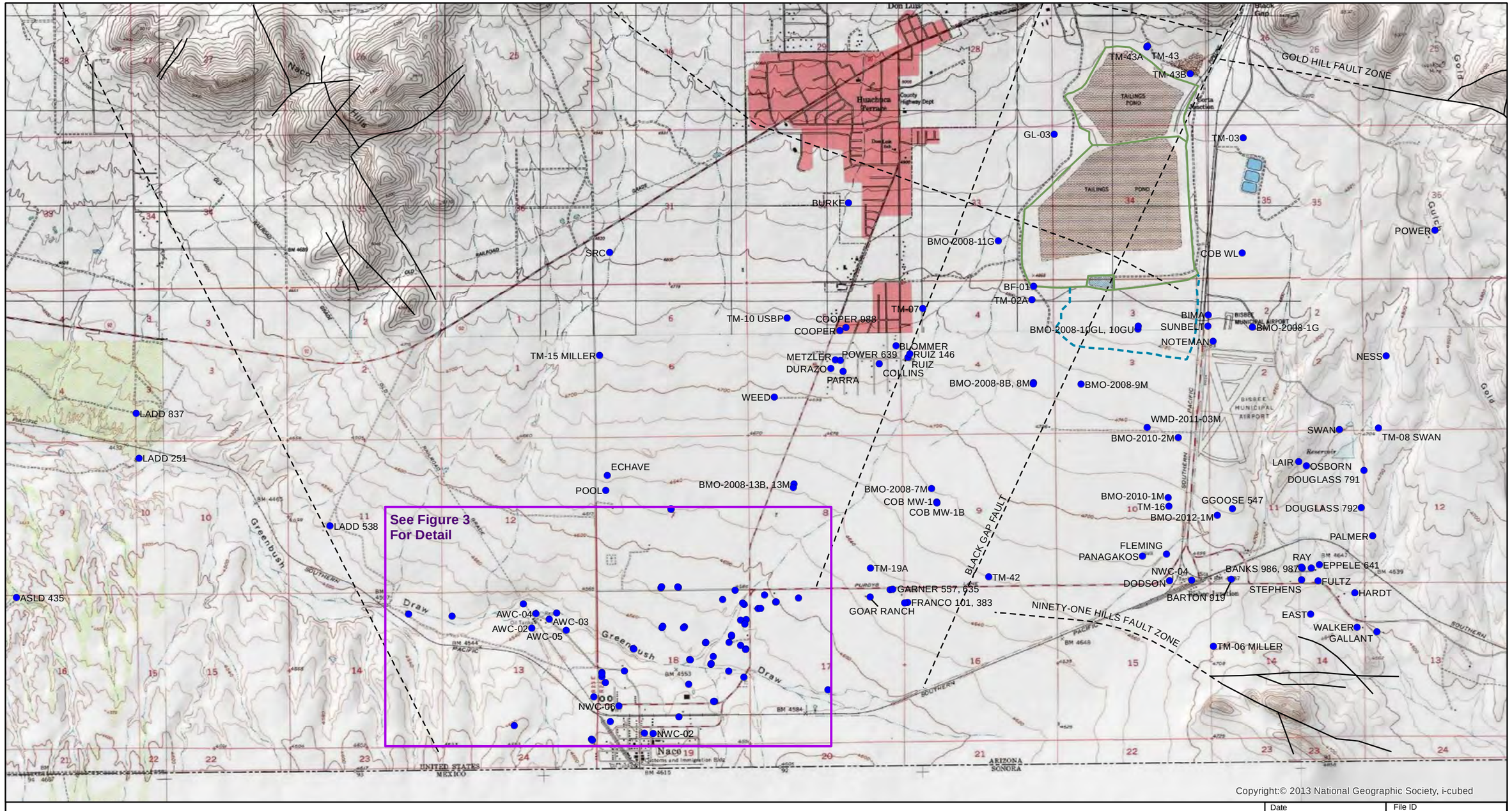
0 1 2

Projection: UTM Zone 12N NAD83

Date	File ID
2/22/2024	055038-580C

CLEAR CREEK ASSOCIATES

FIGURE 1
PROJECT LOCATION MAP



Legend

- Monitoring Location
- CTSA Facility
- Former Evaporation Ponds
- Fault (dashed where inferred)

Scale (Feet)

0 3,000 6,000

Projection: UTM Zone 12N NAD83

Date	File ID
2/22/2024	055038-599

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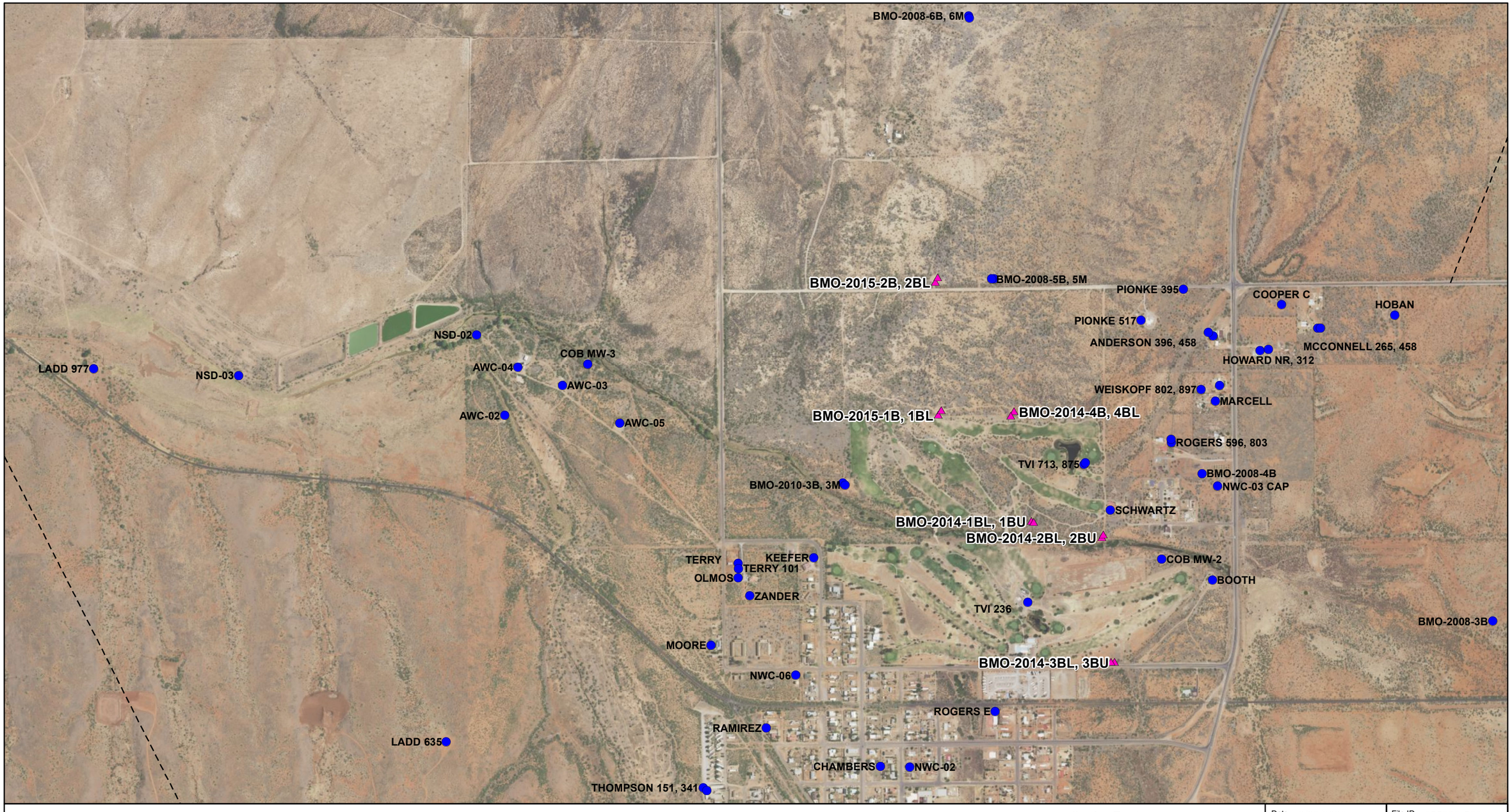
FIGURE 2
GROUNDWATER
MONITORING LOCATIONS



Legend

- Expanded Goundwater Monitoring Program Well
- Existing Well

Scale (Feet)

0 1,000 2,000

Projection: UTM Zone 12N
NAD83

Date 12/20/2023

File ID 055038-569

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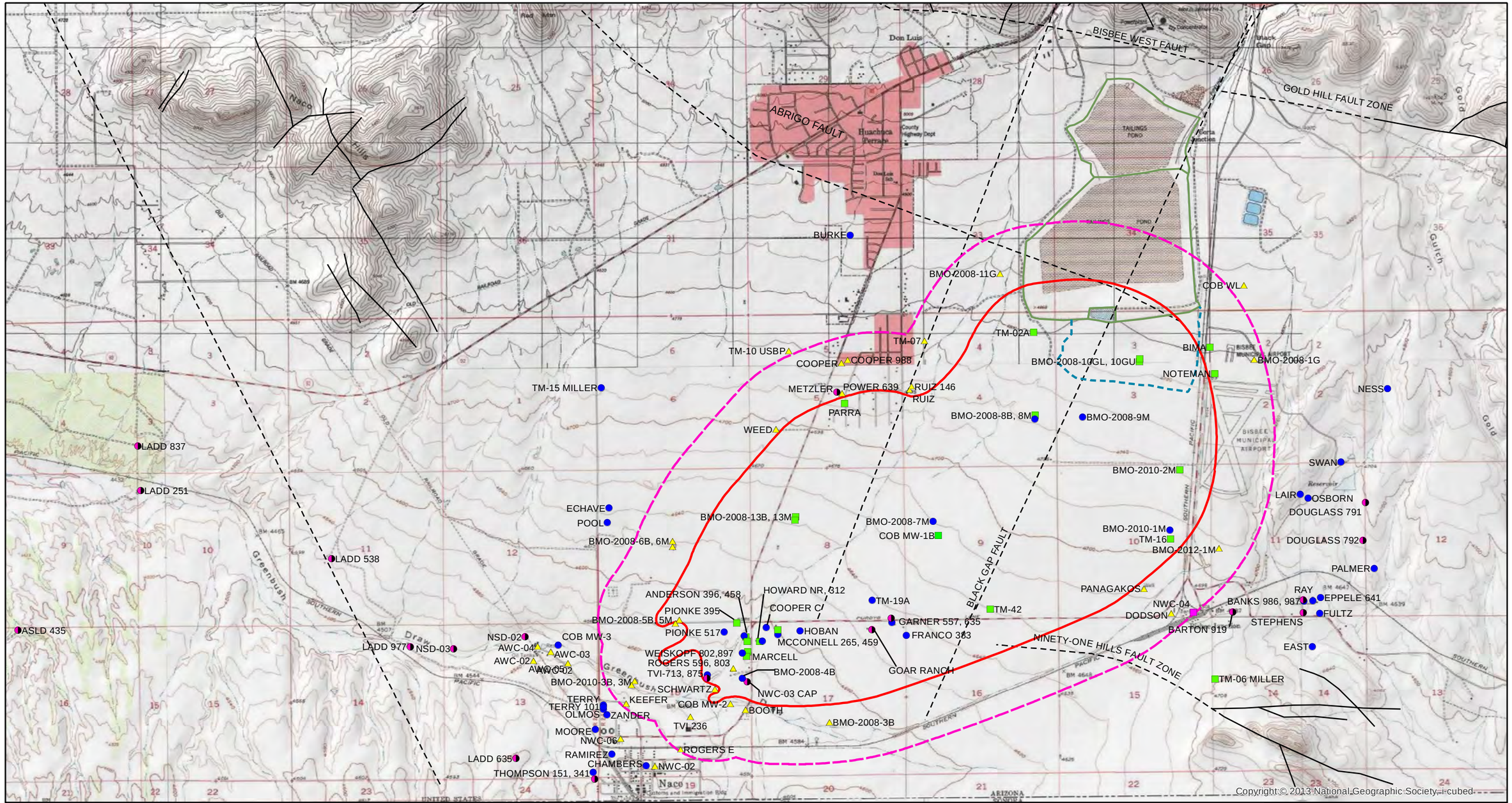
FIGURE 3
NACO AREA
WELL SITES



Legend

Monitoring Frequency

- Quarterly Sampling (NWC-04 Only)
- Semiannual Sampling (First and Third Quarter)
- Annual Sampling (Third Quarter)
- Biennial Sampling (Third Quarter)
- Water Level Only (Semiannual, Annual, or Biennial)

- 3Q23 250 mg/L SO4 Contour
- 2000 Feet from Q3 2023 Estimated 250 mg/L Sulfate Contour
- Faults (dashed where inferred)
- CTSA Facility
- Former Evaporation Ponds

Scale (Feet)

0 3,000 6,000

Projection: UTM Zone 12N
NAD83

Date	File ID
3/13/2024	055038-600

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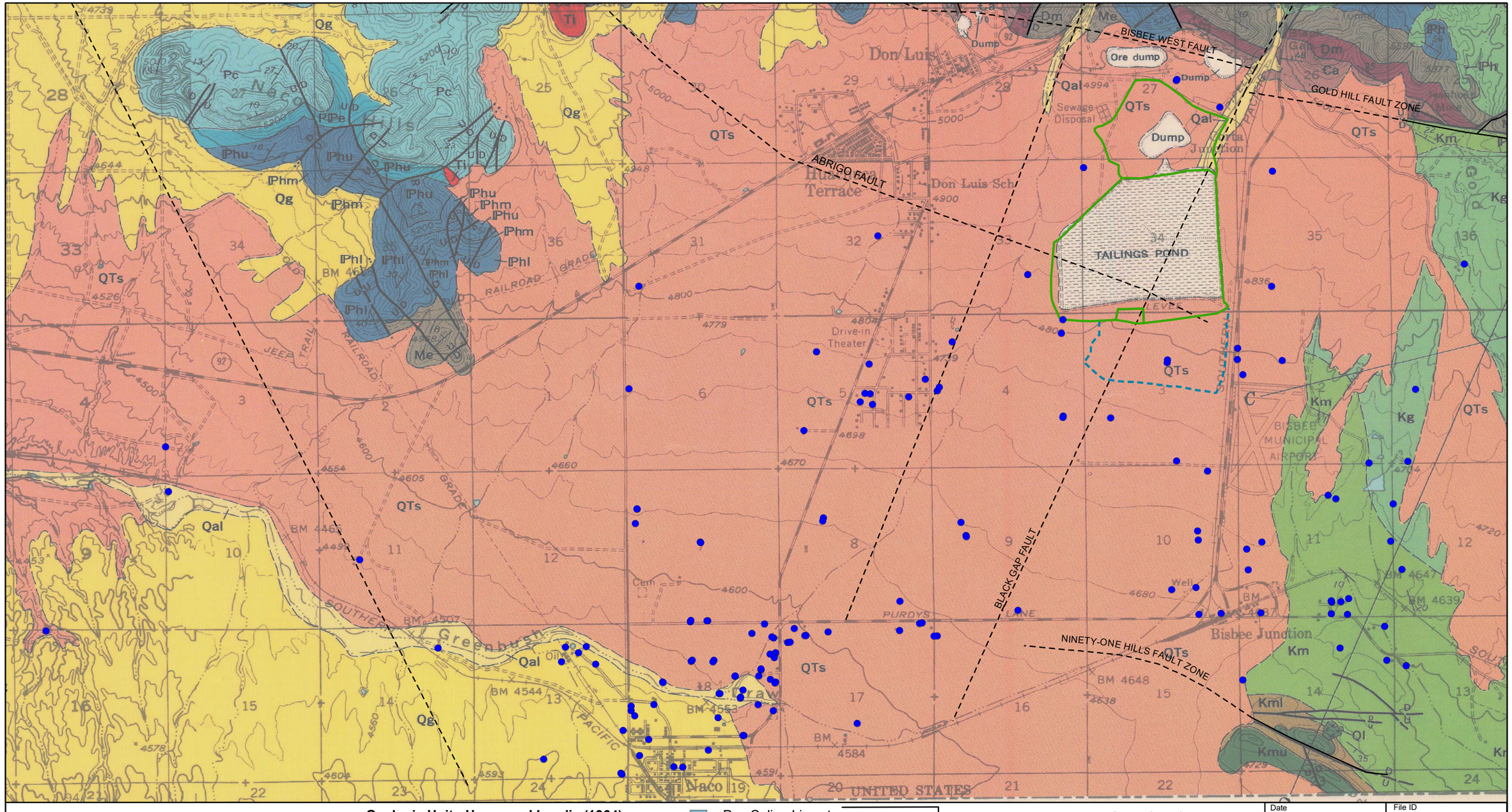
FIGURE 4
LONG-TERM PLUME
MONITORING LOCATIONS



Legend

- Monitoring Location
- Fault (dashed where inferred)
- CTSA Facility
- Former Evaporation Ponds

Geologic Unit - Hayes and Landis (1964)

Basin Fill
- Qal - Quaternary Alluvium
- Qg - Quaternary Gravel
- QTs - Quaternary Tertiary sediment
- Ti - Tertiary Intrusive

Bisbee Group
- Kc - Cintura Formation (not shown)
- Kmu - Upper Mural Limestone
- Kml - Lower Mural Limestone
- Km - Morita Formation
- Kg - Glance Conglomerate

Paleozoic Sedimentary Formations
- Pc - Colina Limestone
- PPe - Earp Formation
- Phu, Phm, Phl - Horquilla Limestone
- Me - Escabrosa Limestone
- Dm - Martin Limestone
- Ca - Abrigo Limestone

See Figures 2 and 3 for Monitoring Location Names

Scale (Feet)
0 3,000 6,000

Projection: UTM Zone 12N NAD83
Geology reprinted from Hayes and Landis (1964) USGS Miscellaneous Geologic Investigations I-418

Date: 3/1/2024
File ID: 055038-567B

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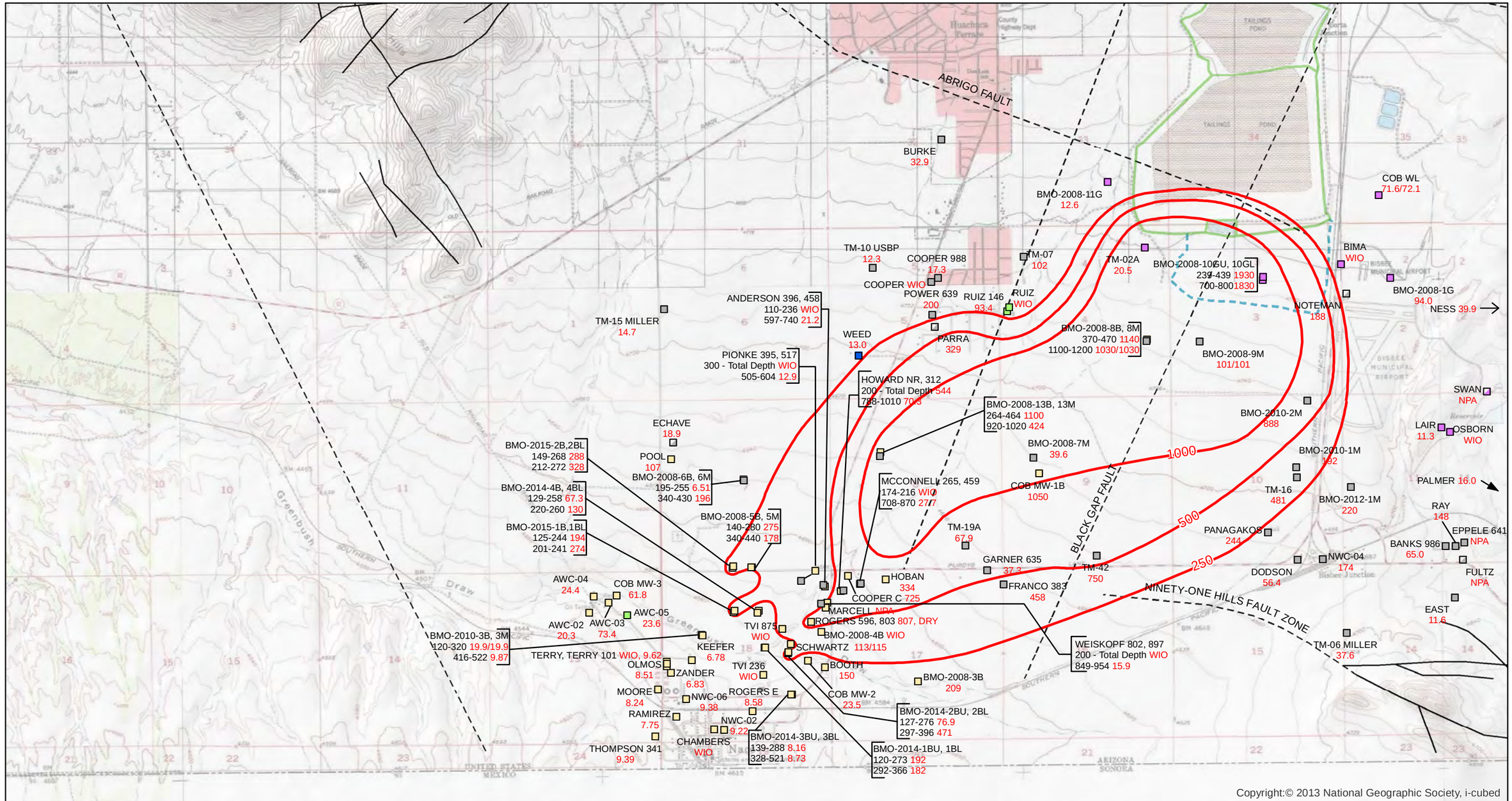
FIGURE 5
GEOLOGIC MAP
WITH MONITORING LOCATIONS



Legend

- NWC-02 Well ID
  9.22 Sulfate Concentration (mg/L)
  Duplicate results separated by "/"
- SO4 Concentration Contour
- Fault (dashed where inferred)
- CTSA Facility
- Former Evaporation Ponds

Co-located Wells
- Well ID
  Screen (ft bls) Sulfate Concentration (mg/L)

Screened Formation
- Basin Fill
- Basin Fill and Undifferentiated Bisbee Group
- Undifferentiated Bisbee Group
- Undifferentiated Bisbee Group - Estimated
- Undifferentiated Bisbee Group and Glance Conglomerate
- Glance Conglomerate
- Glance Conglomerate - Estimated

Undifferentiated Bisbee Group: Cintura, Mural Limestone, and Morita Formations

Notes:
NPA = No Property Access
WIO = Well Inoperable
mg/L = milligrams per liter
ft bls = feet below land surface
Sulfate contours are based on represented and historical data.
Projection: UTM Zone 12N NAD83

Scale (Feet)
0 3,000 6,000

Projection: UTM Zone 12N
NAD83

Date	3/15/2024	File ID	055038-595

CLEAR CREEK ASSOCIATES

FIGURE 6
SULFATE CONCENTRATIONS IN SITE-WIDE GROUNDWATER SAMPLES FOR THIRD QUARTER 2023

BMO-2008-6B, 6M
195-255 6.51
340-430 196

HOWARD NR, 312
200 - Total Depth 544
788-1010 70.3

ANDERSON 396, 458
110-236 WIO
597-740 21.2

BMO-2008-5B, 5M
140-280 275
340-440 178

BMO-2015-2B, 2BL
149-268 288
212-272 328

PIONKE 395
WIO

PIONKE 517
12.9

COOPER C
725

HOBAN
334

MCCONNELL 265, 459
174-216 WIO
723-863 27.7

AWC-04
24.4

COB MW-3
61.8

AWC-02
20.3

AWC-03
73.4

AWC-05
23.6

BMO-2015-1B, 1BL
125-244 194
201-241 274

BMO-2014-4B, 4BL
129-258 67.3
220-260 130

MARCELL
NPA

WEISKOPF 802, 897
200 - Total Depth WIO
849-954 15.9

ROGERS 596, 803
807, DRY

TVI 875
WIO

BMO-2008-4B
WIO

BMO-2010-3B, 3M
120-320 19.9/19.9
416-522 9.87

BMO-2014-1BU, 1BL
120-273 192
292-366 182

SCHWARTZ
113/115

TERRY, TERRY 101 WIO, 9.62

KEEFER
6.78

COB MW-2
23.5

OLMOS
8.51

BOOTH
150

TVI 236
WIO

ZANDER
6.83

BMO-2008-3B
209

BMO-2014-2BU, 2BL
127-276 76.9
297-396 471

MOORE
8.24

NWC-06
9.38

BMO-2014-3BU, 3BL
139-288 8.16
328-521 8.73

ROGERS E
8.58

RAMIREZ
7.75

NWC-02
9.22

CHAMBERS
WIO

THOMPSON 341
9.39

Legend

NWC-02 Well ID
9.22 Sulfate Concentration (mg/L)
Duplicate results separated by "/"
Sulfate Concentration Contour
Fault (Inferred)

Co-located Wells
Well ID
Screen (ft bls) Sulfate Concentration (mg/L)

Screened Formation
- Basin Fill
- Basin Fill and Undifferentiated Bisbee Group
- Undifferentiated Bisbee Group
- Undifferentiated Bisbee Group - Estimated
- Undifferentiated Bisbee Group and Glance Conglomerate
- Glance Conglomerate
- Glance Conglomerate - Estimated

Undifferentiated Bisbee Group: Cintura, Mural Limestone, and Morita Formations

Notes:
NPA = No Property Access
WIO = Well Inoperable
mg/L = milligrams per liter
ft bls = feet below land surface
Sulfate contours are based on represented and historical data.

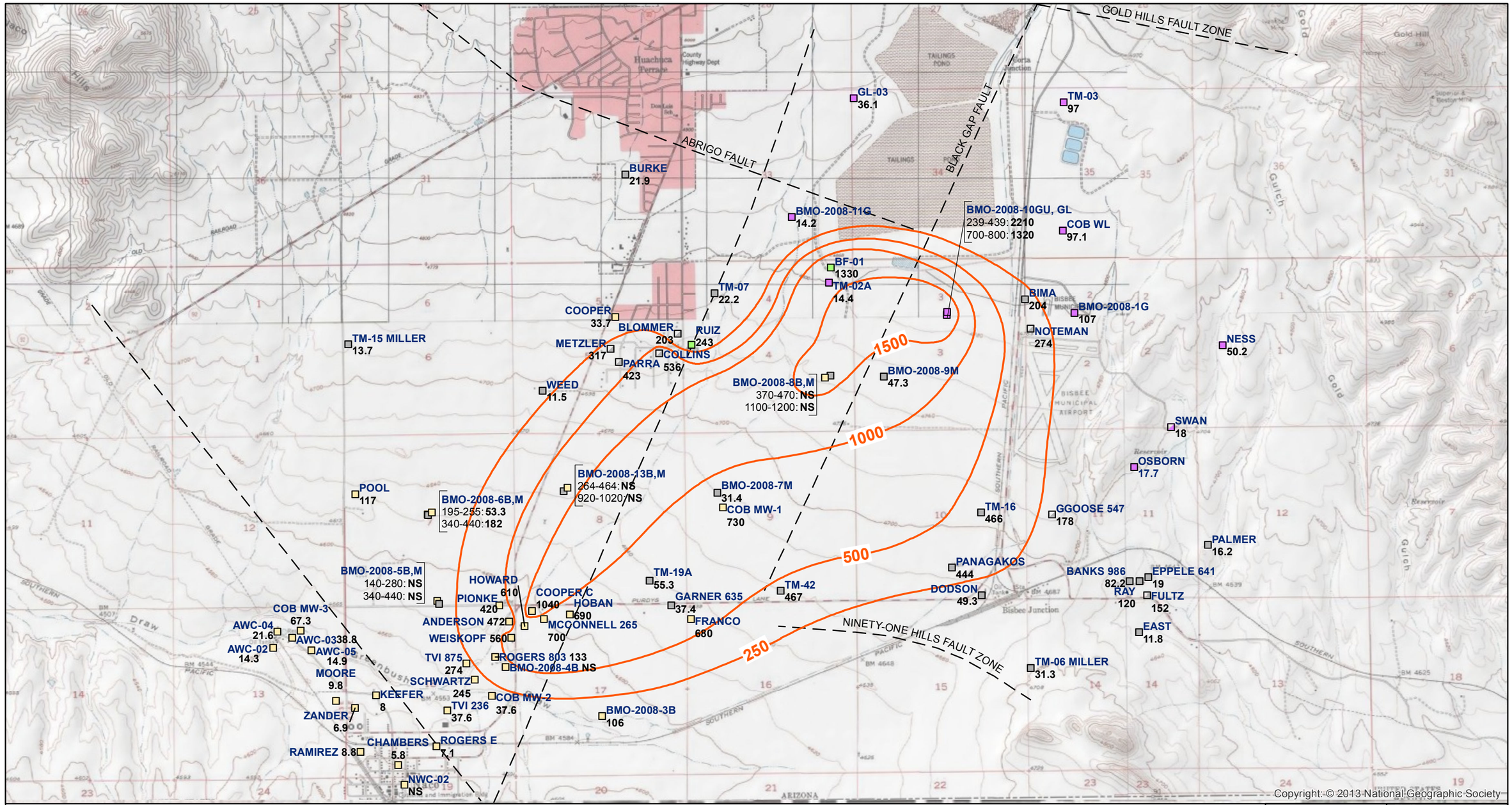
Scale (Feet)
0 1,000 2,000

Projection: UTM Zone12N
NAD83

Date 3/15/2024
File ID 055038-596

CLEAR CREEK ASSOCIATES

FIGURE 7
SULFATE CONCENTRATIONS AT THE WEST EDGE OF THE PLUME FOR THIRD QUARTER 2023



Legend

- TM-19A — Well ID
- 55.3 — Sulfate Concentration (mg/L)
- 250 — Sulfate Isoline (mg/L)
- Faults (inferred)

Co-located Wells

Well ID
Screen (ft bgs): SO4 Concentration (mg/L)
(Duplicate results separated by "/")

Screened Formation

- Basin Fill
- Basin Fill and Undifferentiated Bisbee Group
- Undifferentiated Bisbee Group
- Undifferentiated Bisbee Group - Estimated
- Glance Conglomerate
- Glance Conglomerate-Estimated

Undifferentiated Bisbee Group: Cintura, Mural Limestone, and Morita Formations

Scale

0 3,000 6,000 Feet

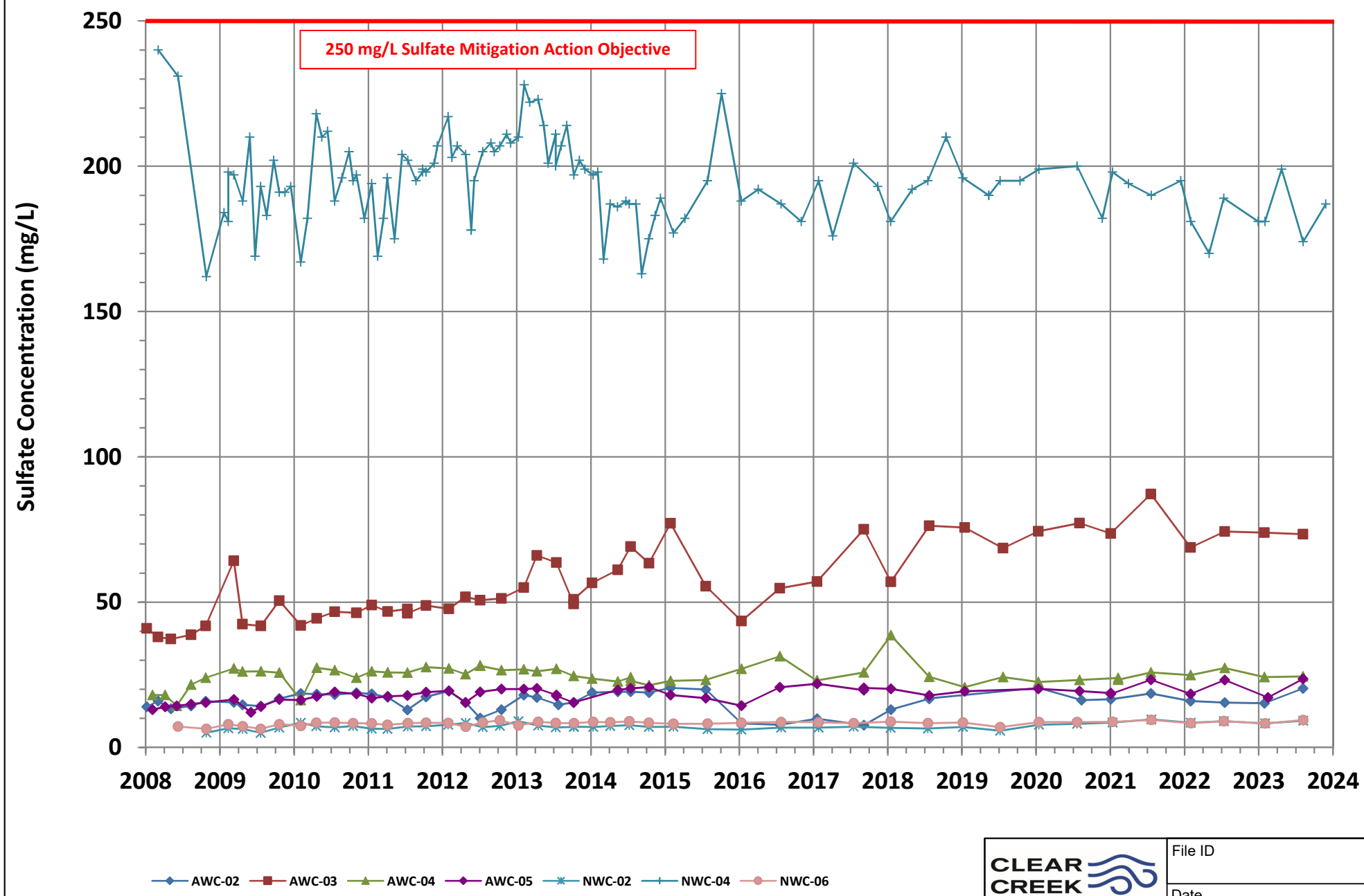
PROJECTION:
UTM Zone 12N NAD83

Source: HydroGeoChem, 2009

Date	File ID
1/26/17	055038-085A

CLEAR CREEK ASSOCIATES

FIGURE 8
SULFATE CONCENTRATIONS
IN SITE-WIDE
GROUNDWATER SAMPLES
FOR THIRD QUARTER 2008



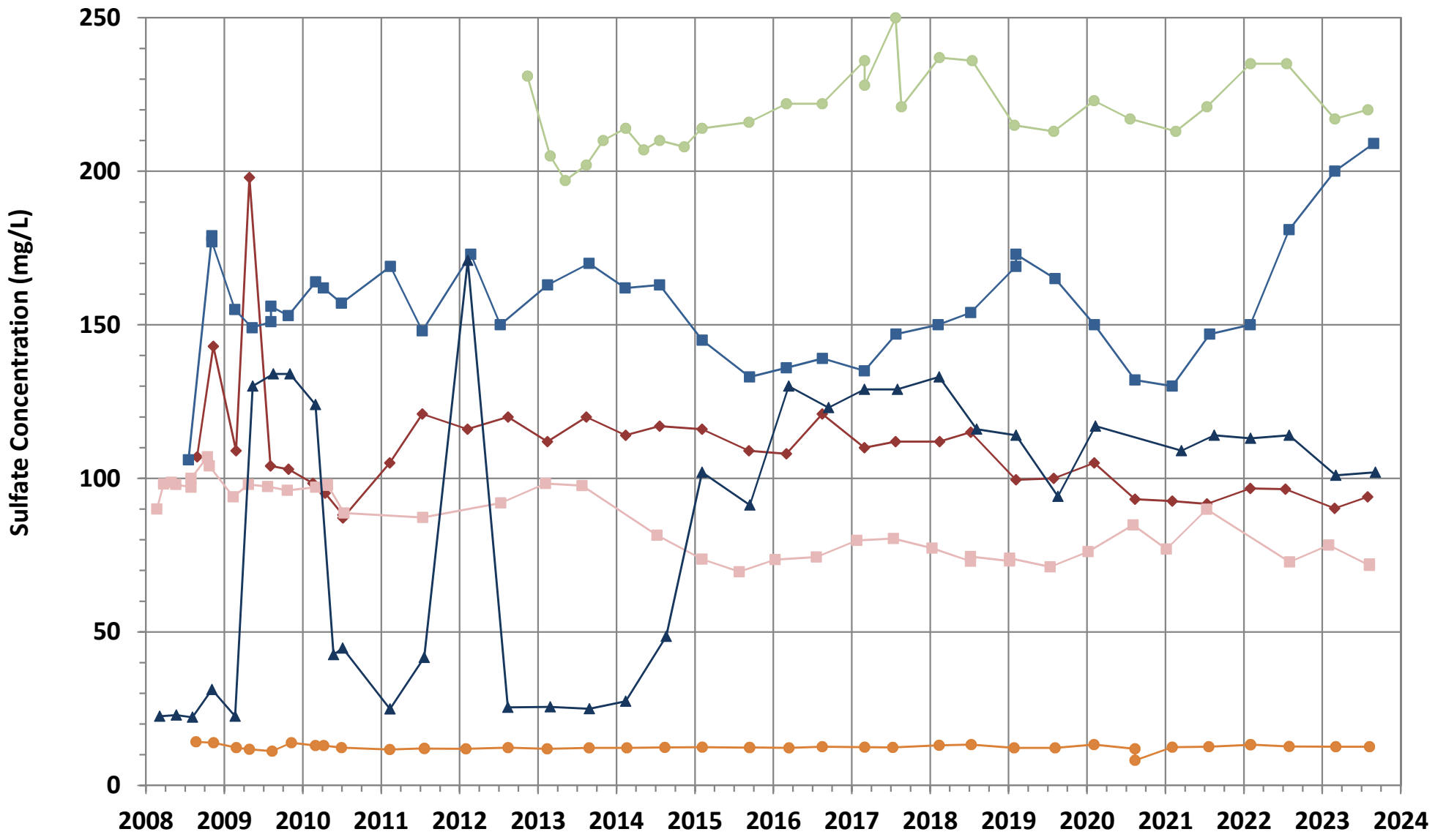
Note: mg/L = milligrams per Liter

CLEAR CREEK ASSOCIATES

File ID

Date 1/15/2024

FIGURE 9
SULFATE CONCENTRATION IN PUBLIC DRINKING WATER SUPPLY WELLS



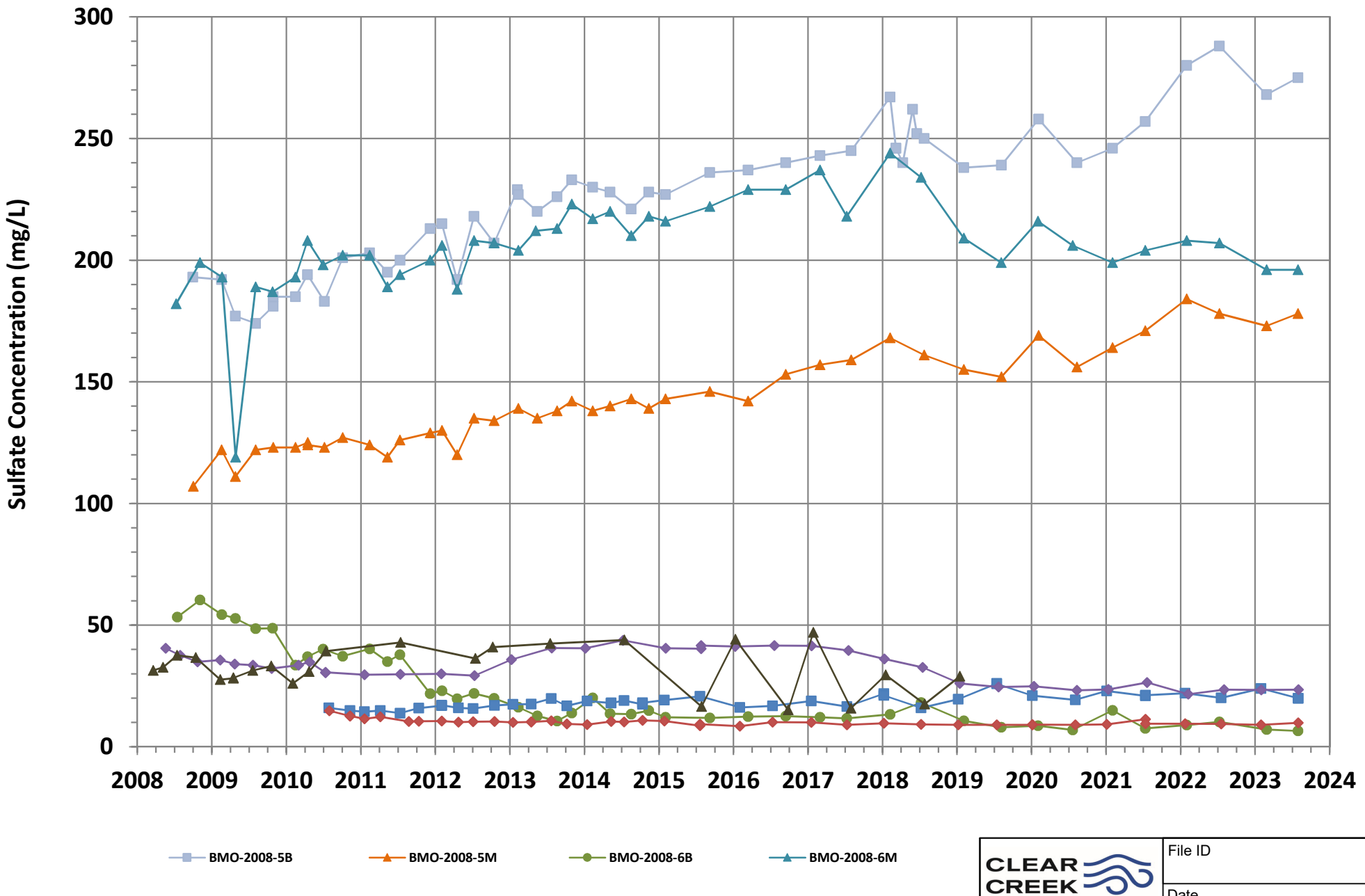
Note: mg/L = milligrams per Liter

CLEAR CREEK ASSOCIATES

File ID

Date 1/15/2024

FIGURE 10
SULFATE CONCENTRATION IN LATERAL PLUME EDGE WELLS NORTH, SOUTH, AND EAST OF THE PLUME



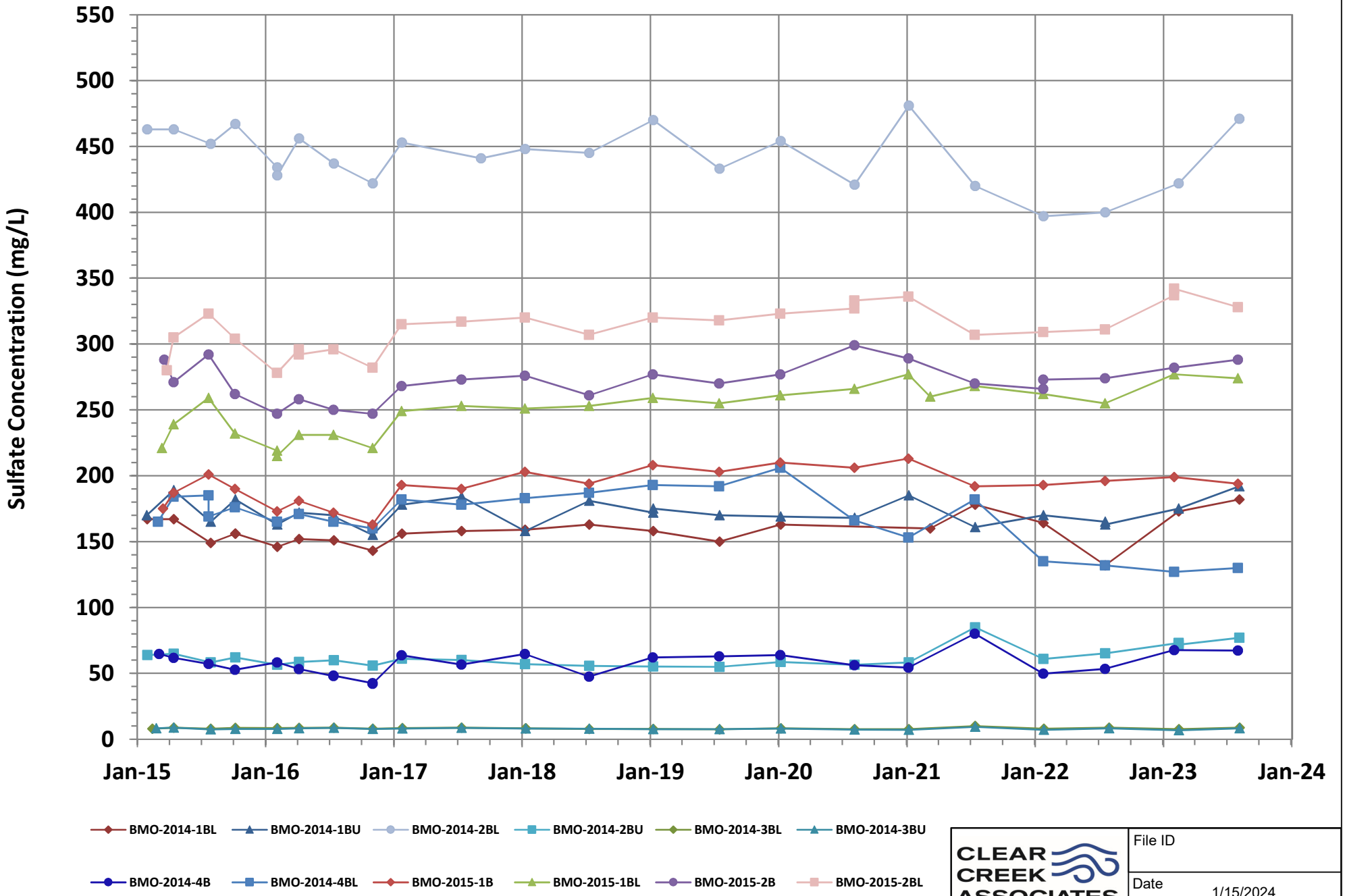
Note: mg/L = milligrams per Liter

CLEAR CREEK ASSOCIATES

File ID

Date 1/15/2024

FIGURE 11
SULFATE CONCENTRATION IN LATERAL PLUME EDGE WELLS WEST OF THE PLUME



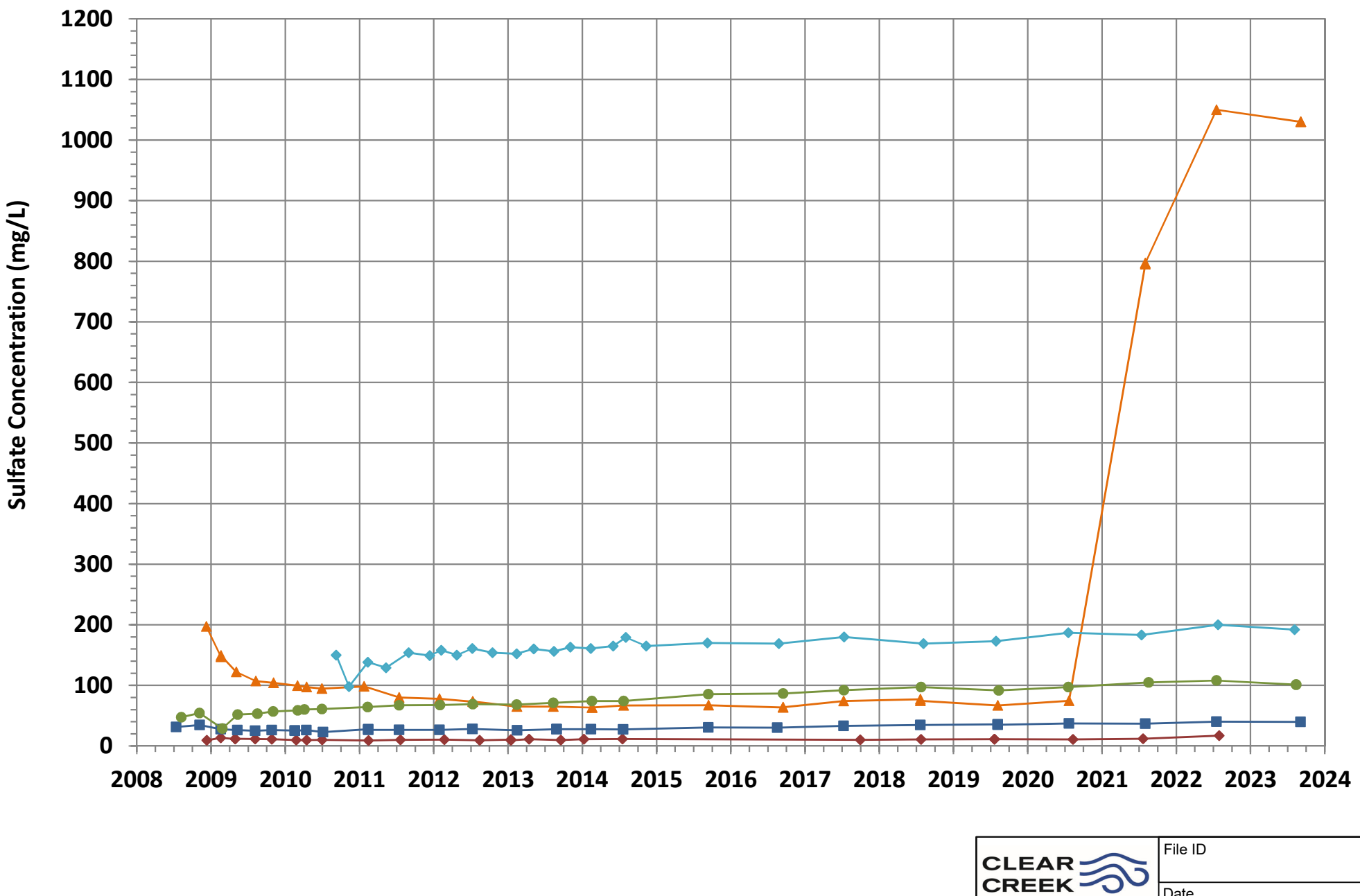
Note:
Sample results from 2014 are omitted because the sulate concentrations were inconsistent with subsequent baseline sampling data, possibly due to imcomplete well development prior to the initial sampling.
mg/L = milligrams per Liter

CLEAR CREEK ASSOCIATES

File ID

Date 1/15/2024

FIGURE 12
SULFATE CONCENTRATION IN EXPANDED GROUNDWATER MONITORING PROGRAM WELLS WEST OF THE PLUME



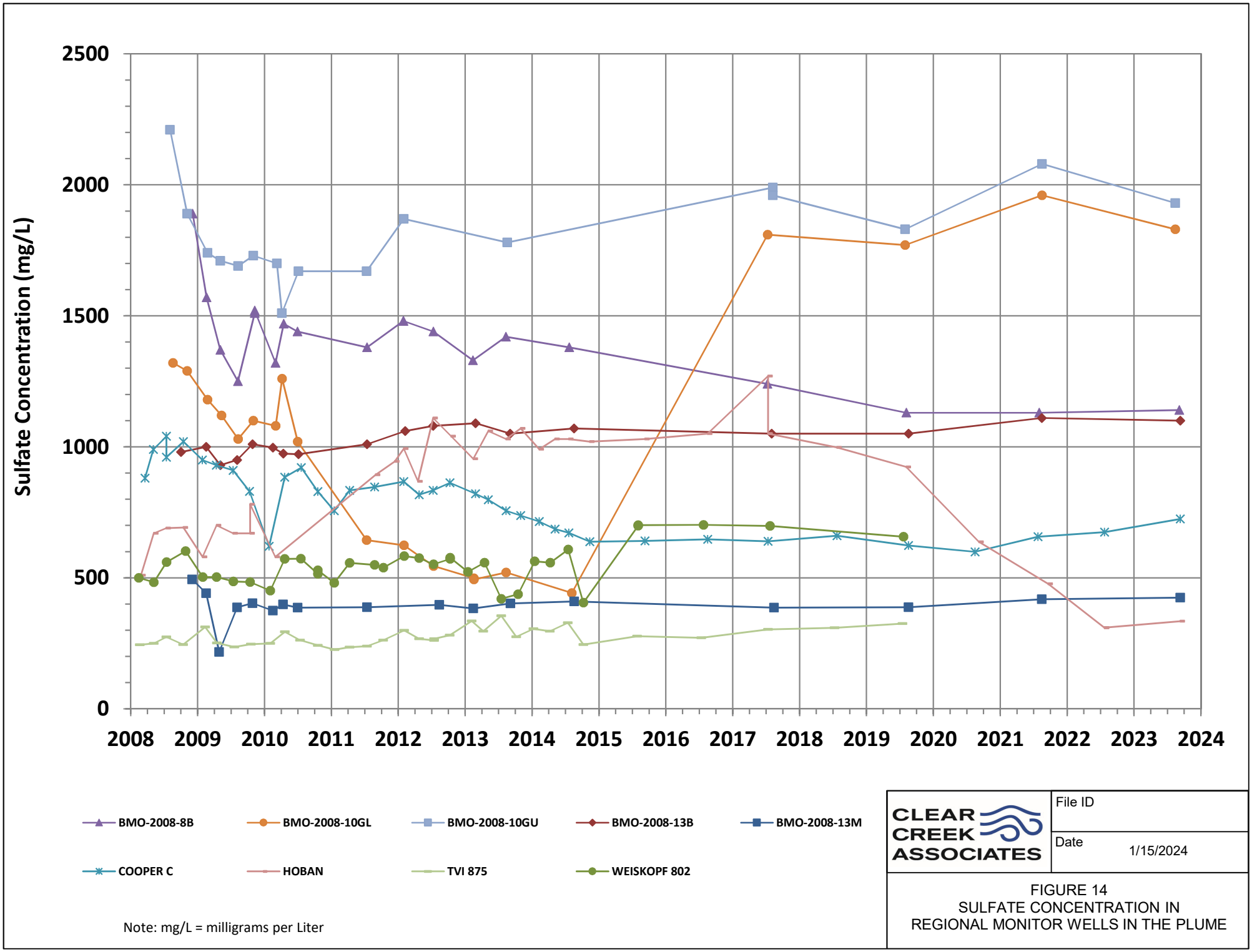
Note: mg/L = milligrams per Liter

CLEAR CREEK ASSOCIATES

File ID

Date 1/15/2024

FIGURE 13
SULFATE CONCENTRATION IN PLUME EDGE WELLS BELOW THE PLUME



Note: mg/L = milligrams per Liter

CLEAR CREEK ASSOCIATES

File ID

Date 1/15/2024

FIGURE 14
SULFATE CONCENTRATION IN
REGIONAL MONITOR WELLS IN THE PLUME

BURKE
IWL

ABRIGO FAULT

BMO-2008-11G
4304.52

COB WL
4728.85

TM-02A
4466.80

NESS
4223.89

TM-10 USBP
4477.38

COOPER
IWL

COOPER 988
4421.12

TM-07
4428.12

BMO-2008-10GU
4577.26

BMA
IWL

BMO-2008-10GL
4478.66

NOTEMAN
4429.51

BMO-2008-1G
4724.27

TM-15 MILLER
4424.72

METZLER
4429.45

POWER 639
4434.44

RUIZ 146
4427.02

RUIZ
IWL

PARRA
IWL

BMO-2008-8B, 8M
370-470 4444.19
1100-1200 4447.40

PALMER
IWL

BMO-2008-9M
4463.97

WEED
IWL

ANDERSON 396, 458
110-236 4429.60
597-740 4422.67

HOWARD NR, 312
200 - Total Depth 4430.09
788-1010 4372.22

LADD 837
4085.28

BMO-2015-2B, 2BL
149-268 4425.93
212-272 4425.72

BMO-2008-6B, 6M
195-255 4425.48
340-430 4423.76

BMO-2010-2M
4469.82

SWAN
NPA

LAIR
IWL

OSBORN
IWL

DOUGLASS 791
NPA

LADD 251
4221.51

ECHAVE
4423.97

POOL
IWL

BMO-2008-13B, 13M
264-464 4430.57
920-1020 4428.94

BMO-2008-7M
4437.33

BMO-2010-1M
4497.50

BMO-2012-1M
4495.44

LADD 538
4320.31

BMO-2014-4B, 4BL
129-258 4427.33
220-260 4427.29

MCCONNELL 265, 459
174-216 IWL
708-870 4428.04

COB MW-1B
IWL

TM-16
4655.78

DOUGLASS 792
NPA

BMO-2015-1B, 1BL
125-244 4425.83
201-241 4425.89

BMO-2008-5B, 5M
140-280 4427.96
340-440 4426.54

TM-19A
4432.41

PANAGAKOS
4517.48

RAY
4598.61

BANKS 987
4410.88

EPPELE 641
NPA

TM-42
4442.21

NWC-04
IWL

BANKS 986
IWL

FULTZ
NPA

ASLD 435
4217.40

NSD-02
4420.11

COB MW-3
4398.17

PIONKE 395
4429.65

COOPER C
4430.35

GARNER 635
4433.55

GARNER 557
4423.22

DODSON
4585.87

BARTON 919
IWL

STEPHENS
4597.85

LADD 977
4421.38

AWC-04
4416.15

AWC-03
4410.92

PIONKE 517
4427.91

HOBAN
4430.29

GOAR RANCH
4432.92

FRANCO 383
4433.14

* NSD-03
< 4423.8

AWC-02
4418.62

AWC-05
IWL

TVI 713
4428.58

TVI 875
IWL

MARCELL NPA

ROGERS 596, ROGERS 803 4430.71, DRY

BMO-2008-4B 4429.68

NWC-03 CAP DRY

EAST
4547.41

TM-06 MILLER
4543.25

KEEFER
4423.73

SCHWARTZ 4428.89

TERRY, TERRY 101 IWL, IWL

OLMOS 4421.13

ZANDER IWL

BMO-2010-3B, 3M
120-320 4424.37
416-522 4421.17

TVI 236
4428.56

BOOTH
4429.02

COB MW-2
4429.41

BMO-2008-3B
4431.00

WEISKOPF 802, 897
200 - Total Depth 4429.98
849-954 4429.09

MOORE
4407.97

ROGERS E
4427.66

NWC-06
4423.39

RAMIREZ
4423.83

BMO-2014-2BU, 2BL
127-276 4428.19
297-396 4428.13

LADD 635
4421.03

NWC-02
4425.89

CHAMBERS
IWL

THOMPSON 151, 341
210 - Total Depth IWL
225-285 4422.24

BMO-2014-1BU, 1BL
120-273 4427.87
292-366 4427.98

BMO-2014-3BU, 3BL
139-288 4427.88
328-521 4427.84

BLACK GAP FAULT

NINETY-ONE HILLS FAULT ZONE

AREA OF WIDELY
VARYING WATER LEVELS

Legend

- AWC-04 Well ID
- 4416.15 Groundwater Elevation (ft amsl)
- Groundwater Elevation Contours (10 ft)
- Groundwater Elevation Contours (50 ft) (dashed where inferred)
- Faults (dashed where inferred)
- CTSA Facility
- Former Evaporation Ponds

Co-located Wells

- Well ID
- Screen (ft bls) Water Elevation (ft amsl)

Screened Formation

- Basin Fill
- Basin Fill and Undifferentiated Bisbee Group
- Undifferentiated Bisbee Group
- Undifferentiated Bisbee Group - Estimated
- Undifferentiated Bisbee Group and Glance Conglomerate
- Glance Conglomerate
- Glance Conglomerate-Estimated

Undifferentiated Bisbee Group: Cintura, Mural Limestone, and Morita Formations

Notes:
IWL = Inaccesible for Water Level
NPA = No Property Access
ft amsl = feet above mean sea level
ft bls = feet below land surface
*NSD-03 water level was below the top of the installed pump at 4432.8 ft amsl in Q3 2023. An estimated groundwater elevation of between 4422 and 4423.8 ft amsl is based on historic trends.

Scale (Feet)
0 3,000 6,000

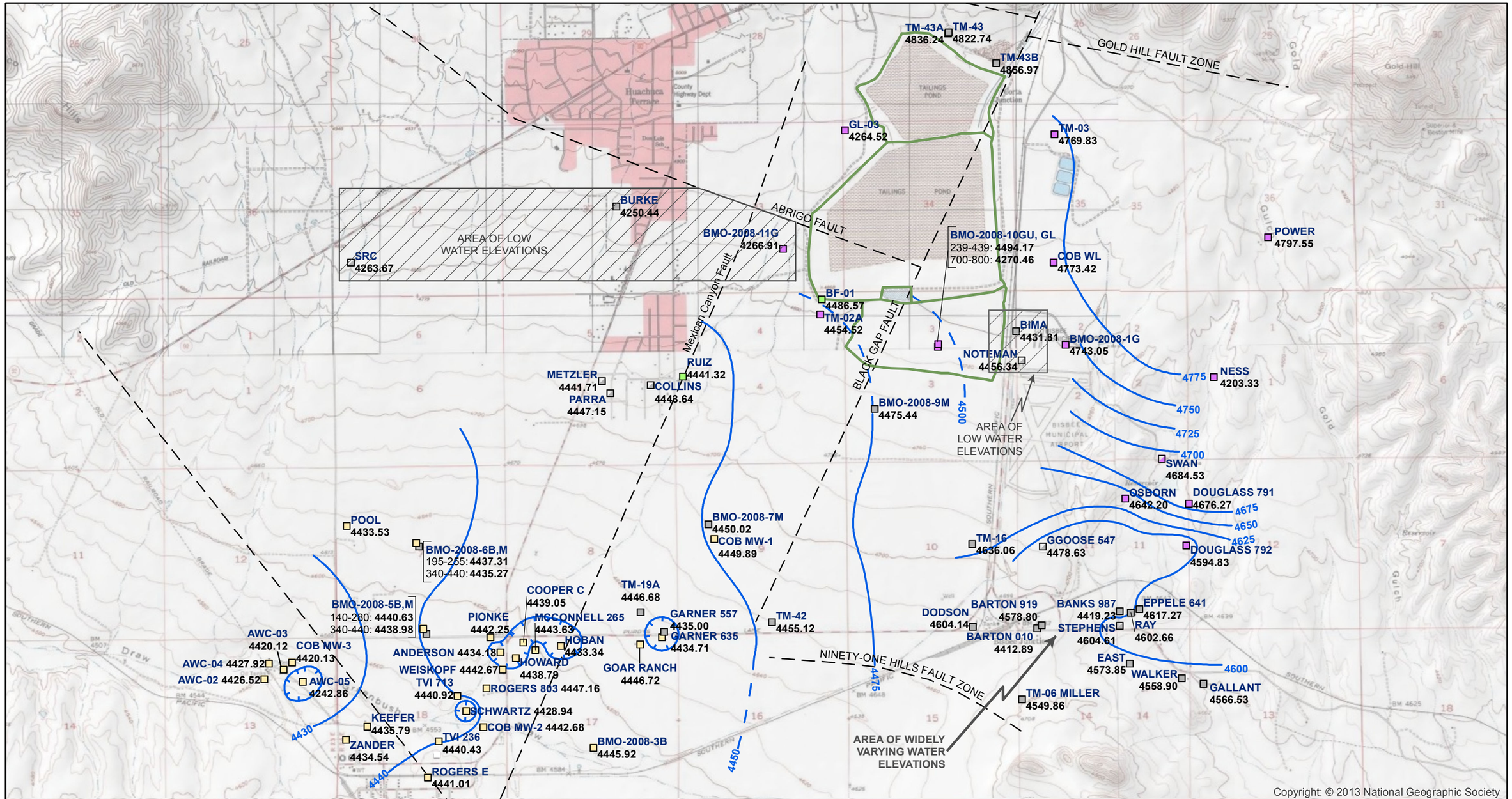
Projection: UTM Zone 12N NAD83

Date 3/15/2024

File ID 055038-593

CLEAR CREEK ASSOCIATES

FIGURE 15
SITE-WIDE
GROUNDWATER ELEVATIONS
FOR THIRD QUARTER 2023



Legend

- TVI-713 — Well ID
- 4440.92 — Groundwater Elevation (ft amsl)
- Co-located Wells
  - Well ID
  - Screen (ft bls): Water Elevation (ft amsl)
- Groundwater Elevation Contours (dashed where inferred)
- Groundwater Depression
- Faults (inferred)
- CTSA Facility

Screened Formation
- Basin Fill
- Basin Fill and Undifferentiated Bisbee Group
- Undifferentiated Bisbee Group
- Undifferentiated Bisbee Group - Estimated
- Glance Conglomerate
- Glance Conglomerate-Estimated

Undifferentiated Bisbee Group: Cintura, Mural Limestone, and Morita Formations

ft bls = feet below land surface
ft amsl = feet above mean sea level

Scale (Feet): 0 — 3,000 — 6,000

Projection: UTM Zone 12N NAD83

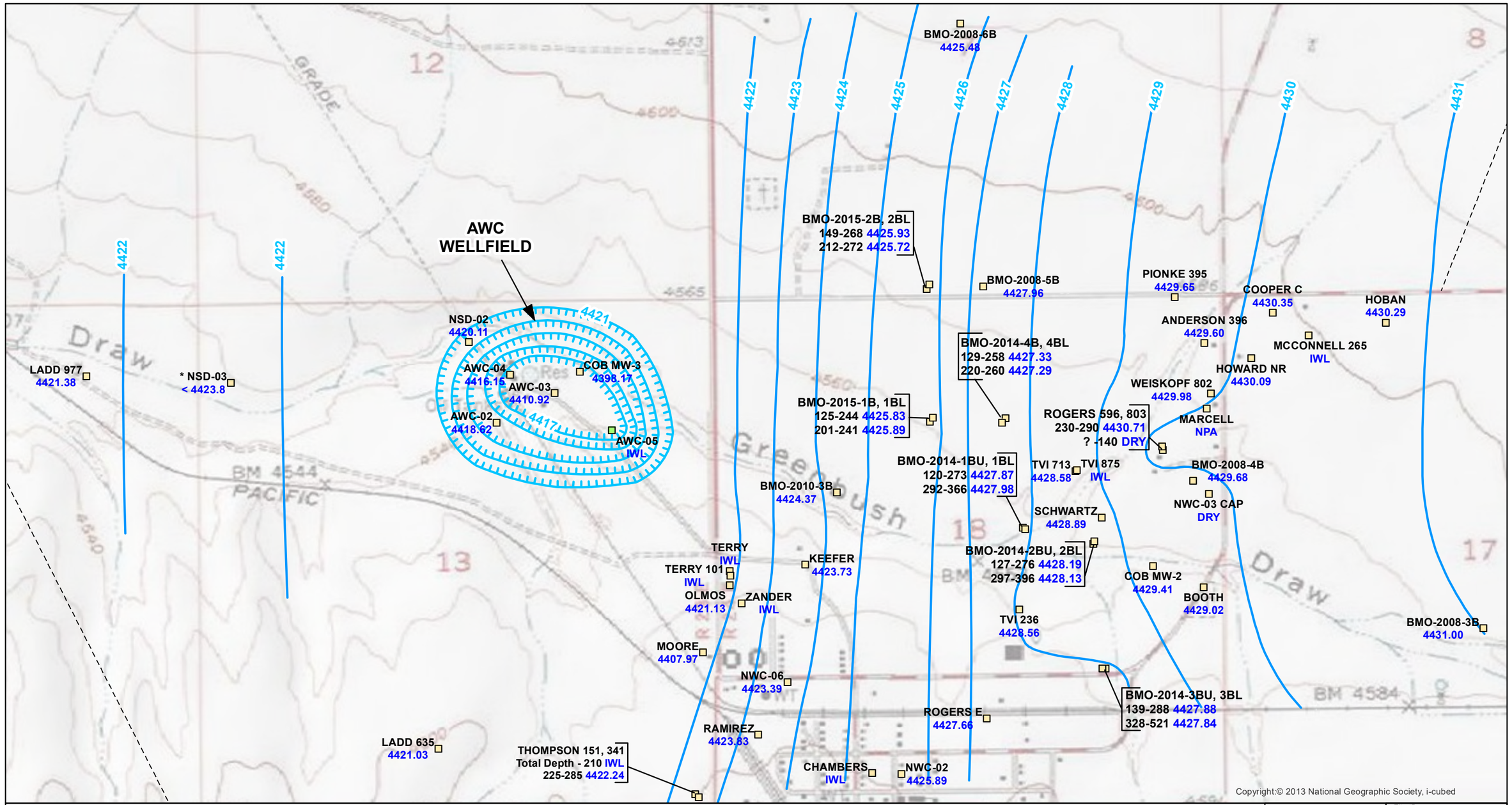
Source: HydroGeoChem, 2009

Date: 3/9/16

File ID: 055038-059A

CLEAR CREEK ASSOCIATES

FIGURE 16
SITE-WIDE
GROUNDWATER ELEVATIONS
FOR THIRD QUARTER 2008



Legend

- **AWC-04** Well ID
  4416.15 Groundwater Elevation (ft amsl)
- Groundwater Elevation Contour (ft amsl)
- Groundwater Elevation Depression Contour (ft amsl)
- Faults (dashed where inferred)

Co-located Wells
- Well ID
  Screen (ft bls) Water Elevation (ft amsl)

Screened Formation
- Basin Fill
- Basin Fill and Undifferentiated Bisbee Group
- Undifferentiated Bisbee Group
- Undifferentiated Bisbee Group - Estimated
- Undifferentiated Bisbee Group and Glance Conglomerate
- Glance Conglomerate
- Glance Conglomerate-Estimated

Undifferentiated Bisbee Group: Cintura, Mural Limestone, and Morita Formations

Notes:
IWL = Inaccesible for Water Level
NPA = No Property Access
ft amsl = feet above mean sea level
ft bls = feet below land surface
*NSD-03 water level was below the top of the installed pump at 4432.8 ft amsl in Q3 2023. An estimated groundwater elevation of between 4422 and 4423.8 ft amsl is based on historic trends.

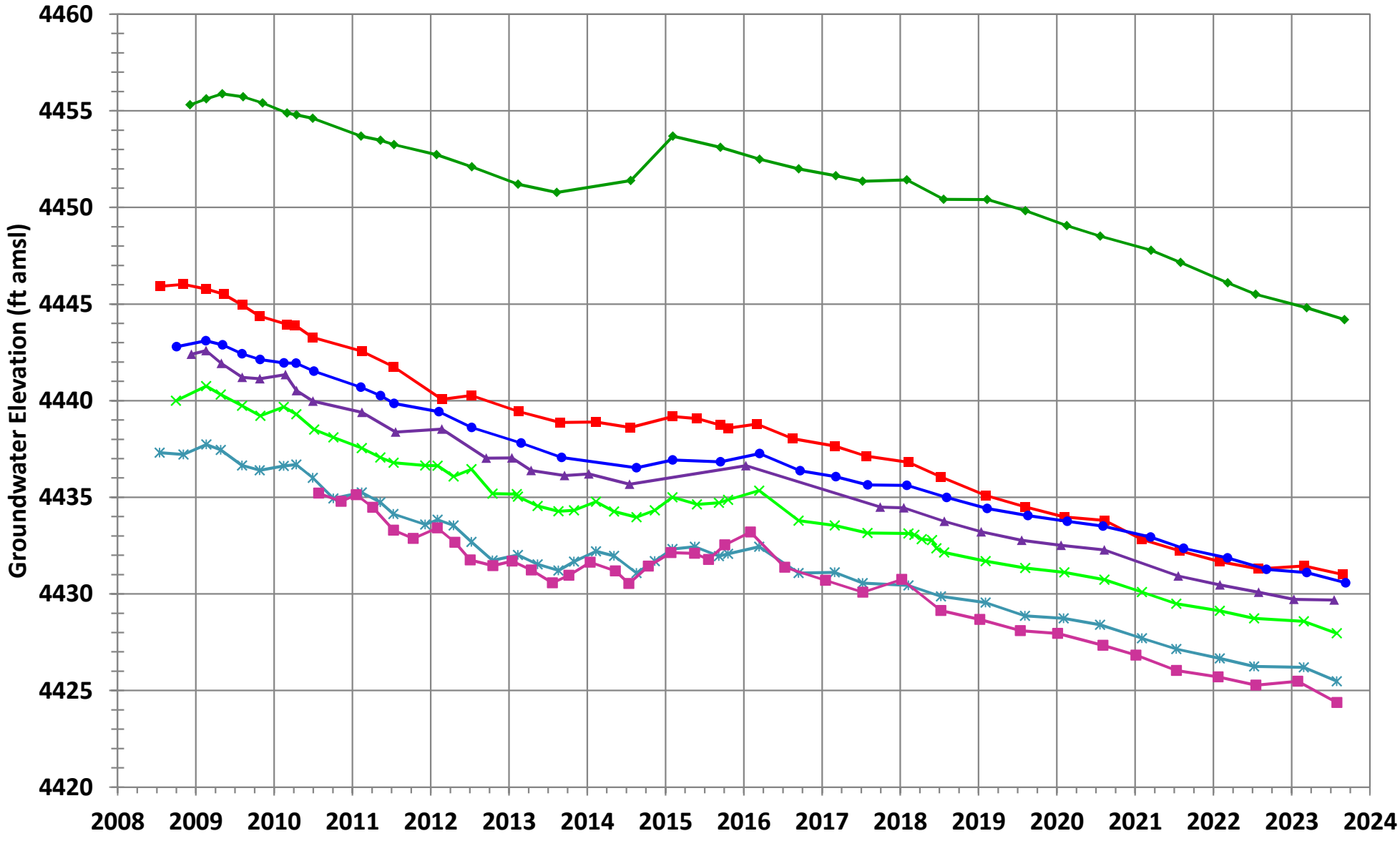
Scale (Feet)
0 1,000 2,000

Projection: UTM Zone 12N
NAD83

Date	File ID
3/15/2024	055038-594A

CLEAR CREEK ASSOCIATES

FIGURE 17
BASIN FILL
GROUNDWATER ELEVATIONS
AT THE WEST EDGE OF THE PLUME
FOR THIRD QUARTER 2023



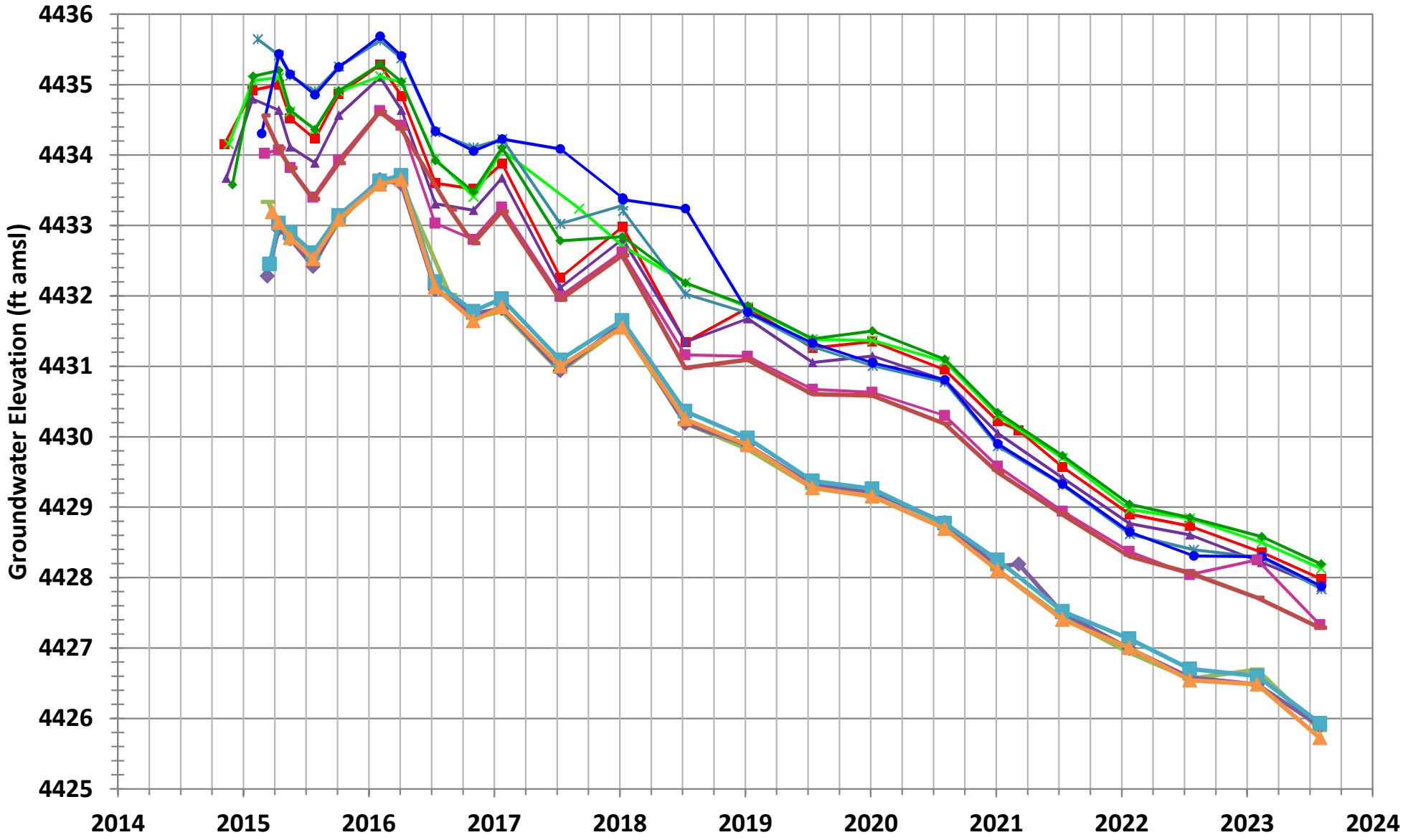
Note: ft amsl = feet above mean sea level

CLEAR CREEK ASSOCIATES

File ID

Date 1/15/2024

FIGURE 18
HYDROGRAPHS FOR SELECTED
BMO MONITOR WELLS IN BASIN FILL



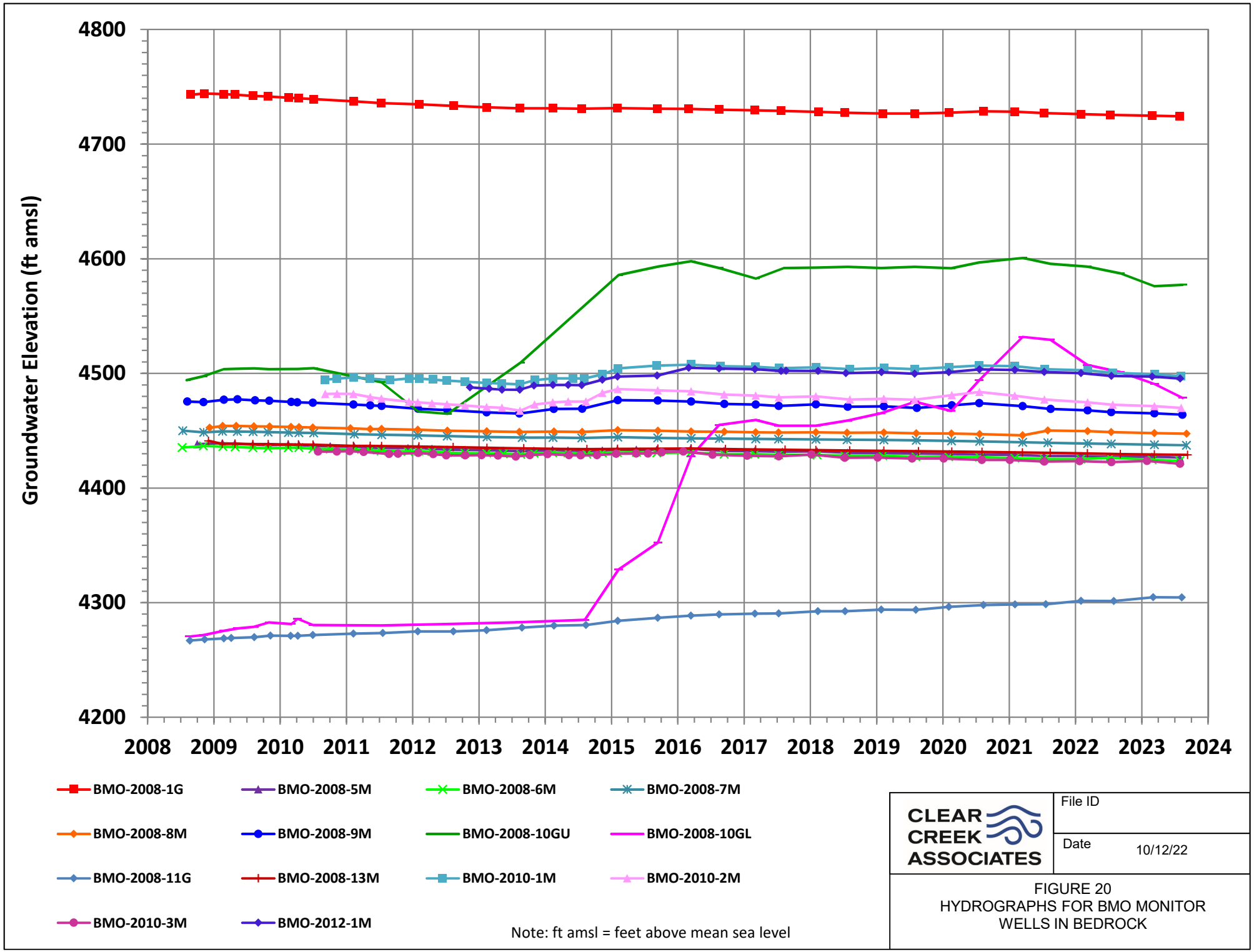
Note: ft amsl = feet above mean sea level

CLEAR CREEK ASSOCIATES

File ID

Date 1/15/2024

FIGURE 19
HYDROGRAPHS FOR EXPANDED GROUNDWATER MONITORING PROGRAM WELLS



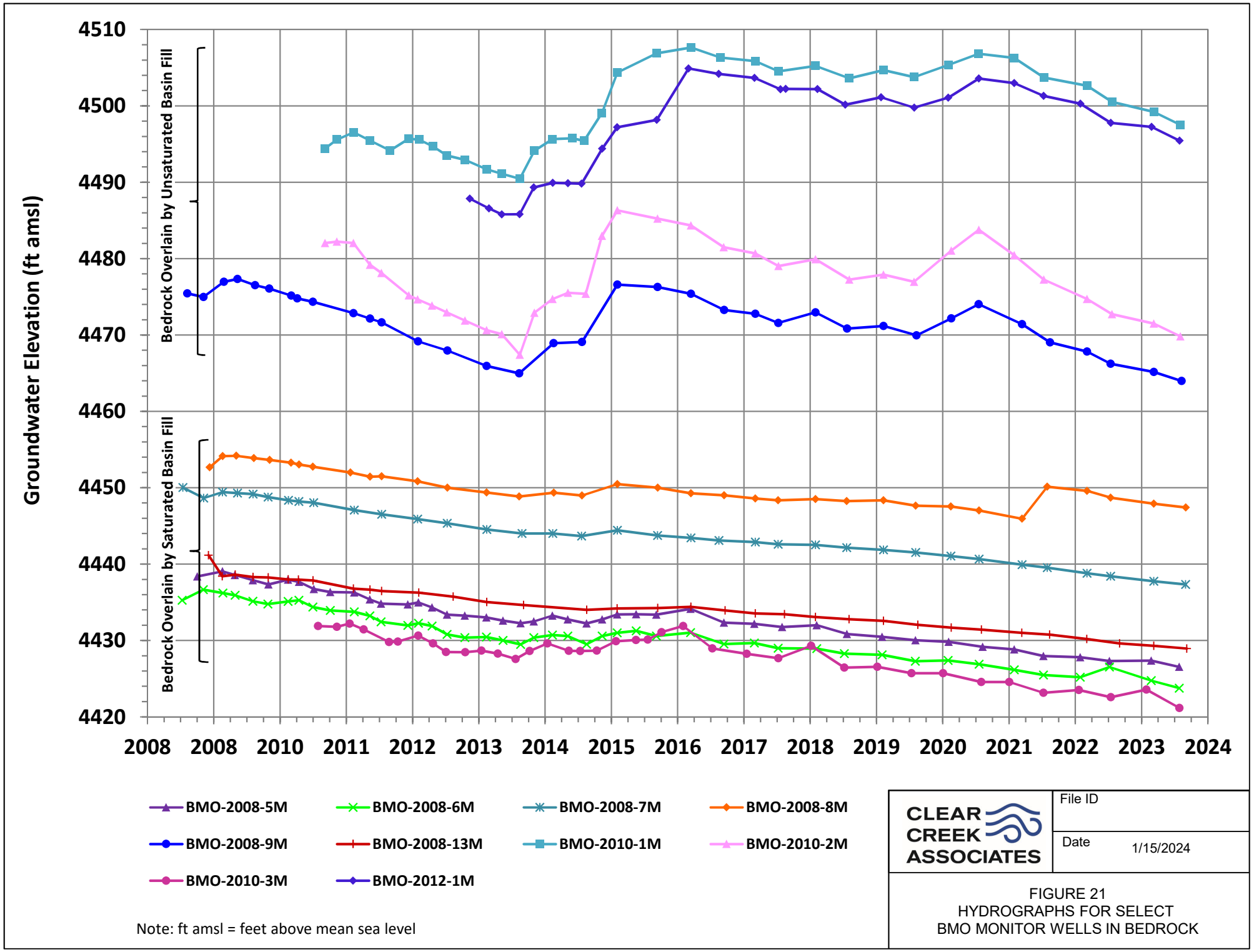
Note: ft amsl = feet above mean sea level

CLEAR CREEK ASSOCIATES

File ID

Date 10/12/22

FIGURE 20
HYDROGRAPHS FOR BMO MONITOR WELLS IN BEDROCK



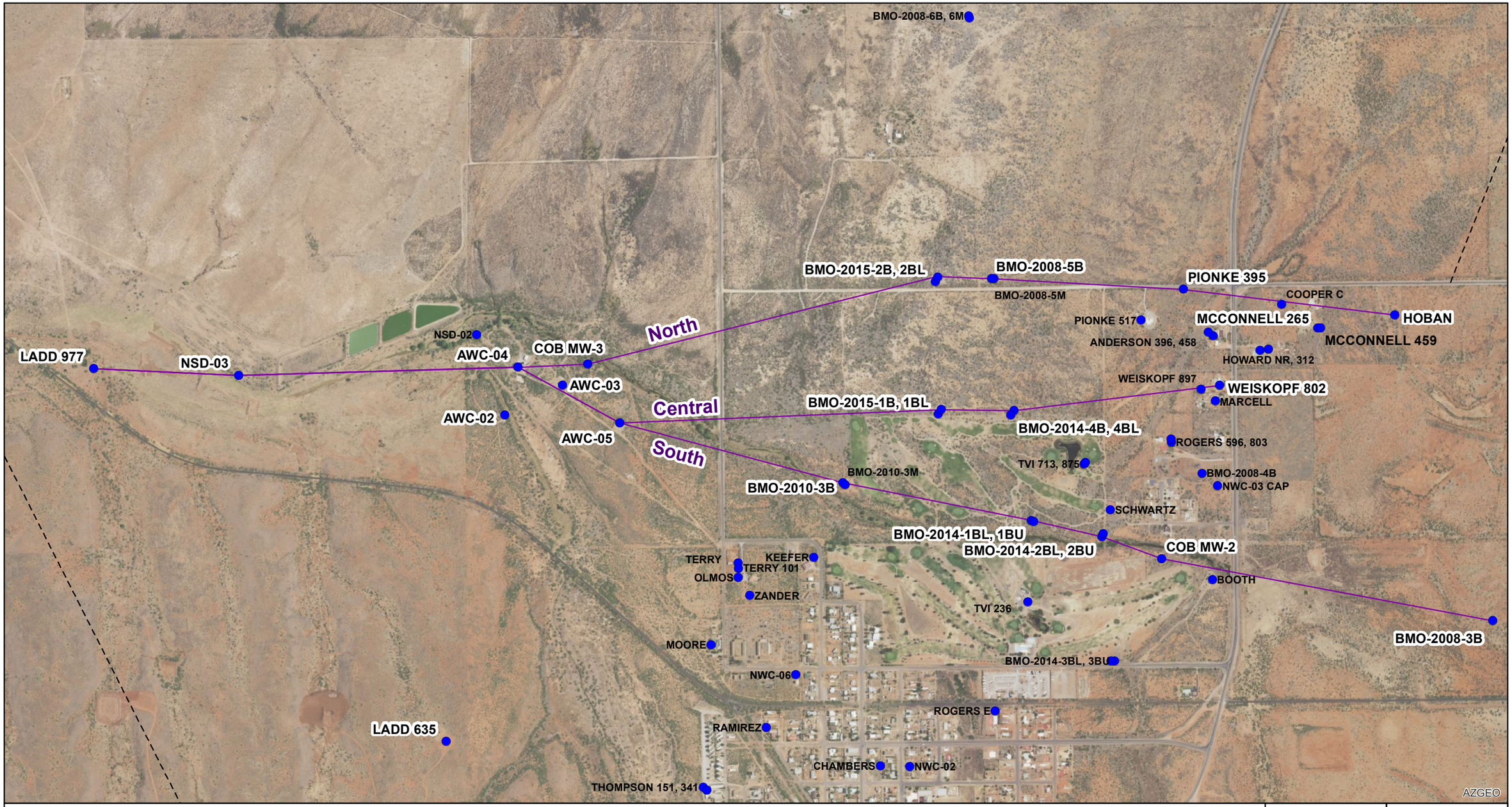
Note: ft amsl = feet above mean sea level

CLEAR CREEK ASSOCIATES

File ID

Date 1/15/2024

FIGURE 21
HYDROGRAPHS FOR SELECT
BMO MONITOR WELLS IN BEDROCK



Legend

- Monitoring Location
- Hydraulic Profile

Scale (Feet)

0 1,000 2,000

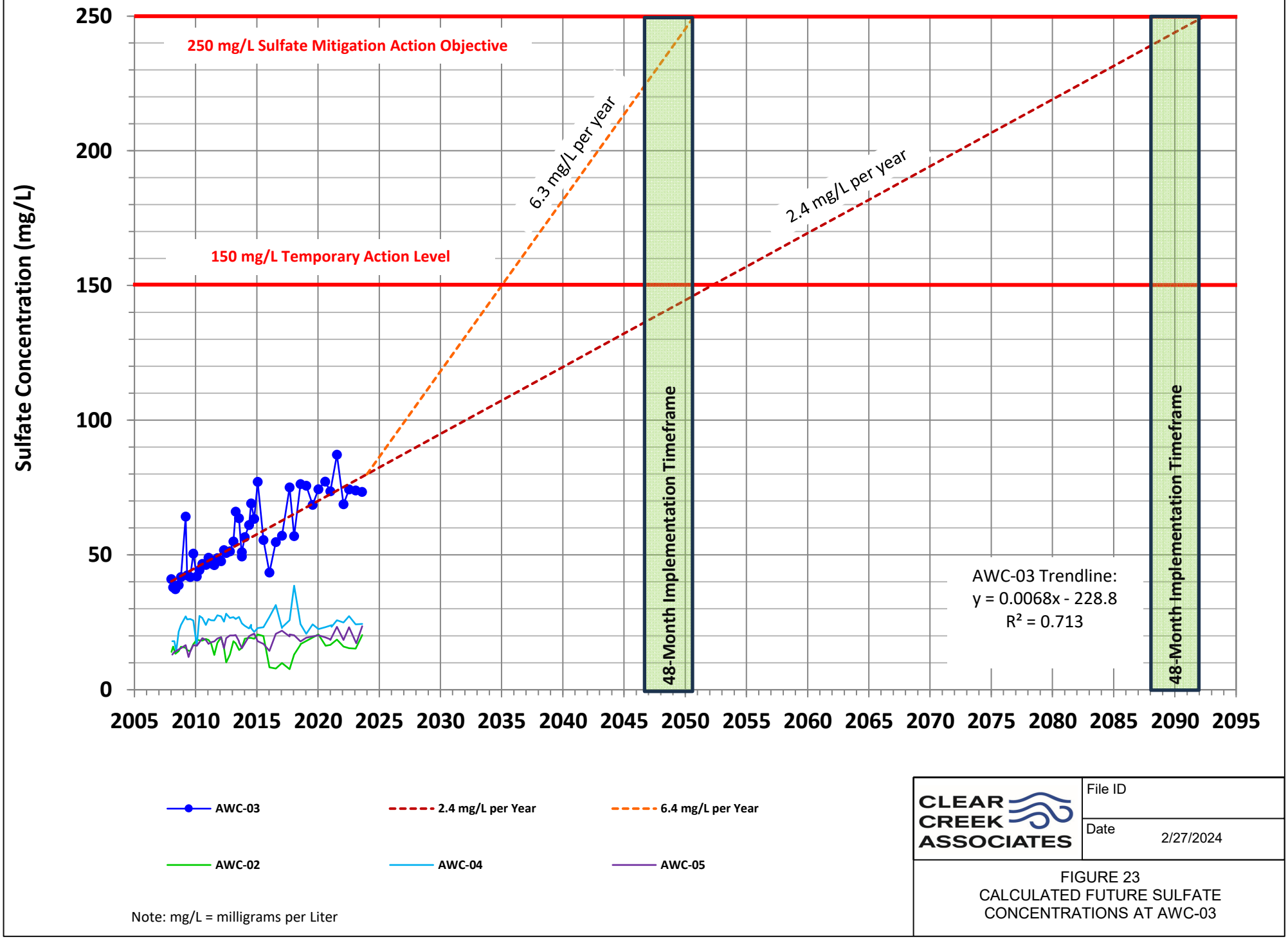
Projection: UTM Zone 12N
NAD83

Date 3/13/2024

File ID 055038-603

CLEAR CREEK ASSOCIATES

FIGURE 22
HYDRAULIC PROFILE
LOCATIONS



Note: mg/L = milligrams per Liter

CLEAR CREEK ASSOCIATES

File ID

Date 2/27/2024

FIGURE 23
CALCULATED FUTURE SULFATE CONCENTRATIONS AT AWC-03

APPENDIX A

SULFATE DATA

APPENDIX A
Sulfate Data

Well Name	ADWR 55 Registry Number	Sample Date	pH (SU)	Temp (deg C)	SC (µS/cm)	Sulfate, dissolved (mg/L)
ANDERSON 396	613396	3/20/08	7.25	21.1	1176	431
		5/5/08	7.03	21.8	1231	452
		7/14/08	7.11	21.6	1260	472
		10/15/08	7.10	21.3	1252	475
		1/27/09	7.27	21.0	965	488
		4/14/09	7.12	21.8	1229	534
		7/14/09	7.03	22.2	1372	550
		10/12/09	6.98	21.5	1375	510
		1/27/10	7.93	20.1	1449	523
		4/21/10	7.40	20.7	1439	627
		7/19/10	6.93	24.1	1420	648
		10/19/10	7.03	20.6	1229	416
		1/17/11	7.02	20.6	1334	562
		4/11/11	6.92	15.1	1485	609
		7/14/11	7.23	24.4	1451	678
		10/11/11	6.65	21.2	1230	543
		2/1/12	7.28	11.8	1360	551
		4/25/12	7.10	23.9	1380	657
		7/12/12	6.89	24.9	1520	667
		10/10/12	7.40	24.0	1414	574
		4/7/14	7.06	17.4	1057	175
		7/11/14	7.35	21.4	1033	272
		10/6/14	7.13	27.5	974	99.0
		10/6/14 DUP	7.13	27.5	974	102.0
ANDERSON 458	221458	9/9/12	8.34	25.9	406.3	31
		10/10/12	8.13	23.8	412.3	30.3
		1/17/13	8.06	23.7	416.0	30.9
		4/15/13	8.19	23.5	402.7	32.3
		7/18/13	8.18	24.3	401.9	23
		10/16/13	8.10	23.8	400.1	25.2
		1/9/14	8.15	22.9	399.3	26.2
		1/9/14 DUP	8.15	22.9	399.3	26.2
		4/7/14	8.16	24.0	401.6	27.5
		7/11/14	8.13	24.5	396.7	25.3
		10/6/14	8.06	25.6	384.0	26.0
		7/22/15	8.17	25.2	397.3	25.3
		7/19/16	8.14	23.8	395.2	24.2
		7/18/17	8.01	23.9	395.5	26.8
		7/18/18	7.88	24.2	397.1	23.4
		7/11/19	7.85	24.1	396.2	22.4
		7/22/20	8.01	24.6	394.6	24.0
		7/27/21	8.03	23.8	396.9	22.2
		7/11/22	8.05	26.3	392.6	22.6
		7/26/23	8.26	27.0	398.1	21.2
AWC-02	616586	1/7/08	ND	ND	ND	14
		3/3/08	ND	ND	ND	16
		5/5/08	ND	ND	ND	13.3
		8/12/08	7.01	22.3	630	14.3
		10/23/08	7.31	23.1	464	15.9
		3/11/09	7.19	21.8	420	15.5
		4/22/09	7.17	22.6	430	14.7
		7/22/09	7.24	22.7	444	14.2
		10/21/09	7.19	21.3	468	16.8
		2/3/10	7.44	19.7	449	18.6
		4/23/10	7.56	19.7	526	18.3
		7/20/10	7.27	23.9	450	18.2
		11/4/10	7.72	21.3	465.9	18.8
		1/19/11	7.84	19.0	500	18.4
		4/7/11	7.27	20.3	488.5	17.3
		7/13/11	5.93	23.9	431.5	12.9
		10/13/11	6.72	25.1	464.6	17.4
		10/13/11 DUP	6.72	25.1	464.6	17.4
		2/2/12	7.20	20.8	479.5	19.4
		4/24/12	7.23	23.0	430	15.5
		7/5/12	7.25	22.1	437.1	10.1
		10/18/12	7.48	21.6	473.6	13.0
		2/5/13	7.54	19.3	448.9	18.0
		4/11/13	7.53	22.1	471.3	17.2
		7/25/13	7.35	22.1	460.5	14.7
		10/9/13	7.53	21.2	476.4	15.5
		1/7/14	7.45	20.3	503.7	18.8
		1/7/14 DUP	7.45	20.3	503.7	18.9
		5/14/14	7.34	21.0	508.4	19.2
		7/16/14	7.54	21.8	499.5	19.2
		10/15/14	7.26	23.2	520	18.9
		1/29/15	7.44	21.4	511	20.5
		7/21/15	7.62	22.5	506.7	19.9
		1/13/16	7.63	20.6	411.2	8.27
		7/19/16	7.40	22.1	418.7	7.80
		1/19/17	7.33	20.5	428.7	9.87
		9/6/17	7.4	20.7	423.3	7.65
		1/17/18	7.26	20.5	442.6	13.0
		7/25/18	7.33	20.5	489.9	16.7
		7/25/18 DUP	7.33	20.5	489.9	16.9
		1/13/20	7.39	20.6	516.0	20.5
		8/13/20	7.29	21.0	519.3	16.3
		1/4/21	7.27	20.8	543.6	16.6
		7/20/21	7.11	20.1	538.3	18.6
		1/31/22	7.20	19.9	552.9	16.0
		1/31/22 DUP	7.20	19.9	552.9	16.0
		7/18/22	7.43	25.2	505.9	15.4
		1/30/23	7.42	19.6	530.6	15.2
		8/8/23	7.49	21.2	546.6	20.3

APPENDIX A
Sulfate Data

Well Name	ADWR 55 Registry Number	Sample Date	pH (SU)	Temp (deg C)	SC (µS/cm)	Sulfate, dissolved (mg/L)
AWC-03	616585	1/7/08	ND	ND	ND	41
		3/3/08	ND	ND	ND	38
		5/5/08	ND	ND	ND	37.3
		8/12/08	7.28	22.4	469	38.8
		10/23/08	7.48	21.0	462	41.8
		3/11/09	7.25	21.2	445	64.2
		4/22/09	7.30	21.4	452	42.4
		7/22/09	7.39	22.6	456	41.8
		10/21/09	7.48	21.3	540	50.5
		2/3/10	7.44	19.7	449	42.0
		4/23/10	7.57	19.7	468	44.4
		7/20/10	7.29	23.8	460	46.7
		11/4/10	7.80	20.8	452.3	46.3
		1/19/11	7.07	19.6	560	49
		4/7/11	7.28	19.9	469.8	46.8
		7/13/11	6.33	23.1	458.8	47.6
		7/13/11 DUP	6.33	23.1	458.8	46.2
		10/13/11	6.69	23.8	463.6	48.8
		2/2/12	7.39	20.7	504.8	47.7
		4/24/12	7.28	22.1	450	51.8
		7/5/12	7.32	21.7	474.3	50.7
		10/18/12	7.44	21.3	477.4	51.3
		2/5/13	7.73	19.2	481.2	55
		4/11/13	7.51	22.2	486.4	66.1
		7/16/13	7.61	21.5	489.6	63.6
		10/9/13	7.57	20.5	485.8	49.4
		10/9/13 DUP	7.57	20.5	485.8	51
		1/7/14	7.62	20.4	486.3	56.6
		5/14/14	7.64	20.5	493.0	61.1
		7/16/14	7.68	21.4	506.9	69.1
		10/15/14	7.38	22.2	506.0	63.4
		1/29/15	7.59	21.2	495	77.1
		7/21/15	7.63	21.6	494	55.5
		1/13/16	7.62	19.9	474.1	43.5
		7/19/16	7.47	20.9	493.2	54.8
		1/19/17	7.41	20.0	480.4	57.1
		9/6/17	7.41	20.3	525.5	75.1
		1/17/18	7.25	19.9	487.6	57.0
		7/25/18	7.36	20.3	504.5	76.3
		1/16/19	7.33	20.1	500.8	75.7
		7/23/19	7.29	20.0	506.7	68.6
		1/13/20	7.64	19.3	513.9	74.4
		8/3/20	7.38	20.8	512.7	77.2
		1/4/21	7.42	20.7	523.7	73.6
		7/20/21	7.24	20.1	518.7	87.2
		1/31/22	7.35	19.7	517.8	68.8
		7/18/22	7.61	22.5	527.3	74.3
		1/30/23	7.50	20.7	519.8	73.9
		8/8/23	7.52	20.6	533.5	73.4

APPENDIX A
Sulfate Data

Well Name	ADWR 55 Registry Number	Sample Date	pH (SU)	Temp (deg C)	SC (µS/cm)	Sulfate, dissolved (mg/L)
AWC-04	616584	2/4/08	ND	ND	ND	18
		4/7/08	ND	ND	ND	18
		6/2/08	ND	ND	ND	14.3
		8/12/08	7.08	22.5	458	21.6
		10/23/08	6.91	22.2	616	24
		3/11/09	7.02	21.3	539	27.2
		4/22/09	6.93	22.1	560	26.1
		7/22/09	7.13	22.5	587	26.2
		10/21/09	7.00	21.2	607	25.7
		2/3/10	7.35	19.3	438	16.3
		4/23/10	7.14	19.2	625	27.4
		7/20/10	7.02	24.1	600	26.6
		11/4/10	7.41	20.3	593.2	24
		1/19/11	8.15	20.5	690	26.2
		4/7/11	7.00	20.4	637.2	25.8
		7/13/11	6.88	20.4	610.1	25.7
		10/13/11	6.38	24.0	619.7	27.6
		2/2/12	6.97	20.1	637.6	27.2
		4/24/12	7.10	22.1	570	25.2
		7/5/12	7.03	21.6	568.0	28.2
		7/5/12 DUP	7.03	21.6	568.0	28.1
		10/18/12	7.20	20.8	606.7	26.6
		2/5/13	7.29	19.7	616.8	26.9
		4/11/13	7.38	21.7	595.4	26.2
		7/16/13	7.30	21.0	585.7	27.0
		10/9/13	7.36	20.4	588.6	24.6
		1/7/14	7.36	19.7	651.4	23.7
		5/14/14	7.38	19.8	674.2	22.7
		7/16/14	7.32	20.7	632.2	24.1
		7/16/14 DUP	7.32	20.7	632.2	22.9
		10/15/14	7.01	21.9	688	21.4
		1/29/15	7.20	21.0	687	22.9
		7/21/15	7.38	21.2	619.6	23.2
		1/13/16	7.42	19.2	556.6	27.0
		7/19/16	7.24	20.6	590.7	31.4
		1/19/17	7.06	19.6	658.6	22.9
		1/19/17 DUP	7.06	19.6	658.6	23.1
		9/6/17	7.17	19.8	571.0	25.8
		1/17/18	7.13	19.6	532.6	38.6
		7/25/18	6.99	19.3	663.1	24.3
		1/16/19	6.99	19.4	706.8	20.7
		7/23/19	7.06	19.5	591.8	24.2
		1/13/20	7.38	19.5	715.2	22.5
		8/3/20	6.92	20.0	731.5	23.2
		2/9/21	7.01	19.1	732.1	23.9
		2/9/21 DUP	7.01	19.1	732.1	23.3
		7/20/21	6.87	19.1	720.7	25.8
		1/31/22	6.98	18.9	756.6	24.9
		7/18/22	7.15	21.5	684.9	27.3
		1/30/23	7.16	20.1	690.6	24.2
		8/8/23	7.24	20.1	703.4	24.4
AWC-05	590620	2/4/08	ND	ND	ND	13
		4/7/08	ND	ND	ND	14
		6/2/08	ND	ND	ND	14.3
		8/12/08	6.74	23.3	425	14.9
		10/23/08	7.45	21.0	422	15.4
		3/11/09	7.31	22.1	398	16.5
		6/3/09	7.33	22.0	418	12.1
		7/22/09	7.49	24.4	423	14.1
		10/21/09	7.37	21.1	433	16.5
		2/3/10	7.35	19.3	438	16.3
		4/23/10	7.62	18.9	443	17.6
		7/20/10	7.62	24.2	440	19.1
		11/4/10	7.92	20.7	427.1	18.4
		1/19/11	7.64	20.3	420	17
		4/7/11	7.22	20.8	438.3	17.6
		7/13/11	6.52	22.9	419.8	17.9
		10/13/11	6.82	26.0	427.5	19
		2/2/12	7.35	21.4	427.9	19.5
		4/24/12	7.18	21.4	430	15.4
		7/5/12	7.24	22.6	432.1	19.1
		10/18/12	7.66	22.6	436.1	20.1
		2/5/13	7.57	20.2	437.7	20.1
		4/11/13	7.54	21.2	444.5	20.3
		7/16/13	7.56	21.3	454.5	18.0
		7/16/13 DUP	7.56	21.3	454.5	17.7
		10/9/13	7.58	21.3	455.3	15.4
		5/14/14	7.54	21.2	442.3	19.8
		7/16/14	7.60	22.6	470.9	20.3
		10/15/14	7.38	23	452	20.8
		1/29/15	7.64	19.6	443	18.0
		7/21/15	7.67	21.9	457.9	17.0
		1/13/16	7.69	19.9	444.4	14.4
		7/19/16	7.40	22.2	443.1	20.7
		1/19/17	7.45	21.4	436.7	21.9
		9/6/17	7.38	20.9	447.4	19.7
		9/6/17 DUP	7.38	20.9	447.4	20.5
		1/17/18	7.34	20.5	437.0	20.2
		7/25/18	7.35	20.4	456.9	17.9
		1/16/19	7.39	21.0	441.6	19.3
		1/13/20	7.81	18.8	448.2	20.2
		8/3/20	7.41	21.6	446.8	19.4
		1/4/21	7.41	21.2	456.6	18.7
		1/4/21 DUP	7.41	21.2	456.6	18.4
		7/20/21	7.28	20.6	448.6	23.3
		1/31/22	7.45	20.7	445.9	18.4
		7/18/22	7.57	23.4	448.9	23.2
		2/16/23	7.54	21.0	433.0	17.2
		8/8/23	7.63	21.9	438.5	23.6

APPENDIX A
Sulfate Data

Well Name	ADWR 55 Registry Number	Sample Date	pH (SU)	Temp (deg C)	SC (µS/cm)	Sulfate, dissolved (mg/L)
BANKS 986	647986	2/27/08	7.53	21.8	980	44
		5/12/08	7.40	22.1	1021	65.2
		7/21/08	7.43	22.9	1034	82.2
		10/13/08	7.28	21.7	980	53
		1/21/09	7.66	21.6	872	164
		4/8/09	7.56	22.7	933	47
		7/9/09	7.59	23.1	871	70.9
		10/7/09	7.50	22.2	838	67.7
		2/25/10	7.56	21.1	1020	50.5
		4/20/10	7.71	22.8	1013	53.9
		7/20/10	7.70	23.2	828.3	71.5
		10/20/10	7.60	22.4	948.7	73.4
		1/17/11	7.73	20.6	1038	53.5
		4/5/11	7.66	21.5	965.0	64.5
		7/11/11	7.72	25.4	890.0	68.8
		10/12/11	7.88	21.2	1551	172
		1/31/12	7.69	20.2	1017	64.3
		1/31/12 DUP	7.69	20.2	1017	64.9
		4/11/12	7.77	22.0	1025	64.0
		7/6/12	7.66	23.7	940	78.6
		7/6/12 DUP	7.66	23.7	940	77.9
		10/4/12	7.73	22.0	845.4	62.6
		1/18/13	7.82	21.9	832.4	70.5
		4/8/13	7.87	20.7	861.7	62.9
		7/9/13	8.04	22.9	769.1	67.9
		10/15/13	7.59	21.7	1158	79.6
		1/14/14	7.77	20.9	967.4	75.2
		4/8/14	7.47	21.4	1337	113
		7/8/14	7.58	22.3	1175	107
		7/8/14 DUP	7.58	22.3	1175	110
		10/21/14	7.37	22.7	1158	91.3
		7/24/15	7.67	22.6	1002	76.3
		7/12/16	7.59	22.2	1029	68.7
		7/26/17	7.45	20.9	1012	88.6
		7/30/18	7.40	21.0	987.6	66.6
		7/11/19	7.27	22.2	933.8	67.6
		8/13/20	7.34	21.8	931.5	66.1
		7/20/21	7.42	21.6	990.8	69.6
		7/11/22	7.49	21.0	920.7	61.0
		7/25/23	7.60	22.1	957.8	65.0
BF-01	539783	5/23/08	6.41	18.3	2698	1450
		8/5/08	6.11	22.4	3095	1330
		11/5/08	6.33	19.9	3027	1490
		2/20/09	6.42	19.2	1477	1330
		5/6/09	5.98	23.9	2632	1280
		8/17/09	6.21	29.7	2948	1250
		11/4/09	6.24	23.0	2846	1280
		3/1/10	6.34	21.1	2945	1260
		4/7/10	5.83	20.4	1853	1450
		7/6/10	5.93	22.6	1403	1310
		7/13/11	6.26	21.3	2960	1350
		2/1/12	6.18	19.8	2910	1480
		8/14/12	6.00	21.5	3000	1500
BIMA	577927	2/6/08	6.69	22.2	1335	210
		4/25/08[1]	6.37	23.1	1521	190
		5/13/08[1]	6.58	22.7	1489	195
		6/23/08[1]	6.30	23.3	1572	225
		6/23/08 DUP	6.30	23.3	1572	196
		7/29/08[1]	6.44	23.0	1647	204
		8/28/08[1]	M	23.0	1776	256
		9/23/08[1]	6.29	23.0	1741	296
		10/22/08	6.41	22.3	1801	285
		1/20/09	6.40	21.7	1233	190
		1/20/09 DUP	6.40	21.7	1233	200
		4/7/09	6.45	23.4	1436	212
		7/8/09	6.31	23.4	1483	189
		10/5/09	6.34	22.7	1525	233
		1/20/10	6.88	17.0	M	222
		4/19/10	6.70	21.9	1533	256
		7/12/10	6.70	24.0	1577	273
		10/18/10	6.47	24.3	1702	296
		1/19/11	6.65	21.2	1672	283
		4/4/11	6.61	24.0	1643	282
		8/25/11	6.27	25.9	1460	300
		10/10/11	6.5	24.1	1520	322
		2/3/12	6.48	18.5	1540	312
		4/23/12	6.57	23.9	1790	303
		7/10/12	6.06	23.7	1200	301
		11/29/12	6.51	20.6	1664	310
		3/13/13	7.29	19.8	1175	317
		4/10/13	6.64	13.9	1569	308
		7/8/13	6.62	28.0	1580	301
		10/11/13	6.57	21.8	1749	301
		1/10/14	6.63	10.7	1664	297
		4/10/14	6.62	15.8	1685	300
		7/8/14	6.56	21.6	1653	297
		10/23/14	6.25	23.9	1704	227
		7/23/15	6.87	26.2	1627	271
		7/15/16	6.90	28.7	1602	271
		7/27/17	6.84	25.4	1553	304
		7/11/19	6.75	28.2	1514	240
		7/20/21	6.93	24.5	1396	200

APPENDIX A
Sulfate Data

Well Name	ADWR 55 Registry Number	Sample Date	pH (SU)	Temp (deg C)	SC (µS/cm)	Sulfate, dissolved (mg/L)
BLOMMER	633472	2/5/08	7.43	20.2	714	206
		4/21/08[1]	7.06	21.9	753	201
		5/15/08[1]	7.16	22.2	845	211
		6/23/08[1]	6.93	21.5	903	193
		7/29/08[1]	7.21	22.2	921	203
		8/27/08[1]	7.12	22.1	864	189
		9/23/08[1]	7.16	22.3	818	193
		10/22/08	7.17	21.3	873	200
BMO-2008-1G	909474	8/27/08	7.09	24.2	808	107
		11/11/08	7.00	20.8	721	143
		2/25/09	7.01	22.0	860	109
		4/28/09	7.04	22.2	762	198
		8/4/09	7.23	22.8	950	104
		10/27/09	7.11	21.9	922	103
		2/17/10	7.36	20.5	899.3	98.4
		4/15/10	7.04	22.2	711	95.2
		7/7/10	6.91	21.5	640	88.1
		7/7/10 DUP	6.91	21.5	640	87.1
		2/10/11	6.80	21.0	916	105
		7/12/11	7.2	26.6	1015	121
		2/8/12	7.02	20.2	869	116
		8/14/12	6.97	21.9	959	120
		2/14/13	7.09	21.2	986	112
		8/14/13	6.96	21.6	1009	120
		2/13/14	6.76	21.1	1010	114
		7/22/14	6.87	22.0	1010	117
		2/4/15	7.35	22.1	942	116
		9/10/15	7.21	21.8	953	109
		3/3/16	7.16	22.1	950	108
		8/17/16	7.05	22.2	986	121
		3/1/17	6.99	22.1	923	110
		7/24/17	7.11	22.2	925	112
		2/14/18	7.08	20.9	924	112
		7/10/18	7.24	22.2	920	115
		2/5/19	7.15	21.4	920	99.5
		7/31/19	7.15	22.2	907	100
		2/5/20	7.19	21.7	914	105
		8/12/20	7.26	22.1	897	93.2
		2/2/21	7.21	21.3	878	92.6
		7/14/21	7.18	21.9	875	91.7
		1/31/22	7.03	19	865	96.7
		7/14/22	7.11	21.9	887	96.5
		2/28/23	6.96	21.2	872	90.2
		8/1/23	7.14	21.7	1013	94.0
BMO-2008-3B	909147	7/18/08	7.35	23.9	615	106
		11/4/08	7.36	21.4	599	179
		11/4/08 DUP	7.36	21.4	599	177
		2/19/09	7.24	21.4	664	155
		5/11/09	7.23	22.1	631	149
		8/6/09	7.33	21.4	718	151
		8/6/09 DUP	7.33	21.4	718	156
		10/26/09	7.32	21.8	684	153
		3/3/10	7.38	21.4	695	164
		4/8/10	6.47	21.3	585	162
		7/1/10	6.92	21.4	541	157
		2/14/11	6.98	20.6	698	169
		7/12/11	7.04	21.4	672	148
		2/23/12	6.92	21.0	695	173
		7/10/12	7.02	21.5	651	150
		2/15/13	6.63	20.4	692	163
		8/27/13	7.1	21.1	725	170
		2/11/14	7.01	20.7	729	162
		7/21/14	6.98	21.0	706	163
		2/5/15	7.11	21.2	652	145
		9/14/15	7.29	21.7	638	133
		3/3/16	7.29	21.8	637	136
		8/18/16	7.18	21.4	637	139
		3/1/17	6.99	21.0	618	135
		7/26/17	7.17	21.5	648	147
		2/8/18	7.46	21.0	653	150
		7/10/18	7.35	21.9	663	154
		2/5/19	7.41	21.2	703	169
		2/5/19 DUP	7.41	21.2	703	173
		8/6/19	7.29	22.2	727	165
		2/6/20	7.57	21.0	655	150
		8/12/20	7.39	21.6	647	132
		2/2/21	7.38	21.8	644	130
		7/27/21	7.29	21.6	670	147
		1/31/22	7.26	20.3	672	150
		8/1/22	7.30	21.9	735	181
		3/1/23	7.17	21.2	760	200
		8/29/23	7.39	21.3	814	209

APPENDIX A
Sulfate Data

Well Name	ADWR 55 Registry Number	Sample Date	pH (SU)	Temp (deg C)	SC (µS/cm)	Sulfate, dissolved (mg/L)
BMO-2008-4B	910096	12/11/08	7.34	22.8	374	9.4
		2/18/09	7.17	23.2	370	13.4
		4/30/09	7.33	24.5	376	11.4
		4/30/09 DUP	7.33	24.5	376	11.8
		8/6/09	7.53	24.6	397	11.5
		10/27/09	7.53	23.7	379	11.2
		2/24/10	7.48	21.8	362	9.7
		4/16/10	7.70	23.4	330	9.73
		7/2/10	7.25	23.6	323	10.10
		2/15/11	7.65	22.2	362	8.90
		7/22/11	7.33	23.7	371	10.2
		2/23/12	7.21	22.3	354	10.5
		8/15/12	6.96	23.6	380	9.5
		1/15/13	7.63	22.7	370.2	10.3
		1/15/13 DUP	7.63	22.7	370.2	9.5
		4/15/13	7.75	23.0	368.2	11.2
		9/18/13	7.69	23.4	384.6	9.8
		1/9/14	7.81	22.2	371.4	11.1
		7/18/14	7.78	23.3	379.1	11.6
		9/30/17	7.43	22.6	392.5	9.88
		7/26/18	7.43	22.6	386.1	10.9
		7/22/19	7.53	22.8	377.1	11.2
		7/22/19 DUP	7.53	22.8	377.1	11.2
		8/11/20	7.50	23.5	372.9	10.7
		7/22/21	7.53	22.7	378.1	12.0
		8/1/22	7.61	23.2	381.2	17.0
BMO-2008-5B	909653	9/30/08	7.08	22.0	688	193
		2/18/09	7.03	21.5	691	192
		4/27/09	7.32	22.1	605	177
		8/4/09	7.35	22.3	724	174
		10/29/09	7.29	21.8	731	181
		10/29/09 DUP	7.29	21.8	731	185
		2/15/10	7.22	21.7	720	185
		4/15/10	7.21	23.0	571	194
		7/7/10	6.94	22.2	551	183
		10/5/10	6.85	22.3	722	201
		2/14/11	6.90	21.8	725	203
		5/12/11	7.06	21.5	722	195
		7/13/11	6.99	22.0	712	200
		12/7/11	6.95	19.9	730	213
		2/3/12	7.16	20.2	726	215
		4/18/12	6.96	21.7	712	192
		7/10/12	6.87	21.5	726	218
		10/16/12	6.69	21.4	712	207
		2/7/13	7.40	21.4	771.4	229
		2/12/13	6.49	20.7	752	227
		5/15/13	7.01	21.8	742	220
		8/20/13	7.00	21.7	792	226
		11/1/13	6.92	21.5	792	233
		2/11/14	6.88	21.5	804	230
		5/7/14	6.87	21.5	800	228
		8/19/14	6.99	21.6	795	221
		11/13/14	6.92	21.9	755	228
		2/3/15	7.05	21.8	755	227
		9/8/15	7.16	22.3	764	236
		3/14/16	7.06	21.5	774	237
		9/14/16	7.22	21.8	771	240
		3/1/17	7.07	21.5	756	243
		8/1/17	7.05	22	779	245
		2/8/18	7.28	21.4	798	267
		3/8/18	7.3	21.4	792	246
		3/8/18 DUP	7.3	21.4	792	246
		4/11/18	7.25	21.4	814	240
		5/29/18	7.31	22.1	811	262
		6/19/18	7.26	22.3	817	252
		7/25/18	7.02	23.0	794	250
		2/4/19	7.06	21.6	802	238
		8/7/19	7.09	22.3	814	239
		2/6/20	7.12	21.5	812	258
		8/11/20	7.07	23.0	785	240
		2/2/21	7.04	21.8	818	246
		7/12/21	7.12	22.2	849	257
		1/31/22	6.96	22.2	858	280
		7/11/22	6.92	22.2	844	288
		2/27/23	6.96	21.5	875	268
		7/31/23	7.21	21.6	986	275

APPENDIX A
Sulfate Data

Well Name	ADWR 55 Registry Number	Sample Date	pH (SU)	Temp (deg C)	SC (µS/cm)	Sulfate, dissolved (mg/L)
BMO-2008-5M	909552	10/2/08	7.13	23.6	551	107
		2/18/09	7.06	22.5	562	122
		4/27/09	7.50	22.9	501	111
		8/4/09	7.53	23.1	605	122
		10/29/09	7.35	22.4	610	123
		2/15/10	7.31	22.5	581	123
		4/16/10	7.28	22.6	509	125
		4/16/10 DUP	7.28	22.6	509	124
		7/7/10	7.02	23.5	482	123
		10/5/10	6.81	22.5	602	127
		2/14/11	6.95	22.2	591	124
		5/12/11	7.16	23.0	558	119
		7/12/11	7.22	22.7	590	126
		12/7/11	7.1	21.2	601	129
		2/3/12	6.99	21.5	589	130
		4/18/12	6.71	22.4	587	120
		7/10/12	6.82	22.4	592	135
		10/16/12	6.86	21.9	591	134
		2/12/13	6.65	21.6	610	139
		5/15/13	6.73	22.4	603	135
		8/20/13	7.18	22.5	640	138
		11/1/13	7.07	22.0	641	142
		2/11/14	6.84	22.1	646	138
		5/7/14	6.85	22.1	648	140
		8/19/14	6.97	22.1	645	143
		11/13/14	7.18	22.6	612	139
		2/3/15	7.26	22.5	612	143
		9/8/15	7.19	23.1	615	146
		3/14/16	7.26	22.5	618	142
		9/14/16	7.12	22.5	623	153
		3/1/17	6.97	22.4	621	157
		8/1/17	7.11	22.8	636	159
		2/8/18	7.26	22.4	646	168
		7/25/18	7.22	23.2	651	161
		2/4/19	7.40	22.1	654	155
		8/7/19	7.32	23.0	659	152
		2/6/20	7.32	22.2	662	169
		8/11/20	7.23	22.8	668	156
		2/2/21	7.17	22.6	672	164
		7/12/21	7.41	22.9	676	171
		1/31/22	7.13	22.8	699	184
		7/11/22	7.23	22.8	693	178
		2/27/23	7.12	22.3	702	173
		7/31/23	7.26	22.5	789	178

APPENDIX A
Sulfate Data

Well Name	ADWR 55 Registry Number	Sample Date	pH (SU)	Temp (deg C)	SC (µS/cm)	Sulfate, dissolved (mg/L)
BMO-2008-6B	909146	7/16/08	7.36	24.1	475	53.3
		11/4/08	7.41	21.5	398	60.3
		2/19/09	7.23	21.1	444	54.3
		4/27/09	7.55	21.7	389	52.7
		8/4/09	7.48	23.4	470	48.5
		10/26/09	7.29	22.5	448	48.7
		2/15/10	7.53	21.2	391	33.5
		4/15/10	7.47	21.0	362	37.0
		7/1/10	7.24	22.2	361	40.1
		10/5/10	7.05	21.0	407	37.2
		2/14/11	7.27	21.8	397	40.2
		5/12/11	7.32	21.5	380	35.0
		7/12/11	7.27	21.1	390	37.8
		12/7/11	7.28	20.8	330	21.8
		2/3/12	7.28	20.1	346	23.0
		4/18/12	7.25	21.4	336	19.7
		7/10/12	6.86	21.2	328	21.9
		10/16/12	6.79	21.5	342	19.9
		2/12/13	6.87	20.7	339	16.2
		5/15/13	6.87	21.2	297	12.7
		8/20/13	7.36	21.5	310	10.6
		11/1/13	7.04	21.0	340	13.9
		2/11/14	7.38	21.6	290	20.1
		5/7/14	7.48	21.1	297	13.6
		8/19/14	7.08	21.6	298	13.4
		11/13/14	7.23	21.6	305	14.9
		2/3/15	7.24	20.6	272	12.1
		9/8/15	7.26	22.2	282	11.8
		3/14/16	7.47	21.9	267	12.4
		9/14/16	7.46	21.8	301	12.6
		3/1/17	7.37	21.4	271	12.1
		7/10/17	7.52	22.1	291	11.7
		2/8/18	7.26	20.9	284	13.3
		7/10/18	7.78	22.2	296	18.2
		2/4/19	7.38	21.6	280	10.7
		8/6/19	7.64	22.1	237	8.00
		2/3/20	7.25	21.3	264	8.60
		7/22/20	7.12	21.9	258	6.88
		2/2/21	7.39	21.6	264	<15.0
		7/12/21	7.22	22.0	282	7.55
		1/31/22	7.11	21.8	292	8.90
		7/11/22	7.09	22.2	290	10.20
		2/27/23	7.08	22.1	278	7.05
		7/31/23	7.54	21.5	312	6.51
BMO-2008-6M	909019	7/10/08	M	22.1	702	182
		11/4/08	7.33	21.8	621	199
		2/20/09	7.11	22.0	702	193
		4/28/09	7.34	22.4	595	119
		8/4/09	7.40	23.3	750	189
		10/26/09	7.18	22.4	727	187
		2/15/10	7.29	20.8	733	193
		4/15/10	7.36	20.2	619	208
		7/1/10	7.15	22.0	571	198
		10/5/10	6.87	21.3	720	202
		2/14/11	6.80	21.3	731	202
		5/12/11	7.12	21.9	709	189
		7/12/11	7.06	21.8	709	194
		12/7/11	6.94	21.3	710	200
		2/3/12	7.03	21.2	720	206
		4/18/12	7.01	21.4	701	188
		7/10/12	6.67	21.4	702	208
		10/16/12	6.89	21.8	708	207
		2/12/13	6.71	20.5	740	204
		5/8/13	7.01	21.9	726	212
		8/20/13	6.99	21.7	772	213
		11/1/13	6.83	21.5	773	223
		2/11/14	6.81	21.8	786	217
		5/7/14	6.77	21.3	788	220
		8/19/14	6.9	21.9	774	210
		11/13/14	7.14	22.0	740	218
		2/3/15	7.20	21.9	741	216
		9/8/15	7.09	23.0	750	222
		3/14/16	7.16	22.1	768	229
		9/14/16	7.06	22.2	760	229
		3/1/17	6.92	21.9	745	237
		7/10/17	7.04	22.6	742	218
		2/8/18	7.3	21.8	775	244
		7/10/18	7.26	22.1	761	234
		2/4/19	7.35	22.0	753	209
		8/6/19	7.18	22.4	755	199
		2/3/20	7.25	21.8	751	216
		7/22/20	7.22	22.1	752	206
		2/2/21	7.16	22.0	740	199
		7/12/21	7.16	22.2	740	204
		1/31/22	7.05	22.5	748	208
		7/11/22	7.09	22.5	754	207
		2/27/23	7.10	22.2	741	196
		7/31/23	7.33	22.0	828	196

APPENDIX A
Sulfate Data

Well Name	ADWR 55 Registry Number	Sample Date	pH (SU)	Temp (deg C)	SC (µS/cm)	Sulfate, dissolved (mg/L)
BMO-2008-7M	908794	7/14/08	7.63	25.2	500	31.4
		11/6/08	7.53	22.6	380	34.5
		2/18/09	7.31	23.3	452	27.6
		5/11/09	7.43	24.4	426	26.0
		8/6/09	7.81	24.1	486	25.1
		10/27/09	7.53	23.0	470	26.1
		2/17/10	7.57	23.4	452	25.4
		2/17/10 DUP	7.57	23.4	452	25.0
		4/15/10	7.52	23.2	415	26.0
		7/6/10	7.28	23.5	391	22.8
		2/14/11	7.18	22.0	465	27.5
		2/14/11 DUP	7.18	22.0	465	26.4
		7/15/11	7.1	22.8	466	26.5
		1/30/12	7.16	22.0	454	26.4
		7/11/12	7.18	22.7	455	28.1
		2/15/13	7.23	21.8	471	25.8
		8/28/13	7.15	22.9	494	27.7
		8/28/13 DUP	7.15	22.9	494	27.8
		2/13/14	7.09	22.6	494	27.8
		7/22/14	7.13	23.2	488	27.3
		9/14/15	7.51	23.4	469	30.6
		8/18/16	7.43	23.3	457	30.0
		7/10/17	7.36	23.5	464	33.1
		7/23/18	7.36	23.5	464	34.7
		8/8/19	7.77	23.6	478	35.5
		8/8/19 DUP	7.77	23.6	478	35.1
		7/23/20	7.61	23.0	483	37.2
		8/2/21	7.53	23.1	487	36.9
		7/18/22	7.41	23.3	505	40.0
		9/5/23	7.60	22.9	553	39.6
BMO-2008-8B	910097	12/5/08	6.47	20.1	2480	1890
		2/19/09	6.19	21.0	2958	1570
		5/5/09	6.18	21.3	2888	1370
		8/10/09	6.42	21.5	2897	1250
		11/9/09	6.33	21.8	2889	1510
		11/9/09 DUP	6.33	21.8	2889	1520
		3/3/10	6.51	20.4	3016	1320
		4/16/10	6.06	21.4	1682	1470
		7/1/10	6.10	21.4	1594	1440
		7/15/11	6.21	21.2	2940	1380
		1/30/12	6.22	21.2	2880	1480
		1/30/12 DUP	6.22	21.2	2880	1480
		7/12/12	6.41	21.1	2860	1440
		2/13/13	6.25	20.7	2830	1330
		8/12/13	6.38	21.3	2780	1420
		7/24/14	6.26	21.2	2520	1380
		7/10/17	6.69	22.2	1540	1240
		8/8/19	6.50	22.2	2640	1130
		8/2/21	6.71	23.2	2550	1130
		9/6/23	6.71	23.3	2700	1140
BMO-2008-8M	909711	12/9/08	7.16	23.4	852	197
		2/19/09	7.27	23.5	758	147
		2/19/09 DUP	7.27	23.5	758	149
		5/5/09	7.19	25.1	680	122
		8/10/09	7.49	24.8	673	107
		11/5/09	7.30	25.4	675	104
		3/3/10	7.70	24.1	641	99.5
		4/16/10	7.29	24.5	541	97.0
		7/1/10	6.99	25.0	502	94.7
		1/24/11	7.05	23.4	595	98.2
		7/15/11	6.89	22.1	590	79.9
		1/30/12	7.36	23.9	565	77.6
		7/12/12	7.15	24.2	554	73.1
		7/12/12 DUP	7.15	24.2	554	73.2
		2/14/13	7.1	24.3	565	64.9
		8/12/13	7.19	24.6	585	65.0
		2/19/14	7.07	24.3	579	63.3
		2/19/14 DUP	7.07	24.3	579	63.4
		7/24/14	7.07	24.7	569	66.8
		9/15/15	7.35	25.0	541	67.0
		9/15/16	7.52	24.6	535	63.5
		9/15/16 DUP	7.52	24.6	535	63.9
		7/10/17	7.28	24.7	542	74.1
		7/23/18	7.48	24.8	536	76.9
		7/23/18 DUP	7.48	24.8	536	74.5
		8/8/19	7.63	25.2	542	66.8
		7/23/20	7.48	24.8	547	74.3
		8/2/21	6.79	24.6	1908	795
		8/2/21 DUP	6.79	24.6	1908	797
		7/18/22	6.69	24.4	1310	1050
		9/6/23	6.70	23.6	2540	1030
		9/6/23 DUP	6.70	23.6	2540	1030

APPENDIX A
Sulfate Data

Well Name	ADWR 55 Registry Number	Sample Date	pH (SU)	Temp (deg C)	SC (µS/cm)	Sulfate, dissolved (mg/L)
BMO-2008-9M	909255	8/8/08	7.72	25.7	415	47.3
		11/5/08	7.89	21.4	444	54.4
		2/26/09	7.71	24.5	482	28.8
		5/12/09	7.76	24.8	449	51.7
		8/17/09	7.76	25.6	534	53.4
		11/3/09	7.82	24.9	552	56.9
		3/4/10	8.07	22.4	520	58.6
		4/6/10	6.74	23.8	484	60.1
		7/1/10	7.40	24.6	425	61.0
		2/10/11	6.79	24.0	520	64.2
		7/15/11	7.56	24.3	516	67.0
		2/1/12	7.54	22.4	516	67.4
		7/12/12	7.68	24.2	513	68.9
		2/13/13	7.37	23.8	531	68.2
		8/12/13	7.47	24.2	553	71.1
		2/18/14	7.26	23.8	569	74.1
		7/24/14	7.36	24.4	571	74.2
		9/14/15	7.68	24.7	550	85.6
		9/15/16	7.64	24.4	571	86.7
		7/11/17	7.57	24.5	572	92.0
		7/26/18	7.66	24.4	584	97.2
		8/12/19	7.59	24.5	584	91.7
		7/20/20	7.68	24.7	602	97.0
		8/18/21	7.66	24.9	602	105
		7/18/22	7.78	24.6	616	108
		8/14/23	7.83	24.2	675	101
		8/14/23 DUP	7.83	24.2	675	101
BMO-2008-10GL	909435	8/20/08	6.22	29.5	2924	1320
		11/5/08	6.47	25.3	2573	1290
		2/25/09	6.34	26.8	2646	1180
		5/12/09	6.35	26.2	2402	1120
		8/11/09	6.52	27.3	2661	1030
		11/2/09	6.52	26.7	2565	1100
		3/4/10	6.76	24.1	2937	1080
		4/8/10	6.03	25.6	1575	1260
		7/2/10	6.16	26.3	1338	1020
		7/13/11	6.32	24.8	1726	644
		2/2/12	6.45	24.8	1600	624
		7/13/12	6.71	25.7	1571	545
		2/18/13	6.45	25.4	1530	498
		2/18/13 DUP	6.45	25.4	1530	494
		8/13/13	6.57	25.5	1586	520
		8/7/14	6.56	25.8	1417	442
		7/11/17	6.14	25.6	3790	1810
		8/1/19	6.20	25.7	3860	1770
		8/17/21	6.20	25.3	3870	1960
		8/15/23	6.30	25.2	4270	1830
BMO-2008-10GU	909272	8/4/08	6.41	23.6	3660	2210
		11/5/08	6.15	20.2	3343	1890
		2/25/09	5.96	22.7	3426	1740
		5/6/09	5.99	23.2	3359	1710
		8/11/09	6.28	22.5	3348	1690
		11/2/09	6.27	21.8	3157	1730
		3/10/10	6.67	19.1	3951	1700
		4/7/10	5.96	20.4	3210	1510
		7/6/10	5.90	21.8	1610	1670
		7/13/11	6.12	22.3	3890	1670
		2/1/12	6.09	19.2	3820	1870
		8/19/13	6.10	21.0	3630	1780
		8/9/17	6.06	20.4	3860	1990
		8/9/17 DUP	6.06	20.4	3860	1960
		8/1/19	6.11	21.3	3900	1830
		8/17/21	6.06	20.7	3920	2080
		8/15/23	6.17	20.3	4320	1930

APPENDIX A
Sulfate Data

Well Name	ADWR 55 Registry Number	Sample Date	pH (SU)	Temp (deg C)	SC (µS/cm)	Sulfate, dissolved (mg/L)
BMO-2008-11G	909434	8/22/08	8.02	28.2	359	14.2
		11/12/08	7.96	24.2	257	13.9
		2/26/09	7.92	25.1	319	12.3
		4/28/09	8.14	25.5	273	11.8
		8/12/09	8.24	25.3	365	11.2
		11/9/09	8.03	25.5	339	13.9
		3/1/10	8.37	23.2	338	13.0
		4/9/10	6.88	24.5	301	13.0
		7/1/10	6.97	25.4	298	12.3
		2/10/11	6.99	24.0	327	11.7
		7/22/11	7.26	24.6	331	12.1
		7/22/11 DUP	7.26	24.6	331	12.0
		1/31/12	7.41	24.1	328	11.9
		8/14/12	7.35	24.6	337	12.3
		2/13/13	7.54	24.2	343	11.9
		8/27/13	7.48	24.9	363	12.2
		2/19/14	7.51	24.2	363	12.2
		8/14/14	7.58	24.7	360	12.4
		2/5/15	7.87	24.8	334	12.5
		9/14/15	7.78	25.3	335	12.3
		9/14/15 DUP	7.78	25.3	335	12.4
		3/15/16	7.76	24.9	334	12.2
		8/17/16	7.96	25.6	332	12.6
		3/2/17	7.59	24.8	328	12.5
		7/11/17	7.85	25.4	333	12.4
		2/12/18	7.96	24.4	341	13.1
		7/12/18	7.89	25.4	339	13.3
		1/28/19	7.99	25.2	338	12.2
		8/6/19	7.88	25.4	338	12.2
		2/4/20	7.88	24.7	341	13.3
		8/13/20	7.92	25.3	340	11.9
		8/13/20 DUP	7.92	25.3	340	8.16
		2/2/21	7.91	24.7	338	12.5
		7/22/21	7.86	25.5	341	12.6
		2/1/22	7.81	24.8	348	13.2
		2/1/22 DUP	7.81	24.8	348	13.3
		8/1/22	7.88	25.6	351	12.7
		3/6/23	7.74	25.1	346	12.6
		8/10/23	7.97	25.2	392	12.6
BMO-2008-13B	909551	10/3/08	6.49	21.6	2180	980
		2/17/09	6.51	20.9	1941	1000
		5/6/09	6.55	22.0	1891	930
		8/5/09	6.63	21.5	2137	950
		10/28/09	6.81	19.7	2259	1010
		2/16/10	6.87	20.8	2093	997
		4/14/10	6.38	21.2	1346	974
		7/6/10	6.37	21.8	1208	972
		7/15/11	6.44	20.8	2160	1010
		2/9/12	6.68	20.3	2180	1060
		7/11/12	6.55	21.2	2190	1080
		2/27/13	6.54	20.3	2160	1090
		9/4/13	6.57	20.8	2070	1050
		8/19/14	6.63	21.2	1890	1070
		8/2/17	6.67	21.2	2130	1050
		8/20/19	6.68	21.5	2190	1050
		8/16/21	6.67	21.9	2220	1110
		9/11/23	6.88	21.2	1603	1100
BMO-2008-13M	909760	12/3/08	7.73	24.1	1463	494
		2/17/09	8.21	22.7	1340	441
		4/29/09	8.04	24.8	1126	217
		8/5/09	8.04	25.4	1392	387
		10/28/09	8.12	21.4	1347	403
		2/16/10	8.07	24.9	1297	375
		4/13/10	8.06	23.2	1130	398
		7/2/10	8.30	23.9	1027	386
		7/15/11	8.4	23.4	1331	388
		2/6/12	8.47	23.2	1300	ND
		8/13/12	8.75	24.2	1311	397
		2/15/13	8.8	22.4	1280	383
		9/6/13	8.81	23.8	1300	402
		8/20/14	8.48	23.6	1362	410
		8/15/17	8.42	24.7	1305	386
		8/20/19	8.78	23.9	1299	388
		8/16/21	8.73	24.3	1326	418
		9/11/23	8.51	23.4	1310	424

APPENDIX A
Sulfate Data

Well Name	ADWR 55 Registry Number	Sample Date	pH (SU)	Temp (deg C)	SC (µS/cm)	Sulfate, dissolved (mg/L)
BMO-2010-1M	219957	9/9/10	7.82	24.6	727.0	150
		11/11/10	8.68	19.9	570	98
		2/11/11	8.15	20.8	589	138
		5/12/11	7.74	23.0	710	129
		8/31/11	7.74	23.2	562	154
		12/13/11	7.63	21.3	713	149
		2/8/12	7.69	22.0	605	158
		4/24/12	7.08	23.4	701	150
		7/9/12	6.37	24.3	715	161
		10/17/12	7.40	23.9	699	154
		2/13/13	7.09	22.2	712	152
		5/8/13	7.12	22.5	725	160
		8/15/13	7.39	23.5	767	156
		11/4/13	7.38	22.6	774	163
		2/12/14	8.33	22.0	672	161
		6/2/14	7.55	23.3	771	165
		8/4/14	7.38	23.8	772	179
		11/12/14	7.43	23.4	733	165
		9/9/15	7.59	24.2	729	170
		8/25/16	7.93	23.3	646	169
		7/12/17	7.70	24.0	715	180
		8/7/18	7.85	23.8	751	169
		7/30/19	7.54	24.0	7.32	173
		7/20/20	7.75	24.0	771	187
		7/15/21	7.68	24.0	762	183
		7/26/22	7.65	23.9	788	200
		8/7/23	7.75	23.6	886	192
BMO-2010-2M	219958	9/15/10	6.66	22.6	2054	915
		11/11/10	6.97	20.6	1800	935
		2/10/11	6.53	20.8	2120	950
		5/13/11	6.54	21.1	2160	887
		7/14/11	6.62	21.5	2160	917
		12/13/11	6.59	20.3	2140	984
		1/30/12	6.41	21.4	2180	989
		4/18/12	6.48	21.2	2170	893
		7/9/12	6.41	21.8	2190	1030
		10/17/12	6.60	21.3	2200	998
		2/13/13	6.45	21.0	2190	962
		5/8/13	6.42	21.0	2160	996
		8/15/13	6.58	21.2	2157	978
		11/4/13	6.53	21.9	2120	998
		2/12/14	6.52	21.0	2160	1000
		5/8/14	6.46	21.0	1990	1010
		8/14/14	6.48	21.0	1940	1040
		8/14/14 DUP	6.48	21.0	1940	1030
		11/12/14	6.59	21.3	2210	939
		7/12/17	6.6	22.2	2160	967
		7/30/19	6.67	22.1	2190	894
		7/15/21	6.70	21.7	2150	927
		8/7/23	6.78	21.8	2400	888
BMO-2010-3B	219970	7/29/10	7.48	23.1	420	16.0
		11/10/10	7.43	21.2	370	14.9
		1/20/11	7.44	20.9	416.1	14.4
		4/7/11	7.38	20.1	424.6	14.9
		7/13/11	7.68	22.3	404.5	13.8
		10/13/11	7.63	23.4	411.2	15.9
		2/2/12	7.52	20.4	400.2	16.9
		2/2/12 DUP	7.52	20.4	400.2	17.1
		4/24/12	7.30	21.8	390	16.0
		7/5/12	7.51	22.4	419.1	15.7
		10/18/12	7.58	21.6	411.9	17.0
		1/16/13	7.58	20.8	420.5	17.4
		4/16/13	7.65	21.2	415.1	17.5
		7/23/13	7.67	21.8	420	19.8
		10/8/13	7.72	20.9	420.3	16.8
		1/15/14	7.65	20.2	431.2	18.8
		5/13/14	7.66	21.0	421.2	18.0
		5/13/14 DUP	7.66	21.0	421.2	18.0
		7/15/14	7.63	21.8	419.1	19.0
		10/14/14	7.48	22.6	395	17.4
		10/14/14 DUP	7.48	22.6	395	18.1
		1/28/15	7.59	22.2	420	19.2
		7/22/15	7.67	21.8	420	20.7
		2/2/16	7.67	18.9	407.5	16.1
		7/12/16	7.59	21.0	424.9	16.8
		1/18/17	7.45	20.5	413.9	18.8
		7/11/17	7.40	20.7	424.6	16.5
		1/8/18	7.42	20.4	415.7	21.8
		1/8/18 DUP	7.42	20.4	415.7	21.1
		7/10/18	7.44	20.5	428.1	16.0
		1/8/19	7.42	20.2	418.6	19.5
		7/16/19	7.41	20.5	424.5	26.0
		7/16/19 DUP	7.41	20.5	424.5	25.8
		1/6/20	7.67	20.2	425.7	21.0
		8/4/20	7.45	21.4	427.1	19.3
		1/5/21	7.48	20.8	425.4	22.9
		7/13/21	7.43	20.4	433.4	20.9
		7/13/21 DUP	7.43	20.4	433.4	21.2
		1/24/22	7.48	20.0	420.8	22.0
		7/19/22	7.41	22.2	430.0	20.1
		1/31/23	7.51	20.0	428.6	23.9
		8/1/23	7.55	21.3	430.2	19.9
		8/1/23 DUP	7.55	21.3	430.2	19.9

APPENDIX A
Sulfate Data

Well Name	ADWR 55 Registry Number	Sample Date	pH (SU)	Temp (deg C)	SC (µS/cm)	Sulfate, dissolved (mg/L)
BMO-2010-3M	219969	7/31/10	7.73	24.3	390	14.8
		11/10/10	7.66	21.8	340	12.6
		11/10/10 DUP	7.66	21.8	340	12.7
		1/20/11	7.72	22.6	380.4	11.5
		4/7/11	7.38	23.5	376.5	12.3
		8/25/11	7.17	24.3	340	10.4
		10/13/11	7.73	23.6	375.8	10.5
		2/2/12	7.68	22.0	367.1	10.6
		4/24/12	7.49	23.9	370	10.1
		7/5/12	7.66	23.7	381.8	10.3
		10/18/12	7.71	23.3	379.9	10.4
		1/16/13	7.68	22.1	383.1	10.0
		4/16/13	7.83	22.3	383.7	10.2
		4/16/13 DUP	7.83	22.3	383.7	10.2
		7/23/13	7.80	23.4	386.0	10.7
		10/8/13	7.76	22.8	384.8	9.4
		1/15/14	7.76	22.1	389.8	9.1
		5/13/14	7.75	22.9	387.1	10.4
		7/15/14	7.74	23.1	386.9	10.2
		10/14/14	7.57	24.1	367.0	10.8
		1/28/15	7.70	24.1	391	10.6
		7/22/15	7.79	23.5	383.9	8.64
		7/22/15 DUP	7.79	23.5	383.9	9.25
		2/2/16	7.83	19.8	367.5	8.46
		7/12/16	7.75	22.7	383.3	10.1
		1/18/17	7.54	22.2	382.3	9.97
		7/11/17	7.52	22.6	384.8	8.97
		1/8/18	7.52	22.2	379.7	9.69
		7/10/18	7.55	22.1	389.2	9.17
		1/8/19	7.42	22.0	378.4	8.97
		7/16/19	7.53	22.4	385.6	8.97
		1/6/20	7.69	21.2	369.3	9.01
		1/6/20 DUP	7.69	21.2	369.3	9.07
		8/4/20	7.53	23.1	388.6	8.98
		1/5/21	7.54	22.7	384.1	9.23
		7/13/21	7.55	22.2	391.6	11.3
		7/13/21	7.55	22.2	391.6	9.50
		1/24/22	7.56	21.8	379.5	9.50
		7/19/22	7.53	25.8	391.0	9.41
		1/31/23	7.64	21.0	388.9	8.98
		8/1/23	7.68	22.8	390.5	9.87
BMO-2012-1M	221388	11/13/12	7.55	21.3	933.7	231
		2/27/13	6.97	22.4	793	205
		5/8/13	6.77	22.9	814	197
		8/14/13	7.09	22.9	858	202
		11/1/13	6.98	22.4	850	210
		2/13/14	7.00	22.2	883	214
		5/8/14	6.90	22.9	875	207
		7/22/14	6.99	22.6	857	210
		11/13/14	7.10	22.6	839	208
		2/4/15	7.40	22.5	843	214
		9/10/15	7.29	23.3	862	216
		3/3/16	7.32	23.4	888	222
		8/17/16	7.15	23.3	928	222
		3/2/17	6.98	23.1	922	236
		3/2/17 DUP	6.98	23.1	922	228
		7/24/17	7.08	23.0	938	250
		8/21/17	7.14	22.8	944	221
		2/13/18	7.24	22.7	960	237
		7/16/18	7.33	23.4	960	236
		1/29/19	7.25	22.6	956	215
		7/31/19	7.22	23.3	959	213
		2/4/20	7.25	22.8	954	223
		7/21/20	7.22	23.1	960	217
		2/18/21	7.13	22.9	960	213
		7/14/21	7.19	23.3	964	221
		2/1/22	7.1	22.6	981	235
		7/19/22	7.14	23.5	992	235
		3/1/23	7.08	22.6	981	217
		8/2/23	7.08	23.1	1096	220
BMO-2014-1BL	917394	11/7/14	7.21	24.2	716	160
		1/29/15	7.46	22.2	686	167
		4/15/15	7.43	21.9	695.0	167
		7/29/15	7.57	22.8	695.0	149
		10/7/15	7.55	21.6	685.9	156
		10/7/15 DUP	7.55	21.6	685.9	156
		2/4/16	7.66	20.2	675.4	146
		4/6/16	7.43	21.7	696.3	152
		7/14/16	7.47	21.9	690.7	151
		11/2/16	7.28	21.6	689.9	143
		1/24/17	7.29	21.4	684.6	156
		7/13/17	7.26	21.6	687.5	158
		1/10/18	7.24	21.5	685.3	159
		7/12/18	7.25	21.7	693.4	163
		1/10/19	7.15	21.8	683.6	158
		7/18/19	7.15	22.5	691.5	150
		1/8/20	7.52	23.9	701.7	163
		3/9/21	7.3	21.8	719.3	160
		7/15/21	7.29	21.2	721.0	178
		1/26/22	7.26	21.0	726.1	164
		7/21/22	7.29	22.2	739.3	132
		2/15/23	7.30	21.1	708.1	173
		8/7/23	7.52	20.7	730.9	182

APPENDIX A
Sulfate Data

Well Name	ADWR 55 Registry Number	Sample Date	pH (SU)	Temp (deg C)	SC (µS/cm)	Sulfate, dissolved (mg/L)
BMO-2014-1BU	917393	11/13/14	21.8	22.1	571	84
		1/28/15	7.45	21.6	694	170
		4/15/15	7.40	21.3	735.2	189
		7/29/15	7.55	22.3	729.7	165
		10/7/15	7.51	20.9	728.8	182
		2/4/16	7.51	20.1	715.7	163
		4/6/16	7.47	21.0	733.5	172
		7/14/16	7.45	21.6	724.8	170
		7/14/16 DUP	7.45	21.6	724.8	169
		11/2/16	7.29	20.9	719.5	155
		1/24/17	7.28	20.5	722.8	178
		7/13/17	7.27	20.8	736.4	184
		1/10/18	7.25	20.5	694.3	158
		7/12/18	7.24	20.7	730.3	181
		1/10/19	7.16	20.4	729.9	172
		1/10/19 DUP	7.16	20.4	729.9	175
		7/18/19	7.15	20.5	717.9	170
		1/8/20	7.36	19.2	703.5	169
		8/6/20	7.23	21.2	732.1	168
		1/7/21	7.24	21.0	718.1	185
		7/15/21	7.30	20.2	733.1	161
		1/26/22	7.25	20.1	741.6	170
		7/21/22	7.38	21.5	737.8	165
		7/21/22 DUP	7.38	21.5	737.8	163
		2/15/23	7.31	20.8	729.1	175
		8/7/23	7.33	21.0	777.7	192
BMO-2014-2BL	917452	11/20/14	7.34	22.8	804	210
		1/29/15	7.36	20.8	1109	463
		4/15/15	7.27	21.2	1169	463
		7/29/15	7.34	22.5	1191	452
		10/7/15	7.41	20.8	1180	467
		2/4/16	7.38	19.7	1164	434
		2/4/16 DUP	7.38	19.7	1164	428
		4/6/16	7.43	21.2	1187	456
		7/14/16	7.27	21.9	1182	437
		11/2/16	7.18	20.8	1184	422
		1/24/17	7.11	21.3	1170	453
		9/6/17	7.08	20.7	1197	441
		1/10/18	7.10	20.5	1167	448
		7/12/18	7.12	20.4	1186	445
		1/10/19	7.07	20.4	1168	470
		7/18/19	7.01	20.4	1178	433
		1/8/20	7.37	18.1	1147	454
		8/6/20	7.08	21.1	1187	421
		1/7/21	7.09	20.8	1154	481
		7/15/21	7.15	20.3	1174	420
		1/26/22	7.04	20.2	1161	397
		7/21/22	7.20	21.3	1181	400
		2/15/23	7.30	21.5	1132	422
		8/7/23	7.34	21.2	1162	471
BMO-2014-2BU	917453	12/1/14	7.35	20.8	819.2	230
		1/30/15	7.65	19.9	524	63.8
		4/15/15	7.56	20.7	536.1	64.8
		7/29/15	7.62	22.2	538.7	58.2
		10/7/15	7.74	20.6	541.1	62.0
		2/4/16	7.58	19.8	528.0	56.5
		4/6/16	7.58	21.7	539.3	58.6
		7/14/16	7.56	21.4	536.6	59.9
		11/2/16	7.39	20.2	535.9	55.8
		1/24/17	7.36	20.1	531.2	61.0
		7/13/17	7.38	20.1	536.9	60.1
		1/10/18	7.35	19.8	525.4	57.0
		7/12/18	7.37	20.1	537.5	55.6
		1/10/19	7.31	19.8	534.0	55.2
		7/18/19	7.27	19.8	544.3	54.9
		1/8/20	7.53	18.6	535.4	58.6
		8/6/20	7.35	20.6	551.0	56.4
		1/7/21	7.35	20.4	539.3	58.2
		7/15/21	7.40	19.8	545.4	84.9
		1/26/22	7.30	19.6	538.3	60.9
		7/21/22	7.55	20.8	545.2	65.1
		2/15/23	7.54	20.3	525.6	73.0
		2/15/23 DUP	7.54	20.3	525.6	71.7
		8/7/23	7.47	20.0	548.7	76.9
BMO-2014-3BL	917527	2/13/15	7.34	22.4	384	7.84
		4/15/15	7.72	21.6	402.3	8.73
		7/29/15	7.72	23.1	413.7	7.92
		10/7/15	7.64	21.6	415.6	8.51
		2/4/16	7.62	20.9	409.8	8.36
		4/6/16	7.62	21.9	424.9	8.62
		7/14/16	7.62	22.7	419.4	8.77
		11/2/16	7.40	21.4	423.2	7.98
		1/25/17	7.38	21.4	406.4	8.37
		7/13/17	7.37	21.7	423.3	8.69
		1/12/18	7.31	21.3	402.0	8.25
		1/12/18	7.31	21.3	402.0	8.25
		7/12/18	7.42	21.5	423.0	7.71
		1/10/19	7.29	21.4	412.3	7.73
		7/18/19	7.31	21.5	413.5	7.45
		1/9/20	7.58	20.0	414.7	8.31
		8/6/20	7.33	22.3	415.1	7.59
		1/7/21	7.33	22.0	415.3	7.63
		7/15/21	7.36	21.3	412.6	10.0
		1/27/22	7.12	21.0	404.8	7.83
		8/1/22	7.64	24.3	416.4	8.80
		2/16/23	7.57	20.1	403.6	7.54
		8/8/23	7.45	21.2	416.0	8.73

APPENDIX A
Sulfate Data

Well Name	ADWR 55 Registry Number	Sample Date	pH (SU)	Temp (deg C)	SC (µS/cm)	Sulfate, dissolved (mg/L)
BMO-2014-3BU	917494	2/24/15	7.64	18.2	471.4	8.22
		4/15/15	7.67	20.4	469.5	8.71
		7/29/15	7.62	21.9	471.9	7.46
		10/7/15	7.62	20.4	467.9	7.82
		2/4/16	7.64	19.7	466.4	7.68
		4/6/16	7.53	20.9	473.2	8.25
		7/14/16	7.56	21.3	465.9	8.57
		11/2/16	7.40	20.0	471.1	7.79
		1/25/17	7.36	20.0	458.1	8.06
		7/13/17	7.34	20.2	472.9	8.55
		1/12/18	7.28	20.0	457.5	8.06
		7/12/18	7.35	20.0	470.0	7.95
		1/10/19	7.28	19.9	470.2	7.54
		7/18/19	7.28	20.0	474.2	7.63
		1/9/20	7.57	17.8	471.2	8.00
		8/6/20	7.31	20.7	478.8	7.18
		1/7/21	7.31	20.6	478.1	7.04
		7/15/21	7.35	19.9	477.1	9.35
		1/27/22	7.12	19.8	466.9	7.08
		8/1/22	7.63	21.3	481.7	8.16
		2/16/23	7.55	19.6	464.8	6.74
		8/8/23	7.57	21.6	477.4	8.16
BMO-2014-4B	917620	3/4/15	7.68	20.3	524.0	64.7
		4/14/15	7.61	20.9	494.7	61.7
		7/23/15	7.60	21.7	493.7	57.2
		10/6/15	7.70	20.5	481.9	52.7
		2/3/16	7.74	19.8	491.1	58.2
		4/5/16	7.61	20.9	491.9	53.2
		7/13/16	7.55	21.3	478.3	48.0
		7/13/16 DUP	7.55	21.3	478.3	48.3
		11/1/16	7.58	20.6	472.7	42.5
		11/1/16 DUP	7.58	20.6	472.7	42.1
		1/23/17	7.42	20.4	493.0	63.6
		7/12/17	7.41	20.5	483.0	56.7
		1/9/18	7.39	20.3	490.9	64.7
		7/11/18	7.38	20.3	467.7	47.4
		1/9/19	7.36	20.2	490.2	62.1
		7/17/19	7.36	20.3	494.9	62.8
		1/7/20	7.66	18.1	492.5	63.9
		8/5/20	7.26	21.2	487.7	56.2
		1/6/21	7.44	20.9	484.0	54.3
		7/14/21	7.38	20.2	472.9	80.1
		1/25/22	7.42	20.0	479.1	49.8
		7/20/22	7.44	23.5	476.2	53.4
		2/2/23	7.52	20.4	493.3	67.6
		8/3/23	7.56	21.6	490.5	67.3
BMO-2014-4BL	917619	3/1/15	7.63	21.1	671.9	165
		4/14/15	7.63	21.4	665.1	184
		7/23/15	7.66	21.9	669.7	185
		7/23/15 DUP	7.66	21.9	669.7	169
		10/6/15	7.71	20.9	660.4	176
		2/3/16	7.69	20.1	660.2	165
		4/5/16	7.53	21.2	671.7	171
		7/13/16	7.51	21.5	653.5	165
		11/1/16	7.47	20.9	665.8	160
		1/23/17	7.37	20.6	672.1	182
		7/12/17	7.42	20.7	674.4	178
		1/9/18	7.36	20.5	681.5	183
		7/11/18	7.32	20.6	687.8	187
		1/9/19	7.36	20.4	701.1	193
		7/17/19	7.30	20.5	720.3	192
		1/7/20	7.61	19.1	725.6	206
		8/5/20	7.21	21.4	687.8	166
		1/6/21	7.39	21.1	642.0	153
		7/14/21	7.34	20.3	612.8	182
		1/25/22	7.39	20.3	615.3	135
		7/20/22	7.46	22.8	606.9	132
		2/2/23	7.45	21.2	618.0	127
		8/3/23	7.59	22.1	612.4	130
BMO-2015-1B	917622	3/15/15	8.11	20.2	676.3	175
		4/14/15	7.59	20.9	680.1	187
		7/23/15	7.68	21.7	690.7	201
		10/6/15	7.66	20.6	681.9	190
		2/3/16	7.64	19.8	678.5	173
		4/5/16	7.57	20.5	691.4	181
		7/13/16	7.52	21.2	675.3	172
		11/1/16	7.44	20.4	683.6	163
		1/23/17	7.43	20.4	692.6	193
		7/12/17	7.44	20.5	697.6	190
		1/9/18	7.36	20.3	703.1	203
		7/11/18	7.39	20.3	705.9	194
		1/9/19	7.32	20.3	711.9	208
		7/17/19	7.32	20.3	726.4	203
		1/7/20	7.45	18.3	719.8	210
		8/5/20	7.34	21.0	725.0	206
		1/6/21	7.33	20.7	718.2	213
		7/14/21	7.36	20.0	728.2	192
		1/25/22	7.35	19.5	721.3	193
		7/20/22	7.56	21.3	733.7	196
		2/2/23	7.35	20.5	725.6	199
		8/3/23	7.49	21.1	706.4	194

APPENDIX A
Sulfate Data

Well Name	ADWR 55 Registry Number	Sample Date	pH (SU)	Temp (deg C)	SC (µS/cm)	Sulfate, dissolved (mg/L)
BMO-2015-1BL	917621	3/12/15	7.70	20.8	708.2	221
		4/14/15	7.55	20.7	733.4	239
		7/23/15	7.62	22.3	747.3	259
		10/6/15	7.74	20.8	747.3	232
		2/3/16	7.71	19.2	736.1	219
		2/3/16 DUP	7.71	19.2	736.1	215
		4/5/16	7.58	21.0	767.1	231
		7/13/16	7.49	21.6	763.8	231
		11/1/16	7.41	20.6	770.0	221
		1/23/17	7.39	20.5	769.1	249
		7/12/17	7.37	20.6	780.5	253
		1/9/18	7.38	20.5	784.5	251
		7/11/18	7.35	20.5	791.5	253
		1/9/19	7.30	20.4	800.5	259
		7/17/19	7.29	20.4	797.7	255
		1/7/20	7.38	19.6	787.0	261
		8/5/20	7.31	21.2	820.1	266
		1/6/21	7.30	21.7	818.6	277
		3/9/21	7.35	20.8	839.6	260
		7/14/21	7.32	20.2	840.4	268
		1/25/22	7.26	20.0	824.8	262
		7/20/22	7.48	21.4	845.9	255
		2/2/23	7.48	20.4	832.9	277
		8/3/23	7.52	21.5	825.0	274
BMO-2015-2B	917827	3/19/15	7.43	20.0	795.2	288
		4/14/15	7.41	20.7	832.4	271
		7/23/15	7.47	22.2	847.5	292
		10/6/15	7.60	20.9	844.3	262
		2/3/16	7.48	20.4	823.2	247
		4/5/16	7.44	21.4	849.8	258
		7/13/16	7.33	21.8	837.2	250
		11/1/16	7.26	20.6	848.1	247
		1/23/17	7.26	20.5	849.6	268
		7/12/17	7.27	20.4	847.9	273
		1/9/18	7.25	20.2	841.9	276
		7/11/18	7.17	20.4	856.9	261
		1/9/19	7.19	20.1	873.3	277
		7/17/19	7.16	20.3	875.0	270
		1/7/20	7.45	17.4	864.6	277
		8/5/20	7.22	21.1	884.1	299
		1/6/21	7.18	20.7	877.4	289
		7/14/21	7.15	20.1	895.6	270
		1/25/22	7.18	19.9	898.3	266
		1/25/22 DUP	7.18	19.9	898.3	273
		7/20/22	7.33	21.0	916.2	274
		2/2/23	7.35	19.9	889.2	282
		8/3/23	7.42	20.3	901.5	288
BMO-2015-2BL	917828	3/26/15	7.29	22.3	887.1	280
		4/14/15	7.38	20.9	860.0	305
		7/23/15	7.43	22.1	902.3	323
		10/6/15	7.54	21.2	890.3	304
		2/3/16	7.45	20.5	884.7	278
		4/5/16	7.42	21.3	903.9	296
		4/5/16 DUP	7.42	21.3	903.9	292
		7/13/16	7.33	21.8	903.7	296
		11/1/16	7.24	20.8	905.7	282
		1/23/17	7.25	20.6	909.8	315
		7/12/17	7.23	20.7	921.0	317
		1/9/18	7.19	20.5	915.5	320
		7/11/18	7.14	20.5	923.8	307
		1/9/19	7.15	20.3	924.6	320
		7/17/19	7.11	20.5	942.6	318
		1/7/20	7.14	17.1	918.0	323
		8/5/20	7.13	21.2	946.2	327
		8/5/20 DUP	7.13	21.2	946.2	333
		1/6/21	7.13	20.9	941.5	336
		7/14/21	7.11	20.3	957.5	307
		1/25/22	7.11	20.1	944.2	309
		7/20/22	7.30	21.8	980.3	311
		2/2/23	7.27	19.9	965.9	337
		2/2/23 DUP	7.27	19.9	965.9	342
		8/3/23	7.30	20.8	961.8	328
BOOTH	914931	1/5/13	7.67	18.5	574.3	91.4
		6/14/13	7.61	51.1	604.2	95
		6/14/13 DUP	7.61	51.1	604.2	92.5
		7/17/13	7.75	23.2	497.6	75
		10/18/13	7.66	19.3	597.6	92.6
		8/2/23	7.70	21.9	662.8	150

APPENDIX A
Sulfate Data

Well Name	ADWR 55 Registry Number	Sample Date	pH (SU)	Temp (deg C)	SC (µS/cm)	Sulfate, dissolved (mg/L)
BURKE	212268	2/7/08	7.17	23.0	411	29.5
		4/22/08	7.13	27.0	423	26
		8/5/08	7.06	26.8	496	21.9
		10/20/08	7.57	26.0	466	20.5
		2/11/09	7.23	25.0	363	23.9
		4/28/09	7.16	26.1	369	24.2
		8/19/09	7.36	26.7	486	22.5
		12/16/09	7.28	25.7	488	26
		3/2/10	7.56	12.3	432	23.8
		4/22/10	7.49	16.4	452	24.8
		7/21/10	7.56	25.6	423.7	33.1
		10/10/13	7.87	21.9	469.6	27.5
		1/8/14	8.17	10.9	464.9	28.6
		4/16/14	7.80	21.1	471.0	28.3
		7/21/14	8.19	27.8	448.8	29.6
		10/21/14	8.06	22.2	456.0	29.1
		8/3/15	7.72	27.4	479.3	27.2
		7/21/16	7.98	26.4	478.0	28.6
		7/21/16 DUP	7.98	26.4	478.0	28.5
		7/25/17	7.91	23.5	475.3	31.7
		7/26/18	7.51	27.4	480.8	30.5
		7/9/19	7.48	26.2	487.1	30.8
		8/11/20	7.57	28.0	491.2	34.3
		7/29/21	7.77	23.8	483.3	31.5
		7/7/22	7.77	27.1	478.5	30.6
		7/19/23	7.83	27.9	486.5	32.9
CHAMBERS	629807	3/6/08	7.73	17.8	408	7.7
		5/5/08	7.15	22.1	421	6
		7/14/08	7.43	23.2	434	5.8
		10/15/08	7.41	22.5	420	4
		1/27/09	7.57	21.5	312	5.3
		4/14/09	7.42	22.4	384	6.8
		7/15/09	7.83	23.4	414	4.3
		10/13/09	7.41	22.6	410	6.5
		1/26/10	7.31	21.3	416	5.7
		4/23/10	7.47	20.9	427.5	8.34
		7/21/10	7.49	23.1	430	7.75
		10/19/10	8.00	23.0	440	7.04
		1/18/11	7.47	22.4	390	7.30
		4/11/11	7.18	22.0	427.3	7.74
		7/18/11	7.18	23.8	420.2	8.18
		10/12/11	7.33	22.6	425.8	7.8
		2/6/12	7.43	21.8	434.6	9.08
		4/23/12	7.46	22.7	460	8.84
		7/17/12	7.31	22.4	410	8.41
		10/8/12	7.44	22.4	430.0	10.1
		1/10/13	7.57	21.5	440.8	9.64
		4/18/13	7.49	21.7	434.1	9.78
		7/15/13	7.40	22.7	434.6	9.81
		7/15/13 DUP	7.40	22.7	434.6	10.2
		10/10/13	7.51	21.8	439.7	10.3
		1/13/14	7.56	21.0	431.3	10.7
		4/14/14	7.48	22.2	435.9	10.9
		7/10/14	7.50	22.9	436.4	11.0
		10/17/14	7.31	22.5	456.0	10.8
		7/21/15	7.48	22.7	447.7	11.4
		7/14/16	7.49	22.8	459.8	13.2
		7/25/17	7.34	21.3	450.4	13.2
		7/10/19	7.27	28.0	417.7	6.88
COB MW-1	903992	2/22/08	6.93	21.2	1401	720
		5/20/08	6.88	22.0	2050	980
		7/30/08	6.88	21.7	1780	730
		10/23/08	6.95	21.2	1690	750
		2/12/09	6.92	21.1	1313	750
		4/21/09	7.15	22.7	1366	720
		7/22/09	6.94	21.6	1570	680
		7/22/09 DUP	6.94	21.6	1570	730
		10/22/09	6.81	22.3	1582	820
		2/4/10	7.04	21.1	1653	680
		4/20/10	6.92	21.8	1836	783
		7/13/10	7.02	22.3	2004	919
		7/14/11	6.78	21.4	1924	927
		7/12/12	6.74	23.4	1760	805
		2/5/13	6.95	21.5	1773	877
		7/11/13	7.17	21.4	1858	842
		7/9/14	6.95	21.5	2000	1000
		7/9/14 DUP	6.95	21.5	2000	1020
		7/27/15	6.96	21.6	1993	902
COB MW-1B	225906	7/20/16	6.63	21.8	2405	1210
		7/19/17	6.51	20.9	2474	1160
		7/24/19	6.70	20.6	1793	827
		7/21/21	6.75	20.8	1790	918
		7/21/21 DUP	6.75	20.8	1790	844
		8/3/22	6.96	22.3	1808	804
		8/2/23	6.82	21.8	1851	1050

APPENDIX A
Sulfate Data

Well Name	ADWR 55 Registry Number	Sample Date	pH (SU)	Temp (deg C)	SC (µS/cm)	Sulfate, dissolved (mg/L)
COB MW-2	903984	5/20/08	7.32	21.2	490	40.5
		7/30/08	7.34	20.8	511	37.6
		10/23/08	7.36	20.3	498	34.9
		2/12/09	7.35	20.2	379	35.6
		4/23/09	7.33	21.8	431	34
		7/22/09	7.36	21.3	483	33.5
		10/22/09	7.24	21.0	454	32.2
		3/3/10	7.55	19.7	450	33.5
		4/26/10	7.28	21.3	479.6	34.8
		7/13/10	6.91	21.2	479.5	30.4
		7/13/10 DUP	6.91	21.2	479.5	30.6
		1/20/11	7.47	20.7	440	29.6
		7/14/11	7.11	21.1	472.6	29.8
		1/31/12	7.53	20.3	466.6	30.0
		7/12/12	7.36	21.2	630	29.2
		1/9/13	7.48	20.0	473.5	35.8
		7/25/13	7.34	20.9	485.4	40.6
		1/6/14	7.58	19.9	487.8	40.5
		7/9/14	7.52	20.5	503.5	43.7
		2/4/15	7.38	20.3	619	40.5
		7/27/15	7.57	20.8	514.6	40.3
		7/27/15 DUP	7.57	20.8	514.6	41.6
		1/11/16	7.54	19.5	510.6	41.2
		7/20/16	7.52	20.0	523.7	41.6
		1/19/17	7.40	19.5	525.8	41.5
		7/19/17	7.29	19.5	548.6	39.6
		1/11/18	7.26	19.3	552.3	36.1
		7/17/18	7.28	19.4	572.5	32.6
		1/15/19	7.26	19.2	578.3	26.0
		7/24/19	7.19	19.2	598.4	24.6
		1/14/20	7.53	18.7	578.3	24.8
		8/11/20	7.25	19.9	600.6	23.2
		1/12/21	7.21	19.7	591.2	23.6
		7/21/21	7.15	19.3	599.7	26.4
		2/8/22	7.34	19.1	610.6	21.6
		8/3/22	7.42	20.2	618.0	23.5
		2/1/23	7.44	18.8	630.7	23.4
		8/2/23	7.33	20.2	633.2	23.5
COB MW-3	906823	2/28/08	7.39	21.0	416	57.8
		3/27/08	ND	ND	ND	57.7
		4/30/08	ND	ND	ND	37
		5/20/08	7.56	22.3	473	35.8
		7/24/08	ND	ND	ND	64.9
		7/30/08	7.64	22.3	541	67.3
		10/9/08	ND	ND	ND	52.5
		10/23/08	7.43	20.8	507	76.6
		2/12/09	7.35	21.1	432	112
		4/23/09	7.35	22.6	407	43.7
		7/22/09	7.38	21.5	460	52.3
		10/22/09	7.40	21.3	466	74.2
		10/22/09 DUP	7.40	21.3	466	73.9
		3/3/10	7.36	21.1	480	102
		4/26/10	7.35	22.0	497.9	77.6
		7/13/10	7.41	21.7	456.7	46.5
		7/14/11	7.19	21.8	440.0	40.1
		7/12/12	7.34	21.4	450	39.5
		2/5/13	7.60	20.4	476.4	65.1
		2/5/13 DUP	7.60	20.4	476.4	64.7
		7/25/13	7.42	21.4	485.0	66.6
		7/9/14	7.61	21.4	525.3	90.9
		7/27/15	7.56	21.6	560.3	105
		7/20/16	7.48	20.4	507.4	72.7
		7/19/17	7.34	20.2	529.5	84.1
		7/17/18	7.37	20.0	528.5	92.7
		7/24/19	7.38	19.7	498.8	68.5
		8/11/20	7.48	20.4	485.8	59.0
		7/21/21	7.33	19.7	534.5	95.8
		8/3/22	7.50	20.8	555.4	91.3
		8/3/23	7.55	19.8	495.5	61.8

APPENDIX A
Sulfate Data

Well Name	ADWR 55 Registry Number	Sample Date	pH (SU)	Temp (deg C)	SC (µS/cm)	Sulfate, dissolved (mg/L)
COB WL	593116	2/22/08	6.99	20.6	919	90
		3/24/08	ND	ND	ND	98.2
		4/28/08	ND	ND	ND	98.7
		5/20/08	7.30	21.9	1053	98
		7/30/08	7.17	22.0	1098	97.1
		7/30/08	ND	ND	ND	100
		10/15/08	ND	ND	ND	107
		10/23/08	7.23	21.4	1075	104
		2/12/09	6.98	20.6	814	94
		4/23/09	7.29	22.2	923	98
		7/22/09	7.17	22.5	1037	97.3
		10/22/09	7.17	22.4	988	96.1
		3/3/10	7.48	21.1	1030	97.1
		4/26/10	7.36	21.9	1038	97.7
		4/26/10 DUP	7.36	21.9	1038	97.9
		7/13/10	7.18	22.3	1013	88.7
		7/14/11	6.91	21.6	1019	87.3
		7/12/12	7.07	23.2	1060	92.0
		2/5/13	7.91	21.5	1057	98.3
		7/25/13	7.23	22.7	1074	97.6
		7/9/14	7.42	21.8	1132	81.5
		2/4/15	6.90	23.3	1488	73.7
		7/27/15	7.25	22.9	1221	69.6
		1/11/16	7.25	20.4	1195	73.5
		7/20/16	7.12	22.5	1184	74.4
		1/25/17	7.07	21.5	1167	79.8
		7/14/17	7.07	21.9	1162	80.4
		1/11/18	7.07	21.7	1169	77.3
		7/9/18	7.21	21.8	1165	73.0
		7/9/18 DUP	7.21	21.8	1165	74.5
		1/7/19	6.97	21.5	1163	73.1
		1/7/19 DUP	6.97	21.5	1163	74.0
		7/15/19	7.10	22.2	1154	71.2
		1/7/20	7.21	20.5	1122	76.1
		8/4/20	7.06	23.4	1108	84.8
		1/6/21	7.09	22.8	1102	77.0
		7/12/21	7.13	22.7	1082	89.9
		8/3/22	7.02	21.7	1068	72.8
		2/1/23	7.11	20.1	1048	78.3
		8/10/23	7.00	20.2	1027	71.6
		8/10/23 DUP	7.00	20.2	1027	72.1
COLLINS	565260	2/12/08	6.88	21.6	1470	520
		5/29/08	7.01	22.0	1459	520
		7/31/08	6.86	21.6	1502	536
		10/20/08	8.44	24.7	1510	518
		2/11/09	6.68	21.4	1147	567
		4/21/09	6.92	22.5	1150	499
		7/22/09	7.00	22.4	1413	460
		10/20/09	6.60	21.9	1432	513
		2/2/10	6.98	21.2	1439	471
		4/23/10	6.99	20.6	1472	561
		7/20/10	6.69	25.0	1420	569
		7/17/13	6.97	21.6	1409	519
COOPER	623564	2/14/08	7.02	20.8	371	33
		5/14/08	8.08	22.1	419	34.2
		7/31/08	7.81	28.4	455	33.7
		10/20/08	8.44	24.7	448	31.2
		2/11/09	7.32	19.2	333	34.3
		4/21/09	8.19	24.9	346	33.4
		7/20/09	8.45	29.8	430	32.3
		10/14/09	7.85	24.6	423	33.6
		2/1/10	7.83	13.6	433	32.4
		4/22/10	7.82	17.9	433	34.5
		7/19/10	7.98	29.3	420	35.0
		10/18/10	7.12	73.1	450	33.1
		1/19/11	8.83	18.4	410	32.1
		4/11/11	7.65	21.0	442.6	34.3
		7/11/11	7.45	24.2	426.5	32.1
		11/22/11	7.86	20.6	426.1	33.7
		2/1/12	7.97	21.8	429.2	34.1
		4/10/12	7.41	22.4	426.8	32.5
		7/18/12	7.45	22.9	430	33.4
		10/9/12	7.70	22.1	432.8	34.3
		1/11/13	7.76	21.5	434.1	32.7
		4/10/13	7.72	21.1	427.5	31
		7/11/13	7.65	23.2	432.5	31.9
		10/7/13	7.68	22.7	430.5	31.4
		1/16/14	7.65	21.6	431.7	30.8
		4/10/14	7.66	22.3	433.1	31.5
		7/10/14	7.68	22.4	428.8	32.2
		10/8/14	7.37	23.5	408	31.1
		1/27/15	7.67	20.5	411	29.8
		8/3/15	7.67	22.7	421.3	27.1
		3/31/16	7.52	22.4	410	28.8
		7/25/16	7.62	22.4	420.2	27.3
		1/25/17	7.56	20.8	412.8	26.2
		7/17/17	7.48	21.6	417.1	35.6
		1/16/18	7.45	20.8	402.8	26.1
		7/16/18	7.45	21.8	415.8	25.5
		1/16/19	7.45	20.5	412.0	23.7
		7/8/19	7.50	22.3	417.1	23.4
		1/21/20	7.08	21.2	418.9	20.9
		1/21/20 DUP	7.08	21.2	418.9	21.2

APPENDIX A
Sulfate Data

Well Name	ADWR 55 Registry Number	Sample Date	pH (SU)	Temp (deg C)	SC (µS/cm)	Sulfate, dissolved (mg/L)
COOPER 988	232988	7/16/21	7.97	24.1	414.0	18.5
		7/16/21 DUP	7.97	24.1	414.0	18.5
		1/28/22	7.79	14.9	397.5	16.3
		7/8/22	8.03	28.1	417.2	17.1
		7/8/22 DUP	8.03	28.1	417.2	17.1
		1/24/23	8.06	12.9	401.6	17.6
		7/19/23	8.07	28.6	406.9	17.3
COOPER C	637069	3/20/08	6.93	21.3	2081	880
		5/5/08	6.78	22.4	2139	990
		7/15/08	6.86	22.3	2162	1040
		7/15/08 DUP	6.86	22.3	2162	960
		10/16/08	6.80	21.4	2078	1020
		1/27/09	6.92	20.5	1489	950
		4/14/09	6.85	21.6	1833	930
		7/14/09	6.75	22.1	1972	910
		10/12/09	6.70	21.8	1858	830
		1/27/10	7.27	19.6	1930	620
		4/22/10	6.76	19.5	1921	884
		7/21/10	6.84	22.9	1761	921
		10/20/10	7.16	20.9	1980	829
		1/17/11	6.95	20.5	1880	756
		4/11/11	6.82	21.0	1942	834
		8/26/11	6.84	21.8	1800	847
		2/1/12	7.13	20.5	2024	867
		4/25/12	6.83	21.5	1960	817
		7/11/12	6.48	22.8	2030	834
		10/10/12	6.98	21.2	1985	863
		2/27/13	6.58	20.9	1805	821
		5/8/13	6.41	20.7	1744	798
		8/13/13	6.69	21.2	1739	756
		11/1/13	6.61	21.2	1624	738
		2/10/14	6.69	21.6	1616	715
		5/7/14	6.48	22.5	1612	686
		7/21/14	6.63	23.1	1548	671
		11/13/14	6.87	22.4	1520	638
		9/10/15	6.84	22.8	1997	641
		8/18/16	6.92	25.2	1468	647
		7/13/17	6.99	23.0	1461	639
		7/25/18	6.95	22.2	1545	661
		8/19/19	7.01	21.3	1568	623
		8/17/20	6.97	21.9	1546	599
		7/27/21	6.88	22.5	1523	657
		7/25/22	6.93	24.8	1511	674
		9/12/23	6.94	24.4	1375	725
DODSON	644927	2/20/08	7.61	17.3	857	54
		5/12/08	7.11	21.1	1118	34.2
		7/24/08	7.25	21.6	1233	49.3
		10/13/08	7.15	20.5	1095	56.9
		1/22/09	7.20	20.4	892	51.8
		4/9/09	7.09	21.4	1103	50.1
		7/8/09	7.18	21.1	1153	55.9
		10/6/09	7.07	21.1	1140	49.3
		1/21/10	7.15	18.9	1227	44.6
		4/19/10	7.46	19.9	1261	48.8
		4/19/10 DUP	7.46	19.9	1261	48.6
		7/20/10	7.16	22.7	1260	47.5
		10/18/10	6.43	21.2	1260	49.3
		1/19/11	7.88	19.5	1120	57.9
		4/5/11	7.03	20.9	1300	49.0
		7/12/11	6.86	23.7	1352	52.9
		10/10/11	6.79	20.9	1280	50.9
		10/10/11 DUP	6.79	20.9	1280	49.6
		1/31/12	7.17	20.3	1454	50.4
		4/12/12	7.06	20.6	1492	45.4
		7/11/12	7.10	21.5	1790	54.0
		10/4/12	7.27	20.6	1626	48.7
		1/18/13	7.27	20.2	1743	51.8
		1/18/13 DUP	7.27	20.2	1743	51.6
		4/9/13	7.33	19.6	1886	74.4
		7/9/13	7.39	21.0	1825	53.6
		10/9/13	7.24	20.2	1612	63.3
		1/9/14	7.31	19.7	1586	61.4
		4/15/14	7.24	20.7	1636	58.5
		7/14/14	7.27	21.9	1651	54.4
		10/16/14	7.12	21.3	1706	53.2
		1/26/15	7.46	20.2	1650	59.5
		1/26/15 DUP	7.46	20.2	1650	59.9
		7/23/15	7.34	21.1	1716	60.8
		1/12/16	7.41	18.6	1749	49.2
		7/18/16	7.28	20.7	2233	49.1
		1/26/17	7.06	19.8	2049	45.9
		7/17/17	7.07	19.9	1920	46.1
		1/17/18	7.01	19.6	1922	45.4
		7/30/18	7.05	19.4	2408	39.1
		1/15/19	6.49	19.5	2322	38.9
		7/9/19	6.94	20.8	2362	35.3
		1/15/20	7.27	19.1	2275	42.3
		8/13/20	6.87	20.6	2215	45.2
		1/11/21	7.07	20.2	2153	48.7
		7/21/21	7.07	20.7	2101	48.4
		1/28/22	7.33	18.7	2131	45.4
		7/8/22	7.14	22.2	2117	63.7
		1/23/23	7.23	17.9	1895	48.2
		7/25/23	7.18	21.5	2026	56.4

APPENDIX A
Sulfate Data

Well Name	ADWR 55 Registry Number	Sample Date	pH (SU)	Temp (deg C)	SC (µS/cm)	Sulfate, dissolved (mg/L)
DURAZO	NR	2/10/09	7.22	18.8	848	386
		4/20/09	7.37	22.7	901	367
		7/15/09	7.57	22.8	1102	332
		10/14/09	7.17	21.9	1048	377
		2/1/10	7.30	21.1	1105	344
		4/26/10	7.22	23.1	1099	388
		7/20/10	7.28	23.0	1070	405
		10/19/10	7.28	21.9	1112	398
		1/19/11	7.94	21.6	1050	360
		4/4/11	7.20	21.9	1119	383
		7/14/11	7.01	23.6	1101	409
		10/12/11	7.23	24.9	1000	396
		2/7/12	7.26	25.3	1152	404
		4/12/12	7.41	21.8	1101	407
EAST	599796	2/8/08	7.45	19.9	423	10.6
		5/14/08	7.31	20.9	595	14.8
		7/23/08	7.34	20.8	605	11.8
		10/14/08	7.33	20.3	531	8.9
		1/20/09	7.33	20.0	482	12.5
		4/8/09	7.32	20.6	555	15.9
		7/13/09	7.33	21.2	613	13.8
		10/8/09	7.29	20.8	593	13.4
		1/25/10	7.08	19.0	585	10.7
		4/21/10	7.42	20.5	616	14.4
		4/21/10 DUP	7.42	20.5	616	13.9
		7/14/10	7.45	22.2	577.1	12.1
		10/20/10	7.64	21.2	650	12.1
		1/18/11	7.44	21.0	615.9	13.1
		4/5/11	7.19	20.8	612.5	13.8
		7/12/11	7.23	21.7	595.1	12.7
		10/12/11	7.31	21.4	599.7	15.1
		10/12/11 DUP	7.31	21.4	599.7	15.1
		1/31/12	7.24	20.0	610	12.8
		4/11/12	7.53	20.6	609.3	14.6
		7/9/12	7.20	21.1	580	14.2
		10/4/12	7.49	20.4	623.8	15.0
		1/17/13	7.46	20.0	613.0	13.1
		4/9/13	7.54	19.6	597.7	12.2
		7/9/13	7.46	21.2	603.6	12.1
		10/15/13	7.51	20.2	622.6	17.2
		1/14/14	7.54	20.2	632.2	15.5
		1/14/14 DUP	7.54	20.2	632.2	15.5
		4/8/14	7.44	20.5	634.7	15.3
		7/8/14	7.43	20.7	618.8	13.1
		10/22/14	7.23	22.8	601.0	20.7
		7/24/15	7.5	21.0	626.5	13.1
		7/12/16	7.30	21.3	615.9	14.7
		7/27/17	7.22	19.8	620.9	14.2
		7/30/18	7.26	19.8	605.9	12.4
		7/17/19	7.25	19.6	603.8	11.8
		8/13/20	7.17	20.3	612.3	12.2
		7/23/21	7.22	20.6	603.0	12.7
		7/7/22	7.54	19.6	619.1	11.9
		7/27/23	7.34	21.2	600.8	11.6
ECHAVE	219449	2/1/12	7.39	20.7	390.0	26.7
		4/23/12	7.50	22.5	440.0	26.4
		7/17/12	7.44	22.2	430	26.1
		10/9/12	7.69	21.9	404.7	26.1
		10/9/12 DUP	7.69	21.9	404.7	26.0
		1/18/13	7.61	21.7	408.5	25.4
		5/14/13	7.74	22.2	400.2	25.2
		7/17/13	7.81	22.1	406.4	24.3
		10/8/13	7.66	21.4	404.3	24.5
		1/13/14	7.68	21.0	412.4	25.7
		4/10/14	7.67	21.4	409.3	26.4
		7/17/14	7.68	21.6	405.0	26.7
		10/22/14	7.43	21.4	406.0	25.9
		8/3/15	7.88	28.7	406.8	24.6
		7/22/16	7.86	27.5	391.5	24.7
		7/28/17	7.59	25.1	403.2	25.7
		7/17/18	7.68	24.3	397.5	24.1
		7/23/19	7.54	26.3	398.3	23.0
		8/10/20	7.74	30.4	397.0	22.2
		7/21/21	7.70	26.1	390.3	22.7
		7/12/22	7.73	27.2	392.8	19.5
		7/21/23	7.67	28.7	391.6	18.9

APPENDIX A
Sulfate Data

Well Name	ADWR 55 Registry Number	Sample Date	pH (SU)	Temp (deg C)	SC (µS/cm)	Sulfate, dissolved (mg/L)
EPPELE 641	805641	3/11/08	7.98	21.4	646	21.7
		5/12/08	7.21	21.7	667	24.7
		7/21/08	7.49	23.9	605	19
		10/14/08	7.56	20.4	642	21.8
		1/21/09	7.60	21.1	500	22.7
		4/8/09	7.56	22.4	538	19.7
		7/9/09	7.43	24.3	550	17.5
		7/20/10	7.58	23.3	529.2	21.1
		10/20/10	7.66	21.0	572.1	17.2
		1/17/11	7.43	21.0	576.4	17.3
		4/5/11	7.43	21.5	569.2	16.7
		7/11/11	7.27	23.5	563.1	18.6
		7/11/11 DUP	7.27	23.5	563.1	18.3
		10/12/11	7.38	20.9	500.0	19.6
		1/31/12	7.68	19.9	560.8	18.2
		4/11/12	7.74	20.6	563.8	19.5
		4/11/12 DUP	7.74	20.6	563.8	19.6
		7/6/12	7.60	21.7	560	18.8
		10/3/12	7.84	20.7	558.8	19.5
		1/17/13	7.76	19.1	559.6	18.8
		4/8/13	7.71	20.4	564.1	17.5
		4/8/13 DUP	7.71	20.4	564.1	17.4
		7/9/13	7.66	21.9	570.1	17.5
		10/15/13	7.86	21.1	682.5	31.9
		1/14/14	7.97	19.1	602.8	29.0
		4/8/14	7.60	19.4	600.2	21.5
		7/8/14	7.65	21.0	596.9	21.6
		10/21/14	7.22	22.2	659	32.2
		7/24/15	7.60	21.2	638.1	22.6
		7/12/16	7.84	24.6	576.6	18.9
		7/12/16 DUP	7.84	24.6	576.6	18.9
		7/27/17	7.70	21.4	563.1	18.8
		7/31/18	7.78	21.6	558.9	17.8
		2/8/22	7.45	20.1	582.0	20.8
		1/11/23	ND	20.7	556.8	21.0
FLEMING	218386	7/15/10	6.98	24.2	1390	573
FRANCO 101	500101	2/6/08	7.47	19.6	1301	670
		5/5/08	6.93	23.1	1557	680
		7/14/08	7.00	22.7	1586	680
		10/15/08	7.20	20.5	1560	680
		1/22/09	7.19	20.1	1178	740
		4/14/09	7.24	23.1	1416	690
		7/13/09	7.30	27.3	1532	670
		10/12/09	7.16	24.2	1493	650
		1/26/10	6.91	18.5	1529	640
		4/23/10	7.43	15.8	1559	699
		7/13/10	7.48	28.6	901.6	188
FRANCO 383	221383	9/13/12	7.66	25.0	1005	318
		10/5/12	7.63	24.4	1002	324
		11/13/12	7.67	19.8	988.2	349
		12/3/12	7.54	19.4	1001	332
		1/15/13	7.52	13.5	1010	333
		2/6/13	7.55	18.9	1004	353
		3/7/13	7.4	20.5	979.9	338
		4/10/13	7.7	20.4	1000	335
		7/10/13	7.69	25.7	1018	335
		10/16/13	7.63	21.9	1018	350
		1/14/14	7.68	20.1	1039	345
		4/8/14	7.68	24.3	1044	351
		4/8/14 DUP	7.68	24.3	1044	330
		7/14/14	7.63	26.5	1030	349
		10/8/14	7.47	23.5	954	335
		7/27/15	7.68	27.3	1047	322
		7/18/16	7.63	26.0	1040	339
		7/20/17	7.36	24.9	1056	337
		7/27/18	7.42	25.8	1063	371
		7/24/19	7.42	24.9	1085	349
		8/12/20	7.40	26.5	1105	367
		7/22/21	7.36	26.3	1101	392
		7/7/22	7.59	28.2	1077	367
		7/27/23	7.61	28.5	1119	458
FULTZ	212447	2/27/08	6.76	21.1	1827	152
		4/21/08[1]	6.74	22.0	1739	137
		5/14/08[1]	6.88	22.3	1532	131
		6/23/08[1]	6.74	22.0	1788	111
		7/29/08[1]	6.74	22.2	1989	152
		8/28/08[1]	M	21.6	1889	137
		9/23/08[1]	6.82	21.9	1821	137
		10/22/08	6.80	21.4	1940	145
		1/21/09	6.74	21.2	1481	82
		4/9/09	6.78	21.5	1695	138
		7/13/09	7.04	23.4	1452	81
		10/8/09	7.00	21.6	1262	72
		10/8/09 DUP	7.00	21.6	1262	71.8
		1/25/10	7.11	21.8	1282	66.7
		4/20/10	7.32	21.2	1202	68.3
		7/14/10	7.75	22.2	1132	57.0
		10/20/10	7.27	20.5	1091	54.7
		1/18/11	7.23	20.4	1136	56.9
		4/5/11	7.08	22.1	1082	49.5
		4/5/11 DUP	7.08	22.1	1082	51.7
		8/25/11	6.45	23.3	940	50.6
		10/12/11	7.22	21.7	870	48.5
		7/11/22	7.39	21.3	808.2	49.8
GALLANT	502527	2/11/08	7.46	20.2	604	17.9
		7/23/08	7.26	21.2	925	20.9

APPENDIX A
Sulfate Data

Well Name	ADWR 55 Registry Number	Sample Date	pH (SU)	Temp (deg C)	SC (µS/cm)	Sulfate, dissolved (mg/L)
GARNER 635	587635	2/4/08	7.61	22.7	479	37.8
		5/5/08	7.26	24.9	468	35.8
		7/15/08	7.63	25.6	480	37.4
		10/15/08	7.65	24.1	472	36
		1/28/09	7.69	23.4	368	37.4
		4/15/09	7.83	24.1	412	36.9
		7/16/09	7.56	25.1	445	35.7
		10/14/09	7.58	25.2	446	36.1
		2/2/10	7.79	22.8	465	35.1
		4/22/10	7.84	23.7	464.1	36.9
		7/20/10	7.57	25.3	458.2	38.8
		10/19/10	8.23	25.4	510	37.9
		1/19/11	7.82	24.1	463.4	35.7
		1/19/11 DUP	7.82	24.1	463.4	35.7
		4/6/11	7.76	23.4	467.4	35.8
		7/15/11	7.19	25.0	457.40	37.7
		10/11/11	7.57	24.2	400.0	38
		2/2/12	7.38	22.7	469.5	39.2
		4/13/12	7.62	24.0	460.0	33.5
		7/11/12	7.52	24.9	520	37.7
		7/11/12 DUP	7.52	24.9	520	37.2
		10/5/12	8.09	23.1	472.9	39.1
		1/11/13	7.83	23.7	470.8	38.7
		4/15/13	7.79	23.4	471.5	40
		7/10/13	7.9	25.0	469.5	36.7
		10/11/13	7.78	24.0	476.7	38.8
		1/17/14	7.81	23.2	473.6	41
		4/15/14	7.74	23.7	470.7	40.4
		7/26/17	7.46	23.4	474.1	40.6
		7/24/18	7.48	23.9	468.1	41.7
		7/15/19	7.49	23.4	473.6	41.2
		8/6/20	7.51	24.2	473.6	36.3
		7/21/21	7.52	24.1	471.9	38.0
		7/12/22	7.62	25.9	468.6	37.2
		7/24/23	7.63	25.5	472.4	37.3
GGOOSE 547	628547	5/21/08	7.08	22.7	856	199
		8/15/08	7.02	24.8	915	178
		10/29/08	7.27	22.6	897	216
		2/24/09	7.06	23.8	851	186
		5/14/09	7.15	23.9	743	174
		8/19/09	7.20	23.8	887	175
		11/11/09	7.15	23.1	897	188
GL-03	539782	3/4/08	7.43	25.7	417	20.3
		5/22/08	7.06	25.3	647	43.3
		8/4/08	7.10	26.8	673	36.1
		11/12/08	7.21	25.2	478	34.9
		2/26/09	7.05	26.5	603	54.8
		5/5/09	6.91	28.1	682	43.9
		8/1/09	7.12	27.4	768	43.1
		11/10/09	6.96	27.0	692	49
		3/2/10	7.36	24.9	693	43.4
		3/2/10 DUP	7.36	24.9	693	45.1
		4/9/10	6.17	25.6	556	48.1
		7/7/10	6.48	26.3	546	44.4
		2/1/12	6.57	24.1	559	42.0
HARDT	NR	2/5/13	7.15	17.5	670.6	17.7
HOBAN	805290	2/27/08	6.93	22.1	1359	510
		5/7/08	6.88	22.3	1532	670
		7/14/08	6.88	23.1	1719	690
		10/16/08	6.98	22.4	1624	692
		1/28/09	6.82	21.3	1220	580
		4/15/09	7.07	21.7	1423	700
		7/14/09	6.78	22.6	1551	670
		10/15/09	6.75	22.7	1487	670
		10/15/09 DUP	6.75	22.7	1487	780
		3/2/10	7.12	19.8	1575	580
		8/31/11	6.64	22.3	1772	893
		12/14/11	6.68	20.2	1870	944
		2/1/12	6.74	20.9	1900	993
		4/19/12	6.81	21.5	1805	868
		7/11/12	6.86	21.4	1906	1110
		10/17/12	6.74	22.0	1846	1040
		2/15/13	6.64	20.7	1934	954
		5/8/13	6.6	21.4	1903	1060
		8/13/13	6.85	21.6	1925	1030
		11/1/13	6.74	21.0	1920	1070
		2/10/14	6.64	21.0	1950	991
		5/7/14	6.69	21.1	1958	1030
		7/21/14	6.69	21.6	1903	1030
		11/13/14	6.88	21.7	1965	1020
		9/10/15	6.82	22.1	1922	1030
		8/18/16	6.77	22.0	1922	1050
		7/13/17	6.77	21.7	1924	1270
		7/13/17 DUP	6.77	21.7	1924	1050
		7/25/18	7.01	22.2	1907	998
		8/7/19	6.90	22.2	1798	923
		9/8/20	7.15	24.4	1487	637
		9/20/21	6.91	21.7	1182	477
		7/25/22	7.19	22.1	868	309
		7/25/22 DUP	7.19	22.1	868	310
		9/12/23	7.37	21.6	744	334

APPENDIX A
Sulfate Data

Well Name	ADWR 55 Registry Number	Sample Date	pH (SU)	Temp (deg C)	SC (µS/cm)	Sulfate, dissolved (mg/L)
HOWARD 312	221312	8/14/12	8.35	26.3	629.3	69.2
		10/16/12	8.18	26.6	648.3	68.1
		2/6/13	8.18	24.1	650.3	71.9
		4/9/13	8.2	24.3	621	67.5
		7/12/13	8.25	26.8	624.9	67.9
		10/16/13	8.12	25.6	623.7	70.2
		1/8/14	8.22	24.8	620.1	70.8
		4/10/14	8.14	26	621.7	66.1
		4/10/14 DUP	8.14	26	621.7	68.2
		7/14/14	8.16	26.6	618.3	69.1
		10/10/14	7.99	26.4	621.0	66.8
		7/31/15	8.17	27.4	618.8	67.5
		7/27/16	8.12	26.3	612.6	67.9
		7/21/17	8.00	26.0	616.4	65.8
		7/23/18	8.05	26.1	614.7	70.7
		7/9/19	7.96	25.9	607.8	65.6
		7/21/20	8.07	26.7	611.7	75.7
		7/21/20 DUP	8.07	26.7	611.7	73.1
		7/28/21	7.97	25.9	609.2	63.1
		7/13/22	8.04	25.5	614.9	65.3
		7/26/23	8.11	26.4	610.5	70.3
HOWARD NR	NR	3/4/08	7.06	20.4	1280	571
		5/8/08	6.95	21.0	1494	673
		7/14/08	7.00	21.1	1566	610
		10/15/08	7.00	20.6	1598	683
		1/28/09	6.82	21.0	1203	640
		1/28/09 DUP	6.82	21.0	1203	640
		4/15/09	7.02	21.5	1397	620
		7/15/09	7.16	21.5	1539	640
		10/12/09	6.89	21.4	1414	600
		1/27/10	7.35	20.0	1714	440
		1/27/10 DUP	7.35	20.0	1714	520
		4/21/10	7.16	20.8	1490	710
		7/19/10	6.94	24.6	1350	548
		10/18/10	6.47	21.4	1420	568
		1/17/11	7.12	19.8	1370	520
		4/11/11	7.20	20.6	1489	616
		8/26/11	7.11	23.2	1160	498
		10/11/11	7.1	21.0	1220	545
		10/11/11 DUP	7.1	21.0	1220	538
		2/1/12	7.29	20.6	1367	630
		4/13/12	6.99	21.2	1508	632
		9/13/12	7.12	21.9	1576	699
		10/16/12	7.06	21.1	1417	576
		2/6/13	7.06	20.3	1499	679
		4/9/13	7.38	19.4	1319	521
		7/12/13	7.40	21.6	1430	590
		10/16/13	7.15	20.3	1319	522
		1/8/14	7.24	20.3	1267	462
		4/10/14	7.23	20.6	1262	471
		7/14/14	7.18	21.1	1300	496
		7/14/14 DUP	7.18	21.1	1300	495
		10/10/14	6.93	23.2	1339	413
		7/31/15	7.16	21.9	1316	484
		7/21/17	6.98	20.1	1278	447
		7/9/19	6.90	20.1	1304	480
		7/28/21	6.98	19.9	1238	496
		7/25/23	7.05	21.2	1368	544

APPENDIX A
Sulfate Data

Well Name	ADWR 55 Registry Number	Sample Date	pH (SU)	Temp (deg C)	SC (µS/cm)	Sulfate, dissolved (mg/L)
KEEFER	209744	2/6/08	7.70	19.0	378	6.8
		5/6/08	7.19	20.3	512	9
		7/16/08	7.21	21.4	539	8
		10/28/08	7.32	20.1	534	21.2
		1/28/09	7.42	19.5	356	6.1
		4/16/09	7.29	20.0	452	7.7
		7/14/09	7.35	22.1	533	7
		10/13/09	7.24	20.7	516	8.7
		1/26/10	7.15	18.8	483	7.3
		4/20/10	7.44	20.5	540.9	8.77
		7/15/10	7.50	22.2	535.8	8.84
		10/19/10	6.72	20.2	470	7.89
		1/18/11	7.45	20.6	450	7.24
		4/6/11	7.48	19.1	546.2	8.04
		7/18/11	7.19	23.2	492.3	7.79
		10/11/11	7.39	20.7	486.9	7.98
		2/6/12	7.36	20.3	482.0	6.84
		4/23/12	7.23	21.6	500	7.14
		7/17/12	7.40	21.0	500	7.29
		10/9/12	7.58	20.1	506.6	8.47
		1/10/13	7.55	19.3	466.3	6.37
		4/18/13	7.58	20	475.9	7.3
		7/11/13	7.67	20.8	485.1	7.23
		7/11/13 DUP	7.67	20.8	485.1	7.24
		10/7/13	7.53	20.6	458.9	6.39
		1/7/14	7.61	19.7	464.8	6.54
		4/9/14	7.59	20.2	473.3	6.61
		7/10/14	7.49	21.6	460.5	6.66
		10/8/14	7.32	22.3	429	6.35
		7/21/15	7.62	22.1	462.2	6.09
		7/25/16	7.42	22.2	477.9	6.81
		7/25/17	7.31	19.4	499.5	7.23
		2/23/18	7.31	19.5	472.7	6.60
		7/9/18	7.35	19.9	494.4	6.25
		1/11/19	7.26	18.4	466.2	6.59
		7/10/19	7.23	19.4	495.1	7.03
		1/17/20	7.56	18.0	486.5	7.07
		7/22/20	7.35	20.2	496.3	7.19
		1/12/21	7.30	20.1	495.8	7.04
		7/13/21	7.30	20.4	505.3	9.24
		1/25/22	7.34	18.5	500.5	7.32
		7/7/22	7.47	20.8	510.2	7.42
		7/7/22 DUP	7.47	20.8	510.2	7.41
		1/24/23	7.44	19.5	477.4	7.93
		7/19/23	7.39	20.0	515.7	6.78
LAIR	236750	1/31/23	7.83	14.8	534.0	11.2
		7/27/23	7.50	27.7	556.0	11.3
MARCELL	NR	8/26/11	7.12	25.1	1390	669
		9/26/11	6.63	22.1	1502	638
		11/22/11	7.29	21.0	1536	687
		2/1/12	7.42	20.8	1557	705
		4/13/12	7.15	21.8	1560	668
		7/13/12	6.86	22.3	1730	650
		10/17/12	7.18	21.3	1546	660
		10/17/12 DUP	7.18	21.3	1546	657
		2/6/13	7.25	19.8	1553	714
		2/6/13 DUP	7.25	19.8	1553	714
		4/10/13	7.07	19.9	1578	695
		7/15/13	7.09	21.4	1617	724
MCCONNELL 265	539265	2/20/08	7.21	21.1	1435	720
		5/6/08	6.77	21.6	1668	737
		7/15/08	6.91	22.3	1775	700
		10/15/08	6.82	21.3	1686	703
		1/28/09	6.85	21	1274	660
		4/15/09	7.04	21.3	1472	657
		7/15/09	7.01	22.2	1607	662
		10/12/09	6.77	21.7	1594	666
		1/26/10	6.71	21.5	1641	685
		4/22/10	6.95	20.1	1691	811
		7/21/10	6.86	23.5	1560	805
		10/18/10	6.97	22.0	1704	775
		1/19/11	7.38	20.6	1610	711
		4/8/11	7.04	19.8	1775	810
		7/12/11	6.60	23.7	1702	790
		10/11/11	7.18	21.8	1590	845
		2/7/12	7.14	20.6	1842	847
		4/11/12	6.82	21.4	1781	833
		7/6/12	6.88	22.4	1827	851
		10/8/12	7.07	20.9	1862	934
		1/10/13	6.89	20.9	1854	902
		1/10/13 DUP	6.89	20.9	1854	889
		4/18/13	7.11	20.4	1889	884
		7/10/13	7.14	22.1	1897	898
		10/14/13	7.00	21.0	1911	908
		1/8/14	7.23	20.9	1942	985
		4/14/14	6.99	20.7	1913	963
		7/14/14	6.95	21.8	1941	975
		10/7/14	6.84	22.2	1976	968
		7/31/15	7.04	21.9	1970	949
		7/20/17	6.73	20.6	1964	905

APPENDIX A
Sulfate Data

Well Name	ADWR 55 Registry Number	Sample Date	pH (SU)	Temp (deg C)	SC (µS/cm)	Sulfate, dissolved (mg/L)
MCCONNELL 459	221459	7/27/12	8.25	26.5	510.0	41
		10/8/12	8.12	25.3	517.3	43.4
		1/15/13	8.06	24.5	512.6	37.4
		4/10/13	8.14	23.5	487.0	35.5
		7/10/13	8.10	25.5	480.7	34.5
		10/14/13	8.04	24.9	486.7	34.6
		1/8/14	8.20	23.7	489.4	37.1
		4/14/14	8.08	24.6	474.3	35.9
		9/9/14	8.12	25.1	465.7	33.0
		10/7/14	7.94	25.7	478.0	34.1
		7/31/15	8.13	25.9	453.6	28.5
		7/26/16	8.08	25.6	455.3	30.4
		7/20/17	7.93	24.9	449.8	32.3
		7/17/18	7.93	24.8	446.7	28.6
		7/10/19	7.90	25.0	447.9	27.2
		8/10/20	8.01	25.5	450.9	28.6
		7/27/21	7.92	24.7	447.2	28.1
		7/12/22	8.03	25.7	450.0	28.6
		8/4/23	8.19	24.2	448.5	27.7
METZLER	35-71891	3/5/08	7.27	21.6	1055	317
		5/15/08	7.12	22.8	1051	329
		7/31/08	7.16	22.5	1078	317
		10/20/08	7.24	22.2	1080	305
		10/20/08 DUP	7.24	22.2	1080	326
		2/11/09	7.12	21.3	818	321
		4/20/09	7.22	23.2	845	313
		7/15/09	7.41	22.9	1031	293
		7/15/09 DUP	7.41	22.9	1031	309
		10/14/09	7.1	22.7	989	315
		2/1/10	7.22	21.7	1021	286
		5/18/10	7.56	21.0	1053	330
		7/16/10	7.20	24.1	1007	330
		10/19/10	7.15	22.6	1006	319
		1/19/11	7.55	21.1	930	298
		4/4/11	7.03	23.3	1018	323
		7/12/11	7.07	22.3	993.0	312
		10/12/11	7.27	22.1	910	301
		2/7/12	7.36	21.5	1019	326
		4/12/12	7.34	21.1	1009	320
MOORE	538847	2/20/08	7.69	22.2	362	7.1
		5/8/08	7.09	22.4	432	7.5
		7/16/08	7.34	23.0	482	9.8
		10/29/08	7.32	22.4	452	19.2
		1/29/09	7.11	21.7	328	6.6
		4/16/09	7.40	22.1	374	6.4
		7/15/09	7.44	23.3	439	5.8
		10/13/09	7.36	22.6	429	7.1
		1/26/10	7.54	19.6	423	6.3
		4/22/10	7.47	20.6	433	7.40
		7/15/10	7.44	24.1	431.3	7.54
		7/15/10 DUP	7.44	24.1	431.3	7.11
		10/19/10	6.79	22.1	430	7.14
		1/18/11	7.48	21.1	390	6.42
		4/6/11	7.39	21.4	426.3	6.70
		7/13/11	6.91	23.2	423.4	7.62
		10/11/11	7.31	22.5	419.0	7.31
		1/31/12	7.35	21.7	430	7.21
		4/23/12	7.34	22.8	470	6.99
		4/23/12 DUP	7.34	22.8	470	7.05
		7/17/12	7.36	22.9	430	7.01
		7/17/12 DUP	7.36	22.9	430	6.99
		10/8/12	7.64	21.4	433.2	7.51
		1/10/13	7.50	20.8	439.9	7.16
		4/19/13	7.68	21.6	434.7	7.25
		7/11/13	7.56	22.9	442.2	7.14
		10/7/13	7.59	21.5	431.8	6.99
		10/13/14	7.47	22.0	433	6.72
		8/3/15	7.61	22.9	446.7	7.12
		7/14/16	7.55	23.0	445.8	7.86
		7/25/17	7.28	21.1	455.5	7.98
		8/1/18	7.24	26.9	436.8	8.10
		7/9/19	6.97	22.7	443.9	6.26
		7/22/20	7.35	21.9	447.0	8.03
		7/28/21	7.31	21.1	445.6	8.51
		7/7/22	7.39	21.5	449.4	7.96
		8/4/23	7.65	21.9	445.1	8.24

APPENDIX A
Sulfate Data

Well Name	ADWR 55 Registry Number	Sample Date	pH (SU)	Temp (deg C)	SC (µS/cm)	Sulfate, dissolved (mg/L)
NESS	509127	7/24/08	7.35	26.5	563	50.2
		10/16/08	7.47	21.4	542	48.9
		1/26/09	7.39	17.2	422	52.3
		5/11/09	7.52	28.8	472	45.9
		8/11/09	7.56	28.7	525	39.8
		11/12/09	7.53	24.5	537	51.3
		2/2/10	7.67	19.7	535	48.7
		4/21/10	7.70	23.5	518.9	42.1
		7/19/10	7.58	28.9	524.7	48.1
		1/18/11	7.49	21.8	536.6	50.1
		7/12/11	7.48	26.3	520.0	43.5
		2/3/12	7.58	21.1	538.2	49.0
		7/10/12	7.20	26.8	380	40.1
		7/10/12 DUP	7.20	26.8	380	39.2
		1/9/13	7.57	19.1	549.6	53.9
		7/8/13	7.84	27.9	539.2	46.8
		1/6/14	7.61	20.3	542.4	53.4
		7/7/14	7.60	25.3	536.6	48.3
		7/20/15	7.75	27.4	560.8	54.3
		7/11/16	7.60	28.5	545.2	49.6
		7/27/17	7.39	26.4	545.8	55.2
		7/31/18	7.42	26.4	550.7	54.1
		7/11/19	7.03	27.1	517.3	30.5
		8/14/20	7.73	28.0	538.1	46.5
		7/19/21	7.82	26.8	583.1	47.9
		7/14/22	7.68	29.8	554.2	49.8
		7/27/23	7.85	29.5	523.0	39.9
NOTEMAN	212483	2/5/08	6.70	19.9	1317	310
		5/13/08	6.67	23.0	1445	272
		7/24/08	6.68	24.2	1539	274
		10/23/08	6.57	23.2	1643	356
		1/19/09	6.38	22.9	1098	322
		4/7/09	6.56	23.8	1375	303
		7/8/09	6.55	24.6	1405	260
		10/5/09	6.48	24.1	1442	281
		1/20/10	6.79	20.3	1450	289
		4/19/10	6.81	22.4	1446	307
		7/19/10	6.77	24.6	1438	309
		10/18/10	6.08	24.6	1430	280
		1/19/11	6.84	22.3	1446	266
		4/4/11	6.72	22.9	1446	276
		4/4/11 DUP	6.72	22.9	1446	279
		7/11/11	6.78	23.9	1406	272
		10/11/11	6.96	23.4	1250	286
		2/3/12	6.68	21.3	1370	301
		4/23/12	6.68	24.0	1580	291
		7/9/12	6.57	24.7	1360	265
		7/9/12 DUP	6.57	24.7	1360	265
		10/4/12	6.80	23.6	1412	287
		1/17/13	6.69	23.3	1417	288
		4/8/13	6.90	22.3	1409	280
		7/9/13	6.89	24.3	1400	278
		10/14/13	6.75	23.2	1528	355
		1/10/14	6.83	22.2	1440	311
		4/10/14	6.84	23.2	1426	301
		7/7/14	6.80	23.2	1423	289
		12/10/14	6.66	22.8	1528	366
		7/23/15	6.87	24.1	1424	287
		7/15/16	6.79	23.9	1412	257
		7/27/17	6.57	22.9	1383	265
		7/24/19	6.61	22.6	1359	235
		7/20/21	6.53	23.5	1328	211
		7/27/23	6.86	23.2	1327	188
NOTEMAN HOUSE	212483	2/3/12	7.06	13.5	1520	324
NSD-02	527587	2/5/08	ND	ND	ND	43
		7/7/08	8.02	21.0	609.00	44
NSD-03	527586	2/5/08	ND	ND	ND	70.7
		7/7/08	7.64	21.0	570.00	58.9

APPENDIX A
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Well Name	ADWR 55 Registry Number	Sample Date	pH (SU)	Temp (deg C)	SC (µS/cm)	Sulfate, dissolved (mg/L)
NWC-02	562944	10/27/08	7.47	22.2	438	5.1
		2/12/09	7.58	21.6	330	6.6
		4/23/09	7.39	23.8	373	6.4
		7/21/09	7.62	23.9	408	5
		10/21/09	7.32	22.6	436	6.8
		2/3/10	7.68	19.6	423	8.5
		4/21/10	7.57	22.1	413	7.26
		7/20/10	7.36	23.7	412.5	6.87
		10/19/10	7.42	22.5	416.2	7.39
		1/18/11	7.47	23.2	390	6.43
		4/6/11	7.27	22.9	413.5	6.4
		7/15/11	7.03	22.5	416.3	7.24
		10/13/11	7.45	21.9	370	7.31
		1/30/12	7.39	21.2	431.3	7.78
		4/25/12	7.42	22.4	370	8.42
		7/18/12	7.33	22.5	430	6.99
		10/10/12	7.58	21.7	423.9	7.46
		1/10/13	7.58	21.8	396.4	9.02
		4/17/13	7.64	21.2	426.2	7.52
		7/12/13	7.65	22.0	429.3	6.91
		10/10/13	7.49	21.2	433.4	7.05
		10/10/13 DUP	7.49	21.2	433.4	7.14
		1/13/14	7.6	21.2	426.7	7.03
		4/7/14	7.59	21.3	432.9	7.34
		7/10/14	7.57	22.0	431.6	7.65
		10/13/14	7.48	23.1	424	7.04
		2/12/15	7.42	21.0	436	7.11
		7/30/15	7.62	22.2	436.2	6.31
		1/12/16	7.81	20.2	421.5	6.17
		7/26/16	7.54	21.4	434.4	6.81
		1/26/17	7.41	21.0	421.2	6.81
		7/18/17	7.29	21.0	435.8	7.15
		1/16/18	7.39	20.8	427.3	6.76
		7/18/18	7.34	20.7	435.3	6.50
		1/7/19	7.39	20.6	430.6	7.07
		7/9/19	7.14	21.4	442.2	5.75
		1/16/20	7.55	20.5	430.6	7.83
		7/22/20	7.47	21.3	437.9	8.15
		1/12/21	7.42	21.3	422.1	8.55
		7/22/21	7.36	20.6	442.6	9.64
		2/1/22	7.31	20.3	432.1	8.48
		7/14/22	7.51	26.0	422.2	9.04
		2/2/23	7.38	20.9	449.4	8.30
		8/9/23	7.73	21.2	473.1	9.22
NWC-03	203321	3/4/08	ND	ND	ND	560
		6/9/08	ND	ND	ND	524
		10/27/08	7.07	21.9	1374	489
		2/12/09	7.06	20.2	1023	412
		4/23/09	6.98	21.9	1129	466
		4/23/09 DUP	6.98	21.9	1129	460
		7/21/09	7.21	22.9	1194	458
		10/21/09	6.94	21.8	1224	444
		2/3/10	7.24	20.7	1214	444
		4/21/10	7.22	21.6	1178	433
		7/20/10	7.04	22.8	1229	477
		10/19/10	7.22	21.3	1172	432
		1/18/11	7.09	22.8	1120	386
		4/6/11	7.19	21.7	1114	361
		7/15/11	6.91	21.8	1094	386
		10/13/11	7.23	21.6	960	353
		1/30/12	7.15	21.5	1061	379
		4/25/12	7.17	21.6	920	346
		4/25/12 DUP	7.17	21.6	920	347
		7/18/12	7.05	22.1	1080	354
		10/10/12	7.31	21.1	1029	354
		10/10/12 DUP	7.31	21.1	1029	353
		1/10/13	7.18	20.8	1051	370

APPENDIX A
Sulfate Data

Well Name	ADWR 55 Registry Number	Sample Date	pH (SU)	Temp (deg C)	SC (µS/cm)	Sulfate, dissolved (mg/L)
NWC-04	551849	3/4/08	ND	ND	ND	240
		6/9/08	ND	ND	ND	231
		10/27/08	7.32	25.0	856	162
		1/22/09	7.23	22.9	688	184
		2/12/09	7.20	19.8	699	181
		2/12/09 DUP	7.20	19.8	699	198
		3/11/09	7.15	23.4	846	197
		4/23/09	7.21	24.1	797	188
		5/28/09	7.01	24.1	933	210
		6/24/09	6.93	25.6	792	169
		7/21/09	7.48	24.3	859	193
		8/19/09	7.12	24.5	906	183
		9/23/09	7.16	23.8	953	202
		10/21/09	7.18	24.3	875	191
		11/18/09	7.24	22.9	909	191
		12/16/09	7.28	22.3	926	193
		2/3/10	7.49	22.3	844	167
		3/8/10	7.33	22.5	880	182
		4/21/10	7.34	22.8	913	218
		5/18/10	7.68	25.8	901.3	210
		6/15/10	7.31	24.5	917.5	212
		7/20/10	7.28	28.3	873.2	188
		8/25/10	7.55	24.8	820.9	196
		9/29/10	7.38	24.5	920.2	205
		10/19/10	7.34	23.6	870.2	195
		11/4/10	7.53	23.9	853.2	197
		12/14/10	7.41	23.6	856.8	182
		1/18/11	7.31	24.1	860	194
		2/17/11	7.46	22.3	848.6	169
		3/17/11	7.44	24.1	888.1	182
		4/5/11	7.32	23.4	878.7	196
		5/11/11	7.32	23.1	868.1	175
		6/17/11	7.28	23.7	856.3	204
		7/15/11	7.06	23.5	875.1	202
		8/25/11	7.32	25.1	780	195
		9/26/11	6.56	26.2	875.4	198
		9/26/11 DUP	6.56	26.2	875.4	199
		10/13/11	7.46	23.3	770	198
		11/22/11	7.36	22.9	853.5	201
		12/8/11	7.33	22.3	872.2	207
		1/30/12	7.34	23.4	914.4	217
		2/17/12	7.45	22.9	898.1	203
		3/15/12	7.39	23.9	888.2	207
		4/25/12	7.16	23.4	870	204
		5/22/12	7.25	23.9	970	178
		5/22/12	7.25	23.9	970	178
		6/6/12	7.27	24.4	1040	195
		7/18/12	7.25	23.7	880	205
		8/28/12	7.49	24.2	893.3	208
		9/13/12	7.40	23.9	883.7	205
		10/10/12	7.48	23.2	883.6	207
		11/13/12	7.56	21.7	849.8	211
		12/3/12	7.40	23.0	898.6	208
		1/10/13	7.37	22.2	903.1	210
		2/7/13	7.54	23.0	917.5	228
		3/7/13	7.49	22.4	892.4	222
		4/17/13	7.43	22.6	903.8	223
		5/14/13	7.53	23.2	881.7	214
		6/5/13	7.29	33.9	862.7	201
		7/12/13	7.29	23.5	897.2	211
		7/12/13 DUP	7.29	23.5	897.2	200
		8/9/13	7.43	23.5	898.6	207
		9/5/13	7.56	23.8	893.6	214
		10/10/13	7.39	22.6	873.7	197
		11/6/13	7.58	21.8	852.3	202
		12/3/13	7.50	23.1	843.4	199
		1/13/14	7.12	21.9	885.6	197
		2/5/14	7.46	22.4	833.3	198
		3/5/14	7.59	22.8	813.3	168
		4/7/14	7.49	22.9	834.2	187
		5/13/14	7.56	23.4	819.8	186
		6/23/14	7.62	24.5	806.7	188
		7/10/14	7.57	23.8	826.2	187

APPENDIX A
Sulfate Data

Well Name	ADWR 55 Registry Number	Sample Date	pH (SU)	Temp (deg C)	SC (µS/cm)	Sulfate, dissolved (mg/L)
NWC-04	551849	8/11/14	7.59	23.5	824.0	187
		9/9/14	7.50	24.0	789.5	163
		10/13/14	7.39	24.5	802	175
		11/14/14	7.46	22.9	835.4	183
		12/10/14	7.33	23.3	840.7	189
		2/12/15	7.81	20.3	856.4	177
		4/9/15	7.41	24.6	823.2	182
		7/30/15	7.60	24.5	935.6	195
		10/6/15	7.54	23.2	866.8	225
		1/12/16	7.57	22.7	811.2	188
		4/5/16	7.47	23.9	847.7	192
		7/26/16	7.45	23.8	907.3	187
		11/2/16	7.32	23.0	900.6	181
		1/26/17	7.41	23.1	851.9	195
		4/6/17	7.33	23.2	846.8	176
		7/18/17	7.23	23.9	844.7	201
		11/14/17	7.31	23.3	860.1	193
		1/16/18	7.30	23.4	809.6	181
		5/2/18	7.41	23.7	854.1	192
		7/18/18	7.32	23.2	863.5	195
		10/16/18	7.40	23.6	850.1	210
		10/16/18 DUP	7.40	23.6	850.1	210
		1/7/19	7.38	24.0	848.3	196
		5/14/19	7.39	23.9	845.5	190
		5/14/19 DUP	7.39	23.9	845.5	190
		7/9/19	7.06	24.9	857.2	195
		10/15/19	7.38	24.3	855.4	195
		1/16/20	7.59	23.3	863.1	199
		7/22/20	7.34	25.0	861.3	200
		11/23/20	7.49	24.1	913.5	182
		1/12/21	7.41	24.2	840.4	198
		4/1/21	7.38	23.6	839.3	194
		7/22/21	7.29	23.5	862.5	190
		12/14/21	7.34	23.6	864.3	195
		2/1/22	7.22	23.7	839.5	181
		5/3/22	7.47	24.1	850.7	170
		7/14/22	7.42	25.5	819.9	189
		12/30/22	7.79	13.6	978.6	181
		2/2/23	7.19	21.2	985.3	181
		4/25/23	7.20	23.8	931.7	199
		8/9/23	7.53	21.8	899.9	174
		11/28/23	7.48	23.2	881.2	187
NWC-06	575700	6/9/08	ND	ND	ND	7.2
		10/27/08	7.35	23.3	414	6.4
		2/12/09	7.54	21.8	306	8
		4/23/09	7.30	24.5	354	7.3
		7/21/09	7.63	23.5	388	6.4
		10/21/09	7.26	23.2	413	8
		2/3/10	7.61	20.5	404	7.5
		2/3/10 DUP	7.61	20.5	404	7.4
		4/21/10	7.54	22.4	387	8.49
		7/20/10	7.33	26.0	388.6	8.59
		10/19/10	7.49	22.7	394.5	8.32
		1/18/11	7.45	23.4	380	8.24
		4/6/11	7.42	23.1	388.3	7.76
		4/6/11 DUP	7.42	23.1	388.3	7.73
		7/15/11	7.09	22.9	394.3	8.36
		10/13/11	7.51	22.3	340	8.48
		1/30/12	7.47	22.1	402.7	8.44
		4/25/12	7.34	22.5	410	7.11
		7/18/12	7.39	22.8	380	8.60
		10/10/12	7.62	21.9	393.6	9.33
		1/10/13	7.47	21.3	429.2	7.55
		4/17/13	7.66	21.1	404.1	8.82
		7/12/13	7.59	22.4	404.1	8.40
		10/10/13	7.56	21.6	403.3	8.38
		1/13/14	7.64	21.3	401.8	8.78
		4/7/14	7.65	21.7	403.7	8.62
		7/10/14	7.68	22.4	405.9	8.97
		7/10/14 DUP	7.68	22.4	405.9	8.99
		10/13/14	7.59	23.4	393	8.51
		2/12/15	7.60	21.2	405	8.12
		2/12/15 DUP	7.60	21.2	405	8.09
		7/30/15	7.66	22.6	406.5	8.20
		1/12/16	7.74	20.7	397.5	8.50
		7/26/16	7.58	21.8	409.1	8.69
		1/26/17	7.42	21.3	394.0	8.64
		7/18/17	7.35	21.4	405.6	8.35
		1/16/18	7.45	21.1	400.4	8.85
		7/18/18	7.38	21.2	407.2	8.35
		1/7/19	7.42	21.0	405.1	8.54
		7/9/19	7.09	22.0	411.3	6.99
		1/16/20	7.51	20.8	403.5	8.74
		7/22/20	7.47	21.9	412.0	8.75
		1/12/21	7.40	21.7	374.9	8.83
		7/22/21	7.35	21.1	412.0	9.46
		2/1/22	7.35	20.8	400.4	8.37
		7/14/22	7.45	22.8	391.4	9.02
		7/14/22 DUP	7.45	22.8	391.4	9.06
		2/2/23	7.46	21.7	414.4	8.26
		8/9/23	7.54	21.4	411.3	9.38

APPENDIX A
Sulfate Data

Well Name	ADWR 55 Registry Number	Sample Date	pH (SU)	Temp (deg C)	SC (µS/cm)	Sulfate, dissolved (mg/L)
OLMOS	224745	1/13/16	7.61	20.4	421.0	8.04
		7/14/16	7.58	22.5	445.9	7.97
		7/25/17	7.29	20.6	434.7	8.25
		7/13/18	7.31	20.6	446.1	7.58
		7/13/18 DUP	7.31	20.6	446.1	7.46
		7/8/19	7.07	21.5	429.7	6.55
		7/8/19 DUP	7.07	21.5	429.7	7.78
		8/5/20	7.20	21.3	438.3	7.52
		7/29/21	7.35	20.4	428.1	7.93
		7/12/22	7.39	20.5	441.3	8.32
		8/1/23	7.36	21.9	429.9	8.51
OSBORN	643436	2/25/08	7.35	22.4	508	16.4
		5/13/08	7.22	22.2	576	17.2
		7/22/08	7.24	22.9	618	17.7
		7/22/08 DUP	7.24	22.9	618	17.5
		10/16/08	7.39	22.4	595	15.9
		1/20/09	7.33	22.4	469	16
		4/7/09	7.25	24.0	542	17
		8/18/09	7.16	24.6	643	17.4
		10/5/09	7.14	22.9	599	17.9
		1/21/10	7.47	19.5	591	15.6
		4/19/10	7.60	21.5	601.9	19.3
		7/12/10	7.69	24.2	594.0	18.4
		7/12/11	7.87	29.8	575.9	19.5
		2/3/12	8.15	15.3	390	19.2
		1/8/13	7.88	10.5	544.4	20.4
		7/8/13	7.56	39.2	510.3	19.2
		1/10/14	7.89	18.1	580.5	18.7
		7/7/14	7.84	29.2	496.3	18.0
		7/11/16	7.56	37.8	515.4	18.6
		7/31/17	7.74	25.6	548.4	19.3
		7/31/17 DUP	7.74	25.6	548.4	18.7
PALMER	578819	2/14/08	7.91	17.5	435	15.9
		5/13/08	7.92	22.9	508	16.6
		7/22/08	7.64	25.8	548	16.2
		10/16/08	7.61	17.0	527	15.9
		1/20/09	7.33	19.4	441	14.3
		4/8/09	7.65	19.1	475	15.4
		7/8/09	7.47	27.2	521	14.3
		10/5/09	7.81	22.2	538	16.2
		1/20/10	7.72	11.9	510	13.8
		4/22/10	7.97	13.6	520	16.7
		7/12/10	7.62	30.2	518.8	15.7
		10/18/10	8.13	22.1	511.9	16.5
		1/18/11	7.24	17.1	517.0	15.7
		4/5/11	8.04	19.0	499.2	15.8
		7/12/11	7.65	26.6	517.6	16.4
		10/11/11	7.85	22.0	510.4	17
		2/3/12	7.94	10.0	521.4	17.1
		4/11/12	7.52	18.7	519.8	17.3
		7/10/12	7.30	27.9	390	16.6
		10/3/12	8.09	25.7	526.7	17.6
		10/3/12 DUP	8.09	25.7	526.7	17.5
		1/9/13	7.9	17.5	532.8	16.8
		4/8/13	8.07	18.4	534.1	17
		7/17/13	7.74	22.3	531.0	17.2
		10/14/13	8.03	20.1	533.1	16.9
		1/6/14	7.82	11.9	517.4	17.4
		4/7/14	7.96	18.3	534.8	17.3
		7/7/14	8.07	23.9	534.4	18.3
		10/23/14	7.86	19.6	536.0	17.5
		7/20/15	7.95	25.9	540.1	17.6
		7/31/18	7.65	29.6	534.8	17.1
		7/11/19	8.16	28.0	538.6	16.7
		8/14/20	7.75	26.5	534.8	16.3
		8/14/20 DUP	7.75	26.5	534.8	16.3
		7/20/21	8.41	27.2	488.7	16.8
		7/8/22	7.85	27.6	534.6	15.5
		7/27/23	8.23	29.2	510.5	16.0

APPENDIX A
Sulfate Data

Well Name	ADWR 55 Registry Number	Sample Date	pH (SU)	Temp (deg C)	SC (µS/cm)	Sulfate, dissolved (mg/L)
PANAGAKOS	35-76413	4/21/08	6.80	20.5	1228	410
		7/21/08	6.95	21.9	1390	444
		10/13/08	6.86	21.2	1386	480
		10/13/08 DUP	6.86	21.2	1386	500
		1/22/09	6.92	19.7	997	397
		4/9/09	6.81	21.7	1228	431
		4/9/09 DUP	6.81	21.7	1228	426
		7/9/09	6.89	22.3	1469	490
		10/6/09	6.83	21.1	1328	472
		1/21/10	7.06	18.8	1291	318
		4/20/10	7.25	21.0	1528	608
		7/20/10	6.90	24.0	1560	706
		10/18/10	6.38	22.1	1530	568
		7/14/11	6.93	23.3	1070	223
		8/25/11	7.17	23.4	1170	222
		2/6/12	6.98	20.8	1017	166
		2/29/12	7.09	20.3	1080	362
		3/15/12	7.02	21.4	1138	282
		4/12/12	6.90	20.9	1265	346
		4/12/12 DUP	6.90	20.9	1265	352
		7/9/12	6.82	22.2	1140	292
		11/27/12	7.51	20.1	1164	274
		2/6/13	7.05	19.9	1054	212
		4/9/13	7.24	19.7	1105	232
		7/10/13	7.26	21.4	1218	329
		10/15/13	7.14	20.5	1109	240
		1/10/14	7.23	19.6	1079	227
		4/16/14	7.17	20.4	1103	228
		7/17/14	7.13	21.4	1357	467
		10/16/14	6.9	22.1	1104	193
		1/26/15	7.11	19.6	1349	428
		7/27/15	7.03	22.2	1445	469
		1/11/16	7.18	18.9	1402	443
		1/11/16 DUP	7.18	18.9	1402	452
		2/24/17	7.19	19.1	1270	218
		2/24/17 DUP	7.19	19.1	1270	217
		7/17/17	7.13	20.2	1219	232
		1/18/18	7.08	19.0	1151	223
		1/18/18 DUP	7.08	19.0	1151	226
		7/30/18	6.96	20.5	1389	384
		1/15/19	6.91	18.5	1464	444
		7/8/19	6.90	21.4	1480	467
		7/8/19 DUP	6.90	21.4	1480	476
		1/14/20	7.29	17.7	1450	457
		1/14/20 DUP	7.29	17.7	1450	461
		8/13/20	7.21	20.6	1254	231
		1/11/21	7.20	20.2	1189	227
		7/22/21	7.12	21.4	1126	185
		1/31/22	7.23	19.5	1173	245
		7/7/22	7.02	22.4	1408	463
		2/3/23	7.20	17.8	1490	548
		7/25/23	7.36	21.7	1194	244
PARRA	576415	2/11/08	7.08	21.8	1067	360
		5/15/08	7.10	21.8	1200	405
		7/31/08	7.00	22.4	1248	423
		7/31/08 DUP	7.00	22.4	1248	404
		10/20/08	7.07	22.9	1246	387
		2/13/09	7.24	22.1	965	405
		4/20/09	7.10	22.6	971	372
		7/20/09	7.17	23.9	1174	375
		10/20/09	6.80	22.5	1188	388
		2/1/10	7.07	21.5	1197	353
		4/22/10	6.91	20.3	1219	417
		7/14/10	7.13	22.2	1201	403
		7/14/10 DUP	7.13	22.2	1201	391
		10/20/10	7.51	21.4	1270	411
		1/19/11	7.49	20.8	1130	391
		4/4/11	6.90	22.6	1207	382
		7/12/11	6.76	23.7	1156	404
		10/12/11	7.44	22.3	1070	406
		2/7/12	7.64	21.4	1212	428
		4/13/12	7.49	21.1	1204	402
		4/13/12 DUP	7.49	21.1	1204	390
		7/18/12	7.03	22.6	1210	418
		7/18/12 DUP	7.03	22.6	1210	419
		10/9/12	7.30	21.3	1209	428
		1/11/13	7.64	20.3	1217	413
		4/11/13	7.29	21.2	1206	427
		7/17/13	7.21	21.9	1212	411
		10/18/13	7.18	21.3	1212	406
		1/8/14	7.21	20.8	1221	437
		4/15/14	7.18	21.5	1213	416
		7/21/14	7.30	22.4	1193	432
		10/6/14	7.12	21.5	1133	413
		8/3/15	7.24	22.3	1193	391
		7/22/16	7.17	22.6	1151	392
		7/25/17	6.98	20.9	1194	426
		7/10/19	6.83	21.6	1170	382
		7/22/21	7.00	21.2	1137	360
		7/28/23	7.26	22.1	1083	329

APPENDIX A
Sulfate Data

Well Name	ADWR 55 Registry Number	Sample Date	pH (SU)	Temp (deg C)	SC (µS/cm)	Sulfate, dissolved (mg/L)
PIONKE 395	613395	2/6/08	7.53	19.9	910	394
		5/7/08	7.08	21.4	1100	391
		7/17/08	6.99	21.9	1209	420
		10/27/08	7.03	20.8	1175	460
		1/29/09	7.13	19.9	847	385
		4/14/09	7.58	20.7	1053	411
		7/13/09	7.35	21.5	1165	472
		10/7/09	7.43	21.1	1100	403
		3/8/10	7.72	18.6	1201	406
		4/26/10	7.22	21.9	1224	438
		7/15/10	7.32	22.3	1158	474
		10/18/10	7.33	21.3	1277	473
		10/18/10 DUP	7.33	21.3	1277	487
		1/19/11	7.32	19.9	1222	471
		4/8/11	7.13	19.2	1232	467
		7/12/11	7.30	23.8	1226	500
		10/11/11	6.98	20.8	1100	502
		2/1/12	7.25	17.5	1230	481
		2/1/12 DUP	7.25	17.5	1230	495
		4/12/12	7.17	22.1	1218	508
		7/11/12	6.59	22.9	1280	439
		10/17/12	7.16	22.3	1136	419
PIONKE 517	221517	9/18/12	7.91	23.4	395.8	14
		10/11/12	7.75	22.8	394.7	14.9
		1/9/13	7.79	22.6	389.9	14.3
		4/17/13	7.74	22.1	391.9	14.6
		7/16/13	7.84	22.9	391.5	13.9
		10/17/13	7.73	22.7	391.5	13.8
		2/5/14	7.75	21.5	394.2	14.9
		4/9/14	7.71	22.9	400.9	14.0
		7/11/14	7.76	23.7	388.9	14.6
		10/7/14	7.46	25.8	406	14.0
		7/22/15	7.79	23.3	392.1	13.9
		7/26/16	7.67	23.2	389.2	14.1
		7/18/17	7.44	22.5	388.7	13.2
		7/24/18	7.53	22.3	385.7	13.4
		7/11/19	7.19	23.0	393.7	13.4
		8/12/20	7.48	22.8	393.1	13.2
		7/23/21	7.46	22.0	388.9	14.7
		7/12/22	7.49	25.5	379.0	13.6
		7/21/23	7.87	23.8	384.4	12.9
POOL	509518	2/20/08	7.95	20.9	497	134
		5/19/08	7.40	22.2	585	122
		7/31/08	7.47	22.3	599	117
		10/21/08	7.51	21.4	598	120
		2/13/09	7.62	20.8	473	141
		4/21/09	7.73	22.6	470	124
		7/20/09	7.76	22.9	579	122
		10/20/09	7.22	21.2	577	122
		2/24/10	7.56	22.4	577	110
		4/22/10	7.75	20.2	606.5	130
		7/14/10	7.38	21.7	580.9	117
		10/20/10	7.79	21.3	620	115
		1/20/11	7.71	20.5	530	112
		1/20/11 DUP	7.71	20.5	530	114
		4/6/11	7.37	21.6	567.4	114
		8/1/18	7.47	24.2	580.9	113
		7/10/19	6.78	29.1	588.6	118
		8/10/20	7.40	25.6	581.5	108
		7/20/21	7.55	24.2	562.8	109
		8/9/23	7.53	21.9	559.6	107
POWER	624535	2/12/08	7.11	18.9	428	15.5
		7/22/08	7.10	21.7	795	20.2
POWER 639	222639	1/16/14	7.38	20.9	1004	234
		2/5/14	7.35	20.8	1004	328
		3/5/14	7.39	21.3	991.4	187
		4/15/14	7.38	21.6	999.4	249
		5/13/14	7.40	21.4	990.9	206
		6/23/14	7.44	21.9	886.4	117
		7/17/14	7.40	22.1	861.3	168
		8/11/14	7.50	21.8	864.9	136
		9/9/14	7.49	21.7	850.4	105
		1/27/15	7.27	22.0	922	291
		3/10/15	7.35	21.9	1032	265
		4/28/15	7.43	20.6	1002	308
		5/14/15	7.32	21.3	991.4	269
		6/11/15	7.26	22.0	1019	308
		7/30/15	7.33	22.3	1014	287
		1/14/16	7.46	19.7	985.7	298
		7/27/16	7.27	22.2	992.0	301
		1/26/17	7.14	20.9	989.9	317
		7/12/17	7.16	20.8	1010	244
		1/10/18	7.25	20.7	856.9	191
		7/25/18	7.35	20.8	814.9	205
		1/14/19	7.20	20.6	828.4	174
		7/12/19	7.16	21.7	510.4	90.8
		1/15/20	7.47	20.5	748.9	180
		8/13/20	7.37	21.7	753.5	173
		1/13/21	7.29	21.4	836.8	218
		7/19/21	7.35	20.7	807.2	185
		1/31/22	7.64	19.8	773.5	159
		7/7/22	7.38	24.0	828.4	188
		1/25/23	7.37	19.6	824.2	215
		7/20/23	7.51	22.5	810.8	200

APPENDIX A
Sulfate Data

Well Name	ADWR 55 Registry Number	Sample Date	pH (SU)	Temp (deg C)	SC (µS/cm)	Sulfate, dissolved (mg/L)
RAMIREZ	216425	2/4/08	7.47	21.7	408	7.6
		5/6/08	7.19	22.7	405	8.3
		7/17/08	7.32	24.5	439	8.8
		10/27/08	7.41	22.2	412	7.3
		1/29/09	7.24	22.2	301	8.3
		4/16/09	7.49	22.4	344	7.6
		7/10/09	7.52	23.9	411	6.4
		10/6/09	7.30	23.8	388	8.4
		1/25/10	7.48	22.4	390	7.8
		4/21/10	7.45	22.6	397	9.04
		7/21/10	7.38	25.1	420	8.98
		10/19/10	7.91	23.7	450	10.8
		1/18/11	7.52	23.1	380	8.18
		4/11/11	7.24	23.2	408.5	8.65
		7/18/11	7.27	25.4	402.6	8.44
		10/12/11	7.40	23.3	412.7	8.55
		1/30/12	7.38	22.3	412.2	8.80
		4/10/12	7.40	23.2	404.5	8.70
		7/6/12	7.32	24.2	415.7	8.97
		10/8/12	7.61	22.5	412.0	9.14
		10/8/12 DUP	7.61	22.5	412.0	9.07
		1/17/13	7.52	22.2	409.6	8.82
		4/19/13	7.6	22.1	413.9	8.63
		7/15/13	7.58	23.6	416.2	8.19
		10/7/13	7.68	22.6	412.7	8.37
		1/13/14	7.63	21.9	409.8	8.79
		4/14/14	7.55	22.2	417.5	8.67
		7/10/14	7.58	23.2	413.5	8.92
		10/17/14	7.36	23	422.0	8.67
		7/21/15	7.54	23.7	414.6	8.46
		7/14/16	7.55	23.6	420.5	8.57
		7/26/17	7.37	22.0	414.5	9.00
		7/25/18	7.35	22.1	420.2	8.35
		7/9/19	6.95	22.8	432.8	6.67
		8/6/20	7.31	22.6	423.1	7.96
		7/29/21	7.30	21.6	409.2	8.82
		7/29/21 DUP	7.30	21.6	409.2	8.68
		7/7/22	7.55	21.8	405.8	9.12
		7/21/23	7.49	21.7	424.4	7.75
RAY	803772	2/15/08	7.30	19.1	1540	159
		4/21/08[1]	6.92	21.3	1418	125
		5/13/08[1]	7.05	20.9	1418	123
		6/23/08[1]	6.87	21.1	1593	130
		7/29/08[1]	6.98	21.8	1411	120
		8/28/08[1]	M	21.1	1519	129
		9/23/08[1]	6.90	22.2	1519	125
		10/22/08	6.96	20.8	1604	145
		1/20/09	6.92	20.6	1355	88
		4/8/09	6.85	21.4	1759	178
		7/9/09	6.93	22.3	1434	126
		10/7/09	6.98	21.3	1288	127
		1/26/10	6.82	20.6	1352	125
		4/20/10	7.14	21.5	1318	134
		7/14/10	7.11	23.8	1313	137
		10/20/10	7.14	19.6	1368	127
		1/17/11	7.04	20.8	1451	132
		1/17/11 DUP	7.04	20.8	1451	125
		4/5/11	7.03	20.8	1387	132
		7/11/11	7.07	22.8	1345	126
		10/12/11	7.06	21.6	1250	130
		1/31/12	7.28	20.5	1360	131
		4/11/12	7.03	20.6	1359	131
		7/6/12	7.11	22.1	1430	129
		10/3/12	7.12	21.1	1464	130
		1/17/13	7.05	19.5	1527	126
		1/17/13 DUP	7.05	19.5	1527	140
		4/8/13	7.32	20	1476	131
		7/9/13	7.18	21.4	1451	128
		10/15/13	7.13	20.8	1487	135
		1/14/14	7.25	19.2	1433	133
		4/8/14	7.09	20.8	1502	146
		7/8/14	7.14	21.4	1409	147
		10/22/14	6.88	21.6	1422	147
		8/3/15	7.22	21.4	1360	133
		7/12/16	7.03	21.6	1419	133
		7/26/17	6.93	19.8	1288	142
		7/31/18	6.89	19.8	1493	138
		7/31/18 DUP	6.89	19.8	1493	139
		7/19/19	6.86	19.7	1465	132
		8/13/20	6.80	20.5	1362	136
		7/23/21	6.88	20.5	1701	209
		7/23/21 DUP	6.88	20.5	1701	209
		7/6/22	7.17	21.4	1509	146
		7/26/23	6.95	21.5	1577	148
ROGERS 596	573596	10/19/09	6.89	23.3	1360	590
		11/5/09	6.79	21.9	1418	540
		2/25/10	6.99	19.6	1603	520
		4/22/10	7.21	18.2	1641	710
		1/18/18	6.85	18.9	1431	655
		7/26/18	6.85	22.9	1644	735
		1/14/19	6.83	17.9	1651	757
		7/22/19	6.84	25.9	1714	835
		1/22/20	6.68	19.4	1621	831
		8/11/20	6.86	23.1	1518	666
		7/22/21	6.90	22.3	1439	651
		2/1/22	6.93	17.9	1537	663
		7/8/22	6.96	23.0	1386	541
		1/13/23	ND	18.3	1497	621
		7/20/23	6.89	27.8	1487	807

APPENDIX A
Sulfate Data

Well Name	ADWR 55 Registry Number	Sample Date	pH (SU)	Temp (deg C)	SC (µS/cm)	Sulfate, dissolved (mg/L)
ROGERS 803	641803	2/7/08	7.45	18.6	601	138
		4/21/08[1]	7.32	21.4	552	128
		5/8/08[1]	7.14	21.2	622	141
		6/23/08[1]	7.06	22.9	660	129
		7/29/08[1]	6.78	23.1	339	134
		8/28/08[1]	7.18	21.6	635	128
		9/23/08[1]	7.24	21.9	599	133
		10/22/08	7.36	21.3	650	144
		2/10/09	7.42	17.9	475	141
		4/29/09	7.52	21.9	506	211
		8/3/09	7.39	24.2	674	150
		7/16/10	7.46	23.9	643.4	169
		10/19/10	7.32	21.1	643.8	154
		10/19/10 DUP	7.32	21.1	643.8	154
		1/20/11	7.44	18.1	610	143
		4/8/11	7.30	20.2	658.2	160
		7/14/11	7.12	23.5	653.5	166
		10/12/11	7.41	21.8	665.3	175
		1/30/12	7.40	20.0	580	171
		4/23/12	7.32	23.9	720	166
		7/13/12	7.26	24.0	820	171
		7/13/12 DUP	7.26	24.0	820	166
		10/10/12	7.41	24.3	671.4	177
		1/15/13	7.37	16.9	681.1	174
		4/15/13	7.57	23.8	698	190
		7/15/13	7.39	23.6	697.8	184
		10/16/13	7.47	25.4	710.6	185
		1/9/14	7.46	21.4	701.8	190
		4/11/14	7.52	26.1	711.3	190
		7/18/14	7.48	24.9	709.2	192
		9/30/17	7.03	21.5	1396	621
ROGERS E	216018	2/4/08	7.40	21.0	435	4.6
		5/7/08	7.18	22.2	415	5.9
		7/17/08	7.28	23.0	446	7.1
		10/27/08	7.38	21.4	434	15.7
		2/10/09	7.51	20.7	322	5.4
		4/16/09	7.48	22.0	361	4.9
		7/13/09	7.34	22.6	420	3.8
		10/6/09	7.31	22.3	407	5.8
		1/25/10	7.52	20.6	414	5.1
		4/21/10	7.44	21.1	421	6.04
		7/21/10	7.37	23.8	430	6.47
		10/19/10	7.80	22.8	460	5.92
		1/18/11	7.39	21.5	390	5.50
		4/11/11	7.19	22.7	427.2	6.13
		7/18/11	7.12	24.3	418.5	6.00
		10/13/11	7.52	22.2	370	5.99
		1/30/12	7.38	20.8	427.2	6.22
		4/10/12	7.37	22.1	421.8	6.31
		7/17/12	7.32	22.7	420	5.85
		10/17/12	7.55	21.7	429.0	6.04
		1/17/13	7.46	21.5	431.5	6.01
		4/18/13	7.63	21.3	433.5	6.26
		7/17/13	7.59	22.1	427.7	6.05
		7/17/13 DUP	7.59	22.1	427.7	6.28
		10/10/13	7.51	21.9	436.9	5.8
		1/7/14	7.49	21.0	434.0	6.24
		4/14/14	7.59	21.4	431.2	6.11
		7/10/14	7.54	22.4	428.5	6.41
		10/17/14	7.31	22.6	452	5.81
		7/30/15	7.57	22.9	430.3	5.90
		7/14/16	7.58	22.7	430.2	6.71
		7/26/17	7.31	21.3	429.3	6.86
		2/23/18	7.32	21.0	423.0	6.20
		7/13/18	7.33	20.8	430.3	6.32
		1/11/19	7.27	20.6	418.5	6.51
		7/12/19	7.31	20.8	429.5	6.76
		1/20/20	6.77	21.1	432.8	6.30
		8/7/20	7.35	21.5	431.2	6.62
		1/12/21	7.33	21.3	437.8	6.79
		7/14/21	7.34	20.6	446.7	8.94
		2/1/22	7.46	20.4	455.1	7.65
		7/11/22	7.43	22.0	470.3	8.65
		1/24/23	7.42	20.0	501.8	9.61
		7/21/23	7.54	22.3	486.0	8.58

APPENDIX A
Sulfate Data

Well Name	ADWR 55 Registry Number	Sample Date	pH (SU)	Temp (deg C)	SC (µS/cm)	Sulfate, dissolved (mg/L)
RUIZ	531770	2/5/08	7.73	18.2	445	263
		5/15/08	7.23	25.9	965	265
		7/30/08	6.99	22.1	999	243
		10/20/08	7.04	22.0	995	238
		2/12/09	6.94	20.9	748	254
		4/21/09	7.18	22.3	759	227
		8/3/09	7.05	22.9	1029	221
		10/28/09	7.09	20.6	920	227
		2/1/10	7.08	20.9	934	236
		4/26/10	7.01	22.5	920.1	240
		7/20/10	7.08	22.5	880	240
		10/20/10	7.52	20.7	970	231
		1/18/11	7.19	20.2	860	213
		4/8/11	7.09	19.8	923.3	236
		8/26/11	6.85	22.6	800	220
		10/13/11	7.19	21.5	810	230
		2/7/12	7.28	20.7	915.6	230
		2/7/12 DUP	7.28	20.7	915.6	228
		4/13/12	7.04	21.1	896.5	203
		7/18/12	6.87	21.6	900	214
		10/9/12	7.18	21.4	890.6	229
		1/11/13	7.21	20.7	895.8	219
		1/11/13 DUP	7.21	20.7	895.8	211
		4/11/13	7.26	21.9	876.8	229
		7/25/13	7.13	21.4	887.3	228
		10/17/13	7.23	20.8	891.9	210
		1/8/14	7.32	20.5	886.8	220
		4/15/14	7.26	21.2	873.5	215
		8/11/14	7.32	21.2	869.2	221
		10/21/14	7.09	21.4	886	209
		10/21/14 DUP	7.09	21.4	886	212
		1/27/15	7.14	21.4	853	215
		7/30/15	7.2	21.9	865.8	191
		1/12/16	7.29	19.9	831.3	190
		7/25/16	7.17	21.2	854.5	183
		1/26/17	7.09	20.4	844.2	194
		7/25/17	7.06	20.5	850.8	190
		1/16/18	7.03	20.1	829.4	185
		7/24/18	7.02	20.7	827.2	180
		1/15/19	7.00	19.8	824.6	170
		7/10/19	6.86	20.9	828.4	169
		1/16/20	7.20	19.6	809.9	176
RUIZ 146	232146	8/12/20	7.12	22.1	673.5	117
		1/12/21	7.22	21.1	632.6	103
		7/21/21	7.29	20.9	635.0	102
		2/1/22	7.32	20.4	618.3	89.7
		7/12/22	7.27	23.0	620.1	94.1
		1/13/23	ND	21.0	623.5	92.5
		7/21/23	7.35	20.9	629.0	93.4

APPENDIX A
Sulfate Data

Well Name	ADWR 55 Registry Number	Sample Date	pH (SU)	Temp (deg C)	SC (µS/cm)	Sulfate, dissolved (mg/L)
SCHWARTZ	210865	2/8/08	7.52	21.5	506	158
		4/21/08	7.23	21.7	563	122
		5/19/08	7.38	22.4	629	130
		6/23/08	7.02	22.1	674	129
		7/29/08	7.25	22.4	955	245
		8/28/08	M	22.3	669	131
		9/23/08	7.27	22.2	607	124
		10/22/08	7.31	22.0	653	135
		11/19/08	7.38	21.1	612	140
		12/17/08	6.78	21.6	472	144
		1/29/09	7.08	22.0	475	124
		2/23/09	7.33	22.1	610	123
		4/17/09	7.46	22.2	520	120
		7/10/09	7.52	22.8	651	116
		7/10/09 DUP	7.52	22.8	651	117
		10/6/09	7.27	22.5	613	120
		1/22/10	7.79	19.5	664	133
		4/21/10	7.50	20.9	638	129
		7/21/10	7.43	22.0	650	134
		10/19/10	7.76	21.2	710	147
		1/17/11	7.15	21.2	620	116
		4/11/11	7.20	21.5	656.9	128
		7/18/11	7.36	23.7	612.4	116
		10/12/11	7.35	22.4	635.8	124
		2/6/12	7.32	21.3	629.7	116
		2/6/12 DUP	7.32	21.3	629.7	114
		4/10/12	7.48	21.6	626.1	120
		7/16/12	7.31	21.9	710	117
		10/17/12	7.48	21.6	645	121
		3/13/13	7.57	20.7	623.6	118
		5/14/13	7.61	21.5	629.7	112
		7/15/13	7.49	22.1	770.2	198
		10/14/13	7.55	20.9	633.3	109
		1/13/14	7.61	20.6	663.1	125
		4/9/14	7.48	21.5	635.9	110
		7/18/14	7.45	21.8	790.5	216
		10/22/14	7.28	22	646.0	119
		2/3/15	7.35	22.4	714	125
		2/3/15 DUP	7.35	22.4	714	126
		8/4/15	7.49	22.5	641.8	109
		1/14/16	7.55	20.6	678.3	134
		7/27/16	7.51	22.3	621.3	103
		7/27/16 DUP	7.51	22.3	621.3	102
		1/24/17	7.33	20.3	650.6	120
		7/11/17	7.29	20.6	627.0	103
		7/11/17 DUP	7.29	20.6	627.0	102
		1/9/18	7.26	20.5	619.5	97.2
		7/11/18	7.33	20.4	622.9	96.2
		1/9/19	7.24	20.4	671.2	131
		1/22/20	6.86	21.0	721.7	155
		7/22/20	7.26	21.2	686.1	138
		1/8/21	7.28	21.0	709.3	156
		1/8/21 DUP	7.28	21.0	709.3	148
		7/20/21	7.30	20.4	726.5	156
		2/1/22	7.38	17.3	732.7	162
		7/13/22	7.35	22.8	715.2	145
		1/13/23	ND	21.1	733.3	161
		1/13/23 DUP	ND	21.1	733.3	159
		7/20/23	7.33	23.7	659.6	113
		7/20/23 DUP	7.33	23.7	659.6	115
SRC	211345	4/23/08	7.57	25.8	380	19
		8/5/08	7.40	27.2	452	15.4
SWAN	NR	2/13/08	7.28	20.7	467	24.1
		5/14/08	7.24	21.2	479	23.7
		7/24/08	7.35	22.4	506	18
		10/16/08	7.32	20.7	488	19
		1/20/09	7.05	20.4	391	19.8
		4/7/09	7.21	21.5	447	19.9
		7/8/09	7.18	23.1	473	18.5
		10/5/09	7.18	21.4	496	19.7
		1/21/10	7.49	19.5	501	18.4
		4/21/10	7.42	20.3	512.1	20.9
		7/19/10	7.13	23.8	518.6	22.2
		1/18/11	7.19	17.8	483.6	18.7
		7/12/11	7.05	22.4	478.2	19.1
		2/3/12	7.40	20.5	484.5	20.1
		2/3/12 DUP	7.40	20.5	484.5	19.5
		7/10/12	7.00	22.7	370	19.4
		1/11/13	7.38	20.0	489.0	19.3
		7/8/13	7.45	22.8	489.7	19.4
		1/10/14	7.65	19.7	428.6	19.2
		7/714	7.44	21.8	464.7	19.4
		7/20/15	7.45	23.0	491.2	18.8
		7/20/15 DUP	7.45	23.0	491.2	18.9
		7/11/16	7.30	22.6	504.7	18.6
		7/27/17	7.13	20.9	500.8	18.5
		7/31/18	7.10	20.9	557.7	20.1
TERRY	229470	3/18/19	7.46	20.6	419.4	6.63
		7/19/19	7.31	20.1	447.3	6.25
		8/13/20	7.38	21.6	453.6	6.76
		7/28/21	7.38	20.0	457.8	7.08
TERRY 101	234101	9/3/21	7.41	20.6	413.0	10.7
		7/27/23	7.58	22.6	412.3	9.62

APPENDIX A
Sulfate Data

Well Name	ADWR 55 Registry Number	Sample Date	pH (SU)	Temp (deg C)	SC (µS/cm)	Sulfate, dissolved (mg/L)
THOMPSON 341	218341	5/29/13	7.22	24.4	415.9	7.32
		8/9/13	7.57	22.2	420.0	7.62
		10/9/13	7.49	21.6	425.2	7.54
		1/16/14	7.53	21.5	432.7	7.48
		4/14/14	7.50	21.6	425.8	7.68
		7/21/14	7.48	22.3	414.2	8.02
		10/22/14	7.23	22.3	430	8.02
		8/3/15	7.50	23.1	425.7	7.52
		7/15/16	7.45	22.4	420.8	8.46
		7/28/17	7.24	21.2	422.4	8.33
		7/26/18	7.34	21.0	420.6	8.27
		7/10/19	7.15	21.7	418.3	6.44
		8/12/20	7.29	21.6	420.3	7.85
		7/29/21	7.23	20.8	417.6	8.21
		7/7/22	7.38	21.5	419.3	8.24
		8/23/23	7.39	21.2	418.9	9.39
TM-02A	522574	3/4/08	8.67	22.6	302	12.3
		5/23/08	7.75	22.9	321	14.7
		8/15/08	7.84	26.4	369	14.4
		10/30/08	8.07	23.9	375	21.9
		2/24/09	8.10	24.8	340	20.3
		5/6/09	8.06	26.7	320	18.7
		8/12/09	8.34	26.9	398	20
		11/4/09	8.16	26.3	381	21.8
		3/10/10	8.13	25.2	351	21.4
		3/10/10 DUP	8.13	25.2	351	21.3
		4/6/10	6.96	24.6	363	25.6
		7/6/10	7.38	24.6	343	22.1
		2/10/11	6.93	20.2	359	22.9
		7/13/11	7.92	24.8	349	22.5
		2/2/12	7.89	22.2	360	23.0
		8/14/12	7.65	24.6	366	23.4
		2/15/13	7.72	22.2	369	22.1
		8/27/13	7.72	24.7	414	23.5
		2/18/14	7.54	24.3	388	24.5
		8/12/14	7.62	24.7	395	25.6
		8/1/17	7.84	24.7	333	21.5
		8/8/19	8.02	24.4	359	19.4
		7/15/21	8.14	24.9	359	20.1
		8/22/23	8.19	24.3	414	20.5
TM-03	522575	5/20/08	7.51	22.2	778	110
		8/6/08	7.08	21.6	828	97
		11/12/08	7.47	20.5	590	128
		2/26/09	7.21	21.8	737	107
		2/26/09 DUP	7.21	21.8	737	102
		5/13/09	7.47	22.2	695	109
		8/18/09	7.48	22.4	822	98
		11/10/09	7.55	21.8	761	106
		3/2/10	7.56	21.6	748	99
		4/14/10	7.55	20.6	635	103
		7/7/10	7.19	21.4	566	103
		2/1/12	7.48	21.1	744	112
TM-06 MILLER	522695	2/27/08	7.44	19.6	457	13.9
		5/20/08	7.50	20.7	506	32.7
		8/4/08	7.41	20.7	529	31.3
		10/29/08	7.55	20.2	531	34.5
		2/26/09	7.18	20.4	574	32.7
		5/13/09	7.35	20.9	465	30.6
		8/18/09	7.50	20.9	560	30.9
		8/18/09 DUP	7.50	20.9	560	29.9
		11/12/09	7.53	20.4	530	31.1
		4/14/10	7.35	19.4	461	29.0
		7/2/10	7.24	20.1	438	29.8
		7/21/11	7.1	20.1	516	31.7
		7/9/12	6.82	20.8	505	33.5
		2/14/13	6.92	19.6	527	31.1
		8/19/13	7.21	19.9	556	32.5
		7/21/14	7.17	19.9	551	33.0
		7/26/17	7.27	20.4	521	34.5
		7/31/19	7.40	20.5	531	35.6
		7/21/21	7.49	20.5	536	37.3
		8/7/23	7.29	20.5	626	37.6

APPENDIX A
Sulfate Data

Well Name	ADWR 55 Registry Number	Sample Date	pH (SU)	Temp (deg C)	SC (µS/cm)	Sulfate, dissolved (mg/L)
TM-07	522576	3/6/08	7.54	20.8	726	22.5
		5/22/08	6.96	20.1	385	22.9
		8/6/08	7.04	22.8	519	22.2
		11/4/08	7.76	20.6	347	31.2
		2/20/09	7.77	19.9	376	22.5
		5/13/09	7.30	22.9	559	130
		8/17/09	7.60	22.6	442	134
		11/3/09	7.85	21.8	441	134
		3/2/10	7.67	21.6	422	124
		5/25/10	7.77	21.2	398	42.6
		7/6/10	7.58	22.0	350	44.7
		2/11/11	6.87	20.1	393	24.9
		7/21/11	6.90	21.4	402	41.7
		2/9/12	7.15	23.0	670	171
		8/13/12	6.83	21.7	415	25.4
		2/27/13	6.81	19.9	380	25.6
		8/28/13	7.36	21.2	369	25.0
		2/13/14	6.99	20.4	372	27.4
		8/21/14	7.35	20.6	358	48.5
		2/4/15	7.58	21.0	375	102
		9/15/15	7.36	21.5	411	91.3
		3/14/16	7.46	21.4	419	130
		9/15/16	7.47	21.2	638	123
		3/1/17	7.59	20.8	581	129
		8/2/17	7.56	21.5	563	129
		2/12/18	7.78	20.4	544	133
		8/6/18	7.52	21.8	586	116
		2/5/19	7.71	20.7	568	114
		8/19/19	7.50	21.1	619	94.1
		2/10/20	7.61	20.8	614	117
		3/17/21	7.39	20.8	621	109
		8/16/21	7.32	22.0	612	114
		2/1/22	7.26	20.7	618	113
		8/1/22	7.30	22.1	624	114
		3/6/23	7.32	20.7	618	101
		9/6/23	7.55	21.0	662	102
TM-08 SWAN	522817	2/13/08	7.63	24.1	511	24.1
		5/14/08	7.44	24.4	480	12.6
		7/23/08	7.76	28.1	522	12.6
TM-10 USBP	522696	12/8/11	6.95	19.6	381	16.8
		3/15/12	7.85	20.2	382.3	15.1
		4/24/12	7.88	21.0	280	13.4
		4/24/12 DUP	7.88	21.0	280	13.3
		9/13/12	8.09	21.1	407	13.3
		10/19/12	8.17	21.0	428.2	12.8
		3/7/13	8.33	21.2	415.1	12.7
		4/17/13	8.27	20.3	423.9	12.8
		7/23/13	8.16	21.4	426.1	13.2
		11/6/13	7.90	21.3	386.5	4.81
		11/6/13 DUP	7.90	21.3	386.5	4.64
		1/15/14	7.91	21.1	424.4	3.98
		5/15/14	7.98	20.4	410.6	5.12
		7/15/14	7.86	21.4	421.9	5.46
		10/16/14	7.51	22.0	439	4.16
		1/28/15	7.75	23.0	413	3.96
		7/24/15	7.87	22.6	478.8	4.38
		2/2/16	7.95	19.8	493.5	5.32
		7/13/16	7.73	22.0	514.9	6.67
		1/27/17	7.75	21.3	418.4	4.81
		7/17/17	7.77	23.5	409.5	8.01
		1/8/18	7.60	20.8	387.3	6.80
		7/9/18	7.92	23.5	391.4	8.65
		1/8/19	7.54	20.6	381.8	12.8
		7/16/19	7.67	21.5	378.6	15.0
		1/6/20	7.78	20.1	376.0	14.9
		8/3/20	7.62	21.4	374.5	14.1
		1/5/21	7.75	22.5	369.5	14.5
		7/12/21	7.66	20.5	365.5	15.6
		1/24/22	7.72	20.7	363.0	13.2
		7/19/22	7.96	23.5	361.2	13.5
		2/1/23	7.77	20.7	361.3	12.1
		8/3/23	7.90	21.2	360.6	12.3

APPENDIX A
Sulfate Data

Well Name	ADWR 55 Registry Number	Sample Date	pH (SU)	Temp (deg C)	SC (µS/cm)	Sulfate, dissolved (mg/L)
TM-15 MILLER	522699	2/27/08	7.66	21.9	344	14
		5/23/08	7.54	22.1	371	14.4
		8/5/08	7.42	23.3	413	13.7
		10/28/08	7.63	22.6	387	18.6
		10/28/08 DUP	7.63	22.6	387	18.8
		2/26/09	7.57	22.0	373	14.6
		5/13/09	7.61	23.1	344	13.7
		8/17/09	7.73	23.2	398	14.2
		11/3/09	7.73	23.4	414	14.8
		2/24/10	7.66	22.8	381	14.4
		4/27/10	7.71	23.0	383.6	14.9
		7/20/10	7.77	23.0	324	14.3
		7/12/11	7.36	23.2	380	14.2
		7/10/12	7.04	23.7	379	14.9
		2/12/13	6.96	21.7	393	14.6
		9/4/13	7.2	22.8	412	14.8
		7/22/14	7.18	23.2	407	14.6
		9/8/15	7.19	23.0	411	14.7
		9/14/16	7.45	23.1	381	14.5
		8/1/17	7.38	22.9	384	14.8
		7/18/18	7.46	23.1	386	14.8
		8/19/19	7.59	22.7	387	14.6
		8/24/20	7.61	22.9	386	14.9
		7/12/21	7.73	23.3	387	14.8
		7/25/22	7.53	22.9	396	16.1
		8/3/23	7.64	22.2	443	14.7
TM-16	522578	3/5/08	7.17	20.6	1351	497
		5/22/08	7.05	20.5	1304	522
		8/6/08	6.67	20.9	1410	466
		11/5/08	7.14	19.8	1162	547
		2/20/09	6.90	21.1	1292	492
		5/13/09	6.93	21.1	1179	484
		8/19/09	7.08	21.2	1354	468
		11/10/09	7.02	21.0	1310	505
		3/2/10	7.13	20.4	1313	451
		4/14/10	6.90	19.9	987	484
		7/2/10	6.81	20.8	858	474
		7/14/11	6.97	20.5	1285	511
		7/16/11	6.97	20.5	1285	513
		7/9/12	6.95	21.0	1292	544
		8/15/13	6.86	20.3	1374	539
		8/4/14	6.79	20.6	1368	550
		7/12/17	6.87	20.9	1321	536
		7/30/19	7.15	21.0	1310	479
		7/15/21	7.06	21.2	1302	499
		8/7/23	7.20	20.8	1430	481
TM-19A	522581	3/6/08	8.02	22.2	240	56.1
		5/22/08	7.36	24.0	501	64.5
		8/6/08	7.32	22.6	494	55.3
		11/18/08	7.79	24.3	365	66.3
		3/3/09	7.41	24.5	489	66.2
		4/22/09	7.44	24.3	494	62.5
		8/12/09	7.61	24.4	554	61.3
		11/4/09	7.47	24.2	522	63
		3/10/10	7.54	22.9	511	60.6
		4/9/10	6.49	23.0	435	66.5
		7/7/10	6.93	23.8	428	63.2
		2/14/11	6.69	21.4	511	61.9
		7/15/11	7.11	24.1	499	62.1
		2/2/12	7.13	22.5	498	62.2
		7/10/12	7.12	23.5	505	63.7
		2/15/13	6.74	23.2	522	60.1
		9/4/13	7.11	23.8	538	61.3
		2/12/14	6.93	23.6	548	62.8
		7/21/14	7.06	24.2	542	63.3
		9/10/15	7.31	24.0	502	61.4
		8/18/16	7.27	24.1	505	64.7
		7/26/17	7.27	24.1	505	64.6
		7/25/18	7.49	24.3	511	71.4
		8/7/19	7.41	24.1	510	56.6
		8/17/20	7.52	23.5	515	59.2
		8/18/21	7.47	24.1	504	62.0
		7/25/22	7.42	24.2	519	63.3
		8/29/23	7.49	23.7	577	67.9
TM-42	562554	3/5/08	7.10	20.8	1342	482
		5/22/08	7.05	21.4	1270	483
		8/6/08	6.69	22.0	1388	467
		11/6/08	6.90	21.0	1025	477
		2/18/09	6.72	22.3	1245	429
		5/7/09	6.88	24.5	1155	430
		5/7/09 DUP	6.88	24.5	1155	445
		8/18/09	7.04	24.4	1336	428
		11/3/09	7.07	23.1	1266	430
		2/24/10	7.13	22.7	1236	390
		4/19/10	6.87	21.5	985	444
		7/2/10	6.81	23.9	827	407
		7/12/11	6.83	22.0	1205	441
		2/9/12	6.76	20.5	1172	444
		7/11/12	6.72	21.1	1155	449
		2/12/13	6.69	20.2	1185	400
		8/28/13	6.89	21.3	1212	416
		7/21/14	6.85	21.4	1205	418
		7/26/17	6.98	21.6	1234	485
		8/7/19	6.99	21.7	1371	527
		7/21/21	6.93	21.8	1500	676
		8/29/23	7.10	21.3	1630	750
TM-43	564729	3/3/08	8.57	21.0	341	2.1
		8/4/08	8.14	25.7	436	<5

APPENDIX A
Sulfate Data

Well Name	ADWR 55 Registry Number	Sample Date	pH (SU)	Temp (deg C)	SC (µS/cm)	Sulfate, dissolved (mg/L)
TM-43A	564726	3/3/08	6.17	19.9	2788	1420
		8/4/08	6.03	21.6	3149	1320
TM-43B	565004	3/3/08	6.79	20.6	514	0.7
		8/5/08	6.89	21.0	507	31.8
		8/5/08 DUP	6.89	21.0	507	32.5
TVI 236	802236	3/20/08	7.48	20.0	488	31.3
		5/7/08	7.13	20.4	494	32.6
		7/15/08	7.39	21.9	532	37.6
		10/15/08	7.45	22.3	490	36.6
		2/11/09	7.32	20.1	391	27.6
		4/17/09	7.36	19.3	418	28.1
		4/17/09 DUP	7.36	19.3	418	28.3
		7/21/09	7.59	22.9	484	31.3
		10/19/09	7.31	22.1	513	33.2
		2/2/10	7.39	20.4	497	26
		4/23/10	7.46	20.0	504.6	30.9
		7/15/10	7.37	21.5	499.4	39.3
		7/15/11	6.80	22.4	499.6	42.9
		7/16/12	7.30	21.1	500	36.3
		10/9/12	7.56	20.4	513.7	40.9
		7/18/13	7.38	20.9	514.4	42.4
		7/16/14	7.41	21.1	517.3	43.9
		7/30/15	7.43	20.5	529.1	16.5
		1/12/16	7.57	19.5	505.8	44.1
		9/26/16	7.42	19.0	511.4	15.1
		1/27/17	7.32	19.3	519.5	47.0
		7/31/17	7.04	19.0	532.5	15.8
		1/17/18	7.30	18.6	531.3	29.5
		7/27/18	7.22	19.3	535.8	17.5
		1/16/19	7.41	18.5	530.8	29.0
TVI 875	568875	2/21/08	7.28	21.1	739	244
		5/7/08	7.09	21.2	833	250
		7/15/08	7.27	22.4	925	274
		10/15/08	7.26	22.1	878	245
		2/11/09	7.20	20.7	738	312
		4/17/09	7.31	21.5	690	251
		7/21/09	7.47	22.2	812	236
		10/19/09	7.23	21.9	822	247
		2/2/10	7.32	20.8	939	250
		4/23/10	7.34	20.2	930.4	294
		7/15/10	7.46	21.8	842.5	262
		10/20/10	7.79	21.9	890	242
		1/20/11	7.39	21.0	780	226
		4/11/11	7.20	21.1	820.6	235
		7/15/11	6.75	22.2	791.9	239
		10/12/11	7.35	22.7	868.5	262
		2/3/12	7.20	20.5	850	299
		4/25/12	7.19	21.3	840	267
		7/16/12	7.13	22.2	860	261
		7/16/12 DUP	7.13	22.2	860	267
		10/9/12	7.39	20.9	882.8	281
		2/6/13	7.23	20.8	946.1	335
		4/10/13	7.35	20.9	907.6	296
		7/18/13	7.31	21.4	994.2	355
		10/8/13	7.35	21.0	894.6	275
		1/9/14	7.23	20.3	917.4	305
		4/9/14	7.31	20.9	910.7	296
		7/16/14	7.30	21.6	940.2	328
		10/9/14	7.12	21.2	963	245
		7/30/15	7.35	22.1	915.4	277
		7/14/16	7.28	21.6	919.1	271
		7/13/17	7.19	20.1	920.0	303
		7/12/18	7.16	20.0	928.8	309
		7/18/19	7.09	19.8	972.2	325
WALKER	200393	2/13/08	7.05	20.2	650	20
		7/23/08	7.25	20.7	740	45.4

APPENDIX A
Sulfate Data

Well Name	ADWR 55 Registry Number	Sample Date	pH (SU)	Temp (deg C)	SC (µS/cm)	Sulfate, dissolved (mg/L)
WEED	544535	2/14/08	7.74	21.7	323	11.1
		5/15/08	7.22	22.7	365	12.6
		7/30/08	7.42	32.0	407	11.5
		10/20/08	8.10	31.6	405	10.2
		2/13/09	7.66	21.0	303	12.6
		4/22/09	7.46	22.2	368	11.6
		7/16/09	7.50	21.9	365	10.8
		10/20/09	7.34	21.6	381	12.7
		2/1/10	7.60	20.8	382	12.2
		4/26/10	7.69	22.1	366	13.4
		7/21/10	7.36	22.1	354.9	13.6
		7/21/10 DUP	7.36	22.1	354.9	13.5
		10/19/10	7.63	21.2	378.8	11.7
		1/19/11	7.62	21.1	383.6	12.2
		4/11/11	7.44	21.5	386.6	13
		7/18/11	7.56	22.0	379.3	12.7
		10/12/11	7.02	21.7	382.8	13.3
		2/6/12	7.60	21.4	385.0	13.5
		4/25/12	7.60	22.1	360	12.7
		7/5/12	7.64	21.7	385.8	12.9
		10/9/12	7.66	21.5	385.1	14.0
		2/7/13	7.7	21.4	389.7	14.0
		2/7/13 DUP	7.7	21.4	389.7	13.2
		4/10/13	7.76	20.6	383.9	13.0
		7/19/13	7.63	21.3	386.6	14.2
		10/18/13	7.72	21.1	387.3	13.1
		1/15/14	7.73	20.7	388.4	13.4
		4/10/14	7.85	21.5	387.1	13.5
		7/18/14	7.79	21.4	386.7	14.1
		10/22/14	7.5	22.7	394	13.7
		1/30/15	7.81	20.7	381	14.2
		8/4/15	7.72	22	386.7	13.1
		1/14/16	7.79	20.2	376.9	13.7
		7/22/16	7.89	22.9	376.2	13.2
		1/23/17	7.58	20.4	387.5	13.3
		7/24/17	7.52	20.5	386.8	13.9
		1/16/18	7.51	20.3	384.2	14.0
		7/16/18	7.49	20.4	385.1	13.3
		1/8/19	7.52	20.3	388.2	13.1
		7/8/19	7.02	21.3	393.5	11.1
		1/22/20	7.10	20.8	387.1	13.5
		7/21/20	7.63	21.2	384.2	13.7
		1/7/21	7.55	21.2	383.1	12.8
		7/21/21	7.63	20.2	384.3	14.7
		2/1/22	7.62	20.1	377.2	12.6
		7/6/22	7.73	21.3	379.7	12.9
		1/12/23	ND	20.3	381.7	13.7
		7/24/23	7.71	20.6	387.7	13.0
WEISKOPF 802	641802	2/15/08	7.48	20.0	1072	500
		5/7/08	7.10	21.8	1251	483
		7/16/08	7.07	22.2	1399	560
		10/28/08	6.98	20.8	1401	602
		1/29/09	6.79	20.7	1014	503
		4/15/09	7.53	21.1	1164	503
		7/15/09	7.84	22.1	1317	486
		10/15/09	6.89	21.4	1216	484
		2/2/10	7.22	20.4	1319	451
		4/22/10	7.30	19.3	1329	572
		7/19/10	7.06	23.1	1330	573
		10/20/10	7.64	21.6	1360	515
		10/20/10 DUP	7.64	21.6	1360	529
		1/17/11	7.16	22.0	1270	481
		4/11/11	6.88	22.4	1365	557
		8/26/11	6.83	23.5	1200	549
		10/13/11	7.07	22.8	1299	539
		2/3/12	7.35	21.5	1363	583
		4/25/12	7.07	23.5	1300	575
		7/13/12	6.83	22.2	1530	552
		10/11/12	7.26	21.3	1369	572
		10/11/12 DUP	7.26	21.3	1369	577
		1/16/13	7.14	20.5	1298	523
		4/17/13	7.22	20.1	1337	558
		7/18/13	7.45	21.3	1131	420
		10/17/13	7.29	22.5	1131	437
		1/16/14	7.28	22.7	1323	563
		4/11/14	7.29	23.0	1304	558
		7/18/14	7.17	23.3	1375	608
		10/9/14	7.08	24.5	1094	405
		8/4/15	7.07	24.5	1571	699
		8/4/15 DUP	7.07	24.5	1571	701
		7/26/16	7.00	22.8	1483	702
		7/24/17	6.85	22.8	1524	698
		7/23/19	6.90	21.8	1520	657

APPENDIX A
Sulfate Data

Well Name	ADWR 55 Registry Number	Sample Date	pH (SU)	Temp (deg C)	SC (µS/cm)	Sulfate, dissolved (mg/L)
WEISKOPF 897	220897	12/6/12	7.93	23.6	398.3	18.5
		1/16/13	7.88	23.1	398.9	18.2
		1/16/13 DUP	7.88	23.1	398.9	18.2
		4/17/13	7.86	22.6	394.4	19.0
		7/18/13	7.84	24.3	393.2	18.0
		10/17/13	7.90	23.3	392.2	18.3
		1/16/14	7.90	23	395.8	18.4
		4/11/14	7.92	23.5	390.5	17.9
		7/18/14	7.87	23.9	387.4	18.4
		10/9/14	7.69	22.8	392	17.7
		8/4/15	7.89	24.9	385.7	17.3
		7/26/16	7.81	23.8	387.0	17.8
		7/24/17	7.58	23.1	386.7	17.0
		7/16/18	7.60	22.9	383.3	16.7
		7/23/19	7.57	22.9	383.1	16.1
		7/23/20	7.59	23.7	381.5	16.9
		7/26/21	7.57	22.9	380.8	16.5
		7/13/22	7.71	25.8	394.3	16.7
		7/26/23	8.01	24.7	381.8	15.9
WMD-2011-03M	913037	2/2/12	6.66	22.0	1190	391
ZANDER	205126	2/4/08	7.24	19.7	392	5.7
		5/6/08	7.26	21.2	404	6.3
		7/16/08	6.92	22.9	441	6.9
		10/28/08	7.40	21.2	415	15
		2/10/09	7.50	20.4	317	6
		4/16/09	7.47	21.7	352	5.5
		7/14/09	7.36	22.9	418	4.5
		10/13/09	7.41	21.7	407	6.3
		1/26/10	7.49	20.3	411	5.7
		4/2/10	7.55	20.0	416	6.70
		7/21/10	7.38	22.7	388.2	6.78
		10/19/10	6.78	21.3	430	6.56
		1/18/11	7.59	18.9	380	6.14
		1/18/11 DUP	7.59	18.9	380	6.06
		4/6/11	7.20	19.7	425.8	6.12
		7/13/11	7.29	22.9	410.10	6.43
		10/12/11	7.35	22.2	426.2	6.38
		1/31/12	7.29	20.3	420	6.59
		4/10/12	7.49	21.9	420.1	6.90
		4/10/12 DUP	7.49	21.9	420.1	6.65
		7/17/12	7.34	22.2	430	6.38
		10/8/12	7.58	20.8	431.4	7.03
		1/10/13	7.58	20.7	436.1	6.52
		4/18/13	7.65	20.8	436.7	6.66
		7/15/13	7.55	21.8	431.1	6.49
		10/7/13	7.59	21.5	430.2	6.41
		1/7/14	7.50	20.9	435.4	6.77
		4/9/14	7.57	21.5	434.4	6.57
		7/17/14	7.61	21.5	432.0	6.99
		10/13/14	7.52	23.8	422.0	6.24
		8/3/15	7.61	22.5	430.3	6.54
		7/15/16	7.53	22.4	434.1	7.12
		7/24/17	7.26	20.5	430.2	7.21
		7/24/18	7.28	20.7	427.0	7.12
		7/16/19	7.23	20.4	426.5	6.49
		8/11/20	7.29	21.2	426.3	6.99
		7/27/21	7.37	20.4	423.8	7.96
		7/14/22	7.43	20.8	419.7	7.67
		7/28/23	7.55	21.8	420.4	6.83

Notes:
35-71891 = ADWR 35 Database
ADWR = Arizona Department of Water Resources
deg C = degrees Celsius
DUP = Blind duplicate
M = Multi-Meter Malfunction
mg/L = milligrams per liter
ND = No Data
NR = No Record
SC = Specific Conductance
SU = Standard Units
µS/cm = microsiemens per centimeter

APPENDIX B

WATER ELEVATION DATA

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Water Elevation Data

Well Name	ADWR 55 Registry Number	UTM East (meters)	UTM North (meters)	Measuring Point Elevation (ft amsl)	Date	Depth To Water (feet)	Groundwater Elevation (ft amsl)
ANDERSON 396	613396	601134.729	3468816.065	4588.51	3/20/08	145.46	4443.05
					5/5/08	145.84	4442.67
					7/14/08	146.16	4442.35
					10/15/08	146.21	4442.30
					1/27/09	145.97	4442.54
					4/14/09	146.21	4442.30
					7/14/09	146.88	4441.63
					10/12/09	147.31	4441.20
					1/27/10	147.31	4441.20
					4/21/10	147.57	4440.94
					7/19/10	148.34	4440.17
					10/19/10	147.75	4440.76
					1/17/11	148.63	4439.88
					4/11/11	149.46	4439.05
					7/14/11	149.92	4438.59
					10/11/11	150.19	4438.32
					2/1/12	150.19	4438.32
					4/25/12	150.69	4437.82
					7/12/12	151.34	4437.17
					10/10/12	151.50	4437.01
					1/17/13	151.24	4437.27
					4/15/13	152.08	4436.43
					7/18/13	152.19	4436.32
					10/16/13	152.41	4436.10
					1/9/14	152.14	4436.37
					4/7/14	152.56	4435.95
					7/11/14	152.02	4436.49
					10/6/14	152.70	4435.81
					2/2/15	152.09	4436.42
					5/18/15	152.22	4436.29
					7/22/15	152.63	4435.88
					10/8/15	152.39	4436.12
					1/12/16	152.00	4436.51
					7/19/16	154.43	4434.08
					1/16/17	153.34	4435.17
					7/18/17	153.99	4434.52
					1/16/18	153.89	4434.62
					7/18/18	154.61	4433.90
					1/7/19	155.18	4433.33
					7/11/19	155.70	4432.81
					1/6/20	155.94	4432.57
					7/22/20	156.05	4432.46
					1/5/21	156.67	4431.84
					7/27/21	157.41	4431.10
					1/27/22	157.98	4430.53
					7/11/22	158.29	4430.22
					1/11/23	158.55	4429.96
					7/26/23	158.91	4429.60
ANDERSON 458	221458	601118.690	3468826.284	4585.37	9/7/12	173.76	4411.61
					10/10/12	151.82	4433.55
					1/17/13	152.17	4433.20
					4/15/13	158.42	4426.95
					7/18/13	157.56	4427.81
					10/16/13	156.24	4429.13
					1/9/14	152.58	4432.79
					4/7/14	153.54	4431.83
					7/11/14	156.66	4428.71
					10/6/14	157.31	4428.06
					5/18/15	156.79	4428.58
					7/22/15	157.03	4428.34
					7/19/16	153.02	4432.35
					7/18/17	155.93	4429.44
					7/18/18	158.55	4426.82
					7/11/19	185.21	4400.16
					7/22/20	178.36	4407.01
					7/27/21	161.26	4424.11
					7/11/22	170.67	4414.70
					7/26/23	162.7	4422.67

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Well Name	ADWR 55 Registry Number	UTM East (meters)	UTM North (meters)	Measuring Point Elevation (ft amsl)	Date	Depth To Water (feet)	Groundwater Elevation (ft amsl)
ASLD 435	616435	593496.865	3468879.791	4471.34	6/27/13	250.85	4220.49
					9/24/13	250.85	4220.49
					12/3/13	250.79	4220.55
					2/25/14	250.75	4220.59
					6/4/14	250.93	4220.41
					9/10/14	250.97	4220.37
					11/20/14	250.66	4220.68
					3/24/15	250.25	4221.09
					9/17/15	250.17	4221.17
					3/24/16	250.17	4221.17
					9/28/16	250.21	4221.13
					3/20/17	250.55	4220.79
					8/10/17	250.94	4220.40
					3/8/18	251.30	4220.04
					8/22/18	251.57	4219.77
					2/14/19	251.93	4219.41
					9/9/19	252.42	4218.92
					2/27/20	252.73	4218.61
					8/25/20	253.10	4218.24
					3/23/21	253.47	4217.87
					9/20/21	253.99	4217.35
					3/14/22	254.27	4217.07
					9/22/22	254.47	4216.87
					3/14/23	254.42	4216.92
					9/19/23	253.94	4217.40
AWC-02	616586	598907.911	3468549.357	4547.64	4/8/08	116	4431.64
					8/27/08	121.12	4426.52
					10/23/08[1]	115	4432.64
					4/22/09[1]	118	4429.64
					10/9/09[1]	117	4430.64
					4/23/10[1]	119	4428.64
					4/11/13	127.64	4420.00
					7/25/13	128.89	4418.75
					10/7/13[1]	125.00	4422.64
					1/7/14	125.36	4422.28
					5/14/14	124.89	4422.75
					7/16/14	124.49	4423.15
					10/15/14	122.52	4425.12
					1/29/15	120.00	4427.64
					5/18/15	162.60	4385.04
					7/21/15	129.08	4418.56
					10/2015[1]	128.00	4419.64
					1/13/16	128.80	4418.84
					7/19/16	125.40	4422.24
					1/19/17	119.69	4427.95
					9/6/17	131.56	4416.08
					1/17/18	131.93	4415.71
					7/25/18	129.03	4418.61
					1/16/19	121.92	4425.72
					7/23/19	130.58	4417.06
					1/13/20	123.78	4423.86
					8/3/20	128.44	4419.20
					1/4/21	128.06	4419.58
					7/20/21	129.77	4417.87
					1/31/22	129.15	4418.49
					7/18/22	131.38	4416.26
					1/30/23	130.77	4416.87
					8/8/23	129.02	4418.62

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Water Elevation Data

Well Name	ADWR 55 Registry Number	UTM East (meters)	UTM North (meters)	Measuring Point Elevation (ft amsl)	Date	Depth To Water (feet)	Groundwater Elevation (ft amsl)
AWC-03	616585	599090.322	3468681.898	4539.52	4/8/08	112	4427.52
					8/27/08	119.40	4420.12
					10/23/08[1]	106	4433.52
					4/22/09[1]	114	4425.52
					10/9/09[1]	116	4423.52
					4/23/10[1]	116	4423.52
					4/11/13[1]	125	4414.52
					7/16/13[1]	126	4413.52
					10/7/13[1]	122	4417.52
					1/7/14[1]	121	4418.60
					5/14/14[1]	121.50	4418.02
					7/16/14[1]	123.50	4416.02
					10/15/14	119.60	4419.92
					1/29/15	120.20	4419.32
					5/19/15	186.20	4353.32
					7/21/15	118.00	4421.52
					10/2015[1]	115.00	4424.52
					1/13/16[1]	118.00	4421.52
					7/19/16	125.50	4414.02
					1/19/17[1]	123.00	4416.52
					9/6/17[1]	121.30	4418.22
					1/17/18[1]	113.60	4425.92
					7/25/18[1]	125.7	4413.82
					1/16/19[1]	123.0	4416.52
					7/23/19[1]	126.50	4413.02
					1/13/20[1]	123.50	4416.02
					8/3/20[1]	129.00	4410.52
					1/4/21[1]	126.50	4413.02
					7/20/21[1]	129.00	4410.52
					1/31/22[1]	127.00	4412.52
					7/18/22	122.00	4417.52
					1/30/23	162.28	4377.24
					8/8/23	128.60	4410.92
AWC-04	616584	598949.929	3468717.084	4540.48	4/8/08	108	4432.48
					8/27/08	112.56	4427.92
					10/23/08[1]	111.31	4429.17
					4/22/09[1]	110	4430.48
					10/9/09[1]	110	4430.48
					4/23/10[1]	109	4431.48
					4/11/13	120.93	4419.55
					7/16/13	123.76	4416.72
					10/7/13[1]	116.00	4424.48
					1/7/14	115.98	4424.50
					5/14/14	115.32	4425.16
					7/16/14	118.44	4422.04
					10/15/14	114.29	4426.19
					1/29/15	112.20	4428.28
					5/19/15	113.90	4426.58
					7/21/15	131.70	4408.78
					10/2015[1]	129	4411.48
					1/13/16	130.33	4410.15
					7/19/16	119.70	4420.78
					1/19/17	113.15	4427.33
					9/6/17	127.92	4412.56
					1/17/18	125.86	4414.62
					7/25/18	120.27	4420.21
					1/16/19	115.33	4425.15
					7/23/19	126.48	4414.00
					1/13/20	115.84	4424.64
					8/3/20	119.42	4421.06
					2/9/21	118.99	4421.49
					7/20/21	121.31	4419.17
					1/31/22	119.33	4421.15
					7/18/22	123.88	4416.60
					1/30/23	122.49	4417.99
					8/8/23	124.33	4416.15

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Well Name	ADWR 55 Registry Number	UTM East (meters)	UTM North (meters)	Measuring Point Elevation (ft amsl)	Date	Depth To Water (feet)	Groundwater Elevation (ft amsl)
AWC-05	590620	599269.904	3468541.692	4542.51	4/8/08	284	4258.51
					8/27/08	299.65	4242.86
					10/23/08	284	4258.51
					4/22/09	286	4256.51
					6/3/09	125	4417.51
					10/9/09[1]	289	4253.51
					4/23/10[1]	278	4264.51
					4/11/13	229.56	4312.95
					7/16/13	203.17	4339.34
					10/7/13[1]	142.00	4400.51
					1/7/14	123.09	4419.42
					5/14/14	346.75	4195.76
					7/16/14	346.34	4196.17
					10/15/14	316.16	4226.35
					1/29/15	133.98	4408.53
					5/18/15	148.05	4394.46
					7/21/15	120.84	4421.67
					10/2015[1]	116	4426.51
					1/13/16	116.22	4426.29
					7/19/16	329.30	4213.21
					1/19/17	318.24	4224.27
					9/6/17	322.50	4220.01
					1/17/18	194.14	4348.37
					7/25/18	132.92	4409.59
					1/16/19	147.85	4394.66
					7/23/19	195.46	4347.05
					1/13/20	143.20	4399.31
					8/3/20	156.45	4386.06
					1/4/21	140.31	4402.20
					7/20/21	188.07	4354.44
					1/31/22	158.80	4383.71
					7/18/22	190.84	4351.67
					2/16/23	179.00	4363.51

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Water Elevation Data

Well Name	ADWR 55 Registry Number	UTM East (meters)	UTM North (meters)	Measuring Point Elevation (ft amsl)	Date	Depth To Water (feet)	Groundwater Elevation (ft amsl)
BANKS 987	647987	606981.921	3469206.175	4648.18	2/27/08	208.00	4440.18
					5/12/08	216.30	4431.88
					7/21/08	228.95	4419.23
					10/13/08	228.20	4419.98
					1/21/09	206.64	4441.54
					4/8/09	205.50	4442.68
					7/9/09	235.68	4412.50
					10/7/09	236.71	4411.47
					2/25/10	216.98	4431.20
					4/20/10	219.35	4428.83
					7/20/10	235.60	4412.58
					10/20/10	230.24	4417.94
					1/17/11	215.28	4432.90
					4/5/11	221.68	4426.50
					7/11/11	237.39	4410.79
					10/12/11	237.34	4410.84
					1/31/12	228.95	4419.23
					4/11/12	219.39	4428.79
					7/6/12	232.59	4415.59
					10/4/12	237.16	4411.02
					1/18/13	237.81	4410.37
					4/8/13	237.92	4410.26
					7/9/13	238.32	4409.86
					10/15/13	239.48	4408.70
					1/14/14	239.53	4408.65
					4/8/14	231.49	4416.69
					7/8/14	228.85	4419.33
					10/21/14	233.96	4414.22
					1/26/15	230.87	4417.31
					7/24/15	237.53	4410.65
					1/11/16	237.42	4410.76
					7/12/16	232.54	4415.64
					1/17/17	221.90	4426.28
					7/26/17	233.25	4414.93
					1/15/18	237.31	4410.87
					7/30/18	237.12	4411.06
					1/15/19	237.21	4410.97
					7/11/19	237.42	4410.76
					1/14/20	237.42	4410.76
					8/13/20	237.29	4410.89
					1/13/21	235.12	4413.06
					7/20/21	237.31	4410.87
					1/28/22	237.32	4410.86
					7/11/22	237.28	4410.90
					1/11/23	237.30	4410.88
					7/25/23	237.30	4410.88
BARTON 919	644919	606243.850	3469076.689	4692.36	5/12/08	113.71	4578.65
					7/23/08	113.56	4578.80
					10/16/08	113.20	4579.16
					3/11/09	112.92	4579.44
					4/10/09	112.89	4579.47
					7/7/09	112.86	4579.50
					7/17/13	114.18	4578.18
					1/14/14	113.96	4578.40
					7/17/14	113.42	4578.94
					7/20/15	113.22	4579.14
					1/11/16	113.33	4579.03
					7/19/16	113.35	4579.01
					1/17/17	113.47	4578.89
					7/14/17	113.52	4578.84
					1/15/18	113.88	4578.48
					7/17/18	113.95	4578.41
					1/15/19	114.27	4578.09
					7/11/19	113.72	4578.64
					1/21/20	113.72	4578.64

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Well Name	ADWR 55 Registry Number	UTM East (meters)	UTM North (meters)	Measuring Point Elevation (ft amsl)	Date	Depth To Water (feet)	Groundwater Elevation (ft amsl)
BF-01	539783	604169.077	3472151.593	4835.23	3/4/08	348.99	4486.24
					5/23/08	348.80	4486.43
					8/5/08	348.66	4486.57
					11/5/08	348.94	4486.29
					2/20/09	348.78	4486.45
					5/6/09	348.73	4486.50
					8/17/09	348.73	4486.50
					11/4/09	348.65	4486.58
					3/1/10	348.84	4486.39
					4/7/10	348.70	4486.53
					7/6/10	348.69	4486.54
					7/13/11	348.67	4486.56
					2/1/12	347.84	4487.39
					8/13/12	343.95	4491.28
BIMA	577927	606001.245	3471852.804	4802.05	5/13/08	367.31	4434.74
					8/18/08	370.24	4431.81
					10/23/08	353.96	4448.09
					1/20/09	353.07	4448.98
					4/7/09	357.76	4444.29
					7/8/09	365.44	4436.61
					10/5/09	370.11	4431.94
					4/19/10	382.25	4419.80
					7/21/10	386.89	4415.16
					10/18/10	387.39	4414.66
					1/19/11	391.47	4410.58
					4/4/11	395.22	4406.83
BMO-2008-1G	909474	606467.681	3471723.644	4805.10	8/27/08	62.05	4743.05
					11/11/08	60.95	4744.15
					2/25/09	61.43	4743.67
					4/28/09	62.01	4743.09
					8/4/09	62.96	4742.14
					10/27/09	63.61	4741.49
					2/17/10	64.51	4740.59
					4/15/10	65.05	4740.05
					7/7/10	65.83	4739.27
					2/10/11	67.74	4737.36
					7/12/11	69.37	4735.73
					2/8/12	70.33	4734.77
					8/14/12	71.73	4733.37
					2/14/13	72.95	4732.15
					8/14/13	73.82	4731.28
					2/13/14	73.79	4731.31
					7/22/14	74.14	4730.96
					2/4/15	73.70	4731.40
					9/10/15	74.12	4730.98
					3/3/16	74.30	4730.80
					8/17/16	75.02	4730.08
					3/1/17	75.62	4729.48
					7/24/17	76.16	4728.94
					2/14/18	76.97	4728.13
					7/10/18	77.70	4727.40
					2/5/19	78.44	4726.66
					7/31/19	78.42	4726.68
					2/5/20	77.75	4727.35
					8/12/20	76.38	4728.72
					2/3/21	76.88	4728.22
					7/14/21	78.06	4727.04
					1/31/22	78.97	4726.13
					7/14/22	79.60	4725.50
					2/28/23	80.29	4724.81
					8/1/23	80.83	4724.27

APPENDIX B
Water Elevation Data

Well Name	ADWR 55 Registry Number	UTM East (meters)	UTM North (meters)	Measuring Point Elevation (ft amsl)	Date	Depth To Water (feet)	Groundwater Elevation (ft amsl)
BMO-2008-3B	909147	602012.923	3467919.582	4583.97	7/18/08	138.05	4445.92
					11/4/08	137.95	4446.02
					2/19/09	138.19	4445.78
					5/11/09	138.46	4445.51
					8/6/09	139.02	4444.95
					10/26/09	139.60	4444.37
					3/3/10	140.03	4443.94
					4/8/10	140.07	4443.90
					7/1/10	140.70	4443.27
					2/14/11	141.41	4442.56
					7/12/11	142.21	4441.76
					2/23/12	143.90	4440.07
					7/10/12	143.70	4440.27
					2/15/13	144.53	4439.44
					8/27/13	145.10	4438.87
					2/11/14	145.08	4438.89
					7/21/14	145.36	4438.61
					2/5/15	144.79	4439.18
					5/28/15	144.90	4439.07
					9/14/15	145.24	4438.73
					10/21/15	145.39	4438.58
					3/3/16	145.18	4438.79
					8/18/16	145.94	4438.03
					3/1/17	146.32	4437.65
					7/26/17	146.84	4437.13
					2/8/18	147.16	4436.81
					7/10/18	147.92	4436.05
					2/5/19	148.88	4435.09
					8/6/19	149.47	4434.50
					2/6/20	149.99	4433.98
					8/12/20	150.17	4433.80
					2/3/21	151.16	4432.81
					7/27/21	151.74	4432.23
					1/31/22	152.30	4431.67
					8/1/22	152.68	4431.29
					3/1/23	152.52	4431.45
					8/29/23	152.97	4431.00
BMO-2008-4B	910096	601099.405	3468383.430	4573.17	12/11/08	130.77	4442.40
					2/18/09	130.58	4442.59
					4/30/09	131.24	4441.93
					8/6/09	131.96	4441.21
					10/27/09	132.04	4441.13
					2/24/10	131.82	4441.35
					4/16/10	132.65	4440.52
					7/2/10	133.20	4439.97
					2/15/11	133.78	4439.39
					7/22/11	134.80	4438.37
					2/23/12	134.64	4438.53
					9/17/12	136.15	4437.02
					1/15/13	136.13	4437.04
					4/15/13	136.78	4436.39
					9/18/13	137.04	4436.13
					1/9/14	136.96	4436.21
					7/18/14	137.49	4435.68
					1/12/16	136.54	4436.63
					9/30/17	138.68	4434.49
					1/18/18	138.71	4434.46
					7/26/18	139.42	4433.75
					1/14/19	139.96	4433.21
					7/22/19	140.40	4432.77
					1/22/20	140.66	4432.51
					8/11/20	140.89	4432.28
					7/22/21	142.25	4430.92
					2/1/22	142.71	4430.46
					8/1/22	143.09	4430.08
					1/12/23	143.45	4429.72
					7/20/23	143.49	4429.68

APPENDIX B
Water Elevation Data

Well Name	ADWR 55 Registry Number	UTM East (meters)	UTM North (meters)	Measuring Point Elevation (ft amsl)	Date	Depth To Water (feet)	Groundwater Elevation (ft amsl)
BMO-2008-5B	909653	600438.159	3468994.715	4585.10	9/30/08	145.10	4440.00
					2/18/09	144.35	4440.75
					4/27/09	144.78	4440.32
					8/4/09	145.36	4439.74
					10/29/09	145.88	4439.22
					2/15/10	145.42	4439.68
					4/15/10	145.80	4439.30
					7/7/10	146.59	4438.51
					10/5/10	147.00	4438.10
					2/14/11	147.56	4437.54
					5/12/11	148.04	4437.06
					7/13/11	148.31	4436.79
					12/7/11	148.45	4436.65
					2/3/12	148.47	4436.63
					4/18/12	149.02	4436.08
					7/10/12	148.65	4436.45
					10/16/12	149.91	4435.19
					2/7/13	149.94	4435.16
					2/12/13	150.06	4435.04
					5/15/13	150.55	4434.55
					8/20/13	150.82	4434.28
					11/1/13	150.77	4434.33
					2/11/14	150.33	4434.77
					5/7/14	150.83	4434.27
					8/19/14	151.13	4433.97
					11/13/14	150.78	4434.32
					2/3/15	150.10	4435.00
					5/28/15	150.47	4434.63
					9/8/15	150.38	4434.72
					10/21/15	150.23	4434.87
					3/14/16	149.76	4435.34
					9/14/16	151.31	4433.79
					3/1/17	151.56	4433.54
					8/1/17	151.95	4433.15
					2/8/18	151.97	4433.13
					3/8/18	152.04	4433.06
					4/11/18	152.27	4432.83
					5/29/18	152.32	4432.78
					6/19/18	152.74	4432.36
					7/25/18	152.96	4432.14
					2/4/19	153.41	4431.69
					8/7/19	153.76	4431.34
					2/6/20	153.99	4431.11
					8/11/20	154.37	4430.73
					2/2/21	155.00	4430.10
					7/12/21	155.61	4429.49
					1/31/22	155.98	4429.12
					7/11/22	156.37	4428.73
					2/27/23	156.52	4428.58
					7/31/23	157.14	4427.96

APPENDIX B
Water Elevation Data

Well Name	ADWR 55 Registry Number	UTM East (meters)	UTM North (meters)	Measuring Point Elevation (ft amsl)	Date	Depth To Water (feet)	Groundwater Elevation (ft amsl)
BMO-2008-5M	909552	600445.071	3468994.282	4585.02	10/2/08	146.65	4438.37
					2/18/09	145.97	4439.05
					4/27/09	146.46	4438.56
					8/4/09	147.13	4437.89
					10/29/09	147.68	4437.34
					2/15/10	147.07	4437.95
					4/16/10	147.34	4437.68
					7/7/10	148.28	4436.74
					10/5/10	148.68	4436.34
					2/14/11	148.74	4436.28
					5/12/11	149.66	4435.36
					7/12/11	150.20	4434.82
					12/7/11	150.30	4434.72
					2/3/12	150.05	4434.97
					4/18/12	150.70	4434.32
					7/10/12	151.65	4433.37
					10/16/12	151.77	4433.25
					2/12/13	152.00	4433.02
					5/15/13	152.42	4432.60
					8/20/13	152.76	4432.26
					11/1/13	152.53	4432.49
					2/11/14	151.78	4433.24
					5/7/14	152.26	4432.76
					8/19/14	152.78	4432.24
					11/13/14	152.27	4432.75
					2/3/15	151.61	4433.41
					5/19/15	151.58	4433.44
					9/8/15	151.63	4433.39
					3/14/16	150.87	4434.15
					9/14/16	152.68	4432.34
					3/1/17	152.84	4432.18
					8/1/17	153.27	4431.75
					2/8/18	153.03	4431.99
					7/25/18	154.19	4430.83
					2/4/19	154.54	4430.48
					8/7/19	155.00	4430.02
					2/6/20	155.20	4429.82
					8/11/20	155.85	4429.17
					2/2/21	156.20	4428.82
					7/12/21	157.05	4427.97
					1/31/22	157.21	4427.81
					7/11/22	157.72	4427.30
					2/27/23	157.67	4427.35
					7/31/23	158.48	4426.54

APPENDIX B
Water Elevation Data

Well Name	ADWR 55 Registry Number	UTM East (meters)	UTM North (meters)	Measuring Point Elevation (ft amsl)	Date	Depth To Water (feet)	Groundwater Elevation (ft amsl)
BMO-2008-6B	909146	600366.523	3469820.644	4627.44	7/16/08	190.13	4437.31
					11/4/08	190.23	4437.21
					2/19/09	189.71	4437.73
					4/27/09	189.99	4437.45
					8/4/09	190.80	4436.64
					10/26/09	191.04	4436.40
					2/15/10	190.82	4436.62
					4/15/10	190.75	4436.69
					7/1/10	191.43	4436.01
					10/5/10	192.50	4434.94
					2/14/11	192.19	4435.25
					5/12/11	192.70	4434.74
					7/12/11	193.30	4434.14
					12/7/11	193.85	4433.59
					2/3/12	193.60	4433.84
					4/18/12	193.90	4433.54
					7/10/12	194.75	4432.69
					10/16/12	195.71	4431.73
					2/12/13	195.42	4432.02
					5/15/13	195.91	4431.53
					8/20/13	196.23	4431.21
					11/1/13	195.77	4431.67
					2/11/14	195.24	4432.20
					5/7/14	195.47	4431.97
					8/19/14	196.36	4431.08
					11/13/14	195.74	4431.70
					2/3/15	195.12	4432.32
					5/19/15	195.00	4432.44
					9/8/15	195.48	4431.96
					10/21/15	195.37	4432.07
					3/14/16	195.00	4432.44
					9/14/16	196.36	4431.08
					3/1/17	196.33	4431.11
					7/10/17	196.88	4430.56
					2/8/18	197	4430.44
					7/10/18	197.57	4429.87
					2/4/19	197.89	4429.55
					8/6/19	198.57	4428.87
					2/3/20	198.70	4428.74
					7/22/20	199.04	4428.40
					2/2/21	199.74	4427.70
					7/12/21	200.29	4427.15
					1/31/22	200.78	4426.66
					7/11/22	201.19	4426.25
					2/27/23	201.24	4426.20
					7/31/23	201.96	4425.48

APPENDIX B
Water Elevation Data

Well Name	ADWR 55 Registry Number	UTM East (meters)	UTM North (meters)	Measuring Point Elevation (ft amsl)	Date	Depth To Water (feet)	Groundwater Elevation (ft amsl)
BMO-2008-6M	909019	600367.943	3469813.885	4626.90	7/10/08	191.63	4435.27
					11/4/08	190.25	4436.65
					2/20/09	190.70	4436.20
					4/28/09	190.98	4435.92
					8/4/09	191.77	4435.13
					10/26/09	192.14	4434.76
					2/15/10	191.78	4435.12
					4/15/10	191.64	4435.26
					7/1/10	192.53	4434.37
					10/5/10	192.96	4433.94
					2/14/11	193.14	4433.76
					5/12/11	193.68	4433.22
					7/12/11	194.47	4432.43
					12/7/11	194.92	4431.98
					2/3/12	194.65	4432.25
					4/18/12	195.00	4431.90
					7/10/12	196.10	4430.80
					10/16/12	196.53	4430.37
					2/12/13	196.45	4430.45
					5/15/13	196.90	4430.00
					8/20/13	197.43	4429.47
					11/1/13	196.53	4430.37
					2/11/14	196.18	4430.72
					5/7/14	196.33	4430.57
					8/19/14	197.40	4429.50
					11/13/14	196.32	4430.58
					2/3/15	195.90	4431.00
					5/19/15	195.64	4431.26
					9/8/15	196.32	4430.58
					3/14/16	195.87	4431.03
					9/14/16	197.37	4429.53
					3/1/17	197.24	4429.66
					7/10/17	197.92	4428.98
					2/8/18	197.96	4428.94
					7/10/18	198.63	4428.27
					2/4/19	198.78	4428.12
					8/6/19	199.61	4427.29
					2/3/20	199.52	4427.38
					7/22/20	200.02	4426.88
					2/2/21	200.75	4426.15
					7/12/21	201.43	4425.47
					1/31/22	201.70	4425.20
					7/11/22	200.38	4426.52
					2/27/23	202.15	4424.75
					7/31/23	203.14	4423.76

APPENDIX B
Water Elevation Data

Well Name	ADWR 55 Registry Number	UTM East (meters)	UTM North (meters)	Measuring Point Elevation (ft amsl)	Date	Depth To Water (feet)	Groundwater Elevation (ft amsl)
BMO-2008-7M	908794	603099.165	3470029.283	4688.33	7/14/08	238.31	4450.02
					11/6/08	239.69	4448.64
					2/18/09	238.90	4449.43
					5/11/09	239.03	4449.30
					8/6/09	239.17	4449.16
					10/27/09	239.55	4448.78
					2/17/10	239.98	4448.35
					4/15/10	240.13	4448.20
					7/6/10	240.28	4448.05
					2/14/11	241.26	4447.07
					7/15/11	241.81	4446.52
					1/30/12	242.44	4445.89
					7/11/12	243.0	4445.33
					2/15/13	243.8	4444.53
					8/28/13	244.32	4444.01
					2/13/14	244.31	4444.02
					7/22/14	244.66	4443.67
					2/5/15	243.91	4444.42
					9/14/15	244.59	4443.74
					3/16/16	244.91	4443.42
					8/18/16	245.23	4443.10
					3/7/17	245.44	4442.89
					7/10/17	245.73	4442.60
					2/1/18	245.82	4442.51
					7/23/18	246.18	4442.15
					2/11/19	246.46	4441.87
					8/8/19	246.80	4441.53
					2/18/20	247.28	4441.05
					7/23/20	247.68	4440.65
					3/17/21	248.40	4439.93
					8/2/21	248.81	4439.52
					3/10/22	249.53	4438.80
					7/18/22	249.92	4438.41
					3/13/23	250.58	4437.75
					9/5/23	251.0	4437.33
BMO-2008-8B	910097	604171.347	3471141.719	4753.25	12/5/08	297.94	4455.31
					2/19/09	297.63	4455.62
					5/5/09	297.37	4455.88
					8/10/09	297.53	4455.72
					11/9/09	297.85	4455.40
					3/3/10	298.37	4454.88
					4/16/10	298.46	4454.79
					7/1/10	298.64	4454.61
					2/11/11	299.56	4453.69
					5/13/11	299.78	4453.47
					7/15/11	300.00	4453.25
					1/30/12	300.52	4452.73
					7/12/12	301.15	4452.10
					2/13/13	302.05	4451.20
					8/12/13	302.48	4450.77
					7/24/14	301.86	4451.39
					2/5/15	299.56	4453.69
					9/15/15	300.14	4453.11
					3/16/16	300.76	4452.49
					9/15/16	301.26	4451.99
					3/7/17	301.61	4451.64
					7/10/17	301.89	4451.36
					2/1/18	301.83	4451.42
					7/23/18	302.83	4450.42
					2/11/19	302.84	4450.41
					8/8/19	303.42	4449.83
					2/18/20	304.19	4449.06
					7/23/20	304.74	4448.51
					3/17/21	305.47	4447.78
					8/2/21	306.10	4447.15
					3/10/22	307.15	4446.10
					7/18/22	307.74	4445.51
					3/13/23	308.44	4444.81
					9/6/23	309.06	4444.19

APPENDIX B
Water Elevation Data

Well Name	ADWR 55 Registry Number	UTM East (meters)	UTM North (meters)	Measuring Point Elevation (ft amsl)	Date	Depth To Water (feet)	Groundwater Elevation (ft amsl)
BMO-2008-8M	909711	604167.912	3471127.902	4752.45	12/9/08	299.79	4452.66
					2/19/09	298.32	4454.13
					5/5/09	298.27	4454.18
					8/10/09	298.57	4453.88
					11/5/09	298.81	4453.64
					3/3/10	299.18	4453.27
					4/16/10	299.42	4453.03
					7/1/10	299.70	4452.75
					1/24/11	300.46	4451.99
					5/13/11	301.00	4451.45
					7/15/11	300.96	4451.49
					1/30/12	301.60	4450.85
					7/12/12	302.45	4450.00
					2/14/13	303.07	4449.38
					8/12/13	303.60	4448.85
					2/19/14	303.11	4449.34
					7/24/14	303.48	4448.97
					2/5/15	301.98	4450.47
					9/15/15	302.46	4449.99
					3/16/16	303.19	4449.26
					9/15/16	303.43	4449.02
					3/7/17	303.85	4448.60
					7/10/17	304.09	4448.36
					2/1/18	303.94	4448.51
					7/23/18	304.20	4448.25
					2/11/19	304.09	4448.36
					8/8/19	304.8	4447.65
					2/18/20	304.90	4447.55
					7/23/20	305.42	4447.03
					3/17/21	306.51	4445.94
					8/2/21	302.32	4450.13
					3/10/22	302.88	4449.57
					7/18/22	303.76	4448.69
					3/13/23	304.53	4447.92
					9/6/23	305.05	4447.40

APPENDIX B
Water Elevation Data

Well Name	ADWR 55 Registry Number	UTM East (meters)	UTM North (meters)	Measuring Point Elevation (ft amsl)	Date	Depth To Water (feet)	Groundwater Elevation (ft amsl)
BMO-2008-9M	909255	604668.669	3471121.675	4762.61	8/8/08	287.17	4475.44
					11/5/08	287.65	4474.96
					2/26/09	285.65	4476.96
					5/12/09	285.28	4477.33
					8/17/09	286.09	4476.52
					11/3/09	286.55	4476.06
					3/4/10	287.45	4475.16
					4/6/10	287.81	4474.80
					7/1/10	288.26	4474.35
					2/10/11	289.77	4472.84
					5/13/11	290.47	4472.14
					7/15/11	290.95	4471.66
					2/1/12	293.44	4469.17
					7/12/12	294.65	4467.96
					2/13/13	296.67	4465.94
					8/12/13	297.63	4464.98
					2/18/14	293.68	4468.93
					7/24/14	293.53	4469.08
					2/5/15	286.01	4476.60
					9/14/15	286.34	4476.27
					3/16/16	287.22	4475.39
					9/15/16	289.35	4473.26
					3/7/17	289.83	4472.78
					7/11/17	291.03	4471.58
					2/1/18	289.66	4472.95
					7/26/18	291.78	4470.83
					2/11/19	291.42	4471.19
					8/12/19	292.67	4469.94
					2/20/20	290.43	4472.18
					7/20/20	288.57	4474.04
					3/17/21	291.21	4471.40
					8/18/21	293.59	4469.02
					3/10/22	294.78	4467.83
					7/18/22	296.39	4466.22
					3/13/23	297.45	4465.16
					8/14/23	298.64	4463.97
BMO-2008-10GL	909435	605264.072	3471702.043	4792.21	8/20/08	521.75	4270.46
					11/5/08	520.50	4271.71
					2/25/09	516.72	4275.49
					5/12/09	514.68	4277.53
					8/11/09	513.23	4278.98
					11/2/09	509.43	4282.78
					3/4/10	510.88	4281.33
					4/8/10	506.31	4285.90
					7/2/10	511.80	4280.41
					7/13/11	512.16	4280.05
					2/2/12	511.34	4280.87
					7/13/12	510.90	4281.31
					2/18/13	509.91	4282.30
					8/13/13	509.32	4282.89
					8/7/14	507.21	4285.00
					2/10/15	463.22	4328.99
					9/14/15	439.93	4352.28
					3/16/16	364.33	4427.88
					8/17/16	337.26	4454.95
					3/7/17	332.86	4459.35
					7/11/17	337.89	4454.32
					2/1/18	337.84	4454.37
					7/26/18	333.28	4458.93
					1/28/19	326.80	4465.41
					8/1/19	316.92	4475.29
					2/17/20	324.94	4467.27
					7/20/20	298.10	4494.11
					3/16/21	260.36	4531.85
					8/17/21	262.84	4529.37
					3/9/22	284.78	4507.43
					9/7/22	291.06	4501.15
					3/13/23	301.37	4490.84
					8/15/23	313.55	4478.66

APPENDIX B
Water Elevation Data

Well Name	ADWR 55 Registry Number	UTM East (meters)	UTM North (meters)	Measuring Point Elevation (ft amsl)	Date	Depth To Water (feet)	Groundwater Elevation (ft amsl)
BMO-2008-10GU	909272	605267.551	3471731.866	4793.45	8/4/08	299.28	4494.17
					11/5/08	295.89	4497.56
					2/25/09	289.84	4503.61
					5/6/09	289.35	4504.10
					8/11/09	289.09	4504.36
					11/2/09	289.77	4503.68
					3/10/10	289.58	4503.87
					4/7/10	289.5	4503.95
					7/6/10	288.93	4504.52
					7/13/11	301.02	4492.43
					2/1/12	326.51	4466.94
					7/13/12	328.7	4464.75
					8/19/13	283.97	4509.48
					2/10/15	207.58	4585.87
					9/14/15	200.36	4593.09
					3/16/16	195.53	4597.92
					8/17/16	201.47	4591.98
					3/7/17	210.83	4582.62
					8/9/17	201.50	4591.95
					2/1/18	201.09	4592.36
					7/26/18	200.53	4592.92
					1/28/19	201.56	4591.89
					8/1/19	200.43	4593.02
					2/17/20	201.74	4591.71
					7/20/20	196.63	4596.82
					3/16/21	192.68	4600.77
					8/17/21	197.91	4595.54
					3/9/22	200.31	4593.14
					9/7/22	206.21	4587.24
					3/13/23	217.39	4576.06
					8/15/23	216.19	4577.26
BMO-2008-11G	909434	603800.995	3472626.482	4844.67	8/22/08	577.76	4266.91
					11/12/08	576.80	4267.87
					2/26/09	575.91	4268.76
					4/8/09	575.46	4269.21
					8/12/09	574.84	4269.83
					11/9/09	573.41	4271.26
					3/1/10	573.68	4270.99
					4/9/10	573.56	4271.11
					7/1/10	572.97	4271.70
					2/10/11	571.61	4273.06
					7/22/11	571.20	4273.47
					1/31/12	569.83	4274.84
					8/14/12	569.70	4274.97
					2/13/13	568.75	4275.92
					8/27/13	566.50	4278.17
					2/19/14	564.68	4279.99
					8/14/14	564.24	4280.43
					2/5/15	560.60	4284.07
					9/14/15	557.84	4286.83
					3/15/16	556.04	4288.63
					8/17/16	554.94	4289.73
					3/2/17	554.27	4290.40
					7/11/17	554.02	4290.65
					2/12/18	552.11	4292.56
					7/12/18	552.20	4292.47
					1/28/19	550.72	4293.95
					8/6/19	550.89	4293.78
					2/4/20	548.35	4296.32
					8/13/20	546.77	4297.90
					2/3/21	546.25	4298.42
					7/22/21	546.07	4298.60
					2/1/22	543.17	4301.50
					8/1/22	543.22	4301.45
					3/6/23	539.98	4304.69
					8/10/23	540.15	4304.52

APPENDIX B
Water Elevation Data

Well Name	ADWR 55 Registry Number	UTM East (meters)	UTM North (meters)	Measuring Point Elevation (ft amsl)	Date	Depth To Water (feet)	Groundwater Elevation (ft amsl)
BMO-2008-13B	909551	601657.612	3470076.358	4649.21	10/3/08	206.42	4442.79
					2/17/09	206.11	4443.10
					5/6/09	206.32	4442.89
					8/5/09	206.79	4442.42
					10/28/09	207.08	4442.13
					2/16/10	207.26	4441.95
					4/14/10	207.27	4441.94
					7/6/10	207.68	4441.53
					2/10/11	208.51	4440.70
					5/13/11	208.95	4440.26
					7/15/11	209.36	4439.85
					2/9/12	209.78	4439.43
					7/11/12	210.60	4438.61
					2/27/13	211.40	4437.81
					9/4/13	212.15	4437.06
					8/19/14	212.68	4436.53
					2/4/15	212.28	4436.93
					9/15/15	212.37	4436.84
					3/16/16	211.95	4437.26
					9/21/16	212.84	4436.37
					3/7/17	213.15	4436.06
					8/2/17	213.57	4435.64
					2/1/18	213.6	4435.61
					8/6/18	214.22	4434.99
					2/11/19	214.79	4434.42
					8/20/19	215.16	4434.05
					2/20/20	215.46	4433.75
					8/5/20	215.70	4433.51
					3/15/21	216.27	4432.94
					8/16/21	216.85	4432.36
					3/9/22	217.35	4431.86
					9/6/22	217.94	4431.27
					3/13/23	218.11	4431.10
					9/11/23	218.64	4430.57
BMO-2008-13M	909760	601650.495	3470040.455	4647.15	12/3/08	206.00	4441.15
					2/17/09	208.74	4438.41
					4/29/09	208.53	4438.62
					8/5/09	208.85	4438.30
					10/28/09	208.91	4438.24
					2/16/10	209.16	4437.99
					4/13/10	209.20	4437.95
					7/2/10	209.30	4437.85
					2/10/11	210.36	4436.79
					5/13/11	210.50	4436.65
					7/15/11	210.67	4436.48
					2/6/12	210.90	4436.25
					8/13/12	211.42	4435.73
					2/15/13	212.13	4435.02
					9/6/13	212.52	4434.63
					8/20/14	213.14	4434.01
					2/4/15	212.97	4434.18
					9/15/15	212.91	4434.24
					3/16/16	212.76	4434.39
					9/21/16	213.22	4433.93
					3/7/17	213.6	4433.55
					8/15/17	213.71	4433.44
					2/1/18	214.09	4433.06
					8/6/18	214.37	4432.78
					2/11/19	214.57	4432.58
					8/20/19	215.1	4432.05
					2/20/20	215.46	4431.69
					8/5/20	215.73	4431.42
					3/15/21	216.14	4431.01
					8/16/21	216.39	4430.76
					3/9/22	216.96	4430.19
					9/6/22	217.54	4429.61
					3/13/23	217.85	4429.30
					9/11/23	218.21	4428.94

APPENDIX B
Water Elevation Data

Well Name	ADWR 55 Registry Number	UTM East (meters)	UTM North (meters)	Measuring Point Elevation (ft amsl)	Date	Depth To Water (feet)	Groundwater Elevation (ft amsl)
BMO-2010-1M	219957	605581.263	3469935.750	4718.55	9/7/10	224.13	4494.42
					11/10/10	222.97	4495.58
					2/11/11	222.01	4496.54
					5/12/11	223.08	4495.47
					8/31/11	224.38	4494.17
					12/13/11	222.86	4495.69
					2/8/12	222.97	4495.58
					4/24/12	223.87	4494.68
					7/9/12	225.05	4493.50
					10/17/12	225.63	4492.92
					2/13/13	226.85	4491.70
					5/8/13	227.45	4491.10
					8/15/13	228.10	4490.45
					11/4/13	224.41	4494.14
					2/12/14	222.90	4495.65
					6/2/14	222.80	4495.75
					8/4/14	223.14	4495.41
					11/12/14	219.47	4499.08
					2/5/15	214.19	4504.36
					9/9/15	211.68	4506.87
					3/16/16	210.91	4507.64
					8/25/16	212.23	4506.32
					3/7/17	212.69	4505.86
					7/12/17	214.02	4504.53
					2/1/18	213.31	4505.24
					8/7/18	214.94	4503.61
					2/11/19	213.87	4504.68
					7/30/19	214.78	4503.77
					2/5/20	213.19	4505.36
					7/20/20	211.73	4506.82
					2/2/21	212.26	4506.29
					7/15/21	214.84	4503.71
					3/10/22	215.92	4502.63
					7/26/22	218.04	4500.51
					3/13/23	219.33	4499.22
					8/7/23	221.05	4497.50

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Water Elevation Data

Well Name	ADWR 55 Registry Number	UTM East (meters)	UTM North (meters)	Measuring Point Elevation (ft amsl)	Date	Depth To Water (feet)	Groundwater Elevation (ft amsl)
BMO-2010-2M	219958	605685.549	3470564.646	4746.16	9/7/10	264.13	4482.03
					11/11/10	263.94	4482.22
					2/10/11	264.13	4482.03
					5/13/11	266.97	4479.19
					7/14/11	268.05	4478.11
					12/13/11	270.98	4475.18
					1/30/12	271.50	4474.66
					4/18/12	272.31	4473.85
					7/9/12	273.20	4472.96
					10/17/12	274.27	4471.89
					2/13/13	275.52	4470.64
					5/8/13	276.05	4470.11
					8/15/13	278.76	4467.40
					11/4/13	273.26	4472.90
					2/12/14	271.44	4474.72
					5/8/14	270.65	4475.51
					8/14/14	270.78	4475.38
					11/12/14	263.19	4482.97
					2/5/15	259.84	4486.32
					9/14/15	260.92	4485.24
					3/16/16	261.81	4484.35
					9/13/16	264.66	4481.50
					3/7/17	265.47	4480.69
					7/12/17	267.14	4479.02
					2/1/18	266.24	4479.92
					8/7/18	268.92	4477.24
					2/11/19	268.25	4477.91
					7/30/19	269.21	4476.95
					2/20/20	265.12	4481.04
					7/21/20	262.38	4483.78
					2/2/21	265.71	4480.45
					7/15/21	268.91	4477.25
					3/10/22	271.46	4474.70
					7/26/22	273.45	4472.71
					3/13/23	274.66	4471.50
					8/7/23	276.34	4469.82

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Water Elevation Data

Well Name	ADWR 55 Registry Number	UTM East (meters)	UTM North (meters)	Measuring Point Elevation (ft amsl)	Date	Depth To Water (feet)	Groundwater Elevation (ft amsl)
BMO-2010-3B	219970	599977.962	3468347.363	4550.59	7/28/10	115.38	4435.21
					11/10/10	115.80	4434.79
					1/20/11	115.46	4435.13
					4/7/11	116.11	4434.48
					7/13/11	117.30	4433.29
					10/13/11	117.72	4432.87
					2/2/12	117.18	4433.41
					4/24/12	117.92	4432.67
					7/5/12	118.84	4431.75
					10/18/12	119.13	4431.46
					1/16/13	118.89	4431.70
					4/16/13	119.36	4431.23
					7/23/13	120.02	4430.57
					10/8/13	119.63	4430.96
					1/15/14	118.96	4431.63
					5/13/14	119.40	4431.19
					7/15/14	120.06	4430.53
					10/14/14	119.16	4431.43
					1/28/15	118.46	4432.13
					5/18/15	118.49	4432.10
					7/22/15	118.81	4431.78
					10/6/15	118.06	4432.53
					2/2/16	117.39	4433.20
					7/12/16	119.21	4431.38
					1/18/17	119.89	4430.70
					7/11/17	120.51	4430.08
					1/8/18	119.84	4430.75
					7/10/18	121.45	4429.14
					1/8/19	121.92	4428.67
					7/16/19	122.49	4428.10
					1/6/20	122.64	4427.95
					8/4/20	123.25	4427.34
					1/5/21	123.76	4426.83
					7/13/21	124.56	4426.03
					1/24/22	124.89	4425.70
					7/19/22	125.32	4425.27
					1/31/23	125.11	4425.48
					8/1/23	126.22	4424.37

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Water Elevation Data

Well Name	ADWR 55 Registry Number	UTM East (meters)	UTM North (meters)	Measuring Point Elevation (ft amsl)	Date	Depth To Water (feet)	Groundwater Elevation (ft amsl)
BMO-2010-3M	219969	599970.801	3468353.543	4550.53	7/30/10	118.63	4431.90
					11/10/10	118.75	4431.78
					1/20/11	118.32	4432.21
					4/7/11	119.09	4431.44
					8/25/11	120.74	4429.79
					10/13/11	120.67	4429.86
					2/2/12	119.91	4430.62
					4/24/12	120.93	4429.60
					7/5/12	122.05	4428.48
					10/18/12	122.06	4428.47
					1/16/13	121.86	4428.67
					4/16/13	122.26	4428.27
					7/23/13	122.97	4427.56
					10/8/13	121.91	4428.62
					1/15/14	120.91	4429.62
					5/13/14	121.90	4428.63
					7/15/14	121.92	4428.61
					10/14/14	121.87	4428.66
					1/28/15	120.63	4429.90
					5/18/15	120.48	4430.05
					7/22/15	120.42	4430.11
					10/6/15	119.44	4431.09
					2/2/16	118.65	4431.88
					7/12/16	121.56	4428.97
					1/18/17	122.27	4428.26
					7/11/17	122.85	4427.68
					1/8/18	121.24	4429.29
					7/10/18	124.08	4426.45
					1/8/19	123.97	4426.56
					7/16/19	124.81	4425.72
					1/6/20	124.82	4425.71
					8/4/20	125.96	4424.57
					1/5/21	125.98	4424.55
					7/13/21	127.39	4423.14
					1/24/22	127.02	4423.51
					7/19/22	127.97	4422.56
					1/31/23	126.97	4423.56
					8/1/23	129.36	4421.17

APPENDIX B
Water Elevation Data

Well Name	ADWR 55 Registry Number	UTM East (meters)	UTM North (meters)	Measuring Point Elevation (ft amsl)	Date	Depth To Water (feet)	Groundwater Elevation (ft amsl)
BMO-2012-1M	221388	606097.384	3469746.747	4719.76	11/13/12	231.90	4487.86
					2/27/13	233.20	4486.56
					5/8/13	233.97	4485.79
					8/14/13	233.96	4485.80
					11/1/13	230.44	4489.32
					2/13/14	229.85	4489.91
					5/8/14	229.89	4489.87
					7/22/14	229.94	4489.82
					11/13/14	225.37	4494.39
					2/4/15	222.57	4497.19
					9/10/15	221.60	4498.16
					3/3/16	214.86	4504.90
					8/17/16	215.57	4504.19
					3/2/17	216.10	4503.66
					7/24/17	217.59	4502.17
					8/21/17	217.55	4502.21
					2/13/18	217.58	4502.18
					7/16/18	219.60	4500.16
					1/29/19	218.63	4501.13
					7/31/19	220.01	4499.75
					2/4/20	218.70	4501.06
					7/21/20	216.17	4503.59
					2/2/21	216.78	4502.98
					7/14/21	218.46	4501.30
					2/1/22	219.48	4500.28
					7/19/22	221.98	4497.78
					3/1/23	222.51	4497.25
					8/2/23	224.32	4495.44
BMO-2014-1BL	917394	600563.194	3468234.798	4557.18	11/7/14	123.03	4434.15
				4558.45	1/29/15	123.53	4434.92
					4/15/15	123.45	4435.00
					5/18/15	123.93	4434.52
					7/29/15	124.22	4434.23
					10/7/15	123.58	4434.87
					2/4/16	123.17	4435.28
					4/6/16	123.61	4434.84
					7/14/16	124.85	4433.60
					11/2/16	124.93	4433.52
					1/24/17	124.57	4433.88
					7/13/17	126.19	4432.26
					1/10/18	125.47	4432.98
					7/12/18	127.11	4431.34
					1/10/19	126.62	4431.83
					7/18/19	127.19	4431.26
					1/8/20	127.10	4431.35
					8/6/20	127.50	4430.95
					1/7/21	128.23	4430.22
					3/9/21	128.36	4430.09
					7/15/21	128.88	4429.57
					1/26/22	129.55	4428.90
					7/21/22	129.72	4428.73
					2/15/23	130.09	4428.36
					8/7/23	130.47	4427.98

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Water Elevation Data

Well Name	ADWR 55 Registry Number	UTM East (meters)	UTM North (meters)	Measuring Point Elevation (ft amsl)	Date	Depth To Water (feet)	Groundwater Elevation (ft amsl)
BMO-2014-1BU	917393	600570.805	3468231.440	4557.18	11/13/14	123.51	4433.67
				4558.54	1/28/15	123.74	4434.80
					4/15/15	123.90	4434.64
					5/18/15	124.42	4434.12
					7/29/15	124.65	4433.89
					10/7/15	123.97	4434.57
					2/4/16	123.43	4435.11
					4/6/16	123.90	4434.64
					7/14/16	125.23	4433.31
					11/2/16	125.32	4433.22
					1/24/17	124.86	4433.68
					7/13/17	126.42	4432.12
					1/10/18	125.73	4432.81
					7/12/18	127.19	4431.35
					1/10/19	126.86	4431.68
					7/18/19	127.48	4431.06
					1/8/20	127.39	4431.15
					8/6/20	127.73	4430.81
					1/7/21	128.49	4430.05
					7/15/21	129.12	4429.42
					1/26/22	129.77	4428.77
					7/21/22	129.93	4428.61
					2/15/23	130.32	4428.22
					8/7/23	130.67	4427.87
BMO-2014-2BL	917452	600784.872	3468183.921	4560.31	11/20/14	126.15	4434.16
				4561.80	1/29/15	126.74	4435.06
					4/15/15	126.70	4435.10
					5/18/15	127.18	4434.62
					7/29/15	127.43	4434.37
					10/7/15	126.90	4434.90
					2/4/16	126.68	4435.12
					4/6/16	126.77	4435.03
					7/14/16	127.85	4433.95
					11/2/16	128.39	4433.41
					1/24/17	127.73	4434.07
					9/6/17	128.56	4433.24
					1/10/18	129.09	4432.71
					7/12/18	129.61	4432.19
					1/10/19	129.96	4431.84
					7/18/19	130.42	4431.38
					1/8/20	130.43	4431.37
					8/6/20	130.73	4431.07
					1/7/21	131.50	4430.30
					7/15/21	132.10	4429.70
					1/26/22	132.83	4428.97
					7/21/22	132.96	4428.84
					2/15/23	133.30	4428.50
					8/7/23	133.67	4428.13

APPENDIX B
Water Elevation Data

Well Name	ADWR 55 Registry Number	UTM East (meters)	UTM North (meters)	Measuring Point Elevation (ft amsl)	Date	Depth To Water (feet)	Groundwater Elevation (ft amsl)
BMO-2014-2BU	917453	600788.520	3468192.762	4560.31	12/1/14	126.73	4433.58
				4561.85	1/30/15	126.73	4435.12
					4/15/15	126.65	4435.20
					5/18/15	127.21	4434.64
					7/29/15	127.49	4434.36
					10/7/15	126.94	4434.91
					2/4/16	126.56	4435.29
					4/6/16	126.81	4435.04
					7/14/16	127.93	4433.92
					11/2/16	128.37	4433.48
					1/24/17	127.75	4434.10
					7/13/17	129.07	4432.78
					1/10/18	129.01	4432.84
					7/12/18	129.67	4432.18
					1/10/19	129.99	4431.86
					7/18/19	130.46	4431.39
					1/8/20	130.35	4431.50
					8/6/20	130.75	4431.10
					1/7/21	131.51	4430.34
					7/15/21	132.12	4429.73
					1/26/22	132.81	4429.04
					7/21/22	133.00	4428.85
					2/15/23	133.27	4428.58
					8/7/23	133.66	4428.19
BMO-2014-3BL	917527	600822.399	3467786.416	4572.213	2/13/15	136.57	4435.64
				4573.765	4/15/15	138.35	4435.42
					5/18/15	138.64	4435.13
					7/29/15	138.86	4434.91
					10/7/15	138.51	4435.26
					2/4/16	138.14	4435.63
					4/6/16	138.39	4435.38
					7/14/16	139.44	4434.33
					11/2/16	139.66	4434.11
					1/25/17	139.54	4434.23
					7/13/17	140.74	4433.03
					1/11/18	140.48	4433.29
					1/12/18	140.56	4433.21
					7/12/18	141.74	4432.03
					1/10/19	142.01	4431.76
					7/18/19	142.49	4431.28
					1/9/20	142.76	4431.01
					8/6/20	142.99	4430.78
					1/7/21	143.90	4429.87
					7/15/21	144.45	4429.32
					1/27/22	145.15	4428.62
					8/1/22	145.37	4428.40
					2/16/23	145.48	4428.29
					8/8/23	145.93	4427.84
BMO-2014-3BU	917494	600810.534	3467787.733	4572.213	2/24/15	137.91	4434.30
				4574.887	4/15/15	139.45	4435.44
					5/18/15	139.74	4435.15
					7/29/15	140.03	4434.86
					10/7/15	139.64	4435.25
					2/4/16	139.20	4435.69
					4/6/16	139.48	4435.41
					7/14/16	140.55	4434.34
					11/2/16	140.83	4434.06
					1/25/17	140.66	4434.23
					7/13/17	140.80	4434.09
					1/11/18	141.50	4433.39
					1/12/18	141.52	4433.37
					7/12/18	141.65	4433.24
					1/10/19	143.12	4431.77
					7/18/19	143.56	4431.33
					1/9/20	143.84	4431.05
					8/6/20	144.08	4430.81
					1/7/21	144.99	4429.90
					7/15/21	145.56	4429.33
					1/27/22	146.24	4428.65
					8/1/22	146.58	4428.31
					2/16/23	146.59	4428.30
					8/8/23	147.01	4427.88

APPENDIX B
Water Elevation Data

Well Name	ADWR 55 Registry Number	UTM East (meters)	UTM North (meters)	Measuring Point Elevation (ft amsl)	Date	Depth To Water (feet)	Groundwater Elevation (ft amsl)
BMO-2014-4B	917620	600508.792	3468581.267	4566.453	3/4/15	132.43	4434.02
				4567.672	4/14/15	133.60	4434.07
					5/18/15	133.85	4433.82
					7/23/15	134.27	4433.40
					10/6/15	133.74	4433.93
					2/3/16	133.04	4434.63
					4/5/16	133.25	4434.42
					7/13/16	134.64	4433.03
					11/1/16	134.87	4432.80
					1/23/17	134.41	4433.26
					7/12/17	135.68	4431.99
					1/9/18	135.05	4432.62
					7/11/18	136.51	4431.16
					1/9/19	136.53	4431.14
					7/17/19	137.00	4430.67
					1/7/20	137.04	4430.63
					8/5/20	137.37	4430.30
					1/6/21	138.09	4429.58
					7/14/21	138.73	4428.94
					1/25/22	139.30	4428.37
					7/20/22	139.63	4428.04
					2/2/23	139.42	4428.25
					8/3/23	140.34	4427.33
BMO-2014-4BL	917619	600498.091	3468566.229	4566.453	3/1/15	131.89	4434.56
				4567.045	4/14/15	132.95	4434.10
					5/18/15	133.23	4433.82
					7/23/15	133.67	4433.38
					10/6/15	133.16	4433.89
					2/3/16	132.43	4434.62
					4/5/16	132.67	4434.38
					8/25/16	133.82	4433.23
					11/1/16	134.30	4432.75
					1/23/17	133.85	4433.20
					7/12/17	135.10	4431.95
					1/9/18	134.47	4432.58
					7/11/18	136.07	4430.98
					1/9/19	135.95	4431.10
					7/17/19	136.44	4430.61
					1/7/20	136.46	4430.59
					8/5/20	136.86	4430.19
					1/6/21	137.55	4429.50
					7/14/21	138.15	4428.90
					1/25/22	138.74	4428.31
					7/20/22	138.98	4428.07
					2/2/23	139.33	4427.72
					8/3/23	139.76	4427.29
BMO-2015-1B	917622	600261.991	3468563.389	4561.382	3/15/15	128.05	4433.33
				4562.063	4/14/15	129.10	4432.96
					5/18/15	129.24	4432.82
					7/23/15	129.62	4432.44
					10/6/15	129.02	4433.04
					2/3/16	128.41	4433.65
					4/5/16	128.45	4433.61
					8/25/16	130.05	4432.01
					11/1/16	130.38	4431.68
					1/23/17	130.28	4431.78
					7/12/17	131.14	4430.92
					1/9/18	130.50	4431.56
					7/11/18	131.87	4430.19
					1/9/19	132.24	4429.82
					7/17/19	132.79	4429.27
					1/7/20	132.91	4429.15
					8/5/20	133.35	4428.71
					1/6/21	133.95	4428.11
					7/14/21	134.63	4427.43
					1/25/22	135.13	4426.93
					7/20/22	135.50	4426.56
					2/2/23	135.37	4426.69
					8/3/23	136.23	4425.83

APPENDIX B
Water Elevation Data

Well Name	ADWR 55 Registry Number	UTM East (meters)	UTM North (meters)	Measuring Point Elevation (ft amsl)	Date	Depth To Water (feet)	Groundwater Elevation (ft amsl)
BMO-2015-1BL	917621	600272.479	3468583.092	4561.382	3/12/15	129.10	4432.28
				4563.402	4/14/15	130.45	4432.95
					5/18/15	130.59	4432.81
					7/23/15	130.98	4432.42
					10/6/15	130.30	4433.10
					2/3/16	129.75	4433.65
					4/5/16	129.81	4433.59
					7/13/16	131.31	4432.09
					11/1/16	131.66	4431.74
					1/23/17	131.58	4431.82
					7/12/17	132.46	4430.94
					1/9/18	131.79	4431.61
					7/11/18	133.21	4430.19
					1/9/19	133.52	4429.88
					7/17/19	134.09	4429.31
					1/7/20	134.18	4429.22
					8/5/20	134.62	4428.78
					1/6/21	135.25	4428.15
					3/9/21	135.21	4428.19
					7/14/21	135.90	4427.50
					1/25/22	136.41	4426.99
					7/20/22	136.82	4426.58
					2/2/23	136.92	4426.48
					8/3/23	137.51	4425.89
BMO-2015-2B	917827	600267.799	3468996.635	4579.624	3/19/15	147.17	4432.45
				4582.082	4/14/15	149.05	4433.03
					5/18/15	149.18	4432.90
					7/23/15	149.47	4432.61
					10/6/15	148.94	4433.14
					2/3/16	148.45	4433.63
					4/5/16	148.37	4433.71
					7/13/16	149.88	4432.20
					11/1/16	150.30	4431.78
					1/23/17	150.12	4431.96
					7/12/17	150.99	4431.09
					1/9/18	150.43	4431.65
					7/11/18	151.72	4430.36
					1/9/19	152.10	4429.98
					7/17/19	152.71	4429.37
					1/7/20	152.82	4429.26
					8/5/20	153.31	4428.77
					1/6/21	153.83	4428.25
					7/14/21	154.56	4427.52
					1/25/22	154.95	4427.13
					7/20/22	155.38	4426.70
					2/2/23	155.48	4426.60
					8/3/23	156.15	4425.93
BMO-2015-2BL	917828	600252.069	3468983.910	4579.624	3/26/15	146.43	4433.19
				4580.644	4/14/15	147.60	4433.04
					5/18/15	147.82	4432.82
					7/23/15	148.12	4432.52
					10/6/15	147.56	4433.08
					2/3/16	147.06	4433.58
					4/5/16	146.99	4433.65
					7/13/16	148.52	4432.12
					11/1/16	149.00	4431.64
					1/23/17	148.80	4431.84
					7/12/17	149.64	4431.00
					1/9/18	149.09	4431.55
					7/11/18	150.39	4430.25
					1/9/19	150.76	4429.88
					7/17/19	151.37	4429.27
					1/7/20	151.49	4429.15
					8/5/20	151.95	4428.69
					1/6/21	152.54	4428.10
					7/14/21	153.24	4427.40
					1/25/22	153.64	4427.00
					7/20/22	154.10	4426.54
					2/2/23	154.16	4426.48
					8/3/23	154.92	4425.72

APPENDIX B
Water Elevation Data

Well Name	ADWR 55 Registry Number	UTM East (meters)	UTM North (meters)	Measuring Point Elevation (ft amsl)	Date	Depth To Water (feet)	Groundwater Elevation (ft amsl)
BOOTH	914931	601132.466	3468049.945	4568.21	1/15/13	131.47	4436.74
					4/19/13	132.04	4436.17
					10/18/13	132.56	4435.65
					8/2/23	139.19	4429.02
BURKE	212268	602230.087	3473029.816	4856.30	4/22/08	606.55	4249.75
					8/5/08	605.86	4250.44
					10/28/08	604.88	4251.42
					2/19/09	603.91	4252.39
					4/28/09	603.70	4252.60
					8/19/09	602.66	4253.64
					10/10/13	601.06	4255.24
					1/8/14	592.90	4263.40
					4/16/14	592.51	4263.79
					7/21/14	592.35	4263.95
					10/21/14	594.68	4261.62
					8/3/15	587.06	4269.24
COB MW-1	903992	603153.259	3469889.889	4683.26	2/22/08	232.47	4450.79
					5/20/08	233.12	4450.14
					7/30/08	233.37	4449.89
					10/23/08	233.62	4449.64
					2/12/09	234.05	4449.21
					4/21/09	234.99	4448.27
					7/22/09	234.34	4448.92
					10/22/09	234.69	4448.57
					2/4/10	235.15	4448.11
					4/20/10	235.47	4447.79
					7/13/10	235.68	4447.58
					7/14/11	236.98	4446.28
					7/12/12	238.24	4445.02
					2/5/13	239.11	4444.15
					7/11/13	239.67	4443.59
					7/9/14	240.03	4443.23
					2/4/15	239.46	4443.80
					7/27/15	239.83	4443.43
COB MW-1B	225906	603153.259	3469889.889	4683.26	7/20/16	240.06	4443.20
					1/19/17	239.90	4443.36
					7/19/17	240.27	4442.99

APPENDIX B
Water Elevation Data

Well Name	ADWR 55 Registry Number	UTM East (meters)	UTM North (meters)	Measuring Point Elevation (ft amsl)	Date	Depth To Water (feet)	Groundwater Elevation (ft amsl)
COB MW-2	903984	600973.257	3468114.836	4566.21	2/22/08	122.85	4443.36
					5/20/08	123.00	4443.21
					7/30/08	123.53	4442.68
					10/23/08	124.02	4442.19
					2/12/09	123.39	4442.82
					4/23/09	124.16	4442.05
					7/22/09	124.91	4441.30
					10/22/09	125.33	4440.88
					3/3/10	124.93	4441.28
					4/26/10	125.47	4440.74
					7/13/10	126.54	4439.67
					1/20/11	126.46	4439.75
					7/14/11	128.17	4438.04
					1/31/12	128.04	4438.17
					7/12/12	129.58	4436.63
					1/9/13	129.28	4436.93
					7/25/13	130.21	4436.00
					1/6/14	130.11	4436.10
					7/9/14	131.32	4434.89
					2/4/15	126.60	4439.61
					5/28/15	130.39	4435.82
					7/27/15	130.32	4435.89
					10/7/15	129.96	4436.25
					1/11/16	129.56	4436.65
					7/20/16	130.90	4435.31
					1/19/17	130.99	4435.22
					7/19/17	131.90	4434.31
					1/11/18	131.72	4434.49
					7/17/18	132.56	4433.65
					1/15/19	133.13	4433.08
					7/24/19	133.54	4432.67
					1/14/20	133.82	4432.39
					8/11/20	134.02	4432.19
					1/12/21	134.86	4431.35
					7/21/21	135.43	4430.78
					2/8/22	135.5	4430.71
					8/3/22	136	4430
					2/1/23	136.51	4429.70
					8/2/23	136.80	4429.41

APPENDIX B
Water Elevation Data

Well Name	ADWR 55 Registry Number	UTM East (meters)	UTM North (meters)	Measuring Point Elevation (ft amsl)	Date	Depth To Water (feet)	Groundwater Elevation (ft amsl)
COB MW-3	906823	599169.225	3468726.000	4538.63	2/28/08	120.84	4417.79
					5/20/08	125.00	4413.63
					7/30/08	118.50	4420.13
					10/23/08	117.93	4420.70
					2/12/09	110.91	4427.72
					4/23/09	125.13	4413.50
					7/22/09	124.09	4414.54
					10/22/09	118.03	4420.60
					3/3/10	120.14	4418.49
					4/26/10	123.12	4415.51
					7/13/10	128.60	4410.03
					7/14/11	132.41	4406.22
					7/12/12	133.89	4404.74
					2/5/13	123.68	4414.95
					7/25/13	129.05	4409.58
					1/6/14	127.52	4411.11
					7/9/14	124.19	4414.44
					2/4/15	115.11	4423.52
					7/27/15	118.39	4420.24
					10/7/15	114.37	4424.26
					1/11/16	112.93	4425.70
					7/20/16	120.25	4418.38
					1/27/17	126.14	4412.49
					7/19/17	120.70	4417.93
					1/11/18	116.02	4422.61
					7/17/18	125.77	4412.86
					1/15/19	125.53	4413.10
					7/24/19	127.73	4410.90
					1/14/20	123.27	4415.36
					8/11/20	137.35	4401.28
					1/12/21	134.66	4403.97
					7/21/21	136.83	4401.80
					2/8/22	134.67	4403.96
					8/3/22	132	4407
					2/1/23	134.42	4404.21
					8/3/23	140.46	4398.17
COB WL	593116	606357.506	3472502.012	4832.06	2/22/08	56.50	4775.56
					5/20/08	57.50	4774.56
					7/30/08	58.64	4773.42
					10/23/08	58.76	4773.30
					2/12/09	58.89	4773.17
					4/23/09	59.73	4772.33
					7/22/09	61.27	4770.79
					10/22/09	62.82	4769.24
					3/3/10	65.24	4766.82
					4/26/10	66.13	4765.93
					7/13/10	67.52	4764.54
					7/14/11	73.86	4758.20
					7/12/12	78.85	4753.21
					2/5/13	82.41	4749.65
					7/25/13	81.36	4750.70
					7/9/14	78.12	4753.94
					2/4/15	58.14	4773.92
					7/27/15	80.09	4751.97
					1/11/16	81.72	4750.34
					7/20/16	84.80	4747.26
					1/25/17	87.06	4745.00
					7/14/17	89.96	4742.10
					1/11/18	89.87	4742.19
					7/9/18	91.48	4740.58
					1/7/19	91.73	4740.33
					7/15/19	92.89	4739.17
					1/7/20	93.72	4738.34
					8/4/20	94.79	4737.27
					1/6/21	95.93	4736.13
					7/12/21	97.54	4734.52
					8/3/22	98.70	4733.36
					2/1/23	101.62	4730.44
					8/10/23	103.21	4728.85

APPENDIX B
Water Elevation Data

Well Name	ADWR 55 Registry Number	UTM East (meters)	UTM North (meters)	Measuring Point Elevation (ft amsl)	Date	Depth To Water (feet)	Groundwater Elevation (ft amsl)
COLLINS	565260	602551.286	3471341.335	4733.72	2/12/08	289.47	4444.25
					5/29/08	288.53	4445.19
					7/31/08	290.08	4443.64
					10/20/08	290.15	4443.57
					4/21/09	290.66	4443.06
					7/20/09	290.78	4442.94
					10/20/09	290.52	4443.20
					2/2/10	291.64	4442.08
					4/23/10	291.96	4441.76
					7/20/10	292.21	4441.51
COOPER 988	232988	602200.984	3471719.987	4748.95	7/16/21	326.57	4422.38
					1/28/22	326.10	4422.85
					7/8/22	327.23	4421.72
					1/24/23	328.44	4420.51
					7/19/23	327.83	4421.12
COOPER C	637069	601349.987	3468913.011	4599.14	3/4/08	155.08	4444.06
					5/5/08	155.34	4443.80
					7/15/08	156.01	4443.13
					10/16/08	155.85	4443.29
					1/27/09	155.62	4443.52
					4/14/09	155.86	4443.28
					7/14/09	156.50	4442.64
					10/12/09	156.89	4442.25
					1/27/10	157.03	4442.11
					4/22/10	157.31	4441.83
					7/21/10	158.00	4441.14
					10/20/10	158.41	4440.73
					1/17/11	158.37	4440.77
					4/11/11	158.74	4440.40
					8/26/11	159.51	4439.63
					10/13/11	159.81	4439.33
					2/1/12	159.80	4439.34
					4/25/12	160.26	4438.88
					7/12/12	160.88	4438.26
					10/10/12	161.10	4438.04
					2/27/13	161.40	4437.74
					5/8/13	161.70	4437.44
					8/13/13	162.07	4437.07
					11/1/13	162.23	4436.91
					2/10/14	161.90	4437.24
					5/7/14	162.63	4436.51
					7/21/14	162.67	4436.47
					11/13/14	162.48	4436.66
					5/19/15	162.14	4437.00
					9/10/15	162.14	4437.00
					10/21/15	162.17	4436.97
					3/16/16	161.76	4437.38
					8/18/16	162.78	4436.36
					7/13/17	162.68	4436.46
					2/5/18	163.66	4435.48
					7/25/18	164.42	4434.72
					1/28/19	164.72	4434.42
					8/19/19	165.43	4433.71
					8/17/20	165.98	4433.16
					3/15/21	166.65	4432.49
					7/27/21	167.22	4431.92
					3/9/22	167.82	4431.32
					7/25/22	168.15	4430.99
					9/12/23	168.79	4430.35

APPENDIX B
Water Elevation Data

Well Name	ADWR 55 Registry Number	UTM East (meters)	UTM North (meters)	Measuring Point Elevation (ft amsl)	Date	Depth To Water (feet)	Groundwater Elevation (ft amsl)
DODSON	644927	605594.560	3469063.772	4686.34	5/12/08	81.38	4604.96
					7/24/08	82.20	4604.14
					10/13/08	81.82	4604.52
					1/22/09	82.33	4604.01
					4/9/09	82.84	4603.50
					7/8/09	86.88	4599.46
					10/6/09	87.27	4599.07
					1/21/10	88.54	4597.80
					4/19/10	89.53	4596.81
					7/20/10	90.79	4595.55
					10/18/10	90.33	4596.01
					1/19/11	90.34	4596.00
					4/5/11	91.05	4595.29
					7/12/11	92.07	4594.27
					10/10/11	93.11	4593.23
					1/31/12	93.68	4592.66
					4/12/12	94.19	4592.15
					10/4/12	97.80	4588.54
					1/18/13	99.73	4586.61
					4/9/13	98.09	4588.25
					7/9/13	98.38	4587.96
					10/9/13	92.69	4593.65
					1/9/14	93.21	4593.13
					4/15/14	94.64	4591.70
					7/14/14	95.43	4590.91
					10/16/14	97.22	4589.12
					1/26/15	95.81	4590.53
					7/23/15	97.32	4589.02
					1/12/16	99.34	4587.00
					7/18/16	103.91	4582.43
					7/17/17	103.07	4583.27
					1/17/18	101.44	4584.90
					7/30/18	117.18	4569.16
					1/15/19	105.08	4581.26
					7/9/19	104.16	4582.18
					1/15/20	101.82	4584.52
					8/13/20	99.10	4587.24
					1/11/21	99.72	4586.62
					7/21/21	101.04	4585.30
					1/28/22	99.68	4586.66
					7/6/22	99.22	4587.12
					1/23/23	102.36	4583.98
					7/25/23	100.47	4585.87

APPENDIX B
Water Elevation Data

Well Name	ADWR 55 Registry Number	UTM East (meters)	UTM North (meters)	Measuring Point Elevation (ft amsl)	Date	Depth To Water (feet)	Groundwater Elevation (ft amsl)
DOUGLASS 791	592791	607632.993	3470222.677	4703.27	2/13/08	22.11	4681.16
					5/13/08	24.60	4678.67
					7/22/08	27.00	4676.27
					10/16/08	23.60	4679.67
					1/19/09	26.51	4676.76
					4/8/09	28.53	4674.74
					7/7/09	31.04	4672.23
					10/5/09	31.49	4671.78
					1/21/10	34.55	4668.72
					4/19/10	36.40	4666.87
					7/12/10	36.74	4666.53
					1/18/11	25.96	4677.31
					1/30/12	27.72	4675.55
					4/11/12	29.99	4673.28
					7/5/12	32.67	4670.60
					1/9/13	27.24	4676.03
					7/8/13	32.70	4670.57
					1/6/14	23.56	4679.71
					7/7/14	28.22	4675.05
					7/20/15	30.86	4672.41
					7/11/16	32.09	4671.18
					7/13/17	31.58	4671.69
					8/1/18	36.48	4666.79
					7/11/19	27.35	4675.92
					8/14/20	27.69	4675.58
					7/19/21	32.38	4670.89
					7/8/22	37.92	4665.35
DOUGLASS 792	592792	607607.541	3469829.115	4681.73	2/13/08	87.76	4593.97
					5/13/08	87.21	4594.52
					7/22/08	86.90	4594.83
					10/16/08	86.45	4595.28
					1/20/09	86.26	4595.47
					4/8/09	86.04	4595.69
					7/7/09	86.16	4595.57
					10/5/09	86.19	4595.54
					1/21/10	86.45	4595.28
					4/19/10	87.19	4594.54
					7/12/10	87.55	4594.18
					1/18/11	87.8	4593.93
					7/12/11	88.38	4593.35
					1/30/12	88.92	4592.81
					4/11/12	89.18	4592.55
					7/5/12	95.64	4586.09
					1/9/13	82.60	4599.13
					7/8/13	83.66	4598.07
					1/6/14	83.55	4598.18
					7/7/14	82.43	4599.30
					7/20/15	82.57	4599.16
					7/11/16	83.48	4598.25
					7/13/17	84.43	4597.30
					8/1/18	85.76	4595.97
					7/11/19	85.39	4596.34
					8/14/20	85.28	4596.45
					7/19/21	86.15	4595.58
					7/8/22	87.30	4594.43

APPENDIX B
Water Elevation Data

Well Name	ADWR 55 Registry Number	UTM East (meters)	UTM North (meters)	Measuring Point Elevation (ft amsl)	Date	Depth To Water (feet)	Groundwater Elevation (ft amsl)
EAST	599796	607076.365	3468712.215	4626.01	2/8/08	50.20	4575.81
					5/14/08	52.45	4573.56
					7/23/08	52.16	4573.85
					10/14/08	52.19	4573.82
					1/20/09	50.52	4575.49
					4/8/09	51.91	4574.10
					7/13/09	56.93	4569.08
					10/8/09	60.95	4565.06
					1/25/10	59.35	4566.66
					4/21/10	58.88	4567.13
					7/14/10	61.86	4564.15
					10/20/10	61.20	4564.81
					1/18/11	59.79	4566.22
					4/5/11	59.73	4566.28
					7/12/11	63.79	4562.22
					10/12/11	63.64	4562.37
					1/31/12	63.82	4562.19
					4/11/12	65.72	4560.29
					7/9/12	70.50	4555.51
					10/4/12	73.34	4552.67
					1/17/13	75.04	4550.97
					4/9/13	78.05	4547.96
					7/9/13	78.37	4547.64
					10/15/13	72.38	4553.63
					1/14/14	71.88	4554.13
					4/8/14	71.03	4554.98
					7/8/14	72.03	4553.98
					10/22/14	67.75	4558.26
					7/24/15	74.64	4551.37
					7/12/16	65.02	4560.99
					7/27/17	67.11	4558.90
					7/30/18	77.95	4548.06
					7/17/19	79.28	4546.73
					8/13/20	77.26	4548.75
					7/23/21	78.88	4547.13
					7/7/22	78.45	4547.56
					7/27/23	78.60	4547.41
ECHAVE	219449	599701	3470168	4648	2/1/12	216.71	4431.29
					1/18/13	218.41	4429.59
					7/28/17	220.49	4427.51
					2/23/18	219.94	4428.06
					7/17/18	220.37	4427.63
					1/15/19	220.49	4427.51
					7/23/19	220.93	4427.07
					1/21/20	221.16	4426.84
					8/10/20	221.50	4426.50
					1/5/21	222.04	4425.96
					7/21/21	222.59	4425.41
					1/26/22	222.93	4425.07
					7/21/23	224.03	4423.97

APPENDIX B
Water Elevation Data

Well Name	ADWR 55 Registry Number	UTM East (meters)	UTM North (meters)	Measuring Point Elevation (ft amsl)	Date	Depth To Water (feet)	Groundwater Elevation (ft amsl)
EPPELE 641	805641	607165.354	3469229.942	4642.86	3/11/08	29.52	4613.34
					5/12/08	30.64	4612.22
					7/21/08	25.59	4617.27
					10/14/08	24.53	4618.33
					1/21/09	27.35	4615.51
					4/8/09	29.08	4613.78
					7/9/09	31.51	4611.35
					10/7/09	29.92	4612.94
					7/20/10	50.38	4592.48
					10/20/10	48.88	4593.98
					1/17/11	51.13	4591.73
					4/5/11	53.81	4589.05
					7/11/11	56.82	4586.04
					10/12/11	37.62	4605.24
					1/31/12	46.80	4596.06
					4/11/12	52.07	4590.79
					7/6/12	62.39	4580.47
					10/3/12	71.66	4571.20
					1/17/13	59.73	4583.13
					4/8/13	83.98	4558.88
					7/9/13	92.84	4550.02
					10/15/13	28.50	4614.36
					1/14/14	49.32	4593.54
					4/8/14	52.03	4590.83
					7/8/14	66.62	4576.24
					10/21/14	24.56	4618.30
					7/24/15	41.32	4601.54
					7/12/16	38.41	4604.45
					7/27/17	48.58	4594.28
					7/31/18	62.29	4580.57
					7/19/19	29.30	4613.56
					2/8/22	28.02	4614.84
					1/11/23	25.48	4617.38
FLEMING	218386	605565.701	3469342.523	4693.68	2/18/09	299.30	4394.38
					4/8/09	301.81	4391.87
					7/7/09	304.60	4389.08
					10/6/09	307.84	4385.84
					1/21/10	311.73	4381.95
					4/20/10	315.26	4378.42
					7/15/10	318.32	4375.36
					11/4/10	349.62	4344.06
					1/19/11	356.89	4336.79
					7/12/11	364.72	4328.96
					2/3/12	370.84	4322.84
					7/9/12	373.86	4319.82
					1/18/13	373.96	4319.72
					7/17/13	374.88	4318.80
					1/10/14	379.63	4314.05
					7/17/14	372.97	4320.71
FRANCO 101	500101	602848.756	3468830.905	4636.75	4/10/13	196.05	4440.70
					7/10/13	196.19	4440.56
					10/16/13	196.65	4440.10
					1/14/14	196.77	4439.98
					4/8/14	196.86	4439.89
					7/14/14	197.08	4439.67
					10/8/14	197.91	4438.84

APPENDIX B
Water Elevation Data

Well Name	ADWR 55 Registry Number	UTM East (meters)	UTM North (meters)	Measuring Point Elevation (ft amsl)	Date	Depth To Water (feet)	Groundwater Elevation (ft amsl)
FRANCO 383	221383	602817.854	3468831.563	4636.88	9/13/12	195.19	4441.69
					10/5/12	195.00	4441.88
					12/3/12	196.70	4440.18
					1/15/13	196.30	4440.58
					2/6/13	195.62	4441.26
					3/7/13	196.20	4440.68
					4/10/13	196.25	4440.63
					7/10/13	196.13	4440.75
					10/16/13	196.30	4440.58
					1/14/14	196.46	4440.42
					4/8/14	196.89	4439.99
					7/14/14	196.87	4440.01
					10/8/14	196.86	4440.02
					7/27/15	198.11	4438.77
					7/18/16	197.32	4439.56
					7/20/17	198.37	4438.51
					7/27/18	198.73	4438.15
				4635.79	7/24/19	199.56	4436.23
					8/12/20	200.58	4435.21
					7/22/21	200.62	4435.17
					7/7/22	203.32	4432.47
					7/27/23	202.65	4433.14
FULTZ	212447	607153.306	3469063.892	4642.92	10/22/08	40.59	4602.33
					1/21/09	40.66	4602.26
					4/9/09	42.88	4600.04
					7/13/09	54.94	4587.98
					10/8/09	56.16	4586.76
					1/25/10	53.45	4589.47
					4/20/10	63.82	4579.10
					7/14/10	119.86	4523.06
GARNER 557	558557	602659.240	3468962.415	4638.45	2/21/08	191.05	4447.40
					5/5/08	191.28	4447.17
					7/15/08	191.44	4447.01
					10/16/08	191.83	4446.62
					1/28/09	191.92	4446.53
					4/15/09	192.09	4446.36
					7/16/09	192.52	4445.93
					10/14/09	192.82	4445.63
					2/2/10	193.33	4445.12
					4/22/10	193.49	4444.96
					7/20/10	193.93	4444.52
					10/19/10	194.29	4444.16
					1/19/11	194.61	4443.84
					4/6/11	194.86	4443.59
					7/15/11	195.25	4443.20
					10/11/11	195.72	4442.73
					2/2/12	196.09	4442.36
					4/13/12	196.30	4442.15
					7/11/12	196.72	4441.73
					10/5/12	197.08	4441.37
					1/11/13	197.51	4440.94
					4/15/13	197.76	4440.69
					7/10/13	197.87	4440.58
					10/11/13	198.27	4440.18
					1/17/14	198.46	4439.99
					4/15/14	198.58	4439.87
					8/6/20	202.36	4436.09
					1/11/21	202.85	4435.60
					7/21/21	203.52	4434.93
					2/1/22	204.16	4434.29
					7/12/22	204.56	4433.89
					1/13/23	204.94	4433.51
					7/24/23	215.23	4423.22

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Water Elevation Data

Well Name	ADWR 55 Registry Number	UTM East (meters)	UTM North (meters)	Measuring Point Elevation (ft amsl)	Date	Depth To Water (feet)	Groundwater Elevation (ft amsl)
GARNER 635	587635	602665.352	3468967.902	4640.74	2/4/08	193.20	4447.54
					5/5/08	195.90	4444.84
					7/15/08	193.58	4447.16
					10/15/08	194.35	4446.39
					1/28/09	194.80	4445.94
					4/15/09	195.54	4445.20
					7/16/09	194.88	4445.86
					10/14/09	196.36	4444.38
					2/2/10	195.32	4445.42
					4/22/10	196.01	4444.73
					8/25/10	195.57	4445.17
					10/19/10	225.83	4414.91
					1/19/11	196.89	4443.85
					4/6/11	197.40	4443.34
					7/15/11	198.07	4442.67
					10/11/11	197.75	4442.99
					2/2/12	199.50	4441.24
					4/13/12	200.40	4440.34
					7/11/12	199.15	4441.59
					10/5/12	202.71	4438.03
					1/11/13	199.38	4441.36
					4/15/13	200.53	4440.21
					7/10/13	200.13	4440.61
					10/11/13	200.27	4440.47
					1/17/14	201.83	4438.91
					4/15/14	200.67	4440.07
					7/26/17	202.02	4438.72
					1/16/18	202.07	4438.67
					7/24/18	205.65	4435.09
					1/15/19	203.03	4437.71
					7/15/19	208.66	4432.08
					8/6/20	204.32	4436.42
					7/21/21	206.36	4434.38
					2/1/22	206.06	4434.68
					7/12/22	206.52	4434.22
					7/24/23	207.19	4433.55
GGOOSE 547	628547	606256.657	3469820.260	4717.11	5/21/08	220.91	4496.20
					8/15/08	238.48	4478.63
					10/29/08	235.90	4481.21
					2/24/09	236.13	4480.98
					5/14/09	236.17	4480.94
					8/19/09	236.01	4481.10
					8/19/09	236.01	4481.10
					11/11/09	237.66	4479.45
					3/9/10	238.84	4478.27
					4/27/10	239.17	4477.94
GL-03	539782	604386.940	3473747.943	4924.31	5/22/08	660.15	4264.16
					8/4/08	659.79	4264.52
					12/2/08	658.25	4266.06
					2/26/09	658.62	4265.69
					5/5/09	657.23	4267.08
					8/12/09	656.56	4267.75
					8/12/09	656.56	4267.75
					11/10/09	655.31	4269.00
					3/2/10	655.52	4268.79
					4/9/10	655.35	4268.96
					7/7/10	655.05	4269.26
					2/1/12	651.72	4272.59

APPENDIX B
Water Elevation Data

Well Name	ADWR 55 Registry Number	UTM East (meters)	UTM North (meters)	Measuring Point Elevation (ft amsl)	Date	Depth To Water (feet)	Groundwater Elevation (ft amsl)
GOAR RANCH	610695	602454.751	3468892.471	4631.13	2/21/08	183.90	4447.23
					5/5/08	188.11	4443.02
					7/16/08	184.41	4446.72
					10/22/08	184.68	4446.45
					1/27/09	184.87	4446.26
					4/15/09	184.96	4446.17
					7/7/09	185.36	4445.77
					10/12/09	185.72	4445.41
					2/2/10	186.25	4444.88
					4/22/10	186.44	4444.69
					7/13/10	186.76	4444.37
					1/19/11	187.52	4443.61
					7/12/11	188.24	4442.89
					2/6/12	189.02	4442.11
					9/13/12	190.08	4441.05
					1/11/13	190.48	4440.65
					9/18/13	191.21	4439.92
					1/17/14	191.48	4439.65
					7/21/14	191.73	4439.40
					2/2/15	191.44	4439.69
					8/4/15	191.74	4439.39
					1/11/16	191.68	4439.45
					7/25/16	191.83	4439.30
					1/17/17	192.43	4438.70
					7/12/17	192.84	4438.29
					1/15/18	193.12	4438.01
					7/17/18	193.56	4437.57
					1/7/19	194.16	4436.97
					7/8/19	194.68	4436.45
					1/21/20	195.19	4435.94
					7/20/20	195.34	4435.79
					1/5/21	195.91	4435.22
					7/12/21	196.50	4434.63
					1/27/22	197.19	4433.94
					7/11/22	197.51	4433.62
					1/24/23	198.05	4433.08
					7/24/23	198.21	4432.92

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Water Elevation Data

Well Name	ADWR 55 Registry Number	UTM East (meters)	UTM North (meters)	Measuring Point Elevation (ft amsl)	Date	Depth To Water (feet)	Groundwater Elevation (ft amsl)
HOBAN	805290	601705.848	3468880.329	4607.60	2/27/08	163.05	4444.55
					5/7/08	163.28	4444.32
					7/14/08	163.87	4443.73
					10/16/08	163.95	4443.65
					1/28/09	163.82	4443.78
					4/15/09	164.16	4443.44
					7/14/09	164.59	4443.01
					10/15/09	165.00	4442.60
					3/2/10	165.32	4442.28
					5/18/10	165.71	4441.89
					7/20/10	166.17	4441.43
					10/19/10	166.45	4441.15
					8/31/11	167.76	4439.84
					12/14/11	168.13	4439.47
					2/1/12	168.09	4439.51
					4/19/12	168.32	4439.28
					7/11/12	169.10	4438.50
					10/17/12	169.40	4438.20
					2/15/13	169.70	4437.90
					5/8/13	169.95	4437.65
					8/13/13	170.31	4437.29
					11/1/13	170.54	4437.06
					2/10/14	170.22	4437.38
					5/7/14	170.61	4436.99
					7/21/14	170.90	4436.70
					11/13/14	170.81	4436.79
					2/4/15	170.26	4437.34
					5/19/15	170.37	4437.23
					9/10/15	170.57	4437.03
					10/21/15	170.58	4437.02
					3/16/16	170.33	4437.27
					8/18/16	171.05	4436.55
					3/7/17	171.41	4436.19
					7/13/17	172.00	4435.60
					2/5/18	172.12	4435.48
					7/25/18	172.74	4434.86
					1/28/19	173.29	4434.31
					8/7/19	173.88	4433.72
					2/20/20	174.29	4433.31
					9/8/20	174.47	4433.13
					3/15/21	175.10	4432.50
					3/9/22	176.25	4431.35
					7/25/22	176.56	4431.04
					3/14/23	176.93	4430.67
					9/12/23	177.31	4430.29
HOWARD 312	221312	601308.920	3468772.630	4594.9356	8/14/12	188.36	4406.58
					10/16/12	193.33	4401.61
					2/6/13	193.74	4401.20
					4/9/13	195.30	4399.64
					7/12/13	198.27	4396.67
					10/16/13	201.08	4393.86
					1/8/14	202.61	4392.33
					4/10/14	204.64	4390.30
					7/14/14	206.97	4387.97
					10/10/14	206.36	4388.58
					5/19/15	208.08	4386.86
					7/31/15	210.54	4384.40
					7/27/16	207.89	4387.05
					7/21/17	207.54	4387.40
					7/23/18	204.95	4389.99
					7/9/19	206.58	4388.36
					7/21/20	205.37	4389.57
					7/28/21	214.78	4380.16
					7/13/22	206.32	4388.62
					7/26/23	222.72	4372.22

APPENDIX B
Water Elevation Data

Well Name	ADWR 55 Registry Number	UTM East (meters)	UTM North (meters)	Measuring Point Elevation (ft amsl)	Date	Depth To Water (feet)	Groundwater Elevation (ft amsl)
HOWARD NR	NR	601281.159	3468770.377	4593.91	3/4/08	150.10	4443.81
					5/8/08	150.70	4443.21
					7/14/08	150.91	4443.00
					10/15/08	150.67	4443.24
					1/28/09	150.67	4443.24
					4/15/09	151.15	4442.76
					7/15/09	151.76	4442.15
					10/12/09	152.08	4441.83
					1/27/10	152.20	4441.71
					4/21/10	152.30	4441.61
					7/19/10	153.16	4440.75
					10/18/10	153.53	4440.38
					1/17/11	153.51	4440.40
					4/11/11	154.24	4439.67
					8/26/11	154.79	4439.12
					10/11/11	155.02	4438.89
					2/1/12	155.08	4438.83
					4/13/12	155.40	4438.51
					9/13/12	156.29	4437.62
					10/16/12	156.43	4437.48
					2/6/13	156.27	4437.64
					4/9/13	156.71	4437.20
					7/12/13	157.18	4436.73
					10/16/13	157.52	4436.39
					1/8/14	157.16	4436.75
					4/10/14	157.55	4436.36
					7/14/14	157.92	4435.99
					10/10/14	157.68	4436.23
					2/2/15	157.11	4436.80
					5/19/15	157.31	4436.60
					7/31/15	157.58	4436.33
					10/8/15	157.36	4436.55
					1/12/16	157.01	4436.90
					7/27/16	157.93	4435.98
					1/16/17	158.23	4435.68
					7/21/17	158.84	4435.07
					1/15/18	158.86	4435.05
					7/23/18	159.64	4434.27
					1/14/19	160.18	4433.73
					7/9/19	160.66	4433.25
					1/17/20	160.96	4432.95
					7/21/20	161.07	4432.84
					1/4/21	161.71	4432.20
					7/28/21	162.43	4431.48
					1/27/22	163.01	4430.90
					7/13/22	163.37	4430.54
					1/11/23	163.60	4430.31
					7/25/23	163.82	4430.09

APPENDIX B
Water Elevation Data

Well Name	ADWR 55 Registry Number	UTM East (meters)	UTM North (meters)	Measuring Point Elevation (ft amsl)	Date	Depth To Water (feet)	Groundwater Elevation (ft amsl)
KEEFER	209744	599879.175	3468119.015	4572.03	2/6/08	134.67	4437.36
					5/6/08	135.28	4436.75
					7/16/08	136.24	4435.79
					10/28/08	135.87	4436.16
					1/28/09	134.88	4437.15
					4/16/09	135.00	4437.03
					7/14/09	136.07	4435.96
					10/13/09	136.67	4435.36
					1/26/10	136.26	4435.77
					4/20/10	136.26	4435.77
					7/15/10	137.29	4434.74
					10/19/10	137.68	4434.35
					1/18/11	137.42	4434.61
					4/6/11	137.91	4434.12
					7/18/11	140.39	4431.64
					10/11/11	141.68	4430.35
					2/6/12	139.27	4432.76
					4/23/12	139.76	4432.27
					7/17/12	140.69	4431.34
					10/9/12	141.00	4431.03
					1/10/13	140.80	4431.23
					4/8/13	141.32	4430.71
					7/11/13	141.81	4430.22
					10/7/13	141.63	4430.40
					1/7/14	141.10	4430.93
					4/9/14	140.91	4431.12
					7/10/14	141.97	4430.06
					10/8/14	141.45	4430.58
					5/19/15	140.47	4431.56
					7/21/15	140.80	4431.23
					10/8/15	140.21	4431.82
					1/14/16	139.54	4432.49
					7/25/16	143.37	4428.66
					7/25/17	142.64	4429.39
					2/23/18	142.25	4429.78
					7/9/18	143.46	4428.57
					1/11/19	144.10	4427.93
					7/10/19	144.82	4427.21
					1/17/20	144.79	4427.24
					7/22/20	145.42	4426.61
					1/12/21	146.11	4425.92
					7/13/21	146.78	4425.25
					1/25/22	147.14	4424.89
					7/7/22	147.47	4424.56
					1/24/23	147.49	4424.54
					7/19/23	148.30	4423.73

APPENDIX B
Water Elevation Data

Well Name	ADWR 55 Registry Number	UTM East (meters)	UTM North (meters)	Measuring Point Elevation (ft amsl)	Date	Depth To Water (feet)	Groundwater Elevation (ft amsl)
LADD 251	520251	594788.933	3470348.534	4443.83	3/22/13	221.32	4222.51
					6/14/13	221.78	4222.05
					9/24/13	219.6	4224.23
					12/3/13	217.44	4226.39
					2/25/14	217.59	4226.24
					6/4/14	218.27	4225.56
					9/10/14	219.04	4224.79
					11/20/14	213.58	4230.25
					3/24/15	214.18	4229.65
					9/17/15	216.39	4227.44
					3/24/16	217.85	4225.98
					9/28/16	219.8	4224.03
					3/20/17	220.91	4222.92
					8/10/17	222.12	4221.71
					3/8/18	222.94	4220.89
					8/22/18	223.64	4220.19
					2/14/19	224.29	4219.54
					9/9/19	225.05	4218.78
					2/27/20	225.45	4218.38
					8/25/20	225.33	4218.50
					3/23/21	225.80	4218.03
					9/20/21	226.48	4217.35
					3/14/22	225.62	4218.21
					9/22/22	225.65	4218.18
					3/14/23	222.70	4221.13
					9/19/23	222.32	4221.51
LADD 538	505538	596790.675	3469638.573	4527.05	2/9/10	253.10	4273.95
					4/28/10	253.83	4273.22
					7/28/10	254.05	4273.00
					12/8/10	252.87	4274.18
					3/17/11	252.76	4274.29
					6/24/11	288.00	4239.05
					9/29/11	276.58	4250.47
					12/16/11	250.68	4276.37
					2/15/12	253.80	4273.25
					6/11/12	258.90	4268.15
					9/26/12	255.76	4271.29
					12/19/12	249.43	4277.62
					3/22/13	250.51	4276.54
					6/27/13	270.00	4257.05
					9/24/13	250.80	4276.25
					12/3/13	251.36	4275.69
					2/25/14	253.36	4273.69
					6/4/14	259.63	4267.42
					9/10/14	248.68	4278.37
					11/20/14	268.66	4258.39
					3/24/15	248.46	4278.59
					9/17/15	243.05	4284.00
					3/24/16	266.62	4260.43
					9/28/16	246.14	4280.91
					3/20/17	232.53	4294.52
					8/10/17	227.4	4299.65
					3/8/18	222.4	4304.65
					8/22/18	219.90	4307.15
					2/14/19	217.80	4309.25
					9/9/19	216.22	4310.83
					2/27/20	215.26	4311.79
					8/25/20	213.80	4313.25
					3/23/21	212.10	4314.95
					9/20/21	211.29	4315.76
					3/14/22	210.27	4316.78
					9/22/22	209.33	4317.72
					3/14/23	207.93	4319.12
					9/19/23	206.74	4320.31

APPENDIX B
Water Elevation Data

Well Name	ADWR 55 Registry Number	UTM East (meters)	UTM North (meters)	Measuring Point Elevation (ft amsl)	Date	Depth To Water (feet)	Groundwater Elevation (ft amsl)
LADD 635	224635	598724.834	3467541.096	4598.99	7/18/15	169.31	4429.68
					12/17/15	169.54	4429.45
					3/31/16	169.56	4429.43
					9/28/16	170.21	4428.78
					11/22/16	170.90	4428.09
					3/20/17	184.94	4414.05
					8/24/17	172.09	4426.90
					3/8/18	172.22	4426.77
					8/22/18	173.07	4425.92
					2/14/19	173.20	4425.79
					9/9/19	174.03	4424.96
					2/27/20	173.85	4425.14
					8/25/20	186.34	4412.65
					3/20/23	176.72	4422.27
					9/19/23	177.96	4421.03
LADD 837	519837	594757.700	3470817.194	4470.11	2/9/10	262.80	4207.31
					4/28/10	262.65	4207.46
					7/28/10	265.75	4204.36
					12/8/10	262.38	4207.73
					3/17/11	262.65	4207.46
					6/24/11	262.51	4207.60
					9/29/11	262.28	4207.83
					12/16/11	264.32	4205.79
					2/15/12	262.24	4207.87
					6/11/12	264.04	4206.07
					9/26/12	261.75	4208.36
					12/19/12	261.94	4208.17
					3/27/13	266.68	4203.43
					6/14/13	261.51	4208.60
					9/24/13	261.38	4208.73
					12/3/13	260.85	4209.26
					2/25/14	261.04	4209.07
					6/4/14	262.53	4207.58
					9/10/14	263.68	4206.43
					11/20/14	261.18	4208.93
					3/24/15	261.44	4208.67
					9/17/15	264.32	4205.79
					3/24/16	261.79	4208.32
					9/28/16	262.8	4207.31
					3/20/17	261.3	4208.81
					8/10/17	262.0	4208.11
					3/8/18	283.2	4186.90
					8/22/18	281.46	4188.65
					2/14/19	341.04	4129.07
					9/9/19	295.40	4174.71
					2/27/20	304.30	4165.81
					8/25/20	299.29	4170.82
					3/23/21	317.23	4152.88
					9/20/21	295.30	4174.81
					3/14/22	294.03	4176.08
					9/22/22	295.82	4174.29
					3/14/23	296.53	4173.58
					9/19/23	384.83	4085.28

APPENDIX B
Water Elevation Data

Well Name	ADWR 55 Registry Number	UTM East (meters)	UTM North (meters)	Measuring Point Elevation (ft amsl)	Date	Depth To Water (feet)	Groundwater Elevation (ft amsl)
LADD 977	642977	597619.168	3468714.011	4513.40	3/17/11	82.32	4431.08
					6/24/11	84.00	4429.40
					9/29/11	83.62	4429.78
					12/16/11	84.8	4428.60
					2/15/12	84.67	4428.73
					6/11/12	85.7	4427.70
					9/26/12	84.96	4428.44
					12/19/12	86.27	4427.13
					3/22/13	85.18	4428.22
					6/14/13	86.54	4426.86
					9/24/13	82.66	4430.74
					12/3/13	84.48	4428.92
					2/25/14	85.27	4428.13
					6/4/14	85.88	4427.52
					9/10/14	86.15	4427.25
					11/20/14	80.95	4432.45
					3/24/15	83.73	4429.67
					5/19/15	84.28	4429.12
					9/17/15	86.44	4426.96
					12/17/15	86.81	4426.59
					3/24/16	87.22	4426.18
					9/28/16	86.11	4427.29
					3/20/17	86.55	4426.85
					8/10/17	87.9	4425.50
					3/8/18	87.92	4425.48
					8/22/18	88.92	4424.48
					2/14/19	87.5	4425.90
					9/9/19	89.27	4424.13
					2/27/20	87.47	4425.93
					8/25/20	89.28	4424.12
					3/23/21	90.20	4423.20
					9/20/21	88.60	4424.80
					3/14/22	90.74	4422.66
					9/22/22	88.76	4424.64
					3/14/23	90.31	4423.09
					9/19/23	92.02	4421.38

APPENDIX B
Water Elevation Data

Well Name	ADWR 55 Registry Number	UTM East (meters)	UTM North (meters)	Measuring Point Elevation (ft amsl)	Date	Depth To Water (feet)	Groundwater Elevation (ft amsl)
MCCONNELL 265	539265	601463.094	3468840.139	4600.70	2/20/08	156.15	4444.55
					5/6/08	156.40	4444.30
					7/15/08	157.07	4443.63
					11/19/08	157.17	4443.53
					1/28/09	156.70	4444.00
					4/15/09	157.22	4443.48
					7/15/09	157.59	4443.11
					10/12/09	158.13	4442.57
					1/26/10	158.35	4442.35
					4/22/10	158.68	4442.02
					7/21/10	159.37	4441.33
					10/18/10	159.63	4441.07
					1/19/11	159.69	4441.01
					4/8/11	159.10	4441.60
					7/12/11	160.77	4439.93
					10/11/11	161.17	4439.53
					2/7/12	161.31	4439.39
					4/11/12	161.57	4439.13
					7/6/12	162.36	4438.34
					10/8/12	162.43	4438.27
					1/10/13	162.57	4438.13
					4/18/13	163.08	4437.62
					10/14/13	163.61	4437.09
					1/8/14	163.42	4437.28
					4/14/14	163.79	4436.91
					7/14/14	164.03	4436.67
					10/7/14	163.89	4436.81
					2/2/15	163.32	4437.38
					5/19/15	163.54	4437.16
					7/31/15	163.83	4436.87
					10/8/15	163.64	4437.06
					1/11/16	163.36	4437.34
					7/26/16	167.70	4433.00
					1/16/17	164.46	4436.24
					7/20/17	165.09	4435.61
					1/15/18	165.10	4435.60
					7/17/18	165.09	4435.61
					1/9/19	166.29	4434.41
					7/10/19	166.91	4433.79
					1/16/20	167.28	4433.42
					8/10/20	167.46	4433.24
					1/5/21	167.96	4432.74
					7/27/21	168.73	4431.97
					1/27/22	169.37	4431.33
					7/12/22	169.66	4431.04
					1/12/23	170.03	4430.67
MCCONNELL 459	221459	601471.708	3468840.682	4601.55	7/27/12	170.50	4431.05
					10/8/12	166.81	4434.74
					1/15/13	166.32	4435.23
					4/10/13	166.79	4434.76
					7/19/13	167.53	4434.02
					10/14/13	167.13	4434.42
					1/8/14	167.90	4433.65
					4/14/14	167.28	4434.27
					9/9/14	167.37	4434.18
					10/7/14	167.24	4434.31
					5/19/15	168.03	4433.52
					7/31/15	170.86	4430.69
					7/26/16	167.13	4434.42
					7/20/17	168.58	4432.97
					7/17/18	169.08	4432.47
					7/10/19	170.81	4430.74
					8/10/20	171.11	4430.44
					7/27/21	171.67	4429.88
					7/12/22	179.50	4422.05
					8/4/23	173.51	4428.04

APPENDIX B
Water Elevation Data

Well Name	ADWR 55 Registry Number	UTM East (meters)	UTM North (meters)	Measuring Point Elevation (ft amsl)	Date	Depth To Water (feet)	Groundwater Elevation (ft amsl)
METZLER	35-71891	602091.308	3471381.176	4728.53	3/5/08	288.30	4440.23
					5/15/08	286.53	4442.00
					7/31/08	286.82	4441.71
					10/20/08	287.09	4441.44
					2/11/09	287.74	4440.79
					4/20/09	287.47	4441.06
					7/15/09	287.58	4440.95
					10/14/09	287.99	4440.54
					2/1/10	288.38	4440.15
					5/18/10	288.65	4439.88
					7/16/10	288.88	4439.65
					10/19/10	289.09	4439.44
					1/19/11	289.54	4438.99
					4/4/11	289.87	4438.66
					7/12/11	289.98	4438.55
					10/12/11	290.47	4438.06
					2/7/12	290.92	4437.61
					4/12/12	291.15	4437.38
					7/18/12	291.37	4437.16
					10/4/12	291.63	4436.90
					1/11/13	292.15	4436.38
					4/11/13	292.29	4436.24
					7/17/13	292.43	4436.10
					10/17/13	292.86	4435.67
					1/16/14	293.20	4435.33
					4/15/14	293.20	4435.33
					7/21/14	293.45	4435.08
					10/8/14	293.62	4434.91
					1/27/15	293.36	4435.17
					8/3/15	293.54	4434.99
					1/12/16	293.69	4434.84
					7/25/16	293.40	4435.13
					1/17/17	294.09	4434.44
					7/14/17	294.38	4434.15
					1/15/18	294.51	4434.02
					7/17/18	294.94	4433.59
					1/14/19	295.08	4433.45
					7/12/19	295.54	4432.99
					1/15/20	295.76	4432.77
					8/11/20	295.97	4432.56
					1/7/21	296.41	4432.12
					7/19/21	297.02	4431.51
					1/31/22	297.64	4430.89
					7/7/22	298.22	4430.31
					1/12/23	298.59	4429.94
					7/20/23	299.08	4429.45
MOORE	538847	599499.9949	3468066.557	4568.49	8/1/18	155.64	4412.85
					7/9/19	157.43	4411.06
					7/22/20	157.32	4411.17
					7/28/21	158.86	4409.63
					7/7/22	159.46	4409.03
					8/4/23	160.52	4407.97

APPENDIX B
Water Elevation Data

Well Name	ADWR 55 Registry Number	UTM East (meters)	UTM North (meters)	Measuring Point Elevation (ft amsl)	Date	Depth To Water (feet)	Groundwater Elevation (ft amsl)
NESS	509127	607866.391	3471419.494	4761.23	7/24/08	557.90	4203.33
					10/16/08	549.30	4211.93
					2/25/09	536.40	4224.83
					5/11/09	544.64	4216.59
					8/11/09	566.87	4194.36
					11/12/09	537.34	4223.89
					2/2/10	531.85	4229.38
					4/21/10	568.11	4193.12
					7/19/10	573.02	4188.21
					1/18/11	541.80	4219.43
					7/12/11	597.71	4163.52
					2/3/12	591.24	4169.99
					1/9/13	551.35	4209.88
					1/6/14	538.84	4222.39
					7/7/14	594.42	4166.81
					7/20/15	553.54	4207.69
					7/11/16	556.90	4204.33
					7/27/17	550.36	4210.87
					7/31/18	538.72	4222.51
					7/11/19	575.06	4186.17
					8/14/20	584.34	4176.89
					7/19/21	610.72	4150.51
					7/27/23	537.34	4223.89
NOTEMAN	212483	606053.800	3471576.400	4800.68	5/13/08	339.77	4460.91
					8/27/08	344.34	4456.34
					11/22/08	322.26	4478.42
					2/25/09	327.54	4473.14
					7/27/23	371.17	4429.51
NSD-02	527587	598820.051	3468821.474	4531.38	10/7/09	101.17	4430.21
					3/16/10	99.43	4431.95
					5/25/10	101.63	4429.75
					8/25/10	102.38	4429.00
					3/17/11	102.68	4428.70
					6/17/11	109.29	4422.09
					12/7/11	104.41	4426.97
					3/6/12	104.30	4427.08
					12/14/12	107.24	4424.14
					3/22/13	107.20	4424.18
					6/24/13	113.50	4417.88
					9/23/13	105.00	4426.38
					12/19/13	103.45	4427.93
					3/24/14	103.12	4428.26
					6/23/14	107.06	4424.32
					9/23/14	104.77	4426.61
					12/22/14	101.30	4430.08
					3/23/15	101.56	4429.82
					6/22/15	104.33	4427.05
					9/28/15	113.64	4417.74
					12/21/15	112.43	4418.95
					3/21/16	113.42	4417.96
					6/20/16	114.78	4416.60
					9/29/16	103.99	4427.39
					3/16/17	105.44	4425.94
					9/30/17	108.89	4422.49
					3/26/18	106.02	4425.36
					9/24/18	106.13	4425.25
					3/18/19	105.00	4426.38
					7/30/19	112.53	4418.85
					1/30/20	105.28	4426.10
					7/30/20	108.14	4423.24
					2/9/21	107.95	4423.43
					7/28/21	109.64	4421.74
					1/26/22	108.39	4422.99
					7/28/22	111.65	4419.73
					1/31/23	109.86	4421.52
					8/10/23	111.27	4420.11

APPENDIX B
Water Elevation Data

Well Name	ADWR 55 Registry Number	UTM East (meters)	UTM North (meters)	Measuring Point Elevation (ft amsl)	Date	Depth To Water (feet)	Groundwater Elevation (ft amsl)
NSD-03	527586	598070.538	3468694.259	4518.28	10/7/09	85.62	4432.66
					3/16/10	83.51	4434.77
					5/25/10	84.49	4433.79
					8/25/10	85.70	4432.58
					3/17/11	86.76	4431.52
					6/17/11	88.76	4429.52
					12/7/11	89.30	4428.98
					3/6/12	89.24	4429.04
					12/14/12	90.83	4427.45
					3/22/13	88.65	4429.63
					6/24/13	91.70	4426.58
					9/23/13	86.88	4431.40
					12/19/13	89.11	4429.17
					3/24/14	89.48	4428.80
					6/23/14	90.77	4427.51
					9/23/14	89.10	4429.18
					12/22/14	86.80	4431.48
					3/23/15	87.68	4430.60
					6/22/15	89.40	4428.88
					9/28/15	90.65	4427.63
					12/21/15	90.97	4427.31
					3/21/16	91.30	4426.98
					6/20/16	92.16	4426.12
					9/29/16	89.50	4428.78
					3/16/17	89.81	4428.47
					9/30/17	90.71	4427.57
					3/26/18	91.28	4427.00
					9/24/18	92.22	4426.06
					3/18/19	91.01	4427.27
					7/30/19	93.64	4424.64
					1/30/20	90.87	4427.41
					7/30/20	93.51	4424.77
					2/9/21	93.94	4424.34
					7/28/21	94.33	4423.95
					1/26/22	93.66	4424.62
					1/31/23	93.41	4424.87
					8/10/23	DRY	<4423.8
NWC-02	562944	600177.435	3467474.673	4600.44	10/27/08	160.51	4439.93
					4/29/09[2]	160.5	4439.94
					9/10/09[2]	155	4445.44
					4/2010[2]	131	4469.44
					3/1/13[2]	131	4469.44
					2/12/15	165.02	4435.42
					7/30/15	166.36	4434.08
					10/6/15	165.92	4434.52
					1/12/16	166.36	4434.08
					7/26/16	167.43	4433.01
					1/26/17	167.49	4432.95
					7/18/17	168.60	4431.84
					1/16/18	168.50	4431.94
					7/18/18	169.35	4431.09
					1/7/19	170.50	4429.94
					7/9/19	170.59	4429.85
					1/16/20	171.98	4428.46
					7/22/20	171.19	4429.25
					1/12/21	172.33	4428.11
					7/22/21	173.15	4427.29
					2/1/22	173.42	4427.02
					1/24/23	174.10	4426.34
					2/2/23	173.93	4426.51
					8/9/23	174.55	4425.89
NWC-03	203321	601153.857	3468350.838	4574.99	11/3/08	131.48	4443.51
					4/29/09[2]	130	4444.99
					9/10/09[2]	126	4448.99
					10/9/09[2]	125	4449.99

APPENDIX B
Water Elevation Data

Well Name	ADWR 55 Registry Number	UTM East (meters)	UTM North (meters)	Measuring Point Elevation (ft amsl)	Date	Depth To Water (feet)	Groundwater Elevation (ft amsl)
NWC-03 CAP	627684	601151.704	3468343.653	4572.82	2/2/09	130.03	4442.79
					4/23/09	130.62	4442.20
					7/21/09	131.26	4441.56
					10/21/09	131.60	4441.22
					2/3/10	131.34	4441.48
					4/21/10	131.86	4440.96
					7/20/10	131.50	4441.32
					1/18/11	132.91	4439.91
					7/15/11	134.42	4438.40
					10/13/11	134.73	4438.09
					1/31/12	134.50	4438.32
					4/25/12	135.09	4437.73
					7/18/12	135.73	4437.09
					10/10/12	135.97	4436.85
					1/10/13	135.60	4437.22
					4/17/13	136.32	4436.50
					7/12/13	136.78	4436.04
					10/10/13	136.78	4436.04
					1/13/14	136.43	4436.39
					4/7/14	136.93	4435.89
					7/10/14	137.30	4435.52
					2/12/15	136.27	4436.55
					7/30/15	136.88	4435.94
					9/29/16	130.38	4442.44
					1/26/17	128.41	4444.41
					7/18/17	130.48	4442.34
					1/16/18	121.55	4451.27
					2/23/18	124.44	4448.38
					7/18/18	119.39	4453.43
NWC-04	551849	605829.808	3469071.959	4690.77	12/2/08	352.11	4338.66
					4/29/09[2]	328	4362.77
					9/10/09[2]	324	4366.77
					4/2010[2]	216	4474.77
					3/1/13[2]	216	4474.77
NWC-06	575700	599822.821	3467749.954	4592.50	4/29/09[2]	156	4436.50
					9/10/09[2]	155	4437.50
					10/9/09[2]	148	4444.50
					4/2010[2]	140	4452.50
					3/1/13[2]	140	4452.50
					7/30/15	160.95	4431.55
					10/6/15	160.48	4432.02
					1/12/16	168.81	4423.69
					7/26/16	167.73	4424.77
					1/26/17	162.26	4430.24
					7/18/17	162.80	4429.70
					1/16/18	162.78	4429.72
					7/18/18	163.77	4428.73
					1/7/19	164.68	4427.82
					7/9/19	165.28	4427.22
					1/16/20	165.12	4427.38
					7/22/20	165.81	4426.69
					1/12/21	166.51	4425.99
					7/22/21	167.26	4425.24
					2/1/22	167.67	4424.83
					7/14/22	175.62	4416.88
					2/2/23	168.13	4424.37
					8/9/23	169.11	4423.39

APPENDIX B
Water Elevation Data

Well Name	ADWR 55 Registry Number	UTM East (meters)	UTM North (meters)	Measuring Point Elevation (ft amsl)	Date	Depth To Water (feet)	Groundwater Elevation (ft amsl)
OLMOS	224745	599641.506	3468055.337	4576.92	1/13/16	145.84	4431.08
					1/15/18	148.47	4428.45
					7/13/18	150.28	4426.64
					1/14/19	150.75	4426.17
					7/8/19	151.52	4425.40
					1/17/20	151.52	4425.40
					8/5/20	152.38	4424.54
					1/8/21	152.98	4423.94
					7/29/21	153.85	4423.07
					1/26/22	153.97	4422.95
					7/12/22	153.29	4423.63
					1/11/23	154.17	4422.75
					8/1/23	155.79	4421.13
OSBORN	643436	607031.823	3470270.548	4711.95	5/13/08	68.65	4643.30
					8/5/08	69.53	4642.42
					10/16/08	69.83	4642.12
					1/20/09	69.23	4642.72
					4/7/09	69.60	4642.35
					7/8/09	96.61	4615.34
					10/5/09	75.09	4636.86
					1/21/10	75.37	4636.58
					4/19/10	81.59	4630.36
					7/12/10	83.00	4628.95
					7/12/11	74.60	4637.35
					2/3/12	74.57	4637.38
					7/9/12	74.63	4637.32
PANAGAKOS	35-76413	605304.234	3469323.140	4691.40	1/22/09	155.28	4536.12
					4/9/09	156.15	4535.25
					7/9/09	161.61	4529.79
					10/6/09	167.20	4524.20
					1/21/10	166.92	4524.48
					4/20/10	167.11	4524.29
					7/20/10	171.78	4519.62
					10/18/10	176.39	4515.01
					7/14/11	173.78	4517.62
					8/25/11	172.89	4518.51
					2/6/12	169.09	4522.31
					2/29/12	169.32	4522.08
					3/15/12	169.64	4521.76
					4/12/12	168.85	4522.55
					7/9/12	170.38	4521.02
					11/27/12	169.82	4521.58
					1/18/13	169.12	4522.28
					2/6/13	168.76	4522.64
					4/9/13	167.79	4523.61
					7/10/13	168.51	4522.89
					10/15/13	164.49	4526.91
					1/10/14	160.32	4531.08
					4/16/14	158.75	4532.65
					7/17/14	159.69	4531.71
					10/16/14	159.28	4532.12
					1/26/15	158.02	4533.38
					7/27/15	160.04	4531.36
					1/11/16	160.50	4530.90
					2/24/17	162.64	4528.76
					7/17/17	160.37	4531.03
					1/18/18	160.12	4531.28
					7/30/18	161.94	4529.46
					1/15/19	167.97	4523.43
					7/8/19	166.86	4524.54
					1/14/20	166.69	4524.71
					8/13/20	163.46	4527.94
					1/11/21	162.45	4528.95
					7/22/21	162.18	4529.22
					1/31/22	164.40	4527.00
					7/7/22	168.09	4523.31
					2/3/23	187.21	4504.19
					7/25/23	173.92	4517.48

APPENDIX B
Water Elevation Data

Well Name	ADWR 55 Registry Number	UTM East (meters)	UTM North (meters)	Measuring Point Elevation (ft amsl)	Date	Depth To Water (feet)	Groundwater Elevation (ft amsl)
PARRA	576415	602170.716	3471263.549	4727.21	5/15/08	279.78	4447.43
					8/18/08	280.06	4447.15
					11/3/08	280.39	4446.82
					2/13/09	280.75	4446.46
					4/28/09	280.88	4446.33
					7/20/09	280.99	4446.22
PIONKE 395	613395	601045.471	3468960.981	4592.13	7/17/08	149.88	4442.25
					11/3/08	150.99	4441.14
					2/25/09	149.68	4442.45
					4/14/09	150.01	4442.12
					7/13/09	150.47	4441.66
					10/7/09	150.96	4441.17
					3/8/10	151.11	4441.02
					4/26/10	151.32	4440.81
					7/15/10	151.90	4440.23
					10/18/10	152.38	4439.75
					1/19/11	152.38	4439.75
					4/8/11	153.04	4439.09
					7/12/11	153.57	4438.56
					10/11/11	153.87	4438.26
					2/1/12	153.92	4438.21
					4/12/12	154.35	4437.78
					7/11/12	154.97	4437.16
					10/17/12	155.31	4436.82
					1/9/13	155.25	4436.88
					4/17/13	155.76	4436.37
					7/18/13	156.09	4436.04
					10/17/13	156.39	4435.74
					2/5/14	155.84	4436.29
					4/9/14	156.21	4435.92
					7/11/14	156.66	4435.47
					10/7/14	156.47	4435.66
					2/2/15	155.81	4436.32
					5/18/15	155.97	4436.16
					7/22/15	156.29	4435.84
					10/8/15	156.03	4436.10
					1/11/16	155.64	4436.49
					7/26/16	156.55	4435.58
					1/16/17	156.92	4435.21
					9/30/17	157.63	4434.50
					1/15/18	157.42	4434.71
					7/24/18	158.37	4433.76
					1/7/19	158.89	4433.24
					7/11/19	159.32	4432.81
					1/8/20	159.43	4432.70
					8/12/20	159.73	4432.40
					1/5/21	160.22	4431.91
					7/23/21	160.98	4431.15
					1/26/22	161.55	4430.58
					7/12/22	161.90	4430.23
					1/12/23	162.13	4430.00
					7/21/23	162.48	4429.65

APPENDIX B
Water Elevation Data

Well Name	ADWR 55 Registry Number	UTM East (meters)	UTM North (meters)	Measuring Point Elevation (ft amsl)	Date	Depth To Water (feet)	Groundwater Elevation (ft amsl)
PIONKE 517	221517	600909.967	3468866.654	4587.20792	9/18/12	152.00	4435.21
					10/11/12	152.15	4435.06
					1/9/13	152.23	4434.98
					4/17/13	152.58	4434.63
					7/16/13	153.11	4434.10
					10/17/13	153.27	4433.94
					3/5/14	153.24	4433.97
					4/9/14	153.07	4434.14
					7/11/14	153.56	4433.65
					10/7/14	153.31	4433.90
					5/18/15	152.76	4434.45
					7/22/15	153.12	4434.09
					7/26/16	153.32	4433.89
					7/18/17	154.44	4432.77
					7/24/18	155.18	4432.03
					7/11/19	156.16	4431.05
					8/12/20	156.55	4430.66
					7/23/21	157.77	4429.44
					7/12/22	158.65	4428.56
					7/21/23	159.30	4427.91
POOL	509518	599683.603	3470013.823	4639.09	2/20/08	204.22	4434.87
					5/19/08	204.72	4434.37
					7/31/08	205.56	4433.53
					10/21/08	205.06	4434.03
					2/13/09	204.74	4434.35
					4/21/09	204.87	4434.22
					7/20/09	205.69	4433.40
					10/20/09	206.06	4433.03
					2/24/10	205.59	4433.50
					4/22/10	205.48	4433.61
					7/14/10	206.58	4432.51
					10/20/10	206.74	4432.35
					3/21/16	209.98	4429.11
					8/1/18	212.45	4426.64
					7/10/19	212.88	4426.21
					8/10/20	213.56	4425.53
					7/20/21	214.78	4424.31
POWER 639	222639	602146.123	3471373.655	4734.38	1/16/14	294.07	4440.31
					2/5/14	294.07	4440.31
					3/5/14	294.20	4440.18
					4/15/14	294.14	4440.24
					5/13/14	294.25	4440.13
					6/23/14	294.28	4440.10
					7/17/14	294.32	4440.06
					8/11/14	294.44	4439.94
					9/9/14	294.47	4439.91
					10/8/14	294.49	4439.89
					1/27/15	294.24	4440.14
					3/10/15	294.19	4440.19
					4/28/15	294.17	4440.21
					5/14/15	249.23	4485.15
					6/11/15	294.29	4440.09
					7/30/15	294.38	4440.00
					1/14/16	294.65	4439.73
					7/27/16	294.81	4439.57
					1/26/17	295.05	4439.33
					7/12/17	295.25	4439.13
					1/10/18	295.47	4438.91
					7/25/18	295.75	4438.63
					1/14/19	295.96	4438.42
					7/12/19	296.56	4437.82
					1/15/20	296.68	4437.70
					8/13/20	296.98	4437.40
					1/13/21	297.41	4436.97
					7/19/21	297.92	4436.46
					1/31/22	298.54	4435.84
					7/7/22	299.06	4435.32
					1/25/23	299.52	4434.86
					7/20/23	299.94	4434.44

APPENDIX B
Water Elevation Data

Well Name	ADWR 55 Registry Number	UTM East (meters)	UTM North (meters)	Measuring Point Elevation (ft amsl)	Date	Depth To Water (feet)	Groundwater Elevation (ft amsl)
RAMIREZ	216425	599730.649	3467584.363	4596.61	10/27/08	159.45	4437.16
					1/29/09	158.74	4437.87
					4/16/09	158.66	4437.95
					7/10/09	159.64	4436.97
					10/6/09	160.36	4436.25
					1/25/10	160.10	4436.51
					4/21/10	159.96	4436.65
					7/21/10	161.05	4435.56
					10/19/10	161.23	4435.38
					1/18/11	161.22	4435.39
					4/11/11	161.48	4435.13
					7/18/11	162.39	4434.22
					10/12/11	163.04	4433.57
					4/10/12	163.22	4433.39
					7/6/12	163.85	4432.76
					10/8/12	164.38	4432.23
					4/19/13	164.96	4431.65
					1/13/14	165.26	4431.35
					4/14/14	164.85	4431.76
					2/2/15	164.33	4432.28
					5/28/15	164.39	4432.22
					7/21/15	164.65	4431.96
					10/8/15	164.72	4431.89
					1/14/16	164.15	4432.46
					7/14/16	165.52	4431.09
					7/26/17	166.81	4429.80
					1/15/18	167.59	4429.02
					7/25/18	167.71	4428.90
					1/14/19	168.26	4428.35
					7/9/19	189.06	4407.55
					7/30/19	168.94	4427.67
					1/13/20	169.12	4427.49
					8/6/20	169.88	4426.73
					1/8/21	170.56	4426.05
					7/29/21	171.34	4425.27
					1/27/22	171.82	4424.79
					7/7/22	171.94	4424.67
					1/11/23	172.13	4424.48
					7/21/23	172.78	4423.83

APPENDIX B
Water Elevation Data

Well Name	ADWR 55 Registry Number	UTM East (meters)	UTM North (meters)	Measuring Point Elevation (ft amsl)	Date	Depth To Water (feet)	Groundwater Elevation (ft amsl)
RAY	803772	607083.422	3469195.147	4647.91	2/15/08	40.85	4607.06
					5/13/08	43.82	4604.09
					7/29/08	45.25	4602.66
					10/22/08	44.54	4603.37
					1/20/09	44.31	4603.60
					4/8/09	44.68	4603.23
					7/9/09	48.99	4598.92
					10/7/09	49.87	4598.04
					1/26/10	47.61	4600.30
					4/20/10	49.78	4598.13
					7/14/10	51.36	4596.55
					10/20/10	49.85	4598.06
					1/17/11	50.51	4597.40
					4/5/11	51.84	4596.07
					7/11/11	55.74	4592.17
					10/12/11	53.63	4594.28
					1/31/12	53.21	4594.70
					4/11/12	54.50	4593.41
					7/6/12	58.75	4589.16
					10/3/12	60.98	4586.93
					1/17/13	56.57	4591.34
					4/18/13	56.32	4591.59
					7/9/13	60.30	4587.61
					10/15/13	44.33	4603.58
					1/14/14	34.50	4613.41
					4/8/14	36.72	4611.19
					7/8/14	43.38	4604.53
					10/22/14	44.65	4603.26
					8/4/15	48.31	4599.60
					7/12/16	53.50	4594.41
					7/26/17	57.61	4590.30
					7/31/18	54.96	4592.95
					7/19/19	55.48	4592.43
					8/13/20	60.56	4587.35
					7/23/21	48.66	4599.25
					7/6/22	52.28	4595.63
					7/26/23	49.30	4598.61

APPENDIX B
Water Elevation Data

Well Name	ADWR 55 Registry Number	UTM East (meters)	UTM North (meters)	Measuring Point Elevation (ft amsl)	Date	Depth To Water (feet)	Groundwater Elevation (ft amsl)
ROGERS 596	573596	601001.503	3468491.639	4577.35	11/11/09	135.46	4441.89
					2/25/10	135.89	4441.46
					4/22/10	135.62	4441.73
					7/16/10	136.63	4440.72
					10/19/10	136.61	4440.74
					1/20/11	134.21	4443.14
					4/8/11	137.68	4439.67
					7/14/11	138.09	4439.26
					10/12/11	138.09	4439.26
					1/30/12	137.91	4439.44
					4/23/12	138.61	4438.74
					7/13/12	139.65	4437.70
					10/10/12	139.55	4437.80
					1/15/13	139.23	4438.12
					4/15/13	139.97	4437.38
					7/15/13	139.94	4437.41
					10/16/13	140.50	4436.85
					1/9/14	140.12	4437.23
					4/11/14	140.56	4436.79
					7/18/14	140.64	4436.71
					1/12/16	139.57	4437.78
					9/30/17	141.86	4435.49
					1/18/18	141.88	4435.47
					7/26/18	142.57	4434.78
					1/14/19	142.75	4434.60
					7/22/19	143.54	4433.81
					1/22/20	143.75	4433.60
					7/22/21	145.37	4431.98
					2/1/22	145.57	4431.78
					7/8/22	146.20	4431.15
					1/13/23	146.50	4430.85
					7/20/23	146.64	4430.71
ROGERS 750[3]	641750	600977.690	3468417.386	4579.02	2/7/08	129.85	4449.17
					7/29/08	131.86	4447.16
					10/22/08	132.08	4446.94
					2/10/09	130.62	4448.40
					4/29/09	131.33	4447.69
					8/3/09	135.07	4443.95
ROGERS 803	641803	601003.273	3468480.391	4576.16	9/30/17	138.83	4437.33
					1/18/18	138.90	4437.26
					7/26/18	139.62	4436.54
					1/14/19	139.92	4436.24
					7/22/19	140.39	4435.77
					1/22/20	140.60	4435.56
					8/11/20	140.82	4435.34

APPENDIX B
Water Elevation Data

Well Name	ADWR 55 Registry Number	UTM East (meters)	UTM North (meters)	Measuring Point Elevation (ft amsl)	Date	Depth To Water (feet)	Groundwater Elevation (ft amsl)
ROGERS E	216018	600449.648	3467636.029	4590.66	7/17/08	149.65	4441.01
					11/3/08	150.15	4440.51
					2/10/09	149.02	4441.64
					4/16/09	149.53	4441.13
					7/13/09	150.31	4440.35
					10/6/09	150.76	4439.90
					1/25/10	150.64	4440.02
					4/21/10	150.97	4439.69
					8/25/10	151.15	4439.51
					10/19/10	151.57	4439.09
					10/13/11	153.79	4436.87
					1/30/12	153.56	4437.10
					4/10/12	154.13	4436.53
					7/17/12	155.10	4435.56
					1/17/13	154.56	4436.10
					4/18/13	155.66	4435.00
					7/17/13	155.71	4434.95
					4/14/14	155.97	4434.69
					7/30/15	155.91	4434.75
					10/8/15	155.55	4435.11
					7/26/17	157.46	4433.20
					2/23/18	157.28	4433.38
					7/13/18	158.53	4432.13
					1/11/19	159.10	4431.56
					7/12/19	159.66	4431.00
					1/21/20	159.76	4430.90
					8/7/20	160.14	4430.52
					1/12/21	161.12	4429.54
					7/14/21	161.68	4428.98
					2/1/22	162.24	4428.42
					7/11/22	162.58	4428.08
					1/24/23	162.73	4427.93
					7/21/23	163.00	4427.66
RUIZ	531770	602857.357	3471424.219	4735.18	2/5/08	293.29	4441.89
					5/15/08	293.57	4441.61
					7/30/08	293.86	4441.32
					10/20/08	294.18	4441.00
					2/12/09	294.62	4440.56
					4/21/09	294.66	4440.52
					8/3/09	294.98	4440.20
					10/28/09	295.33	4439.85
					2/1/10	295.70	4439.48
					4/26/10	295.96	4439.22
					4/8/11	297.20	4437.98
					4/13/12	298.47	4436.71
					1/11/13	299.39	4435.79
					4/11/13	299.72	4435.46
					7/25/13	300.06	4435.12
					10/17/13	300.07	4435.11
					1/8/14	300.19	4434.99
					4/15/14	300.31	4434.87
					10/21/14	300.38	4434.80
					1/27/15	299.76	4435.42
					7/30/15	299.74	4435.44
					1/12/16	300.20	4434.98
					7/24/18	301.45	4433.73
					1/15/19	301.74	4433.44
					7/10/19	302.08	4433.10
RUIZ 146	232146	602851.840	3471407.239	4731.23	8/12/20	301.12	4430.11
					1/12/21	301.48	4429.75
					7/21/21	301.91	4429.32
					2/1/22	302.53	4428.70
					7/12/22	303.12	4428.11
					1/13/23	303.68	4427.55
					7/21/23	304.21	4427.02

APPENDIX B
Water Elevation Data

Well Name	ADWR 55 Registry Number	UTM East (meters)	UTM North (meters)	Measuring Point Elevation (ft amsl)	Date	Depth To Water (feet)	Groundwater Elevation (ft amsl)
SCHWARTZ	210865	600811.014	3468269.622	4564.49	2/8/08	121.80	4442.69
					5/19/08	123.49	4441.00
					7/29/08	122.64	4441.85
					10/22/08	123.39	4441.10
					1/29/09	122.87	4441.62
					4/17/09	123.53	4440.96
					7/10/09	124.15	4440.34
					10/6/09	124.55	4439.94
					1/22/10	124.32	4440.17
					4/21/10	124.65	4439.84
					7/21/10	125.80	4438.69
					10/19/10	126.30	4438.19
					1/17/11	125.35	4439.14
					4/11/11	127.50	4436.99
					7/18/11	127.67	4436.82
					10/12/11	127.51	4436.98
					2/6/12	127.34	4437.15
					4/10/12	127.78	4436.71
					7/16/12	128.84	4435.65
					10/17/12	128.98	4435.51
					3/13/13	128.81	4435.68
					5/14/13	129.60	4434.89
					7/15/13	129.05	4435.44
					10/14/13	130.15	4434.34
					4/9/14	129.77	4434.72
					7/18/14	129.81	4434.68
					10/22/14	129.66	4434.83
					2/3/15	128.66	4435.83
					5/18/15	129.30	4435.19
					8/4/15	129.51	4434.98
					10/8/15	129.34	4435.15
					1/14/16	128.32	4436.17
					7/27/16	130.01	4434.48
					1/24/17	129.86	4434.63
					7/11/17	131.21	4433.28
					1/9/18	130.46	4434.03
					7/11/18	131.96	4432.53
					1/9/19	131.50	4432.99
					1/22/20	132.54	4431.95
					7/22/20	132.76	4431.73
					1/8/21	133.62	4430.87
					7/20/21	134.17	4430.32
					2/1/22	134.83	4429.66
					7/13/22	135.16	4429.33
					1/13/23	135.33	4429.16
					7/20/23	135.60	4428.89

APPENDIX B
Water Elevation Data

Well Name	ADWR 55 Registry Number	UTM East (meters)	UTM North (meters)	Measuring Point Elevation (ft amsl)	Date	Depth To Water (feet)	Groundwater Elevation (ft amsl)
STEPHENS	808560	606981.766	3469072.799	4651.22	5/13/08	44.94	4606.28
					8/5/08	46.61	4604.61
					10/16/08	46.60	4604.62
					1/21/09	47.19	4604.03
					4/8/09	48.45	4602.77
					7/7/09	49.41	4601.81
					10/7/09	50.33	4600.89
					1/26/10	51.13	4600.09
					4/20/10	51.24	4599.98
					7/14/10	51.91	4599.31
					1/18/11	52.98	4598.24
					7/11/11	54.44	4596.78
					1/31/12	55.65	4595.57
					7/9/12	10.69	4640.53
					1/18/13	10.50	4640.72
					7/10/13	58.16	4593.06
					1/14/14	45.51	4605.71
					7/8/14	45.39	4605.83
					1/26/15	47.91	4603.31
					7/24/15	49.71	4601.51
					1/11/16	50.88	4600.34
					7/12/16	52.64	4598.58
					1/17/17	53.09	4598.13
					7/14/17	54.15	4597.07
					1/15/18	55.74	4595.48
					7/30/18	56.02	4595.20
					1/15/19	55.85	4595.37
					7/11/19	56.20	4595.02
					1/14/20	54.02	4597.20
					7/20/20	53.58	4597.64
					1/13/21	54.94	4596.28
					7/21/21	54.09	4597.13
					1/28/22	54.90	4596.32
					7/6/22	55.80	4595.42
					1/11/23	53.33	4597.89
					7/25/23	53.37	4597.85
SUNBELT	201531	605998.250	3471735.149	4806.52	2/6/08	352.10	4454.42
					5/15/08	358.97	4447.55
					8/5/08	Dry	<4426
					10/16/08	347.00	4459.52
					1/21/09	344.78	4461.74
					4/10/09	349.64	4456.88
					7/8/09	356.99	4449.53
					10/5/09	Dry	<4426
					1/21/10	Dry	<4426
					4/19/10	Dry	<4426
					7/12/10	Dry	<4426
					1/19/11	Dry	<4426
					8/25/11	Dry	<4426
					2/3/12	Dry	<4426
					7/9/12	Dry	<4426
					9/13/12	Dry	<4426
					1/17/13	Dry	<4426
					7/9/13	Dry	<4426
					1/10/14	Dry	<4426
					7/8/14	Dry	<4426

APPENDIX B
Water Elevation Data

Well Name	ADWR 55 Registry Number	UTM East (meters)	UTM North (meters)	Measuring Point Elevation (ft amsl)	Date	Depth To Water (feet)	Groundwater Elevation (ft amsl)
SWAN	NR	607378.547	3470648.298	4716.59	2/13/08	26.50	4690.09
					5/14/08	30.69	4685.90
					7/24/08	32.06	4684.53
					10/16/08	27.53	4689.06
					1/20/09	29.77	4686.82
					4/7/09	31.47	4685.12
					7/8/09	33.61	4682.98
					10/5/09	35.12	4681.47
					1/21/10	36.64	4679.95
					4/21/10	38.06	4678.53
					7/19/10	39.67	4676.92
					1/18/11	35.06	4681.53
					7/12/11	39.32	4677.27
					2/3/12	37.86	4678.73
					7/10/12	40.39	4676.20
					1/9/13	38.51	4678.08
					7/8/13	42.26	4674.33
					1/10/14	29.43	4687.16
					7/7/14	33.68	4682.91
					7/20/15	33.08	4683.51
					7/11/16	35.60	4680.99
					7/27/17	38.08	4678.51
					7/31/18	42.14	4674.45
TERRY 101	234101	599642.742	3468084.786	4562.55	9/3/21	153.21	4409.34
THOMPSON 151	612151	599543.561	3467387.294	4597.62	8/9/13	167.86	4429.76
					10/10/13	167.68	4429.94
					1/16/14	167.19	4430.43
					4/14/14	166.98	4430.64
					7/21/14	167.78	4429.84
					10/22/14	167.56	4430.06
					2/2/15	166.56	4431.06
					5/19/15	166.51	4431.11
					8/3/15	167.09	4430.53
THOMPSON 341	218341	599532.241	3467396.849	4596.73	7/28/17	168.34	4428.39
					1/16/18	168.22	4428.51
					7/26/18	169.23	4427.50
					1/11/19	169.81	4426.92
					7/10/19	170.29	4426.44
					1/15/20	170.62	4426.11
					8/12/20	171.37	4425.36
					1/8/21	172.08	4424.65
					7/29/21	172.82	4423.91
					1/31/22	173.19	4423.54
					7/7/22	173.44	4423.29
					8/23/23	174.49	4422.24

APPENDIX B
Water Elevation Data

Well Name	ADWR 55 Registry Number	UTM East (meters)	UTM North (meters)	Measuring Point Elevation (ft amsl)	Date	Depth To Water (feet)	Groundwater Elevation (ft amsl)
TM-02A	522574	604152.059	3472008.794	4808.43	3/4/08	346.62	4461.81
					5/23/08	346.16	4462.27
					8/15/08	353.91	4454.52
					10/30/08	349.45	4458.98
					2/24/09	348.64	4459.79
					5/6/09	349.38	4459.05
					8/12/09	349.13	4459.30
					11/4/09	348.97	4459.46
					3/10/10	348.19	4460.24
					4/6/10	353.86	4454.57
					7/6/10	349.20	4459.23
					2/10/11	347.60	4460.83
					7/13/11	348.14	4460.29
					2/2/12	346.94	4461.49
					8/13/12	344.53	4463.90
					2/14/13	343.50	4464.93
					8/27/13	343.84	4464.59
					2/18/14	341.47	4466.96
					8/12/14	338.50	4469.93
					2/5/15	336.02	4472.41
					9/14/15	334.23	4474.20
					3/16/16	333.52	4474.91
					8/17/16	333.90	4474.53
					3/7/17	335.30	4473.13
					8/1/17	336.32	4472.11
					2/1/18	337.14	4471.29
					7/26/18	337.17	4471.26
					2/11/19	337.53	4470.90
					8/5/19	338.84	4469.59
					2/20/20	338.42	4470.01
					7/20/20	337.15	4471.28
					3/17/21	336.28	4472.15
					7/13/21	336.80	4471.63
					3/10/22	338.70	4469.73
					7/26/22	339.34	4469.09
					3/13/23	340.53	4467.90
					8/21/23	341.63	4466.80
TM-03	522575	606366.130	3473711.046	4897.85	3/12/08	127.14	4770.71
					5/20/08	127.40	4770.45
					8/6/08	128.02	4769.83
					11/12/08	128.00	4769.85
					2/26/09	126.94	4770.91
					5/13/09	113.86	4783.99
					8/18/09	128.80	4769.05
					11/10/09	125.38	4772.47
					3/2/10	128.02	4769.83
					4/14/10	130.56	4767.29
					7/7/10	131.25	4766.60
					2/1/12	135.04	4762.81

APPENDIX B
Water Elevation Data

Well Name	ADWR 55 Registry Number	UTM East (meters)	UTM North (meters)	Measuring Point Elevation (ft amsl)	Date	Depth To Water (feet)	Groundwater Elevation (ft amsl)
TM-06 MILLER	522695	606055.975	3468376.658	4707.88	2/26/08	158.78	4549.10
					5/20/08	158.76	4549.12
					8/4/08	158.80	4549.08
					10/29/08	158.85	4549.03
					2/16/09	159.28	4548.60
					5/13/09	158.81	4549.07
					8/18/09	158.91	4548.97
					11/12/09	158.96	4548.92
					3/8/10	158.99	4548.89
					4/14/10	159.02	4548.86
					7/2/10	159.13	4548.75
					7/21/11	159.88	4548.00
					7/9/12	161.40	4546.48
					2/14/13	161.05	4546.83
					8/19/13	161.30	4546.58
					7/21/14	162.60	4545.28
					2/5/15	162.36	4545.52
					9/10/15	162.94	4544.94
					3/16/16	162.14	4545.74
					9/21/16	163.08	4544.80
					3/7/17	162.83	4545.05
					7/26/17	163.47	4544.41
					2/5/18	163.46	4544.42
					7/16/18	163.96	4543.92
					1/29/19	162.32	4545.56
					7/31/19	164.23	4543.65
					2/20/20	163.15	4544.73
					8/10/20	166.27	4541.61
					3/15/21	164.10	4543.78
					7/21/21	164.61	4543.27
					3/10/22	163.86	4544.02
					9/7/22	163.16	4544.72
					3/14/23	163.44	4544.44
					8/7/23	164.63	4543.25
TM-07	522576	603007.461	3471919.441	4769.20	3/17/21	338.20	4431.00
					8/16/21	338.58	4430.62
					2/1/22	338.91	4430.29
					8/1/22	339.74	4429.46
					3/6/23	340.58	4428.62
					9/6/23	341.08	4428.12
TM-10 USBP	522696	601586.268	3471816.397	4741.18	3/15/12	279.30	4461.88
					4/24/12	279.03	4462.15
					9/13/12	278.30	4462.88
					10/19/12	277.45	4463.73
					3/7/13	276.55	4464.63
					4/17/13	276.42	4464.76
					7/23/13	275.99	4465.19
					11/6/13	254.20	4486.98
					1/15/14	262.00	4479.18
					5/15/14	269.39	4471.79
					7/15/14	271.03	4470.15
					10/16/14	235.11	4506.07
					1/28/15	252.47	4488.71
					7/24/15	264.53	4476.65
					2/2/16	262.66	4478.52
					7/13/16	269.35	4471.83
					1/27/17	259.58	4481.60
					7/17/17	267.41	4473.77
					1/8/18	255.19	4485.99
					7/9/18	266.18	4475.00
					1/8/19	247.36	4493.82
					7/16/19	259.23	4481.95
					1/6/20	239.32	4501.86
					8/3/20	256.07	4485.11
					1/5/21	261.10	4480.08
					7/12/21	267.17	4474.01
					1/24/22	258.46	4482.72
					7/19/22	267.02	4474.16
					2/1/23	252.90	4488.28
					8/3/23	263.80	4477.38

APPENDIX B
Water Elevation Data

Well Name	ADWR 55 Registry Number	UTM East (meters)	UTM North (meters)	Measuring Point Elevation (ft amsl)	Date	Depth To Water (feet)	Groundwater Elevation (ft amsl)
TM-15 MILLER	522699	599618.715	3471425.631	4729.25	3/20/17	300.54	4428.71
					8/1/17	300.76	4428.49
					7/18/18	301.32	4427.93
					8/19/19	301.92	4427.33
					8/24/20	302.43	4426.82
					7/12/21	303.14	4426.11
					7/25/22	303.95	4425.30
					8/3/23	304.53	4424.72
TM-16	522578	605588.075	3469842.199	4717.71	3/5/08	81.00	4636.71
					5/22/08	81.24	4636.47
					8/6/08	81.65	4636.06
					11/5/08	81.75	4635.96
					2/26/09	81.88	4635.83
					5/13/09	82.01	4635.70
					8/19/09	82.37	4635.34
					11/10/09	82.83	4634.88
					3/2/10	83.09	4634.62
					4/14/10	83.22	4634.49
					7/2/10	83.51	4634.20
					7/14/11	80.41	4637.30
					7/9/12	72.55	4645.16
					8/15/13	61.42	4656.29
					8/4/14	62.55	4655.16
					2/5/15	58.80	4658.91
					9/9/15	60.06	4657.65
					3/16/16	60.43	4657.28
					8/25/16	59.24	4658.47
					3/7/17	61.08	4656.63
					7/12/17	62.59	4655.12
					2/1/18	60.18	4657.53
					8/7/18	62.44	4655.27
					2/11/19	58.90	4658.81
					7/30/19	61.35	4656.36
					2/20/20	58.16	4659.55
					7/20/20	60.72	4656.99
					2/2/21	61.37	4656.34
					7/15/21	63.20	4654.51
					3/10/22	61.19	4656.52
					7/26/22	60.99	4656.72
					3/13/23	60.15	4657.56
					8/7/23	61.93	4655.78
TM-19A	522581	602458.710	3469197.426	4645.87	3/6/08	199.85	4446.02
					5/22/08	199.50	4446.37
					8/6/08	199.19	4446.68
					11/18/08	199.46	4446.41
					3/3/09	199.81	4446.06
					4/22/09	200.57	4445.30
					8/12/09	201.46	4444.41
					11/4/09	201.16	4444.71
					3/10/10	201.34	4444.53
					4/9/10	201.55	4444.32
					7/7/10	202.35	4443.52
					2/14/11	203.00	4442.87
					7/15/11	203.30	4442.57
					2/2/12	203.84	4442.03
					7/11/12	204.75	4441.12
					10/16/12	205.02	4440.85
					2/15/13	205.30	4440.57
					9/4/13	205.73	4440.14
					2/12/14	207.47	4438.40
					7/21/14	210.56	4435.31
					9/10/15	206.48	4439.39
					8/18/16	207.24	4438.63
					7/26/17	207.54	4438.33
					7/25/18	208.53	4437.34
					8/7/19	209.33	4436.54
					8/17/20	211.36	4434.51
					8/18/21	211.16	4434.71
					7/25/22	212.22	4433.65
					8/29/23	213.46	4432.41

APPENDIX B
Water Elevation Data

Well Name	ADWR 55 Registry Number	UTM East (meters)	UTM North (meters)	Measuring Point Elevation (ft amsl)	Date	Depth To Water (feet)	Groundwater Elevation (ft amsl)
TM-42	562554	603698.271	3469104.903	4666.67	3/5/08	211.04	4455.63
					5/22/08	210.98	4455.69
					8/6/08	211.55	4455.12
					11/6/08	207.05	4459.62
					2/18/09	212.31	4454.36
					5/7/09	212.37	4454.30
					8/18/09	212.77	4453.90
					11/3/09	213.05	4453.62
					2/24/10	213.36	4453.31
					4/19/10	213.51	4453.16
					7/2/10	213.52	4453.15
					7/12/11	214.62	4452.05
					7/11/12	216.10	4450.57
					2/12/13	216.55	4450.12
					8/28/13	217.38	4449.29
					7/21/14	218.33	4448.34
					2/4/15	218.87	4447.80
					9/10/15	219.31	4447.36
					3/16/16	219.55	4447.12
					8/18/16	219.89	4446.78
					3/7/17	220.35	4446.32
					7/26/17	220.54	4446.13
					2/5/18	220.81	4445.86
					8/6/18	221.12	4445.55
					1/29/19	221.36	4445.31
					8/7/19	221.71	4444.96
					2/20/20	222.15	4444.52
					8/10/20	222.31	4444.36
					3/15/21	222.60	4444.07
					7/21/21	222.82	4443.85
					3/10/22	223.20	4443.47
					9/7/22	223.93	4442.74
					3/14/23	224.26	4442.41
					8/29/23	224.46	4442.21
TVI 236	802236	600552.215	3467978.431	4561.98	5/7/08	123.30	4438.68
					7/15/08	121.55	4440.43
					10/15/08	122.35	4439.63
					2/11/09	121.28	4440.70
					4/17/09	122.73	4439.25
					7/21/09	123.96	4438.02
					10/19/09	123.88	4438.10
					2/2/10	122.26	4439.72
					4/23/10	122.70	4439.28
					7/15/10	125.08	4436.90
					7/15/11	127.23	4434.75
					7/16/12	127.81	4434.17
					10/9/12	128.45	4433.53
					7/18/13	127.38	4434.60
					7/16/14	129.24	4432.74
					2/2/15	126.81	4435.17
					5/19/15	128.38	4433.60
					7/30/15	128.31	4433.67
					10/7/15	127.26	4434.72
					1/12/16	126.49	4435.49
					7/20/16	128.90	4433.08
					9/26/16	128.26	4433.72
					1/27/17	128.57	4433.41
					7/31/17	128.59	4433.39
					1/17/18	129.66	4432.32
					7/27/18	130.16	4431.82
					1/16/19	130.67	4431.31
					7/24/19	130.87	4431.11
					1/21/20	130.92	4431.06
					8/11/20	131.43	4430.55
					1/12/21	132.30	4429.68
					7/21/21	132.88	4429.10
					2/1/22	133.47	4428.51
					8/3/22	133.75	4428.23
					2/16/23	133.93	4428.05
					8/8/23	133.42	4428.56

APPENDIX B
Water Elevation Data

Well Name	ADWR 55 Registry Number	UTM East (meters)	UTM North (meters)	Measuring Point Elevation (ft amsl)	Date	Depth To Water (feet)	Groundwater Elevation (ft amsl)
TVI 713	567713	600729.095	3468412.946	4567.22	5/7/08	127.10	4440.12
					7/14/08	126.30	4440.92
					10/15/08	130.00	4437.22
					2/11/09	149.87	4417.35
					4/17/09	126.73	4440.49
					7/21/09	127.36	4439.86
					10/19/09	127.79	4439.43
					2/2/10	126.71	4440.51
					4/23/10	127.53	4439.69
					7/15/10	129.14	4438.08
					10/20/10	130.84	4436.38
					1/20/11	134.36	4432.86
					4/11/11	135.72	4431.50
					7/15/11	131.61	4435.61
					10/12/11	130.33	4436.89
					2/3/12	130.01	4437.21
					4/25/12	131.33	4435.89
					7/16/12	131.97	4435.25
					10/9/12	132.16	4435.06
					2/6/13	131.14	4436.08
					4/10/13	132.08	4435.14
					7/18/13	131.72	4435.50
					10/8/13	133.10	4434.12
					1/9/14	132.37	4434.85
					4/9/14	132.93	4434.29
					7/16/14	132.57	4434.65
					10/9/14	132.29	4434.93
					1/29/15	132.01	4435.21
					5/18/15	132.34	4434.88
					7/30/15	132.71	4434.51
					10/7/15	132.00	4435.22
					1/12/16	131.34	4435.88
					7/14/16	133.11	4434.11
					1/27/17	132.88	4434.34
					7/13/17	134.08	4433.14
					1/10/18	134.24	4432.98
					7/12/18	134.83	4432.39
					1/10/19	134.87	4432.35
					7/18/19	135.59	4431.63
					3/23/20	135.43	4431.79
					8/6/20	135.81	4431.41
					1/7/21	136.57	4430.65
					7/15/21	137.15	4430.07
					1/26/22	137.84	4429.38
					8/1/22	138.07	4429.15
					2/15/23	138.38	4428.84
					8/7/23	138.64	4428.58

APPENDIX B
Water Elevation Data

Well Name	ADWR 55 Registry Number	UTM East (meters)	UTM North (meters)	Measuring Point Elevation (ft amsl)	Date	Depth To Water (feet)	Groundwater Elevation (ft amsl)
WEISKOPF 802	641802	601154.951	3468658.855	4586.89	2/15/08	143.31	4443.58
					5/7/08	143.90	4442.99
					7/16/08	144.22	4442.67
					10/28/08	145.81	4441.08
					1/29/09	143.99	4442.90
					4/15/09	144.38	4442.51
					7/15/09	144.99	4441.90
					10/15/09	145.66	4441.23
					2/2/10	145.28	4441.61
					4/22/10	145.72	4441.17
					7/19/10	146.46	4440.43
					10/20/10	147.11	4439.78
					1/17/11	146.72	4440.17
					4/11/11	146.31	4440.58
					8/26/11	148.06	4438.83
					10/13/11	148.30	4438.59
					2/1/12	148.23	4438.66
					4/25/12	148.82	4438.07
					7/13/12	149.79	4437.10
					10/11/12	149.73	4437.16
					1/16/13	149.49	4437.40
					4/17/13	150.16	4436.73
					7/18/13	150.24	4436.65
					10/17/13	150.69	4436.20
					1/16/14	150.08	4436.81
					4/11/14	150.75	4436.14
					7/18/14	150.85	4436.04
					10/9/14	150.89	4436.00
					2/2/15	150.01	4436.88
					5/18/15	150.25	4436.64
					8/4/15	150.72	4436.17
					10/8/15	150.47	4436.42
					1/12/16	151.01	4435.88
					7/26/16	150.95	4435.94
					1/16/17	151.31	4435.58
					7/24/17	151.59	4435.30
					1/12/18	152.06	4434.83
					7/16/18	152.74	4434.15
					1/14/19	153.39	4433.50
					7/23/19	153.77	4433.12
					1/16/20	154.08	4432.81
					7/23/20	154.23	4432.66
					1/11/21	154.86	4432.03
					7/26/21	155.57	4431.32
					1/28/22	156.25	4430.64
					7/13/22	156.48	4430.41
					2/1/23	156.76	4430.13
					7/26/23	156.91	4429.98
WEISKOPF 897	220897	601096.780	3468647.358	4585.70	12/6/12	149.27	4436.43
					1/16/13	148.70	4437.00
					4/17/13	149.80	4435.90
					7/18/13	150.15	4435.55
					10/17/13	150.38	4435.32
					1/16/14	149.78	4435.92
					4/11/14	150.50	4435.20
					7/18/14	150.55	4435.15
					10/9/14	150.34	4435.36
					5/18/15	149.95	4435.75
					8/4/15	150.31	4435.39
					7/26/16	150.63	4435.07
					7/24/17	151.52	4434.18
					7/16/18	152.37	4433.33
					7/23/19	153.41	4432.29
					7/23/20	154.84	4430.86
					7/26/21	155.25	4430.45
					7/13/22	156.16	4429.54
					7/26/23	156.61	4429.09
WMD-2011-03M	913037	605360.830	3470671.273	4746.28	2/2/12	226.66	4519.62

APPENDIX B
Water Elevation Data

Well Name	ADWR 55 Registry Number	UTM East (meters)	UTM North (meters)	Measuring Point Elevation (ft amsl)	Date	Depth To Water (feet)	Groundwater Elevation (ft amsl)
ZANDER	205126	599678.880	3467998.486	4580.94	2/4/08	144.85	4436.09
					5/6/08	145.33	4435.61
					7/16/08	146.40	4434.54
					10/28/08	146.01	4434.93
					2/10/09	144.83	4436.11
					4/16/09	144.94	4436.00
					7/14/09	146.14	4434.80
					10/13/09	146.77	4434.17
					1/26/10	146.34	4434.60
					4/22/10	146.27	4434.67
					7/21/10	147.81	4433.13
					10/19/10	147.80	4433.14
					1/18/11	147.52	4433.42
					4/6/11	147.84	4433.10
					7/13/11	148.91	4432.03
					10/12/11	149.50	4431.44
					1/31/12	149.31	4431.63
					4/10/12	149.64	4431.30
					7/17/12	150.63	4430.31
					10/8/12	150.92	4430.02
					1/10/13	150.89	4430.05
					4/18/13	151.36	4429.58
					7/15/13	152.14	4428.80
					10/7/13	151.65	4429.29
					1/7/14	151.10	4429.84
					4/9/14	150.81	4430.13
					7/17/14	152.02	4428.92
					8/3/15	150.65	4430.29
					10/8/15	150.10	4430.84
					1/12/16	149.46	4431.48
					7/15/16	151.25	4429.69
					1/27/17	152.14	4428.80
					7/24/17	152.63	4428.31
					1/16/18	152.03	4428.91
					7/24/18	153.67	4427.27
					1/11/19	154.15	4426.79
					7/16/19	154.82	4426.12
					1/17/20	154.93	4426.01
					8/11/20	155.71	4425.23
					1/12/21	156.33	4424.61
					7/27/21	157.15	4423.79
					1/28/22	157.46	4423.48
					7/14/22	157.74	4423.20
					1/12/23	157.72	4423.22

Notes:
35-71891 = ADWR 35 Database
ADWR = Arizona Department of Water Resources
ft amsl = feet above mean sea level
NR = No Record
UTM = Universal Transverse Mercator Zone 12, North American Datum 1983 (NAD83)
[1] Depth to water measurement provided by Arizona Water Company
[2] Depth to water measurement provided by Naco Water Company
[3] Well previously identified as ROGERS 803

APPENDIX C

MONITOR WELL CONSTRUCTION INFORMATION

APPENDIX C
Monitor Well Construction Information

Well Name	ADWR Registry Number	UTM Northing (m)	UTM Easting (m)	Land Surface Elevation (ft amsl)	Total Depth Drilled (ft)	Depth to Bedrock (ft bls)	Screened Interval (ft bls)	Filter Pack Interval (ft bls)	Sample Interval (Length of Filter Pack) (ft)	Total Blank Casing (ft)
BMO-2008-1G	55-909474	3471723.64	606467.681	4805.10	320	50	180 - 300	170 - 320	150	190
BMO-2008-3B	55-909147	3467919.58	602012.923	4583.97	590	445	150 - 250	140 - 272	132	160
BMO-2008-4B	55-910096	3468383.43	601099.405	4573.17	660	656	500 - 600	489 - 660	171	510
BMO-2008-5B	55-909653	3468994.40	600438.375	4585.10	295	290	140 - 280	130 - 295	165	145
BMO-2008-5M	55-909552	3468993.96	600445.302	4585.02	460	290	340 - 440	331 - 460	129	350
BMO-2008-6B	55-909146	3469820.64	600366.523	4627.44	270	240	195 - 255	185 - 270	85	205
BMO-2008-6M	55-909019	3469813.89	600367.943	4626.90	460	240	340-430	331 - 460	129	350
BMO-2008-7M	55-908794	3470029.28	603099.165	4688.33	750	490	560 - 660	549 - 680	131	570
BMO-2008-8B	55-910097	3471141.72	604171.347	4753.25	492	NA	370 - 470	359 - 492	133	380
BMO-2008-8M	55-909711	3471127.90	604167.912	4752.45	1,220	495	1100 - 1200	1085 - 1220	135	1110
BMO-2008-9M	55-909255	3471121.68	604668.669	4762.61	785	130	665 - 765	650 - 785	135	675
BMO-2008-10GL	55-909435	3471702.04	605264.072	4792.21	820	110	700 - 800	684 - 820	136	710
BMO-2008-10GU	55-909272	3471731.87	605267.551	4793.45	700	130	239 - 439	229 - 460	231	249
BMO-2008-11G	55-909434	3472626.48	603800.995	4844.67	820	240	650 - 750	640 - 820	180	660
BMO-2008-13B	55-909551	3470076.36	601657.612	4649.21	700	520	264 - 464	222 - 520	298	274
BMO-2008-13M	55-909760	3470040.46	601650.495	4647.15	1,100	520	920 - 1020	908 - 1039	131	930
BMO-2010-1M	55-219957	3469935.75	605581.263	4718.40	561	51	440 - 540	430 - 556	126	450
BMO-2010-2M	55-219958	3470564.65	605685.549	4746.00	390	50	268.5 - 370	257 - 388	131	278.5
BMO-2010-3B	55-219970	3468347.36	599977.962	4549.80	340	NA	120 - 320	110 - 333	223	130
BMO-2010-3M	55-219969	3468353.54	599970.801	4549.74	537	386	416 - 522	406 - 537	131	426
BMO-2012-1M	55-221388	3469746.74	606097.384	4719.76	405	35	295 - 395	282 - 405	123	297
BMO-2014-1BL	55-917394	3468234.80	600563.194	4557.45	398	372	292 - 366	282 - 372	90	293
BMO-2014-1BU	55-917393	3468231.44	600570.805	4557.63	283	372	120 - 273	110 - 283	173	121
BMO-2014-2BL	55-917452	3468183.92	600784.872	4560.73	410	400	297 - 396	286 - 400	114	298
BMO-2014-2BU	55-917453	3468192.76	600788.520	4560.75	286	400	127 - 276	116 - 286	170	128
BMO-2014-3BL	55-917527	3467786.42	600822.399	4572.81	549	546	328 - 521	318 - 526	208	329

APPENDIX C
Monitor Well Construction Information

Well Name	ADWR Registry Number	UTM Northing (m)	UTM Easting (m)	Land Surface Elevation (ft amsl)	Total Depth Drilled (ft)	Depth to Bedrock (ft bls)	Screened Interval (ft bls)	Filter Pack Interval (ft bls)	Sample Interval (Length of Filter Pack) (ft)	Total Blank Casing (ft)
BMO-2014-3BU	55-917494	3467787.73	600810.534	4573.84	298	546	139 - 288	127 - 298	171	140
BMO-2014-4B	55-917620	3468581.27	600508.792	4566.74	272	262	129 - 258	119 - 262	143	130
BMO-2014-4BL	55-917619	3468566.23	600498.091	4566.02	262	262	220 - 260	216 - 261	45	221
BMO-2015-1B	55-917622	3468563.39	600261.991	4561.30	256	244	125 - 244	116 - 244	128	126
BMO-2015-1BL	55-917621	3468583.09	600272.479	4562.22	243	244	201 - 241	197- 243	46	198
BMO-2015-2B	55-917827	3468996.64	600267.799	4580.64	280	272	149 - 268	139 - 273	134	150
BMO-2015-2BL	55-917828	3468983.91	600252.069	4579.83	272	272	212 - 272	207 - 272	65	213

Notes:
ADWR = Arizona Department of Water Resources
ft = feet
ft amsl = feet above mean sea level
ft bls = feet below land surface
m = meters
UTM = Universal Transverse Mercator Zone 12, North American Datum 1983 (NAD83)

APPENDIX D

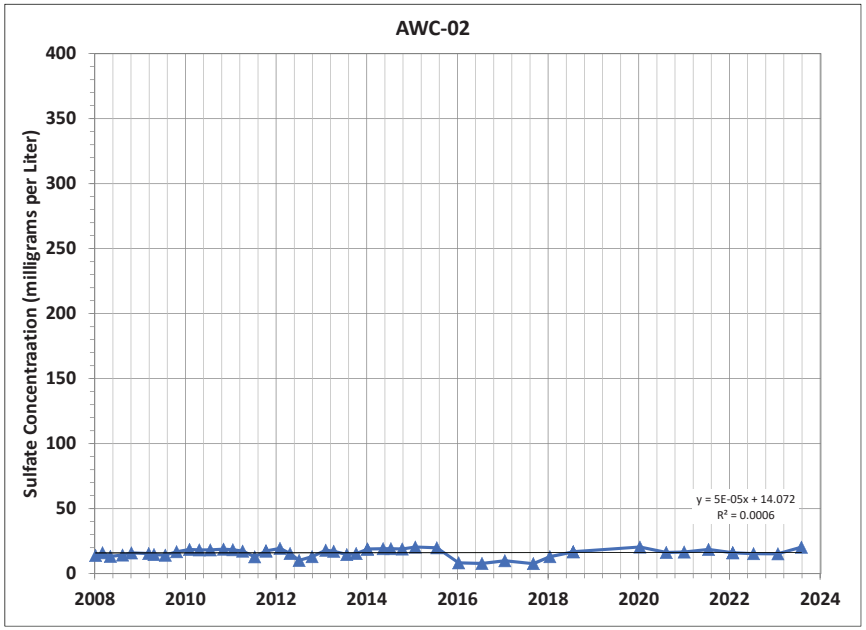
SULFATE TIME SERIES AND TRENDLINE ANALYSIS FOR SELECT WELLS

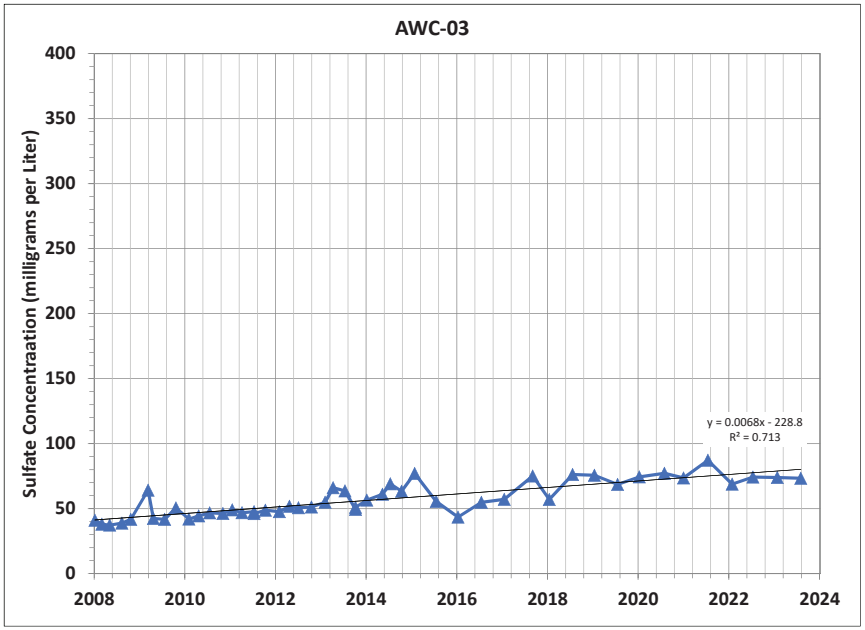
APPENDIX D
Sulate Time Series and Trendline Analysis for Select Wells
TABLE D.1

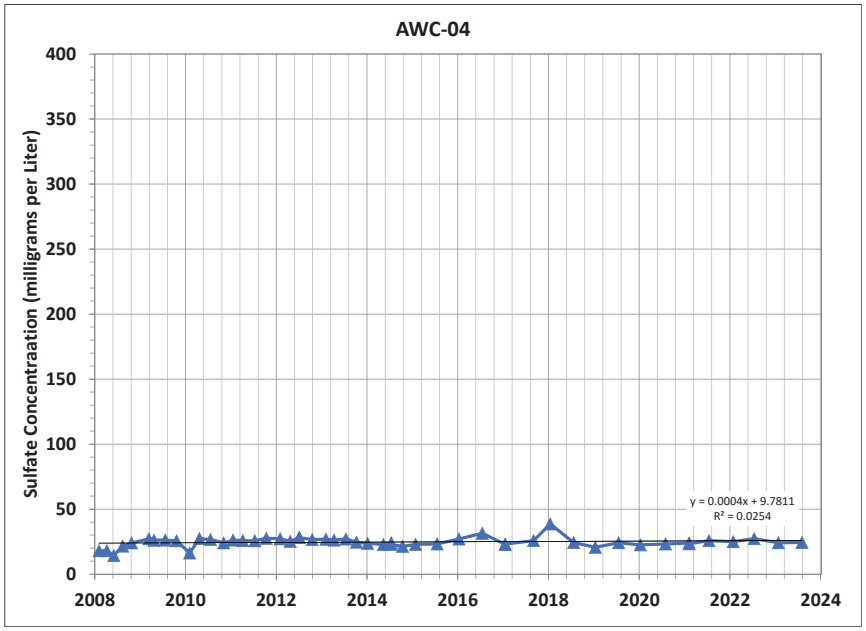
Well	Trendline Slope	R^2	Rate (mg/L)
AWC-02	0.00005	0.001	0.02
AWC-03	0.0068	0.713	2.5
AWC-04	0.0004	0.025	0.15
AWC-05	0.001	0.420	0.37
BMO-2008-1G	-0.0043	0.149	-1.6
BMO-2008-3B	0.0018	0.026	0.66
BMO-2008-4B	0.0004	0.158	0.15
BMO-2008-5B	0.0174	0.876	6.4
BMO-2008-5M	0.0119	0.932	4.3
BMO-2008-6B	-0.0079	0.669	-2.9
BMO-2008-6M	0.0046	0.148	1.7
BMO-2008-7M	0.0024	0.694	0.88
BMO-2008-8B	-0.0813	0.532	-30
BMO-2008-8M	0.1248	0.460	46
BMO-2008-9M	0.0108	0.906	3.9
BMO-2008-10GL	0.1539	0.251	56
BMO-2008-10GU	0.0430	0.194	16
BMO-2008-11G	0.0001	0.007	0.02
BMO-2008-13B	0.0248	0.583	9.1
BMO-2008-13M	0.0048	0.023	1.8
BMO-2010-1M	0.0121	0.672	4.4
BMO-2010-3B	0.0015	0.544	0.55
BMO-2010-3M	-0.0005	0.360	-0.18
BMO-2012-1M	0.0041	0.166	1.5
BMO-2014-1BL	0.0039	0.123	1.4
BMO-2014-1BU	0.0003	0.001	0.11
BMO-2014-2BL	-0.0076	0.114	-2.8
BMO-2014-2BU	0.0038	0.266	1.4
BMO-2014-3BL	-2.0E-05	0.001	-0.01
BMO-2014-3BU	-0.0002	0.082	-0.07
BMO-2014-4B	0.0031	0.117	1.1
BMO-2014-4BL	-0.0112	0.276	-4.1
BMO-2015-1B	0.0069	0.270	2.5
BMO-2015-1BL	0.0155	0.659	5.7
BMO-2015-2B	0.0052	0.139	1.9
BMO-2015-2BL	0.0120	0.468	4.4
COB MW-2	-0.0019	0.248	-0.69
COB WL	-0.0050	0.690	-1.8
COOPER C	-0.0626	0.596	-23
HOBAN	-0.0236	0.024	-8.6
NOTEMAN	-0.0144	0.295	-5.3
NWC-02	0.0003	0.258	0.11
NWC-04	-0.0019	0.039	-0.69
NWC-06	0.0002	0.304	0.07
PANAGAKOS	-0.0176	0.049	-6.4
TM-07	0.0126	0.235	4.6
TVI 236	-0.0015	0.050	-0.55
TVI 875	0.0166	0.292	6.1
WEISKOPF 802	0.0413	0.293	15

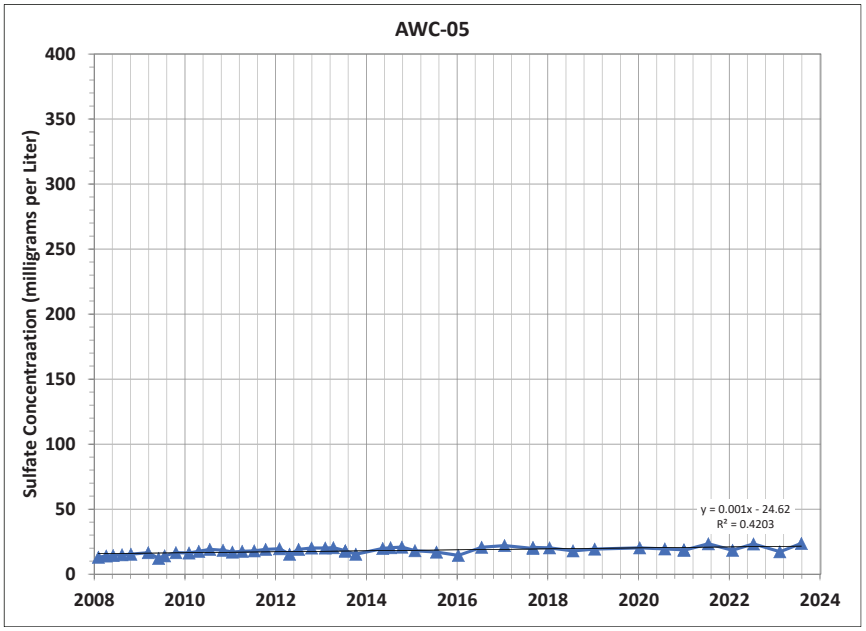
Note:
mg/L = milligrams per liter

APPENDIX D
Sulfate Time Series and Trendline Analysis for Select Wells









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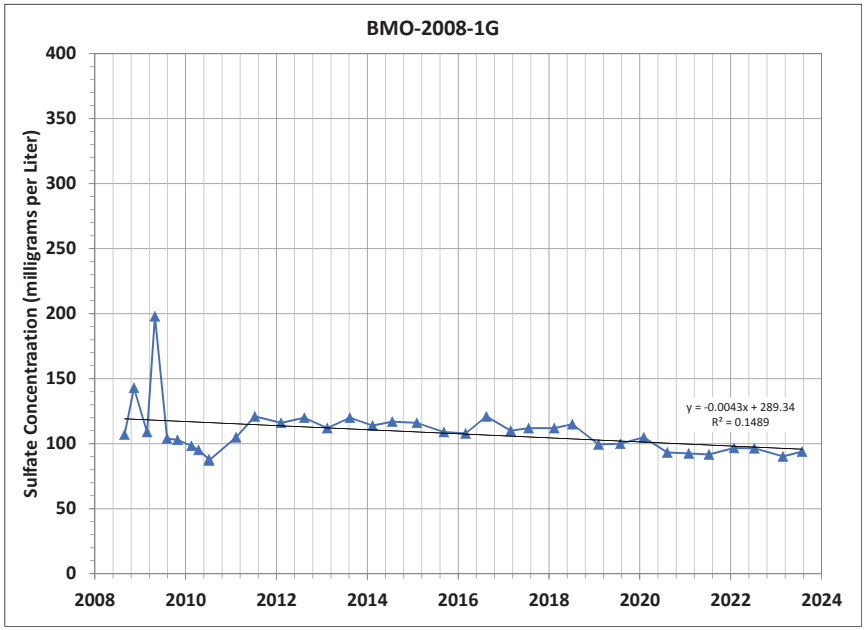

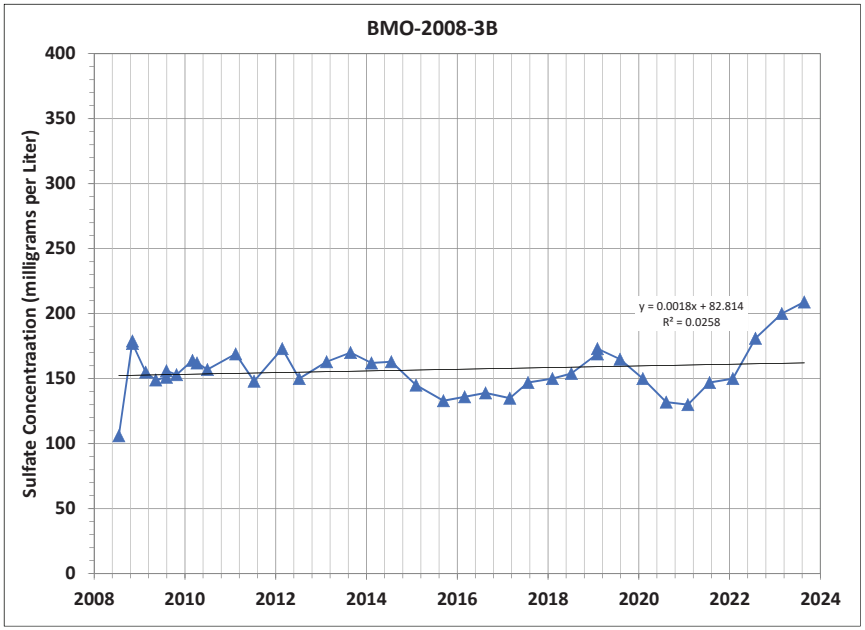

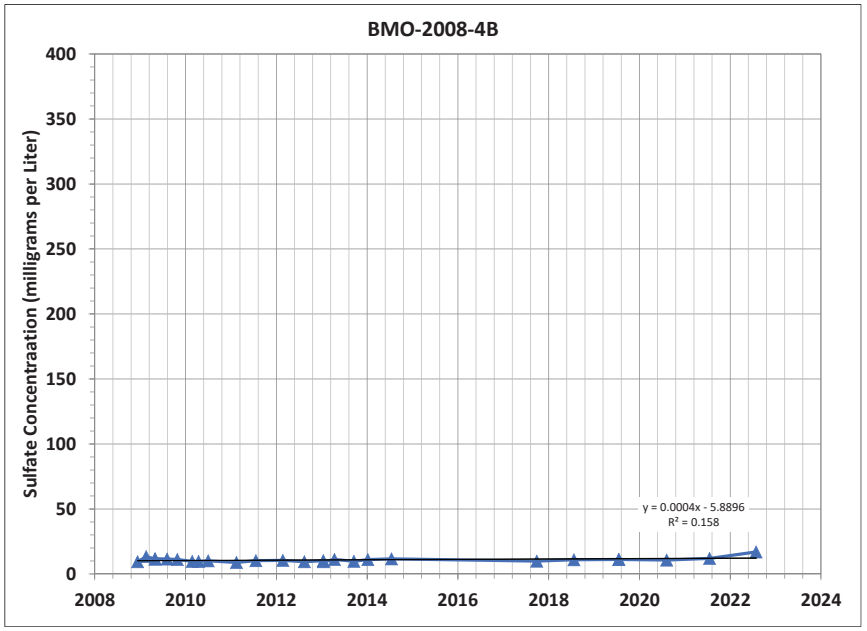

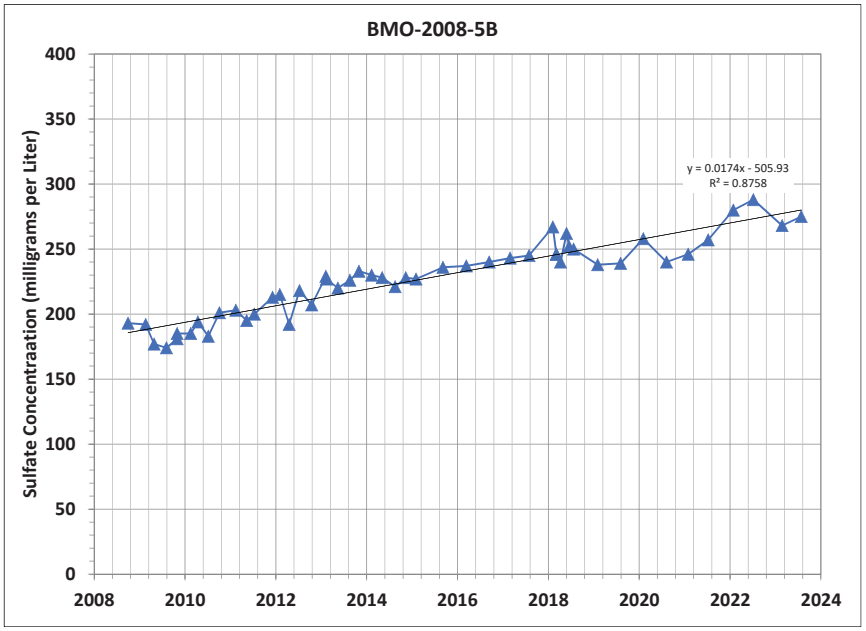

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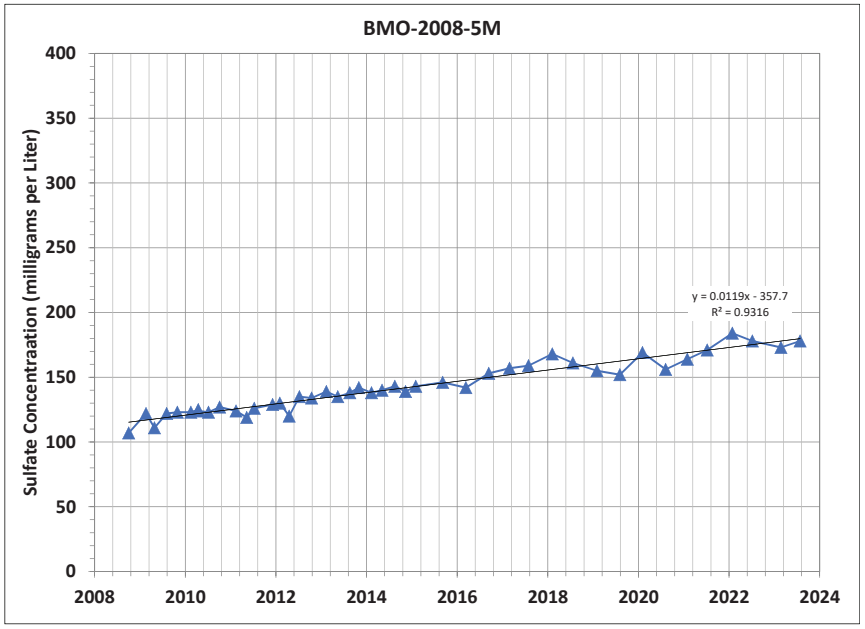

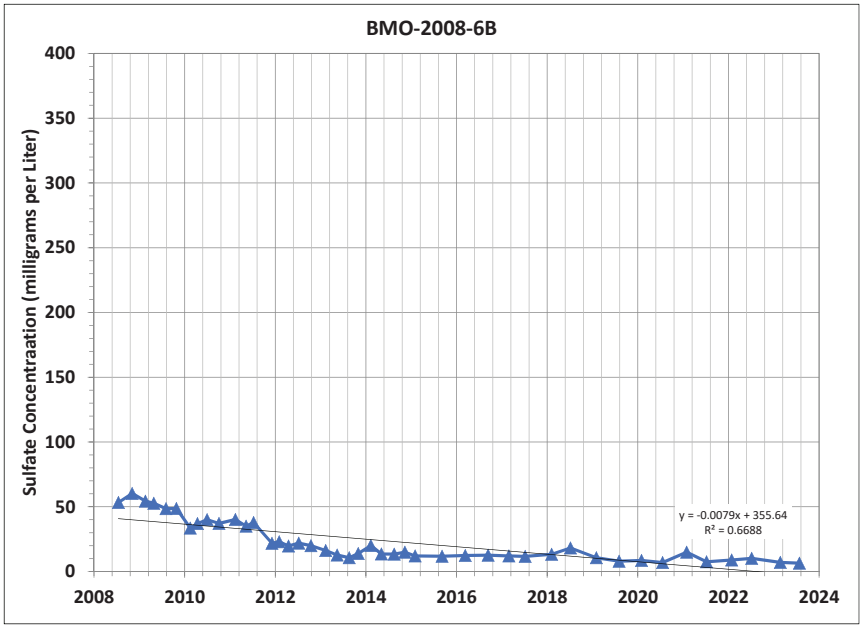

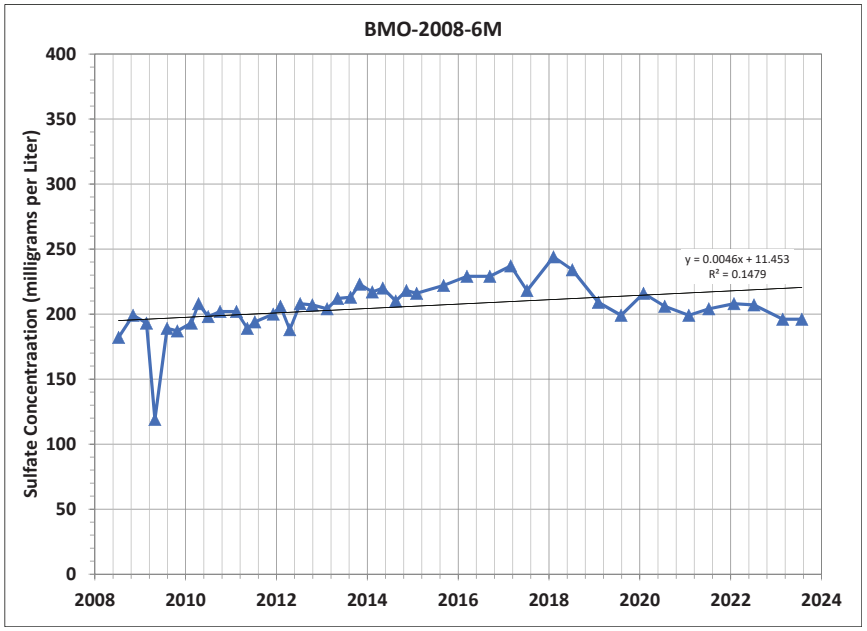

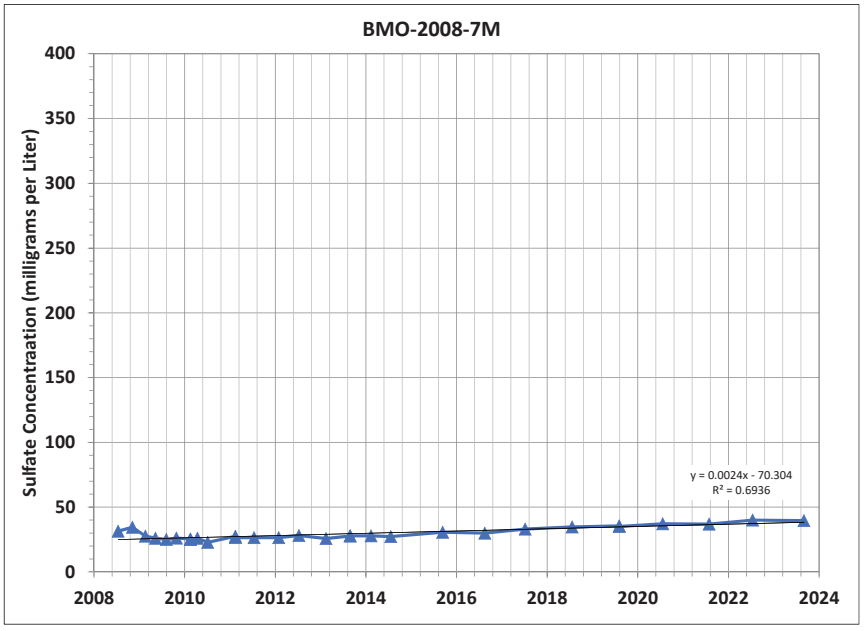

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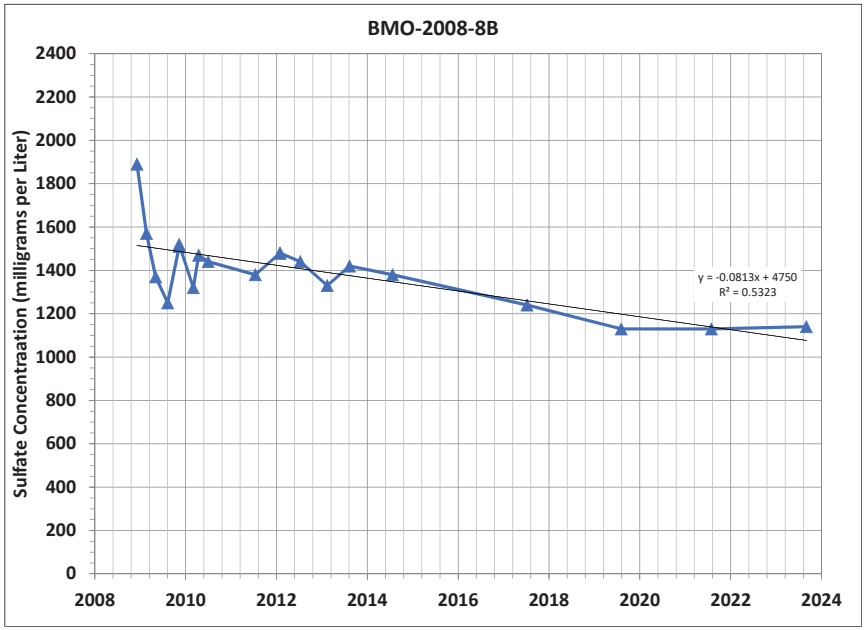

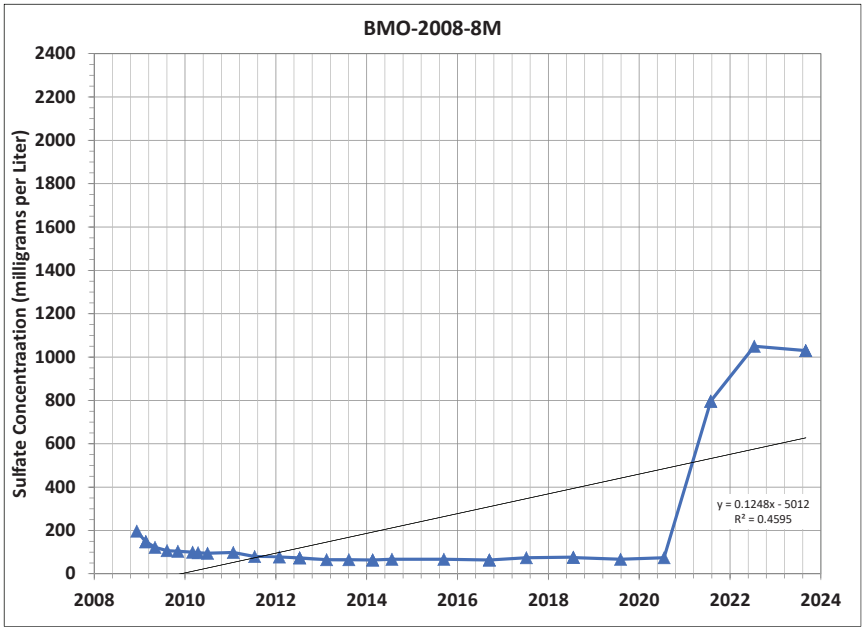

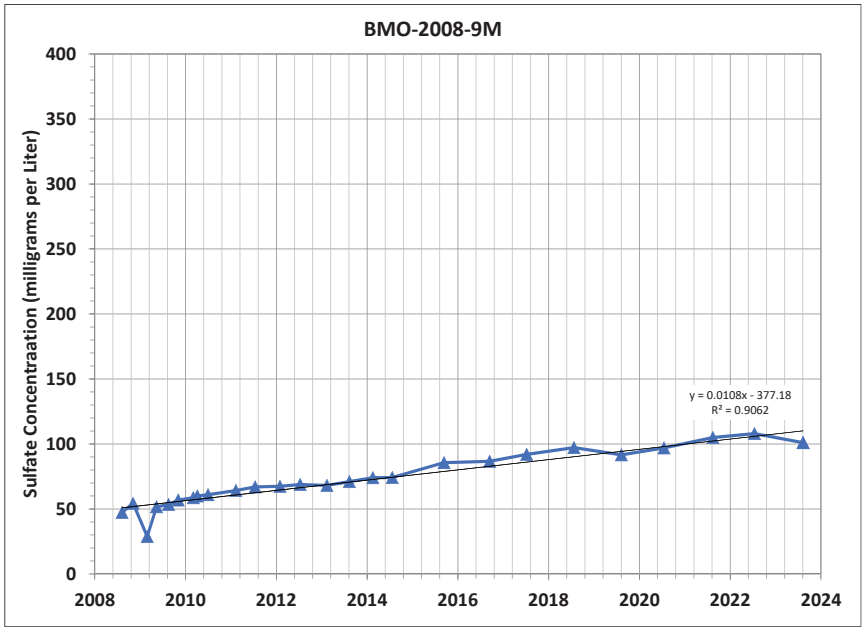

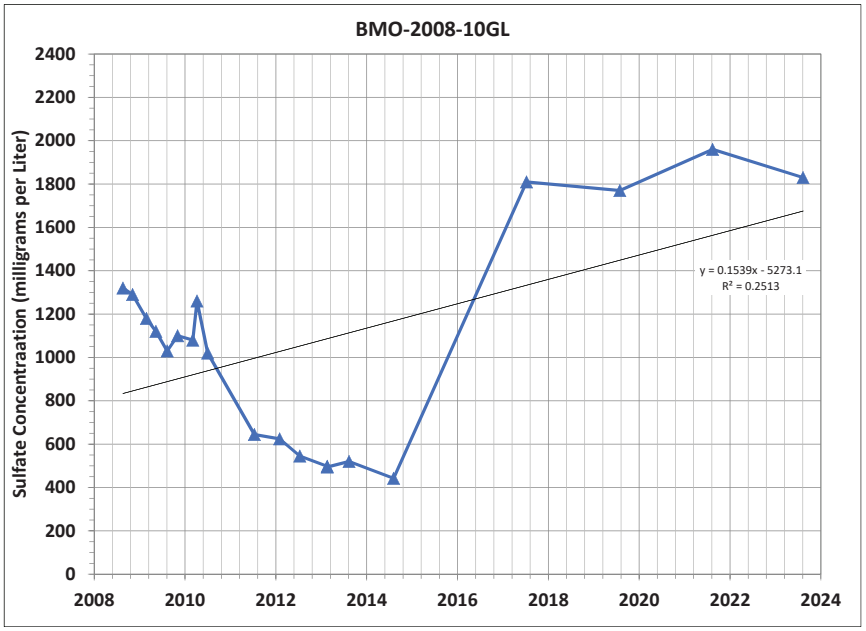

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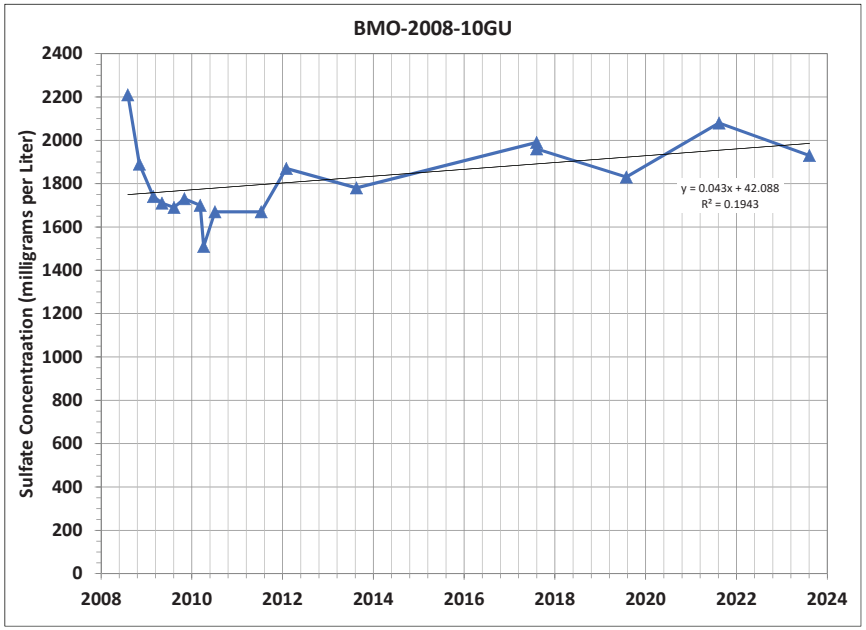

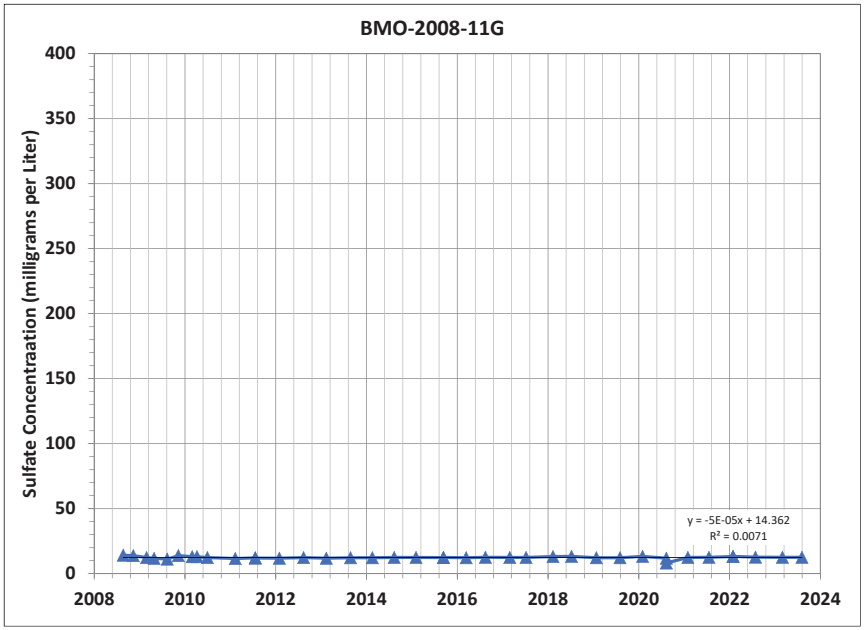

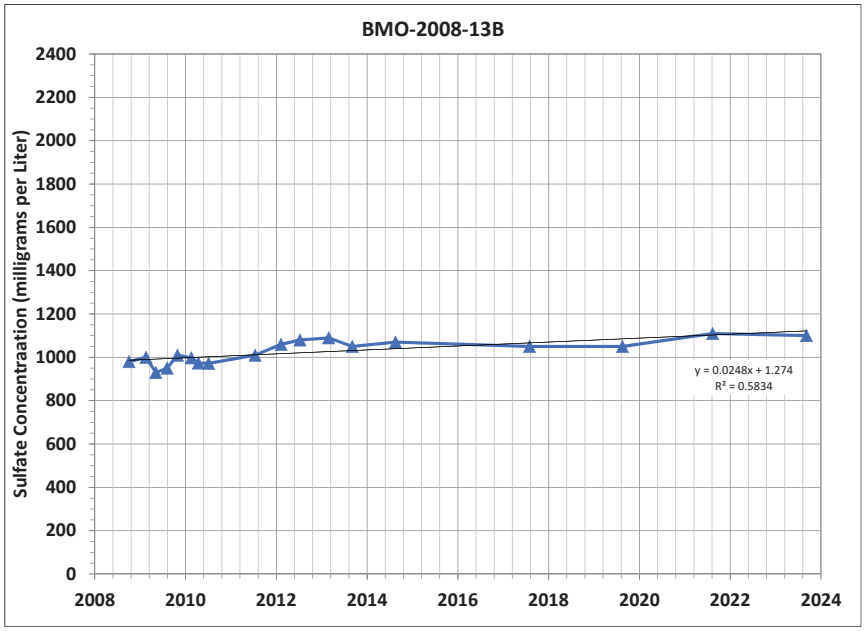

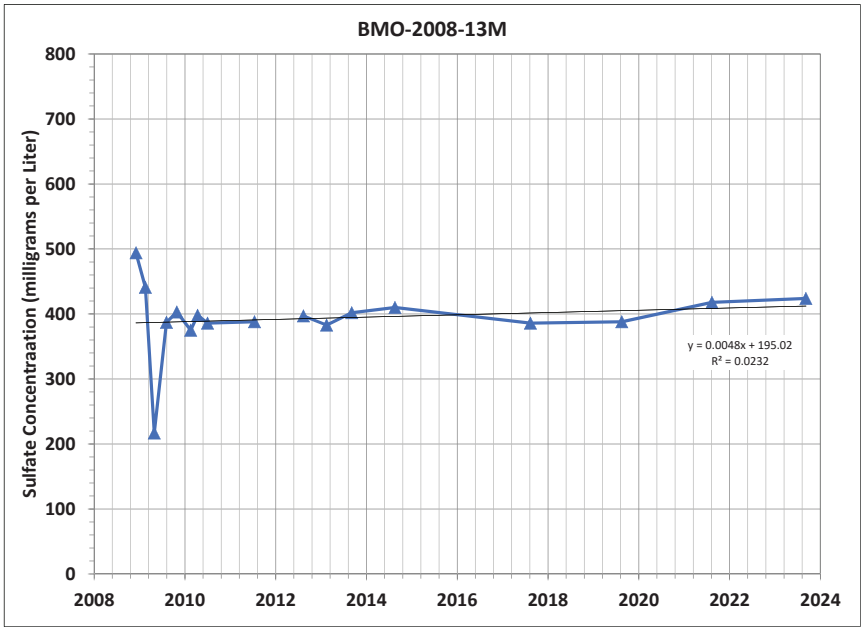

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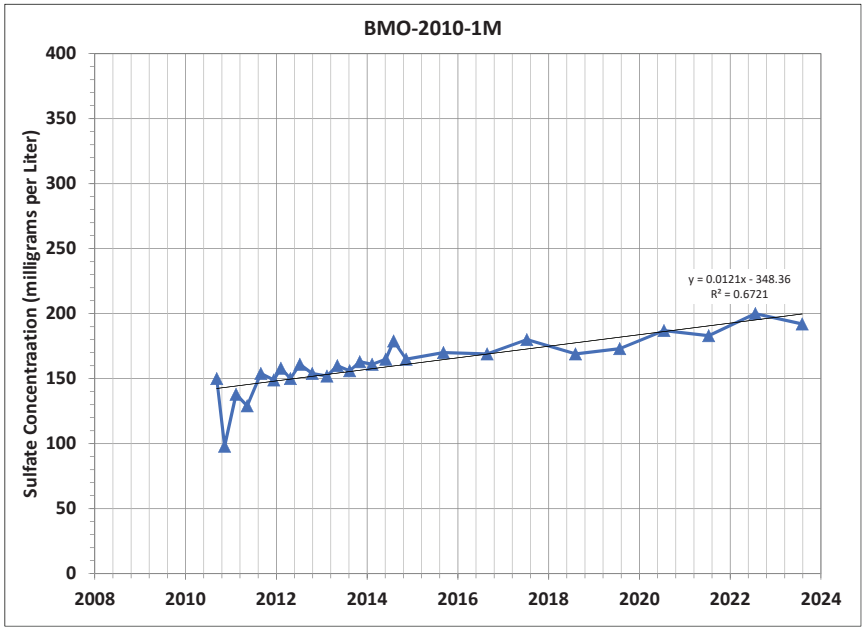

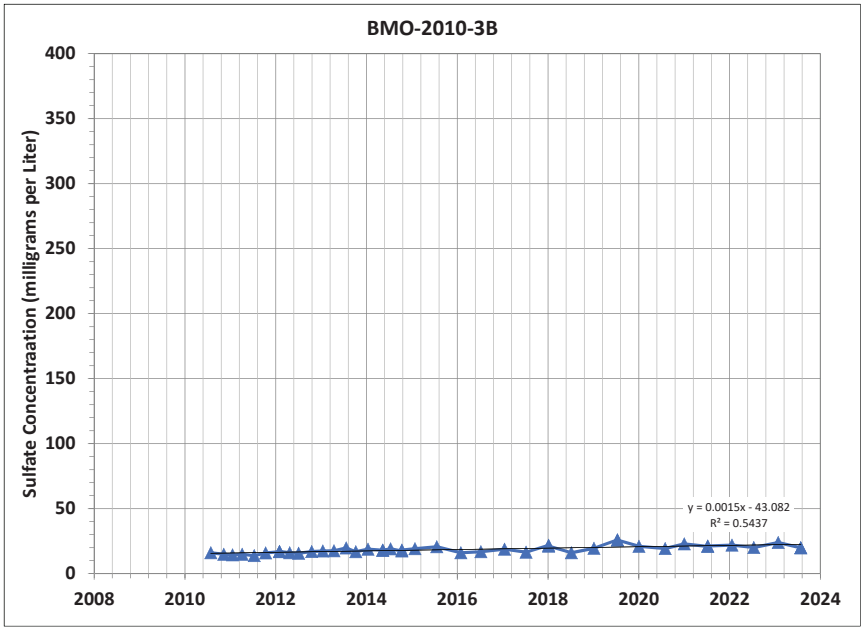

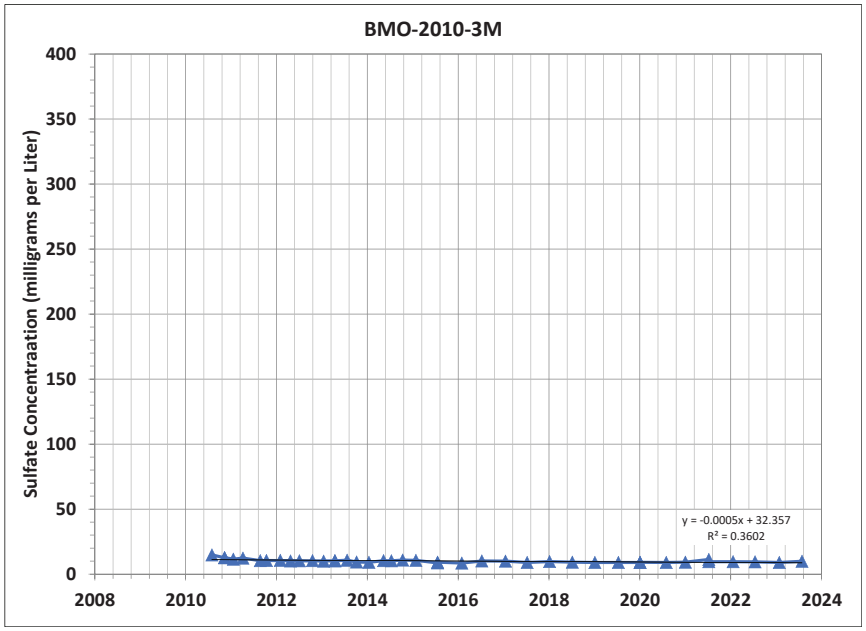

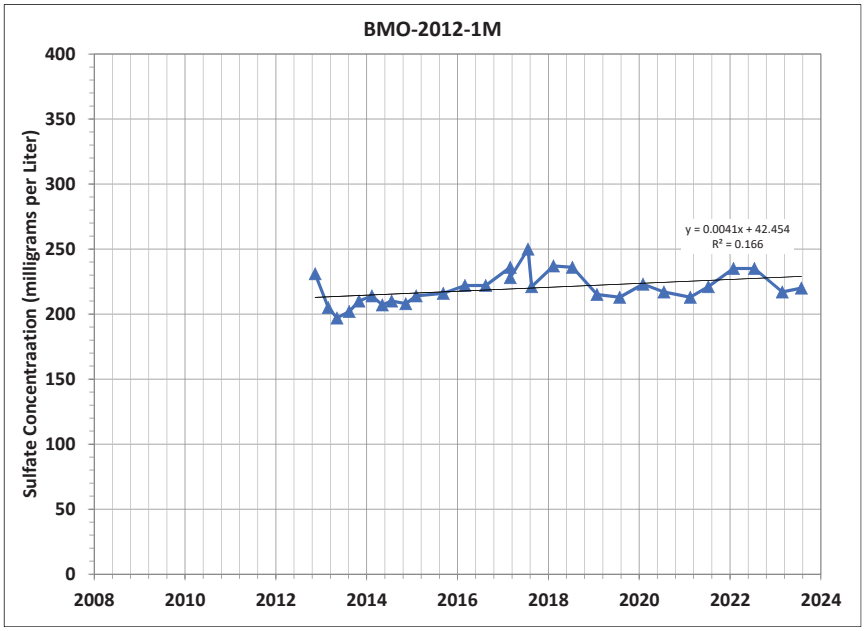

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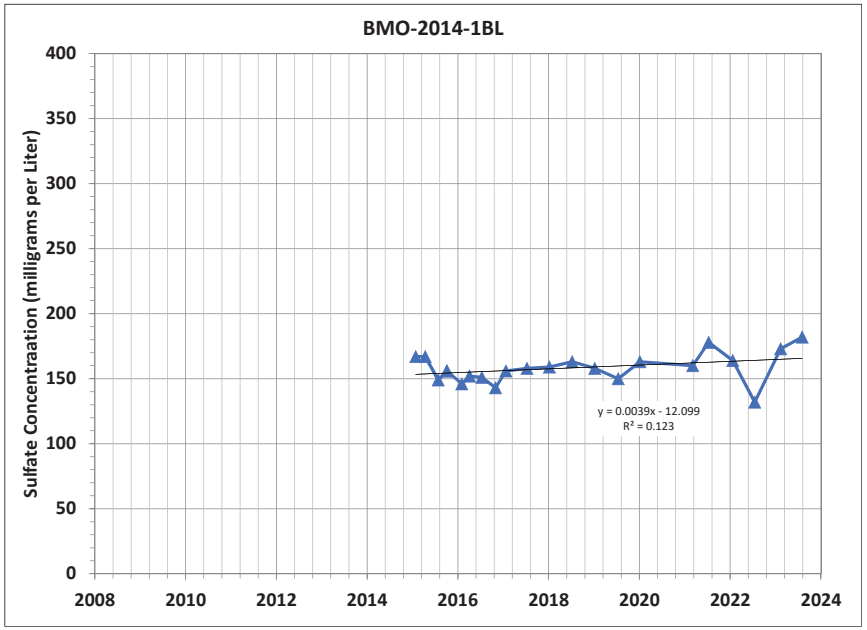

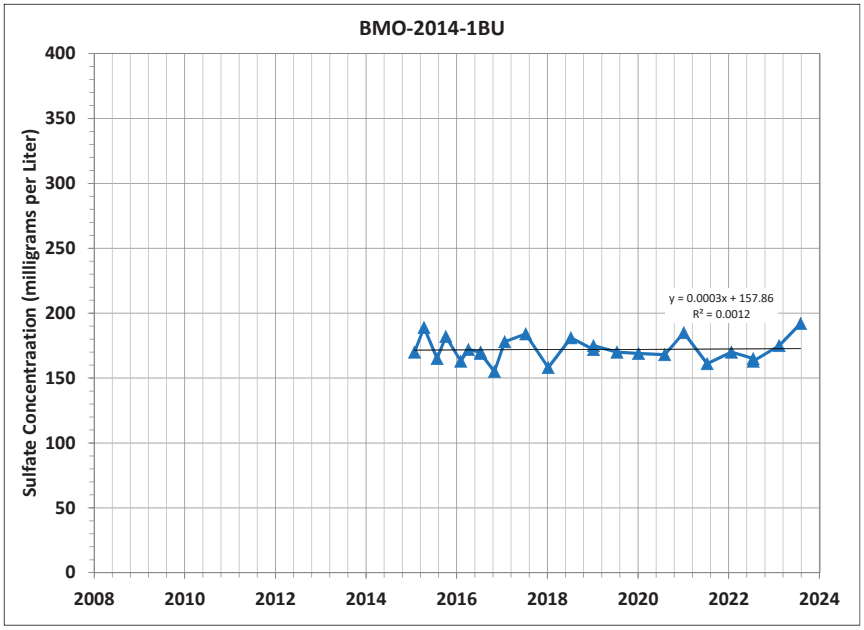

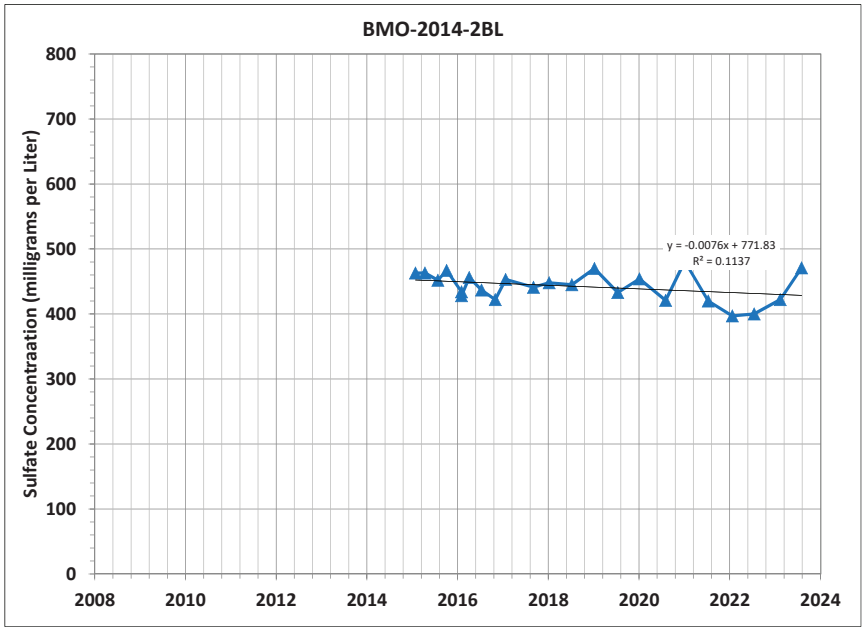

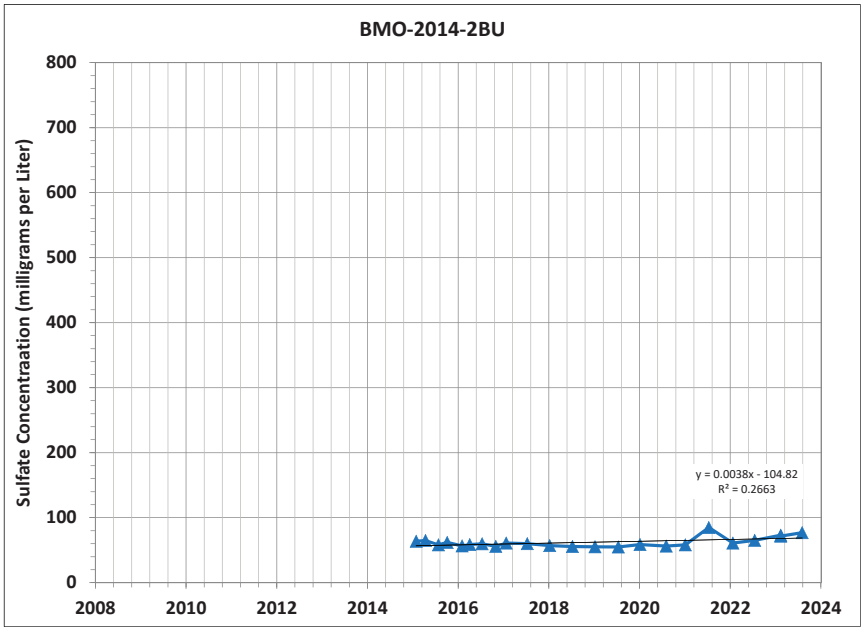

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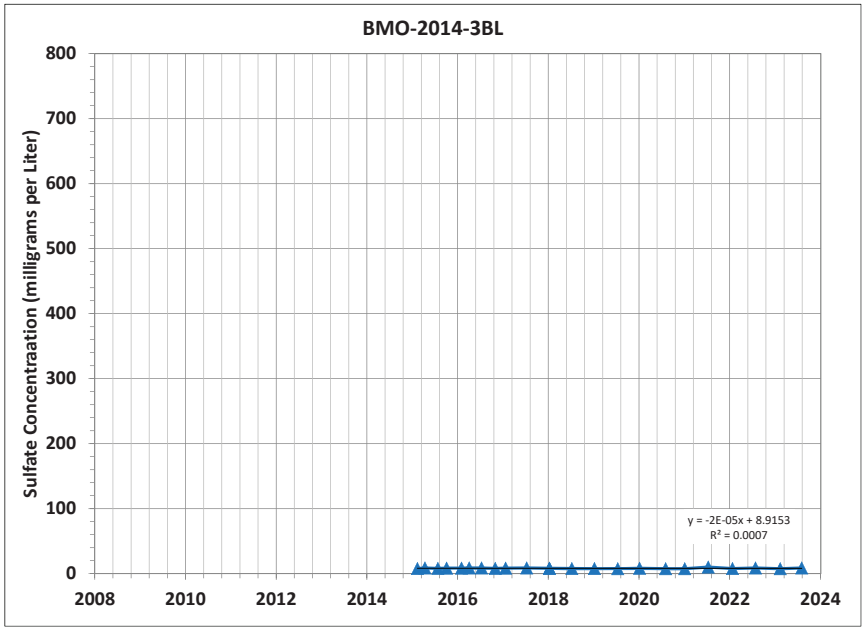

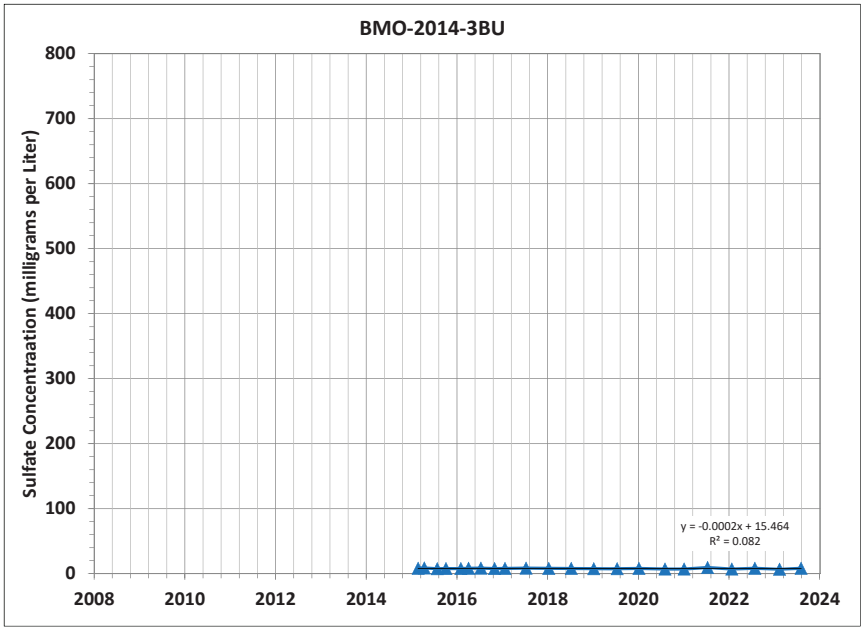

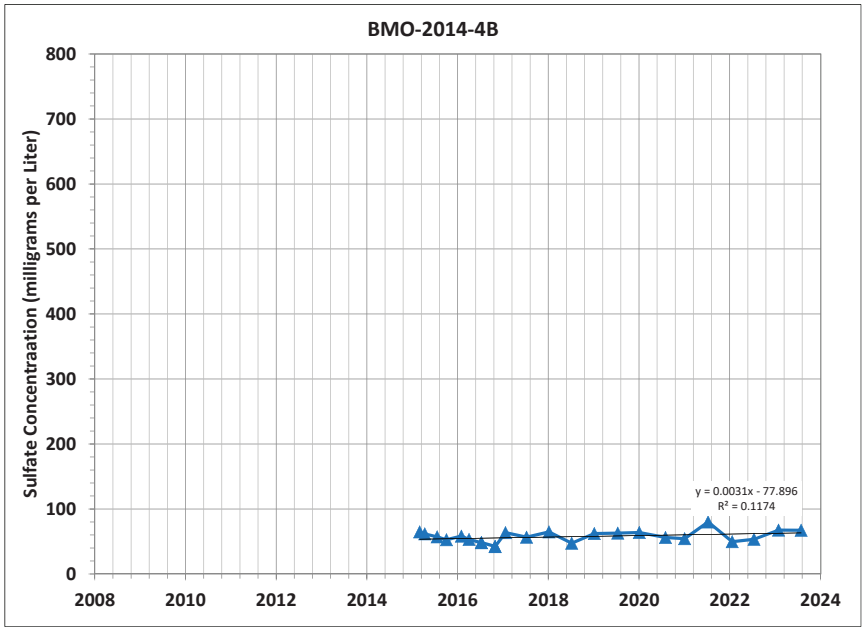

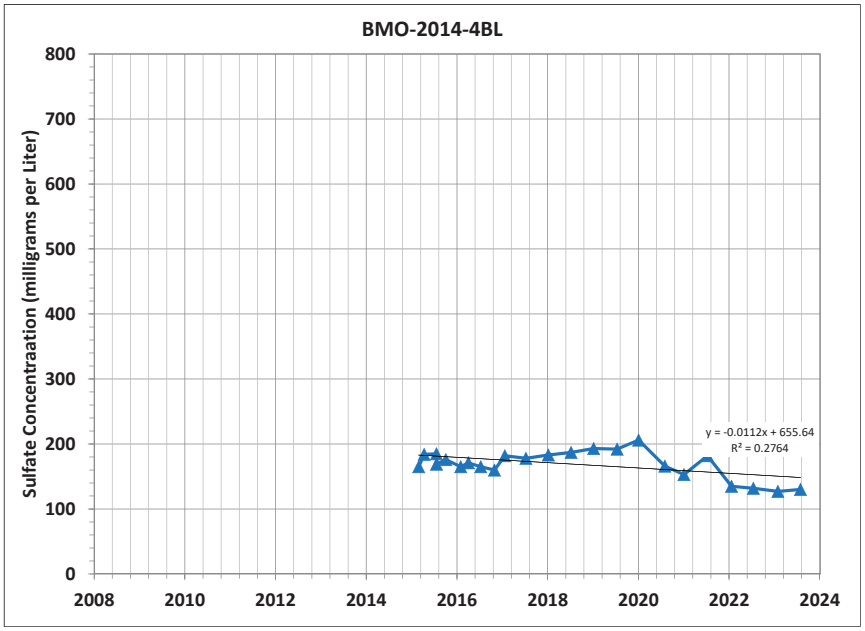

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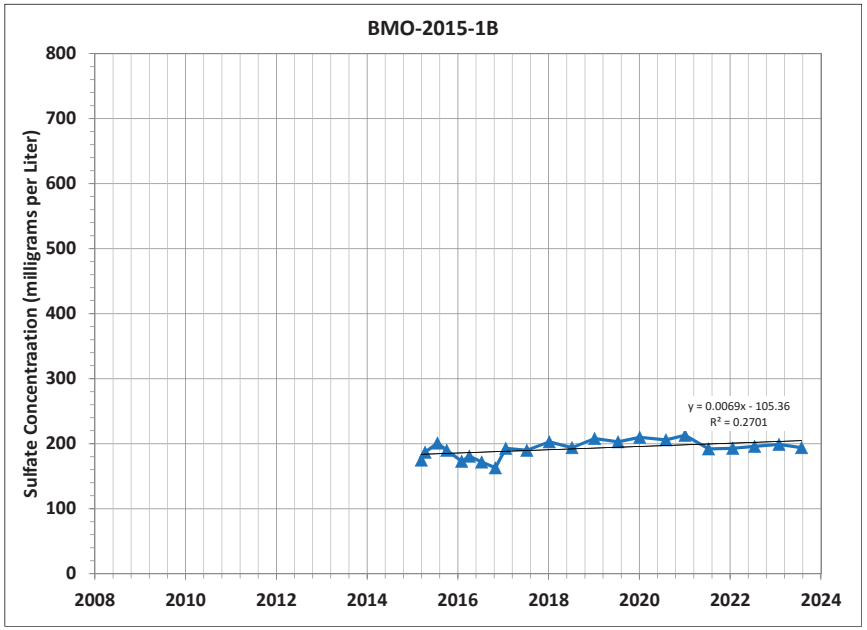

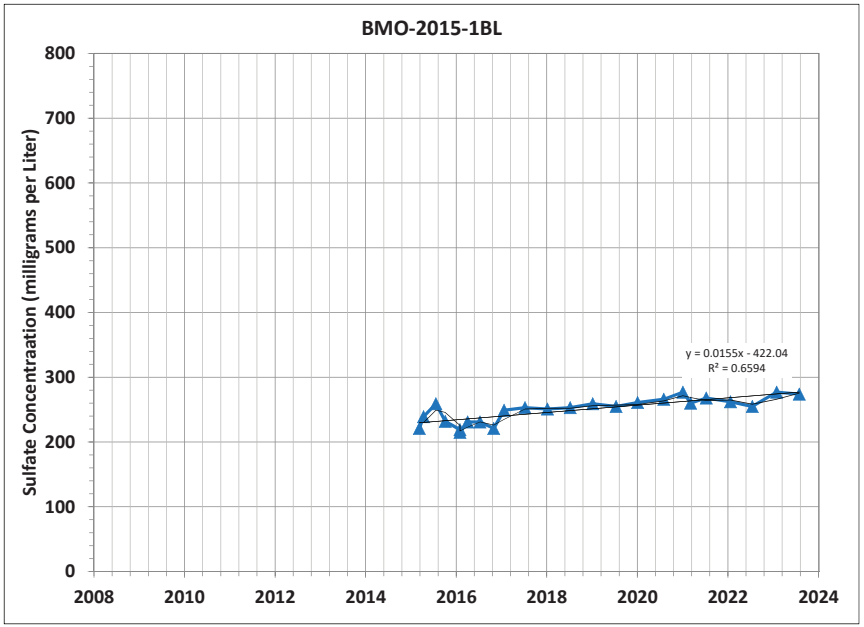

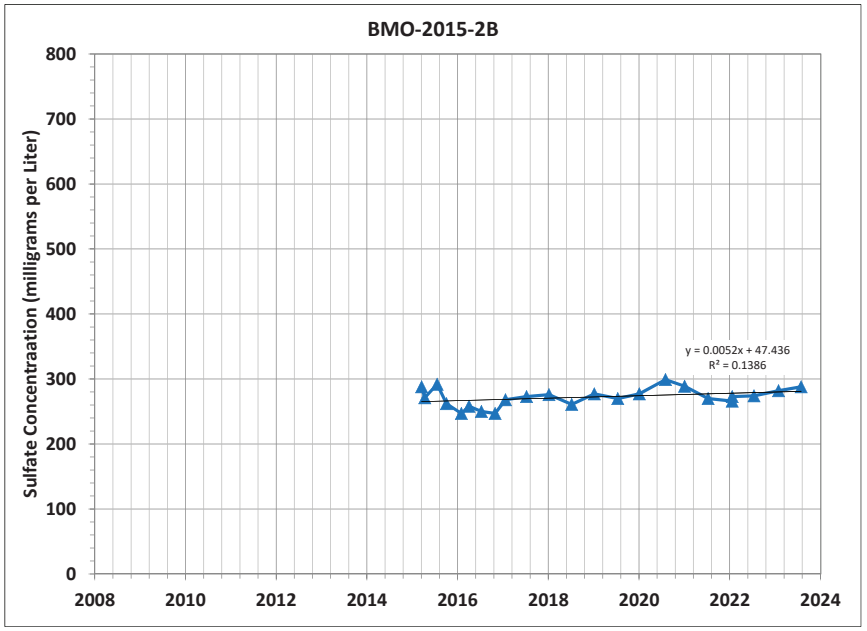

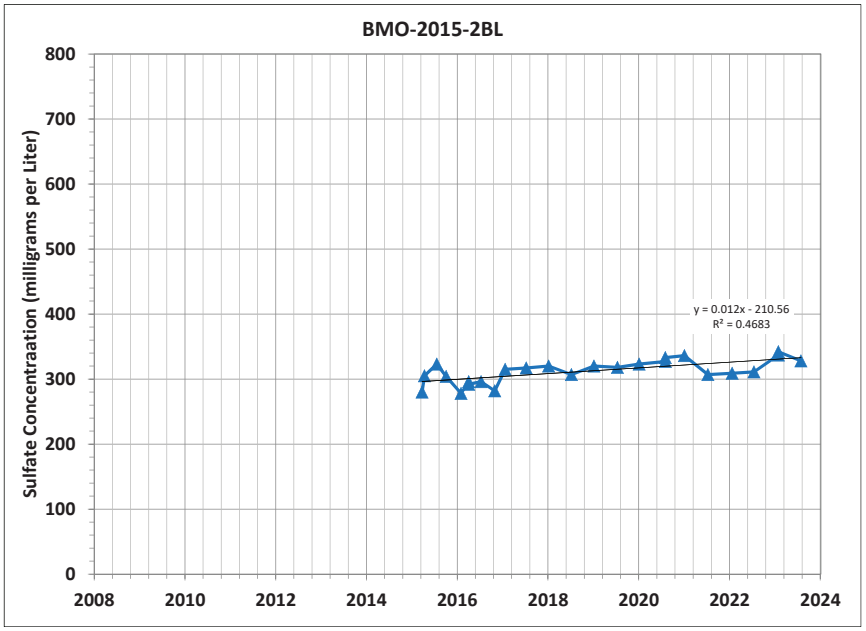

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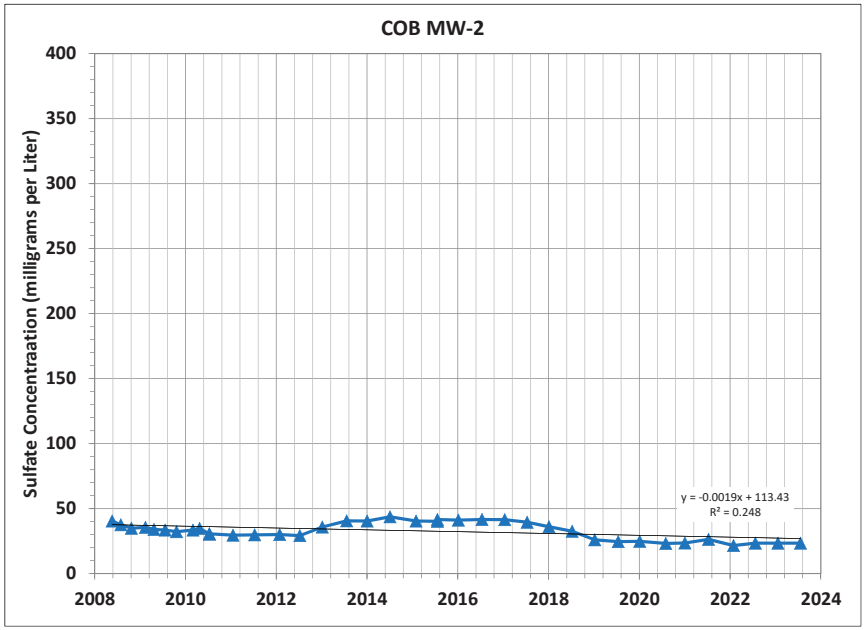

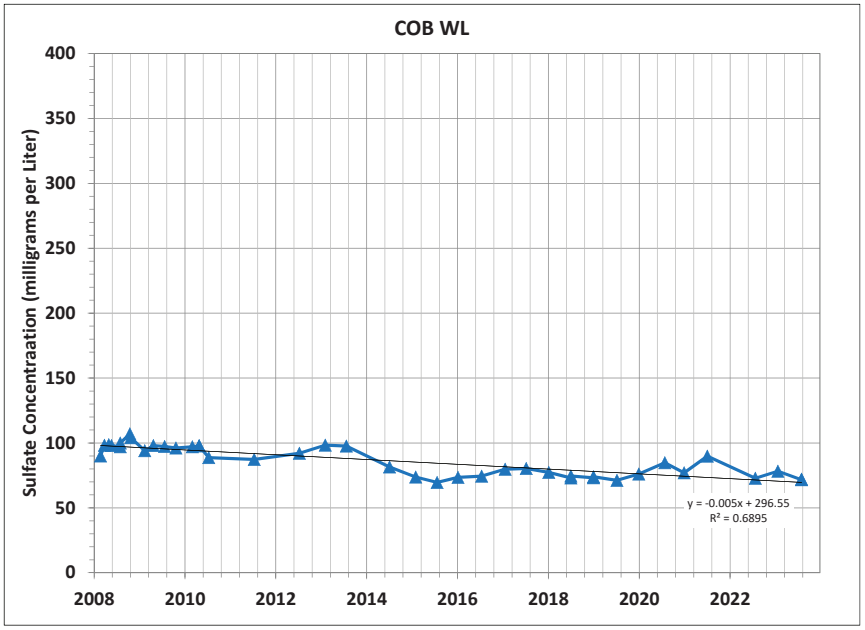

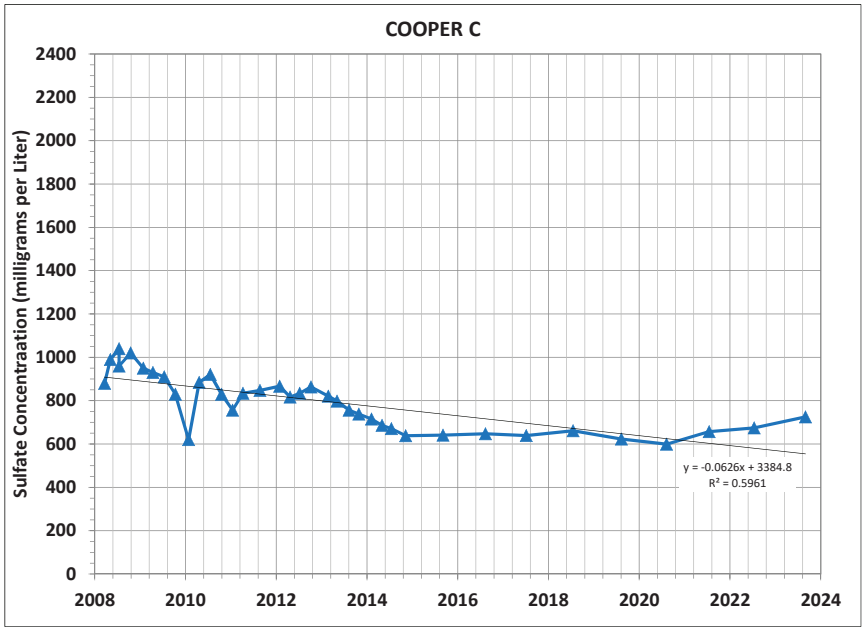

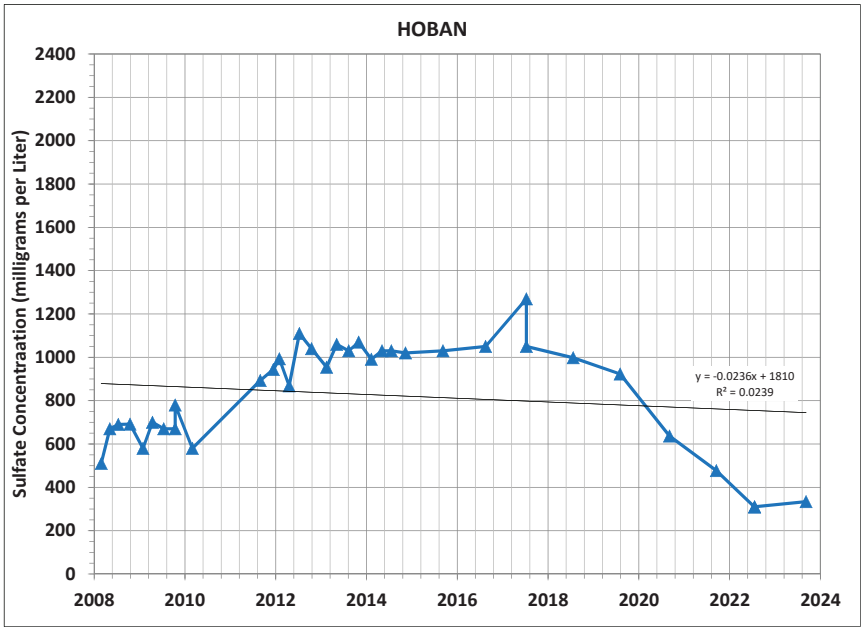

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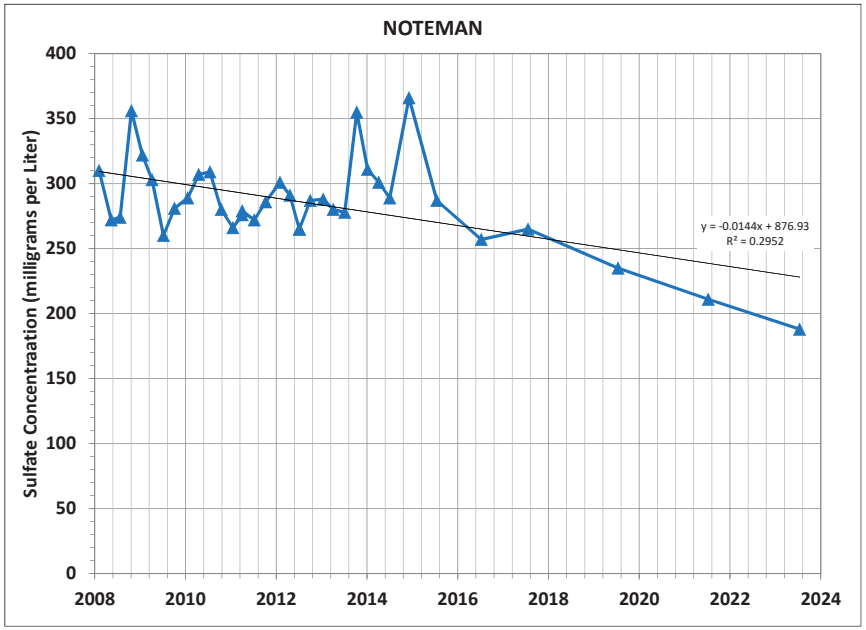

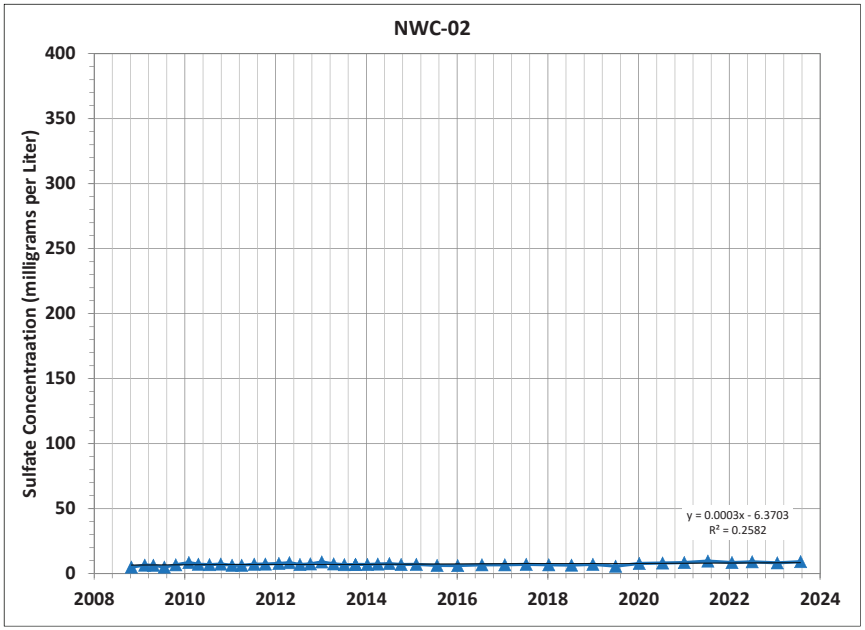

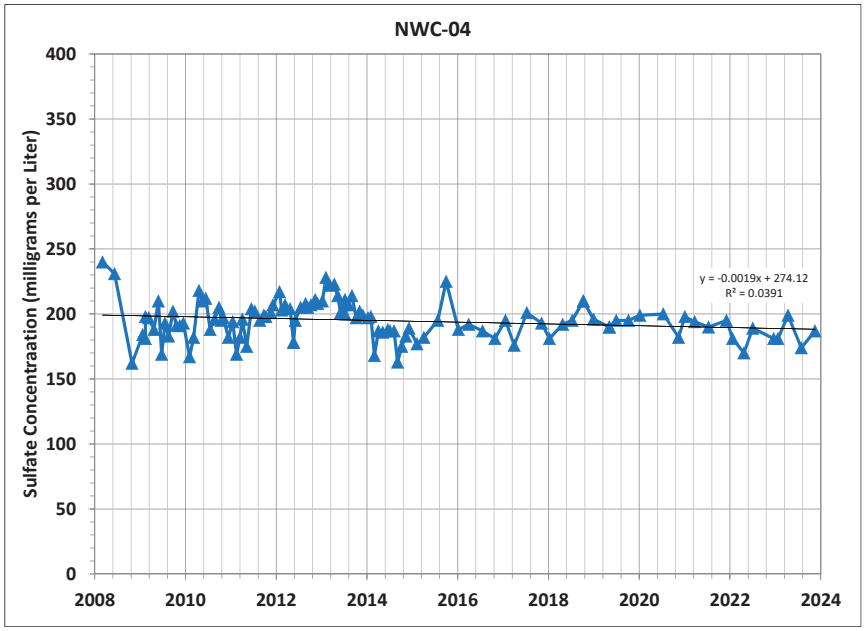

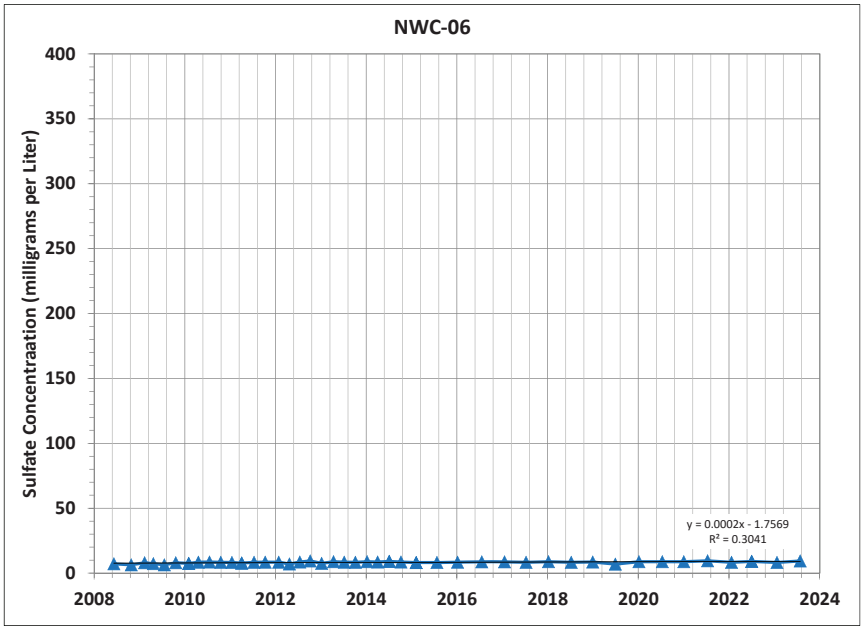

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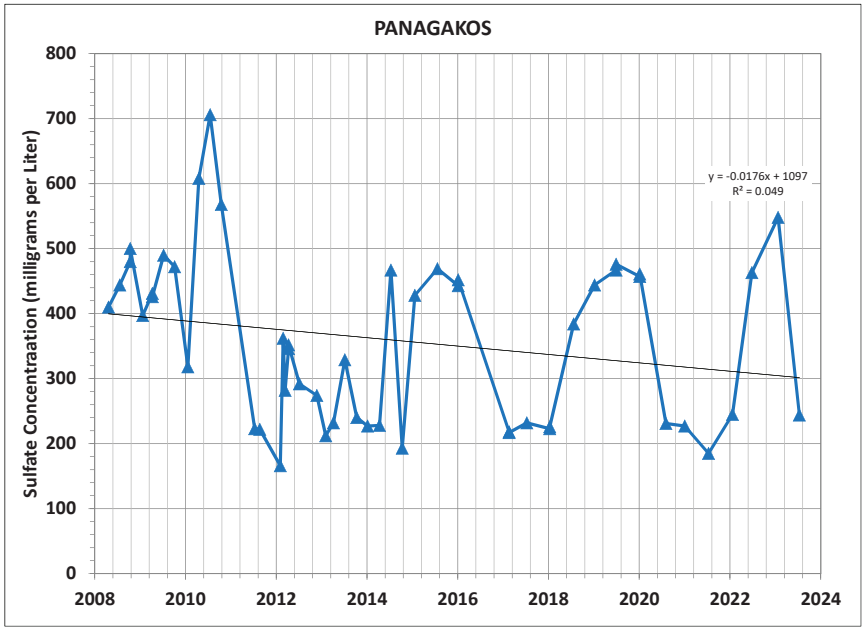
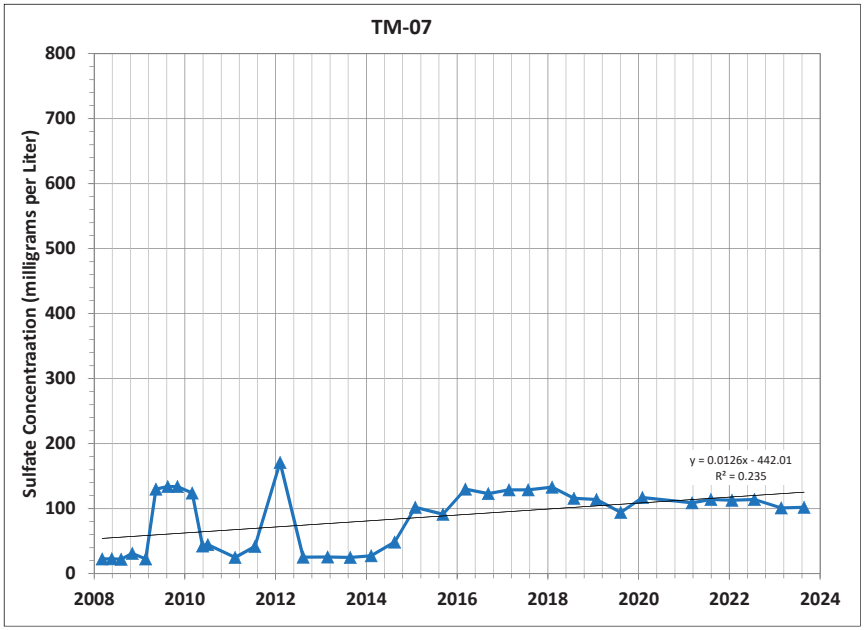
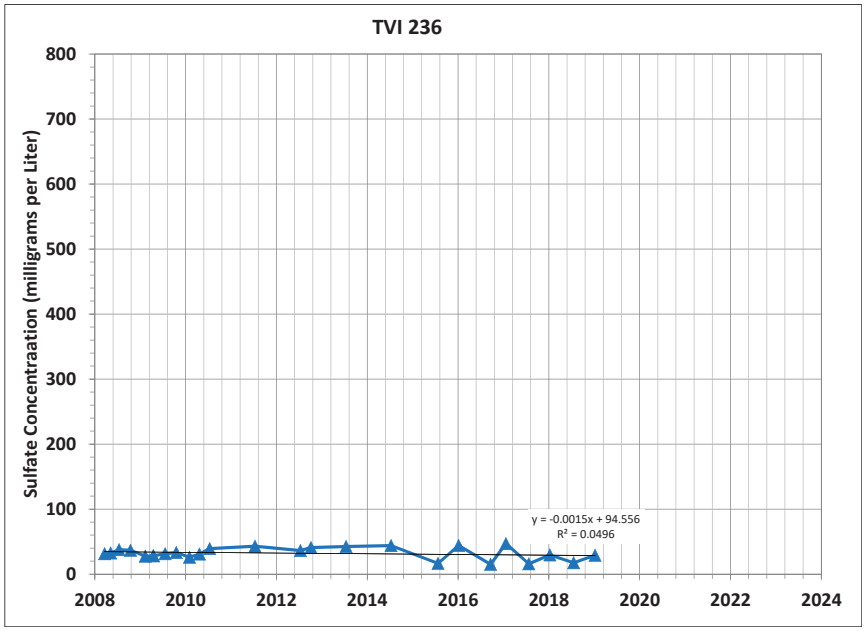
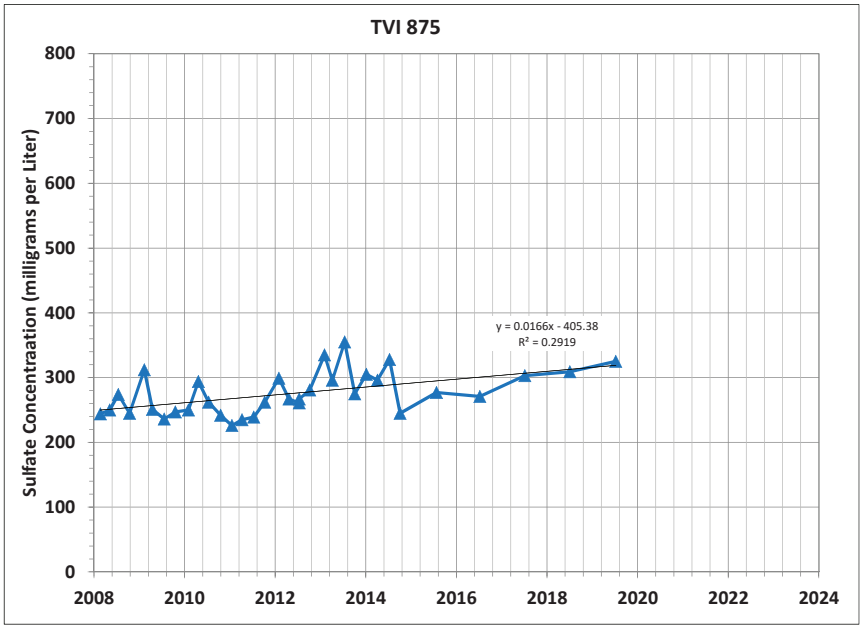
Sulfate Time Series and Trendline Analysis for Select Wells

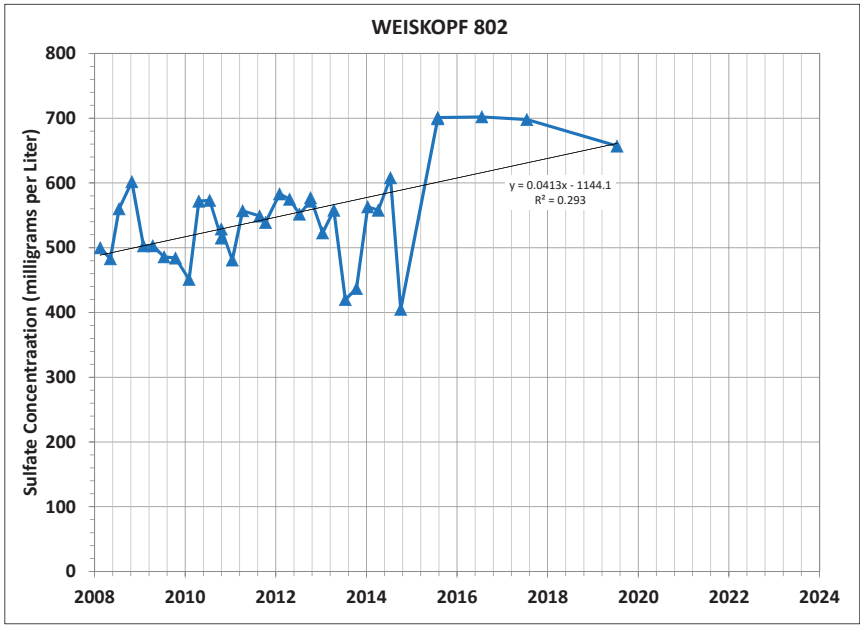








APPENDIX D
Sulfate Time Series and Trendline Analysis for Select Wells



APPENDIX E

GROUNDWATER VELOCITY CALCULATIONS FOR LEADING EDGE OF THE SULFATE PLUME

TECHNICAL MEMORANDUM

To: Fernando Alday, Freeport-McMoRan Corporation, Copper Queen Branch
From: Ben Daigneau, R.G., Clear Creek Associates
Subject: Groundwater Velocity Calculations for Leading Edge of the Sulfate Plume
Date: April 24, 2024

1. INTRODUCTION

This memorandum contains groundwater velocity estimates in the vicinity of the sulfate plume[1] and the Arizona Water Company (AWC) wellfield based on site-specific water levels and hydraulic properties. The purpose of the analysis is to evaluate groundwater velocities and possible travel times between the leading edge of the plume and the AWC wellfield.

A similar analysis was completed in 2012 and submitted as part of the Feasibility Study for Drinking Water Supplies that May be Impacted by Sulfate in the Future (Clear Creek Associates [Clear Creek], 2014). A detailed discussion of the hydraulic properties of the basin fill is included in the Aquifer Characterization Report (Clear Creek Associates, 2010). This analysis includes additional hydraulic information from wells installed for the expanded groundwater monitoring program (EGMP) (Clear Creek Associates, 2015b) as part of the mitigation actions described in the Mitigation Plan (Clear Creek, 2015a).

2. BACKGROUND

Figure 1 shows monitoring locations and groundwater elevations in the basin fill aquifer from the first quarter 2023. The basin fill aquifer consists of unconsolidated sand and gravel deposits. This analysis focuses on the basin fill aquifer because it is the primary source of water for the AWC wellfield.

The basin fill aquifer contains a groundwater plume of sulfate in excess of 250 milligrams per liter (mg/L) that is moving westward toward the AWC wellfield (Clear Creek, 2010). The Mitigation Plan (Clear Creek, 2015a) describes monitoring and planning tasks used to track plume migration and to assess the need for an alternate water supply at the AWC Wellfield. Twelve monitor wells were installed at the leading edge of the sulfate plume in 2014 and 2015 for the EGMP (Clear Creek Associates, 2015b) under the Mitigation Plan.

The database of hydraulic properties for the basin fill at the front of the plume was updated to include the results of aquifer testing at the EGMP wells and the groundwater velocities in this memorandum are based on the additional data. The water level data

[1] The sulfate plume is defined as the zone of groundwater with sulfate concentrations exceeding 250 milligrams per liter due to the Concentrator Tailing Storage Area.

used for this analysis are included in the Annual Groundwater Monitoring Report for 2023 (Clear Creek Associates, 2024).

3. PROCEDURE

Darcy's Law calculations were used to estimate groundwater velocity and travel times. Water levels in select basin fill wells at the leading edge of the plume were used to calculate the hydraulic gradients between well pairs. Hydraulic conductivity and porosity were used with calculated hydraulic gradients to calculate average groundwater flow velocities. The flow velocity and distance between selected wells were used to calculate the travel time of groundwater in the vicinity of the AWC wellfield and leading edge of the sulfate plume. Travel time in this analysis represents the average time for groundwater to travel the distance between two points (the select wells). The gradient, velocity, and travel times were calculated using the following equations:

$$\text{Hydraulic Gradient} = \frac{[\text{Groundwater Elevation in Well A}] - [\text{Groundwater Elevation in Well B}]}{\text{Distance Between Wells}} \quad (1)$$

$$\text{Average Groundwater Flow Velocity} = \frac{[\text{Hydraulic Conductivity}] \times [\text{Hydraulic Gradient}]}{\text{Porosity}} \quad (2)$$

$$\text{Travel Time} = \frac{\text{Distance}}{\text{Average Groundwater Flow Velocity}} \quad (3)$$

The selection of values for each variable is discussed in Sections 4, 5, and 6. Selected values should be representative of aquifer conditions, based on the best available data. When a range of values exists for a variable, the selected value may underestimate or underestimate the velocity or travel time depending on the part of the range selected. The groundwater velocity can be used to estimate the movement of sulfate and the plume. Plume movement is tracked to ensure that there is sufficient time to implement any mitigation action required under the Mitigation Plan (Clear Creek 2015a). Overestimating travel times (underestimating groundwater velocity) and predicting slow movement, may result in less time to implement mitigation actions. The values selected for the calculations presented here are realistic but tend to underestimate travel times (overestimate groundwater velocity).

The hydraulic gradient is directly proportional to the groundwater elevation difference between selected points (Equation 1) so larger differences result in steeper gradients. Groundwater velocity is directly proportional to the hydraulic gradient and hydraulic conductivity (Equation 2), so increasing those variables increases velocity and decreases travel times (Equation 3). Velocity is inversely proportional to porosity (Equation 2) so a higher porosity decreases velocity resulting in longer travel times (Equation 3). This shows that, when a range of possible values is available: larger elevation differences (steeper

hydraulic gradients), higher hydraulic conductivities, and lower porosity values will decrease travel times which is a conservative approach to mitigation planning.

4. WATER ELEVATIONS AND HYDRAULIC GRADIENTS

Figure 1 includes groundwater elevations measured during the first quarter of 2023 and illustrates that groundwater flows to the west in the area between the plume and the AWC wellfield. Table 1 includes groundwater elevation data for select basin fill wells at the front of the plume and the distances between wells used to calculate the hydraulic gradients.

Wells along or near three profiles that represent potential flow paths for groundwater were selected for water level analysis and hydraulic gradient calculations. The profiles (north, central, and south) are shown on Figure 1. The profiles extend from upgradient wells (east of the plume edge) to the AWC wellfield, converging at AWC-04, and terminating at LADD 977, west of the wellfield.

Pumping in the AWC wellfield results in a cone of depression in the groundwater surface. The inferred cone of depression is evident on Figure 1 as the area of groundwater depression. Water levels in individual extraction wells can vary due to changes in pumping rates, well efficiency, and residual drawdown at the time of measurement and may not represent aquifer conditions within the cone of depression. An average of first quarter 2023 AWC wellfield water elevations (Table 2) was used to represent the average groundwater elevation at the wellfield to reduce the effect of the large differences in water levels at individual wells. The groundwater elevation for monitor well COB MW-3 was included in the average as it represents aquifer conditions within the AWC wellfield. AWC-05 is the closest extraction well to the leading edge of the sulfate plume and its location was used to represent the average elevation of the wellfield. The selection of AWC-05 is conservative because it minimizes the distance between the upgradient wells and the wellfield which results in a higher hydraulic gradient and shorter travel times. The location of AWC-05 is projected onto the north profile (Figures 1 and 2).

Figures 2, 3, and 4 show the groundwater elevation along the north, central, and south hydraulic profiles, respectively. The profiles demonstrate a change in hydraulic gradients in wells proximal and distal to the wellfield. The change in gradients occurs at BMO-2008-5B, BMO-2015-1B/1BL, and BMO-2010-3B in the north, central, and south profiles, respectively. Wells on the east side of each profile (distal to the wellfield) have a shallower gradient and suggest a regional hydraulic gradient outside of the cone of depression of the AWC wellfield. A similar gradient is evident between NSD-03 and LADD 977, west of the wellfield. The gradient proximal to the wellfield, between the AWC wells and the nearest upgradient wells, is steeper and is used to represent the extent of the cone of depression in this analysis.

Figures 2, 3, and 4 show the calculated apparent hydraulic gradient as the slope of linear trendlines used to approximate the regional and proximal regimes in each profile. The term "apparent" is used here to indicate that the hydraulic gradients are approximations in that they are calculated along lines between existing points that may not be orthogonal to the potentiometric field. The calculated hydraulic gradients range from 0.0005 to 0.0011 feet per foot (ft/ft) in the distal regional flow regime and 0.0079 to 0.0123 ft/ft in the proximal flow regime.

5. HYDRAULIC CONDUCTIVITY

The hydraulic conductivity of basin fill has been estimated by interpretation of pumping tests conducted at various locations in the vicinity of the sulfate plume. The pumping test data and their interpretation are described in the Aquifer Characterization Report (Clear Creek Associates, 2010) and the EGMP report (Clear Creek Associates, 2015). Table 3 lists hydraulic conductivity estimates for basin fill, including the arithmetic and geometric means for the data set. Basin fill hydraulic conductivities for all wells range from 2.3 feet per day (ft/d) to 100.9 ft/d and have arithmetic and geometric means of 31.1 ft/d and 22.9 ft/d, respectively. Figure 5 is a cumulative frequency plot that illustrates the distribution of basin fill hydraulic conductivity estimates.

Table 3 highlights wells at or in front of the leading edge of the plume. Hydraulic conductivity estimates for these wells range from 2.3 ft/d to 65.2 ft/d. The arithmetic and geometric mean hydraulic conductivities of wells at the leading edge of the plume are 24.4 ft/d and 17.7 ft/d, respectively. The 95% upper confidence limit of the arithmetic mean conductivity for wells at the front of the plume is 33.4 ft/d. The upper confidence interval limit represents a 95% probability that the average hydraulic conductivity in the aquifer is less than the calculated value, assuming the available data are representative. The use of the 95% upper confidence limit for the calculations herein, is conservative because it is the highest value that represents the average aquifer characteristics in the area of study and results in shorter travel times between points than would the arithmetic or geometric means.

6. GROUNDWATER FLOW VELOCITY AND TRAVEL TIME CALCULATIONS

Groundwater flow velocities were calculated using apparent hydraulic gradients (Figures 2, 3, and 4), the upper 95% confidence limit of the hydraulic conductivity (33.4 ft/d), and an assumed effective porosity of 25%. Table 4 summarizes the data used for the groundwater flow velocity and point-to-point travel time calculations. Porosity is an estimated value because it is impractical to measure. Published porosity values for unconsolidated sand and gravel range from 25% to 40% (e.g. Morris and Johnson, 1967 and Davis, 1969). The porosity value used for this analysis is the low range of published values for sand and gravel and is consistent with previous analyses. The value is

conservative in that it results in faster travel times than the higher range of porosity. Travel time calculations for groundwater between the upgradient and downgradient wells were conducted by dividing the distance between them by the calculated groundwater velocities. The actual and projected location of AWC-05 was used for travel time calculations to the AWC wellfield.

Calculated groundwater velocities for the regional gradient ranged from 24 feet per year (ft/yr) to 54 ft/yr (Table 4). Calculated groundwater velocities for the gradient proximal to the AWC wellfield ranged from 385 ft/yr to 600 ft/yr. The calculated travel times between wells ranged from 55 years to 177 years for the regional gradient and 4 years to 11 years for the proximal gradient.

7. CONCLUSION REGARDING GROUNDWATER VELOCITY AND TRAVEL TIME CALCULATIONS

Hydraulic gradients along likely groundwater flow paths between the sulfate plume and the AWC Wellfield can be divided into a regional regime and a proximal regime. Regional groundwater velocities are consistent with the velocities reported in the technical memorandum submitted with the feasibility study (Clear Creek, 2014) that characterized groundwater flow in the vicinity of the plume. Additional data collected since 2014 allowed the calculation of groundwater velocities proximal to the wellfield. Proximal groundwater velocities are higher than regional velocities and range from 385 ft/yr to 600 ft/yr. The eastern extent of the cone of depression is inferred from available water level measurement but is not known with certainty. The regional gradient may extend west of transition points used for this analysis (BMO-2008-5B, BMO-2015-1B/1BL, and BMO-2010-3B) or there may be transitional values which would result in lower velocities and longer travel times.

The groundwater velocity analysis assumes the maximum possible extent of the cone of depression and the easternmost well (AWC-05) was selected to represent the AWC wellfield resulting in hydraulic gradients in the proximal regime that may be higher than actual aquifer conditions. The hydraulic conductivity used in the analysis is the upper 95% confidence limit for available data and the porosity value is low for published values for materials that make up the basin fill aquifer. The calculated travel times are conservative and represent relatively low estimates (fast travel times) within the range of realistic values, based on currently available data.

8. REFERENCES

Clear Creek Associates. 2010. Revision 1 Aquifer Characterization Report. December 15, 2010.

Clear Creek Associates. 2014. Feasibility Study for Drinking Water Supplies that may be Affected by Sulfate in the Future, Mitigation Order on Consent Docket No. P-121-07. May 28, 2014.

Clear Creek Associates. 2015a. Mitigation Plan for Sulfate with Respect to Drinking Water Supplies, Revision 1, Mitigation Order on Consent Docket No. P-121-07. March 6, 2015.

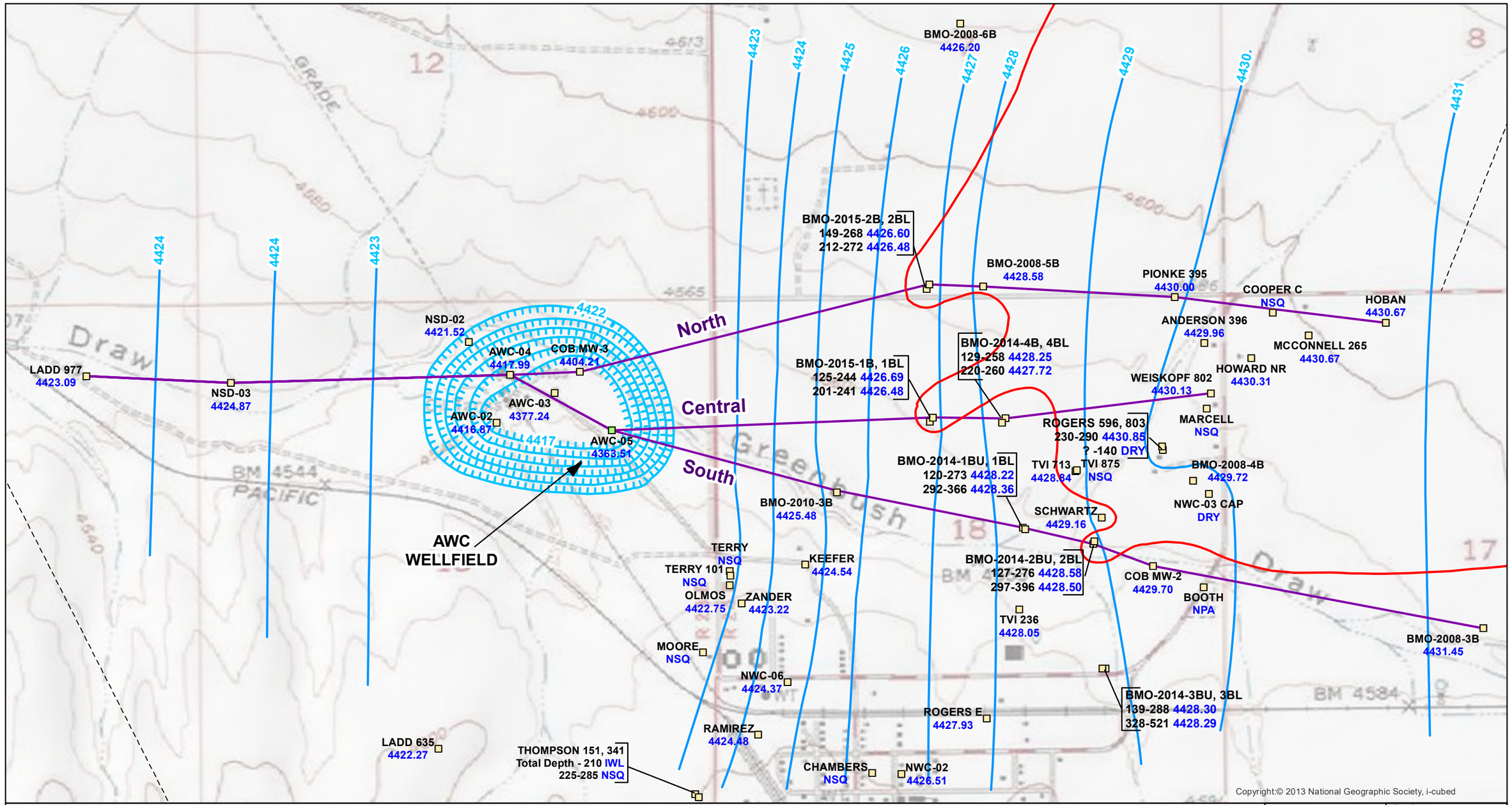
Clear Creek Associates. 2015b. Results of Well Installation and Groundwater Monitoring through the second quarter of 2015 for the Expanded Groundwater Monitoring Program, Mitigation Order on Consent Docket No. P-121-07. August 19, 2015.

Clear Creek Associates. 2024. Annual Groundwater Monitoring Report for 2023. February 22, 2024

Davis, S.N., 1969. Porosity and Permeability of Natural Materials in *Flow Through Porous Media*. (ed. R.J.M De Wiest) Academic Press, New York.

Morris, D.A. and Johnson, A.I. 1967. Summary of hydrologic and physical properties of rock and soil materials, as analyzed by the hydrologic laboratory of the U.S. Geological Survey, 1948-60. Water Supply Paper 1839-D.

FIGURES



Legend

- AWC-02 Well ID
- 4416.87 Groundwater Elevation (ft amsl)
- 250 mg/L Sulfate Concentration Contour Q3 2023
- Hydrdaulic Profile
- Groundwater Elevation Contour (ft amsl)
- Groundwater Elevation Depression Contour (ft amsl)
- Faults (dashed where inferred)

Co-located Wells

Well ID
Screen (ft bls) Water Elevation (ft amsl)

Screened Formation

- Basin Fill
- Basin Fill and Undifferentiated Bisbee Group
- Undifferentiated Bisbee Group
- Undifferentiated Bisbee Group - Estimated
- Undifferentiated Bisbee Group and Glance Conglomerate
- Glance Conglomerate
- Glance Conglomerate-Estimated

Undifferentiated Bisbee Group: Cintura, Mural Limestone, and Morita Formations

Notes:
IWL = Inaccesible for Water Level
NPA = No Property Access
NSQ = Not Scheduled for Quarter
ft amsl = feet above mean sea level
ft bls = feet below land surface

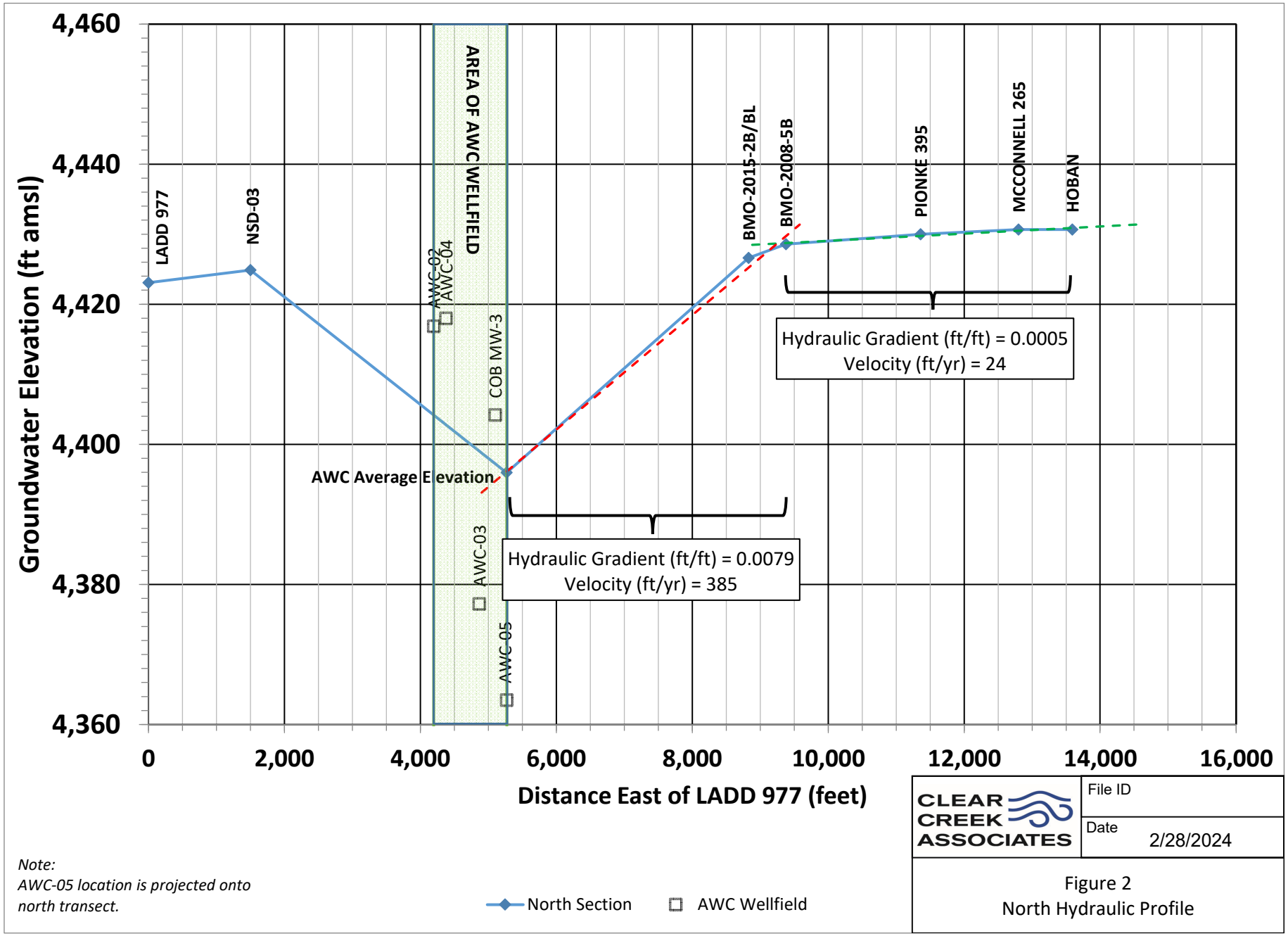
Scale (Feet)
0 1,000 2,000

Projection: UTM Zone 12N
NAD83

Date	File ID
3/12/2024	055038-602

CLEAR CREEK ASSOCIATES

FIGURE 1
HYDRAULIC PROFILES



Note:
AWC-05 location is projected onto north transect.

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File ID

Date 2/28/2024

Figure 2
North Hydraulic Profile

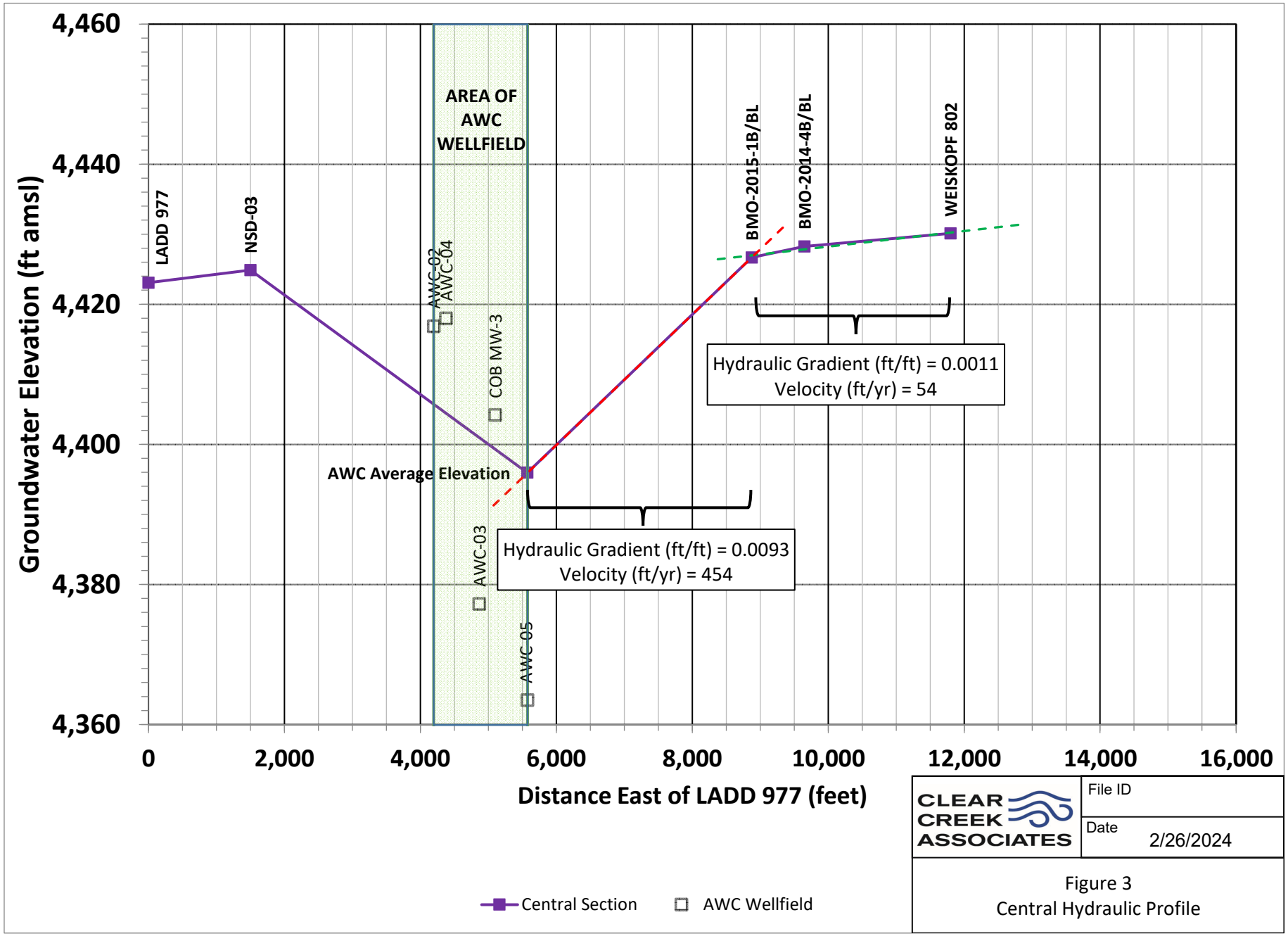

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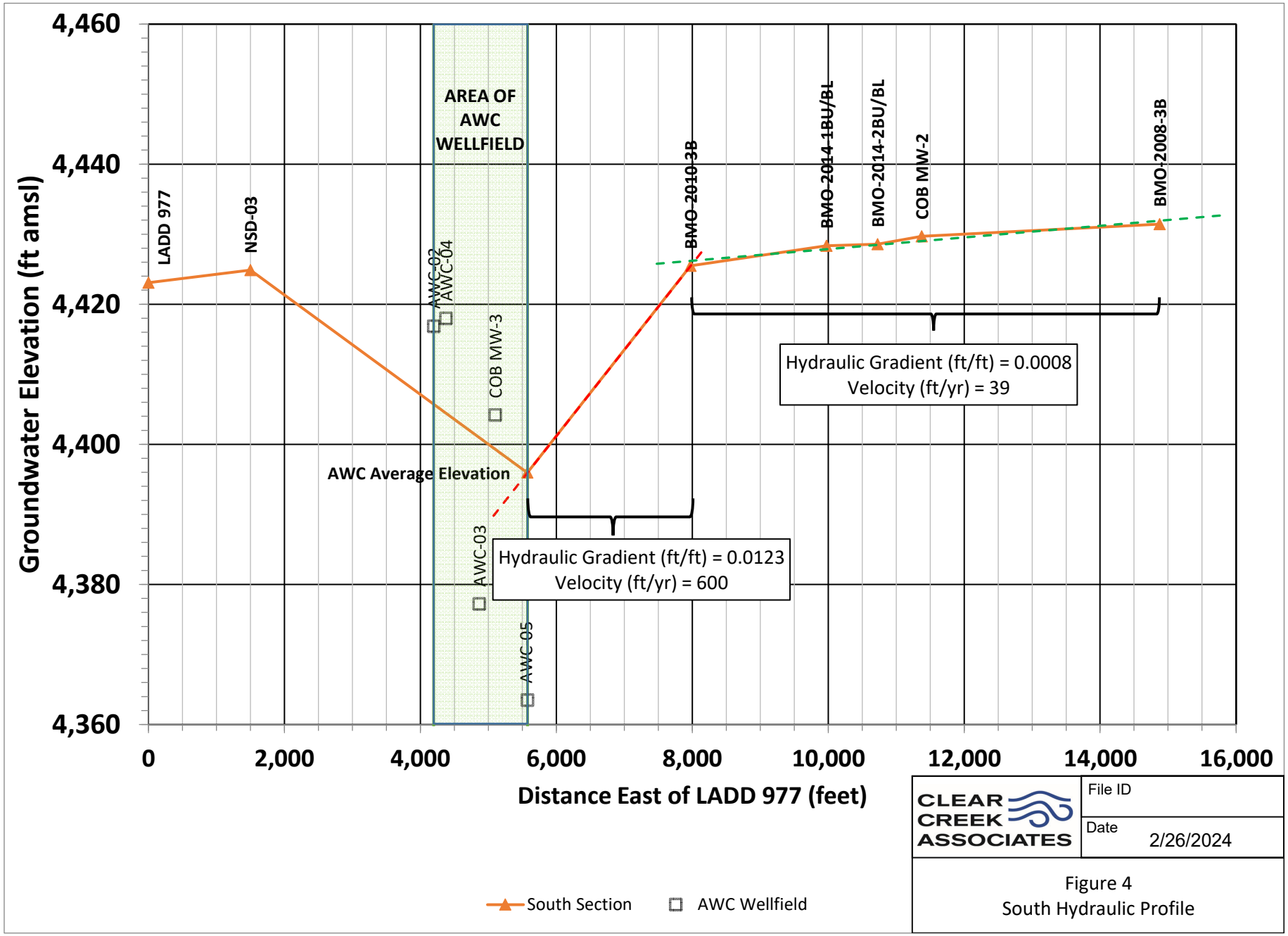
Figure 3
Central Hydraulic Profile



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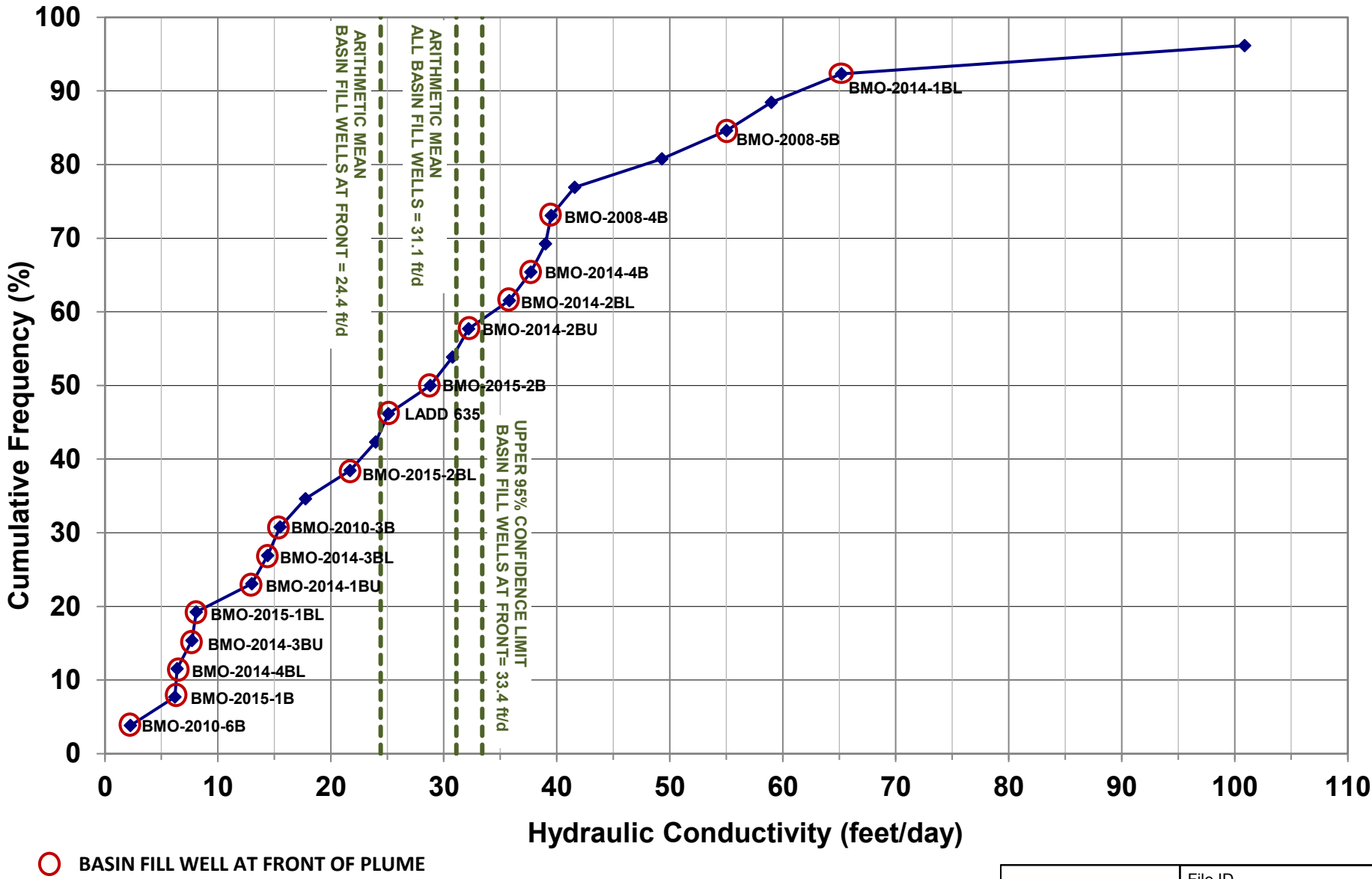
Date 2/26/2024

Figure 4
South Hydraulic Profile



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Date 3/5/2024

Figure 5
Hydraulic Conductivity Frequency

TABLES

TABLE 1
Groundwater Elevations for Hydraulic Profiles

Well	Distance from LADD 977 (ft)	Q1 2023 Groundwater Elevation (ft amsl)
NORTH PROFILE		
HOBAN	13590	4430.67
MCCONNELL 265	12800	4430.67
PIONKE 395	11360	4430.00
BMO-2008-5B	9380	4428.58
BMO-2015-2B/2BL	8830	4426.60
AWC Wellfield[1]	5270 [2]	4395.96
NSD03	1500	4424.87
LADD 977	0	4423.09
CENTRAL PROFILE		
WEISKOPF 802	11800	4430.13
BMO-2014-4B/4BL	9650	4428.25
BMO-2015-1B/1BL	8875	4426.69
AWC Wellfield[1]	5575	4395.96
NSD03	1500	4424.87
LADD 977	0	4423.09
SOUTH PROFILE		
BMO-2008-3B	14875	4431.45
COB MW-2	11375	4429.70
BMO-2014-2BU/2BL	10725	4428.58
BMO-2014-1BU/1BL	9975	4428.36
BMO-2010-3B	7975	4425.48
AWC Wellfield[1]	5575	4395.96
NSD03	1500	4424.87
LADD 977	0	4423.09

ft = feet; ft amsl = feet above mean sea level

Notes:

[1] AWC Wellfield elevation is an average of AWC-05, AWC-04, AWC-03, AWC-02, and COB MW-3 localized at AWC-05.

[2] AWC Wellfield is located at the projection of AWC-05 on the north transect.

TABLE 2
AWC Wellfield Groundwater Elevations

Well	Q1 2023 Groundwater Elevation (ft amsl)
AWC-05	4363.51
AWC-04	4417.99
AWC-03	4377.24
AWC-02	4416.87
COB MW-3	4404.21
AWC Wellfield Average	4395.96

ft amsl = feet above mean sea level

TABLE 3
Horizontal Hydraulic Conductivities for Basin Fill

Pumped Well	Kh (ft/day)
COB MW-1	100.9
BMO-2014-1BL	65.2
TM-13	59.0
BMO-2008-5B	55.0
TVI 875	49.3
NWC-03	41.6
BMO-2008-4B	39.5
TM-11	39.0
BMO-2014-4B	37.7
BMO-2014-2BL	35.8
BMO-2014-2BU	32.2
BMO-2008-3B	30.8
BMO-2015-2B	28.8
LADD 635	25.1
BMO-2008-13B	24.0
BMO-2015-2BL	21.7
BMO-2008-8B	17.8
BMO-2010-3B	15.5
BMO-2014-3BL	14.4
BMO-2014-1BU	13.0
BMO-2015-1BL	8.1
BMO-2014-3BU	7.7
BMO-2014-4BL	6.4
BMO-2015-1B	6.2
BMO-2008-6B	2.3
ALL WELLS	
Number Measurements (All Wells)	25
Arithmetic Mean (All Wells)	31.1
Geometric Mean (All Wells)	22.9
WELLS AT FRONT OF PLUME[1]	
Number Measurements (Wells at Front of Plume)	17
Arithmetic Mean (Wells at Front of Plume)	24.4
Geometric Mean (Wells at Front of Plume)	17.7
95% Upper Confidence Limit of Arithmetic Mean	33.4

Kh = horizontal hydraulic conductivity; ft/day = feet per day

Notes:

[1] *Wells at the front of the plume are shaded.*

Table 4
Apparent Hydraulic Gradients, Groundwater Flow Velocities, and Travel Times

Upgradient Well	Downgradient Well	Apparent Hydraulic Gradient (ft/ft)	Hydraulic Conductivity (ft/day)	Porosity	Velocity (ft/day)	Velocity (ft/yr)	Distance (ft)	Travel Time (yr)
HOBAN	BMO-2008-5B	0.0005	33.4	0.25	0.07	24	4210	173
WEISKOPF 802	BMO-2015-1B/1BL	0.0011			0.15	54	2925	55
BMO-2008-3B	BMO-2010-3B	0.0008			0.11	39	6900	177
BMO-2008-5B	AWC Wellfield	0.0079			1.06	385	4110	11
BMO-2015-1B/1BL	AWC Wellfield	0.0093			1.24	454	3300	7
BMO-2010-3B	AWC Wellfield	0.0123			1.64	600	2400	4

ft/ft = feet per foot; ft/day = feet per day; ft/yr = feet per year; ft = feet; yr = years