FREEPORT-McMoRan

Sierrita Operations
Environment, Land & Water Department
6200 W Duval Mine Road
PO Box 527
Green Valley, AZ 85622-0527

April 22, 2024

Via Email

Bret Esslin
Arizona Department of Environmental Quality
Water Quality Compliance Section
1110 West Washington Street
Phoenix, Arizona 85007-2935

Re: Mitigation Order on Consent Docket No. P-50-06
Reporting Year 2023 Mitigation Performance Review Report

Dear Mr. Esslin:

In accordance with Section 5.1.2 of the Mitigation Plan[1], Freeport-McMoRan Sierrita Inc. (Sierrita) submits the enclosed *Mitigation Performance Review for reporting year 2023,* prepared by Clear Creek Associates for Sierrita.

Please do not hesitate to contact me at (520) 260-2250 if you have any questions regarding this submittal.

Sincerely,

Alexander Hlebovy
Environmental Scientist I

AH:
20240422_001

xc: Dave Gosen, Freeport-McMoRan Inc.

[1] Clear Creek Associates. 2013. Mitigation Plan for Sulfate with Respect to Drinking Water Supplies in the Vicinity of the Freeport-McMoRan Sierrita Inc. Tailing Impoundment. Mitigation Order on Consent Docket No. P-50-06. December 18, 2013.

MITIGATION PERFORMANCE REVIEW FOR 2023

MITIGATION ORDER ON CONSENT DOCKET NO. P-50-06

Prepared for:

FREEPORT-MCMORAN SIERRITA INC.
6200 West Duval Mine Road
Green Valley, Arizona 85614

Prepared by:

CLEAR CREEK ASSOCIATES, L.L.C.
221 North Court Avenue, Suite 101
Tucson, Arizona 85701

April 15, 2024

MITIGATION PERFORMANCE REVIEW FOR 2023
MITIGATION ORDER ON CONSENT DOCKET NO. P-50-06

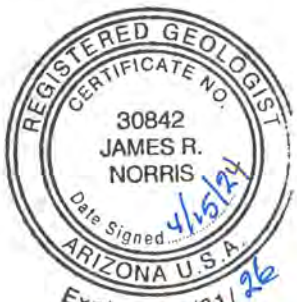
Prepared for:

FREEPORT-MCMORAN SIERRITA INC.
6200 West Duval Mine Road
Green Valley, Arizona 85614

Approved by:

Jamie M. Kennealy
Arizona Registered Geologist No. 44068

Approved by:



James R. Norris
Arizona Registered Geologist No. 30842

April 15, 2024

TABLE OF CONTENTS

TABLES

FIGURES

APPENDICES

1.0 INTRODUCTION

The mitigation performance review for 2023 evaluates the effectiveness of the mitigation action conducted by Freeport-McMoRan Sierrita Inc. (Sierrita) to address a groundwater plume of sulfate in the vicinity of the Sierrita Tailing Impoundment (STI) near Green Valley, Arizona (Figure 1). The mitigation action is conducted pursuant to Mitigation Order on Consent No. P-50-06 between the Arizona Department of Environmental Quality (ADEQ) and Sierrita (ADEQ, 2006).

The mitigation action is described in the Mitigation Plan (Clear Creek Associates, 2013) submitted to and approved by ADEQ (ADEQ, 2015). The mitigation action consists of the operation of a groundwater pumping and water reuse system to control the migration of the sulfate plume and prevent the average sulfate concentration at a drinking water supply from exceeding 250 milligrams per liter (mg/L) at the point of use if the sulfate originated from the STI. Groundwater monitoring for the mitigation action is ongoing and conducted to monitor sulfate in drinking water supplies, track plume migration, and collect information relevant to wellfield operation. The objective of this mitigation performance review is to assess the effectiveness of the mitigation action based on operational and monitoring data collected from 2019 through 2023, the period since the last performance review report (Clear Creek Associates, 2019a). Mitigation actions in 2023 constituted the tenth year of operation under the Mitigation Plan.

1.1 Background

Mitigation Order on Consent No. P-50-06 was established in 2006 to provide for the mitigation of drinking water supplies if they are affected by sulfate at concentrations greater than 250 mg/L due to the STI. The Mitigation Order required Sierrita to characterize the extent of sulfate in groundwater and to develop a mitigation plan to practically and cost effectively provide a drinking water supply to the owner/operator of an existing drinking water supply impacted by sulfate attributable to the STI.

Currently, existing drinking water supplies in the vicinity of the STI are not affected by sulfate in excess of 250 mg/L. The objective of the mitigation action is to protect existing drinking water supplies in the vicinity of the plume by controlling future plume migration so that sulfate concentrations do not exceed 250 mg/L.

In October 2008, Sierrita submitted a Feasibility Study to ADEQ that recommended a mitigation action of pumping sulfate-affected groundwater in the vicinity of the STI to control additional downgradient movement of the plume and, over time, to reduce the extent of the plume (Hydro Geo Chem, Inc., 2008). The Feasibility Study reported a conceptual design for the mitigation action. The conceptual design was based on simulations using a numerical model for groundwater flow and

sulfate transport to predict the future migration of the plume under the groundwater pumping assumptions of the mitigation action.

ADEQ approved the recommended mitigation action in March 2009 and requested a mitigation plan (ADEQ, 2009). Sierrita submitted a Mitigation Plan in May 2009, but ADEQ deferred its finalization because it contained contingencies related to the outcomes of land acquisition, construction permitting, and other activities required to implement the mitigation action (Sierrita, 2010). Sierrita began implementing the mitigation action in 2009, and completed the land acquisition, permitting, design, and construction of pumping and pipeline facilities required for the mitigation action at the end of 2013. The Mitigation Plan was revised based on the constructed wellfield and submitted to ADEQ in December 2013 (Clear Creek Associates, 2013).

The Mitigation Plan describes the process Sierrita is following to implement the mitigation action; including its operation, monitoring, evaluation, adaptation, termination, and reporting. Groundwater pumping under the specifications of the Mitigation Plan began in January 2014. Also in 2014, ADEQ provided Sierrita with recommendations for the Mitigation Plan (ADEQ, 2014). Sierrita responded to ADEQ's recommendations (Sierrita, 2015) and ADEQ approved the Mitigation Plan in 2015 (ADEQ, 2015).

1.2 Mitigation Action Objective

The mitigation action objective defined in the Mitigation Order 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/operator of an existing drinking water supply determined…to have an average sulfate concentration in excess of 250 mg/L…as a result of the sulfate plume". The Feasibility Study defines the sulfate plume as consisting of the horizontal and vertical extent of groundwater with sulfate concentrations greater than 250 mg/L originating from the STI. The mitigation action is designed to accomplish the mitigation action objective through the use of groundwater pumping to extract sulfate-bearing groundwater from the aquifer and create hydraulic conditions that would prevent the plume from migrating to existing drinking water supply wells. The spatial extent of the plume and the concentration of sulfate in drinking water supply wells are discussed in Section 3.2.1.

1.3 Role and Scope of the Mitigation Performance Review

The Mitigation Plan identifies the role of the mitigation performance reviews as the assessment of whether the mitigation action is performing as expected with respect to the mitigation action objective and numerical model predictions. The purpose of the mitigation performance review is to critically evaluate the operational and groundwater monitoring data collected for the mitigation

action with respect to the mitigation action objective, observed plume behavior, and predicted plume migration. The mitigation performance review may recommend modification of the mitigation action (i.e., increase, decrease, or relocation of groundwater pumping, or termination of pumping) if analysis of the operational and monitoring data indicates that a modification is needed to meet the mitigation action objective.

The mitigation performance review for 2023 uses mitigation facilities operations and groundwater monitoring data collected by Sierrita. The operations and groundwater monitoring data include:

- Pumping data for individual wells and the entire wellfield system
- Water quality data for drinking water supply wells and sentinel wells located between the plume and the drinking supply wells
- Water quality data from monitoring wells located within and outside of the plume
- Water level data from wells positioned to monitor drawdown in the vicinity of mitigation wellfields and regionally

The Mitigation Plan specifies that mitigation performance reviews are to be conducted and submitted to ADEQ annually for the first five years after full commissioning of the mitigation facilities and every five years thereafter. Annual performance reviews were submitted for 2014, 2015, 2016, 2017, and 2018 (Clear Creek Associates, 2015, 2016, 2017, 2018, and 2019a). The mitigation performance review for 2023 is the first 5-year performance review. The next performance review report required under the Mitigation Plan will be the performance review for 2028 which is due in April 2029. The adaptive management process described in Section 4.1 of the Mitigation Plan would be used in the event that a mitigation performance review or monitoring data indicate that the mitigation action objective is not being met or a significant modification of the mitigation action is needed.

Copies of reports submitted to ADEQ and correspondence with ADEQ are available for public review at the Joyner-Green Valley Library or the Sierrita Internet Document repository (https://www.fcx.com/sierrita). The results of Mitigation Order activities are reported at semiannual Community Advisory Group meetings.

2.0 GROUNDWATER PUMPING AND WATER MANAGEMENT FOR THE MITIGATION ACTION

2.1 Groundwater Pumping

The Mitigation Plan specifies groundwater pumping rates at four groups of extraction wells: interceptor wells (IW), focused feasibility study (FFS) wells, plume stabilization (PS) wells, and mass capture (MC) wells. Figure 2 shows the locations of the active groundwater extraction wells, pipelines, and pumping facilities operated for the mitigation action.

As described in the Feasibility Study and the Mitigation Plan, there are different pumping objectives for groundwater extraction at the various well groups. The IW and FFS wells are pumped primarily for source control to capture seepage from the STI before it migrates to the regional aquifer. The PS wells at the northern edge of the plume are pumped in conjunction with the IW and FFS wells for the purpose of plume stabilization to control downgradient movement of the plume. The MC wells are pumped primarily to reduce the plume extent by extracting sulfate mass, although pumping the MC wells also contributes to plume stabilization. Although there are different objectives attributed to individual well groups, the objectives are accomplished by the combined pumping of all the wells.

The Mitigation Plan identifies two sets of pumping rates for the mitigation action: "target" groundwater pumping rates for the recommended alternative (Section 2.1.1) and performance goal pumping rates (Section 2.1.2). The target pumping rates are meant to accomplish the source control, plume stabilization, and plume reduction objectives of the mitigation. Performance goal pumping rates are meant to accomplish the source control and plume stabilization objectives only.

2.1.1 Target and Performance Pumping Rates

The groundwater flow and sulfate transport model was used to identify the target pumping rates to meet the source control, plume stabilization, and plume reduction pumping objectives of the mitigation action (Clear Creek Associates, 2014). The target pumping rates are listed in Table 1. To accomplish plume reduction, the target pumping rates at the FFS and MC wells are greater than the rates needed for the source control and plume stabilization objectives only.

Performance goal pumping rates accomplish the source control and plume stabilization objectives, but not the plume reduction objective. The performance goal pumping rates would accomplish the mitigation action objective by preventing the plume from migrating to drinking water supplies, but would not reduce the extent of the plume over time. The performance goal pumping rates were determined using the numerical model to iteratively simulate various groundwater pumping schemes and identify the minimum extraction rates needed for source control and plume stabilization (Hydro Geo Chem, Inc. and Clear Creek Associates, 2010, Clear Creek Associates, 2014).

Table 1 in this report has been modified from the specifications of the Mitigation Plan by the removal of IW-5A and the allocation of its pumping to IW-29. IW-5A, in the southern portion of the IW wellfield, was a poor producer that had a performance goal of 40 gpm. The modifications to Table 1 were made because IW-5A was taken out of service in 2018 as recommended in the mitigation performance review for 2017 (Clear Creek Associates, 2018) and the pumping was reallocated to IW-29 to maintain the total pumpage of the target and performance goal rates. IW-29 did not exist at the time the target and performance goal pumping rates were developed. In addition, two new wells (MC-5 and MC-6) were installed in 2023 but are not yet equipped with pumps and were not assigned target and performance goal pumping rates (Figure 2).

2.1.2 Considerations for Target and Performance Goal Pumping Rates

The target and performance goal pumping rates are initial estimates that were made prior to the start of Mitigation Plan pumping. It is important to understand that the target and performance goal pumping rates are not unique in that there can be different combinations of pumping locations and rates that accomplish the mitigation action objective.

Periodic assessment of the target and performance goal pumping rates is needed for several reasons. First, it is expected that additional calibration of the hydraulic properties in the numerical model will occur as monitoring activities document the water level response of the aquifer to mitigation pumping. Pumping may be found to be more or less effective than predicted as the aquifer response develops and the model is refined over time through recalibration. Changes to the model as part of ongoing calibration efforts may influence the degree to which the initial pumping specifications are determined to be appropriate or necessary to accomplish the mitigation action objective. Second, the extraction wells will change over time. For example, well IW-29 is a mitigation extraction well installed after the pumping rates in the Mitigation Plan were developed. Thus, the Mitigation Plan has no pumping specification for IW-29 although the well has been pumping since September 2014.

Additionally, well maintenance factors may require changes in the locations of extraction wells over time as new wells are installed or the pumping rates at existing wells decline due to inefficiency as wells age. For example, mitigation extraction wells MC-5 and MC-6 were installed in 2023, but are not yet equipped and tied into the mitigation wellfield. These wells will be used to maintain and/or augment the total wellfield pumping rates as existing wells go out of service or the capacity of existing wells is reduced due to declining water levels throughout the wellfield. Changes in the location and pumping rate of wells over time can influence wellfield capture and need to be accounted for in setting target and performance goal pumping rates. Hence, the target and performance goal pumping rates are expected to serve as general guidelines as the mitigation action progresses, rather than strict quotas.

2.2 Water Management

The sulfate-affected groundwater pumped under the Mitigation Plan is used for mining processes. The use of sulfate-affected groundwater allows Sierrita to reduce the amount of fresh groundwater pumped at the Canoa wellfield south of Green Valley. After mine closure, Sierrita may be able to manage sulfate-affected groundwater through discharge to an inactive open pit excavation or through treatment of some or all of the groundwater, as described by the Feasibility Study (Hydro Geo Chem, Inc., 2008).

3.0 MITIGATION FACILITIES OPERATION AND GROUNDWATER MONITORING RESULTS FOR 2019 THROUGH 2024

This section describes groundwater pumping and groundwater monitoring from 2019 through 2023.

3.1 Mitigation Facilities Operation

Groundwater pumping under the Mitigation Plan is a continuous operation. Sierrita uses mine personnel and contractors to operate, monitor, and maintain the wells, pumps, pipelines, and other facilities needed for the Mitigation Plan. Wellfield O&M is conducted pursuant to the Sulfate Mitigation Action Well Field Operation and Maintenance Plan submitted to ADEQ (BasinWells Associates, 2013).

Groundwater pumping under the Mitigation Plan began in January 2014 with the startup of the FFS, PS, and MC extraction wells, and continued pumping at the IW wells. Wellfield operational and groundwater pumping data for 2019 through 2023 are summarized in annual reports prepared by BasinWells Associates and submitted to ADEQ (BasinWells Associates, 2020, 2021, 2022, 2023, and 2024). The total groundwater withdrawal under the Mitigation Plan between 2019 and 2023 ranged between approximately 15,803 acre-feet/ year (af/yr) and 17,711 af/yr. Table 2 lists the total gallons pumped and average groundwater pumping rate for extraction wells from 2019 through 2023, and compares the annual rates to the target and performance goal pumping rates of the Mitigation Plan. Figure 3 presents the average wellfield pumping rates for 2014 through 2023 compared to the target and performance goal rates. A review of the Annual Mitigation Facilities Monitoring Reports prepared by BasinWells Associates (2020, 2021, 2022, 2023, and 2024) indicates that a high level of operational ability was attained over the last 5-year period, with run times for the mitigation wellfield averaging between 37.1% and 74.4% for the IW wells, 43.1% and 84.0% for the FFS wells, 87.6% and 92.6% from the PS wells, and 68.9% to 90.7% from the MC wells (Figure 4). The overall run-time for the wellfield was 78.6% in 2023.

Fluctuations in the wellfield-wide average run time can be impacted by certain IW wells that pump at low rates (less than 100 gpm) and have poor operational efficiency, wells that were offline for rehabilitation, and periodic system wide shutdown needed for construction projects, transmission line maintenance, non-pumping monitoring activities, and storage capacity limitations at the Mill Reservoir. Wellfield-wide average run time directly impacts annual wellfield pumping averages. When mitigation pumping began in 2014, the wellfield produced an average of 11,962 gpm (19,295 af/yr). Due to a combination of decreasing water levels in the aquifer, caused by operation of the wellfield, and poor well performance, the total groundwater withdrawal dropped to a low of 9,080 gpm in 2018. Since 2022, Sierrita has implemented aggressive rehabilitation and maintenance

activities throughout the mitigation wellfield, resulting in improved run-time averages and a year-over-year increase in the average wellfield pumping rate.

3.2 Results of Groundwater Monitoring

Sierrita conducts groundwater monitoring pursuant to the Post-Implementation Groundwater Monitoring Plan in the Mitigation Plan. Table 3 is the schedule for post-implementation groundwater monitoring, as established in 2017. Well locations are shown on Figure 5.

Post-implementation groundwater monitoring includes quarterly water quality sampling for sulfate at sentinel and drinking water supply wells, an annual site-wide sampling for sulfate and water levels in the second quarter of the year, and water level measurements in the fourth quarter of the year to allow development of water level contour maps for both the second and fourth quarters. Data collected for groundwater monitoring are reported to ADEQ semiannually. Since the last performance review (2018), the results of groundwater monitoring for first quarter 2019 through third quarter 2023 have been submitted to ADEQ (Clear Creek Associates 2019b, 2019c, 2020a, 2020b, 2021a, 2021b, 2022a, 2022b, 2023a, 2023b). Groundwater monitoring data for the fourth quarter 2023 will be submitted in the semiannual report due May 31, 2024. The methods of groundwater monitoring are described in the semiannual groundwater monitoring reports.

3.2.1 Sulfate Concentration Data

Groundwater samples are collected to delineate the sulfate plume, document water quality trends in the aquifer, and determine sulfate concentrations at and in the vicinity of drinking water supply wells. The sulfate concentration data are also used to calibrate the sulfate transport model. Sulfate determinations are made on a dissolved basis. Sulfate concentration data collected under the Mitigation Order are compiled in Appendix A. Figure A.1 in Appendix A is a map showing all sites for which data are reported in Appendix A.

3.2.1.1 Plume Extent

The geographic extent of the plume is determined by the extent of sulfate concentrations exceeding 250 mg/L. Figure 6 is a sulfate concentration map for the second quarter of 2023. The second quarter sampling event for each year has the greatest number of measurements over the largest geographic extent. Figure 6 also shows the 250 mg/L contour for fourth quarter 2023, which is based on a smaller data set and is not significantly different than the 250 mg/L contour for second quarter 2023.

Figure 7 shows a comparison of the 250 mg/L contour for 2008, 2013, 2018, and 2023. Comparison of the sulfate concentration data for the second quarter of 2023 with data previously collected for the Mitigation Order indicates that there has been no significant change to the overall plume geometry since 2008, except in the vicinity of the MO-2007-1 wells and the and the MO-2007-5 wells where

northward and eastward migration of the plume, respectively, occurred prior to implementation of the Mitigation Plan.

Figure 8 shows that sulfate concentrations in MO-2007-1B and MO-2007-1C at the north end of the plume increased above 250 mg/L between 2009 and 2011; indicating downgradient migration of the plume. The sulfate concentration at MO-2007-1B remained greater than 250 mg/L through fourth quarter 2019. Sulfate concentrations have remained below 250 mg/L since first quarter 2020. Sulfate concentrations in samples from MO-2007-1C are variable between 2011 and 2021, with consecutive sulfate concentration measurements below 250 mg/L since fourth quarter 2021.

Figure 9 shows that sulfate concentrations in MO-2007-5B and MO-2007-5C at the east end of the plume were historically above 250 mg/L and reflective of the expansion and contraction of the eastern plume boundary. The sulfate concentration at MO-2007-5B remained greater than 250 mg/L from second quarter 2008 through fourth quarter 2021. Sulfate concentrations have remained below 250 mg/L since first quarter 2022. Sulfate concentrations in samples from MO-2007-5C are variable between 2018 and 2023. However, sulfate has remained below 250 mg/L since second quarter 2020.

The Mitigation Plan groundwater pumping initiated in 2014 is designed to limit the northward migration of sulfate concentrations in excess of 250 mg/L. The sulfate results for sampling at M-8, MO-2007-1A, MO-2007-1B, and MO-2007-1C define the northern limit of the plume (Figure 6). The results for the MO-2007 wells are discussed further in Section 3.2.1.4.

3.2.1.2 Drinking Water Supply and Sentinel Wells

Groundwater monitoring includes quarterly water quality sampling at drinking water supply wells and the sentinel wells positioned between the plume and drinking water supply wells (Figure 6). Figures 10 and 11 show sulfate concentrations from 2006 through 2023 at drinking water supply and sentinel wells, respectively. Sulfate concentrations at drinking water supply wells in fourth quarter 2023 were all less than 61 mg/L. Concentrations in the drinking water supply wells are steady or declining over time, except at CW-9 and GV-02-GVDWID. Sulfate concentrations at CW-9 increased from 53 mg/L in 2019 to 57 mg/L in 2023. Sulfate concentrations at GV-02-GVDWID increased from 49 mg/L in 2019 to 56 mg/L in 2023.

Sentinel wells are wells positioned between the plume and drinking water supply wells to detect the plume before it could migrate to a drinking water supply well. Sulfate concentrations at sentinel wells were all less than 93 mg/L in fourth quarter 2023. Sulfate concentrations in MO-2007-3C and MO-2007-4C have increased since 2018, but are in the range of historical concentrations for those wells. In the second and third quarters of 2019, sulfate concentrations in MO-2009-1 briefly exceeded the 135 mg/L action level, but have continually decreased and are currently at 57 mg/L, as measured in fourth quarter 2023.

As of 2023, the sulfate concentrations at drinking water supply and sentinel wells were less than the 250 mg/L mitigation action objective and the 135 mg/L action level set in the Mitigation Plan. If exceeded, the action level triggers written notice to ADEQ and the supply owner/operator, more frequent groundwater monitoring, and, in the case of a drinking water supply well, development of a mitigation plan for the well. The sulfate concentration data for drinking water supply wells and sentinel wells indicate that the mitigation action objective is being met.

3.2.1.3 Sulfate Concentrations in Mitigation Extraction Wells

Sulfate concentration data for the mitigation extraction wells characterize conditions in the plume, which is where most extraction wells are located. Appendix B contains graphs of the sulfate concentration since 2006 in mitigation extraction wells identified for pumping under the Mitigation Plan.

In general, sulfate concentrations at extraction wells are greater than 1,000 mg/L, less than 2,000 mg/L, and vary in magnitude depending on their position relative to the STI. Extraction wells near the STI tend to have higher concentrations than those farther from the STI (Figure 6).

The graphs in Appendix B show that sulfate concentrations in approximately half of the extraction wells do not have a persistent trend over time, although concentrations at an individual well can vary over a range of 400 mg/L or more in a period of several years. The apparent concentration trends in extraction wells exhibiting trends are summarized below.

Wells IW-1, IW-2A, IW-3A, IW-4, IW-8, IW-9, IW-10, IW-11, IW-22, IW-23, IW-24, IW-25, IW-26, IW-27, IW-28, and IW-29 in the southern part of the IW wellfield have increased in sulfate to different degrees based on linear trendlines through the sulfate concentration data. Through 2018, most of the wells southern IW wells had increased in concentration since 2006 at rates ranging from 10 mg/L per year to 40 mg/L per year. Exceptions were IW-1 and IW-25 which increased at rates of about 84 mg/L per year and 250 mg/L per year, respectively. From 2019 through 2023, sulfate concentrations, although variable, are relatively stable. Exceptions are IW-1, IW-2A, and IW-25, which decreased at rates of about 282 mg/L per year, 33 mg/L per year, and 160 mg/L per year, respectively. As the wellfield pumping becomes consistent and the sulfate plume stabilizes, sulfate concentrations within the southern IW wellfield have also stabilized. The southern IW wells show decreasing trends, which is likely caused by more regional groundwater entering the wellfield as water levels within the wellfield continue to decline, diluting sulfate concentrations at the southernmost IW wells.

Historically, wells IW-6A, IW-12, IW-14, IW-15, IW-19, and IW-21 in the northern half of the IW wellfield either had no clear trend (IW-6A and IW-26) in sulfate concentrations or increased at rates between 15 mg/L per year and 25 mg/L per year. For the period from 2019 through 2023, sulfate concentrations were measured in IW-12, IW-19, and IW-21 only. At these locations, sulfate

concentrations are relatively stable. Wells IW-6A, IW-14, and IW-15 could not be sampled due to insufficient water or inoperable pumps.

Historically, the FFS wells all exhibited increasing sulfate concentrations through 2018, with rates of increase ranging from about 14 mg/L per year to 55 mg/L per year. For the period from 2019 through 2023, sulfate concentrations in FFS-1 have been variable, ranging from 1,700 mg/L to 2,000 g/L. Moving north, sulfate concentrations in wells FFS-2, FFS-3, and FFS-5 have been relatively stable. FFS-4 exhibited increasing sulfate concentrations of 20 mg/L per year. FFS-6 was non-operational in 2019, 2020, and 2021, and sulfate trends cannot be effectively evaluated with the minimal dataset. These wells tend to capture affected groundwater that bypasses the northern IW wells. As sulfate concentrations stabilize in the IW wells, it is expected that sulfate concentrations in the FFS wells will also stabilize.

Sulfate concentrations at the MC wells have been variable. MC-1 has been steady over time but has shown an increase of 120 mg/L between second quarter 2022 and second quarter 2023. Through 2018, MC-2 decreased in concentration at a rate of about 84 mg/L per year, briefly stabilized, and then has been decreasing at a rate of about 87 mg/L per year since 2020. Through 2019, MC-3 had decreased at a rate of about 18 mg/L per year, but has varied between 1,310 mg/L and 1,490 mg/L since 2020. MC-4 has increased at a rate of about 26 mg/L per year.

Sulfate concentrations in PS-1 have been relatively steady. Sulfate concentrations have decreased at PS-2, PS-3, and PS-4 at a rate of about 23 mg/L per year, 31 mg/L per year, and 11 mg/L per year, respectively. The decreasing concentrations at some of the MC and PS wells may be due to the mitigation pumping which causes groundwater with low sulfate concentrations outside the plume to flow towards the extraction well system. Overall, the changes in sulfate concentrations at the extraction wells are minor and do not affect the containment strategy of the Mitigation Plan.

3.2.1.4 Sulfate Concentrations in Monitoring Wells Marginal to the Plume

Sulfate concentrations in wells outside of and marginal to the sulfate plume can be used to discern the plume migration. For example, an increase of sulfate to greater than 250 mg/L at a well outside the plume would be evidence of plume migration, if the sulfate were due to the STI.

The sentinel wells NP-2, MO-2007-3B, MO-2007-3C, MO-2007-4A, MO-2007-4B, MO-2007-4C, MO-2009-1, MO-2007-6A, and wells ESP-2 and ESP-3 monitor the east margin of the plume (Figure 6). Sulfate concentrations in most sentinel wells have declined since 2013, as shown on Figure 11. As discussed in Section 3.2.1.2, sulfate concentrations in MO-2007-3C and MO-2007-4C have increased since 2018, but are in the range of historical concentrations for those wells. Sulfate concentrations in MO-2009-1 briefly exceeded the 135 mg/L action level in 2019, but concentrations have continually decreased through 2023. All sentinel wells are below the 135 mg/L action level.

Sulfate concentrations in ESP-2 and ESP-3 were less than 38 mg/L sulfate in 2023 and have been relatively steady since 2006 (Figure 12), indicating no measurable eastward movement by the sulfate plume at these wells. Well ESP-4, which was in the plume until 2019, is also shown on Figure 12. The sulfate concentration in samples from ESP-4 declined from a high of 619 mg/L in November 2012 to between 109 mg/L and 116 mg/L in 2023. In addition, sulfate concentrations at MO-2007-5B and MO-2007-5C declined between 2019 and 2020, and concentrations in both wells are and have remained below 250 mg/L since second quarter 2022. The decrease in sulfate concentrations in ESP-4 and the MO-2007-5 wells reflect westward movement of the eastern edge of the plume due to groundwater pumping under the Mitigation Plan.

Northward movement of the plume prior to the 2014 start of Mitigation Plan pumping is indicated by the increased sulfate concentrations at MO-2007-1B and MO-2007-1C starting in 2009 and 2010, respectively (Figure 8). The sulfate concentrations at both MO-2007-1B and MO-2007-1C have significantly decreased and have remained below 250 mg/L since fourth quarter 2021, indicating a retreat of the northernmost edge of the plume.

Wells MW-2016-5A, MW-2016-5B, and MW-2016-06 were installed in 2016 to delineate the northern plume edge. Sulfate concentrations at MW-2016-5A, MW-2016-5B, and MW-2016-06 are shown on Figure 13 and all three wells have shown relatively stable concentrations since 2021. MW-2016-5A and MW-2016-5B have had low concentrations of sulfate (less than 78 mg/L) from 2016 through 2023, indicating these wells are outside the plume. Although the sulfate concentration in MW-2016-6 measured in the initial sample collected in August 2016 was 490 mg/L, the concentrations in subsequent samplings range from 61 mg/L to 238 mg/L, and is currently 123 mg/L in fourth quarter 2023, indicating that this well is outside of the sulfate plume. As the northern edge of the plume has moved south, the MO-2007-1 series wells now define the northern extent of the plume.

3.2.2 Water Level Data

Water level measurements document potentiometric conditions, which determine hydraulic gradients and groundwater flow directions. These data are also used for capture zone analysis, evaluation of capture effectiveness, and calibration of the groundwater flow model. Water level measurements collected for the Mitigation Order are listed in Appendix C. The locations of sites for which data are reported in Appendix C are shown on Figure A.1 in Appendix A.

Two types of water level data are available: static and dynamic. Static water level measurements are collected from non-pumping wells and represent the approximate potentiometric head of the aquifer. Dynamic water level measurements are measurements collected at operating pumping wells. Dynamic water levels can be influenced by water table drawdown due to pumping and additional head losses due to well efficiency. The dynamic water levels reported here have not been corrected

for well efficiency or other head losses. Nonetheless, dynamic water level measurements provide localized information on potentiometric conditions in pumping wells in the active portion of the wellfield, where the water level is being lowered to capture the sulfate plume.

Water levels measured at wells that have been pumping a long time, such as the 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. For example, a well pumped for a week and shut down for 4 hours prior to water level measurement may not have attained its full static level. In practice, the degree of 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 be possible in measurements made at inactive mitigation pumping wells and drinking water supply wells if they were previously pumped for long periods.

3.2.2.1 Water Elevation

Figure 14 is a hand-contoured water elevation map for the fourth quarter of 2023. Both static and dynamic water levels are posted on the maps to show the drawdown associated with the pumping wells. Regional groundwater flow within the Tucson Basin is south to north. Groundwater flow within the wellfield flows east-northeast from the STI, turning north-northwest towards the PS wells. Mitigation plan pumping has caused water elevation depressions to develop at the IW, FFS, PS, and MC wells due to the constructive interference of overlapping drawdown cones associated with the extraction wells. The groundwater elevation data indicate that the groundwater flow direction in the vicinity of the FFS, PS, and MC wells is toward the water elevation depressions at the FFS, PS, and MC wells. The change in flow toward the extraction wells creates a zone of groundwater capture around the extraction wells in which sulfate plume water flows to the extraction wells and is pumped from the aquifer. A capture zone analysis based on the groundwater flow directions indicated by the water elevation maps is discussed in Section 4.3.

3.2.2.2 Hydrographs

Hydrographs for monitoring wells in the vicinity of the plume illustrate the dynamic nature of water levels as the aquifer responds to pumping under the Mitigation Plan. The water level declines in the vicinity of the extraction wells are a consequence of the pumping needed to establish hydraulic conditions that capture plume water and extract sulfate mass from the aquifer. Water levels at monitoring wells are used to document the development of hydraulic conditions under the Mitigation Plan pumping.

Figure 15 shows hydrographs of groundwater elevation at the sentinel wells. Wells MO-2007-6A and MO-2007-6B, located near the southern end of the wellfield, show declining groundwater elevation rates prior to the start of Mitigation Plan pumping in 2014. During Mitigation Plan pumping,

groundwater elevations have been variable, probably in response to a combination of a change in pumping at one or more of the nearby extraction wells and the effects of a prolonged regional drought on the water table. Well MO-2009-1, located southeast of the wellfield, is in close proximity to potable production well CW-10, and is likely reflective of influences from pumping at this well rather than the wellfield as a whole.

Wells MO-2007-4A, MO-2007-4B, MO-2007-4C, MO-2007-3B, MO-2007-3C, and NP-2 are all located to the east of the area of the wellfield with the greatest volume of pumping. The time series graphs show that water levels at these wells declined at approximately 1.5 feet per year from 2007 to 2013. After the start of mitigation pumping in 2014, the rate of decline in the MO-2007-4 wells increased to about 12.5 feet per year until 2018, and then decreased to a rate of about 6 feet per year. For NP-2 and the MO-2007-3 wells the rate of decline increased to about 10 feet per year until 2019, and then decreased to a rate of about 3 feet per year. The change in the decline rate in the 2018 to 2019 date range are likely a reflection of the dissipation of the immediate effects of dewatering of the aquifer upon the onset of Mitigation Plan pumping.

The patterns of groundwater elevation changes related to Mitigation Plan pumping are described more fully below. An annual cycle of groundwater elevation change is also evident from the sentinel well data, although the pattern is subtle at the graph scale of Figure 15. The annual cycle consists of the tendency for groundwater elevations to be slightly higher in the first and second quarters of the year than they are during the third and fourth quarters. The annual pattern is probably due to seasonal variations in groundwater recharge and groundwater pumping by agricultural and municipal users in the Green Valley area.

Appendix D contains hydrographs for the wells that are tracked to monitor the effects of mitigation pumping, including the sentinel wells (Figure 16). The wells cover a large geographic area around the mitigation order extraction wells, as shown on Figure 17. The date range on the hydrographs is from 2006 through 2023 to show conditions before and after the January 2014 start of Mitigation Plan pumping. In general, hydrographs show continued groundwater elevation decline throughout the wellfield as a result of Mitigation Plan pumping.

The hydrographs in Appendix D display several patterns. Wells MH-25A, MH-25B, MH-25C, MH-26B, MH-26C, MO-2007-1A, MO-2007-1B, MO-2007-1C, MO-2007-2, MO-2007-3B, MO-2007-3C, MO-2007-4A, MO-2007-4B, MO-2007-4C, CW-7, CW-8, ESP-2, M-8, and NP-2 in the northern portion of the mitigation wellfield (from approximately FFS-3 and MC-1 northward), and located close to the FFS, PS and MC extraction wells, showed immediate drawdown effects due to the start of Mitigation Plan pumping and have ongoing drawdown effects to various degrees. Hydrographs for these wells reflect a regional groundwater decline rate prior to 2014, and an increase in slope starting in 2014 that reflects the effects of Mitigation plan pumping. The majority of wells show a straight-line decline post-2014 with a flattening of the decline rate starting between

2015 and 2018, indicating a decrease in the rate of groundwater drawdown related to the startup of the Mitigation Plan pumping. The exception is NP-2, which has shown a continuous decline. A similar pattern is seen north of the PS extraction wells in wells M-9, MW-2016-5A, MO-2016-5B, and MW-2016-6, where the wells show a straight-line decline post-2014 with a flattening of the decline rate starting between 2021 and 2022.

Wells in the southern portion of the mitigation wellfield also show the effects of pumping, but water level patterns are more complicated than in the northern portion. CW-3, MH-3, MH-11, MH-28, MH-29, MO-2007-5B, MO-2007-5C, and MO-2009-1 show a steepening of the water level decline in 2012 or 2013, prior to Mitigation Plan pumping, with the rate of decline increasing in 2014 or remaining constant. Wells MH-9, MH-14, MH-15E, MH-15W, MH-16E, and MH-16W near the STI show water level increases in 2014, as pumping shifted to other locations in the wellfield. MH-28, MO-2007-6A, and MO-2007-6B are also near the STI, but did not display a water level increase until 2016.

The water level hydrographs document the development and maintenance of the potentiometric field around the extraction well system. The various patterns displayed by the hydrographs are the result of the interplay between the pumping histories of the extraction wells, local hydraulic properties and aquifer boundaries, the distance of the monitoring wells from extraction wells, pre-existing water level decline patterns, and the superposition of overlapping drawdown cones around the pumping wells. The hydrograph data confirm that there is a high degree of hydraulic connectivity in the aquifer because the response to pumping is evident over a large area that encompasses the extent of the plume. This large area of influence is needed to establish hydraulic control over the migration of the plume.

4.0 CAPTURE ZONE ANALYSIS

The capture zone of the mitigation wellfield is the three-dimensional region within which groundwater flows to the extraction well system where it is removed from the aquifer. Capture zone analysis consists of semi-quantitative and quantitative evaluations of field measurements and numerical groundwater flow modeling results to assess the degree of wellfield capture.

The capture zone analysis was conducted using the methods in the 2008 U.S. Environmental Protection Agency guidance document on evaluation of capture zones (U.S. Environmental Protection Agency [EPA], 2008), as requested by ADEQ (2009). EPA (2008) outlines the following steps for using multiple lines of evidence to develop a weight of evidence assessment of a capture zone:

- Step 1 - Review of site data, site conceptual model, and remedy objectives
- Step 2 - Define site-specific target capture zone
- Step 3 - Interpret water levels
- Step 4 - Perform calculations
- Step 5 - Evaluate concentration trends
- Step 6 – Interpret actual capture based on Steps 1 to 5, compare to target capture zone, assess uncertainties and data gaps.

4.1 Site Data Review, Site Conceptual Model, and Mitigation Action Objective

Site data relevant to Step 1 of the capture zone analysis, including descriptions of the hydrogeology, hydraulic properties, water quality, and site conceptual model, are contained in the Aquifer Characterization Report (Hydro Geo Chem, Inc., 2009) and Feasibility Study (Hydro Geo Chem, Inc., 2008). Section 3 of this report describes the operational, water level, and sulfate concentration data for current conditions.

The site conceptual model described in the Aquifer Characterization Report has not changed over time. The source of sulfate in the plume is considered to be seepage from the STI to the basin fill beneath the tailing impoundment. The sulfate plume is formed as the sulfate-affected seepage mixes with groundwater in the basin fill and migrates east and north from the STI. The plume is contained within the basin fill aquifer, which is underlain by bedrock with an average hydraulic conductivity that is three orders of magnitude lower than the average hydraulic conductivity of the basin fill. Groundwater pumping to capture the plume is focused in the basin fill aquifer close to the STI and

along the axis of the plume (Figure 2). The bedrock aquifer is not targeted for groundwater pumping because its low permeability limits sulfate migration into the bedrock.

The hydraulic properties of the basin fill have been determined through aquifer testing as described in the Aquifer Characterization Report. The water elevation configuration and extent of sulfate-affected groundwater in the basin fill are well documented by the groundwater monitoring conducted since 2007 for the Mitigation Order (Section 3.2). The water elevation configuration did not change significantly between the start of Mitigation Order monitoring in 2007 and the start of Mitigation Plan pumping in January 2014, as described in Section 3.2.2.1. The stability of the water elevation configuration indicates that the basin fill aquifer in the vicinity of the plume is not subject to transient phenomena, such as seasonal changes in groundwater flow direction that can complicate pumping-based plume control actions. Since January 2014 the water elevation configuration has changed in response to Mitigation Plan pumping, as described in Section 3.2.2.1.

The mitigation action objective is identified in Section 1.2. The Mitigation Plan identifies specific action levels for sulfate concentrations at drinking water supply wells and sentinel wells, in the contingency that the plume migrates in an unexpected way. The drinking water supply and sentinel wells in the vicinity of the plume are monitored quarterly to determine concentrations with respect to action levels.

4.2 Target Capture Zone

The site-specific target capture zone represents the zone of groundwater to be captured by the mitigation wellfield to prevent substantive downgradient migration of the plume and meet the mitigation action objective. The 250 mg/L sulfate concentration contour for the fourth quarter of 2023, which defines the edge of the plume, is selected as a preliminary target capture zone for Step 2 of the capture zone analysis. The target capture zone extends from the water table to the base of the basin fill aquifer because elevated sulfate within the plume occurs across the entire saturated thickness of the basin fill, although some dilute zones are known to occur at the top of the basin fill aquifer (Hydro Geo Chem, Inc., 2009).

4.3 Capture Zone Indicated by Water Elevation Mapping

The approach used to interpret water level data for Step 3 of the capture zone analysis is to evaluate groundwater flow directions based on the water elevation maps. EPA (2008) identifies water elevation mapping and flowline interpretation as a method of water level interpretation for capture zone assessment. Groundwater flowlines are interpreted as being orthogonal to water elevation contours and in the direction of lower potential (i.e., groundwater flows from higher to lower groundwater elevations). The water elevation depressions that develop around pumping wells are

zones of internal flow, or hydraulic sinks, from which groundwater is extracted from the aquifer. Water elevation mapping is used to identify hydraulic sinks and flowline interpretation is used to evaluate the extent of capture developed by the hydraulic sinks created by mitigation pumping.

Figure 17 shows hand-drawn groundwater flowlines and capture zone interpreted for the fourth quarter of 2023. The capture zone is interpreted based on the groundwater flow directions.

The groundwater flow pattern in 2023 is one in which groundwater that is outside the capture zones of the IW wells flows to and is captured by the hydraulic sinks around the FFS, PS, and MC extraction wells. The capture zones of the IW, FFS, PS, and MC wells coalesce to create a total wellfield capture zone interpreted as extending east from the STI to Green Valley and north to the PS wells near Duval Mine Road.

Historically, a second water elevation contour map was developed using kriging software. Kriging is a geostatistical interpolation technique commonly applied for spatial analysis of correlated hydrogeologic phenomena (e.g., water level, hydraulic property, and hydrochemistry data). In the last performance review report (Clear Creek Associates, 2019a), fourth quarter 2018 kriged water elevation contours showed a similar pattern as the hand drawn contours. The fourth quarter 2023 hand-drawn groundwater flowlines and capture zone has not changed significantly since 2018, therefore kriging was not performed on the 2023 data. Section 4.6 compares the capture zone indicated by water level mapping to the target capture zone.

4.4 Capture Zone Indicated by Numerical Modeling

The complicated geometry of the mitigation wellfield precludes the use of simple analytical equations for Step 4 of the capture zone analysis. For this reason, a numerical simulation of the hydraulic head field created by pumping was used for the quantitative assessment of the capture zone. The numerical model for groundwater flow and sulfate transport was updated to simulate the capture zone for mitigation action pumping through 2023 as reported in Appendix E.

The numerical model reported by Clear Creek Associates (2014) was updated for this performance review with mitigation action pumping through 2023. Regional (non-Sierrita) pumping, such as municipal and agricultural pumping, was updated through 2022 based on filings with Arizona Department of Water Resources (ADWR). The 2022 pumping rates for non-Sierrita pumping were carried forward to simulate pumping in 2023.

Recharge sources, such as seepage from the STI and recharge from wastewater treatment facilities, were updated based on available information. Sierrita conducted water balance modeling to estimate the STI seepage rates for 2016 through 2023 and provided the results to Clear Creek Associates. The

Robson Ranch and Quail Creek recharge facility rates were updated through 2022 based on annual reports filed with ADWR and carried forward to simulate 2023.

Figure 18 shows the fourth quarter 2023 sulfate distribution simulated by the updated model. The simulated extent of the sulfate matches the observed extent well, although the model underestimates the eastern extent of the plume at CW-7 and PS-3 wells and overestimates the eastern extent of the plume in the vicinity of the MO-2007-6 wells, MO-2007-5 wells, MO-2007-4 wells, and ESP-4.

The capture zone indicated by the updated numerical model for groundwater pumping through 2023 is shown on Figure 19. The capture zone is a composite of all three layers of the model, interpreted from gradient vector plots created with the predicted groundwater elevations through the end of 2023. Section 4.6 compares the capture zone indicated by numerical modeling to the target capture zone.

4.5 Evaluation of Sulfate Concentration Trends

Step 5 of EPA's approach to capture zone evaluation is to use sulfate concentration data from outside the plume as a means of interpreting capture. The use of concentration trend data for wells outside the plume is based on the concept that sulfate concentrations should not increase above the mitigation action objective in wells downgradient of the target capture zone if the plume is not migrating. Additionally, sulfate concentrations could decrease in some wells depending on well position with respect to lower concentration water at the edge of the target capture zone. EPA (2008) states that one potential problem with using concentration data is that it may take years for concentrations to change because groundwater velocities are generally slow. The sulfate data for the drinking water supply and sentinel wells, and at wells ESP-2, ESP-3, MW-2016-5A, MW-2016-5B, and MW-2016-6 (Section 3.2) are used to evaluate sulfate concentration trends for Step 5 of the analysis because these wells are outside the target capture zone of the 250 mg/L sulfate concentration contour (Figure 6).

Sulfate concentrations in wells marginal to the plume are discussed in detail in Section 3.2.1.4. As shown on Figure 7, the 250 mg/L contour in 2023 has moved to the south in the vicinity of MW-2016-6 and the MO-2007-1 wells, and to the west in the vicinity of ESP-4 and the MO-2007-5 wells as sulfate concentrations decline. Other wells on the margin of the plume (i.e., drinking water supply wells, the majority of sentinel wells, the ESP, and the MW-2016-5 wells) do not show increasing sulfate concentrations suggestive of an advancing plume. These data, combined with a contraction of the 250 mg/L sulfate concentration contour, are interpreted as evidence that mass removal is occurring within the wellfield and the plume is not expanding. The lack of eastward and northward plume migration is consistent with the capture zone interpreted from water elevation maps and numerical modeling results (Sections 4.2 and 4.4).

4.6 Comparison of Wellfield Capture Zone to Target Capture Zone

Step 6 of the capture analysis is to compare the target capture zone to the wellfield capture zone determined from site monitoring data. The target capture zone is the 250 mg/L sulfate concentration contour that defines the sulfate plume. Figures 20 and 21 compare the target capture zone to the fourth quarter 2023 wellfield capture zones for the hand contoured water level data and the numerical model simulation results, respectively.

The wellfield capture zone interpreted from fourth quarter 2023 water elevation data (Figure 20) overlaps the entire target capture zone; indicating the sulfate plume is captured by the mitigation wellfield. The wellfield capture zone indicated by numerical modeling (Figure 21) also encompasses the entirety of the target capture zone. The difference between the two estimated capture zones is minor. Overall, the capture zone based on measurement data is considered more reliable than the capture zone identified by numerical modeling.

4.7 Uncertainties

EPA (2008) recommends identifying uncertainties in the capture zone analysis. Key uncertainties in the current analysis are the use of the 250 mg/L sulfate concentration contour as the target capture zone, and the different capture zones indicated by water level measurements and numerical modeling results.

The target capture zone selected for the performance review is the 250 mg/L sulfate concentration contour defining the plume. Use of the plume outline as the target capture zone is conservative for two reasons. First, the location of the 250 mg/L contour is estimated based on the highest sulfate concentration measured at co-located wells completed at different depths and may not be representative of the true depth-averaged concentration. Second, it may be possible to meet the mitigation action objective with a target capture zone that is within the plume outline. For example, if a small portion of the plume falls outside of the capture zone and is not captured by the wellfield, it may migrate slowly enough that it is diluted over time by advective and dispersive mixing with low sulfate groundwater.

In general, the measurement data are interpreted as providing a more reliable representation of actual conditions than the numerical model results, which are calculations dependent on the model geometry and many input variables. Comparison of Figures 14 and 19 indicates that while the model represents the overall pattern of water elevations in the vicinity of the extraction wells, it may not replicate the potentiometric relationships in detail because of the regional scale of the model, which was developed to simulate the groundwater flow system within a 156 square mile model domain (Hydro Geo Chem, Inc., 2009). Although the numerical model is well suited for designing the mitigation action and predicting the large-scale behavior of the plume, it may not be precise enough

to predict the exact location of the capture zone. Thus, the capture zones defined by water elevation mapping and numerical simulation are similar at a regional scale, but the capture zone identified by the water level data is considered to best represent actual aquifer conditions in 2023 because it is based on measured field conditions indicated by water elevation data.

Additional uncertainties in the analysis are related to the potential estimation error inherent in the interpretation of groundwater monitoring data. Identification of the wellfield capture zone based on water level interpolation and simulation, and delineation of the plume edge based on groundwater sampling are examples of variables potentially subject to estimation error. The estimation uncertainty in the present analysis is managed through the use of multiple lines of evidence and by having a monitoring data set collected using standardized procedures at a large network of groundwater monitoring wells.

5.0 NUMERICAL SIMULATION OF FUTURE PLUME MIGRATION

The numerical model was updated through 2023 to evaluate the future plume migration under the 2023 average annual groundwater pumping rate of 10,980 gpm. The purpose of the model update was to conduct a predictive simulation to evaluate the effect on the mitigation action of pumping at 2023 rates. As discussed in Section 3.1, the 2023 average annual pumping rate met the performance goal rate of 10,643 gpm set in the Mitigation Plan. The current well rehabilitation and maintenance program, combined with the addition of wells MC-5 and MC-6, permitted for 1,000 gpm and 1,200 gpm, respectively, suggest it is likely that a wellfield pumping rate of 10,980 gpm can be maintained in the future.

As noted in Section 4.4, the numerical model input data for pumping and recharge were updated through 2023. To evaluate the potential effects of the 2023 average annual pumping rate, a predictive numerical simulation was conducted assuming that the well-by-well 2023 annual average pumping rates would be pumped for 100 years into the future, from 2024 to 2123.

As described in Appendix E, the predictive simulations are based on projected future pumping for the mitigation action, projections of future regional groundwater pumping and recharge by the Upper Santa Cruz Pumpers and Users Group (2017), and estimates of future STI seepage through the projected end of mine life in 2089. The pumping rates assumed for mitigation wells for years 2024 through 2123 of the predictive simulation are the 2023 average annual pumping rates listed on Table 2. The seepage rate for the STI was considered constant until mine closure at the end of 2088, at which time draindown would begin. Seepage rates during draindown were based on a separate numerical simulation of gravity drainage from the STI.

The results of the predictive simulation of sulfate plume movement are used to assess the adequacy of the 2023 average annual mitigation action pumping. Figure 22 depicts the simulated 250 mg/L sulfate concentration contours at the end of 2043, 2063, 2083, 2103, and 2123 for the 2023 average annual pumping rate. When the mitigation wellfield is pumped at 10,980 gpm, the numerical simulation results show little change in the shape and location of the plume over time in the northern portion of the plume, but a contraction of the plume on the eastern edge by 2063. Thus, the 2023 average annual pumping rate accomplishes the objectives as the performance goal rate: plume stabilization and maintenance of the mitigation action objective. If the wellfield pumping rate is maintained at the 2023 rate of 10,980 gpm, mass reduction is also likely despite not meeting the target pumping rate. For both performance goal and target pumping rates, volumes are not unique in that there can be different combinations of pumping locations and rates that accomplish the pumping and mitigation action objectives, as described in Section 2. Based upon this analysis, there is no need to adjust present or future pumping rates, including the target and performance goal pumping rates at this time.

6.0 ASSESSMENT OF MITIGATION ACTION

6.1 Assessment of Mitigation Action 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. Based on the available data, there is no need to modify the Mitigation Plan action due to performance.

6.2 Mitigation Pumping Program

The average mitigation pumping rate for 2023 was 10,980 gpm, which is 3 percent more than the performance goal pumping rate of 10,643 gpm and 23% less than the target pumping rate of 14,330 gpm (Table 2). As discussed in Section 3.1, aggressive well rehabilitation activities since 2022 have improved the wellfield performance through time.

The capture zone analysis in Section 4 indicates that the 2023 capture zone generated by the mitigation wellfield encompasses the sulfate plume and the sulfate plume has remained controlled under 2019 through 2023 pumping conditions. As discussed in Section 5, a simulation of future plume migration assuming the 2023 average annual pumping rate of 10,980 gpm from 2024 through 2123 predicts that plume movement is controlled and the mitigation action objective would be met.

The target and performance goal pumping rates of the mitigation action do not need to be changed at this time based on the current and predicted future control of the plume and maintenance of the mitigation action objective. However, it is important to note that the sulfate plume has remained stable during the 2019 to 2023 time period with pumping rate as low as 9,797 gpm, and the performance goal was met in only one of five years. The target pumping rate was not met for all five years of this review; however, the footprint of the plume was reduced in 2023 while pumping at 10,980, which is 77% of the target pumping rate. The plume reduction observed in 2023 exceeds that predicted by the model, suggesting the model under predicts sulfate mitigation compared to field conditions. Once wells MC-5 and MC-6 are pumping and the effects on the wellfield is evaluated, Sierrita may revise the target and performance goal rates for individual wells and/or the wellfield as a whole.

6.3 Wellfield Operating and Monitoring Program

Between 2019 and 2023, the wellfield O&M program met its operational objective of providing continuous operation of the mitigation wellfield. Despite a large number of wells requiring maintenance over the 5-year period, the mitigation wellfield, which is comprised of 36 operable extraction wells, several pumping stations and storage tanks, and miles of pipeline, had a wellfield-

wide run time percentage of 78.6% in 2023 (Section 3.1). The wellfield O&M program also met the monitoring objective of providing pumping and water level information for use in the performance review. Based on the 2023 results there is no need to modify the wellfield O&M program.

6.4 Groundwater Monitoring Program

The Mitigation Plan identifies the following objectives for the Post-Implementation Groundwater Monitoring Plan:

- Monitor wells along the plume edge to track the location of the plume over time
- Monitor sulfate in sentinel and drinking water supply wells near the plume to verify that sulfate concentrations are less than 250 mg/L
- Document water level and sulfate concentrations in the vicinity of the mitigation wellfield to assess mitigation progress.

The groundwater monitoring program met its objectives of collecting sulfate concentration and water level data needed to determine the extent of the plume, document sulfate concentrations at sentinel and drinking water supply wells, and evaluate wellfield capture. The following changes to the groundwater monitoring program are recommended to reflect current operational and aquifer conditions:

- Wells MC-5 and MC-6, both installed in 2023, are currently monitored for semi-annual water level measurements. Once equipped with pumps, these wells will be sampled annually for sulfate in second quarter.

- The well use listed for IW-6A, IW-14, and IW-15 should be changed from “Extraction” to “Monitor” as these wells have not pumped in over 5 years and are now used only as piezometers.

Table 4 provides the updated schedule for Post-Implementation Groundwater Monitoring, with shaded entries indicating the recommended changes to the schedule.

7.0 REFERENCES

Arizona Department of Environmental Quality (ADEQ). 2006. Mitigation Order on Consent Docket No. P-50-06. In the Matter of: Phelps Dodge Sierrita Mine located at 6200 West Duval Mine Road, Green Valley, Arizona. July 14, 2006.

ADEQ. 2009. Correspondence from Cynthia S. Campbell, ADEQ Water Quality Compliance Section, to E.L. (Ned) Hall, Sierrita, Re: Mitigation Order on Consent, Docket No. P-50-06 ADEQ's Response to Freeport's Feasibility Report. March 6, 2009.

ADEQ. 2014. Correspondence from Madeline Keller, ADEQ Water Quality Enforcement Unit, to Deborah Chismar, Sierrita, Re: Review of the revised Mitigation Plan (Plan) and the Well Field Operation and Maintenance (O&M) Plan for the Sierrita Mitigation Order, dated December 18, 2013, prepared by Clear Creek Associates, P.L.C. September 29, 2014.

ADEQ. 2015. Correspondence from Madeline Keller, ADEQ, to Deborah Chismar, Sierrita, Re: Review of the Response to ADEQ's Review of the Mitigation Plan for Sulfate with Respect to Drinking Water Supplies in the Vicinity of the Freeport-McMoRan Sierrita Inc. Tailing Impoundment, Mitigation Order on Consent Docket No. P-50-06, Pima County, Arizona dated June 23, 2015. November 20, 2015.

BasinWells Associates. 2013. Freeport-McMoRan-Sierrita Inc. Mitigation Action Well Field Operation and Maintenance Plan. December 31, 2013.

BasinWells Associates. 2020. 2019 Freeport-McMoRan-Sierrita Inc. Mitigation Facilities Monitoring Report. March 13, 2020.

BasinWells Associates. 2021. 2020 Freeport-McMoRan-Sierrita Inc. Mitigation Facilities Monitoring Report. March 25, 2021.

BasinWells Associates. 2022. 2021 Freeport-McMoRan-Sierrita Inc. Mitigation Facilities Monitoring Report. March 23, 2022.

BasinWells Associates. 2023. 2022 Freeport-McMoRan-Sierrita Inc. Mitigation Facilities Monitoring Report. March 28, 2023.

BasinWells Associates. 2024. 2023 Freeport-McMoRan-Sierrita Inc. Mitigation Facilities Monitoring Report. March 18, 2024.

Clear Creek Associates. 2013. Mitigation Plan for Sulfate with Respect to Drinking Water Supplies in the vicinity of the Freeport-McMoRan Sierrita Inc. Tailing Impoundment, Mitigation Order on Consent Docket No. P-50-06. December 18, 2013.

Clear Creek Associates. 2014. Updated Numerical Simulation of Feasibility Study Alternative 3. July 10, 2014.

Clear Creek Associates. 2015. Mitigation Performance Review for 2014, Mitigation Order on Consent Docket No. P-50-06. April 30, 2015.

Clear Creek Associates. 2016. Mitigation Performance Review for 2015, Mitigation Order on Consent Docket No. P-50-06. April 26, 2016.

Clear Creek Associates. 2017. Mitigation Performance Review for 2016, Mitigation Order on Consent Docket No. P-50-06. April 13, 2017.

Clear Creek Associates. 2018. Mitigation Performance Review for 2017, Mitigation Order on Consent Docket No. P-50-06. April 18, 2018.

Clear Creek Associates. 2019a. Mitigation Performance Review for 2018, Mitigation Order on Consent Docket No. P-50-06. April 2019.

Clear Creek Associates. 2019b. Semiannual Groundwater Monitoring Report for Samples Collected during the Fourth Quarter 2018 and First Quarter 2019, Mitigation Order on Consent Docket No. P-50-06, Pima County, Arizona. May 16, 2019.

Clear Creek Associates. 2019c. Semiannual Groundwater Monitoring Report for Samples Collected during the Second and Third Quarters 2019, Mitigation Order on Consent Docket No. P-50-06, Pima County, Arizona. October 7, 2019.

Clear Creek Associates. 2020a. Semiannual Groundwater Monitoring Report for Samples Collected during the Fourth Quarter 2019 and First Quarter 2020, Mitigation Order on Consent Docket No. P-50-06, Pima County, Arizona. May 13, 2020.

Clear Creek Associates. 2020b. Semiannual Groundwater Monitoring Report for Samples Collected during the Second and Third Quarters 2020, Mitigation Order on Consent Docket No. P-50-06, Pima County, Arizona. November 2, 2020.

Clear Creek Associates. 2021a. Semiannual Groundwater Monitoring Report for Samples Collected during the Fourth Quarter 2020 and First Quarter 2021, Mitigation Order on Consent Docket No. P-50-06, Pima County, Arizona. May 11, 2021.

Clear Creek Associates. 2021b. Semiannual Groundwater Monitoring Report for Samples Collected during the Second and Third Quarters 2021, Mitigation Order on Consent Docket No. P-50-06, Pima County, Arizona. November 12, 2021.

Clear Creek Associates. 2022a. Semiannual Groundwater Monitoring Report for Samples Collected during the Fourth Quarter 2021 and First Quarter 2022, Mitigation Order on Consent Docket No. P-50-06, Pima County, Arizona. May 5, 2022.

Clear Creek Associates. 2022b. Semiannual Groundwater Monitoring Report for Samples Collected during the Second and Third Quarters 2022, Mitigation Order on Consent Docket No. P-50-06, Pima County, Arizona. November 22, 2022.

Clear Creek Associates. 2023a. Semiannual Groundwater Monitoring Report for Samples Collected during the Fourth Quarter 2022 and First Quarter 2023, Mitigation Order on Consent Docket No. P-50-06, Pima County, Arizona. April 19, 2023.

Clear Creek Associates. 2023b. Semiannual Groundwater Monitoring Report for Samples Collected during the Second and Third Quarters 2023, Mitigation Order on Consent Docket No. P-50-06, Pima County, Arizona. November 8, 2023.

Freeport-McMoRan Sierrita Inc. (Sierrita). 2010. Correspondence from Chad D. Fretz, Sierrita, to Cynthia S. Campbell, ADEQ Water Quality Compliance Section, Re: Mitigation Order on Consent Docket No. P-50-06 - Mitigation Plan. March 18, 2010.

Sierrita. 2015. Correspondence from Deborah Chismar, Sierrita, to Madeline Keller, ADEQ, Re: ADEQ Review of Mitigation Plan, Mitigation Order on Consent Docket No. P-50-06, June 23, 2015.

Hydro Geo Chem, Inc. 2008. Feasibility Study Report for Sulfate with Respect to Drinking Water Supplies in the Vicinity of the Freeport-McMoRan Sierrita Inc. Tailing Impoundment, Mitigation Order on Consent Docket No. P-50-06. October 22, 2008.

Hydro Geo Chem, Inc. 2009. Revision 1 Aquifer Characterization Report, Task 5 of Aquifer Characterization Plan, Mitigation Order on Consent Docket No. P-50-06. January 30, 2009.

Hydro Geo Chem, Inc. and Clear Creek Associates, P.L.C. 2010. Final Wellfield Conceptual Design, Mitigation Order on Consent Docket No. P-50-06. January 29, 2010.

Upper Santa Cruz Providers and Users Group (USCPUG). 2017. Water Usage Report for Years 2015 – 2040. June 8, 2017.

U.S. Environmental Protection Agency (EPA). 2008. A Systematic Approach for Evaluation of Capture Zones at Pump and Treat Systems, Final Project Report. EPA/600/R-08/003. January 2008.

TABLES

TABLE 1
Target Pumping Rates for Mitigation Action and Performance Goal Pumping Rates 2014-2023

Well Name	ADWR Registry Number	Target Pumping Rates for Mitigation Action (gpm)	Performance Goal Pumping Rates (gpm)
IW-01	623129	250	250
IW-02A	216464	300	300
IW-03A	201732	500	500
IW-04	623132	40	40
IW-06A	545565	80	80
IW-08	508236	350	350
IW-09	508238	200	200
IW-10	508237	250	250
IW-11	508235	325	325
IW-12	545555	125	125
IW-14	545557	60	60
IW-15	545558	40	40
IW-19	545562	150	150
IW-21	545564	100	100
IW-22	200554	300	300
IW-23	200555	120	120
IW-24	200556	50	50
EXISTING IW WELL TOTAL		**3240**	**3240**
IW-25	219596	400	400
IW-26	219143	350	350
IW-27	219136	100	100
IW-28	219137	400	400
IW-29	222865	40	40
NEW IW WELL TOTAL		**1290**	**1290**
FFS-1	221662	800	338
FFS-2	221663	700	300
FFS-3	221664	400	225
FFS-4	221665	200	150
FFS-5	221666	1000	225
FFS-6	221667	600	225
FFS WELL TOTAL		**3700**	**1463**
PS-1	220861	700	700
PS-2	220862	**800**	800
PS-3	220863	**800**	800
PS-4	220864	1000	1000
PS WELL TOTAL		**3300**	**3300**

CLEAR CREEK ASSOCIATES

TABLE 1
Target Pumping Rates for Mitigation Action and Performance Goal Pumping Rates 2014-2023

Well Name	ADWR Registry Number	Target Pumping Rates for Mitigation Action (gpm)	Performance Goal Pumping Rates (gpm)
MC-1	221660	900	0
MC-2	221761	700	0
MC-3	221661	600	750
MC-4	220842	600	600
MC WELL TOTAL		**2800**	**1350**
TOTAL PUMPING		**14,330**	**10,643**

Notes:
ADWR = Arizona Department of Water Resources
FFS = Focused Feasibility Study
gpm = gallons per minute
IW = Interceptor Wells
PS = Plume Stabilization
MC = Mass Capture

TABLE 2
2019-2023 Groundwater Pumping Compared to Target and Performance Goal Pumping Rates

WELL NAME	ADWR REGISTRY NUMBER	MITIGATION PLAN TARGET PUMPING RATE (gpm)	MITIGATION PLAN PERFORMANCE GOAL RATE (gpm)	2019 TOTAL GALLONS PUMPED	2019 AVERAGE PUMPING RATE (gpm)	2020 TOTAL GALLONS PUMPED	2020 AVERAGE PUMPING RATE (gpm)	2021 TOTAL GALLONS PUMPED	2021 AVERAGE PUMPING RATE (gpm)	2022 TOTAL GALLONS PUMPED	2022 AVERAGE PUMPING RATE (gpm)	2023 TOTAL GALLONS PUMPED	2023 AVERAGE PUMPING RATE (gpm)
IW-01	623129	250	250	121,348,563	231	151,003,921	287	136,806,733	260	135,293,504	257	132,584,245	252
IW-02A	216464	300	300	108,248,813	206	94,035,345	179	74,152,020	141	68,471,583	130	66,761,839	127
IW-03A	201732	500	500	212,101,125	404	205,699,780	391	129,558,337	246	67,392,761	128	257,884,400	491
IW-04	623132	40	40	0	0	0	0	20,768,696	40	50,598,479	96	52,115,542	99
IW-06A	545565	80	80	0	0	0	0	0	0	0	0	0	0
IW-08	508238	350	350	74,756,938	142	64,804,073	123	111,312,475	212	117,378,243	223	173,478,248	330
IW-09	508236	200	200	81,552,719	155	70,788,408	135	77,693,338	148	61,788,701	118	51,060,839	97
IW-10	508237	250	250	1,000	0	6,141	0	122,793,033	234	106,645,489	203	126,047,079	240
IW-11	508235	325	325	96,228,188	183	122,015,661	232	58,015,490	110	56,316,540	107	113,224,505	215
IW-12	545555	125	125	50,417,438	96	42,096,554	80	42,218,950	80	46,435,246	88	40,273,500	77
IW-14	545557	60	60	2,000	0	0	0	0	0	0	0	0	0
IW-15	545558	40	40	0	0	0	0	0	0	0	0	0	0
IW-19	545562	150	150	6,096,344	12	62,473,668	119	56,690,119	108	49,366,055	94	49,350,559	94
IW-21	545564	100	100	0	0	0	0	0	0	19,695,052	37	22,343,894	43
IW-22	200554	300	300	92,124,188	175	171,564,303	326	135,508,229	258	121,752,225	232	113,992,292	217
IW-23	200555	120	120	0	0	0	0	19,501,392	37	50,487,777	96	44,509,092	85
IW-24	200556	50	50	0	0	0	0	0	0	24,217,236	46	23,402,391	45
IW-25	219596	400	400	168,601,875	321	183,389,114	349	210,136,886	400	173,937,827	331	210,095,313	400
IW-26	219143	350	350	65,033,813	124	117,278,836	223	111,710,883	213	113,316,916	216	95,170,314	181
IW-27	219136	100	100	76,788,625	146	93,810,217	178	72,105,721	137	66,122,685	126	88,919,547	169
IW-28	219137	400	400	44,816,875	85	131,666,453	251	173,100,948	329	161,657,236	308	142,267,004	271
IW-29[1]	222865	40	40	188,273,188	358	192,343,744	366	143,700,584	273	139,266,585	265	200,424,357	381
IW WELL TOTAL		**4,530**	**4,530**	**1,386,391,688**	**2,638**	**1,702,976,218**	**3,240**	**1,695,773,834**	**3,226**	**1,630,140,140**	**3,101**	**2,003,904,959**	**3,813**
			Percent of Target Pumping Rate		**58%**		**72%**		**71%**		**68%**		**84%**
			Percent of Performance Goal Rate		**58%**		**72%**		**71%**		**68%**		**84%**
FFS-1	221662	800	338	388,608,000	739	334,546,773	637	354,113,524	674	335,401,140	638	325,112,898	619
FFS-2	221663	700	300	358,355,000	682	334,678,853	637	356,047,331	677	324,885,464	618	317,842,949	605
FFS-3	221664	400	225	82,826,750	158	50,928,001	97	3,683,745	7	55,470,363	106	47,319,214	90
FFS-4	221665	200	150	31,863,000	61	28,323,705	54	8,151,989	16	37,645,269	72	30,511,301	58
FFS-5	221666	1,000	225	272,361,020	518	86,160,657	164	167,559,145	319	266,119,404	506	300,203,863	571
FFS-6	221667	600	225	0	0	6,722	0	0	0	30,923,917	59	52,080,068	99
FFS WELL TOTAL		**3,700**	**1,463**	**1,134,013,770**	**2,158**	**834,644,711**	**1,588**	**889,555,735**	**1,692**	**1,050,445,557**	**1,999**	**1,073,070,293**	**2,042**
			Percent of Target Pumping Rate		**58%**		**43%**		**46%**		**54%**		**55%**
			Percent of Performance Goal Rate		**147%**		**109%**		**116%**		**137%**		**140%**
PS-1	220861	700	700	414,757,250	789	419,058,078	797	396,293,403	754	384,593,508	732	382,328,016	727
PS-2	220862	800	800	338,645,625	644	428,711,848	816	412,160,908	784	410,684,629	781	419,162,925	797
PS-3	220863	800	800	477,202,750	908	493,206,923	938	459,192,635	874	475,393,144	904	469,206,703	893
PS-4	220864	1,000	1,000	546,688,250	1,040	459,160,836	874	394,444,800	750	496,526,771	945	476,678,837	907
PS WELL TOTAL		**3,300**	**3,300**	**1,777,293,875**	**3,381**	**1,800,137,684**	**3,425**	**1,662,091,747**	**3,162**	**1,767,198,052**	**3,362**	**1,747,376,480**	**3,325**
			Percent of Target Pumping Rate		**102%**		**104%**		**96%**		**102%**		**101%**
			Percent of Performance Goal Rate		**102%**		**104%**		**96%**		**102%**		**101%**
MC-1	221660	900	0	291,304,250	554	390,387,590	743	270,705,463	515	340,397,317	648	326,105,109	620
MC-2	221761	700	0	224,437,750	427	278,604,212	530	262,473,920	499	254,365,656	484	251,725,140	479
MC-3	221661	600	750	157,577,250	300	220,354,980	419	214,443,788	408	196,022,664	373	211,538,219	402
MC-4	220842	600	600	193,956,125	369	202,244,402	385	154,184,117	293	114,479,719	218	157,359,761	299
MC WELL TOTAL		**2,800**	**1,350**	**867,275,375**	**1,650**	**1,091,591,184**	**2,077**	**901,807,288**	**1,716**	**905,265,356**	**1,722**	**946,728,228**	**1,801**
			Percent of Target Pumping Rate		**59%**		**74%**		**61%**		**62%**		**64%**
			Percent of Performance Goal Rate		**122%**		**154%**		**127%**		**128%**		**133%**
TOTAL PUMPING		**14,330**	**10,643**	**5,164,974,708**	**9,827**	**5,429,349,797**	**10,330**	**5,149,228,603**	**9,797**	**5,353,049,105**	**10,185**	**5,771,079,960**	**10,980**
			Percent of Target Pumping Rate		**69%**		**72%**		**68%**		**71%**		**77%**
			Percent of Performance Goal Rate		**92%**		**97%**		**92%**		**96%**		**103%**

Notes:
ADWR = Arizona Department of Water Resources
IW = Interceptor Wells, FFS = Focused Feasibility Study , PS = Plume Stabilization, MC = Mass Capture
gpm = gallons per minute
Target pumping rates and performance goal rates from Tables 1 and 2, respectively, of the Mitigation Plan. The performance goal for PS-1 is corrected to 700 gpm from the 750 gpm reported in the Mitigation Plan.
[1] No target or performance goal pumping rates were set for IW-29 because its installation post-dated the Mitigation Plan. The 40 gpm specification was shifted to IW-29 from IW-5A in 2019 when IW-5A was removed from service.

CLEAR CREEK ASSOCIATES

TABLE 3
Post-Implementation Groundwater Monitoring Schedule for 2023

Well Name	ADWR 55 Well Registry No.	Well Use	Owner	First Quarter	Second Quarter	Third Quarter	Fourth Quarter
CC of GV	501760	Monitor	Sierrita		SO4		
CCGV2	627484	Monitor	CWC		WLO		WLO
COTONIA[1]	230945	DWS	GVDWID	SO4+WL	SO4+WL	SO4+WL	SO4+WL
CW-3	627483	Monitor	CWC		SO4+WL		SO4+WL
CW-6	627485	DWS	CWC	SO4+WL	SO4+WL	SO4+WL	SO4+WL
CW-7	502546	Monitor	CWC		WLO		WLO
CW-8	543600	Monitor	CWC		WLO		WLO
CW-9	588121	DWS	CWC	SO4+WL	SO4+WL	SO4+WL	SO4+WL
CW-10	207982	DWS	CWC	SO4+WL	SO4+WL	SO4+WL	SO4+WL
CW-11	608518	DWS	CWC		WLO		WLO
ESP-2	623103	Monitor	Sierrita		SO4+WL		SO4+WL
ESP-3	623104	Monitor	Sierrita		SO4+WL		SO4+WL
ESP-4	623105	Monitor	Sierrita		SO4+WL		SO4+WL
ESP-5	623106	Monitor	Sierrita		WLO		WLO
FFS-1	221662	Extraction	Sierrita		SO4+WL		WLO
FFS-2	221663	Extraction	Sierrita		SO4+WL		WLO
FFS-3	221664	Extraction	Sierrita		SO4+WL		WLO
FFS-4	221665	Extraction	Sierrita		SO4+WL		WLO
FFS-5	221666	Extraction	Sierrita		SO4+WL		WLO
FFS-6	221667	Extraction	Sierrita		SO4+WL		WLO
FICO C-4	624010	Ag Extraction	FICO		WLO		WLO
FICO E-6	624013	Ag Extraction	FICO		WLO		WLO
FICO E-6A[2]	233205	Ag Extraction	FICO		WLO		WLO
GV-01-GVDWID	603428	Monitor	GVDWID		WLO		WLO
GV-01-PCWW	509603	Monitor	Pima County		WLO		WLO
GV-02-GVDWID	603429	DWS	GVDWID	SO4+WL	SO4+WL	SO4+WL	SO4+WL
GV-02-PCWW	509604	Monitor	Pima County		WLO		WLO
GV-SI-GVDWID	208825	DWS	GVDWID		SO4+WL		WLO
HAVEN GOLF	515867	Monitor	Haven Golf		SO4		
I-12	608523	Monitor	Sierrita		WLO		WLO
IW-1	623129	Extraction	Sierrita		SO4+WL		WLO
IW-2A	216464	Extraction	Sierrita		SO4+WL		WLO
IW-3A	201732	Extraction	Sierrita		SO4+WL		WLO
IW-4	623132	Extraction	Sierrita		SO4+WL		WLO
IW-5A	219131	Monitor	Sierrita		WLO		WLO
IW-6A	545565	Extraction	Sierrita		SO4+WL		WLO
IW-8	508236	Extraction	Sierrita		SO4+WL		WLO
IW-9	508238	Extraction	Sierrita		SO4+WL		WLO
IW-10	508237	Extraction	Sierrita		SO4+WL		WLO
IW-11	508235	Extraction	Sierrita		SO4+WL		WLO
IW-12	545555	Extraction	Sierrita		SO4+WL		WLO
IW-13	545556	Monitor	Sierrita		WLO		WLO
IW-14	545557	Extraction	Sierrita		SO4+WL		WLO
IW-15	545558	Extraction	Sierrita		SO4+WL		WLO
IW-16	545559	Monitor	Sierrita		WLO		WLO
IW-17	545560	Monitor	Sierrita		WLO		WLO
IW-18	545561	Monitor	Sierrita		WLO		WLO
IW-19	545562	Extraction	Sierrita		SO4+WL		WLO
IW-20	545563	Monitor	Sierrita		WLO		WLO
IW-21	545564	Extraction	Sierrita		SO4+WL		WLO
IW-22	200554	Extraction	Sierrita		SO4+WL		WLO
IW-23	200555	Extraction	Sierrita		SO4+WL		WLO
IW-24	200556	Extraction	Sierrita		SO4+WL		WLO
IW-25	219596	Extraction	Sierrita		SO4+WL		WLO
IW-26	219143	Extraction	Sierrita		SO4+WL		WLO

TABLE 3
Post-Implementation Groundwater Monitoring Schedule for 2023

Well Name	ADWR 55 Well Registry No.	Well Use	Owner	First Quarter	Second Quarter	Third Quarter	Fourth Quarter
IW-27	219136	Extraction	Sierrita		SO4+WL		WLO
IW-28	219137	Extraction	Sierrita		SO4+WL		WLO
IW-29	222865	Extraction	Sierrita		SO4+WL		WLO
M-1	85228	Monitor	Sierrita		WLO		WLO
M-5	87387	Monitor	Sierrita		WLO		WLO
M-8	87390	Monitor	Sierrita		SO4+WL		SO4+WL
M-9	501652	Monitor	Sierrita		SO4+WL		WLO
M-10	501653	Monitor	Sierrita		SO4+WL		SO4+WL
M-11	501654	Monitor	Sierrita		WLO		WLO
M-20	906595	Monitor	Sierrita		SO4+WL		WLO
MC-1	221660	Extraction	Sierrita		SO4+WL		WLO
MC-2	221761	Extraction	Sierrita		SO4+WL		WLO
MC-3	221661	Extraction	Sierrita		SO4+WL		WLO
MC-4	220842	Extraction	Sierrita		SO4+WL		WLO
MC-5	238240	Extraction	Sierrita		WLO		WLO
MC-6	238394	Extraction	Sierrita		WLO		WLO
MH-1	803629	Monitor	Sierrita		WLO		WLO
MH-3	803630	Monitor	Sierrita		WLO		WLO
MH-5	803632	Monitor	Sierrita		WLO		WLO
MH-6	803633	Monitor	Sierrita		WLO		WLO
MH-7	803634	Monitor	Sierrita		WLO		WLO
MH-9	803635	Monitor	Sierrita		WLO		WLO
MH-10	803636	Monitor	Sierrita		SO4+WL		WLO
MH-11	803637	Monitor	Sierrita		SO4+WL		WLO
MH-13A	904071	Monitor	Sierrita		SO4+WL		WLO
MH-13B	904072	Monitor	Sierrita		SO4+WL		WLO
MH-13C	904073	Monitor	Sierrita		SO4+WL		WLO
MH-14	528098	Monitor	Sierrita		WLO		WLO
MH-15E	528094	Monitor	Sierrita		WLO		WLO
MH-16E	528100	Monitor	Sierrita		WLO		WLO
MH-16W	528099	Monitor	Sierrita		WLO		WLO
MH-25A	201528	Monitor	Sierrita		SO4+WL		WLO
MH-25B	208429	Monitor	Sierrita		SO4+WL		WLO
MH-25C	208426	Monitor	Sierrita		SO4+WL		WLO
MH-26B	208427	Monitor	Sierrita		SO4+WL		WLO
MH-26C	208428	Monitor	Sierrita		SO4+WL		WLO
MH-28	903648	Monitor	Sierrita		SO4+WL		SO4+WL
MH-29	903649	Monitor	Sierrita		SO4+WL		SO4+WL
MH-30	903884	Monitor	Sierrita		SO4+WL		WLO
MO-2007-1A	907342	Monitor	Sierrita		SO4+WL		SO4+WL
MO-2007-1B	907210	Monitor	Sierrita		SO4+WL		SO4+WL
MO-2007-1C	907209	Monitor	Sierrita		SO4+WL		SO4+WL
MO-2007-2	906765	Monitor	Sierrita		SO4+WL		WLO
MO-2007-3B[3]	906816	Sentinel	Sierrita	SO4+WL	SO4+WL	SO4+WL	SO4+WL
MO-2007-3C[3]	906817	Sentinel	Sierrita	SO4+WL	SO4+WL	SO4+WL	SO4+WL
MO-2007-4A[4]	907213	Sentinel	Sierrita	SO4+WL	SO4+WL	SO4+WL	SO4+WL
MO-2007-4B[4]	907212	Sentinel	Sierrita	SO4+WL	SO4+WL	SO4+WL	SO4+WL
MO-2007-4C[4]	907211	Sentinel	Sierrita	SO4+WL	SO4+WL	SO4+WL	SO4+WL
MO-2007-5B	907456	Monitor	Sierrita		SO4+WL		SO4+WL
MO-2007-5C	907457	Monitor	Sierrita		SO4+WL		SO4+WL
MO-2007-6A[5]	907607	Sentinel	Sierrita	SO4+WL	SO4+WL	SO4+WL	SO4+WL
MO-2007-6B[5]	907606	Sentinel	Sierrita	SO4+WL	SO4+WL	SO4+WL	SO4+WL
MO-2009-1[6]	910458	Sentinel	Sierrita	SO4+WL	SO4+WL	SO4+WL	SO4+WL
MW-2016-5A	919635	Monitor	Sierrita		SO4+WL		SO4+WL

TABLE 3
Post-Implementation Groundwater Monitoring Schedule for 2023

Well Name	ADWR 55 Well Registry No.	Well Use	Owner	First Quarter	Second Quarter	Third Quarter	Fourth Quarter
MW-2016-5B	919472	Monitor	Sierrita		SO4+WL		SO4+WL
MW-2016-6	919676	Monitor	Sierrita		SO4+WL		SO4+WL
NP-2[3]	605898	Sentinel	CWC	SO4+WL	SO4+WL	SO4+WL	SO4+WL
PS-1	220861	Extraction	Sierrita		SO4+WL		WLO
PS-2	220862	Extraction	Sierrita		SO4+WL		WLO
PS-3	220863	Extraction	Sierrita		SO4+WL		WLO
PS-4	220864	Extraction	Sierrita		SO4+WL		WLO
PZ-7	561870	Monitor	Sierrita		SO4+WL		WLO
PZ-8	561866	Monitor	Sierrita		SO4+WL		WLO
S-1	623111	Extraction	Sierrita		WLO		WLO
ST-6	608530	DWS	LQSWC		WLO		WLO
1225	634394	Monitor	Sierrita		WLO		WLO
1350	ND	Monitor	Sierrita		WLO		WLO
1758	634392	Monitor	Sierrita		WLO		WLO
1759	634393	Monitor	Sierrita		WLO		WLO
2123	511895	Monitor	Sierrita		WLO		WLO
2125	514015	Monitor	Sierrita		WLO		WLO

Notes:
ADWR = Arizona Department of Water Resources
Ag = agricultural
CC OF GV = Country Club of Green Valley
CWC = Community Water Company of Green Valley
DWS = Drinking Water Supply
FICO - Farmers Investment Company
GVDWID = Green Valley Domestic Water Improvement District
GVPCWW = Green Valley Pima County Wastewater Reclamation Facility
LQSWC = Las Quintas Serenas Water Company
ND = No Data
Sierrita = Freeport-McMoRan Sierrita Inc.
SO4 = Water Sample for Sulfate Analysis, WL = Water Level Measurement, WLO = Water Level Measurement Only
[1] *Replacement well for GV-01-GVDWID*
[2] *Replacement well for FICO E-6*
[3] *Sentinel Well for CW-9*
[4] *Sentinel Well for CW-6*
[5] *Sentinel Well for COTONIA and GV-02-GVDWID*
[6] *Sentinel Well for CW-10*

TABLE 4
Updated Post-Implementation Groundwater Monitoring Schedule

Well Name	ADWR 55 Well Registry No.	Well Use	Owner	First Quarter	Second Quarter	Third Quarter	Fourth Quarter
CC of GV	501760	Monitor	Sierrita		SO4		
CCGV2	627484	Monitor	CWC		WLO		WLO
COTONIA[1]	230945	DWS	GVDWID	SO4+WL	SO4+WL	SO4+WL	SO4+WL
CW-3	627483	Monitor	CWC		SO4+WL		SO4+WL
CW-6	627485	DWS	CWC	SO4+WL	SO4+WL	SO4+WL	SO4+WL
CW-7	502546	Monitor	CWC		WLO		WLO
CW-8	543600	Monitor	CWC		WLO		WLO
CW-9	588121	DWS	CWC	SO4+WL	SO4+WL	SO4+WL	SO4+WL
CW-10	207982	DWS	CWC	SO4+WL	SO4+WL	SO4+WL	SO4+WL
CW-11	608518	DWS	CWC		WLO		WLO
ESP-2	623103	Monitor	Sierrita		SO4+WL		SO4+WL
ESP-3	623104	Monitor	Sierrita		SO4+WL		SO4+WL
ESP-4	623105	Monitor	Sierrita		SO4+WL		SO4+WL
ESP-5	623106	Monitor	Sierrita		WLO		WLO
FFS-1	221662	Extraction	Sierrita		SO4+WL		WLO
FFS-2	221663	Extraction	Sierrita		SO4+WL		WLO
FFS-3	221664	Extraction	Sierrita		SO4+WL		WLO
FFS-4	221665	Extraction	Sierrita		SO4+WL		WLO
FFS-5	221666	Extraction	Sierrita		SO4+WL		WLO
FFS-6	221667	Extraction	Sierrita		SO4+WL		WLO
FICO C-4	624010	Ag Extraction	FICO		WLO		WLO
FICO E-6	624013	Ag Extraction	FICO		WLO		WLO
FICO E-6A[2]	233205	Ag Extraction	FICO		WLO		WLO
GV-01-GVDWID	603428	Monitor	GVDWID		WLO		WLO
GV-01-PCWW	509603	Monitor	Pima County		WLO		WLO
GV-02-GVDWID	603429	DWS	GVDWID	SO4+WL	SO4+WL	SO4+WL	SO4+WL
GV-02-PCWW	509604	Monitor	Pima County		WLO		WLO
GV-SI-GVDWID	208825	DWS	GVDWID		SO4+WL		WLO
HAVEN GOLF	515867	Monitor	Haven Golf		SO4		
I-12	608523	Monitor	Sierrita		WLO		WLO
IW-1	623129	Extraction	Sierrita		SO4+WL		WLO
IW-2A	216464	Extraction	Sierrita		SO4+WL		WLO
IW-3A	201732	Extraction	Sierrita		SO4+WL		WLO
IW-4	623132	Extraction	Sierrita		SO4+WL		WLO
IW-5A	219131	Monitor	Sierrita		WLO		WLO
IW-6A	545565	Monitor	Sierrita		WLO		WLO
IW-8	508236	Extraction	Sierrita		SO4+WL		WLO
IW-9	508238	Extraction	Sierrita		SO4+WL		WLO
IW-10	508237	Extraction	Sierrita		SO4+WL		WLO
IW-11	508235	Extraction	Sierrita		SO4+WL		WLO
IW-12	545555	Extraction	Sierrita		SO4+WL		WLO
IW-13	545556	Monitor	Sierrita		WLO		WLO
IW-14	545557	Monitor	Sierrita		WLO		WLO
IW-15	545558	Monitor	Sierrita		WLO		WLO
IW-16	545559	Monitor	Sierrita		WLO		WLO
IW-17	545560	Monitor	Sierrita		WLO		WLO
IW-18	545561	Monitor	Sierrita		WLO		WLO
IW-19	545562	Extraction	Sierrita		SO4+WL		WLO
IW-20	545563	Monitor	Sierrita		WLO		WLO
IW-21	545564	Extraction	Sierrita		SO4+WL		WLO
IW-22	200554	Extraction	Sierrita		SO4+WL		WLO
IW-23	200555	Extraction	Sierrita		SO4+WL		WLO
IW-24	200556	Extraction	Sierrita		SO4+WL		WLO
IW-25	219596	Extraction	Sierrita		SO4+WL		WLO
IW-26	219143	Extraction	Sierrita		SO4+WL		WLO

TABLE 4
Updated Post-Implementation Groundwater Monitoring Schedule

Well Name	ADWR 55 Well Registry No.	Well Use	Owner	First Quarter	Second Quarter	Third Quarter	Fourth Quarter
IW-27	219136	Extraction	Sierrita		SO4+WL		WLO
IW-28	219137	Extraction	Sierrita		SO4+WL		WLO
IW-29	222865	Extraction	Sierrita		SO4+WL		WLO
M-1	85228	Monitor	Sierrita		WLO		WLO
M-5	87387	Monitor	Sierrita		WLO		WLO
M-8	87390	Monitor	Sierrita		SO4+WL		SO4+WL
M-9	501652	Monitor	Sierrita		SO4+WL		WLO
M-10	501653	Monitor	Sierrita		SO4+WL		SO4+WL
M-11	501654	Monitor	Sierrita		WLO		WLO
M-20	906595	Monitor	Sierrita		SO4+WL		WLO
MC-1	221660	Extraction	Sierrita		SO4+WL		WLO
MC-2	221761	Extraction	Sierrita		SO4+WL		WLO
MC-3	221661	Extraction	Sierrita		SO4+WL		WLO
MC-4	220842	Extraction	Sierrita		SO4+WL		WLO
MC-5	238240	Extraction	Sierrita		SO4+WL		WLO
MC-6	238394	Extraction	Sierrita		SO4+WL		WLO
MH-1	803629	Monitor	Sierrita		WLO		WLO
MH-3	803630	Monitor	Sierrita		WLO		WLO
MH-5	803632	Monitor	Sierrita		WLO		WLO
MH-6	803633	Monitor	Sierrita		WLO		WLO
MH-7	803634	Monitor	Sierrita		WLO		WLO
MH-9	803635	Monitor	Sierrita		WLO		WLO
MH-10	803636	Monitor	Sierrita		SO4+WL		WLO
MH-11	803637	Monitor	Sierrita		SO4+WL		WLO
MH-13A	904071	Monitor	Sierrita		SO4+WL		WLO
MH-13B	904072	Monitor	Sierrita		SO4+WL		WLO
MH-13C	904073	Monitor	Sierrita		SO4+WL		WLO
MH-14	528098	Monitor	Sierrita		WLO		WLO
MH-15E	528094	Monitor	Sierrita		WLO		WLO
MH-16E	528100	Monitor	Sierrita		WLO		WLO
MH-16W	528099	Monitor	Sierrita		WLO		WLO
MH-25A	201528	Monitor	Sierrita		SO4+WL		WLO
MH-25B	208429	Monitor	Sierrita		SO4+WL		WLO
MH-25C	208426	Monitor	Sierrita		SO4+WL		WLO
MH-26B	208427	Monitor	Sierrita		SO4+WL		WLO
MH-26C	208428	Monitor	Sierrita		SO4+WL		WLO
MH-28	903648	Monitor	Sierrita		SO4+WL		SO4+WL
MH-29	903649	Monitor	Sierrita		SO4+WL		SO4+WL
MH-30	903884	Monitor	Sierrita		SO4+WL		WLO
MO-2007-1A	907342	Monitor	Sierrita		SO4+WL		SO4+WL
MO-2007-1B	907210	Monitor	Sierrita		SO4+WL		SO4+WL
MO-2007-1C	907209	Monitor	Sierrita		SO4+WL		SO4+WL
MO-2007-2	906765	Monitor	Sierrita		SO4+WL		WLO
MO-2007-3B[3]	906816	Sentinel	Sierrita	SO4+WL	SO4+WL	SO4+WL	SO4+WL
MO-2007-3C[3]	906817	Sentinel	Sierrita	SO4+WL	SO4+WL	SO4+WL	SO4+WL
MO-2007-4A[4]	907213	Sentinel	Sierrita	SO4+WL	SO4+WL	SO4+WL	SO4+WL
MO-2007-4B[4]	907212	Sentinel	Sierrita	SO4+WL	SO4+WL	SO4+WL	SO4+WL
MO-2007-4C[4]	907211	Sentinel	Sierrita	SO4+WL	SO4+WL	SO4+WL	SO4+WL
MO-2007-5B	907456	Monitor	Sierrita		SO4+WL		SO4+WL
MO-2007-5C	907457	Monitor	Sierrita		SO4+WL		SO4+WL
MO-2007-6A[5]	907607	Sentinel	Sierrita	SO4+WL	SO4+WL	SO4+WL	SO4+WL
MO-2007-6B[5]	907606	Sentinel	Sierrita	SO4+WL	SO4+WL	SO4+WL	SO4+WL
MO-2009-1[6]	910458	Sentinel	Sierrita	SO4+WL	SO4+WL	SO4+WL	SO4+WL
MW-2016-5A	919635	Monitor	Sierrita		SO4+WL		SO4+WL

TABLE 4
Updated Post-Implementation Groundwater Monitoring Schedule

Well Name	ADWR 55 Well Registry No.	Well Use	Owner	First Quarter	Second Quarter	Third Quarter	Fourth Quarter
MW-2016-5B	919472	Monitor	Sierrita		SO4+WL		SO4+WL
MW-2016-6	919676	Monitor	Sierrita		SO4+WL		SO4+WL
NP-2[3]	605898	Sentinel	CWC	SO4+WL	SO4+WL	SO4+WL	SO4+WL
PS-1	220861	Extraction	Sierrita		SO4+WL		WLO
PS-2	220862	Extraction	Sierrita		SO4+WL		WLO
PS-3	220863	Extraction	Sierrita		SO4+WL		WLO
PS-4	220864	Extraction	Sierrita		SO4+WL		WLO
PZ-7	561870	Monitor	Sierrita		SO4+WL		WLO
PZ-8	561866	Monitor	Sierrita		SO4+WL		WLO
S-1	623111	Extraction	Sierrita		WLO		WLO
ST-6	608530	DWS	LQSWC		WLO		WLO
1225	634394	Monitor	Sierrita		WLO		WLO
1350	ND	Monitor	Sierrita		WLO		WLO
1758	634392	Monitor	Sierrita		WLO		WLO
1759	634393	Monitor	Sierrita		WLO		WLO
2123	511895	Monitor	Sierrita		WLO		WLO
2125	514015	Monitor	Sierrita		WLO		WLO

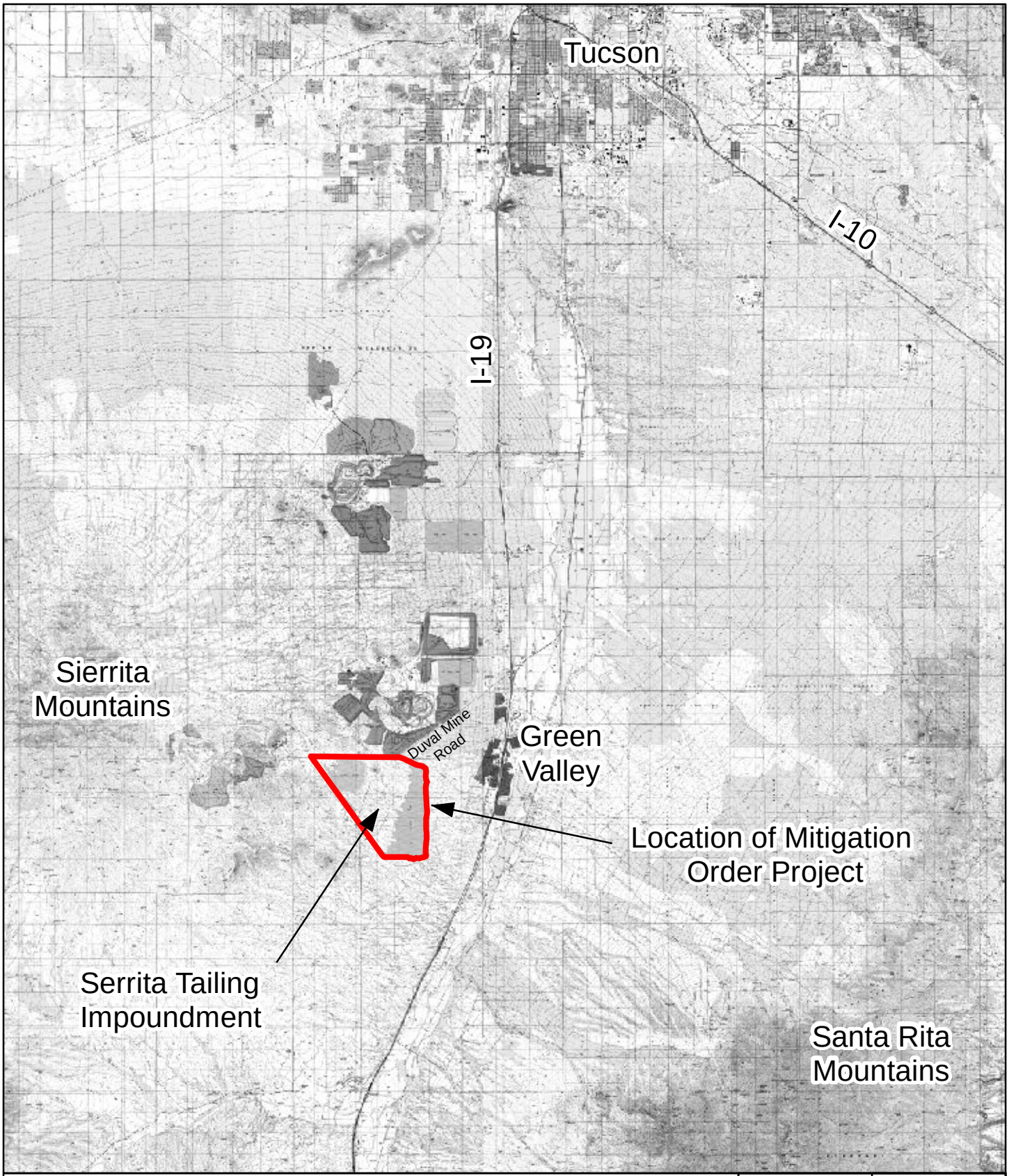
Notes:

Change to schedule highlighted yellow

ADWR = Arizona Department of Water Resources
Ag = agricultural
CC OF GV = Country Club of Green Valley
CWC = Community Water Company of Green Valley
DWS = Drinking Water Supply
FICO - Farmers Investment Company
GVDWID = Green Valley Domestic Water Improvement District
GVPCWW = Green Valley Pima County Wastewater Reclamation Facility
LQSWC = Las Quintas Serenas Water Company
ND = No Data
Sierrita = Freeport-McMoRan Sierrita Inc.
SO4 = Water Sample for Sulfate Analysis, WL = Water Level Measurement, WLO = Water Level Measurement Only

[1] *Replacement well for GV-01-GVDWID*
[2] *Replacement well for FICO E-6*
[3] *Sentinel Well for CW-9*
[4] *Sentinel Well for CW-6*
[5] *Sentinel Well for COTONIA and GV-02-GVDWID*
[6] *Sentinel Well for CW-10*

FIGURES



0 2 4 8

Miles

Notes

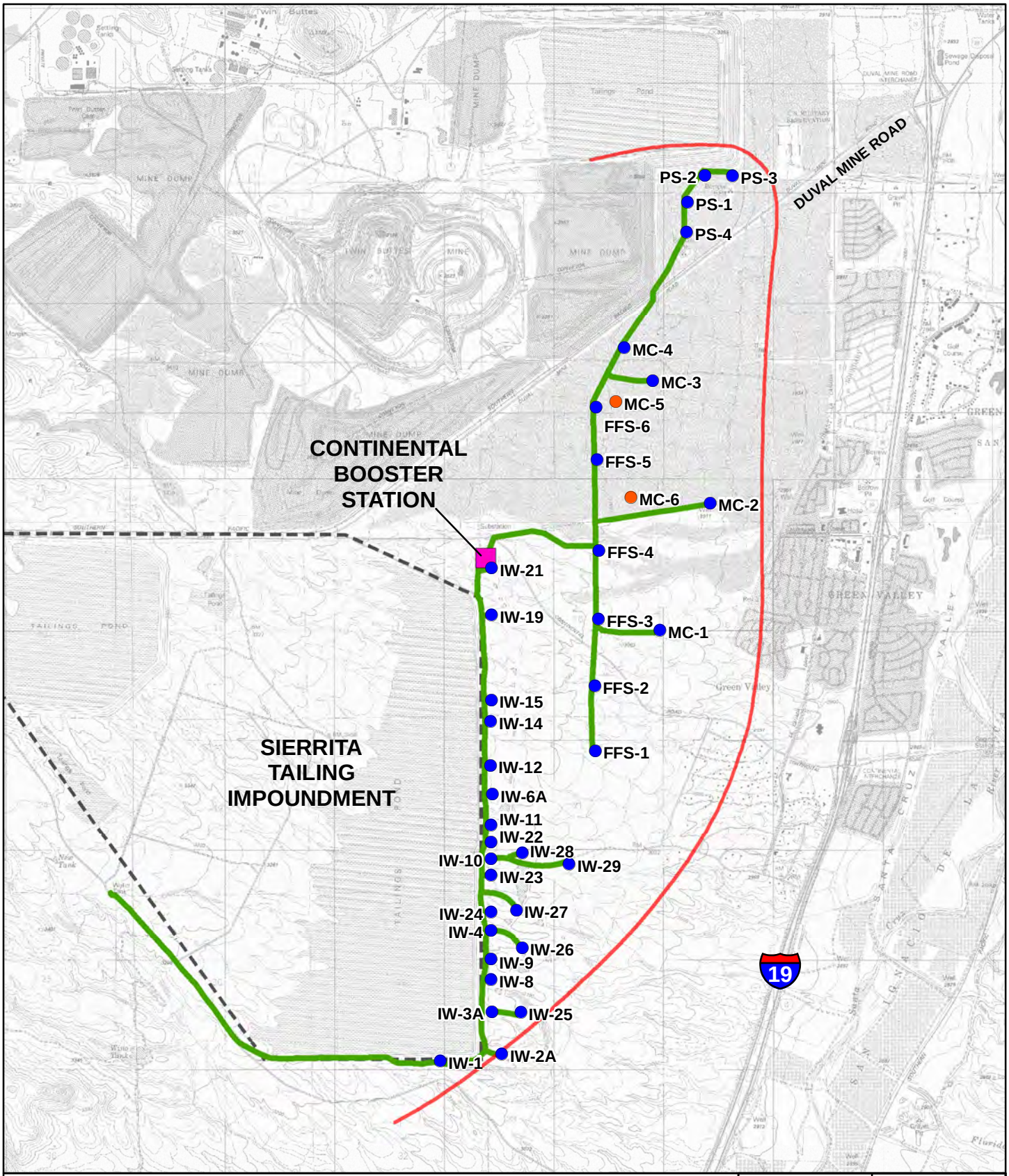
Projection: UTM Zone 12N NAD83

CLEAR CREEK ASSOCIATES

File ID 055039-121

Date 4/18/19

FIGURE 1
Project Location Map



Legend

- Extraction Well
- New Extraction Well - Unequipped
- Booster Station
- Pipeline
- Q2 2023 250 mg/L Sulfate Concentration Contour
- Tailing Impoundment

0 2,000 4,000

Feet

Notes

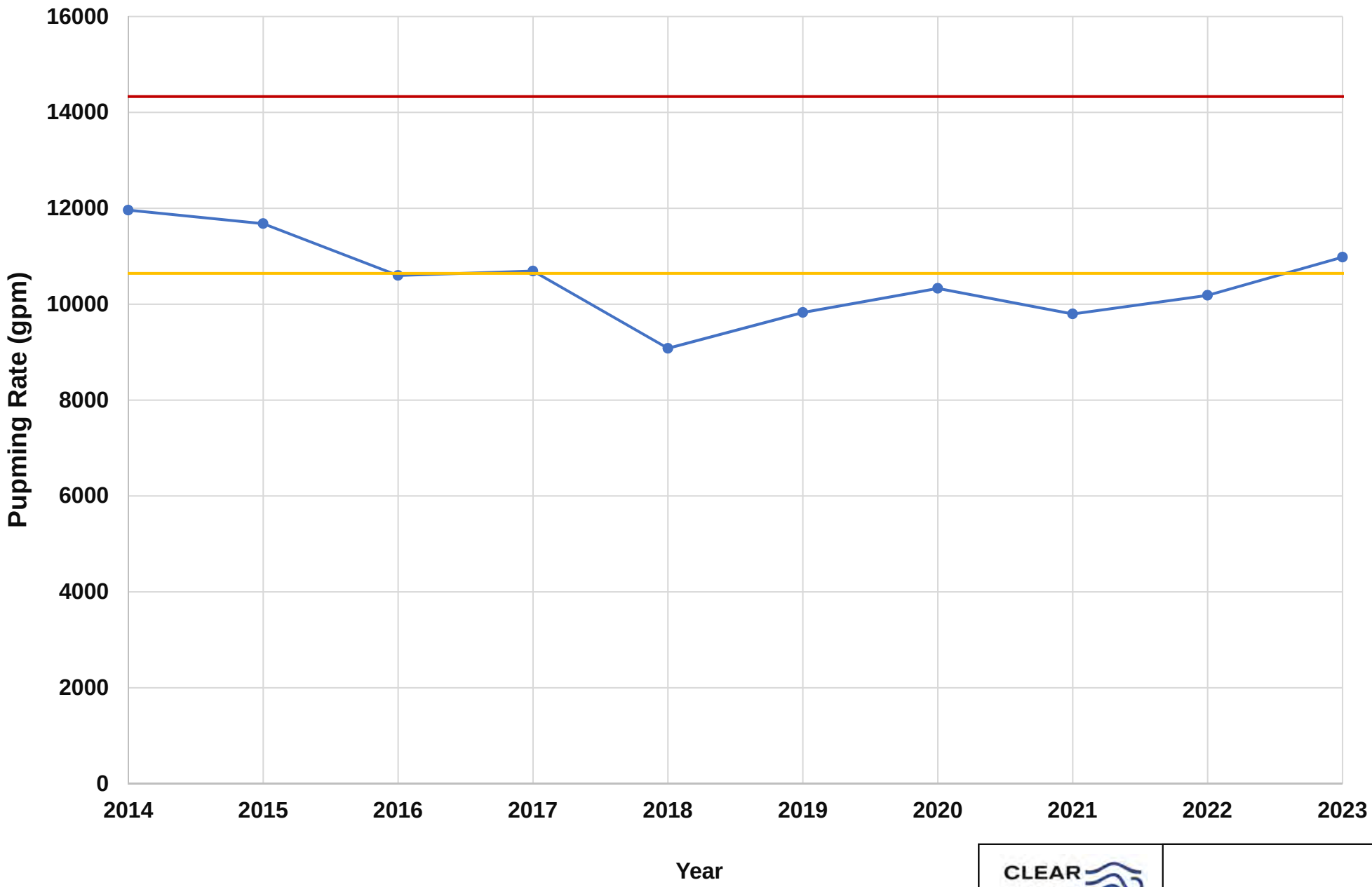
Projection: UTM Zone 12N NAD83

CLEAR CREEK ASSOCIATES

File ID 055039-379

Date 2/22/2024

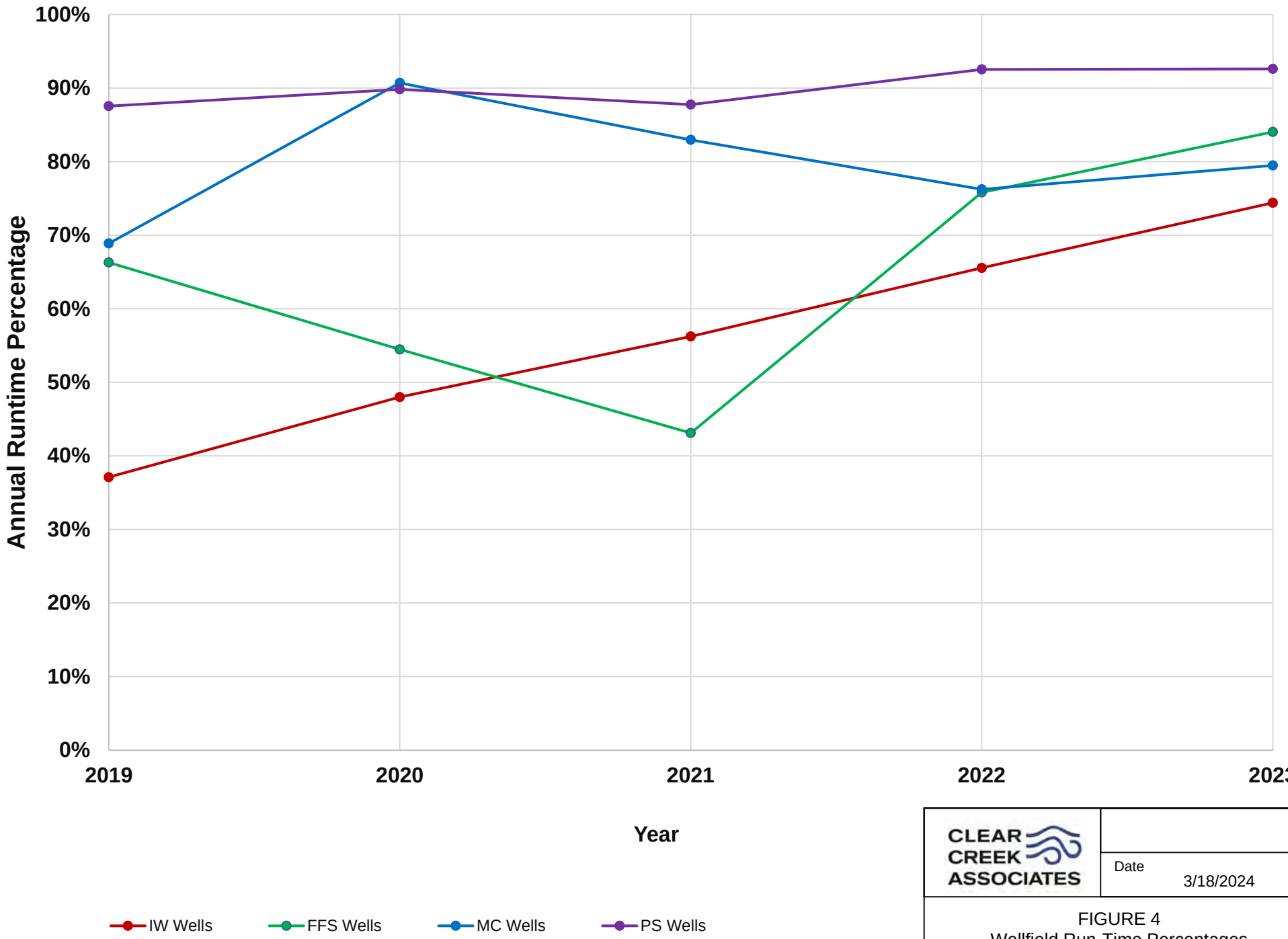
FIGURE 2
Mitigation Action
Extraction Wells
and Pumping Facilities



CLEAR CREEK ASSOCIATES

Date 2/22/2024

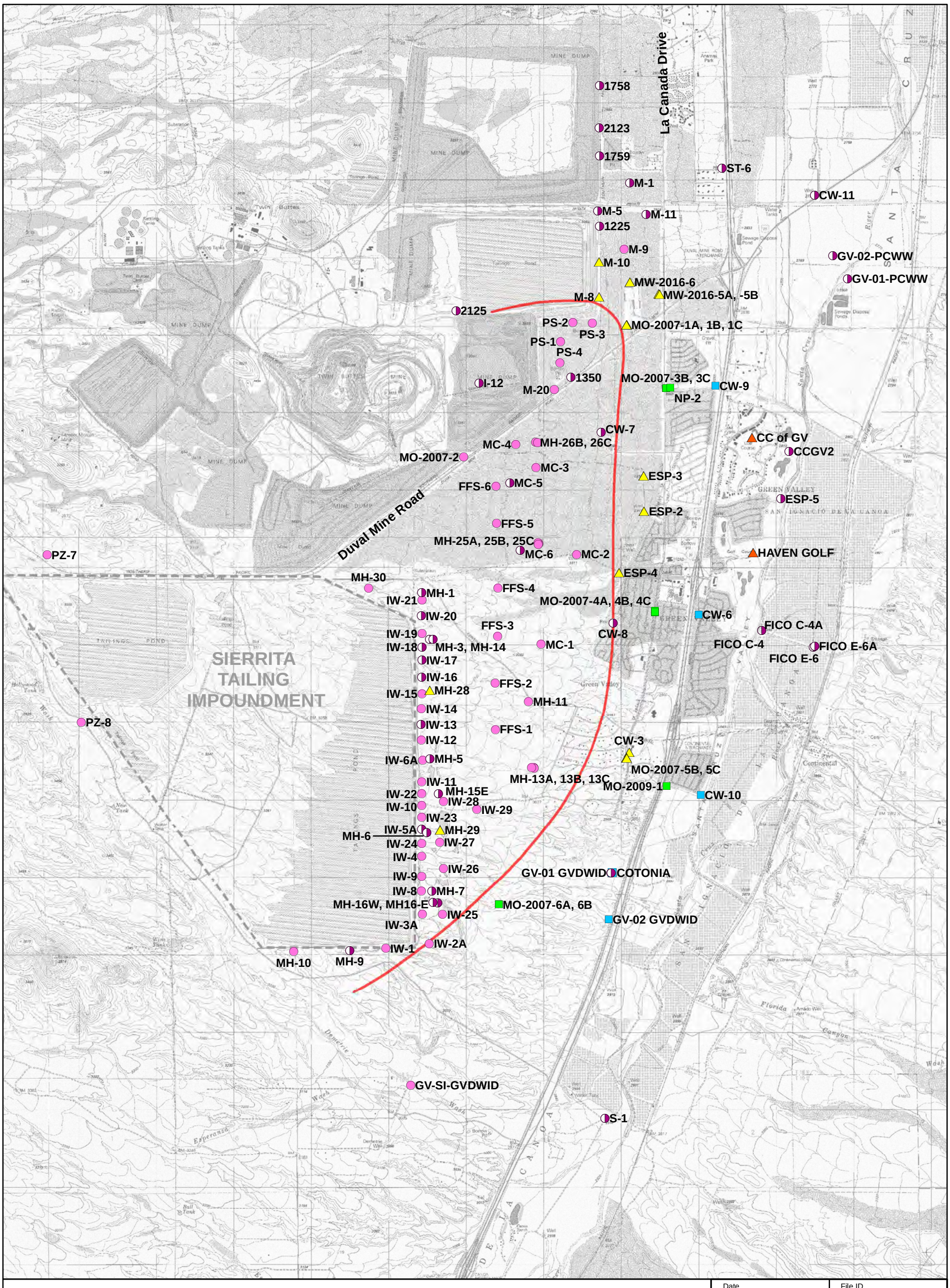
FIGURE 3
Wellfield Pumping Rates
2014 through 2023



CLEAR CREEK ASSOCIATES

Date 3/18/2024

FIGURE 4
Wellfield Run-Time Percentages
2019 through 2023



Legend

- Q2 2023 250 mg/L Sulfate Concentration Contour
- Annual Sampling and Semi-Annual Water Levels (Second and Fourth Quarters)
- Semi-Annual Water Level Only (Second and Fourth Quarters)
- Semi-Annual Sampling (Second and Fourth Quarters)
- Quarterly Sampling - Sentinel Well
- Quarterly Sampling - Drinking Water Supply Well
- Annual Sampling (Second Quarter)

Notes

Projection: UTM Zone 12N NAD83

Scale

0 2,000 4,000 8,000

Feet

Date	File ID
3/8/2024	055039-006O

CLEAR CREEK ASSOCIATES

FIGURE 5
Post-Implementation
Groundwater Monitoring Locations

M-9 IWS
M-10 189
MW-2016-6 133
M-8 WIO
MW-2016-5A 29.0
MW-2016-5B 67.3
MO-2007-1A, 1B, 1C
460-600 20.5
740-900 11.7
1020-1180 15.6
250
PS-3 692
PS-2 896
PS-1 1300
PS-4 1180
M-20 1160
NP-2, MO-2007-3B, 3C
331-500 42.3
740-940 37.7 / 37.6
1160-1320 107
CW-9 61.0 / 57.6
MH-26B, 26C
620-730 IWS
780-900 947
CW-7
600 37.2
700 296
800 55.2
900 54.8
CC of GV 98.7
MO-2007-2 19.8
MC-4 WIO
MC-3 1420
MH-25A, 25B, 25C
410-530 IWS
580-680 1460
731-901, 951-1081 1120
FFS-6 1470
ESP-3 36.2 / 36.2
DUVAL MINE RD
500
FFS-5 1590
ESP-2 32.8
PZ-7 590
MC-2 869 / 905
HAVEN GOLF NPA
ESP-4 109
MH-30 1790 / 1750
FFS-4 1420
IW-21 1720
CW-6 62.0
IW-19 1920
FFS-3 1540
MC-1 1780
MO-2007-4A, 4B, 4C
360-560 33.3
669-939 24.9
1090-1130 94.9
MH-28 1750
IW-15 WIO
IW-14 WIO
FFS-2 1810
MH-11 1530
MH-13A, 13B, 13C
300-650 WIO
750-950 665
1050-1350 4.29
SIERRITA
TAILING
IMPOUNDMENT
PZ-8 666
FFS-1 1770
CW-3, MO-2007-5B, 5C
182-500 71.4
660-960 141 / 142
1050-1350 162
IW-12 1620
IW-6A WIO
IW-11 1810
IW-22 WIO
IW-10 1870
IW-23 1830 / 1850
IW-28 1780
IW-29 1750
MO-2009-1 59.7
CW-10 41.9
MH-29 1570
IW-24 2030
IW-27 1620
IW-4 1870
IW-26 1730
IW-9 1850
IW-8 1880
COTONIA 32.2
IW-3A 1780 / 1800
GV-02 GVDWID 59.0
IW-25 760
IW-1 1100
IW-2A 248
MO-2007-6A, 6B
310-390, 430-610 6.01
780-940 47.4
MH-10 1520
1000
1500
500
250
GV-SI-GVDWID 7.74

Legend

- Q2 2023 Sulfate Concentration Contour (mg/L)
- Q4 2023 Sulfate Concentration Contour (250 mg/L)
- **IW-9** Well ID
- **1850** Sulfate Concentration (mg/L, Duplicate results separated by "/")
- **WIO** Well Inoperable
- **IWS** Insufficient Water for Sampling - Water near or below pump
- **NPA** No Property Access
- Co-Located Wells (except CW-7*)
  Screened Interval (ft bls):**Sulfate Concentration (mg/L)**
  *Depth Specific Sample Depth at CW-7

Well Symbols

- Extraction Well
- Monitor Well
- Sentinel Well
- Drinking Water Supply Well

0 1,950 3,900 7,800
Feet

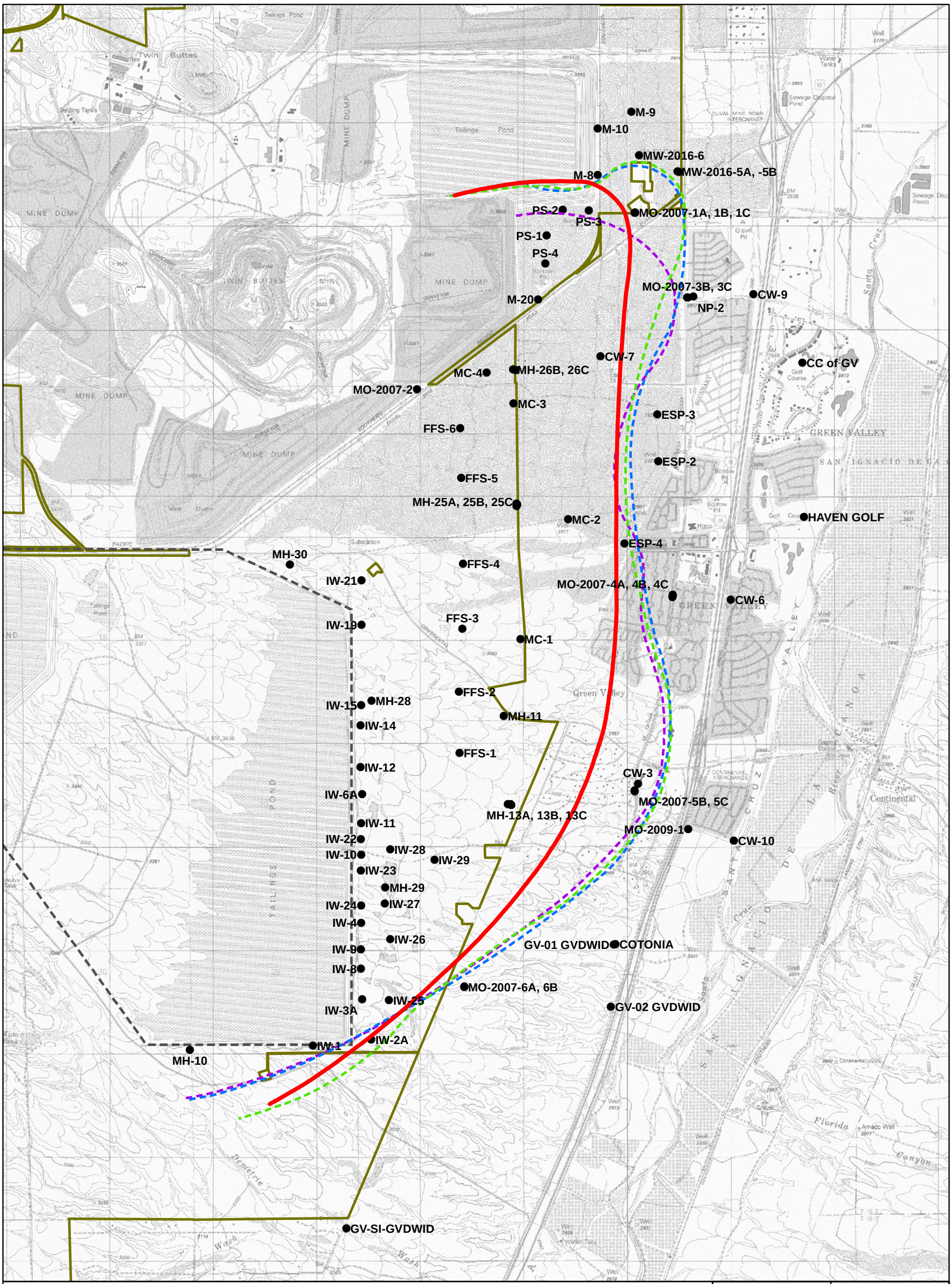
Notes

Projection: UTM Zone 12N NAD83
mg/L = milligrams per liter
ft bls = feet below land surface

Date	File ID
3/18/2024	055039-365A

CLEAR CREEK ASSOCIATES

FIGURE 6
Sulfate Concentrations
in Groundwater
Second Quarter 2023



0 1,450 2,900 5,800

Feet

Legend

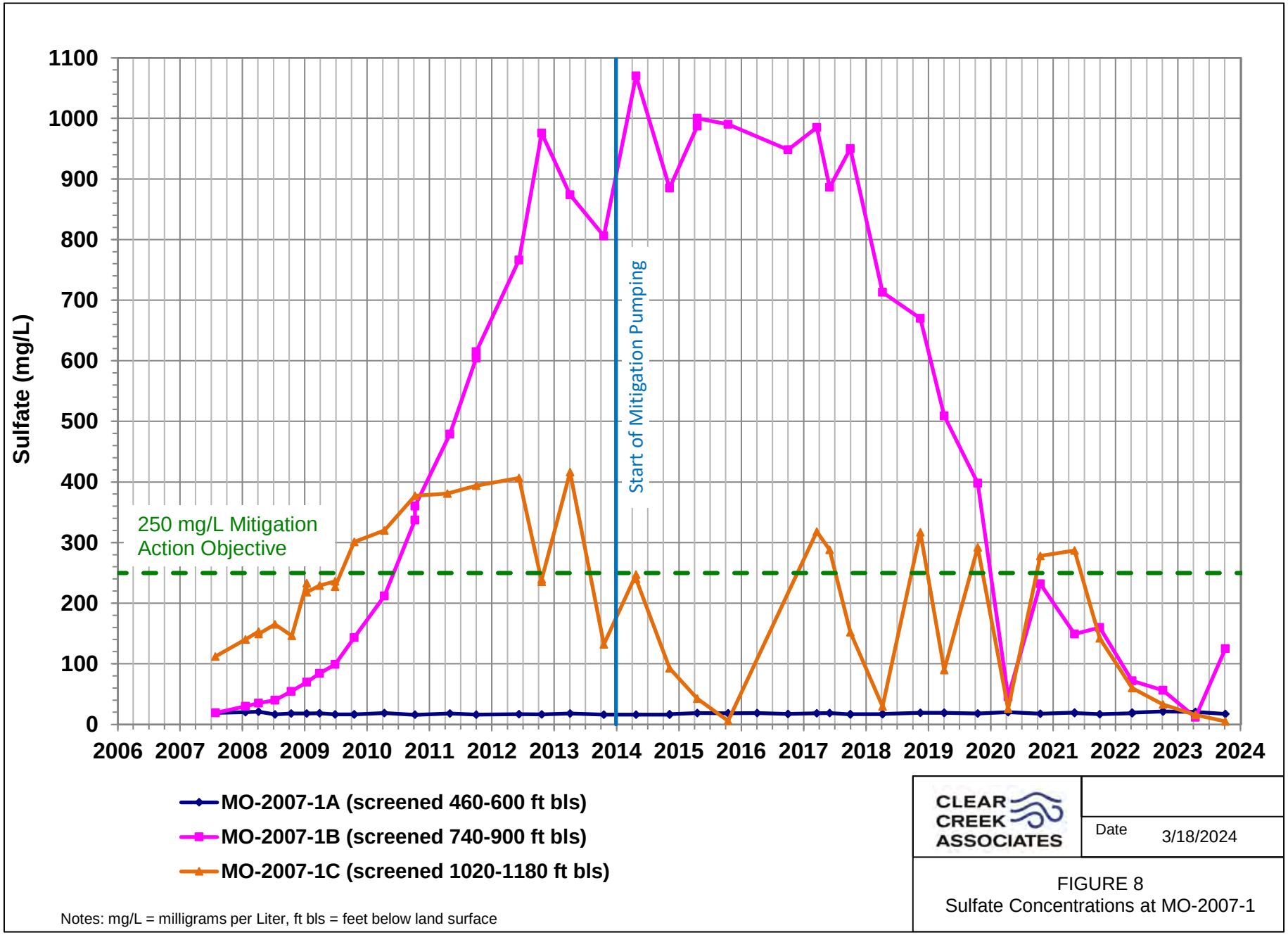
- Mitigation Order Groundwater Sampling Well
- Q2 2023 250 mg/L Sulfate Concentration Contour (mg/L)
- Q2 2018 250 mg/L Sulfate Concentration Contour (mg/L)
- Q2 2013 250 mg/L Sulfate Concentration Contour (mg/L)
- Q2 2008 250 mg/L Sulfate Concentration Contour (mg/L)
- Property Boundary

Date: 3/18/2024

File ID: 055039-374

CLEAR CREEK ASSOCIATES

FIGURE 7
Sulfate Concentration Comparison for 2008, 2013, 2018, and 2023

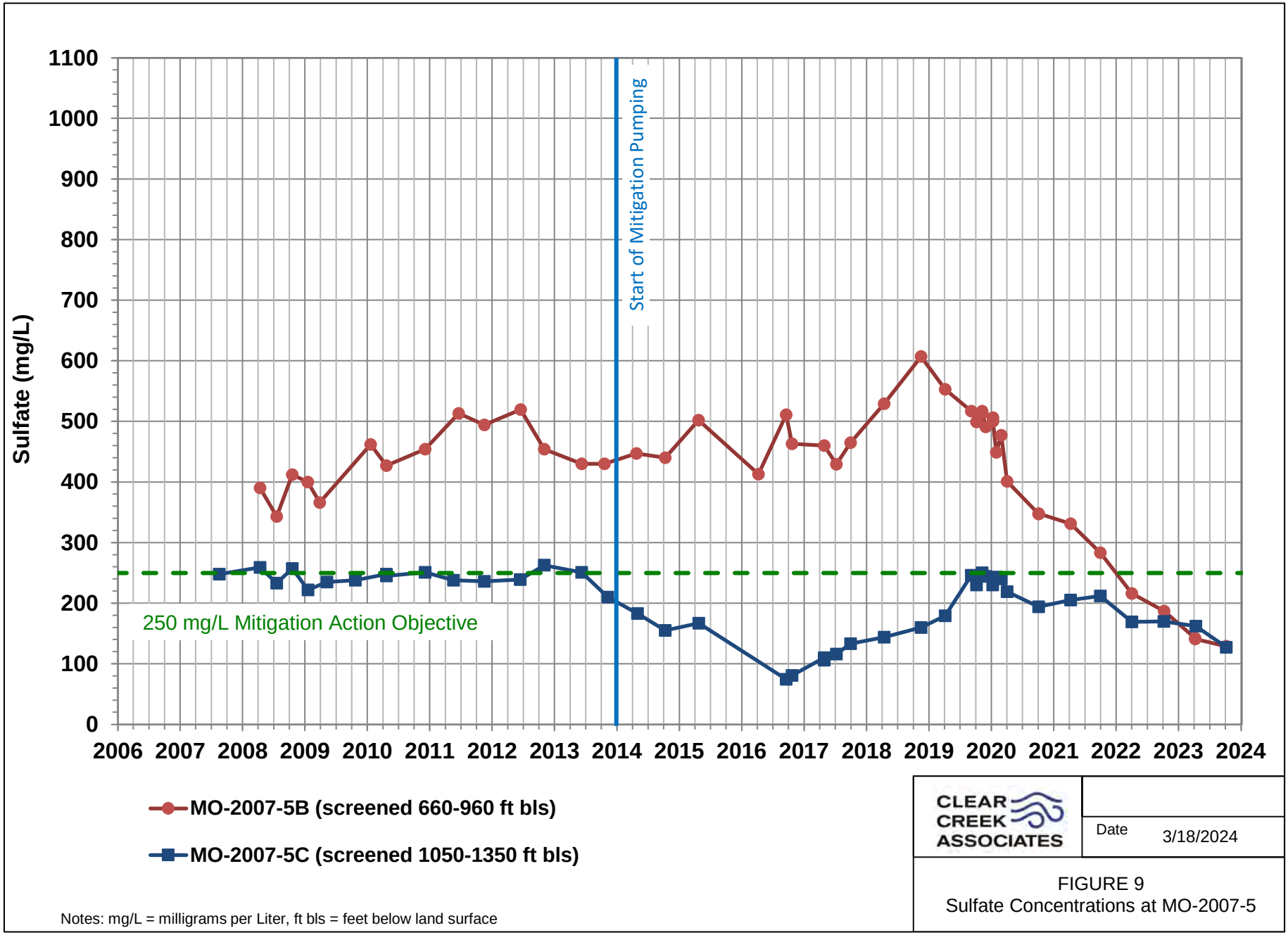


Notes: mg/L = milligrams per Liter, ft bls = feet below land surface

CLEAR CREEK ASSOCIATES

Date 3/18/2024

FIGURE 8
Sulfate Concentrations at MO-2007-1

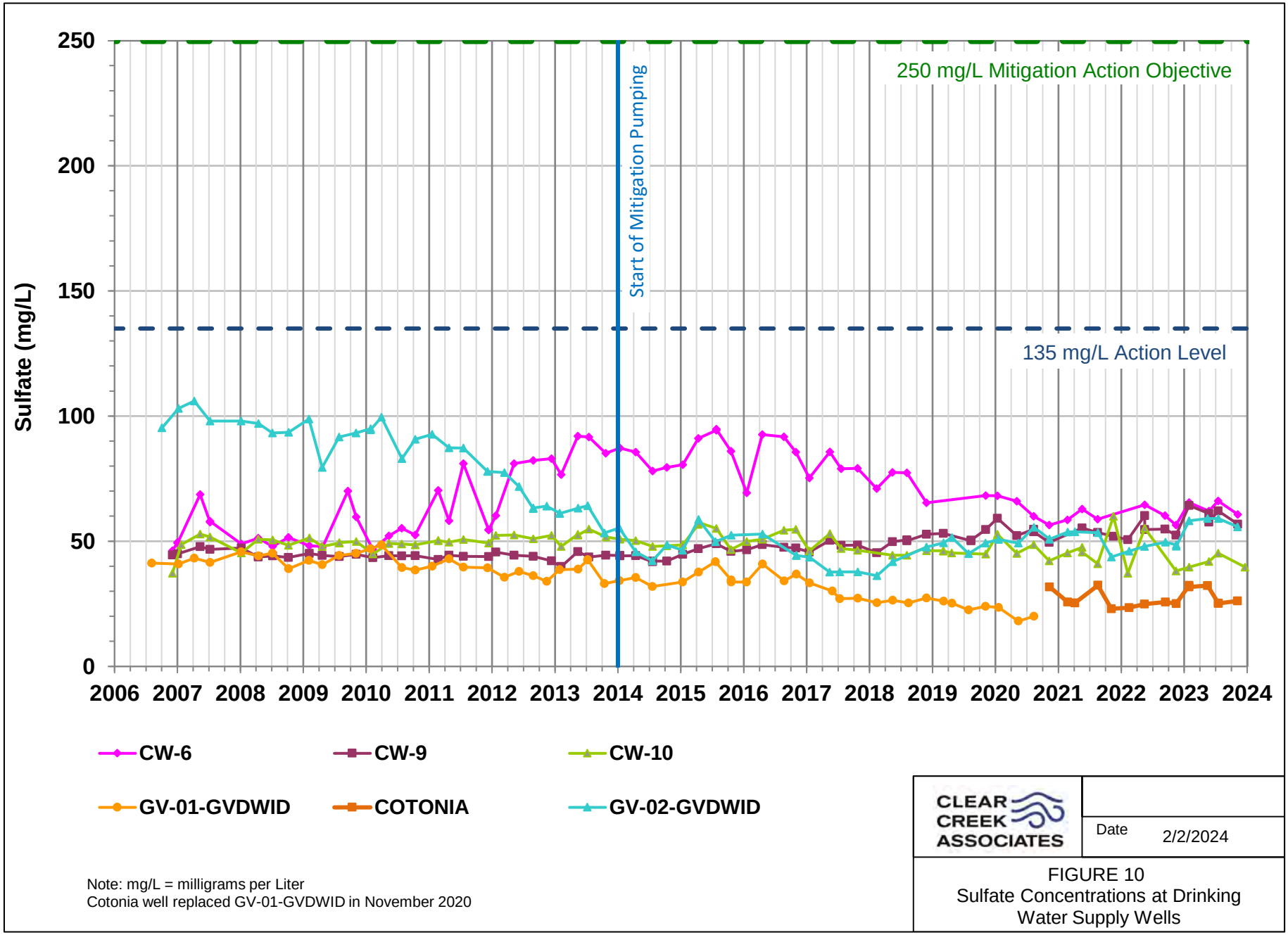


Notes: mg/L = milligrams per Liter, ft bls = feet below land surface

CLEAR CREEK ASSOCIATES

Date 3/18/2024

FIGURE 9
Sulfate Concentrations at MO-2007-5

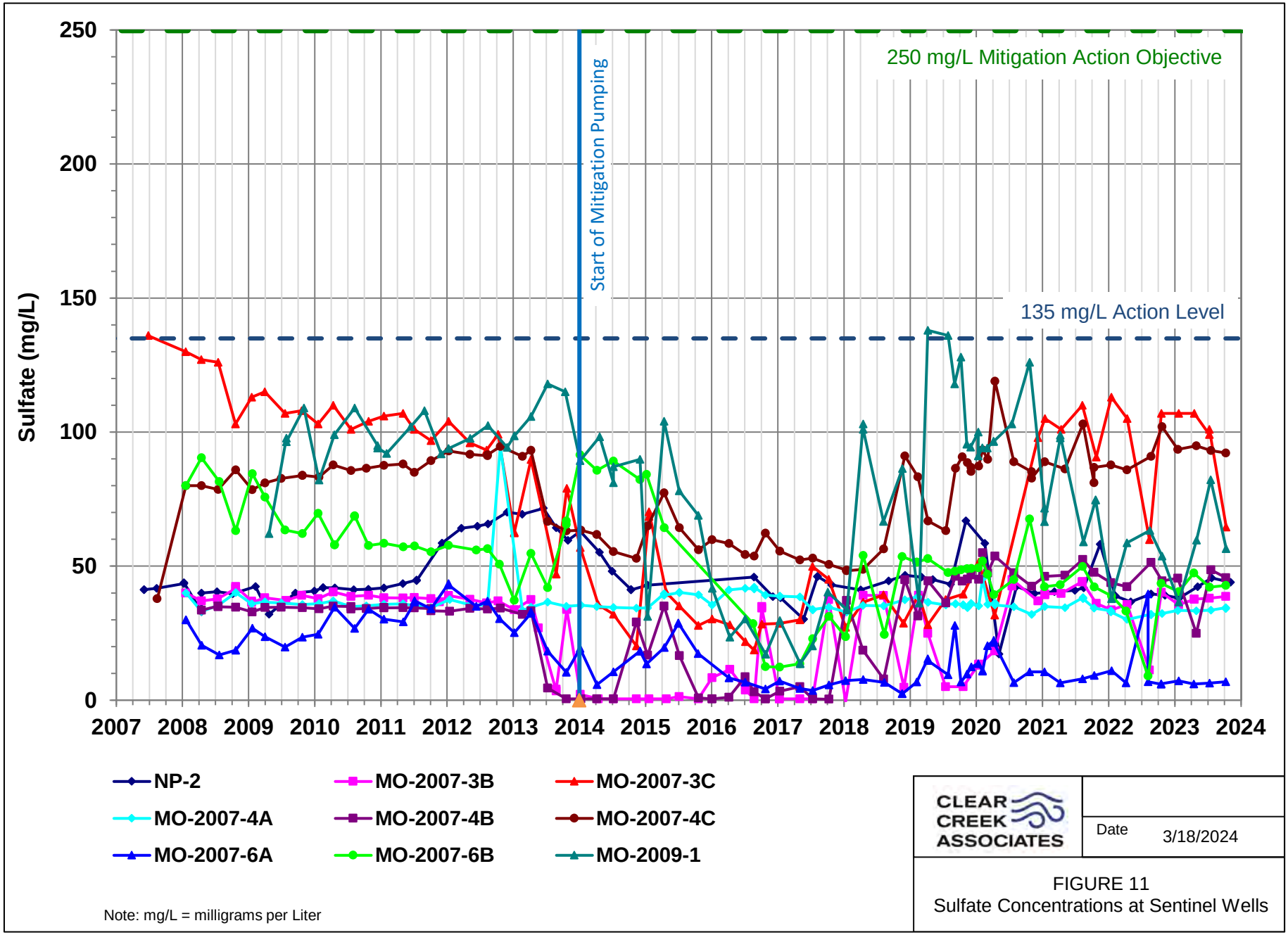


Note: mg/L = milligrams per Liter
Cotonia well replaced GV-01-GVDWID in November 2020

CLEAR CREEK ASSOCIATES

Date 2/2/2024

FIGURE 10
Sulfate Concentrations at Drinking Water Supply Wells

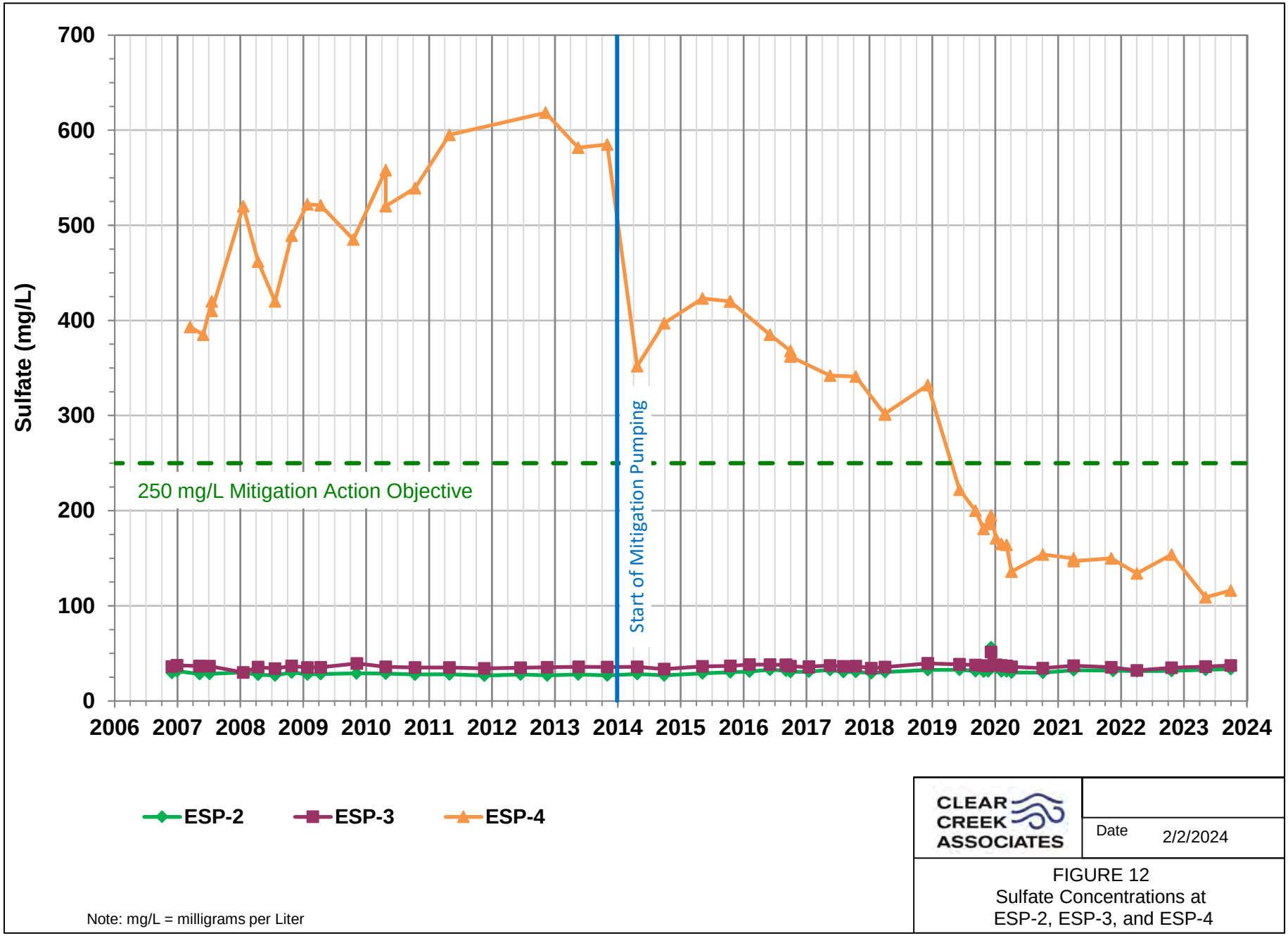


Note: mg/L = milligrams per Liter

CLEAR CREEK ASSOCIATES

Date 3/18/2024

FIGURE 11
Sulfate Concentrations at Sentinel Wells

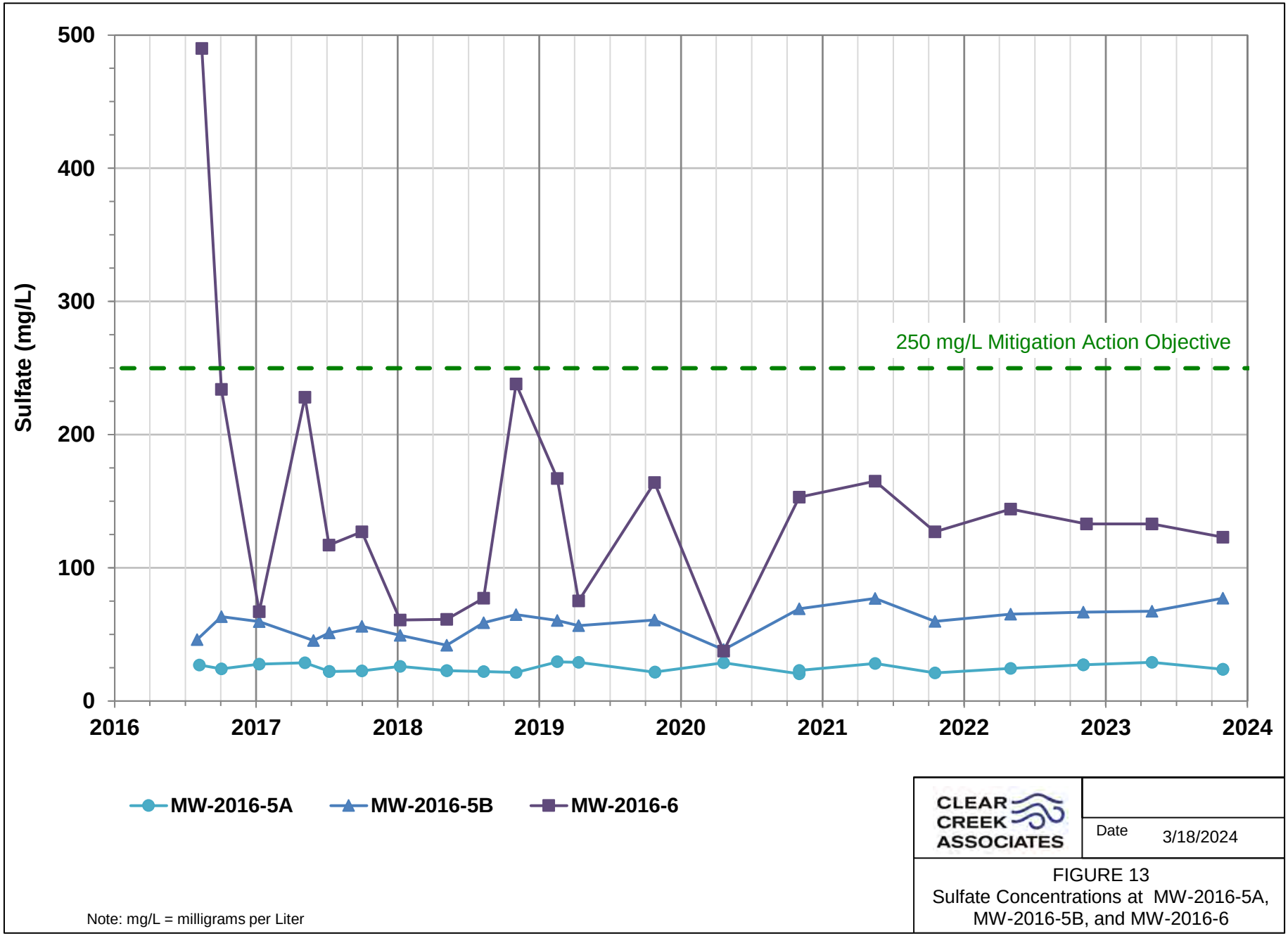


Note: mg/L = milligrams per Liter

CLEAR CREEK ASSOCIATES

Date 2/2/2024

FIGURE 12
Sulfate Concentrations at
ESP-2, ESP-3, and ESP-4

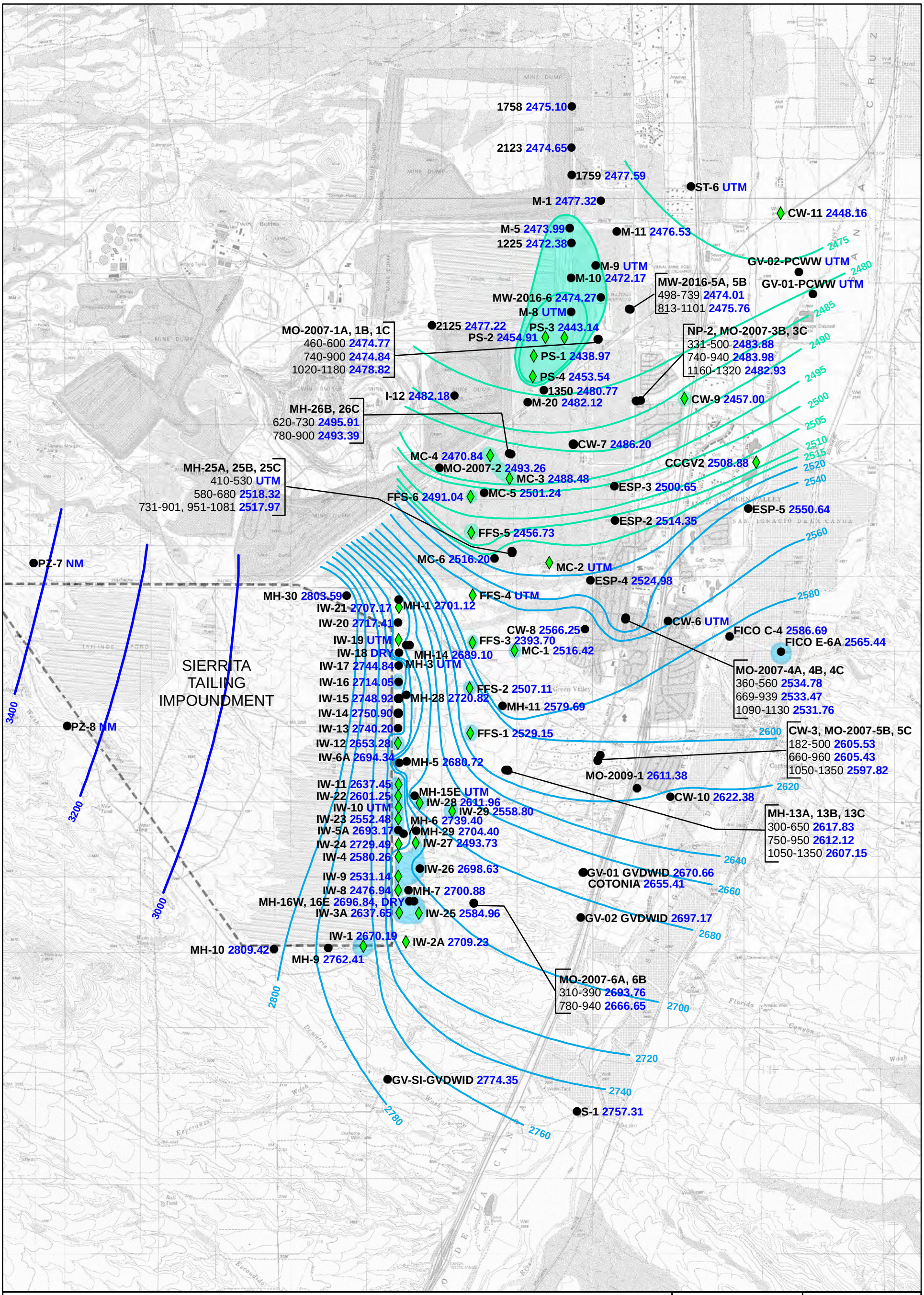


Note: mg/L = milligrams per Liter

CLEAR CREEK ASSOCIATES

Date 3/18/2024

FIGURE 13
Sulfate Concentrations at MW-2016-5A, MW-2016-5B, and MW-2016-6



Legend

- 5 ft Groundwater Elevation Contour (ft amsl)
- 20 ft Groundwater Elevation Contour (ft amsl)
- 200 ft Groundwater Elevation Contour (ft amsl)
- Groundwater Depression

CW-3 Well ID
2605.53 Groundwater Elevation (ft amsl)
UTM Unable to measure
DRY Well is desaturated
NM Not measured

Co-Located Wells
Screened Interval (ft bls): **Groundwater Elevation (ft amsl)**

0 2,000 4,000 8,000
Feet

Well Symbols

- Wells with Static Water Levels
- Wells with Dynamic Water Levels

Notes

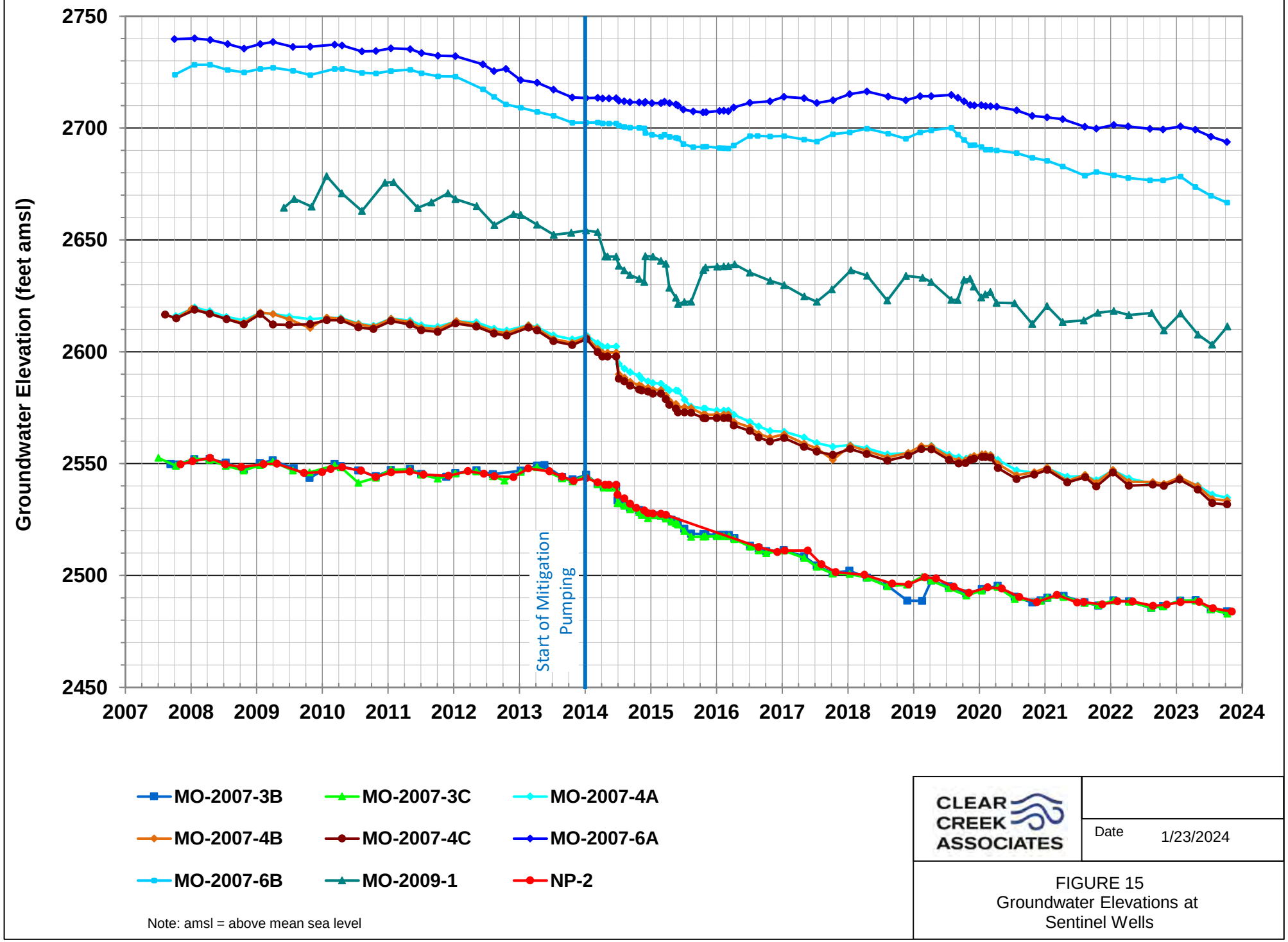
Projection: UTM Zone 12N NAD83
ft amsl = feet above mean sea level
ft bls = feet below land surface

CLEAR CREEK ASSOCIATES

File ID
055039-373

Date
3/19/2024

FIGURE 14
Groundwater Elevations
Fourth Quarter 2023

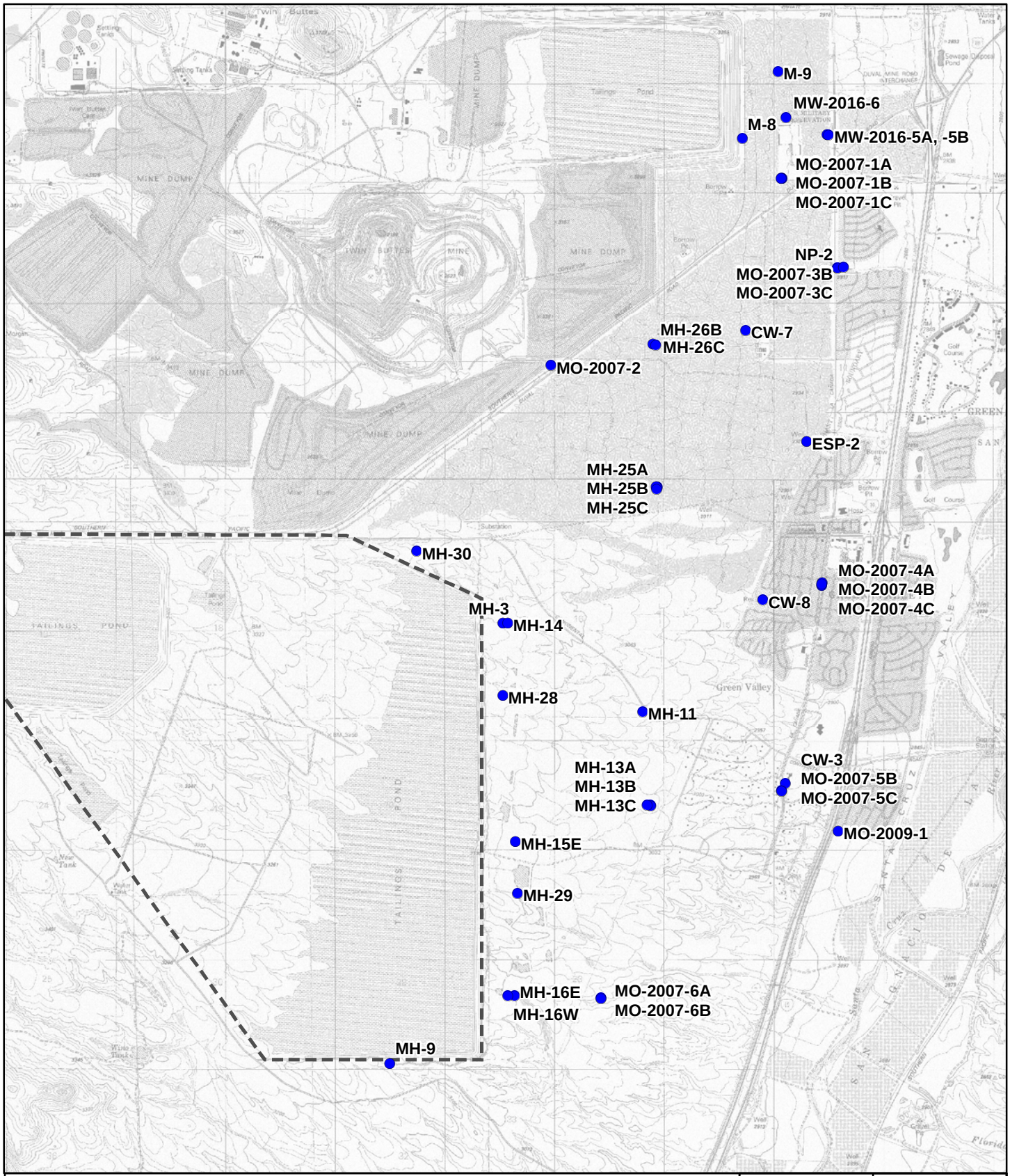


Note: amsl = above mean sea level

CLEAR CREEK ASSOCIATES

Date 1/23/2024

FIGURE 15
Groundwater Elevations at Sentinel Wells



Legend

Well with Hydrograph

0 2,000 4,000

Feet

Notes

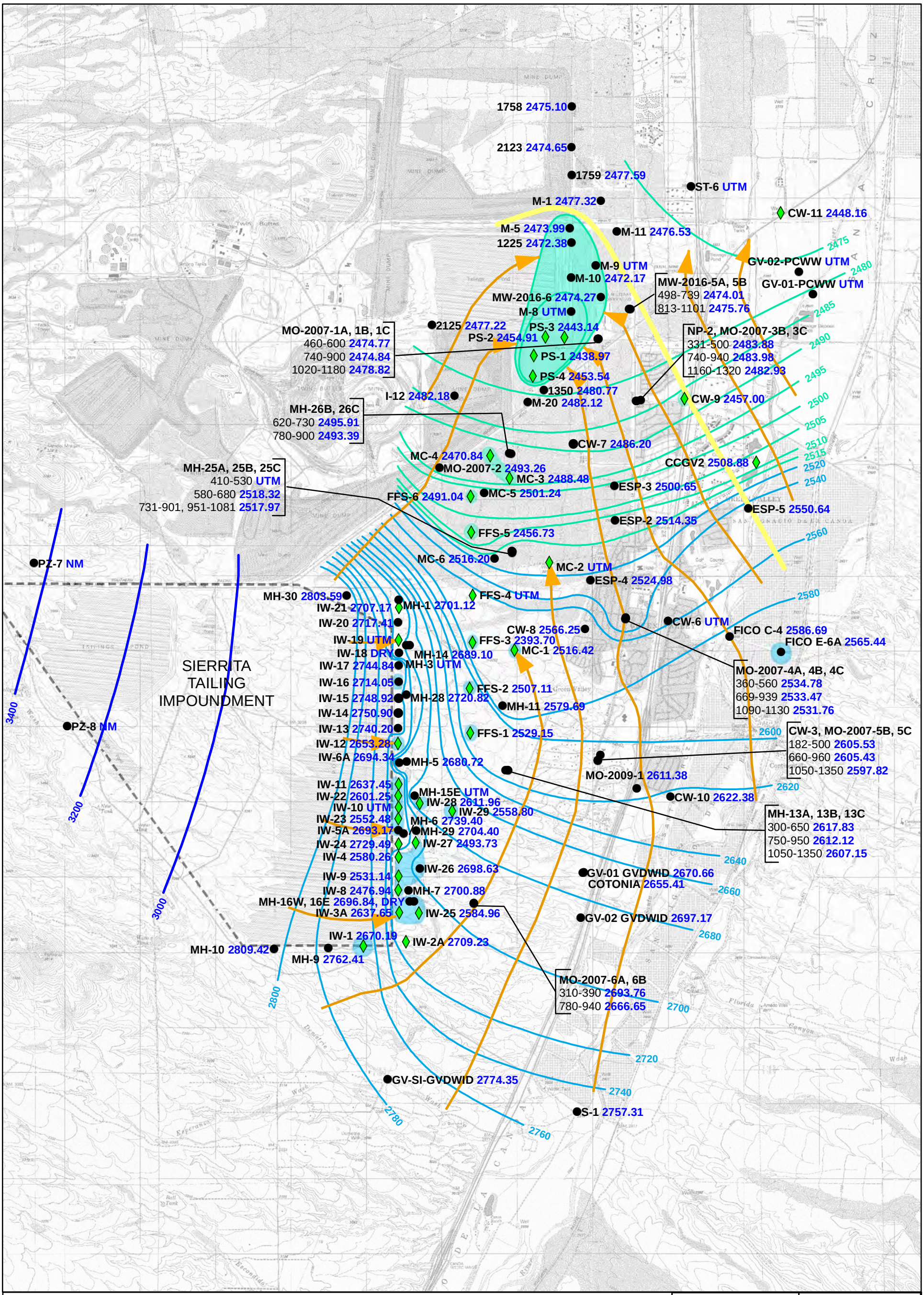
Projection: UTM Zone 12N NAD83

CLEAR CREEK ASSOCIATES

File ID 055039-236B

Date 3/8/2024

FIGURE 16
Location of Hydrographs



Legend

- 5 ft Groundwater Elevation Contour (ft amsl)
- 20 ft Groundwater Elevation Contour (ft amsl)
- 200 ft Groundwater Elevation Contour (ft amsl)
- Groundwater Depression
- Interpreted Groundwater Flowline
- Interpreted Capture Zone

Well Symbols

- ● Wells with Static Water Levels
- ♦ Wells with Dynamic Water Levels
- **CW-3** Well ID
- **2605.53** Groundwater Elevation (ft amsl)
- **UTM** Unable to measure
- **DRY** Well is desaturated
- **NM** Not measured

Co-Located Wells
Screened Interval (ft bls): **Groundwater Elevation (ft amsl)**

0 2,000 4,000 8,000
Feet

Notes

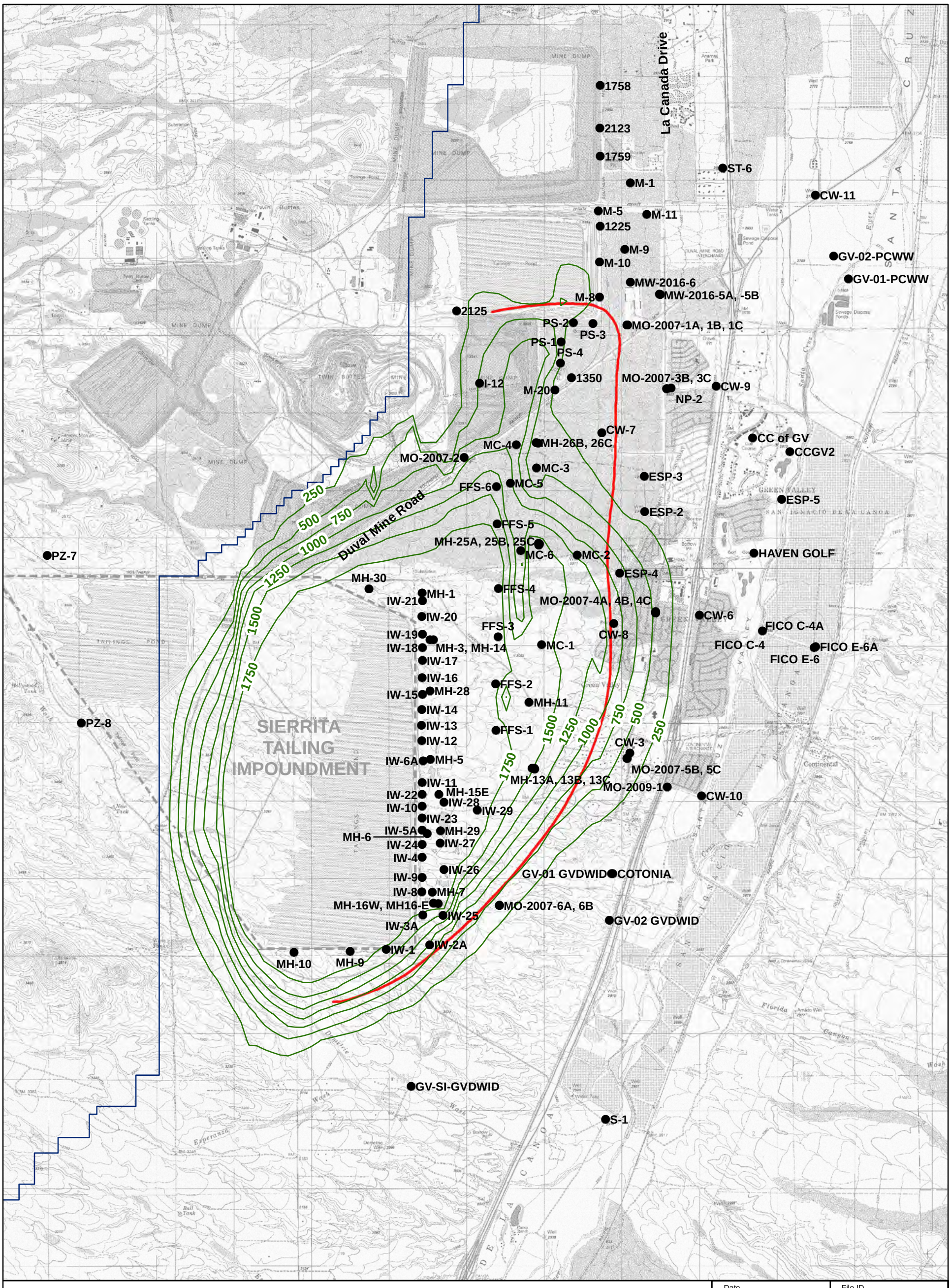
Projection: UTM Zone 12N NAD83
ft amsl = feet above mean sea level
ft bls = feet below land surface

CLEAR CREEK ASSOCIATES

File ID
055039-378

Date
3/19/2024

FIGURE 17
Capture Zone Analysis
Fourth Quarter 2023



Legend

- Well
- Q4 2023 250 mg/L Sulfate Concentration Contour
- Simulated 2023 Sulfate Concentration (mg/L)
- Model Boundary

Scale

0 2,000 4,000 8,000

Feet

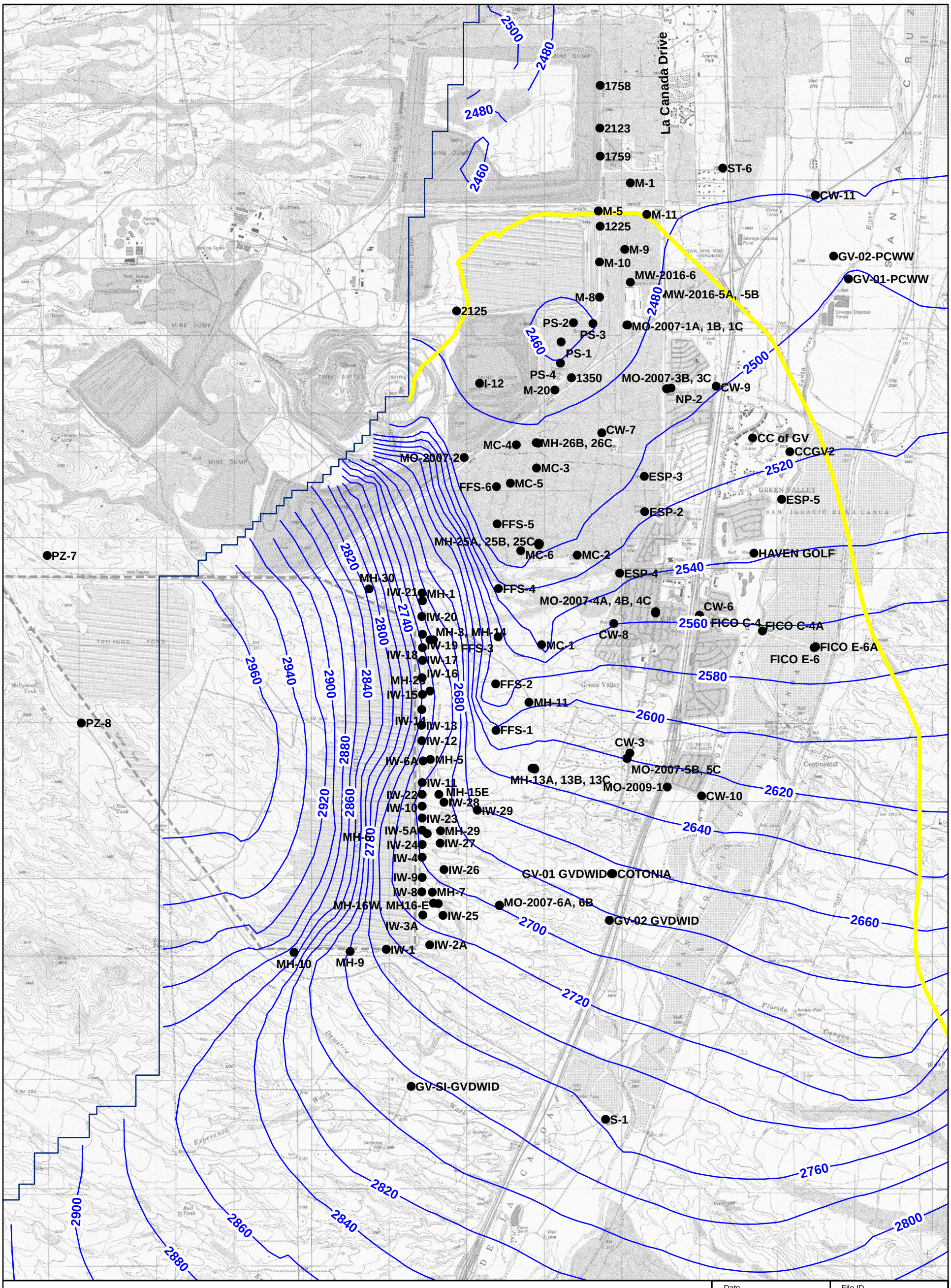
Notes

Projection: UTM Zone 12N NAD83

Date	File ID
3/19/2024	055039-382

CLEAR CREEK ASSOCIATES

FIGURE 18
Simulated Sulfate Concentrations
Fourth Quarter 2023



Legend

- Well
- Simulated Groundwater Elevation 2023 (ft amsl)
- Combined Simulated Capture Zone 2023
- Model Boundary

Scale

0 2,000 4,000 8,000

Feet

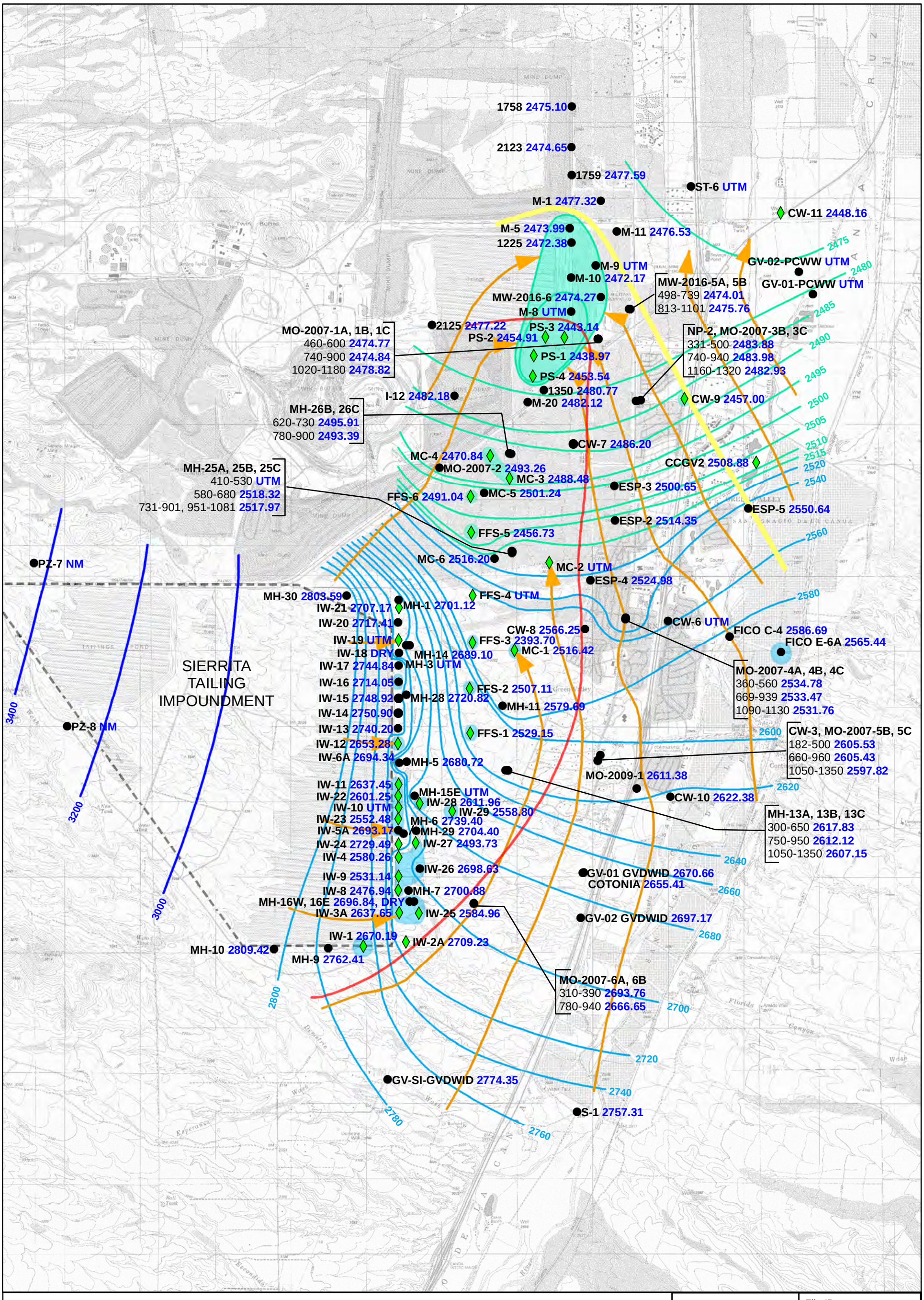
Notes

Projection: UTM Zone 12N NAD83

Date	File ID
3/19/2024	055039-383

CLEAR CREEK ASSOCIATES

FIGURE 19
Simulated 2023
Groundwater Elevations
and Capture Zone
Fourth Quarter 2023



Legend

- 5 ft Groundwater Elevation Contour (ft amsl)
- 20 ft Groundwater Elevation Contour (ft amsl)
- 200 ft Groundwater Elevation Contour (ft amsl)
- Groundwater Depression
- Interpreted Groundwater Flowline
- Interpreted Capture Zone
- Target Capture Zone (250 mg/L Sulfate Concentration Contour Q4 2023

Co-Located Wells
Screened Interval (ft bls): **Groundwater Elevation (ft amsl)**

Well Symbols

- Wells with Static Water Levels
- Wells with Dynamic Water Levels
- **CW-3** Well ID
- **2605.53** Groundwater Elevation (ft amsl)
- **UTM** Unable to measure
- **DRY** Well is desaturated
- **NM** Not measured

0 2,000 4,000 8,000
Feet

Notes

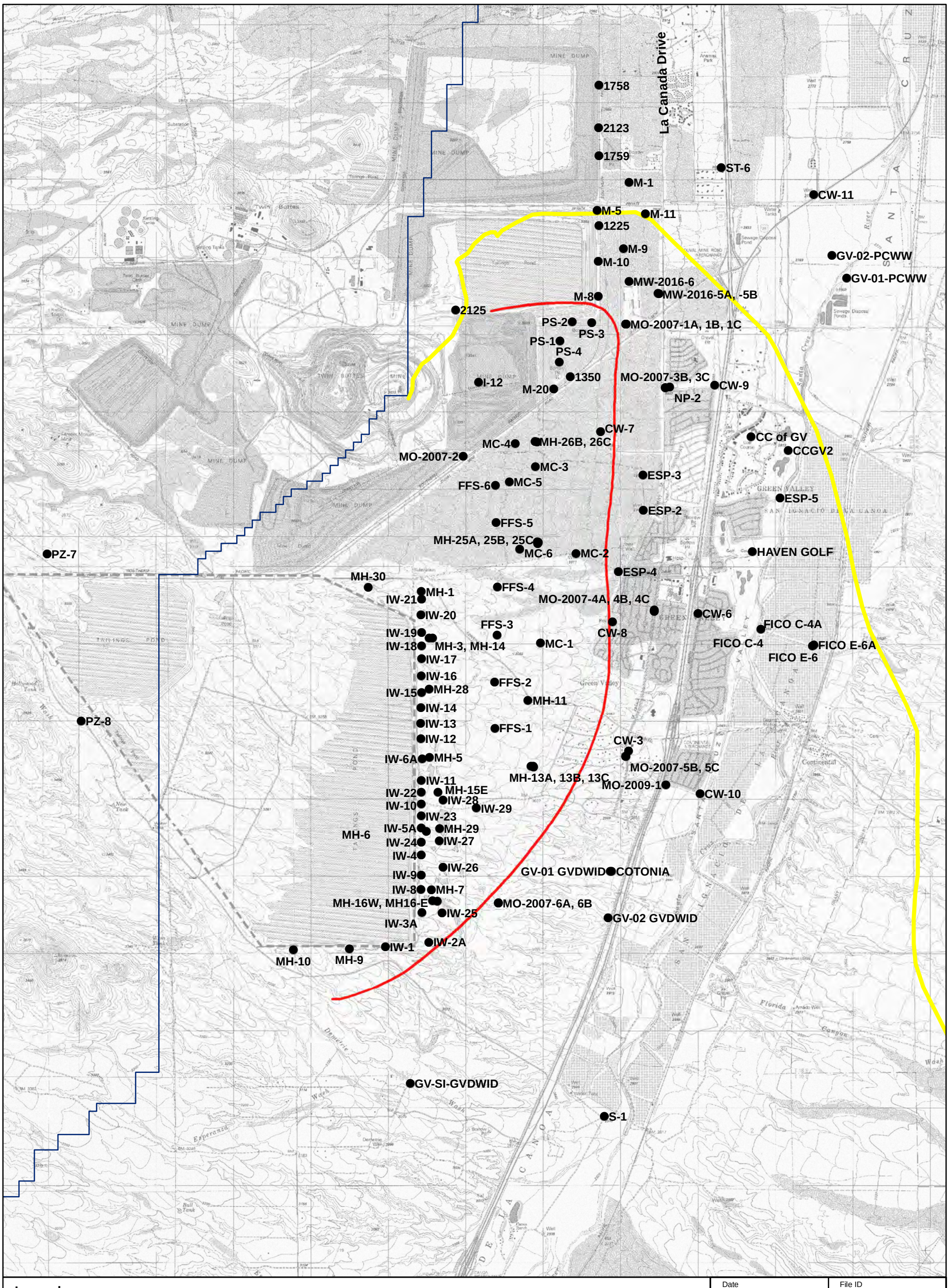
Projection: UTM Zone 12N NAD83
ft amsl = feet above mean sea level
ft bls = feet below land surface

CLEAR CREEK ASSOCIATES

File ID
055039-381

Date
3/19/2024

FIGURE 20
Interpreted and Target
Capture Zones
Fourth Quarter 2023



Legend

- Well
- Combined Simulated Capture Zone 2023
- Target Capture Zone (250 mg/L Sulfate Concentration Contour Q4 2023)
- Model Boundary

Scale

0 2,000 4,000 8,000

Feet

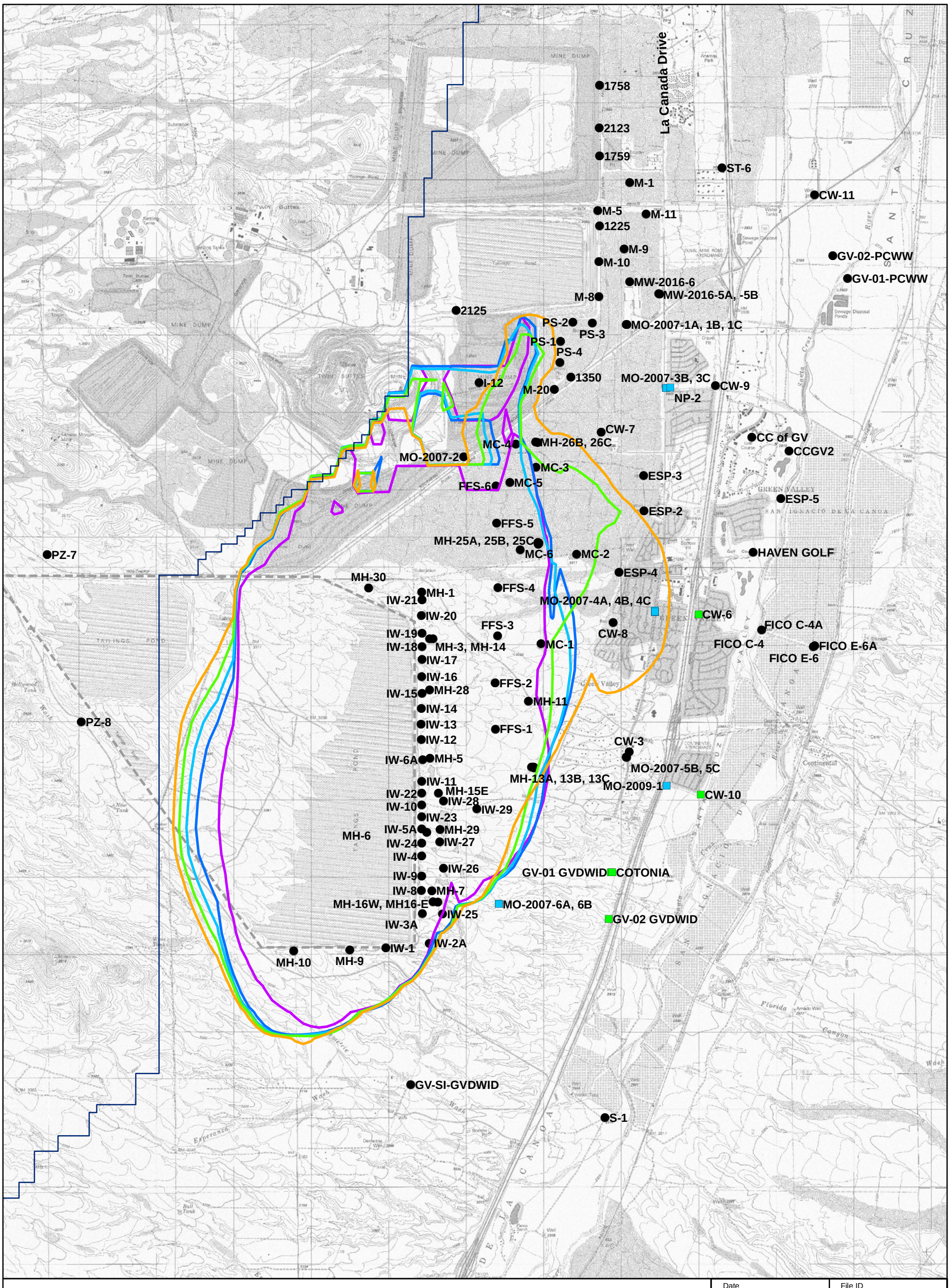
Date	File ID
3/19/2024	055039-384

CLEAR CREEK ASSOCIATES

FIGURE 21
Simulated and Target
Capture Zones
Fourth Quarter 2023

Notes

Projection: UTM Zone 12N NAD83



Legend

- Monitor Well
- Sentinel Well
- Supply Well
- Model Boundary
- Simulated 2043 Sulfate Concentration (mg/L)
- Simulated 2063 Sulfate Concentration (mg/L)
- Simulated 2083 Sulfate Concentration (mg/L)
- Simulated 2103 Sulfate Concentration (mg/L)
- Simulated 2123 Sulfate Concentration (mg/L)

Scale

0 2,000 4,000 8,000

Feet

Notes

Projection: UTM Zone 12N NAD83

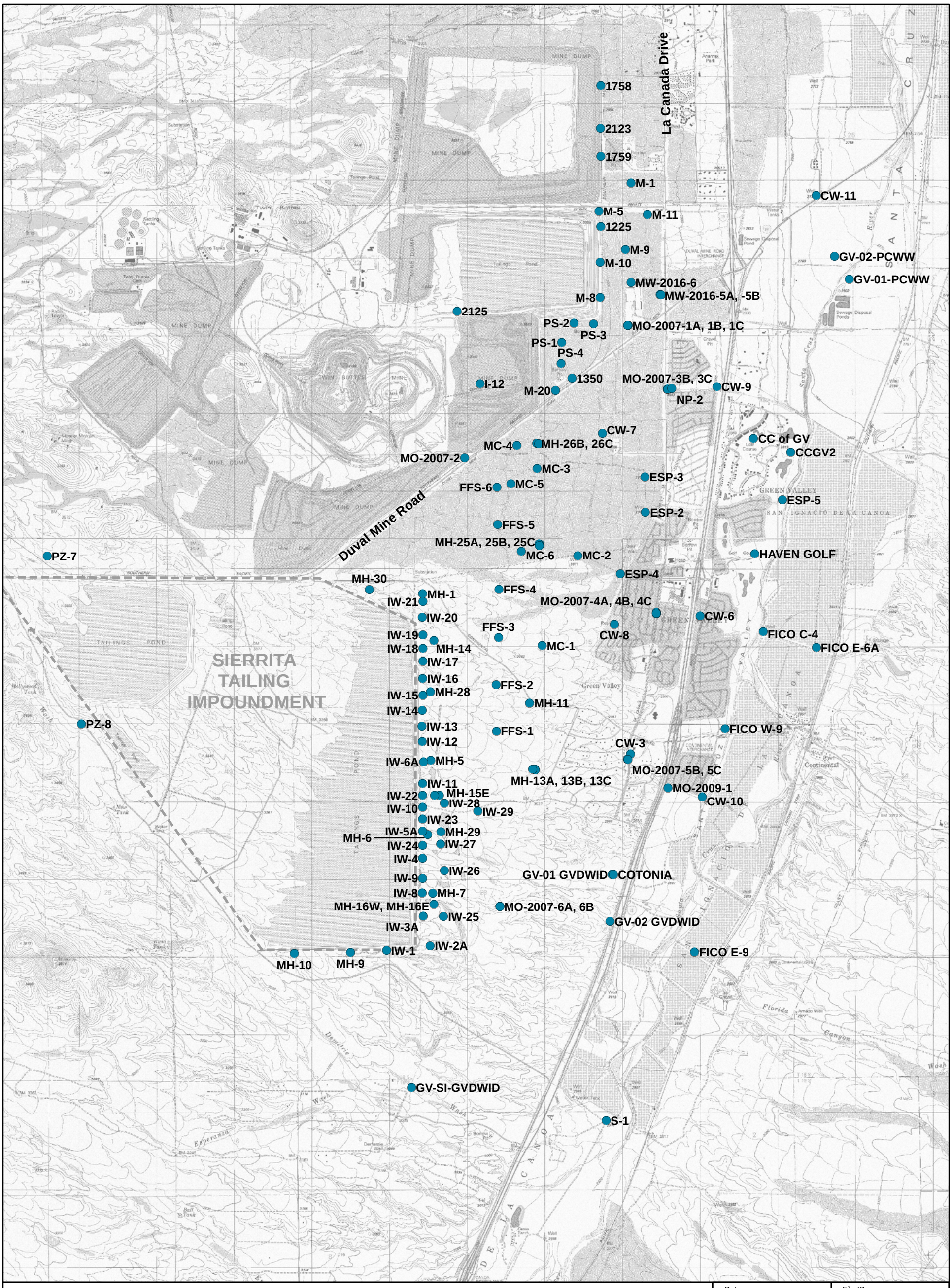
Date	File ID
4/12/2024	055039-385

CLEAR CREEK ASSOCIATES

FIGURE 22
Simulated Sulfate Concentration
from 2043 to 2123 for the
2023 Average Annual Pumping Rate

APPENDIX A

SULFATE CONCENTRATION DATA 2019 THROUGH 2023



Legend

- Groundwater Monitoring Location

Scale

0 2,000 4,000 8,000

Feet

Date	File ID
3/8/2024	055039-006P

CLEAR CREEK ASSOCIATES

FIGURE A.1
Locations of Groundwater Monitoring Sites in Appendices A and C

Notes

Projection: UTM Zone 12N NAD83

APPENDIX A
Sulfate Concentration Data 2019 Through 2023

Well Name	ADWR 55 Registry No.	Sample Date	Duplicate	pH (SU)	Temperature (deg C)	Specific Conductance (µS/cm)	Sulfate, Dissolved (mg/L)
CC OF GV	501760	5/7/19		8.19	29.0	291	97.1
CC OF GV	501760	5/12/20		8.38	24.7	603	107
CC OF GV	501760	5/20/21		8.28	24.4	593	104
CC OF GV	501760	5/16/22		8.47	24.7	554	99.3
CC OF GV	501760	5/8/23		8.43	24.5	570	98.7
COTONIA	230945	11/11/20		8.59	24.2	400	31.7
COTONIA	230945	2/25/21		8.18	25.6	409	25.7
COTONIA	230945	4/8/21		8.22	26.1	406	25.3
COTONIA	230945	8/19/21		8.46	28.3	414	32.4
COTONIA	230945	11/5/21		8.28	24.5	420	23.0
COTONIA	230945	2/17/22		8.31	25.5	363	23.4
COTONIA	230945	5/17/22		8.41	26.9	360	24.9
COTONIA	230945	9/15/22		8.23	26.4	361	25.7
COTONIA	230945	11/17/22		8.33	24.6	416	25.0
COTONIA	230945	1/30/23		8.42	25.4	357	32.3
COTONIA	230945	1/30/23	DUP	8.42	25.4	357	31.7
COTONIA	230945	5/18/23		8.40	26.9	347	32.2
COTONIA	230945	7/19/23		8.21	26.2	370	25.2
COTONIA	230945	7/19/23	DUP	8.21	26.2	370	25.1
COTONIA	230945	11/8/23		8.28	24.4	404	26.1
CW-3	627483	5/7/19		8.27	24.7	416	76.4
CW-3	627483	11/6/19		7.79	24.5	503	44.0
CW-3	627483	5/6/20		8.07	26.5	507	69.2
CW-3	627483	11/18/20		8.26	23.0	493	63.9
CW-3	627483	6/29/21		8.29	25.8	506	65.6
CW-3	627483	6/29/21	DUP	8.29	25.8	506	72.2
CW-3	627483	11/4/21		8.08	24.8	502	66.3
CW-3	627483	5/4/22		8.49	24.0	456	59.7
CW-3	627483	11/9/22		8.10	24.7	502	66.0
CW-3	627483	5/8/23		8.47	24.1	433	71.4
CW-3	627483	11/6/23		8.04	24.6	497	68.7
CW-6	627485	11/7/19		7.87	22.9	544	68.2
CW-6	627485	1/14/20		8.10	24.6	481	68.1
CW-6	627485	5/5/20		8.19	25.1	506	66.0
CW-6	627485	8/12/20		8.12	27.1	477	59.9
CW-6	627485	11/10/20		8.38	23.5	466	56.4
CW-6	627485	2/24/21		8.17	24.4	470	58.5
CW-6	627485	5/20/21		8.33	25.8	469	62.8
CW-6	627485	8/18/21		8.21	26.4	474	58.8
CW-6	627485	5/18/22		8.33	26.1	440	64.5
CW-6	627485	9/12/22		8.27	26.1	452	60.2
CW-6	627485	11/16/22		8.35	25.0	459	56.4
CW-6	627485	1/30/23		8.16	24.5	464	65.4
CW-6	627485	5/25/23		8.31	26.2	445	62.0
CW-6	627485	7/18/23		8.18	26.0	445	66.1
CW-6	627485	11/9/23		8.32	25.2	450	60.7
CW-7 (600 ft)	502546	4/8/20		8.67	25.6	396	36.7
CW-7 (600 ft)	502546	10/23/20		8.72	24.9	340	80.8
CW-7 (600 ft)	502546	3/11/21		8.71	24.6	526	147
CW-7 (600 ft)	502546	3/31/21		8.72	25.9	1502	608
CW-7 (600 ft)	502546	6/3/21		9.04	29.4	635	65.0
CW-7 (600 ft)	502546	8/18/21		8.60	27.2	369	71.4
CW-7 (600 ft)	502546	11/17/21		8.48	24.7	577	200
CW-7 (600 ft)	502546	2/9/22		8.50	24.6	458	133

APPENDIX A
Sulfate Concentration Data 2019 Through 2023

Well Name	ADWR 55 Registry No.	Sample Date	Duplicate	pH (SU)	Temperature (deg C)	Specific Conductance (µS/cm)	Sulfate, Dissolved (mg/L)
CW-7 (600 ft)	502546	5/18/22		8.67	27.1	368	86.5
CW-7 (600 ft)	502546	9/12/22		8.53	28.0	289	45.1
CW-7 (600 ft)	502546	11/16/22		8.45	24.6	586	32.2
CW-7 (600 ft)	502546	1/25/23		8.53	24.4	469	561
CW-7 (600 ft)	502546	5/25/23		8.64	27.2	374	37.2
CW-7 (600 ft)	502546	7/18/23		8.55	27.8	294	39.2
CW-7 (600 ft)	502546	11/9/23		8.42	24.8	572	26.7
CW-7 (700 ft)	502546	4/8/20		8.52	25.8	385	42.5
CW-7 (700 ft)	502546	10/23/20		8.62	25.1	362	90.0
CW-7 (700 ft)	502546	3/11/21		8.60	23.8	1177	636
CW-7 (700 ft)	502546	3/31/21		8.67	26.1	1358	544
CW-7 (700 ft)	502546	6/3/21		8.86	27.6	395	72.2
CW-7 (700 ft)	502546	8/18/21		8.43	26.5	762	287
CW-7 (700 ft)	502546	11/17/21		8.56	25.1	626	218
CW-7 (700 ft)	502546	2/9/22		8.48	24.8	569	450
CW-7 (700 ft)	502546	5/18/22		8.64	26.9	457	135
CW-7 (700 ft)	502546	9/12/22		8.40	26.7	790	46.6
CW-7 (700 ft)	502546	11/16/22		8.53	25.0	640	83.5
CW-7 (700 ft)	502546	1/25/23		8.50	24.6	581	560
CW-7 (700 ft)	502546	5/25/23		8.62	27.1	462	296
CW-7 (700 ft)	502546	7/18/23		8.41	26.6	779	67.2
CW-7 (700 ft)	502546	11/9/23		8.51	24.8	654	150
CW-7 (800 ft)	502546	4/8/20		8.42	26.0	547	69.6
CW-7 (800 ft)	502546	10/23/20		8.40	24.6	763	556
CW-7 (800 ft)	502546	3/11/21		8.86	24.3	1596	647
CW-7 (800 ft)	502546	3/31/21		8.72	26.6	1533	636
CW-7 (800 ft)	502546	6/3/21		8.68	27.2	1197	438
CW-7 (800 ft)	502546	8/18/21		8.34	27.2	775	305
CW-7 (800 ft)	502546	11/17/21		8.52	25.2	676	226
CW-7 (800 ft)	502546	2/9/22		8.54	24.9	442	96.3
CW-7 (800 ft)	502546	5/18/22		8.64	26.4	462	123
CW-7 (800 ft)	502546	9/12/22		8.35	26.7	437	222
CW-7 (800 ft)	502546	11/16/22		8.55	25.4	689	90.3
CW-7 (800 ft)	502546	1/25/23		8.58	25.0	428	370
CW-7 (800 ft)	502546	5/25/23		8.62	26.6	469	55.2
CW-7 (800 ft)	502546	7/18/23		8.33	26.4	444	286
CW-7 (800 ft)	502546	11/9/23		8.57	25.6	699	655
CW-7 (900 ft)	502546	4/8/20		8.36	25.1	705	69.6
CW-7 (900 ft)	502546	10/23/20		8.49	25.6	390	82.0
CW-7 (900 ft)	502546	3/11/21		8.69	23.5	990	315
CW-7 (900 ft)	502546	3/31/21		8.45	28.2	774	176
CW-7 (900 ft)	502546	6/3/21		8.74	26.6	543	146
CW-7 (900 ft)	502546	8/18/21		8.36	26.0	648	438
CW-7 (900 ft)	502546	11/17/21		8.55	24.3	385	172
CW-7 (900 ft)	502546	2/9/22		8.38	25.4	1144	558
CW-7 (900 ft)	502546	2/9/22	DUP	8.38	25.4	1144	600
CW-7 (900 ft)	502546	5/18/22		8.64	25.3	405	195
CW-7 (900 ft)	502546	9/12/22		8.38	26.0	415	214
CW-7 (900 ft)	502546	11/16/22		8.58	24.7	406	205
CW-7 (900 ft)	502546	1/25/23		8.40	25.6	1121	330
CW-7 (900 ft)	502546	5/25/23		8.66	25.1	397	54.8
CW-7 (900 ft)	502546	7/18/23		8.35	26.2	410	248
CW-7 (900 ft)	502546	11/9/23		8.60	24.9	419	32.1
CW-9	588121	3/6/19		7.98	26.4	330	53.1
CW-9	588121	8/14/19		7.93	26.9	336	50.4
CW-9	588121	8/14/19	DUP	7.93	26.9	336	50.1

APPENDIX A
Sulfate Concentration Data 2019 Through 2023

Well Name	ADWR 55 Registry No.	Sample Date	Duplicate	pH (SU)	Temperature (deg C)	Specific Conductance (µS/cm)	Sulfate, Dissolved (mg/L)
CW-9	588121	11/7/19		8.02	25.5	449	54.6
CW-9	588121	1/14/20		8.01	24.4	447	59.1
CW-9	588121	5/5/20		8.19	28.0	453	52.2
CW-9	588121	8/12/20		8.03	27.2	450	53.7
CW-9	588121	8/12/20	DUP	8.03	27.2	450	54.7
CW-9	588121	11/10/20		8.25	24.4	446	49.5
CW-9	588121	5/20/21		8.21	26.1	451	55.3
CW-9	588121	8/18/21		8.18	26.9	459	53.5
CW-9	588121	11/17/21		8.20	25.4	416	51.9
CW-9	588121	2/9/22		8.36	24.1	414	50.6
CW-9	588121	5/18/22		8.44	26.6	422	60.2
CW-9	588121	5/18/22	DUP	8.44	26.6	422	54.6
CW-9	588121	9/12/22		8.20	26.9	413	54.8
CW-9	588121	11/16/22		8.16	25.4	420	52.4
CW-9	588121	1/30/23		8.34	24.2	403	64.3
CW-9	588121	5/25/23		8.41	26.6	426	61.0
CW-9	588121	5/25/23	DUP	8.41	26.6	426	57.6
CW-9	588121	7/18/23		8.23	26.8	422	62.1
CW-9	588121	11/9/23		8.18	25.5	416	56.8
CW-10	207982	3/6/19		8.10	29.1	320	46.0
CW-10	207982	3/6/19	DUP	8.10	29.1	320	46.2
CW-10	207982	4/24/19		7.93	29.6	304	45.3
CW-10	207982	11/7/19		8.10	27.7	393	44.8
CW-10	207982	1/14/20		8.18	29.1	400	52.7
CW-10	207982	5/5/20		8.33	29.3	407	45.1
CW-10	207982	8/12/20		8.10	30.4	398	48.6
CW-10	207982	11/10/20		8.23	26.7	400	42.1
CW-10	207982	2/24/21		8.19	28.2	390	45.3
CW-10	207982	5/20/21		8.38	29.5	407	47.5
CW-10	207982	5/20/21	DUP	8.38	29.5	407	45.6
CW-10	207982	8/18/21		8.28	28.9	382	41.0
CW-10	207982	11/17/21		8.42	27.9	361	59.9
CW-10	207982	2/9/22		8.34	26.3	361	37.2
CW-10	207982	5/18/22		8.36	30.1	322	55.2
CW-10	207982	11/16/22		8.40	28.0	357	38.1
CW-10	207982	1/30/23		8.33	26.2	354	39.6
CW-10	207982	5/25/23		8.35	30.1	329	41.9
CW-10	207982	7/18/23		8.26	28.6	392	45.2
CW-10	207982	12/21/23		8.39	28.1	362	39.6
ESP-2	623103	6/12/19		8.04	29.3	234	32.7
ESP-2	623103	9/12/19		7.88	28.7	404	31.4
ESP-2	623103	10/29/19		7.94	27.0	400	31.0
ESP-2	623103	11/25/19		7.97	27.5	401	31.2
ESP-2	623103	12/12/19		8.13	23.5	402	56.5
ESP-2	623103	1/9/20		7.97	27.0	405	35.4
ESP-2	623103	2/10/20		7.99	27.2	403	31.2
ESP-2	623103	3/11/20		8.01	28.2	405	31.2
ESP-2	623103	4/9/20		8.08	27.3	405	30.0
ESP-2	623103	10/7/20		8.07	27.9	414	29.7
ESP-2	623103	4/5/21		8.10	27.8	409	32.3
ESP-2	623103	11/19/21		8.20	28.8	376	31.9
ESP-2	623103	11/19/21	DUP	8.20	28.8	376	31.9
ESP-2	623103	4/7/22		8.32	27.0	370	31.3
ESP-2	623103	10/25/22		8.16	28.9	381	31.7
ESP-2	623103	5/10/23		8.30	27.1	375	32.8

APPENDIX A
Sulfate Concentration Data 2019 Through 2023

Well Name	ADWR 55 Registry No.	Sample Date	Duplicate	pH (SU)	Temperature (deg C)	Specific Conductance (µS/cm)	Sulfate, Dissolved (mg/L)
ESP-2	623103	10/3/23		8.11	28.6	398	33.5
ESP-3	623104	6/12/19		8.06	28.9	227	38.4
ESP-3	623104	6/12/19	DUP	8.06	28.9	227	38.4
ESP-3	623104	9/12/19		7.98	28.6	391	37.7
ESP-3	623104	10/29/19		7.99	27.7	387	37.1
ESP-3	623104	11/25/19		7.98	27.9	391	37.0
ESP-3	623104	12/12/19		8.06	26.5	388	51.4
ESP-3	623104	1/9/20		8.11	25.3	392	37.9
ESP-3	623104	2/10/20		7.99	27.2	389	37.2
ESP-3	623104	3/11/20		8.01	28.4	391	36.8
ESP-3	623104	3/11/20	DUP	8.01	28.4	391	36.7
ESP-3	623104	4/9/20		8.05	27.5	391	35.9
ESP-3	623104	10/7/20		8.04	28.6	386	34.5
ESP-3	623104	4/5/21		8.07	28.0	393	37.0
ESP-3	623104	11/9/21		8.21	28.1	356	35.5
ESP-3	623104	4/7/22		8.40	27.0	310	32.0
ESP-3	623104	10/25/22		8.26	28.3	366	35.0
ESP-3	623104	5/10/23		8.38	26.9	305	36.2
ESP-3	623104	5/10/23	DUP	8.38	26.9	305	36.2
ESP-3	623104	10/3/23		8.29	27.9	369	37.3
ESP-3	623104	10/3/23	DUP	8.29	27.9	369	115
ESP-4	623105	6/12/19		7.86	28.5	297	222
ESP-4	623105	9/12/19		7.85	27.5	812	200
ESP-4	623105	10/29/19		7.87	26.6	780	181
ESP-4	623105	11/25/19		7.88	26.3	785	186
ESP-4	623105	12/12/19		7.98	26.2	770	195
ESP-4	623105	1/9/20		8.06	24.6	772	171
ESP-4	623105	2/10/20		8.04	25.6	734	165
ESP-4	623105	3/11/20		8.05	27.2	738	164
ESP-4	623105	4/9/20		8.04	26.1	689	136
ESP-4	623105	10/7/20		7.99	27.5	714	154
ESP-4	623105	4/5/21		7.94	27.8	712	150
ESP-4	623105	4/5/21	DUP	7.94	27.8	712	147
ESP-4	623105	11/9/21		8.20	27.9	681	150
ESP-4	623105	4/7/22		8.46	26.9	674	134
ESP-4	623105	10/25/22		8.18	27.6	633	154
ESP-4	623105	5/10/23		8.44	26.9	654	109
ESP-4	623105	10/3/23		8.22	27.4	614	116
FFS-1	221662	4/22/19		7.68	25.2	752	1880
FFS-1	221662	5/26/20		7.90	25.3	3515	2000
FFS-1	221662	4/7/21		7.88	24.8	3563	1830
FFS-1	221662	4/25/22		8.13	25.2	3032	1700
FFS-1	221662	5/15/23		8.16	25.6	2960	1770
FFS-2	221663	4/22/19		7.74	27.3	1223	1960
FFS-2	221663	5/26/20		7.85	27.1	3538	1780
FFS-2	221663	4/7/21		7.75	26.7	3606	1900
FFS-2	221663	4/25/22		8.28	26.8	3260	1820
FFS-2	221663	5/15/23		8.30	26.6	3223	1810
FFS-3	221664	4/22/19		7.79	31.3	1308	1580
FFS-3	221664	5/26/20		7.84	31.8	2937	1470
FFS-3	221664	4/25/22		8.12	33.8	2547	1450
FFS-3	221664	5/17/23		8.15	30.6	2480	1540
FFS-4	221665	4/22/19		7.83	32.7	1203	1320
FFS-4	221665	5/26/20		7.90	33.2	2543	1270
FFS-4	221665	5/10/21		8.01	32.3	2536	1350
FFS-4	221665	4/25/22		8.03	33.1	2389	1320

APPENDIX A
Sulfate Concentration Data 2019 Through 2023

Well Name	ADWR 55 Registry No.	Sample Date	Duplicate	pH (SU)	Temperature (deg C)	Specific Conductance (µS/cm)	Sulfate, Dissolved (mg/L)
FFS-4	221665	5/17/23		8.06	32.0	2411	1420
FFS-5	221666	4/22/19		7.98	29.2	1268	1620
FFS-5	221666	4/7/21		7.89	29.7	3053	1540
FFS-5	221666	5/17/23		7.95	30.2	3094	1590
FFS-6	221667	4/25/22		8.02	30.5	2321	1200
FFS-6	221667	5/17/23		8.04	30.4	2360	1470
GV-01-GVDWID	603428	3/7/19		7.41	24.7	312	26.0
GV-01-GVDWID	603428	4/25/19		8.06	26.0	281	25.2
GV-01-GVDWID	603428	7/30/19		7.37	25.8	314	22.5
GV-01-GVDWID	603428	11/5/19		8.10	23.3	460	24.0
GV-01-GVDWID	603428	1/20/20		7.88	23.9	437	23.5
GV-01-GVDWID	603428	5/14/20		8.43	24.4	423	18.1
GV-01-GVDWID	603428	8/13/20		8.02	25.9	439	20.0
GV-02-GVDWID	603429	3/7/19		7.67	23.2	345	49.3
GV-02-GVDWID	603429	4/25/19		7.96	23.8	344	51.5
GV-02-GVDWID	603429	7/30/19		7.63	24.3	310	45
GV-02-GVDWID	603429	11/5/19		7.87	22.5	529	49.2
GV-02-GVDWID	603429	1/20/20		7.90	23.0	540	50.7
GV-02-GVDWID	603429	5/14/20		8.23	22.8	538	49.2
GV-02-GVDWID	603429	8/13/20		7.90	24.6	560	55.5
GV-02-GVDWID	603429	11/11/20		8.12	21.7	536	50.8
GV-02-GVDWID	603429	11/11/20	DUP	8.12	21.7	536	50.9
GV-02-GVDWID	603429	2/25/21		8.00	22.6	554	53.6
GV-02-GVDWID	603429	4/8/21		8.01	23.2	548	53.7
GV-02-GVDWID	603429	8/19/21		8.02	24.1	546	53.4
GV-02-GVDWID	603429	11/5/21		8.09	22.6	530	43.7
GV-02-GVDWID	603429	2/17/22		8.27	21.7	477	46.0
GV-02-GVDWID	603429	5/17/22		8.46	24.1	485	47.9
GV-02-GVDWID	603429	9/15/22		8.09	24.1	489	49.6
GV-02-GVDWID	603429	11/17/22		8.06	22.6	535	48.5
GV-02-GVDWID	603429	11/17/22	DUP	8.06	22.6	535	48.0
GV-02-GVDWID	603429	1/30/23		8.28	21.8	481	58.1
GV-02-GVDWID	603429	5/18/23		8.44	24.1	494	59.0
GV-02-GVDWID	603429	7/19/23		8.12	24.0	465	59.0
GV-02-GVDWID	603429	11/8/23		8.04	22.6	540	55.7
GV-SI-GVDWID	208825	4/25/19		7.91	27.1	301	6.06
GV-SI-GVDWID	208825	4/25/19	DUP	7.91	27.1	301	6.12
GV-SI-GVDWID	208825	5/14/20		8.26	25.0	411	7.02
GV-SI-GVDWID	208825	5/14/20	DUP	8.26	25.0	411	7.38
GV-SI-GVDWID	208825	4/8/21		8.00	26.4	408	7.16
GV-SI-GVDWID	208825	5/17/22		8.43	26.1	362	8.21
GV-SI-GVDWID	208825	5/18/23		8.41	26.1	357	7.74
HAVEN GOLF	515867	4/24/19		8.06	24.3	558	102
HAVEN GOLF	515867	5/12/20		8.56	28.3	673	98.2
HAVEN GOLF	515867	5/16/22		8.61	25.0	561	97.6
IW-1	623129	4/23/19		7.67	28.6	1521	1510
IW-1	623129	5/26/20		7.82	29.3	2578	1150
IW-1	623129	5/26/20	DUP	7.82	29.3	2578	1140
IW-1	623129	4/7/21		7.74	28.8	2491	1180
IW-1	623129	4/7/21	DUP	7.74	28.8	2491	1160
IW-1	623129	4/21/22		7.99	29.1	2249	1110
IW-1	623129	5/16/23		8.04	29.2	2270	1100
IW-2A	216464	4/23/19		7.88	29.2	858	413
IW-2A	216464	5/26/20		8.05	29.0	1186	359
IW-2A	216464	4/7/21		7.97	28.5	1178	375
IW-2A	216464	4/21/22		8.27	28.6	984	313

APPENDIX A
Sulfate Concentration Data 2019 Through 2023

Well Name	ADWR 55 Registry No.	Sample Date	Duplicate	pH (SU)	Temperature (deg C)	Specific Conductance (µS/cm)	Sulfate, Dissolved (mg/L)
IW-2A	216464	5/16/23		8.24	28.3	1026	248
IW-3A	201732	4/23/19		7.67	25.0	1769	1910
IW-3A	201732	5/26/20		7.94	27.4	3318	1620
IW-3A	201732	5/3/21		8.30	26.3	3403	1710
IW-3A	201732	5/16/23		8.24	26.1	3370	1780
IW-3A	201732	5/16/23	DUP	8.24	26.1	3370	1800
IW-4	623132	4/21/22		8.24	25.7	3143	1730
IW-4	623132	5/16/23		8.26	25.7	3110	1870
IW-8	508236	4/7/21		7.83	23.8	3708	1930
IW-8	508236	4/21/22		8.13	23.9	3335	1890
IW-8	508236	5/16/23		8.12	24.0	3331	1880
IW-9	508238	4/23/19		7.72	29.0	1608	1690
IW-9	508238	4/7/21		7.75	25.5	3611	1880
IW-9	508238	4/21/22		8.20	25.6	3236	1720
IW-9	508238	5/16/23		8.16	25.9	3270	1850
IW-10	508237	4/22/19		7.74	23.2	1205	1240
IW-10	508237	4/7/21		7.70	24.0	3692	1950
IW-10	508237	4/20/22		7.86	24.9	3345	1740
IW-10	508237	5/16/23		7.84	25.1	3360	1870
IW-11	508235	4/22/19		7.82	23.3	1352	1970
IW-11	508235	4/21/20		7.76	23.8	3611	1770
IW-11	508235	4/7/21		7.72	24.1	3612	1790
IW-11	508235	5/16/23		7.76	24.4	3580	1810
IW-12	545555	4/22/19		7.93	27.7	1002	1190
IW-12	545555	4/21/20		7.88	24.8	3316	1630
IW-12	545555	4/7/21		7.89	25.1	3318	1690
IW-12	545555	4/20/22		8.36	25.7	3005	1540
IW-12	545555	5/16/23		8.33	25.9	2942	1620
IW-19	545562	4/21/20		8.02	25.9	3651	1900
IW-19	545562	4/7/21		7.83	25.1	3630	1940
IW-19	545562	4/20/22		8.42	25.5	3345	1860
IW-19	545562	4/20/22	DUP	8.42	25.5	3345	1790
IW-19	545562	5/16/23		8.40	25.6	3330	1920
IW-21	545564	4/20/22		7.89	28.2	3180	1680
IW-21	545564	5/16/23		7.86	28.0	3126	1720
IW-22	200554	4/21/20		7.70	23.7	3692	1860
IW-22	200554	4/7/21		7.63	24.3	3665	1850
IW-22	200554	4/7/21	DUP	7.63	24.3	3665	1840
IW-22	200554	4/20/22		8.12	26.1	3264	1840
IW-22	200554	4/20/22	DUP	8.12	26.1	3264	1720
IW-23	200555	4/21/22		7.92	24.4	3275	1690
IW-23	200555	5/16/23		7.94	24.6	3220	1830
IW-23	200555	5/16/23	DUP	7.94	24.6	3220	1850
IW-24	200556	4/21/22		8.41	23.3	3308	1710
IW-24	200556	5/16/23		8.43	23.6	3240	2030
IW-25	219596	4/23/19		7.53	28.8	1573	1560
IW-25	219596	4/7/21		7.83	28.4	2209	1000
IW-25	219596	4/21/22		8.09	28.0	2157	1050
IW-25	219596	4/21/22	DUP	8.09	28.0	2157	1060
IW-25	219596	5/16/23		8.11	28.2	2166	760
IW-26	219143	4/23/19		7.81	31.7	1543	1520
IW-26	219143	5/26/20		8.04	27.8	3460	1750
IW-26	219143	4/7/21		7.84	26.4	3504	1770
IW-26	219143	4/21/22		8.06	25.9	3162	1620
IW-26	219143	5/16/23		8.08	26.1	3193	1730
IW-27	219136	4/24/19		7.74	25.3	1788	1890

APPENDIX A
Sulfate Concentration Data 2019 Through 2023

Well Name	ADWR 55 Registry No.	Sample Date	Duplicate	pH (SU)	Temperature (deg C)	Specific Conductance (µS/cm)	Sulfate, Dissolved (mg/L)
IW-27	219136	4/21/20		7.73	24.8	3530	1770
IW-27	219136	4/7/21		7.74	25.5	3539	1730
IW-27	219136	4/21/22		8.46	25.9	3107	1620
IW-27	219136	5/16/23		8.42	26.1	3188	1620
IW-28	219137	4/22/19		7.63	26.0	1470	1890
IW-28	219137	4/7/21		7.65	25.1	3618	1910
IW-28	219137	4/20/22		8.00	26.0	3253	1720
IW-28	219137	5/16/23		8.06	26.4	3180	1780
IW-29	222865	4/22/19		7.64	26.3	1509	1540
IW-29	222865	4/22/19	DUP	7.64	26.3	1509	1310
IW-29	222865	4/21/20		7.71	24.9	3488	1750
IW-29	222865	4/7/21		7.68	25.6	3501	1790
IW-29	222865	4/20/22		7.92	26.4	3117	1640
IW-29	222865	5/16/23		7.95	26.1	3160	1750
M-8	087390	4/16/19		8.26	28.0	347	54.2
M-9	501652	4/15/19		8.30	27.1	260	<0.40
M-9	501652	4/23/20		9.38	28.8	256	11.8
M-10	501653	4/5/19		9.02	26.8	492	217
M-10	501653	10/29/19		8.51	28.9	822	234
M-10	501653	4/23/20		8.45	28.6	897	208
M-10	501653	4/23/20	DUP	8.45	28.6	897	222
M-10	501653	11/4/20		8.53	29.9	893	226
M-10	501653	5/18/21		8.36	28.7	870	227
M-10	501653	10/21/21		8.19	30.5	866	216
M-10	501653	5/2/22		8.54	29.8	793	222
M-10	501653	10/17/22		8.42	29.6	674	189
M-10	501653	5/2/23		8.51	30.0	810	189
M-10	501653	11/6/23		8.38	29.5	641	203
M-20	906595	4/16/19		8.45	25.3	1152	1260
M-20	906595	4/24/20		9.25	29.0	2435	1280
M-20	906595	5/13/21		9.18	29.2	2470	898
M-20	906595	5/6/22		9.57	27.1	2329	1220
M-20	906595	5/15/23		9.55	26.9	2280	1160
MC-1	221660	4/22/19		7.74	26.5	1268	1710
MC-1	221660	5/26/20		7.88	26.9	3437	1630
MC-1	221660	4/25/22		8.17	27.4	3081	1660
MC-1	221660	5/17/23		8.15	27.6	3010	1780
MC-2	221761	4/18/19		7.74	27.3	1190	989
MC-2	221761	4/18/19	DUP	7.74	27.3	1190	1060
MC-2	221761	5/26/20		7.88	29.1	2583	1130
MC-2	221761	5/26/20	DUP	7.88	29.1	2583	1100
MC-2	221761	4/7/21		7.93	27.8	2258	951
MC-2	221761	4/25/22		8.16	28.7	1993	948
MC-2	221761	5/15/23		8.19	28.4	1926	869
MC-2	221761	5/15/23	DUP	8.19	28.4	1926	905
MC-3	221661	4/22/19		7.98	28.1	1163	1310
MC-3	221661	5/26/20		7.91	28.6	2815	1390
MC-3	221661	4/7/21		7.85	27.4	2710	1320
MC-3	221661	4/25/22		8.03	29.0	2483	1310
MC-3	221661	5/17/23		8.01	29.4	2420	1420
MC-4	220842	5/23/19		7.87	28.3	738	1340
MC-4	220842	5/26/20		7.83	29.7	2760	1320
MC-4	220842	4/7/21		7.72	28.8	2885	1450
MC-4	220842	4/25/22		7.90	29.9	2651	1420
MH-10	803636	4/17/19		8.01	27.0	1205	1170
MH-10	803636	5/8/20		8.60	27.9	2594	1200

APPENDIX A
Sulfate Concentration Data 2019 Through 2023

Well Name	ADWR 55 Registry No.	Sample Date	Duplicate	pH (SU)	Temperature (deg C)	Specific Conductance (µS/cm)	Sulfate, Dissolved (mg/L)
MH-10	803636	5/13/21		8.67	27.8	2701	1350
MH-10	803636	5/5/22		8.39	27.1	1599	633
MH-10	803636	5/15/23		8.36	27.0	1647	1520
MH-11	803637	4/17/19		7.81	26.6	1329	1690
MH-11	803637	4/15/20		7.73	26.5	3090	1690
MH-11	803637	5/13/21		8.06	27.7	3342	1690
MH-11	803637	5/6/22		8.61	27.0	2972	1540
MH-11	803637	5/15/23		8.56	27.2	3023	1530
MH-13B	904072	4/18/19		8.83	27.2	1206	840
MH-13B	904072	4/15/20		8.29	27.2	1996	798
MH-13B	904072	5/11/21		8.09	28.1	1907	781
MH-13B	904072	5/16/22		8.92	27.6	1330	620
MH-13B	904072	4/12/23		8.88	27.6	1317	665
MH-13C	904073	4/17/19		9.40	27.0	235	<0.4
MH-13C	904073	4/15/20		8.76	28.3	384	30.6
MH-13C	904073	5/11/21		8.90	29.0	343	27.8
MH-13C	904073	5/11/22		9.62	29.0	376	9.27
MH-13C	904073	4/13/23		9.59	29.0	384	4.29
MH-25B	208429	4/18/19		9.18	26.2	1536	1080
MH-25B	208429	4/22/20		7.87	26.9	2757	1330
MH-25B	208429	5/12/21		8.09	27.5	2988	1460
MH-25B	208429	5/10/22		8.23	26.9	2744	1550
MH-25B	208429	4/12/23		8.19	26.8	2407	1460
MH-25C	208426	4/18/19		9.12	27.4	1498	1150
MH-25C	208426	4/22/20		7.93	27.8	2689	1320
MH-25C	208426	5/12/21		8.96	27.2	1740	820
MH-25C	208426	5/10/22		8.42	28.3	2384	1090
MH-25C	208426	4/12/23		8.27	28.2	2416	1120
MH-26B	208427	4/18/19		9.27	26.2	1507	1330
MH-26B	208427	4/18/19	DUP	9.27	26.2	1507	1370
MH-26B	208427	4/22/20		9.18	27.6	3011	1600
MH-26B	208427	5/12/21		9.90	25.6	2345	1080
MH-26C	208428	4/18/19		8.60	28.7	1498	1290
MH-26C	208428	4/22/20		7.89	28.5	2628	1270
MH-26C	208428	5/12/21		9.24	27.3	2038	933
MH-26C	208428	5/11/22		9.18	28.0	2176	981
MH-26C	208428	5/11/22	DUP	9.18	28.0	2176	994
MH-26C	208428	4/11/23		9.08	28.1	2092	947
MH-28	903648	4/2/19		7.53	25.2	1490	1870
MH-28	903648	10/1/19		7.72	25.3	3721	2000
MH-28	903648	4/2/20		7.86	24.9	3710	1830
MH-28	903648	10/13/20		8.04	25.7	3587	1650
MH-28	903648	4/5/21		7.83	26.4	3721	2050
MH-28	903648	10/7/21		8.12	23.1	3693	1820
MH-28	903648	4/5/22		8.24	26.2	3110	1920
MH-28	903648	4/5/22	DUP	8.24	26.2	3110	1900
MH-28	903648	10/6/22		8.17	23.1	3691	2050
MH-28	903648	4/5/23		8.26	26.1	3105	1750
MH-28	903648	11/7/23		8.14	23.2	3772	1910
MH-29	903649	4/2/19		7.43	23.8	1274	1820
MH-29	903649	10/15/19		7.29	24.1	3669	1770
MH-29	903649	10/15/19	DUP	7.29	24.1	3669	1800
MH-29	903649	4/2/20		7.59	24.4	3466	1720
MH-29	903649	10/14/20		8.16	24.3	3576	1660
MH-29	903649	4/5/21		7.98	26.4	3684	1990
MH-29	903649	10/7/21		8.04	23.6	3619	1590

APPENDIX A
Sulfate Concentration Data 2019 Through 2023

Well Name	ADWR 55 Registry No.	Sample Date	Duplicate	pH (SU)	Temperature (deg C)	Specific Conductance (µS/cm)	Sulfate, Dissolved (mg/L)
MH-29	903649	4/5/22		8.01	26.3	3140	1670
MH-29	903649	10/6/22		8.04	23.6	3580	1760
MH-29	903649	4/5/23		8.03	26.3	3160	1570
MH-29	903649	10/9/23		8.02	23.8	3610	1690
MH-30	903884	4/17/19		7.95	28.3	1621	1980
MH-30	903884	4/15/20		7.67	28.6	3676	1850
MH-30	903884	5/11/21		7.82	29.1	3580	1800
MH-30	903884	5/16/22		7.95	29.3	3270	1810
MH-30	903884	4/11/23		7.93	29.4	3240	1790
MH-30	903884	4/11/23	DUP	7.93	29.4	3240	1750
MO-2007-1A	907342	4/8/19		7.82	26.6	253	19.2
MO-2007-1A	907342	4/8/19	DUP	7.82	26.6	253	18.9
MO-2007-1A	907342	10/21/19		7.81	25.9	410	17.8
MO-2007-1A	907342	4/16/20		7.97	26.5	423	20.2
MO-2007-1A	907342	10/21/20		7.96	27.4	408	17.4
MO-2007-1A	907342	5/10/21		7.91	26.6	411	18.7
MO-2007-1A	907342	5/10/21	DUP	7.91	26.6	411	19.3
MO-2007-1A	907342	10/4/21		7.82	27.9	416	17.0
MO-2007-1A	907342	4/12/22		8.21	26.4	416	18.2
MO-2007-1A	907342	4/12/22	DUP	8.21	26.4	416	19.3
MO-2007-1A	907342	10/10/22		7.85	28.1	419	21.1
MO-2007-1A	907342	10/10/22	DUP	7.85	28.1	419	21.3
MO-2007-1A	907342	4/18/23		8.23	26.4	428	20.5
MO-2007-1A	907342	10/10/23		7.83	28.0	450	17.3
MO-2007-1B	907210	4/8/19		7.72	27.7	651	509
MO-2007-1B	907210	10/21/19		7.86	26.5	1206	398
MO-2007-1B	907210	4/16/20		8.06	27.4	914	45.5
MO-2007-1B	907210	10/21/20		8.15	28.5	832	232
MO-2007-1B	907210	5/10/21		8.10	27.9	693	149
MO-2007-1B	907210	10/4/21		8.19	28.8	679	160
MO-2007-1B	907210	4/12/22		8.53	27.6	377	71.7
MO-2007-1B	907210	10/10/22		8.22	28.7	690	56.3
MO-2007-1B	907210	4/18/23		8.51	27.7	411	11.7
MO-2007-1B	907210	10/10/23		8.24	28.6	713	125
MO-2007-1C	907209	4/8/19		8.16	28.2	294	89.8
MO-2007-1C	907209	10/21/19		8.14	27.7	981	292
MO-2007-1C	907209	4/16/20		8.56	26.9	587	25.7
MO-2007-1C	907209	10/21/20		8.31	29.9	908	278
MO-2007-1C	907209	5/10/21		8.29	29.1	896	287
MO-2007-1C	907209	10/4/21		8.51	29.7	486	142
MO-2007-1C	907209	4/12/22		9.06	29.2	296	59.9
MO-2007-1C	907209	10/10/22		8.39	29.6	523	32.8
MO-2007-1C	907209	4/18/23		9.02	29.0	320	15.6
MO-2007-1C	907209	10/10/23		8.36	29.2	544	<5.00
MO-2007-2	906765	4/24/19		7.98	27.8	897	460
MO-2007-2	906765	4/24/19	DUP	7.98	27.8	897	459
MO-2007-2	906765	4/14/20		8.02	26.7	822	255
MO-2007-2	906765	4/9/21		8.44	27.0	670	202
MO-2007-2	906765	6/29/22		8.06	26.2	1044	450
MO-2007-2	906765	4/12/23		8.02	26.6	1123	19.8
MO-2007-3B	906816	2/18/19		8.50	26.4	347	39.1
MO-2007-3B	906816	4/9/19		8.41	27.4	292	24.9
MO-2007-3B	906816	7/17/19		8.59	28.2	279	-5.0
MO-2007-3B	906816	10/22/19		8.92	26.8	266	-5.0
MO-2007-3B	906816	1/16/20		8.66	25.5	314	13.4
MO-2007-3B	906816	1/16/20	DUP	8.66	25.5	314	13.0

APPENDIX A
Sulfate Concentration Data 2019 Through 2023

Well Name	ADWR 55 Registry No.	Sample Date	Duplicate	pH (SU)	Temperature (deg C)	Specific Conductance (µS/cm)	Sulfate, Dissolved (mg/L)
MO-2007-3B	906816	4/13/20		8.80	25.7	240	18.4
MO-2007-3B	906816	7/17/20		8.33	27.7	407	45.0
MO-2007-3B	906816	7/17/20	DUP	8.33	27.7	407	42.6
MO-2007-3B	906816	12/8/20		8.12	28.1	402	37.0
MO-2007-3B	906816	1/15/21		8.20	28.0	433	39.3
MO-2007-3B	906816	1/15/21	DUP	8.20	28.0	433	39.6
MO-2007-3B	906816	4/15/21		8.18	27.9	486	39.8
MO-2007-3B	906816	8/9/21		8.14	28.4	423	44.1
MO-2007-3B	906816	8/9/21	DUP	8.14	28.4	423	44.2
MO-2007-3B	906816	10/25/21		8.36	29.1	490	36.1
MO-2007-3B	906816	1/17/22		8.26	26.7	449	33.7
MO-2007-3B	906816	4/14/22		8.48	28.1	365	35.7
MO-2007-3B	906816	8/15/22		8.11	28.1	247	11.2
MO-2007-3B	906816	10/20/22		8.33	29.0	480	40.2
MO-2007-3B	906816	1/23/23		8.22	26.6	430	35.6
MO-2007-3B	906816	4/19/23		8.46	28.0	362	37.7
MO-2007-3B	906816	4/19/23	DUP	8.46	28.0	362	37.6
MO-2007-3B	906816	7/12/23		8.06	28.0	257	38.0
MO-2007-3B	906816	10/11/23		8.35	29.1	471	38.7
MO-2007-3C	906817	2/18/19		8.71	24.3	322	39.4
MO-2007-3C	906817	4/9/19		9.17	26.3	377	28.1
MO-2007-3C	906817	7/17/19		8.61	26.4	240	37.5
MO-2007-3C	906817	10/22/19		9.62	29.2	426	39.5
MO-2007-3C	906817	1/15/20		9.60	27.4	419	51.5
MO-2007-3C	906817	4/13/20		8.75	28.6	536	31.7
MO-2007-3C	906817	12/8/20		8.45	30.8	537	97.9
MO-2007-3C	906817	1/15/21		8.47	29.2	538	105
MO-2007-3C	906817	4/15/21		8.51	29.2	543	101
MO-2007-3C	906817	8/9/21		8.50	30.6	530	110
MO-2007-3C	906817	10/25/21		8.59	30.6	570	90.7
MO-2007-3C	906817	1/17/22		8.73	28.5	527	113
MO-2007-3C	906817	4/14/22		8.78	30.4	495	105
MO-2007-3C	906817	8/15/22		8.46	30.3	410	59.9
MO-2007-3C	906817	10/20/22		8.53	30.6	541	107
MO-2007-3C	906817	1/23/23		8.68	28.6	560	107
MO-2007-3C	906817	4/19/23		8.75	30.1	440	107
MO-2007-3C	906817	7/12/23		8.43	30.3	406	101
MO-2007-3C	906817	7/12/23	DUP	8.43	30.3	406	99.1
MO-2007-3C	906817	10/12/23		8.49	30.7	550	64.6
MO-2007-4A	907213	2/14/19		7.87	24.7	294	38.6
MO-2007-4A	907213	4/11/19		7.84	24.9	311	36.5
MO-2007-4A	907213	7/18/19		7.94	25.6	197	35.5
MO-2007-4A	907213	7/18/19	DUP	7.94	25.6	197	35.8
MO-2007-4A	907213	9/9/19		7.70	26.0	472	35.9
MO-2007-4A	907213	9/9/19	DUP	7.70	26.0	472	35.9
MO-2007-4A	907213	10/22/19		7.73	25.2	472	35.6
MO-2007-4A	907213	10/22/19	DUP	7.73	25.2	472	35.5
MO-2007-4A	907213	11/14/19		7.76	25.7	475	34.5
MO-2007-4A	907213	12/4/19		7.84	25.7	466	36.1
MO-2007-4A	907213	12/4/19	DUP	7.84	25.7	466	35.9
MO-2007-4A	907213	1/16/20		7.83	24.6	478	35.2
MO-2007-4A	907213	2/5/20		8.00	23.8	469	45.3
MO-2007-4A	907213	3/5/20		7.89	25.2	469	35.8
MO-2007-4A	907213	4/14/20		7.96	25.0	462	36.3
MO-2007-4A	907213	4/14/20	DUP	7.96	25.0	462	35.5
MO-2007-4A	907213	7/28/20		7.88	26.1	465	34.8

APPENDIX A
Sulfate Concentration Data 2019 Through 2023

Well Name	ADWR 55 Registry No.	Sample Date	Duplicate	pH (SU)	Temperature (deg C)	Specific Conductance (µS/cm)	Sulfate, Dissolved (mg/L)
MO-2007-4A	907213	11/3/20		8.18	26.3	460	32.0
MO-2007-4A	907213	1/14/21		7.89	24.3	466	34.9
MO-2007-4A	907213	5/6/21		7.92	26.6	453	34.5
MO-2007-4A	907213	8/13/21		7.93	26.0	465	37.9
MO-2007-4A	907213	8/13/21	DUP	7.93	26.0	465	38.3
MO-2007-4A	907213	10/13/21		8.21	24.7	462	34.3
MO-2007-4A	907213	1/14/22		7.94	24.4	409	33.3
MO-2007-4A	907213	1/14/22	DUP	7.94	24.4	409	32.9
MO-2007-4A	907213	4/13/22		8.04	24.9	429	30.1
MO-2007-4A	907213	8/23/22		7.95	25.9	417	31.8
MO-2007-4A	907213	8/23/22	DUP	7.95	25.9	417	32.1
MO-2007-4A	907213	10/24/22		8.22	24.7	464	32.3
MO-2007-4A	907213	1/19/23		7.88	24.5	425	33.5
MO-2007-4A	907213	1/19/23	DUP	7.88	24.5	425	33.5
MO-2007-4A	907213	5/1/23		8.02	24.7	429	33.3
MO-2007-4A	907213	7/20/23		7.98	25.9	428	33.6
MO-2007-4A	907213	10/11/23		8.19	24.8	470	34.5
MO-2007-4A	907213	10/11/23	DUP	8.19	24.8	470	34.2
MO-2007-4B	907212	2/14/19		8.15	26.0	244	31.4
MO-2007-4B	907212	4/11/19		8.14	26.5	330	44.5
MO-2007-4B	907212	7/18/19		8.44	26.9	211	36.3
MO-2007-4B	907212	9/9/19		7.95	27.9	452	46.2
MO-2007-4B	907212	10/17/19		8.08	28.9	453	44.4
MO-2007-4B	907212	11/14/19		8.09	28.8	461	45.2
MO-2007-4B	907212	12/4/19		8.10	26.8	459	46.7
MO-2007-4B	907212	1/16/20		8.04	25.4	458	45.1
MO-2007-4B	907212	2/5/20		8.22	26.2	453	55.0
MO-2007-4B	907212	3/5/20		8.09	26.5	458	47.4
MO-2007-4B	907212	4/14/20		8.21	25.8	450	53.7
MO-2007-4B	907212	7/28/20		8.19	28.6	454	47.5
MO-2007-4B	907212	11/3/20		8.23	29.7	463	42.5
MO-2007-4B	907212	1/14/21		8.12	26.7	435	46.2
MO-2007-4B	907212	5/6/21		8.19	27.7	461	46.6
MO-2007-4B	907212	8/12/21		8.23	28.5	421	52.5
MO-2007-4B	907212	10/13/21		8.35	26.3	464	47.7
MO-2007-4B	907212	1/14/22		8.27	25.5	446	43.8
MO-2007-4B	907212	4/13/22		8.38	26.9	453	42.3
MO-2007-4B	907212	8/23/22		8.20	28.3	416	51.4
MO-2007-4B	907212	10/24/22		8.32	26.2	459	44.5
MO-2007-4B	907212	1/19/23		8.23	25.5	457	45.5
MO-2007-4B	907212	5/1/23		8.35	26.8	446	24.9
MO-2007-4B	907212	7/20/23		8.22	28.1	424	48.6
MO-2007-4B	907212	10/11/23		8.34	26.1	470	45.7
MO-2007-4C	907211	2/14/19		8.53	28.6	331	83.3
MO-2007-4C	907211	4/11/19		9.03	27.1	362	66.8
MO-2007-4C	907211	7/18/19		8.58	27.7	258	63.2
MO-2007-4C	907211	9/9/19		8.55	30.6	529	86.5
MO-2007-4C	907211	10/17/19		8.63	30.0	536	90.8
MO-2007-4C	907211	11/14/19		8.71	30.1	543	88.6
MO-2007-4C	907211	12/4/19		8.58	29.8	530	86.8
MO-2007-4C	907211	12/4/19	DUP	8.58	29.8	530	85.3
MO-2007-4C	907211	1/16/20		8.60	28.2	522	87.3
MO-2007-4C	907211	2/5/20		8.56	28.3	529	93.4
MO-2007-4C	907211	3/5/20		8.56	29.3	530	89.8
MO-2007-4C	907211	4/14/20		8.71	29.2	536	119
MO-2007-4C	907211	7/28/20		8.51	31.0	529	88.9

APPENDIX A
Sulfate Concentration Data 2019 Through 2023

Well Name	ADWR 55 Registry No.	Sample Date	Duplicate	pH (SU)	Temperature (deg C)	Specific Conductance (µS/cm)	Sulfate, Dissolved (mg/L)
MO-2007-4C	907211	11/3/20		8.70	30.3	524	85.2
MO-2007-4C	907211	11/3/20	DUP	8.70	30.3	524	82.8
MO-2007-4C	907211	1/14/21		8.54	29.1	528	88.9
MO-2007-4C	907211	5/6/21		8.62	30.6	532	86.2
MO-2007-4C	907211	8/13/21		8.73	31.3	545	103
MO-2007-4C	907211	10/13/21		8.81	28.6	530	81.1
MO-2007-4C	907211	10/13/21	DUP	8.81	28.6	530	86.8
MO-2007-4C	907211	1/14/22		8.80	28.0	490	87.7
MO-2007-4C	907211	4/13/22		8.76	29.6	496	85.9
MO-2007-4C	907211	8/23/22		8.71	31.1	498	90.9
MO-2007-4C	907211	10/24/22		8.79	28.4	539	102
MO-2007-4C	907211	1/19/23		8.78	28.2	505	93.5
MO-2007-4C	907211	5/1/23		8.73	29.5	497	94.9
MO-2007-4C	907211	7/20/23		8.66	30.6	486	93.1
MO-2007-4C	907211	10/11/23		8.77	28.6	529	92.2
MO-2007-5B	907456	4/10/19		8.22	28.4	921	553
MO-2007-5B	907456	9/10/19		7.98	29.7	1441	517
MO-2007-5B	907456	10/10/19		8.04	28.4	1463	499
MO-2007-5B	907456	11/13/19		8.00	28.1	1433	513
MO-2007-5B	907456	11/13/19	DUP	8.00	28.1	1433	517
MO-2007-5B	907456	12/3/19		8.00	27.0	1424	491
MO-2007-5B	907456	1/15/20		8.06	27.8	1289	500
MO-2007-5B	907456	1/15/20	DUP	8.06	27.8	1289	506
MO-2007-5B	907456	2/4/20		8.09	26.4	1365	449
MO-2007-5B	907456	3/4/20		8.10	27.3	1365	477
MO-2007-5B	907456	4/7/20		8.20	28.6	1234	401
MO-2007-5B	907456	10/9/20		8.09	28.7	1100	348
MO-2007-5B	907456	10/9/20	DUP	8.09	28.7	1100	347
MO-2007-5B	907456	4/14/21		8.24	28.8	1054	331
MO-2007-5B	907456	10/5/21		8.40	29.0	965	283
MO-2007-5B	907456	4/7/22		8.48	28.6	830	216
MO-2007-5B	907456	10/13/22		8.38	29.2	998	187
MO-2007-5B	907456	4/13/23		8.46	28.4	821	141
MO-2007-5B	907456	4/13/23	DUP	8.46	28.4	821	142
MO-2007-5B	907456	10/12/23		8.34	29.1	989	129
MO-2007-5C	907457	4/10/19		9.31	26.2	622	179
MO-2007-5C	907457	9/10/19		8.81	28.8	785	246
MO-2007-5C	907457	10/10/19		8.84	28.6	716	230
MO-2007-5C	907457	11/13/19		8.55	28.0	793	250
MO-2007-5C	907457	12/2/19		8.45	26.6	674	244
MO-2007-5C	907457	1/14/20		8.73	26.9	753	230
MO-2007-5C	907457	2/3/20		8.70	26.2	783	243
MO-2007-5C	907457	3/3/20		8.59	26.9	762	240
MO-2007-5C	907457	4/7/20		8.63	27.5	770	219
MO-2007-5C	907457	10/9/20		9.07	27.8	584	194
MO-2007-5C	907457	4/14/21		9.24	27.9	675	205
MO-2007-5C	907457	10/5/21		9.48	26.9	710	212
MO-2007-5C	907457	4/7/22		9.47	27.6	541	169
MO-2007-5C	907457	10/11/22		9.52	26.9	719	170
MO-2007-5C	907457	4/17/23		9.50	27.5	522	162
MO-2007-5C	907457	10/12/23		9.48	26.9	744	127
MO-2007-6A	907607	2/7/19		8.32	27.2	276	6.80
MO-2007-6A	907607	4/9/19		8.03	29.7	291	14.8
MO-2007-6A	907607	4/9/19	DUP	8.03	29.7	291	15.4
MO-2007-6A	907607	7/30/19		7.96	28.3	291	9.51
MO-2007-6A	907607	9/5/19		8.02	28.5	401	27.9

APPENDIX A
Sulfate Concentration Data 2019 Through 2023

Well Name	ADWR 55 Registry No.	Sample Date	Duplicate	pH (SU)	Temperature (deg C)	Specific Conductance (µS/cm)	Sulfate, Dissolved (mg/L)
MO-2007-6A	907607	10/9/19		8.16	27.5	380	6.79
MO-2007-6A	907607	11/12/19		8.33	27.5	383	9.70
MO-2007-6A	907607	12/5/19		8.19	28.4	370	12.4
MO-2007-6A	907607	1/13/20		8.06	28.3	382	13.6
MO-2007-6A	907607	2/6/20		8.25	26.6	319	10.8
MO-2007-6A	907607	2/6/20	DUP	8.25	26.6	319	11.0
MO-2007-6A	907607	3/4/20		8.06	28.0	387	20.3
MO-2007-6A	907607	4/8/20		8.14	29.3	429	21.5
MO-2007-6A	907607	4/8/20	DUP	8.14	29.3	429	22.3
MO-2007-6A	907607	7/27/20		8.49	27.9	270	6.51
MO-2007-6A	907607	10/22/20		8.26	28.6	274	10.6
MO-2007-6A	907607	1/12/21		8.49	26.1	331	10.6
MO-2007-6A	907607	4/9/21		8.56	26.8	310	6.42
MO-2007-6A	907607	8/10/21		8.54	28.6	290	8.00
MO-2007-6A	907607	10/14/21		8.47	27.0	335	9.19
MO-2007-6A	907607	1/18/22		8.43	27.0	315	11.0
MO-2007-6A	907607	4/8/22		8.66	27.4	253	6.49
MO-2007-6A	907607	8/8/22		8.50	28.4	289	39.6
MO-2007-6A	907607	8/8/22	DUP	8.50	28.4	289	6.90
MO-2007-6A	907607	10/19/22		8.38	26.9	331	6.14
MO-2007-6A	907607	10/19/22	DUP	8.38	26.9	331	5.98
MO-2007-6A	907607	1/24/23		8.47	27.2	302	7.18
MO-2007-6A	907607	4/17/23		8.63	27.4	276	6.01
MO-2007-6A	907607	7/13/23		8.47	28.2	282	6.39
MO-2007-6A	907607	10/10/23		8.32	27.1	352	6.88
MO-2007-6B	907606	2/7/19		8.34	30.6	262	51.5
MO-2007-6B	907606	2/7/19	DUP	8.34	30.6	262	51.5
MO-2007-6B	907606	4/9/19		7.98	32.0	307	52.8
MO-2007-6B	907606	7/30/19		7.93	29.8	274	47.6
MO-2007-6B	907606	9/5/19		7.81	32.2	418	48.1
MO-2007-6B	907606	10/9/19		7.84	30.8	403	48.6
MO-2007-6B	907606	11/12/19		7.87	31.1	416	49.0
MO-2007-6B	907606	12/5/19		7.97	32.2	416	49.1
MO-2007-6B	907606	1/13/20		7.95	30.6	460	49.4
MO-2007-6B	907606	2/6/20		7.93	29.7	408	51.9
MO-2007-6B	907606	3/4/20		7.98	30.2	408	46.9
MO-2007-6B	907606	4/8/20		8.05	31.8	360	39.4
MO-2007-6B	907606	7/27/20		8.74	30.2	369	45.0
MO-2007-6B	907606	10/22/20		8.23	31.0	430	67.6
MO-2007-6B	907606	1/12/21		8.43	28.5	376	42.3
MO-2007-6B	907606	4/9/21		8.09	30.6	372	43.1
MO-2007-6B	907606	8/10/21		8.18	32.4	402	49.9
MO-2007-6B	907606	10/14/21		8.26	29.4	371	42.2
MO-2007-6B	907606	1/18/22		8.13	30.4	366	38.9
MO-2007-6B	907606	4/8/22		8.38	30.4	326	33.2
MO-2007-6B	907606	8/8/22		8.26	32.5	361	9.03
MO-2007-6B	907606	10/19/22		8.24	29.4	366	43.6
MO-2007-6B	907606	1/24/23		8.14	30.4	360	40.5
MO-2007-6B	907606	4/17/23		8.35	30.4	332	47.4
MO-2007-6B	907606	7/13/23		8.24	32.2	352	42.1
MO-2007-6B	907606	10/11/23		8.21	29.4	361	42.8
MO-2009-1	910458	2/20/19		8.99	25.7	330	36.2
MO-2009-1	910458	4/10/19		8.85	28.2	537	138
MO-2009-1	910458	7/30/19		8.83	28.7	471	136
MO-2009-1	910458	9/4/19		8.42	30.4	589	118
MO-2009-1	910458	10/9/19		8.43	29.8	596	128

APPENDIX A
Sulfate Concentration Data 2019 Through 2023

Well Name	ADWR 55 Registry No.	Sample Date	Duplicate	pH (SU)	Temperature (deg C)	Specific Conductance (µS/cm)	Sulfate, Dissolved (mg/L)
MO-2009-1	910458	11/11/19		8.42	30.7	533	95.5
MO-2009-1	910458	12/2/19		8.35	29.8	542	94.4
MO-2009-1	910458	1/13/20		8.35	27.6	582	100
MO-2009-1	910458	1/13/20	DUP	8.35	27.6	582	91.1
MO-2009-1	910458	2/4/20		8.41	25.4	512	94.1
MO-2009-1	910458	3/3/20		8.40	28.5	515	94.0
MO-2009-1	910458	4/7/20		8.43	29.4	540	96.6
MO-2009-1	910458	4/7/20	DUP	8.43	29.4	540	96.5
MO-2009-1	910458	7/16/20		8.45	30.6	544	103
MO-2009-1	910458	10/22/20		8.71	29.7	580	126
MO-2009-1	910458	1/12/21		8.31	27.3	458	71.6
MO-2009-1	910458	1/12/21	DUP	8.31	27.3	458	66.6
MO-2009-1	910458	4/9/21		8.42	29.6	553	97.8
MO-2009-1	910458	4/9/21	DUP	8.42	29.6	553	98.8
MO-2009-1	910458	8/15/21		8.32	31.2	470	59.0
MO-2009-1	910458	10/22/21		8.50	29.4	496	74.7
MO-2009-1	910458	10/22/21	DUP	8.50	29.4	496	74.6
MO-2009-1	910458	1/18/22		8.61	26.6	339	37.9
MO-2009-1	910458	1/18/22	DUP	8.61	26.6	339	37.9
MO-2009-1	910458	4/13/22		8.54	28.8	405	58.7
MO-2009-1	910458	8/17/22		8.30	31.2	440	63.3
MO-2009-1	910458	10/24/22		8.48	29.3	500	53.7
MO-2009-1	910458	1/24/23		8.60	26.5	330	36.6
MO-2009-1	910458	5/2/23		8.52	28.6	402	59.7
MO-2009-1	910458	7/19/23		8.33	31.1	402	82.2
MO-2009-1	910458	10/12/23		8.45	29.3	505	56.5
MW-2016-5A	919635	2/19/19		7.91	26.0	356	29.5
MW-2016-5A	919635	4/15/19		7.87	26.2	272	29.0
MW-2016-5A	919635	10/29/19		7.78	26.8	457	21.5
MW-2016-5A	919635	10/29/19	DUP	7.78	26.8	457	21.7
MW-2016-5A	919635	4/23/20		8.07	26.3	352	28.6
MW-2016-5A	919635	11/4/20		8.18	27.0	430	22.9
MW-2016-5A	919635	11/4/20	DUP	8.18	27.0	430	20.4
MW-2016-5A	919635	5/19/21		8.07	26.6	402	28.2
MW-2016-5A	919635	10/20/21		8.00	28.6	391	21.0
MW-2016-5A	919635	5/3/22		8.27	26.4	384	24.4
MW-2016-5A	919635	11/7/22		8.04	28.4	379	27.2
MW-2016-5A	919635	11/7/22	DUP	8.04	28.4	379	27.1
MW-2016-5A	919635	5/3/23		8.25	26.3	388	29.0
MW-2016-5A	919635	11/2/23		8.33	29.4	495	23.7
MW-2016-5A	919635	11/2/23	DUP	8.33	29.4	495	23.8
MW-2016-5B	919472	2/19/19		8.30	27.0	281	60.4
MW-2016-5B	919472	4/15/19		8.06	27.7	249	56.6
MW-2016-5B	919472	10/28/19		8.32	28.4	468	60.7
MW-2016-5B	919472	4/23/20		8.98	27.1	319	38.6
MW-2016-5B	919472	11/4/20		8.50	29.6	498	69.3
MW-2016-5B	919472	5/19/21		8.43	28.6	419	77.0
MW-2016-5B	919472	10/20/21		8.37	29.4	480	59.7
MW-2016-5B	919472	5/3/22		8.52	28.5	432	65.2
MW-2016-5B	919472	11/7/22		8.35	29.3	482	66.7
MW-2016-5B	919472	5/3/23		8.49	28.5	427	67.3
MW-2016-5B	919472	11/2/23		8.33	29.4	510	77.2
MW-2016-6	919676	2/19/19		7.89	27.5	396	167
MW-2016-6	919676	4/15/19		7.84	27.3	274	75.1
MW-2016-6	919676	10/28/19		8.30	26.9	652	164
MW-2016-6	919676	4/23/20		8.79	26.8	298	37.5

APPENDIX A
Sulfate Concentration Data 2019 Through 2023

Well Name	ADWR 55 Registry No.	Sample Date	Duplicate	pH (SU)	Temperature (deg C)	Specific Conductance (µS/cm)	Sulfate, Dissolved (mg/L)
MW-2016-6	919676	11/4/20		8.43	27.3	738	153
MW-2016-6	919676	5/19/21		8.46	27.6	492	165
MW-2016-6	919676	10/20/21		8.71	28.4	470	127
MW-2016-6	919676	5/3/22		8.45	27.6	676	144
MW-2016-6	919676	11/15/22		8.64	28.4	459	133
MW-2016-6	919676	5/3/23		8.43	27.6	652	133
MW-2016-6	919676	11/2/23		8.63	28.3	480	123
NP-2	605898	3/5/19		7.92	25.5	343	45.9
NP-2	605898	5/7/19		8.23	25.1	250	45.0
NP-2	605898	8/13/19		7.96	26.0	266	43.2
NP-2	605898	11/6/19		7.84	24.7	466	66.9
NP-2	605898	2/18/20		7.89	25.3	461	58.5
NP-2	605898	5/6/20		7.97	26.1	456	17.2
NP-2	605898	8/11/20		7.96	25.9	467	42.5
NP-2	605898	11/18/20		8.11	24.7	462	39.8
NP-2	605898	3/8/21		8.08	25.4	458	40.5
NP-2	605898	6/29/21		8.08	25.8	459	41.0
NP-2	605898	8/17/21		7.65	25.8	462	41.9
NP-2	605898	11/15/21		8.29	257	420	58.2
NP-2	605898	2/8/22		8.30	24.7	418	38.9
NP-2	605898	5/4/22		8.26	25.1	407	36.7
NP-2	605898	8/24/22		7.60	25.8	418	39.6
NP-2	605898	11/9/22		8.31	25.7	423	39.1
NP-2	605898	1/25/23		8.29	24.6	416	38.0
NP-2	605898	5/8/23		8.28	25.0	409	42.3
NP-2	605898	7/24/23		7.37	25.8	424	45.6
NP-2	605898	11/6/23		8.26	25.9	424	44.0
PS-1	220861	4/16/19		7.78	27.2	1338	1390
PS-1	220861	5/26/20		8.19	27.3	2595	1200
PS-1	220861	4/7/21		7.83	27.7	2694	1330
PS-1	220861	4/22/22		8.46	27.4	2480	1250
PS-1	220861	5/15/23		8.42	27.1	2430	1300
PS-2	220862	4/16/19		7.83	26.9	1245	1070
PS-2	220862	5/26/20		8.09	27.0	2202	965
PS-2	220862	4/7/21		7.87	27.4	2214	997
PS-2	220862	4/25/22		8.33	27.2	1958	999
PS-2	220862	5/15/23		8.31	27.4	1988	896
PS-3	220863	4/16/19		7.90	27.3	1152	946
PS-3	220863	5/26/20		8.06	27.4	1899	833
PS-3	220863	4/7/21		7.92	27.3	1866	843
PS-3	220863	4/7/21	DUP	7.92	27.3	1866	835
PS-3	220863	4/25/22		8.39	27.2	1586	818
PS-3	220863	5/15/23		8.36	27.4	1627	692
PS-4	220864	4/16/19		7.70	27.2	1328	1390
PS-4	220864	4/16/19	DUP	7.70	27.2	1328	1450
PS-4	220864	5/26/20		8.46	27.4	2772	1210
PS-4	220864	4/7/21		8.01	27.7	2543	1210
PS-4	220864	4/22/22		8.23	27.1	2341	1150
PS-4	220864	5/15/23		8.25	27.0	2280	1180
PZ-7	561870	4/16/19		8.04	24.6	948	528
PZ-7	561870	4/15/20		8.05	24.4	1384	490
PZ-7	561870	4/8/21		7.92	24.4	1410	482
PZ-7	561870	4/26/22		8.04	24.7	1490	687
PZ-7	561870	4/18/23		8.04	24.8	1479	590
PZ-8	561866	4/17/19		7.86	23.6	844	580
PZ-8	561866	4/15/20		7.83	23.0	1535	518

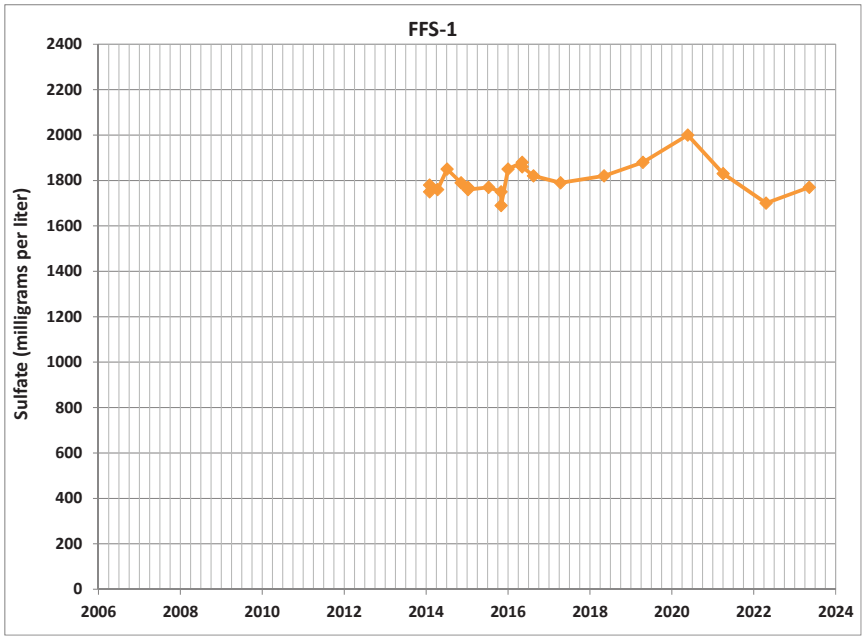
APPENDIX A
Sulfate Concentration Data 2019 Through 2023

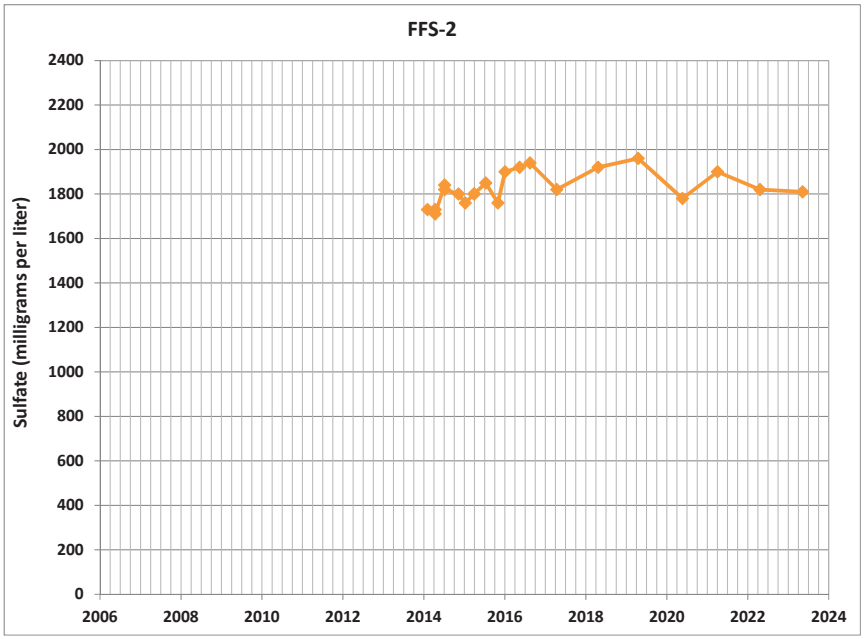
Well Name	ADWR 55 Registry No.	Sample Date	Duplicate	pH (SU)	Temperature (deg C)	Specific Conductance (µS/cm)	Sulfate, Dissolved (mg/L)
PZ-8	561866	4/9/21		8.08	22.5	1522	745
PZ-8	561866	5/17/22		8.03	25.4	1471	622
PZ-8	561866	4/12/23		8.01	25.4	1460	666

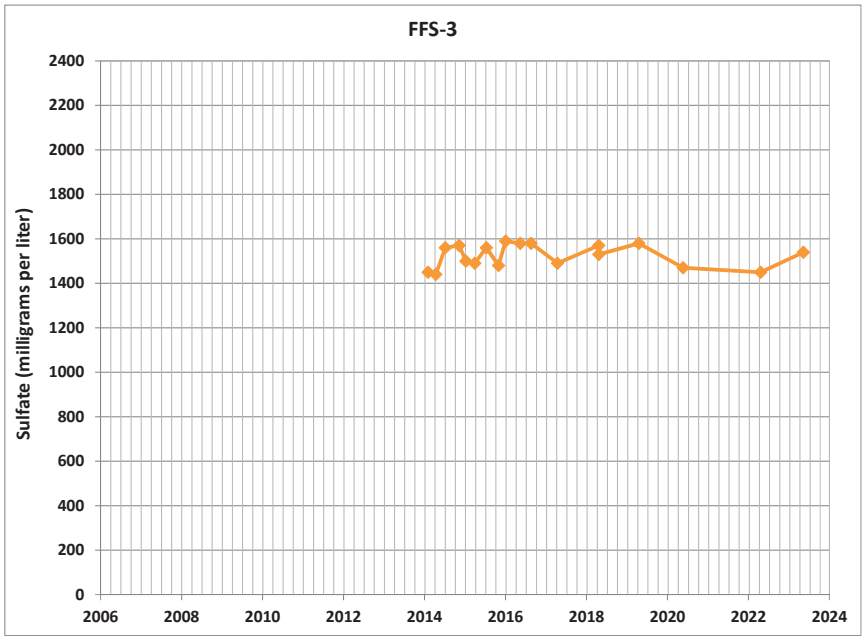
Notes:
ADWR = Arizona Department of Water Resources
SU = Standard Units
deg C = degrees Celsius
µS/cm = microsiemens per centimeter
mg/L = milligrams per Liter
DUP = duplicate sample

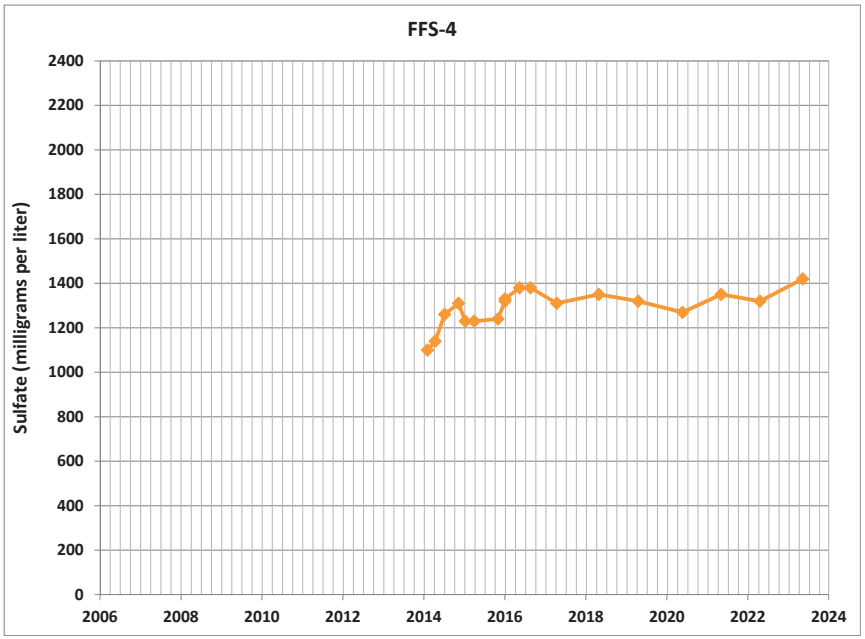
APPENDIX B

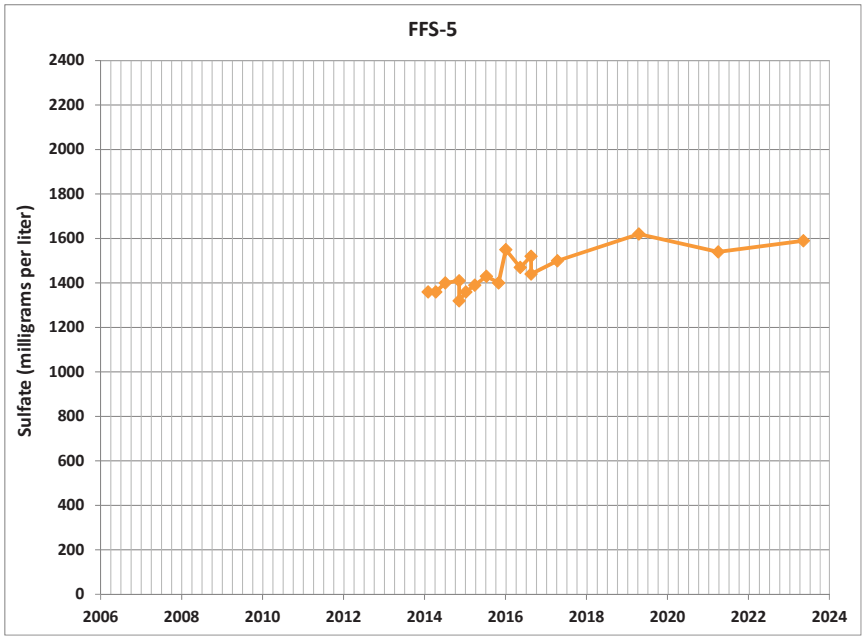
GRAPHS OF SULFATE OVER TIME IN EXTRACTION WELLS

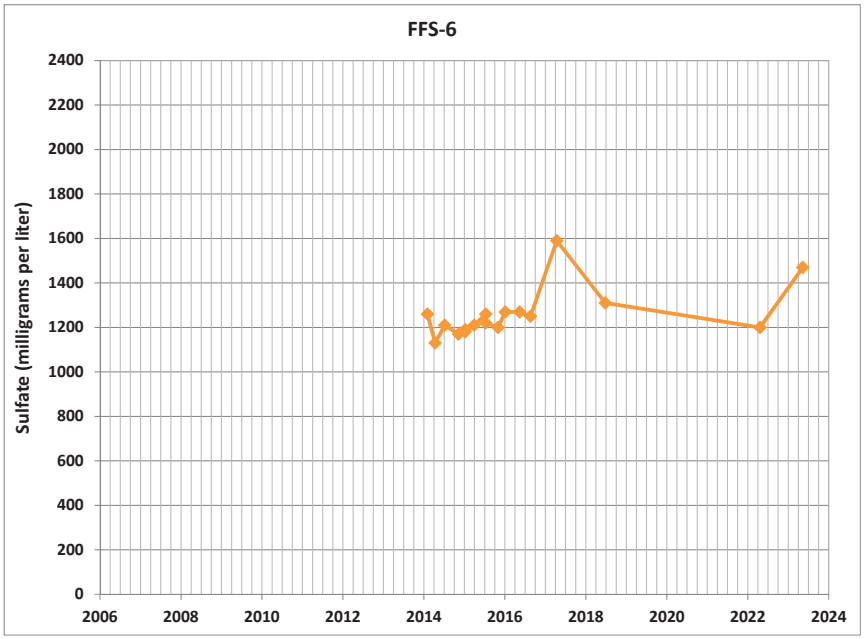

FFS-1
Sulfate (milligrams per liter)
0
200
400
600
800
1000
1200
1400
1600
1800
2000
2200
2400
2006
2008
2010
2012
2014
2016
2018
2020
2022
2024

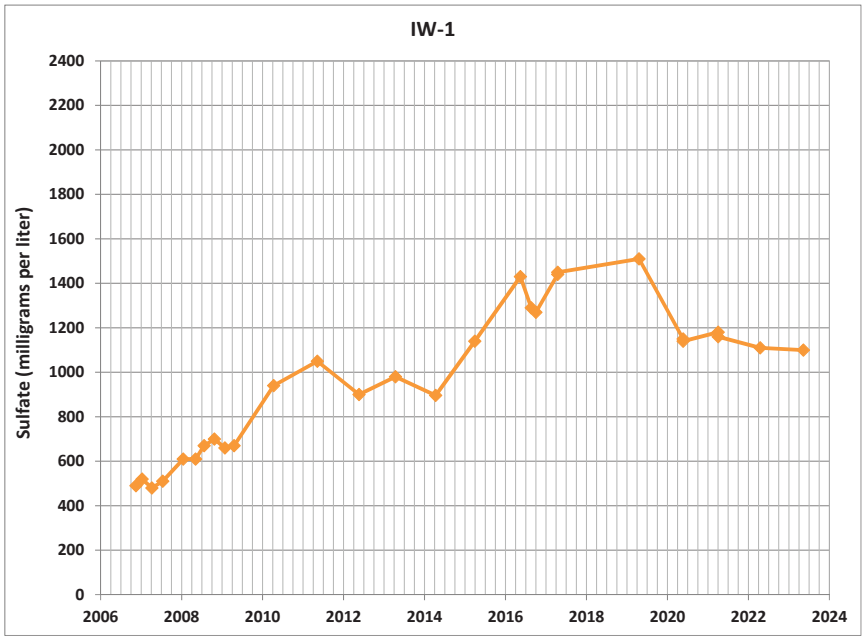

FFS-2
Sulfate (milligrams per liter)
0
200
400
600
800
1000
1200
1400
1600
1800
2000
2200
2400
2006
2008
2010
2012
2014
2016
2018
2020
2022
2024

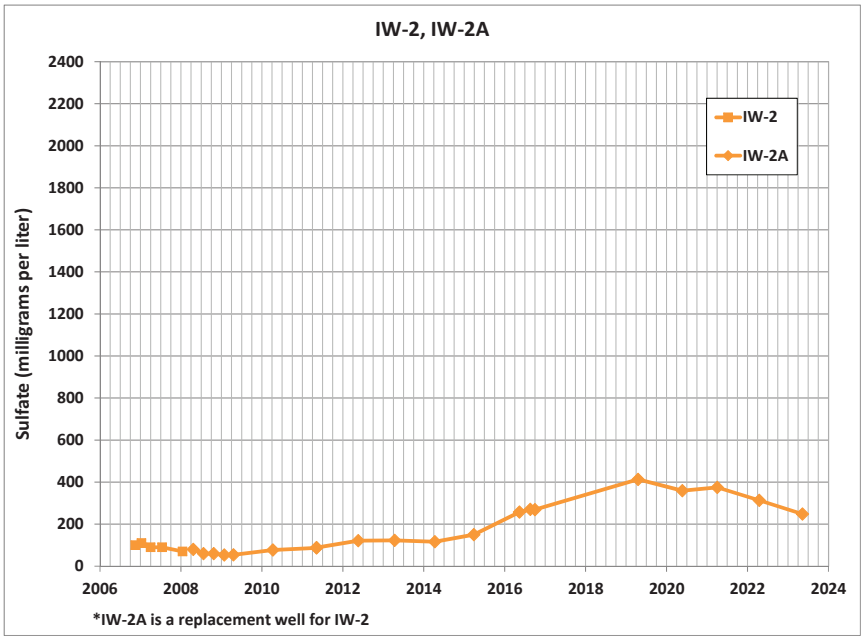

FFS-3
Sulfate (milligrams per liter)
0
200
400
600
800
1000
1200
1400
1600
1800
2000
2200
2400
2006
2008
2010
2012
2014
2016
2018
2020
2022
2024

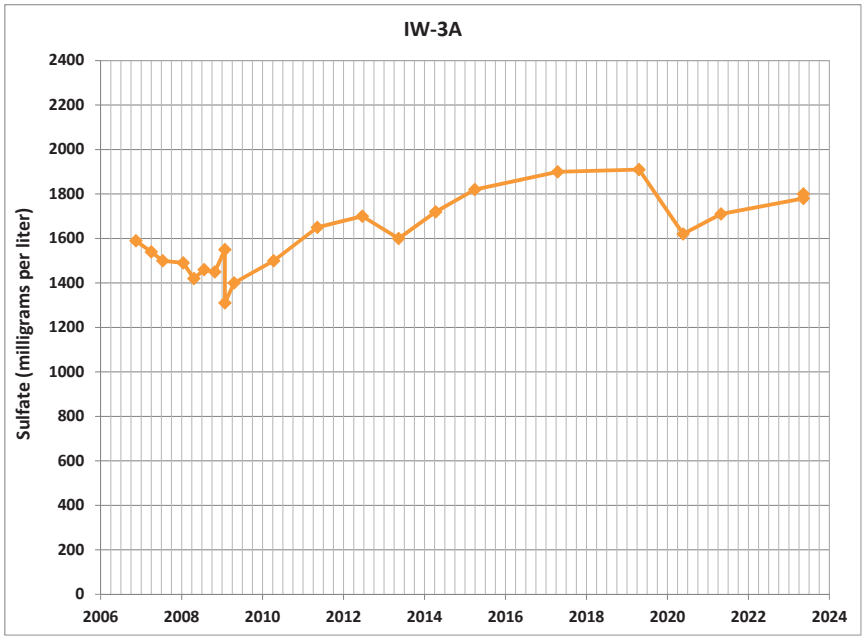

FFS-4
Sulfate (milligrams per liter)
0
200
400
600
800
1000
1200
1400
1600
1800
2000
2200
2400
2006
2008
2010
2012
2014
2016
2018
2020
2022
2024

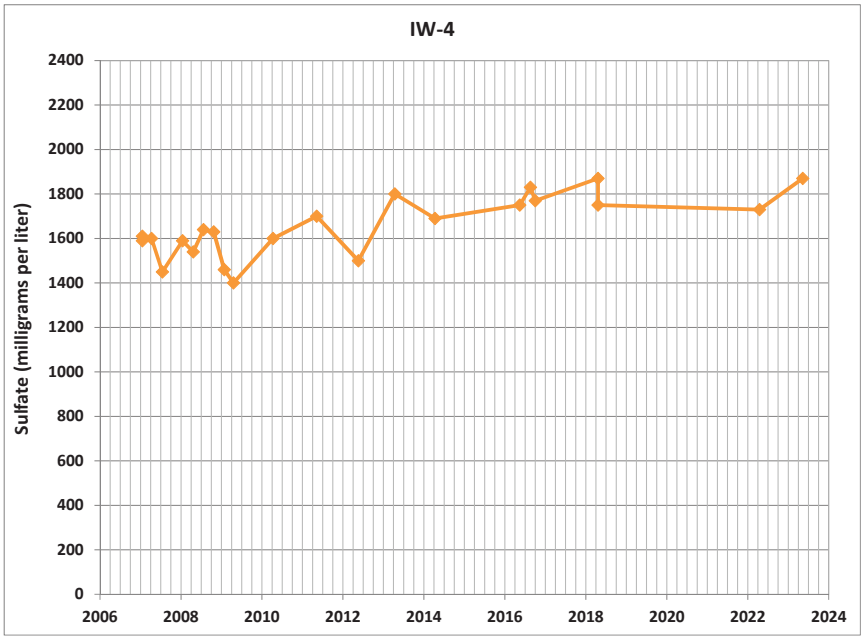

FFS-5
Sulfate (milligrams per liter)
0
200
400
600
800
1000
1200
1400
1600
1800
2000
2200
2400
2006
2008
2010
2012
2014
2016
2018
2020
2022
2024

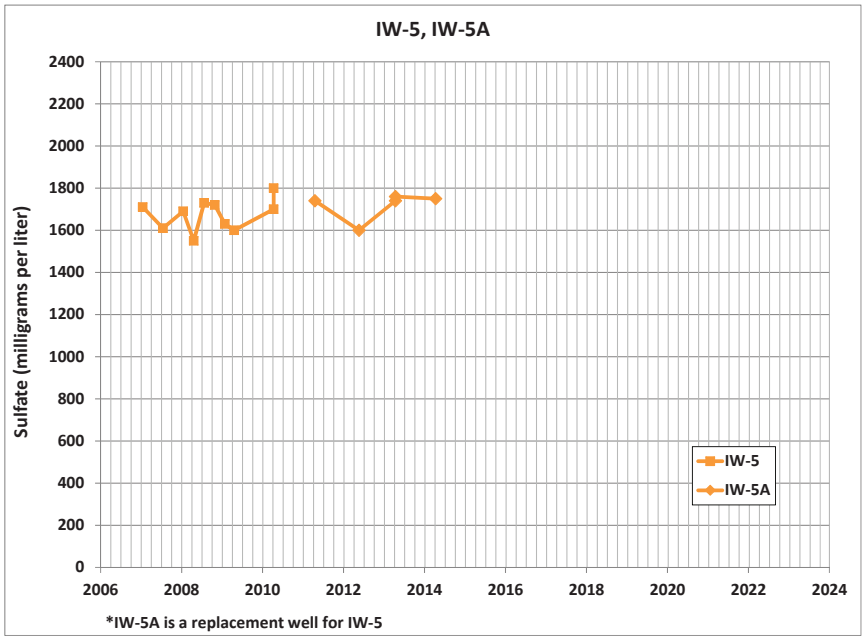

FFS-6
Sulfate (milligrams per liter)
0
200
400
600
800
1000
1200
1400
1600
1800
2000
2200
2400
2006
2008
2010
2012
2014
2016
2018
2020
2022
2024

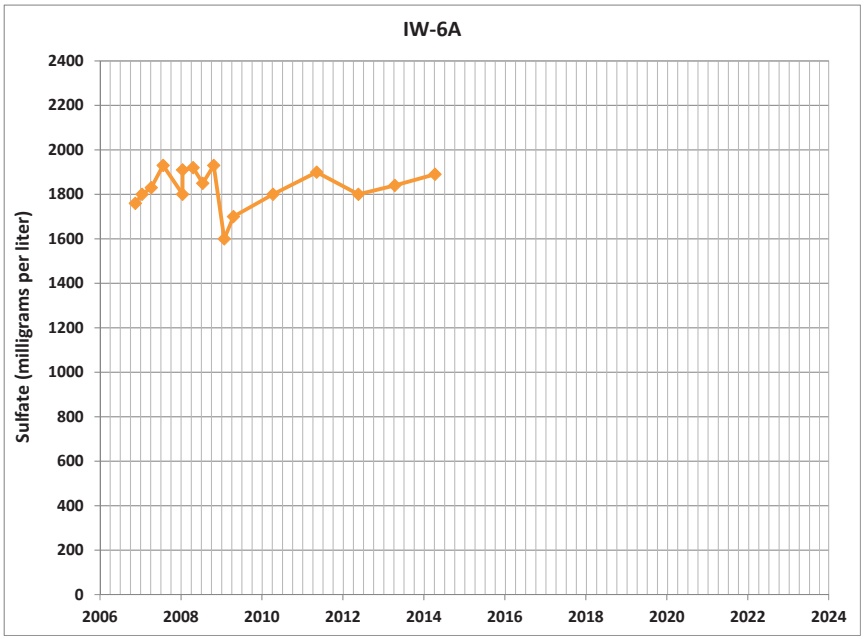

IW-1
Sulfate (milligrams per liter)
0
200
400
600
800
1000
1200
1400
1600
1800
2000
2200
2400
2006
2008
2010
2012
2014
2016
2018
2020
2022
2024

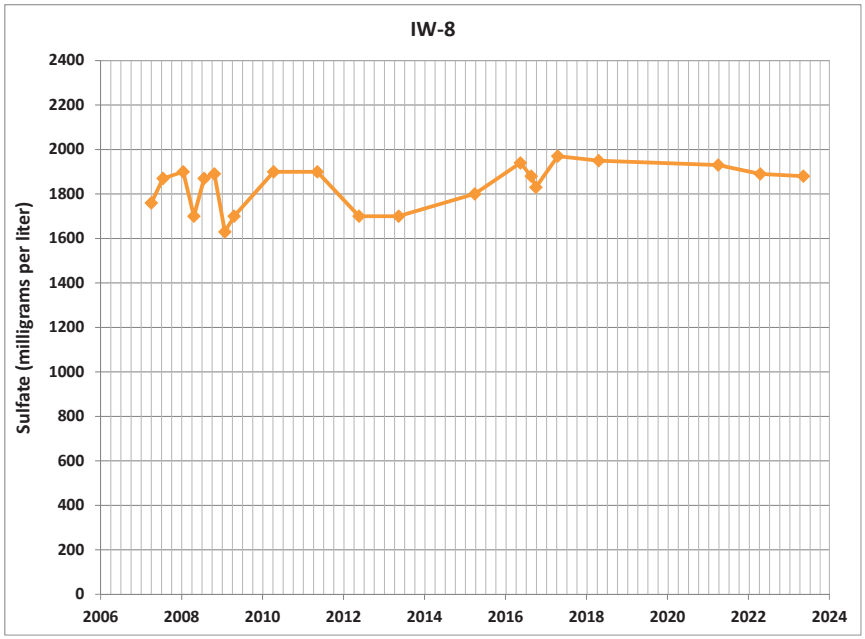

IW-2, IW-2A
Sulfate (milligrams per liter)
0
200
400
600
800
1000
1200
1400
1600
1800
2000
2200
2400
2006
2008
2010
2012
2014
2016
2018
2020
2022
2024
IW-2
IW-2A
*IW-2A is a replacement well for IW-2

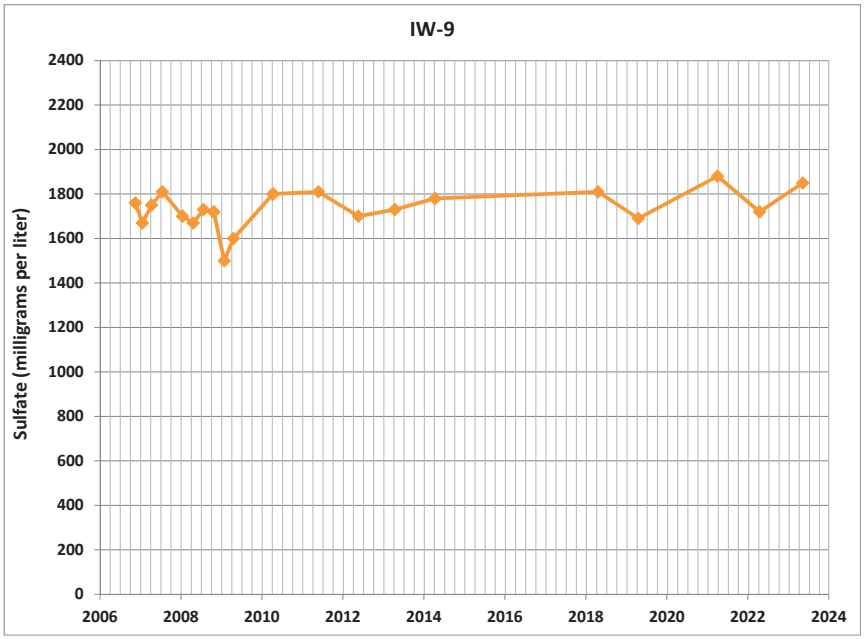

IW-3A
Sulfate (milligrams per liter)
0
200
400
600
800
1000
1200
1400
1600
1800
2000
2200
2400
2006
2008
2010
2012
2014
2016
2018
2020
2022
2024

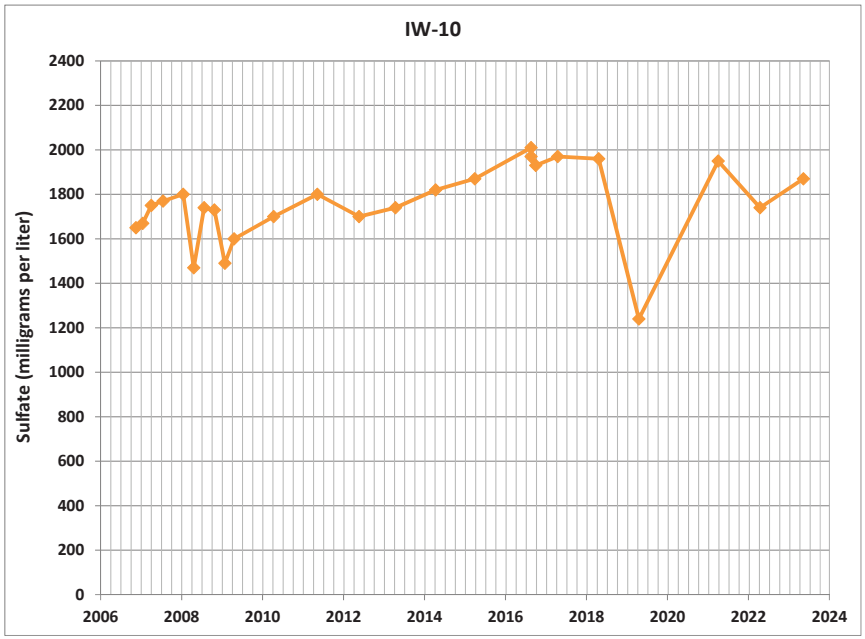

IW-4
Sulfate (milligrams per liter)
0
200
400
600
800
1000
1200
1400
1600
1800
2000
2200
2400
2006
2008
2010
2012
2014
2016
2018
2020
2022
2024

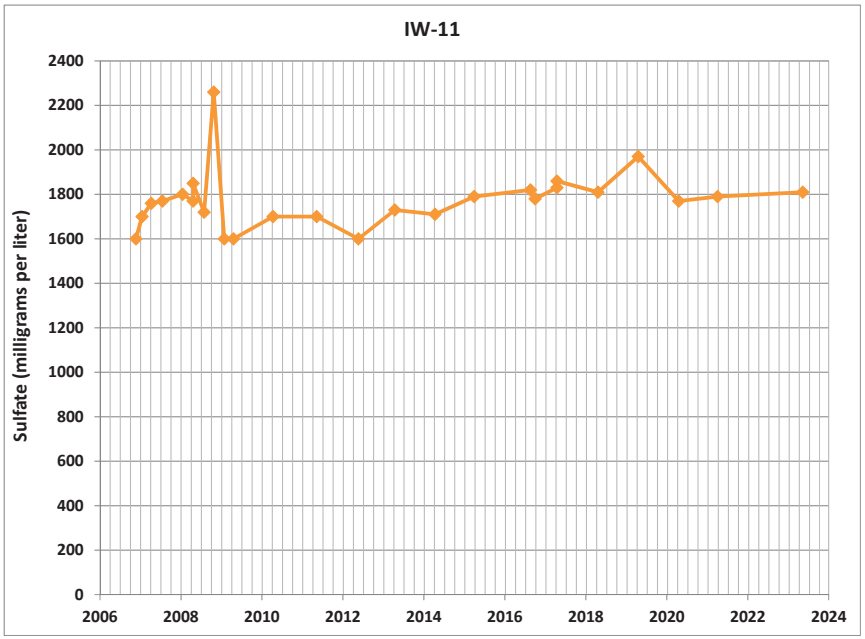

IW-5, IW-5A
Sulfate (milligrams per liter)
0
200
400
600
800
1000
1200
1400
1600
1800
2000
2200
2400
2006
2008
2010
2012
2014
2016
2018
2020
2022
2024
IW-5
IW-5A
*IW-5A is a replacement well for IW-5

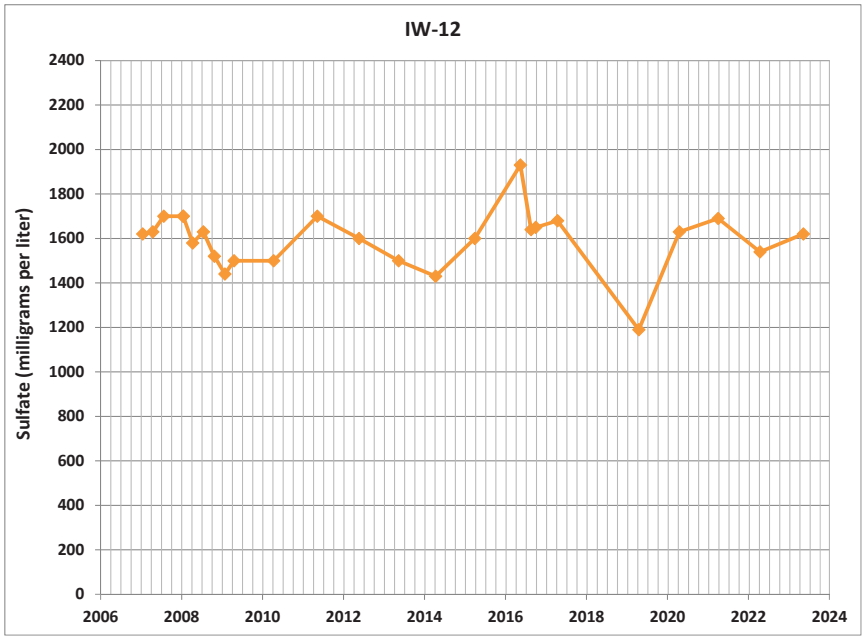

IW-6A
Sulfate (milligrams per liter)
0
200
400
600
800
1000
1200
1400
1600
1800
2000
2200
2400
2006
2008
2010
2012
2014
2016
2018
2020
2022
2024

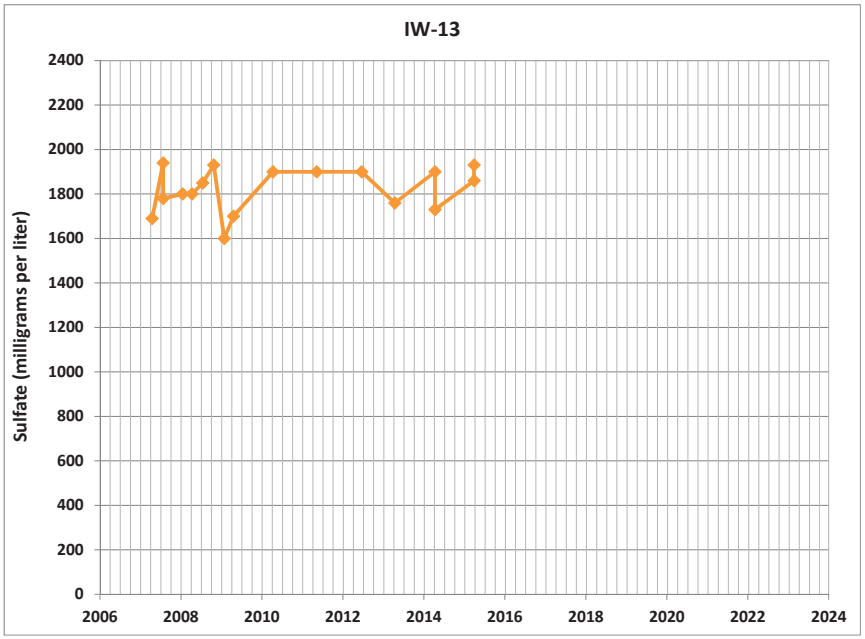

IW-8
Sulfate (milligrams per liter)
2400
2200
2000
1800
1600
1400
1200
1000
800
600
400
200
0
2006
2008
2010
2012
2014
2016
2018
2020
2022
2024

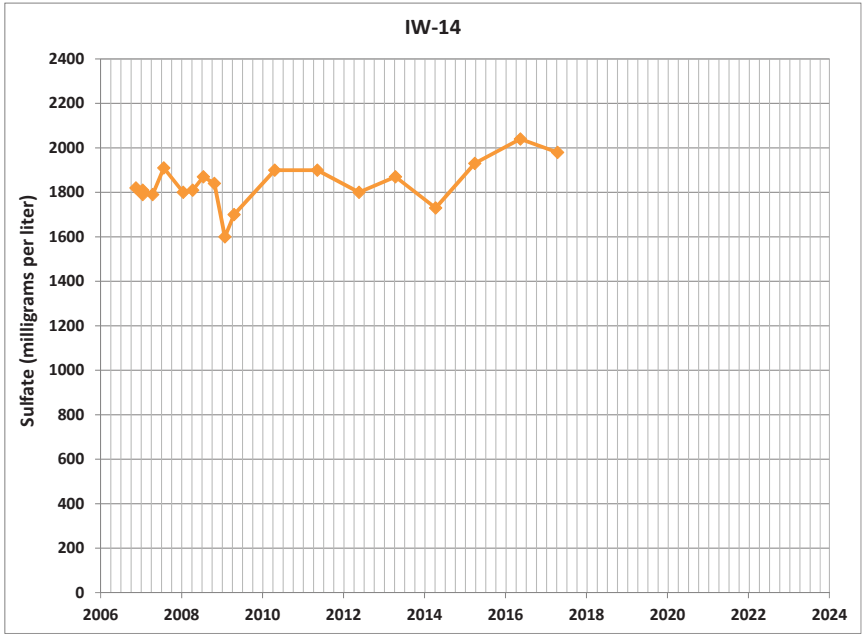

IW-9
Sulfate (milligrams per liter)
2400
2200
2000
1800
1600
1400
1200
1000
800
600
400
200
0
2006
2008
2010
2012
2014
2016
2018
2020
2022
2024

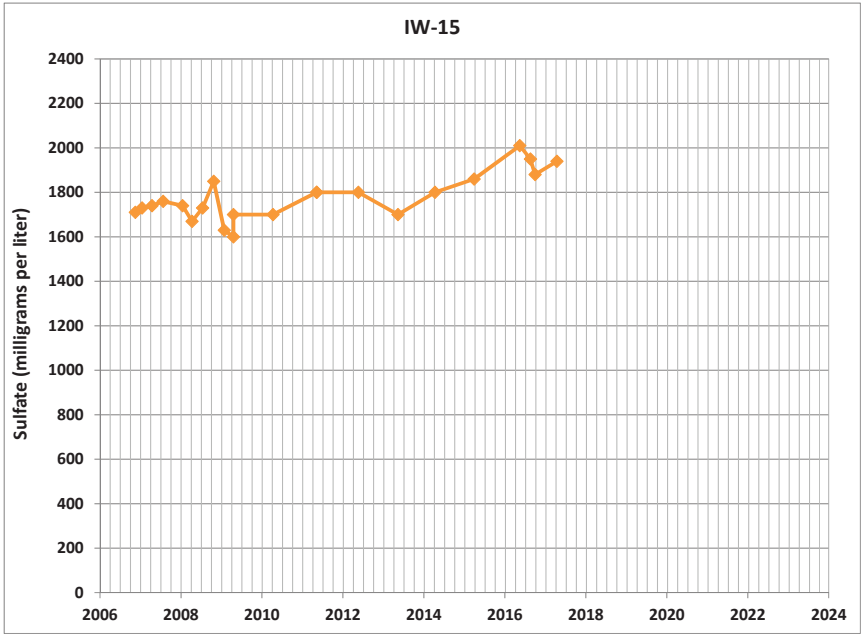

IW-10
Sulfate (milligrams per liter)
2400
2200
2000
1800
1600
1400
1200
1000
800
600
400
200
0
2006
2008
2010
2012
2014
2016
2018
2020
2022
2024

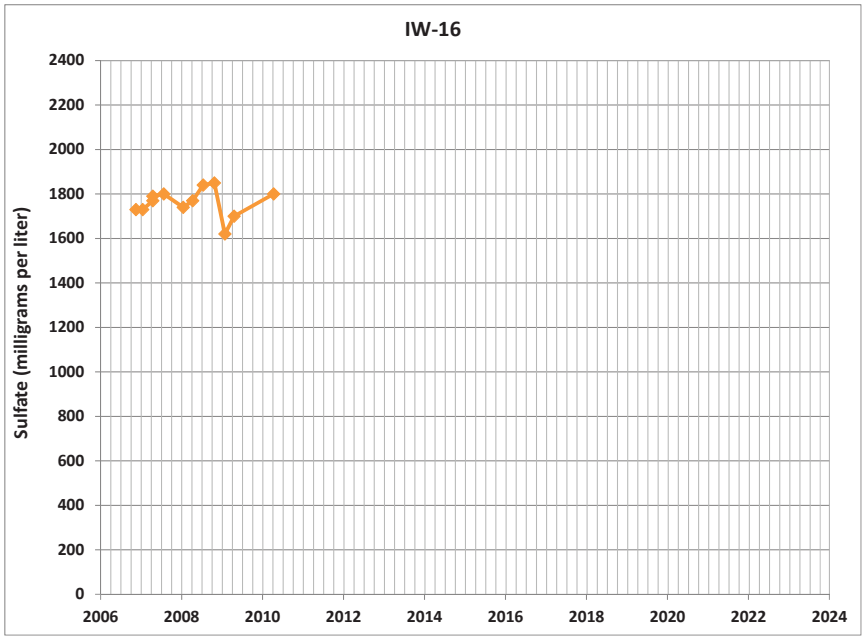

IW-11
Sulfate (milligrams per liter)
2400
2200
2000
1800
1600
1400
1200
1000
800
600
400
200
0
2006
2008
2010
2012
2014
2016
2018
2020
2022
2024

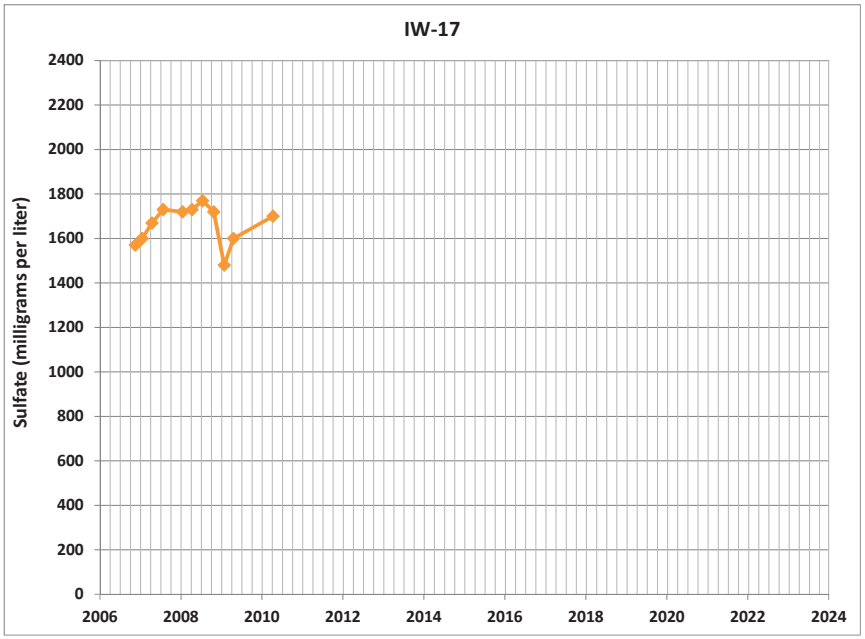

IW-12
Sulfate (milligrams per liter)
0
200
400
600
800
1000
1200
1400
1600
1800
2000
2200
2400
2006
2008
2010
2012
2014
2016
2018
2020
2022
2024

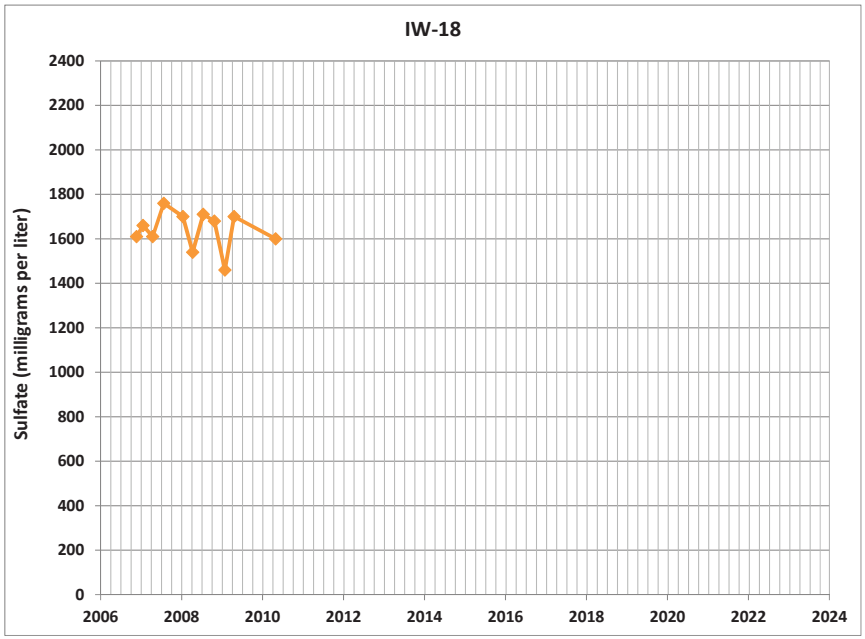

IW-13
Sulfate (milligrams per liter)
0
200
400
600
800
1000
1200
1400
1600
1800
2000
2200
2400
2006
2008
2010
2012
2014
2016
2018
2020
2022
2024

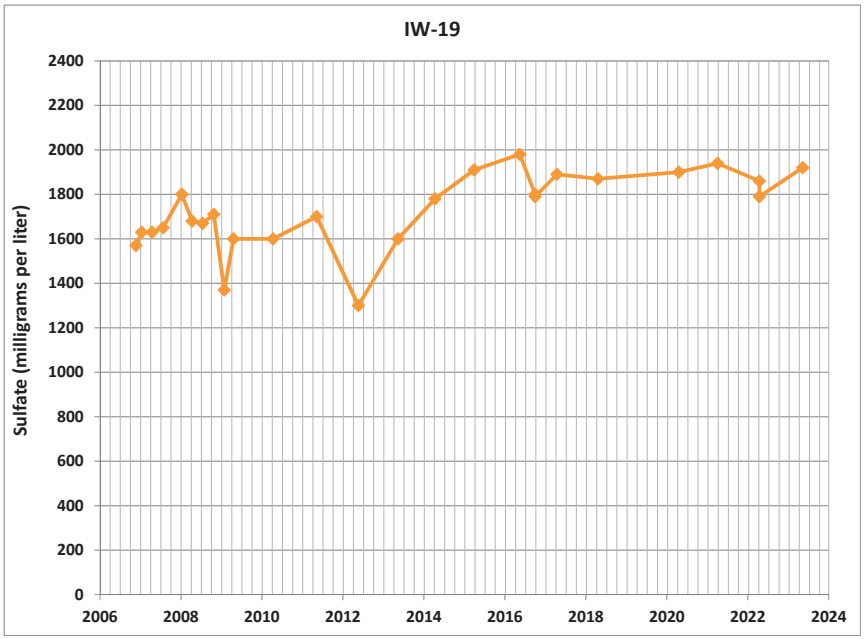

IW-14
Sulfate (milligrams per liter)
0
200
400
600
800
1000
1200
1400
1600
1800
2000
2200
2400
2006
2008
2010
2012
2014
2016
2018
2020
2022
2024

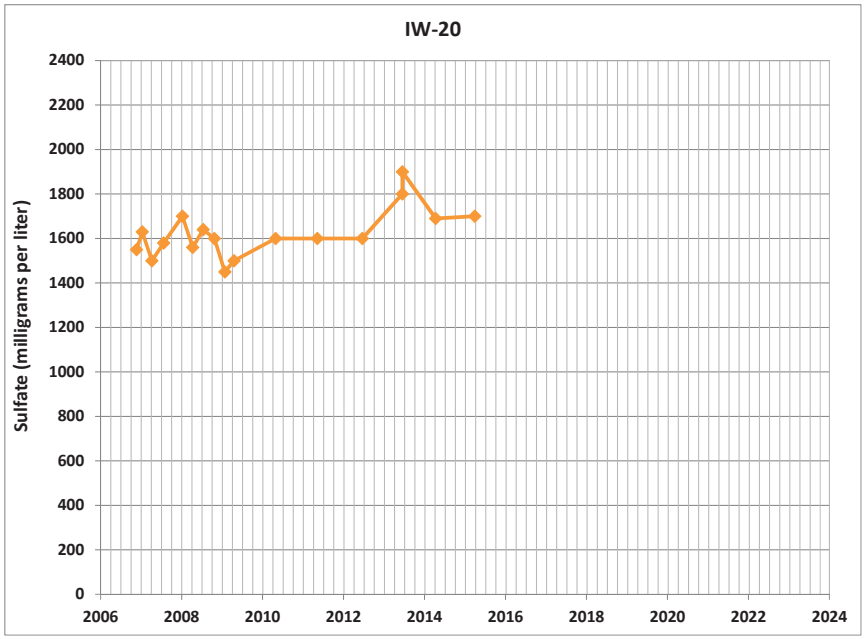

IW-15
Sulfate (milligrams per liter)
0
200
400
600
800
1000
1200
1400
1600
1800
2000
2200
2400
2006
2008
2010
2012
2014
2016
2018
2020
2022
2024

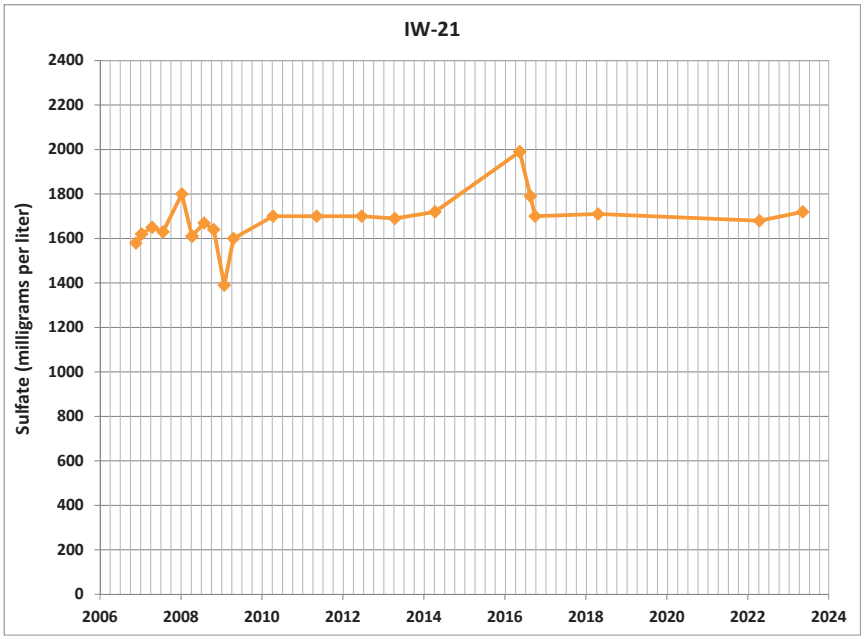

IW-16
Sulfate (milligrams per liter)
2400
2200
2000
1800
1600
1400
1200
1000
800
600
400
200
0
2006
2008
2010
2012
2014
2016
2018
2020
2022
2024

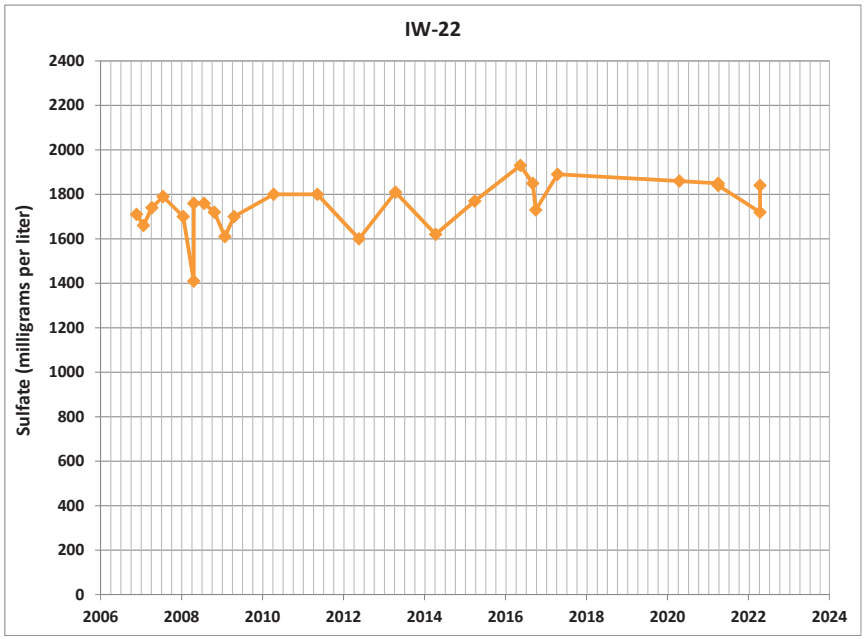

IW-17
Sulfate (milligrams per liter)
2400
2200
2000
1800
1600
1400
1200
1000
800
600
400
200
0
2006
2008
2010
2012
2014
2016
2018
2020
2022
2024

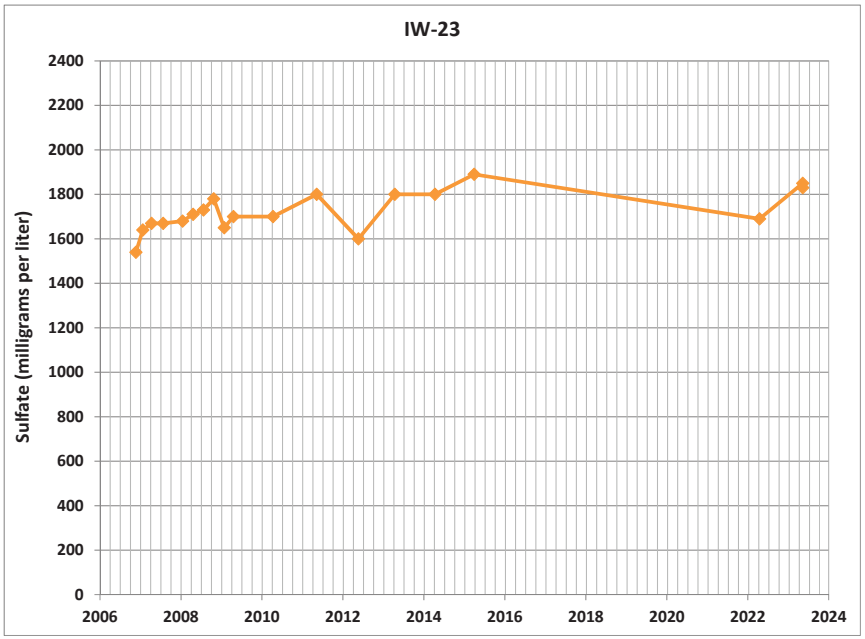

IW-18
Sulfate (milligrams per liter)
2400
2200
2000
1800
1600
1400
1200
1000
800
600
400
200
0
2006
2008
2010
2012
2014
2016
2018
2020
2022
2024

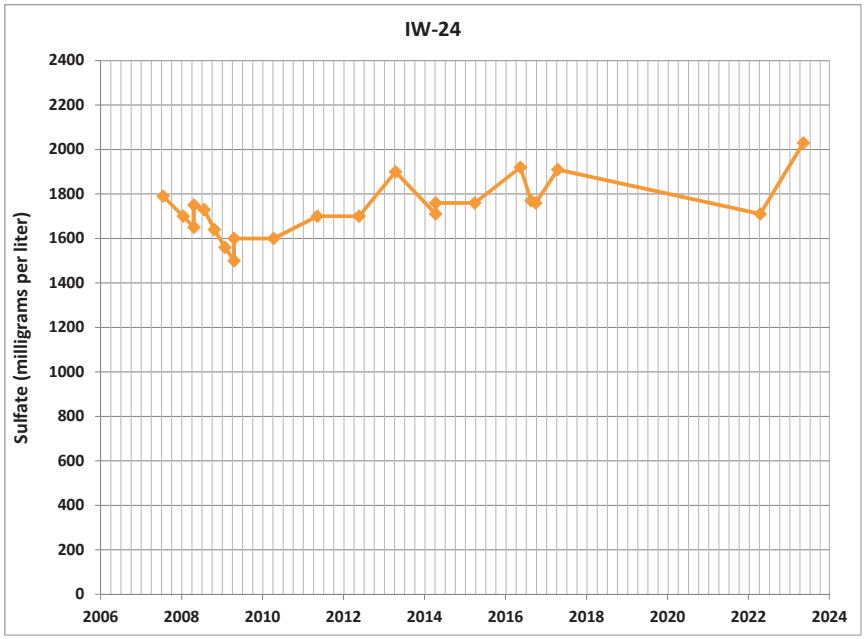

IW-19
Sulfate (milligrams per liter)
2400
2200
2000
1800
1600
1400
1200
1000
800
600
400
200
0
2006
2008
2010
2012
2014
2016
2018
2020
2022
2024

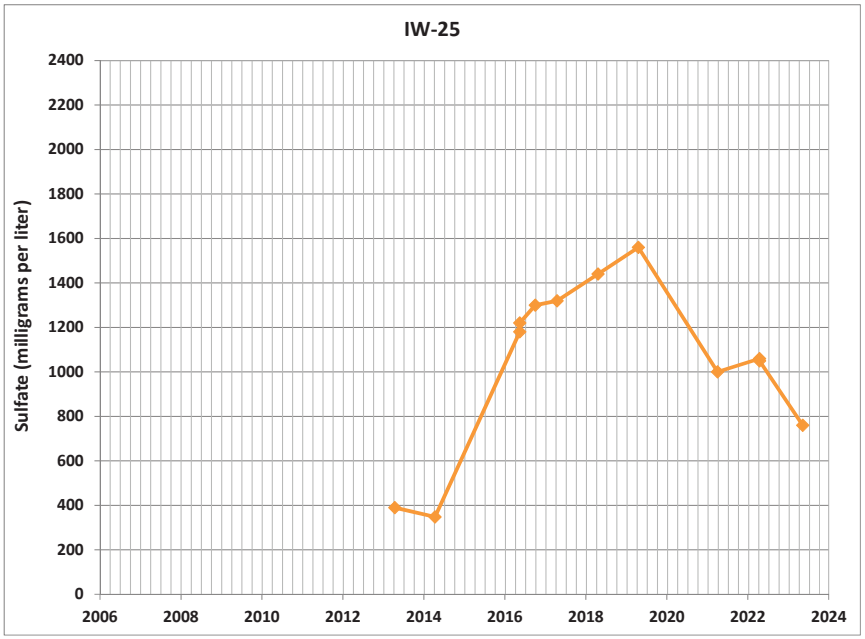

IW-20
Sulfate (milligrams per liter)
0
200
400
600
800
1000
1200
1400
1600
1800
2000
2200
2400
2006
2008
2010
2012
2014
2016
2018
2020
2022
2024

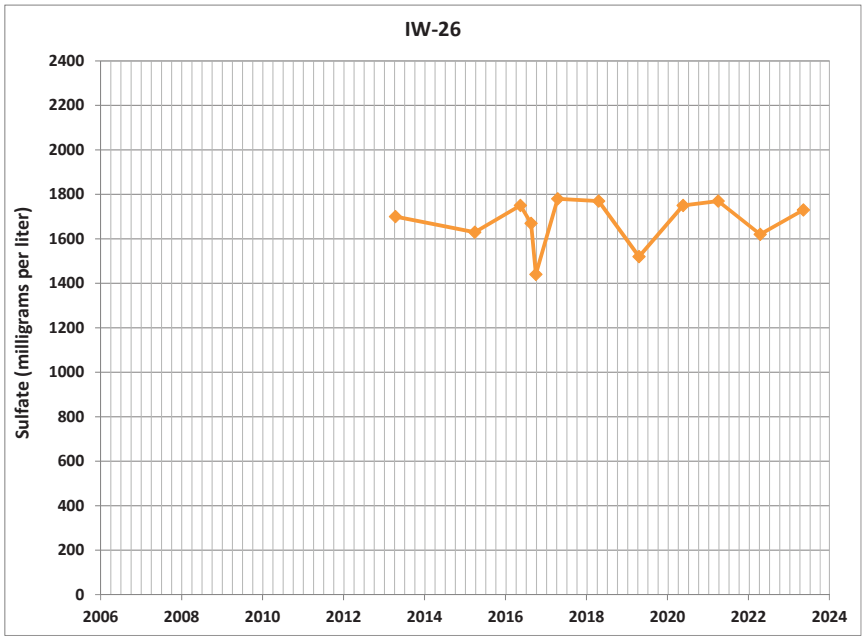

IW-21
Sulfate (milligrams per liter)
0
200
400
600
800
1000
1200
1400
1600
1800
2000
2200
2400
2006
2008
2010
2012
2014
2016
2018
2020
2022
2024

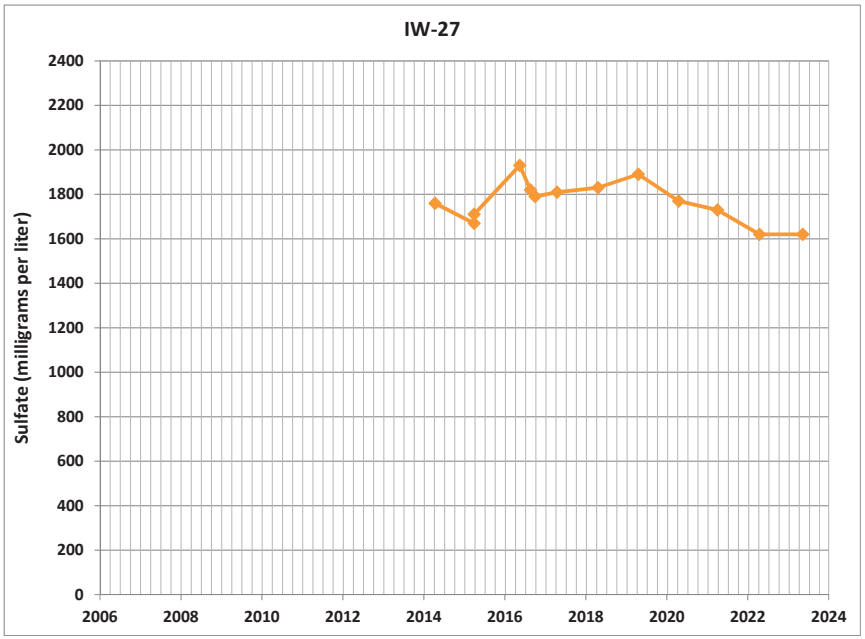

IW-22
Sulfate (milligrams per liter)
0
200
400
600
800
1000
1200
1400
1600
1800
2000
2200
2400
2006
2008
2010
2012
2014
2016
2018
2020
2022
2024

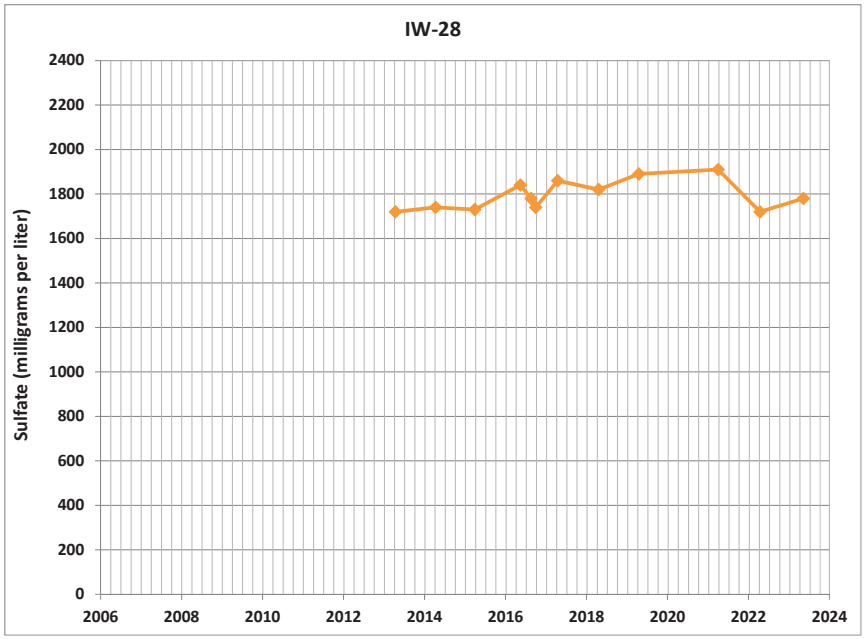

IW-23
Sulfate (milligrams per liter)
0
200
400
600
800
1000
1200
1400
1600
1800
2000
2200
2400
2006
2008
2010
2012
2014
2016
2018
2020
2022
2024

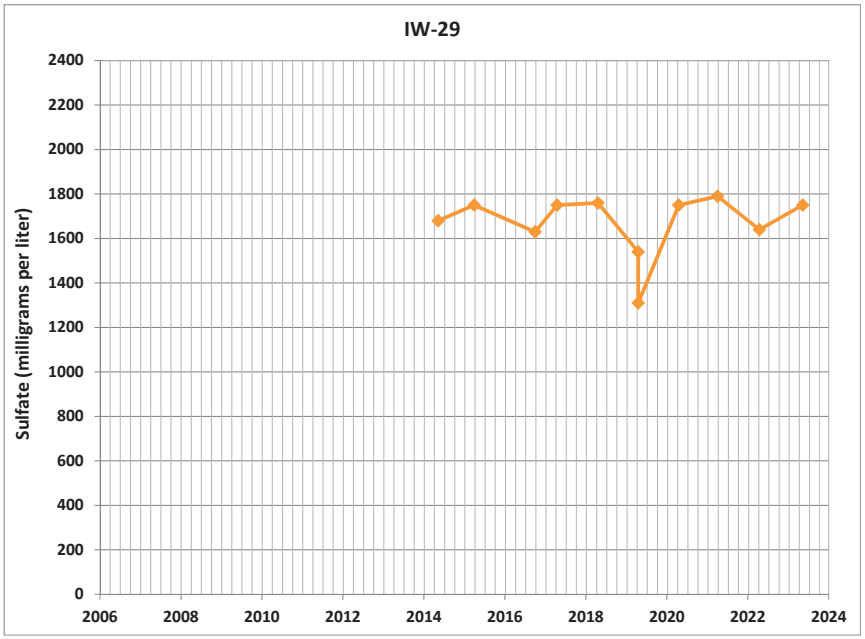

IW-24
Sulfate (milligrams per liter)
0
200
400
600
800
1000
1200
1400
1600
1800
2000
2200
2400
2006
2008
2010
2012
2014
2016
2018
2020
2022
2024

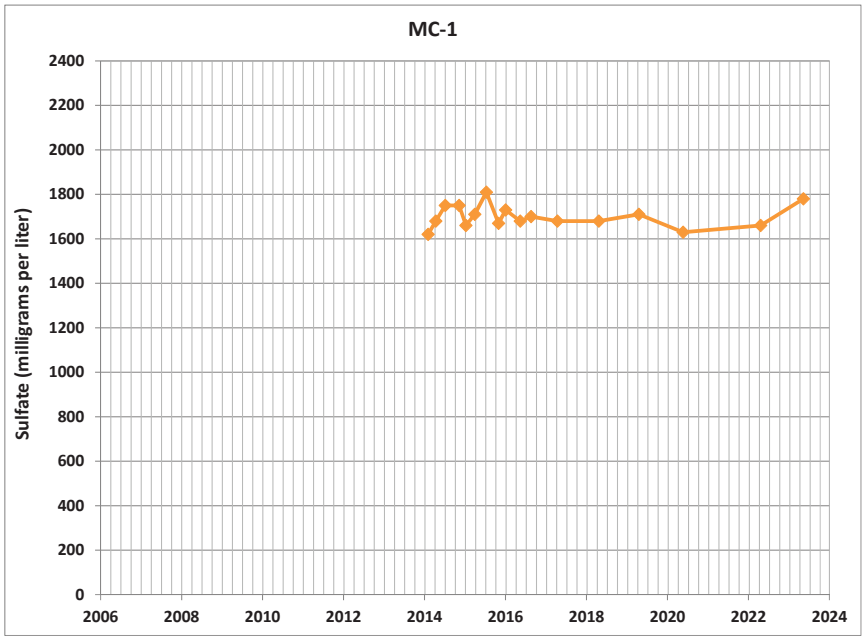

IW-25
Sulfate (milligrams per liter)
0
200
400
600
800
1000
1200
1400
1600
1800
2000
2200
2400
2006
2008
2010
2012
2014
2016
2018
2020
2022
2024

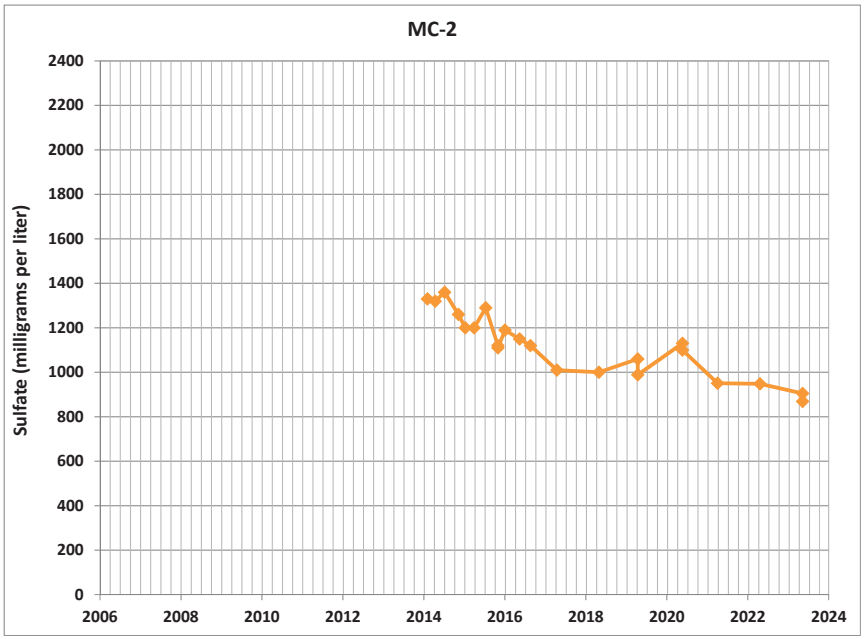

IW-26
Sulfate (milligrams per liter)
0
200
400
600
800
1000
1200
1400
1600
1800
2000
2200
2400
2006
2008
2010
2012
2014
2016
2018
2020
2022
2024

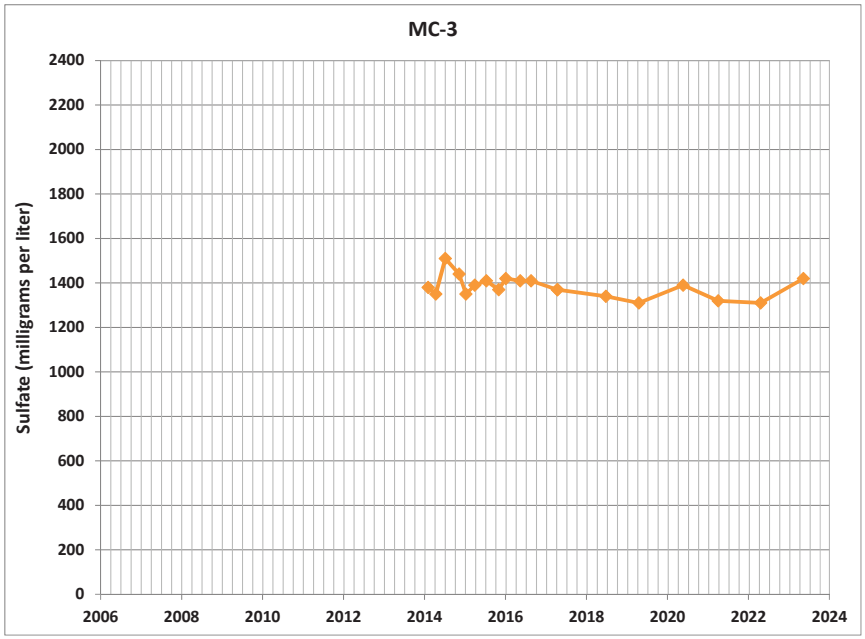

IW-27
Sulfate (milligrams per liter)
0
200
400
600
800
1000
1200
1400
1600
1800
2000
2200
2400
2006
2008
2010
2012
2014
2016
2018
2020
2022
2024

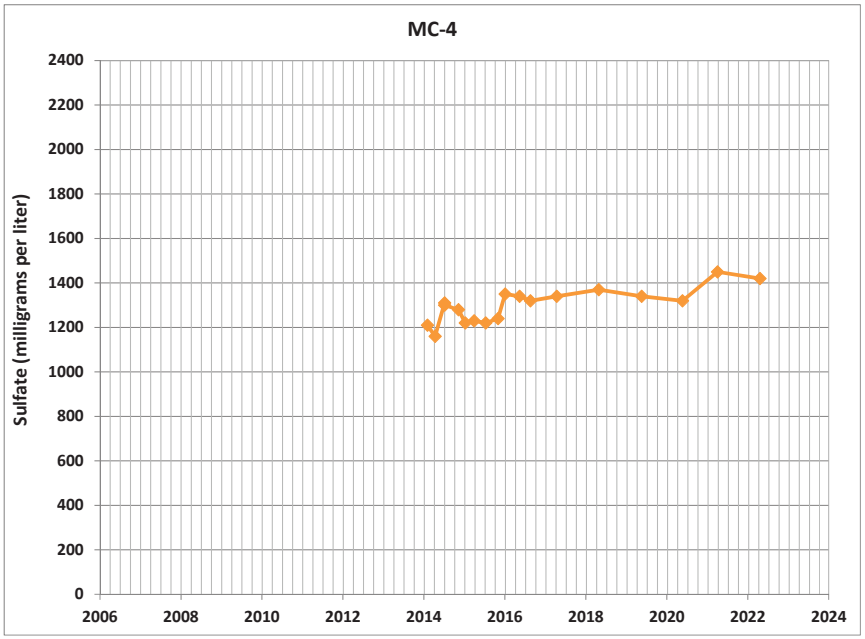

IW-28
Sulfate (milligrams per liter)
0
200
400
600
800
1000
1200
1400
1600
1800
2000
2200
2400
2006
2008
2010
2012
2014
2016
2018
2020
2022
2024

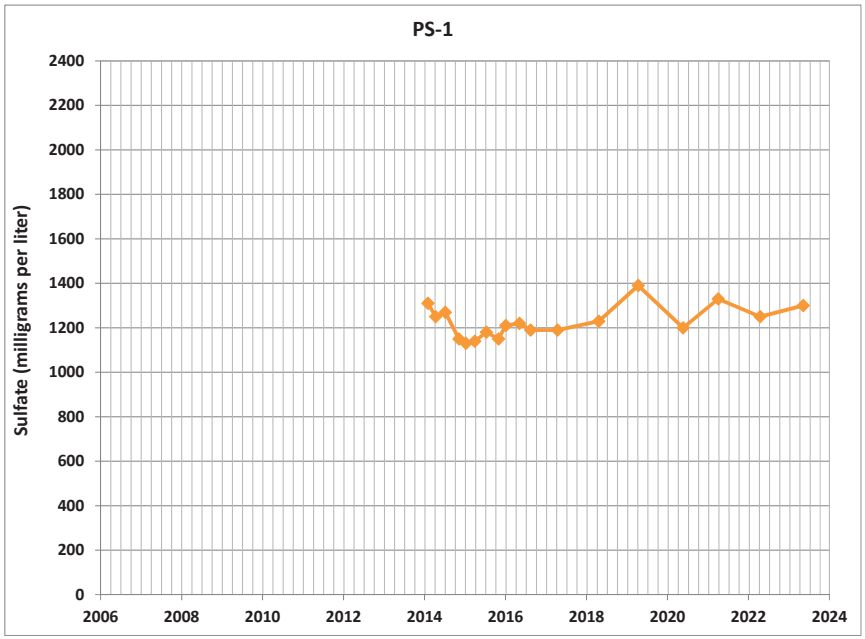

IW-29
Sulfate (milligrams per liter)
0
200
400
600
800
1000
1200
1400
1600
1800
2000
2200
2400
2006
2008
2010
2012
2014
2016
2018
2020
2022
2024

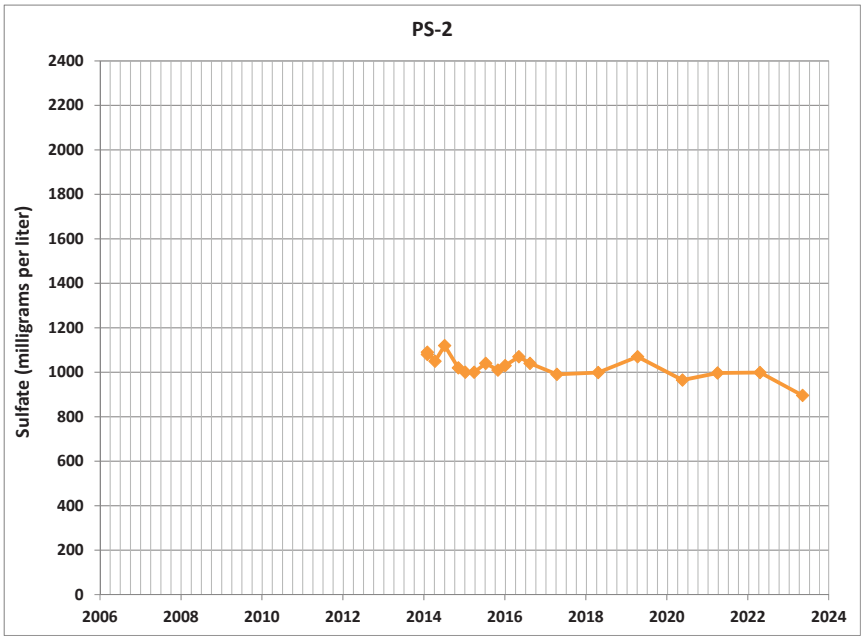

MC-1
Sulfate (milligrams per liter)
0
200
400
600
800
1000
1200
1400
1600
1800
2000
2200
2400
2006
2008
2010
2012
2014
2016
2018
2020
2022
2024

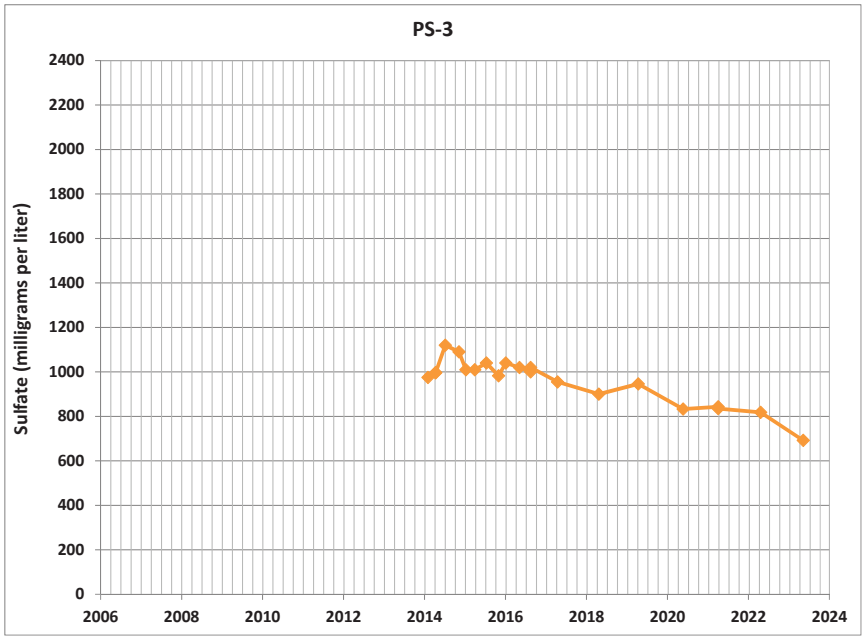

MC-2
Sulfate (milligrams per liter)
0
200
400
600
800
1000
1200
1400
1600
1800
2000
2200
2400
2006
2008
2010
2012
2014
2016
2018
2020
2022
2024

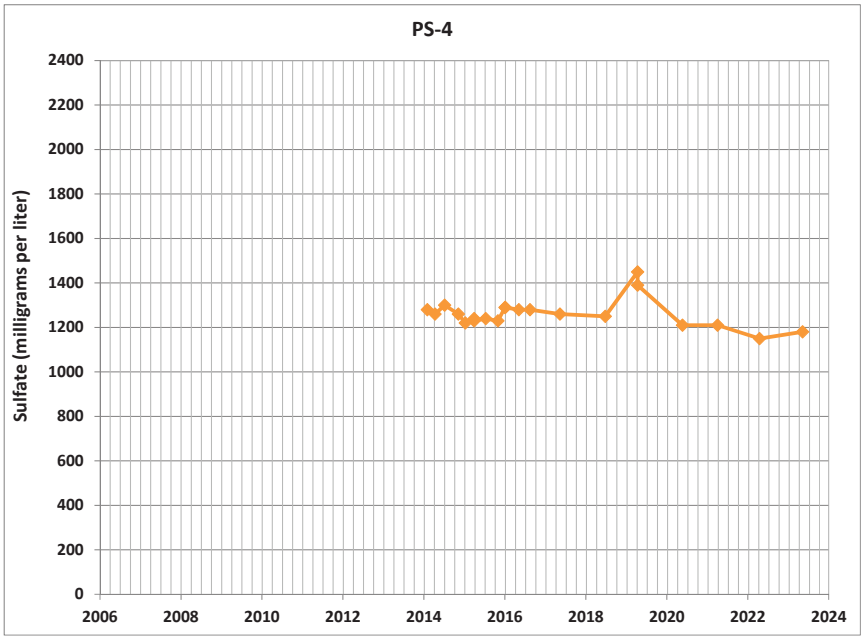

MC-3
Sulfate (milligrams per liter)
2400
2200
2000
1800
1600
1400
1200
1000
800
600
400
200
0
2006
2008
2010
2012
2014
2016
2018
2020
2022
2024


MC-4
Sulfate (milligrams per liter)
2400
2200
2000
1800
1600
1400
1200
1000
800
600
400
200
0
2006
2008
2010
2012
2014
2016
2018
2020
2022
2024


PS-1
Sulfate (milligrams per liter)
2400
2200
2000
1800
1600
1400
1200
1000
800
600
400
200
0
2006
2008
2010
2012
2014
2016
2018
2020
2022
2024


PS-2
Sulfate (milligrams per liter)
2400
2200
2000
1800
1600
1400
1200
1000
800
600
400
200
0
2006
2008
2010
2012
2014
2016
2018
2020
2022
2024


PS-3
Sulfate (milligrams per liter)
2400
2200
2000
1800
1600
1400
1200
1000
800
600
400
200
0
2006
2008
2010
2012
2014
2016
2018
2020
2022
2024


PS-4
Sulfate (milligrams per liter)
2400
2200
2000
1800
1600
1400
1200
1000
800
600
400
200
0
2006
2008
2010
2012
2014
2016
2018
2020
2022
2024

APPENDIX C

WATER ELEVATION DATA 2019 THROUGH 2023

APPENDIX C
Water Elevation Data 2019 through 2023

Well Name	ADWR 55 Registry Number	Universal Transverse Mercator, Northing (m)[1]	Universal Transverse Mercator, Easting (m)[1]	Measuring Point Elevation (ft amsl)	Date	Depth to Water (ft bls)	Static/ Dynamic	Groundwater Elevation (ft amsl)	Data Source
1225	634394	3530604.785	499665.902	2997.93	5/2/19	510.76	Static	2487.17	Sierrita
1225	634394	3530604.785	499665.902	2997.93	12/17/19	519.02	Static	2478.91	Sierrita
1225	634394	3530604.785	499665.902	2997.93	6/10/20	517.99	Static	2479.94	Sierrita
1225	634394	3530604.785	499665.902	2997.93	12/1/20	524.48	Static	2473.45	Sierrita
1225	634394	3530604.785	499665.902	2997.93	6/1/21	522.25	Static	2475.68	Sierrita
1225	634394	3530604.785	499665.902	2997.93	12/8/21	521.29	Static	2476.64	Sierrita
1225	634394	3530604.785	499665.902	2997.93	6/7/22	521.37	Static	2476.56	Sierrita
1225	634394	3530604.785	499665.902	2997.93	12/5/22	520.70	Static	2477.23	Sierrita
1225	634394	3530604.785	499665.902	2997.93	5/23/23	518.40	Static	2479.53	Sierrita
1225	634394	3530604.785	499665.902	2997.93	11/13/23	525.55	Static	2472.38	Sierrita
1350	NR	3528649.387	499296.433	3033.25	5/2/19	537.89	Static	2495.36	Sierrita
1350	NR	3528649.387	499296.433	3033.25	12/17/19	544.00	Static	2489.25	Sierrita
1350	NR	3528649.387	499296.433	3033.25	6/10/20	543.50	Static	2489.75	Sierrita
1350	NR	3528649.387	499296.433	3033.25	12/1/20	546.83	Static	2486.42	Sierrita
1350	NR	3528649.387	499296.433	3033.25	6/1/21	547.02	Static	2486.23	Sierrita
1350	NR	3528649.387	499296.433	3033.25	12/8/21	548.66	Static	2484.59	Sierrita
1350	NR	3528649.387	499296.433	3033.25	6/7/22	548.77	Static	2484.48	Sierrita
1350	NR	3528649.387	499296.433	3033.25	12/5/22	550.00	Static	2483.25	Sierrita
1350	NR	3528649.387	499296.433	3033.25	5/23/23	549.00	Static	2484.25	Sierrita
1350	NR	3528649.387	499296.433	3033.25	11/13/23	552.48	Static	2480.77	Sierrita
1758	634392	3532416.721	499666.531	2985.20	4/10/19	496.34	Static	2488.86	Sierrita
1758	634392	3532416.721	499666.531	2985.20	12/19/19	507.26	Static	2477.94	Sierrita
1758	634392	3532416.721	499666.531	2985.20	6/10/20	503.04	Static	2482.16	Sierrita
1758	634392	3532416.721	499666.531	2985.20	11/16/20	514.30	Static	2470.90	Sierrita
1758	634392	3532416.721	499666.531	2985.20	6/1/21	507.67	Static	2477.53	Sierrita
1758	634392	3532416.721	499666.531	2985.20	12/8/21	508.48	Static	2476.72	Sierrita
1758	634392	3532416.721	499666.531	2985.20	6/3/22	506.04	Static	2479.16	Sierrita
1758	634392	3532416.721	499666.531	2985.20	12/5/22	508.00	Static	2477.20	Sierrita
1758	634392	3532416.721	499666.531	2985.20	5/23/23	503.28	Static	2481.92	Sierrita
1758	634392	3532416.721	499666.531	2985.20	11/13/23	510.10	Static	2475.10	Sierrita
1759	634393	3531506.317	499666.694	2989.54	4/10/19	498.86	Static	2490.68	Sierrita
1759	634393	3531506.317	499666.694	2989.54	12/17/19	508.05	Static	2481.49	Sierrita
1759	634393	3531506.317	499666.694	2989.54	6/10/20	507.40	Static	2482.14	Sierrita
1759	634393	3531506.317	499666.694	2989.54	11/16/20	515.40	Static	2474.14	Sierrita
1759	634393	3531506.317	499666.694	2989.54	6/1/21	511.56	Static	2477.98	Sierrita
1759	634393	3531506.317	499666.694	2989.54	12/8/21	509.62	Static	2479.92	Sierrita
1759	634393	3531506.317	499666.694	2989.54	6/3/22	509.65	Static	2479.89	Sierrita
1759	634393	3531506.317	499666.694	2989.54	12/5/22	508.91	Static	2480.63	Sierrita
1759	634393	3531506.317	499666.694	2989.54	5/23/23	506.61	Static	2482.93	Sierrita
1759	634393	3531506.317	499666.694	2989.54	11/13/23	511.95	Static	2477.59	Sierrita
2123	511895	3531870.787	499663.205	2984.85	4/10/19	497.00	Static	2487.85	Sierrita
2123	511895	3531870.787	499663.205	2984.85	12/19/19	506.00	Static	2478.85	Sierrita
2123	511895	3531870.787	499663.205	2984.85	6/10/20	505.33	Static	2479.52	Sierrita
2123	511895	3531870.787	499663.205	2984.85	11/16/20	514.00	Static	2470.85	Sierrita
2123	511895	3531870.787	499663.205	2984.85	6/1/21	509.76	Static	2475.09	Sierrita
2123	511895	3531870.787	499663.205	2984.85	12/8/21	507.81	Static	2477.04	Sierrita
2123	511895	3531870.787	499663.205	2984.85	6/3/22	507.84	Static	2477.01	Sierrita
2123	511895	3531870.787	499663.205	2984.85	12/5/22	507.00	Static	2477.85	Sierrita
2123	511895	3531870.787	499663.205	2984.85	5/23/23	504.68	Static	2480.17	Sierrita
2123	511895	3531870.787	499663.205	2984.85	11/13/23	510.20	Static	2474.65	Sierrita
2125	514015	3529511.399	497813.090	3253.98	5/7/19	757.90	Static	2496.08	Sierrita
2125	514015	3529511.399	497813.090	3253.98	12/18/19	764.00	Static	2489.98	Sierrita
2125	514015	3529511.399	497813.090	3253.98	6/9/20	768.69	Static	2485.29	Sierrita
2125	514015	3529511.399	497813.090	3253.98	11/11/20	721.35	Static	2532.63	Sierrita
2125	514015	3529511.399	497813.090	3253.98	6/1/21	772.69	Static	2481.29	Sierrita
2125	514015	3529511.399	497813.090	3253.98	12/7/21	774	Static	2479.98	Sierrita
2125	514015	3529511.399	497813.090	3253.98	6/2/22	756.10	Static	2497.88	Sierrita
2125	514015	3529511.399	497813.090	3253.98	10/18/22	766.30	Static	2487.68	Sierrita
2125	514015	3529511.399	497813.090	3253.98	5/22/23	764.00	Static	2489.98	Sierrita
2125	514015	3529511.399	497813.090	3253.98	11/13/23	776.76	Static	2477.22	Sierrita
CCGV2	627484	3527694.880	502116.840	2805.88	4/24/19	251.90	Static	2553.98	Sierrita
CCGV2	627484	3527694.880	502116.840	2805.88	12/17/19	260.61	Static	2545.27	Sierrita
CCGV2	627484	3527694.880	502116.840	2805.88	5/12/20	264.65	Static	2541.23	Sierrita
CCGV2	627484	3527694.880	502116.840	2805.88	12/15/20	267.80	Static	2538.08	Sierrita
CCGV2	627484	3527694.880	502116.840	2805.88	6/3/21	286.20	Dynamic	2519.68	Sierrita
CCGV2	627484	3527694.880	502116.840	2805.88	12/8/21	268.09	Static	2537.79	Sierrita

APPENDIX C
Water Elevation Data 2019 through 2023

Well Name	ADWR 55 Registry Number	Universal Transverse Mercator, Northing (m)[1]	Universal Transverse Mercator, Easting (m)[1]	Measuring Point Elevation (ft amsl)	Date	Depth to Water (ft bls)	Static/ Dynamic	Groundwater Elevation (ft amsl)	Data Source
CCGV2	627484	3527694.880	502116.840	2805.88	12/15/22	283.40	Static[2]	2522.48	Sierrita
CCGV2	627484	3527694.880	502116.840	2805.88	11/14/23	297.00	Dynamic	2508.88	Sierrita
COTONIA	230945	3522255.841	499827.900	2940.49	11/11/20	335.92	Dynamic	2604.57	Sierrita
COTONIA	230945	3522255.841	499827.900	2940.49	2/25/21	273.30	Static	2667.19	Sierrita
COTONIA	230945	3522255.841	499827.900	2940.49	4/8/21	280.27	Static	2660.22	Sierrita
COTONIA	230945	3522255.841	499827.900	2940.49	8/19/21	338.74	Static	2601.75	Sierrita
COTONIA	230945	3522255.841	499827.900	2940.49	11/5/21	279.54	Static	2660.95	Sierrita
COTONIA	230945	3522255.841	499827.900	2940.49	2/17/22	277.50	Static	2662.99	Sierrita
COTONIA	230945	3522255.841	499827.900	2940.49	5/17/22	286.20	Static[2]	2654.29	Sierrita
COTONIA	230945	3522255.841	499827.900	2940.49	9/15/22	283.18	Static	2657.31	Sierrita
COTONIA	230945	3522255.841	499827.900	2940.49	11/17/22	282.66	Static[2]	2657.83	Sierrita
COTONIA	230945	3522255.841	499827.900	2940.49	1/30/23	292.20	Dynamic	2648.29	Sierrita
COTONIA	230945	3522255.841	499827.900	2940.49	5/18/23	286.34	Static[2]	2654.15	Sierrita
COTONIA	230945	3522255.841	499827.900	2940.49	7/19/23	290.54	Static[2]	2649.95	Sierrita
COTONIA	230945	3522255.841	499827.900	2940.49	11/8/23	285.08	Static[2]	2655.41	Sierrita
COTONIA	230945	3522255.841	499827.900	2940.49	1/16/24	284.45	Static[2]	2656.04	Sierrita
CW-3	627483	3523809.985	500047.663	2941.71	5/7/19	317.65	Static	2624.06	Sierrita
CW-3	627483	3523809.985	500047.663	2941.71	11/6/19	321.25	Static	2620.46	Sierrita
CW-3	627483	3523809.985	500047.663	2941.71	5/6/20	324.00	Static	2617.71	Sierrita
CW-3	627483	3523809.985	500047.663	2941.71	11/18/20	326.48	Static	2615.23	Sierrita
CW-3	627483	3523809.985	500047.663	2941.71	6/29/21	329.76	Static	2611.95	Sierrita
CW-3	627483	3523809.985	500047.663	2941.71	11/4/21	330.48	Static	2611.23	Sierrita
CW-3	627483	3523809.985	500047.663	2941.71	5/4/22	331.64	Static	2610.07	Sierrita
CW-3	627483	3523809.985	500047.663	2941.71	11/9/22	334.09	Static	2607.62	Sierrita
CW-3	627483	3523809.985	500047.663	2941.71	5/8/23	334.05	Static	2607.66	Sierrita
CW-3	627483	3523809.985	500047.663	2941.71	11/6/23	336.18	Static	2605.53	Sierrita
CW-6	627485	3525588.550	500944.890	2867.00	3/6/19	305.20	Static	2561.80	Sierrita
CW-6	627485	3525588.550	500944.890	2867.00	4/24/19	307.58	Static	2559.42	Sierrita
CW-6	627485	3525588.550	500944.890	2867.00	11/7/19	313.44	Static	2553.56	Sierrita
CW-6	627485	3525588.550	500944.890	2867.00	1/14/20	311.38	Static[2]	2555.62	Sierrita
CW-6	627485	3525588.550	500944.890	2867.00	5/5/20	319.34	Static[2]	2547.66	Sierrita
CW-6	627485	3525588.550	500944.890	2867.00	8/12/20	323.99	Static[2]	2543.01	Sierrita
CW-6	627485	3525588.550	500944.890	2867.00	11/10/20	318.00	Static[2]	2549.00	Sierrita
CW-6	627485	3525588.550	500944.890	2867.00	2/24/21	318.00	Static[2]	2549.00	Sierrita
CW-6	627485	3525588.550	500944.890	2867.00	5/20/21	324.85	Static[2]	2542.15	Sierrita
CW-6	627485	3525588.550	500944.890	2867.00	8/18/21	318.00	Static[2]	2549.00	Sierrita
CW-6	627485	3525588.550	500944.890	2867.00	11/17/21	316.70	Static	2550.30	Sierrita
CW-6	627485	3525588.550	500944.890	2867.00	2/9/22	317.10	Static	2549.90	Sierrita
CW-6	627485	3525588.550	500944.890	2867.00	5/18/22	330.85	Static[2]	2536.15	Sierrita
CW-6	627485	3525588.550	500944.890	2867.00	9/12/22	332.85	Static	2534.15	Sierrita
CW-6	627485	3525588.550	500944.890	2867.00	11/16/22	323.70	Static	2543.30	Sierrita
CW-7	502546	3527941.010	499686.600	2987.50	4/24/19	485.41	Static	2502.09	Sierrita
CW-7	502546	3527941.010	499686.600	2987.50	11/7/19	490.37	Static	2497.13	Sierrita
CW-7	502546	3527941.010	499686.600	2987.50	4/8/20	489.10	Static	2498.40	Sierrita
CW-7	502546	3527941.010	499686.600	2987.50	5/5/20	489.49	Static	2498.01	Sierrita
CW-7	502546	3527941.010	499686.600	2987.50	10/23/20	494.34	Static	2493.16	Sierrita
CW-7	502546	3527941.010	499686.600	2987.50	3/11/21	492.69	Static	2494.81	Sierrita
CW-7	502546	3527941.010	499686.600	2987.50	3/31/21	493.30	Static	2494.20	Sierrita
CW-7	502546	3527941.010	499686.600	2987.50	6/3/21	494.60	Static	2492.90	Sierrita
CW-7	502546	3527941.010	499686.600	2987.50	8/18/21	494.50	Static	2493.00	Sierrita
CW-7	502546	3527941.010	499686.600	2987.50	11/17/21	495.70	Static	2491.80	Sierrita
CW-7	502546	3527941.010	499686.600	2987.50	2/9/22	495.55	Static	2491.95	Sierrita
CW-7	502546	3527941.010	499686.600	2987.50	5/18/22	496.34	Static	2491.16	Sierrita
CW-7	502546	3527941.010	499686.600	2987.50	9/12/22	498.30	Static	2489.20	Sierrita
CW-7	502546	3527941.010	499686.600	2987.50	11/16/22	497.50	Static	2490.00	Sierrita
CW-7	502546	3527941.010	499686.600	2987.50	1/25/23	497.12	Static	2490.38	Sierrita
CW-7	502546	3527941.010	499686.600	2987.50	5/25/23	497.16	Static	2490.34	Sierrita
CW-7	502546	3527941.010	499686.600	2987.50	7/18/23	498.84	Static	2488.66	Sierrita
CW-7	502546	3527941.010	499686.600	2987.50	11/9/23	501.30	Static	2486.20	Sierrita
CW-7	502546	3527941.010	499686.600	2987.50	1/17/24	500.68	Static	2486.82	Sierrita
CW-8	543600	3525480.529	499843.273	2957.50	4/24/19	402.50	Static	2555.00	Sierrita
CW-8	543600	3525480.529	499843.273	2957.50	11/7/19	407.02	Static	2550.48	Sierrita
CW-8	543600	3525480.529	499843.273	2957.50	5/5/20	408.86	Static	2548.64	Sierrita
CW-8	543600	3525480.529	499843.273	2957.50	11/10/20	411.60	Static	2545.90	Sierrita
CW-8	543600	3525480.529	499843.273	2957.50	5/20/21	412.88	Static	2544.62	Sierrita
CW-8	543600	3525480.529	499843.273	2957.50	11/17/21	412.76	Static	2544.74	Sierrita

APPENDIX C
Water Elevation Data 2019 through 2023

Well Name	ADWR 55 Registry Number	Universal Transverse Mercator, Northing (m)[1]	Universal Transverse Mercator, Easting (m)[1]	Measuring Point Elevation (ft amsl)	Date	Depth to Water (ft bls)	Static/ Dynamic	Groundwater Elevation (ft amsl)	Data Source
CW-8	543600	3525480.529	499843.273	2957.50	5/18/22	418.48	Static	2539.02	Sierrita
CW-8	543600	3525480.529	499843.273	2987.50	12/8/22	417.58	Static	2539.92	Sierrita
CW-8	543600	3525480.529	499843.273	2987.50	5/25/23	440.76	Static	2546.74	Sierrita
CW-8	543600	3525480.529	499843.273	2987.50	11/9/23	421.25	Static	2566.25	Sierrita
CW-9[3]	588121	3528540.580	501163.540	2863.00	3/6/19	355.42	Static[2]	2507.58	Sierrita
CW-9[3]	588121	3528540.580	501163.540	2863.00	4/24/19	356.78	Static[2]	2506.22	Sierrita
CW-9[3]	588121	3528540.580	501163.540	2863.00	8/14/19	361.18	Static[2]	2501.82	Sierrita
CW-9[3]	588121	3528540.580	501163.540	2863.00	11/7/19	362.58	Static[2]	2500.42	Sierrita
CW-9[3]	588121	3528540.580	501163.540	2863.00	1/14/20	358.74	Static[2]	2504.26	Sierrita
CW-9[3]	588121	3528540.580	501163.540	2863.00	8/12/20	357.18	Static[2]	2505.82	Sierrita
CW-9[3]	588121	3528540.580	501163.540	2863.00	11/10/20	366.63	Static[2]	2496.37	Sierrita
CW-9[3]	588121	3528540.580	501163.540	2863.00	2/24/21	361.78	Static[2]	2501.22	Sierrita
CW-9[3]	588121	3528540.580	501163.540	2863.00	5/20/21	372.49	Static[2]	2490.51	Sierrita
CW-9[3]	588121	3528540.580	501163.540	2863.00	8/18/21	364.90	Static[2]	2498.10	Sierrita
CW-9[3]	588121	3528540.580	501163.540	2863.00	11/17/21	365.85	Static	2497.15	Sierrita
CW-9[3]	588121	3528540.580	501163.540	2863.00	2/9/22	363.20	Static	2499.80	Sierrita
CW-9[3]	588121	3528540.580	501163.540	2863.00	5/18/22	365.69	Static[2]	2497.31	Sierrita
CW-9[3]	588121	3528540.580	501163.540	2863.00	9/12/22	368.60	Static	2494.40	Sierrita
CW-9[3]	588121	3528540.580	501163.540	2863.00	11/16/22	365.45	Static	2497.55	Sierrita
CW-9[3]	588121	3528540.580	501163.540	2863.00	1/30/23	357.70	Static[2]	2505.30	Sierrita
CW-9[3]	588121	3528540.580	501163.540	2863.00	5/25/23	370.60	Static[2]	2492.40	Sierrita
CW-9[3]	588121	3528540.580	501163.540	2863.00	7/18/23	373.88	Static[2]	2489.12	Sierrita
CW-9[3]	588121	3528540.580	501163.540	2863.00	11/9/23	406.00	Dynamic	2457.00	Sierrita
CW-9[3]	588121	3528540.580	501163.540	2863.00	1/17/24	367.70	Static	2495.30	Sierrita
CW-10	207982	3523259.060	500975.210	2868.50	3/6/19	228.75	Static[2]	2639.75	Sierrita
CW-10	207982	3523259.060	500975.210	2868.50	4/24/19	235.90	Static[2]	2632.60	Sierrita
CW-10	207982	3523259.060	500975.210	2868.50	8/14/19	238.35	Static[2]	2630.15	Sierrita
CW-10	207982	3523259.060	500975.210	2868.50	11/7/19	234.20	Static[2]	2634.30	Sierrita
CW-10	207982	3523259.060	500975.210	2868.50	1/14/20	234.80	Static[2]	2633.70	Sierrita
CW-10	207982	3523259.060	500975.210	2868.50	8/12/20	249.39	Static[2]	2619.11	Sierrita
CW-10	207982	3523259.060	500975.210	2868.50	2/24/21	238.91	Static[2]	2629.59	Sierrita
CW-10	207982	3523259.060	500975.210	2868.50	5/20/21	249.15	Static[2]	2619.35	Sierrita
CW-10	207982	3523259.060	500975.210	2868.50	8/18/21	241.00	Static[2]	2627.50	Sierrita
CW-10	207982	3523259.060	500975.210	2868.50	11/17/21	241.75	Static[2]	2626.75	Sierrita
CW-10	207982	3523259.060	500975.210	2868.50	2/9/22	239.77	Static[2]	2628.73	Sierrita
CW-10	207982	3523259.060	500975.210	2868.50	5/18/22	255.00	Static	2613.50	Sierrita
CW-10	207982	3523259.060	500975.210	2868.50	9/12/22	253.30	Static[2]	2615.20	Sierrita
CW-10	207982	3523259.060	500975.210	2868.50	11/16/22	243.50	Static	2625.00	Sierrita
CW-10	207982	3523259.060	500975.210	2868.50	1/30/23	239.50	Static[2]	2629.00	Sierrita
CW-10	207982	3523259.060	500975.210	2868.50	5/25/23	253.67	Static[2]	2614.83	Sierrita
CW-10	207982	3523259.060	500975.210	2868.50	7/18/23	259.91	Static[2]	2608.59	Sierrita
CW-10	207982	3523259.060	500975.210	2868.50	11/9/23	246.12	Static	2622.38	Sierrita
CW-10	207982	3523259.060	500975.210	2868.50	12/21/23	247.33	Static[2]	2621.17	Sierrita
CW-10	207982	3523259.060	500975.210	2868.50	1/17/24	246.56	Static[2]	2621.94	Sierrita
CW-11	608518	3531004.620	502441.590	2778.61	4/24/19	293.50	Static	-293.50	Sierrita
CW-11	608518	3531004.620	502441.590	2778.61	4/24/19	293.50	Static	2485.11	Sierrita
CW-11	608518	3531004.620	502441.590	2778.61	11/7/19	380.00	Static[2]	2398.61	Sierrita
CW-11	608518	3531004.620	502441.590	2778.61	5/5/20	293.00	Static	2485.61	Sierrita
CW-11	608518	3531004.620	502441.590	2778.61	11/10/20	304.48	Static	2474.13	Sierrita
CW-11	608518	3531004.620	502441.590	2778.61	4/1/21	299.00	Static	2479.61	Sierrita
CW-11	608518	3531004.620	502441.590	2778.61	11/17/21	298.30	Static[2]	2480.31	Sierrita
CW-11	608518	3531004.620	502441.590	2778.61	5/18/22	303.80	Static[2]	2474.81	Sierrita
CW-11	608518	3531004.620	502441.590	2778.61	12/8/22	294.60	Static	2484.01	Sierrita
CW-11	608518	3531004.620	502441.590	2778.61	5/25/23	301.68	Static[2]	2476.93	Sierrita
CW-11	608518	3531004.620	502441.590	2778.61	11/9/23	330.45	Dynamic	2448.16	Sierrita
ESP-2	623103	3526924.656	500241.637	2934.60	5/22/19	401.30	Static	2533.30	Sierrita
ESP-2	623103	3526924.656	500241.637	2934.60	9/12/19	406.10	Static	2528.50	Sierrita
ESP-2	623103	3526924.656	500241.637	2934.60	10/29/19	406.90	Static	2527.70	Sierrita
ESP-2	623103	3526924.656	500241.637	2934.60	11/25/19	405.05	Static	2529.55	Sierrita
ESP-2	623103	3526924.656	500241.637	2934.60	12/12/19	405.81	Static	2528.79	Sierrita
ESP-2	623103	3526924.656	500241.637	2934.60	1/9/20	405.31	Static	2529.29	Sierrita
ESP-2	623103	3526924.656	500241.637	2934.60	2/10/20	404.40	Static	2530.20	Sierrita
ESP-2	623103	3526924.656	500241.637	2934.60	3/11/20	404.20	Static	2530.40	Sierrita
ESP-2	623103	3526924.656	500241.637	2934.60	4/9/20	406.40	Static	2528.20	Sierrita
ESP-2	623103	3526924.656	500241.637	2934.60	10/7/20	411.79	Static	2522.81	Sierrita
ESP-2	623103	3526924.656	500241.637	2934.60	4/5/21	410.94	Static	2523.66	Sierrita

APPENDIX C
Water Elevation Data 2019 through 2023

Well Name	ADWR 55 Registry Number	Universal Transverse Mercator, Northing (m)[1]	Universal Transverse Mercator, Easting (m)[1]	Measuring Point Elevation (ft amsl)	Date	Depth to Water (ft bls)	Static/ Dynamic	Groundwater Elevation (ft amsl)	Data Source
ESP-2	623103	3526924.656	500241.637	2934.60	11/19/21	411.80	Static	2522.80	Sierrita
ESP-2	623103	3526924.656	500241.637	2934.60	4/7/22	412.85	Static	2521.75	Sierrita
ESP-2	623103	3526924.656	500241.637	2934.60	10/25/22	416.20	Static	2518.40	Sierrita
ESP-2	623103	3526924.656	500241.637	2934.60	5/10/23	417.72	Static	2516.88	Sierrita
ESP-2	623103	3526924.656	500241.637	2934.60	10/3/23	420.25	Static	2514.35	Sierrita
ESP-3	623104	3527377.239	500234.067	2935.80	5/22/19	418.19	Static	2517.61	Sierrita
ESP-3	623104	3527377.239	500234.067	2935.80	9/12/19	422.70	Static	2513.10	Sierrita
ESP-3	623104	3527377.239	500234.067	2935.80	10/29/19	423.40	Static	2512.40	Sierrita
ESP-3	623104	3527377.239	500234.067	2935.80	11/25/19	422.40	Static	2513.40	Sierrita
ESP-3	623104	3527377.239	500234.067	2935.80	12/12/19	422.98	Static	2512.82	Sierrita
ESP-3	623104	3527377.239	500234.067	2935.80	1/9/20	422.60	Static	2513.20	Sierrita
ESP-3	623104	3527377.239	500234.067	2935.80	2/10/20	421.95	Static	2513.85	Sierrita
ESP-3	623104	3527377.239	500234.067	2935.80	3/11/20	421.58	Static	2514.22	Sierrita
ESP-3	623104	3527377.239	500234.067	2935.80	4/9/20	420.75	Static	2515.05	Sierrita
ESP-3	623104	3527377.239	500234.067	2935.80	10/7/20	427.85	Static	2507.95	Sierrita
ESP-3	623104	3527377.239	500234.067	2935.80	4/5/21	426.71	Static	2509.09	Sierrita
ESP-3	623104	3527377.239	500234.067	2935.80	11/19/21	428.80	Static	2507.00	Sierrita
ESP-3	623104	3527377.239	500234.067	2935.80	4/7/22	429.26	Static	2506.54	Sierrita
ESP-3	623104	3527377.239	500234.067	2935.80	10/25/22	432.05	Static	2503.75	Sierrita
ESP-3	623104	3527377.239	500234.067	2935.80	5/10/23	431.92	Static	2503.88	Sierrita
ESP-3	623104	3527377.239	500234.067	2935.80	10/3/23	435.15	Static	2500.65	Sierrita
ESP-4	623105	3526132.758	499916.830	2958.60	5/22/19	413.29	Static	2545.31	Sierrita
ESP-4	623105	3526132.758	499916.830	2958.60	9/12/19	417.49	Static	2541.11	Sierrita
ESP-4	623105	3526132.758	499916.830	2958.60	10/29/19	418.53	Static	2540.07	Sierrita
ESP-4	623105	3526132.758	499916.830	2958.60	11/25/19	416.32	Static	2542.28	Sierrita
ESP-4	623105	3526132.758	499916.830	2958.60	12/12/19	417.66	Static	2540.94	Sierrita
ESP-4	623105	3526132.758	499916.830	2958.60	1/9/20	417.10	Static	2541.50	Sierrita
ESP-4	623105	3526132.758	499916.830	2958.60	2/10/20	416.04	Static	2542.56	Sierrita
ESP-4	623105	3526132.758	499916.830	2958.60	3/11/20	415.76	Static	2542.84	Sierrita
ESP-4	623105	3526132.758	499916.830	2958.60	4/9/20	418.72	Static	2539.88	Sierrita
ESP-4	623105	3526132.758	499916.830	2958.60	10/7/20	423.99	Static	2534.61	Sierrita
ESP-4	623105	3526132.758	499916.830	2958.60	4/5/21	422.75	Static	2535.85	Sierrita
ESP-4	623105	3526132.758	499916.830	2958.60	11/19/21	424.48	Static	2534.12	Sierrita
ESP-4	623105	3526132.758	499916.830	2958.60	4/7/22	425.75	Static	2532.85	Sierrita
ESP-4	623105	3526132.758	499916.830	2958.60	10/25/22	429.10	Static	2529.50	Sierrita
ESP-4	623105	3526132.758	499916.830	2958.60	5/10/23	430.52	Static	2528.08	Sierrita
ESP-4	623105	3526132.758	499916.830	2958.60	10/3/23	433.62	Static	2524.98	Sierrita
ESP-5	623106	3527082.232	502007.895	2820.00	5/7/19	254.20	Static	2565.80	Sierrita
ESP-5	623106	3527082.232	502007.895	2820.00	12/17/19	258.00	Static	2562.00	Sierrita
ESP-5	623106	3527082.232	502007.895	2820.00	6/10/20	263.60	Static	2556.40	Sierrita
ESP-5	623106	3527082.232	502007.895	2820.00	12/3/20	264.88	Static	2555.12	Sierrita
ESP-5	623106	3527082.232	502007.895	2820.00	6/2/21	265.85	Static	2554.15	Sierrita
ESP-5	623106	3527082.232	502007.895	2820.00	12/8/21	263.30	Static	2556.70	Sierrita
ESP-5	623106	3527082.232	502007.895	2820.00	6/8/22	267.84	Static	2552.16	Sierrita
ESP-5	623106	3527082.232	502007.895	2820.00	12/6/22	265.80	Static	2554.20	Sierrita
ESP-5	623106	3527082.232	502007.895	2820.00	5/23/23	265.83	Static	2554.17	Sierrita
ESP-5	623106	3527082.232	502007.895	2820.00	11/13/23	269.36	Static	2550.64	Sierrita
FFS-1	221662	3524105.489	498321.688	3071.40	5/7/19	476.35	Dynamic	2595.05	BW
FFS-1	221662	3524105.489	498321.688	3071.40	10/8/19	481.35	Dynamic	2590.05	BW
FFS-1	221662	3524105.489	498321.688	3071.40	6/5/20	490.00	Dynamic	2581.40	BW
FFS-1	221662	3524105.489	498321.688	3071.40	10/30/20	480.15	Dynamic	2591.25	BW
FFS-1	221662	3524105.489	498321.688	3071.40	5/22/21	486.40	Dynamic	2585.00	BW
FFS-1	221662	3524105.489	498321.688	3071.40	11/20/21	492.62	Dynamic	2578.78	BW
FFS-1	221662	3524105.489	498321.688	3071.40	4/23/22	534.30	Dynamic	2537.10	BW
FFS-1	221662	3524105.489	498321.688	3071.40	12/20/22	536.85	Dynamic	2534.55	BW
FFS-1	221662	3524105.489	498321.688	3071.40	5/9/23	536.75	Dynamic	2534.65	BW
FFS-1	221662	3524105.489	498321.688	3071.40	12/13/23	542.25	Dynamic	2529.15	BW
FFS-2	221663	3524699.036	498316.678	3082.11	12/13/23	575.00	Dynamic	2507.11	BW
FFS-3	221664	3525305.994	498351.209	3083.90	5/7/19	544.80	Dynamic	2539.10	BW
FFS-3	221664	3525305.994	498351.209	3083.90	10/8/19	546.60	Dynamic	2537.30	BW
FFS-3	221664	3525305.994	498351.209	3083.90	6/5/20	546.90	Dynamic	2537.00	BW
FFS-3	221664	3525305.994	498351.209	3083.90	10/30/20	534.65	Static	2549.25	BW
FFS-3	221664	3525305.994	498351.209	3083.90	5/22/21	532.60	Static	2551.30	BW
FFS-3	221664	3525305.994	498351.209	3083.90	11/20/21	536.85	Static	2547.05	BW
FFS-3	221664	3525305.994	498351.209	3083.90	4/23/22	632.85	Dynamic	2451.05	BW
FFS-3	221664	3525305.994	498351.209	3083.90	12/20/22	669.20	Dynamic	2414.70	BW

APPENDIX C
Water Elevation Data 2019 through 2023

Well Name	ADWR 55 Registry Number	Universal Transverse Mercator, Northing (m)[1]	Universal Transverse Mercator, Easting (m)[1]	Measuring Point Elevation (ft amsl)	Date	Depth to Water (ft bls)	Static/ Dynamic	Groundwater Elevation (ft amsl)	Data Source
FFS-3	221664	3525305.994	498351.209	3083.90	5/9/23	680.20	Dynamic	2403.70	BW
FFS-3	221664	3525305.994	498351.209	3083.90	12/13/23	690.20	Dynamic	2393.70	BW
FFS-4	221665	3525933.902	498355.091	3097.92	5/22/21	770.70	Dynamic	2327.22	BW
FFS-4	221665	3525933.902	498355.091	3097.92	11/20/21	565.50	Static	2532.42	BW
FFS-5	221666	3526763.990	498336.591	3107.73	5/7/19	585.45	Static	2522.28	BW
FFS-5	221666	3526763.990	498336.591	3107.73	6/5/20	586.50	Static	2521.23	BW
FFS-5	221666	3526763.990	498336.591	3107.73	5/22/21	637.00	Dynamic	2470.73	BW
FFS-5	221666	3526763.990	498336.591	3107.73	11/20/21	621.20	Dynamic	2486.53	BW
FFS-5	221666	3526763.990	498336.591	3107.73	4/23/22	593.80	Static	2513.93	BW
FFS-5	221666	3526763.990	498336.591	3107.73	12/20/22	641.50	Dynamic	2466.23	BW
FFS-5	221666	3526763.990	498336.591	3107.73	5/9/23	639.05	Dynamic	2468.68	BW
FFS-5	221666	3526763.990	498336.591	3107.73	12/13/23	651.00	Dynamic	2456.73	BW
FFS-6	221667	3527243.483	498327.778	3110.44	5/22/21	604.75	Static	2505.69	BW
FFS-6	221667	3527243.483	498327.778	3110.44	4/23/22	668.20	Dynamic	2442.24	BW
FFS-6	221667	3527243.483	498327.778	3110.44	5/9/23	619.55	Dynamic	2490.89	BW
FFS-6	221667	3527243.483	498327.778	3110.44	12/13/23	619.40	Dynamic	2491.04	BW
FICO C-4	624010	3525383.746	501759.635	2836.19	5/22/19	286.11	Dynamic	2550.08	Sierrita
FICO C-4	624010	3525383.746	501759.635	2836.19	12/18/19	241.00	Static	2595.19	Sierrita
FICO C-4	624010	3525383.746	501759.635	2836.19	6/17/20	249.20	Dynamic	2586.99	Sierrita
FICO C-4	624010	3525383.746	501759.635	2836.19	12/8/20	243.60	Static	2592.59	Sierrita
FICO C-4	624010	3525383.746	501759.635	2836.19	6/10/21	252.35	Static	2583.84	Sierrita
FICO C-4	624010	3525383.746	501759.635	2836.19	12/9/21	243.98	Static	2592.21	Sierrita
FICO C-4	624010	3525383.746	501759.635	2836.19	6/14/22	257.00	Static	2579.19	Sierrita
FICO C-4	624010	3525383.746	501759.635	2836.19	12/12/22	246.11	Static	2590.08	Sierrita
FICO C-4	624010	3525383.746	501759.635	2836.19	6/22/23	251.09	Static	2585.10	Sierrita
FICO C-4	624010	3525383.746	501759.635	2836.19	11/14/23	249.50	Static	2586.69	Sierrita
FICO E-6A	233205	3525179.449	502444.925	2838.44	6/1/21	273.62	Static	2564.82	Sierrita
FICO E-6A	233205	3525179.449	502444.925	2838.44	12/9/21	259.68	Static	2578.76	Sierrita
FICO E-6A	233205	3525179.449	502444.925	2838.44	6/14/22	393.40	Dynamic	2445.04	Sierrita
FICO E-6A	233205	3525179.449	502444.925	2838.44	12/12/22	263.45	Static	2574.99	Sierrita
FICO E-6A	233205	3525179.449	502444.925	2838.44	6/12/23	396.40	Dynamic	2442.04	Sierrita
FICO E-6A	233205	3525179.449	502444.925	2838.44	11/14/23	273.00	Static	2565.44	Sierrita
FICO E-9	624016	3521260.246	500875.349	2888	6/10/21	180.12	Static	2707.88	Sierrita
FICO W-9	624024	3524132.883	501269.296	2851	6/10/21	234.60	Static	2616.40	Sierrita
GV-01-GVDWID	603428	3522254.157	499812.869	2942.35	3/7/19	255.00	Static[2]	2687.35	Sierrita
GV-01-GVDWID	603428	3522254.157	499812.869	2942.35	4/25/19	262.35	Static[2]	2680.00	Sierrita
GV-01-GVDWID	603428	3522254.157	499812.869	2942.35	7/30/19	265.21	Static[2]	2677.14	Sierrita
GV-01-GVDWID	603428	3522254.157	499812.869	2942.35	11/5/19	298.60	Static[2]	2643.75	Sierrita
GV-01-GVDWID	603428	3522254.157	499812.869	2942.35	1/20/20	257.75	Static[2]	2684.60	Sierrita
GV-01-GVDWID	603428	3522254.157	499812.869	2942.35	5/14/20	264.50	Static[2]	2677.85	Sierrita
GV-01-GVDWID	603428	3522254.157	499812.869	2942.35	8/13/20	269.91	Static[2]	2672.44	Sierrita
GV-01-GVDWID	603428	3522254.157	499812.869	2942.35	11/11/20	277.45	Static[2]	2664.90	Sierrita
GV-01-GVDWID	603428	3522254.157	499812.869	2942.35	2/25/21	263.50	Static	2678.85	Sierrita
GV-01-GVDWID	603428	3522254.157	499812.869	2942.35	4/8/21	269.22	Static	2673.13	Sierrita
GV-01-GVDWID	603428	3522254.157	499812.869	2942.35	11/5/21	269.40	Static[2]	2672.95	Sierrita
GV-01-GVDWID	603428	3522254.157	499812.869	2942.35	5/17/22	272.97	Static[2]	2669.38	Sierrita
GV-01-GVDWID	603428	3522254.157	499812.869	2942.35	5/18/22	271.29	Static	2671.06	Sierrita
GV-01-GVDWID	603428	3522254.157	499812.869	2942.35	11/17/22	269.53	Static	2672.82	Sierrita
GV-01-GVDWID	603428	3522254.157	499812.869	2942.35	11/8/23	271.69	Static	2670.66	Sierrita
GV-01-PCWW	509603	3529924.983	502867.776	2789.65	4/18/19	176.50	Static	2613.15	Sierrita
GV-01-PCWW	509603	3529924.983	502867.776	2789.65	5/28/20	177.70	Static	2611.95	Sierrita
GV-01-PCWW	509603	3529924.983	502867.776	2789.65	10/29/20	178.10	Static	2611.55	Sierrita
GV-02-GVDWID	603429	3521654.457	499786.207	2930.47	3/7/19	218.75	Static[2]	2711.72	Sierrita
GV-02-GVDWID	603429	3521654.457	499786.207	2930.47	4/25/19	224.07	Static[2]	2706.40	Sierrita
GV-02-GVDWID	603429	3521654.457	499786.207	2930.47	7/30/19	231.02	Static[2]	2699.45	Sierrita
GV-02-GVDWID	603429	3521654.457	499786.207	2930.47	11/5/19	225.00	Static[2]	2705.47	Sierrita
GV-02-GVDWID	603429	3521654.457	499786.207	2930.47	1/20/20	218.30	Static[2]	2712.17	Sierrita
GV-02-GVDWID	603429	3521654.457	499786.207	2930.47	5/14/20	243.30	Dynamic	2687.17	Sierrita
GV-02-GVDWID	603429	3521654.457	499786.207	2930.47	8/13/20	230.70	Static[2]	2699.77	Sierrita
GV-02-GVDWID	603429	3521654.457	499786.207	2930.47	11/11/20	230.44	Static[2]	2700.03	Sierrita
GV-02-GVDWID	603429	3521654.457	499786.207	2930.47	2/25/21	225.00	Static[2]	2705.47	Sierrita
GV-02-GVDWID	603429	3521654.457	499786.207	2930.47	4/8/21	229.70	Static[2]	2700.77	Sierrita
GV-02-GVDWID	603429	3521654.457	499786.207	2930.47	8/1/21	229.40	Static[2]	2701.07	Sierrita
GV-02-GVDWID	603429	3521654.457	499786.207	2930.47	11/5/21	232.55	Static[2]	2697.92	Sierrita
GV-02-GVDWID	603429	3521654.457	499786.207	2930.47	2/17/22	226.30	Static[2]	2704.17	Sierrita
GV-02-GVDWID	603429	3521654.457	499786.207	2930.47	5/17/22	235.10	Static[2]	2695.37	Sierrita

APPENDIX C
Water Elevation Data 2019 through 2023

Well Name	ADWR 55 Registry Number	Universal Transverse Mercator, Northing (m)[1]	Universal Transverse Mercator, Easting (m)[1]	Measuring Point Elevation (ft amsl)	Date	Depth to Water (ft bls)	Static/ Dynamic	Groundwater Elevation (ft amsl)	Data Source
GV-02-GVDWID	603429	3521654.457	499786.207	2930.47	9/15/22	232.55	Static[2]	2697.92	Sierrita
GV-02-GVDWID	603429	3521654.457	499786.207	2930.47	11/17/22	231.04	Static[2]	2699.43	Sierrita
GV-02-GVDWID	603429	3521654.457	499786.207	2775.42	1/30/23	226.80	Static[2]	2703.67	Sierrita
GV-02-GVDWID	603429	3521654.457	499786.207	2930.47	5/18/23	232.55	Static[2]	2697.92	Sierrita
GV-02-GVDWID	603429	3521654.457	499786.207	2930.47	7/19/23	236.80	Static[2]	2693.67	Sierrita
GV-02-GVDWID	603429	3521654.457	499786.207	2930.47	11/8/23	233.30	Static[2]	2697.17	Sierrita
GV-02-GVDWID	603429	3521654.457	499786.207	2930.47	1/16/24	231.08	Static[2]	2699.39	Sierrita
GV-02-PCWW	509604	3530219.769	502678.593	2775.42	4/18/19	164.20	Static	2611.22	Sierrita
GV-02-PCWW	509604	3530219.769	502678.593	2775.42	5/28/20	176.20	Static	2599.22	Sierrita
GV-02-PCWW	509604	3530219.769	502678.593	2775.42	10/29/20	165.40	Static	2610.02	Sierrita
GV-SI-GVDWID	208825	3519509.930	497227.175	3042.65	4/25/19	263.50		2779.15	Sierrita
GV-SI-GVDWID	208825	3519509.930	497227.175	3042.65	11/15/19	387.20	Dynamic	2655.45	Sierrita
GV-SI-GVDWID	208825	3519509.930	497227.175	3042.65	5/14/20	389.10	Dynamic	2653.55	Sierrita
GV-SI-GVDWID	208825	3519509.930	497227.175	3042.65	11/11/20	265.20	Static	2777.45	Sierrita
GV-SI-GVDWID	208825	3519509.930	497227.175	3042.65	4/8/21	266.10	Static	2776.55	Sierrita
GV-SI-GVDWID	208825	3519509.930	497227.175	3042.65	11/5/21	268.80	Static	2773.85	Sierrita
GV-SI-GVDWID	208825	3519509.930	497227.175	3042.65	5/17/22	266.00	Static	2776.65	Sierrita
GV-SI-GVDWID	208825	3519509.930	497227.175	3042.65	11/17/22	264.50	Static[2]	2778.15	Sierrita
GV-SI-GVDWID	208825	3519509.930	497227.175	3042.65	5/18/23	263.50	Static[2]	2779.15	Sierrita
GV-SI-GVDWID	208825	3519509.930	497227.175	3042.65	11/8/23	268.30	Static[2]	2774.35	Sierrita
I-12	608523	3528578.621	498110.598	3328.76	5/22/19	827.12	Static	2501.64	Sierrita
I-12	608523	3528578.621	498110.598	3328.76	6/9/20	837.34	Static	2491.42	Sierrita
I-12	608523	3528578.621	498110.598	3328.76	11/16/20	840.28	Static	2488.48	Sierrita
I-12	608523	3528578.621	498110.598	3328.76	6/1/21	839.39	Static	2489.37	Sierrita
I-12	608523	3528578.621	498110.598	3328.76	12/7/21	841.18	Static	2487.58	Sierrita
I-12	608523	3528578.621	498110.598	3328.76	5/23/22	841.30	Static	2487.46	Sierrita
I-12	608523	3528578.621	498110.598	3328.76	10/18/22	835.05	Static	2493.71	Sierrita
I-12	608523	3528578.621	498110.598	3328.76	5/22/23	833.30	Static	2495.46	Sierrita
I-12	608523	3528578.621	498110.598	3328.76	11/13/23	846.58	Static	2482.18	Sierrita
IW-1	623129	3521277.779	496905.892	3144.69	5/7/19	378.90	Static	2765.79	BW
IW-1	623129	3521277.779	496905.892	3144.69	10/8/19	462.20	Dynamic	2682.49	BW
IW-1	623129	3521277.779	496905.892	3144.69	6/5/20	474.65	Dynamic	2670.04	BW
IW-1	623129	3521277.779	496905.892	3144.69	10/30/20	467.25	Dynamic	2677.44	BW
IW-1	623129	3521277.779	496905.892	3144.69	5/22/21	467.70	Dynamic	2676.99	BW
IW-1	623129	3521277.779	496905.892	3144.69	11/20/21	444.80	Dynamic	2699.89	BW
IW-1	623129	3521277.779	496905.892	3144.69	4/23/22	444.70	Dynamic	2699.99	BW
IW-1	623129	3521277.779	496905.892	3144.69	12/20/22	467.50	Dynamic	2677.19	BW
IW-1	623129	3521277.779	496905.892	3144.69	5/12/23	467.38	Dynamic	2677.31	BW
IW-1	623129	3521277.779	496905.892	3144.69	12/13/23	474.50	Dynamic	2670.19	BW
IW-2A	216464	3521337.953	497469.228	3112.28	5/7/19	370.20	Static	2742.08	BW
IW-2A	216464	3521337.953	497469.228	3112.28	10/8/19	374.00	Static	2738.28	BW
IW-2A	216464	3521337.953	497469.228	3112.28	6/5/20	404.90	Dynamic	2707.38	BW
IW-2A	216464	3521337.953	497469.228	3112.28	10/30/20	397.80	Dynamic	2714.48	BW
IW-2A	216464	3521337.953	497469.228	3112.28	5/22/21	399.80	Dynamic	2712.48	BW
IW-2A	216464	3521337.953	497469.228	3112.28	11/20/21	400.40	Dynamic	2711.88	BW
IW-2A	216464	3521337.953	497469.228	3112.28	4/23/22	396.50	Dynamic	2715.78	BW
IW-2A	216464	3521337.953	497469.228	3112.28	12/20/22	398.90	Dynamic	2713.38	BW
IW-2A	216464	3521337.953	497469.228	3112.28	5/12/23	400.20	Dynamic	2712.08	BW
IW-2A	216464	3521337.953	497469.228	3112.28	12/13/23	403.05	Dynamic	2709.23	BW
IW-3A	201732	3521723.533	497380.342	3121.45	5/7/19	386.25	Static	2735.20	BW
IW-3A	201732	3521723.533	497380.342	3121.45	10/8/19	470.20	Dynamic	2651.25	BW
IW-3A	201732	3521723.533	497380.342	3121.45	6/5/20	472.40	Dynamic	2649.05	BW
IW-3A	201732	3521723.533	497380.342	3121.45	10/30/20	472.45	Dynamic	2649.00	BW
IW-3A	201732	3521723.533	497380.342	3121.45	5/22/21	479.70	Dynamic	2641.75	BW
IW-3A	201732	3521723.533	497380.342	3121.45	11/20/21	396.90	Static	2724.55	BW
IW-3A	201732	3521723.533	497380.342	3121.45	4/23/22	396.60	Static	2724.85	BW
IW-3A	201732	3521723.533	497380.342	3121.45	12/20/22	479.70	Dynamic	2641.75	BW
IW-3A	201732	3521723.533	497380.342	3121.45	5/12/23	482.50	Dynamic	2638.95	BW
IW-3A	201732	3521723.533	497380.342	3121.45	12/13/23	483.80	Dynamic	2637.65	BW
IW-4	623132	3522465.879	497371.700	3137.06	5/7/19	362.80	Static	2774.26	BW
IW-4	623132	3522465.879	497371.700	3137.06	10/8/19	361.10	Static	2775.96	BW
IW-4	623132	3522465.879	497371.700	3137.06	6/5/20	365.80	Static	2771.26	BW
IW-4	623132	3522465.879	497371.700	3137.06	5/22/21	396.20	Static	2740.86	BW
IW-4	623132	3522465.879	497371.700	3137.06	11/20/21	612.75	Dynamic	2524.31	BW
IW-4	623132	3522465.879	497371.700	3137.06	4/23/22	594.40	Dynamic	2542.66	BW
IW-4	623132	3522465.879	497371.700	3137.06	12/20/22	669.70	Dynamic	2467.36	BW

APPENDIX C
Water Elevation Data 2019 through 2023

Well Name	ADWR 55 Registry Number	Universal Transverse Mercator, Northing (m)[1]	Universal Transverse Mercator, Easting (m)[1]	Measuring Point Elevation (ft amsl)	Date	Depth to Water (ft bls)	Static/ Dynamic	Groundwater Elevation (ft amsl)	Data Source
IW-4	623132	3522465.879	497371.700	3137.06	12/13/23	556.80	Dynamic	2580.26	BW
IW-5A	219131	3522723.000	497442.700	3091.47	5/7/19	377.30	Static	2714.17	BW
IW-5A	219131	3522723.000	497442.700	3091.47	10/8/19	383.80	Static	2707.67	BW
IW-5A	219131	3522723.000	497442.700	3091.47	6/5/20	389.90	Static	2701.57	BW
IW-5A	219131	3522723.000	497442.700	3091.47	10/30/20	391.90	Static	2699.57	BW
IW-5A	219131	3522723.000	497442.700	3091.47	5/22/21	394.60	Static	2696.87	BW
IW-5A	219131	3522723.000	497442.700	3091.47	11/20/21	395.60	Static	2695.87	BW
IW-5A	219131	3522723.000	497442.700	3091.47	4/23/22	397.97	Static	2693.50	BW
IW-5A	219131	3522723.000	497442.700	3091.47	12/20/22	396.32	Static	2695.15	BW
IW-5A	219131	3522723.000	497442.700	3091.47	5/12/23	397.40	Static	2694.07	BW
IW-5A	219131	3522723.000	497442.700	3091.47	12/13/23	398.30	Static	2693.17	BW
IW-6A	545565	3523708.756	497381.226	3132.26	5/7/19	398.85	Static	2733.41	BW
IW-6A	545565	3523708.756	497381.226	3132.26	10/8/19	410.20	Static	2722.06	BW
IW-6A	545565	3523708.756	497381.226	3132.26	6/5/20	417.20	Static	2715.06	BW
IW-6A	545565	3523708.756	497381.226	3132.26	10/30/20	419.60	Static	2712.66	BW
IW-6A	545565	3523708.756	497381.226	3132.26	5/22/21	426.45	Static	2705.81	BW
IW-6A	545565	3523708.756	497381.226	3132.26	11/20/21	428.50	Static	2703.76	BW
IW-6A	545565	3523708.756	497381.226	3132.26	4/23/22	432.20	Static	2700.06	BW
IW-6A	545565	3523708.756	497381.226	3132.26	12/20/22	434.20	Static	2698.06	BW
IW-6A	545565	3523708.756	497381.226	3132.26	5/12/23	435.97	Static	2696.29	BW
IW-6A	545565	3523708.756	497381.226	3132.26	12/13/23	437.92	Static	2694.34	BW
IW-8	508236	3522020.520	497368.253	3122.19	5/7/19	374.10	Static	2748.09	BW
IW-8	508236	3522020.520	497368.253	3122.19	10/8/19	468.80	Dynamic	2653.39	BW
IW-8	508236	3522020.520	497368.253	3122.19	6/5/20	387.10	Static	2735.09	BW
IW-8	508236	3522020.520	497368.253	3122.19	10/30/20	470.80	Dynamic	2651.39	BW
IW-8	508236	3522020.520	497368.253	3122.19	5/22/21	397.90	Static	2724.29	BW
IW-8	508236	3522020.520	497368.253	3122.19	11/20/21	472.10	Dynamic	2650.09	BW
IW-8	508236	3522020.520	497368.253	3122.19	4/23/22	470.60	Dynamic	2651.59	BW
IW-8	508236	3522020.520	497368.253	3122.19	12/20/22	521.85	Dynamic	2600.34	BW
IW-8	508236	3522020.520	497368.253	3122.19	12/13/23	645.25	Dynamic	2476.94	BW
IW-9	508238	3522207.639	497369.791	3102.94	5/22/21	545.85	Dynamic	2557.09	BW
IW-9	508238	3522207.639	497369.791	3102.94	11/20/21	546.80	Dynamic	2556.14	BW
IW-9	508238	3522207.639	497369.791	3102.94	4/23/22	531.40	Dynamic	2571.54	BW
IW-9	508238	3522207.639	497369.791	3102.94	12/20/22	523.35	Dynamic	2579.59	BW
IW-9	508238	3522207.639	497369.791	3102.94	12/13/23	571.80	Dynamic	2531.14	BW
IW-10	508237	3523122.199	497370.367	3129.64	5/7/19	383.30	Static	2746.34	BW
IW-10	508237	3523122.199	497370.367	3129.64	10/8/19	398.50	Static	2731.14	BW
IW-10	508237	3523122.199	497370.367	3129.64	6/5/20	406.20	Static	2723.44	BW
IW-10	508237	3523122.199	497370.367	3129.64	5/22/21	515.60	Dynamic	2614.04	BW
IW-10	508237	3523122.199	497370.367	3129.64	4/23/22	510.80	Dynamic	2618.84	BW
IW-11	508235	3523428.954	497371.414	3127.20	5/7/19	467.00	Dynamic	2660.20	BW
IW-11	508235	3523428.954	497371.414	3127.20	11/20/21	526.60	Dynamic	2600.60	BW
IW-11	508235	3523428.954	497371.414	3127.20	4/23/22	423.40	Static	2703.80	BW
IW-11	508235	3523428.954	497371.414	3127.20	12/20/22	500.25	Dynamic	2626.95	BW
IW-11	508235	3523428.954	497371.414	3127.20	5/12/23	493.70	Dynamic	2633.50	BW
IW-11	508235	3523428.954	497371.414	3127.20	12/13/23	489.75	Dynamic	2637.45	BW
IW-12	545555	3523969.869	497364.911	3138.18	5/7/19	444.75	Dynamic	2693.43	BW
IW-12	545555	3523969.869	497364.911	3138.18	10/8/19	485.30	Dynamic	2652.88	BW
IW-12	545555	3523969.869	497364.911	3138.18	6/5/20	509.15	Dynamic	2629.03	BW
IW-12	545555	3523969.869	497364.911	3138.18	12/13/23	484.90	Dynamic	2653.28	BW
IW-13	545556	3524166.673	497363.820	3143.35	5/7/19	395.55	Static	2747.80	BW
IW-13	545556	3524166.673	497363.820	3143.35	10/8/19	400.20	Static	2743.15	BW
IW-13	545556	3524166.673	497363.820	3143.35	6/5/20	404.20	Static	2739.15	BW
IW-13	545556	3524166.673	497363.820	3143.35	10/30/20	401.70	Static	2741.65	BW
IW-13	545556	3524166.673	497363.820	3143.35	5/22/21	405.70	Static	2737.65	BW
IW-13	545556	3524166.673	497363.820	3143.35	11/20/21	407.10	Static	2736.25	BW
IW-13	545556	3524166.673	497363.820	3143.35	4/23/22	407.98	Static	2735.37	BW
IW-13	545556	3524166.673	497363.820	3143.35	12/20/22	407.00	Static	2736.35	BW
IW-13	545556	3524166.673	497363.820	3143.35	5/12/23	406.75	Static	2736.60	BW
IW-13	545556	3524166.673	497363.820	3143.35	12/13/23	403.15	Static	2740.20	BW
IW-14	545557	3524373.122	497367.126	3146.42	5/7/19	388.35	Static	2758.07	BW
IW-14	545557	3524373.122	497367.126	3146.42	10/8/19	390.90	Static	2755.52	BW
IW-14	545557	3524373.122	497367.126	3146.42	6/5/20	394.10	Static	2752.32	BW
IW-14	545557	3524373.122	497367.126	3146.42	10/30/20	393.95	Static	2752.47	BW
IW-14	545557	3524373.122	497367.126	3146.42	5/22/21	395.60	Static	2750.82	BW
IW-14	545557	3524373.122	497367.126	3146.42	11/20/21	397.60	Static	2748.82	BW

APPENDIX C
Water Elevation Data 2019 through 2023

Well Name	ADWR 55 Registry Number	Universal Transverse Mercator, Northing (m)[1]	Universal Transverse Mercator, Easting (m)[1]	Measuring Point Elevation (ft amsl)	Date	Depth to Water (ft bls)	Static/ Dynamic	Groundwater Elevation (ft amsl)	Data Source
IW-14	545557	3524373.122	497367.126	3146.42	4/23/22	398.10	Static	2748.32	BW
IW-14	545557	3524373.122	497367.126	3146.42	12/20/22	398.05	Static	2748.37	BW
IW-14	545557	3524373.122	497367.126	3146.42	5/12/23	397.50	Static	2748.92	BW
IW-14	545557	3524373.122	497367.126	3146.42	12/13/23	395.52	Static	2750.90	BW
IW-15	545558	3524567.261	497372.873	3152.02	5/7/19	397.95	Static	2754.07	BW
IW-15	545558	3524567.261	497372.873	3152.02	10/8/19	399.80	Static	2752.22	BW
IW-15	545558	3524567.261	497372.873	3152.02	6/5/20	401.70	Static	2750.32	BW
IW-15	545558	3524567.261	497372.873	3152.02	10/30/20	402.90	Static	2749.12	BW
IW-15	545558	3524567.261	497372.873	3152.02	5/22/21	403.70	Static	2748.32	BW
IW-15	545558	3524567.261	497372.873	3152.02	11/20/21	404.95	Static	2747.07	BW
IW-15	545558	3524567.261	497372.873	3152.02	4/23/22	405.32	Static	2746.70	BW
IW-15	545558	3524567.261	497372.873	3152.02	12/20/22	404.90	Static	2747.12	BW
IW-15	545558	3524567.261	497372.873	3152.02	5/12/23	403.65	Static	2748.37	BW
IW-15	545558	3524567.261	497372.873	3152.02	12/13/23	403.10	Static	2748.92	BW
IW-16	545559	3524782.868	497370.651	3162.85	5/1/19	411.82	Static	2751.03	Sierrita
IW-16	545559	3524782.868	497370.651	3162.85	5/7/19	411.75	Static	2751.10	BW
IW-16	545559	3524782.868	497370.651	3162.85	10/8/19	413.10	Static	2749.75	BW
IW-16	545559	3524782.868	497370.651	3162.85	6/5/20	414.60	Static	2748.25	BW
IW-16	545559	3524782.868	497370.651	3162.85	10/30/20	415.52	Static	2747.33	BW
IW-16	545559	3524782.868	497370.651	3162.85	5/22/21	416.20	Static	2746.65	BW
IW-16	545559	3524782.868	497370.651	3162.85	11/20/21	417.05	Static	2745.80	BW
IW-16	545559	3524782.868	497370.651	3162.85	4/23/22	417.40	Static	2745.45	BW
IW-16	545559	3524782.868	497370.651	3162.85	12/20/22	417.02	Static	2745.83	BW
IW-16	545559	3524782.868	497370.651	3162.85	5/12/23	448.70	Static	2714.15	BW
IW-16	545559	3524782.868	497370.651	3162.85	12/13/23	448.80	Static	2714.05	BW
IW-17	545560	3525002.869	497373.717	3160.76	5/1/19	443.10	Static	2717.66	Sierrita
IW-17	545560	3525002.869	497373.717	3160.76	5/7/19	442.95	Static	2717.81	BW
IW-17	545560	3525002.869	497373.717	3160.76	10/8/19	444.20	Static	2716.56	BW
IW-17	545560	3525002.869	497373.717	3160.76	6/5/20	445.90	Static	2714.86	BW
IW-17	545560	3525002.869	497373.717	3160.76	10/30/20	447.22	Static	2713.54	BW
IW-17	545560	3525002.869	497373.717	3160.76	5/22/21	448.10	Static	2712.66	BW
IW-17	545560	3525002.869	497373.717	3160.76	11/20/21	448.80	Static	2711.96	BW
IW-17	545560	3525002.869	497373.717	3160.76	4/23/22	449.27	Static	2711.49	BW
IW-17	545560	3525002.869	497373.717	3160.76	12/20/22	449.20	Static	2711.56	BW
IW-17	545560	3525002.869	497373.717	3160.76	5/12/23	416.40	Static	2744.36	BW
IW-17	545560	3525002.869	497373.717	3160.76	12/13/23	415.92	Static	2744.84	BW
IW-18	545561	3525169.771	497374.056	3171.15	10/30/20	462.00		2709.15	BW
IW-18	545561	3525169.771	497374.056	3171.15	11/10/21	462.00	Static	2709.15	BW
IW-18	545561	3525169.771	497374.056	3171.15	5/12/23	461.85	Static	2709.30	BW
IW-19	545562	3525343.392	497373.630	3155.39	6/5/20	481.10	Dynamic	2674.29	BW
IW-19	545562	3525343.392	497373.630	3155.39	5/22/21	417.10	Static	2738.29	BW
IW-20	545563	3525568.770	497364.739	3164.21	5/7/19	425.40	Static	2738.81	BW
IW-20	545563	3525568.770	497364.739	3164.21	10/8/19	425.10	Static	2739.11	BW
IW-20	545563	3525568.770	497364.739	3164.21	6/5/20	432.50	Static	2731.71	BW
IW-20	545563	3525568.770	497364.739	3164.21	10/30/20	437.10	Static	2727.11	BW
IW-20	545563	3525568.770	497364.739	3164.21	5/22/21	440.95	Static	2723.26	BW
IW-20	545563	3525568.770	497364.739	3164.21	11/20/21	442.32	Static	2721.89	BW
IW-20	545563	3525568.770	497364.739	3164.21	4/23/22	444.90	Static	2719.31	BW
IW-20	545563	3525568.770	497364.739	3164.21	12/20/22	447.42	Static	2716.79	BW
IW-20	545563	3525568.770	497364.739	3164.21	5/12/23	447.20	Static	2717.01	BW
IW-20	545563	3525568.770	497364.739	3164.21	12/13/23	446.80	Static	2717.41	BW
IW-21	545564	3525773.266	497374.585	3171.37	5/22/21	439.80	Static	2731.57	BW
IW-21	545564	3525773.266	497374.585	3171.37	11/20/21	441.55	Static	2729.82	BW
IW-21	545564	3525773.266	497374.585	3171.37	4/23/22	473.70	Dynamic	2697.67	BW
IW-21	545564	3525773.266	497374.585	3171.37	12/20/22	469.70	Dynamic	2701.67	BW
IW-21	545564	3525773.266	497374.585	3171.37	5/12/23	467.25	Dynamic	2704.12	BW
IW-21	545564	3525773.266	497374.585	3171.37	12/13/23	464.20	Dynamic	2707.17	BW
IW-22	200554	3523273.592	497369.590	3128.25	5/7/19	385.00	Static	2743.25	BW
IW-22	200554	3523273.592	497369.590	3128.25	5/12/23	435.75	Static	2692.50	BW
IW-22	200554	3523273.592	497369.590	3128.25	12/13/23	527.00	Dynamic	2601.25	BW
IW-23	200555	3522970.788	497369.237	3128.53	5/7/19	364.80	Static	2763.73	BW
IW-23	200555	3522970.788	497369.237	3128.53	10/8/19	372.00	Static	2756.53	BW
IW-23	200555	3522970.788	497369.237	3128.53	6/5/20	378.40	Static	2750.13	BW
IW-23	200555	3522970.788	497369.237	3128.53	10/30/20	381.70	Static	2746.83	BW
IW-23	200555	3522970.788	497369.237	3128.53	5/22/21	388.30	Static	2740.23	BW
IW-23	200555	3522970.788	497369.237	3128.53	11/20/21	607.50	Dynamic	2521.03	BW

APPENDIX C
Water Elevation Data 2019 through 2023

Well Name	ADWR 55 Registry Number	Universal Transverse Mercator, Northing (m)[1]	Universal Transverse Mercator, Easting (m)[1]	Measuring Point Elevation (ft amsl)	Date	Depth to Water (ft bls)	Static/ Dynamic	Groundwater Elevation (ft amsl)	Data Source
IW-23	200555	3522970.788	497369.237	3128.53	4/23/22	619.30	Dynamic	2509.23	BW
IW-23	200555	3522970.788	497369.237	3128.53	12/20/22	606.67	Dynamic	2521.86	BW
IW-23	200555	3522970.788	497369.237	3128.53	5/12/23	548.90	Dynamic	2579.63	BW
IW-23	200555	3522970.788	497369.237	3128.53	12/13/23	576.05	Dynamic	2552.48	BW
IW-24	200556	3522633.594	497371.670	3113.29	5/7/19	345.15	Static	2768.14	BW
IW-24	200556	3522633.594	497371.670	3113.29	10/8/19	350.60	Static	2762.69	BW
IW-24	200556	3522633.594	497371.670	3113.29	6/5/20	356.40	Static	2756.89	BW
IW-24	200556	3522633.594	497371.670	3113.29	10/30/20	358.27	Static	2755.02	BW
IW-24	200556	3522633.594	497371.670	3113.29	5/22/21	361.80	Static	2751.49	BW
IW-24	200556	3522633.594	497371.670	3113.29	11/20/21	363.10	Static	2750.19	BW
IW-24	200556	3522633.594	497371.670	3113.29	4/23/22	382.35	Dynamic	2730.94	BW
IW-24	200556	3522633.594	497371.670	3113.29	12/20/22	378.30	Dynamic	2734.99	BW
IW-24	200556	3522633.594	497371.670	3113.29	5/12/23	383.25	Dynamic	2730.04	BW
IW-24	200556	3522633.594	497371.670	3113.29	12/13/23	383.80	Dynamic	2729.49	BW
IW-25	219596	3521718.000	497640.600	3091.66	5/7/19	362.90	Static	2728.76	BW
IW-25	219596	3521718.000	497640.600	3091.66	10/8/19	437.60	Dynamic	2654.06	BW
IW-25	219596	3521718.000	497640.600	3091.66	6/5/20	375.10	Static	2716.56	BW
IW-25	219596	3521718.000	497640.600	3091.66	10/30/20	452.20	Dynamic	2639.46	BW
IW-25	219596	3521718.000	497640.600	3091.66	5/22/21	476.20	Dynamic	2615.46	BW
IW-25	219596	3521718.000	497640.600	3091.66	11/20/21	446.70	Dynamic	2644.96	BW
IW-25	219596	3521718.000	497640.600	3091.66	4/23/22	433.00	Dynamic	2658.66	BW
IW-25	219596	3521718.000	497640.600	3091.66	12/20/22	393.35	Static	2698.31	BW
IW-25	219596	3521718.000	497640.600	3091.66	5/12/23	506.10	Dynamic	2585.56	BW
IW-25	219596	3521718.000	497640.600	3091.66	12/13/23	506.70	Dynamic	2584.96	BW
IW-26	219143	3522307.296	497652.833	3100.03	5/7/19	371.60	Static	2728.43	BW
IW-26	219143	3522307.296	497652.833	3100.03	10/8/19	426.30	Dynamic	2673.73	BW
IW-26	219143	3522307.296	497652.833	3100.03	6/5/20	434.40	Dynamic	2665.63	BW
IW-26	219143	3522307.296	497652.833	3100.03	10/30/20	392.40	Static	2707.63	BW
IW-26	219143	3522307.296	497652.833	3100.03	5/22/21	451.70	Dynamic	2648.33	BW
IW-26	219143	3522307.296	497652.833	3100.03	11/20/21	460.25	Dynamic	2639.78	BW
IW-26	219143	3522307.296	497652.833	3100.03	4/23/22	467.45	Dynamic	2632.58	BW
IW-26	219143	3522307.296	497652.833	3100.03	12/20/22	469.92	Dynamic	2630.11	BW
IW-26	219143	3522307.296	497652.833	3100.03	5/12/23	485.10	Dynamic	2614.93	BW
IW-26	219143	3522307.296	497652.833	3100.03	12/13/23	401.40	Static	2698.63	BW
IW-27	219136	3522650.014	497600.566	3120.33	5/7/19	409.20	Dynamic	2711.13	BW
IW-27	219136	3522650.014	497600.566	3120.33	10/8/19	429.30	Dynamic	2691.03	BW
IW-27	219136	3522650.014	497600.566	3120.33	6/5/20	453.75	Dynamic	2666.58	BW
IW-27	219136	3522650.014	497600.566	3120.33	5/22/21	463.40	Dynamic	2656.93	BW
IW-27	219136	3522650.014	497600.566	3120.33	11/20/21	477.75	Dynamic	2642.58	BW
IW-27	219136	3522650.014	497600.566	3120.33	4/23/22	487.80	Dynamic	2632.53	BW
IW-27	219136	3522650.014	497600.566	3120.33	12/20/22	496.00	Dynamic	2624.33	BW
IW-27	219136	3522650.014	497600.566	3120.33	5/12/23	637.40	Dynamic	2482.93	BW
IW-27	219136	3522650.014	497600.566	3120.33	12/13/23	626.60	Dynamic	2493.73	BW
IW-28	219137	3523174.867	497652.833	3110.71	5/7/19	409.65	Dynamic	2701.06	BW
IW-28	219137	3523174.867	497652.833	3110.71	10/8/19	402.90	Static	2707.81	BW
IW-28	219137	3523174.867	497652.833	3110.71	6/5/20	411.30	Static	2699.41	BW
IW-28	219137	3523174.867	497652.833	3110.71	10/30/20	469.00	Dynamic	2641.71	BW
IW-28	219137	3523174.867	497652.833	3110.71	5/22/21	481.10	Dynamic	2629.61	BW
IW-28	219137	3523174.867	497652.833	3110.71	11/20/21	483.00	Dynamic	2627.71	BW
IW-28	219137	3523174.867	497652.833	3110.71	4/23/22	483.40	Dynamic	2627.31	BW
IW-28	219137	3523174.867	497652.833	3110.71	12/20/22	486.25	Dynamic	2624.46	BW
IW-28	219137	3523174.867	497652.833	3110.71	5/12/23	492.60	Dynamic	2618.11	BW
IW-28	219137	3523174.867	497652.833	3110.71	12/13/23	498.75	Dynamic	2611.96	BW
IW-29	222865	3523070.624	498081.498	3088.00	5/7/19	430.90	Dynamic	2657.10	BW
IW-29	222865	3523070.624	498081.498	3088.00	10/8/19	437.60	Dynamic	2650.40	BW
IW-29	222865	3523070.624	498081.498	3088.00	6/5/20	441.20	Dynamic	2646.80	BW
IW-29	222865	3523070.624	498081.498	3088.00	12/20/22	467.75	Dynamic	2620.25	BW
IW-29	222865	3523070.624	498081.498	3088.00	5/12/23	507.20	Dynamic	2580.80	BW
IW-29	222865	3523070.624	498081.498	3088.00	12/13/23	529.20	Dynamic	2558.80	BW
M-1	85228	3531163.257	500054.877	2959.57	5/2/19	470.58	Static	2488.99	Sierrita
M-1	85228	3531163.257	500054.877	2959.57	12/19/19	477.26	Static	2482.31	Sierrita
M-1	85228	3531163.257	500054.877	2959.57	6/9/20	478.11	Static	2481.46	Sierrita
M-1	85228	3531163.257	500054.877	2959.57	11/16/20	485.46	Static	2474.11	Sierrita
M-1	85228	3531163.257	500054.877	2959.57	6/1/21	482.44	Static	2477.13	Sierrita
M-1	85228	3531163.257	500054.877	2959.57	12/8/21	479.35	Static	2480.22	Sierrita
M-1	85228	3531163.257	500054.877	2959.57	6/3/22	480.41	Static	2479.16	Sierrita

APPENDIX C
Water Elevation Data 2019 through 2023

Well Name	ADWR 55 Registry Number	Universal Transverse Mercator, Northing (m)[1]	Universal Transverse Mercator, Easting (m)[1]	Measuring Point Elevation (ft amsl)	Date	Depth to Water (ft bls)	Static/ Dynamic	Groundwater Elevation (ft amsl)	Data Source
M-1	85228	3531163.257	500054.877	2959.57	10/18/22	482.60	Static	2476.97	Sierrita
M-1	85228	3531163.257	500054.877	2959.57	5/22/23	477.20	Static	2482.37	Sierrita
M-1	85228	3531163.257	500054.877	2959.57	11/1/23	482.25	Static	2477.32	Sierrita
M-5	87387	3530799.031	499640.514	2994.14	5/2/19	507.65	Static	2486.49	Sierrita
M-5	87387	3530799.031	499640.514	2994.14	12/17/19	515.85	Static	2478.29	Sierrita
M-5	87387	3530799.031	499640.514	2994.14	6/10/20	514.82	Static	2479.32	Sierrita
M-5	87387	3530799.031	499640.514	2994.14	12/1/20	521.72	Static	2472.42	Sierrita
M-5	87387	3530799.031	499640.514	2994.14	6/1/21	519.25	Static	2474.89	Sierrita
M-5	87387	3530799.031	499640.514	2994.14	12/8/21	518.30	Static	2475.84	Sierrita
M-5	87387	3530799.031	499640.514	2994.14	6/7/22	516.97	Static	2477.17	Sierrita
M-5	87387	3530799.031	499640.514	2994.14	12/5/22	517.67	Static	2476.47	Sierrita
M-5	87387	3530799.031	499640.514	2994.14	5/23/23	515.08	Static	2479.06	Sierrita
M-5	87387	3530799.031	499640.514	2994.14	11/13/23	520.15	Static	2473.99	Sierrita
M-8	87390	3529692.001	499658.882	2996.96	4/16/19	510.69	Static	2486.27	Sierrita
M-8	87390	3529692.001	499658.882	2996.96	10/29/19	519.92	Static	2477.04	Sierrita
M-8	87390	3529692.001	499658.882	2996.96	4/23/20	515.13	Static	2481.83	Sierrita
M-8	87390	3529692.001	499658.882	2996.96	11/4/20	517.30	Static	2479.66	Sierrita
M-9	501652	3530303.806	499984.132	2971.02	4/15/19	483.17	Static	2487.85	Sierrita
M-9	501652	3530303.806	499984.132	2971.02	4/23/20	487.20	Static	2483.82	Sierrita
M-9	501652	3530303.806	499984.132	2971.02	5/18/21	494.60	Static	2476.42	Sierrita
M-9	501652	3530303.806	499984.132	2971.02	10/21/21	495.31	Static	2475.71	Sierrita
M-9	501652	3530303.806	499984.132	2971.02	5/2/22	492.65	Static	2478.37	Sierrita
M-10	501653	3530143.001	499658.969	3002.69	4/15/19	514.93	Static	2487.76	Sierrita
M-10	501653	3530143.001	499658.969	3002.69	10/29/19	526.10	Static	2476.59	Sierrita
M-10	501653	3530143.001	499658.969	3002.69	4/23/20	519.23	Static	2483.46	Sierrita
M-10	501653	3530143.001	499658.969	3002.69	11/4/20	522.79	Static	2479.90	Sierrita
M-10	501653	3530143.001	499658.969	3002.69	5/18/21	525.77	Static	2476.92	Sierrita
M-10	501653	3530143.001	499658.969	3002.69	10/21/21	528.68	Static	2474.01	Sierrita
M-10	501653	3530143.001	499658.969	3002.69	5/2/22	524.52	Static	2478.17	Sierrita
M-10	501653	3530143.001	499658.969	3002.69	10/17/22	529.40	Static	2473.29	Sierrita
M-10	501653	3530143.001	499658.969	3002.70	5/2/23	523.38	Static	2479.32	Sierrita
M-10	501653	3530143.001	499658.969	3002.70	11/6/23	530.53	Static	2472.17	Sierrita
M-11	501654	3530757.848	500267.433	2938.82	5/2/19	449.58	Static	2489.24	Sierrita
M-11	501654	3530757.848	500267.433	2938.82	12/17/19	456.79	Static	2482.03	Sierrita
M-11	501654	3530757.848	500267.433	2938.82	6/9/20	456.99	Static	2481.83	Sierrita
M-11	501654	3530757.848	500267.433	2938.82	12/1/20	462.68	Static	2476.14	Sierrita
M-11	501654	3530757.848	500267.433	2938.82	6/1/21	461.55	Static	2477.27	Sierrita
M-11	501654	3530757.848	500267.433	2938.82	12/8/21	458.56	Static	2480.26	Sierrita
M-11	501654	3530757.848	500267.433	2938.82	6/3/22	459.49	Static	2479.33	Sierrita
M-11	501654	3530757.848	500267.433	2938.82	12/5/22	458.30	Static	2480.52	Sierrita
M-11	501654	3530757.848	500267.433	2938.82	5/22/23	456.47	Static	2482.35	Sierrita
M-11	501654	3530757.848	500267.433	2938.82	11/13/23	462.29	Static	2476.53	Sierrita
M-20	906595	3528491.771	499082.070	3054.00	4/16/19	556.21	Static	2497.79	Sierrita
M-20	906595	3528491.771	499082.070	3054.00	12/17/19	561.99	Static	2492.01	Sierrita
M-20	906595	3528491.771	499082.070	3054.00	4/24/20	560.85	Static	2493.15	Sierrita
M-20	906595	3528491.771	499082.070	3054.00	12/1/20	564.29	Static	2489.71	Sierrita
M-20	906595	3528491.771	499082.070	3054.00	5/13/21	565.20	Static	2488.80	Sierrita
M-20	906595	3528491.771	499082.070	3054.00	12/8/21	566.97	Static	2487.03	Sierrita
M-20	906595	3528491.771	499082.070	3054.00	5/6/22	566.84	Static	2487.16	Sierrita
M-20	906595	3528491.771	499082.070	3054.00	12/5/22	568.14	Static	2485.86	Sierrita
M-20	906595	3528491.771	499082.070	3054.00	5/15/23	567.60	Static	2486.40	Sierrita
M-20	906595	3528491.771	499082.070	3054.00	11/13/23	571.88	Static	2482.12	Sierrita
MC-1	221660	3525205.004	498909.743	3038.62	5/7/19	477.95	Static	2560.67	BW
MC-1	221660	3525205.004	498909.743	3038.62	10/8/19	496.45	Dynamic	2542.17	BW
MC-1	221660	3525205.004	498909.743	3038.62	6/5/20	498.70	Dynamic	2539.92	BW
MC-1	221660	3525205.004	498909.743	3038.62	10/30/20	500.50	Dynamic	2538.12	BW
MC-1	221660	3525205.004	498909.743	3038.62	5/22/21	487.00	Static	2551.62	BW
MC-1	221660	3525205.004	498909.743	3038.62	11/20/21	503.65	Dynamic	2534.97	BW
MC-1	221660	3525205.004	498909.743	3038.62	4/23/22	513.05	Dynamic	2525.57	BW
MC-1	221660	3525205.004	498909.743	3038.62	12/20/22	515.05	Dynamic	2523.57	BW
MC-1	221660	3525205.004	498909.743	3038.62	5/12/23	516.50	Dynamic	2522.12	BW
MC-1	221660	3525205.004	498909.743	3038.62	12/13/23	522.20	Dynamic	2516.42	BW
MC-2	221761	3526364.957	499370.061	3008.28	5/7/19	471.40	Static	2536.88	BW
MC-2	221761	3526364.957	499370.061	3008.28	11/20/21	490.50	Dynamic	2517.78	BW
MC-3	221661	3527484.047	498844.389	3062.33	5/7/19	550.85	Static	2511.48	BW
MC-3	221661	3527484.047	498844.389	3062.33	10/8/19	557.80	Dynamic	2504.53	BW

APPENDIX C
Water Elevation Data 2019 through 2023

Well Name	ADWR 55 Registry Number	Universal Transverse Mercator, Northing (m)[1]	Universal Transverse Mercator, Easting (m)[1]	Measuring Point Elevation (ft amsl)	Date	Depth to Water (ft bls)	Static/ Dynamic	Groundwater Elevation (ft amsl)	Data Source
MC-3	221661	3527484.047	498844.389	3062.33	6/5/20	559.70	Dynamic	2502.63	BW
MC-3	221661	3527484.047	498844.389	3062.33	10/30/20	559.88	Static	2502.45	BW
MC-3	221661	3527484.047	498844.389	3062.33	5/22/21	563.90	Dynamic	2498.43	BW
MC-3	221661	3527484.047	498844.389	3062.33	11/20/21	565.10	Dynamic	2497.23	BW
MC-3	221661	3527484.047	498844.389	3062.33	4/23/22	565.80	Dynamic	2496.53	BW
MC-3	221661	3527484.047	498844.389	3062.33	12/20/22	568.10	Dynamic	2494.23	BW
MC-3	221661	3527484.047	498844.389	3062.33	5/9/23	570.20	Dynamic	2492.13	BW
MC-3	221661	3527484.047	498844.389	3062.33	12/13/23	573.85	Dynamic	2488.48	BW
MC-4	220842	3527783.668	498585.304	3096.04	5/7/19	591.10	Static	2504.94	BW
MC-4	220842	3527783.668	498585.304	3096.04	10/8/19	604.70	Dynamic	2491.34	BW
MC-4	220842	3527783.668	498585.304	3096.04	6/5/20	605.60	Dynamic	2490.44	BW
MC-4	220842	3527783.668	498585.304	3096.04	10/30/20	609.75	Dynamic	2486.29	BW
MC-4	220842	3527783.668	498585.304	3096.04	5/22/21	609.00	Dynamic	2487.04	BW
MC-4	220842	3527783.668	498585.304	3096.04	11/20/21	609.60	Dynamic	2486.44	BW
MC-4	220842	3527783.668	498585.304	3096.04	4/23/22	609.20	Dynamic	2486.84	BW
MC-4	220842	3527783.668	498585.304	3096.04	12/20/22	621.95	Dynamic	2474.09	BW
MC-4	220842	3527783.668	498585.304	3096.04	5/9/23	602.60	Static	2493.44	BW
MC-4	220842	3527783.668	498585.304	3096.04	12/13/23	625.20	Dynamic	2470.84	BW
MC-5	238240	3527289.917	498506.557	3096.19	11/14/23	601.08	Static	2495.11	Sierrita
MC-5	238240	3527289.917	498506.557	3096.19	12/13/23	600.95	Static	2495.24	BW
MC-6	238394	3526418.224	498644.530	3075.98	11/14/23	563.20	Static	2512.78	Sierrita
MC-6	238394	3526418.224	498644.530	3075.98	12/13/23	563.00	Static	2512.98	BW
MH-1	803629	3525872.911	497372.392	3179.27	5/1/19	460.61	Static	2718.66	Sierrita
MH-1	803629	3525872.911	497372.392	3179.27	12/17/19	460.94	Static	2718.33	Sierrita
MH-1	803629	3525872.911	497372.392	3179.27	6/10/20	464.29	Static	2714.98	Sierrita
MH-1	803629	3525872.911	497372.392	3179.27	12/2/20	468.71	Static	2710.56	Sierrita
MH-1	803629	3525872.911	497372.392	3179.27	6/2/21	471.81	Static	2707.46	Sierrita
MH-1	803629	3525872.911	497372.392	3179.27	12/7/21	474.18	Static	2705.09	Sierrita
MH-1	803629	3525872.911	497372.392	3179.27	6/7/22	478.28	Static	2700.99	Sierrita
MH-1	803629	3525872.911	497372.392	3179.27	12/6/22	479.73	Static	2699.54	Sierrita
MH-1	803629	3525872.911	497372.392	3179.27	5/23/23	479.28	Static	2699.99	Sierrita
MH-1	803629	3525872.911	497372.392	3179.27	11/14/23	478.15	Static	2701.12	Sierrita
MH-3	803630	3525270.181	497472.430	3155.87	5/1/19	443.07	Static	2712.80	Sierrita
MH-3	803630	3525270.181	497472.430	3155.87	12/17/19	446.81	Static	2709.06	Sierrita
MH-3	803630	3525270.181	497472.430	3155.87	6/10/20	452.37	Static	2703.50	Sierrita
MH-3	803630	3525270.181	497472.430	3155.87	12/2/20	456.25	Static	2699.62	Sierrita
MH-5	803632	3523725.339	497477.352	3123.47	5/1/19	404.65	Static	2718.82	Sierrita
MH-5	803632	3523725.339	497477.352	3123.47	6/10/20	421.98	Static	2701.49	Sierrita
MH-5	803632	3523725.339	497477.352	3123.47	12/2/20	424.20	Static	2699.27	Sierrita
MH-5	803632	3523725.339	497477.352	3123.47	6/2/21	431.51	Static	2691.96	Sierrita
MH-5	803632	3523725.339	497477.352	3123.47	12/7/21	433.93	Static	2689.54	Sierrita
MH-5	803632	3523725.339	497477.352	3123.47	6/7/22	437.29	Static	2686.18	Sierrita
MH-5	803632	3523725.339	497477.352	3123.47	12/6/22	438.38	Static	2685.09	Sierrita
MH-5	803632	3523725.339	497477.352	3123.47	5/23/23	440.88	Static	2682.59	Sierrita
MH-5	803632	3523725.339	497477.352	3123.47	11/14/23	442.75	Static	2680.72	Sierrita
MH-6	803633	3522770.451	497436.646	3133.97	5/1/19	376.55	Static	2757.42	Sierrita
MH-6	803633	3522770.451	497436.646	3133.97	12/17/19	386.48	Static	2747.49	Sierrita
MH-6	803633	3522770.451	497436.646	3133.97	6/10/20	387.40	Static	2746.57	Sierrita
MH-6	803633	3522770.451	497436.646	3133.97	12/2/20	389.78	Static	2744.19	Sierrita
MH-6	803633	3522770.451	497436.646	3133.97	6/2/21	392.00	Static	2741.97	Sierrita
MH-6	803633	3522770.451	497436.646	3133.97	12/7/21	393.60	Static	2740.37	Sierrita
MH-6	803633	3522770.451	497436.646	3133.97	6/7/22	394.45	Static	2739.52	Sierrita
MH-6	803633	3522770.451	497436.646	3133.97	12/6/22	392.10	Static	2741.87	Sierrita
MH-6	803633	3522770.451	497436.646	3133.97	5/23/23	394.20	Static	2739.77	Sierrita
MH-6	803633	3522770.451	497436.646	3133.97	11/14/23	394.57	Static	2739.40	Sierrita
MH-7	803634	3522016.471	497502.475	3111.23	5/1/19	373.20	Static	2738.03	Sierrita
MH-7	803634	3522016.471	497502.475	3111.23	12/17/19	394.10	Static	2717.13	Sierrita
MH-7	803634	3522016.471	497502.475	3111.23	6/10/20	386.42	Static	2724.81	Sierrita
MH-7	803634	3522016.471	497502.475	3111.23	12/2/20	397.84	Static	2713.39	Sierrita
MH-7	803634	3522016.471	497502.475	3111.23	6/2/21	398.01	Static	2713.22	Sierrita
MH-7	803634	3522016.471	497502.475	3111.23	12/8/21	401.58	Static	2709.65	Sierrita
MH-7	803634	3522016.471	497502.475	3111.23	6/7/22	401.09	Static	2710.14	Sierrita
MH-7	803634	3522016.471	497502.475	3111.23	12/6/22	402.94	Static	2708.29	Sierrita
MH-7	803634	3522016.471	497502.475	3111.23	5/23/23	409.56	Static	2701.67	Sierrita
MH-7	803634	3522016.471	497502.475	3111.23	11/14/23	410.35	Static	2700.88	Sierrita
MH-9	803635	3521252.607	496438.181	3162.57	12/17/19	393.84	Static	2768.73	Sierrita

APPENDIX C
Water Elevation Data 2019 through 2023

Well Name	ADWR 55 Registry Number	Universal Transverse Mercator, Northing (m)[1]	Universal Transverse Mercator, Easting (m)[1]	Measuring Point Elevation (ft amsl)	Date	Depth to Water (ft bls)	Static/ Dynamic	Groundwater Elevation (ft amsl)	Data Source
MH-9	803635	3521252.607	496438.181	3162.57	6/10/20	394.83	Static	2767.74	Sierrita
MH-9	803635	3521252.607	496438.181	3162.57	12/2/20	396.03	Static	2766.54	Sierrita
MH-9	803635	3521252.607	496438.181	3162.57	12/8/21	398.08	Static	2764.49	Sierrita
MH-9	803635	3521252.607	496438.181	3162.57	6/7/22	397.83	Static	2764.74	Sierrita
MH-9	803635	3521252.607	496438.181	3162.57	12/6/22	397.25	Static	2765.32	Sierrita
MH-9	803635	3521252.607	496438.181	3162.57	5/23/23	398.15	Static	2764.42	Sierrita
MH-9	803635	3521252.607	496438.181	3162.57	11/14/23	400.16	Static	2762.41	Sierrita
MH-10	803636	3521236.861	495717.770	3187.84	4/17/19	370.65	Static	2817.19	Sierrita
MH-10	803636	3521236.861	495717.770	3187.84	12/17/19	376.66	Static	2811.18	Sierrita
MH-10	803636	3521236.861	495717.770	3187.84	5/8/20	377.03	Static	2810.81	Sierrita
MH-10	803636	3521236.861	495717.770	3187.84	12/2/20	378.00	Static	2809.84	Sierrita
MH-10	803636	3521236.861	495717.770	3187.84	5/13/21	378.82	Static	2809.02	Sierrita
MH-10	803636	3521236.861	495717.770	3187.84	12/8/21	374.09	Static	2813.75	Sierrita
MH-10	803636	3521236.861	495717.770	3187.84	5/5/22	377.40	Static	2810.44	Sierrita
MH-10	803636	3521236.861	495717.770	3187.84	12/6/22	372.53	Static	2815.31	Sierrita
MH-10	803636	3521236.861	495717.770	3187.84	5/15/23	377.03	Static	2810.81	Sierrita
MH-10	803636	3521236.861	495717.770	3187.84	11/14/23	378.42	Static	2809.42	Sierrita
MH-11	803637	3524463.648	498749.381	3041.76	4/17/19	437.41	Static	2604.35	Sierrita
MH-11	803637	3524463.648	498749.381	3041.76	12/17/19	440.36	Static	2601.40	Sierrita
MH-11	803637	3524463.648	498749.381	3041.76	12/17/19	440.36	Static	2601.40	Sierrita
MH-11	803637	3524463.648	498749.381	3041.76	4/15/20	442.72	Static	2599.04	Sierrita
MH-11	803637	3524463.648	498749.381	3041.76	12/1/20	447.55	Static	2594.21	Sierrita
MH-11	803637	3524463.648	498749.381	3041.76	5/13/21	449.30	Static	2592.46	Sierrita
MH-11	803637	3524463.648	498749.381	3041.76	12/7/21	453.09	Static	2588.67	Sierrita
MH-11	803637	3524463.648	498749.381	3041.76	5/6/22	455.88	Static	2585.88	Sierrita
MH-11	803637	3524463.648	498749.381	3041.76	12/6/22	458.00	Static	2583.76	Sierrita
MH-11	803637	3524463.648	498749.381	3041.76	5/15/23	459.00	Static	2582.76	Sierrita
MH-11	803637	3524463.648	498749.381	3041.76	11/13/23	462.07	Static	2579.69	Sierrita
MH-13A	904071	3523610.510	498816.960	3026.23	4/18/19	379.88	Static	2646.35	Sierrita
MH-13A	904071	3523610.510	498816.960	3026.23	12/17/19	385.37	Static	2640.86	Sierrita
MH-13A	904071	3523610.510	498816.960	3026.23	4/15/20	386.24	Static	2639.99	Sierrita
MH-13A	904071	3523610.510	498816.960	3026.23	12/2/20	391.42	Static	2634.81	Sierrita
MH-13A	904071	3523610.510	498816.960	3026.23	5/11/21	393.85	Static	2632.38	Sierrita
MH-13A	904071	3523610.510	498816.960	3026.23	12/7/21	398.41	Static	2627.82	Sierrita
MH-13A	904071	3523610.510	498816.960	3026.23	5/11/22	400.68	Static	2625.55	Sierrita
MH-13A	904071	3523610.510	498816.960	3026.23	12/6/22	403.39	Static	2622.84	Sierrita
MH-13A	904071	3523610.510	498816.960	3026.23	4/13/23	402.06	Static	2624.17	Sierrita
MH-13A	904071	3523610.510	498816.960	3026.23	11/13/23	408.40	Static	2617.83	Sierrita
MH-13B	904072	3523605.100	498823.050	3025.63	4/18/19	385.50	Static	2640.13	Sierrita
MH-13B	904072	3523605.100	498823.050	3025.63	12/17/19	390.95	Static	2634.68	Sierrita
MH-13B	904072	3523605.100	498823.050	3025.63	4/15/20	392.00	Static	2633.63	Sierrita
MH-13B	904072	3523605.100	498823.050	3025.63	12/2/20	397.00	Static	2628.63	Sierrita
MH-13B	904072	3523605.100	498823.050	3025.63	5/11/21	400.11	Static	2625.52	Sierrita
MH-13B	904072	3523605.100	498823.050	3025.63	12/7/21	403.73	Static	2621.90	Sierrita
MH-13B	904072	3523605.100	498823.050	3025.63	5/16/22	406.39	Static	2619.24	Sierrita
MH-13B	904072	3523605.100	498823.050	3025.63	12/6/22	408.21	Static	2617.42	Sierrita
MH-13B	904072	3523605.100	498823.050	3025.63	4/12/23	407.55	Static	2618.08	Sierrita
MH-13B	904072	3523605.100	498823.050	3025.63	11/13/23	413.51	Static	2612.12	Sierrita
MH-13C	904073	3523610.400	498790.260	3028.46	4/17/19	397.21	Static	2631.25	Sierrita
MH-13C	904073	3523610.400	498790.260	3028.46	12/17/19	401.93	Static	2626.53	Sierrita
MH-13C	904073	3523610.400	498790.260	3028.46	4/15/20	401.96	Static	2626.50	Sierrita
MH-13C	904073	3523610.400	498790.260	3028.46	12/2/20	405.96	Static	2622.50	Sierrita
MH-13C	904073	3523610.400	498790.260	3028.46	5/11/21	407.59	Static	2620.87	Sierrita
MH-13C	904073	3523610.400	498790.260	3028.46	12/7/21	412.44	Static	2616.02	Sierrita
MH-13C	904073	3523610.400	498790.260	3028.46	5/11/22	413.90	Static	2614.56	Sierrita
MH-13C	904073	3523610.400	498790.260	3028.46	12/6/22	417.82	Static	2610.64	Sierrita
MH-13C	904073	3523610.400	498790.260	3028.46	4/13/23	416.10	Static	2612.36	Sierrita
MH-13C	904073	3523610.400	498790.260	3028.46	11/13/23	421.31	Static	2607.15	Sierrita
MH-14	528098	3525269.340	497517.626	3153.46	4/4/19	445.74	Static	2707.72	Sierrita
MH-14	528098	3525269.340	497517.626	3153.46	10/2/19	446.00	Static	2707.46	Sierrita
MH-14	528098	3525269.340	497517.626	3153.46	4/1/20	449.14	Static	2704.32	Sierrita
MH-14	528098	3525269.340	497517.626	3153.46	10/12/20	457.62	Static	2695.84	Sierrita
MH-14	528098	3525269.340	497517.626	3153.46	5/26/21	461.08	Static	2692.38	Sierrita
MH-14	528098	3525269.340	497517.626	3153.46	10/6/21	462.11	Static	2691.35	Sierrita
MH-14	528098	3525269.340	497517.626	3153.46	4/5/22	463.88	Static	2689.58	Sierrita
MH-14	528098	3525269.340	497517.626	3153.46	10/12/22	463.60	Static	2689.86	Sierrita

APPENDIX C
Water Elevation Data 2019 through 2023

Well Name	ADWR 55 Registry Number	Universal Transverse Mercator, Northing (m)[1]	Universal Transverse Mercator, Easting (m)[1]	Measuring Point Elevation (ft amsl)	Date	Depth to Water (ft bls)	Static/ Dynamic	Groundwater Elevation (ft amsl)	Data Source
MH-14	528098	3525269.340	497517.626	3153.46	4/3/23	464.21	Static	2689.25	Sierrita
MH-14	528098	3525269.340	497517.626	3153.46	10/9/23	464.36	Static	2689.10	Sierrita
MH-15E	528094	3523274.327	497584.800	3111.37	5/1/19	390.99	Static	2720.38	Sierrita
MH-15E	528094	3523274.327	497584.800	3111.37	12/17/19	408.82	Static	2702.55	Sierrita
MH-15E	528094	3523274.327	497584.800	3111.37	6/10/20	413.21	Static	2698.16	Sierrita
MH-15E	528094	3523274.327	497584.800	3111.37	12/2/20	421.22	Static	2690.15	Sierrita
MH-15E	528094	3523274.327	497584.800	3111.37	6/2/21	432.18	Static	2679.19	Sierrita
MH-15E	528094	3523274.327	497584.800	3111.37	6/7/22	437.10	Static	2674.27	Sierrita
MH-15E	528094	3523274.327	497584.800	3111.37	12/6/22	438.72	Static	2672.65	Sierrita
MH-15E	528094	3523274.327	497584.800	3111.37	5/23/23	440.64	Static	2670.73	Sierrita
MH-16W	528099	3521870.818	497516.074	3100.24	4/4/19	370.89	Static	2729.35	Sierrita
MH-16W	528099	3521870.818	497516.074	3100.24	10/31/19	379.15	Static	2721.09	Sierrita
MH-16W	528099	3521870.818	497516.074	3100.24	4/1/20	380.29	Static	2719.95	Sierrita
MH-16W	528099	3521870.818	497516.074	3100.24	10/12/20	380.42	Static	2719.82	Sierrita
MH-16W	528099	3521870.818	497516.074	3100.24	5/26/21	389.22	Static	2711.02	Sierrita
MH-16W	528099	3521870.818	497516.074	3100.24	10/7/21	388.19	Static	2712.05	Sierrita
MH-16W	528099	3521870.818	497516.074	3100.24	4/5/22	386.77	Static	2713.47	Sierrita
MH-16W	528099	3521870.818	497516.074	3100.24	10/12/22	385.72	Static	2714.52	Sierrita
MH-16W	528099	3521870.818	497516.074	3100.24	4/4/23	396.94	Static	2703.30	Sierrita
MH-16W	528099	3521870.818	497516.074	3100.24	10/9/23	403.40	Static	2696.84	Sierrita
MH-25A	201528	3526510.175	498880.349	3056.57	4/18/19	520.96	Static	2535.61	Sierrita
MH-25B	208429	3526515.244	498870.343	3058.22	4/18/19	521.45	Static	2536.77	Sierrita
MH-25B	208429	3526515.244	498870.343	3058.22	12/17/19	525.78	Static	2532.44	Sierrita
MH-25B	208429	3526515.244	498870.343	3058.22	4/22/20	525.07	Static	2533.15	Sierrita
MH-25B	208429	3526515.244	498870.343	3058.22	12/2/20	529.87	Static	2528.35	Sierrita
MH-25B	208429	3526515.244	498870.343	3058.22	5/12/21	530.00	Static	2528.22	Sierrita
MH-25B	208429	3526515.244	498870.343	3058.22	12/7/21	531.70	Static	2526.52	Sierrita
MH-25B	208429	3526515.244	498870.343	3058.22	5/10/22	533.63	Static	2524.59	Sierrita
MH-25B	208429	3526515.244	498870.343	3058.22	12/6/22	535.94	Static	2522.28	Sierrita
MH-25B	208429	3526515.244	498870.343	3058.22	4/12/23	536.07	Static	2522.15	Sierrita
MH-25B	208429	3526515.244	498870.343	3058.22	11/14/23	539.90	Static	2518.32	Sierrita
MH-25C	208426	3526491.132	498874.666	3057.24	4/18/19	520.93	Static	2536.31	Sierrita
MH-25C	208426	3526491.132	498874.666	3057.24	12/17/19	525.35	Static	2531.89	Sierrita
MH-25C	208426	3526491.132	498874.666	3057.24	4/22/20	524.69	Static	2532.55	Sierrita
MH-25C	208426	3526491.132	498874.666	3057.24	12/2/20	529.45	Static	2527.79	Sierrita
MH-25C	208426	3526491.132	498874.666	3057.24	5/12/21	530.81	Static	2526.43	Sierrita
MH-25C	208426	3526491.132	498874.666	3057.24	12/7/21	531.25	Static	2525.99	Sierrita
MH-25C	208426	3526491.132	498874.666	3057.24	5/10/22	533.24	Static	2524.00	Sierrita
MH-25C	208426	3526491.132	498874.666	3057.24	12/6/22	535.50	Static	2521.74	Sierrita
MH-25C	208426	3526491.132	498874.666	3057.24	4/12/23	535.53	Static	2521.71	Sierrita
MH-25C	208426	3526491.132	498874.666	3057.24	11/14/23	539.27	Static	2517.97	Sierrita
MH-26B	208427	3527814.016	498839.900	3070.50	4/18/19	557.85	Static	2512.65	Sierrita
MH-26B	208427	3527814.016	498839.900	3070.50	12/17/19	562.35	Static	2508.15	Sierrita
MH-26B	208427	3527814.016	498839.900	3070.50	4/22/20	561.88	Static	2508.62	Sierrita
MH-26B	208427	3527814.016	498839.900	3070.50	12/2/20	566.14	Static	2504.36	Sierrita
MH-26B	208427	3527814.016	498839.900	3070.50	5/12/21	566.55	Static	2503.95	Sierrita
MH-26B	208427	3527814.016	498839.900	3070.50	12/7/21	568.00	Static	2502.50	Sierrita
MH-26B	208427	3527814.016	498839.900	3070.50	5/11/22	568.71	Static	2501.79	Sierrita
MH-26B	208427	3527814.016	498839.900	3070.50	12/6/22	570.75	Static	2499.75	Sierrita
MH-26B	208427	3527814.016	498839.900	3070.50	11/14/23	574.59	Static	2495.91	Sierrita
MH-26C	208428	3527806.770	498865.240	3069.11	4/18/19	559.10	Static	2510.01	Sierrita
MH-26C	208428	3527806.770	498865.240	3069.11	12/17/19	563.61	Static	2505.50	Sierrita
MH-26C	208428	3527806.770	498865.240	3069.11	4/22/20	563.14	Static	2505.97	Sierrita
MH-26C	208428	3527806.770	498865.240	3069.11	12/2/20	567.42	Static	2501.69	Sierrita
MH-26C	208428	3527806.770	498865.240	3069.11	5/12/21	567.95	Static	2501.16	Sierrita
MH-26C	208428	3527806.770	498865.240	3069.11	12/7/21	569.25	Static	2499.86	Sierrita
MH-26C	208428	3527806.770	498865.240	3069.11	5/11/22	569.97	Static	2499.14	Sierrita
MH-26C	208428	3527806.770	498865.240	3069.11	12/6/22	572.03	Static	2497.08	Sierrita
MH-26C	208428	3527806.770	498865.240	3069.11	4/11/23	571.29	Static	2497.82	Sierrita
MH-26C	208428	3527806.770	498865.240	3069.11	11/14/23	575.72	Static	2493.39	Sierrita
MH-28	903648	3524609.980	497471.427	3142.18	4/2/19	412.30	Static	2729.88	Sierrita
MH-28	903648	3524609.980	497471.427	3142.18	10/1/19	414.61	Static	2727.57	Sierrita
MH-28	903648	3524609.980	497471.427	3142.18	4/2/20	415.91	Static	2726.27	Sierrita
MH-28	903648	3524609.980	497471.427	3142.18	10/12/20	417.80	Static	2724.38	Sierrita
MH-28	903648	3524609.980	497471.427	3142.18	4/5/21	419.58	Static	2722.60	Sierrita
MH-28	903648	3524609.980	497471.427	3142.18	10/7/21	421.49	Static	2720.69	Sierrita

APPENDIX C
Water Elevation Data 2019 through 2023

Well Name	ADWR 55 Registry Number	Universal Transverse Mercator, Northing (m)[1]	Universal Transverse Mercator, Easting (m)[1]	Measuring Point Elevation (ft amsl)	Date	Depth to Water (ft bls)	Static/ Dynamic	Groundwater Elevation (ft amsl)	Data Source
MH-28	903648	3524609.980	497471.427	3142.18	4/5/22	422.03	Static	2720.15	Sierrita
MH-28	903648	3524609.980	497471.427	3142.18	10/6/22	421.52	Static	2720.66	Sierrita
MH-28	903648	3524609.980	497471.427	3142.18	4/5/23	421.04	Static	2721.14	Sierrita
MH-28	903648	3524609.980	497471.427	3142.18	11/7/23	421.36	Static	2720.82	Sierrita
MH-29	903649	3522805.518	497604.326	3123.15	4/2/19	386.92	Static	2736.23	Sierrita
MH-29	903649	3522805.518	497604.326	3123.15	10/15/19	395.46	Static	2727.69	Sierrita
MH-29	903649	3522805.518	497604.326	3123.15	4/2/20	403.16	Static	2719.99	Sierrita
MH-29	903649	3522805.518	497604.326	3123.15	10/14/20	401.31	Static	2721.84	Sierrita
MH-29	903649	3522805.518	497604.326	3123.15	4/5/21	405.92	Static	2717.23	Sierrita
MH-29	903649	3522805.518	497604.326	3123.15	10/7/21	407.32	Static	2715.83	Sierrita
MH-29	903649	3522805.518	497604.326	3123.15	4/5/22	413.95	Static	2709.20	Sierrita
MH-29	903649	3522805.518	497604.326	3123.15	10/6/22	407.37	Static	2715.78	Sierrita
MH-29	903649	3522805.518	497604.326	3123.15	4/5/23	409.06	Static	2714.09	Sierrita
MH-29	903649	3522805.518	497604.326	3123.15	10/9/23	418.75	Static	2704.40	Sierrita
MH-30	903884	3525926.812	496682.307	3232.45	4/17/19	429.00	Static	2803.45	Sierrita
MH-30	903884	3525926.812	496682.307	3232.45	12/17/19	429.49	Static	2802.96	Sierrita
MH-30	903884	3525926.812	496682.307	3232.45	4/15/20	430.64	Static	2801.81	Sierrita
MH-30	903884	3525926.812	496682.307	3232.45	12/2/20	432.86	Static	2799.59	Sierrita
MH-30	903884	3525926.812	496682.307	3232.45	5/11/21	433.72	Static	2798.73	Sierrita
MH-30	903884	3525926.812	496682.307	3232.45	11/16/21	435.40	Static	2797.05	Sierrita
MH-30	903884	3525926.812	496682.307	3232.45	5/16/22	433.94	Static	2798.51	Sierrita
MH-30	903884	3525926.812	496682.307	3232.45	12/14/22	431.46	Static	2800.99	Sierrita
MH-30	903884	3525926.812	496682.307	3232.45	4/11/23	430.06	Static	2802.39	Sierrita
MH-30	903884	3525926.812	496682.307	3232.45	11/29/23	428.86	Static	2803.59	Sierrita
MO-2007-1A	907342	3529331.233	500016.988	2964.66	4/8/19	475.78	Static	2488.88	Sierrita
MO-2007-1A	907342	3529331.233	500016.988	2964.66	10/21/19	484.18	Static	2480.48	Sierrita
MO-2007-1A	907342	3529331.233	500016.988	2964.66	4/16/20	480.12	Static	2484.54	Sierrita
MO-2007-1A	907342	3529331.233	500016.988	2964.66	10/21/20	488.46	Static	2476.20	Sierrita
MO-2007-1A	907342	3529331.233	500016.988	2964.66	5/10/21	485.22	Static	2479.44	Sierrita
MO-2007-1A	907342	3529331.233	500016.988	2964.66	10/4/21	488.15	Static	2476.51	Sierrita
MO-2007-1A	907342	3529331.233	500016.988	2964.66	4/12/22	485.20	Static	2479.46	Sierrita
MO-2007-1A	907342	3529331.233	500016.988	2964.66	10/10/22	487.26	Static	2477.40	Sierrita
MO-2007-1A	907342	3529331.233	500016.988	2964.66	4/18/23	484.84	Static	2479.82	Sierrita
MO-2007-1A	907342	3529331.233	500016.988	2964.66	10/10/23	489.89	Static	2474.77	Sierrita
MO-2007-1B	907210	3529328.835	500021.698	2964.84	4/8/19	476.21	Static	2488.63	Sierrita
MO-2007-1B	907210	3529328.835	500021.698	2964.84	10/21/19	484.70	Static	2480.14	Sierrita
MO-2007-1B	907210	3529328.835	500021.698	2964.84	4/16/20	480.09	Static	2484.75	Sierrita
MO-2007-1B	907210	3529328.835	500021.698	2964.84	10/21/20	488.74	Static	2476.10	Sierrita
MO-2007-1B	907210	3529328.835	500021.698	2964.84	5/10/21	485.30	Static	2479.54	Sierrita
MO-2007-1B	907210	3529328.835	500021.698	2964.84	10/4/21	488.14	Static	2476.70	Sierrita
MO-2007-1B	907210	3529328.835	500021.698	2964.84	4/12/22	484.95	Static	2479.89	Sierrita
MO-2007-1B	907210	3529328.835	500021.698	2964.84	10/10/22	486.58	Static	2478.26	Sierrita
MO-2007-1B	907210	3529328.835	500021.698	2964.84	4/18/23	484.72	Static	2480.12	Sierrita
MO-2007-1B	907210	3529328.835	500021.698	2964.84	10/10/23	490.00	Static	2474.84	Sierrita
MO-2007-1C	907209	3529328.777	500013.371	2968.58	4/8/19	475.91	Static	2492.67	Sierrita
MO-2007-1C	907209	3529328.777	500013.371	2968.58	10/21/19	483.86	Static	2484.72	Sierrita
MO-2007-1C	907209	3529328.777	500013.371	2968.58	4/16/20	479.61	Static	2488.97	Sierrita
MO-2007-1C	907209	3529328.777	500013.371	2968.58	10/21/20	487.96	Static	2480.62	Sierrita
MO-2007-1C	907209	3529328.777	500013.371	2968.58	5/10/21	484.75	Static	2483.83	Sierrita
MO-2007-1C	907209	3529328.777	500013.371	2968.58	10/4/21	487.59	Static	2480.99	Sierrita
MO-2007-1C	907209	3529328.777	500013.371	2968.58	4/12/22	484.52	Static	2484.06	Sierrita
MO-2007-1C	907209	3529328.777	500013.371	2968.58	10/10/22	485.78	Static	2482.80	Sierrita
MO-2007-1C	907209	3529328.777	500013.371	2968.58	4/18/23	484.60	Static	2483.98	Sierrita
MO-2007-1C	907209	3529328.777	500013.371	2968.58	10/10/23	489.76	Static	2478.82	Sierrita
MO-2007-2	906765	3527621.127	497911.605	3150.87	4/24/19	640.78	Static	2510.09	Sierrita
MO-2007-2	906765	3527621.127	497911.605	3150.87	12/17/19	644.70	Static	2506.17	Sierrita
MO-2007-2	906765	3527621.127	497911.605	3150.87	4/14/20	644.15	Static	2506.72	Sierrita
MO-2007-2	906765	3527621.127	497911.605	3150.87	12/1/20	648.22	Static	2502.65	Sierrita
MO-2007-2	906765	3527621.127	497911.605	3150.87	4/9/21	648.57	Static	2502.30	Sierrita
MO-2007-2	906765	3527621.127	497911.605	3150.87	12/8/21	650.20	Static	2500.67	Sierrita
MO-2007-2	906765	3527621.127	497911.605	3150.87	6/14/22	651.30	Static	2499.57	Sierrita
MO-2007-2	906765	3527621.127	497911.605	3150.87	6/28/22	652.00	Static	2498.87	Sierrita
MO-2007-2	906765	3527621.127	497911.605	3150.87	4/11/23	653.31	Static	2497.56	Sierrita
MO-2007-2	906765	3527621.127	497911.605	3150.87	11/13/23	657.61	Static	2493.26	Sierrita
MO-2007-3B	906816	3528508.811	500522.411	2909.12	2/18/19	420.49	Static	2488.63	Sierrita
MO-2007-3B	906816	3528508.811	500522.411	2909.12	4/9/19	411.50	Static	2497.62	Sierrita

APPENDIX C
Water Elevation Data 2019 through 2023

Well Name	ADWR 55 Registry Number	Universal Transverse Mercator, Northing (m)[1]	Universal Transverse Mercator, Easting (m)[1]	Measuring Point Elevation (ft amsl)	Date	Depth to Water (ft bls)	Static/ Dynamic	Groundwater Elevation (ft amsl)	Data Source
MO-2007-3B	906816	3528508.811	500522.411	2909.12	7/17/19	413.97	Static	2495.15	Sierrita
MO-2007-3B	906816	3528508.811	500522.411	2909.12	10/22/19	417.22	Static	2491.90	Sierrita
MO-2007-3B	906816	3528508.811	500522.411	2909.12	1/16/20	415.28	Static	2493.84	Sierrita
MO-2007-3B	906816	3528508.811	500522.411	2909.12	4/13/20	413.83	Static	2495.29	Sierrita
MO-2007-3B	906816	3528508.811	500522.411	2909.12	7/17/20	418.67	Static	2490.45	Sierrita
MO-2007-3B	906816	3528508.811	500522.411	2909.12	10/23/20	421.18	Static	2487.94	Sierrita
MO-2007-3B	906816	3528508.811	500522.411	2909.12	12/8/20	420.31	Static	2488.81	Sierrita
MO-2007-3B	906816	3528508.811	500522.411	2909.12	1/15/21	419.08	Static	2490.04	Sierrita
MO-2007-3B	906816	3528508.811	500522.411	2909.12	4/15/21	418.30	Static	2490.82	Sierrita
MO-2007-3B	906816	3528508.811	500522.411	2909.12	8/9/21	421.11	Static	2488.01	Sierrita
MO-2007-3B	906816	3528508.811	500522.411	2909.12	10/25/21	422.57	Static	2486.55	Sierrita
MO-2007-3B	906816	3528508.811	500522.411	2909.12	1/17/22	420.31	Static	2488.81	Sierrita
MO-2007-3B	906816	3528508.811	500522.411	2909.12	4/14/22	420.68	Static	2488.44	Sierrita
MO-2007-3B	906816	3528508.811	500522.411	2909.12	8/15/22	423.69	Static	2485.43	Sierrita
MO-2007-3B	906816	3528508.811	500522.411	2909.12	10/20/22	422.81	Static	2486.31	Sierrita
MO-2007-3B	906816	3528508.811	500522.411	2909.12	1/23/23	420.38	Static	2488.74	Sierrita
MO-2007-3B	906816	3528508.811	500522.411	2909.12	4/19/23	420.20	Static	2488.92	Sierrita
MO-2007-3B	906816	3528508.811	500522.411	2909.12	7/12/23	424.29	Static	2484.83	Sierrita
MO-2007-3B	906816	3528508.811	500522.411	2909.12	10/11/23	425.14	Static	2483.98	Sierrita
MO-2007-3B	906816	3528508.811	500522.411	2909.12	1/4/24	423.74	Static	2485.38	Sierrita
MO-2007-3C	906817	3528508.795	500529.712	2908.87	2/18/19	409.49	Static	2499.38	Sierrita
MO-2007-3C	906817	3528508.795	500529.712	2908.87	4/9/19	411.16	Static	2497.71	Sierrita
MO-2007-3C	906817	3528508.795	500529.712	2908.87	7/17/19	414.56	Static	2494.31	Sierrita
MO-2007-3C	906817	3528508.795	500529.712	2908.87	10/22/19	417.85	Static	2491.02	Sierrita
MO-2007-3C	906817	3528508.795	500529.712	2908.87	1/15/20	415.67	Static	2493.20	Sierrita
MO-2007-3C	906817	3528508.795	500529.712	2908.87	4/13/20	413.97	Static	2494.90	Sierrita
MO-2007-3C	906817	3528508.795	500529.712	2908.87	7/17/20	419.46	Static	2489.41	Sierrita
MO-2007-3C	906817	3528508.795	500529.712	2908.87	12/8/20	420.22	Static	2488.65	Sierrita
MO-2007-3C	906817	3528508.795	500529.712	2908.87	1/15/21	418.77	Static	2490.10	Sierrita
MO-2007-3C	906817	3528508.795	500529.712	2908.87	4/15/21	418.50	Static	2490.37	Sierrita
MO-2007-3C	906817	3528508.795	500529.712	2908.87	8/9/21	421.20	Static	2487.67	Sierrita
MO-2007-3C	906817	3528508.795	500529.712	2908.87	10/25/21	422.04	Static	2486.83	Sierrita
MO-2007-3C	906817	3528508.795	500529.712	2908.87	1/17/22	420.08	Static	2488.79	Sierrita
MO-2007-3C	906817	3528508.795	500529.712	2908.87	4/14/22	420.60	Static	2488.27	Sierrita
MO-2007-3C	906817	3528508.795	500529.712	2908.87	8/15/22	423.27	Static	2485.60	Sierrita
MO-2007-3C	906817	3528508.795	500529.712	2908.87	10/20/22	422.73	Static	2486.14	Sierrita
MO-2007-3C	906817	3528508.795	500529.712	2908.87	1/23/23	420.08	Static	2488.79	Sierrita
MO-2007-3C	906817	3528508.795	500529.712	2908.87	4/19/23	420.13	Static	2488.74	Sierrita
MO-2007-3C	906817	3528508.795	500529.712	2908.87	7/12/23	424.02	Static	2484.85	Sierrita
MO-2007-3C	906817	3528508.795	500529.712	2908.87	10/12/23	425.94	Static	2482.93	Sierrita
MO-2007-3C	906817	3528508.795	500529.712	2908.87	1/4/24	423.54	Static	2485.33	Sierrita
MO-2007-4A	907213	3525634.956	500383.682	2923.63	2/14/19	366.09	Static	2557.54	Sierrita
MO-2007-4A	907213	3525634.956	500383.682	2923.63	4/11/19	365.69	Static	2557.94	Sierrita
MO-2007-4A	907213	3525634.956	500383.682	2923.63	7/18/19	369.62	Static	2554.01	Sierrita
MO-2007-4A	907213	3525634.956	500383.682	2923.63	9/9/19	370.76	Static	2552.87	Sierrita
MO-2007-4A	907213	3525634.956	500383.682	2923.63	10/22/19	371.38	Static	2552.25	Sierrita
MO-2007-4A	907213	3525634.956	500383.682	2923.63	11/14/19	370.76	Static	2552.87	Sierrita
MO-2007-4A	907213	3525634.956	500383.682	2923.63	12/4/19	370.45	Static	2553.18	Sierrita
MO-2007-4A	907213	3525634.956	500383.682	2923.63	1/16/20	369.83	Static	2553.80	Sierrita
MO-2007-4A	907213	3525634.956	500383.682	2923.63	2/5/20	369.81	Static	2553.82	Sierrita
MO-2007-4A	907213	3525634.956	500383.682	2923.63	3/5/20	369.72	Static	2553.91	Sierrita
MO-2007-4A	907213	3525634.956	500383.682	2923.63	4/14/20	371.94	Static	2551.69	Sierrita
MO-2007-4A	907213	3525634.956	500383.682	2923.63	7/28/20	376.67	Static	2546.96	Sierrita
MO-2007-4A	907213	3525634.956	500383.682	2923.63	11/3/20	377.77	Static	2545.86	Sierrita
MO-2007-4A	907213	3525634.956	500383.682	2923.63	1/14/21	375.71	Static	2547.92	Sierrita
MO-2007-4A	907213	3525634.956	500383.682	2923.63	5/6/21	379.47	Static	2544.16	Sierrita
MO-2007-4A	907213	3525634.956	500383.682	2923.63	8/13/21	379.18	Static	2544.45	Sierrita
MO-2007-4A	907213	3525634.956	500383.682	2923.63	10/13/21	381.06	Static	2542.57	Sierrita
MO-2007-4A	907213	3525634.956	500383.682	2923.63	1/14/22	376.61	Static	2547.02	Sierrita
MO-2007-4A	907213	3525634.956	500383.682	2923.63	4/13/22	380.18	Static	2543.45	Sierrita
MO-2007-4A	907213	3525634.956	500383.682	2923.63	8/23/22	382.69	Static	2540.94	Sierrita
MO-2007-4A	907213	3525634.956	500383.682	2923.63	10/24/22	383.46	Static	2540.17	Sierrita
MO-2007-4A	907213	3525634.956	500383.682	2923.63	1/19/23	380.81	Static	2542.82	Sierrita
MO-2007-4A	907213	3525634.956	500383.682	2923.63	5/1/23	383.42	Static	2540.21	Sierrita
MO-2007-4A	907213	3525634.956	500383.682	2923.63	7/20/23	387.50	Static	2536.13	Sierrita
MO-2007-4A	907213	3525634.956	500383.682	2923.63	10/11/23	388.85	Static	2534.78	Sierrita

APPENDIX C
Water Elevation Data 2019 through 2023

Well Name	ADWR 55 Registry Number	Universal Transverse Mercator, Northing (m)[1]	Universal Transverse Mercator, Easting (m)[1]	Measuring Point Elevation (ft amsl)	Date	Depth to Water (ft bls)	Static/ Dynamic	Groundwater Elevation (ft amsl)	Data Source
MO-2007-4A	907213	3525634.956	500383.682	2923.63	1/8/24	384.62	Static	2539.01	Sierrita
MO-2007-4B	907212	3525613.952	500380.947	2923.57	2/14/19	365.77	Static	2557.80	Sierrita
MO-2007-4B	907212	3525613.952	500380.947	2923.57	4/11/19	365.80	Static	2557.77	Sierrita
MO-2007-4B	907212	3525613.952	500380.947	2923.57	7/18/19	370.73	Static	2552.84	Sierrita
MO-2007-4B	907212	3525613.952	500380.947	2923.57	9/9/19	372.17	Static	2551.40	Sierrita
MO-2007-4B	907212	3525613.952	500380.947	2923.57	10/17/19	372.08	Static	2551.49	Sierrita
MO-2007-4B	907212	3525613.952	500380.947	2923.57	11/14/19	370.90	Static	2552.67	Sierrita
MO-2007-4B	907212	3525613.952	500380.947	2923.57	12/4/19	370.16	Static	2553.41	Sierrita
MO-2007-4B	907212	3525613.952	500380.947	2923.57	1/16/20	369.40	Static	2554.17	Sierrita
MO-2007-4B	907212	3525613.952	500380.947	2923.57	2/5/20	369.40	Static	2554.17	Sierrita
MO-2007-4B	907212	3525613.952	500380.947	2923.57	3/5/20	369.80	Static	2553.77	Sierrita
MO-2007-4B	907212	3525613.952	500380.947	2923.57	4/14/20	373.75	Static	2549.82	Sierrita
MO-2007-4B	907212	3525613.952	500380.947	2923.57	7/28/20	378.74	Static	2544.83	Sierrita
MO-2007-4B	907212	3525613.952	500380.947	2923.57	11/3/20	377.36	Static	2546.21	Sierrita
MO-2007-4B	907212	3525613.952	500380.947	2923.57	1/14/21	375.37	Static	2548.20	Sierrita
MO-2007-4B	907212	3525613.952	500380.947	2923.57	5/6/21	381.33	Static	2542.24	Sierrita
MO-2007-4B	907212	3525613.952	500380.947	2923.57	8/12/21	378.62	Static	2544.95	Sierrita
MO-2007-4B	907212	3525613.952	500380.947	2923.57	10/13/21	382.14	Static	2541.43	Sierrita
MO-2007-4B	907212	3525613.952	500380.947	2923.57	1/14/22	376.41	Static	2547.16	Sierrita
MO-2007-4B	907212	3525613.952	500380.947	2923.57	4/13/22	381.74	Static	2541.83	Sierrita
MO-2007-4B	907212	3525613.952	500380.947	2923.57	8/23/22	381.84	Static	2541.73	Sierrita
MO-2007-4B	907212	3525613.952	500380.947	2923.57	10/24/22	382.65	Static	2540.92	Sierrita
MO-2007-4B	907212	3525613.952	500380.947	2923.57	1/19/23	379.65	Static	2543.92	Sierrita
MO-2007-4B	907212	3525613.952	500380.947	2923.57	5/1/23	383.67	Static	2539.90	Sierrita
MO-2007-4B	907212	3525613.952	500380.947	2923.57	7/20/23	389.40	Static	2534.17	Sierrita
MO-2007-4B	907212	3525613.952	500380.947	2923.57	10/11/23	390.10	Static	2533.47	Sierrita
MO-2007-4B	907212	3525613.952	500380.947	2923.57	1/8/24	383.70	Static	2539.87	Sierrita
MO-2007-4C	907211	3525624.484	500382.217	2923.66	2/14/19	367.17	Static	2556.49	Sierrita
MO-2007-4C	907211	3525624.484	500382.217	2923.66	4/11/19	367.27	Static	2556.39	Sierrita
MO-2007-4C	907211	3525624.484	500382.217	2923.66	7/18/19	372.10	Static	2551.56	Sierrita
MO-2007-4C	907211	3525624.484	500382.217	2923.66	9/9/19	373.63	Static	2550.03	Sierrita
MO-2007-4C	907211	3525624.484	500382.217	2923.66	10/17/19	373.41	Static	2550.25	Sierrita
MO-2007-4C	907211	3525624.484	500382.217	2923.66	11/14/19	372.10	Static	2551.56	Sierrita
MO-2007-4C	907211	3525624.484	500382.217	2923.66	12/4/19	371.51	Static	2552.15	Sierrita
MO-2007-4C	907211	3525624.484	500382.217	2923.66	1/16/20	370.67	Static	2552.99	Sierrita
MO-2007-4C	907211	3525624.484	500382.217	2923.66	2/5/20	370.66	Static	2553.00	Sierrita
MO-2007-4C	907211	3525624.484	500382.217	2923.66	3/5/20	371.00	Static	2552.66	Sierrita
MO-2007-4C	907211	3525624.484	500382.217	2923.66	4/14/20	375.62	Static	2548.04	Sierrita
MO-2007-4C	907211	3525624.484	500382.217	2923.66	7/28/20	380.65	Static	2543.01	Sierrita
MO-2007-4C	907211	3525624.484	500382.217	2923.66	11/3/20	378.55	Static	2545.11	Sierrita
MO-2007-4C	907211	3525624.484	500382.217	2923.66	1/14/21	376.44	Static	2547.22	Sierrita
MO-2007-4C	907211	3525624.484	500382.217	2923.66	5/6/21	382.08	Static	2541.58	Sierrita
MO-2007-4C	907211	3525624.484	500382.217	2923.66	8/13/21	379.76	Static	2543.90	Sierrita
MO-2007-4C	907211	3525624.484	500382.217	2923.66	10/13/21	383.87	Static	2539.79	Sierrita
MO-2007-4C	907211	3525624.484	500382.217	2923.66	1/14/22	377.65	Static	2546.01	Sierrita
MO-2007-4C	907211	3525624.484	500382.217	2923.66	4/13/22	383.50	Static	2540.16	Sierrita
MO-2007-4C	907211	3525624.484	500382.217	2923.66	8/23/22	383.05	Static	2540.61	Sierrita
MO-2007-4C	907211	3525624.484	500382.217	2923.66	10/24/22	383.65	Static	2540.01	Sierrita
MO-2007-4C	907211	3525624.484	500382.217	2923.66	1/19/23	380.75	Static	2542.91	Sierrita
MO-2007-4C	907211	3525624.484	500382.217	2923.66	5/1/23	385.28	Static	2538.38	Sierrita
MO-2007-4C	907211	3525624.484	500382.217	2923.66	7/20/23	391.32	Static	2532.34	Sierrita
MO-2007-4C	907211	3525624.484	500382.217	2923.66	10/11/23	391.90	Static	2531.76	Sierrita
MO-2007-4C	907211	3525624.484	500382.217	2923.66	1/8/24	384.82	Static	2538.84	Sierrita
MO-2007-5B	907456	3523743.376	500013.850	2944.35	4/10/19	317.63	Static	2626.72	Sierrita
MO-2007-5B	907456	3523743.376	500013.850	2944.35	9/10/19	321.52	Static	2622.83	Sierrita
MO-2007-5B	907456	3523743.376	500013.850	2944.35	10/10/19	318.67	Static	2625.68	Sierrita
MO-2007-5B	907456	3523743.376	500013.850	2944.35	11/13/19	319.10	Static	2625.25	Sierrita
MO-2007-5B	907456	3523743.376	500013.850	2944.35	12/3/19	319.57	Static	2624.78	Sierrita
MO-2007-5B	907456	3523743.376	500013.850	2944.35	1/15/20	320.51	Static	2623.84	Sierrita
MO-2007-5B	907456	3523743.376	500013.850	2944.35	2/4/20	320.47	Static	2623.88	Sierrita
MO-2007-5B	907456	3523743.376	500013.850	2944.35	3/4/20	318.39	Static	2625.96	Sierrita
MO-2007-5B	907456	3523743.376	500013.850	2944.35	4/7/20	324.16	Static	2620.19	Sierrita
MO-2007-5B	907456	3523743.376	500013.850	2944.35	10/9/20	329.51	Static	2614.84	Sierrita
MO-2007-5B	907456	3523743.376	500013.850	2944.35	4/14/21	328.22	Static	2616.13	Sierrita
MO-2007-5B	907456	3523743.376	500013.850	2944.35	10/5/21	332.40	Static	2611.95	Sierrita
MO-2007-5B	907456	3523743.376	500013.850	2944.35	4/7/22	332.08	Static	2612.27	Sierrita

APPENDIX C
Water Elevation Data 2019 through 2023

Well Name	ADWR 55 Registry Number	Universal Transverse Mercator, Northing (m)[1]	Universal Transverse Mercator, Easting (m)[1]	Measuring Point Elevation (ft amsl)	Date	Depth to Water (ft bls)	Static/ Dynamic	Groundwater Elevation (ft amsl)	Data Source
MO-2007-5B	907456	3523743.376	500013.850	2944.35	10/13/22	336.27	Static	2608.08	Sierrita
MO-2007-5B	907456	3523743.376	500013.850	2944.35	4/13/23	331.93	Static	2612.42	Sierrita
MO-2007-5B	907456	3523743.376	500013.850	2944.35	10/12/23	338.92	Static	2605.43	Sierrita
MO-2007-5C	907457	3523736.459	500014.152	2944.91	4/10/19	326.00	Static	2618.91	Sierrita
MO-2007-5C	907457	3523736.459	500014.152	2944.91	9/10/19	330.39	Static	2614.52	Sierrita
MO-2007-5C	907457	3523736.459	500014.152	2944.91	10/10/19	329.52	Static	2615.39	Sierrita
MO-2007-5C	907457	3523736.459	500014.152	2944.91	11/13/19	330.08	Static	2614.83	Sierrita
MO-2007-5C	907457	3523736.459	500014.152	2944.91	12/2/19	330.78	Static	2614.13	Sierrita
MO-2007-5C	907457	3523736.459	500014.152	2944.91	1/14/20	330.49	Static	2614.42	Sierrita
MO-2007-5C	907457	3523736.459	500014.152	2944.91	2/3/20	331.50	Static	2613.41	Sierrita
MO-2007-5C	907457	3523736.459	500014.152	2944.91	3/3/20	330.92	Static	2613.99	Sierrita
MO-2007-5C	907457	3523736.459	500014.152	2944.91	4/7/20	334.74	Static	2610.17	Sierrita
MO-2007-5C	907457	3523736.459	500014.152	2944.91	10/9/20	340.33	Static	2604.58	Sierrita
MO-2007-5C	907457	3523736.459	500014.152	2944.91	4/14/21	337.34	Static	2607.57	Sierrita
MO-2007-5C	907457	3523736.459	500014.152	2944.91	10/5/21	341.75	Static	2603.16	Sierrita
MO-2007-5C	907457	3523736.459	500014.152	2944.91	4/7/22	338.80	Static	2606.11	Sierrita
MO-2007-5C	907457	3523736.459	500014.152	2944.91	10/11/22	343.42	Static	2601.49	Sierrita
MO-2007-5C	907457	3523736.459	500014.152	2944.91	4/17/23	339.56	Static	2605.35	Sierrita
MO-2007-5C	907457	3523736.459	500014.152	2944.91	10/12/23	347.09	Static	2597.82	Sierrita
MO-2007-6A	907607	3521842.050	498367.161	3043.37	2/7/19	329.15	Static	2714.22	Sierrita
MO-2007-6A	907607	3521842.050	498367.161	3043.37	4/9/19	329.16	Static	2714.21	Sierrita
MO-2007-6A	907607	3521842.050	498367.161	3043.37	7/30/19	328.61	Static	2714.76	Sierrita
MO-2007-6A	907607	3521842.050	498367.161	3043.37	9/5/19	329.92	Static	2713.45	Sierrita
MO-2007-6A	907607	3521842.050	498367.161	3043.37	10/9/19	331.46	Static	2711.91	Sierrita
MO-2007-6A	907607	3521842.050	498367.161	3043.37	11/12/19	333.10	Static	2710.27	Sierrita
MO-2007-6A	907607	3521842.050	498367.161	3043.37	12/5/19	333.30	Static	2710.07	Sierrita
MO-2007-6A	907607	3521842.050	498367.161	3043.37	1/13/20	333.17	Static	2710.20	Sierrita
MO-2007-6A	907607	3521842.050	498367.161	3043.37	2/6/20	333.54	Static	2709.83	Sierrita
MO-2007-6A	907607	3521842.050	498367.161	3043.37	3/4/20	333.61	Static	2709.76	Sierrita
MO-2007-6A	907607	3521842.050	498367.161	3043.37	4/8/20	333.84	Static	2709.53	Sierrita
MO-2007-6A	907607	3521842.050	498367.161	3043.37	7/27/20	335.49	Static	2707.88	Sierrita
MO-2007-6A	907607	3521842.050	498367.161	3043.37	10/22/20	337.93	Static	2705.44	Sierrita
MO-2007-6A	907607	3521842.050	498367.161	3043.37	1/12/21	338.60	Static	2704.77	Sierrita
MO-2007-6A	907607	3521842.050	498367.161	3043.37	4/9/21	339.41	Static	2703.96	Sierrita
MO-2007-6A	907607	3521842.050	498367.161	3043.37	8/10/21	342.86	Static	2700.51	Sierrita
MO-2007-6A	907607	3521842.050	498367.161	3043.37	10/14/21	343.61	Static	2699.76	Sierrita
MO-2007-6A	907607	3521842.050	498367.161	3043.37	1/18/22	342.00	Static	2701.37	Sierrita
MO-2007-6A	907607	3521842.050	498367.161	3043.37	4/8/22	342.60	Static	2700.77	Sierrita
MO-2007-6A	907607	3521842.050	498367.161	3043.37	8/8/22	343.76	Static	2699.61	Sierrita
MO-2007-6A	907607	3521842.050	498367.161	3043.37	10/19/22	344.04	Static	2699.33	Sierrita
MO-2007-6A	907607	3521842.050	498367.161	3043.37	1/24/23	342.68	Static	2700.69	Sierrita
MO-2007-6A	907607	3521842.050	498367.161	3043.37	4/17/23	344.10	Static	2699.27	Sierrita
MO-2007-6A	907607	3521842.050	498367.161	3043.37	7/13/23	347.24	Static	2696.13	Sierrita
MO-2007-6A	907607	3521842.050	498367.161	3043.37	10/10/23	349.61	Static	2693.76	Sierrita
MO-2007-6A	907607	3521842.050	498367.161	3043.37	1/4/24	348.33	Static	2695.04	Sierrita
MO-2007-6B	907606	3521849.495	498367.887	3043.05	2/7/19	345.02	Static	2698.03	Sierrita
MO-2007-6B	907606	3521849.495	498367.887	3043.05	4/9/19	344.02	Static	2699.03	Sierrita
MO-2007-6B	907606	3521849.495	498367.887	3043.05	7/30/19	343.00	Static	2700.05	Sierrita
MO-2007-6B	907606	3521849.495	498367.887	3043.05	9/5/19	346.02	Static	2697.03	Sierrita
MO-2007-6B	907606	3521849.495	498367.887	3043.05	10/9/19	348.40	Static	2694.65	Sierrita
MO-2007-6B	907606	3521849.495	498367.887	3043.05	11/12/19	350.72	Static	2692.33	Sierrita
MO-2007-6B	907606	3521849.495	498367.887	3043.05	12/5/19	350.71	Static	2692.34	Sierrita
MO-2007-6B	907606	3521849.495	498367.887	3043.05	1/13/20	351.50	Static	2691.55	Sierrita
MO-2007-6B	907606	3521849.495	498367.887	3043.05	2/6/20	352.68	Static	2690.37	Sierrita
MO-2007-6B	907606	3521849.495	498367.887	3043.05	3/4/20	352.69	Static	2690.36	Sierrita
MO-2007-6B	907606	3521849.495	498367.887	3043.05	4/8/20	353.02	Static	2690.03	Sierrita
MO-2007-6B	907606	3521849.495	498367.887	3043.05	7/27/20	354.27	Static	2688.78	Sierrita
MO-2007-6B	907606	3521849.495	498367.887	3043.05	10/22/20	356.35	Static	2686.70	Sierrita
MO-2007-6B	907606	3521849.495	498367.887	3043.05	1/12/21	357.65	Static	2685.40	Sierrita
MO-2007-6B	907606	3521849.495	498367.887	3043.05	4/9/21	360.22	Static	2682.83	Sierrita
MO-2007-6B	907606	3521849.495	498367.887	3043.05	8/10/21	364.32	Static	2678.73	Sierrita
MO-2007-6B	907606	3521849.495	498367.887	3043.05	10/14/21	362.68	Static	2680.37	Sierrita
MO-2007-6B	907606	3521849.495	498367.887	3043.05	1/18/22	364.14	Static	2678.91	Sierrita
MO-2007-6B	907606	3521849.495	498367.887	3043.05	4/8/22	365.33	Static	2677.72	Sierrita
MO-2007-6B	907606	3521849.495	498367.887	3043.05	8/8/22	366.32	Static	2676.73	Sierrita
MO-2007-6B	907606	3521849.495	498367.887	3043.05	10/19/22	366.35	Static	2676.70	Sierrita

APPENDIX C
Water Elevation Data 2019 through 2023

Well Name	ADWR 55 Registry Number	Universal Transverse Mercator, Northing (m)[1]	Universal Transverse Mercator, Easting (m)[1]	Measuring Point Elevation (ft amsl)	Date	Depth to Water (ft bls)	Static/ Dynamic	Groundwater Elevation (ft amsl)	Data Source
MO-2007-6B	907606	3521849.495	498367.887	3043.05	1/24/23	364.73	Static	2678.32	Sierrita
MO-2007-6B	907606	3521849.495	498367.887	3043.05	4/17/23	369.42	Static	2673.63	Sierrita
MO-2007-6B	907606	3521849.495	498367.887	3043.05	7/13/23	373.32	Static	2669.73	Sierrita
MO-2007-6B	907606	3521849.495	498367.887	3043.05	10/11/23	376.40	Static	2666.65	Sierrita
MO-2007-6B	907606	3521849.495	498367.887	3043.05	1/4/24	375.81	Static	2667.24	Sierrita
MO-2009-1	910458	3523370.784	500531.926	2890.78	2/20/19	257.68	Static	2633.10	Sierrita
MO-2009-1	910458	3523370.784	500531.926	2890.78	4/10/19	259.60	Static	2631.18	Sierrita
MO-2009-1	910458	3523370.784	500531.926	2890.78	7/30/19	267.60	Static	2623.18	Sierrita
MO-2009-1	910458	3523370.784	500531.926	2890.78	9/4/19	267.66	Static	2623.12	Sierrita
MO-2009-1	910458	3523370.784	500531.926	2890.78	10/9/19	258.60	Static	2632.18	Sierrita
MO-2009-1	910458	3523370.784	500531.926	2890.78	11/11/19	258.12	Static	2632.66	Sierrita
MO-2009-1	910458	3523370.784	500531.926	2890.78	12/2/19	261.61	Static	2629.17	Sierrita
MO-2009-1	910458	3523370.784	500531.926	2890.78	1/13/20	266.50	Static	2624.28	Sierrita
MO-2009-1	910458	3523370.784	500531.926	2890.78	2/4/20	265.15	Static	2625.63	Sierrita
MO-2009-1	910458	3523370.784	500531.926	2890.78	3/3/20	264.00	Static	2626.78	Sierrita
MO-2009-1	910458	3523370.784	500531.926	2890.78	4/7/20	268.91	Static	2621.87	Sierrita
MO-2009-1	910458	3523370.784	500531.926	2890.78	7/16/20	269.06	Static	2621.72	Sierrita
MO-2009-1	910458	3523370.784	500531.926	2890.78	10/22/20	278.30	Static	2612.48	Sierrita
MO-2009-1	910458	3523370.784	500531.926	2890.78	1/12/21	270.33	Static	2620.45	Sierrita
MO-2009-1	910458	3523370.784	500531.926	2890.78	4/9/21	277.55	Static	2613.23	Sierrita
MO-2009-1	910458	3523370.784	500531.926	2890.78	8/5/21	276.75	Static	2614.03	Sierrita
MO-2009-1	910458	3523370.784	500531.926	2890.78	10/22/21	273.34	Static	2617.44	Sierrita
MO-2009-1	910458	3523370.784	500531.926	2890.78	1/18/22	272.56	Static	2618.22	Sierrita
MO-2009-1	910458	3523370.784	500531.926	2890.78	4/13/22	274.40	Static	2616.38	Sierrita
MO-2009-1	910458	3523370.784	500531.926	2890.78	8/17/22	273.47	Static	2617.31	Sierrita
MO-2009-1	910458	3523370.784	500531.926	2890.78	10/24/22	281.30	Static	2609.48	Sierrita
MO-2009-1	910458	3523370.784	500531.926	2890.78	1/24/23	273.62	Static	2617.16	Sierrita
MO-2009-1	910458	3523370.784	500531.926	2890.78	5/2/23	283.15	Static	2607.63	Sierrita
MO-2009-1	910458	3523370.784	500531.926	2890.78	7/19/23	287.57	Static	2603.21	Sierrita
MO-2009-1	910458	3523370.784	500531.926	2890.78	10/12/23	279.40	Static	2611.38	Sierrita
MO-2009-1	910458	3523370.784	500531.926	2890.78	1/8/24	279.10	Static	2611.68	Sierrita
MW-2016-5A	919635	3529727.196	500430.091	2927.07	2/19/19	437.10	Static	2489.97	Sierrita
MW-2016-5A	919635	3529727.196	500430.091	2927.07	4/15/19	437.62	Static	2489.45	Sierrita
MW-2016-5A	919635	3529727.196	500430.091	2927.07	10/29/19	449.22	Static	2477.85	Sierrita
MW-2016-5A	919635	3529727.196	500430.091	2927.07	4/23/20	441.70	Static	2485.37	Sierrita
MW-2016-5A	919635	3529727.196	500430.091	2927.07	11/4/20	447.33	Static	2479.74	Sierrita
MW-2016-5A	919635	3529727.196	500430.091	2927.07	5/19/21	455.87	Static	2471.20	Sierrita
MW-2016-5A	919635	3529727.196	500430.091	2927.07	10/20/21	451.74	Static	2475.33	Sierrita
MW-2016-5A	919635	3529727.196	500430.091	2927.07	5/3/22	447.45	Static	2479.62	Sierrita
MW-2016-5A	919635	3529727.196	500430.091	2927.07	11/7/22	450.20	Static	2476.87	Sierrita
MW-2016-5A	919635	3529727.196	500430.091	2927.07	5/3/23	446.25	Static	2480.82	Sierrita
MW-2016-5A	919635	3529727.196	500430.091	2927.07	11/2/23	453.06	Static	2474.01	Sierrita
MW-2016-5B	919472	3529722.718	500444.103	2925.46	2/19/19	434.59	Static	2490.87	Sierrita
MW-2016-5B	919472	3529722.718	500444.103	2925.46	4/15/19	435.55	Static	2489.91	Sierrita
MW-2016-5B	919472	3529722.718	500444.103	2925.46	10/28/19	446.92	Static	2478.54	Sierrita
MW-2016-5B	919472	3529722.718	500444.103	2925.46	4/23/20	439.64	Static	2485.82	Sierrita
MW-2016-5B	919472	3529722.718	500444.103	2925.46	11/4/20	446.70	Static	2478.76	Sierrita
MW-2016-5B	919472	3529722.718	500444.103	2925.46	5/19/21	446.76	Static	2478.70	Sierrita
MW-2016-5B	919472	3529722.718	500444.103	2925.46	10/20/21	449.45	Static	2476.01	Sierrita
MW-2016-5B	919472	3529722.718	500444.103	2925.46	5/3/22	445.43	Static	2480.03	Sierrita
MW-2016-5B	919472	3529722.718	500444.103	2925.46	11/7/22	447.16	Static	2478.30	Sierrita
MW-2016-5B	919472	3529722.718	500444.103	2925.46	5/3/23	444.36	Static	2481.10	Sierrita
MW-2016-5B	919472	3529722.718	500444.103	2925.46	11/2/23	449.70	Static	2475.76	Sierrita
MW-2016-6	919676	3529884.009	500056.237	2969.20	2/19/19	479.98	Static	2489.22	Sierrita
MW-2016-6	919676	3529884.009	500056.237	2969.20	4/15/19	480.58	Static	2488.62	Sierrita
MW-2016-6	919676	3529884.009	500056.237	2969.20	10/28/19	491.78	Static	2477.42	Sierrita
MW-2016-6	919676	3529884.009	500056.237	2969.20	4/23/20	484.81	Static	2484.39	Sierrita
MW-2016-6	919676	3529884.009	500056.237	2969.20	11/4/20	495.76	Static	2473.44	Sierrita
MW-2016-6	919676	3529884.009	500056.237	2969.20	5/19/21	491.57	Static	2477.63	Sierrita
MW-2016-6	919676	3529884.009	500056.237	2969.20	10/20/21	494.21	Static	2474.99	Sierrita
MW-2016-6	919676	3529884.009	500056.237	2969.20	5/3/22	490.31	Static	2478.89	Sierrita
MW-2016-6	919676	3529884.009	500056.237	2969.20	11/15/22	492.60	Static	2476.60	Sierrita
MW-2016-6	919676	3529884.009	500056.237	2969.20	5/3/23	489.31	Static	2479.89	Sierrita
MW-2016-6	919676	3529884.009	500056.237	2969.20	11/2/23	494.93	Static	2474.27	Sierrita
NP-2	605898	3528517.382	500582.457	2904.75	3/5/19	405.60	Static	2499.15	Sierrita
NP-2	605898	3528517.382	500582.457	2904.75	5/7/19	406.13	Static	2498.62	Sierrita

APPENDIX C
Water Elevation Data 2019 through 2023

Well Name	ADWR 55 Registry Number	Universal Transverse Mercator, Northing (m)[1]	Universal Transverse Mercator, Easting (m)[1]	Measuring Point Elevation (ft amsl)	Date	Depth to Water (ft bls)	Static/ Dynamic	Groundwater Elevation (ft amsl)	Data Source
NP-2	605898	3528517.382	500582.457	2904.75	8/13/19	409.82	Static	2494.93	Sierrita
NP-2	605898	3528517.382	500582.457	2904.75	11/6/19	412.51	Static	2492.24	Sierrita
NP-2	605898	3528517.382	500582.457	2904.75	2/18/20	410.07	Static	2494.68	Sierrita
NP-2	605898	3528517.382	500582.457	2904.75	5/6/20	410.57	Static	2494.18	Sierrita
NP-2	605898	3528517.382	500582.457	2904.75	8/11/20	414.40	Static	2490.35	Sierrita
NP-2	605898	3528517.382	500582.457	2904.75	11/18/20	416.71	Static	2488.04	Sierrita
NP-2	605898	3528517.382	500582.457	2904.75	3/8/21	413.43	Static	2491.32	Sierrita
NP-2	605898	3528517.382	500582.457	2904.75	6/29/21	416.81	Static	2487.94	Sierrita
NP-2	605898	3528517.382	500582.457	2904.75	8/5/21	416.70	Static	2488.05	Sierrita
NP-2	605898	3528517.382	500582.457	2904.75	11/15/21	417.71	Static	2487.04	Sierrita
NP-2	605898	3528517.382	500582.457	2904.75	2/8/22	416.26	Static	2488.49	Sierrita
NP-2	605898	3528517.382	500582.457	2904.75	5/4/22	416.40	Static	2488.35	Sierrita
NP-2	605898	3528517.382	500582.457	2904.75	8/24/22	418.33	Static	2486.42	Sierrita
NP-2	605898	3528517.382	500582.457	2904.75	11/9/22	417.81	Static	2486.94	Sierrita
NP-2	605898	3528517.382	500582.457	2904.75	1/25/23	416.65	Static	2488.10	Sierrita
NP-2	605898	3528517.382	500582.457	2904.75	5/8/23	416.57	Static	2488.18	Sierrita
NP-2	605898	3528517.382	500582.457	2904.75	7/24/23	419.38	Static	2485.37	Sierrita
NP-2	605898	3528517.382	500582.457	2904.75	11/6/23	420.87	Static	2483.88	Sierrita
NP-2	605898	3528517.382	500582.457	2904.75	1/9/24	419.41	Static	2485.34	Sierrita
PS-1	220861	3529110.260	499164.170	3040.67	5/7/19	571.05	Dynamic	2469.62	BW
PS-1	220861	3529110.260	499164.170	3040.67	10/8/19	577.50	Dynamic	2463.17	BW
PS-1	220861	3529110.260	499164.170	3040.67	6/5/20	575.80	Dynamic	2464.87	BW
PS-1	220861	3529110.260	499164.170	3040.67	10/30/20	592.30	Dynamic	2448.37	BW
PS-1	220861	3529110.260	499164.170	3040.67	5/22/21	592.10	Dynamic	2448.57	BW
PS-1	220861	3529110.260	499164.170	3040.67	11/20/21	579.75	Dynamic	2460.92	BW
PS-1	220861	3529110.260	499164.170	3040.67	4/23/22	596.35	Dynamic	2444.32	BW
PS-1	220861	3529110.260	499164.170	3040.67	12/20/22	600.80	Dynamic	2439.87	BW
PS-1	220861	3529110.260	499164.170	3040.67	5/9/23	598.80	Dynamic	2441.87	BW
PS-1	220861	3529110.260	499164.170	3040.67	12/13/23	601.70	Dynamic	2438.97	BW
PS-2	220862	3529357.158	499319.310	3027.36	5/7/19	560.00	Dynamic	2467.36	BW
PS-2	220862	3529357.158	499319.310	3027.36	6/5/20	565.50	Dynamic	2461.86	BW
PS-2	220862	3529357.158	499319.310	3027.36	10/30/20	569.80	Dynamic	2457.56	BW
PS-2	220862	3529357.158	499319.310	3027.36	5/22/21	568.20	Dynamic	2459.16	BW
PS-2	220862	3529357.158	499319.310	3027.36	11/20/21	569.25	Dynamic	2458.11	BW
PS-2	220862	3529357.158	499319.310	3027.36	4/23/22	565.40	Dynamic	2461.96	BW
PS-2	220862	3529357.158	499319.310	3027.37	12/20/22	570.52	Dynamic	2456.84	BW
PS-2	220862	3529357.158	499319.310	3027.36	5/9/23	568.80	Dynamic	2458.56	BW
PS-2	220862	3529357.158	499319.310	3027.36	12/13/23	572.45	Dynamic	2454.91	BW
PS-3	220863	3529350.236	499571.460	3006.29	5/7/19	543.10	Dynamic	2463.19	BW
PS-3	220863	3529350.236	499571.460	3006.29	10/8/19	547.80	Dynamic	2458.49	BW
PS-3	220863	3529350.236	499571.460	3006.29	6/5/20	555.55	Dynamic	2450.74	BW
PS-3	220863	3529350.236	499571.460	3006.29	10/30/20	561.62	Dynamic	2444.67	BW
PS-3	220863	3529350.236	499571.460	3006.29	5/22/21	555.05	Dynamic	2451.24	BW
PS-3	220863	3529350.236	499571.460	3006.29	11/20/21	559.15	Dynamic	2447.14	BW
PS-3	220863	3529350.236	499571.460	3006.29	4/23/22	558.82	Dynamic	2447.47	BW
PS-3	220863	3529350.236	499571.460	3006.29	12/20/22	561.25	Dynamic	2445.04	BW
PS-3	220863	3529350.236	499571.460	3006.29	5/9/23	559.70	Dynamic	2446.59	BW
PS-3	220863	3529350.236	499571.460	3006.29	12/13/23	563.15	Dynamic	2443.14	BW
PS-4	220864	3528837.600	499153.274	3045.74	5/7/19	566.20	Dynamic	2479.54	BW
PS-4	220864	3528837.600	499153.274	3045.74	10/8/19	571.60	Dynamic	2474.14	BW
PS-4	220864	3528837.600	499153.274	3045.74	6/5/20	571.90	Dynamic	2473.84	BW
PS-4	220864	3528837.600	499153.274	3045.74	10/30/20	575.05	Dynamic	2470.69	BW
PS-4	220864	3528837.600	499153.274	3045.74	5/22/21	576.00	Dynamic	2469.74	BW
PS-4	220864	3528837.600	499153.274	3045.74	11/20/21	577.90	Dynamic	2467.84	BW
PS-4	220864	3528837.600	499153.274	3045.74	4/23/22	629.65	Dynamic	2416.09	BW
PS-4	220864	3528837.600	499153.274	3045.74	12/20/22	628.10	Dynamic	2417.64	BW
PS-4	220864	3528837.600	499153.274	3045.74	5/9/23	632.50	Dynamic	2413.24	BW
PS-4	220864	3528837.600	499153.274	3045.74	12/13/23	592.20	Dynamic	2453.54	BW
PZ-7	561870	3526357.485	492533.171	3549.17	4/16/19	140.29	Static	3408.88	Sierrita
PZ-7	561870	3526357.485	492533.171	3549.17	12/17/19	140.66	Static	3408.51	Sierrita
PZ-7	561870	3526357.485	492533.171	3549.17	4/15/20	140.75	Static	3408.42	Sierrita
PZ-7	561870	3526357.485	492533.171	3549.17	12/1/20	140.66	Static	3408.51	Sierrita
PZ-7	561870	3526357.485	492533.171	3549.17	4/8/21	141.00	Static	3408.17	Sierrita
PZ-7	561870	3526357.485	492533.171	3549.17	11/3/21	141.30	Static	3407.87	Sierrita
PZ-7	561870	3526357.485	492533.171	3549.17	4/26/22	141.35	Static	3407.82	Sierrita
PZ-7	561870	3526357.485	492533.171	3549.17	4/18/23	140.14	Static	3409.03	Sierrita

APPENDIX C
Water Elevation Data 2019 through 2023

Well Name	ADWR 55 Registry Number	Universal Transverse Mercator, Northing (m)[1]	Universal Transverse Mercator, Easting (m)[1]	Measuring Point Elevation (ft amsl)	Date	Depth to Water (ft bls)	Static/ Dynamic	Groundwater Elevation (ft amsl)	Data Source
PZ-8	561866	3524196.243	492972.681	3480.36	4/17/19	229.59	Static	3250.77	Sierrita
PZ-8	561866	3524196.243	492972.681	3480.36	12/17/19	228.66	Static	3251.70	Sierrita
PZ-8	561866	3524196.243	492972.681	3480.36	4/14/20	229.11	Static	3251.25	Sierrita
PZ-8	561866	3524196.243	492972.681	3480.36	12/2/20	230.07	Static	3250.29	Sierrita
PZ-8	561866	3524196.243	492972.681	3480.36	4/8/21	230.75	Static	3249.61	Sierrita
PZ-8	561866	3524196.243	492972.681	3480.36	11/16/21	228.24	Static	3252.12	Sierrita
PZ-8	561866	3524196.243	492972.681	3480.36	5/16/22	226.77	Static	3253.59	Sierrita
PZ-8	561866	3524196.243	492972.681	3480.36	4/12/23	227.81	Static	3252.55	Sierrita
S-1	623111	3519084.973	499736.647	2920	5/8/19	156.55	Static	2763.45	Sierrita
S-1	623111	3519084.973	499736.647	2920	12/17/19	152.40	Static	2767.60	Sierrita
S-1	623111	3519084.973	499736.647	2920	12/4/20	160.89	Static	2759.11	Sierrita
S-1	623111	3519084.973	499736.647	2920	6/2/21	167.69	Dynamic	2752.31	Sierrita
S-1	623111	3519084.973	499736.647	2920	12/8/21	173.36	Static	2746.64	Sierrita
S-1	623111	3519084.973	499736.647	2920	6/8/22	167.87	Static	2752.13	Sierrita
S-1	623111	3519084.973	499736.647	2920	11/30/22	199.20	Dynamic	2720.80	Sierrita
S-1	623111	3519084.973	499736.647	2920	5/23/23	209.00	Dynamic	2711.00	Sierrita
S-1	623111	3519084.973	499736.647	2920	11/13/23	162.69	Static	2757.31	Sierrita
ST-6 (POE-006)	608530	3531352.523	501247.709	2855.88	5/8/19	371.72	Static	2484.16	Sierrita
ST-6 (POE-006)	608530	3531352.523	501247.709	2855.88	12/17/19	373.90	Static[2]	2481.98	Sierrita

Notes:

[1] Universal Transverse Mercator, Zone 12 North American Datum 1983 (NAD83)

[2] Well was not pumping, however there may be residual drawdown due to pumping history at the well

[3] Measuring point elevation updated based on Google Earth 2016 aerial photo and elevation data

ADWR = Arizona Department of Water Resources

BW = BasinWells

Clear Creek = Clear Creek Associates, PLC

ft amsl = feet above mean sea level

ft bls = feet below land surface

ft bmp - feet below measuring point

GVDWID = Green Valley Domestic Water Improvement District

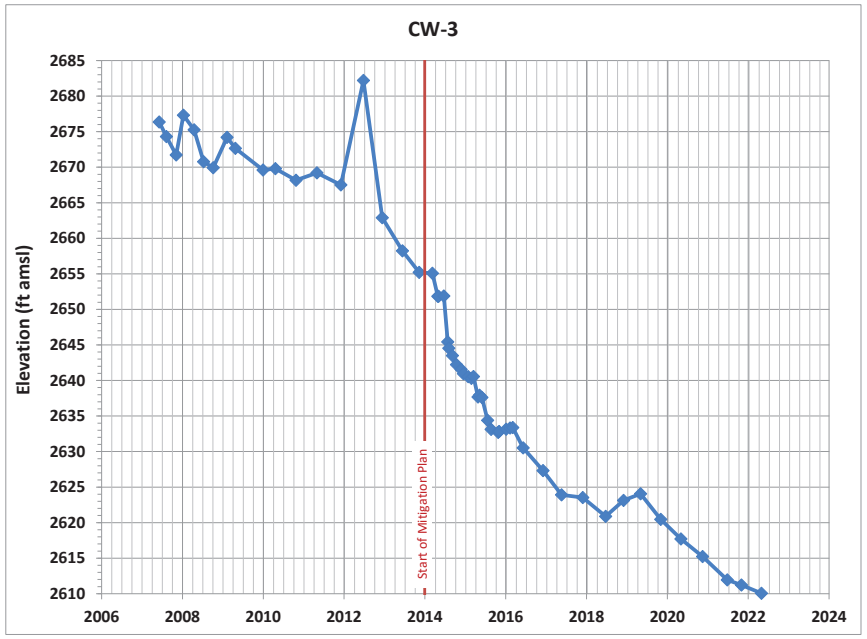
m = meters

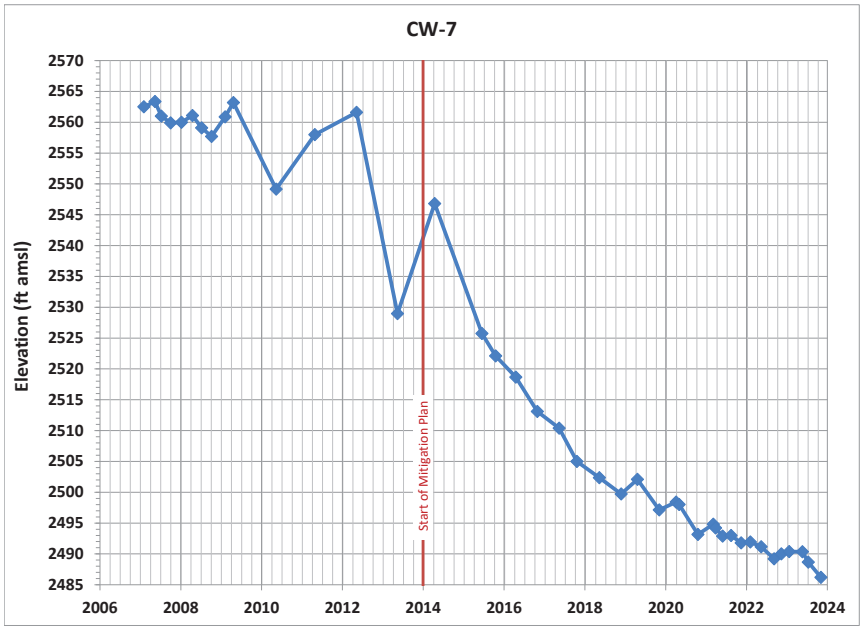
NR = No record

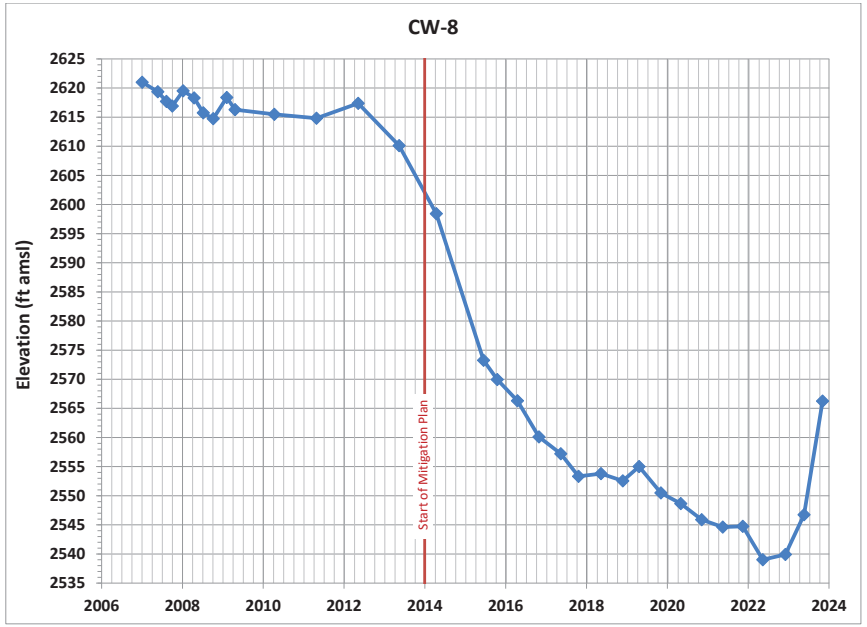
Sierrita = Freeport-McMoRan Sierrita, Inc.

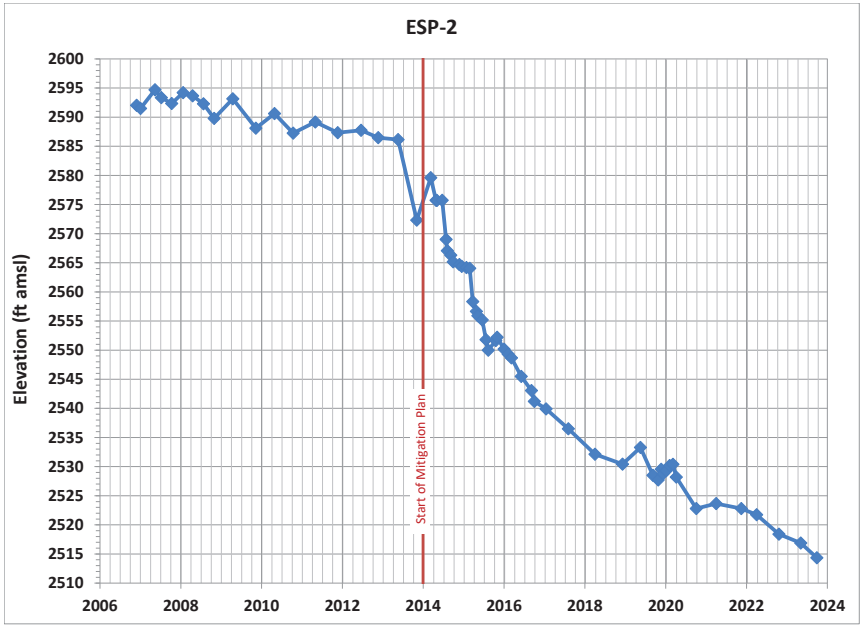
APPENDIX D

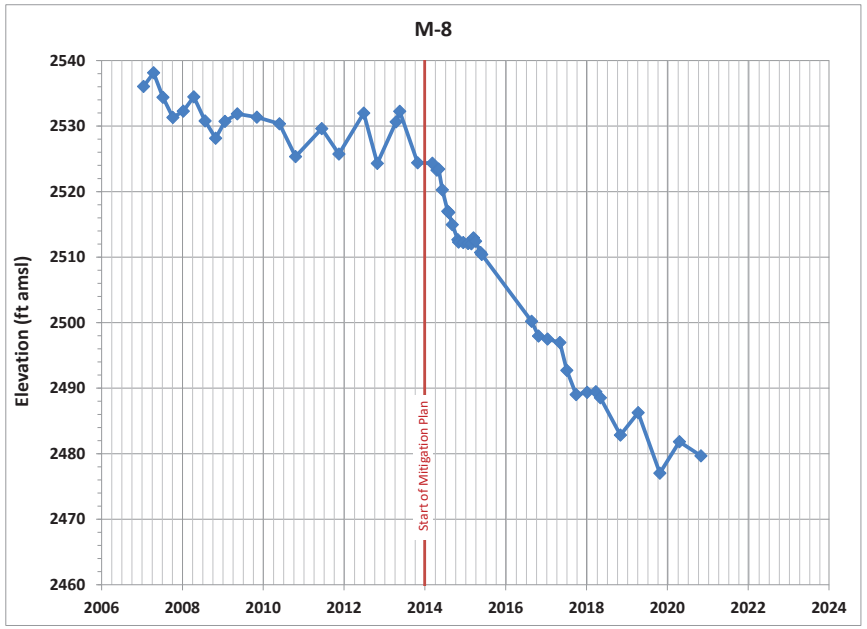
HYDROGRAPHS

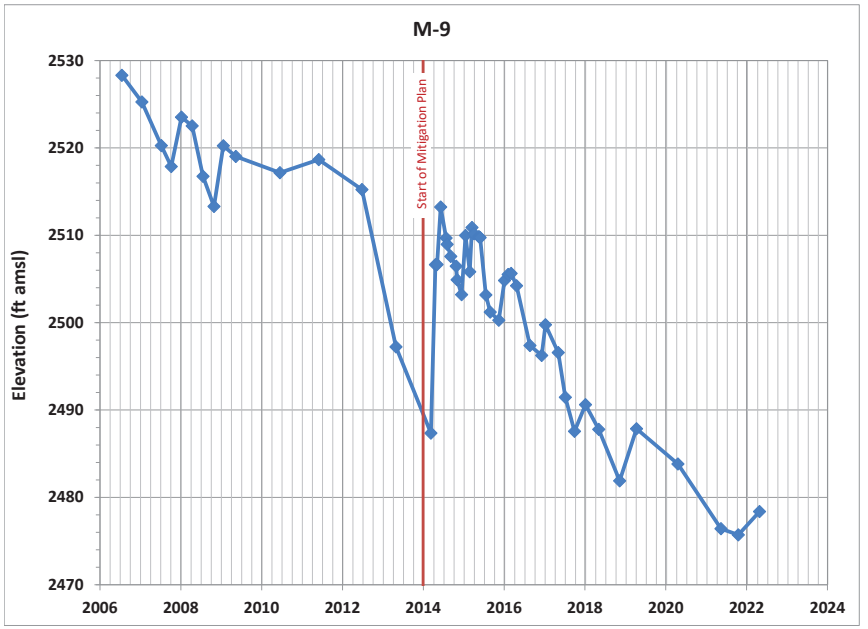

CW-3
Elevation (ft amsl)
2685
2680
2675
2670
2665
2660
2655
2650
2645
2640
2635
2630
2625
2620
2615
2610
2006
2008
2010
2012
2014
2016
2018
2020
2022
2024
Start of Mitigation Plan


CW-7
Elevation (ft amsl)
2570
2565
2560
2555
2550
2545
2540
2535
2530
2525
2520
2515
2510
2505
2500
2495
2490
2485
2006
2008
2010
2012
2014
2016
2018
2020
2022
2024
Start of Mitigation Plan

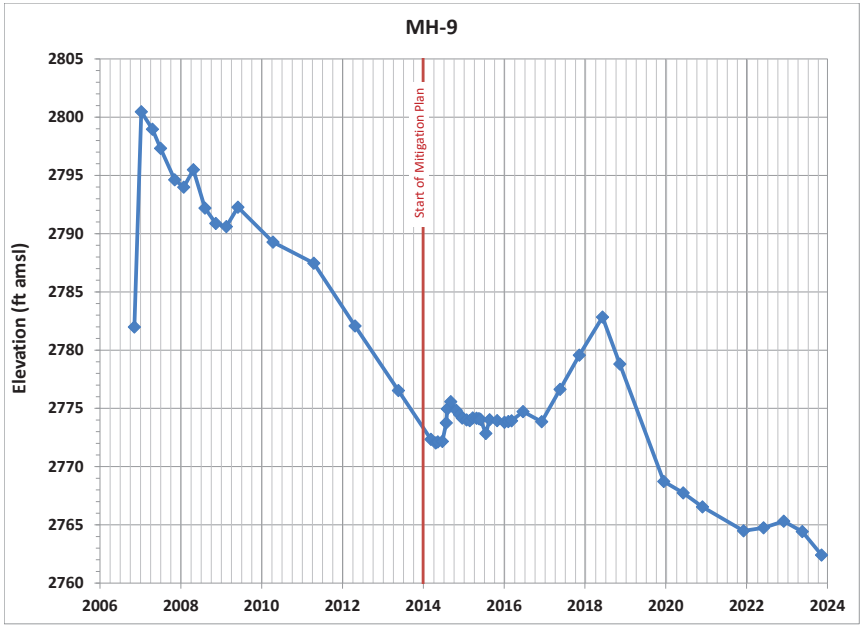

CW-8
Elevation (ft amsl)
2625
2620
2615
2610
2605
2600
2595
2590
2585
2580
2575
2570
2565
2560
2555
2550
2545
2540
2535
2006
2008
2010
2012
2014
2016
2018
2020
2022
2024
Start of Mitigation Plan

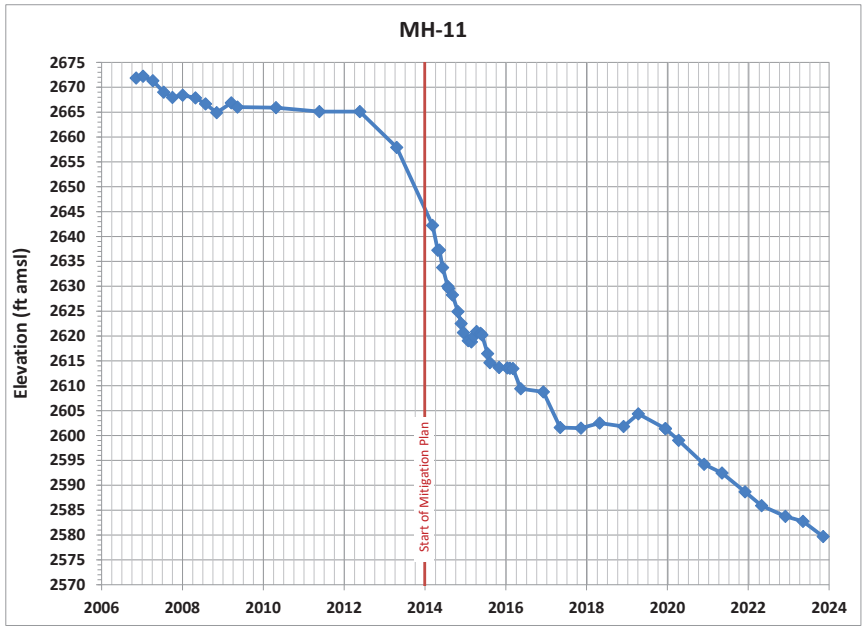

ESP-2
Elevation (ft amsl)
2600
2595
2590
2585
2580
2575
2570
2565
2560
2555
2550
2545
2540
2535
2530
2525
2520
2515
2510
2006
2008
2010
2012
2014
2016
2018
2020
2022
2024
Start of Mitigation Plan

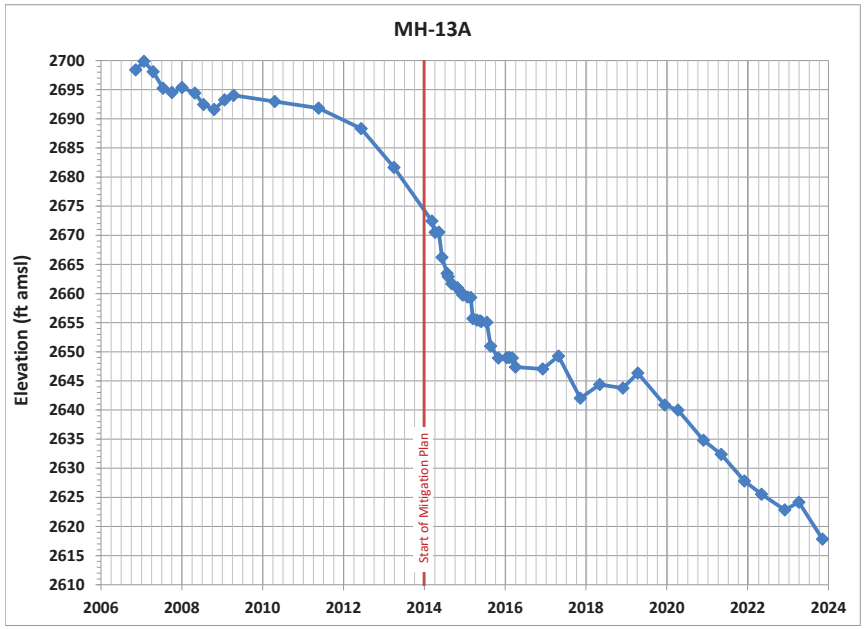

M-8
Elevation (ft amsl)
2540
2530
2520
2510
2500
2490
2480
2470
2460
2006
2008
2010
2012
2014
2016
2018
2020
2022
2024
Start of Mitigation Plan

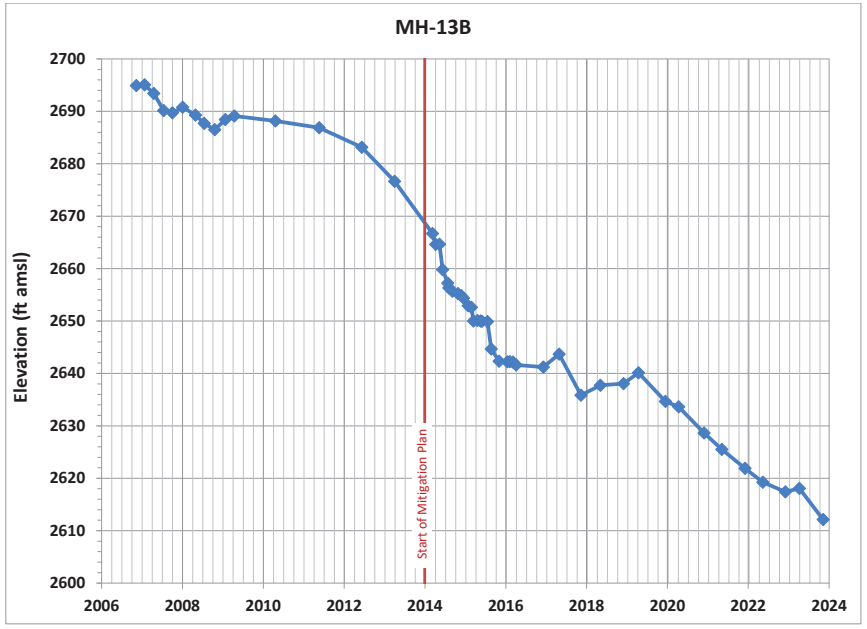

M-9
Elevation (ft amsl)
2530
2520
2510
2500
2490
2480
2470
2006
2008
2010
2012
2014
2016
2018
2020
2022
2024
Start of Mitigation Plan

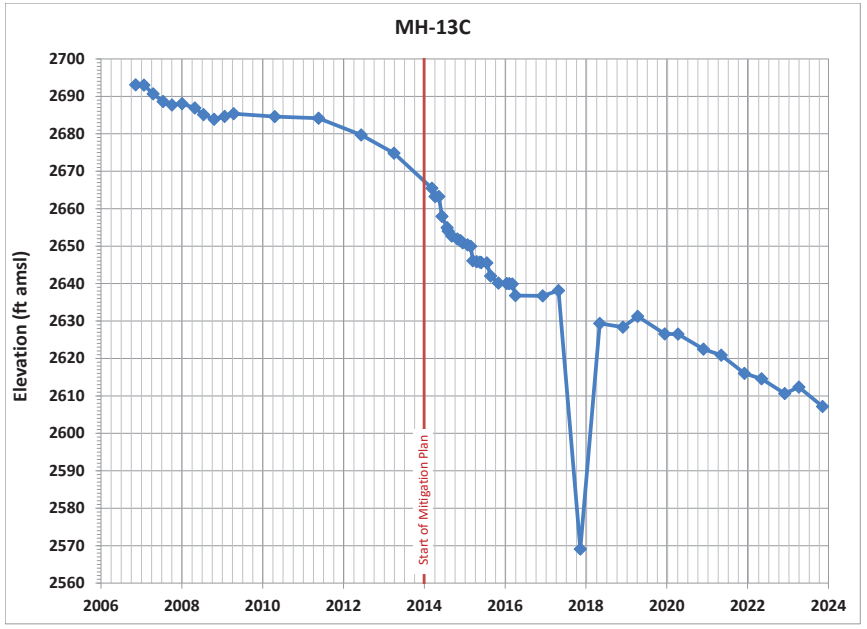

MH-3
Elevation (ft amsl)
2740
2735
2730
2725
2720
2715
2710
2705
2700
2695
2690
2006
2008
2010
2012
2014
2016
2018
2020
2022
2024
Start of Mitigation Plan

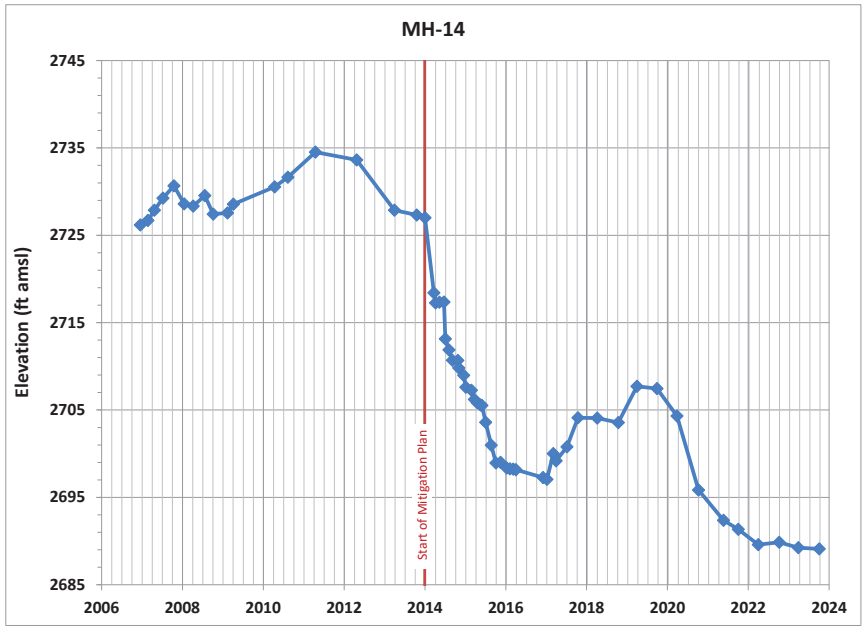

MH-9
Elevation (ft amsl)
2805
2800
2795
2790
2785
2780
2775
2770
2765
2760
2006
2008
2010
2012
2014
2016
2018
2020
2022
2024
Start of Mitigation Plan

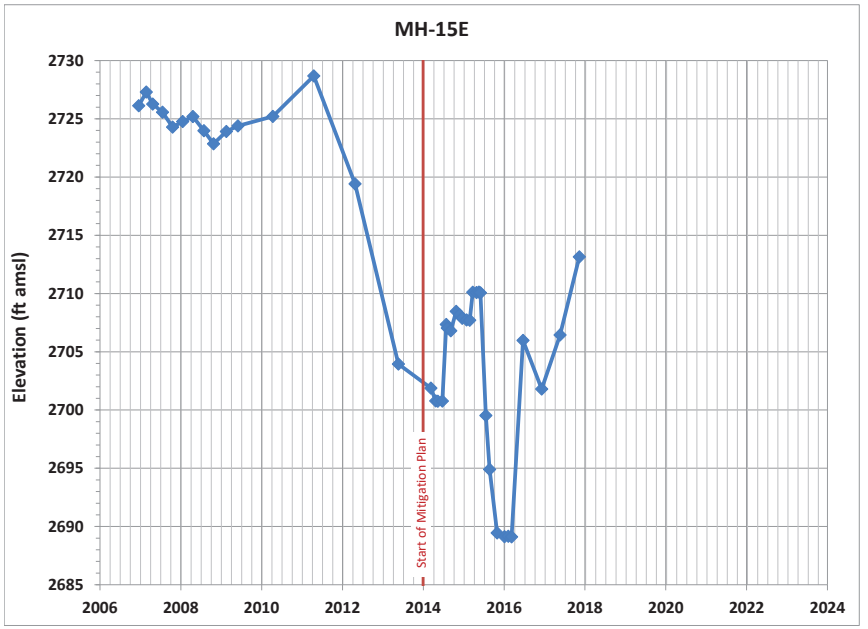

MH-11
Elevation (ft amsl)
Start of Mitigation Plan


MH-13A
Elevation (ft amsl)
Start of Mitigation Plan

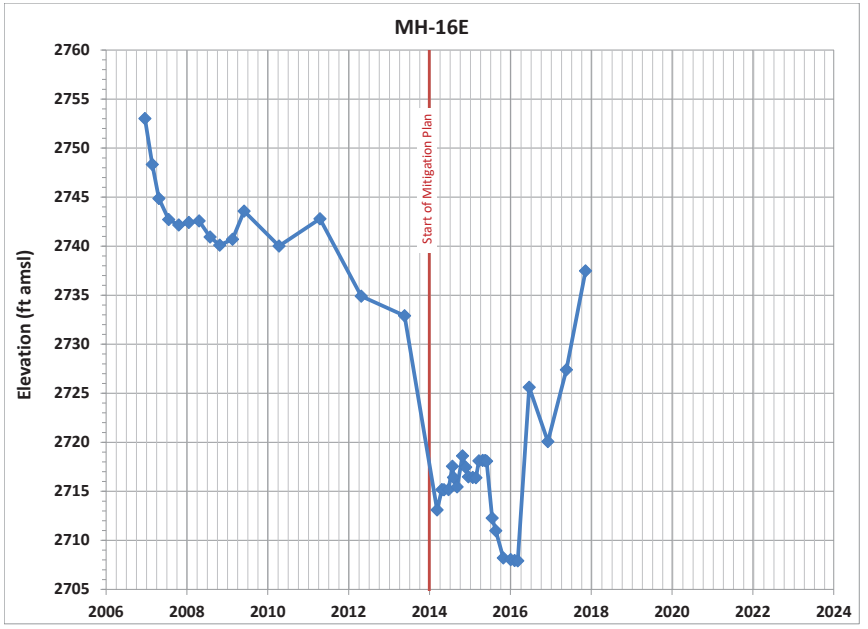

MH-13B
Elevation (ft amsl)
Start of Mitigation Plan


MH-13C
Elevation (ft amsl)
Start of Mitigation Plan

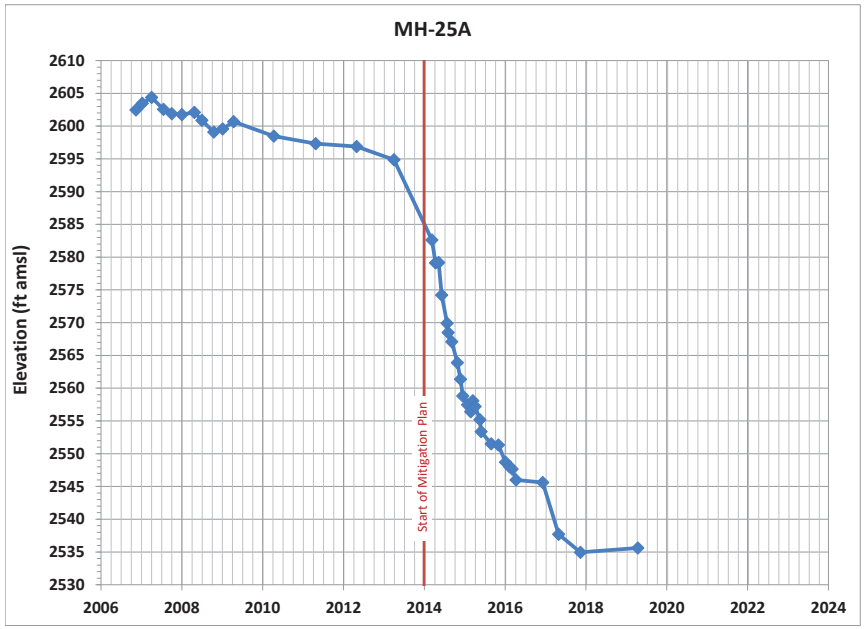

MH-14
Elevation (ft amsl)
2745
2735
2725
2715
2705
2695
2685
2006
2008
2010
2012
2014
2016
2018
2020
2022
2024
Start of Mitigation Plan

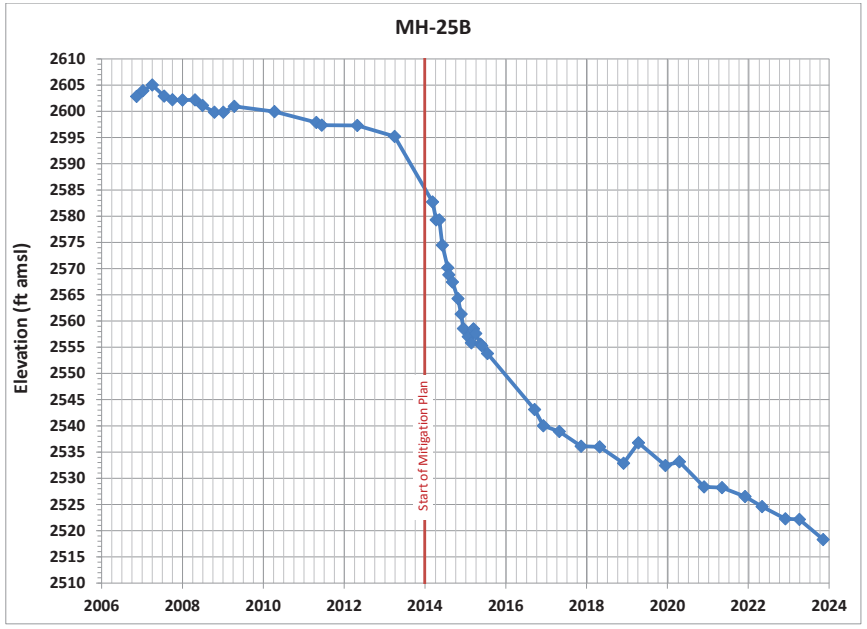

MH-15E
Elevation (ft amsl)
2730
2725
2720
2715
2710
2705
2700
2695
2690
2685
2006
2008
2010
2012
2014
2016
2018
2020
2022
2024
Start of Mitigation Plan

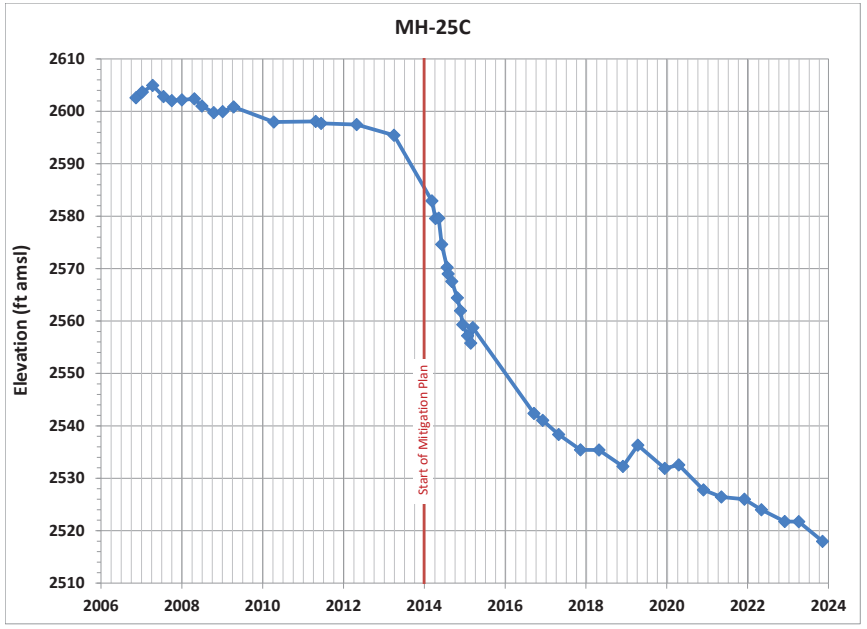

MH-15W
Elevation (ft amsl)
2730
2725
2720
2715
2710
2705
2700
2695
2006
2008
2010
2012
2014
2016
2018
2020
2022
2024
Start of Mitigation Plan

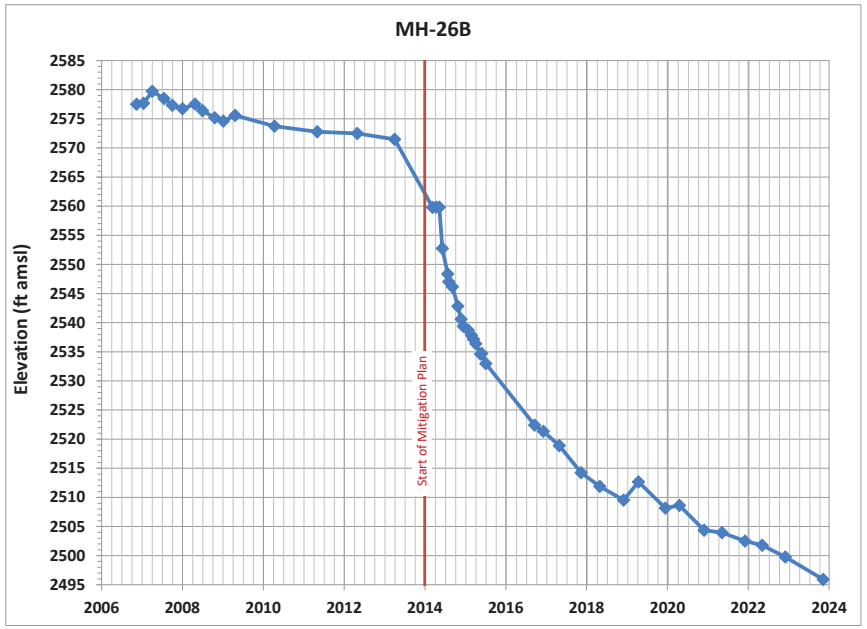

MH-16E
Elevation (ft amsl)
2760
2755
2750
2745
2740
2735
2730
2725
2720
2715
2710
2705
2006
2008
2010
2012
2014
2016
2018
2020
2022
2024
Start of Mitigation Plan

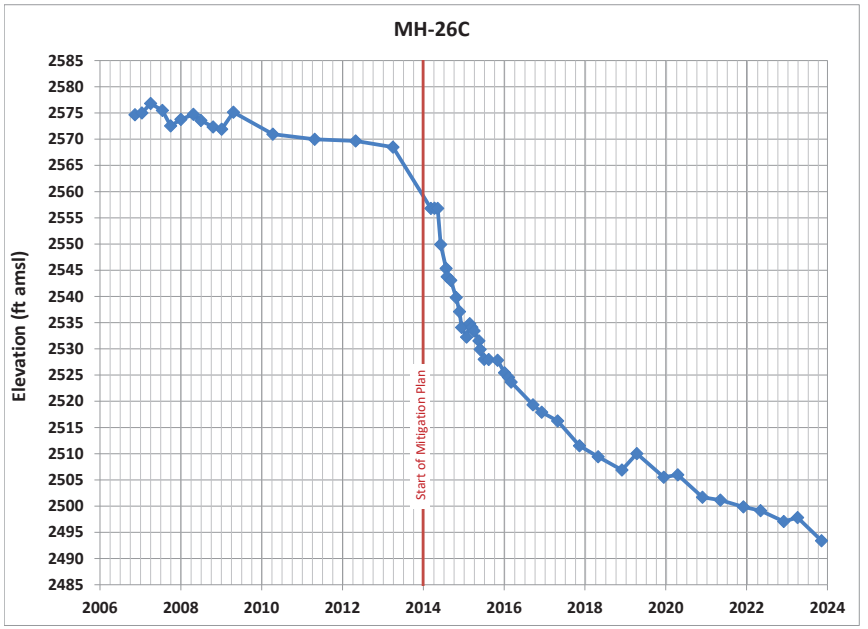

MH-16W
Elevation (ft amsl)
Start of Mitigation Plan
2760
2755
2750
2745
2740
2735
2730
2725
2720
2715
2710
2705
2700
2695
2690
2006
2008
2010
2012
2014
2016
2018
2020
2022
2024

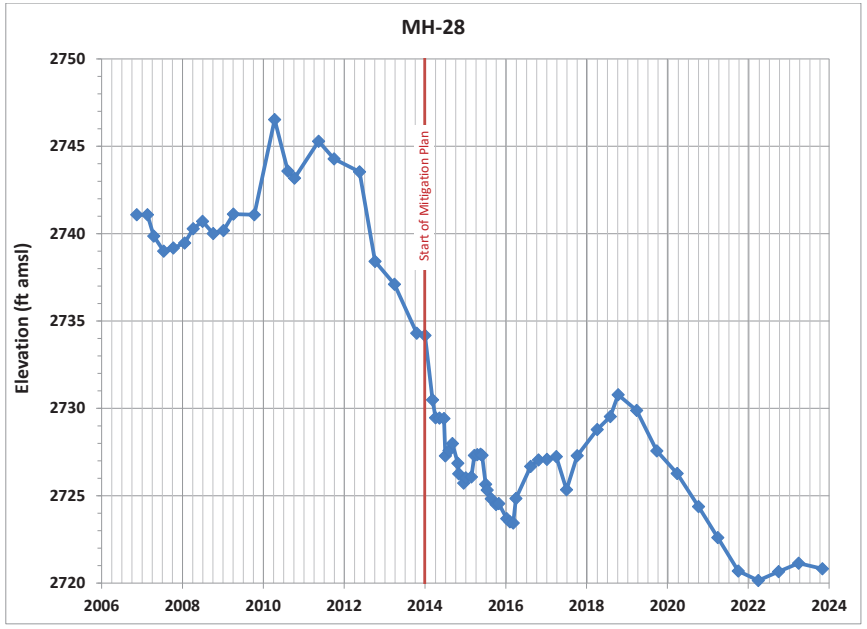

MH-25A
Elevation (ft amsl)
Start of Mitigation Plan
2610
2605
2600
2595
2590
2585
2580
2575
2570
2565
2560
2555
2550
2545
2540
2535
2530
2006
2008
2010
2012
2014
2016
2018
2020
2022
2024

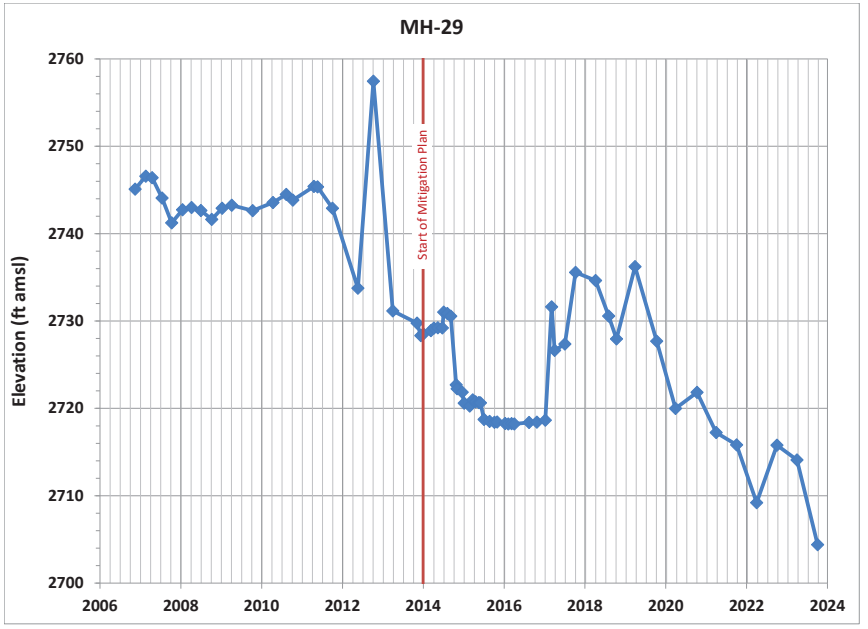

MH-25B
Elevation (ft amsl)
Start of Mitigation Plan
2610
2605
2600
2595
2590
2585
2580
2575
2570
2565
2560
2555
2550
2545
2540
2535
2530
2525
2520
2515
2510
2006
2008
2010
2012
2014
2016
2018
2020
2022
2024

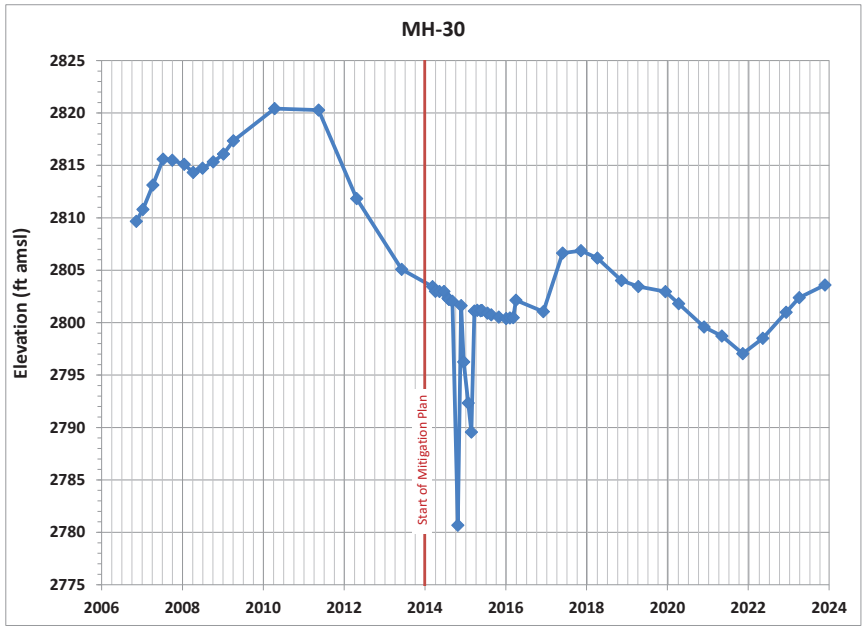

MH-25C
Elevation (ft amsl)
Start of Mitigation Plan
2610
2600
2590
2580
2570
2560
2550
2540
2530
2520
2510
2006
2008
2010
2012
2014
2016
2018
2020
2022
2024

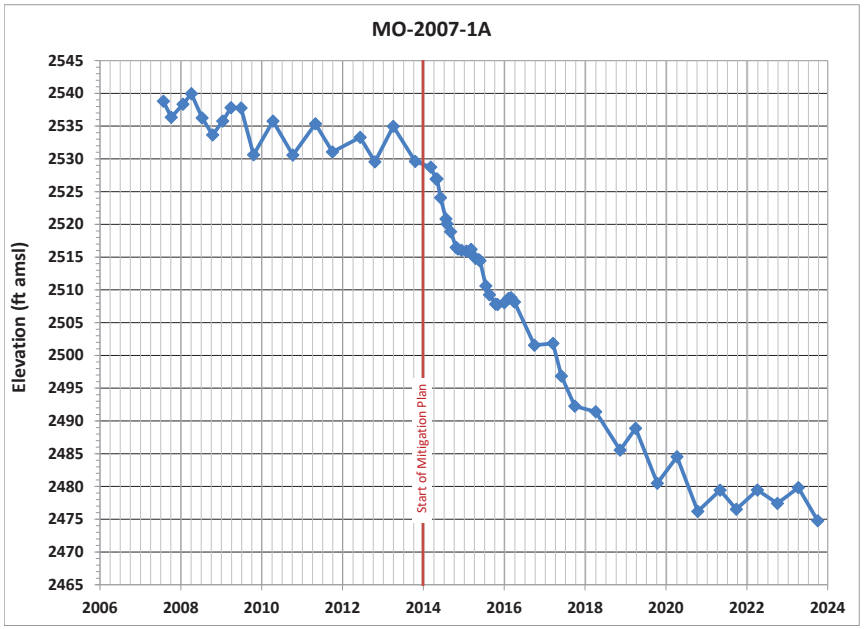

MH-26B
Elevation (ft amsl)
Start of Mitigation Plan

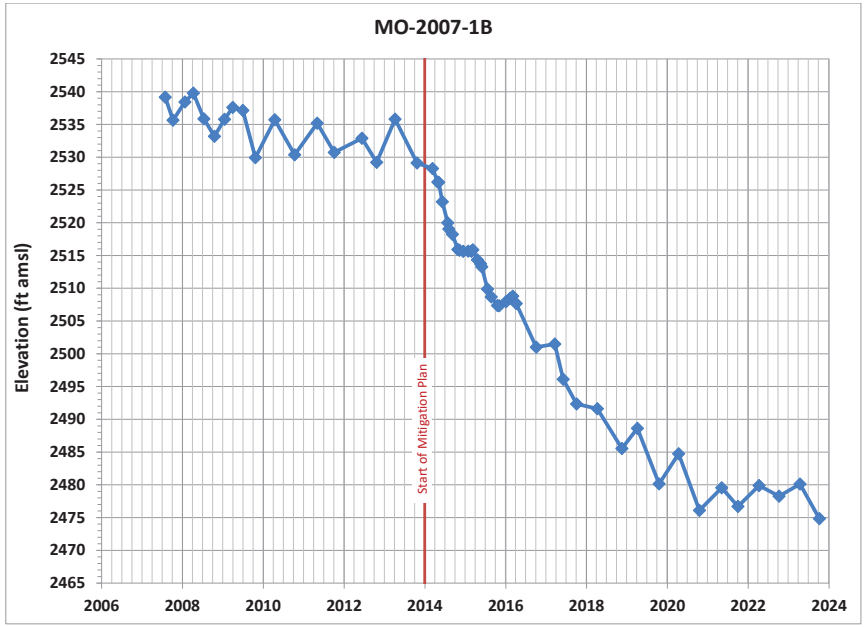

MH-26C
Elevation (ft amsl)
Start of Mitigation Plan

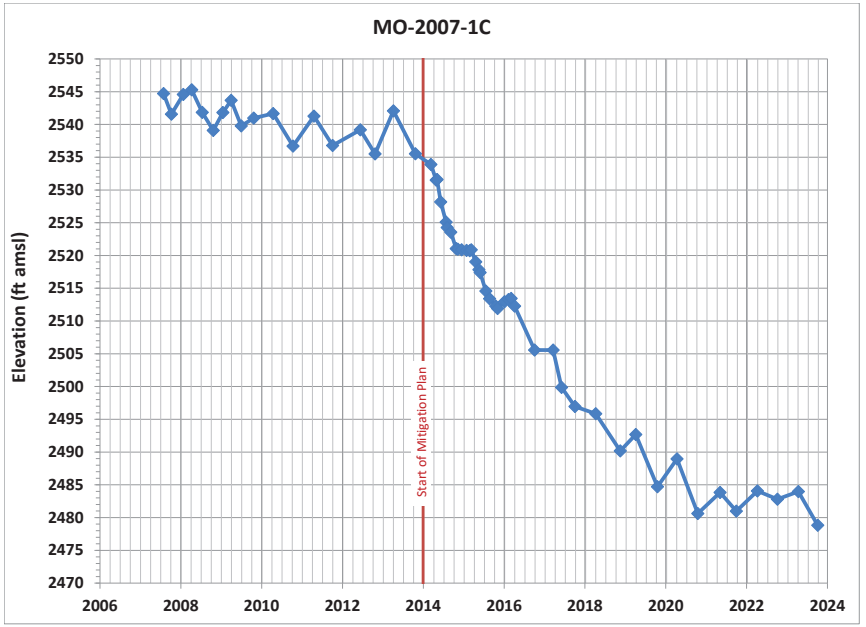

MH-28
Elevation (ft amsl)
Start of Mitigation Plan

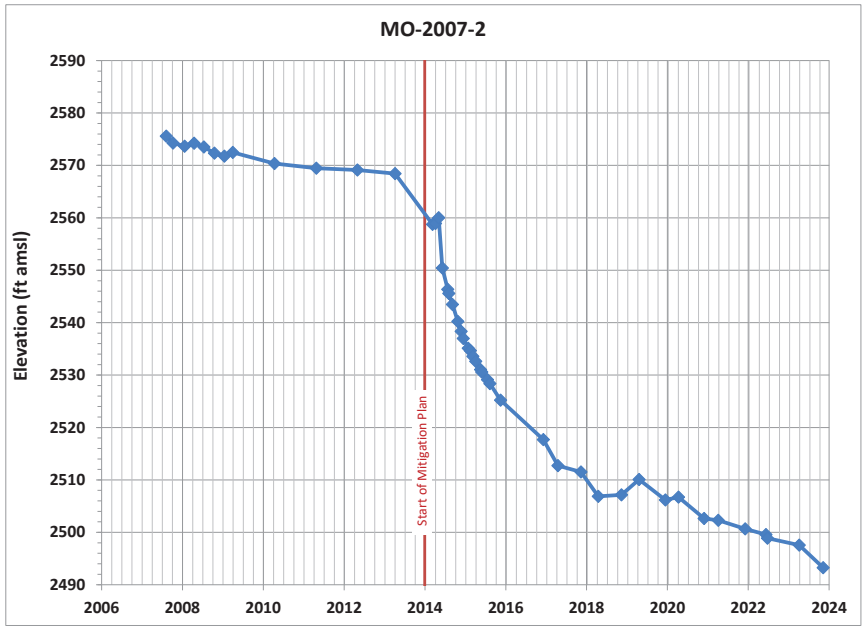

MH-29
Elevation (ft amsl)
Start of Mitigation Plan

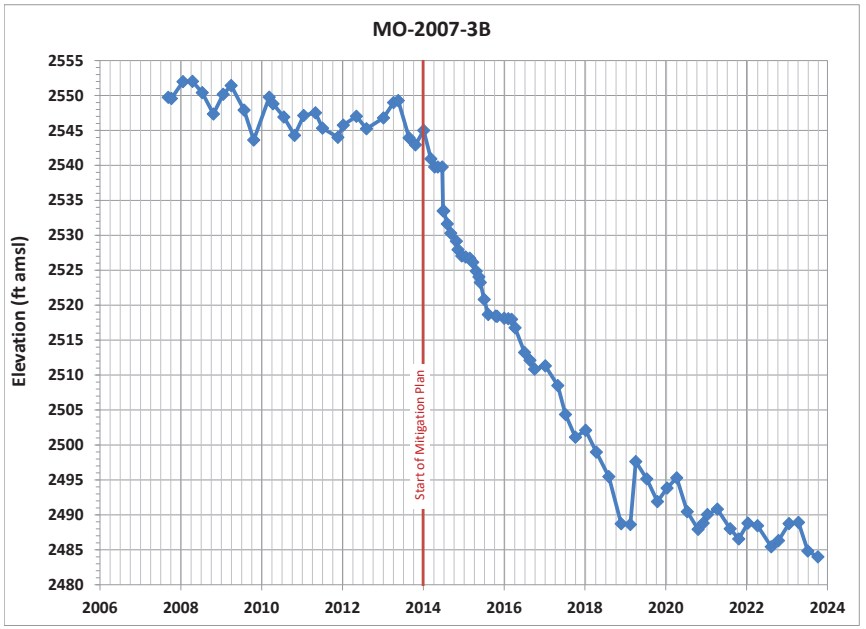

MH-30
Elevation (ft amsl)
Start of Mitigation Plan

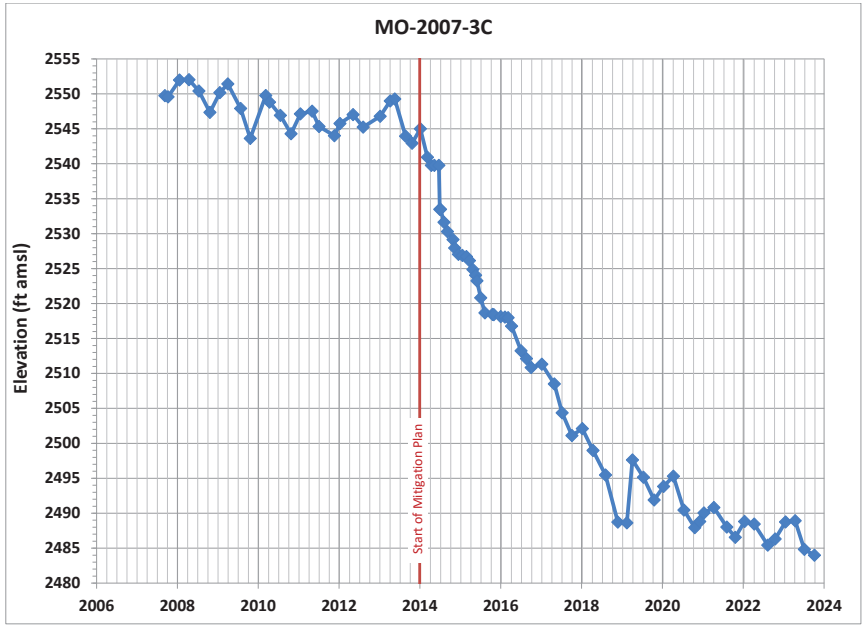

MO-2007-1A
Elevation (ft amsl)
Start of Mitigation Plan

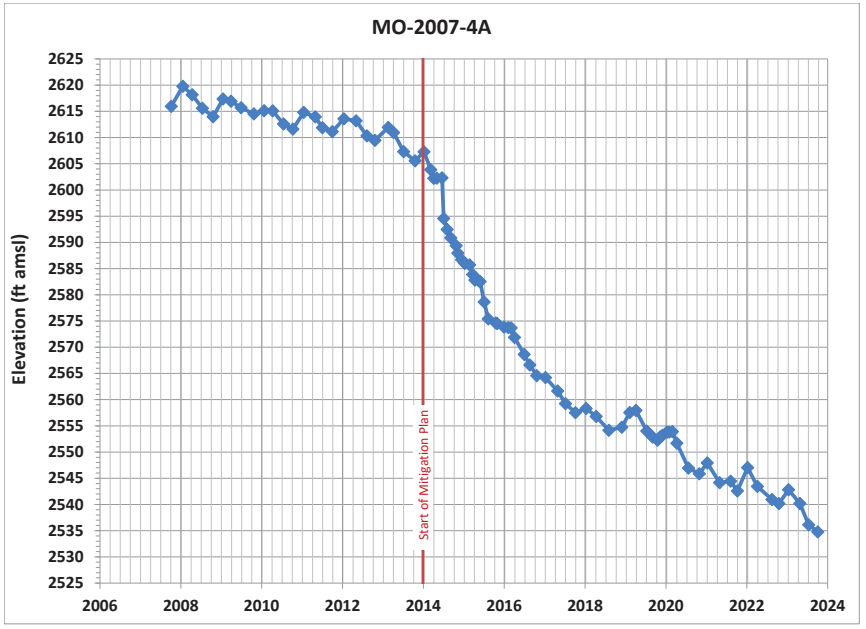

MO-2007-1B
Elevation (ft amsl)
Start of Mitigation Plan

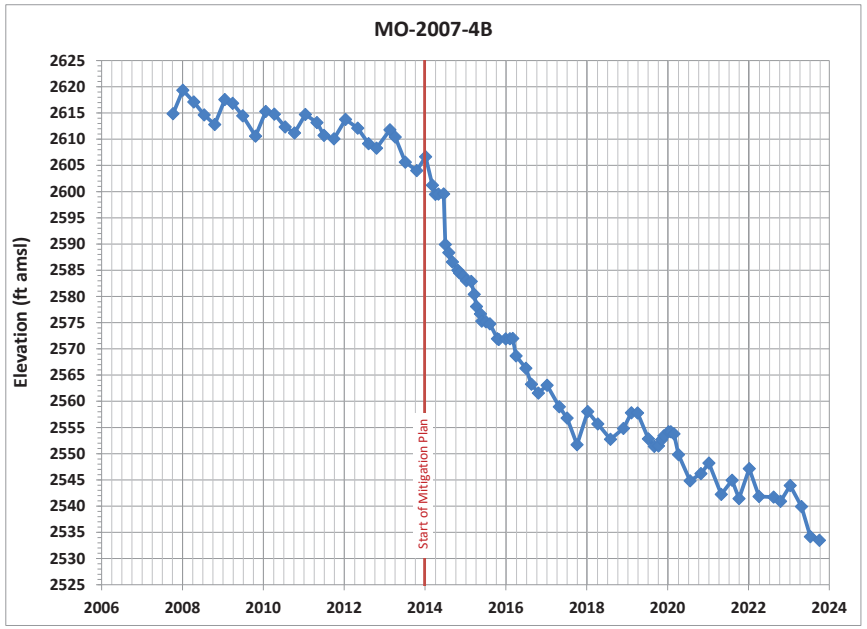

MO-2007-1C
Elevation (ft amsl)
Start of Mitigation Plan

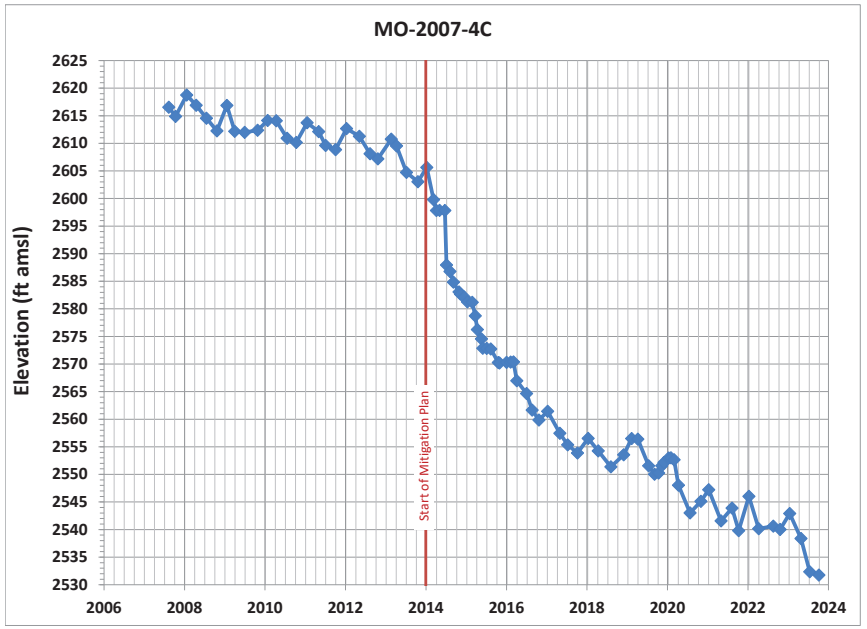

MO-2007-2
Elevation (ft amsl)
2590
2580
2570
2560
2550
2540
2530
2520
2510
2500
2490
2006
2008
2010
2012
2014
2016
2018
2020
2022
2024
Start of Mitigation Plan

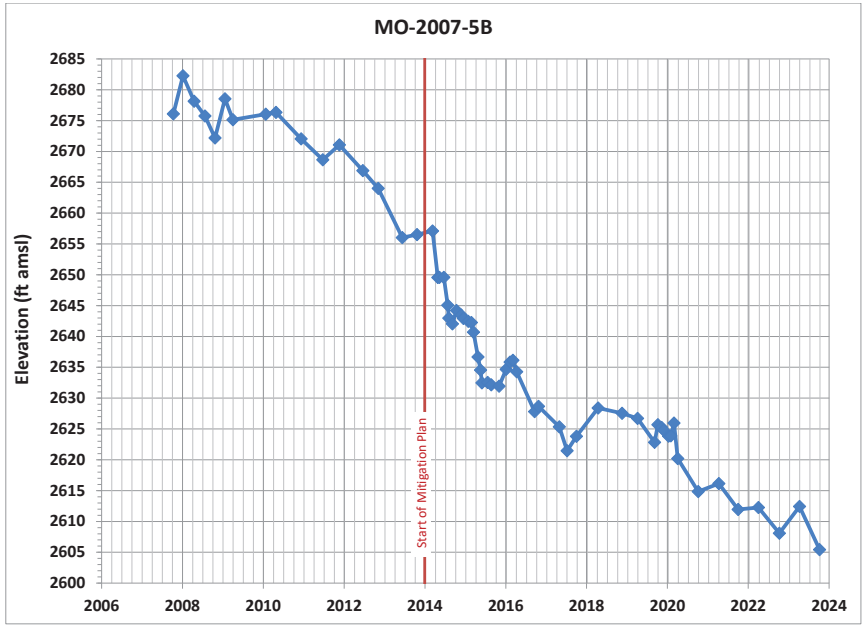

MO-2007-3B
Elevation (ft amsl)
2555
2550
2545
2540
2535
2530
2525
2520
2515
2510
2505
2500
2495
2490
2485
2480
2006
2008
2010
2012
2014
2016
2018
2020
2022
2024
Start of Mitigation Plan

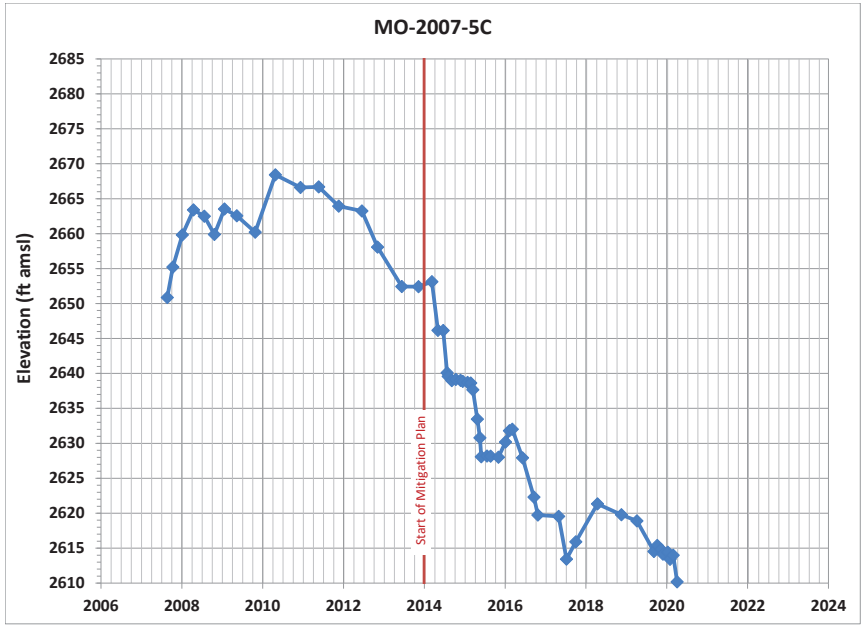

MO-2007-3C
Elevation (ft amsl)
2555
2550
2545
2540
2535
2530
2525
2520
2515
2510
2505
2500
2495
2490
2485
2480
2006
2008
2010
2012
2014
2016
2018
2020
2022
2024
Start of Mitigation Plan

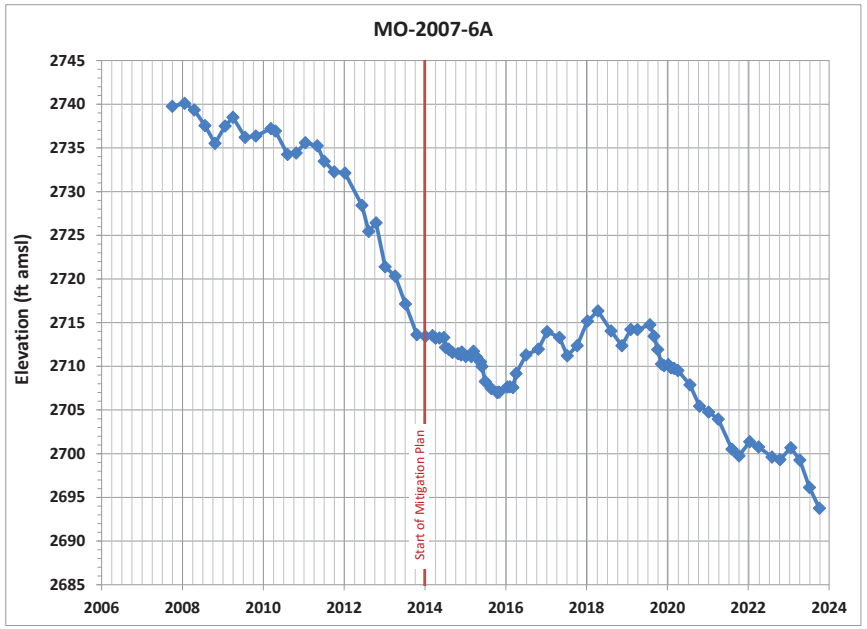

MO-2007-4A
Elevation (ft amsl)
2625
2620
2615
2610
2605
2600
2595
2590
2585
2580
2575
2570
2565
2560
2555
2550
2545
2540
2535
2530
2525
2006
2008
2010
2012
2014
2016
2018
2020
2022
2024
Start of Mitigation Plan

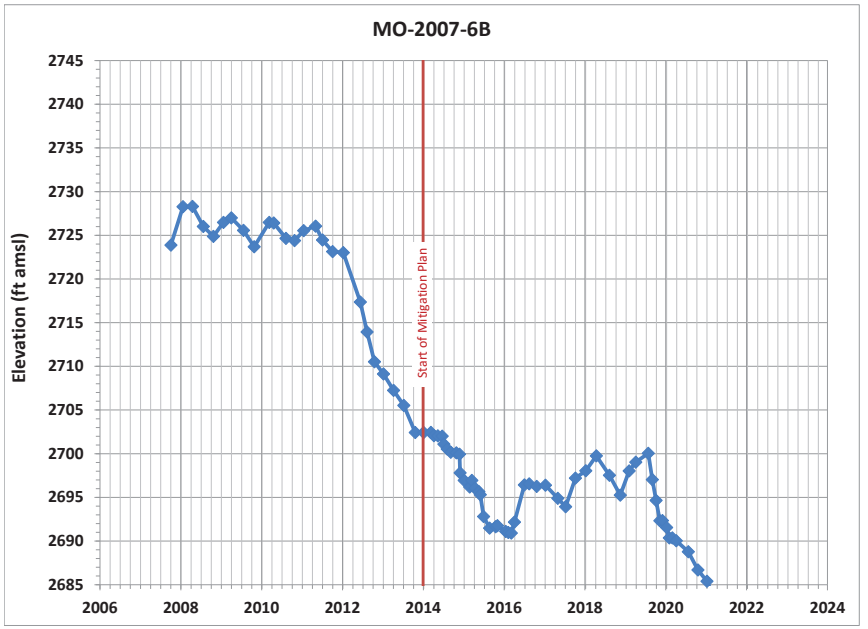

MO-2007-4B
Elevation (ft amsl)
Start of Mitigation Plan

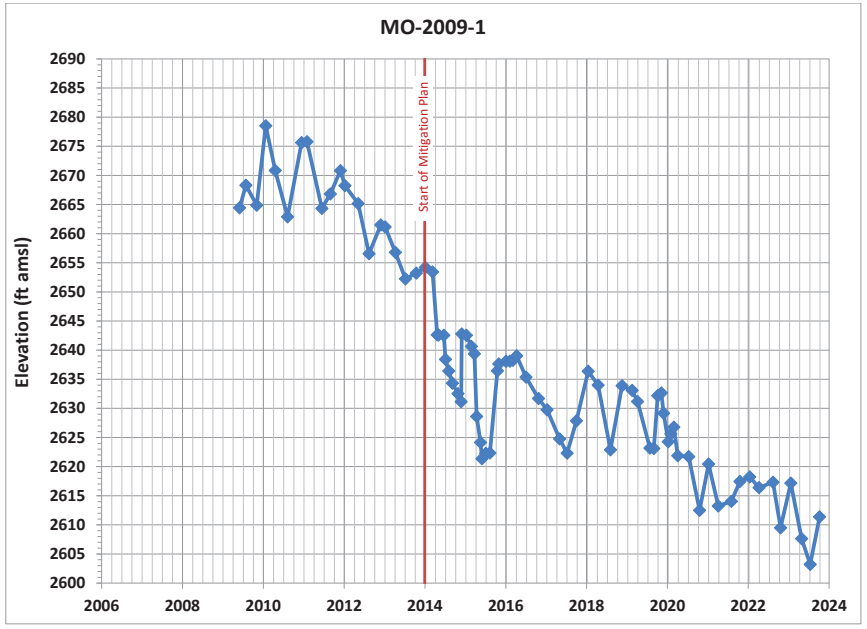

MO-2007-4C
Elevation (ft amsl)
Start of Mitigation Plan

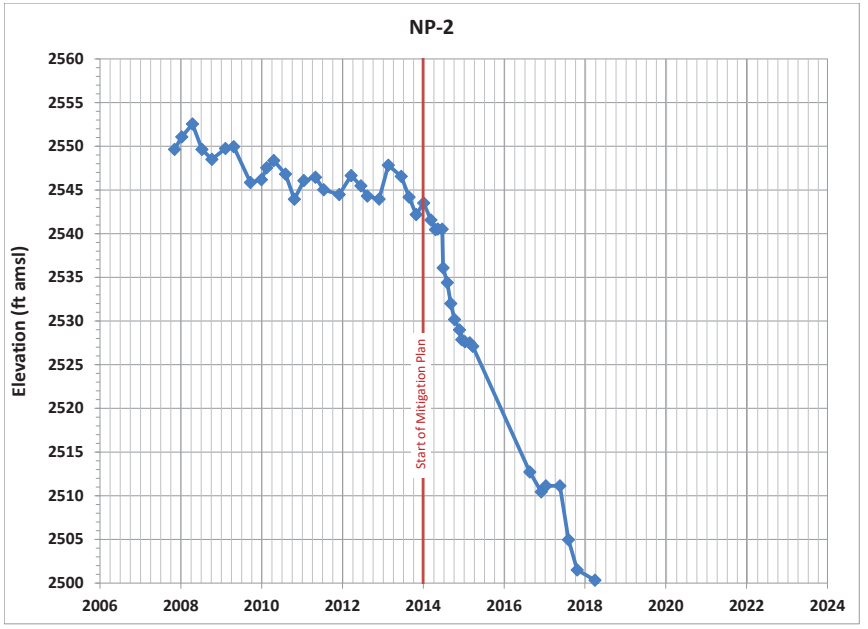

MO-2007-5B
Elevation (ft amsl)
Start of Mitigation Plan

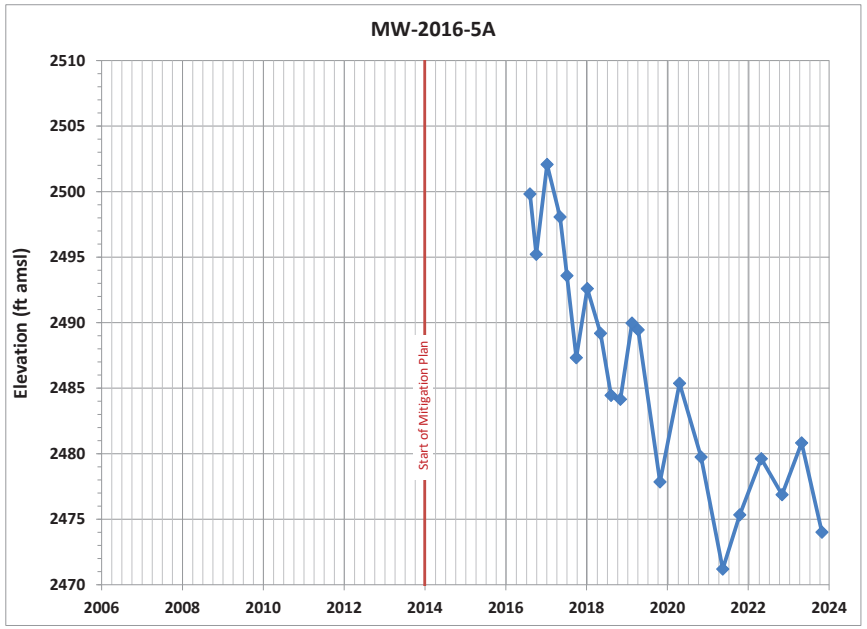

MO-2007-5C
Elevation (ft amsl)
Start of Mitigation Plan

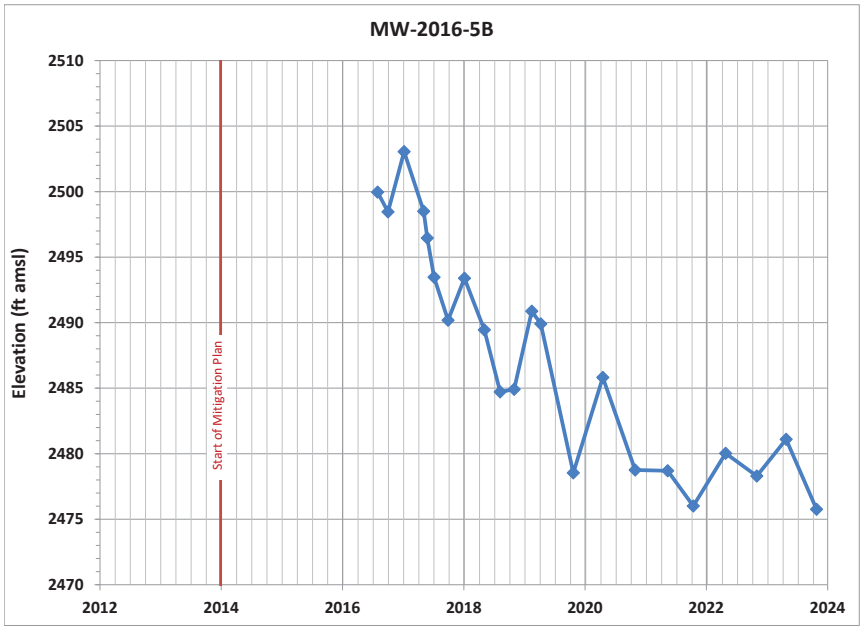

MO-2007-6A
Elevation (ft amsl)
Start of Mitigation Plan
2745
2740
2735
2730
2725
2720
2715
2710
2705
2700
2695
2690
2685
2006
2008
2010
2012
2014
2016
2018
2020
2022
2024

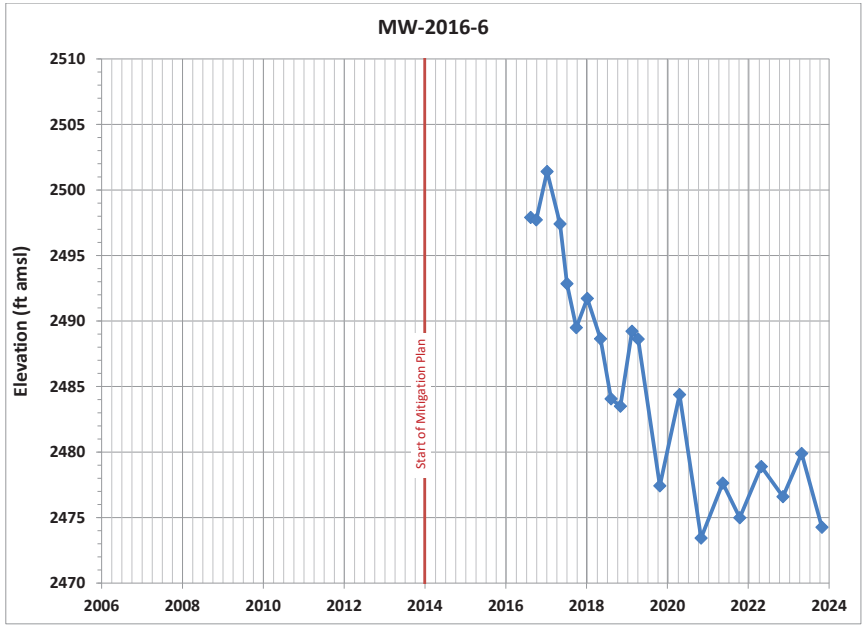

MO-2007-6B
Elevation (ft amsl)
Start of Mitigation Plan
2745
2740
2735
2730
2725
2720
2715
2710
2705
2700
2695
2690
2685
2006
2008
2010
2012
2014
2016
2018
2020
2022
2024


MO-2009-1
Elevation (ft amsl)
Start of Mitigation Plan
2690
2685
2680
2675
2670
2665
2660
2655
2650
2645
2640
2635
2630
2625
2620
2615
2610
2605
2600
2006
2008
2010
2012
2014
2016
2018
2020
2022
2024


NP-2
Elevation (ft amsl)
Start of Mitigation Plan
2560
2555
2550
2545
2540
2535
2530
2525
2520
2515
2510
2505
2500
2006
2008
2010
2012
2014
2016
2018
2020
2022
2024


MW-2016-5A
Elevation (ft amsl)
2510
2505
2500
2495
2490
2485
2480
2475
2470
2006
2008
2010
2012
2014
2016
2018
2020
2022
2024
Start of Mitigation Plan


MW-2016-5B
Elevation (ft amsl)
2510
2505
2500
2495
2490
2485
2480
2475
2470
2012
2014
2016
2018
2020
2022
2024
Start of Mitigation Plan


MW-2016-6
Elevation (ft amsl)
2510
2505
2500
2495
2490
2485
2480
2475
2470
2006
2008
2010
2012
2014
2016
2018
2020
2022
2024
Start of Mitigation Plan

APPENDIX E

NUMERICAL MODEL UPDATE AND PREDICTIVE MODELING

TECHNICAL MEMORANDUM

CLEAR CREEK ASSOCIATES

To: Alex Hlebovy and Bill Hart, Freeport-McMoRan Sierrita, Inc.
From: Steven W. Corell, R.G., Clear Creek Associates
Subject: Performance Review for 2023, Numerical Model Update through 2023 and Predictive Simulation
Date: March 19, 2024

REGISTERED GEOLOGIST CERTIFICATE NO. 30999 STEVEN W. CORELL Date Signed 3-19-24 ARIZONA, U.S.A.

Expires 03 / 31 / 2027

1 Introduction

This report has been prepared for Freeport-McMoRan Sierrita Inc. (Sierrita), to document the 2023 Sierrita Basin-Fill (SBF) Model update and 100-year predictive sulfate transport simulation. The SBF Model is used to simulate water levels and sulfate distribution under the groundwater pumping program conducted for the Mitigation Plan (Clear Creek Associates, 2013) and to predict future plume migration under various expected conditions.

Model construction, calibration, and updates are described in previous reports: Hydro Geo Chem, Inc. (2007), Hydro Geo Chem, Inc. and Clear Creek Associates (2010), Clear Creek Associates (2014), Clear Creek Associates (2016), and Clear Creek Associates (2020). The 2020 SBF Model (Clear Creek Associates, 2020) uses a Newton formulation of MODFLOW-2005, called MODFLOW-NWT (Niswonger et al, 2011). MODFLOW-NWT is a public-domain code developed by the USGS that is intended for solving problems involving drying and re-wetting model cells. MODFLOW-NWT is a variation of MODFLOW-2005 that keeps cells from becoming de-saturated and works similarly to MODFLOW-SURFACT's pseudo-soil functions.

Contaminant transport was simulated using the modeling application MT3DMS (Zheng and Wang, 1999). MT3DMS has a comprehensive set of options and capabilities for simulating advection, dispersion/diffusion, and chemical reactions of contaminants in groundwater flow systems. The original program was released to the public domain in 1999, this study uses MT3DMS Version 4.5.

The Groundwater Vistas modeling application version 8.30 Build 131 (Environmental Simulations, Inc, 2023) was used to construct the numerical model and evaluate results. Groundwater Vistas combines a model design system that supports the numerical model engine described above with comprehensive graphical analysis tools.

Groundwater Vistas allows for integration of a Geographical Information System (GIS), allowing site features, such as geologic maps, topographic maps, pumping wells, and other information to be directly imported and represented at actual locations. The SBF Model projected coordinate system is UTM NAD 1983 Zone 12 North (feet). The SBF Model is designed to simulate the major hydrogeologic processes that influence groundwater flow and sulfate transport in the region of the Sierrita Tailings Impoundment (STI). These include regional groundwater flow, groundwater pumping, natural and artificial recharge, and evapotranspiration.

The active portion of the SBF Model covers an area of about 237 square miles. The active model domain extends from about West Arivaca Road to the south, to about Pima Mine Road to the north. The horizontal model grid contains 336 rows and 400 columns for a total of 134,400 cells per layer. With a total of three layers, the model contains 403,200 calculation cells. The model has a regular grid with cell dimensions of 330 feet by 330 feet (2.5 acres/cell). The model grid is oriented due north, parallel to the general direction of groundwater flow through the southern portion of the Upper Santa Cruz basin. The temporal domain of the SBF Model is divided into three simulation periods:

- Steady-state (1940),
- Transient historic (1941-2023), and
- Transient predictive (2024 and beyond).

For the SBF Model, the condition of the regional aquifer system in 1940 was considered representative of pre-development conditions and was used as the steady-state simulation period. Up to 1940, the Upper Santa Cruz Basin is believed to have been in a state of “dynamic equilibrium” (Mason and Bota, 2006), where groundwater outflows are equivalent to groundwater inflows, and groundwater levels demonstrate no long-term changes. The 1940 steady-state simulation model-calculated groundwater levels serve as the initial heads for the transient historic (1941 - 2023) simulation of groundwater flow and sulfate transport. Ending model-calculated groundwater levels of the transient historic simulation serve as the initial heads for the predictive simulations.

2 Numerical Model Update

The 2023 SBF Model is structured the same as reported in Clear Creek Associates (2020). Specific revisions for the 2023 SBF Model include:

1. Groundwater pumping specifications for wells operated by Sierrita were updated through year 2023 based on data provided by Sierrita.
2. Groundwater pumping specifications for the following Arizona Department of Water Resources (ADWR) groundwater right/permit holders were updated through year 2022 (2022 rates are carried forward to 2023) based on ADWR Annual Reports:
    - Amado Water Company (ADWR Right/Permit No., 58-106984),
    - Community Water Company of Green Valley (56-000046.0000),
    - Country Club of Green Valley (58-101735.0001),
    - FICO (58-101964, 56-000080.0000),
    - Green Valley Domestic Water Improvement District (56-000302.0000),
    - Green Valley Investors (58-104567.0000)
    - Green Valley Municipal Property Corporation (56-000302.0000),
    - Las Quintas Seranas Water Company (56-000128.0000),
    - Pima County (58-109395.0003),
    - Rancho Sahuarita (58-100316.0019),
    - Rancho Sonado (58-111882.0001),
    - Robson Ranch Quail Creek (56-000367, 58-105292),
    - Sahuarita School District (58-160083.0000),
    - Sahuarita Village Water Company (56-000191.0000),
    - Sahuarita Water Company (56-000373.0000), and
    - Town of Sahuarita (58-100316.0018)
3. Groundwater pumping specifications for the providers listed above are carried forward through year 2023. Sierrita Tailings Impoundment (STI) seepage was updated for years 2019 to 2023 based on STI seepage estimates provided by Sierrita.
4. Groundwater recharge at the Project RENEWS (ADWR Permit No. 71-222410) facility is still being reported as zero through year 2022. The Green Valley Wastewater Reclamation Facility (WRF) delivers reclaimed water to the Robson Ranch/Quail Creek (ADWR Permit No. 71-581379) recharge facility for recharge. The treated effluent is recharged in a series of 5 percolation basins. Groundwater recharge at the Robson Ranch/Quail Creek permitted recharge facility has been updated through year 2022 based on ADWR Annual Reports. The facility has an ADWR USF permit for annual storage up to 2,240 acre-feet (AF). The 2022 reported recharge is carried forward to year 2023. Reported recharge for 2013 – 2022 at the facility is summarized below:

- 2013 1,279.85 AF
- 2014 1,426.20 AF
- 2015 1,615.45 AF
- 2016 1,621.44 AF
- 2017 1,620.69 AF
- 2018 1,654.04 AF
- 2019 1,446.66 AF
- 2020 1,703.22 AF
- 2021 1,696.28 AF
- 2022 1,595.54 AF

5. Groundwater level targets were updated through 4th Quarter 2023 using information from ADWRs Groundwater Site Inventory (GWSI) database, and Sierrita's Environmental Management database.

2.1 STI Seepage Update

The STI seepage estimates were updated for 2019 to 2023 for this study. A water balance method was used by Sierrita to estimate the amount of seepage from the STI for 2019 to 2023. The water balance method calculates annual seepage from the STI to the basin-fill aquifer as the difference between the sum of all water inputs and the sum of outflows and water retained, as described by Clear Creek Associates (2014). Water inputs include water delivered to the STI in tailing slurry, precipitation, and surface water discharge to the STI. Water outflows include tailing water reclaimed from the STI, evaporation, water retained in the tailing material and seepage from the tailing. Using the water balance model Sierrita estimated the STI seepage as:

- 2016: 5,682 AF
- 2017: 7,761 AF
- 2018: 8,577 AF
- 2019: 6,733 AF
- 2020: 7,686.01 AF
- 2021: 8,201.56 AF
- 2022: 8,406.94 AF
- 2023: 7,856.63 AF

2.2 Groundwater Pumping 2019 - 2023

Groundwater pumping is the primary groundwater sink in the 2023 SBF Model domain. Groundwater pumping rates for all Sierrita mitigation extraction and water supply wells were updated through 2023 from data provided by Sierrita. The 2023 SBF Model update includes 2022

groundwater pumping rates for the Amado Water Co., Community Water Co. of Green Valley, Country Club of Green Valley, FICO, Green Valley DWID, Green Valley Investors, Green Valley Municipal Corp., Las Quintas Serenas Water Co., Pima County, Rancho Sahuarita, Rancho Sonado, Robson Ranch Quail Creek LLC, Sahuarita School District, Sahuarita Village Water Co., Sahuarita Water Co., and the Town of Sahuarita were obtained from ADWR Annual Reports. **Tables 1** and **2** list well locations and pumping rates used in the 1941-2023 transient model. **Table 1** lists well locations and pumping rates taken from the ADWRs Tucson Active Management Area (AMA) model (Mason and Bota, 2006). **Table 2** lists well locations and pumping rates for 1971 to 2023 taken from various sources. Pumping information from various sources is incorporated into the 2023 Basin-Fill Model as follows:

- For years 1940 to 1970 pumping estimates from the 2006 ADWR Tucson AMA model are applied exclusively.
- For years 1971 to 1983 pumping rates from Errol L. Montgomery and Associates (ELMA) (2007) were applied.
- For years 1984 to 2006 pumping rates are applied from ELMA (2007) or from the ADWR's Registry of Groundwater Rights (ROGR) database for wells (ADWR, 2018) and/or years not included in ELMA (2007). Pumping rates from 2007 to 2023 are from Sierrita, ADWR's Registry of Wells in Arizona (Wells55 database), and ADWR Annual Reports.

2.3 Hydraulic Parameters and Boundary Conditions

The 2023 SBF Model hydraulic parameters and boundary conditions are the same as reported in Clear Creek Associates (2020).

3 TRANSIENT SIMULATION 1941-2023

The 2023 Basin-Fill Model simulated groundwater level contours for the fourth quarter of 2023 are shown on **Figure 1**. Also shown on **Figure 1** are model calculated residuals for the fourth quarter of 2023, negative residuals indicate model calculated heads are too high, positive residuals indicate model calculated heads are too low.

Groundwater level targets are sub-divided into two Groups[1] for statistical analysis. Group 1, includes measured groundwater levels of "other wells" that are not part of the Mitigation Order water level data collection. Group 2, includes Mitigation Order water level monitor wells located within the Area of Emphasis[2]. Measured water levels of the IW, FFS, MC, and PS wells are not included in Group 2 as these are generally dynamic water levels. The current update of the SBF model shows little spatial basis in under simulating or over simulating water levels within the Area of Emphasis (**Figure 1**). Model calculated residuals within the Area of Emphasis range from -111.50 feet to +63.40 feet.

The scaled Root Mean Square (RMS) error for Groups 1 and 2 targets combined is 3.7 percent, and 4.5 percent for the Group 2 targets (Mitigation Order monitor wells). The following **Table** provides a summary of target statistics for the current 1941 through 2023 transient simulation.

Summary of Target Statistics: 1941 to 2023

Parameter	*Simulation-1941-2023 Group 1 and 2 (feet)*	*Simulation-1941-2023 Group 2 (feet)*
Residual Mean	-8.65	-9.76
Residual Std. Deviation	24.2	18.95
Absolute Residual Mean	16.7	15.19
RMS Error	25.7	21.32
Minimum Residual	-162.02	-162.02
Maximum Residual	107.06	107.06
Range of Observations	595.43	473.74
Scaled Res. Std. Dev.	0.035	0.040
Scaled Abs. Mean	0.027	0.032
Scaled RMS	3.7%	4.5%
No. of Observations	7718	5785

[1] Groundwater Vistas allows for each groundwater level target to have a unique Group number. Each Group can be summarized separately when computing calibration statistics in Groundwater Vistas.

[2] The Area of Emphasis (AOE) is the area in the vicinity of the STI, including areas surrounding the current extent of the sulfate plume. The AOE is bounded by UTM 3,519,700 on the south, UTM 3,531,900 on the north, the no-flow boundary on the west, and UTM 503,700 on the east (see **Figure 1**).

3.1 Numerical Model Prediction of 2023 Sulfate Distribution and Capture Zone

A numerical simulation of the hydraulic head field created by pumping was used for an assessment of the capture zone. The numerical model for groundwater flow and sulfate transport was updated to simulate the capture zone for mitigation action pumping through 2023.

Figure 2 shows the fourth quarter 2023 sulfate distribution simulated by the updated model. The simulated extent of the sulfate reasonably matches the observed extent, however, the model over-estimates the eastern extent of the plume at the MO-2007-4 and MO-2007-5 wells, and under-estimates the north-northeast extent at MO-2007-01 wells. The capture zone indicated by the updated numerical model for groundwater pumping through 2023 is shown on **Figure 3**. The capture zone is interpreted from gradient vector plots created with the predicted groundwater elevations.

4 PREDICTIVE SIMULATION UNDER 2023 PUMPING RATES

4.1 Numerical Model

The 2023 SBF Model was used to simulate future plume migration under 2023 pumping rates. The annual amount of sulfate impacted groundwater pumped from the mitigation wellfield during 2023 was equivalent to about 10,980 gallons per minute (gpm).

The objective of the predictive modeling is to assess the adequacy of mitigation pumping at the 2023 average rate (10,980 gpm) in accomplishing plume stabilization and maintaining the mitigation action objective. The 2023 SBF Model includes the simulation of groundwater pumping at the Interceptor Wells (IW), Focused Feasibility Study wells (FFS), Plume Stabilization (PS), and Mass Capture (MC) wells under the Mitigation Order, and future pumping for water supply, agricultural, and mining uses in the area of the plume.

4.2 Predictive Simulation Pumping

Interceptor and Mitigation Order Wellfield Pumping

Table 3 summarizes the well pumping specifications for the FFS, IW, PS, and MC wells predictive simulation under the 2023 pumping assumptions. The predictive simulation was run 100-years into the future to year 2123.

Non-Sierrita Pumping

For the predictive simulation, estimates of future pumping for non-Sierrita wells were based on the Upper Santa Cruz Providers and Users Group (USCPUG) water usage report (USCPUG, June 8, 2017). The USCPUG report includes estimates of future pumping for FICO/Farmers Water Company, Green Valley Domestic Water Improvement District, Community Water Company of Green Valley, Sahuarita Water Company, Las Quintas Serenas Water Company, Quail Creek Water Company, State Trust Land Use, and Rosemont Mine. Groundwater pumping of other non-Sierrita water users not included in the USCPUG report is held constant at reported 2022 rates to year 2123. Non-Sierrita well pumping rates for 2022 were obtained from downloaded ADWR Annual Reports for the water providers listed in Section 2.0.

Future STI Seepage

The STI seepage rate for the predictive model assumes 2023 STI seepage rates to year 2088. The 2023 STI seepage rate is 7,856.63 AF estimated by Sierrita. The predictive model assumes gravity drain-down of the STI begins after year 2088 when the STI is closed and tailing delivery ends. The approach for modeling drain-down is described by Clear Creek Associates (2014). The drain-down simulation for a tailing thickness of 863 feet predicts that seepage will decrease to about 50 percent of its original rate 18 years after the start of drain-down, and to about 10 percent of its starting rate in 100 years. The predictive simulation assumes that drain-down begins in year 2089.

4.3 Predictive Model Results – Sulfate Plume Maps

A series of maps were prepared showing the extent of the maximum concentration sulfate plume over time. Showing the extent of the sulfate plume using the maximum concentration of the three model layers provides a conservative estimate of the sulfate plume with respect to the plume extent estimated from regional water quality sampling.

The extent of the simulated sulfate plume from 2024 to 2123 for the predictive simulation under 2023 pumping rates is shown on **Figure 4**. Maps showing the predicted sulfate plume in 20-year increments are shown on **Figures 5** to **10**. The predictive simulation shows some reduction in the areal extent of the sulfate plume footprint over time (**Figures 4** to **10**) with continuous pumping at 2023 average annual rates. Model results suggest that the sulfate plume is not predicted to impact public or private drinking water supply wells.

REFERENCES

Arizona Department of Water Resources (ADWR). 2023. ADWR Imaged Records Database

Clear Creek Associates. 2013. Mitigation Plan for Sulfate with Respect to Drinking Water Supplies in the Vicinity of the Freeport-McMoRan Sierrita, Inc. Tailing Impoundment, Mitigation Order on Consent Docket No. P-50-06. December 18, 2013.

Clear Creek Associates. 2014. Sierrita Basin Fill Model Update and Predictive As-Built Wellfield Simulation. July 10, 2014.

Clear Creek Associates. 2016. Technical Memorandum, Performance Review for 2015, Numerical Model Update through 2015 and Predictive Simulation. April 26, 2016.

Clear Creek Associates. July 2, 2020. Sierrita Basin-Fill Model Update, Calibration, and Predictive Simulation.

Environmental Simulations, Inc. 2023. Groundwater Vistas (Version 8.30 Build 131): Reinholds, PA.

Errol L. Montgomery and Associates (ELMA). 2007. Documentation of Groundwater Flow and Transport Model Used for Evaluating the Current Effectiveness of the Interceptor Wellfield, Sierrita Mine, Phelps Dodge Sierrita Mine, Pima County, Arizona. August 14, 2007.

Hydro Geo Chem, Inc. (HGC). 2007. Aquifer Characterization Report, Task 5 of Aquifer Characterization Plan, Mitigation Order on Consent Docket No. P-50-06, Pima County, Arizona. December 28, 2007.

Hydro Geo Chem, Inc. and Clear Creek Associates. 2010. Final Wellfield Conceptual Design Mitigation Order on Consent Docket No. P-50-06. January 29, 2010.

Mason, D., and Bota, L. 2006. Regional Groundwater Flow Model of the Tucson Active Management Area, Tucson, Arizona: Simulation and Application. Arizona Department of Water Resources Modeling Report No. 13.

Montgomery & Associates. 2016. Sierrita Tailing Impoundment Water Balance Analysis for Year 2014, Freeport-McMoRan Sierrita Mine, Pima County, Arizona.

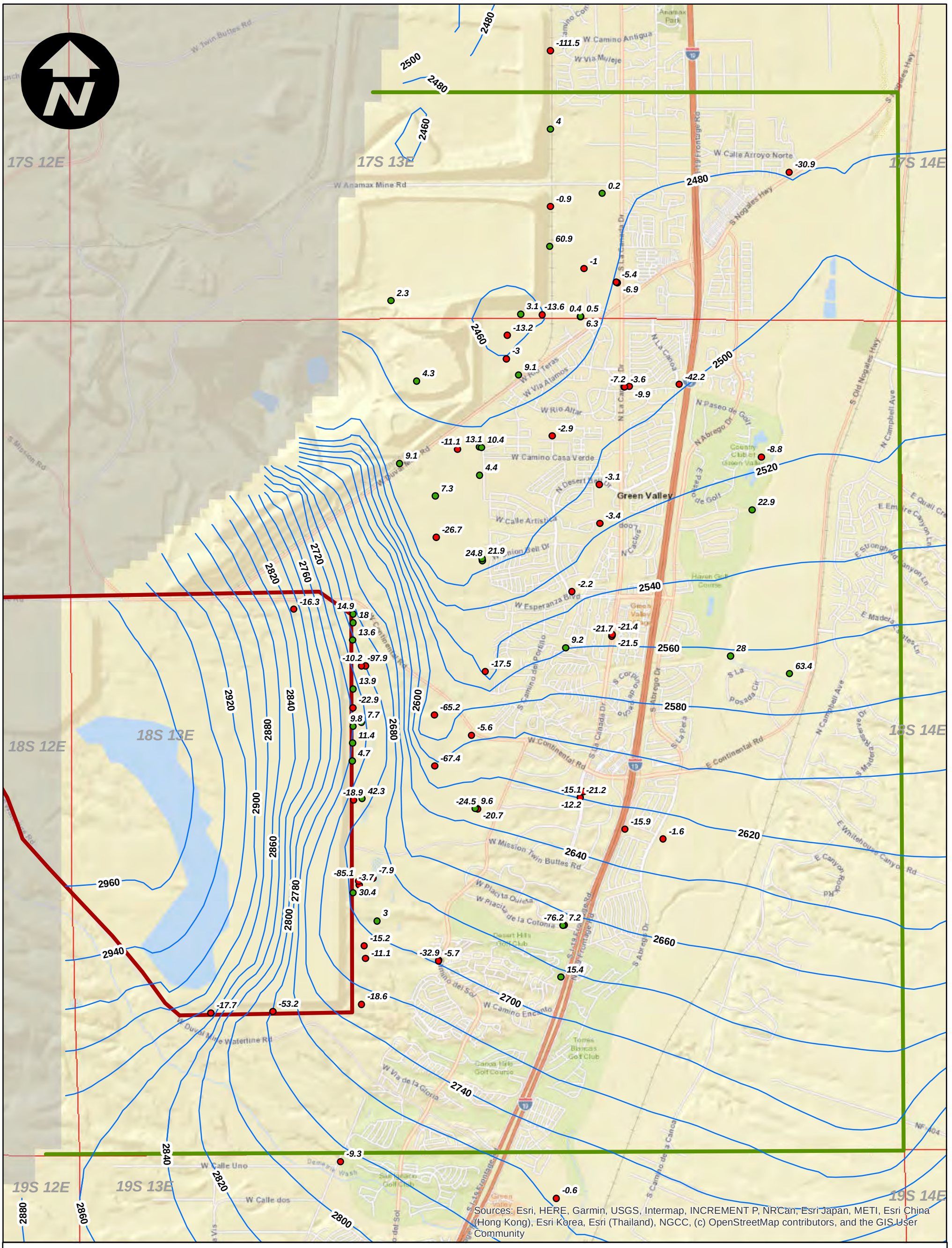
Niswonger, R.G., Panday, S., and Ibaraki, M., 2011. MODFLOW-NWT, A Newton Formulation for MODFLOW-2005. U.S. Geological Survey, Chapter 37 of Section A, Groundwater Book 6, Modeling Techniques Groundwater Resources Program Techniques and Methods 6–A37.

USCPUG. 2017. Upper Santa Cruz Providers and Users Group (USCPUG) Water Usage Report for Years 2015 - 2040. June 8, 2017.

Zheng, Chunmiao, and P. Patrick Wang, 1999. MT3DMS, A modular three-dimensional multi-species transport model for simulation of advection, dispersion and chemical reactions of contaminants in groundwater systems; documentation and user's guide, U.S. Army Engineer Research and Development Center Contract Report SERDP-99-1, Vicksburg, MS, 202 p.

FIGURES

TABLES



Legend

2023 Model Calculated Residuals (feet)

- -111.50 ft. to 0.00 ft. (negative residuals)
- 0.01 ft. to 63.40 ft. (positive residuals)
- 2023 Model Calculated Groundwater Table (ft. amsl)
- Area of Emphasis
- Sierrita Tailings Impoundment
- Inactive Model Cells

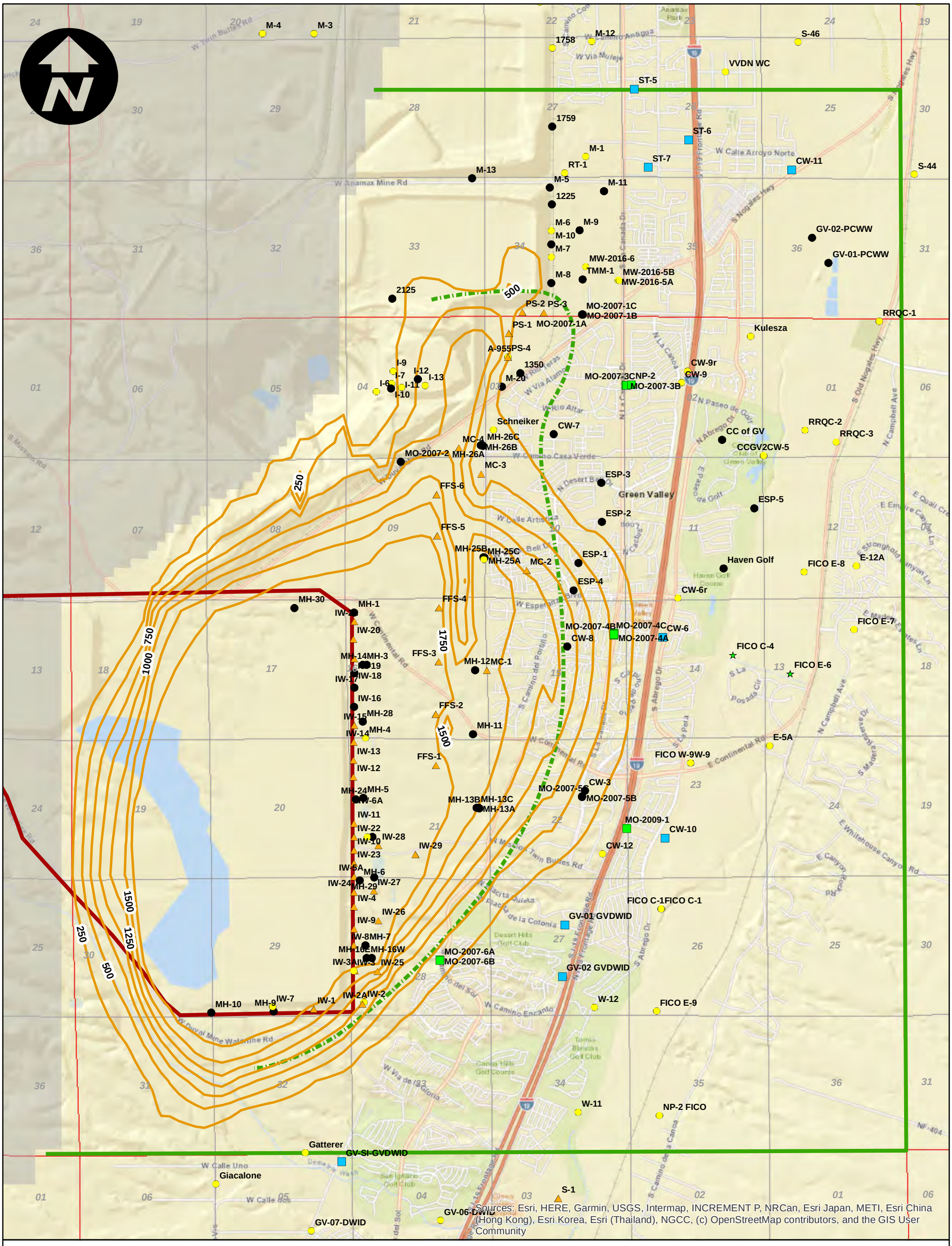
0 0.25 0.5 1 1.5 Miles

CLEAR CREEK ASSOCIATES

FIGURE 1

2023 CALCULATED GROUNDWATER TABLE CONTOURS AND RESIDUALS

March 2024 swc



Legend

Sierrita Sampled Wells

- AGRICULTURE
- DWS
- EXTRACTION
- MONITOR
- SENTINEL
- OTHER WELLS (NOT SAMPLED)
- 2023 Simulated Maximum Sulfate Concentration (mg/L)
- Sulfate 4th Quarter 2023 Measured 250 mg/L
- Area of Emphasis
- PDSTI_shp
- Inactive Model Cells

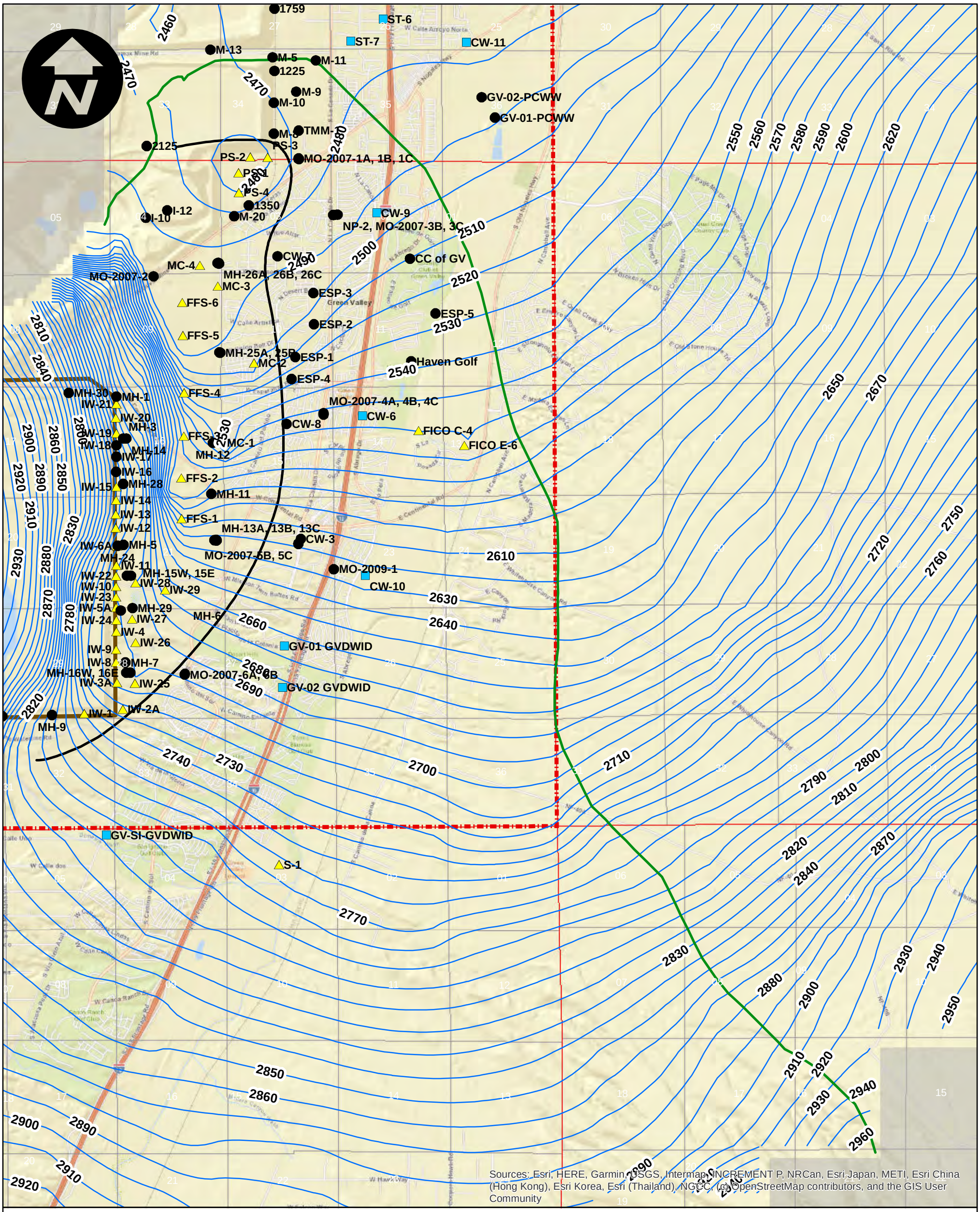
0 0.25 0.5 1 Miles

CLEAR CREEK ASSOCIATES

FIGURE 2

SIMULATED MAXIMUM SULFATE CONCENTRATION CONTOURS FOR END OF YEAR 2023 VS Q4 2023 MEASURED

March 2023 swc



Legend

0 0.25 0.5 1 1.5 2 2.5 3 Miles

Performance Review Wells

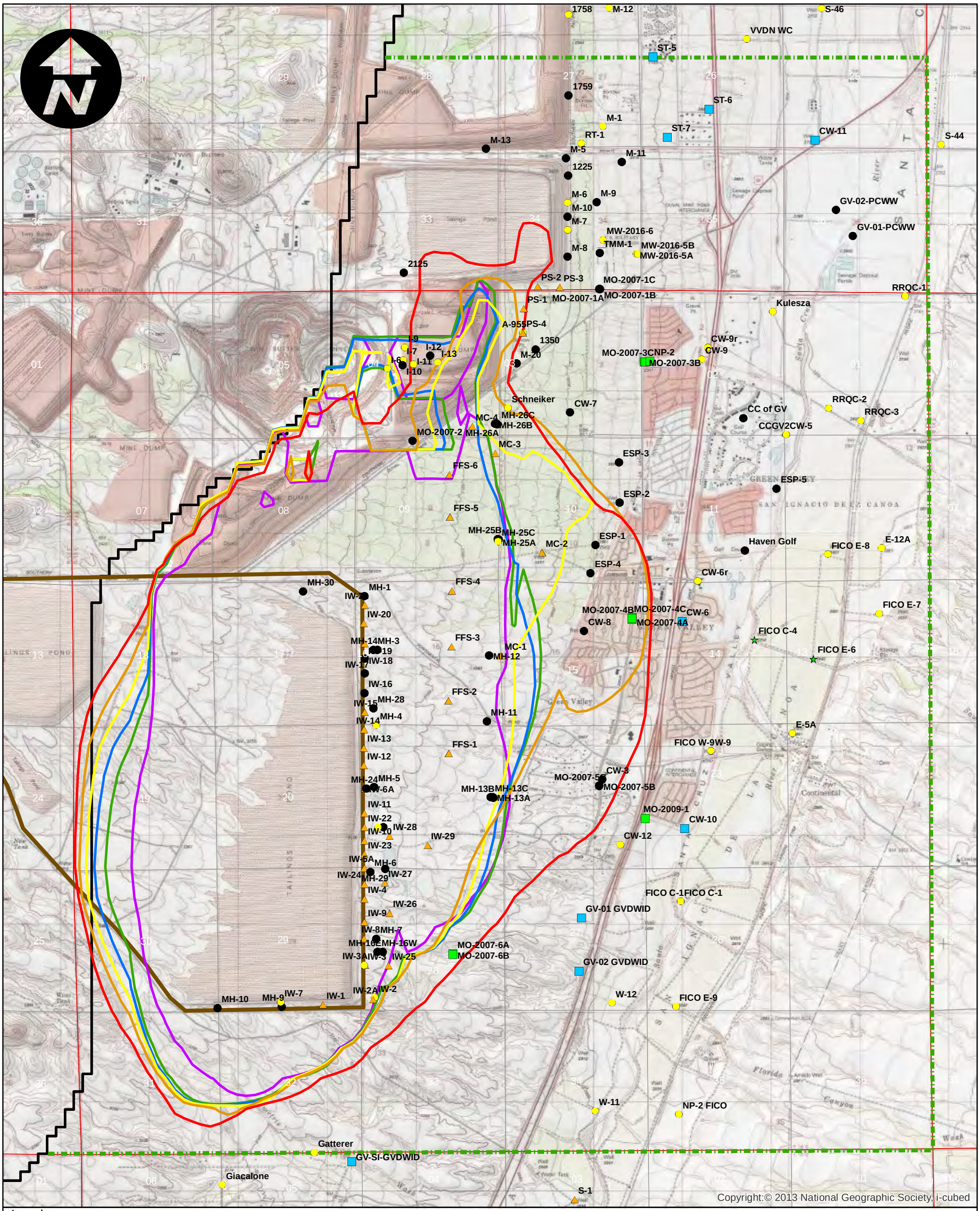
- Extraction; Agriculture
- Drinking Water Supply
- Monitor; Sentinel

- 2023 Model Simulated Capture Zone
- 2023 Model Calculated Groundwater Table (ft. amsl)
- Target Capture Zone, 250 mg/L Sulfate Concentration Contour Q4 2023
- Area of Emphasis
- PDSTI_shp
- Inactive Model Cells

CLEAR CREEK ASSOCIATES

FIGURE 3
2023 MODEL SIMULATED GROUNDWATER LEVELS AND CAPTURE ZONE

March 2024 swc



Legend

Sierrita Sampled Wells

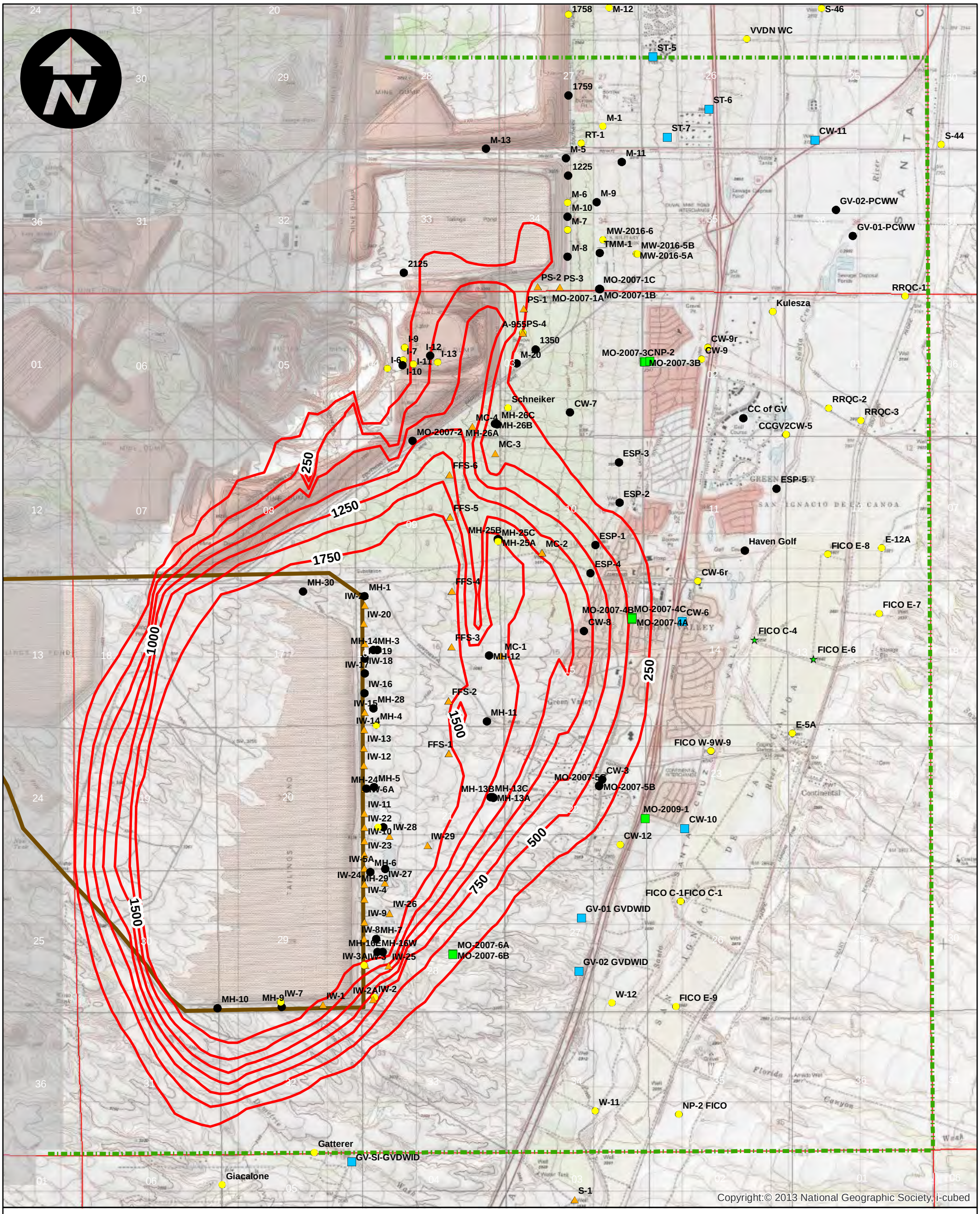
- AGRICULTURE
- DWS
- EXTRACTION
- MONITOR
- SENTINEL
- OTHER WELLS (NOT SAMPLED)
- 2024 (Year 1) Sulfate Contour (mg/L) at 2023 Pumping Rates
- 2043 (Year 20) Sulfate Contour (mg/L) at 2023 Pumping Rates
- 2063 (Year 40) Sulfate Contour (mg/L) at 2023 Pumping Rates
- 2083 (Year 60) Sulfate Contour (mg/L) at 2023 Pumping Rates
- 2103 (Year 80) Sulfate Contour (mg/L) at 2023 Pumping Rates
- 2123 (Year 100) Sulfate Contour (mg/L) at 2023 Pumping Rates
- Area of Emphasis
- PDSTI_shp
- Model Extents

0 0.25 0.5 1 1.5 2 Miles

CLEAR CREEK ASSOCIATES

FIGURE 4
SIMULATED EXTENT OF SULFATE PLUME FROM 2024 - 2123 FOR PREDICTIVE SIMULATION UNDER 2023 PUMPING RATES

March 2024 swc



Legend

Sierrita Sampled Wells

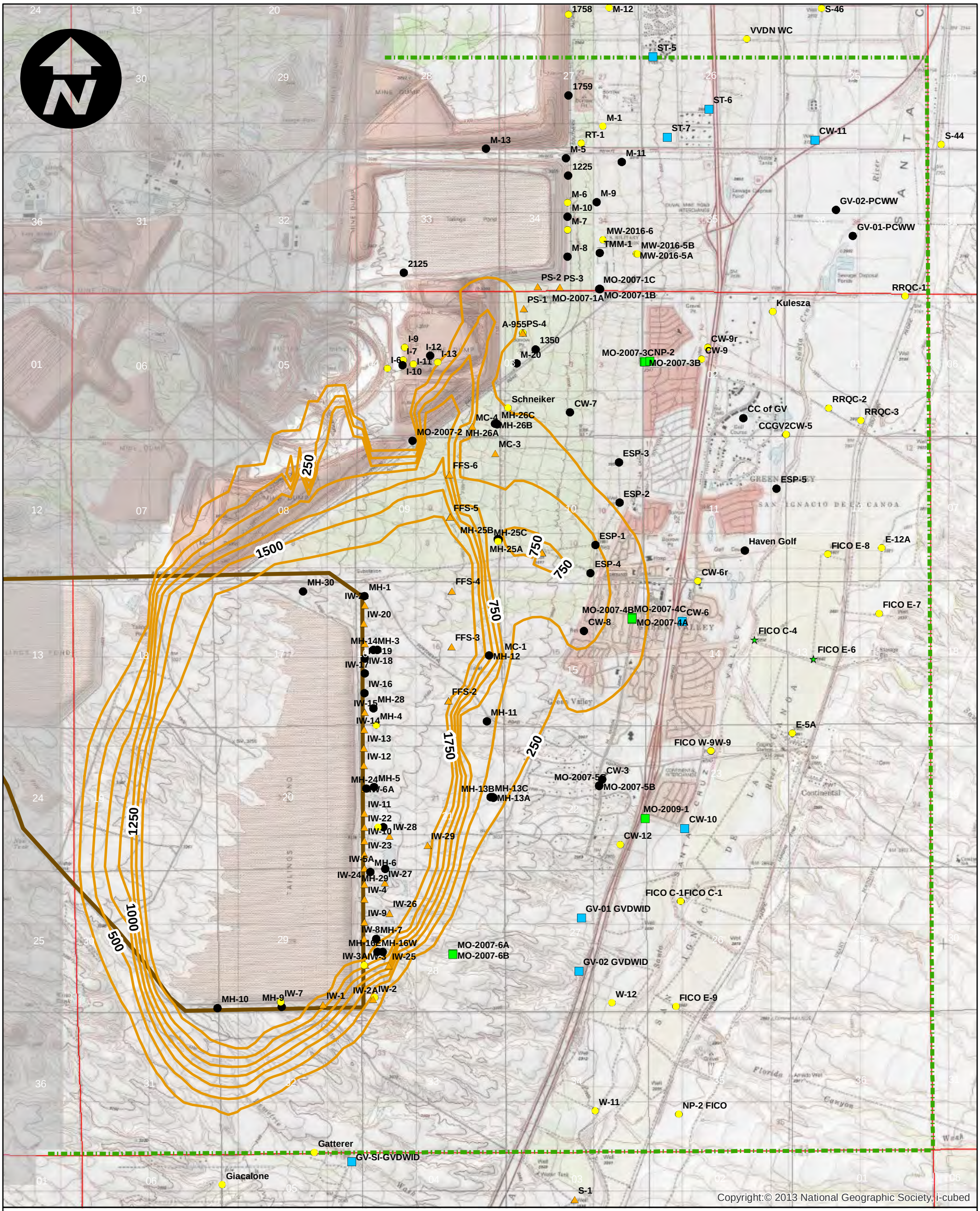
- AGRICULTURE
- DWS
- EXTRACTION
- MONITOR
- SENTINEL
- OTHER WELLS (NOT SAMPLED)
- 2024 (Year 1) Sulfate Contour (mg/L) at 2023 Pumping Rates
- Area of Emphasis
- PDSTI_shp
- Inactive Model Cells

0 0.25 0.5 1 1.5 2 Miles

CLEAR CREEK ASSOCIATES

FIGURE 5
SIMULATED SULFATE PLUME 2024 (YEAR 1)
FOR PREDICTIVE SIMULATION UNDER
2023 PUMPING RATES

March 2024 swc



Legend

Sierrita Sampled Wells

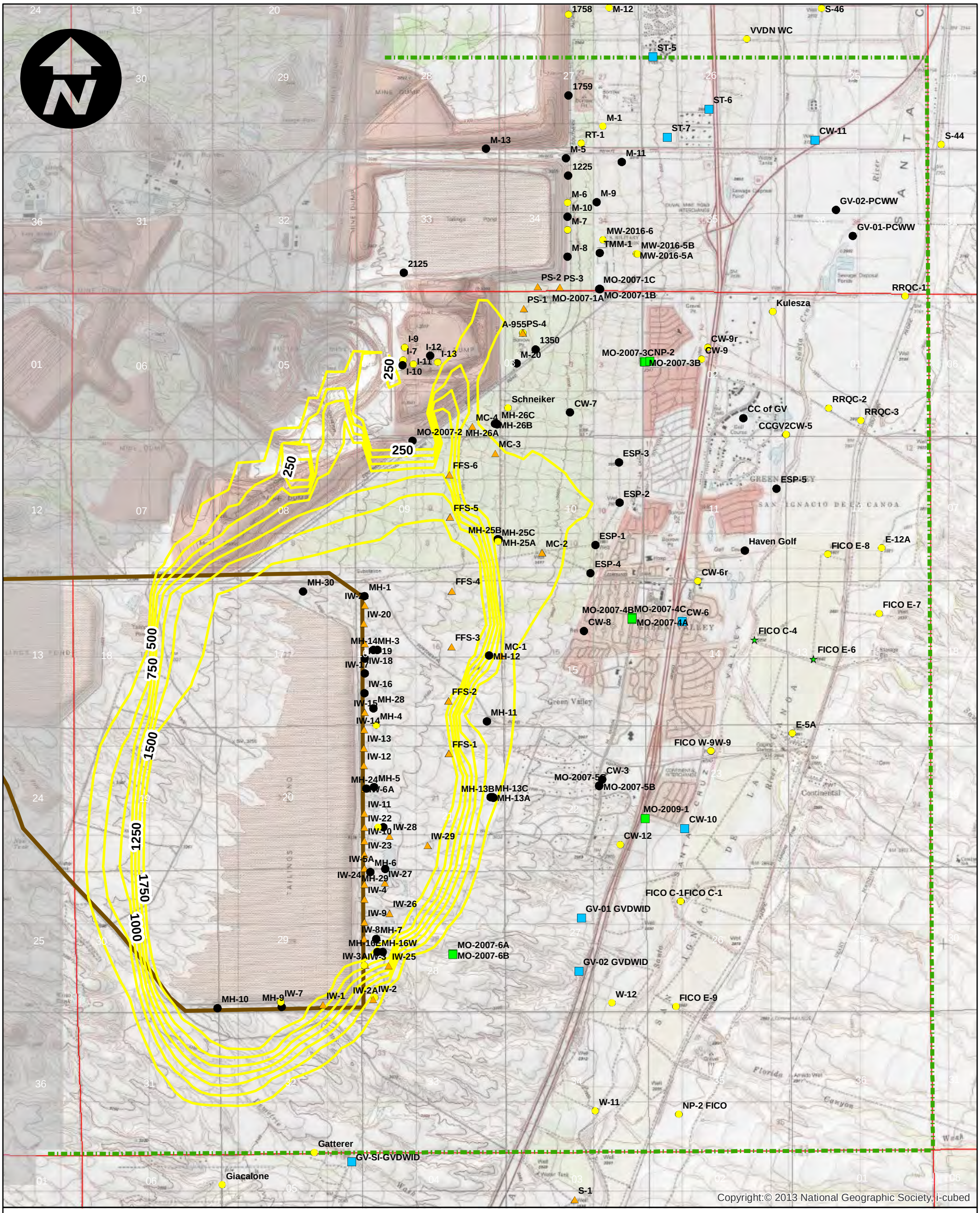
- AGRICULTURE
- DWS
- EXTRACTION
- MONITOR
- SENTINEL
- OTHER WELLS (NOT SAMPLED)
- 2043 (Year 20) Sulfate Contour (mg/L) at 2023 Pumping Rates
- Area of Emphasis
- PDSTI_shp
- Inactive Model Cells

0 0.25 0.5 1 1.5 2 Miles

CLEAR CREEK ASSOCIATES

FIGURE 6
SIMULATED SULFATE PLUME 2043 (YEAR 20) FOR PREDICTIVE SIMULATION UNDER 2023 PUMPING RATES

March 2024 swc



Legend

Sierrita Sampled Wells

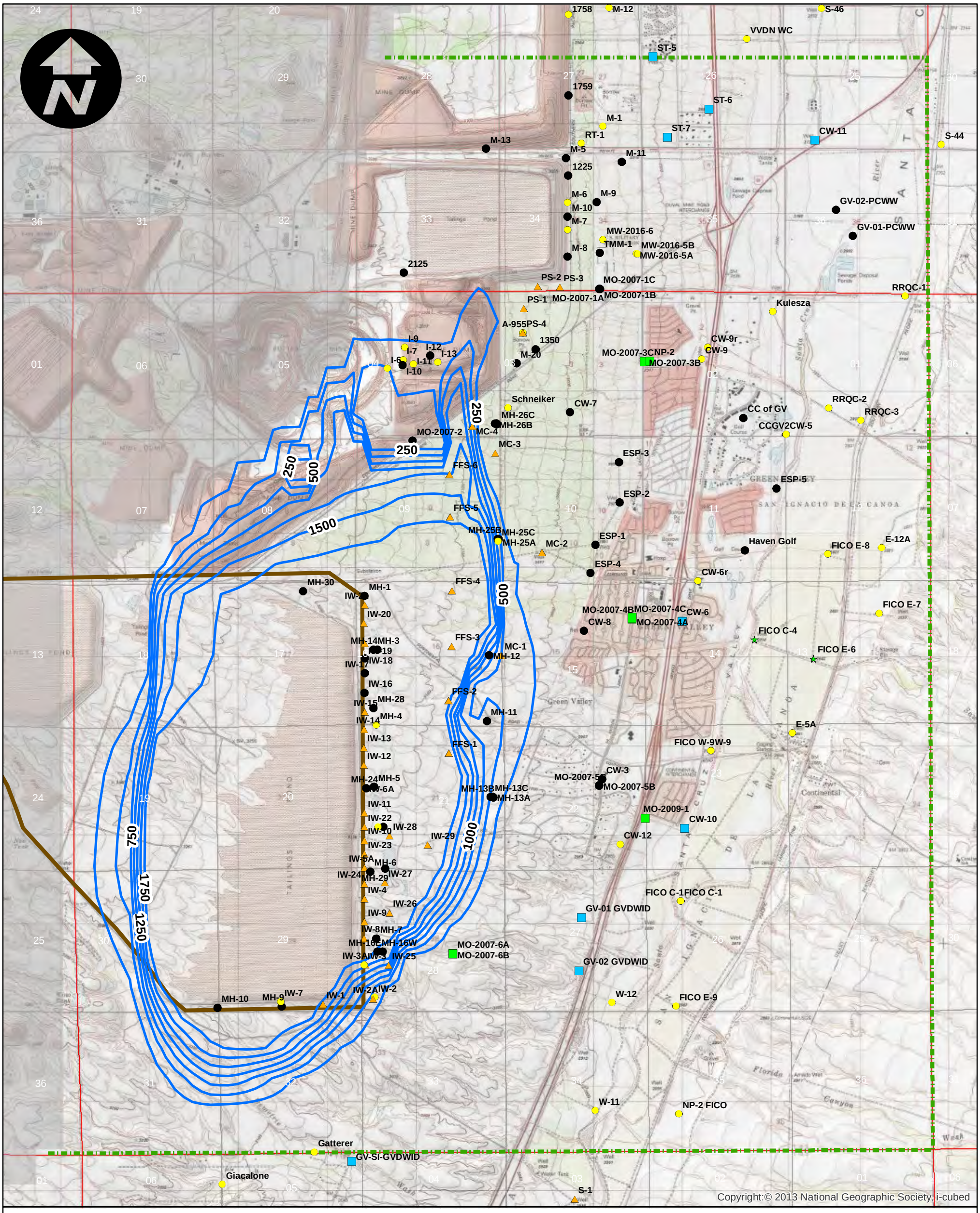
- AGRICULTURE
- DWS
- EXTRACTION
- MONITOR
- SENTINEL
- OTHER WELLS (NOT SAMPLED)
- 2063 (Year 40) Sulfate Contour (mg/L) at 2023 Pumping Rates
- Area of Emphasis
- PDSTI_shp
- Inactive Model Cells

0 0.25 0.5 1 1.5 2 Miles

CLEAR CREEK ASSOCIATES

FIGURE 7
SIMULATED SULFATE PLUME 2063 (YEAR 40) FOR PREDICTIVE SIMULATION UNDER 2023 PUMPING RATES

March 2024 swc



Legend

Sierrita Sampled Wells

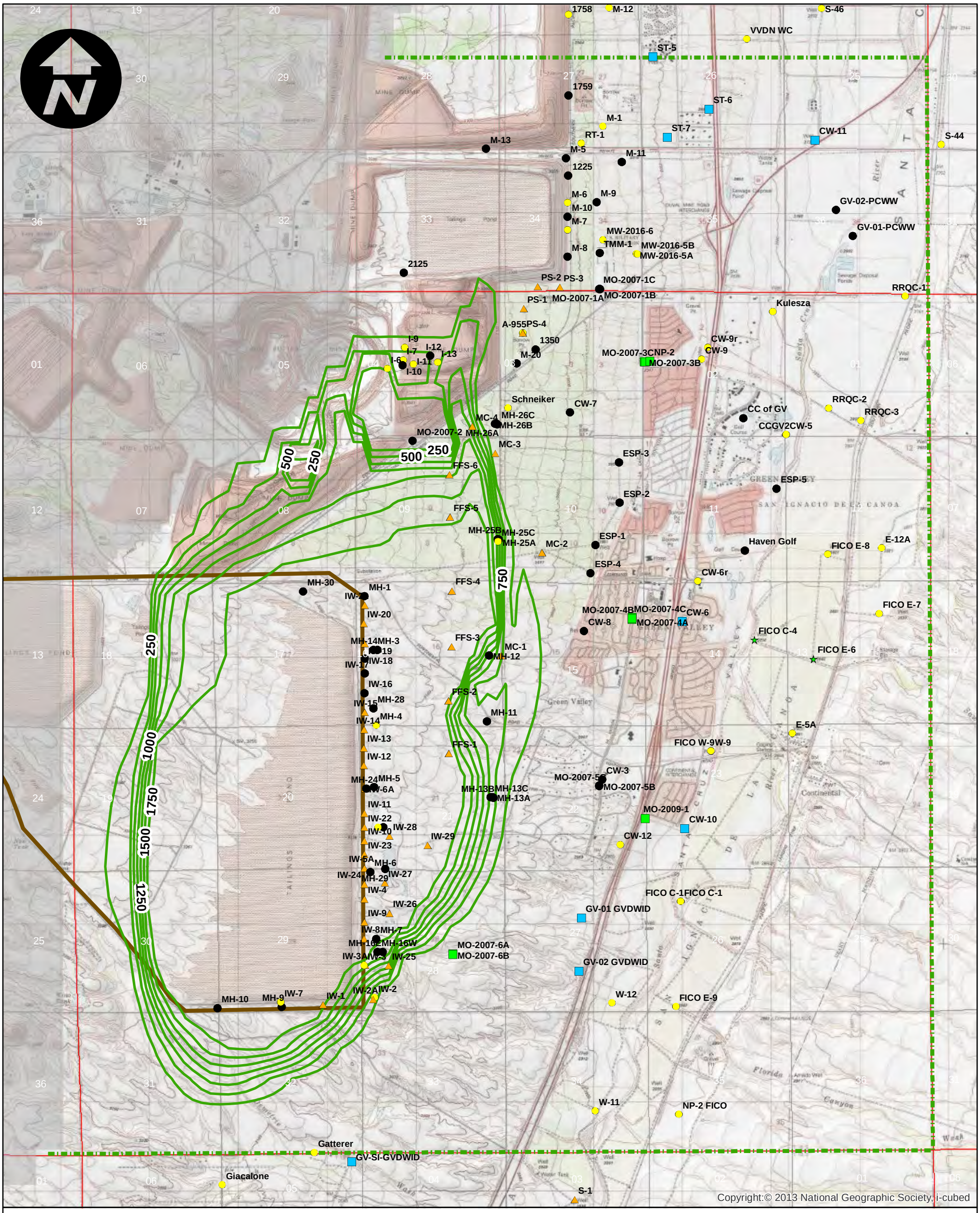
- AGRICULTURE
- DWS
- EXTRACTION
- MONITOR
- SENTINEL
- OTHER WELLS (NOT SAMPLED)
- 2083 (Year 60) Sulfate Contour (mg/L) at 2023 Pumping Rates
- Area of Emphasis
- PDSTI_shp
- Inactive Model Cells

0 0.25 0.5 1 1.5 2 Miles

CLEAR CREEK ASSOCIATES

FIGURE 8
SIMULATED SULFATE PLUME 2083 (YEAR 60) FOR PREDICTIVE SIMULATION UNDER 2023 PUMPING RATES

March 2024 swc



Legend

Sierrita Sampled Wells

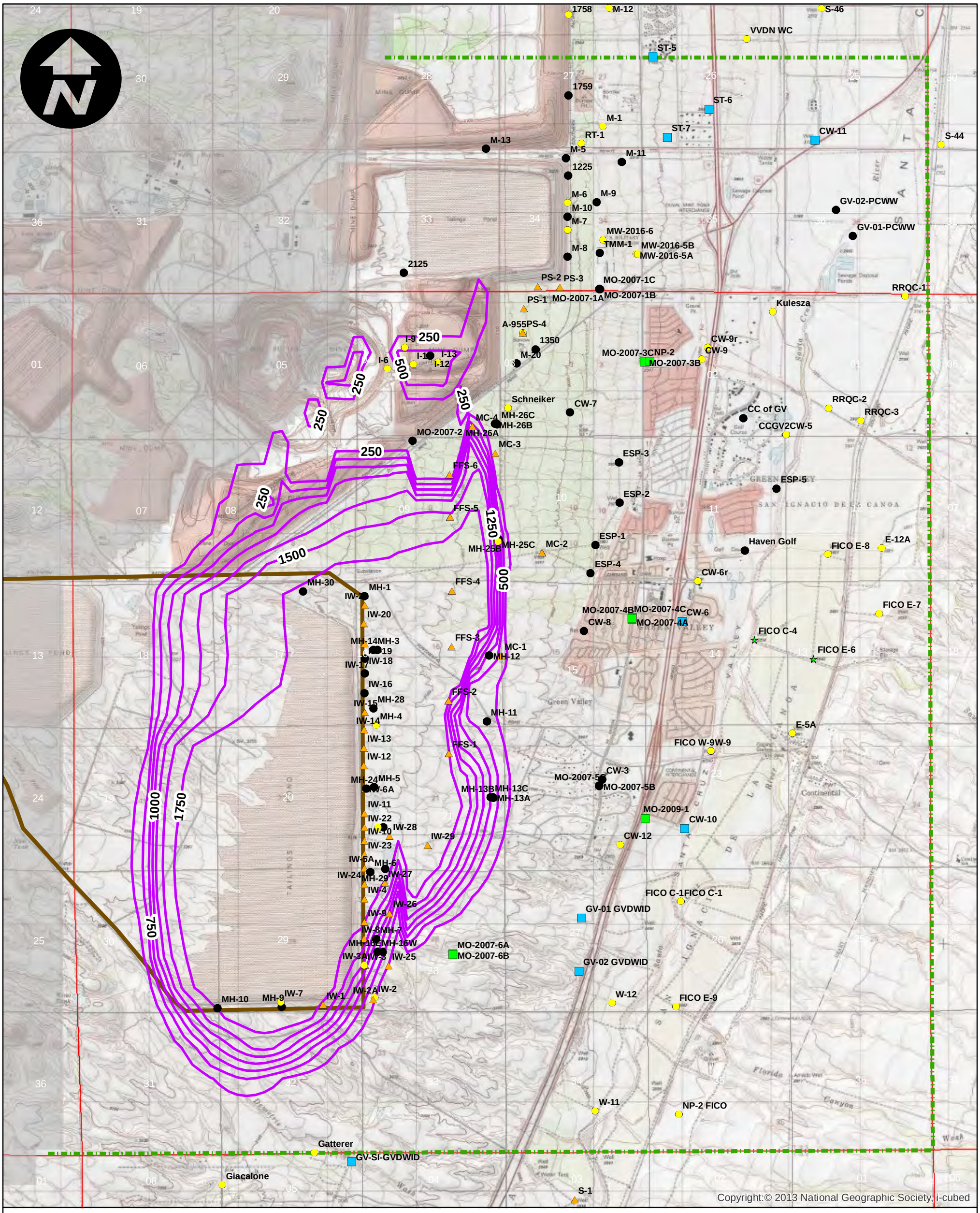
- AGRICULTURE
- DWS
- EXTRACTION
- MONITOR
- SENTINEL
- OTHER WELLS (NOT SAMPLED)
- 2103 (Year 80) Sulfate Contour (mg/L) at 2023 Pumping Rates
- Area of Emphasis
- PDSTI_shp
- Inactive Model Cells

0 0.25 0.5 1 1.5 2 Miles

CLEAR CREEK ASSOCIATES

FIGURE 9
SIMULATED SULFATE PLUME 2103 (YEAR 80) FOR PREDICTIVE SIMULATION UNDER 2023 PUMPING RATES

March 2024 swc



Legend

Sierrita Sampled Wells

- AGRICULTURE
- DWS
- EXTRACTION
- MONITOR
- SENTINEL
- OTHER WELLS (NOT SAMPLED)
- 2123 (Year 100) Sulfate Contour (mg/L) at 2023 Pumping Rates
- Area of Emphasis
- PDSTI_shp
- Inactive Model Cells

0 0.25 0.5 1 1.5 2 Miles

CLEAR CREEK ASSOCIATES

FIGURE 10
SIMULATED SULFATE PLUME 2123 (YEAR 100) FOR PREDICTIVE SIMULATION UNDER 2023 PUMPING RATES

March 2024 swc

TABLE 1. 1941-1983 Well Location and Pumping Rates for Transient Simulation (gpm), Source ADWR Model (Mason and Bota, 2006)

WellName	UTM83E	UTM83N	1941	1942	1943	1944	1945	1946	1947	1948	1949	1950	1951	1952	1953	1954	1955	1956	1957	1958	1959	1960	1961	1962	1963	1964	1965	1966	1967	1968	1969	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983
ANAMAX?	502246	3531582	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1080	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ANAMAX?	502246	3534801	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	410	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ANAMAX?	502327	3533996	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	230	370	80	80	430	1360	1910	1070	2280	1590	440	0	0	0	0	0	0	0	0
ANAMAX?	502448	3527559	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	150	220	30	0	1140	0	0	0	0	0	0	0	0	0	0	0	0	0
ANAMAX?	502568	3527559	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	150	160	20	570	860	0	0	0	0	0	0	0	0	0	0	0	0	0
ANAMAX?	503051	3530778	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	100	0	1890	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ANAMAX?	503051	3532387	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1860	0	0	0	0	0	0	500	1270	760	820	1090	800	1030	950	770
B01	500128	3518708	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	420	290	260	310	290	220	100	80	60	110	100	110	100	80
B01	503896	3533996	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	260	290	200	190	220	20	0	0	0	0	0	0	0	0
C02	499832	3528364	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	180	250	90	90	200	210	190	200	160	100	110	170	160	0	0	0	0	0	0	0	0	0	0	0	0	0
COT	507074	3538020	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	160	570	490	490	520	480	310	360	440	370	340	300	340	170	280
COT	507919	3538020	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	580	620	620	570	310	460	260	420	500	500	350	190
CYPRUS-PIMA	499780	3535697	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	360	340	380	360	240	240	140	370	210	0	280	0	0	0	0
CYPRUS-PIMA	499819	3536395	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	360	340	380	360	240	240	140	370	210	0	280	0	0	0	0
CYPRUS-PIMA	500424	3536410	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	370	340	380	360	240	240	140	370	210	0	280	0	0	0	0
CYPRUS-PIMA	500435	3537050	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	360	340	380	360	240	240	140	370	210	0	450	0	0	0	0
CYPRUS-PIMA	500597	3538020	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	900	730	680	760	720	480	50	550	740	430	0	400	0	0	0	0	0
CYPRUS-PIMA	501442	3538824	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1210	0	0	0	0	0	0
CYPRUS-PIMA	501482	3538020	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1210	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CYPRUS-PIMA	503252	3538020	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	350	0	0
CYPRUS-PIMA	503413	3539629	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	740	0	10
D1513	499792	3533996	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	280	280	280	280	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
D1613	499792	3539629	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	40	10	300	670	220	130	630	470	1180	1490	1050	700	980	980	270	270	200	280	390	330	0	0	0	0
D1613	502287	3538824	0	50	50	50	50	50	0	0	0	80	70	70	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1010	870	1160	0	140	0	0	0	0
D1613	503091	3538824	0	50	50	50	50	50	0	0	0	80	80	80	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	610	680	650	240	440	500	660	310	0	0	0	0	0	0
D1614	503976	3529973	0	0	0	0	0	0	0	0	0	0	0	0	0	0	10	10	10	0	0	0	0	0	0	0	0	0	90	120	140	70	50	70	50	0	0	0	0	0	0	0	0	0	0
D1614	505505	3538824	0	20	20	20	20	20	40	40	40	100	120	140	0	80	80	80	80	30	30	30	30	30	30	30	30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
D1614	506310	3538824	0	20	20	20	20	20	0	0	0	0	0	0	0	80	80	80	80	30	30	30	30	30	30	30	30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
D1713	498987	3532387	0	0	0	0	0	0	0	0	0	0	0	0	30	30	30	30	30	60	60	60	60	160	160	160	160	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
D1713	498987	3533192	0	0	0	0	0	0	0	0	0	0	0	0	30	30	30	30	30	60	60	60	60	160	160	160	160	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
D1713	498987	3536410	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
D1713	499792	3532387	0	0	0	0	0	0	0	0	0	0	0	0	30	30	30	30	30	60	60	60	60	160	160	160	160	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
D1713	499792	3533192	0	0	0	0	0	0	0	0	0	0	0	0	30	30	30	30	30	60	60	60	60	160	160	160	160	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
D1713	500637	3529168	30	30	30	30	30	30	80	80	80	80	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
D1713	500637	3529973	30	30	30	30	30	30	80	80	80	80	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
D1713	500637	3532387	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	60	100	100	100	100	230	230	230	230	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
D1713	500637	3533192	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	60	100	100	100	100	230	230	230	230	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
D1713	501401	3538020	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1210	2710	2200	2040	2270	2170	1440	1470	1650	2210	1260	0	1210	0	0	0	0
D1713	501442	3529168	30	30	30	30	30	30	80	80	80	80	0	490	600	600	600	600	600	420	420	420	470	250	70	60	70	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
D1713	501442	3529973	30	30	30	30	30	30	80	80	80	80	490	490	300	300	300	900	900	640	640	640	630	810	70	110	140	0	80	420	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
D1713	501442	3532387	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	70	100	100	100	100	230	230	230	230	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
D1713	501442	3533192	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	60	100	100	100	100	230	230	230	230	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
D1713	502206	3533996	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	230	120	0	0	50	350	180	420	240	220	70	1530	1270	860	1470	740	810	760	560
D1713	502287	3529168	0	0	0	0	0	0	0	0	20	60	70	180	180	180	180	180	150	150	150	150	220	300	230	120	210	0	1310	690	1160	0	0	0	0	0	0	0	0	0	0	0	0	0	0
D1713	502287	3529973	0	0	0	0	0	0	0	0	20	60	70	180	180	180	180	180	150	150	150	220	170	100	30	100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
D1713	502287	3532387	0	0	0	0	0	0	0	30	30	140	230	260	120	120	120	120	120	230	230	230	230	260	260	260	260	0	0	0	0	0	0	0	0	0	500	530	400	400	460	530	570	450	470
D1713	502287	3533192	0	0	260	260	0	260	30	30	30	140	230	260	120	120	120	120	120	230	230	230	230	260	260	260	260	370	940	840	430	480	450	220	60	140	500	0	0	0	0	0	0	0	0
D1713	502287	3535606	0	60	60	60	60	60	50	50	50	100	120	120	0	0	0	0	0	0	0	0	0	0	0	0	0	590	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
D1713	502287	3536410	0	60	60	60	60	60	50	50	50	100	120	120	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
D1713	502287	3537215	0	20	20	20	20	20	40	40	40	110	0	280	170	330	330	330	330	200	200	200	250	270	270	270	270	0	0	0	0	0	0	0	0	0	0	0	0	0	0	450	0	0	0
D1713	502287	3538020	0	20	20	20	20	20	40	40	40	110	0	0	0	170	170	170	170	100	100	100	130	140	140	140	140	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
D1713	503091	3529168	0	0	0	0	0	0	0	0	0	20	70	70	180	180	180	180	180	150	150	150	220	300	240	120	260	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
D1713	503091	3529973	0	0	0	0	0	0	0	0	0	20	60	70	180	180	180	180	180	150	300	300	380	300	230	120	210	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
D1713	503091	3533192	0	0	0	0	260	0	30	50	90	340	700	520	230	230	230	230	230	510	370	370	400	420	310	260	340	190	450	390	230	340	310	160	100	160	60	430	550	470	750	570	730	670	540
D1713	503091	3535606	0	60	60	60	60	60	50	50	50	100	120	120	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
D1713	503091	3536410	0	70	70	70	70	70	50	50	50	100	120	120	0	680	680	680	680	290	290	290	290	300	300	300	300	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
D1713	503091	3537215	0	20	20	20	20	20	40	40	40	110	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
D1713	503091	3538020	0	20	20	20	20	20	40	40	40	110	0	280	160	490	490	490	490	300	300	300	370	400	400	400	400	250	0	0	0	680	750	730	2460	2280	760	2780	800	0	670	1840	1430	950	20
D1714	503856	3529973	80	50	50	50	50	50	50	50	50	0	0	0	0	130	170	170	170	140	140	140	150	150	150	150	150	0	180	250	340	140	120	150	110	0	0	170	0	0	0	0	0	0	0
D1714	503896	3529168	80	50	50	50	50	50	50	50	50	0	0	110	40	40	40	40	40	40	40	40	40	40	40	40	40	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
D1714	503896	3530778	0	0	0	0	0	0	0	0	0	60	0	0	0	0	0	170	170	0	0	0	0	0	0	0	0	0	0	0	0	360	320	320	290	260	290	280	170	220	60	520	660	620	500
D1714	504137	3531582	0	0	0	0	0	0	0	0	0	360	0	0	160	330	370	330	330	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
D1714	504701	3529168	80	50	50	50	50	50	50	50	50	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
D1714	504701	3529973	80	50	50	50	50	50	50	50	50	0	100	110	40	40	40	40	40	40	40	40	40	40	40	40	40	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
D1714	504701	3530778	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	250	250	260	240	240	240	240	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
D1714	504701	3531582	0	0	0	0	0	0	0	0	0	60	0	380	330	490	490	490	490	450	360	270	320	300	190	1180	1340	110	490	1180	1600	1470	1160	830	1190	1380	1630	1310	700	770	770	850	1080	1010	810
D1714	505505	3530778	60	40	40	40	40	40	40	40	40	0	40	40	80	170	170	170	170	170	170	170	170	170	170	170	170	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
D1714	505505	3531582	60	40	40	40	40	40	40	40	40	0	40	40	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
D1714	505505	3534801	0	0	0	0	0	0	0	0	0	220	100	110	70	70	70	70	70	70	70	70	80	80	80	80	80	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
D1714	505505	3537215	100	70	70	70	70	70	70	70	70	0	100	120	190	190	190	190	190	550	510	470	360	360	300	160	230	310	360	320	290	170	60	50	70	50	330	460	180	200	220	270	350	330	260
D1714	505505	3538020	100	70	70	70	70	70	70	70	70	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
D1714	506310	3530778	60	40	40	40	40	40	40	40	40	0	40	40	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

TABLE 1. 1941-1983 Well Location and Pumping Rates for Transient Simulation (gpm), Source ADWR Model (Mason and Bota, 2006)

WellName	UTM83E	UTM83N	1941	1942	1943	1944	1945	1946	1947	1948	1949	1950	1951	1952	1953	1954	1955	1956	1957	1958	1959	1960	1961	1962	1963	1964	1965	1966	1967	1968	1969	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983
D1714	506310	3531582	60	40	40	40	40	40	40	40	40	0	40	40	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
D1714	506310	3533996	0	0	0	0	0	0	0	0	0	0	0	110	70	150	150	150	150	150	150	150	150	150	150	150	150	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
D1714	506310	3537215	100	70	70	70	70	70	70	70	70	0	0	120	190	190	190	190	190	130	130	130	120	70	70	70	70	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
D1714	506310	3538020	100	70	70	70	70	70	70	70	70	580	350	350	190	190	190	190	190	130	130	130	120	220	220	220	220	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
D1813	499832	3525950	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	290	1570	1110	1210	1280	1310	1320	1400	1860	2330	2610	2330	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
D1813	499832	3526754	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	480	2040	1440	1570	1660	1690	1710	1810	1860	1030	1160	1030	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
D1813	499873	3521926	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
D1813	500677	3524340	350	380	380	380	380	380	550	550	550	760	380	440	330	330	330	330	330	250	250	250	230	310	310	310	310	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
D1813	500677	3525145	350	380	380	380	380	380	550	550	550	760	0	890	1000	1000	1000	1000	1000	780	780	780	710	960	960	960	960	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
D1813	500677	3525950	0	0	0	0	0	0	0	0	0	850	450	520	520	520	520	520	520	190	190	190	170	220	220	340	340	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
D1813	500677	3526754	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	110	110	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
D1813	500677	3527559	0	40	40	40	40	40	60	60	60	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
D1813	500677	3528364	0	40	40	40	40	40	60	60	60	0	0	0	0	0	510	510	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
D1813	501482	3523536	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
D1813	501482	3525950	0	230	230	230	700	700	790	790	790	420	460	530	530	530	530	530	530	190	190	190	170	230	230	230	230	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
D1813	501482	3527559	0	40	40	40	40	40	60	60	60	1270	320	730	1030	1030	1030	1030	1030	290	290	290	270	580	580	580	580	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
D1813	501482	3528364	0	40	40	40	40	40	60	60	60	0	320	370	510	510	0	0	510	150	150	150	130	290	290	290	290	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
D1813	502287	3524340	0	0	0	0	310	310	320	320	320	320	480	550	740	740	740	740	740	390	390	390	360	320	480	480	480	520	470	450	640	700	0	0	0	0	0	0	0	0	0	0	0	0	0
D1813	502287	3525145	610	310	310	310	310	310	0	0	320	320	480	550	370	370	370	370	370	200	200	200	180	160	160	160	160	410	420	430	440	510	0	0	0	0	0	0	0	0	0	0	0	0	0
D1813	502287	3527559	620	420	420	420	420	420	250	250	250	570	0	460	250	250	250	250	250	360	360	360	310	730	400	310	340	810	10	520	0	50	0	0	0	0	0	0	0	0	0	0	0	0	0
D1813	502287	3528364	310	550	550	550	550	550	250	250	250	580	410	470	260	260	260	260	260	370	370	370	310	0	0	100	120	0	60	290	290	50	10	10	10	10	80	10	10	10	0	0	0	0	0
D1813	503091	3524340	590	300	300	300	300	300	640	640	320	320	480	560	370	370	370	370	370	200	200	200	180	160	160	160	160	80	50	50	60	60	0	0	0	0	0	0	0	0	0	0	0	0	0
D1813	503091	3527559	0	0	0	0	0	0	250	250	250	580	410	470	260	260	260	260	260	370	370	370	310	360	410	310	350	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
D1813	503091	3528364	0	0	0	0	0	0	0	0	0	0	0	470	260	260	260	260	260	370	370	370	310	360	220	210	230	0	140	290	290	50	0	0	0	0	0	0	0	0	0	0	0	0	0
D1814	503896	3527559	0	0	0	0	0	0	70	70	70	140	140	140	140	140	140	140	140	140	140	140	140	140	140	140	140	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
D1814	503896	3528364	0	0	0	0	0	0	70	70	70	140	140	140	140	140	140	140	140	140	140	140	140	140	140	140	140	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
D1814	504701	3527559	0	0	0	0	0	0	70	70	70	140	140	140	140	140	140	140	140	140	140	140	140	140	140	140	140	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
D1814	504701	3528364	0	0	0	0	0	0	70	70	70	140	140	140	140	140	140	140	140	140	140	140	140	140	140	140	140	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
D1814	506310	3526754	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	530	300	370	550	0	0	0	0	0	0	0	0	0	0	0	0	0	0
D1913	495849	3511466	40	50	50	50	50	50	50	50	50	110	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	840	460	860	1030	360	120	610	600	530	760	2390	960	870	700	1470	1390	220	310
D1913	495849	3512270	40	50	50	50	50	50	50	50	50	110	220	220	220	220	220	220	220	140	140	140	80	80	80	80	80	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
D1913	495849	3513075	0	60	60	60	60	60	60	60	60	120	360	360	360	360	360	360	360	320	320	320	170	130	130	0	130	270	500	360	680	270	1860	2060	1900	2000	2440	2790	0	0	140	0	0	0	0
D1913	495849	3513880	0	60	60	60	60	60	60	60	60	120	350	350	350	350	350	350	350	390	390	390	210	130	130	0	130	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2140	0	0	0
D1913	496614	3512270	40	60	60	60	60	60	60	60	60	110	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
D1913	496654	3511466	40	50	50	50	50	50	50	50	50	110	0	220	220	220	220	220	220	150	150	150	160	160	160	160	160	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
D1913	496654	3513075	0	60	60	60	60	60	60	60	60	120	360	360	360	360	360	360	360	240	240	240	130	130	130	0	130	0	0	0	0	0	0	0	0	0	0	0	2140	2510	2120	0	2030	650	1080
D1913	496654	3513880	0	60	60	60	60	60	60	60	60	120	360	360	360	360	360	360	360	240	240	240	130	130	130	0	130	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
D1913	497418	3514684	0	120	120	120	120	120	120	120	120	120	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
D1913	497459	3513075	0	0	0	0	0	0	0	0	0	0	0	140	230	230	230	230	230	0	0	0	0	70	70	70	70	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
D1913	497459	3513880	0	0	0	0	0	0	0	0	0	0	270	270	460	460	460	460	460	0	0	0	0	150	150	150	150	0	200	680	690	340	0	0	0	0	0	0	0	0	30	30	30	20	30
D1913	497459	3515489	0	120	120	120	120	120	120	120	120	120	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1490	2370	2640	2670	2700	3100	2810	2740	2680	2480	2800	2650	850	1400
D1913	497459	3516294	0	220	220	220	220	220	220	220	220	220	330	330	980	980	980	980	980	330	330	330	170	170	170	170	170	650	240	800	830	390	0	0	30	50	0	0	0	0	0	0	0	0	0
D1913	497459	3517903	0	0	0	0	0	0	0	0	0	0	0	0	80	80	80	80	80	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
D1913	497459	3518708	0	0	0	0	0	0	0	0	0	0	0	0	80	80	80	80	80	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
D1913	498263	3514684	0	120	120	120	120	120	120	120	120	120	970	970	1450	1450	1450	1450	1450	480	480	480	260	560	560	560	560	500	390	430	610	240	0	0	0	0	0	0	0	0	0	0	0	0	0
D1913	498263	3515489	0	120	120	120	120	120	120	120	120	120	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
D1913	498263	3517903	0	0	0	0	0	0	0	0	0	0	0	0	80	80	80	80	80	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
D1913	498263	3518708	0	0	0	0	0	0	0	0	0	0	0	0	80	80	80	80	80	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DUVAL	496091	3511466	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1000	1590	1170	1110	970	1870	0	1110	1080	1100	0	0	370	580
DUVAL	496091	3513075	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1170	0	0	0	0	0	0	0	0	0	0	0	0	0
DUVAL	496654	3514684	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1590	2130	1730	1950	2220	2250	1340	2300	2040	1870	1770	570	940
DUVAL	498223	3517098	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2030	0	0	0
DUVAL	499068	3517098	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1060	0	0	0	0	2090	0	0	0	0	0	0	0	0
DUVAL	499873	3517098	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1680	1760	1610	1710	0	2110	1990	1910	1980	0	1920	610	1020
E02	501643	3521926	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	50	30	20	10	40	30	20	40	20	20	30	40	40	0	0	0	0	0	0	0	0	0	0	0	0	0
E04	502488	3525145	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	800	640	350	440	460	410	280	340	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
E05A	502184	3524332	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	40	40	40	30	30	30	40	40	30	50	30	0	0	0	0	0	0	0	0	0	0	0	0	0
E06	502425	3525169	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	710	490	250	480	260	220	400	540	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
E14	503292	3524340	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	60	50	50	50	50	50	50	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
FICO	499068	3518708	0	190	190	180	180	180	180	170	170	110	230	190	370	370	370	370	370	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
FICO	499873	3518708	0	190	190	180	180	180	180	170	170	110	120	90	190	190	190	190	190	290	540	330	0	0	370	470	560	330	360	350	450	1000	1580	1650	1310	1710	1560	2870	2580	1950	1940	1780	1730	780	1000
FICO	499873	3520317	300	460	460	430	430	430	150	150	150	770	730	580	1050	1050	1050	1050	1050	2080	1080	960	740	730	670	430	620	260	450	360	640	540	0	0	0	0	0	0	0	0	0	0	0	0	0
FICO	499873	3521122	0	0	0	0	0	0	0	0	0	710	530	420	420	420	420	420	420	0	0	590	410	760	570	360	450	180	420	250	580	430	120	100	90	90	80	50	30	20	0	20	30	20	20
FICO	500114	3521122	0	0	0	0	0	0	0	0	0	0	130	100	100	100	100	100	100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
FICO	500677	3519512	0	0	0	0	0	0	0	0	0	0	360	560	560	560	560	560	560	130	250	220	350	310	270	350	350	210	240	190	310	270	200	180	250	250	230	70	280	200	70	150	170	160	130
FICO	500677	3520317	0	0	0	0	0	0	740	700	700	1140	350	280	280	280	280	280	280	660	460	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
FICO	500677	3521122	0	0	0	0	0	0	560	530	530	560	680	540	540	540	540	540	540	260	410	360	190	340	240	280	290	240	210	180	260	290	0	0	0	0	0	0	0	0	0	0	0	0	0
FICO	500677	3521926	1620	1770	1770	1680	1680	1680	560	530	530	560	680	540	540	540	540	540	540	1360	1070	860	560	660	430	460	580	130	520	420	550	530	0	0	0	0	0	0	0	0	0	0	0	0	0
FICO	500677	3522731	1550	840	840	800	800	800	0	0	0	890	620	490	500	500	500	500	500	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
FICO	500677	3523536	0	0	0	0	0	0	0	0	0	0	310	240	240	240	240	240	240	1820	1000	530	0	0	390	450	700	310	380	370	680	600	0	0	0	0	0	0	0	0	0	0	0	0	0
FICO	501482	3521926	0	0	0	0	0	0	570	540	540	570	680	540	540	540	540	540	540	900	700	420	230	400	370	300	460	240	360	250	500	380	0	0	0	0	0	0	0	0	0	0	0	0	0
FICO	502287	3523536	0	0	0	0	0	0	640	610	610	400	420	290	590	590	590	590	590	790	1390	1130	1140	980	850	780	890	920	1260	650	940	820	0	0	0	0	0	0	0	0	0	0	0	0	0

TABLE 1. 1941-1983 Well Location and Pumping Rates for Transient Simulation (gpm), Source ADWR Model (Mason and Bota, 2006)

WellName	UTM83E	UTM83N	1941	1942	1943	1944	1945	1946	1947	1948	1949	1950	1951	1952	1953	1954	1955	1956	1957	1958	1959	1960	1961	1962	1963	1964	1965	1966	1967	1968	1969	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983
FICO	502287	3525950	0	210	210	200	200	200	800	760	760	990	690	550	730	730	730	730	730	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
FICO	502287	3526754	0	210	210	200	200	200	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
FICO	502287	3530778	0	100	100	100	100	100	0	0	250	150	0	370	530	530	530	530	530	930	400	530	740	750	720	620	1050	860	520	660	1010	680	0	0	0	0	0	0	0	0	0	0	0	0	0
FICO	503091	3525145	0	0	0	0	580	580	610	580	580	380	700	560	750	750	750	750	750	570	660	560	480	740	660	550	880	460	510	310	910	640	0	0	0	0	0	0	0	0	0	0	0	0	0
FICO	503091	3525950	0	210	210	200	200	200	0	0	0	0	0	550	370	370	370	370	370	1200	550	420	330	400	360	170	240	170	200	230	270	190	0	0	0	0	0	0	0	0	0	0	0	0	0
FICO	503091	3526754	0	210	210	200	200	200	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
FICO	503091	3531582	0	100	100	100	100	100	260	250	250	150	130	90	350	350	350	350	350	780	470	370	450	530	550	480	590	760	1610	540	690	2330	0	0	0	0	0	0	0	0	0	0	0	0	0
FICO	503091	3533996	0	250	500	470	470	470	150	140	140	200	210	160	260	260	260	260	260	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
FICO	503091	3534801	0	0	0	0	0	0	0	0	0	200	210	330	520	520	520	520	520	460	220	370	500	580	610	480	550	220	770	530	450	380	240	320	270	310	940	1360	630	460	940	820	1040	970	780
FICO	503882	3531582	0	1520	1520	1440	1440	1440	1440	1370	1370	60	0	190	810	810	770	810	810	580	450	270	390	460	340	230	190	150	170	140	320	440	450	410	260	460	350	580	400	240	90	180	170	160	160
FICO	503896	3532387	610	330	330	320	310	320	320	300	300	390	440	350	330	330	330	330	330	1230	910	620	710	720	650	520	520	670	790	470	570	640	560	430	490	480	440	240	180	190	170	70	100	90	70
FICO	503896	3535606	250	140	140	130	130	130	0	0	0	0	210	170	170	170	170	170	170	330	220	200	320	290	330	230	270	110	210	210	330	250	260	210	250	260	130	510	390	260	310	440	560	520	420
FICO	503896	3536410	250	140	140	130	130	130	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	400	730	730	840	810	750	780	720	620	610	260	530	680	630	510
FICO	503896	3537215	530	260	260	250	250	250	250	230	230	0	230	160	300	300	300	300	300	360	100	170	270	390	430	400	380	360	420	310	300	220	0	0	0	0	0	0	0	0	0	0	0	0	0
FICO	503896	3538020	420	260	260	240	240	240	240	230	230	0	200	160	300	300	300	300	300	540	230	310	370	400	350	300	290	110	240	240	250	190	120	60	70	80	0	0	0	0	0	0	0	0	0
FICO	503896	3538824	0	770	770	740	740	740	1040	980	980	300	320	260	420	420	420	420	420	660	450	250	430	410	420	250	320	0	0	0	60	330	220	220	250	250	230	130	10	0	0	0	0	0	0
FICO	504701	3533192	600	330	330	310	310	310	310	300	300	450	450	350	330	330	330	330	330	520	380	270	240	250	240	170	190	220	270	160	190	250	200	220	300	150	80	0	0	0	0	0	0	0	0
FICO	504701	3533996	1020	550	550	530	530	530	580	550	550	1240	630	500	660	660	660	660	660	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	350	450	420	340
FICO	504701	3534801	1210	660	660	630	630	630	570	540	540	390	700	490	650	650	650	650	650	1200	1350	1110	1210	1360	940	820	910	1050	1010	860	1330	790	750	620	950	980	1060	1130	830	710	770	700	890	830	670
FICO	504701	3535606	250	140	140	130	130	130	520	490	490	320	210	170	170	170	170	170	170	570	640	380	390	360	370	340	380	380	480	320	410	370	360	310	360	300	20	600	470	540	460	380	490	460	370
FICO	504701	3536410	250	140	140	130	130	130	0	0	0	260	210	160	160	160	160	160	160	390	380	290	430	200	140	140	130	110	170	110	170	200	140	70	70	60	340	490	300	360	450	470	600	560	450
FICO	504701	3537215	530	360	360	340	340	340	340	320	320	0	540	420	540	540	540	540	540	340	310	230	220	190	240	290	330	320	470	310	430	350	110	0	0	0	0	0	0	0	0	0	0	0	0
FICO	504701	3538824	0	760	760	720	720	720	0	0	0	300	40	30	420	420	420	420	420	240	270	210	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
FICO	504942	3537215	0	160	160	150	150	150	150	140	140	0	80	60	70	70	70	70	70	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
FICO	505505	3535606	1830	0	0	0	0	0	570	1080	1080	650	390	270	270	270	270	270	270	910	400	390	310	280	200	320	540	490	420	240	310	390	210	110	150	100	100	0	0	0	0	0	0	0	0
FICO	505505	3536410	0	0	0	0	0	0	0	0	0	0	0	270	270	270	270	270	270	570	420	420	380	380	440	490	630	3450	660	530	740	830	450	530	420	490	400	180	360	260	220	210	270	250	200
S27	504057	3532387	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	50	40	20	20	30	20	20	20	30	20	20	20	20	10	10	10	10	0	0	0	0	0	0	0	0	0
S35	503373	3531582	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1130	790	570	740	920	740	650	710	460	1020	850	560	1060	0	0	0	0	0	0	0	0	0	0	0	0	0	0
S38	503373	3534801	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	140	80	150	170	230	170	120	190	70	380	160	40	80	50	70	70	80	490	0	0	0	0	0	0	0	0
S39	504902	3531582	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	460	370	420	310	40	130	0	480	210	280	120	130	160	110	90	0	0	0	0	0	0	0	0	0
S41	502528	3530778	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	30	20	20	290	190	190	0	270	10	0	0	0	0	0	0	0	0	0	0	0	0	0
S42	505666	3536410	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	10	10	160	10	10	20	20	10	10	10	10	10	10	10	0	0	0	0	0	0
W01	498987	3528364	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	20	10	20	20	20	10	10	20	10	20	10	10	20	0	0	0	0	0	0	0	0	0	0	0	0	0
W06	504097	3538824	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	370	480	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
W11	499792	3519564	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	260	540	830	570	310	560	640	690	540	570
W11	499969	3520085	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	90	2310	2130	1570	830	1460	1340	1450	1250	1150
TOTAL GPM			**15,290**	**16,370**	**16,880**	**16,300**	**17,650**	**17,660**	**18,420**	**18,400**	**18,690**	**24,580**	**23,860**	**27,830**	**31,500**	**33,630**	**33,680**	**34,450**	**34,700**	**36,800**	**31,990**	**31,870**	**29,320**	**33,500**	**31,100**	**28,890**	**34,590**	**24,320**	**31,100**	**30,600**	**36,660**	**44,020**	**28,430**	**28,420**	**28,750**	**28,060**	**33,390**	**39,950**	**29,610**	**24,330**	**28,020**	**25,890**	**27,810**	**17,290**	**16,690**
TOTAL Ac-Ft			**24,680**	**26,423**	**27,246**	**26,310**	**28,489**	**28,505**	**29,732**	**29,700**	**30,168**	**39,675**	**38,513**	**44,921**	**50,845**	**54,283**	**54,363**	**55,606**	**56,010**	**59,399**	**51,635**	**51,442**	**47,326**	**54,073**	**50,199**	**46,632**	**55,832**	**39,255**	**50,199**	**49,392**	**59,173**	**71,053**	**45,889**	**45,873**	**46,406**	**45,292**	**53,895**	**64,484**	**47,794**	**39,271**	**45,227**	**41,789**	**44,888**	**27,908**	**26,940**

Notes:

No pumping specified after 1983.

All pumping units in gallons per minute (gpm)

Ac-Ft = acre feet

GPM = gallons per minute

CLEAR CREEK ASSOCIATES

TABLE 2. Well Locations and Pumping Rates (acre-feet) for Transient Simulation from Various Sources

Well Name	Reg_ID	OWNER	Well Category	UTM East (ft)	UTM North (ft)	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Amado	623888	AMADO WATER CO	Other Wells	1,627,006.3	11,521,585.3	-	-	-	-	-	-	-	-	-	-	-	-	-	88.9	114.0	133.0	145.0	73.0	173.8	135.9	147.7	192.9	172.6	156.6	2.6	314.0	177.7
Kiewit	583888	CALMAT CO	Other Wells	1,654,164.6	11,583,311.7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SC23A	619897	CITY OF TUCSON	Other Wells	1,663,194.6	11,609,166.7	-	-	-	-	-	-	-	-	-	-	-	-	-	848.7	896.0	720.9	754.6	722.3	729.7	614.7	775.1	688.6	533.6	631.3	880.3	752.8	809.6
SC24A	619898	CITY OF TUCSON	Other Wells	1,666,509.3	11,609,182.1	-	-	-	-	-	-	-	-	-	-	-	-	-	878.1	530.9	540.4	851.4	671.8	717.0	705.2	698.9	437.9	-	466.6	648.1	623.2	643.9
11caa	801179	COMMUNITY WATER CO OF GREEN VALLEY	Other Wells	1,644,306.8	11,570,805.2	-	-	-	-	-	-	-	-	-	-	-	-	-	1.5	89.4	57.8	112.2	61.3	74.6	87.7	86.2	73.8	68.1	93.0	74.3	66.8	56.8
CW03	627483	COMMUNITY WATER CO OF GREEN VALLEY	Other Wells	1,640,625.7	11,561,033.9	220.8	220.8	220.8	220.8	220.8	220.8	220.8	220.8	220.8	220.8	341.9	283.3	252.8	234.1	228.4	7.8	0.7	1.0	0.7	0.3	1.0	1.0	-	-	-	-	-	-
CW06	627485	COMMUNITY WATER CO OF GREEN VALLEY	Other Wells	1,643,339.9	11,567,543.9	677.6	677.6	677.6	677.6	677.6	677.6	677.6	677.6	677.6	677.6	634.2	525.6	469.1	434.4	445.3	651.0	568.8	561.1	514.9	590.6	501.7	567.8	542.2	626.1	709.1	400.1	599.3
CW06r_future	999002	COMMUNITY WATER CO OF GREEN VALLEY	Other Wells	1,644,099.8	11,568,371.4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CW07	502546	COMMUNITY WATER CO OF GREEN VALLEY	Other Wells	1,639,300.3	11,575,089.3	-	-	-	-	-	-	-	-	-	-	-	824.8	736.2	681.8	459.1	657.9	-	-	-	-	-	-	-	-	-	-	-	-
CW08	543600	COMMUNITY WATER CO OF GREEN VALLEY	Other Wells	1,639,755.4	11,567,107.4	483.9	483.9	483.9	483.9	483.9	483.9	483.9	483.9	483.9	483.9	483.9	483.9	483.9	-	-	-	-	-	-	-	-	-	-	-	14.9	689.9	730.7
CW09	588121	COMMUNITY WATER CO OF GREEN VALLEY	Other Wells	1,643,933.6	11,577,211.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CW09r_future	999003	COMMUNITY WATER CO OF GREEN VALLEY	Other Wells	1,644,462.7	11,576,989.9	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CW10	207982	COMMUNITY WATER CO OF GREEN VALLEY	Other Wells	1,643,615.4	11,559,214.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CW11	608518	COMMUNITY WATER CO OF GREEN VALLEY	Other Wells	1,648,429.4	11,584,569.7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CW12_future	999001	COMMUNITY WATER CO OF GREEN VALLEY	Other Wells	1,641,233.8	11,558,637.6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
NP1	605899	COMMUNITY WATER CO OF GREEN VALLEY	Other Wells	1,643,709.4	11,578,755.3	131.1	131.1	131.1	131.1	131.1	131.1	131.1	131.1	131.1	131.1	123.2	102.2	90.6	84.1	51.5	52.1	56.2	66.7	62.5	38.7	-	-	-	-	-	-	-	-	-
NP2	605898	COMMUNITY WATER CO OF GREEN VALLEY	Other Wells	1,643,398.7	11,548,698.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	32.3	43.7	40.8	31.6	36.2	34.4	-	-	-	-	-	-	-	-
ContSD39	601769	CONTINENTAL SCHOOL	Other Wells	1,653,701.0	11,558,184.6	-	-	-	-	-	-	-	-	-	-	-	-	-	36.2	15.3	-	-	18.4	13.9	11.3	11.0	11.3	-	-	-	-	-	-
CSD39	638581	CONTINENTAL SCHOOL	Other Wells	1,653,701.2	11,558,184.5	-	-	-	-	-	-	-	-	-	-	-	-	-	0.3	-	14.9	13.9	-	-	-	-	-	13.4	11.3	11.6	14.5	13.9
CCofGV	501760	COUNTRY CLUB OF GREEN VALLEY	Other Wells	1,645,781.8	11,574,374.5	781.2	781.2	781.2	781.2	781.2	781.2	781.2	781.2	781.2	781.2	731.2	606.1	540.9	501.0	452.0	604.7	542.5	546.5	627.4	522.7	638.9	611.4	587.7	625.6	710.5	730.7	657.6
CW05	627484	COUNTRY CLUB OF GREEN VALLEY	Other Wells	1,644,465.8	11,556,724.7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Stoeckel	801401	DORIS L & GEORGE M STOECKEL	Other Wells	1,627,487.0	11,543,338.3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.1	-	-	-	2.1	-	2.1	2.1	1.1	-	2.1	2.1	2.1
Olivas	801154	E OLIVAS	Other Wells	1,651,558.7	11,585,320.5	-	-	-	-	-	-	-	-	-	-	-	-	-	2.1	4.5	16.0	16.0	8.9	5.3	10.0	9.2	7.1	4.5	3.2	0.3	-	1.8
201058	201058	FICO	Other Wells	1,663,315.7	11,587,933.4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C1	624008	FICO	Other Wells	1,651,417.4	11,579,111.0	81.0	81.0	81.0	81.0	81.0	81.0	81.0	81.0	81.0	81.0	76.0	63.1	56.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C4	624010	FICO	Other Wells	1,646,189.5	11,566,197.1	2,148.7	2,148.7	2,148.7	2,148.7	2,148.7	2,148.7	2,148.7	2,148.7	2,148.7	2,148.7	2,011.4	1,666.6	1,487.9	1,377.5	1,327.3	1,870.8	1,503.1	1,145.2	1,263.4	1,220.1	1,487.1	1,469.0	1,375.2	1,344.1	1,882.4	1,318.4	1,591.8
C4_REPLACEMENT	231302	FICO	Other Wells	1,646,189.5	11,566,197.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
E03A	624011	FICO	Other Wells	1,647,626.5	11,561,438.3	1,046.1	1,046.1	1,046.1	1,046.1	1,046.1	1,046.1	1,046.1	1,046.1	1,046.1	1,046.1	979.4	811.7	724.7	670.8	652.8	629.7	508.8	554.6	593.7	613.7	714.7	767.7	724.4	783.7	828.0	621.4	622.4
E05A	624012	FICO	Other Wells	1,647,580.6	11,562,747.7	841.3	841.3	841.3	841.3	841.3	841.3	841.3	841.3	841.3	841.3	786.9	652.3	582.1	539.1	455.7	201.8	166.9	336.7	148.8	92.0	95.9	95.9	94.1	105.1	130.7	156.9	169.6
E06	624013	FICO	Other Wells	1,648,372.7	11,565,492.3	894.2	894.2	894.2	894.2	894.2	894.2	894.2	894.2	894.2	894.2	836.9	693.6	619.0	573.2	566.7	767.7	492.8	416.6	447.8	470.8	543.6	506.7	480.5	456.6	438.9	451.3	503.6
E07	624014	FICO	Other Wells	1,650,541.7	11,566,753.7	-	-	-	-	-	-	-	-	-	-	-	-	-	2.9	1.8	-	2.1	1.0	1.0	1.0	1.0	7.1	10.0	13.9	12.8	8.9	10.7
E08	624015	FICO	Other Wells	1,648,204.4	11,565,482.0	335.9	335.9	335.9	335.9	335.9	335.9	335.9	335.9	335.9	335.9	314.3	260.7	232.3	215.5	277.3	377.9	392.7	315.7	235.0	310.7	278.0	380.9	347.7	370.8	354.0	317.0	407.7
E09	624016	FICO	Other Wells	1,643,245.9	11,552,544.5	442.4	442.4	442.4	442.4	442.4	442.4	442.4	442.4	442.4	442.4	413.4	343.3	306.4	283.4	345.9	247.1	110.1	261.0	262.0	251.0	345.1	276.2	268.1	380.0	267.5	299.7	346.6
E10A	86931	FICO	Other Wells	1,648,461.9	11,561,642.2	68.6	68.6	68.6	68.6	68.6	68.6	68.6	68.6	68.6	68.6	64.6	53.6	47.6	43.6	43.6	61.3	45.4	-	-	-	-	-	-	-	-	-	-	-
E11A	624018	FICO	Other Wells	1,647,278.4	11,574,195.7	755.2	755.2	755.2	755.2	755.2	755.2	755.2	755.2	755.2	755.2	707.3	585.6	522.7	484.1	523.8	307.8	161.9	395.6	477.6	474.7	490.7	601.6	473.7	546.5	480.4	397.4	550.1
E12	624019	FICO	Other Wells	1,642,500.9	11,549,670.9	790.8	790.8	790.8	790.8	790.8	790.8	790.8	790.8	790.8	790.8	739.8	613.2	547.5	506.7	549.6	721.5	524.8	325.9	320.7	295.9	306.8	373.8	355.8	423.7	390.9	368.2	401.3
E13	624020	FICO	Other Wells	1,650,658.9	11,569,541.8	1,823.8	1,823.8	1,823.8	1,823.8	1,823.8	1,823.8	1,823.8	1,823.8	1,823.8	1,823.8	1,706.6	1,414.8	1,262.7	1,168.9	1,422.5	1,561.8	982.5	852.6	1,000.3	1,125.4	1,152.3	1,235.1	1,002.4	1,169.3	1,129.2	1,124.9	1,239.3
E15	624022	FICO	Other Wells	1,641,509.9	11,544,577.7	-	-	-	-	635.0	-	-	-	-	-	-	-	-	660.5	514.1	629.2	631.0	445.0	421.1	477.0	466.2	493.0	463.1	709.1	764.4	428.6	486.5
E16	624023	FICO	Other Wells	1,651,334.9	11,567,321.9	1,131.0	1,131.0	1,131.0	1,131.0	1,131.0	1,131.0	1,131.0	1,131.0	1,131.0	1,131.0	1,058.5	877.4	783.3	725.1	924.2	1,007.4	651.6	636.6	703.4	748.5	760.6	736.5	651.6	663.4	703.8	570.3	694.2
FICO_229562	229562	FICO	Other Wells	1,652,736.1	11,588,913.8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
FICO_233205	233205	FICO	Other Wells	1,648,434.2	11,565,477.3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
FICO543409	543409	FICO	Other Wells	1,641,244.1	11,552,841.7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	417.1	794.0	565.1
FICO623990	623990	FICO	Other Wells	1,659,875.8	11,603,195.2	-	-	-	-	-	-	-	-	-	-	-	-	-	200.6	-	-	-	-	-	-	-	-	-	-	-	-	-
FICO624008	624008	FICO	Other Wells	1,643,186.4	11,556,119.3	-	-	-	-	-	-	-	-	-	-	-	-	-	52.0	97.8	108.0	145.9	71.0	-	-	-	-	-	-	-	-	-
FICO624017	624017	FICO	Other Wells	1,648,401.3	11,561,450.6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.0	-	-	-	-	-	631.6	-	-	-
FICO624042	624042	FICO	Other Wells	1,649,571.0	11,586,670.3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.0	-	-	-	-	-	-	-	-
NP2	624028	FICO	Other Wells	1,643,465.6	11,547,026.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.0	2.1	1.0
S-12	623981	FICO	Other Wells	1,657,421.0	11,599,910.7	-	-	-	-	-	-	-	-	-	-	-	-	-	1,065.6	1,299.0	1,437.0	1,139.1	1,027.2	1,164.1	1,148.1	1,067.1	1,107.1	933.9	999.9	952.3	1,092.3	954.1
S-19	221271	FICO	Other Wells	1,656,299.3	11,587,980.7	-	-	-	-	-	-	-	-	-	-	-	-	-	1,035.5	1,736.5	1,796.0	1,285.2	1,059.2	1,414.0	1,366.0	1,430.3	1,399.1	1,222.2	1,378.9	1,062.7	1,397.0	1,358.0
S-22	623983	FICO	Other Wells	1,652,423.6	11,586,659.5	-	-	-	-	-	-	-	-	-	-	-	-	-	696.7	699.2	738.9	497.2	446.0	440.0	436.0	566.1	519.9	808.2	651.0	566.1	486.5	464.4
S-25	623985	FICO	Other Wells	1,650,381.0	11,591,997.7	-	-	-	-	-	-	-	-	-	-	-	-	-	836.6	1,315.3	1,462.2	1,306.0	1,420.1	1,408.0	1,022.1	1,266.0	1,420.1	329.9	1,318.9	1,302.9	1,216.9	1,255.3
S-29	623986	FICO	Other Wells	1,652,903.7	11,599,946.5	-	-	-	-	-	-	-	-	-	-	-	-	-	497.2	607.2	582.1	482.9	477.0	380.0	411.1	559.9	501.0	443.1	359.0	375.6	323.5	390.0
S-31	623987	FICO	Other Wells	1,660,084.1	11,605,869.7	-	-	-	-	-	-	-	-	-	-	-	-	-	504.3	576.4	490.0	448.9	413.1	452.0	388.0	550.1	546.1	497.2	492.1	466.2	427.3	359.6
S-33	623988	FICO	Other Wells	1,653,078.5	11,588,646.0	941.4	941.4	941.4	941.4	941.4	941.4	941.4	941.4	941.4	941.4	1,016.6	841.9	751.7	696.0	698.9	738.6	496.5	445.7	439.7	435.7	565.6	519.6	807.5	650.5	565.8	486.2	464.1
S-40	623991	FICO	Other Wells	1,656,834.7	11,597,256.5	-	-	-	-	-	-	-	-	-	-	-	-	-	1,365.7	1,560.0	1,612.2	1,378.1	1,223.0	1,363.0	1,101.2	1,229.0	1,447.1	1,311.0	1,357.1	1,270.6	1,319.5	1,311.5
S-43	623993	FICO	Other Wells	1,652,927.3	11,604,531.5	-	-	-	-	-	-	-	-	-	-	-	-	-	850.8	833.9	849.0	574.1	839.0	769.9	738.9	816.1	597.2	811.1	743.1	947.3	869.4	884.2
S-44	225635	FICO	Other Wells	1,653,075.9	11,584,001.7	-	-	-	-	566.7	530.7	317.5	402.4	465.0	-	-	-	-	1,340.2	1,713.7	1,829.9	1,439.1	1,204.9	1,321.0	1,510.2	1,576.0	1,423.2	1,285.2	1,399.1	1,443.5	1,514.5	1,581.7
S-45	623995	FICO	Other Wells	1,656,277.0	11,590,631.2	-	-	-	313.8	2,089.5	2,454.7	1,511.6	1,627.4	1,515.0	1,044.3	1,335.0	1,239.8	998.8	2,009.3	2,037.2	2,461.2	1,855.1	1,533.2	1,737.1	1,703.1	1,838.0	1,840.9	1,636.2	1,713.1	1,594.4	1,665.1	1,345.5
S-46	623996	FICO	Other Wells	1,649,099.2	11,588,686.7	-	-	-	-	-	-	-	-	-	-	-	-	-	571.4	819.2	1,234.0	1,295.0	567.0	1,242.1	924.2	1,307.9	1,366.0	860.0	1,160.9	1,121.8	1,246.7	977.2
S-48	623997	FICO	Other Wells	1,656,778.3	11,604,528.8	-	-	-	5.7	344.3	-	-	-	-	-	-	-	-	882.1	854.4	708.1	727.2	666.1	554.0	651.0	714.9	716.2	656.1	698.9	683.9	654.5	638.9
S-49	623998	FICO	Other Wells	1,656,142.8	11,607,861.8	-	-	-	127.2	787.9	616.4	396.3	463.9	860.2	655.2	837.6	778.0	626.4	657.3	409.0	343.0	551.9	530.1	529.1	559.0	578.0	599.0	537.2	411.9	395.1	408.1	395.3
S-50	623999	FICO	Other Wells	1,656,791.1	11,609,852.6	-	-	-	-	842.1	414.2	415.2	278.9	623.7	409.8	523.5	486.5	391.8	418.2	638.9	569.1	247.9	200.0	-	-	-	-	-	132.8	142.0	-	-
S-51	624000	FICO	Other Wells	1,650,315.7	11,599,292.3	-	-	-	-	-	-	-	-	-	-	-	-	-	547.8	780.1	1,276.9	1,404.1	1,268.1	1,330.2	1,144.1	1,359.2	1,329.1	1,054.0	1,615.1	1,370.7	1,276.0	1,322.4
S-52	624001	FICO	Other Wells	1,656,132.3	11,599,920.9	-	-	-	4.5	689.6	557.8	540.6	467.5	626.4	718.4	918.0	852.9	686.8	571.7	633.5	621.1	426.1	477.9	579.1	1,408.0	1,357.1	1,396.2	1,062.9	567.8	571.1	555.7	576.4
S-52A	534922	FICO	Other Wells	1,656,184.5	11,597,262.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	58.3	89.1	72.5	72.5	82.3
S-53	624002	FICO	Other Wells	1,651,745.2	11,589,986.9	-	-	-	-	1,824.1	91.8	55.2	59.2	78.5	58.1	74.1	68.9	55.5	1,912.6	2,045.4	2,167.1	1,777.0	1,761.0	1,774.9	1,736.1	1,710.2	1,895.1	1,550.0	1,589.1	1,470.1	1,374.9	1,275.2
S-54	624003	FICO	Other Wells	1,650,483.8	11,584,778.7	2,157.6	2,157.6	2,157.6	2,157.6	2,157.6	2,157.6	2,157.6	2,157.6	2,157.6	2,157.6	2,019.4	1,673.2	1,493.5	1,383.1	1,504.5	1,066.3	1,155.2	1,167.2	898.4	101.9	-	854.4	1,182.2	1,565.2	1,737.1	1,583.1	1,374.9
S-55	624004	FICO	Other Wells	1,647,180.5	11,587,436.8	1,077.1	1,077.1	1,077.1	1,077.1	1,077.1	1,077.1	1,077.1	1,077.1	1,077.1	1,077.1	1,008.5	835.5	745.7	690.7	735.1	1,332.3	1,635.9	1,413.0	1,699.8	1,335.2	1,693.9	1,789.7	1,593.8	1,744.7	1,834.1	1,669.3	1,523.1
S-56	624005	FICO	Other Wells	1,657,518.1	11,595,918.6	-	-	-	-	-	-	-	-	-	-	-	-	-	569.9	508.1	615.0	263.1	443.1	349.0	379.2	421.9	421.9	460.2	498.1	451.6	382.9	343.8
W11	624025	FICO	Other Wells	1,640,315.4	11,548,814.1	21.0	21.0	21.0	21.0	21.0	21.0	21.0	21.0	21.0	21.0	19.5	16.0	14.5	13.4	299.4	1,113.3	1,200.3	809.3	884.5	797.5	845.5	784.5	885.3	1,237.2	872.8	646.3	786.9
W12	624026	FICO	Other Wells	1,640,928.5	11,552,797.4	1,485.5	1,485.5	1,485.5	1,485.5	1,485.5	1,485.5	1,485.5	1,485.5	1,485.5	1,485.5	1,390.9	1,152.6	1,029.0	952.3	968.8	1,200.3	1,012.4	879.5	986.4	1,038.4	1,223.3	1,188.2	1,204.1	-	966.5	905.8	1,114.2
W9	624024	FICO	Other Wells	1,644,587.0	11,562,091.1	1,381.4	1,381.4	1,381.4	1,381.4	1,381.4	1,381.4	1,381.4	1,381.4	1,381.4	1,381.4	1,293.2	1,071.6	956.4	885.3	993.7	988.3	900.5	663.4	980.4	990.4	1,063.2	974.4	755.6	1,104.4	1,116.2	895.5	1,158.6
608517	608517	FREEPORT-MCMORAN SIERRITA INC	Other Wells	1,631,787.8	11,578,192.7	-	-	-	-	-	-	-	-	-	-	-	-	-	213.1	47.5	-	-	-	-	-	-	289.1	165.9	-	-	-	-	-
ESP1	623102	FREEPORT-MCMORAN SIERRITA INC	Esperanza Wells	1,640,316.9	11,569,691.0	1,334.9	1,334.9	1,334.9	1,334.9	1,334.9	1,064.2	876.0	165.5	446.8	696.0	428.9	53.6	-	-	-	-	-	-	6.0	12.1	18.9	243.9	21.3	32.0	0.7
ESP2	623103	FREEPORT-MCMORAN SIERRITA INC	Esperanza Wells	1,641,209.2	11,571,252.6	667.3	667.3	667.3	667.3	667.3	532.0	437.9	82.6	223.4	348.0	214.5	26.6	-	-	-	-	-	5.0	61.8	13.1	114.0	278.8	11.3	148.8	278.0	36.2	1.8	-
ESP3	623104	FREEPORT-MCMORAN SIERRITA INC	Esperanza Wells	1,641,184.4	11,572,737.4	1,334.9	1,334.9	1,334.9	1,334.9	1,334.9	1,064.2	876.0	165.5	446.8	696.0	428.9	53.6	-	-	-	-	69.9	1.0	16.0	13.9	90.9	76.0	-	-	-	-	-	-
ESP4	623105	FREEPORT-MCMORAN SIERRITA INC	Esperanza Wells	1,640,143.5	11,568,654.5	1,334.9	1,334.9	1,334.9	1,334.9	1,334.9	1,064.2	876.0	165.5	446.8	696.0	428.9	53.6	-	-	-	-	2.1	10.0	491.8	114.8	129.9	702.5	1,262.7	339.8	613.7	1.8	22.3	1.8
FFS-1	221662	FREEPORT-MCMORAN SIERRITA INC	Mitigation Order Wells	1,634,928.7	11,561,905.6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
FFS-2	221663	FREEPORT-MCMORAN SIERRITA INC	Mitigation Order Wells	1,634,891.7	11,563,389.3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
FFS-3	221664	FREEPORT-MCMORAN SIERRITA INC	Mitigation Order Wells	1,635,025.6	11,565,905.7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
FFS-4	221665	FREEPORT-MCMORAN SIERRITA INC	Mitigation Order Wells	1,635,016.6	11,568,003.9	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
FFS-5	221666	FREEPORT-MCMORAN SIERRITA INC	Mitigation Order Wells	1,634,989.1	11,570,491.3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
FFS-6	221667	FREEPORT-MCMORAN SIERRITA INC	Mitigation Order Wells	1,634,936.7	11,572,440.4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
I-07	608528	FREEPORT-MCMORAN SIERRITA INC	Twin Buttes Wells	1,633,221.6	11,576,519.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1,002.9	6.5	-	-	951.4	1,365.1	1,075.3	1,194.3	544.8	302.8	1,082.8	1,076.6	834.5
I-09	608526	FREEPORT-MCMORAN SIERRITA INC	Twin Buttes Wells	1,633,274.0	11,576,986.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	89.9	175.8	-	-	-	81.0	234.7	117.5	18.1
I-10	608525	FREEPORT-MCMORAN SIERRITA INC	Twin Buttes Wells	1,633,191.6	11,576,318.3	-	-	-	-	1,723.2	1,723.2	1,723.2	1,723.2	1,723.2	1,824.4	1,824.4	1,824.4	1,824.4	691.3	542.7	3.6	-	-	45.8	1,106.2	1,402.0	1,210.3	1,743.9	1,315.0	1,294.7	1,482.6	278.8
I-11	608524	FREEPORT-MCMORAN SIERRITA INC	Twin Buttes Wells	1,633,590.3	11,576,372.8	-	-	-	-	1,723.2	1,723.2	1,723.2	1,723.2	1,723.2	1,824.4	1,824.4	1,824.4	1,824.4	11.6	-	-	-	-	-	-	-	-	-	-	-	-	-	-
I-12	608523	FREEPORT-MCMORAN SIERRITA INC	Twin Buttes Wells	1,634,215.6	11,576,683.5	-	-	-	-	1,723.2	1,723.2	1,723.2	1,723.2	1,723.2	1,824.4	1,824.4	1,824.4	1,824.4	1,492.9	1,395.9	17.0	58.6	204.8	963.5	1,622.8	1,576.0	1,548.9	1,527.0	1,397.0	1,361.8	-	1,223.3
I-13	87309	FREEPORT-MCMORAN SIERRITA INC	Twin Buttes Wells	1,634,496.2	11,576,436.1	-	-	-	-	1,723.2	1,723.2	1,723.2	1,723.2	1,723.2	1,824.4	1,824.4	1,824.4	1,824.4	2,093.0	1,568.4	247.1	1.5	153.8	1,428.2	1,317.1	1,866.7	1,711.9	1,415.1	1,006.4	-	-	-

CLEAR CREEK ASSOCIATES

TABLE 2. Well Locations and Pumping Rates (acre-feet) for Transient Simulation from Various Sources

Well Name	Reg_ID	OWNER	Well Category	UTM East (ft)	UTM North (ft)	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
IW-01	623129	FREEPORT-MCMORAN SIERRITA INC	Interceptor Wells	1,630,265.1	11,552,726.2	-	-	-	-	-	-	-	-	1,107.1	1,518.1	685.7	783.3	974.4	1,093.4	1,238.2	1,037.2	1,161.2	1,044.3	711.3	541.5	-	-	-	408.7	28.7	-	4.5
IW-02	623130	FREEPORT-MCMORAN SIERRITA INC	Interceptor Wells	1,632,165.1	11,552,995.9	-	-	-	-	-	-	-	-	1,001.4	1,663.0	1,176.5	828.4	826.8	1,145.2	1,241.1	756.4	1,253.2	844.5	1,016.2	498.6	1,311.3	1,373.5	1,085.5	703.4	401.9	537.7	157.4
IW-02A	216464	FREEPORT-MCMORAN SIERRITA INC	Interceptor Wells	1,632,113.3	11,552,923.6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
IW-03	623131	FREEPORT-MCMORAN SIERRITA INC	Interceptor Wells	1,631,774.7	11,554,177.0	-	-	-	-	-	-	-	-	848.4	1,692.7	1,115.0	463.7	1,004.1	1,062.4	1,177.2	822.4	1,291.1	1,108.3	1,052.2	707.6	1,158.3	1,074.8	1,297.1	865.7	976.5	137.4	418.4
IW-03A	201732	FREEPORT-MCMORAN SIERRITA INC	Interceptor Wells	1,631,775.4	11,554,185.7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
IW-04	623132	FREEPORT-MCMORAN SIERRITA INC	Interceptor Wells	1,631,793.4	11,556,624.1	-	-	-	-	-	-	-	-	696.0	1,472.6	1,403.8	782.7	871.8	1,008.2	1,179.3	792.5	484.7	636.6	645.7	617.6	328.8	1,069.2	1,040.5	1,109.4	777.7	1,025.6	934.3
IW-05	623133	FREEPORT-MCMORAN SIERRITA INC	Interceptor Wells	1,631,786.3	11,557,769.1	-	-	-	-	-	-	-	-	-	248.3	789.8	568.2	427.3	400.6	730.7	474.7	1,327.3	1,112.5	1,252.1	1,133.4	1,315.0	845.2	1,616.9	1,928.9	1,764.1	1,664.8	823.2
IW-05A	219131	FREEPORT-MCMORAN SIERRITA INC	Interceptor Wells	1,632,299.6	11,557,582.8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
IW-06A	545565	FREEPORT-MCMORAN SIERRITA INC	Interceptor Wells	1,631,824.6	11,560,701.8	-	-	-	-	-	-	-	-	-	-	604.7	334.8	359.0	-	-	-	-	-	-	-	-	-	-	-	-	73.1	127.5
IW-07	623135	FREEPORT-MCMORAN SIERRITA INC	Interceptor Wells	1,628,697.2	11,552,831.9	-	-	-	-	-	-	-	-	-	-	88.0	67.5	79.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-
IW-08	508236	FREEPORT-MCMORAN SIERRITA INC	Interceptor Wells	1,631,787.1	11,555,776.9	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	52.1	443.6	559.6	548.6	527.7	695.4	737.2	758.5	479.7	339.1	174.3	-
IW-09	508238	FREEPORT-MCMORAN SIERRITA INC	Interceptor Wells	1,631,782.1	11,555,163.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1,052.2	693.6	1,148.1	1,240.3	679.4	1,346.2	1,264.5	846.3	1,137.3	936.0	801.9	446.3
IW-10	508237	FREEPORT-MCMORAN SIERRITA INC	Interceptor Wells	1,631,789.0	11,558,777.4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	585.6	417.9	534.8	713.4	486.8	920.4	478.6	959.4	1,259.2	1,175.1	330.6	476.8
IW-11	508235	FREEPORT-MCMORAN SIERRITA INC	Interceptor Wells	1,631,791.1	11,559,787.3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1,128.4	1,300.3	712.6	1,158.3	805.4	760.6	934.6	752.5	739.6	1,019.8	105.4	588.8
IW-12	545555	FREEPORT-MCMORAN SIERRITA INC	Interceptor Wells	1,631,771.1	11,561,558.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	73.1	322.3
IW-13	545556	FREEPORT-MCMORAN SIERRITA INC	Interceptor Wells	1,631,767.5	11,562,204.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	26.6	94.4
IW-14	545557	FREEPORT-MCMORAN SIERRITA INC	Interceptor Wells	1,631,778.4	11,562,881.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	47.6	303.3
IW-15	545558	FREEPORT-MCMORAN SIERRITA INC	Interceptor Wells	1,631,797.2	11,563,518.4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	24.5	180.5
IW-16	545559	FREEPORT-MCMORAN SIERRITA INC	Interceptor Wells	1,631,789.9	11,564,225.8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	79.6
IW-17	545560	FREEPORT-MCMORAN SIERRITA INC	Interceptor Wells	1,631,800.0	11,564,947.6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	53.3	330.3
IW-18	545561	FREEPORT-MCMORAN SIERRITA INC	Interceptor Wells	1,631,801.1	11,565,495.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	34.1	206.3
IW-19	545562	FREEPORT-MCMORAN SIERRITA INC	Interceptor Wells	1,631,799.7	11,566,064.7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	82.8	305.4
IW-20	545563	FREEPORT-MCMORAN SIERRITA INC	Interceptor Wells	1,631,770.6	11,566,804.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	39.7	273.1
IW-21	545564	FREEPORT-MCMORAN SIERRITA INC	Interceptor Wells	1,631,802.9	11,567,475.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	47.6	350.9
IW-22	200554	FREEPORT-MCMORAN SIERRITA INC	Interceptor Wells	1,631,787.8	11,559,262.3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
IW-23	200555	FREEPORT-MCMORAN SIERRITA INC	Interceptor Wells	1,631,785.3	11,558,280.7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
IW-24	200556	FREEPORT-MCMORAN SIERRITA INC	Interceptor Wells	1,631,793.3	11,557,174.4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
IW-25	219596	FREEPORT-MCMORAN SIERRITA INC	Interceptor Wells	1,632,644.1	11,554,193.4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
IW-26	219143	FREEPORT-MCMORAN SIERRITA INC	Interceptor Wells	1,632,713.0	11,556,102.9	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
IW-27	219136	FREEPORT-MCMORAN SIERRITA INC	Interceptor Wells	1,632,552.2	11,557,254.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
IW-28	219137	FREEPORT-MCMORAN SIERRITA INC	Interceptor Wells	1,632,709.7	11,558,963.8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
IW-29	222865	FREEPORT-MCMORAN SIERRITA INC	Interceptor Wells	1,634,087.6	11,558,638.9	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MC-1	221660	FREEPORT-MCMORAN SIERRITA INC	Mitigation Order Wells	1,636,850.4	11,565,610.9	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MC-2	221761	FREEPORT-MCMORAN SIERRITA INC	Mitigation Order Wells	1,638,346.6	11,569,418.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MC-3	221661	FREEPORT-MCMORAN SIERRITA INC	Mitigation Order Wells	1,636,671.1	11,571,211.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MC-4	220842	FREEPORT-MCMORAN SIERRITA INC	Mitigation Order Wells	1,635,908.1	11,574,036.7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MC-5	238240	FREEPORT-MCMORAN SIERRITA INC	Mitigation Order Wells	1,635,516.9	11,572,450.3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MC-6	238394	FREEPORT-MCMORAN SIERRITA INC	Mitigation Order Wells	1,635,969.6	11,569,590.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
PS-1	220861	FREEPORT-MCMORAN SIERRITA INC	Mitigation Order Wells	1,637,621.2	11,578,481.4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
PS-2	220862	FREEPORT-MCMORAN SIERRITA INC	Mitigation Order Wells	1,638,178.9	11,579,232.7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
PS-3	220863	FREEPORT-MCMORAN SIERRITA INC	Mitigation Order Wells	1,639,005.7	11,579,209.7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
PS-4	220864	FREEPORT-MCMORAN SIERRITA INC	Mitigation Order Wells	1,637,637.6	11,577,503.7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
RT1	504946	FREEPORT-MCMORAN SIERRITA INC	Twin Buttes Wells	1,639,795.7	11,584,528.4	-	-	-	-	-	-	-	-	-	-	-	868.9	2,722.2	3,600.0	3,701.2	94.1	-	-	-	-	-	-	-	-	1,284.7	2,595.5	2,819.2
RT1A	230557	FREEPORT-MCMORAN SIERRITA INC	Twin Buttes Wells	1,639,972.1	11,584,597.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
S-01	623111	FREEPORT-MCMORAN SIERRITA INC	Canoa Wells	1,640,189.3	11,544,573.1	-	-	-	-	-	-	-	-	-	-	-	-	-	1,987.9	1,527.0	2,714.1	2,525.9	2,149.0	2,332.2	1,391.2	2,683.1	1,674.6	1,268.9	2,748.2	1,616.4	2,271.5	2,864.6
S-02	623112	FREEPORT-MCMORAN SIERRITA INC	Canoa Wells	1,637,572.9	11,540,196.8	-	-	-	-	-	-	-	-	-	-	-	-	-	3,460.2	3,267.0	1,729.0	437.1	3,271.2	2,699.9	2,986.1	3,757.0	2,043.6	3,911.2	3,087.0	3,480.4	4,144.4	3,182.1
S-03	623113	FREEPORT-MCMORAN SIERRITA INC	Canoa Wells	1,634,301.5	11,535,531.8	-	-	-	-	-	-	-	-	-	-	-	-	-	3,739.3	2,642.0	2,799.2	2,557.1	2,694.9	2,506.2	2,569.2	3,111.0	1,811.0	2,164.0	2,088.0	2,018.1	2,917.8	1,725.5
S-04	623114	FREEPORT-MCMORAN SIERRITA INC	Canoa Wells	1,631,702.8	11,531,498.0	-	-	-	-	-	-	-	-	-	-	-	-	-	2,938.2	2,313.2	1,326.0	2,899.1	2,290.1	2,528.0	2,667.2	3,289.2	2,457.7	1,975.0	2,216.2	1,663.3	1,574.2	2,474.0
S-05	623115	FREEPORT-MCMORAN SIERRITA INC	Canoa Wells	1,629,132.9	11,526,882.2	-	-	-	-	-	-	-	-	-	-	-	-	-	1,215.9	4,157.1	2,299.0	867.9	242.9	2,264.9	2,954.2	2,960.1	1,785.9	2,112.1	4,387.0	4,142.3	3,994.6	3,447.4
S-06	623116	FREEPORT-MCMORAN SIERRITA INC	Canoa Wells	1,628,511.2	11,522,260.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3,802.0	1,276.0	2,353.2	1,418.0	1,955.2	1,922.1	3,039.1	1,508.4	2,667.2	4,103.2	5,288.5	4,765.8	4,000.9
603430	603430	GREEN VALLEY DWID	Other Wells	1,631,013.8	11,548,212.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1,260.6	-	-	-
603504	603504	GREEN VALLEY DWID	Other Wells	1,629,767.8	11,544,265.7	-	-	-	-	-	-	-	-	-	-	-	-	-	0.3	0.8	0.5	0.7	1.5	3.6	0.7	0.8	1.8	1.6	-	-	-	-
Cotonia	230945	GREEN VALLEY DWID	Other Wells	1,639,802.4	11,555,929.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
GV1	603428	GREEN VALLEY DWID	Other Wells	1,639,802.4	11,555,929.5	1,070.6	1,070.6	1,070.6	1,070.6	1,070.6	1,070.6	1,070.6	1,070.6	1,070.6	1,070.6	1,002.0	830.3	741.4	686.5	568.2	713.4	760.3	732.5	1,071.0	804.6	1,118.3	1,074.8	1,119.7	919.7	1,215.6	1,065.6	1,356.5
GV2	603429	GREEN VALLEY DWID	Other Wells	1,639,714.3	11,553,947.4	572.7	572.7	572.7	572.7	572.7	572.7	572.7	572.7	572.7	572.7	535.6	444.5	396.9	367.2	656.1	771.2	700.7	739.3	1,192.0	1,111.8	896.6	922.5	902.0	-	1,083.4	1,287.6	959.8
GVDWID-Canoa	586729	GREEN VALLEY DWID	Other Wells	1,631,639.6	11,537,413.4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
GVDWID-SI	208825	GREEN VALLEY DWID	Other Wells	1,631,319.2	11,546,926.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
GVINV_625712	625712	GREEN VALLEY DWID	Other Wells	1,645,666.6	11,569,532.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	322.5	321.7	284.7	393.8	370.0	314.9	235.0	310.1	319.9	296.8
GVINV_625711	625711	GREEN VALLEY INVESTORS	Other Wells	1,645,560.5	11,568,814.2	1,112.6	1,112.6	1,112.6	1,112.6	1,112.6	1,112.6	1,112.6	1,112.6	1,112.6	1,112.6	1,041.9	863.9	770.3	713.4	718.4	718.4	722.6	388.0	429.7	379.6	309.9	330.9	388.8	446.0	354.8	411.3	374.3
HavenGC	515867	HAVEN GOLF ASSOC	Other Wells	1,645,695.3	11,569,347.6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Spafford_Jack	602952	J C SPAFFORD	Other Wells	1,627,029.9	11,543,883.5	-	-	-	-	-	-	-	-	-	-	-	-	-	0.3	0.5	0.3	0.3	0.3	-	1.9	3.1	3.1	1.9	-	-	-	-
LosArboles	610277	JERO INVESTORS	Other Wells	1,648,511.3	11,593,655.5	-	-	-	-	-	-	-	-	-	-	-	-	-	31.2	264.6	28.4	37.3	40.5	45.0	-	-	-	-	-	-	-	-
Duckett	800365	KEITH DUCKETT	Other Wells	1,669,317.3	11,591,224.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
ST5	608531	LAS QUINTAS SERENAS WATER CO	Other Wells	1,642,447.1	11,587,711.0	-	-	-	-	-	-	140.6	140.6	140.6	140.6	131.1	108.6	97.0	89.9	94.4	-	108.6	96.2	75.7	74.3	89.1	68.9	90.6	229.7	253.1	251.8	150.6
ST6	608530	LAS QUINTAS SERENAS WATER CO	Other Wells	1,644,510.0	11,585,779.6	-	-	-	-	117.2	117.2	117.2	117.2	117.2	117.2	110.1	91.2	81.0	75.5	97.0	-	80.9	98.3	149.1	126.4	130.3	149.1	153.0	58.0	50.4	84.4	194.5
ST7	566940	LAS QUINTAS SERENAS WATER CO	Other Wells	1,642,970.3	11,584,739.8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Jurs	801442	LAURIE JURS	Other Wells	1,627,474.1	11,546,931.7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	15.7	15.7	15.7	7.4	7.8	7.4	8.2	32.0	4.2	-	-	-	-
LosArboles	524178	LOS ARBOLES COMMUNITY 2 LLC	Other Wells	1,648,857.2	11,592,655.8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	44.1	50.9	58.0	67.8	801.1	72.8	71.0	61.0
Poole	801975	M POOLE	Other Wells	1,626,175.7	11,546,919.0	-	-	-	-	-	-	-	-	-	-	-	-	-	1.0	2.1	3.9	5.0	2.9	2.9	2.4	2.4	2.9	3.6	3.2	3.2	3.2	2.9
Madera_Highlands	624019	MADERA HIGHLANDS OWNERS ASSOC	Other Wells	1,651,192.3	11,568,751.4	-	-	-	-	-	-	-	-	-	-	-	-	-	150.0	162.7	213.7	155.4	96.5	95.1	296.5	307.5	374.6	356.7	424.8	391.8	369.0	402.2
OcotilloCommunity	801309	OCOTILLO COMMUNITY	Other Wells	1,637,015.1	11,520,358.0	-	-	-	-	-	-	-	-	-	-	-	-	-	3.2	3.4	2.4	2.4	2.3	3.4	10.5	7.3	6.1	13.1	8.7	19.4	18.7	32.0
801075	801075	PIMA CO	Other Wells	1,651,558.8	11,586,647.7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.3	-	-	-	-	-	-	-	6.5	-	-	-	-
PimaCoCanoaRanch	623128	PIMA CO	Other Wells	1,635,387.8	11,540,840.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sahuarita2	534039	PIMA CO PARKS & RECREATION DEPT	Other Wells	1,650,103.6	11,608,480.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4.5	13.4	16.0	16.0	15.2	15.3
203265	203265	PIMA CO SOLID WASTE MANAGEMENT	Other Wells	1,642,841.7	11,597,313.3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SAH-2B	211809	PIMA CO SOLID WASTE MANAGEMENT	Other Wells	1,643,562.8	11,597,441.3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Pollux1	213787	POLLUX PROPERTIES LLC	Other Wells	1,656,397.3	11,531,007.8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
QCWC_No12	219145	QUAIL CREEK WATER COMPANY	Other Wells	1,661,364.2	11,573,402.6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Davis	621257	R A DAVIS	Other Wells	1,663,369.2	11,593,409.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
RanchoSonado	507495	RANCHO SONADO LLC	Other Wells	1,629,605.3	11,518,320.9	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Underdown	626063	RANCHO SONADO LLC	Other Wells	1,629,619.4	11,520,276.3	-	-	-	-	-	-	-	-	-	-	-	-	-	5.0	37.0	36.0	32.9	26.0	42.9	21.0	29.7	19.1	18.4	15.5	16.6	35.7	35.2
Estrada	603835	RICARDO G & ELIZABETH ESTRADA	Other Wells	1,648,583.4	11,585,682.8	-	-	-	-	-	-	-	-	-	-	-	-	-	24.1	31.2	2.1	20.2	1.5	1.8	1.8	1.8	1.8	2.1	1.8	2.1	1.5	1.8
Wilson	640149	ROBERT & PEGGY WILSON	Other Wells	1,670,279.9	11,591,544.9	-	-	-	-	-	-	-	-	-	-	-	-	-	2.1	2.1	2.9	4.2	2.9	2.9	2.9	2.9	1.5	1.0	-	-	-	-
Davis_Robert	516216	ROBERT DAVIS	Other Wells	1,665,503.7	11,592,589.9	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	8.2	32.8	40.8	34.1	37.6	-	-	-	-
608594	608594	ROBSON RANCH QUAIL CREEK LLC	Other Wells	1,652,959.4	11,573,412.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.6	1.5
AN1	608589	ROBSON RANCH QUAIL CREEK LLC	Other Wells	1,648,930.2	11,574,747.8	3,750.2	3,750.2	3,750.2	3,750.2	1,824.4	1,824.4	1,824.4	1,824.4	1,824.4	1,824.4	2,041.5	2,012.6	267.8	15.7	31.3	-	-	-	-	-	-	-	-	-	-	-	-	-
AN-2(RRQC2)	608519	ROBSON RANCH QUAIL CREEK LLC	Other Wells	1,651,757.3	11,578,880.0	2,497.8	2,497.8	2,497.8	2,497.8	1,824.4	1,824.4	1,824.4	1,824.4	1,824.4	1,824.4	1,918.5	1,969.4	202.7	0.3	-	-	-	-	-	-	2.1	8.1	7.8	-	-	-	-	-
AN-4(RRQC1)	608521	ROBSON RANCH QUAIL CREEK LLC	Other Wells	1,651,757.2	11,574,748.3	-	-	-	-	1,824.4	1,824.4	1,824.4	1,824.4	1,824.4	1,824.4	2,063.5	1,071.6	94.1	111.2	96.9	4.5	-	-	-	-	-	-	-	151.2	251.5	-	-	-
Lawyers	608599	ROBSON RANCH QUAIL CREEK LLC	Other Wells	1,654,217.8	11,574,064.9	-	-	-	-	-	-	-	-	-	-	-	-	-	3.9	3.2	-	-	-	-	-	-	-	-	-	-	1.0	1.8

TABLE 2. Well Locations and Pumping Rates (acre-feet) for Transient Simulation from Various Sources

Well Name	Reg_ID	OWNER	Well Category	UTM East (ft)	UTM North (ft)	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
QCWC_No11	608597	ROBSON RANCH QUAIL CREEK LLC	Other Wells	1,659,982.7	11,571,232.3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
QCWC_No13	608522	ROBSON RANCH QUAIL CREEK LLC	Other Wells	1,656,124.3	11,576,026.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	16.0	3.9	10.7	21.0	33.1	13.9	12.8	14.9
QCWC_No16	608598	ROBSON RANCH QUAIL CREEK LLC	Other Wells	1,663,258.3	11,571,032.3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.7	-	-	2.6
Rosemont2	216391	ROSEMONT COPPER COMPANY	Other Wells	1,668,044.4	11,592,867.8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Rosemont3_future	999004	ROSEMONT COPPER COMPANY	Other Wells	1,658,963.5	11,598,284.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Rosemont4_future	999005	ROSEMONT COPPER COMPANY	Other Wells	1,658,947.1	11,597,620.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SUS_605342	605342	SAHUARITA SCH DIS 30	Other Wells	1,646,528.8	11,600,928.8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	47.9	-	-	-
SUS_605344	605344	SAHUARITA SCH DIS 30	Other Wells	1,646,528.8	11,600,928.8	-	-	-	-	-	-	-	-	-	-	-	-	-	60.1	60.1	62.1	62.8	67.2	89.7	56.8	72.8	66.7	77.3	-	52.9	37.6	84.1
SahVal_WC	607626	SAHUARITA VILLAGE WATER COMPANY	Other Wells	1,650,428.8	11,602,236.3	-	-	-	-	-	-	-	-	-	-	-	-	-	25.5	27.3	32.9	33.1	24.9	-	23.1	24.1	23.1	24.9	26.0	26.0	27.0	32.0
SWC_23	216840	SAHUARITA WATER COMPANY	Other Wells	1,644,161.9	11,605,207.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SWC1	611144	SAHUARITA WATER COMPANY	Other Wells	1,649,445.8	11,605,851.8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SWC3_future	999007	SAHUARITA WATER COMPANY	Other Wells	1,644,136.3	11,605,434.4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SWC4_future	999008	SAHUARITA WATER COMPANY	Other Wells	1,646,922.3	11,595,780.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SWC5_future	999009	SAHUARITA WATER COMPANY	Other Wells	1,644,136.3	11,595,780.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SWC6_future	999010	SAHUARITA WATER COMPANY	Other Wells	1,645,529.3	11,605,434.4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Rosemont1	214277	SANRITA PROPERTIES LLC	Other Wells	1,660,092.3	11,597,987.3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
StateLand	999006	STATE LAND	Other Wells	1,660,150.7	11,593,084.3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Saville_T	601910	THOMAS SAVILLE	Other Wells	1,672,800.6	11,589,905.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TorresBlancas	543409	TORRES BLANCAS HOLDINGS LLC	Other Wells	1,648,319.9	11,552,841.7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sahuarita	611142	TOWN OF SAHUARITA	Other Wells	1,662,546.0	11,603,197.9	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Lamb	628534	V G LAMB	Other Wells	1,657,935.4	11,597,891.7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4.2	4.2	1.8	1.8	1.8	2.1	2.4	8.1	8.1	8.1
ValVerde	803064	VAL VERDE INC	Other Wells	1,648,243.0	11,587,345.8	-	-	-	-	-	-	-	-	-	-	-	-	-	3.9	6.3	4.5	-	6.0	5.3	6.8	7.4	7.1	6.8	-	5.7	9.2	-
VVDN_WC	602019	VALLE VERDE DEL NORTE WATER COMPANY	Other Wells	1,645,908.4	11,588,370.8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	42.6	44.4	-	33.4	51.8	40.0	56.0	52.5	59.7	76.0	68.6	76.7	85.6
Cox	604432	W R COX	Other Wells	1,669,272.1	11,594,515.7	-	-	-	-	-	-	-	-	-	-	-	-	-	6.0	4.2	2.9	5.3	3.9	3.2	-	3.2	3.2	11.3	5.0	4.5	3.2	5.7
Cox	627079	W R COX	Other Wells	1,669,272.1	11,594,515.7	-	-	-	-	-	-	-	-	-	-	-	-	-	4.2	6.8	3.2	7.4	8.2	5.3	-	4.5	8.9	-	-	-	-	-

TABLE 2. Well Locations and Pumping Rates (acre-feet) for Transient Simulation from Various Sources

Well Name	Reg_ID	OWNER	Well Category	UTM East (ft)	UTM North (ft)	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Amado	623888	AMADO WATER CO	Other Wells	1,627,006.3	11,521,585.3	239.7	170.0	188.7	182.2	207.7	201.3	224.2	207.4	202.7	210.2	255.2	328.5	332.8	341.9	341.9	292.6	324.3	328.7	393.0	435.6	330.9	347.9	347.9	343.5	368.1	368.1
Kiewit	583888	CALMAT CO	Other Wells	1,654,164.6	11,583,311.7	-	-	-	-	-	204.2	-	-	-	293.1	186.9	0.2	-	-	-	-	-	7.2	-	-	-	-	-	19.6	3.2	3.2
SC23A	619897	CITY OF TUCSON	Other Wells	1,663,194.6	11,609,166.7	726.5	786.6	656.6	727.2	616.1	-	-	-	-	642.1	192.9	-	0.2	0.2	-	-	-	-	-	-	-	-	-	-	-	-
SC24A	619898	CITY OF TUCSON	Other Wells	1,666,509.3	11,609,182.1	648.4	320.2	696.7	749.0	639.2	752.0	693.4	670.5	-	709.4	431.6	0.2	0.2	-	-	-	-	-	-	-	-	-	-	-	-	-
11caa	801179	COMMUNITY WATER CO OF GREEN VALLEY	Other Wells	1,644,306.8	11,570,805.2	68.1	50.0	45.0	60.1	77.0	58.9	30.8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CW03	627483	COMMUNITY WATER CO OF GREEN VALLEY	Other Wells	1,640,625.7	11,561,033.9	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CW06	627485	COMMUNITY WATER CO OF GREEN VALLEY	Other Wells	1,643,339.9	11,567,543.9	551.1	165.5	525.9	646.6	675.0	356.6	475.8	406.6	295.4	251.5	331.1	185.8	149.8	36.9	16.0	4.0	3.0	0.8	1.5	1.3	1.4	45.1	382.9	357.6	250.0	250.0
CW06r_future	999002	COMMUNITY WATER CO OF GREEN VALLEY	Other Wells	1,644,099.8	11,568,371.4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CW07	502546	COMMUNITY WATER CO OF GREEN VALLEY	Other Wells	1,639,300.3	11,575,089.3	-	-	-	-	-	-	-	-	-	-	0.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CW08	543600	COMMUNITY WATER CO OF GREEN VALLEY	Other Wells	1,639,755.4	11,567,107.4	833.7	1,005.0	1,091.6	850.2	1,165.7	1,150.2	687.1	1.5	1.5	1.9	0.3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CW09	588121	COMMUNITY WATER CO OF GREEN VALLEY	Other Wells	1,643,933.6	11,577,211.0	-	-	-	-	-	325.9	638.9	888.7	490.4	570.6	366.9	530.1	628.4	747.5	625.5	327.7	670.5	517.3	798.8	995.5	887.4	529.1	501.7	504.9	548.1	548.1
CW09r_future	999003	COMMUNITY WATER CO OF GREEN VALLEY	Other Wells	1,644,462.7	11,576,989.9	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CW10	207982	COMMUNITY WATER CO OF GREEN VALLEY	Other Wells	1,643,615.4	11,559,214.5	-	-	-	-	-	-	-	-	-	1,241.3	913.3	1,017.2	992.4	962.0	664.5	1,057.6	843.0	847.8	813.3	801.7	363.0	577.1	1,006.4	563.9	509.8	509.8
CW11	608518	COMMUNITY WATER CO OF GREEN VALLEY	Other Wells	1,648,429.4	11,584,569.7	-	-	-	-	-	-	-	-	-	613.7	1,082.8	1,059.3	796.6	766.9	1,148.1	1,055.3	848.8	898.2	716.5	598.0	1,131.2	1,134.2	529.7	947.7	967.9	967.9
CW12_future	999001	COMMUNITY WATER CO OF GREEN VALLEY	Other Wells	1,641,233.8	11,558,637.6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
NP1	605899	COMMUNITY WATER CO OF GREEN VALLEY	Other Wells	1,643,709.4	11,578,755.3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
NP2	605898	COMMUNITY WATER CO OF GREEN VALLEY	Other Wells	1,643,398.7	11,548,698.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
ContSD39	601769	CONTINENTAL SCHOOL	Other Wells	1,653,701.0	11,558,184.6	10.3	28.1	2.4	3.9	3.2	3.9	3.9	2.9	4.2	-	-	3.7	3.7	3.7	4.0	4.0	-	2.3	0.0	**0.0**	0.0	0.0	1.0	-	-	-	-
CSD39	638581	CONTINENTAL SCHOOL	Other Wells	1,653,701.2	11,558,184.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.6	**-**	-	-	-	-	-	-
CCofGV	501760	COUNTRY CLUB OF GREEN VALLEY	Other Wells	1,645,781.8	11,574,374.5	609.7	607.6	569.6	548.6	633.5	598.4	466.2	188.9	87.0	195.8	131.6	256.0	340.3	270.0	256.2	422.1	226.2	170.3	117.3	**71.6**	101.2	442.0	144.0	55.0	20.0	20.0
CW05	627484	COUNTRY CLUB OF GREEN VALLEY	Other Wells	1,644,465.8	11,556,724.7	-	-	-	-	-	-	-	-	-	488.0	551.1	449.7	384.5	404.6	374.5	209.2	209.2	616.3	450.3	**582.5**	454.5	189.0	617.0	552.0	535.0	535.0
Stoeckel	801401	DORIS L & GEORGE M STOECKEL	Other Wells	1,627,487.0	11,543,338.3	-	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	1.9	1.9	1.9	-	-	2.0	-	-	2.0	2.0	**-**	-	-	-	-	-	-
Olivas	801154	E OLIVAS	Other Wells	1,651,558.7	11,585,320.5	-	1.0	1.5	1.8	1.8	1.1	1.5	1.8	1.5	1.5	-	-	-	-	-	-	-	-	-	**-**	-	-	-	-	-	-
201058	201058	FICO	Other Wells	1,663,315.7	11,587,933.4	-	-	-	-	-	-	-	3.4	-	5.2	-	7.4	9.5	10.5	14.4	22.1	30.4	33.6	38.9	43.9	44.6	46.1	54.2	55.4	53.4	53.4
C1	624008	FICO	Other Wells	1,651,417.4	11,579,111.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C4	624010	FICO	Other Wells	1,646,189.5	11,566,197.1	1,355.7	1,474.8	1,432.9	1,220.8	1,281.3	1,302.6	1,464.8	1,485.5	1,795.4	1,822.0	1,764.2	1,733.7	1,397.8	1,371.7	1,377.9	1,331.2	1,126.8	857.6	1,112.0	1,095.0	1,357.5	900.1	-	-	-	-	-
C4_REPLACEMENT	231302	FICO	Other Wells	1,646,189.5	11,566,197.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1,190.5	961.7	711.8	711.8
E03A	624011	FICO	Other Wells	1,647,626.5	11,561,438.3	688.6	757.5	278.0	652.8	501.7	698.4	800.1	796.9	840.5	892.3	916.2	824.5	613.7	677.9	701.2	732.8	639.6	491.0	520.8	552.8	604.4	604.0	679.4	571.8	463.1	463.1
E05A	624012	FICO	Other Wells	1,647,580.6	11,562,747.7	167.2	216.6	237.1	253.1	308.9	313.1	322.5	317.8	438.9	302.8	234.9	228.9	156.9	205.0	212.9	218.8	204.2	195.7	246.4	166.1	210.9	138.6	151.2	135.6	122.0	122.0
E06	624013	FICO	Other Wells	1,648,372.7	11,565,492.3	393.4	401.3	600.1	496.8	571.7	565.6	535.6	559.6	648.4	805.0	784.1	727.8	595.5	650.8	546.0	572.5	488.0	419.5	443.6	399.9	439.9	401.4	357.3	127.9	-	-
E07	624014	FICO	Other Wells	1,650,541.7	11,566,753.7	10.3	14.9	15.3	15.7	17.8	13.9	1.0	1.5	1.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
E08	624015	FICO	Other Wells	1,648,204.4	11,565,482.0	336.7	305.7	291.8	272.6	290.5	300.1	337.0	319.3	-	-	-	-	-	-	-	-	-	-	-	**-**	-	-	-	-	-	-	-
E09	624016	FICO	Other Wells	1,643,245.9	11,552,544.5	263.8	217.6	69.3	194.7	218.7	390.6	554.0	329.6	237.1	139.9	-	-	-	-	-	-	-	-	-	**-**	-	-	-	-	-	-	-
E10A	86931	FICO	Other Wells	1,648,461.9	11,561,642.2	-	-	-	-	-	-	-	-	6.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
E11A	624018	FICO	Other Wells	1,647,278.4	11,574,195.7	535.1	609.3	531.5	492.1	457.4	719.4	800.1	808.2	718.0	833.7	815.5	839.3	599.0	666.0	756.9	827.2	718.7	749.0	783.1	**(802.8)**	700.5	588.7	639.4	390.3	314.4	314.4
E12	624019	FICO	Other Wells	1,642,500.9	11,549,670.9	283.4	275.2	263.8	295.1	232.0	235.8	203.4	462.8	-	61.8	-	68.8	62.8	60.7	62.7	28.7	49.8	10.6	-	-	-	-	-	-	-	-	-
E13	624020	FICO	Other Wells	1,650,658.9	11,569,541.8	1,027.2	1,185.4	1,076.6	1,071.3	987.8	1,137.3	1,335.5	421.1	77.5	130.3	252.5	296.5	372.9	329.9	314.5	335.5	334.7	354.2	326.1	431.3	324.4	414.9	473.6	464.9	470.7	470.7
E15	624022	FICO	Other Wells	1,641,509.9	11,544,577.7	381.4	406.3	398.4	418.7	492.5	785.4	850.8	875.7	947.0	1,196.7	1,277.4	1,270.8	898.7	1,056.1	1,031.3	904.4	928.3	933.2	974.7	**985.8**	872.3	805.4	794.9	508.4	617.7	617.7
E16	624023	FICO	Other Wells	1,651,334.9	11,567,321.9	626.4	682.1	624.3	644.8	637.1	752.5	756.7	688.9	691.8	873.2	917.3	745.6	562.8	797.1	571.2	591.2	527.4	504.3	530.1	530.6	541.6	569.3	593.1	874.1	834.3	834.3
FICO_229562	229562	FICO	Other Wells	1,652,736.1	11,588,913.8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	810.4	831.8	808.1	707.4	707.4
FICO_233205	233205	FICO	Other Wells	1,648,434.2	11,565,477.3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	457.0	1,047.8	1,047.8
FICO543409	543409	FICO	Other Wells	1,641,244.1	11,552,841.7	519.7	497.8	493.8	453.4	458.6	404.8	411.8	533.3	533.3	**590.8**	**533.6**	**587.6**	**563.7**	**582.9**	**497.9**	**529.0**	**547.1**	**554.5**	**579.5**	**540.2**	473.1	481.0	519.4	499.9	455.0	455.0
FICO623990	623990	FICO	Other Wells	1,659,875.8	11,603,195.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
FICO624008	624008	FICO	Other Wells	1,643,186.4	11,556,119.3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
FICO624017	624017	FICO	Other Wells	1,648,401.3	11,561,450.6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
FICO624042	624042	FICO	Other Wells	1,649,571.0	11,586,670.3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
NP2	624028	FICO	Other Wells	1,643,465.6	11,547,026.5	1.1	2.4	3.2	6.0	-	9.5	-	7.1	9.9	10.5	10.7	-	-	14.3	15.0	16.6	15.1	14.0	16.0	-	-	-	-	-	-	-	-
S-12	623981	FICO	Other Wells	1,657,421.0	11,599,910.7	863.9	1,035.8	1,070.6	1,030.9	1,006.4	935.4	972.7	1,258.0	1,405.1	1,500.5	1,352.5	1,322.1	1,233.3	1,289.8	1,305.5	1,378.0	1,181.6	911.1	1,019.1	1,116.1	1,340.4	1,264.9	977.5	31.8	308.3	308.3
S-19	221271	FICO	Other Wells	1,656,299.3	11,587,980.7	1,063.9	1,267.7	1,244.6	1,187.2	1,282.9	1,342.0	1,476.1	1,366.0	1,513.1	1,418.8	1,369.7	1,298.9	781.2	850.3	1,579.8	1,383.8	1,268.4	1,169.2	1,192.0	1,385.6	1,202.8	1,148.9	1,282.5	810.7	908.4	908.4
S-22	623983	FICO	Other Wells	1,652,423.6	11,586,659.5	356.9	122.5	491.8	514.9	422.3	602.6	722.3	626.4	751.7	685.8	528.6	686.0	635.2	622.9	448.2	563.2	493.6	472.0	297.8	318.4	394.0	526.8	390.5	413.6	319.2	319.2
S-25	623985	FICO	Other Wells	1,650,381.0	11,591,997.7	1,136.7	1,102.3	1,410.7	1,209.5	1,282.6	1,252.7	1,129.6	1,336.2	1,522.8	1,625.4	1,426.1	1,292.3	1,207.7	937.5	1,197.5	1,119.6	1,033.8	888.0	1,220.2	1,343.8	1,021.5	979.5	1,078.7	926.0	795.5	795.5
S-29	623986	FICO	Other Wells	1,652,903.7	11,599,946.5	328.5	334.8	630.3	491.5	511.4	608.2	585.3	585.3	656.6	736.2	702.5	759.0	578.2	617.4	636.8	666.1	635.5	559.2	607.2	659.7	570.7	509.4	-	-	10.4	10.4
S-31	623987	FICO	Other Wells	1,660,084.1	11,605,869.7	345.9	225.2	71.3	-	-	-	170.5	205.2	351.6	175.1	296.7	231.5	173.2	131.0	89.0	47.4	265.6	158.9	140.2	72.7	52.1	47.2	39.6	6.4	3.9	3.9
S-33	623988	FICO	Other Wells	1,653,078.5	11,588,646.0	356.9	122.5	491.5	514.6	421.9	1,342.0	654.9	653.4	554.9	700.0	652.9	699.9	657.3	593.1	617.3	619.0	509.9	508.1	573.5	536.7	465.6	0.6	-	-	-	-
S-40	623991	FICO	Other Wells	1,656,834.7	11,597,256.5	1,104.4	1,241.1	1,412.5	1,209.8	1,074.5	1,174.3	1,243.2	1,088.7	1,150.2	1,153.1	1,080.8	1,216.9	1,106.3	1,237.2	1,240.4	1,175.0	1,071.8	1,196.4	1,264.5	1,288.5	1,269.0	1,189.6	1,106.6	392.2	496.5	496.5
S-43	623993	FICO	Other Wells	1,652,927.3	11,604,531.5	827.7	731.2	927.5	974.8	831.3	848.4	997.0	964.1	869.4	907.3	794.8	918.1	767.0	972.1	650.5	1,039.9	989.6	688.0	791.3	847.8	706.7	548.7	654.7	-	-	-
S-44	225635	FICO	Other Wells	1,653,075.9	11,584,001.7	1,435.0	1,444.2	1,903.7	1,589.4	1,665.8	1,659.8	1,895.1	1,652.4	1,876.1	1,691.3	1,685.5	1,775.9	1,503.2	1,622.8	1,434.8	1,392.6	1,149.4	895.6	-	1,247.9	1,153.5	1,187.9	1,053.0	863.7	901.1	901.1
S-45	623995	FICO	Other Wells	1,656,277.0	11,590,631.2	1,475.5	1,713.7	1,761.6	1,662.2	1,391.2	1,660.8	1,771.2	1,611.5	1,632.4	1,860.6	2,037.5	1,931.9	1,680.1	1,641.1	1,811.1	1,663.1	1,640.1	1,451.8	1,473.6	1,567.1	1,310.8	1,218.6	1,231.1	811.6	971.7	971.7
S-46	623996	FICO	Other Wells	1,649,099.2	11,588,686.7	990.1	706.7	636.6	920.4	1,601.5	1,219.0	899.1	808.2	993.7	1,211.7	1,017.2	1,328.6	1,345.5	1,215.9	806.1	761.4	701.6	760.4	482.8	634.3	1,194.2	1,300.9	1,524.6	945.8	921.7	921.7
S-48	623997	FICO	Other Wells	1,656,778.3	11,604,528.8	595.1	630.6	655.2	594.2	473.7	555.1	714.4	692.5	703.4	786.1	652.1	662.6	544.6	583.0	572.5	575.6	535.0	417.7	515.0	584.9	553.6	512.5	770.2	21.9	65.9	65.9
S-49	623998	FICO	Other Wells	1,656,142.8	11,607,861.8	332.7	408.1	392.4	398.0	394.8	384.5	539.0	470.5	471.2	493.4	544.0	554.6	560.7	563.8	540.4	542.2	583.6	536.2	558.4	646.5	627.6	601.3	695.6	31.4	34.3	34.3
S-50	623999	FICO	Other Wells	1,656,791.1	11,609,852.6	-	-	-	-	-	-	-	145.6	253.3	264.1	246.0	254.9	184.3	200.3	209.7	244.5	203.9	178.6	81.5	15.1	8.8	7.6	20.6	4.1	1.0	1.0
S-51	624000	FICO	Other Wells	1,650,315.7	11,599,292.3	1,148.0	1,297.3	1,437.9	1,157.6	877.8	1,214.5	1,431.7	1,442.9	1,342.0	1,500.2	1,459.2	1,459.8	1,245.9	1,192.6	1,194.9	1,243.6	1,095.0	1,211.6	899.2	956.7	937.8	911.0	969.2	410.7	48.9	48.9
S-52	624001	FICO	Other Wells	1,656,132.3	11,599,920.9	520.9	575.9	611.9	624.3	577.1	581.2	650.8	509.3	487.1	398.5	488.1	590.3	412.4	201.7	279.3	120.0	127.3	126.9	115.8	128.1	151.9	137.9	126.2	133.7	68.1	68.1
S-52A	534922	FICO	Other Wells	1,656,184.5	11,597,262.5	104.8	107.7	118.6	106.9	112.5	104.1	106.5	49.4	56.5	58.6	52.9	45.5	56.3	44.2	-	5.7	25.8	3.6	0.3	0.2	0.2	0.2	6.5	0.1	0.0	0.0
S-53	624002	FICO	Other Wells	1,651,745.2	11,589,986.9	1,266.9	1,420.1	1,321.0	1,332.8	1,275.5	1,343.3	1,590.2	1,388.8	2,000.2	1,902.1	1,868.0	1,800.4	1,675.6	1,529.3	1,566.4	1,601.5	1,520.5	1,402.6	1,233.6	1,542.3	1,411.0	1,515.3	1,492.8	624.5	759.1	759.1
S-54	624003	FICO	Other Wells	1,650,483.8	11,584,778.7	1,265.3	1,193.5	1,406.2	1,196.4	640.3	1,115.7	1,759.9	1,743.9	1,248.5	1,796.2	1,592.6	1,802.2	879.2	1,115.9	1,491.7	1,382.4	972.1	607.4	1,043.7	1,018.4	848.9	840.1	799.7	616.9	853.3	853.3
S-55	624004	FICO	Other Wells	1,647,180.5	11,587,436.8	1,613.6	1,411.5	1,646.6	1,766.3	1,258.2	1,666.4	1,803.3	1,763.1	1,851.9	1,893.0	1,808.5	1,905.1	1,504.0	1,669.1	1,742.1	1,821.4	1,428.4	1,247.9	1,426.2	1,797.4	1,494.3	1,405.6	1,439.5	1,304.7	1,277.4	1,277.4
S-56	624005	FICO	Other Wells	1,657,518.1	11,595,918.6	344.8	118.6	485.0	408.4	518.8	689.6	578.2	452.8	495.1	478.9	488.3	449.0	521.8	528.9	397.6	263.9	432.1	303.0	395.3	366.4	325.4	277.7	245.4	-	-	-
W11	624025	FICO	Other Wells	1,640,315.4	11,548,814.1	656.3	745.1	916.8	807.2	796.6	286.2	319.3	300.1	292.2	274.2	286.0	292.3	266.0	276.1	257.2	281.0	258.3	256.5	282.1	238.0	248.7	235.8	242.3	240.9	230.0	230.0
W12	624026	FICO	Other Wells	1,640,928.5	11,552,797.4	744.9	916.2	899.1	983.6	971.9	1,157.6	1,079.2	1,126.0	927.5	1,184.3	1,150.2	1,255.6	1,050.3	1,123.0	1,166.9	1,073.5	845.3	858.7	924.0	1,023.9	889.2	826.3	1,004.5	768.7	748.9	748.9
W9	624024	FICO	Other Wells	1,644,587.0	11,562,091.1	918.3	1,099.4	816.1	878.2	730.4	868.9	855.0	947.0	839.0	916.3	927.0	957.7	661.0	597.0	590.3	408.2	493.1	671.4	445.2	745.3	868.5	817.2	899.7	808.4	539.1	539.1
608517	608517	FREEPORT-MCMORAN SIERRITA INC	Other Wells	1,631,787.8	11,578,192.7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
ESP1	623102	FREEPORT-MCMORAN SIERRITA INC	Esperanza Wells	1,640,316.9	11,569,691.0	-	-	-	-	-	-	33.7	438.9	279.1	14.9	-	23.1	1.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-
ESP2	623103	FREEPORT-MCMORAN SIERRITA INC	Esperanza Wells	1,641,209.2	11,571,252.6	-	-	-	2.1	-	12.1	230.5	496.8	592.2	69.9	-	3.1	1.9	-	-	-	-	-	-	-	-	-	-	0.2	0.1	-	-
ESP3	623104	FREEPORT-MCMORAN SIERRITA INC	Esperanza Wells	1,641,184.4	11,572,737.4	-	-	-	-	2.1	-	71.0	417.9	964.8	155.1	-	27.1	-	-	-	-	-	-	-	-	-	-	-	0.2	0.1	-	-
ESP4	623105	FREEPORT-MCMORAN SIERRITA INC	Esperanza Wells	1,640,143.5	11,568,654.5	8.1	-	-	2.1	-	18.9	72.5	-	-	1.0	1.0	1.0	-	-	-	-	-	-	-	-	-	-	-	0.5	0.3	-	-
FFS-1	221662	FREEPORT-MCMORAN SIERRITA INC	Mitigation Order Wells	1,634,928.7	11,561,905.6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	11.0	1,377.5	952.0	1,285.7	1,211.1	901.0	1,192.6	1,026.7	1,086.7	1,029.0	997.7
FFS-2	221663	FREEPORT-MCMORAN SIERRITA INC	Mitigation Order Wells	1,634,891.7	11,563,389.3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	11.0	1,261.8	1,360.6	1,238.0	1,089.1	865.0	1,099.8	1,027.1	1,092.7	997.0	975.4
FFS-3	221664	FREEPORT-MCMORAN SIERRITA INC	Mitigation Order Wells	1,635,025.6	11,565,905.7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4.0	393.8	426.5	337.5	266.0	232.0	254.2	156.3	11.3	170.0	145.2
FFS-4	221665	FREEPORT-MCMORAN SIERRITA INC	Mitigation Order Wells	1,635,016.6	11,568,003.9	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.9	286.5	242.8	200.6	154.0	91.0	97.8	86.9	25.0	116.0	93.6
FFS-5	221666	FREEPORT-MCMORAN SIERRITA INC	Mitigation Order Wells	1,634,989.1	11,570,491.3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	11.9	1,542.9	1,493.7	1,467.9	1,471.1	677.0	835.9	264.4	514.2	817.0	921.3
FFS-6	221667	FREEPORT-MCMORAN SIERRITA INC	Mitigation Order Wells	1,634,936.7	11,572,440.4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	8.1	892.1	887.2	799.5	437.0	521.0	-	0.0	-	95.0	159.8
I-07	608528	FREEPORT-MCMORAN SIERRITA INC	Twin Buttes Wells	1,633,221.6	11,576,519.5	560.7	276.7	31.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
I-09	608526	FREEPORT-MCMORAN SIERRITA INC	Twin Buttes Wells	1,633,274.0	11,576,986.0	1.0	37.9	45.0	101.9	23.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
I-10	608525	FREEPORT-MCMORAN SIERRITA INC	Twin Buttes Wells	1,633,191.6	11,576,318.3	2,424.6	628.5	1,113.3	1,317.1	1,087.3	891.6	-	-	-	48.8	16.1	10.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
I-11	608524	FREEPORT-MCMORAN SIERRITA INC	Twin Buttes Wells	1,633,590.3	11,576,372.8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
I-12	608523	FREEPORT-MCMORAN SIERRITA INC	Twin Buttes Wells	1,634,215.6	11,576,683.5	545.7	757.5	222.9	8.1	88.0	338.8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
I-13	87309	FREEPORT-MCMORAN SIERRITA INC	Twin Buttes Wells	1,634,496.2	11,576,436.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

TABLE 2. Well Locations and Pumping Rates (acre-feet) for Transient Simulation from Various Sources

Well Name	Reg_ID	OWNER	Well Category	UTM East (ft)	UTM North (ft)	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
IW-01	623129	FREEPORT-MCMORAN SIERRITA INC	Interceptor Wells	1,630,265.1	11,552,726.2	226.9	1,101.5	721.5	127.8	376.7	664.7	652.4	37.0	578.3	527.3	480.4	431.3	369.3	343.2	583.3	556.4	326.5	359.8	328.4	334.0	170.0	372.4	463.4	419.8	415.2	406.9
IW-02	623130	FREEPORT-MCMORAN SIERRITA INC	Interceptor Wells	1,632,165.1	11,552,995.9	519.6	742.5	1,018.3	1,309.2	517.6	672.6	1,296.9	1,142.8	936.7	763.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
IW-02A	216464	FREEPORT-MCMORAN SIERRITA INC	Interceptor Wells	1,632,113.3	11,552,923.6	-	-	-	-	-	-	-	-	-	-	659.5	725.5	561.4	578.3	540.4	385.3	364.5	297.4	238.4	-	171.0	332.2	288.6	227.6	210.1	204.9
IW-03	623131	FREEPORT-MCMORAN SIERRITA INC	Interceptor Wells	1,631,774.7	11,554,177.0	731.5	1,022.4	1,216.2	1,380.2	1,075.3	784.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
IW-03A	201732	FREEPORT-MCMORAN SIERRITA INC	Interceptor Wells	1,631,775.4	11,554,185.7	-	-	-	-	-	-	555.4	1,135.9	641.5	1,164.7	1,048.7	825.6	972.7	902.6	776.4	934.6	703.4	643.8	48.7	287.0	357.0	650.9	631.3	397.6	206.8	791.4
IW-04	623132	FREEPORT-MCMORAN SIERRITA INC	Interceptor Wells	1,631,793.4	11,556,624.1	762.7	796.6	844.5	356.9	722.6	31.2	862.6	276.2	390.3	339.3	197.1	142.0	126.1	114.1	67.8	111.1	122.2	89.0	53.2	29.0	64.0	-	-	63.7	155.3	159.9
IW-05	623133	FREEPORT-MCMORAN SIERRITA INC	Interceptor Wells	1,631,786.3	11,557,769.1	1,047.2	1,030.5	134.1	2.7	84.1	834.5	682.5	71.0	205.2	166.1	150.1	149.1	118.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-
IW-05A	219131	FREEPORT-MCMORAN SIERRITA INC	Interceptor Wells	1,632,299.6	11,557,582.8	-	-	-	-	-	-	-	-	-	-	-	-	4.0	102.0	107.0	65.1	28.4	-	-	-	-	-	-	-	-	-	-
IW-06A	545565	FREEPORT-MCMORAN SIERRITA INC	Interceptor Wells	1,631,824.6	11,560,701.8	-	272.0	433.9	227.6	87.0	6.0	246.2	157.1	192.1	215.2	153.2	148.2	117.0	142.0	129.5	100.1	100.4	13.8	-	-	-	-	-	-	-	-	-
IW-07	623135	FREEPORT-MCMORAN SIERRITA INC	Interceptor Wells	1,628,697.2	11,552,831.9	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
IW-08	508236	FREEPORT-MCMORAN SIERRITA INC	Interceptor Wells	1,631,787.1	11,555,776.9	-	-	2.9	1.5	8.1	943.5	1,567.1	1,143.8	563.3	710.5	682.5	693.4	685.5	667.4	414.3	618.4	363.7	428.7	310.5	316.0	251.4	229.4	198.9	341.6	360.2	532.4
IW-09	508238	FREEPORT-MCMORAN SIERRITA INC	Interceptor Wells	1,631,782.1	11,555,163.0	349.0	201.8	512.5	372.5	1,223.3	187.1	405.3	119.1	421.3	345.3	429.4	407.2	377.2	322.2	375.3	295.2	167.2	-	-	20.0	218.5	250.3	217.2	238.4	189.6	156.7
IW-10	508237	FREEPORT-MCMORAN SIERRITA INC	Interceptor Wells	1,631,789.0	11,558,777.4	909.4	1,084.2	406.6	-	773.5	286.8	186.1	568.3	469.4	569.5	565.4	558.3	553.3	532.3	491.3	445.3	381.6	312.6	95.0	146.0	22.0	-	0.0	376.8	327.3	386.8
IW-11	508235	FREEPORT-MCMORAN SIERRITA INC	Interceptor Wells	1,631,791.1	11,559,787.3	93.0	265.7	797.5	8.1	1,354.1	798.3	952.7	867.6	448.2	608.4	585.4	526.4	471.3	436.3	623.4	553.3	191.9	229.3	204.6	278.0	223.9	295.3	374.5	178.0	172.8	347.5
IW-12	545555	FREEPORT-MCMORAN SIERRITA INC	Interceptor Wells	1,631,771.1	11,561,558.5	492.8	481.8	544.8	203.5	103.3	344.8	222.1	127.0	217.1	267.1	248.3	253.1	243.3	199.2	199.2	212.1	128.0	138.4	138.4	161.0	179.3	154.7	129.2	129.6	142.5	123.6
IW-13	545556	FREEPORT-MCMORAN SIERRITA INC	Interceptor Wells	1,631,767.5	11,562,204.1	37.9	104.0	-	-	21.0	116.1	108.1	35.0	53.3	42.0	41.0	40.0	40.0	37.0	37.0	36.0	10.2	0.0	-	-	-	-	-	-	-	-	-
IW-14	545557	FREEPORT-MCMORAN SIERRITA INC	Interceptor Wells	1,631,778.4	11,562,881.5	288.0	220.8	251.8	143.5	207.7	-	136.1	152.1	142.0	143.2	125.1	260.2	103.1	83.1	111.1	62.0	72.3	52.1	22.9	25.0	-	0.0	-	-	-	-	-
IW-15	545558	FREEPORT-MCMORAN SIERRITA INC	Interceptor Wells	1,631,797.2	11,563,518.4	148.8	145.0	164.0	22.4	-	28.1	36.0	48.1	66.0	74.1	79.1	79.1	76.0	60.1	75.1	74.1	52.8	31.6	37.8	24.0	9.0	-	-	-	-	-	-
IW-16	545559	FREEPORT-MCMORAN SIERRITA INC	Interceptor Wells	1,631,789.9	11,564,225.8	50.0	-	-	-	-	-	-	-	15.0	15.0	15.0	14.0	13.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-
IW-17	545560	FREEPORT-MCMORAN SIERRITA INC	Interceptor Wells	1,631,800.0	11,564,947.6	272.0	216.9	153.0	106.5	108.0	-	133.2	45.0	14.0	15.0	13.1	9.0	5.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-
IW-18	545561	FREEPORT-MCMORAN SIERRITA INC	Interceptor Wells	1,631,801.1	11,565,495.1	129.0	88.0	58.9	-	-	-	80.1	4.0	13.1	14.0	14.0	11.9	10.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-
IW-19	545562	FREEPORT-MCMORAN SIERRITA INC	Interceptor Wells	1,631,799.7	11,566,064.7	412.9	425.8	370.0	217.7	-	-	273.1	315.2	288.1	249.2	333.2	318.1	300.2	257.1	240.2	193.2	262.8	151.2	104.6	153.0	127.0	18.7	191.7	174.0	151.5	151.5
IW-20	545563	FREEPORT-MCMORAN SIERRITA INC	Interceptor Wells	1,631,770.6	11,566,804.2	151.9	179.0	196.0	67.8	185.0	262.0	142.0	125.1	120.1	71.0	71.0	56.0	52.0	51.0	55.0	43.1	36.8	5.8	-	-	-	-	-	-	-	-	-
IW-21	545564	FREEPORT-MCMORAN SIERRITA INC	Interceptor Wells	1,631,802.9	11,567,475.1	353.7	170.8	278.0	209.8	390.6	350.8	139.1	257.1	246.2	257.1	238.2	286.2	263.1	198.2	173.2	163.2	76.2	183.5	110.2	-	-	-	-	-	60.4	68.6
IW-22	200554	FREEPORT-MCMORAN SIERRITA INC	Interceptor Wells	1,631,787.8	11,559,262.3	-	-	-	-	-	-	-	422.3	772.5	544.4	567.4	590.4	569.5	523.3	493.3	531.4	451.6	276.2	353.2	226.0	7.0	282.7	526.5	415.9	373.6	349.8
IW-23	200555	FREEPORT-MCMORAN SIERRITA INC	Interceptor Wells	1,631,785.3	11,558,280.7	-	-	-	-	-	-	-	219.2	328.2	311.2	265.2	270.2	217.1	256.2	215.2	207.1	221.6	127.9	-	-	-	-	-	59.9	154.9	136.6
IW-24	200556	FREEPORT-MCMORAN SIERRITA INC	Interceptor Wells	1,631,793.3	11,557,174.4	-	-	-	-	-	-	-	389.3	652.4	124.1	229.2	161.1	142.0	169.2	112.0	99.1	91.0	118.3	144.9	68.0	-	-	-	-	74.3	71.8
IW-25	219596	FREEPORT-MCMORAN SIERRITA INC	Interceptor Wells	1,632,644.1	11,554,193.4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	522.3	685.5	683.6	645.4	506.4	474.0	487.0	517.4	562.8	644.9	533.8	644.8
IW-26	219143	FREEPORT-MCMORAN SIERRITA INC	Interceptor Wells	1,632,713.0	11,556,102.9	-	-	-	-	-	-	-	-	-	-	-	-	-	-	402.2	400.3	-	320.0	276.8	245.0	259.0	199.6	359.9	342.8	347.8	292.1
IW-27	219136	FREEPORT-MCMORAN SIERRITA INC	Interceptor Wells	1,632,552.2	11,557,254.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	222.1	4.0	95.9	345.9	294.8	262.0	275.0	235.7	287.9	221.3	202.9	272.9
IW-28	219137	FREEPORT-MCMORAN SIERRITA INC	Interceptor Wells	1,632,709.7	11,558,963.8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	442.3	558.3	447.9	386.7	297.8	247.0	234.0	137.5	404.1	531.2	496.1	436.6
IW-29	222865	FREEPORT-MCMORAN SIERRITA INC	Interceptor Wells	1,634,087.6	11,558,638.9	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	234.4	741.4	404.6	732.1	679.0	577.8	590.3	441.0	727.4	615.1
MC-1	221660	FREEPORT-MCMORAN SIERRITA INC	Mitigation Order Wells	1,636,850.4	11,565,610.9	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	11.0	1,362.2	1,272.0	1,367.1	1,269.1	1,127.0	894.0	1,198.1	830.8	1,045.0	1,000.8
MC-2	221761	FREEPORT-MCMORAN SIERRITA INC	Mitigation Order Wells	1,638,346.6	11,569,418.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.9	999.6	910.5	955.9	858.1	840.0	688.8	855.0	805.5	781.0	772.5
MC-3	221661	FREEPORT-MCMORAN SIERRITA INC	Mitigation Order Wells	1,636,671.1	11,571,211.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6.0	909.7	805.9	835.2	725.0	620.0	483.6	676.2	658.1	602.0	649.2
MC-4	220842	FREEPORT-MCMORAN SIERRITA INC	Mitigation Order Wells	1,635,908.1	11,574,036.7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	8.1	899.1	828.1	831.0	757.1	629.0	595.2	620.7	473.2	351.0	482.9
MC-5	238240	FREEPORT-MCMORAN SIERRITA INC	Mitigation Order Wells	1,635,516.9	11,572,450.3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MC-6	238394	FREEPORT-MCMORAN SIERRITA INC	Mitigation Order Wells	1,635,969.6	11,569,590.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
PS-1	220861	FREEPORT-MCMORAN SIERRITA INC	Mitigation Order Wells	1,637,621.2	11,578,481.4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	11.9	949.9	936.9	953.9	858.1	898.0	1,272.8	1,286.0	1,216.2	1,180.0	1,173.3
PS-2	220862	FREEPORT-MCMORAN SIERRITA INC	Mitigation Order Wells	1,638,178.9	11,579,232.7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	11.0	954.9	945.9	901.6	1,157.1	896.0	1,039.3	1,315.7	1,264.9	1,260.0	1,286.4
PS-3	220863	FREEPORT-MCMORAN SIERRITA INC	Mitigation Order Wells	1,639,005.7	11,579,209.7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	10.0	953.8	938.5	794.7	1,460.1	1,155.0	1,464.5	1,513.6	1,409.2	1,459.0	1,439.9
PS-4	220864	FREEPORT-MCMORAN SIERRITA INC	Mitigation Order Wells	1,637,637.6	11,577,503.7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	14.0	1,143.8	1,089.4	1,157.6	1,465.1	1,590.0	1,677.7	1,409.1	1,210.5	1,524.0	1,462.9
RT1	504946	FREEPORT-MCMORAN SIERRITA INC	Twin Buttes Wells	1,639,795.7	11,584,528.4	2,768.4	2,597.3	1,762.0	2,411.5	1,759.9	1,725.0	-	-	-	69.7	120.7	57.3	149.6	86.5	216.1	76.0	103.6	145.7	31.0	39.0	39.0	36.0	47.3	59.0	46.0	46.0
RT1A	230557	FREEPORT-MCMORAN SIERRITA INC	Twin Buttes Wells	1,639,972.1	11,584,597.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
S-01	623111	FREEPORT-MCMORAN SIERRITA INC	Canoa Wells	1,640,189.3	11,544,573.1	1,078.1	1,207.0	2,554.2	2,177.1	1,555.0	2,807.1	1,878.2	3,037.1	2,329.7	2,309.6	3,014.0	2,282.5	1,498.1	2,187.4	2,252.5	3,027.1	1,212.2	783.5	531.0	630.0	1,228.0	390.1	1,050.0	1,224.3	1,171.0	1,479.5
S-02	623112	FREEPORT-MCMORAN SIERRITA INC	Canoa Wells	1,637,572.9	11,540,196.8	1,439.1	980.1	2,077.0	1,952.3	968.0	2,697.0	2,141.0	2,272.0	1,584.1	2,445.7	2,596.8	2,873.9	2,436.7	3,234.2	2,821.0	3,538.5	1,381.8	893.1	451.9	582.0	1,169.0	892.8	1,488.0	1,724.3	984.0	1,648.7
S-03	623113	FREEPORT-MCMORAN SIERRITA INC	Canoa Wells	1,634,301.5	11,535,531.8	1,923.2	2,111.1	3,463.2	2,899.1	134.1	1,060.0	3,216.1	2,412.1	2,646.8	2,911.1	2,991.1	2,344.7	3,662.6	3,752.7	3,801.6	3,972.7	1,954.0	1,023.8	558.5	785.1	1,352.0	1,000.5	1,764.0	1,898.1	951.0	437.7
S-04	623114	FREEPORT-MCMORAN SIERRITA INC	Canoa Wells	1,631,702.8	11,531,498.0	2,553.2	3,141.2	3,880.2	3,549.0	1,426.1	4,458.0	3,942.3	3,871.3	3,603.5	3,336.2	3,956.7	3,586.4	4,431.1	4,375.1	3,745.6	3,272.3	1,408.3	623.2	514.9	70.0	3.0	687.0	806.0	1,778.7	1,320.0	1,308.5
S-05	623115	FREEPORT-MCMORAN SIERRITA INC	Canoa Wells	1,629,132.9	11,526,882.2	3,658.2	4,271.1	3,012.3	3,417.1	1,858.2	6.0	4,262.2	4,505.2	4,584.1	4,249.0	4,005.7	3,645.5	3,849.7	3,836.6	3,606.4	3,405.3	1,733.2	1,007.9	563.3	648.0	1,029.0	1,102.6	1,607.0	1,566.5	990.0	1,552.9
S-06	623116	FREEPORT-MCMORAN SIERRITA INC	Canoa Wells	1,628,511.2	11,522,260.2	5,075.1	4,901.1	3,061.0	4,170.1	5,046.0	1,883.0	2,351.9	3,660.3	4,185.9	3,824.6	3,443.4	3,093.1	3,878.7	3,309.3	3,041.2	3,138.2	1,553.9	1,211.9	481.0	521.0	412.0	441.5	1.4	262.4	1,048.0	1,379.0
603430	603430	GREEN VALLEY DWID	Other Wells	1,631,013.8	11,548,212.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
603504	603504	GREEN VALLEY DWID	Other Wells	1,629,767.8	11,544,265.7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Cotonia	230945	GREEN VALLEY DWID	Other Wells	1,639,802.4	11,555,929.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	355.5	830.1	744.1	744.1
GV1	603428	GREEN VALLEY DWID	Other Wells	1,639,802.4	11,555,929.5	813.2	1,300.0	985.1	987.5	991.7	1,279.3	1,279.3	1,177.5	1,177.5	1,112.9	1,037.9	1,002.7	984.3	988.2	930.9	911.7	865.2	847.3	847.3	847.3	772.2	868.8	644.1	-	-	-	-
GV2	603429	GREEN VALLEY DWID	Other Wells	1,639,714.3	11,553,947.4	1,418.0	1,062.4	1,238.7	1,290.2	1,514.5	1,215.9	1,215.9	1,258.2	1,258.2	504.7	488.1	497.3	453.1	474.2	443.1	466.8	382.7	224.8	224.8	224.8	281.9	424.2	483.5	418.6	377.8	377.8
GVDWID-Canoa	586729	GREEN VALLEY DWID	Other Wells	1,631,639.6	11,537,413.4	-	-	-	-	-	-	-	-	-	490.7	517.8	492.8	406.1	455.7	366.9	283.9	608.1	357.2	357.2	357.2	381.2	380.4	445.9	397.5	378.4	378.4
GVDWID-SI	208825	GREEN VALLEY DWID	Other Wells	1,631,319.2	11,546,926.2	-	-	-	-	-	-	-	-	-	896.0	900.7	839.3	747.3	831.9	500.9	466.8	221.1	685.2	685.2	685.2	544.8	428.2	481.3	423.8	367.0	367.0
GVINV_625712	625712	GREEN VALLEY DWID	Other Wells	1,645,666.6	11,569,532.0	262.8	295.9	291.8	257.8	319.9	308.1	293.6	309.9	245.3	225.8	260.0	44.2	110.4	94.1	106.1	129.1	161.2	188.0	164.0	191.5	149.6	471.5	149.6	577.9	614.8	614.8
GVINV_625711	625711	GREEN VALLEY INVESTORS	Other Wells	1,645,560.5	11,568,814.2	359.8	441.8	419.7	381.7	363.7	355.8	311.4	329.1	319.3	587.2	551.1	769.0	699.7	716.5	658.4	645.4	648.0	621.0	641.0	613.8	449.9	154.9	449.9	116.6	90.7	90.7
HavenGC	515867	HAVEN GOLF ASSOC	Other Wells	1,645,695.3	11,569,347.6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Spafford_Jack	602952	J C SPAFFORD	Other Wells	1,627,029.9	11,543,883.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
LosArboles	610277	JERO INVESTORS	Other Wells	1,648,511.3	11,593,655.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Duckett	800365	KEITH DUCKETT	Other Wells	1,669,317.3	11,591,224.1	-	-	-	-	-	-	-	-	-	0.2	-	-	-	-	-	-	-	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0
ST5	608531	LAS QUINTAS SERENAS WATER CO	Other Wells	1,642,447.1	11,587,711.0	182.2	236.8	166.1	149.5	266.3	57.8	129.6	86.4	27.6	12.6	69.3	23.6	23.7	4.5	8.2	48.9	3.5	6.1	0.7	5.2	1.6	44.0	44.0	1.6	3.1	3.1
ST6	608530	LAS QUINTAS SERENAS WATER CO	Other Wells	1,644,510.0	11,585,779.6	161.9	68.9	104.0	41.5	90.6	38.4	36.5	30.2	30.8	19.2	31.0	20.5	1.5	0.5	0.7	1.3	1.0	2.3	1.0	7.4	93.5	212.0	212.0	163.3	172.0	172.0
ST7	566940	LAS QUINTAS SERENAS WATER CO	Other Wells	1,642,970.3	11,584,739.8	16.6	125.4	172.2	242.6	139.5	387.1	315.7	392.1	530.6	509.6	419.0	500.9	471.0	509.1	467.0	457.8	442.3	411.5	433.0	433.0	354.0	206.0	206.0	416.8	322.7	322.7
Jurs	801442	LAURIE JURS	Other Wells	1,627,474.1	11,546,931.7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
LosArboles	524178	LOS ARBOLES COMMUNITY 2 LLC	Other Wells	1,648,857.2	11,592,655.8	52.1	50.0	52.1	47.6	52.1	52.9	51.5	45.5	46.2	60.2	11.8	52.9	17.0	33.7	32.8	35.0	38.8	46.1	47.0	28.9	28.9	31.4	32.0	2.6	10.1	10.1
Poole	801975	M POOLE	Other Wells	1,626,175.7	11,546,919.0	3.2	2.9	2.9	2.9	2.9	2.9	2.9	3.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3.4	3.4	3.4
Madera_Highlands	624019	MADERA HIGHLANDS OWNERS ASSOC	Other Wells	1,651,192.3	11,568,751.4	284.3	275.9	264.2	295.7	232.6	-	-	-	-	61.5	-	68.4	62.5	60.7	62.7	28.7	-	-	-	-	-	-	-	-	-	-	-
OcotilloCommunity	801309	OCOTILLO COMMUNITY	Other Wells	1,637,015.1	11,520,358.0	35.0	12.1	13.4	17.6	23.1	16.5	17.4	17.4	17.4	21.1	20.0	21.0	18.4	18.0	22.1	19.9	16.4	15.0	19.0	18.8	18.8	20.9	19.5	18.4	15.7	15.7
801075	801075	PIMA CO	Other Wells	1,651,558.8	11,586,647.7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
PimaCoCanoaRanch	623128	PIMA CO	Other Wells	1,635,387.8	11,540,840.5	-	-	18.9	14.5	-	-	-	-	-	-	-	-	-	0.5	30.4	6.0	-	-	6.8	7.9	7.9	3.3	3.1	9.4	7.2	7.2
Sahuarita2	534039	PIMA CO PARKS & RECREATION DEPT	Other Wells	1,650,103.6	11,608,480.1	11.8	13.6	13.6	31.2	32.0	24.9	27.8	27.0	33.7	381.1	400.3	461.6	300.9	23.9	26.8	-	51.8	51.1	48.5	48.2	55.9	31.0	62.7	62.7	62.7	62.7
203265	203265	PIMA CO SOLID WASTE MANAGEMENT	Other Wells	1,642,841.7	11,597,313.3	-	-	-	-	-	-	21.8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SAH-2B	211809	PIMA CO SOLID WASTE MANAGEMENT	Other Wells	1,643,562.8	11,597,441.3	-	-	-	-	-	-	-	-	-	-	13.2	10.7	7.3	4.8	5.3	7.8	4.9	4.6	1.2	0.2	0.3	0.7	1.9	-	-	-
Pollux1	213787	POLLUX PROPERTIES LLC	Other Wells	1,656,397.3	11,531,007.8	-	-	-	-	-	-	-	-	-	10.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
QCWC_No12	219145	QUAIL CREEK WATER COMPANY	Other Wells	1,661,364.2	11,573,402.6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	168.3	496.4	487.3	521.2	569.1	622.1	622.1	609.7	710.4	719.7	530.4	530.4
Davis	621257	R A DAVIS	Other Wells	1,663,369.2	11,593,409.1	-	-	-	-	-	-	-	-	-	1.0	1.0	1.0	-	1.0	1.0	-	1.0	1.0	1.0	1.0	1.0	-	-	-	-	-	-
RanchoSonado	507495	RANCHO SONADO LLC	Other Wells	1,629,605.3	11,518,320.9	-	-	-	-	-	-	-	-	-	153.8	373.2	440.8	366.9	321.1	387.9	629.7	406.5	316.3	367.9	322.9	237.8	123.0	181.8	194.1	135.7	135.7
Underdown	626063	RANCHO SONADO LLC	Other Wells	1,629,619.4	11,520,276.3	19.2	57.1	10.5	8.7	15.5	15.8	23.1	6.3	19.5	20.7	58.0	31.6	12.1	14.0	17.7	18.8	17.1	8.0	25.2	102.9	110.4	89.9	24.0	23.2	15.2	15.2
Estrada	603835	RICARDO G & ELIZABETH ESTRADA	Other Wells	1,648,583.4	11,585,682.8	1.8	1.8	1.8	2.1	1.8	-	2.9	3.2	2.9	-	0.8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Wilson	640149	ROBERT & PEGGY WILSON	Other Wells	1,670,279.9	11,591,544.9	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Davis_Robert	516216	ROBERT DAVIS	Other Wells	1,665,503.7	11,592,589.9	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
608594	608594	ROBSON RANCH QUAIL CREEK LLC	Other Wells	1,652,959.4	11,573,412.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
AN1	608589	ROBSON RANCH QUAIL CREEK LLC	Other Wells	1,648,930.2	11,574,747.8	-	-	-	-	-	-	-	-	-	611.3	1,078.6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
AN-2(RRQC2)	608519	ROBSON RANCH QUAIL CREEK LLC	Other Wells	1,651,757.3	11,578,880.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
AN-4(RRQC1)	608521	ROBSON RANCH QUAIL CREEK LLC	Other Wells	1,651,757.2	11,574,748.3	-	421.1	429.0	539.0	609.7	619.3	583.8	525.9	575.9	741.7	579.1	656.1	619.3	656.5	597.9	702.3	583.6	590.7	664.4	659.3	659.3	616.3	770.0	656.5	621.8	621.8
Lawyers	608599	ROBSON RANCH QUAIL CREEK LLC	Other Wells	1,654,217.8	11,574,064.9	0.7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

CLEAR CREEK ASSOCIATES

TABLE 2. Well Locations and Pumping Rates (acre-feet) for Transient Simulation from Various Sources

Well Name	Reg_ID	OWNER	Well Category	UTM East (ft)	UTM North (ft)	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
QCWC_No11	608597	ROBSON RANCH QUAIL CREEK LLC	Other Wells	1,659,982.7	11,571,232.3	-	-	-	-	1.3	24.4	124.8	171.6	-	160.4	149.6	23.1	33.7	48.6	40.7	1.6	33.2	11.5	14.2	38.1	38.1	2.2	-	-	-	-
QCWC_No13	608522	ROBSON RANCH QUAIL CREEK LLC	Other Wells	1,656,124.3	11,576,026.5	42.9	36.6	94.8	98.8	134.9	192.1	117.8	224.9	265.2	358.5	504.9	511.8	565.4	490.7	443.9	29.5	109.3	-	-	-	-	-	-	-	-	-
QCWC_No16	608598	ROBSON RANCH QUAIL CREEK LLC	Other Wells	1,663,258.3	11,571,032.3	-	-	-	-	-	-	-	-	-	-	13.1	50.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Rosemont2	216391	ROSEMONT COPPER COMPANY	Other Wells	1,668,044.4	11,592,867.8	-	-	-	-	-	-	-	-	-	6.8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Rosemont3_future	999004	ROSEMONT COPPER COMPANY	Other Wells	1,658,963.5	11,598,284.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Rosemont4_future	999005	ROSEMONT COPPER COMPANY	Other Wells	1,658,947.1	11,597,620.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SUS_605342	605342	SAHUARITA SCH DIS 30	Other Wells	1,646,528.8	11,600,928.8	-	-	122.8	-	-	-	-	-	-	-	-	63.8	67.6	38.9	21.0	42.8	42.5	47.5	48.0	56.4	46.8	49.5	37.3	37.3	37.3	37.3
SUS_605344	605344	SAHUARITA SCH DIS 30	Other Wells	1,646,528.8	11,600,928.8	99.1	113.0	-	-	133.8	132.8	155.1	154.5	153.3	121.7	127.7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SahVal_WC	607626	SAHUARITA VILLAGE WATER COMPANY	Other Wells	1,650,428.8	11,602,236.3	31.6	31.3	33.7	27.8	31.3	27.8	27.8	28.4	28.7	31.2	29.4	31.3	19.9	60.9	15.3	24.4	20.4	22.2	16.7	26.9	23.2	23.2	22.3	22.3	-	-
SWC_23	216840	SAHUARITA WATER COMPANY	Other Wells	1,644,161.9	11,605,207.0	-	-	-	-	-	-	-	-	-	-	-	18.6	1,070.5	996.5	834.1	686.5	783.0	786.1	476.1	1,122.1	840.5	529.5	561.9	882.8	1,139.2	1,139.2
SWC1	611144	SAHUARITA WATER COMPANY	Other Wells	1,649,445.8	11,605,851.8	-	28.7	214.5	186.8	137.7	50.7	390.9	481.2	861.5	1,076.0	1,080.3	1,262.2	324.9	487.0	728.1	850.2	691.0	617.5	1,000.0	513.5	765.5	957.6	1,175.6	880.0	558.1	558.1
SWC3_future	999007	SAHUARITA WATER COMPANY	Other Wells	1,644,136.3	11,605,434.4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SWC4_future	999008	SAHUARITA WATER COMPANY	Other Wells	1,646,922.3	11,595,780.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SWC5_future	999009	SAHUARITA WATER COMPANY	Other Wells	1,644,136.3	11,595,780.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SWC6_future	999010	SAHUARITA WATER COMPANY	Other Wells	1,645,529.3	11,605,434.4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Rosemont1	214277	SANRITA PROPERTIES LLC	Other Wells	1,660,092.3	11,597,987.3	-	-	-	-	-	-	-	-	-	1.6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
StateLand	999006	STATE LAND	Other Wells	1,660,150.7	11,593,084.3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Saville_T	601910	THOMAS SAVILLE	Other Wells	1,672,800.6	11,589,905.5	-	-	-	-	-	-	-	-	-	1.0	0.5	-	-	-	-	-	-	1.0	1.0	1.0	1.0	1.0	-	-	-	-
TorresBlancas	543409	TORRES BLANCAS HOLDINGS LLC	Other Wells	1,648,319.9	11,552,841.7	-	-	-	-	-	-	-	-	-	-	535.6	602.2	564.0	583.3	498.3	529.4	547.5	554.6	579.5	540.1	481.0	481.0	519.4	499.9	455.0	455.0
Sahuarita	611142	TOWN OF SAHUARITA	Other Wells	1,662,546.0	11,603,197.9	-	-	-	137.4	295.9	570.6	341.2	502.5	292.3	379.6	398.7	459.9	299.6	275.7	267.1	132.8	168.0	123.2	135.9	152.5	126.8	173.6	187.3	167.1	160.1	160.1
Lamb	628534	V G LAMB	Other Wells	1,657,935.4	11,597,891.7	2.4	2.7	2.4	2.4	2.4	2.7	2.4	2.4	2.4	2.4	2.4	-	6.1	6.2	6.2	6.2	6.2	6.1	6.1	6.1	6.1	6.1	8.0	8.0	8.0	8.0
ValVerde	803064	VAL VERDE INC	Other Wells	1,648,243.0	11,587,345.8	8.9	7.8	8.9	8.9	8.2	8.1	6.5	8.6	5.7	30.4	5.8	1.1	2.6	2.2	1.3	1.7	1.7	1.7	1.6	1.5	1.5	1.8	1.8	1.8	1.6	1.6
VVDN_WC	602019	VALLE VERDE DEL NORTE WATER COMPANY	Other Wells	1,645,908.4	11,588,370.8	80.2	68.1	73.1	69.6	82.3	77.0	75.5	70.4	66.3	61.0	65.7	67.8	66.5	65.5	69.9	66.3	66.3	61.3	61.2	63.5	63.4	54.1	64.6	56.8	69.0	69.0
Cox	604432	W R COX	Other Wells	1,669,272.1	11,594,515.7	6.5	5.0	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2
Cox	627079	W R COX	Other Wells	1,669,272.1	11,594,515.7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

TABLE 3
2023 PUMPING RATES FOR PREDICTIVE SIMULATION

WELL NAME	ADWR REGISTRY NUMBER	2023 TOTAL GALLONS PUMPED	2023 TOTAL ACRE-FEET	2023 AVERAGE GPM
FFS-1	221662	325,112,898.14	997.73	618.56
FFS-2	221663	317,842,948.90	975.42	604.73
FFS-3	221664	47,319,214.22	145.22	90.03
FFS-4	221665	30,511,300.71	93.64	58.05
FFS-5	221666	300,203,863.00	921.29	571.17
FFS-6	221667	52,080,068.16	159.83	99.09
FFS WELL TOTAL			**3,293.13**	**2,041.62**
IW-01	623129	132,584,244.62	406.89	252.25
IW-02A	216464	66,761,839.13	204.88	127.02
IW-03A	201732	257,884,400.38	791.42	490.65
IW-04	623132	52,115,542.03	159.94	99.15
IW-05A	623133	-	-	-
IW-06A	545565	-	-	-
IW-08	508238	173,478,248.01	532.39	330.06
IW-09	508236	51,060,838.72	156.70	97.15
IW-10	508237	126,047,079.31	386.82	239.82
IW-11	508235	113,224,504.79	347.47	215.42
IW-12	545555	40,273,499.53	123.59	76.62
IW-13	545556	-	-	-
IW-14	545557	-	-	-
IW-15	545558	-	-	-
IW-16	545559	-	-	-
IW-17	545560	-	-	-
IW-18	545561	-	-	-
IW-19	545562	49,350,559.15	151.45	93.89
IW-20	545563	-	-	-
IW-21	545564	22,343,894.28	68.57	42.51
IW-22	200554	113,992,291.65	349.83	216.88
IW-23	200555	44,509,091.66	136.59	84.68
IW-24	200556	23,402,390.61	71.82	44.53
IW-25	219596	210,095,312.99	644.76	399.73
IW-26	219143	95,170,313.54	292.07	181.07
IW-27	219136	88,919,547.34	272.88	169.18
IW-28	219137	142,267,004.20	436.60	270.68
IW-29	222865	200,424,356.88	615.08	381.33
IW WELL TOTAL			**6,149.76**	**3,812.62**
PS-1	220861	382,328,015.54	1,173.32	727.42
PS-2	220862	419,162,925.01	1,286.36	797.50
PS-3	220863	469,206,703.10	1,439.94	892.71
PS-4	220864	476,678,836.66	1,462.87	906.93
PS WELL TOTAL			**5,362.50**	**3,324.55**
MC-1	221660	326,105,108.81	1,000.78	620.45
MC-2	221761	251,725,139.73	772.52	478.93
MC-3	221661	211,538,218.69	649.19	402.47
MC-4	220842	157,359,760.75	482.92	299.39
MC WELL TOTAL			**2,905.40**	**1,801.24**
TOTAL PUMPING			**17,710.79**	**10,980.03**

Notes:
ADWR = Arizona Department of Water Resources
IW = Interceptor Wells
FFS = Focused Feasibility Study
PS = Plume Stabilization
MC = Mass Capture
GPM = gallons per minute

CLEAR CREEK ASSOCIATES