



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

April 30, 2015

Via Certified Mail # 7013 1090 0000 3213 4271
Return Receipt Requested

Ms. Madeline Keller
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 2014 Mitigation Performance Review Report

Dear Ms. Keller:

In accordance with Section 5.2 of the Mitigation Plan¹, Freeport-McMoRan Sierrita Inc. submits the enclosed *Mitigation Performance Review* for reporting year 2014.

Please do not hesitate to contact me at (520) 393-2347 if you have any questions regarding this submittal.

Sincerely,

A handwritten signature in black ink that reads "Deborah L. Chismar".

Deborah Chismar
Sr. Environmental Specialist
Freeport-McMoRan Sierrita 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.



Ms. Madeline Keller
April 30, 2015
Page 2

DLC:dc
201500430_002 3

xc: Mindi Cross, Arizona Department of Environmental Quality
David Haag, Arizona Department of Environmental Quality
John Broderick, Sierrita
Lana Fretz, Sierrita
Ned Hall, Freeport-McMoRan Inc.
Stuart Brown, Freeport-McMoRan Inc.
Jim Norris, Clear Creek Associates

MITIGATION PERFORMANCE REVIEW FOR 2014

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, P.L.C.
221 North Court Avenue, Suite 101
Tucson, Arizona 85701

April 30, 2015

**MITIGATION PERFORMANCE REVIEW FOR 2014
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:



James R. Norris
Arizona Registered Geologist No. 30842

April 30, 2015

TABLE OF CONTENTS

1.0	INTRODUCTION.....	1
1.1	Background.....	1
1.2	Mitigation Action Objective	2
1.3	Role and Scope of the Mitigation Performance Review	2
2.0	GROUNDWATER PUMPING AND WATER MANAGEMENT FOR THE MITIGATION ACTION	4
2.1	Groundwater Pumping	4
2.1.1	Target Pumping Rates	4
2.1.2	Performance Goal Pumping Rates.....	5
2.1.3	Considerations for Groundwater Pumping Rates	5
2.2	Water Management.....	6
3.0	MITIGATION FACILITIES OPERATION AND GROUNDWATER MONITORING RESULTS FOR 2014.....	7
3.1	Mitigation Facilities Operation	7
3.2	Results of Groundwater Monitoring	8
3.2.1	Sulfate Concentration Data.....	8
3.2.1.1	Plume Extent.....	9
3.2.1.2	Drinking Water Supply and Sentinel Wells.....	9
3.2.1.3	Sulfate Concentrations in Mitigation Extraction Wells	9
3.2.1.4	Sulfate Concentrations in Monitoring Wells Marginal to the Plume.....	10
3.2.2	Water Level Data.....	10
3.2.2.1	Water Elevation Maps	11
3.2.2.2	Hydrographs.....	12
4.0	CAPTURE ZONE ANALYSIS	14
4.1	Site Data Review, Site Conceptual Model, and Mitigation Action Objective.....	14
4.2	Target Capture Zone	15
4.3	Capture Zone Indicated by Water Elevation Mapping	15
4.4	Capture Zone Indicated by Numerical Modeling	17
4.5	Evaluation of Sulfate Concentration Trends.....	17
4.6	Comparison of Wellfield Capture Zone to Target Capture Zone	18
4.7	Uncertainties	19
5.0	NUMERICAL SIMULATION OF FUTURE PLUME MIGRATION	21
5.1	Prediction of Plume Migration Under 2014 Pumping Rates	21
6.0	ASSESSMENT OF MITIGATION ACTION	23
6.1	Assessment of Mitigation Action Performance	23
6.2	Mitigation Pumping Program	23
6.3	Wellfield Operating and Monitoring Program.....	23
6.4	Groundwater Monitoring Program.....	24
7.0	REFERENCES	25

TABLES

- 1 Target Pumping Rates for Mitigation Action
- 2 Performance Goal Pumping Rates
- 3 2014 Groundwater Pumping Compared to Target and Performance Goal Pumping Rates
- 4 Post-Implementation Groundwater Monitoring Plan

FIGURES

- 1 Location Map
- 2 Sulfate Concentrations in Groundwater, Second Quarter 2014
- 3 Mitigation Action Extraction Wells and Pumping Facilities
- 4 Simulated Sulfate Concentration from 2020 to 2100 for Mitigation Plan Target Pumping Rates
- 5 Post-Implementation Groundwater Monitoring Locations
- 6 Sulfate Concentrations at MO-2007-1
- 7 Sulfate Concentrations at Drinking Water Supply Wells
- 8 Sulfate Concentrations at Sentinel Wells
- 9 Groundwater Elevations, Second Quarter 2013
- 10 Groundwater Elevations, Second Quarter 2014
- 11 Groundwater Elevations, Fourth Quarter 2014
- 12 Groundwater Elevations at Sentinel Wells
- 13 Location of Monthly Water Level Measurements
- 14 Capture Zone Analysis, Second Quarter 2013
- 15 Capture Zone Analysis, Second Quarter 2014
- 16 Capture Zone Analysis, Fourth Quarter 2014
- 17 Capture Zone Analysis, Kriged Water Elevations for Fourth Quarter 2014
- 18 Simulated 2014 Groundwater Elevations and Capture Zone
- 19 Simulated Sulfate Concentrations for 2014
- 20 Sulfate Concentrations at ESP-2, ESP-3, and ESP-4
- 21 Interpreted and Target Capture Zones, Fourth Quarter 2014
- 22 Simulated and Target Capture Zones for 2014
- 23 Simulated Sulfate Concentration from 2020 to 2100 for 2014 Pumping Rates

APPENDICES

- A Sulfate Concentration Data
- B Graphs of Sulfate over Time in Extraction Wells
- C Water Elevation Data
- D Hydrographs for Wells with Monthly Measurements in 2014
- E Numerical Model Update

1.0 INTRODUCTION

This mitigation performance review provides an evaluation of the effectiveness of the groundwater 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 Arizona Department of Environmental Quality (ADEQ) and Sierrita (ADEQ, 2006).

The mitigation action is described in the Mitigation Plan submitted to ADEQ in 2013 (Clear Creek Associates, 2013). 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 sulfate concentrations at drinking water supply wells near the plume from exceeding 250 milligrams per liter (mg/L) at the point of use. Groundwater monitoring for the mitigation action is conducted to track plume migration, monitor for sulfate in drinking water supplies, 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 during 2014; the first 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.

Existing drinking water supplies in the vicinity of the STI are currently not affected by sulfate in excess of 250 mg/L. The purpose of the mitigation action is to protect existing drinking water supplies by controlling future plume migration so that the plume does not affect drinking water supplies.

In October 2008, Sierrita submitted a Feasibility Study (FS) 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 FS reported a conceptual design of the mitigation action that 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 assumed for 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 several 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 the required new pumping and pipeline facilities at the end of 2013. The Mitigation Plan was revised based on the constructed wellfield and submitted to ADEQ in December 2013. The Mitigation Plan describes the process Sierrita will follow to implement the mitigation action; including its operation, monitoring, evaluation, adaptation, termination, and reporting. ADEQ is currently reviewing the Mitigation Plan (ADEQ, 2014).

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 FS 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. Figure 2 is a map showing the extent of the sulfate plume in the second quarter of 2014; the quarter with the largest geographic extent of groundwater samples. The mitigation action is designed to accomplish the mitigation action objective by preventing the plume from migrating to existing drinking water supply wells.

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

The mitigation performance review uses mitigation facilities operation 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 downgradient of the plume
- Water level data from wells positioned to monitor drawdown in the vicinity of mitigation wellfields.

Mitigation facilities operation monitoring data are used to plan wellfield operation and maintenance (O&M) activities, and document groundwater pumping activities. The wellfield pumping data are compared to the pumping targets specified in the Mitigation Plan and used to update the numerical model. Water quality monitoring data are used to determine the extent of the plume, show the time trends of sulfate concentrations at various wells due to the mitigation action, and document sulfate concentrations in drinking water supply wells. Water level monitoring data are used to delineate groundwater potentiometric conditions in the vicinity of the plume and mitigation facilities, identify the capture zone created by mitigation pumping, and calibrate the numerical model.

The numerical model is updated for the mitigation performance review to incorporate the actual pumping and other hydrogeologic conditions during the review period. The updated model is used to simulate the 2014 capture zone of the mitigation wellfield based on the actual pumping achieved and predict future migration of the plume under assumed pumping conditions.

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. Under the Mitigation Plan schedule, performance review reports will be prepared for 2014, 2015, 2016, 2017, and 2018, and every five years thereafter. The adaptive management process described in Section 4.1 of the Mitigation Plan would be used in the event that analysis conducted for the mitigation performance review indicates that the mitigation action objective is not being met and a significant modification of the mitigation action is needed.

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 wells: interceptor wells (IW), focused feasibility study (FFS) wells, plume stabilization (PS) wells, and mass capture (MC) wells. Figure 3 shows the locations of the groundwater extraction wells, pipelines, and pumping facilities for the mitigation action.

As described in the FS and 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 additional 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.

The Mitigation Plan identifies two sets of pumping rates for the mitigation action: groundwater pumping rates for Alternative 3 (listed on Table 1 of the Mitigation Plan and hereafter called “target” pumping rates) and performance goal pumping rates. The target pumping rates are meant to accomplish the source control, plume stabilization, and plume reduction objectives of Alternative 3 of the FS. Performance goal pumping rates are meant to accomplish the objectives of source control and plume stabilization only.

2.1.1 Target Pumping Rates

The groundwater flow and sulfate transport model was updated in 2013 to reflect conditions through 2012, the well locations of the as-built wellfield, the measured pumping capacities of the wells, and estimated STI seepage (Clear Creek Associates, 2014b and 2014c). The 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. The target pumping rates are listed in Table 1.

The numerical model was used to simulate future plume migration under the target pumping rates. The results of the simulation were included in the Mitigation Plan and are shown on Figure 4. The simulation results predict that the areal extent of the plume would decrease over time and that the sulfate plume would not reach public or private drinking water supply wells.

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. Plume reduction pumping is not needed to meet the mitigation action objective, but is used to reduce the volume of future pumping and shorten the duration of the mitigation action. The pumping rates needed for source control and plume stabilization are identified as performance goal pumping rates described below.

2.1.2 Performance Goal Pumping Rates

Table 2 lists performance goal pumping rates in the Mitigation Plan. Performance goal pumping rates are pumping rates that 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. In reviewing the Mitigation Plan, it was determined that the performance goal for well PS-1 was incorrectly listed as 750 gallons per minute (gpm) instead of 700 gpm. This error is corrected on Tables 2 and 3 of this report.

The performance goal pumping rates were determined using the numerical model to iteratively simulate various groundwater pumping schemes to identify the minimum extraction rates needed for source control and plume stabilization (Hydro Geo Chem, Inc. and Clear Creek Associates, 2010, Clear Creek Associates, 2014c). The performance goals are useful metrics for water management planning because they set base levels for pumping needed to meet the mitigation action objective in the short-term; in the event that mine water management requires a reduction in mitigation pumping.

2.1.3 Considerations for Groundwater Pumping Rates

It is important to understand that the target pumping rates and performance goal pumping rates are not unique in that there can be different combinations of pumping locations and rates that accomplish the groundwater pumping objectives of the mitigation action. Periodic assessment of the target pumping rates and performance goal pumping rates based on groundwater monitoring data is needed for several reasons. First, it is expected that additional calibration of the hydraulic properties in the numerical model will be needed as monitoring documents 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. This will influence the degree to which the pumping specifications accomplish the pumping objectives. Second, the extraction wells will change over time. Well maintenance factors may require new wells to be added to the wellfield as old wells are retired, the locations of points of extraction may change over time as new wells are installed, or the pumping rates at existing wells may decline due to well efficiency factors as wells age. 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.

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 the pit or through treatment of some or all of the groundwater, as described by the FS.

Sierrita's active mine life is a factor impacting the amount of mitigation pumping after mining ceases. In 2012, Sierrita announced a larger mine reserve and increased mine life compared to what was recognized at the time the FS was prepared. The mine life was increased by 46 years, from 2043, as assumed for the FS, to 2089. The longer mine life means that there is a longer time over which Sierrita can consume affected water from mitigation action pumping and potentially implement a new tailing impoundment that would reduce the amount and duration of mitigation pumping after mining ceases.

The Mitigation Plan assumes that if water treatment is needed at some point after mine closure, the brine waste from treatment would be placed in the Sierrita open pit. A water balance for the Sierrita open pit and an analysis of the ability of the pit to operate as a hydraulic sink while receiving solutions after mine closure are contained in the FS.

3.0 MITIGATION FACILITIES OPERATION AND GROUNDWATER MONITORING RESULTS FOR 2014

This section describes the groundwater pumping and the results of groundwater monitoring during 2014.

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 required to execute groundwater extraction 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 commenced in January 2014 with the startup of the FFS, PS, and MC extraction wells. Wellfield operation and groundwater pumping for 2014 are summarized in annual reports prepared by BasinWells Associates and submitted to ADEQ (e.g., BasinWells Associates, 2015). The total groundwater withdrawal under the Mitigation Plan in 2014 was approximately 19,529 acre feet, pumped from 39 wells. Table 3 lists the 2014 total gallons pumped and average groundwater pumping rate for extraction wells, and compares the 2014 rates to the target and performance goal pumping rates of the Mitigation Plan.

The 2014 average wellfield pumping rate was 12,107 gpm, which is 84% of the target pumping rate of 14,330 gpm and 114% of the performance goal rate of 10,643 gpm. The IW, FFS, PS, and MC wells pumped at 77%, 96%, 75%, and 92%, respectively, of their target pumping rates, and 77%, 244%, 75%, and 191%, respectively, of their performance goal pumping rates. One reason for lower than targeted pumping at the IW wells is that several wells were offline for periods of months while problems were diagnosed and addressed (BasinWells Associates, 2015). Additionally, IW-26 was inoperative throughout 2014 due to multiple pumping equipment failures. An additional new extraction well, IW-29 (Figure 3), was installed in 2014 and began pumping in September 2014 at a rate of approximately 580 gpm.

According to BasinWells Associates (2015), the mitigation wellfield had an average run time percentage of 70.1%. Well run time percentages for the IW wells averaged 60.4% and ranged from 20.5% to 92.5% in 2014. The 2014 run time percentages for the FFS, PS, and MC wells averaged 87.0%, 86.1%, and 89.4%, respectively. BasinWells Associates (2015) reports that the shutdown of wells occurred due to well and transmission line maintenance, non-pumping monitoring activities,

and storage capacity limitations. Operation of the IW wells at the target pumping rates is challenging because the pumping capacities of the IW wells are low due to their position in a part of the aquifer with small saturated thicknesses compared to FFS, PS, and MC wells to the east. In addition, 14 of the 25 IW wells are older than 20 years, making them prone to more frequent maintenance than newer wells.

Based on the wellfield operational data, the wellfield is being operated at its approximate current maximum capacity given water level conditions, well efficiencies, and equipment/facilities condition and sizing. The numerical model was used to simulate the wellfield pumping rates achieved in 2014 and examine the predicted sulfate plume migration under current conditions, as discussed in Sections 4 and 5. The results of the numerical modeling are used to evaluate whether the differences between the actual 2014 pumping rates and the target and performance goal pumping rates are significant with respect to the mitigation action objective and predicted long-term migration of the plume.

3.2 Results of Groundwater Monitoring

Sierrita conducts groundwater monitoring pursuant to the Post-Implementation Groundwater Monitoring Plan in the Mitigation Plan. The purpose of groundwater monitoring is to document water quality conditions and groundwater elevations during the mitigation action.

Table 4 is the monitoring schedule for post-implementation groundwater monitoring. 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. Data collected for groundwater monitoring are reported to ADEQ semiannually. The results of groundwater monitoring in the first through third quarters of 2014 are contained in two reports submitted to ADEQ (Clear Creek Associates, 2014a and 2014d). Groundwater monitoring data for the fourth quarter 2014 will be submitted in the semiannual report due May 31, 2015 per Section 5.1.2 of the Mitigation Plan. The methods of groundwater monitoring are described in the semiannual groundwater monitoring reports.

3.2.1 Sulfate Concentration Data

Groundwater samples are collected to measure sulfate concentrations over time. The sulfate concentration data are used 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. Sulfate determinations are made on a dissolved basis. Sulfate concentration data collected under the Mitigation Order are compiled 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 2 shows the sulfate concentration map for the second quarter of 2014; the quarter with the largest geographic extent of samples. The sulfate plume (as defined by the 250 mg/L sulfate concentration contour) extends northeast from the southeastern corner of the tailing impoundment to the east of co-located wells CW-3/MO 2007-5. The plume extends north from wells CW-3/MO-2007-5 to the west of wells NP-2/MO 2007-3 and north to the vicinity of well TMM-1.

Comparison of the sulfate concentration data for the second quarter of 2014 with data collected in previous quarters indicates that there has not been any significant change to the overall plume geometry since 2006, except in the vicinity of the MO-2007-1 wells where northward migration of the plume occurred prior to implementation of the Mitigation Plan. Figure 6 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 remains greater than 250 mg/L, but the concentration at MO-2007-1C declined below 250 mg/L in 2013 and 2014. The mitigation action groundwater pumping initiated in 2014 is designed to limit the northward migration of sulfate concentrations in excess of 250 mg/L.

3.2.1.2 Drinking Water Supply and Sentinel Wells

Figures 7 and 8 show sulfate concentrations at drinking water supply wells in the vicinity of the plume and at sentinel wells positioned laterally between the plume and drinking water supply wells. Sulfate concentrations at drinking water supply wells in 2014 were all less than 90 mg/L and the 250 mg/L mitigation action objective. Concentrations at all the drinking water supply wells are steady or declining over time, except for CW-6. Sulfate concentrations at CW-6 increased to a high close to 92 mg/L between 2010 and mid-2013 and decreased to approximately 80 mg/L from mid-2013 through 2014. Sentinel wells are meant to detect the plume before it could migrate to drinking water supply well. Sulfate concentrations at sentinel wells were all less than 90 mg/L in 2014. The sulfate concentrations at drinking water supply wells and sentinel wells were less than the 135 mg/L action level set in the Mitigation Plan to trigger 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. Sulfate concentrations at extraction wells are generally greater than 1,000 mg/L (Figure 2). Sulfate concentrations at the extraction wells vary in

magnitude depending on their position relative to the plume; with extraction wells adjacent to and near the tailing impoundment having higher concentrations than those farther from the tailing impoundment. Wells IW-1, IW-2A and IW-25 at the southeast corner of the tailing impoundment have the lowest sulfate concentrations of the extraction wells; with concentrations at IW-2A being less than 250 mg/L. The low sulfate concentrations occur because groundwater pumping at IW-1, IW-2A, and IW-25 pulls in dilute groundwater from south of the STI, which dilutes and displaces the plume.

Appendix B contains graphs of sulfate concentration over time in mitigation extraction wells. The graphs show that sulfate concentrations at most extraction wells do not have significant increasing or decreasing trends over time, although concentrations at an individual well can vary over a range of 400 mg/L. The lack of an increasing or decreasing trend indicates that the source concentrations have not increased or decreased over time and that there is little dilution occurring within the plume

3.2.1.4 Sulfate Concentrations in Monitoring Wells Marginal to the Plume

Sulfate concentrations in wells marginal to the sulfate plume can be used to discern plume migration. The sentinel wells (Figure 2 and 3) are monitoring wells along the east margin of the plume. Figure 8 shows that sulfate concentrations in the sentinel wells are not increasing; indicating no measurable eastward movement by the sulfate plume. Northward movement of the plume prior to the start of mitigation pumping is indicated by increasing sulfate concentrations at MO-2007-1 (Figure 6). Monitoring wells north of MO-2007-1 do not have elevated sulfate concentrations, but the screened intervals of those wells do not monitor the entire saturated thickness of the basin fill. For this reason, there is uncertainty in the exact location of the north boundary of the plume. As explained in the semiannual groundwater monitoring reports, the northern position of the 250 mg/L sulfate concentration contour has been inferred based on groundwater velocity calculations.

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 for 2014 are available from both the groundwater monitoring program and the wellfield O&M program. These data were compiled and used to characterize water levels during the first year of pumping under the Mitigation Plan. The water level data are contained in Appendix C.

Two types of water level measurements are available: static and dynamic. Static water level measurements are collected from non-pumping wells and represent the potentiometric head of the

aquifer. Dynamic water level measurements are measurements collected at operating pumping wells. Dynamic water levels can be the result of water table drawdown due to pumping and additional head losses due to well efficiency. The dynamic water levels have not been corrected for well efficiency or other head losses. Nonetheless, dynamic water level measurements provide important information on potentiometric conditions in the active portion of the wellfield where the water level is being lowered to capture the sulfate plume.

3.2.2.1 Water Elevation Maps

Figures 9, 10, and 11 are hand-contoured water elevation maps for the second quarter of 2013 (the quarter with the largest geographic coverage of measurements) and the second and fourth quarters of 2014. Both static and dynamic water levels are posted on the maps to show developments at the pumping wells. The 2013 map is shown to illustrate conditions prior to the start of Mitigation Plan pumping. These water elevation maps differ from the maps reported in the semiannual groundwater monitoring reports (Clear Creek Associates, 2014b and 2014C) because they contain additional information obtained from the wellfield O&M program and use different contour intervals.

Comparison of Figures 9, 10, and 11 shows changes in the water elevation surface, also called the potentiometric surface, since the start of pumping under the Mitigation Plan. The water elevation contours represent lines of equal hydraulic head, or equipotential lines. Prior to 2014, water elevation depressions were associated with the IW wells pumping along the east end of the STI. Groundwater flow from the east end of the STI was northeasterly, toward Green Valley. In 2014, the start of pumping at the FFS, PS, and MC wells caused water elevation depressions to develop in the vicinity of these wells. The water elevation depressions are based on dynamic water level measurements from the pumping wells, but are corroborated by static measurements at nearby monitor wells. The depressions are interpreted to be due to the constructive interference of overlapping drawdown cones associated with the extraction wells. The apparent extent of the depressions associated with the FFS wells increased between the second and fourth quarters of 2014 with the continued propagation of drawdown effects from pumping.

The pumping-induced depressions caused the orientation of the water elevation contours in the vicinity of the FFS, PS, and MC wells to change between 2013 and 2014. Because groundwater flow is perpendicular to equipotential lines and in the direction of the lowest groundwater elevation, the water elevation data indicate that groundwater flow direction changed from northeast in 2013 to being toward the depressions in 2014. The change in flow toward the extraction wells creates a zone of groundwater capture around the extraction wells. A capture zone analysis based on the water elevation maps is discussed in Section 4.1.

3.2.2.2 Hydrographs

Figure 12 shows time series graphs of groundwater elevation at the sentinel wells. The time series graphs show that since 2007 water levels at these wells have declined at rates ranging from 2.6 to 5.7 feet per year. Groundwater elevations at the sentinel wells are typically slightly higher in the first and second quarters of the year than during the third and fourth quarters. The rate of water level decline increased in 2014 at MO-2007-3B, -3C, -4A, -4B, and -4C and NP-2 due to the start of Mitigation Plan pumping as described below.

Under the Post-Implementation Groundwater Monitoring Plan, static water level measurements were made monthly at select monitoring wells, including the sentinel wells, in the immediate vicinity of the extraction wells (Figure 13). The wells with monthly water level measurements cover a large geographic area around the extraction wells. The more frequent water level measurements were made to document water elevation changes during the start of pumping when the effects of drawdown due to pumping are most pronounced. Hydrographs for the wells with monthly measurements in 2014 are in Appendix D. The date range on the hydrographs is from 2006 through 2014 to show pre-existing conditions and changes that occurred with the start of Mitigation Plan pumping in January 2014.

The hydrographs in Appendix D display several types of behavior, not all of which can be related to the start of Mitigation Plan pumping. Wells that show the most immediate and sustained apparent effects of the start of Mitigation Plan pumping are MH-25A, B, and C; MH-26A, B, and C; and MO-2007-2 which display two line segments: a pre-2014 segment with a negative slope of about 1.0 to 1.4 feet/year and a post-2014 slope with a negative slope of approximately 30 feet/year that appears to begin at the start of 2014 and persists through the year. These wells are close to the FFS, PS and MC wells and the increase in slope in 2014 is interpreted to be drawdown that occurred rapidly on the start of Mitigation Plan pumping.

Wells MO-2007-1A, B, and C; M-8 and M-9 behave similarly to the previously discussed wells, but have a third line segment that indicates a reduced rate of water level decline in the last months of 2014. This third line segment may represent a reduction in the rate of drawdown over time, as is typical of drawdown due to pumping. Wells MH-13A, B, and C; MO-2007-3B and C; NP-2; MO-2007-4A, B, and C; MO-2007-5B and C; and CW-3 show the effects of drawdown, but the start of the drawdown response appears to be delayed by two quarters until mid-2014 and the pre-2014 water level patterns can be more complicated than those described above. This delay likely represents a lag time for the drawdown effects from the wellfield to migrate outward to wells that are more distant from the FFS, PS, and MC centers of pumping.

The water level hydrographs document the development of the potentiometric field around the extraction well system. The various hydrograph patterns at different wells are the result of the local hydraulic properties and boundaries of the aquifer; the distance of the observation point from the wellfield, pre-existing water level decline patterns, and the superposition of overlapping cones of depression around pumping wells. The data indicate a high degree of hydraulic connectivity in the aquifer because the response to pumping is evident over a large area. 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 (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 FS (Hydro Geo Chem, Inc., 2008). Section 3 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 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 a significantly lower hydraulic conductivity than 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 (Figures 2 and 3). 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 over time 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; indicating that the basin fill aquifer in the vicinity of the plume is not subject to significant transient phenomena, such as seasonal groundwater flow direction changes, that can complicate pumping-based plume control actions.

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 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 that must 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 (Figure 2) 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 flow line interpretation as a method of water level interpretation for capture zone assessment. Groundwater flow lines are interpreted as being orthogonal to water elevation contours and in the direction of lower potential (i.e., groundwater flows from higher groundwater elevations to lower 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 flow line interpretation is used to evaluate the extent of capture developed by the hydraulic sinks created by the mitigation wellfield.

Figures 14, 15, and 16 show the interpreted groundwater flow lines and capture zones for the second quarter of 2013 and the second and fourth quarters of 2014, respectively, based on previously presented water elevation maps. The flow lines are hand drawn to be perpendicular to equipotential contours. The capture zones are interpreted based on the groundwater flow direction.

Figures 14, 15, and 16 show a significant change in groundwater flow directions between 2013 and 2014. In 2013, groundwater flowing from the portion of the aquifer immediately downgradient of the IW wells flowed easterly and then northerly into the regional aquifer (Figure 14). The 2013 capture zones of the IW wells were narrow zones around the northern IW wells and broader zones around the southern IW wells. In 2014, with the initiation of groundwater pumping under the Mitigation Plan, groundwater level declines occurring in the vicinity of the FFS, PS, and MC wells created depressions that act hydraulic sinks. The hydraulic sinks around the FFS, PS, and MC wells operate in conjunction with the IW wells and add to the total capture due to groundwater pumping. The groundwater flow pattern that developed in 2014 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 (Figures 15 and 16). 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 (Figures 14 to 16).

EPA (2008) points out that because water elevation contour maps require interpolation of water elevations at points between measurements they can be susceptible to bias whether they are hand drawn or drawn based on interpolation algorithms. EPA (2008) recommends creating water elevation maps by multiple methods to check for potential bias. The fourth quarter 2014 water elevation data were analyzed with Kriging software to develop an independent water elevation map for comparison with the hand contoured map. Kriging is a geostatistical interpolation technique commonly applied for spatial analysis of correlated hydrogeologic phenomena (e.g., water level, hydraulic property, and hydrochemistry data).

Figure 17 shows a fourth quarter groundwater elevation map estimated by Kriging. Also on Figure 17 are inferred groundwater flow lines and the interpreted wellfield capture zone. The Kriged water elevation contours show a similar pattern as the hand drawn contours, although the two interpretations differ in detail, especially near the IW wells where water levels change significantly over short distances. Overall, the groundwater flow lines and wellfield capture zone inferred from the Kriged and hand-contoured maps are very similar. The similarity of the hand-drawn and Kriged maps supports the conclusion that the hand-drawn contours are objective interpretations.

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. 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 for this mitigation performance review to incorporate the actual pumping and other hydrologic conditions during the review period. The model was used to simulate the capture zone for mitigation action pumping through 2014

A description of the numerical model update is contained in Appendix E. The numerical model was updated with mitigation action pumping through 2014. Regional (non-Sierrita) pumping, such as municipal and agricultural pumping, was updated through 2013 based on the most recent filings with Arizona Department of Water Resources. Recharge sources, such as seepage from the STI and recharge from wastewater treatment facilities, were updated based on information available through 2014 for the STI and through 2013 for other recharge sources.

Figure 18 shows the capture zone indicated by numerical modeling of groundwater pumping through 2014. The capture zone is interpreted from gradient vector plots created with the predicted groundwater elevations. Three capture zone outlines are shown on Figure 18 because slightly different capture zones are indicated for layers 1, 2, and 3 of the model. The simulated 250 mg/L sulfate concentration contour is shown on Figure 19.

4.5 Evaluation of Sulfate Concentration Trends

Step 5 of EPA's approach to capture zone evaluation uses groundwater monitoring data from outside the plume as a means of interpreting capture. The idea of using concentration trend data for wells outside the plume is that concentrations should not increase above the mitigation action objective in wells far from the target capture zone and should decrease in sulfate-affected wells close to and downgradient 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 (Section 3.2), and ESP-2 and ESP-3 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 2). Drinking water and sentinel well sulfate concentrations are shown on Figures 7 and 8, respectively. Sulfate concentrations at 4 of the 5 drinking water supply wells declined or were steady from 2006 to the fourth quarter of 2014. The CW-6 drinking water supply well increased in sulfate from 2010 to

2013, but declined slightly in 2013 and 2014. The sentinel wells do not show increasing trends in sulfate concentration over the 2006 to 2014 period, but several wells show shorter term trends on the scale of several years. Sulfate concentrations in sentinel wells MO-2007-3B, -3C, -4B, -4C and -6A declined significantly starting in 2013, increased at MO-2007-6B between 2013 and 2014 and increased at NP-2 from 2011 to 2013 and then declined through 2014.

Figure 20 shows sulfate over time at wells ESP-2, ESP-3, and ESP-4. These wells lie along the east edge of the plume (Figure 2). Sulfate concentrations at ESP-2 and ESP-3 have been steady at less than 50 mg/L since 2006. ESP-4 has been within the plume since 2006, but close to the plume edge. ESP-4 displayed a decline in sulfate concentrations in 2014.

The drinking water supply, sentinel, and ESP wells do not show sulfate concentration trends suggestive of advancing plume migration. The general lack of increasing concentration trends at drinking water supply wells and the decreasing trends occurring at the sentinel wells and ESP-4 in 2013 and 2014 are interpreted as evidence there is negligible plume migration to the east. The lack of eastward plume migration is consistent with the capture zone interpreted from water elevation maps and numerical modeling results. As discussed in Section 3.2.1.1, incomplete well coverage at the north end of the plume limits the interpretation of trends in that area.

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 21 and 22 compare the fourth quarter 2014 wellfield capture zones determined by hand contoured water level data and numerical model simulation, respectively, to the target capture zone.

The wellfield capture zone interpreted from fourth quarter 2014 water elevation data overlaps the majority of the target capture zone; indicating that groundwater with sulfate greater than 250 mg/L is being captured by the mitigation wellfield. The wellfield capture zone does not overlap the northern end of the target capture zone northeast of the PS wells. The wellfield capture zone indicated by numerical modeling (Figure 22) overlaps the majority of the target capture zone, but, like the capture zone based on groundwater elevations, does not overlap the northern portion of the target capture zone.

Affected groundwater that is outside the wellfield capture zone could possibly migrate northward as Mitigation Plan pumping continues. Factors that could prevent or mitigate northward movement of the plume outside the wellfield capture zone are the reduced hydraulic gradient at the north end of the

plume and expansion of the wellfield capture zone over time. The hydraulic gradient between the MO-2007-1 and TMM-1 wells at the front of the plume near the PS wells has declined significantly since the start of Mitigation Plan pumping. For example, the hydraulic gradient between MO-2007-1C and TMM-1 decreased from 0.0106 and 0.0087 in the second and fourth quarters of 2013, respectively, to 0.0024 and 0.0043 in the second and fourth quarters of 2014, respectively, based on the measurements reported in Appendix C. The 50% to 80% reduction in hydraulic gradient results in an equivalent percentage reduction in the groundwater velocity. Thus, the plume velocity at the northern front is significantly less than it was prior to the start of Mitigation Plan pumping; on the order of 100 to 200 feet per year in the second and fourth quarters of 2014 versus 400 to 480 feet per year in the second and fourth quarters of 2013. Numerical modeling predicts that the wellfield capture zone will expand northward approximately 1,000 feet by 2020. The reduced groundwater velocity and expansion of the wellfield capture zone may mitigate the potential for northward migration of the portion of plume outside the wellfield capture zone. The numerical model was used to assess the potential future effects of the current wellfield capture zone. Section 5 describes groundwater flow modeling conducted to assess the fate of affected groundwater outside the wellfield capture zone.

4.7 Uncertainties

EPA (2008) recommends that uncertainties in the capture zone analysis be identified. Key uncertainties in the current analysis are related to the position of the northern plume edge and the use of the 250 mg/L sulfate concentration contour as the target capture zone.

The exact position of the northern edge of the plume is uncertain and is currently estimated based on groundwater velocity calculations as discussed in Section 3.2.1.4. That uncertainty translates to uncertainty in the target capture zone. Additional groundwater monitoring wells would be needed at the northern plume edge to better estimate its location.

The 250 mg/L sulfate concentration contour defining the plume was selected as the target capture zone as a conservative estimate of the region requiring capture to meet the mitigation action objective. Selection of the plume outline is conservative. First, the location of the 250 mg/L contour is selected based on the highest sulfate concentration measured at co-located wells 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, a small portion of the plume not captured by the wellfield, such as the northern portion of the plume outside the wellfield capture zone, may migrate slowly enough that it is diluted by advective and dispersive mixing with low sulfate groundwater.

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 analysis 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 collected at a relatively large network of groundwater monitoring wells.

5.0 NUMERICAL SIMULATION OF FUTURE PLUME MIGRATION

The capture zone analysis (Section 4) indicates that the 2014 capture zone of the mitigation wellfield encompasses most of the target capture zone of the sulfate plume, but may not encompass the northern-most portion. The numerical model was used to predict the future plume migration under the 2014 average pumping rates to assess the significance of two factors: the divergence between the 2014 average pumping rates and the target pumping rates (Section 3.1 and Table 3) and the possible lack of capture at the north portion of the plume.

The methodology for the predictive simulations is described in Appendix E. The predictive simulations are based on pumping projections for the mitigation action, projections of future regional groundwater pumping and recharge by the Upper Santa Cruz Pumpers and Users Group (2012), and numerical model estimates of future STI seepage through the projected end of mine life in 2089.

5.1 Prediction of Plume Migration Under 2014 Pumping Rates

Predictive simulations of sulfate plume movement were used to assess the adequacy of mitigation action pumping. A simulation was conducted assuming that the 2014 average pumping rates for the IW, FFS, PS, and MC wells (Table 3) are held constant from 2015 through 2100. The simulated 250 mg/L sulfate concentration contours for 2020, 2040, 2060, 2080, and 2100 for the 2014 average pumping rates are shown on Figure 23.

The simulation results show that the east margin of the plume migrates westward between 2015 and 2040, and that the bulk of the plume is located beneath Sierrita property by 2040. Sulfate concentrations exceeding 250 mg/L are predicted to extend northeast and northwest from the PS wells through 2100, although these remnants of the plume are not predicted to migrate over time. Sulfate concentrations in drinking water supply wells north of the PS wells are not predicted to exceed 250 mg/L. The predicted plume for the 2014 average pumping rates has a similar eastward extent as the predicted plume for the Mitigation Plan target pumping rates (Figure 4), but differs by having remnants of the plume extending northward from the PS wells through 2100.

Based on the results of this simulation, continued pumping at the 2014 average extraction rates would achieve the mitigation action objective of protecting drinking water supplies. The significance of the 2014 average pumping rates being lower than the Mitigation Plan target rates and the apparent lack of capture of the northern portion of the plume is shown by comparing Figures 4 and 23. The Mitigation Plan target rates are predicted to reduce sulfate concentrations to less than 250 mg/L in the vicinity of the PS wells as compared to the 2014 average annual rates which result in residual

sulfate concentrations greater than 250 mg/l. Both the Mitigation Plan target rates and the 2014 average pumping rates are predicted to meet the mitigation action objective.

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 and numerical modeling. Based on the currently available data, there is no need to modify the mitigation action at this time.

6.2 Mitigation Pumping Program

The 2014 average pumping rates at the FFS and MC wells were 96% and 92%, respectively, of their Mitigation Plan target pumping rates and exceeded their performance goal pumping rates (Table 3). The average pumping rates at the IW and PS wells were approximately 77% and 75% of their target pumping rates and performance goal rates. The target and performance goal pumping rates are the best estimates at this time of the pumping needed to attain the various pumping objectives (Section 2.1.1 and 2.1.2). The target and performance goal pumping rates are not absolute, invariable values; the adequacy of the rates needs to be judged and the rates modified, if needed, based on groundwater monitoring data indicating the actual state of capture in the aquifer.

The capture zone analysis in Section 4 indicates that the 2014 capture zone generated by the mitigation wellfield encompasses the majority of the sulfate plume, but that capture may be incomplete at the northern portion of the plume. As discussed in Section 5, simulation of future plume migration assuming continuation of the 2014 average pumping rates (Table 3) from 2015 through 2100 predicts that residual plume concentrations may remain in the vicinity of the PS wells through 2100, but that the plume does not migrate or affect drinking water supplies. Based on groundwater modeling results, groundwater pumping at the 2014 average pumping rates is predicted to meet the mitigation action objective.

6.3 Wellfield Operating and Monitoring Program

The wellfield O&M program met its operational objective of providing continuous operation of the mitigation wellfield. The mitigation wellfield, which is comprised of 39 extraction wells, several pumping stations and storage tanks, and miles of pipeline, had a wellfield-wide run time percentage of 70.1% (Section 3.2). 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 2014 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.

Sierrita will continue to monitor groundwater conditions and drinking water supplies pursuant to the Post-Implementation Groundwater Monitoring Plan. As discussed in Section 3.2.2.2, water levels in the vicinity of the plume are declining in response to the initiation of Mitigation Plan pumping. It may take several years for the drawdown associated with the Mitigation Plan pumping to stabilize.

Sierrita will install four additional groundwater monitoring wells at the northern end of the plume to address the uncertainties described in Sections 3.2.1.4 and 4.7. The wells will be positioned to identify the plume edge and characterize water levels in the vicinity of the PS wells. The additional monitoring wells will provide data with which to better assess capture at the north end of the plume. Installation of the new monitoring wells is expected to begin in the fourth quarter of 2015.

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.

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

BasinWells Associates. 2015. 2014 Freeport-McMoRan Sierrita Inc. Sulfate Mitigation Action Well Field Operations Performance Technical Memorandum Report. March 31, 2015.

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 P-50-06. December 18, 2013.

Clear Creek Associates. 2014a. Semiannual Groundwater Monitoring Report for Samples Collected during the Fourth Quarter 2013 and First Quarter 2014, Mitigation Order on Consent Docket P-50-06, Pima County, Arizona. April 17, 2014.

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

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

Clear Creek Associates. 2014d. Semiannual Groundwater Monitoring Report for Samples Collected during the Second and Third Quarters 2014, Mitigation Order on Consent Docket P-50-06, Pima County, Arizona. October 27, 2014.

Freeport-McMoRan Sierrita, Inc. (Sierrita). 2009a. Correspondence from Ned Hall, Sierrita, to Cynthia S. Campbell, ADEQ, Re: Mitigation Order on Consent Docket P-50-06, Response to ADEQ Comments on Recommended Groundwater Monitoring for Sulfate. May 15, 2009.

Hydro Geo Chem, Inc. 2006. Interim Action Identification Technical Memorandum for Mitigation Order on Consent Docket No. P-50-06. December 22, 2006.

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.

Sierrita, 2009a. Correspondence from Ned Hall, Sierrita, to Cynthia S. Campbell, ADEQ, Re: Mitigation Order on Consent Docket No. P-50-06, Response to ADEQ Comments on Recommended Groundwater Monitoring for Sulfate. May 15, 2009.

Sierrita. 2009b. Correspondence from Ned Hall, Sierrita, to Cynthia S. Campbell, ADEQ, Re: Mitigation Order on Consent Docket P-50-06, Supplemental Information on Recommended Groundwater Monitoring for Sulfate. June 12, 2009.

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. 2011a. Correspondence from Martha G. Mottley, Sierrita, to Cynthia S. Campbell, ADEQ Water Quality Compliance Section, Re: Mitigation Order on Consent Docket No. P-50-06. February 8, 2011.

Sierrita. 2011b. Correspondence from Martha G. Mottley, Sierrita, to Mindi Cross, ADEQ Water Quality Compliance Section, Re: Mitigation Order on Consent Docket No. P-50-06, April 1st through June 30, 2011 Status Report. June 30, 2011.

Sierrita. 2013. Correspondence from Kanyembo Katapa, Sierrita, to Mindi Cross, ADEQ Water Quality Compliance Section, Re: Mitigation Order on Consent Docket No. P-50-06, April 1st through June 30th, 2013 Status Report. July 1, 2013.

Upper Santa Cruz Providers and Users Group. 2012. Water Usage Report for Years 2010 – 2035. May 8, 2012.

U.S. Environmental Protection Agency. 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

Well Name	ADWR Registry Number									
		2014-2020	2021-2025	2026-2030	2031-2035	2036-2042	2043-2050	2051-2060	2061-2089	2090-2112
IW-01	623129	250	250	250	250	188	80	80	80	80
IW-02A	216464	300	300	300	300	300	200	200	200	200
IW-03A	201732	500	500	500	500	400	400	300	300	300
IW-04	623132	40	40	40	40	40	40	40	40	40
IW-05A	219131	40	40	40	40	40	40	40	40	40
IW-06A	545565	80	80	80	80	40	40	40	40	40
IW-08	508236	350	350	350	350	325	200	200	200	200
IW-09	508238	200	200	200	200	150	150	150	150	150
IW-10	508237	250	250	250	250	250	100	100	100	100
IW-11	508235	325	325	325	250	250	250	150	150	150
IW-12	545555	125	125	125	75	75	50	50	50	50
IW-13	545556	0	0	0	0	0	0	0	0	0
IW-14	545557	60	60	60	60	50	40	40	40	40
IW-15	545558	40	40	40	40	40	40	40	40	40
IW-19	545562	150	150	150	100	100	50	50	50	50
IW-20	545563	0	0	0	0	0	0	0	0	0
IW-21	545564	100	100	100	75	50	50	50	50	50
IW-22	200554	300	300	300	300	300	200	200	200	200
IW-23	200555	120	120	120	120	120	50	50	50	50
IW-24	200556	50	50	50	50	50	40	40	40	40
EXISTING IW WELL TOTAL		3280	3280	3280	3080	2768	2020	1820	1820	1820
IW-25	219596	400	400	350	350	350	300	300	300	300
IW-26	219143	350	350	350	350	350	300	300	300	300
IW-27	219136	100	100	100	100	100	100	100	100	100
IW-28	219137	400	400	400	400	400	350	350	350	350
NEW IW WELL TOTAL		1250	1250	1200	1200	1200	1050	1050	1050	1050
FFS-1	221662	800	800	800	800	800	800	800	800	800
FFS-2	221663	700	700	700	700	700	700	700	700	700
FFS-3	221664	400	400	400	400	400	400	400	400	400
FFS-4	221665	200	200	200	200	200	200	200	200	200
FFS-5	221666	1000	1000	1000	1000	1000	1000	1000	1000	1000
FFS-6	221667	600	600	600	600	600	600	600	600	600
FFS WELL TOTAL		3700	3700	3700	3700	3700	3700	3700	3700	3700
PS-1	220861	700	700	700	700	700	700	700	700	700
PS-2	220862	800	800	800	800	800	800	800	800	800
PS-3	220863	800	800	800	800	800	800	800	800	800
PS-4	220864	1000	1000	1000	1000	1000	1000	1000	1000	1000
PS WELL TOTAL		3300	3300	3300	3300	3300	3300	3300	3300	3300
MC-1	221660	900	900	900	900	900	900	900	900	900
MC-2	221761	700	700	700	700	700	700	700	700	700
MC-3	221661	600	600	600	900	900	900	900	900	900
MC-4	220842	600	600	600	600	600	600	600	600	600
MC WELL TOTAL		2800	2800	2800	3100	3100	3100	3100	3100	3100
TOTAL PUMPING		14,330	14,330	14,280	14,380	14,068	13,170	12,970	12,970	12,970

Notes:

ADWR = Arizona Department of Water Resources

FFS = Focused Feasibility Study

IW = Interceptor Wells

PS = Plume Stabilization

MC = Mass Capture

TABLE 2
Performance Goal Pumping Rates

Well Name	ADWR Registry Number	Gallons per Minute				
		2014-2020	2021-2025	2026-2030	2031-2035	2036-2042
IW-01	623129	250	250	250	250	188
IW-02A	216464	300	300	300	300	300
IW-03A	201732	500	500	500	500	400
IW-04	623132	40	40	40	40	40
IW-05A	219131	40	40	40	40	40
IW-06A	545565	80	80	80	80	40
IW-08	508236	350	350	350	350	325
IW-09	508238	200	200	200	200	150
IW-10	508237	250	250	250	250	250
IW-11	508235	325	325	325	250	250
IW-12	545555	125	125	125	75	75
IW-13	545556	0	0	0	0	0
IW-14	545557	60	60	60	60	50
IW-15	545558	40	40	40	40	40
IW-19	545562	150	150	150	100	100
IW-20	545563	0	0	0	0	0
IW-21	545564	100	100	100	75	50
IW-22	200554	300	300	300	300	300
IW-23	200555	120	120	120	120	120
IW-24	200556	50	50	50	50	50
EXISTING IW WELL TOTAL		3280	3280	3280	3080	2768
IW-25	219596	400	400	350	350	350
IW-26	219143	350	350	350	350	350
IW-27	219136	100	100	100	100	100
IW-28	219137	400	400	400	400	400
NEW IW WELL TOTAL		1250	1250	1200	1200	1200
FFS-1	221662	338	338	338	338	488
FFS-2	221663	300	300	300	300	450
FFS-3	221664	225	225	225	225	225
FFS-4	221665	150	150	150	150	113
FFS-5	221666	225	225	225	225	225
FFS-6	221667	225	225	225	225	225
FFS WELL TOTAL		1463	1463	1463	1463	1726
PS-1	220861	700	700	700	700	700
PS-2	220862	800	800	800	800	800
PS-3	220863	800	800	800	800	800
PS-4	220864	1000	1000	1000	1000	1000
PS WELL TOTAL		3300	3300	3300	3300	3300
MC-1	221660	0	0	0	0	0
MC-2	221761	0	0	0	0	0
MC-3	221661	750	750	750	750	750
MC-4	220842	600	600	600	600	600
MC WELL TOTAL		1350	1350	1350	1350	1350
TOTAL PUMPING		10,643	10,643	10,593	10,393	10,344

Notes:

ADWR = Arizona Department of Water Resources

FFS = Focused Feasibility Study

IW = Interceptor Wells

PS = Plume Stabilization

MC = Mass Capture

Note: The performance goal rate for PS-1 is corrected to 700 gpm from the 750 gpm reported in the Mitigation Plan.

TABLE 3
2014 Groundwater Pumping Compared to
Target and Performance Goal Pumping Rates

WELL NAME	ADWR REGISTRY NUMBER	TARGET PUMPING RATE (gpm)	PERFORMANCE GOAL RATE (gpm)	2014 TOTAL GALLONS PUMPED	2014 AVERAGE PUMPING RATE (gpm)	2014 AVERAGE RATE MINUS TARGET RATE (gpm)	PERCENT OF TARGET PUMPING RATE	2014 AVERAGE RATE MINUS PERFORMANCE GOAL RATE (gpm)	PERCENT OF PERFORMANCE GOAL RATE
IW-01	623129	250	250	106,329,860	202	-48	81%	-48	81%
IW-02A	216464	300	300	118,699,520	226	-74	75%	-74	75%
IW-03A	201732	500	500	229,039,000	436	-64	87%	-64	87%
IW-04	623132	40	40	39,790,000	76	36	189%	36	189%
IW-05A	219131	40	40	9,246,000	18	-22	44%	-22	44%
IW-06A	545565	80	80	32,677,000	62	-18	78%	-18	78%
IW-08	508236	350	350	118,427,000	225	-125	64%	-125	64%
IW-09	508238	200	200	54,445,000	104	-96	52%	-96	52%
IW-10	508237	250	250	124,256,000	236	-14	95%	-14	95%
IW-11	508235	325	325	62,480,000	119	-206	37%	-206	37%
IW-12	545555	125	125	41,683,000	79	-46	63%	-46	63%
IW-13	545556	0	0	3,323,000	6	6	NA	6	NA
IW-14	545557	60	60	23,563,000	45	-15	75%	-15	75%
IW-15	545558	40	40	17,194,400	33	-7	82%	-7	82%
IW-19	545562	150	150	85,583,000	163	13	109%	13	109%
IW-20	545563	0	0	11,970,100	23	23	NA	23	NA
IW-21	545564	100	100	24,782,000	47	-53	47%	-53	47%
IW-22	200554	300	300	147,065,000	280	-20	93%	-20	93%
IW-23	200555	120	120	72,185,000	137	17	114%	17	114%
IW-24	200556	50	50	29,634,000	56	6	113%	6	113%
IW-25	219596	400	400	222,575,000	423	23	106%	23	106%
IW-26	219143	350	350	0	0	-350	0%	-350	0%
IW-27	219136	100	100	31,212,000	59	-41	59%	-41	59%
IW-28	219137	400	400	145,849,000	277	-123	69%	-123	69%
IW-29	222865	NA	NA	76,309,000	145	NA	NA	NA	NA
IW WELL TOTAL		4,530	4,530	1,828,316,880	3,479	-1,197	77%	-1,197	77%
FFS-1	221662	800	338	448,548,000	853	53	107%	515	252%
FFS-2	221663	700	300	410,846,000	782	82	112%	482	261%
FFS-3	221664	400	225	128,226,600	244	-156	61%	19	108%
FFS-4	221665	200	150	93,307,000	178	-22	89%	28	118%
FFS-5	221666	1,000	225	502,435,000	956	-44	96%	731	425%
FFS-6	221667	600	225	290,504,000	553	-47	92%	328	246%
FFS WELL TOTAL		3,700	1,463	1,873,866,600	3,565	-135	96%	2,102	244%
PS-1	220861	700	700	309,303,000	588	-112	84%	-112	84%
PS-2	220862	800	800	310,955,000	592	-208	74%	-208	74%
PS-3	220863	800	800	310,582,000	591	-209	74%	-209	74%
PS-4	220864	1,000	1,000	372,447,000	709	-291	71%	-291	71%
PS WELL TOTAL		3,300	3,300	1,303,287,000	2,480	-820	75%	-820	75%
MC-1	221660	900	0	443,558,000	844	-56	94%	844	NA
MC-2	221761	700	0	325,497,000	619	-81	88%	619	NA
MC-3	221661	600	750	296,213,000	564	-36	94%	-186	75%
MC-4	220842	600	600	292,759,000	557	-43	93%	-43	93%
MC WELL TOTAL		2,800	1,350	1,358,027,000	2,584	-216	92%	1,234	191%
TOTAL PUMPING		14,330	10,643	6,363,497,480	12,107	-2,223	84%	1,464	114%

Notes:
ADWR = Arizona Department of Water Resources
FFS = Focused Feasibility Study
IW = Interceptor Wells
PS = Plume Stabilization
MC = Mass Capture
NA = Not Applicable
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.

TABLE 4
Post-Implementation Groundwater Monitoring Plan

Well Name	ADWR 55 Well Registry No.	Well Use	Owner	Annual Sampling (Second Quarter)	Semiannual Sampling (Fourth Quarter)	Quarterly Sampling	Monthly Water Level Monitoring*
CC of GV	501760	Monitor	Sierrita	✓			
CW-3	627483	DWS	CWC	✓	✓		✓
CW-6	627485	DWS	CWC	✓	✓	✓	
CW-7	502546	Monitor	CWC	WLO			
CW-8	543600	Monitor	CWC	WLO			
CW-9	588121	DWS	CWC	✓	✓	✓	
CW-10	207982	DWS	CWC	✓	✓	✓	
ESP-1	623102	Monitor	Sierrita	✓	✓		
ESP-2	623103	Monitor	Sierrita	✓	✓		✓
ESP-3	623104	Monitor	Sierrita	✓	✓		
ESP-4	623105	Monitor	Sierrita	✓	✓		
ESP-5	623106	Monitor	Sierrita	WLO			
FFS-1	221662	Extraction	Sierrita	✓			
FFS-2	221663	Extraction	Sierrita	✓			
FFS-3	221664	Extraction	Sierrita	✓			
FFS-4	221665	Extraction	Sierrita	✓			
FFS-5	221666	Extraction	Sierrita	✓			
FFS-6	221667	Extraction	Sierrita	✓			
GV-01-GVDWID	603428	DWS	GVDWID	✓	✓	✓	
GV-02-GVDWID	603429	DWS	GVDWID	✓	✓	✓	
GV-SI-GVDWID	208825	DWS	GVDWID	✓			
HAVEN GOLF	515867	Monitor	Haven Golf	✓			
I-10	608525	Monitor	Sierrita	✓			
IW-1	623129	Extraction	Sierrita	✓			
IW-2A	216464	Extraction	Sierrita	✓			
IW-3A	201732	Extraction	Sierrita	✓			
IW-4	623132	Extraction	Sierrita	✓			
IW-5A	219131	Extraction	Sierrita	✓			
IW-6A	545565	Extraction	Sierrita	✓			
IW-8	508236	Extraction	Sierrita	✓			
IW-9	508238	Extraction	Sierrita	✓			
IW-10	508237	Extraction	Sierrita	✓			
IW-11	508235	Extraction	Sierrita	✓			
IW-12	545555	Extraction	Sierrita	✓			
IW-13	545556	Extraction	Sierrita	✓			
IW-14	545557	Extraction	Sierrita	✓			
IW-15	545558	Extraction	Sierrita	✓			
IW-16	545559	Monitor	Sierrita	WLO			
IW-17	545560	Monitor	Sierrita	WLO			
IW-18	545561	Monitor	Sierrita	WLO			

TABLE 4
Post-Implementation Groundwater Monitoring Plan

Well Name	ADWR 55 Well Registry No.	Well Use	Owner	Annual Sampling (Second Quarter)	Semiannual Sampling (Fourth Quarter)	Quarterly Sampling	Monthly Water Level Monitoring*
IW-19	545562	Extraction	Sierrita	✓			
IW-20	545563	Extraction	Sierrita	✓			
IW-21	545564	Extraction	Sierrita	✓			
IW-22	200554	Extraction	Sierrita	✓			
IW-23	200555	Extraction	Sierrita	✓			
IW-24	200556	Extraction	Sierrita	✓			
IW-25	219596	Extraction	Sierrita	✓			
IW-26	219143	Extraction	Sierrita	✓			
IW-27	219136	Extraction	Sierrita	✓			
IW-28	219137	Extraction	Sierrita	✓			
M-8	87390	Monitor	Sierrita	✓	✓		✓
M-9	501652	Monitor	Sierrita	✓			✓
M-10	501653	Monitor	Sierrita	✓	✓		
M-20	906595	Monitor	Sierrita	✓			
MC-1	221660	Extraction	Sierrita	✓			
MC-2	221761	Extraction	Sierrita	✓			
MC-3	221661	Extraction	Sierrita	✓			
MC-4	220842	Extraction	Sierrita	✓			
MH-1	803629	Monitor	Sierrita	WLO			
MH-3	803630	Monitor	Sierrita	WLO			✓
MH-5	803632	Monitor	Sierrita	WLO			
MH-6	803633	Monitor	Sierrita	WLO			
MH-7	803634	Monitor	Sierrita	WLO			
MH-9	803635	Monitor	Sierrita	WLO			✓
MH-10	803636	Monitor	Sierrita	✓			
MH-11	803637	Monitor	Sierrita	✓			✓
MH-12	803638	Monitor	Sierrita				✓
MH-13A	904071	Monitor	Sierrita	✓			✓
MH-13B	904072	Monitor	Sierrita	✓			✓
MH-13C	904073	Monitor	Sierrita	✓			✓
MH-14	528098	Monitor	Sierrita	WLO			✓
MH-15E	528094	Monitor	Sierrita	WLO			✓
MH-15W	528093	Monitor	Sierrita	WLO			✓
MH-16E	528100	Monitor	Sierrita	WLO			✓
MH-16W	528099	Monitor	Sierrita	WLO			✓
MH-24	563799	Monitor	Sierrita	WLO			
MH-25A	201528	Monitor	Sierrita	✓			✓
MH-25B	208429	Monitor	Sierrita	✓			✓
MH-25C	208426	Monitor	Sierrita	✓			✓
MH-26A	201527	Monitor	Sierrita	✓			✓

TABLE 4
Post-Implementation Groundwater Monitoring Plan

Well Name	ADWR 55 Well Registry No.	Well Use	Owner	Annual Sampling (Second Quarter)	Semiannual Sampling (Fourth Quarter)	Quarterly Sampling	Monthly Water Level Monitoring*
MH-26B	208427	Monitor	Sierrita	✓			✓
MH-26C	208428	Monitor	Sierrita	✓			✓
MH-28	903648	Monitor	Sierrita	✓	✓		✓
MH-29	903649	Monitor	Sierrita	✓	✓		✓
MH-30	903884	Monitor	Sierrita	✓			✓
MO-2007-1A	907342	Monitor	Sierrita	✓	✓		✓
MO-2007-1B	907210	Monitor	Sierrita	✓	✓		✓
MO-2007-1C	907209	Monitor	Sierrita	✓	✓		✓
MO-2007-2	906765	Monitor	Sierrita	✓			✓
MO-2007-3B ¹	906816	Sentinel	Sierrita	✓	✓	✓	✓
MO-2007-3C ¹	906817	Sentinel	Sierrita	✓	✓	✓	✓
MO-2007-4A ²	907213	Sentinel	Sierrita	✓	✓	✓	✓
MO-2007-4B ²	907212	Sentinel	Sierrita	✓	✓	✓	✓
MO-2007-4C ²	907211	Sentinel	Sierrita	✓	✓	✓	✓
MO-2007-5B	907456	Monitor	Sierrita	✓	✓		✓
MO-2007-5C	907457	Monitor	Sierrita	✓	✓		✓
MO-2007-6A ³	907607	Sentinel	Sierrita	✓	✓	✓	✓
MO-2007-6B ³	907606	Sentinel	Sierrita	✓	✓	✓	✓
MO-2009-1 ⁴	910458	Sentinel	Sierrita	✓	✓	✓	✓
NP-2 ¹	624028	Sentinel	CWC	✓	✓	✓	✓
PS-1	220861	Extraction	Sierrita	✓			
PS-2	220862	Extraction	Sierrita	✓			
PS-3	220863	Extraction	Sierrita	✓			
PS-4	220864	Extraction	Sierrita	✓			
PZ-7	561870	Monitor	Sierrita	✓			
PZ-8	561866	Monitor	Sierrita	✓			
TMM-1	616156	Monitor	Pima County	✓	✓		
1350	ND	Monitor	Sierrita	WLO			

Notes:

ADWR = Arizona Department of Water Resources

CC OF GV = Country Club of Green Valley

CWC = Community Water Company of Green Valley

DWS = Drinking Water Supply

GVDWID = Green Valley Domestic Water Improvement District

ND = No Data

Sierrita = Freeport-McMoRan Sierrita Inc.

WLO = Water Level Only

¹ Sentinel Well for CW-9

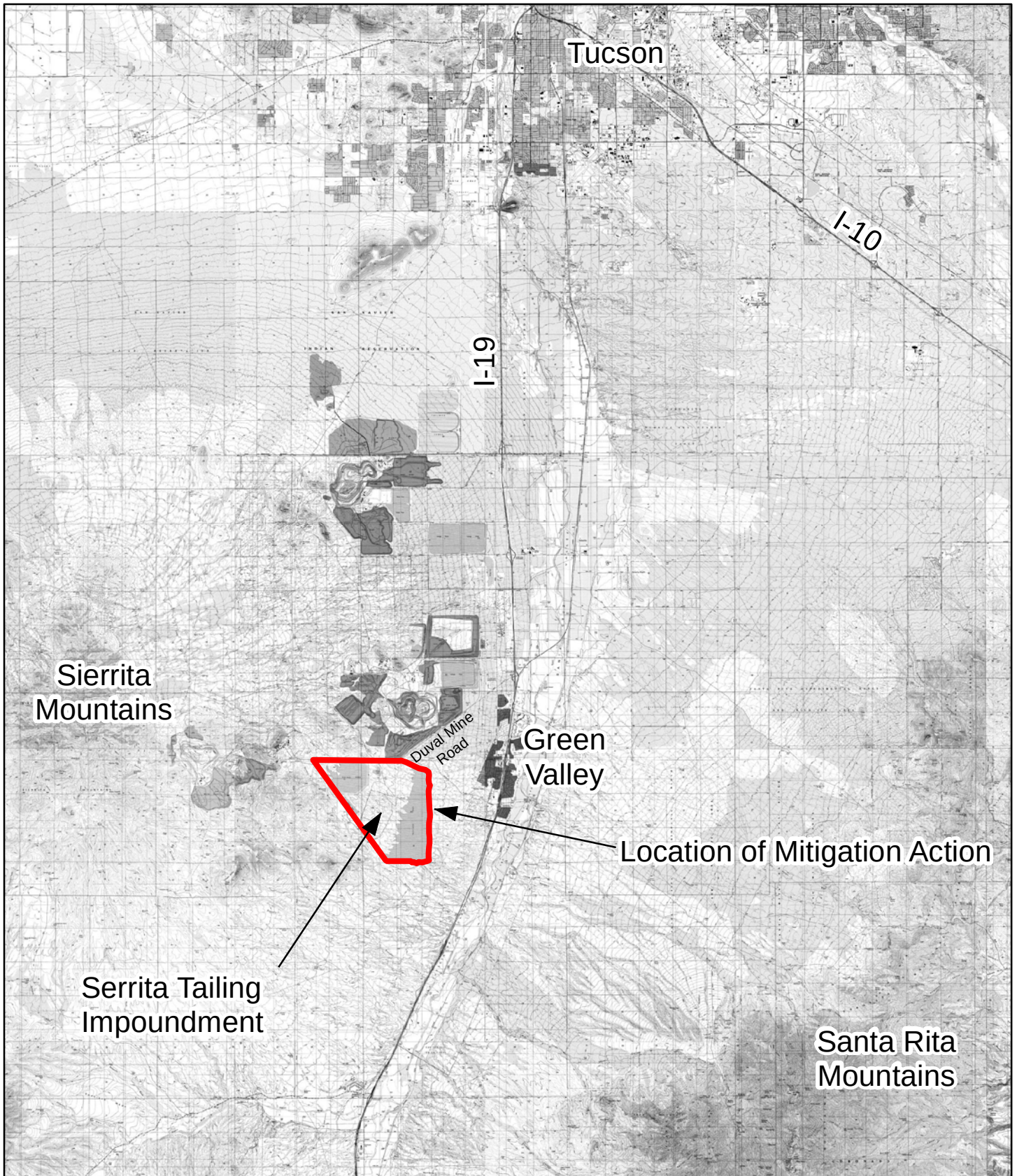
² Sentinel Well for CW-6

³ Sentinel Well for GV-01-GVDWID and GV-02-GVDWID

⁴ Sentinel Well for CW-10

* Monthly water level monitoring for first year of operation, quarterly thereafter

FIGURES



Green Valley



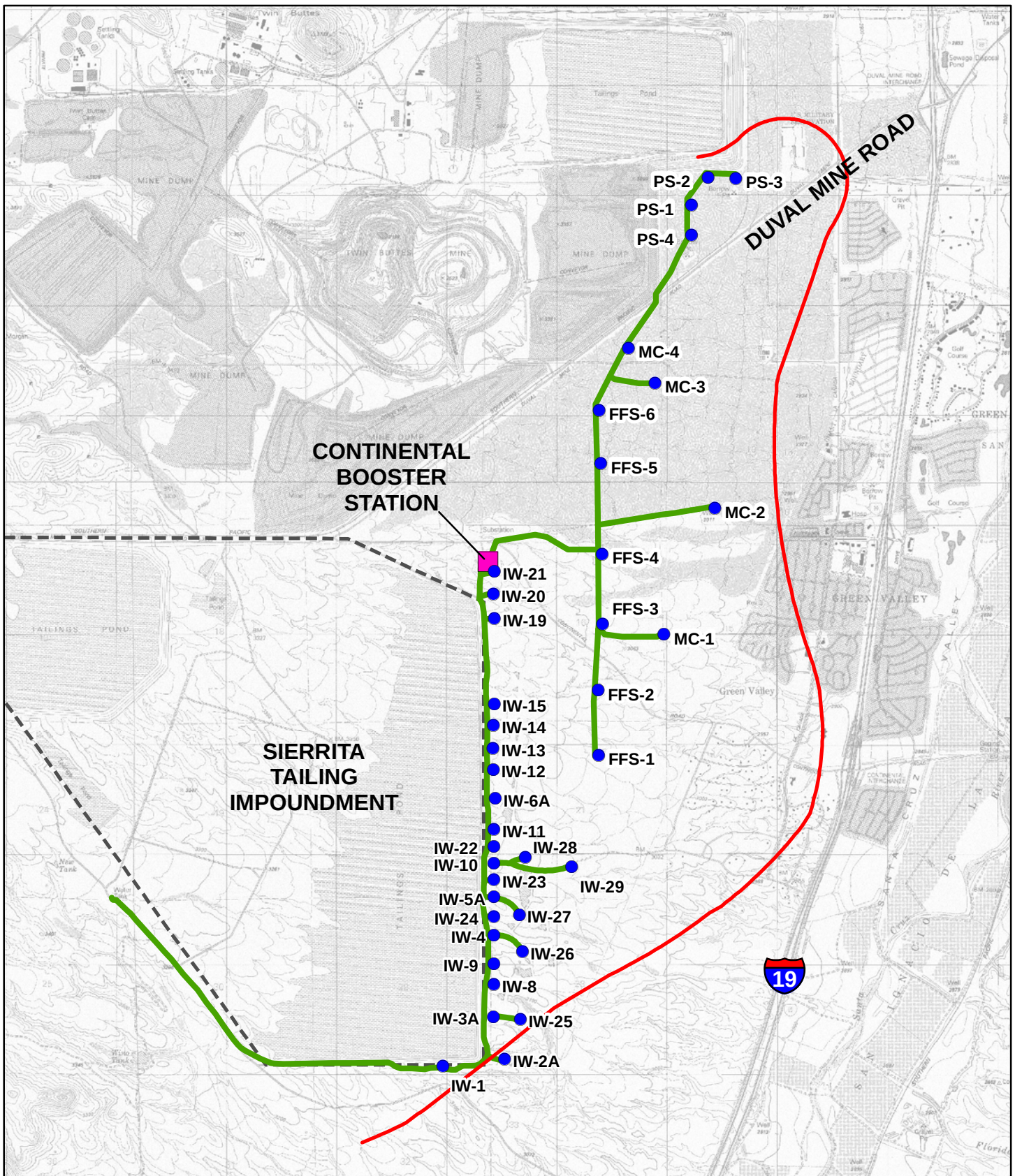
PROJECTION: UTM Zone 12N NAD83

**CLEAR
CREEK
ASSOCIATES**

File ID
055039-121

Date
3/12/15

FIGURE 1
Location Map



Legend

- Extraction Well
- Booster Station
- Pipeline
- Tailing Impoundment
- Fourth Quarter 2014 250 mg/L Sulfate Concentration Contour

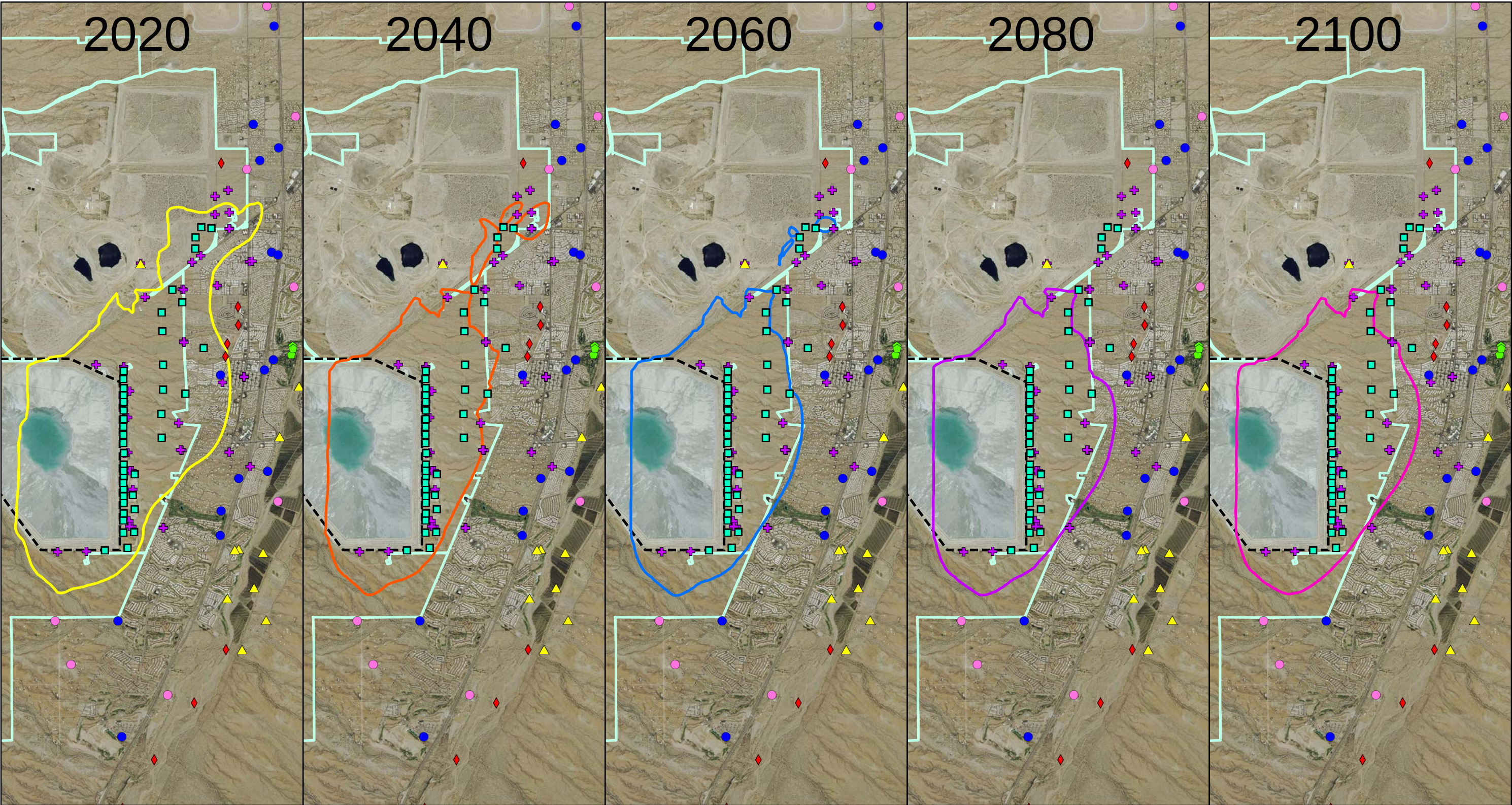
0 2,000 4,000
Feet



CLEAR CREEK ASSOCIATES

File ID 055039-096
Date 3/12/15

FIGURE 3
Mitigation Action
Extraction Wells
and Pumping Facilities



Legend

▲ Agriculture

◆ Golf Course

◆ Mining

■ Mitigation Extraction Wells

● Municipal Supply

● Other Users

✚ Post-Implementation Monitoring Well

— 250 mg/L Contour in 2020

— 250 mg/L Contour in 2040

— 250 mg/L Contour in 2060

— 250 mg/L Contour in 2080

— 250 mg/L Contour in 2100

--- Tailing Impoundment

— Sierrita Property Boundary

Scale (Feet)

0 8,000 16,000

Notes:

Projection: UTM Zone 12N NAD83

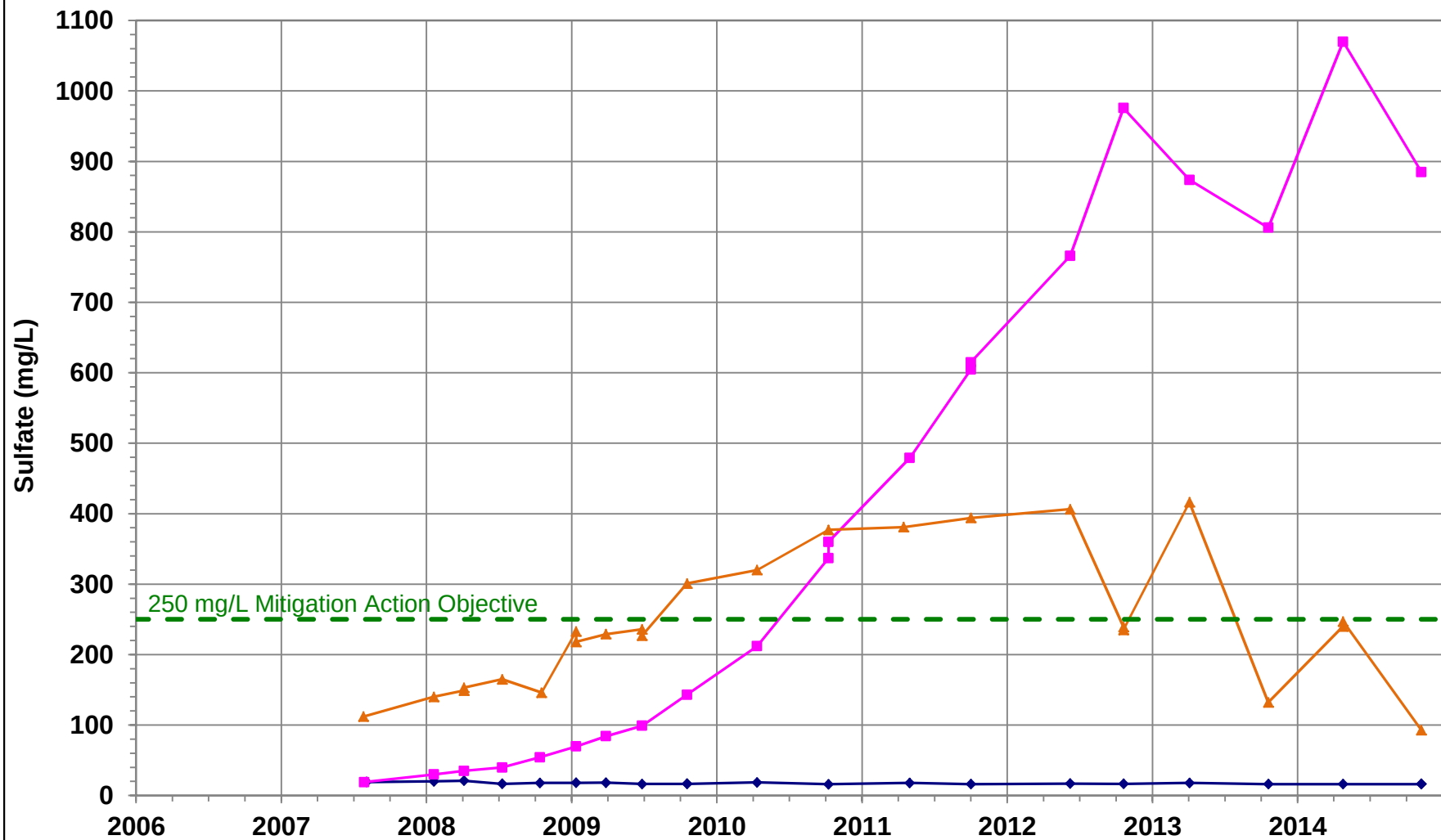
mg/L = milligrams per liter

Simulation Run:3/30/15

Date	3/12/15	File ID	055039-106
			
			

FIGURE 4

Simulated Sulfate Concentration
from 2020 to 2100
for Mitigation Plan
Target Pumping Rates



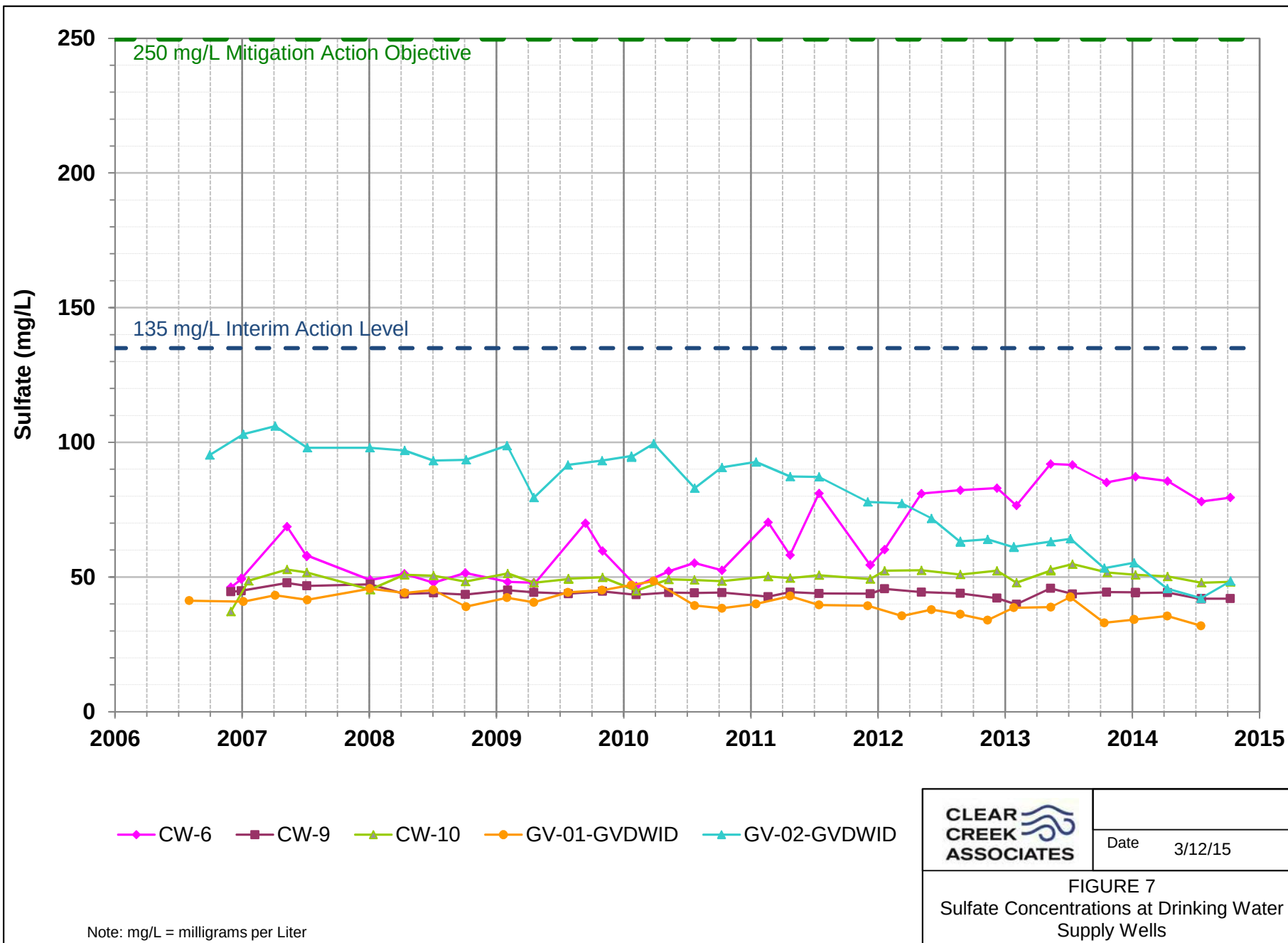
- ◆ MO-2007-1A (screened 460-600 ft bls)
- MO-2007-1B (screened 740-900 ft bls)
- ▲ MO-2007-1C (screened 1020-1180 ft bls)

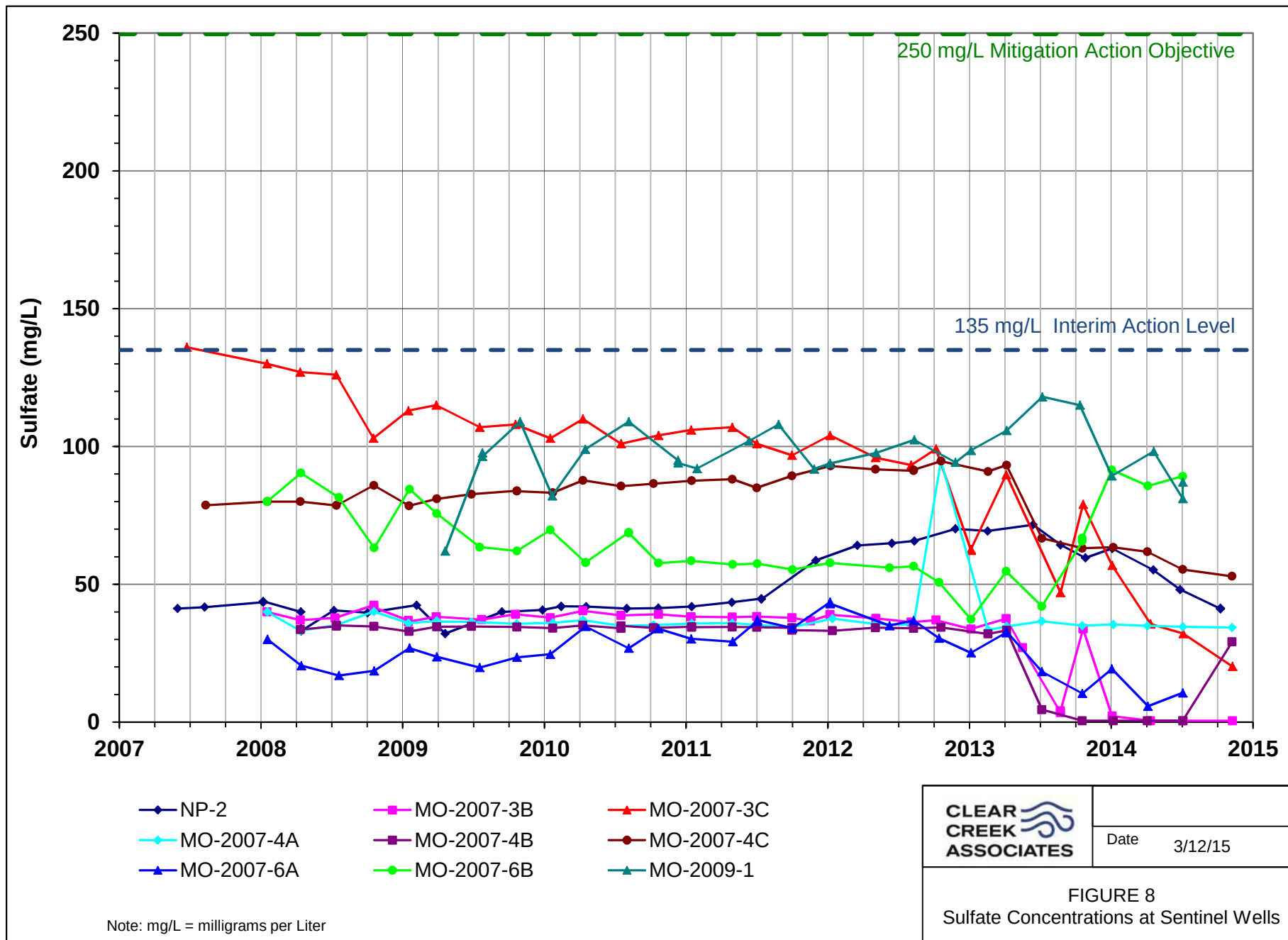
Notes: mg/L = milligrams per Liter, ft bls = feet below land surface

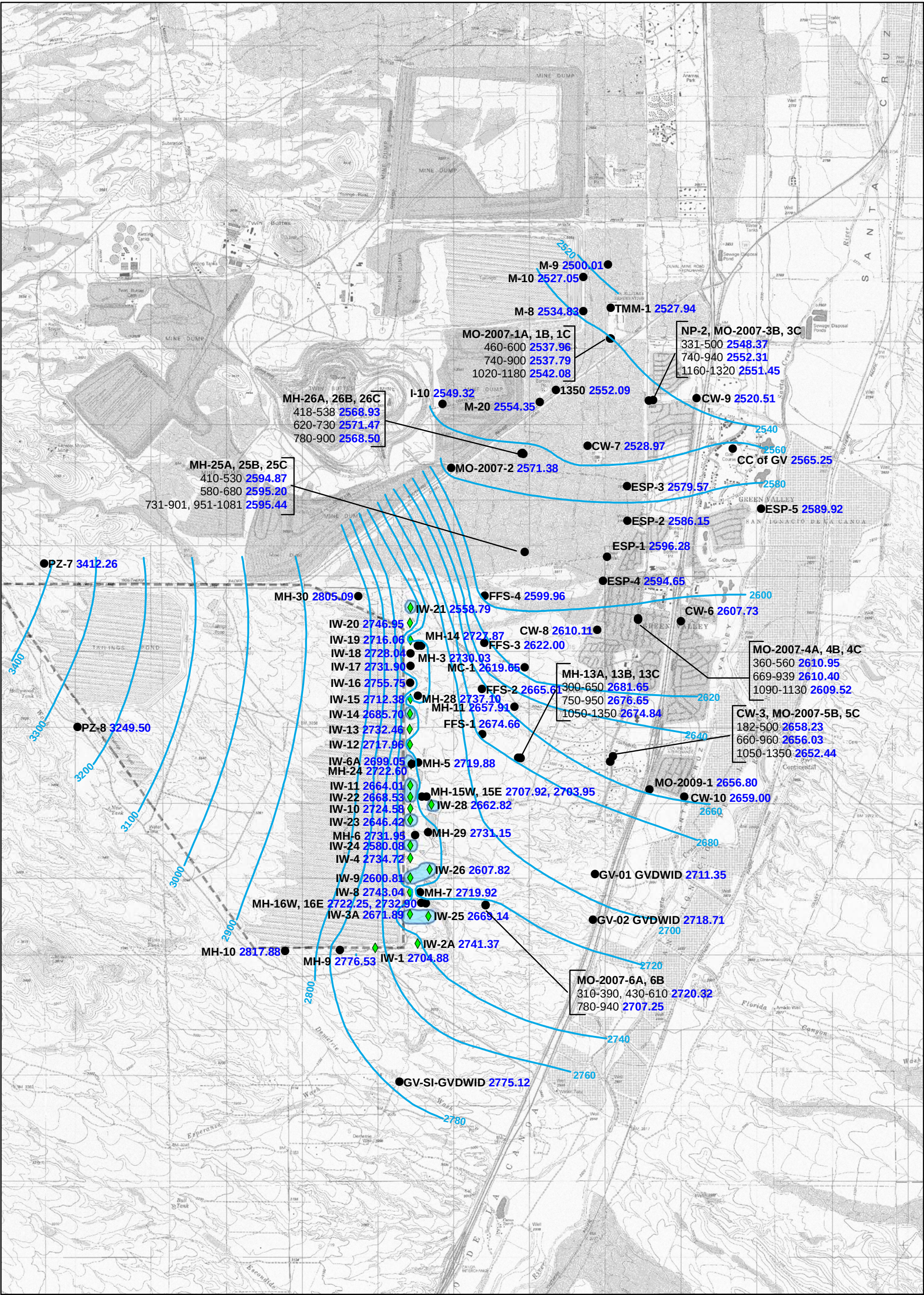
**CLEAR
CREEK
ASSOCIATES**

Date 3/12/15

FIGURE 6
Sulfate Concentrations at MO-2007-1







Legend

- **CW-9** Well ID
- 2520.51 Groundwater Elevation (ft amsl)
- Groundwater Elevation Contour (ft amsl)
- Groundwater Depression

Co-Located Wells

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

NOTE:
The groundwater elevation contour intervals are irregular.

0 2,000 4,000 8,000

Feet

Well Symbols

- Well with Static Water Level
- ◆ Well with Dynamic Water Level

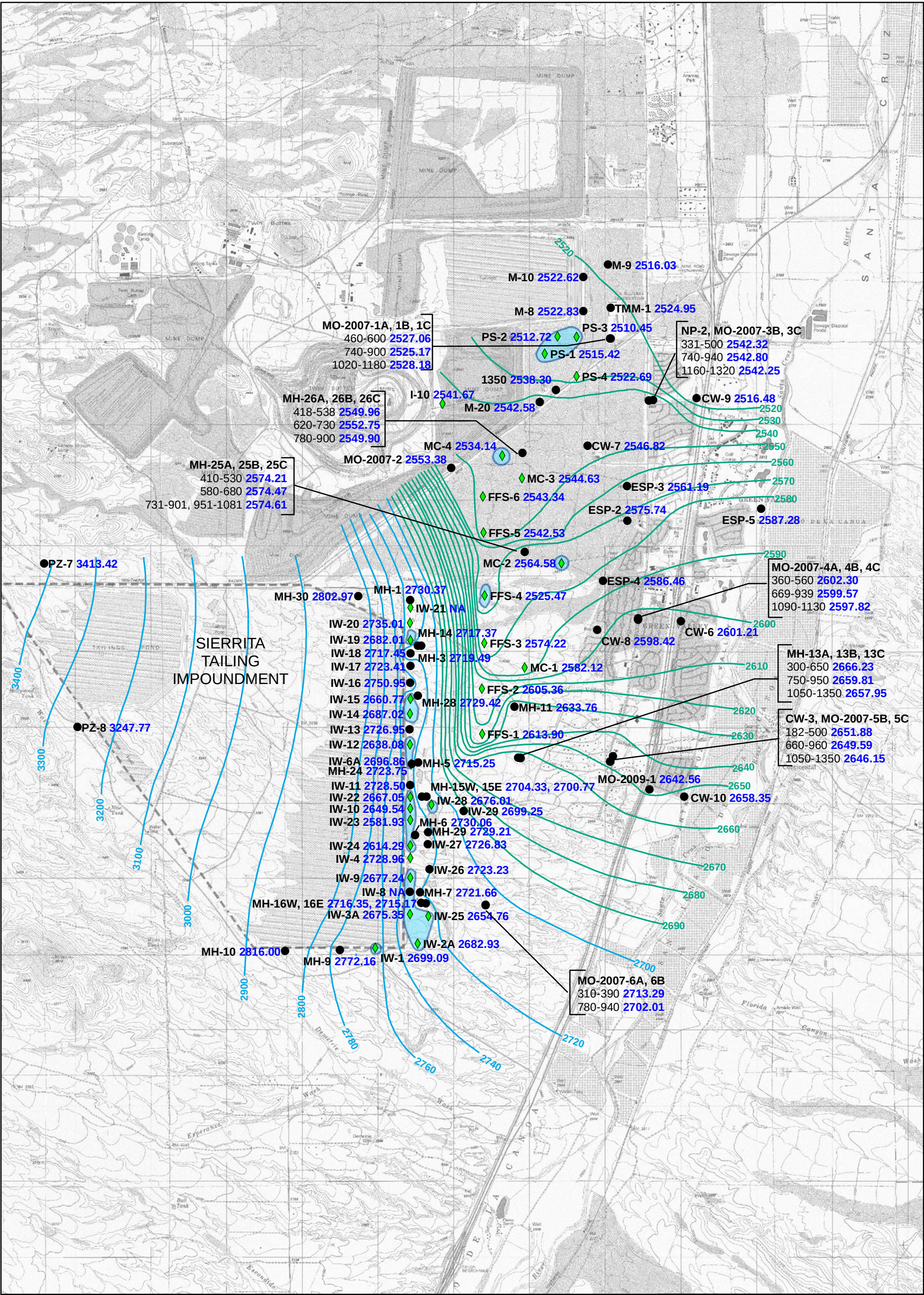
Date 4/30/15

File ID 055039-136



CLEAR CREEK ASSOCIATES

FIGURE 9
Groundwater Elevations,
Second Quarter 2013



Legend

● CW-9

Well ID

2516.48

Groundwater Elevation (ft amsl)

10 ft Groundwater Elevation Contour (ft amsl)

20 ft Groundwater Elevation Contour (ft amsl)

Groundwater Depression

Co-Located Wells

Screened Interval (ft bls): **Groundwater Elevation (ft amsl)**

NOTES:

The groundwater elevation contour intervals are irregular.

Projection: UTM NAD83 Zone 12N.

Scale

02,0004,0008,000

Feet

Well Symbols

●

Well with Static Water Level

◆

Well with Dynamic Water Level

Date

4/10/15

File ID

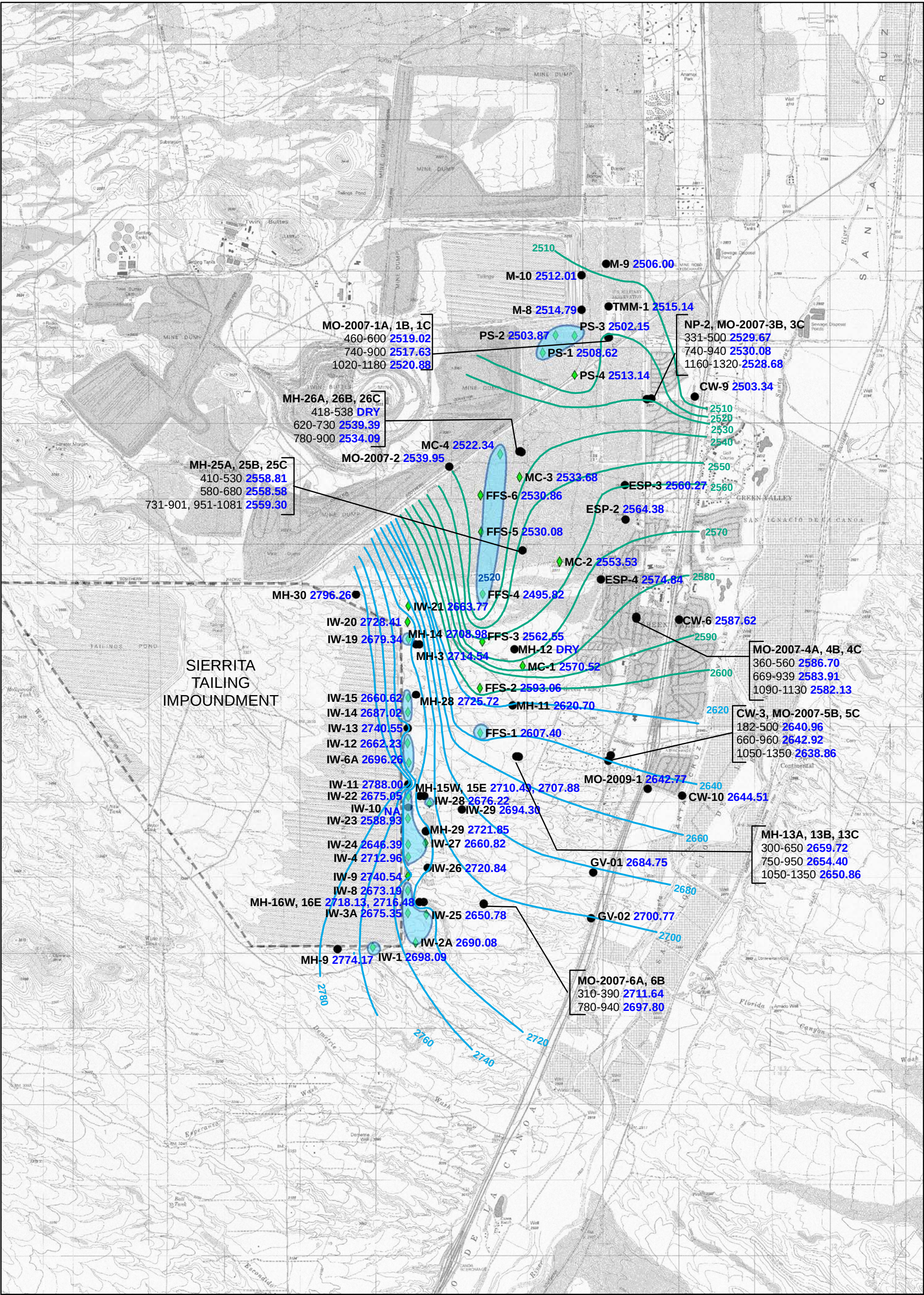
055039-111

CLEAR CREEK ASSOCIATES

FIGURE 10

Groundwater Elevations,

Second Quarter 2014



Legend

- **CW-9** Well ID
- 2516.48** Groundwater Elevation (ft amsl)
- 10 ft Groundwater Elevation Contour (ft amsl)
- 20 ft Groundwater Elevation Contour (ft amsl)
- Groundwater Depression
- Co-Located Wells
- Screened Interval (ft bls): **Groundwater Elevation (ft amsl)**

NOTE:

The groundwater elevation contour intervals are irregular.
Groundwater elevation for IW-29 is from third quarter 2014 (8/27/2014).

0200040008000

Feet

Well labels

- Well with Static Water Level
- ◆ Well with Dynamic Water Level

Date

4/30/15

File ID

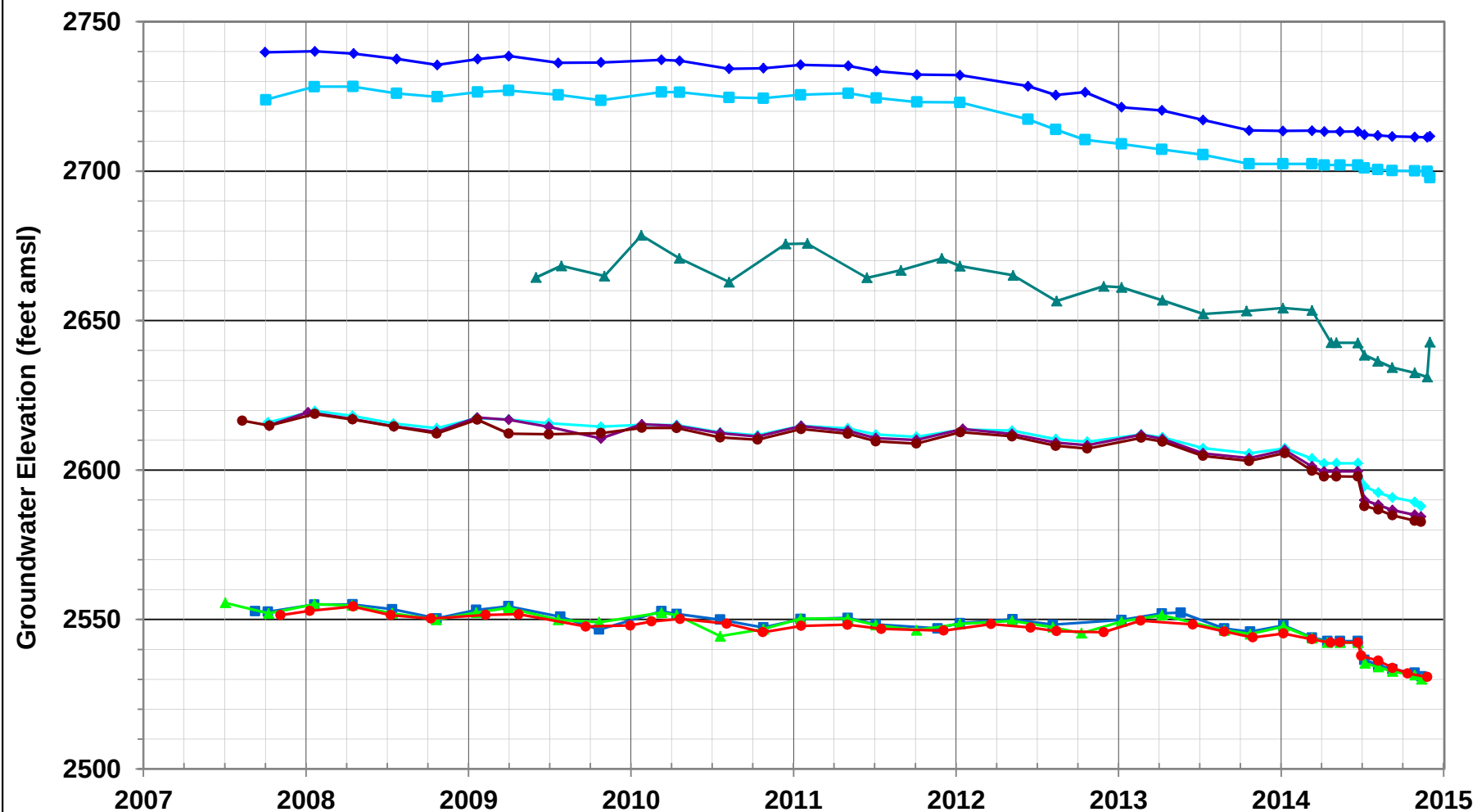
055039-138

CLEAR CREEK ASSOCIATES

FIGURE 11

Groundwater Elevations,

Fourth Quarter 2014

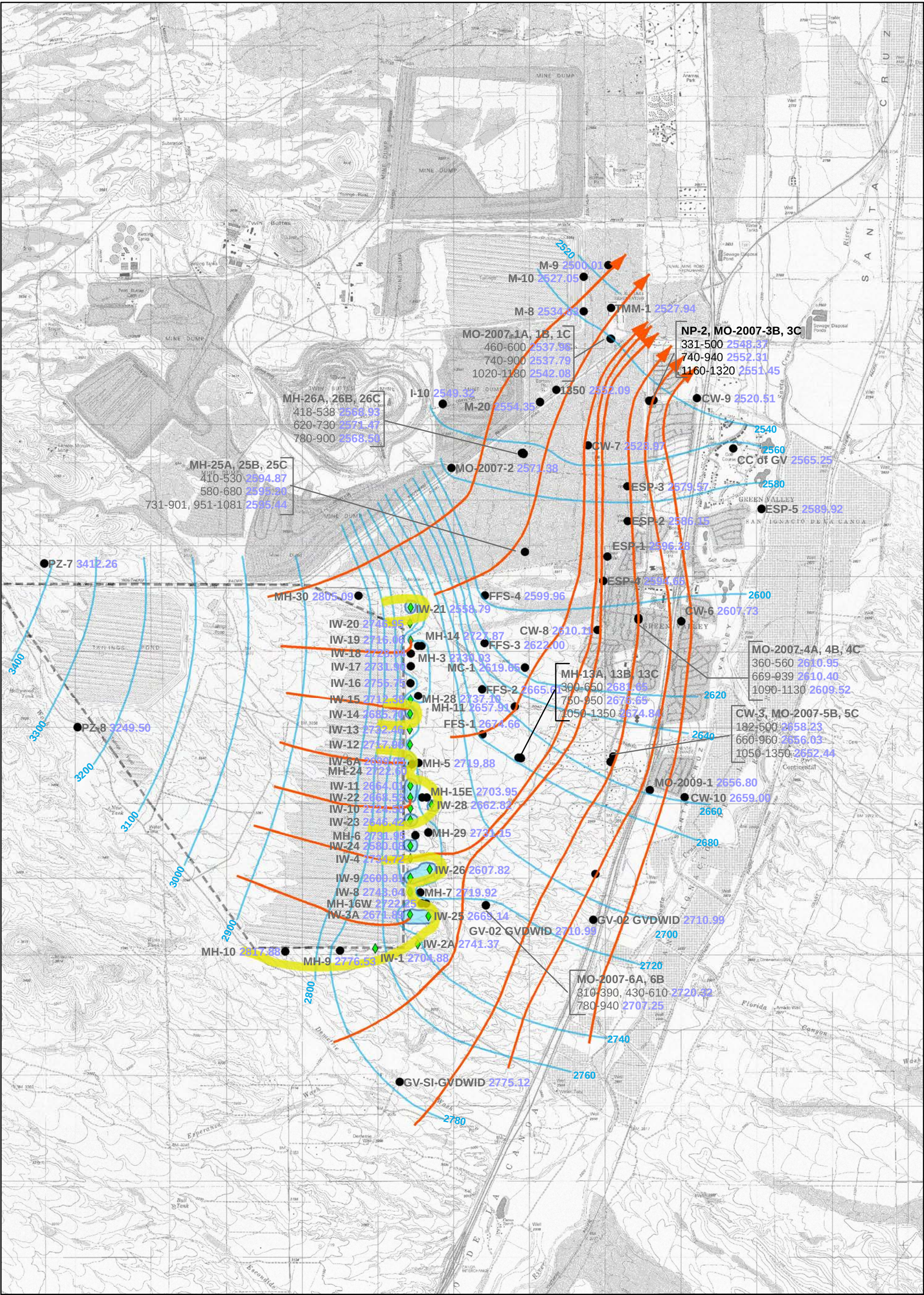


Note: amsl = above mean sea level

CLEAR
CREEK
ASSOCIATES

Date 3/12/15

FIGURE 12
Groundwater Elevations at
Sentinel Wells



Legend

- **CW-9** Well ID
2520.51 Groundwater Elevation (ft amsl)
- Groundwater Elevation Contour (ft amsl)
- Groundwater Depression
- Interpreted Groundwater Flow Line
- Interpreted Capture Zones
- Co-Located Wells
- Screened Interval (ft bls): **Groundwater Elevation (ft amsl)**

NOTE:
The groundwater elevation contour intervals are irregular.

0 2,000 4,000 8,000
Feet

Well Symbols

- Well with Static Water Level
- ◆ Well with Dynamic Water Level

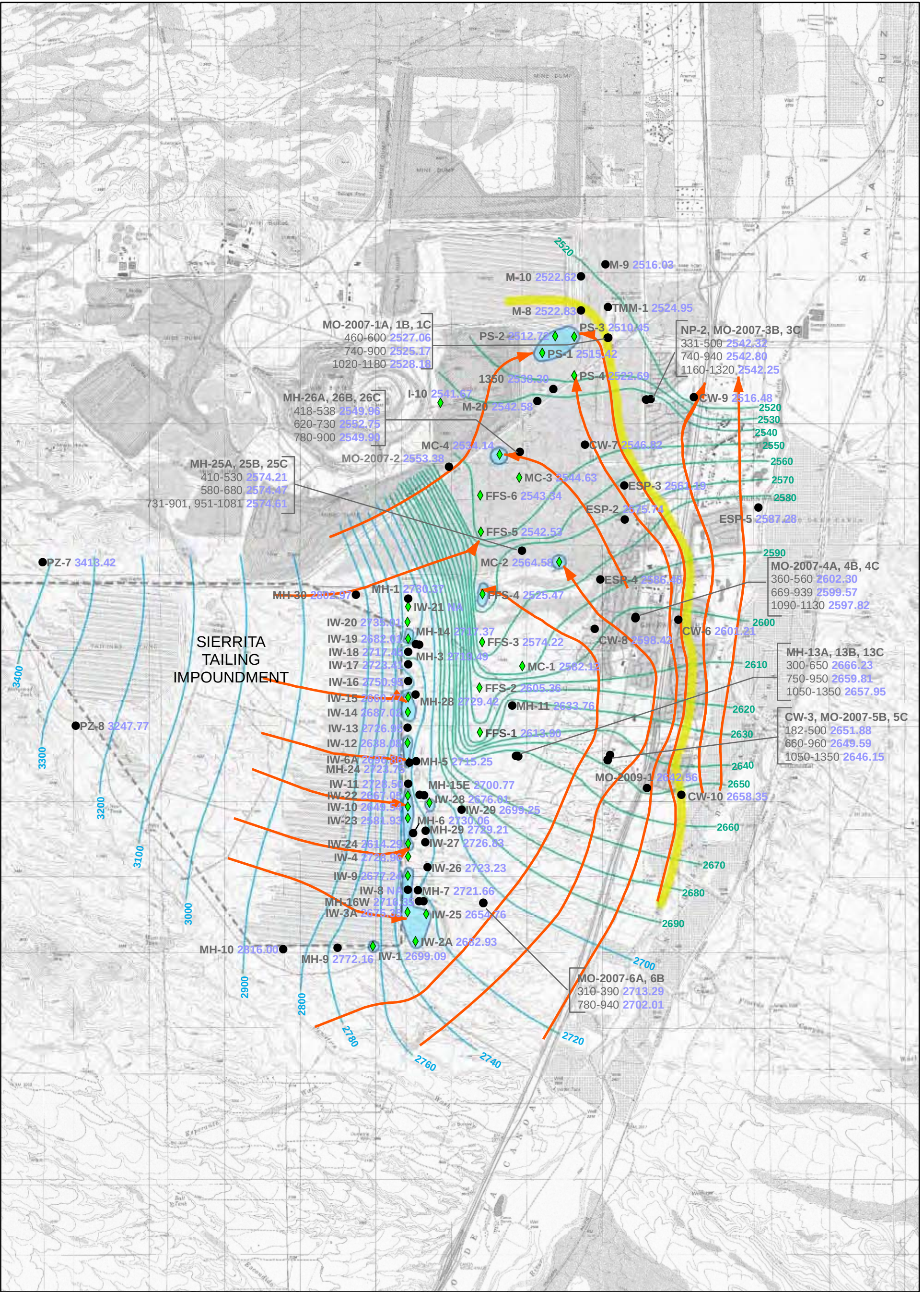
Date 4/30/15

File ID 055039-137



CLEAR CREEK ASSOCIATES

FIGURE 14
Capture Zone Analysis,
Second Quarter 2013



Legend

- CW-9 Well ID
- 2516.48 Groundwater Elevation (ft amsl)
- 10 ft Groundwater Elevation Contour (ft amsl)
- 20 ft Groundwater Elevation Contour (ft amsl)
- Groundwater Depression
- Interpreted Groundwater Flow Line
- Interpreted Wellfield Capture Zone
- Co-Located Wells
- Screened Interval (ft bls): Groundwater Elevation (ft amsl)

Scale

0 2,000 4,000 8,000

Feet

Well Symbols

- Well with Static Water Level
- ◆ Well with Dynamic Water Level

NOTES:

The groundwater elevation contour intervals are irregular.

Projection: UTM NAD83 Zone 12N.

Date

3/16/15

File ID

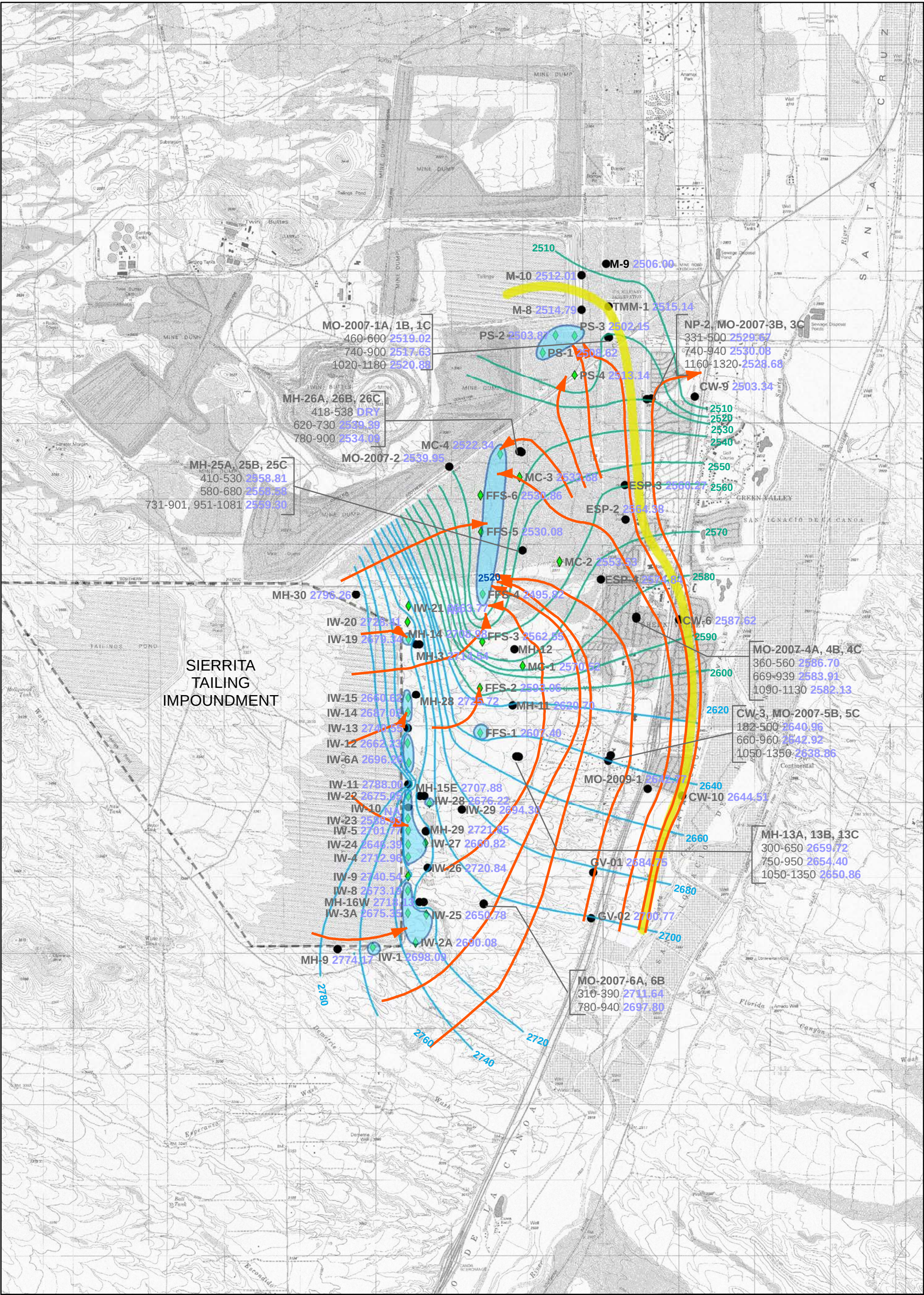
055039-124

CLEAR CREEK ASSOCIATES

FIGURE 15

Capture Zone Analysis,

Second Quarter 2014



Legend

- **CW-9** Well ID
- 2503.34 Groundwater Elevation (ft amsl)
- 10 ft Groundwater Elevation Contour (ft amsl)
- 20 ft Groundwater Elevation Contour (ft amsl)
- Groundwater Depression
- Interpreted Groundwater Flowline
- Interpreted Wellfield Capture Zone
- Co-Located Wells
- Screened Interval (ft bls): **Groundwater Elevation (ft amsl)**

0200040008000

Feet

Well labels

- Well with Static Water Level
- ◆ Well with Dynamic Water Level

NOTE:

The groundwater elevation contour intervals are irregular. Groundwater elevation for IW-29 is from third quarter 2014 (8/27/2014).

Date

4/30/15

File ID

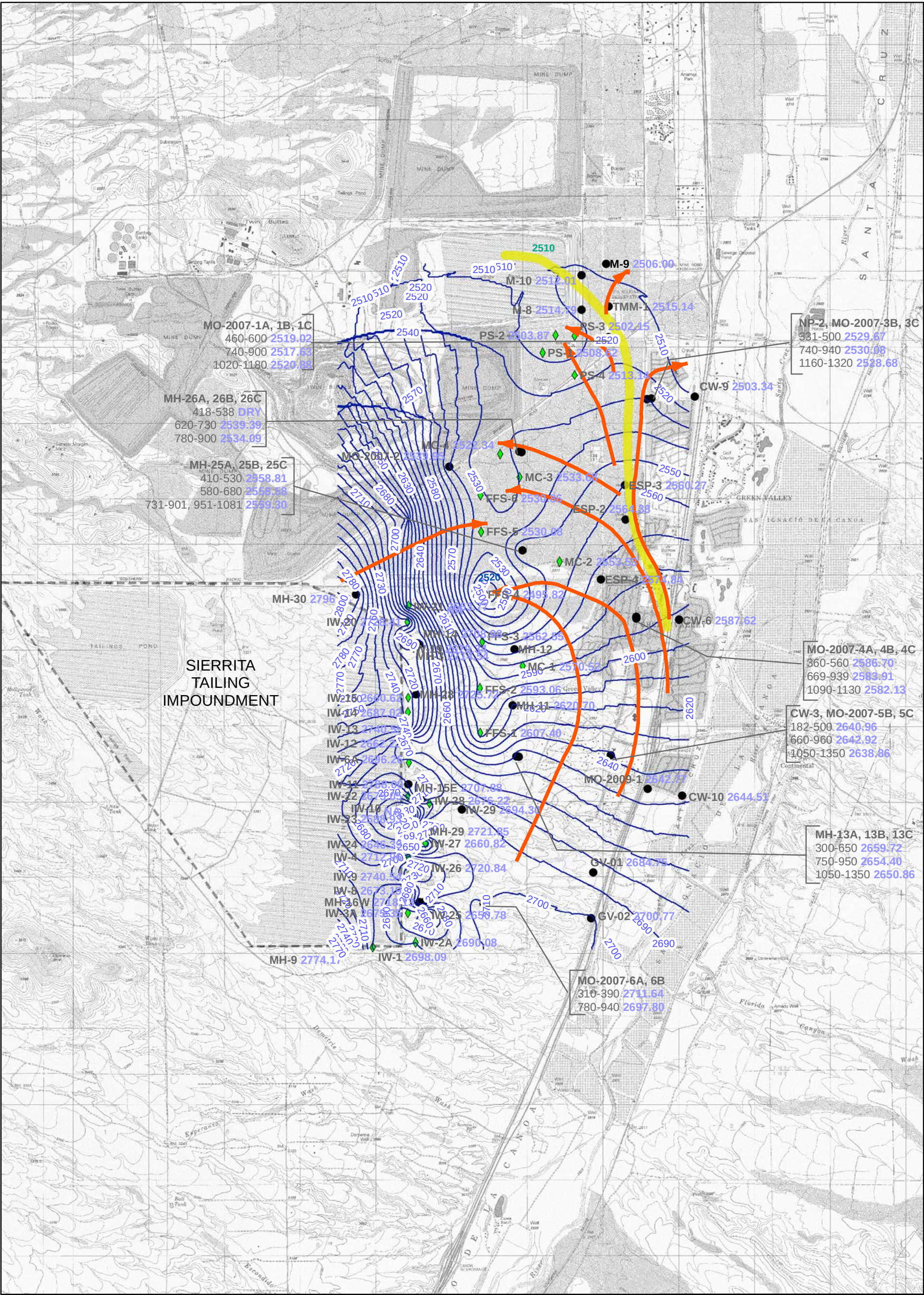
055039-142

CLEAR CREEK ASSOCIATES

FIGURE 16

Capture Zone Analysis

Fourth Quarter 2014



Legend

●

CW-9

Well ID

2503.34

Groundwater Elevation (ft amsl)

10 ft Kriged Groundwater Elevation (ft amsl)

Groundwater Depression

Interpreted Groundwater Flowline

Interpreted Wellfield Capture Zone

Co-Located Wells

—

Screened Interval (ft bls):

Groundwater Elevation (ft amsl)

0

2,000

4,000

8,000

Feet

Well labels

●

Well with Static Water Level

◆

Well with Dynamic Water Level

NOTE:

The groundwater elevation contour intervals are irregular. Groundwater elevation for IW-29 is from third quarter 2014 (8/27/2014).

Date

4/30/15

File ID

055039-140

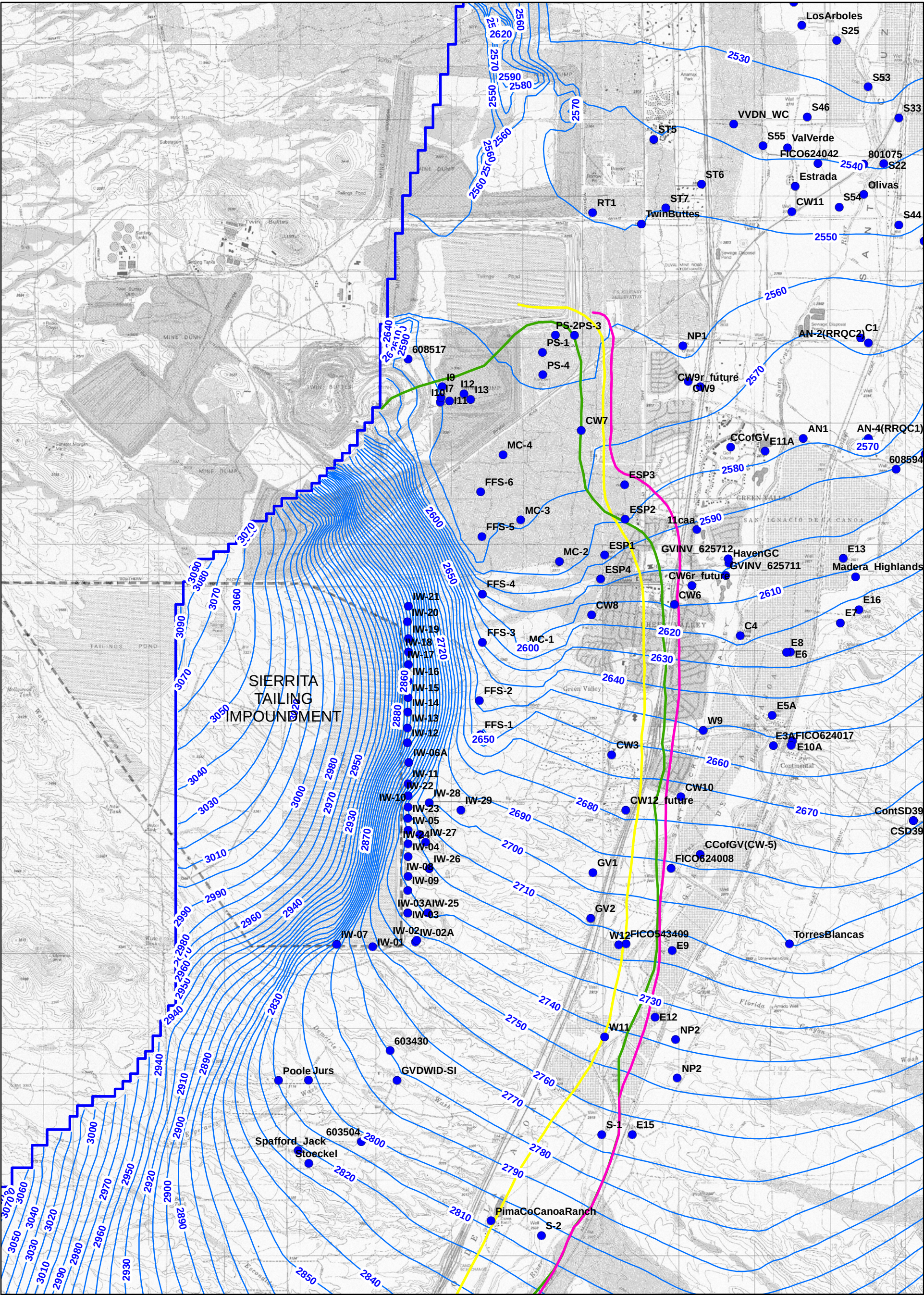
CLEAR CREEK ASSOCIATES

FIGURE 17

Capture Zone Analysis,

Kriged Water Elevations for

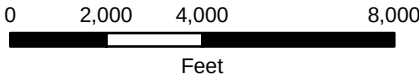
Fourth Quarter 2014



Legend

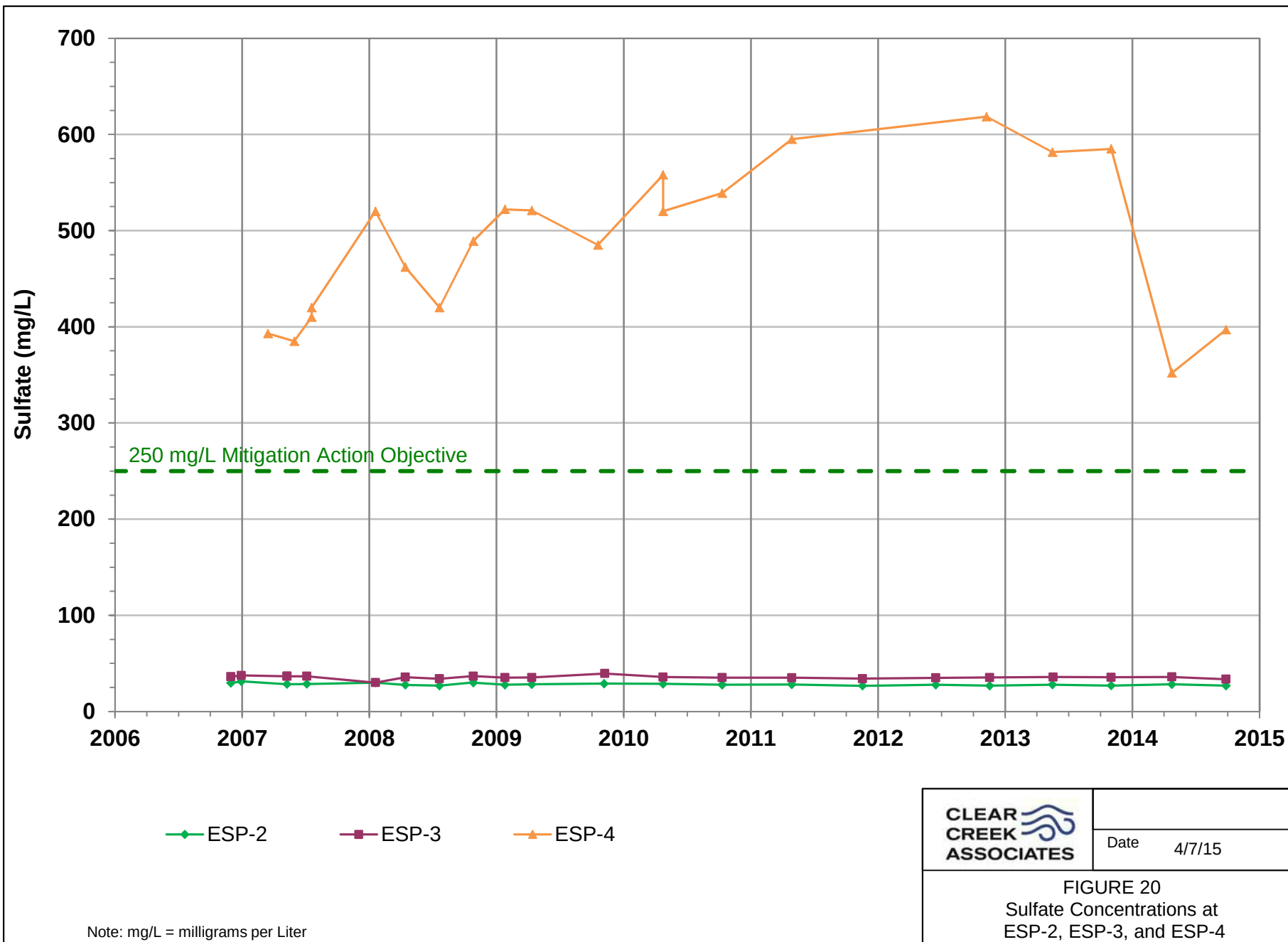
- Well with ID
- Simulated Water Table Elevation (ft amsl)
- 2014 Simulated Capture Zone Layer 1
- 2014 Simulated Capture Zone Layer 2
- 2014 Simulated Capture Zone Layer 3

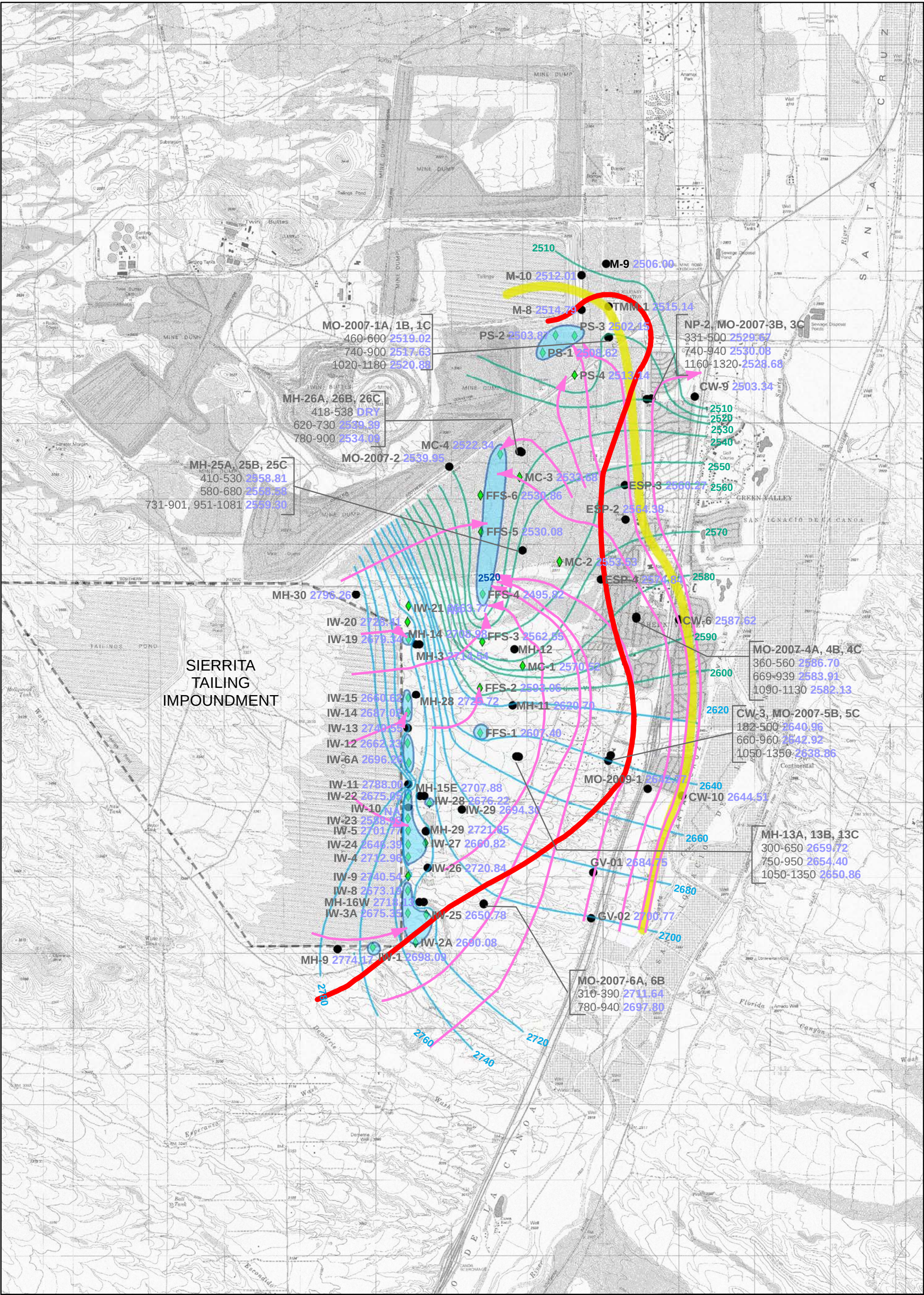
NOTES:
Projection: UTM NAD83 Zone 12N.



Date	4/30/15	File ID	055039-143

FIGURE 18
Simulated 2014
Groundwater Elevations
and Capture Zones





Legend

- CW-9 Well
- 2503.34 Groundwater Elevation (ft amsl)
- Groundwater Depression
- 20 ft Groundwater Elevation Contour (ft amsl)
- 10 ft Groundwater Elevation Contour (ft amsl)
- Interpreted Groundwater Flowline
- Interpreted Wellfield Capture Zone
- Target Capture Zone (250 mg/L Sulfate Concentration Contour Q4 2014)

Well labels

- Well with Static Water Level
- ◆ Well with Dynamic Water Level

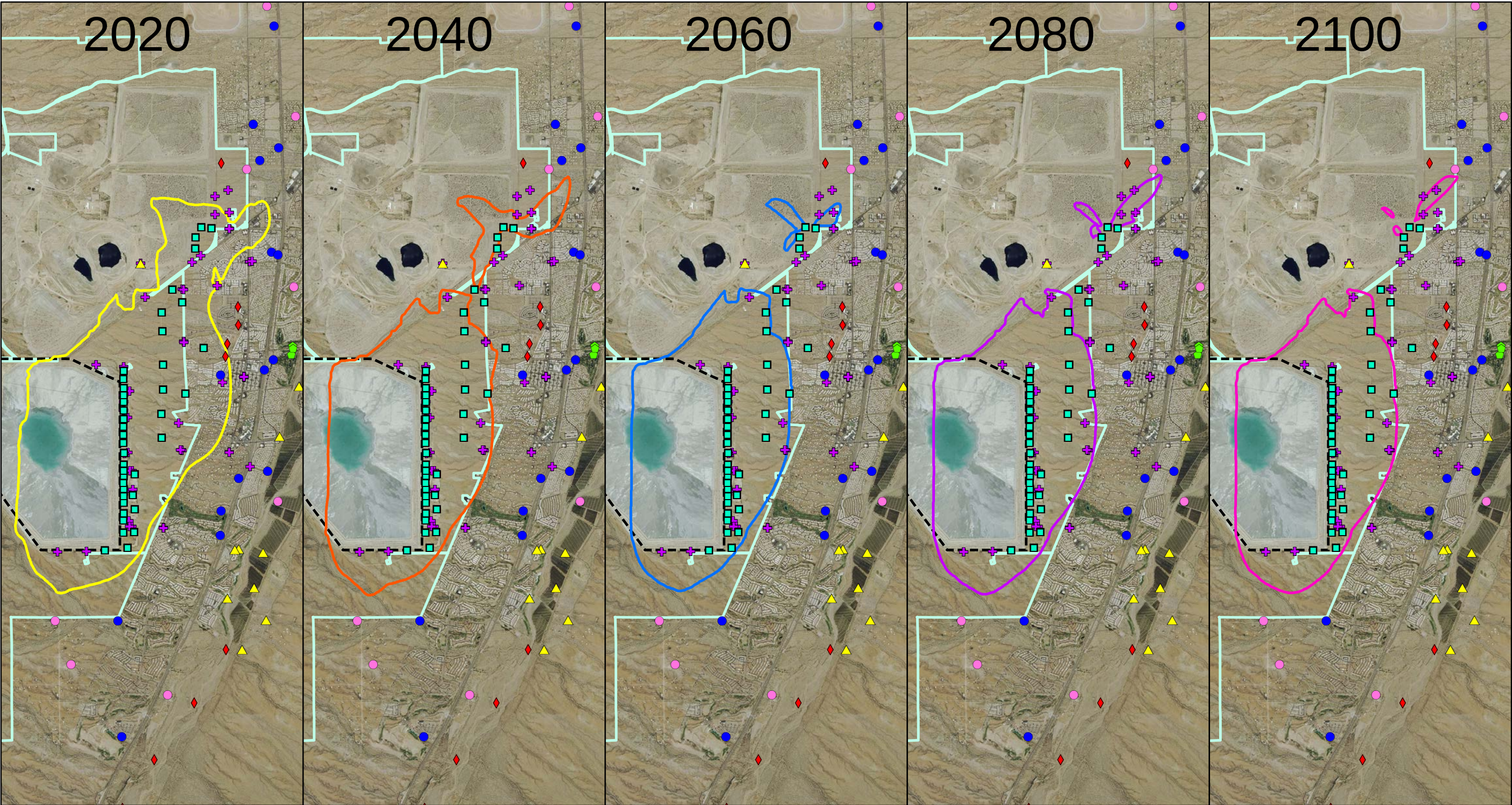
NOTE:
The groundwater elevation contour intervals are irregular.
Groundwater elevation for IW-29 is from third quarter 2014 (8/27/2014).

Date4/30/15

File ID055039-141

CLEAR CREEK ASSOCIATES

FIGURE 21
Interpreted and Target Capture Zones,
Fourth Quarter 2014



Legend

▲ Agriculture

◆ Golf Course

◆ Mining

■ Mitigation Extraction Wells

● Municipal Supply

● Other Users

✚ Post-Implementation Monitoring Well

— 250 mg/L Contour in 2020

— 250 mg/L Contour in 2040

— 250 mg/L Contour in 2060

— 250 mg/L Contour in 2080

— 250 mg/L Contour in 2100

--- Tailing Impoundment

— Sierra Property Boundary

Scale (Feet)

0 8,000 16,000

Notes:

Projection: UTM Zone 12N NAD83

mg/L = milligrams per liter

Simulation Run:3/30/15

Date 4/2/15	File ID 055039-129
FIGURE 23 Simulated Sulfate Concentration from 2020 to 2100 for 2014 Pumping Rates	

APPENDIX A

SULFATE CONCENTRATION DATA

APPENDIX A

Sulfate Concentration Data

Well Name	ADWR 55 Registry No.	Sample Date	pH (SU)	Temperature (deg C)	Specific Conductance (µS/cm)	Sulfate, Dissolved (mg/L)
CC OF GV	501760	1/15/07	7.31	23.0	767	133
		4/16/07	7.44	22.6	767	133
		7/9/07	7.58	24.5	658	104
		1/10/08	7.27	22.5	689	143
		4/16/08	7.37	25.2	426	69.4
		7/7/08	6.97	23.7	736	119
		10/9/08	7.26	24.8	476	72.4
		2/4/09	8.08	13.8	399	107
		4/21/09	6.92	19.8	526	90.1
		4/22/10	6.99	21.26	929	95
		4/21/11	6.95	17.6	494	82
		6/26/12	7.13	27.7	565	88.69
		5/14/13	7.46	23.3	706	147.80
CW-3	627483	4/23/14	6.94	22.3	744	156
		6/6/07	7.74	25.3	449	57.9
		8/10/07	7.40	25.9	444	59.5
		1/11/08	7.55	25.1	432	55.7
		4/17/08	7.32	25.6	398	54.1
		7/11/08	7.53	25.7	484	56.7
		10/6/08	7.50	25.3	430	56.2
		2/9/09	7.68	24.3	347	54.3
		4/24/09	6.75	25.4	520	56.2
		12/31/09	7.57	23.8	419	56.2
		4/22/10	7.32	23.03	475	57.7
		10/25/10	7.60	25.5	460	57.6
		5/2/11	7.55	26.4	390	56.8
		12/5/11	7.79	22.7	437	55.18
		6/18/12	7.57	28.4	517	61.70
		12/13/12	7.64	24.1	473	63.84
		12/13/12 DUP	7.64	24.1	473	64.04
		6/13/13	7.63	24.4	444	70.8
		11/12/13	7.24	23.8	417	67.2
		11/12/13 DUP	7.24	23.8	417	67.2
		5/6/14	7.81	24.3	393	70.7
		5/6/14 DUP	7.81	24.3	393	70.6
		10/15/14	7.78	24.8	424	67.5

APPENDIX A

Sulfate Concentration Data

Well Name	ADWR 55 Registry No.	Sample Date	pH (SU)	Temperature (deg C)	Specific Conductance (µS/cm)	Sulfate, Dissolved (mg/L)
CW-6	627485	12/4/06	NM	NM	NM	46.2
		1/3/07	7.73	26.8	418	49.2
		1/3/07	7.73	26.8	418	49.5
		5/14/07	7.58	26.1	507	68.7
		7/10/07	7.60	26.9	475	57.6
		7/10/07	7.60	26.9	475	58
		1/8/08	7.64	27.1	368	48.9
		4/15/08	7.25	26.9	382	51.2
		7/8/08	7.43	27.2	416	47.9
		10/7/08	7.52	26.6	431	51.5
		10/7/08 DUP	7.52	26.6	431	51.5
		2/6/09	7.87	26.6	317	48.2
		4/22/09	7.62	25.3	377	47.9
		4/22/09 DUP	7.62	25.3	377	47.3
		9/17/09	7.18	24.8	478	70
		11/5/09	7.52	25.1	434	59.7
		2/10/10	7.68	24.4	369	46.6
		5/14/10	7.70	26.50	380	52.1
		7/27/10	7.50	27.5	444	55.2
		10/14/10	7.67	26.2	429	52.5
		2/24/11	7.57	23.4	455	70.3
		4/28/11	7.66	25.2	453	58.1
		7/20/11	7.52	25.5	417	81
		12/14/11	7.76	23.7	429	54.50
		12/14/11 DUP	7.76	23.7	429	54.42
		1/24/12	7.49	25.2	303	60.17
		5/9/12	7.70	26.5	489	80.99
		8/29/12	7.44	25.2	537	82.24
		12/12/12	7.47	23.6	541	82.98
		2/6/13	7.32	24.0	457	76.54
		5/15/13	7.63	24.7	513	91.94
		7/17/13	7.47	25.3	500	91.60
		10/23/13	7.50	25.1	365	85.1
		1/14/14	7.49	22.4	395	87.2
		4/16/14	7.65	24.4	434	85.6
		7/22/14	7.21	25.5	614	78.0
		10/13/14	7.71	23.9	464	79.5
CW-7	502546	1/3/07	7.38	27.4	1799	807
		5/14/07	7.40	27.4	1860	874
		7/10/07	7.32	27.4	1945	860
		1/8/08	7.26	27.3	1860	1080
		4/15/08	7.31	27.6	1758	900
		7/8/08	7.11	27.9	2037	890
		7/8/08 DUP	7.11	27.9	2037	910
CW-8	543600	1/24/07	7.67	29.7	1232	449
		5/14/07	7.69	29.4	1379	529
		7/10/07	7.63	29.8	1401	500
		1/8/08	7.59	7.6	1160	466
		4/15/08	7.54	29.5	1135	441
		7/8/08	7.40	29.8	1373	504

APPENDIX A

Sulfate Concentration Data

Well Name	ADWR 55 Registry No.	Sample Date	pH (SU)	Temperature (deg C)	Specific Conductance (µS/cm)	Sulfate, Dissolved (mg/L)
CW-9	588121	12/4/06	NM	NM	NM	44.5
		1/3/07	7.74	27.0	387	44.9
		5/14/07	7.74	27.5	414	47.8
		7/10/07	7.68	22.6	414	46.7
		1/8/08	7.55	27.3	356	47.3
		4/15/08	7.39	27.4	347	43.7
		7/8/08	7.26	27.9	396	44.1
		10/7/08	7.50	27.7	395	43.5
		2/6/09	7.79	26.8	300	45.1
		4/22/09	7.81	26.3	361	44.3
		7/30/09	7.57	28.3	379	43.8
		11/5/09	6.82	27.4	376	44.7
		2/10/10	7.55	26.0	351	43.4
		5/14/10	7.62	28.1	345	44.2
		7/27/10	7.58	28.4	390	44.1
		10/14/10	7.72	27.5	389	44.2
		2/24/11	7.75	26.3	347	42.7
		4/28/11	7.68	28.8	377	44.4
		7/20/11	7.71	27.8	379	43.9
		12/14/11	7.69	26.5	373	43.80
		1/24/12	7.70	25.1	262	45.60
		5/9/12	7.67	28.3	356	44.39
		8/29/12	7.62	27.9	372	43.94
		12/12/12	7.75	26.6	382	42.14
		2/6/13	7.43	26.7	325	39.87
		5/15/13	7.70	27.0	367	45.78
		7/17/13	7.66	28.1	374	43.70
		10/23/13	7.66	26.9	260	44.4
		1/14/14	7.60	26.1	275	44.3
		1/14/14 DUP	7.60	26.1	275	44.1
		4/16/14	7.84	26.7	304	44.2
		7/22/14	7.47	27.6	446	41.8
		7/22/14 DUP	7.47	27.6	446	42.0
		10/13/14	7.97	27.0	329	42.0

APPENDIX A

Sulfate Concentration Data

Well Name	ADWR 55 Registry No.	Sample Date	pH (SU)	Temperature (deg C)	Specific Conductance (µS/cm)	Sulfate, Dissolved (mg/L)
CW-10	207982	12/4/06	NM	NM	NM	37.2
		1/24/07	7.90	30.2	385	48.6
		5/14/07	7.81	31.3	392	52.8
		7/10/07	7.82	31.3	403	51.7
		1/8/08	7.79	28.2	334	45.3
		4/15/08	7.51	30.6	339	50.8
		7/8/08	7.34	31.2	385	50.5
		10/7/08	7.59	30.5	380	48.3
		2/6/09	7.91	29.8	295	51.3
		4/22/09	7.71	29.2	349	47.9
		7/30/09	7.60	31.5	375	49.2
		7/30/09 DUP	7.60	31.5	375	49.4
		11/5/09	7.60	29.7	364	49.9
		2/10/10	7.69	28.4	346	44.9
		5/14/10	7.79	30.7	349	49.1
		7/27/10	7.69	31.4	380	48.9
		10/14/10	7.74	30.2	377	48.5
		2/24/11	7.83	29.3	346	50.2
		2/24/11 DUP	7.83	29.3	346	50.2
		4/28/11	7.54	27.9	372	49.6
		7/20/11	7.72	31.4	383	50.7
		12/14/11	7.81	29.8	370	49.24
		1/24/12	7.77	28.7	265	52.32
		5/9/12	7.85	30.9	354	52.51
		8/29/12	7.74	31.4	369	50.95
		12/12/12	7.77	29.3	392	52.33
		2/6/13	7.52	29.3	332	47.91
		5/15/13	7.85	30.6	365	52.35
		5/15/13 DUP	7.85	30.6	365	52.77
		7/17/13	8.12	31.5	353	54.80
		10/25/13	7.70	29.8	260	51.7
		1/14/14	7.45	29.2	266	50.8
		4/16/14	7.93	30.0	298	50.2
		7/22/14	7.93	31.0	427	47.9
		10/13/14	7.98	30.7	322	48.2
ESP-1	623102	12/4/06	NM	NM	NM	262
		1/3/07	7.65	28.0	869	242
		5/14/07	7.70	28.7	592	113
		7/10/07	7.66	28.8	584	94
		1/23/08	7.73	27.6	492	100
		4/18/08	7.61	29.6	474	102
		7/25/08	7.52	28.4	561	104
		10/30/08	7.55	26.9	576	121
		1/29/09	7.44	25.2	491	113
		4/16/09	7.72	25.4	541	130
		11/10/09	7.45	26.8	649	173
		4/28/10	7.49	28.7	639	204
		10/15/10	7.49	27.7	953	291
		5/3/11	7.51	28.1	1060	359
		12/13/11	7.49	26.1	1046	387.52
		6/19/12	7.43	30.4	1221	395.72

APPENDIX A

Sulfate Concentration Data

Well Name	ADWR 55 Registry No.	Sample Date	pH (SU)	Temperature (deg C)	Specific Conductance (µS/cm)	Sulfate, Dissolved (mg/L)
ESP-2	623103	12/4/06	NM	NM	NM	29.6
		1/3/07	7.82	28.4	377	31.3
		5/14/07	7.86	27.8	368	28.4
		7/10/07	7.73	28.9	380	28.6
		1/23/08	7.85	25.8	366	30
		4/18/08	7.80	27.3	325	27.6
		7/25/08	7.65	28.6	361	26.8
		10/30/08	7.22	27.5	374	30.1
		10/30/08 DUP	7.22	27.5	374	30
		1/29/09	6.38	25.4	317	27.8
		4/16/09	7.55	24.0	307	28.2
		11/10/09	7.58	27.0	343	28.9
		4/28/10	7.67	27.9	324	28.7
		10/15/10	7.78	27.6	355	27.9
		10/15/10 DUP	7.78	27.6	355	27.8
		5/3/11	7.72	27.8	361	28.1
		5/3/11 DUP	7.72	27.8	361	28.1
		11/22/11	7.84	26.0	350	26.65
		6/19/12	7.65	31.7	387	27.75
		11/21/12	7.55	28.8	333	26.79
		5/20/13	7.70	28.2	350	27.86
ESP-3	623104	11/5/13	7.72	27.9	245	26.9
		4/28/14	7.91	27.5	291	28.3
		10/1/14	7.96	28.3	327	26.8
		12/4/06	NM	NM	NM	36.2
		1/3/07	7.83	27.8	393	37.5
		5/14/07	7.78	28.8	374	36.6
		5/14/07	7.78	28.8	374	36.6
		7/10/07	7.84	29.2	378	36.6
		1/23/08	7.99	26.1	373	30
		4/18/08	7.82	27.8	322	35.7
		7/25/08	7.70	28.2	358	34
		10/30/08	7.58	27.8	375	36.8
		1/29/09	7.73	23.9	327	35.2
		4/16/09	7.62	26.1	327	35.3
		11/12/09	7.71	27.0	354	39.5
		4/28/10	7.77	25.8	326	35.8
		10/15/10	7.76	27.5	356	35.2
		5/3/11	7.82	27.2	362	35.1
		11/22/11	7.95	27.6	337	34.18
		6/19/12	7.87	30.6	390	34.98
		11/21/12	7.59	28.4	327	35.4
		5/22/13	7.71	26.7	368	35.87
		11/5/13	7.76	27.2	242	35.6
		4/28/14	7.90	27.7	287	35.9
		10/1/14	7.99	28.2	324	33.6

APPENDIX A

Sulfate Concentration Data

Well Name	ADWR 55 Registry No.	Sample Date	pH (SU)	Temperature (deg C)	Specific Conductance (µS/cm)	Sulfate, Dissolved (mg/L)
ESP-4	623105	3/20/07	7.67	26.7	1187	393
		6/4/07	7.45	28.4	733	385
		7/24/07	7.34	28.4	918	410
		7/24/07	7.34	28.4	918	420
		1/23/08	7.83	24.4	787	520
		4/18/08	7.71	27.2	821	462
		7/25/08	7.52	28.6	1096	420
		10/30/08	7.23	25.9	962	489
		1/29/09	7.52	24.7	950	522
		4/16/09	7.30	25.4	873	521
		10/23/09	7.41	27.8	954	485
		4/28/10	7.37	26.7	936	558
		4/28/10 DUP	7.37	26.7	936	520
		10/15/10	7.41	27.9	1356	539
		5/3/11	7.54	27.1	1465	595
		11/12/12	7.60	26.3	1337	618.5
		5/20/13	7.46	28.5	1173	581.6
		11/5/13	7.47	26.8	843	585
FFS-1	221662	4/28/14	7.70	25.8	814	352
		10/1/14	7.69	26.5	993	397
		2/4/14	7.63	23.2	3230	1780
		2/4/14	7.63	23.2	3230	1750
		4/15/14	7.61	25.6	1871	1760
FFS-2	221663	7/9/14	7.08	26.4	3080	1850
		11/11/14	7.44	25.5	3170	1790
		2/4/14	7.61	24.4	3120	1730
		4/15/14	7.46	27.0	1788	1710
		4/15/14	7.46	27.0	1788	1730
FFS-3	221664	7/9/14	6.97	27.4	2920	1840
		7/9/14	6.97	27.4	2920	1820
		11/11/14	7.22	26.4	3100	1800
		2/4/14	7.37	29.5	2630	1450
FFS-4	221665	4/15/14	7.41	31.1	1559	1440
		7/9/14	6.98	32.0	2580	1560
		11/11/14	7.16	30.3	2670	1570
		2/4/14	7.59	29.1	1857	1100
FFS-5	221666	4/15/14	7.64	31.4	1347	1140
		7/9/14	7.09	32.6	2190	1260
		11/11/14	7.21	30.6	1821	1310
		2/4/14	7.36	27.5	2580	1360
FFS-6	221667	4/15/14	7.56	28.8	1528	1360
		7/9/14	6.93	30.0	2460	1400
		11/11/14	7.13	29.0	2570	1410
		11/11/14	7.13	29.0	2570	1320
FFS-6	221667	2/4/14	7.41	27.4	2250	1260
		4/15/14	7.53	29.2	1378	1130
		7/9/14	6.94	29.9	2220	1210
		11/11/14	7.10	28.4	1833	1170

APPENDIX A

Sulfate Concentration Data

Well Name	ADWR 55 Registry No.	Sample Date	pH (SU)	Temperature (deg C)	Specific Conductance (µS/cm)	Sulfate, Dissolved (mg/L)
GV-01-GVDWID	603428	8/6/06	NM	NM	NM	41.2
		1/9/07	8.00	25.8	424	40.9
		4/10/07	7.69	27.2	421	43.2
		7/11/07	7.64	26.8	447	41.5
		1/7/08	7.49	25.7	422	45.7
		4/16/08	7.29	25.8	399	44.1
		7/7/08	7.14	26.1	466	45.2
		10/9/08	7.25	26.6	414	39
		2/4/09	7.50	26.4	338	42.3
		4/22/09	7.05	27.8	380	40.6
		7/29/09	7.17	24.6	606	44.3
		11/4/09	7.45	25.1	415	45.1
		1/27/10	7.54	24.5	411	47.0
		4/1/10	7.49	24.6	420	48.5
		7/28/10	7.20	28.1	348	39.4
		10/14/10	7.29	26.4	411	38.4
		1/20/11	7.04	23.0	408	40.0
		4/28/11	7.30	27.5	421	42.9
		7/20/11	6.88	27.1	429	39.6
		12/7/11	7.68	25.4	416	39.31
		3/14/12	7.61	26.0	406	35.56
		6/7/12	7.21	26.9	420	37.87
		8/29/12	7.38	27.6	409	36.15
		11/15/12	7.27	23.9	450	33.95
		1/29/13	7.34	24.9	373	38.61
		5/16/13	7.64	26.8	398	38.80
		7/11/13	7.79	26.4	367	42.60
		7/11/13 DUP	7.79	26.4	367	42.50
		10/16/13	6.72	26.0	388	33.0
		1/10/14	7.31	24.2	486	34.2
		1/10/2014 DUP	7.31	24.2	486	34.2
		4/15/14	7.95	25.2	325	35.5
		7/21/14	7.42	27.3	498	31.9

APPENDIX A

Sulfate Concentration Data

Well Name	ADWR 55 Registry No.	Sample Date	pH (SU)	Temperature (deg C)	Specific Conductance (µS/cm)	Sulfate, Dissolved (mg/L)
GV-02-GVDWID	603429	8/6/06	NM	NM	NM	48.6
		10/4/06	NM	NM	NM	95.3
		1/9/07	7.68	23.6	626	103
		4/10/07	7.60	24.1	479	106
		7/11/07	7.50	24.0	649	98
		1/7/08	7.32	23.3	611	98
		4/16/08	7.28	23.7	553	97
		7/7/08	7.12	23.8	642	93.2
		10/9/08	7.18	24.2	599	93.5
		2/4/09	7.36	23.9	489	98.8
		4/22/09	6.67	26.5	485	79.5
		7/29/09	7.02	26.4	427	91.6
		11/4/09	7.25	24.3	547	93.2
		1/27/10	7.47	22.0	547	94.9
		1/27/10 DUP	7.47	22.0	547	94.5
		4/1/10	7.33	22.9	555	99.5
		7/28/10	7.23	24.6	650	83
		10/14/10	7.36	24.5	629	90.7
		1/20/11	7.37	23.1	611	92.7
		4/28/11	7.43	24.5	612	87.3
		7/20/11	7.35	24.0	624	87.2
		12/7/11	7.53	21.8	578	77.88
		3/14/12	7.37	23.8	566	77.35
		6/7/12	7.14	24.0	559	71.78
		8/29/12	7.49	26.3	495	62.98
		8/29/12 DUP	7.49	26.3	495	63.26
		11/15/12	7.55	23.4	543	63.97
		1/29/13	7.35	22.7	457	61.02
		1/29/13 DUP	7.35	22.7	457	61.23
		5/16/13	7.54	24.4	482	63.14
		7/11/13	7.72	24.4	423	64.20
		10/16/13	6.67	23.5	469	53.3
		1/10/14	7.37	22.1	553	55.3
		4/15/14	7.92	23.5	343	45.7
		7/21/14	7.31	24.8	544	42.1
		10/14/14	7.73	23.5	449	48.5
GV-SI-GVDWID	208825	10/4/06	NM	NM	NM	5.9
		1/9/07	7.90	26.7	358	5.7
		4/10/07	7.48	26.8	367	6.6
		7/11/07	7.59	27.1	389	6.9
		1/7/08	7.00	26.6	342	8
		4/16/08	7.27	26.4	331	2
		7/7/08	7.18	27.2	382	<0.5
		10/9/08	7.44	26.7	352	5.4
		2/4/09	7.56	27.3	290	6.2
		4/22/09	6.95	28.0	330	5.6
		4/1/10	7.55	26.1	339	6.9
		4/28/11	7.57	27.1	364	6.0
		6/20/12	7.33	28.5	367	8.46
		5/16/13	7.55	26.6	359	6.10
		4/14/14	7.92	25.8	290	5.89

APPENDIX A

Sulfate Concentration Data

Well Name	ADWR 55 Registry No.	Sample Date	pH (SU)	Temperature (deg C)	Specific Conductance (µS/cm)	Sulfate, Dissolved (mg/L)
HAVEN GOLF	515867	2/6/07	7.28	23.0	683	107
		4/16/07	7.26	23.3	655	105
		7/9/07	7.57	32.8	622	80.1
		1/7/08	7.18	21.0	610	99
		4/15/08	7.34	24.8	629	106
		7/7/08	6.93	23.9	727	112
		10/7/08	7.31	27.8	588	92.3
		2/4/09	7.33	23.7	554	120
		2/4/09 DUP	7.33	23.7	554	119
		4/21/09	7.40	23.6	306	109
		4/22/10	6.85	20.8	726	109
		4/21/11	7.10	20.4	588	95
		5/29/12	6.41	279.0	633	88.05
		5/7/13	7.46	23.5	537	105.13
		4/22/14	6.99	24.5	571	97.4
I-10	608525	4/16/07	7.17	28.8	878	533
		7/11/07	7.13	31.3	1013	550
		1/8/08	7.46	24.6	1164	520
		4/14/08	7.29	29.5	836	490
		7/21/08	7.19	30.9	1036	480
		10/28/08	7.18	29.7	1034	526
		1/20/09	7.13	27.6	1040	544
		5/12/09	7.15	28.0	997	495
IW-1	623129	4/30/14	7.52	27.0	1072	629
		11/15/06	NM	NM	NM	490
		1/10/07	6.97	25.1	1033	520
		4/9/07	7.24	26	918	480
		7/16/07	6.86	32.7	884	510
		1/16/08	7.38	28.5	959	610
		5/7/08	6.87	29.8	847	610
		7/23/08	6.57	29.5	1228	670
		10/24/08	7.01	30.9	1201	700
		1/27/09	6.61	23.6	1134	660
		4/20/09	7.01	29.0	1092	670
		4/12/10	6.79	29.6	1148	940
		5/11/11	7.02	27.1	2110	1050
		5/21/12	6.71	32.0	1689	900
IW-2	623130	4/15/13	7.25	27.4	1676	980
		4/14/14	7.44	28.2	1120	896
		11/15/06	NM	NM	NM	100
		1/10/07	6.91	23.8	528	110
		4/3/07	7.08	25.3	492	90
IW-2A	216464	7/16/07	7.18	32.2	506	90
		1/16/08	7.76	28.1	470	70
		4/22/08	6.99	30.5	382	80
		7/23/08	6.88	30.3	474	60
		10/24/08	7.43	30.3	473	60
		1/27/09	7.02	25	420	53
		4/20/09	6.85	28.0	405	54
		4/12/10	7.04	NM	28.9	77
		5/11/11	7.12	26.7	541	87
		5/11/11	7.12	26.7	541	88
		5/21/12	6.89	31.1	638	121
		4/15/13	7.01	27.0	550	123
		4/14/14	7.64	27.7	430	116

APPENDIX A

Sulfate Concentration Data

Well Name	ADWR 55 Registry No.	Sample Date	pH (SU)	Temperature (deg C)	Specific Conductance (µS/cm)	Sulfate, Dissolved (mg/L)
IW-3A	201732	11/15/06	NM	NM	NM	1590
		4/3/07	7.29	25.1	1374	1540
		7/16/07	6.85	29.8	1184	1500
		1/16/08	7.20	27.4	1280	1490
		4/22/08	7.03	29.3	1224	1420
		7/23/08	6.62	29.3	1789	1460
		10/27/08	6.97	28.7	1679	1450
		1/27/09	6.82	23.1	1520	1550
		1/27/09	6.82	23.1	1520	1310
		4/20/09	6.69	27.2	1448	1400
		4/12/10	6.55	27.5	1380	1500
		5/11/11	6.75	25.6	2260	1650
		6/20/12	6.51	275.0	3170	1700
IW-4	623132	5/14/13	7.01	27.7	2660	1600
		4/14/14	7.34	25.9	1757	1720
		1/18/07	6.81	22.4	2210	1610
		1/18/07	6.81	22.4	2210	1590
		4/11/07	6.6	28.2	1252	1600
		7/18/07	6.61	29.1	1462	1450
		1/16/08	7.00	25.2	1326	1590
		4/22/08	6.59	28.6	1264	1540
		7/23/08	6.70	31.0	1899	1640
		10/24/08	6.92	27.9	1924	1630
		1/27/09	6.58	23.9	1718	1460
		4/20/09	6.79	25.6	1604	1400
		4/12/10	6.49	26.8	1483	1600
IW-5	623133	5/11/11	6.57	25.8	3070	1700
		5/21/12	6.57	27.5	2650	1500
		4/15/13	6.93	24.2	2750	1800
		4/14/14	7.01	24.3	1903	1690
		1/16/07	7.34	23.1	1511	1710
		7/18/07	6.82	27.0	1716	1610
		1/16/08	7.11	24.1	1380	1690
		4/21/08	6.64	27.5	1326	1550
IW-5A	219131	7/23/08	6.76	30.1	1370	1730
		10/27/08	6.57	26.8	1886	1720
		1/27/09	6.44	19.5	1560	1630
		4/20/09	6.73	24.7	1635	1600
		4/12/10	6.59	25.7	1476	1800
IW-6A	545565	4/12/10	6.59	25.7	1476	1700
		4/20/11	6.78	22.2	3210	1740
		5/22/12	6.68	26.6	2880	1600
		4/15/13	6.84	24.2	2910	1760
		4/15/13	6.84	24.2	2910	1740
IW-6A	545565	4/14/14	6.96	24.5	3120	1750
		11/15/06	NM	NM	NM	1760
		1/16/07	7.25	22.5	1562	1800
		4/9/07	6.69	26	1627	1830
		7/25/07	6.67	24.5	1609	1930
		1/16/08	7.21	23.1	1489	1910
		1/16/08	7.21	23.1	1489	1800
		4/21/08	7.30	25.4	1309	1920
		7/17/08	6.84	27.1	1510	1850
		10/24/08	6.61	25.5	1999	1930
		1/26/09	6.58	21.9	1959	1600
		4/20/09	6.78	25.6	1710	1700
		4/12/10	6.99	34.2	1437	1800
		5/11/11	6.82	23.4	3390	1900
		5/22/12	6.61	27.3	2950	1800
		4/15/13	6.86	23.9	3030	1840
		4/14/14	6.99	23.4	3270	1890

APPENDIX A

Sulfate Concentration Data

Well Name	ADWR 55 Registry No.	Sample Date	pH (SU)	Temperature (deg C)	Specific Conductance (µS/cm)	Sulfate, Dissolved (mg/L)
IW-8	508236	4/3/07	7.11	24.1	1523	1760
		7/18/07	6.82	29.5	1328	1870
		1/16/08	7.30	24.3	1386	1900
		4/22/08	6.86	27.5	1301	1700
		7/23/08	6.78	27.5	1440	1870
		10/24/08	6.85	27.4	1976	1890
		1/27/09	6.38	20.4	1816	1630
		4/20/09	6.75	25.4	1620	1700
		4/12/10	6.52	25.6	1547	1900
		5/11/11	6.67	23.9	1965	1900
		5/21/12	6.62	28.7	2670	1700
IW-9	508238	5/14/13	6.96	26.9	2800	1700
		11/15/06	NM	NM	NM	1760
		1/18/07	7.40	22.6	1690	1670
		4/11/07	6.73	25.1	1424	1750
		7/18/07	6.78	29.4	1547	1810
		1/16/08	7.01	26.1	1359	1700
		4/22/08	6.86	28.5	1328	1670
		7/23/08	6.88	28.8	1420	1730
		10/24/08	6.88	28.6	1981	1720
		10/24/08	6.88	28.6	1981	1720
		1/27/09	6.69	21.7	1774	1500
		4/20/09	6.79	26.9	1585	1600
		4/12/10	6.95	29.2	1579	1800
		4/12/10	6.95	29.2	1579	1800
		5/26/11	6.95	26.2	3850	1810
IW-10	508237	5/21/12	6.58	29.2	2680	1700
		4/15/13	6.90	25.6	2880	1730
		4/14/14	7.20	25.3	1882	1780
		11/15/06	NM	NM	NM	1650
		1/16/07	7.38	23.7	1303	1670
		4/3/07	7.11	26.7	1520	1750
		7/18/07	6.78	28.3	1734	1770
		1/16/08	7.91	24.0	537	1800
		4/21/08	6.68	27.2	1338	1470
		7/23/08	6.90	28.4	1460	1740
		10/24/08	6.77	27.0	1969	1730
		1/27/09	6.64	20.7	1560	1490
IW-11	508235	4/20/09	6.80	24.8	1607	1600
		4/12/10	6.61	26.5	1431	1700
		5/11/11	6.67	24.3	3310	1800
		5/22/12	6.78	26.9	2890	1700
		4/15/13	6.85	23.6	2980	1740
		4/14/14	6.94	23.4	3320	1820
		11/21/06	NM	NM	NM	1600
		1/16/07	7.10	21.7	1516	1700
		4/9/07	6.76	26.2	1342	1760
		7/18/07	6.84	26.8	1788	1770
		1/16/08	7.15	22.3	1370	1800
		4/21/08	6.53	26	1303	1770
		4/21/08	6.53	26	1303	1850
		7/29/08	6.58	24.4	1830	1720
		10/24/08	6.89	26.3	1958	2260
		1/27/09	6.56	19.1	1540	1600
		4/20/09	6.64	25.1	1632	1600
		4/12/10	6.63	24.6	1492	1700
		5/11/11	6.51	25.0	3250	1700
		5/22/12	6.76	25.5	2810	1600
		4/15/13	6.82	23.7	2890	1730
		4/14/14	7.00	22.3	3210	1710

APPENDIX A

Sulfate Concentration Data

Well Name	ADWR 55 Registry No.	Sample Date	pH (SU)	Temperature (deg C)	Specific Conductance (µS/cm)	Sulfate, Dissolved (mg/L)
IW-12	545555	1/16/07	6.93	22.3	1444	1620
		4/17/07	6.56	25.9	1345	1630
		7/25/07	6.55	25.2	1483	1700
		1/16/08	6.87	23.4	1428	1700
		1/16/08	6.87	23.4	1428	1700
		4/11/08	6.51	27.4	1426	1580
		7/17/08	6.76	28.4	1917	1630
		10/24/08	6.81	26.5	1879	1520
		1/26/09	6.70	23.7	1792	1440
		4/20/09	6.63	26.5	1576	1500
		4/12/10	6.70	22.8	1579	1500
		5/11/11	6.74	25.8	3120	1700
		5/22/12	6.66	27.7	2640	1600
		5/14/13	6.92	27.2	2540	1500
IW-13	545556	4/17/07	6.81	25.8	1430	1690
		7/25/07	6.61	25.1	1560	1940
		7/25/07	6.61	25.1	1560	1780
		1/16/08	6.64	24.0	1599	1800
		4/11/08	6.61	26.8	1502	1800
		7/17/08	6.6	30	1898	1850
		10/24/08	6.70	26.1	1999	1930
		1/26/09	6.49	23.6	1951	1600
		4/20/09	6.73	27.2	1697	1700
		4/12/10	6.64	24.1	1669	1900
		5/11/11	6.70	25.3	3360	1900
		6/20/12	6.67	25.9	3450	1900
		4/15/13	6.73	24.9	3030	1760
		4/14/14	6.99	23.6	3440	1900
IW-14	545557	4/14/14	6.99	23.6	3440	1730
		11/15/06	NM	NM	NM	1820
		1/16/07	6.72	22.4	1484	1790
		1/16/07	6.72	22.4	1484	1810
		4/16/07	6.63	24.4	1383	1790
		7/25/07	6.51	24.7	1462	1910
		1/16/08	7.03	23.2	1646	1800
		4/11/08	6.49	26.8	1460	1810
		7/16/08	6.59	29.9	1901	1870
		10/24/08	6.51	26.4	1929	1840
		1/26/09	6.52	23	1869	1600
		4/20/09	6.66	27.1	1612	1700
		4/21/10	6.89	24.8	1428	1900
		5/11/11	7.54	25.7	3460	1900
		5/22/12	6.48	31.8	2620	1800
		4/15/13	6.91	24.4	3020	1870
		4/14/14	7.01	23.1	3490	1730

APPENDIX A

Sulfate Concentration Data

Well Name	ADWR 55 Registry No.	Sample Date	pH (SU)	Temperature (deg C)	Specific Conductance (µS/cm)	Sulfate, Dissolved (mg/L)
IW-15	545558	11/15/06	NM	NM	NM	1710
		1/16/07	7.04	23.9	1420	1730
		4/16/07	6.82	27.4	1314	1740
		7/25/07	6.32	26.6	1388	1760
		1/16/08	7.07	22.3	1561	1740
		4/11/08	6.42	28.3	1395	1670
		7/15/08	6.75	31.3	1790	1730
		10/24/08	6.6	26.0	1892	1850
		1/27/09	6.86	21.8	1935	1630
		4/20/09	7.71	28.5	1302	1600
		4/20/09	7.71	28.5	1302	1700
		4/12/10	6.69	25.0	1669	1700
		5/11/11	7.54	26.2	3270	1800
		5/11/11	7.54	26.2	3270	1800
		5/22/12	6.74	29.4	2850	1800
IW-16	545559	5/14/13	7.03	27.1	2770	1700
		4/14/14	6.98	23.9	3240	1800
		11/15/06	NM	NM	NM	1730
		1/16/07	7.18	23.8	1415	1730
		4/17/07	6.86	26.8	1320	1770
		4/17/07	6.86	26.8	1320	1790
		7/25/07	6.63	26.5	1368	1800
		1/16/08	7.07	23.3	1561	1740
		4/11/08	6.64	26.4	1404	1770
		7/15/08	6.52	31.2	1778	1840
		10/24/08	6.35	25.7	1879	1850
IW-17	545560	1/26/09	6.44	23.9	1773	1620
		4/20/09	6.69	27.1	1347	1700
		4/12/10	6.79	25.6	1652	1800
		11/15/06	NM	NM	NM	1570
		1/16/07	6.79	21.8	1402	1600
		4/16/07	6.90	26.3	1303	1670
		7/25/07	6.61	27.2	1348	1730
		1/16/08	6.74	16.5	1485	1720
		4/11/08	6.49	28.5	1398	1730
IW-18	545561	7/15/08	6.63	31.7	1853	1770
		10/24/08	6.70	27.0	1864	1720
		1/26/09	6.41	24.1	1828	1480
		4/20/09	6.77	30.1	1332	1600
		4/12/10	6.63	26.5	1604	1700
		11/21/06	NM	NM	NM	1610
		1/18/07	7.26	15.4	1460	1660
		4/16/07	6.80	24.9	1161	1610
		7/25/07	6.45	28.1	1293	1760
		1/14/08	6.39	21.9	1899	1700
		4/11/08	6.61	27.5	1388	1540
		7/15/08	6.71	30.2	1847	1710
		10/24/08	6.34	27.1	1883	1680
		1/26/09	6.39	24.7	1779	1460
		4/20/09	6.77	29.9	1337	1700
		4/29/10	6.63	23.7	1455	1600

APPENDIX A

Sulfate Concentration Data

Well Name	ADWR 55 Registry No.	Sample Date	pH (SU)	Temperature (deg C)	Specific Conductance (µS/cm)	Sulfate, Dissolved (mg/L)
IW-19	545562	11/21/06	NM	NM	NM	1570
		1/11/07	7.19	25.1	1802	1630
		4/16/07	6.69	26.7	1296	1630
		7/25/07	6.91	26.3	1310	1650
		1/10/08	6.39	22.4	1881	1800
		1/10/08	6.39	22.4	1881	1800
		4/11/08	6.62	26.3	1409	1680
		7/15/08	6.78	29.4	1807	1670
		10/24/08	6.6	28.7	1685	1710
		1/26/09	6.47	24.3	1852	1370
		4/20/09	6.82	27.9	1366	1600
		4/12/10	6.62	26.4	1570	1600
		5/11/11	6.68	26.6	3200	1700
		5/22/12	6.56	30.7	2730	1300
		5/14/13	6.85	28.7	2690	1600
IW-20	545563	4/14/14	7.01	24.5	3170	1780
		11/21/06	NM	NM	NM	1550
		1/11/07	7.23	26.4	2360	1630
		4/9/07	7.07	27.2	1260	1500
		7/24/07	6.69	30.8	1822	1580
		1/9/08	6.72	26.4	1710	1700
		4/11/08	6.74	27.3	1400	1560
		7/15/08	6.6	29.4	1650	1640
		10/24/08	6.81	28.6	1779	1600
		1/26/09	6.48	24.1	1837	1450
		4/20/09	6.76	30.0	1375	1500
		4/29/10	6.62	24.2	1417	1600
		5/11/11	7.07	26.3	3080	1600
		6/20/12	6.67	28.2	3080	1600
		6/17/13	7.21	31.1	1785	1900
IW-21	545564	6/17/13	7.21	31.1	1785	1800
		4/14/14	7.04	26.2	3220	1690
		11/21/06	NM	NM	NM	1580
		1/11/07	7.15	27.8	1848	1620
		4/17/07	6.85	29.4	1424	1650
		7/24/07	6.68	30.6	1828	1630
		1/9/08	6.33	25.4	1975	1800
		4/11/08	6.85	24.6	1375	1610
		4/11/08	6.85	24.6	1375	1610
		7/29/08	6.49	29	1780	1670
		10/24/08	6.91	29.7	1833	1640
		1/26/09	6.59	25.7	1410	1390
		4/20/09	6.83	30.7	1422	1600
		4/12/10	6.72	28.1	1621	1700
		5/11/11	6.77	29.6	3140	1700
		6/20/12	6.65	29.2	3130	1700
		4/15/13	6.94	28.8	2840	1690
		4/14/14	7.18	28.2	3170	1720

APPENDIX A

Sulfate Concentration Data

Well Name	ADWR 55 Registry No.	Sample Date	pH (SU)	Temperature (deg C)	Specific Conductance (µS/cm)	Sulfate, Dissolved (mg/L)
IW-22	200554	11/21/06	NM	NM	NM	1710
		1/23/07	6.90	22.1	1253	1660
		4/9/07	7.09	26	1325	1740
		7/18/07	6.99	28.1	1683	1790
		1/16/08	7.19	23.1	1378	1700
		4/21/08	6.53	28.7	1362	1760
		4/21/08	6.53	28.7	1362	1410
		7/23/08	6.86	28.9	1370	1760
		10/24/08	6.89	26.4	1929	1720
		1/27/09	6.58	19.9	1570	1610
		4/20/09	6.77	25.5	1635	1700
		4/12/10	6.59	25.4	1472	1800
		5/11/11	6.75	24.5	3290	1800
		5/22/12	6.72	26.6	2870	1600
		4/15/13	7.19	22.5	2990	1810
IW-23	200555	4/14/14	7.05	22.5	3240	1620
		11/21/06	NM	NM	NM	1540
		1/23/07	6.6	22.8	1249	1640
		4/11/07	6.88	26.7	1528	1670
		7/25/07	6.49	24.7	1541	1670
		1/16/08	7.17	24.3	1303	1680
		4/21/08	6.71	28.6	1314	1710
		7/23/08	6.84	27.5	1420	1730
		10/24/08	6.81	27.9	1966	1780
		1/27/09	6.52	19.9	1963	1650
		4/20/09	6.82	25.4	1607	1700
		4/12/10	6.81	26.6	1491	1700
		5/11/11	6.83	24.6	3280	1800
		5/22/12	6.72	28.9	2700	1600
		4/15/13	6.79	24.0	2930	1800
IW-24	200556	4/14/14	6.95	23.9	3180	1800
		7/18/07	6.78	29.0	1739	1790
		1/16/08	7.06	24.2	1387	1700
		4/22/08	6.68	28.7	1141	1650
		4/22/08	6.68	28.7	1141	1750
		7/23/08	6.68	30.7	1420	1730
		10/24/08	6.71	28.1	1058	1640
		1/27/09	6.43	21.3	1510	1560
		4/20/09	6.79	25.6	1604	1600
		4/20/09	6.79	25.6	1604	1500
		4/12/10	6.70	27.1	1450	1600
		5/11/11	6.76	24.6	3260	1700
		5/22/12	6.47	27.3	2800	1700
		4/15/13	6.83	24.4	2800	1900
		4/14/14	7.06	25.0	1958	1710
IW-25	219596	4/14/14	7.06	25.0	1958	1760
		4/15/13	7.01	27.6	932	390
IW-26	219143	4/14/14	7.56	27.9	688	348
IW-27	219136	4/15/13	7.00	25.6	2620	1700
IW-28	219137	4/14/14	7.16	22.4	3210	1760
IW-29	222865	4/15/13	7.03	24.2	2930	1720
		4/14/14	7.08	25.0	3230	1740
IW-29	222865	5/12/14	NA	NA	NA	1680

APPENDIX A

Sulfate Concentration Data

Well Name	ADWR 55 Registry No.	Sample Date	pH (SU)	Temperature (deg C)	Specific Conductance (µS/cm)	Sulfate, Dissolved (mg/L)
M-8	087390	12/6/06	7.50	25.5	380	NA
		12/6/06	7.60	NM	380	NA
		4/16/07	7.87	23.1	424	<0.5
		7/11/07	7.67	28.2	415	16.5
		1/9/08	7.68	23.7	458	50
		4/15/08	6.85	28	362	28.7
		7/25/08	7.62	27	398	24.5
		10/28/08	7.67	27.8	406	26.3
		10/28/08	7.67	27.8	406	26.2
		1/20/09	7.49	25.2	397	36.8
		5/12/09	7.62	26.8	387	29.6
		11/5/09	7.61	26.6	382	31.4
		5/28/10	7.63	26.9	448	45.1
		10/21/10	7.64	25.5	435	46.9
		6/15/11	7.57	26.1	501	59.3
		11/17/11	7.88	23.6	522	84.577
		6/29/12	7.73	27.9	417	24
		10/29/12	7.62	25.7	419	16.45
		4/17/13	7.74	27.1	567	140.61
		5/21/13	7.78	27.0	374	28.85
M-9	501652	10/29/13	7.61	25.6	258	18.3
		4/22/14	7.85	23.4	351	20.2
		11/4/14	7.85	25.4	445	19.6
		1/17/07	7.50 ²	26.0	460	NA
		7/11/07	7.72	27.0	334	NA
		1/8/08	6.51	25.7	533	80
		1/8/08	7.67	26.7	480.7	65
		4/14/08	7.74	27.8	422	67.2
		7/21/08	7.52	29.5	485	68.7
		10/28/08	7.66	30.3	503	74.8
		1/20/09	7.64	24.1	470	81.6
		5/13/09	7.54	27.3	487	80.2
		7/14/09	7.60	27.0	420	81.7
		6/16/10	7.63	26.6	511	77
		6/2/11	7.59	27.1	525	75
M-10	501653	6/27/12	7.26	27.4	581	81
		5/1/13	7.81	26.5	461	66.05
		4/22/14	7.82	26.2	550	106
		7/19/06	NM	NM	NM	66
		1/16/07	7.90	29.0	440	NA
		4/16/07	7.97	28.2	475	72.6
		7/12/07	8.05	27.0	322	NA
		1/8/08	7.91	24.8	537	73
		4/15/08	7.99	27.6	428	81
		7/21/08	7.69	31	489	89.8
		10/28/08	8.08	28.1	521	97.1
		1/20/09	7.91	29	467	95
		5/12/09	7.77	26.9	487	97
		7/14/09	7.20	25.0	420	96
		11/5/09	7.13	30.5	479	110
		11/5/09 DUP	7.13	30.5	479	107
		5/28/10	7.83	30.1	497	121
		10/21/10	7.76	27.1	585	139
		5/10/11	7.86	28.9	641	149
		11/16/11	8.04	27.6	612	162
		6/25/12	7.61	29.8	162	162
		10/29/12	7.88	27.0	645	158
		4/17/13	7.90	28.9	618	170.32
		10/29/13	7.94	27.3	431	164
		4/22/14	8.16	25.4	585	165
		11/4/14	8.34	25.2	472	114

APPENDIX A

Sulfate Concentration Data

Well Name	ADWR 55 Registry No.	Sample Date	pH (SU)	Temperature (deg C)	Specific Conductance (µS/cm)	Sulfate, Dissolved (mg/L)
M-20	906595	3/22/07	7.10	27.0	3500	NA
		7/12/07	7.44	27.0	1970	NA
		1/9/08	7.15	25.6	1853	1750
		1/9/08	7.29	26.3	2878	1500
		4/14/08	7.18	27	1277	1550
		7/25/08	6.99	27.6	1857	1550
		10/28/08	7.03	28.2	1688	1660
		1/20/09	6.95	27.1	1506	1760
		5/12/09	6.88	28.0	1501	1580
		5/28/10	7.22	28.2	3050	1620
		5/9/11	7.29	27.8	2790	1710
		6/26/12	7.15	28.3	3050	1722.9
		4/23/13	7.50	26.6	2720	1801.6
MC-1	221660	4/22/14	9.25	26.2	2590	1460
		4/22/14 DUP	9.25	26.2	2590	1440
		2/4/14	7.57	25.4	3080	1620
		4/15/14	7.55	27.2	1797	1680
MC-2	221761	7/9/14	6.97	28.2	2850	1750
		11/11/14	7.10	26.9	2970	1750
		2/4/14	7.61	25.4	2630	1330
		4/15/14	7.45	27.3	1546	1320
MC-3	221661	7/9/14	6.93	28.6	2410	1360
		11/11/14	7.13	27.5	1922	1260
		2/4/14	7.46	24.6	2690	1380
		4/15/14	7.68	27.9	1555	1350
MC-4	220842	7/9/14	6.91	28.7	2480	1510
		11/11/14	7.14	27.2	2610	1440
		2/4/14	7.11	25.9	2440	1210
		4/15/14	7.64	29.2	1437	1160
MH-10	803636	7/9/14	6.76	29.2	2320	1300
		7/9/14	6.76	29.2	2320	1310
		11/11/14	7.06	27.9	1926	1280
		2/4/14	7.11	25.9	2440	1210
		11/8/06	NM	NM	NM	1330
		1/9/07	6.70	28.5	1717	1310
		4/3/07	6.86	30.2	1267	1360
		7/16/07	6.87	31.4	1138	1410
		1/3/08	6.41	24.8	1626	1430
		4/28/08	6.60	31	973	1460
		7/31/08	7.07	32.5	1827	1550
		11/4/08	7.02	26.0	1856	1450
		1/2/09	6.54	26.1	1798	1400
		4/14/09	6.62	28.1	1260	1260
MH-11	803637	4/26/10	7.05	29.9	1365	1500
		4/26/10 DUP	7.05	29.9	1365	1400
		5/18/11	7.03	27.4	2900	1600
		6/5/12	6.88	29.3	2910	1500
		6/10/13	7.17	30.2	1791	1720
		4/23/14	7.05	26.8	2910	1540
		1/11/07	7.33	25.0	1778	1590
		4/10/07	7.02	28.3	1327	1580
		7/17/07	6.87	28.8	1848	1650
		1/4/08	6.44	26.3	1690	1560
		4/29/08	6.48	30.2	959	1700
		7/29/08	6.97	32.2	1767	1550
		11/7/08	7.01	27.1	1350	1560
		1/16/09	7.04	27.5	1454	1400
		5/13/09	6.62	31.0	1569	1500
		4/27/10	6.61	29.3	1382	1400
		5/24/11	6.77	27.4	2650	1500
		5/30/12	6.83	30.3	2730	1440
		4/23/13	7.34	27.7	2410	1480
		4/29/14	7.12	27.6	1946	1590

APPENDIX A

Sulfate Concentration Data

Well Name	ADWR 55 Registry No.	Sample Date	pH (SU)	Temperature (deg C)	Specific Conductance (µS/cm)	Sulfate, Dissolved (mg/L)
MH-13A	904071	11/10/06	NM	NM	NM	1680
		1/24/07	7.87	25.0	1458	1700
		4/18/07	7.1	27.4	1609	1720
		7/17/07	6.98	28.1	1553	1760
		1/4/08	6.97	26.1	1810	1710
		4/29/08	7.09	28.8	1174	1800
		7/16/08	7.03	27.4	1824	1720
		7/16/08 DUP	7.03	27.4	1824	1710
		10/20/08	7.07	27.7	1984	1800
		1/23/09	6.84	25.1	1510	1700
		4/15/09	7.12	25.6	1643	1650
		4/21/10	7.24	25.3	1384	1700
		5/23/11	7.12	26.9	3450	1840
		6/11/12	7.10	27.6	3340	1680
MH-13B	904072	4/3/13	7.20	25.9	2870	1760
		4/10/14	10.34	22.9	1820	1190
		11/10/06	NM	NM	NM	1080
		1/24/07	8.07	25.9	1262	1100
		4/18/07	7.36	30	1396	1120
		7/17/07	7.28	28.5	1786	1150
		1/4/08	7.21	27.2	1576	1110
		4/29/08	7.26	29.6	985	1110
		7/16/08	7.42	31.5	1589	1110
		10/20/08	7.34	29.6	1627	1080
		1/23/09	7.13	26.6	1639	1130
		4/15/09	7.50	25.4	1370	1030
		4/15/09 DUP	7.50	25.4	1370	1100
		4/21/10	7.57	28.8	1100	1030
MH-13C	904073	5/23/11	7.28	28.3	2400	1090
		5/23/11 DUP	7.28	28.3	2400	1110
		6/11/12	7.24	29.1	2310	1020
		4/3/13	7.42	27.5	1818	1050
		4/10/14	9.56	25.7	1510	849
		11/10/06	NM	NM	NM	90
		1/24/07	9.12	22.9	450	100
		4/18/07	9.2	29.1	379	20
		7/17/07	8.78	33.8	380	20
		1/4/08	8.99	26.6	396	20
		5/7/08	8.71	30.4	363	40
		7/16/08	8.69	32.01	371	70
		10/20/08	8.90	32.8	380	60
		1/27/09	7.99	27.3	323	30
		4/15/09	8.79	25.9	421	42
		4/21/10	8.84	28.0	385	27
		5/23/11	8.65	30.4	364	43
		6/11/12	8.61	30.7	411	50
		4/3/13	8.77	28.3	340	45
		4/10/14	9.69	25.6	275	1.2

APPENDIX A

Sulfate Concentration Data

Well Name	ADWR 55 Registry No.	Sample Date	pH (SU)	Temperature (deg C)	Specific Conductance (µS/cm)	Sulfate, Dissolved (mg/L)
MH-25A	201528	11/13/06	NM	NM	NM	190
		1/10/07	8.09	26.0	344	10
		4/4/07	7.82	26.6	322	<10
		7/20/07	7.63	28.6	431	<10
		1/2/08	7.91	25.3	401	10
		4/25/08	7.54	27	311	30
		7/2/08	7.66	27.6	342	<10
		10/17/08	7.84	27.5	333	50
		1/5/09	7.75	24.5	336	12
		4/15/09	7.81	25.1	350	4
		4/13/10	7.76	25.3	334	9
		4/27/11	7.76	25.9	358	16
		5/1/12	7.83	27.8	376	13
		4/3/13	7.69	26.8	335	9
		4/15/14	7.92	25.0	265	16.5
MH-25B	208429	11/13/06	NM	NM	NM	1660
		1/10/07	7.54	26.1	1440	1680
		4/4/07	7.32	28.7	1333	1550
		7/20/07	7.16	28.4	1649	1760
		1/2/08	7.10	26.5	1900	1730
		4/25/08	7.05	28.6	1138	1750
		7/2/08	7.04	28.6	1851	1650
		10/17/08	7.74	28.8	1768	1660
		1/5/09	7.22	24.9	1581	1590
		4/15/09	7.25	25.2	1483	1600
		4/13/10	7.59	28.1	1120	900
		4/27/11	7.35	27.0	3050	1810
		6/15/11	7.31	29.3	3690	1700
		5/1/12	7.31	29.3	1864	1690
		4/3/13	7.46	27.9	2620	1700
		4/15/14	7.82	26.6	1714	1740
MH-25C	208426	11/13/06	NM	NM	NM	1290
		1/10/07	7.46	26.3	1361	1250
		4/13/07	7.24	26	1357	1260
		7/20/07	7.13	30.2	1599	1240
		1/2/08	7.25	28.2	1608	1250
		4/25/08	7.20	30	1031	1240
		7/2/08	7.13	28.4	1736	1330
		10/17/08	7.17	30.4	1624	1270
		1/5/09	7.15	27	1466	1250
		4/15/09	7.28	26.6	1368	1270
		4/13/10	7.24	27.6	1292	1600
		4/27/11	8.41	25.1	1874	1290
		5/1/12	7.39	29.5	1667	1290
		4/3/13	7.44	28.0	1838	1270
		4/3/13 DUP	7.44	28.0	1838	1290
		4/15/14	7.87	27.6	1411	1090

APPENDIX A

Sulfate Concentration Data

Well Name	ADWR 55 Registry No.	Sample Date	pH (SU)	Temperature (deg C)	Specific Conductance (µS/cm)	Sulfate, Dissolved (mg/L)
MH-26A	201527	11/13/06	NM	NM	NM	10
		1/15/07	7.89	26.2	316	<10
		4/4/07	7.83	27	325	10
		7/19/07	7.80	26.9	428	20
		1/2/08	7.72	25.3	395	<10
		4/25/08	7.62	25.3	317	100
		7/2/08	7.57	27.8	337	20
		10/17/08	7.70	27.4	327	20
		1/5/09	7.65	26.4	343	13
		4/21/09	7.57	26.3	322	10
		4/13/10	7.60	26.7	332	8
		4/27/11	7.78	25.7	357	8
		4/27/11 DUP	7.78	25.7	357	9
		5/2/12	7.59	27.5	386	9
		4/4/13	7.72	27.0	350	8
		4/15/14	7.78	24.3	210	11.6
MH-26B	208427	11/13/06	NM	NM	NM	1560
		1/15/07	7.53	26.4	1310	1590
		4/4/07	7.31	30.5	1448	1620
		7/19/07	7.10	29.0	1652	1590
		7/19/07	7.10	29.0	1652	1570
		1/2/08	7.09	26.5	1849	1670
		4/25/08	6.95	28.8	1095	1630
		7/2/08	6.98	29.1	1835	1660
		10/20/08	7.16	29.2	1760	1650
		1/5/09	7.07	26.4	1661	1540
		1/5/09 DUP	7.07	26.4	1661	1500
		4/21/09	6.85	28.8	1238	1520
		4/13/10	7.27	27.3	1290	1600
		5/5/11	7.17	27.2	2910	1710
		5/1/12	7.26	29.7	1912	1680
		5/1/12 DUP	7.26	29.7	1912	1750
		4/4/13	7.26	28.4	2550	1690
		4/15/14	7.89	27.2	1661	1570
MH-26C	208428	11/13/06	NM	NM	NM	730
		1/15/07	7.89	24.6	1059	740
		4/4/07	7.58	29.5	1128	720
		7/19/07	7.55	30.5	1267	730
		7/19/07	7.55	30.5	1267	740
		1/2/08	7.68	28.2	1411	740
		4/25/08	8.58	27.8	872	580
		7/2/08	7.90	30.8	1251	720
		7/2/08 DUP	7.90	30.8	1251	720
		1/5/09	7.36	25.7	1270	680
		4/21/09	7.49	29.6	1034	660
		4/13/10	7.57	28.4	1078	770
		4/13/10 DUP	7.57	28.4	1078	780
		4/27/11	7.59	29.1	1755	810
		5/1/12	7.56	30.6	1428	820
		4/4/13	7.58	29.3	1533	880
		4/15/14	8.08	28.1	1203	909
		4/15/14 DUP	8.08	28.1	1203	908

APPENDIX A

Sulfate Concentration Data

Well Name	ADWR 55 Registry No.	Sample Date	pH (SU)	Temperature (deg C)	Specific Conductance (µS/cm)	Sulfate, Dissolved (mg/L)
MH-28	903648	11/14/06	NM	NM	NM	1860
		1/9/07	7.22	25.8	2690	1920
		4/17/07	6.98	26.1	1359	1920
		7/16/07	6.89	27.1	1206	1880
		1/21/08	7.39	23.9	903	1940
		4/8/08	6.99	25.5	1852	1900
		7/1/08	6.95	26.62	3322	1680
		10/6/08	6.97	26.7	3500	1910
		1/8/09	7.05	25.7	3600	1910
		4/7/09	6.84	26.4	6300	1860
		10/13/09	6.88	25.7	1589	1800
		4/15/10	7.11	25.1	1399	1900
		10/12/10	6.99	25.3	3460	1820
		5/17/11	6.94	25.6	3380	2000
		10/4/11	7.12	25.8	1390	1800
		5/21/12	6.64	28.8	3360	1600
		10/9/12	6.97	26.8	2980	1900
		4/2/13	6.95	26.9	2930	1867.1
		10/21/13	7.78	25.3	2916	2020
		4/9/14	7.81	24.4	3365	2020
		11/4/14	7.63	24.3	3270	1940
MH-29	903649	11/14/06	NM	NM	NM	1640
		1/9/07	7.47	25.8	2600	1660
		1/9/07	7.47	25.8	2600	1650
		4/17/07	7.01	25.1	1345	1690
		7/16/07	6.95	27.4	1177	1650
		1/18/08	7.17	23.5	1045	1710
		4/8/08	6.98	24.1	1580	1700
		7/1/08	6.99	25.95	3361	1730
		10/6/08	6.95	26.9	3300	1740
		1/9/09	7.03	25.7	9200	1730
		4/7/09	6.80	26.4	7700	1720
		4/7/09 DUP	6.80	26.4	7700	1700
		10/13/09	6.95	25.0	1421	1600
		10/13/09 DUP	6.95	25.0	1421	1700
		4/15/10	6.99	24.9	1358	1700
		10/12/10	7.04	23.9	3290	1520
		4/20/11	6.98	26.0	2950	1790
		4/20/11 DUP	6.98	26.0	2950	1770
		10/4/11	6.91	25.3	1765	1600
		5/21/12	6.62	26.6	3210	1600
		10/9/12	6.97	26.3	2710	1700
		4/2/13	7.06	24.9	2750	1707.1
		12/11/13	7.31	24.3	1645	1770
		4/9/14	7.28	23.6	3176	1800
		11/4/14	7.36	23.6	3260	1870

APPENDIX A

Sulfate Concentration Data

Well Name	ADWR 55 Registry No.	Sample Date	pH (SU)	Temperature (deg C)	Specific Conductance (µS/cm)	Sulfate, Dissolved (mg/L)
MH-30	903884	11/10/06	NM	NM	NM	1690
		1/9/07	7.33	26.2	2780	1760
		4/9/07	7.3	27.3	1529	1810
		7/11/07	7.18	31.9	1694	1820
		1/18/08	7.13	28.5	1147	1830
		4/8/08	7.27	27.1	1505	1830
		7/1/08	7.02	30.73	3740	1660
		10/6/08	6.95	29.8	3900	1810
		1/7/09	7.12	28	3600	1840
		4/7/09	6.81	29.5	3400	1790
		4/7/09 DUP	6.81	29.5	3400	1800
		4/15/10	6.96	28.9	1697	1480
		5/17/11	6.95	27.5	3360	1760
		5/17/11 DUP	6.95	27.5	3360	1750
		4/26/12	7.05	28.1	1618	1738
		6/6/13	7.26	29.5	2630	1760
		6/6/13 DUP	7.26	29.5	2630	1800
MO-2007-1A	907342	4/8/14	7.20	27.7	3242	1720
		8/8/07	7.17	29.0	370	19.2
		1/24/08	7.83	24.0	370	20
		4/9/08	7.42	24.1	383	21
		7/14/08	7.41	27.9	359	16.6
		10/17/08	7.46	27.7	357	17.9
		1/16/09	7.31	22.6	365	18.1
		4/1/09	7.55	26.5	387	18.2
		7/1/09	7.64	28.5	361	16.3
		10/22/09	7.53	26.4	360	16.6
		10/22/09 DUP	7.53	26.4	360	16.6
		4/16/10	7.52	26.7	357	18.5
		10/13/10	7.51	27.5	372	16
		5/5/11	7.51	27.4	401	17.9
		10/6/11	7.79	23.4	371	16.143
		6/12/12	7.40	27.9	371	16.98
		10/24/12	7.69	25.1	368	16.5
		4/8/13	7.55	25.6	363	17.92
		10/23/13	7.72	26.2	246	16.2
		4/29/14	7.73	25.6	278	16.2
MO-2007-1B	907210	11/12/14	7.72	25.9	303	16.1
		11/12/14 DUP	7.72	25.9	303	16.8
		8/2/07	7.41	30.7	321	18.9
		1/24/08	7.78	26.9	375	30
		4/9/08	7.70	23.1	400	35
		7/14/08	7.68	26.6	402	39.8
		10/17/08	7.56	28.1	423	54.3
		1/16/09	7.49	28.2	427	69.7
		4/1/09	7.78	26.4	511	84.1
		7/1/09	7.57	30.1	527	99
		10/22/09	7.63	28.5	600	143
		4/16/10	7.59	26.9	663	212
		10/13/10	7.46	28.7	1026	337
		10/13/10 DUP	7.46	28.7	1026	360
		5/5/11	7.42	28.6	1214	479
		10/6/11	7.84	24.8	1178	604.67
		10/6/11 DUP	7.84	24.8	1178	614.84
		6/12/12	6.99	29.0	1664	766.0
		10/24/12	7.56	26.2	1460	975.8
		4/8/13	7.57	26.5	1577	873.7
		10/23/13	8.51	26.3	971	806
		4/29/14	8.86	26.3	1522	1070
		11/12/14	8.81	26.2	1409	885

APPENDIX A

Sulfate Concentration Data

Well Name	ADWR 55 Registry No.	Sample Date	pH (SU)	Temperature (deg C)	Specific Conductance (µS/cm)	Sulfate, Dissolved (mg/L)
MO-2007-1C	907209	7/31/07	7.35	27.9	523	112
		1/24/08	7.84	26.9	520	140
		4/9/08	7.57	27.3	596	149
		4/9/08 DUP	7.57	27.3	596	153
		7/14/08	7.64	31.4	608	165
		10/21/08	7.80	29.8	573	146
		1/16/09	7.17	27.5	652	233
		1/16/09 DUP	7.17	27.5	652	218
		4/1/09	7.66	27.1	700	229
		7/1/09	7.33	30.8	367	236
		7/1/09 DUP	7.33	30.8	367	227
		10/22/09	7.66	28.1	356	301
		4/16/10	7.66	28.5	730	320
		10/13/10	7.72	29.1	1004	377
		4/20/11	7.28	29.2	1009	381
		10/6/11	8.10	25.9	942	393.94
		6/12/12	7.05	29.5	1085	406.4
		10/24/12	8.40	26.5	694	239.2
		10/24/12 DUP	8.40	26.5	694	235.26
		4/8/13	7.88	26.4	1017	416.3
MO-2007-2	906765	10/23/13	8.47	27.9	463	132
		4/29/14	8.49	26.8	610	240
		4/29/14 DUP	8.49	26.8	610	247
		11/12/14	9.18	27.1	284	92.7
		6/14/07	7.05	32.2	1372	591
		8/9/07	7.11	32.2	1271	520
		1/22/08	7.48	30.9	757	530
		4/17/08	7.32	29.8	818	473
		7/14/08	7.11	31.3	987	472
		7/14/08 DUP	7.11	31.3	987	446
		1/16/09	7.27	30.6	1200	456
		4/1/09	7.34	28.5	922	458
		4/13/10	7.17	30.3	855	439
		4/13/10 DUP	7.17	30.3	855	450
		4/27/11	7.27	28.7	1249	507
		4/27/11 DUP	7.27	28.7	1249	503
		5/2/12	7.30	31.8	1245	543.50
		4/8/13	7.34	30.1	1164	455.7
		4/9/14	8.12	30.0	608	254
		4/9/14 DUP	8.12	30.0	608	248

APPENDIX A

Sulfate Concentration Data

Well Name	ADWR 55 Registry No.	Sample Date	pH (SU)	Temperature (deg C)	Specific Conductance (µS/cm)	Sulfate, Dissolved (mg/L)
MO-2007-3B	906816	1/21/08	7.94	26.5	353	40
		4/16/08	7.77	28.2	322	37
		7/14/08	7.70	30.2	338	37.8
		10/22/08	7.69	28.1	379	42.4
		10/22/08 DUP	7.69	28.1	379	41.6
		1/19/09	7.82	28.1	342	36.9
		1/19/09 DUP	7.82	28.1	342	36.4
		4/1/09	7.89	25.7	376	38.2
		7/27/09	7.78	28.2	353	37.2
		10/22/09	7.76	28.0	354	39.1
		1/20/10	7.97	27.6	328	37.9
		4/14/10	7.83	28.6	336	40.4
		7/21/10	7.86	27.7	372	38.7
		10/26/10	7.78	26.6	361	39.1
		1/18/11	7.83	27.3	353	38.2
		5/4/11	7.81	29.3	359	38.1
		7/6/11	7.75	30.2	362	38.3
		10/5/11	8.04	25.7	395	37.822
		11/22/11	8.00	26.1	286	36.7
		1/11/12	7.55	27.0	211	39.00
		5/8/12	7.88	30.8	329	37.64
		8/7/12	7.88	29.1	419	36.26
		10/10/12	7.94	28.1	390	37.01
		1/8/13	8.10	27.0	374	33.77
		4/9/13	8.01	25.5	329	37.54
		5/21/13	8.17	26.9	284	26.96
		8/27/13	8.59	27.8	204	3.47
		8/27/13 DUP	8.59	27.8	204	4.13
		10/24/13	8.03	26.1	279	33.8
		10/24/13 DUP	8.03	26.1	279	33.9
		1/7/14	8.11	24.6	230	2.16
		4/16/14	8.91	25.0	153	<0.5
		7/9/14	8.98	26.1	155	<0.5
		11/13/14	9.40	25.7	167	<0.5
MO-2007-3C	906817	6/28/07	7.93	32.2	570	136
		1/21/08	8.21	27.6	507	130
		4/15/08	7.87	30.1	477	127
		7/17/08	7.98	32.7	493	126
		10/21/08	8.07	32.9	519	103
		1/19/09	8.00	30.7	490	113
		4/1/09	8.09	28.3	541	115
		7/22/09	8.07	31.4	510	107
		10/22/09	8.01	29.8	488	108
		1/20/10	8.20	26.2	469	103
		4/14/10	8.07	30.9	465	110
		7/21/10	8.05	30.4	511	101
		10/26/10	7.92	29.5	471	104
		1/18/11	8.06	29.1	492	106
		5/4/11	8.11	30.4	504	107
		7/6/11	8.02	32.5	248	101
		10/5/11	8.28	29.3	524	96.818
		1/11/12	7.92	29.4	283	104.03
		5/7/12	8.10	30.3	440	95.99
		8/7/12	7.93	30.7	553	93.25
		10/10/12	8.04	29.4	487	99.13
		1/8/13	8.09	26.5	431	62.35
		1/8/13 DUP	8.09	26.5	431	62.62
		4/9/13	8.35	28.2	432	89.78
		8/27/13	8.81	29.6	324	47.00
		10/24/13	8.43	27.4	313	79.0
		1/7/14	8.64	25.1	312	56.9
		4/16/14	9.38	26.4	259	35.6
		7/9/14	8.73	26.5	418	32.1
		11/13/14	9.33	26.6	277	20.2

APPENDIX A

Sulfate Concentration Data

Well Name	ADWR 55 Registry No.	Sample Date	pH (SU)	Temperature (deg C)	Specific Conductance (µS/cm)	Sulfate, Dissolved (mg/L)
MO-2007-4A	907213	1/22/08	7.82	25.0	405	40
		4/16/08	7.65	25.8	372	33.1
		7/18/08	7.44	27.4	416	35.3
		10/22/08	7.58	26.9	420	40.1
		1/19/09	7.52	28	392	35.9
		4/2/09	7.85	26.8	393	36.7
		4/2/09 DUP	7.85	26.8	393	36.5
		7/1/09	7.55	26.4	395	36.3
		10/26/09	7.64	27.2	378	35.7
		1/26/10	7.66	25.7	356	36.0
		4/14/10	7.63	25.2	379	37.0
		7/21/10	7.54	26.9	420	34.9
		10/13/10	7.55	26.1	414	35.2
		1/19/11	7.61	25.8	403	35.8
		5/4/11	7.57	26.5	411	35.9
		7/6/11	7.47	27.4	417	35.3
		10/5/11	7.82	24.1	435	34.47
		1/17/12	7.54	24.5	274	37.55
		5/7/12	7.49	24.7	381	35.62
		8/13/12	7.53	26.5	378	35.33
		10/23/12	7.48	27.2	380	94.87
		2/21/13	7.53	28.6	337	33.48
		4/10/13	7.82	26.0	319	34.69
		7/10/13	7.68	25.3	347	36.60
		10/22/13	7.81	23.5	282	35.0
		1/10/14	7.73	23.7	281	35.4
		4/8/14	7.65	24.6	353	34.9
		7/8/14	7.52	24.8	465	34.6
		11/12/14	7.71	24.6	404	34.3
MO-2007-4B	907212	1/7/08	7.69	25.5	445	NA
		4/16/08	7.66	26.9	343	33.6
		7/18/08	7.57	29.2	391	34.8
		7/18/08 DUP	7.57	29.2	391	35.1
		10/22/08	7.73	30.8	407	34.7
		1/21/09	7.71	27.3	377	32.9
		4/2/09	7.93	28.3	363	34.6
		7/1/09	7.64	27.8	370	34.7
		10/26/09	7.68	28.7	348	34.5
		1/26/10	7.74	23.7	332	34.1
		4/14/10	7.76	25.1	342	35.1
		7/21/10	7.71	30.2	379	34
		7/21/10 DUP	7.71	30.2	379	34.9
		10/13/10	7.69	28.1	378	34.2
		1/19/11	7.73	26.9	367	34.6
		1/19/11 DUP	7.73	26.9	367	34.4
		5/4/11	7.72	28.1	379	34.5
		7/6/11	7.73	28.0	381	34.4
		10/5/11	8.01	27.6	401	34.194
		10/5/11 DUP	8.01	27.6	401	33.36
		1/17/12	7.81	26.7	259	33.14
		5/7/12	7.83	29.0	342	34.25
		8/13/12	7.75	28.2	353	34.02
		10/23/12	7.72	27.9	364	34.37
		2/21/13	7.75	25.7	299	32.01
		4/10/13	8.06	24.7	312	33.31
		7/10/13	8.48	25.9	200	4.51
		10/22/13	8.86	24.4	142	<0.5
		1/10/14	8.83	23.6	185	<0.5
		4/8/14	8.90	24.6	165	<0.5
		7/8/14	8.75	25.3	220	<0.5
		11/12/14	8.72	25.7	405	29.1

APPENDIX A

Sulfate Concentration Data

Well Name	ADWR 55 Registry No.	Sample Date	pH (SU)	Temperature (deg C)	Specific Conductance (µS/cm)	Sulfate, Dissolved (mg/L)
MO-2007-4C	907211	8/16/07	7.62	35.2	472	78.7
		1/22/08	8.33	27.3	465	80
		4/16/08	8.19	29.9	420	80
		7/18/08	8.27	31.9	467	78.6
		10/22/08	8.45	31.8	467	85.9
		1/21/09	8.84	29.1	467	78.5
		4/2/09	8.48	30.3	444	81
		7/1/09	8.25	31.1	446	82.7
		10/26/09	8.22	30.5	427	83.9
		10/26/09 DUP	8.22	30.5	427	83.8
		1/26/10	8.40	30.0	409	83.2
		4/14/10	8.11	27.6	423	87.7
		7/21/10	8.23	32.4	467	85.6
		10/13/10	8.19	31.1	462	86.5
		1/19/11	8.21	28.9	447	87.6
		5/4/11	8.27	30.1	468	88.1
		7/6/11	8.17	30.8	468	85
		10/5/11	8.43	30.0	505	89.355
		1/12/12	8.52	29.5	329	92.92
		5/7/12	8.32	30.6	439	91.70
		8/13/12	8.31	28.8	451	91.22
		8/13/12 DUP	8.31	28.8	451	91.48
		10/23/12	8.86	28.5	436	94.65
		2/21/13	7.97	28.4	384	90.93
		4/10/13	8.46	29.3	362	93.24
		7/10/13	8.59	26.6	344	66.70
		10/22/13	9.51	25.6	292	63.1
		1/10/14	9.64	24.2	310	63.4
		4/8/14	9.52	26.2	344	61.8
		7/8/14	9.60	26.4	446	55.4
		11/12/14	9.36	25.8	357	52.9
MO-2007-5B	907456	1/7/08	7.96	26.7	1138	NA
		4/17/08	7.94	27.7	877	390
		7/24/08	7.86	31.1	1040	343
		10/23/08	7.87	26.8	1086	412
		1/21/09	7.92	29.4	1049	400
		4/2/09	8.15	30.6	958	366
		1/25/10	7.98	28.8	1010	462
		4/27/10	7.90	29.3	987	427
		12/10/10	7.92	27.1	1215	454
		6/24/11	7.98	31.0	1199	513
		11/21/11	7.98	27.2	1249	494.3
		6/20/12	7.62	30.0	1465	519.3
		11/6/12	7.53	26.6	1420	453.9
		6/12/13	8.07	27.8	1036	430
		10/24/13	7.89	26.4	783	430
		4/29/14	8.19	27.4	1018	447
		10/15/14	8.90	26.4	924	440

APPENDIX A

Sulfate Concentration Data

Well Name	ADWR 55 Registry No.	Sample Date	pH (SU)	Temperature (deg C)	Specific Conductance (µS/cm)	Sulfate, Dissolved (mg/L)
MO-2007-5C	907457	8/23/07	7.46	31.4	780	248
		1/7/08	8.26	27.0	851	NA
		4/17/08	8.34	29.7	680	259
		7/24/08	8.30	31.3	746	233
		10/23/08	9.11	30.2	728	257
		1/23/09	9.30	21.1	710	222
		5/13/09	7.64	31.4	715	235
		10/27/09	7.55	30.1	651	238
		4/27/10	7.17	32.3	663	245
		4/27/10 DUP	7.17	32.3	663	248
		12/10/10	7.95	30.5	709	251
		5/24/11	7.76	29.7	682	238
		11/21/11	8.58	26.4	780	235.98
		6/18/12	8.35	30.0	816	238.89
		11/6/12	8.43	26.3	763	262.57
		6/13/13	8.88	25.8	704	251
		11/12/13	8.86	26.1	653	210
		5/6/14	8.92	26.2	565	183
		10/15/14	9.34	25.5	591	155
MO-2007-6A	907607	1/22/08	7.84	26.5	380	30
		1/22/08 DUP	7.84	26.5	380	30
		4/18/08	7.61	27.2	346	20.5
		7/24/08	7.47	28.3	390	16.9
		10/23/08	7.49	25.8	388	18.6
		1/22/09	7.48	26.2	364	26.9
		4/2/09	7.88	25.5	378	23.7
		7/22/09	7.47	29.5	373	19.8
		10/26/09	7.52	27.9	349	23.5
		1/20/10	7.66	26.2	343	24.6
		4/21/10	7.59	27.3	375	34.7
		8/10/10	7.86	31.2	386	26.8
		10/26/10	7.74	28.3	381	33.9
		1/18/11	7.71	26.7	376	30.2
		5/5/11	7.59	29.0	384	29.2
		7/7/11	7.72	29.1	397	36.6
		7/7/11 DUP	7.72	29.1	397	37.1
		10/6/11	8.05	25.8	402	34.109
		1/11/12	7.47	26.8	234	43.51
		1/11/12 DUP	7.47	26.8	234	42.97
		6/12/12	7.65	28.2	389	34.98
		8/13/12	7.84	29.2	362	36.91
		10/18/12	7.77	28.8	368	30.42
		1/8/13	7.70	27.6	354	25.17
		4/9/13	8.04	28.5	329	32.44
		4/9/13 DUP	8.04	28.5	329	32.94
		7/10/13	8.20	27.9	270	18.30
		10/22/13	8.44	28.0	153	10.4
		1/6/14	8.24	36.5	330	19.3
		4/9/14	8.71	26.6	210	5.74
		7/8/14	8.15	28.3	370	10.6
		12/2/14	8.30	27.0	326	18.3
		12/2/14	8.30	27.0	326	18.3

APPENDIX A

Sulfate Concentration Data

Well Name	ADWR 55 Registry No.	Sample Date	pH (SU)	Temperature (deg C)	Specific Conductance (µS/cm)	Sulfate, Dissolved (mg/L)
MO-2007-6B	907606	1/21/08	8.13	29.8	467	80
		4/17/08	8.09	29.9	453	90.4
		7/24/08	8.00	33.8	473	81.5
		10/23/08	8.01	28.9	446	63.2
		1/22/09	7.45	29.9	443	84.5
		4/2/09	8.08	27.7	444	75.7
		7/22/09	7.86	32.7	427	63.5
		10/26/09	7.90	30.5	398	62.1
		1/20/10	8.05	27.4	406	69.7
		4/21/10	7.95	29.5	380	57.9
		4/21/10 DUP	7.95	29.5	380	57.9
		8/10/10	7.86	31.2	438	68.8
		8/10/10 DUP	7.86	31.2	438	68.6
		10/26/10	7.89	30.8	399	57.7
		1/18/11	7.85	30.4	396	58.5
		5/5/11	7.84	32.8	404	57.2
		7/7/11	7.88	32.8	405	57.5
		10/6/11	8.08	27.0	405	55.342
		1/11/12	7.57	29.9	235	57.78
		6/12/12	7.62	31.5	399	55.99
		8/13/12	7.61	32.2	374	56.54
		10/18/12	7.82	29.8	383	50.70
		1/8/13	7.68	27.2	380	37.31
		4/9/13	8.03	29.8	361	54.72
		7/10/13	8.80	28.1	306	42.00
		10/22/13	8.79	29.6	261	65.6
		10/22/2013 DUP	8.79	29.6	261	66.8
		1/6/14	9.16	26.4	510	91.5
		4/9/14	9.04	27.3	310	85.7
		7/8/14	9.13	28.7	520	89.2
		12/2/14	8.88	26.6	322	82.3
MO-2009-1	910458	4/24/09	7.23	31.3	397	62.1
		7/29/09	8.18	32.9	495	97.7
		7/29/09 DUP	8.18	32.9	495	96.4
		11/3/09	8.17	29.5	513	109
		1/25/10	8.23	29.2	481	82.1
		4/20/10	8.21	30.4	467	99
		8/10/10	8.23	31.4	528	109
		12/15/10	8.29	29.0	504	95
		12/15/10 DUP	8.29	29.0	504	94
		2/2/11	8.69	26.9	432	92
		6/16/11	8.30	32.7	468	102
		8/31/11	8.33	31.1	560	108
		12/1/11	8.57	28.9	479	91.82
		1/11/12	8.18	29.9	292	93.84
		5/9/12	8.47	25.8	479	97.69
		8/15/12	8.47	32.7	454	102.4
		11/29/12	8.64	26.5	480	94.26
		1/8/13	8.79	27.0	522	98.57
		4/10/13	8.67	29.8	403	105.80
		7/11/13	8.67	27.9	450	118.00
		10/16/13	8.62	27.6	526	115
		1/6/14	9.68	24.4	451	89.3
		4/24/14	8.55	29.8	499	98.2
		7/8/14	9.25	26.8	493	81.1
		7/8/14 DUP	9.25	26.8	493	87.1
		12/2/14	8.69	27.3	353	89.8

APPENDIX A

Sulfate Concentration Data

Well Name	ADWR 55 Registry No.	Sample Date	pH (SU)	Temperature (deg C)	Specific Conductance (µS/cm)	Sulfate, Dissolved (mg/L)
NP-2	624028	7/18/07	7.30	23.2	816	NA
		6/4/07	7.20	25.9	411	41.2
		8/13/07	7.16	26.0	441	41.7
		1/11/08	7.60	25.0	760	43.5
		1/11/08 DUP	7.60	25.0	760	43.8
		4/17/08	7.34	25.4	379	40
		4/17/08 DUP	7.34	25.4	379	33
		7/11/08	7.62	25.9	455	40.5
		10/6/08	7.57	25.1	405	39.7
		2/9/09	7.61	25.3	337	42.4
		4/24/09	6.89	24.6	510	32.1
		9/17/09	6.68	26.6	414	40
		12/31/09	7.60	23.6	387	40.7
		2/17/10	6.35	24.7	450	42.0
		2/17/10 DUP	6.35	24.7	450	42.0
		4/22/10	7.25	23.49	447	41.9
		8/5/10	7.67	26.0	429	41.2
		10/25/10	7.66	25.3	446	41.4
		1/19/11	7.69	25.5	402	41.9
		5/3/11	7.84	25.3	413	43.5
		7/18/11	7.72	25.8	431	44.8
		7/18/11 DUP	7.72	25.8	431	44.6
		12/5/11	8.11	23.1	396	58.63
		3/21/12	7.86	24.9	337	64.11
		6/18/12	7.83	26.9	463	64.90
		8/15/12	8.01	26.3	357	65.72
		11/29/12	8.02	24.1	396	70.13
		2/20/13	7.94	23.6	376	69.34
		6/17/13	7.96	25.6	379	71.6
		8/27/13	7.82	25.4	337	64.3
		10/30/13	7.57	24.5	264	59.6
		1/7/14	7.57	23.7	329	63.0
		4/23/14	7.80	24.7	410	55.2
		7/1/14	7.59	24.6	448	48.1
		10/13/14	7.98	25.3	370	41.1
		10/13/14 DUP	7.98	25.3	370	41.3
PS-1	220861	2/3/14	7.21	24.7	2600	1310
		4/14/14	7.56	27.1	1461	1250
		7/9/14	6.71	27.4	2320	1270
		11/10/14	7.39	26.5	1806	1150
PS-2	220862	2/3/14	7.01	25.1	1935	1080
		2/3/14	7.01	25.1	1935	1090
		4/14/14	7.62	26.6	1303	1050
		7/9/14	6.79	27.5	1934	1120
PS-3	220863	11/10/14	7.09	26.5	1689	1020
		2/3/14	7.04	25.3	1810	975
		4/14/14	7.57	26.7	1270	996
		4/14/14	7.57	26.7	1270	997
PS-4	220864	7/9/14	6.76	27.6	1799	1120
		11/10/14	7.26	26.5	1658	1090
		2/3/14	7.07	25.2	2570	1280
		4/14/14	7.48	27.6	1393	1260
		7/9/14	7.23	27.5	2330	1300
		11/10/14	7.17	26.9	1923	1260

APPENDIX A

Sulfate Concentration Data

Well Name	ADWR 55 Registry No.	Sample Date	pH (SU)	Temperature (deg C)	Specific Conductance (μS/cm)	Sulfate, Dissolved (mg/L)
PZ-7	561870	11/16/06	NM	NM	NM	270
		1/12/07	7.30	21.6	920	340
		4/17/07	7.13	23.8	777	360
		7/24/07	7.31	28.2	979	360
		1/7/08	7.02	19.2	1106	400
		4/28/08	7.09	27.6	699	440
		7/11/08	7.29	24.5	1173	400
		7/11/08 DUP	7.29	24.5	1173	400
		10/14/08	8.31	25.0	1300	420
		1/13/09	7.46	21.6	5200	440
		4/6/09	6.90	24.2	1100	460
		4/23/10	6.12	20.51	1400	432
		5/18/11	7.04	24.2	1463	472
		5/18/11 DUP	7.04	24.2	1463	470
		6/6/12	6.93	25.9	1458	489.1
PZ-8	561866	6/10/13	7.20	29.2	1038	500
		4/8/14	7.11	24.0	966	428
		11/14/06	NM	NM	NM	470
		1/10/07	6.6	21.0	985	460
		4/11/07	7.41	19.8	1074	540
		7/12/07	7.27	27.3	935	450
		1/3/08	7.52	23.1	1045	320
		4/8/08	7.16	25.4	962	500
		7/1/08	7.15	26.49	1203	400
		10/8/08	7.22	28.2	1400	460
		1/8/09	7.05	22.3	1000	330
		4/8/09	6.54	24.1	900	280
		4/22/10	6.88	16.3	1230	305
		4/21/11	7.05	21.5	1147	364
		4/25/12	6.41	24.1	935	344.9
TMM-1	616156	6/10/13	7.35	26.7	943	380
		4/23/14	7.16	23.7	1216	480
		6/19/07	7.73	29.7	351	14.1
		8/6/07	8.04	25.2	505	<10
		1/10/08	7.77	24.2	254	<0.5
		4/18/08	7.54	25.1	268	<1
		7/9/08	7.94	27.3	296	7.3
		10/9/08	8.14	29.7	281	<0.5
		2/4/09	7.80	24.4	236	5.7
		4/21/09	7.92	26.7	281	5.5
		10/14/09	8.12	31.1	256	0.6
		4/20/10	8.08	27.0	281	12
		10/6/10	8.56	27.4	269	<0.5
		4/21/11	7.96	26.8	303	11.6
		12/21/11	7.10	20.4	1580	<0.5
		5/15/12	8.28	28.8	32.8	7.93
		11/23/12	7.64	22.8	479	<0.5
		11/23/12 DUP	7.64	22.8	479	<0.5
		6/19/13	8.41	29.9	263	1.43
		10/29/13	7.11	24.8	183	<0.5
		4/23/14	8.49	23.6	266	<0.5

Notes:

ADWR = Arizona Department of Water Resources

SU = Standard Units

deg C = degrees Celsius

μS/cm = microsiemens per centimeter

mg/L = milligrams per Liter

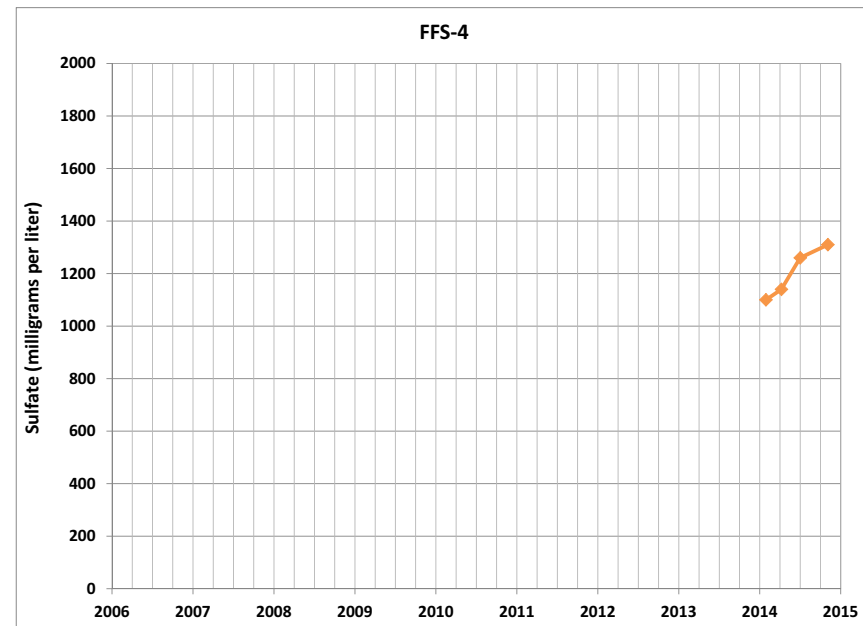
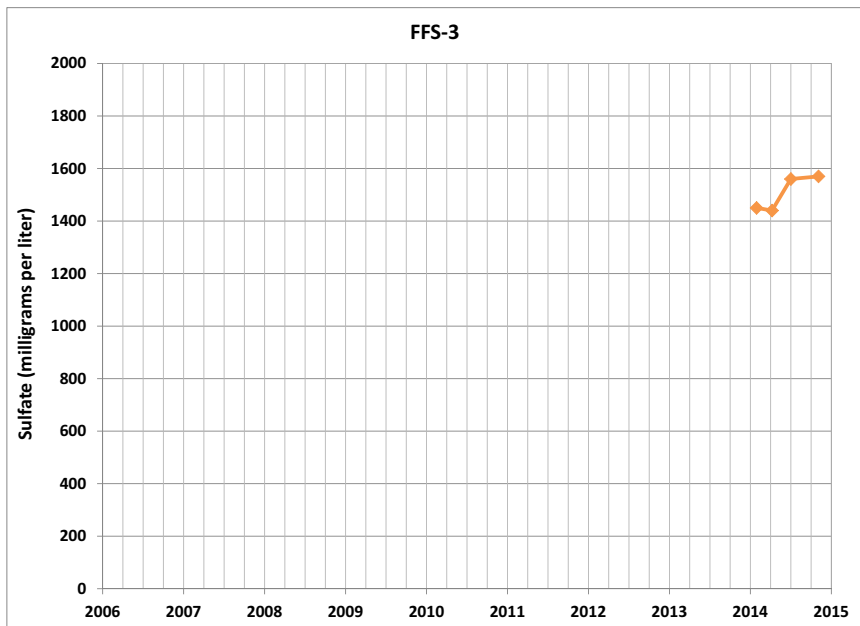
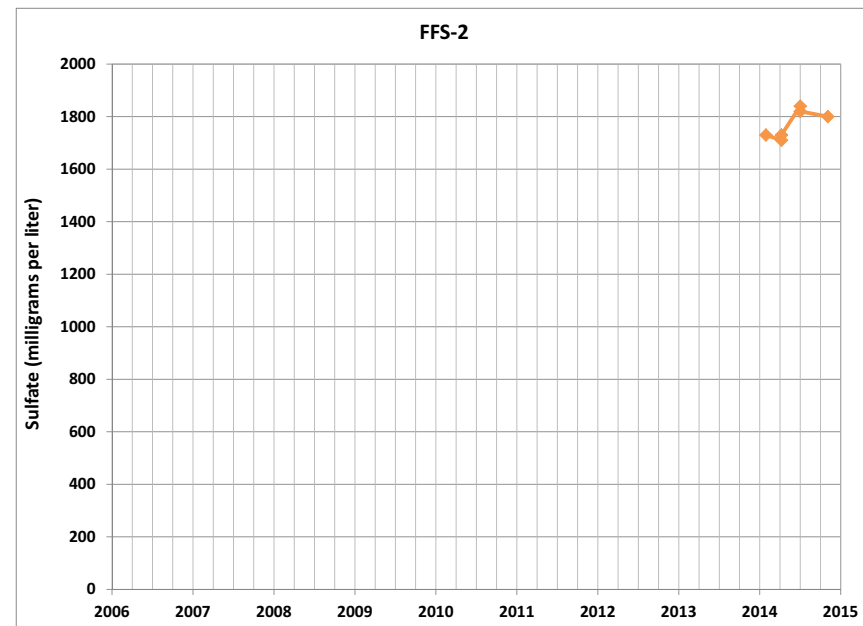
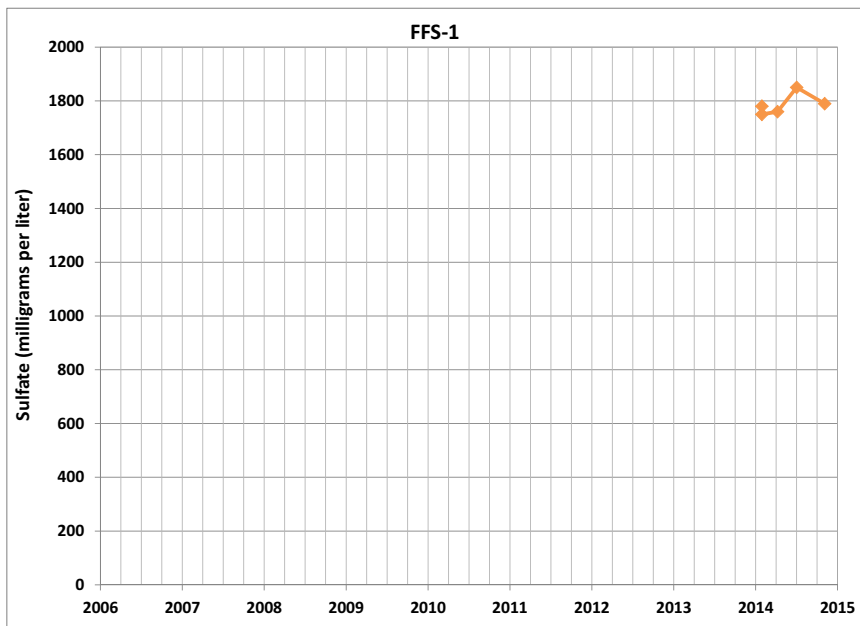
NA = not analyzed

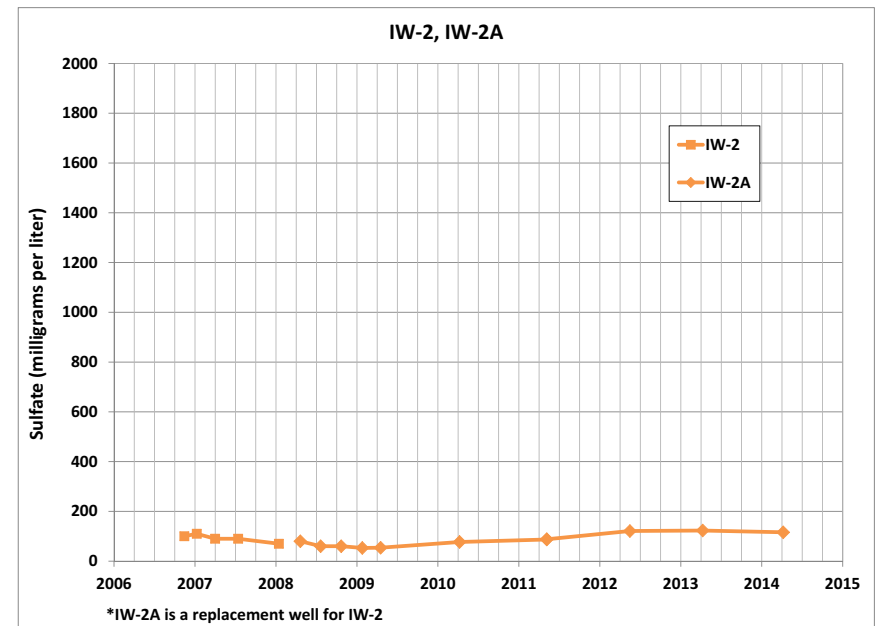
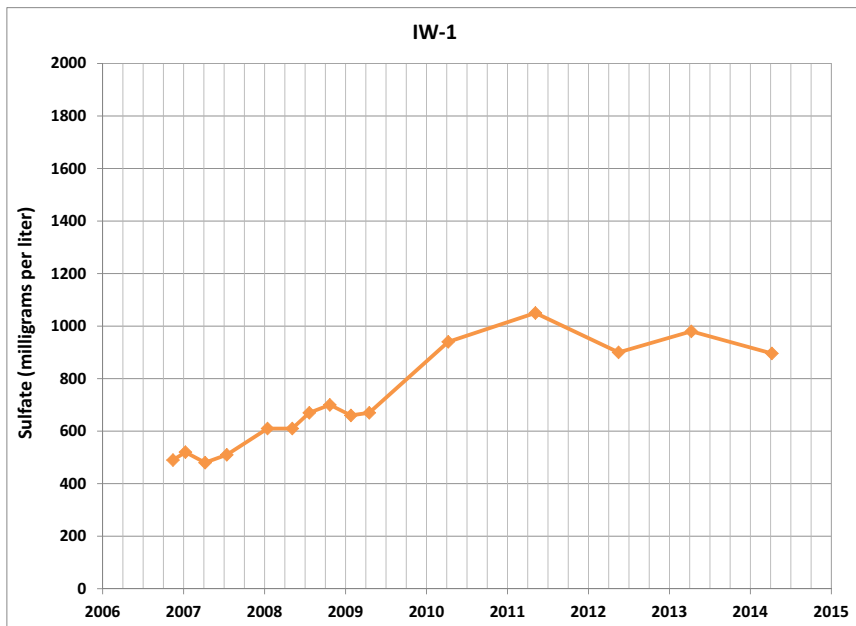
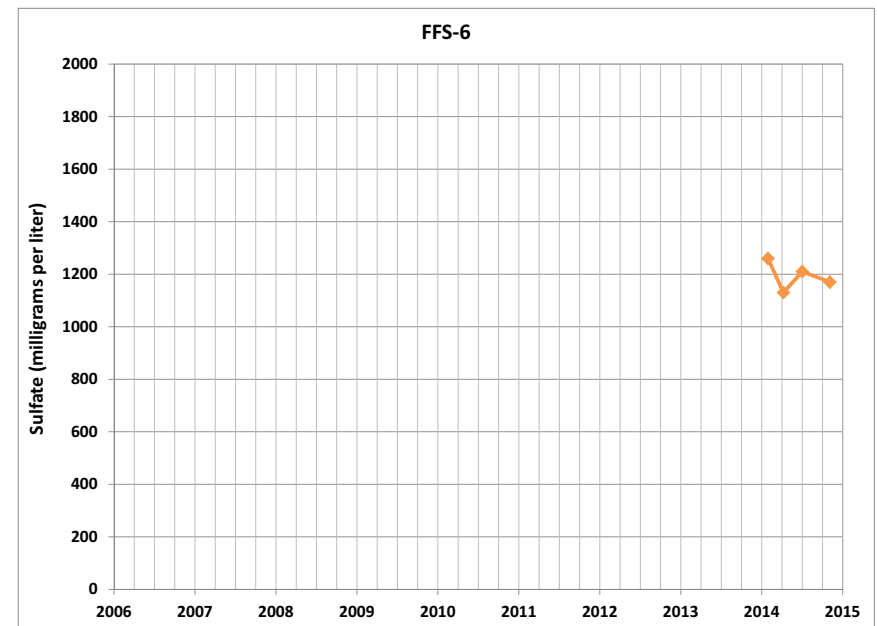
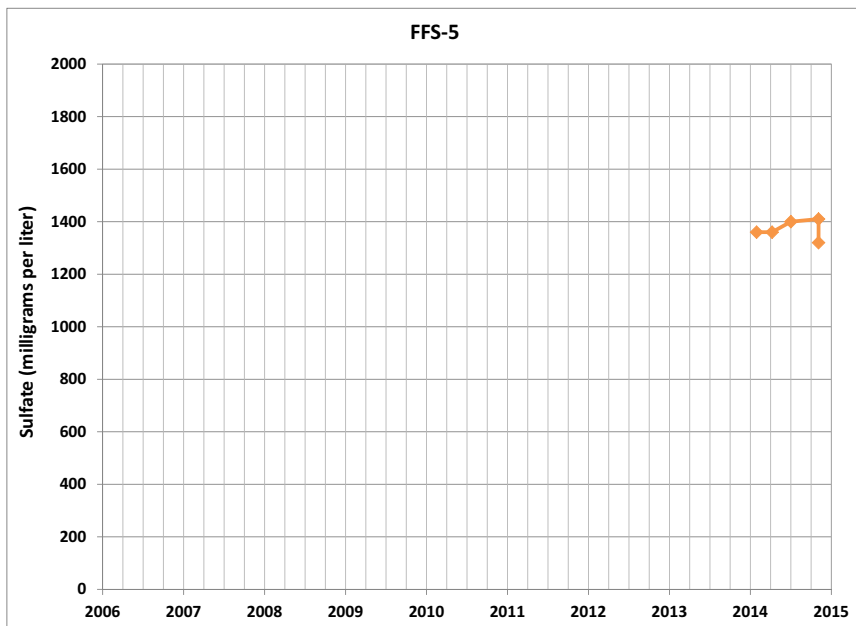
NM = not measured

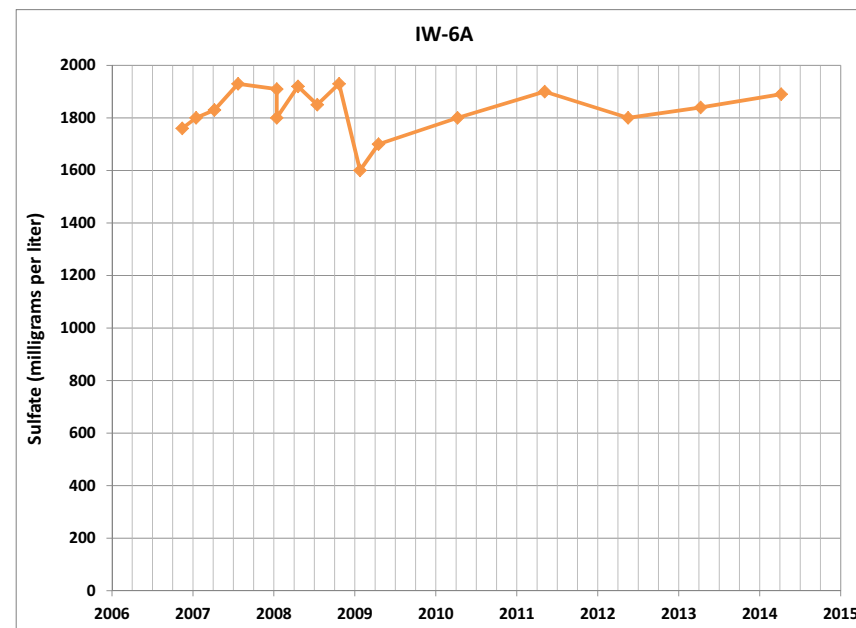
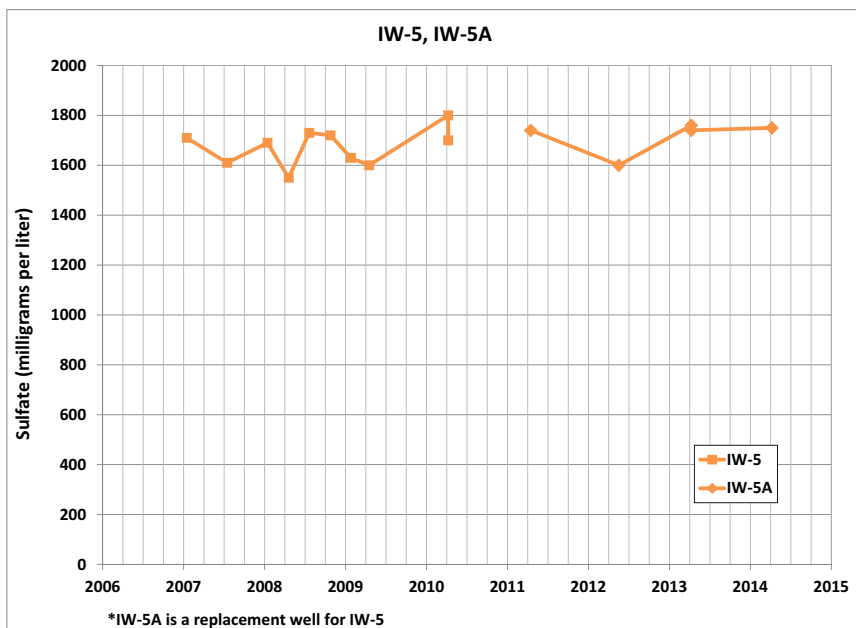
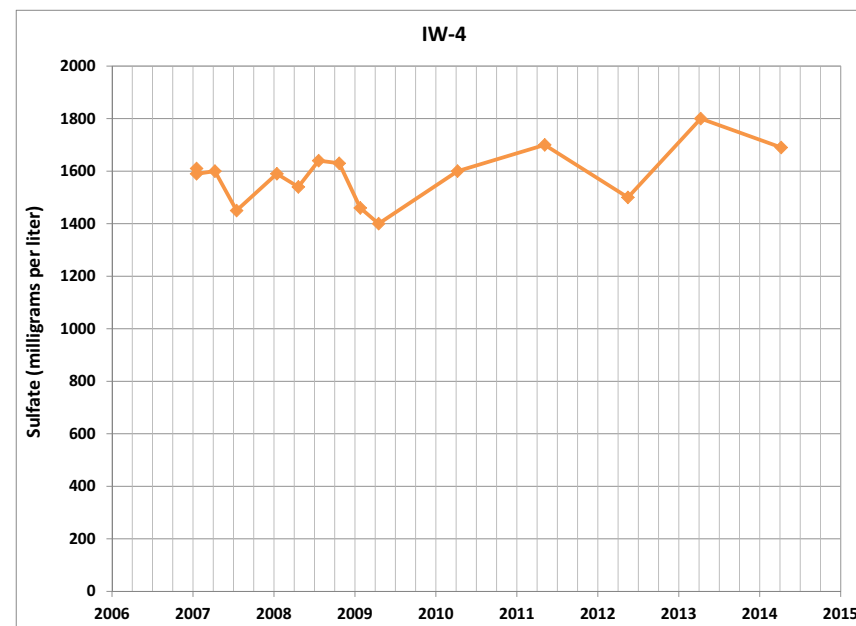
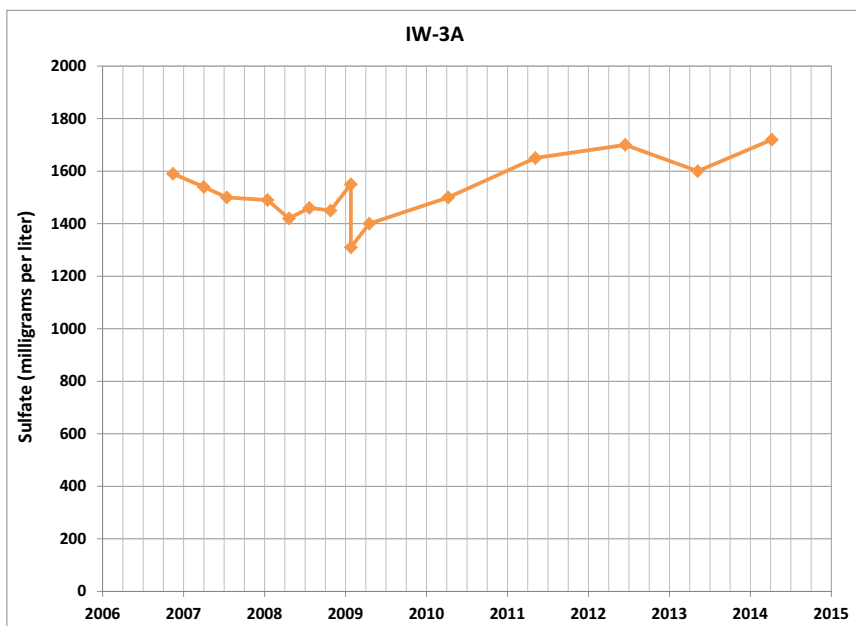
DUP = Duplicate sample

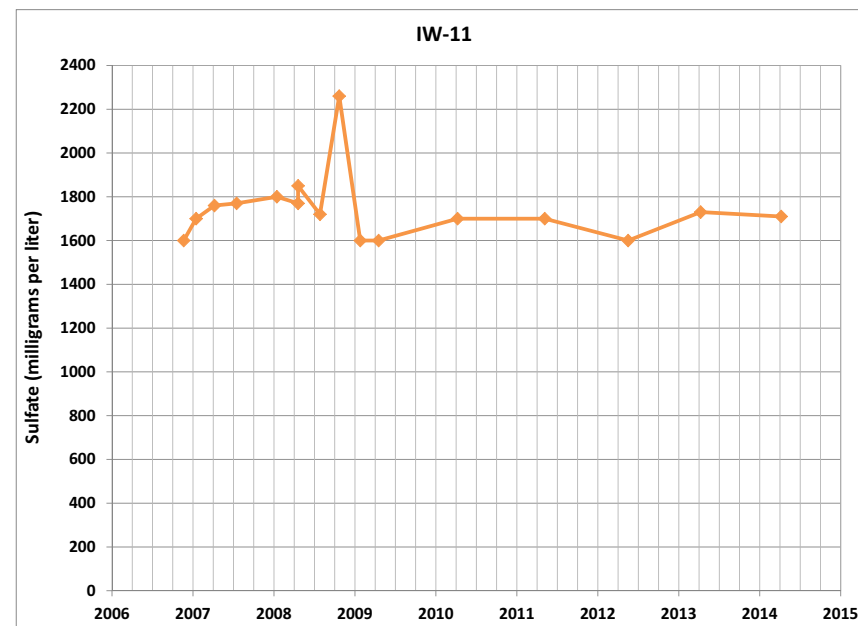
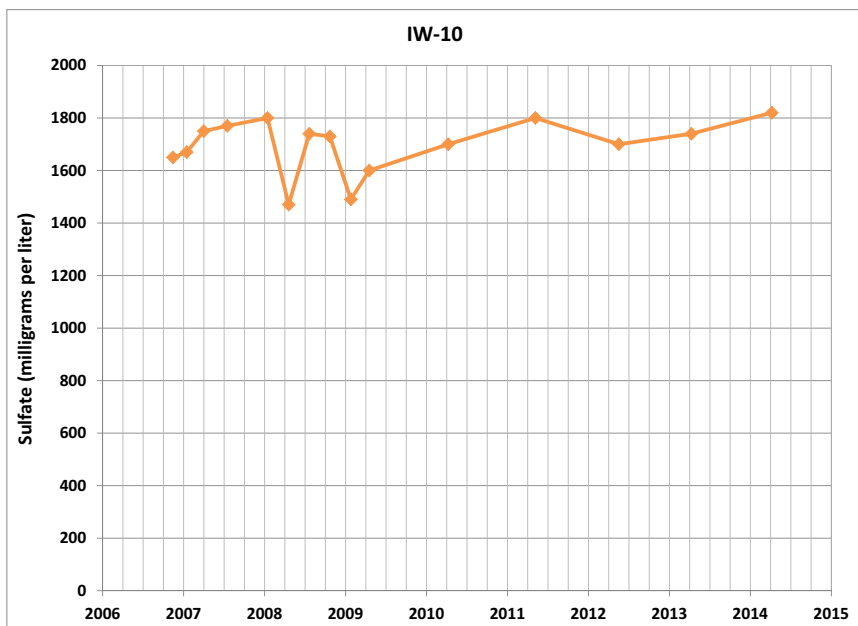
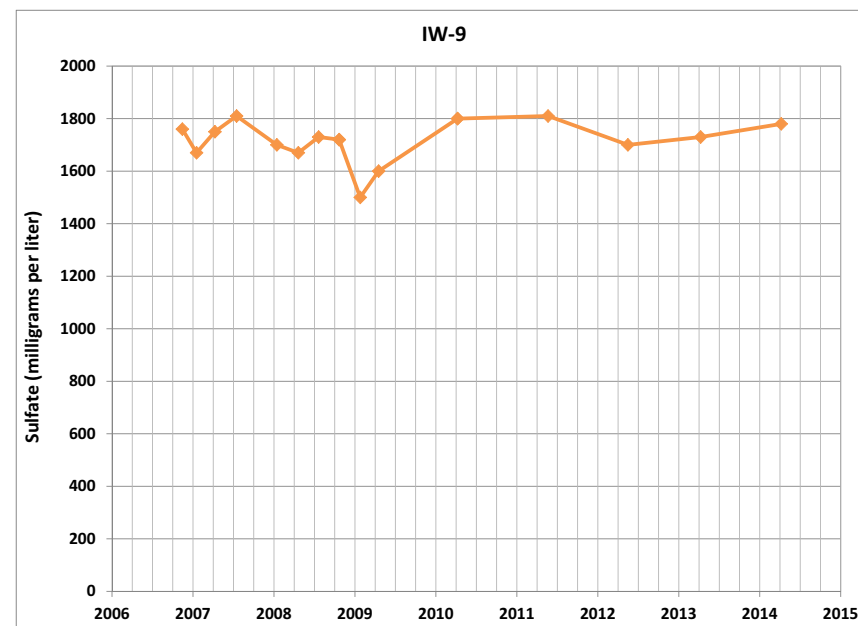
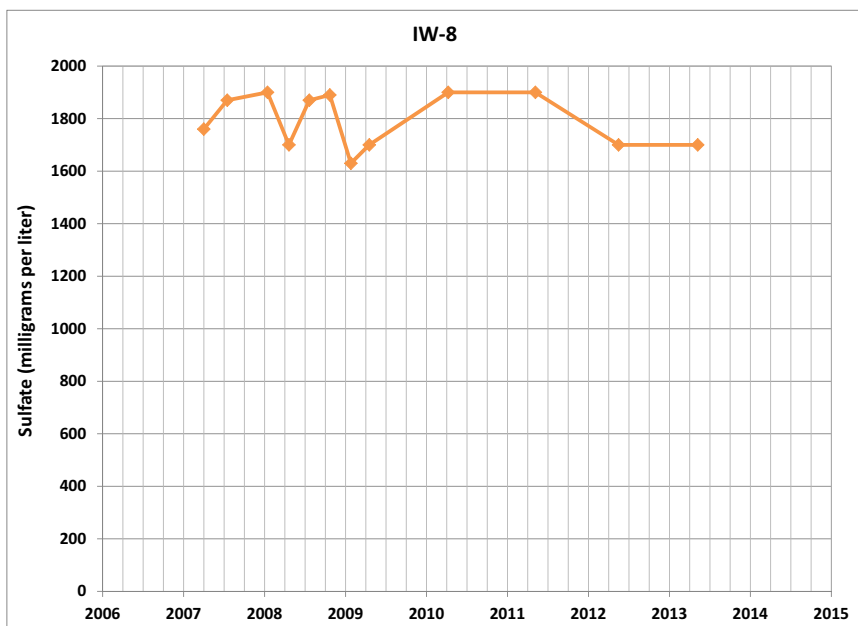
APPENDIX B

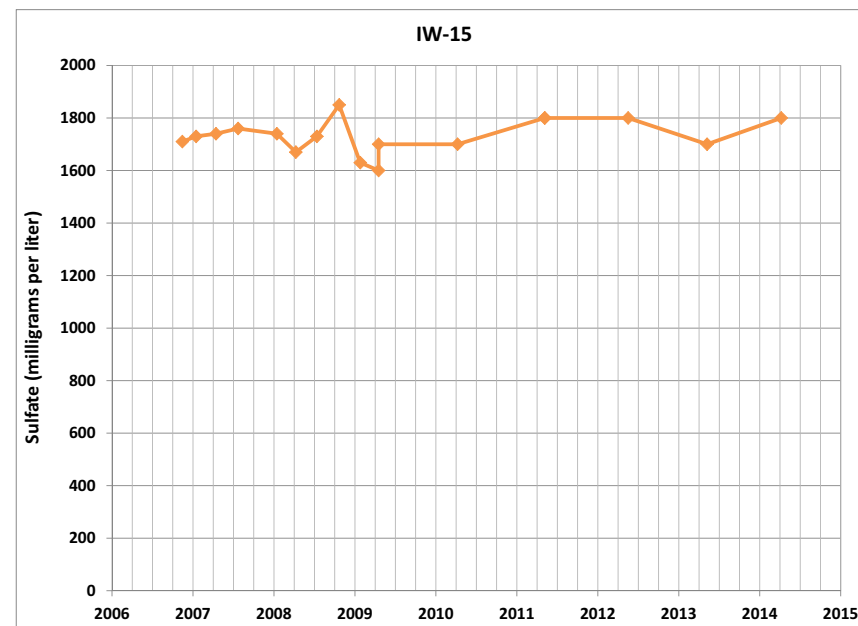
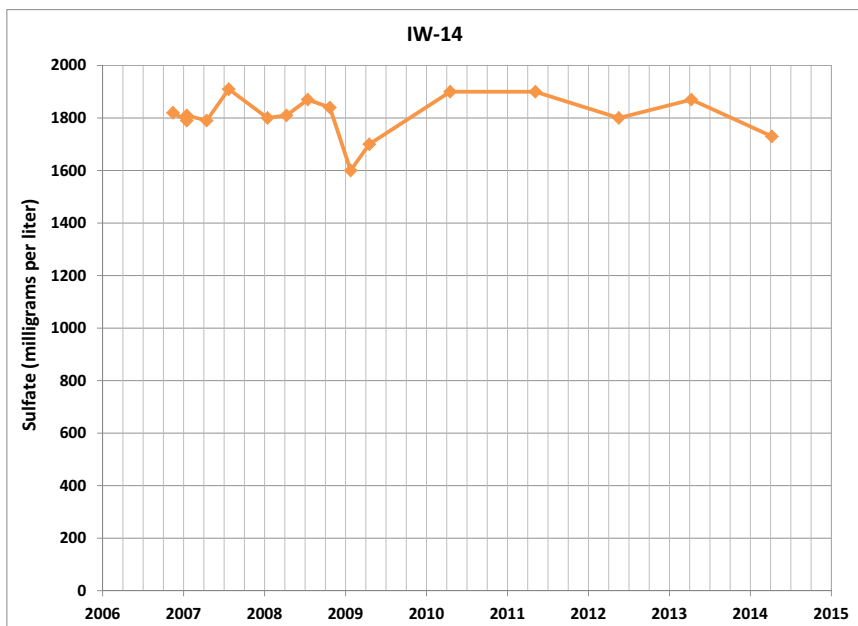
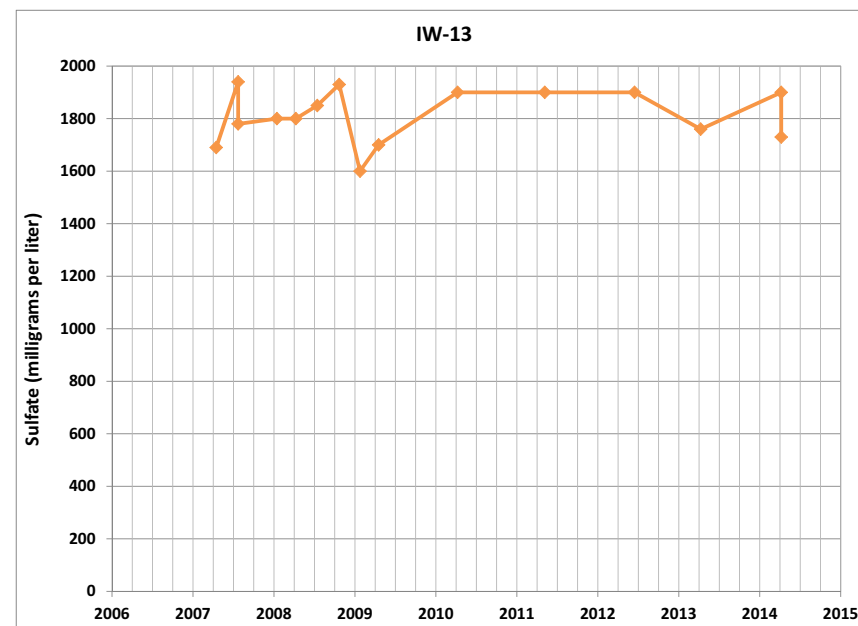
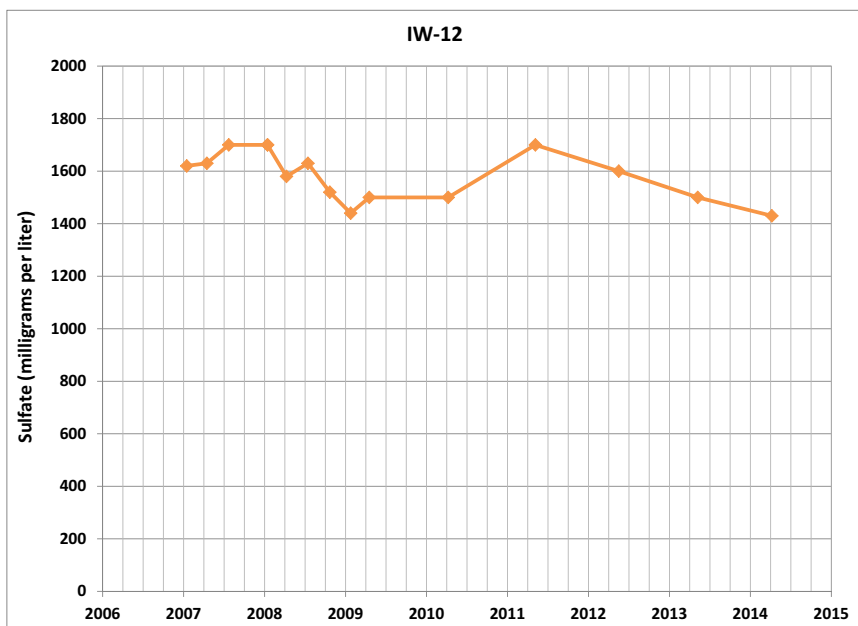
GRAPHS OF SULFATE OVER TIME IN EXTRACTION WELLS (ALPHABETIC BY WELL NAME)

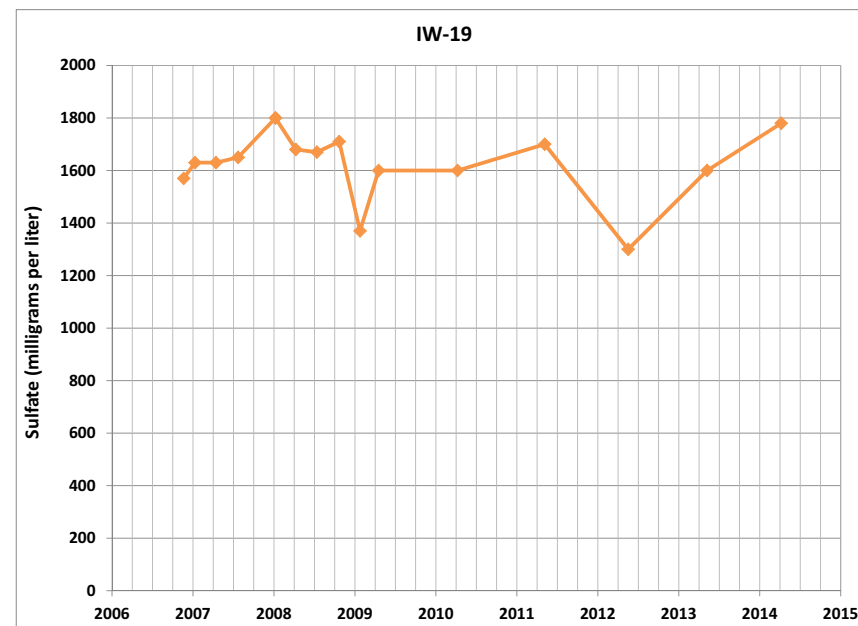
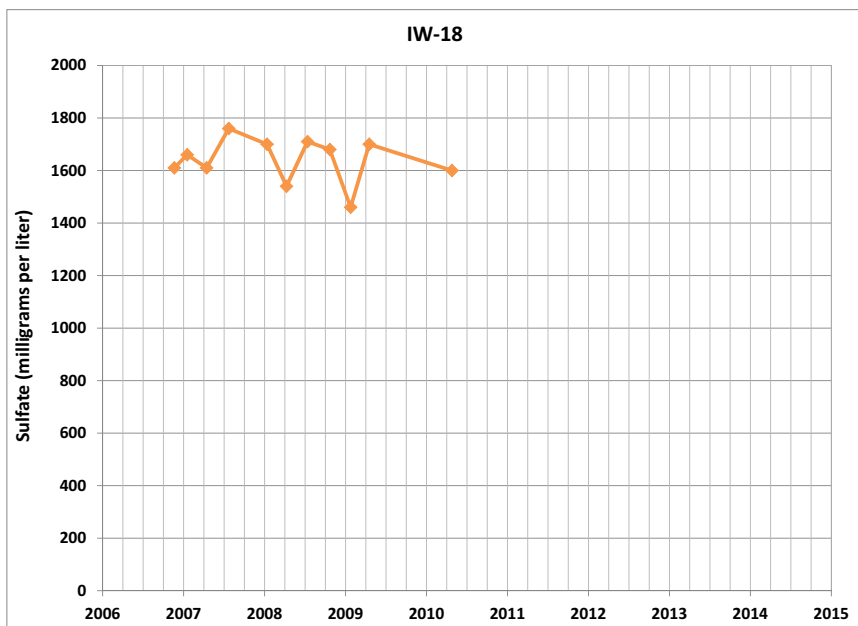
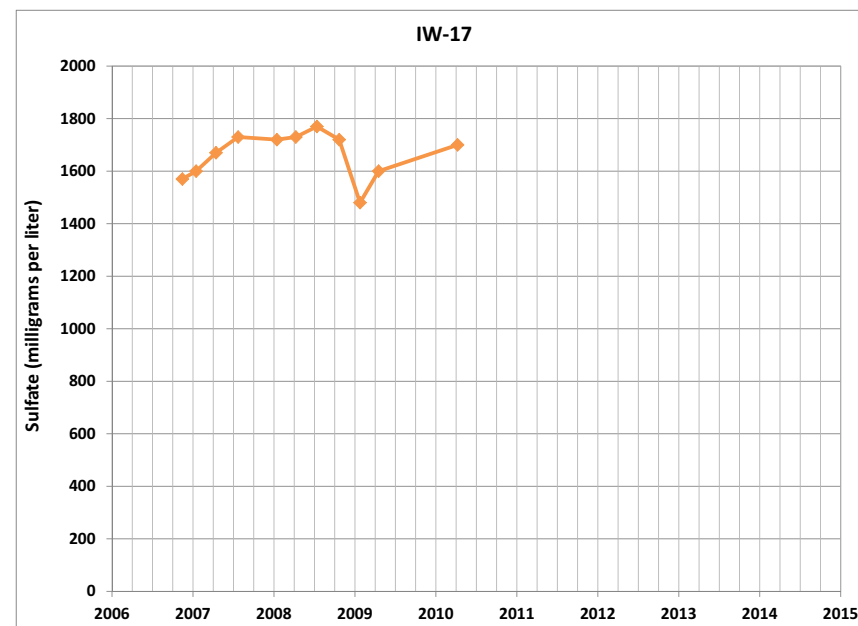
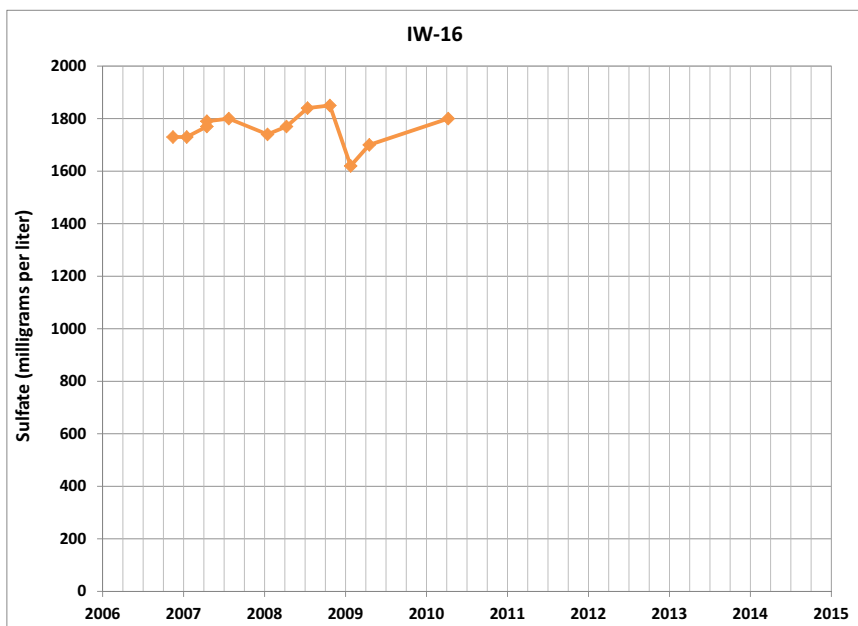


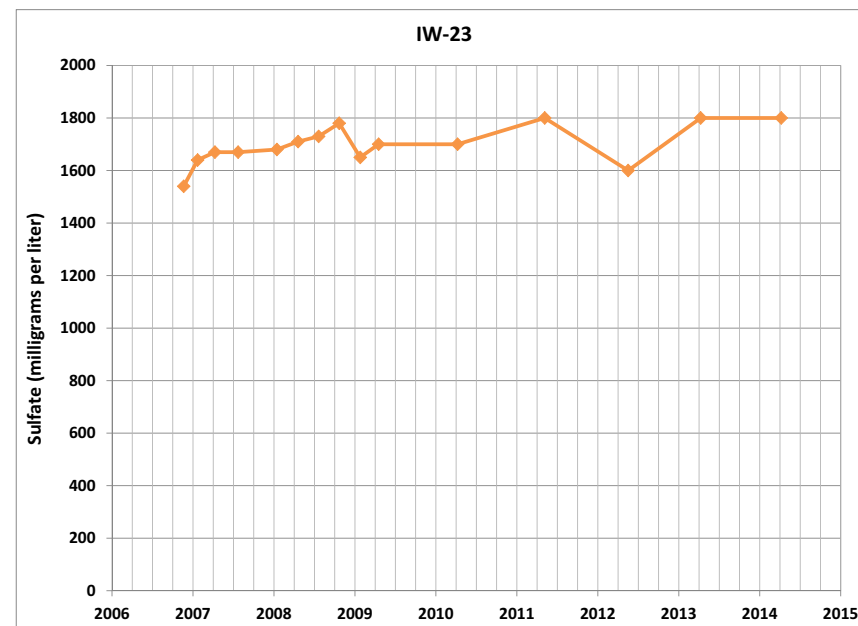
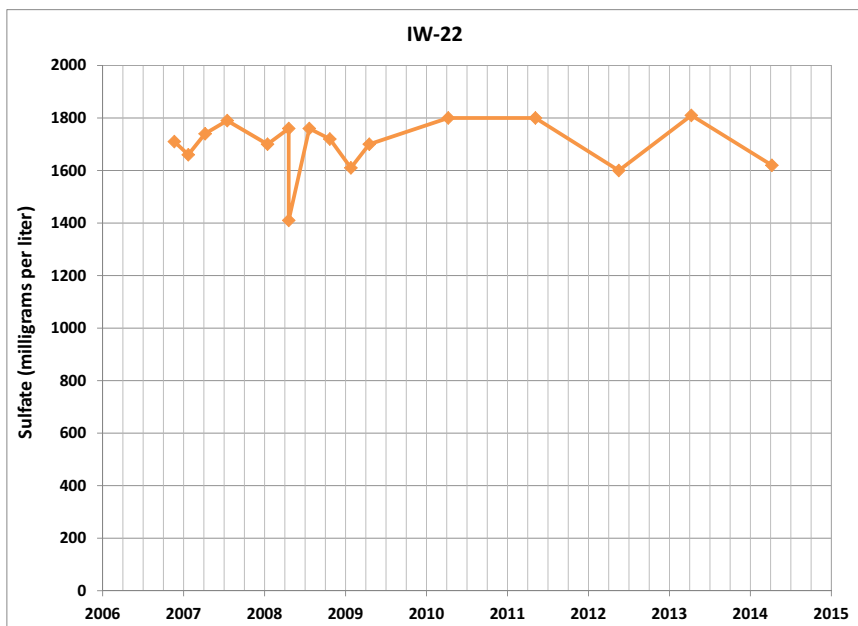
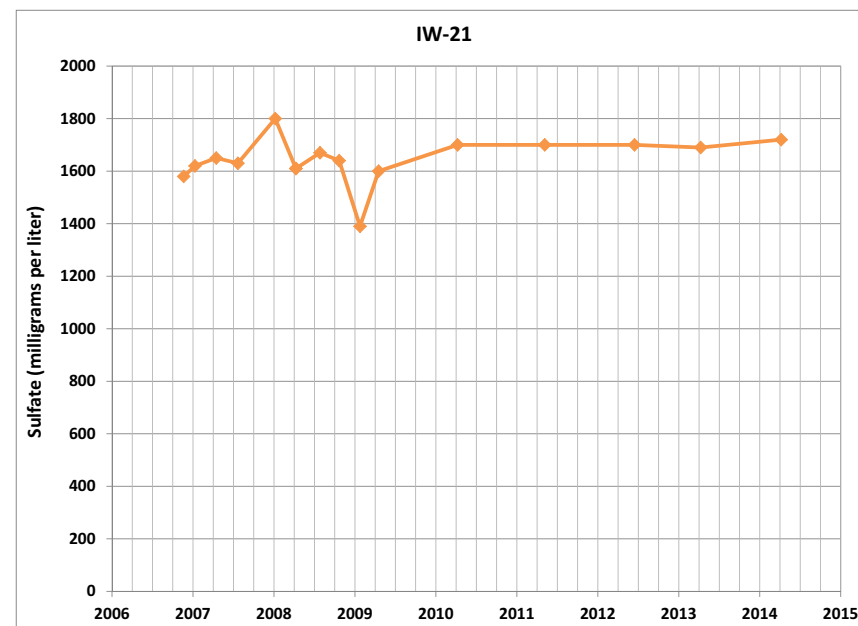
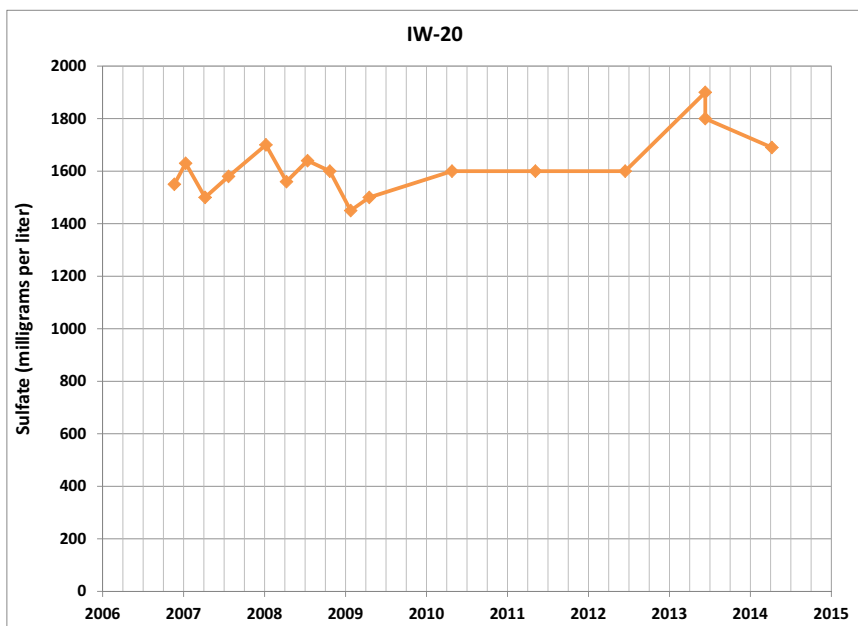


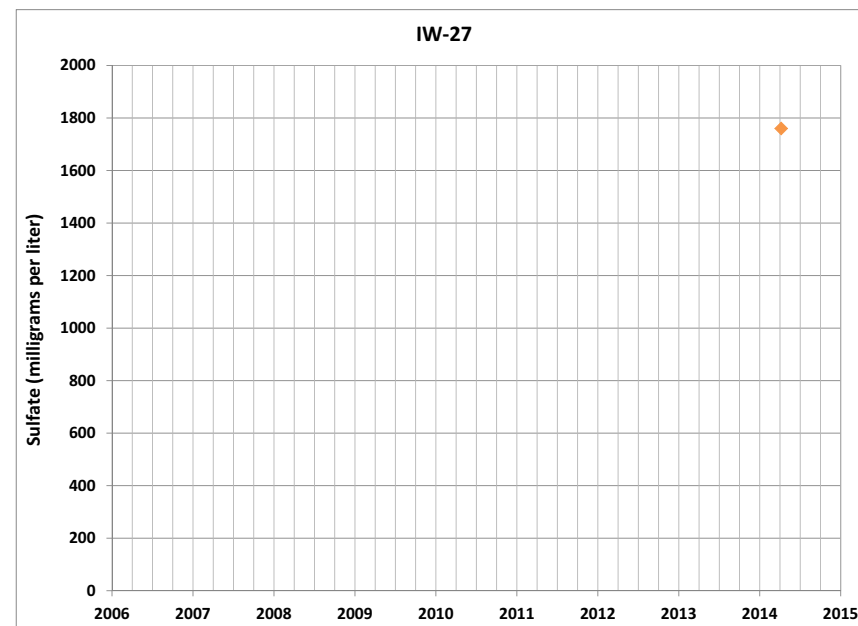
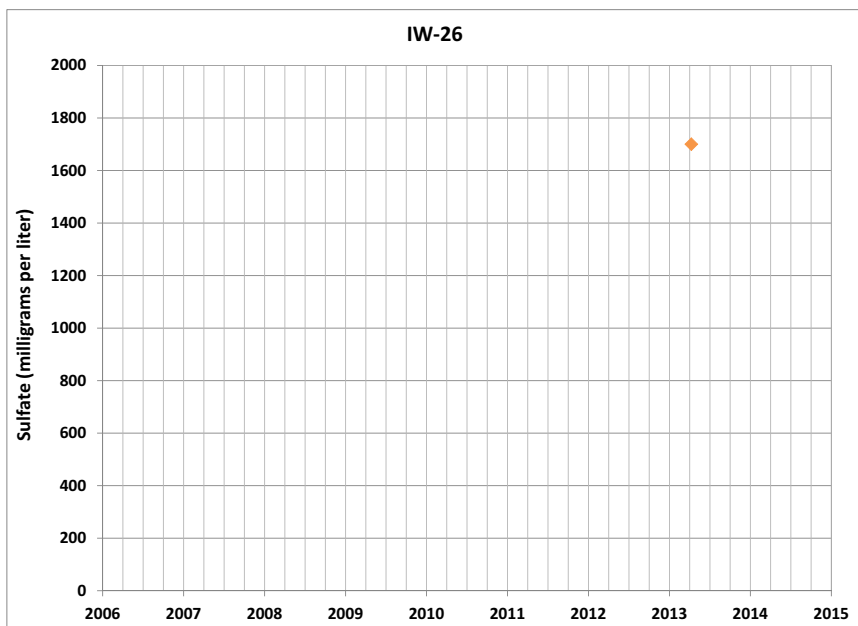
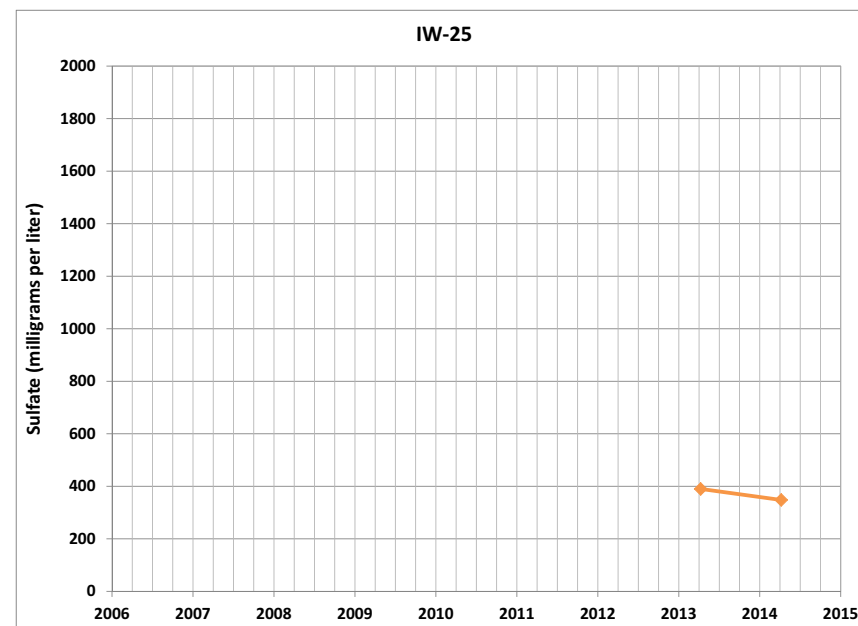
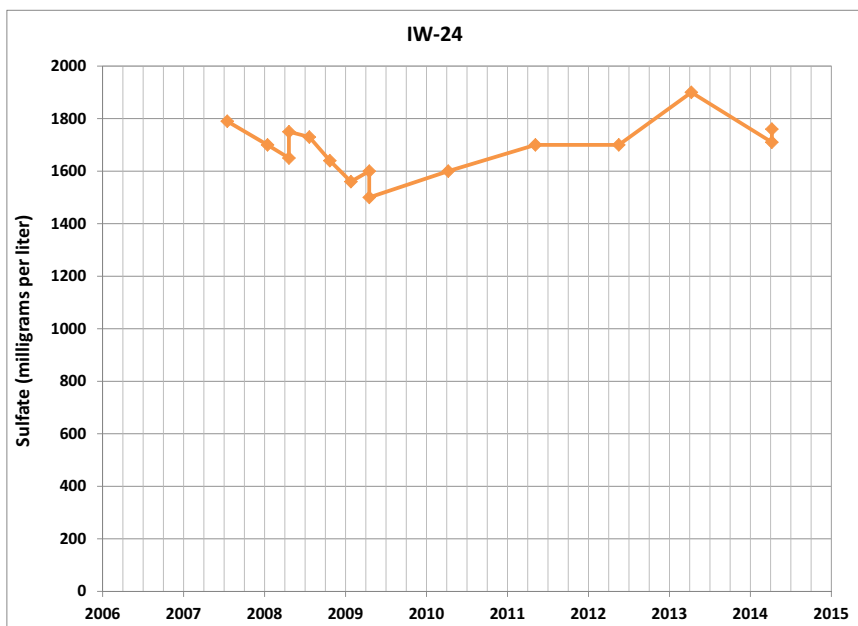


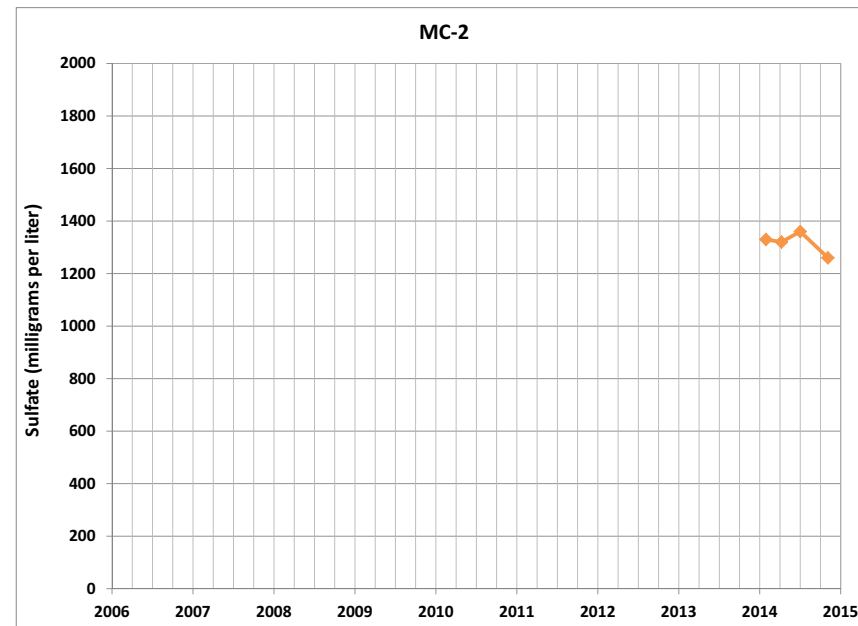
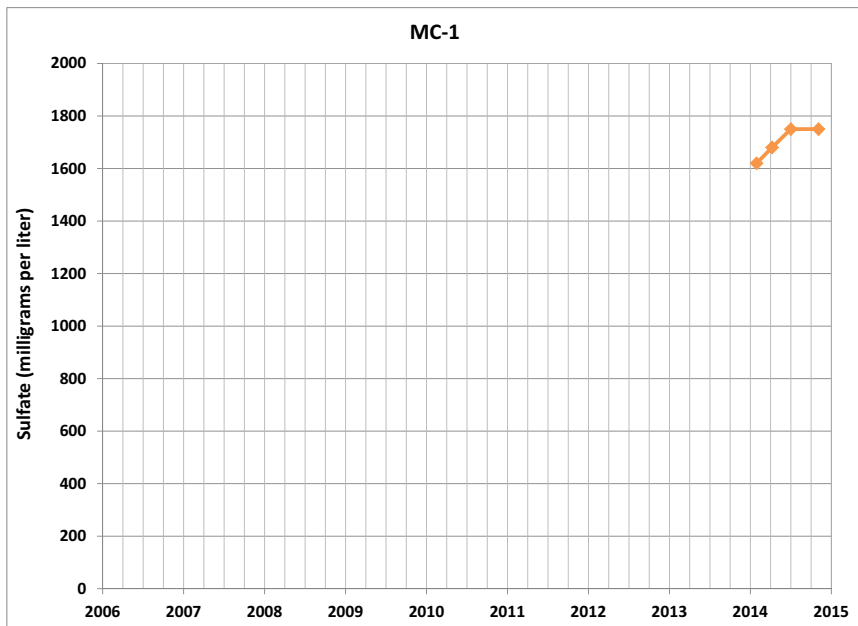
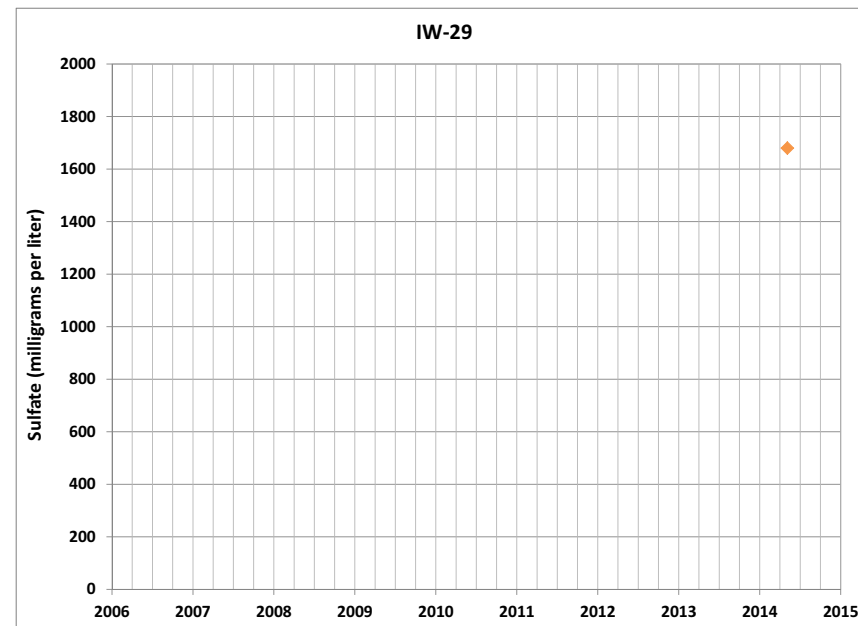
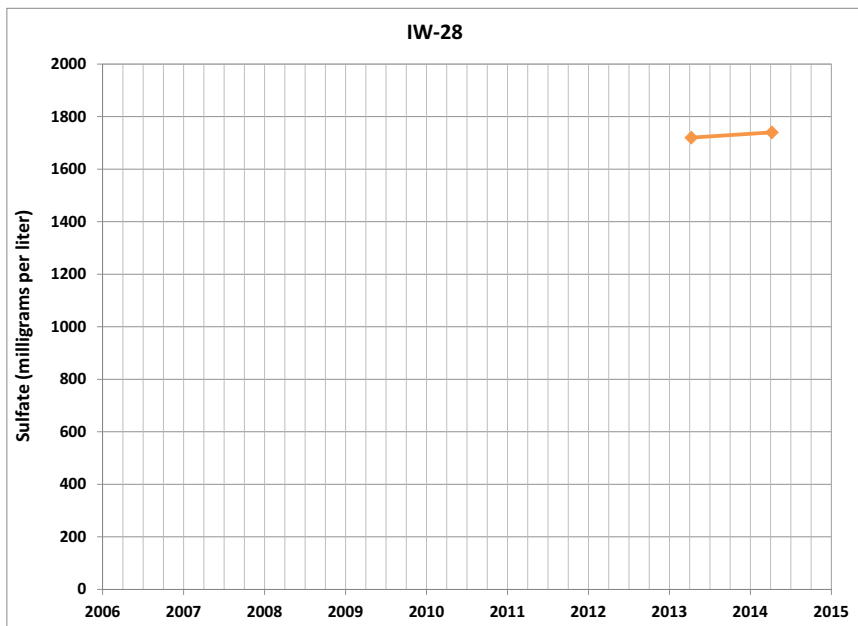


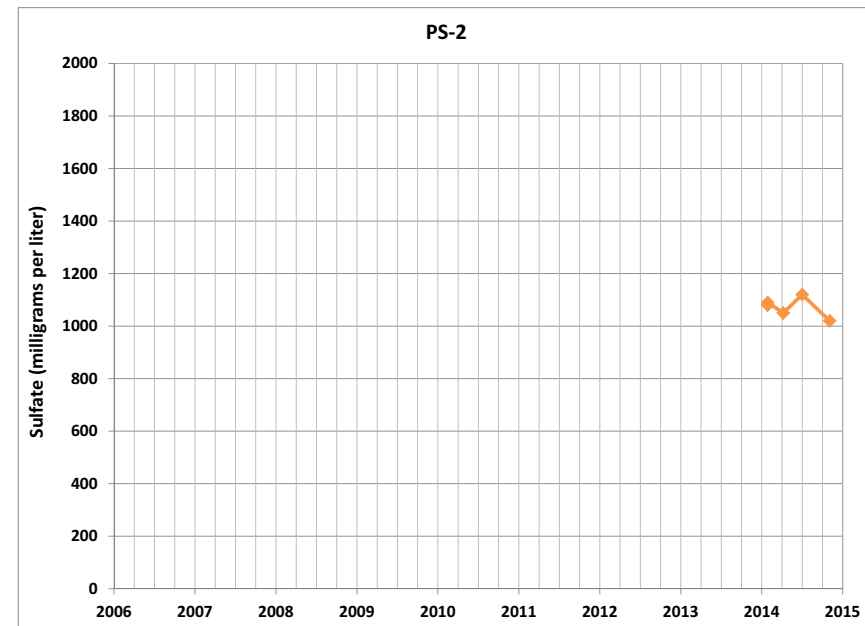
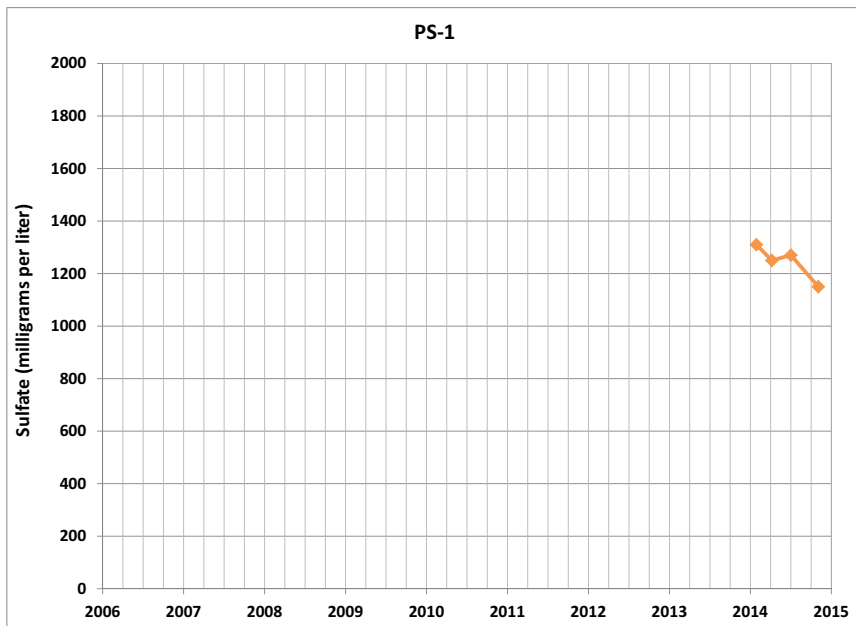
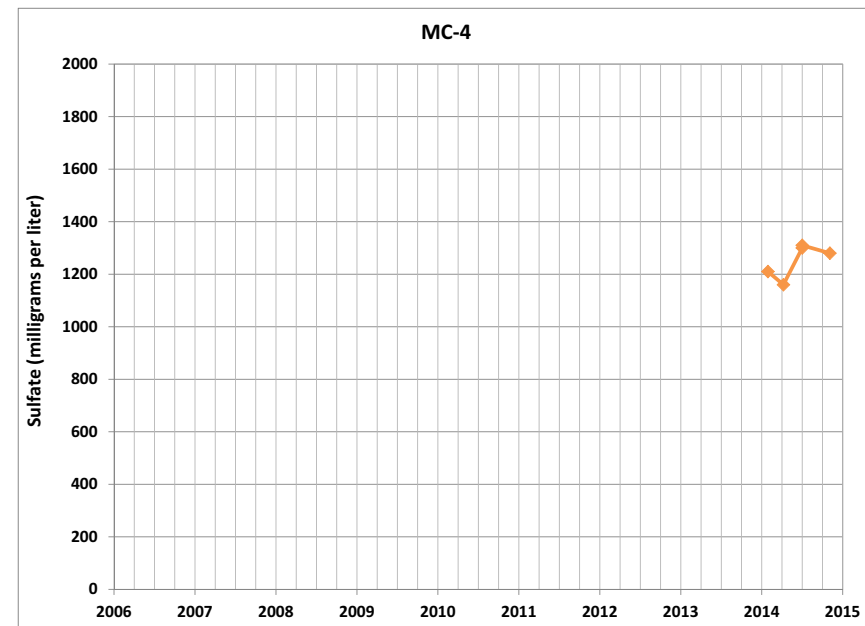
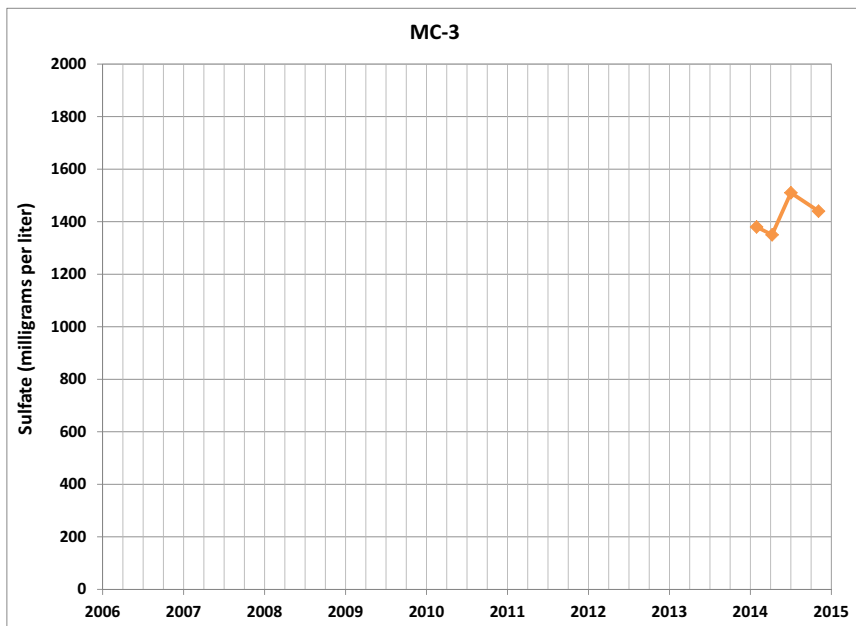


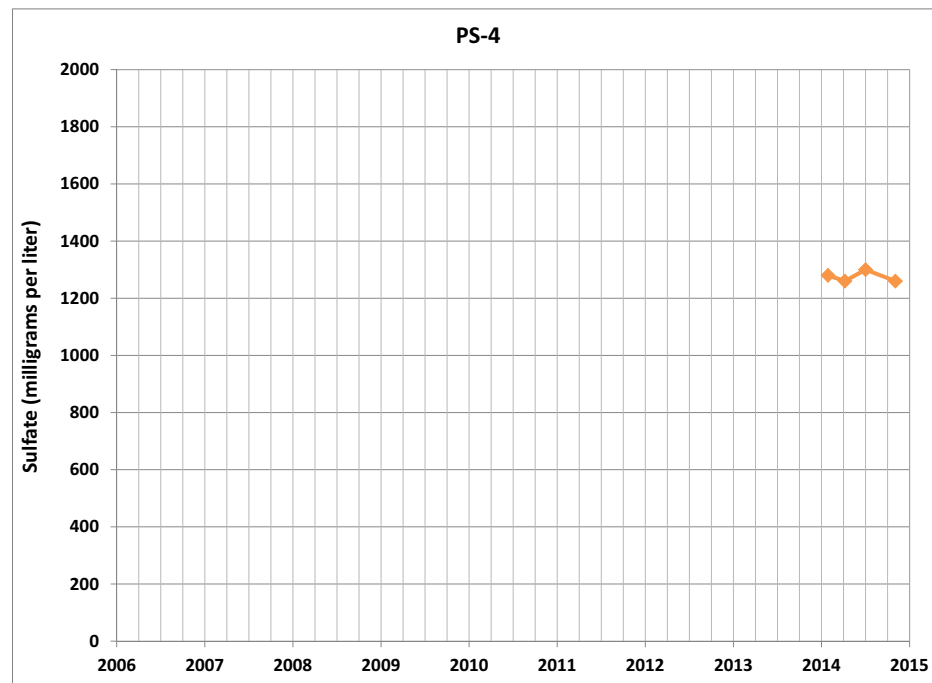
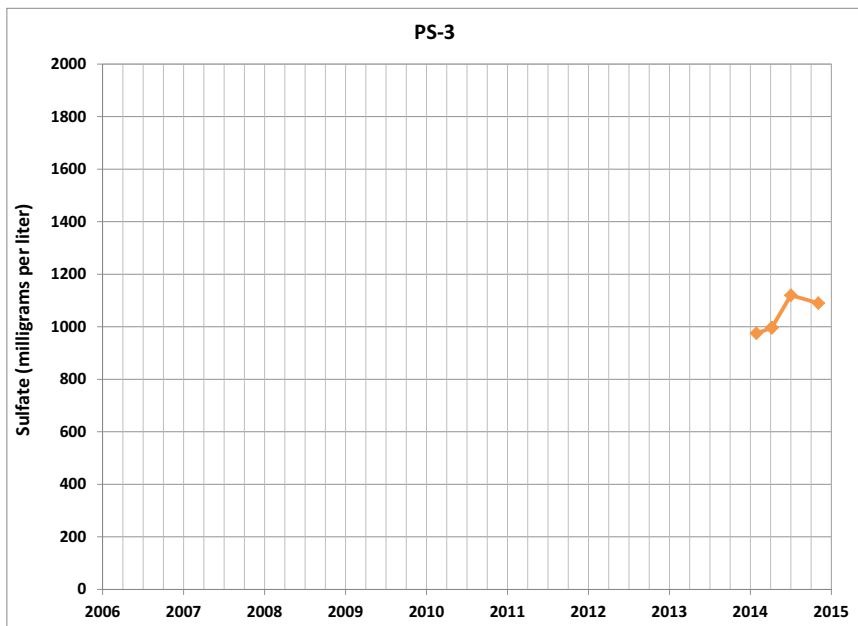












APPENDIX C
WATER ELEVATION DATA

APPENDIX C

Water Elevation Data

Well Name	Measuring Point Elevation (ft amsl)	Date	Depth to Water (ft bls) ¹	Depth to Water (ft bmp)	Static/ Dynamic	Groundwater Elevation (ft amsl)	Data Source
1350	3033.25	7/12/07		474.29		2558.96	Sierrita EDMS
		11/8/07		477.30		2555.95	
		1/9/08		477.00		2556.25	
		4/14/08		475.50		2557.75	
		8/7/08		477.88		2555.37	
		11/5/08		479.21		2554.04	
		1/19/09		477.33		2555.92	
		6/29/09		479.57		2553.68	
		5/28/10		478.78		2554.47	
		5/9/11		480.42		2552.83	
		6/29/12		479.57		2553.68	
		5/23/13		481.16		2552.09	
		4/29/14		Obstructed		NA	
		5/22/14		Obstructed		NA	
		5/28/14		494.95		2538.30	
CC OF GV	2823.45	1/15/07		253.15		2570.30	Sierrita EDMS
		4/16/07		254.20		2569.25	
		7/9/07		259.79		2563.66	
		1/10/08		257.26		2566.19	
		7/7/08		261.09		2562.36	
		11/14/08		263.13		2560.32	
		2/4/09		258.48		2564.97	
		4/21/09		258.79		2564.66	
		4/22/10		259.51		2563.94	
		5/14/13		258.20		2565.25	
		6/6/07		265.35		2676.36	Sierrita EDMS
CW-3	2941.71	8/10/07		267.40		2674.31	
		11/6/07		269.98		2671.73	
		1/11/08		264.40		2677.31	
		4/17/08		266.46		2675.25	
		7/11/08		270.95		2670.76	
		10/6/08		271.78		2669.93	
		2/9/09		267.51		2674.20	
		4/24/09		269.06		2672.65	
		12/31/09		272.10		2669.61	
		4/22/10		271.91		2669.80	
		10/25/10		273.54		2668.17	
		5/2/11		272.50		2669.21	
		12/5/11		274.20		2667.51	
		6/26/12		259.51		2682.20	
		12/13/12		278.81		2662.90	
		6/13/13		283.48		2658.23	
		11/12/13		286.51		2655.20	
		3/12/14		286.62		2655.09	
		4/29/14		289.87		2651.84	
		5/6/14		289.87		2651.84	
		5/6/14		289.87		2651.84	
		6/23/14		289.83		2651.88	
		7/28/14		296.29		2645.42	
		8/7/14		297.18		2644.53	
		9/8/14		298.21	Static	2643.50	
		10/15/14		299.49		2642.22	
		10/15/14		299.49		2642.22	
		11/26/14		300.17		2641.54	
		12/17/14		300.75	Static	2640.96	

APPENDIX C

Water Elevation Data

Well Name	Measuring Point Elevation (ft amsl)	Date	Depth to Water (ft bls) ¹	Depth to Water (ft bmp)	Static/ Dynamic	Groundwater Elevation (ft amsl)	Data Source
CW-6	2867.00	12/4/06		247.50		2619.50	Sierrita EDMS
		1/3/07		245.00		2622.00	
		5/24/07		252.25		2614.75	
		7/10/07		252.15		2614.85	
		10/2/07		253.05		2613.95	
		1/8/08		245.81		2621.19	
		4/17/08		254.20		2612.80	
		7/8/08		253.80		2613.20	
		10/7/08		256.30		2610.70	
		2/6/09		249.27		2617.73	
		4/22/09		253.15		2613.85	
		9/22/09		256.80		2610.20	
		11/5/09		258.10		2608.90	
		2/10/10		250.76		2616.24	
		5/14/10		252.78		2614.22	
		7/27/10		257.35		2609.65	
		10/14/10		257.22		2609.78	
		2/24/11		250.38		2616.62	
		4/28/11		254.32		2612.68	
		7/20/11		257.20		2609.80	
		12/14/11		253.57		2613.43	
		1/24/12		252.33		2614.67	
		5/9/12		255.74		2611.26	
		8/29/12		258.30		2608.70	
		12/12/12		256.33		2610.67	
		2/6/13		254.67		2612.33	
		5/15/13		259.27		2607.73	
		7/17/13		263.01		2603.99	
		10/23/13		264.66		2602.34	
		1/14/14		259.78		2607.22	
		4/16/14		265.79		2601.21	
		10/13/14		279.38	Static	2587.62	
CW-7	2987.50	2/2/07		425.00		2562.50	Sierrita EDMS
		5/14/07		424.15		2563.35	
		7/10/07		426.50		2561.00	
		10/2/07		427.60		2559.90	
		1/8/08		427.50		2560.00	
		4/17/08		426.40		2561.10	
		7/8/08		428.40		2559.10	
		10/7/08		429.80		2557.70	
		2/6/09		426.62		2560.88	
		4/22/09		424.30		2563.20	
		5/14/10		438.35		2549.15	
		4/28/11		429.50		2558.00	
		5/9/12		425.90		2561.60	
		5/15/13		458.53		2528.97	
		4/16/14		440.68		2546.82	
CW-8	2957.50	1/3/07		336.50		2621.00	Sierrita EDMS
		5/24/07		338.14		2619.36	
		8/10/07		339.80		2617.70	
		10/2/07		340.60		2616.90	
		1/8/08		337.97		2619.53	
		4/17/08		339.20		2618.30	
		7/8/08		341.75		2615.75	
		10/7/08		342.75		2614.75	
		2/6/09		339.12		2618.38	
		4/22/09		341.20		2616.30	
		4/12/10		342.00		2615.50	
		4/28/11		342.68		2614.82	
		5/9/12		340.12		2617.38	
		5/15/13		347.39		2610.11	
		4/16/14		359.08		2598.42	

APPENDIX C

Water Elevation Data

Well Name	Measuring Point Elevation (ft amsl)	Date	Depth to Water (ft bls) ¹	Depth to Water (ft bmp)	Static/ Dynamic	Groundwater Elevation (ft amsl)	Data Source
CW-9	2834.30	12/4/06		306.00		2528.30	Sierrita EDMS
		1/3/07		304.20		2530.10	
		5/24/07		309.40		2524.90	
		7/10/07		310.20		2524.10	
		10/2/07		310.70		2523.60	
		1/8/08		308.82		2525.48	
		4/17/08		308.00		2526.30	
		7/8/08		315.60		2518.70	
		10/7/08		316.05		2518.25	
		2/6/09		309.80		2524.50	
		4/22/09		311.10		2523.20	
		7/30/09		316.5		2517.80	
		11/5/09		321.60		2512.70	
		2/10/10		316.69		2517.61	
		5/14/10		316.20		2518.10	
		7/27/10		313.63		2520.67	
		10/14/10		318.65		2515.65	
		2/24/11		309.94		2524.36	
		4/28/11		313.41		2520.89	
		7/20/11		315.45		2518.85	
		12/14/11		314.17		2520.13	
		1/24/12		312.56		2521.74	
		5/9/12		314.39		2519.91	
		8/29/12		318.12		2516.18	
		12/12/12		317.48		2516.82	
		2/6/13		313.90		2520.40	
		5/15/13		313.79		2520.51	
		7/17/13		316.52		2517.78	
		10/23/13		319.19		2515.11	
		1/14/14		319.38		2514.92	
		4/16/14		317.82		2516.48	
		10/13/14		330.96	Static	2503.34	
CW-10	2868.50	12/4/06		178.25		2690.25	Sierrita EDMS
		1/3/07		177.20		2691.30	
		5/24/07		196.30		2672.20	
		7/10/07		198.79		2669.71	
		10/2/07		190.85		2677.65	
		1/8/08		180.95		2687.55	
		4/17/08		187.95		2680.55	
		7/8/08		203.25		2665.25	
		10/7/08		190.65		2677.85	
		2/6/09		184.40		2684.10	
		4/22/09		191.12		2677.38	
		7/30/09		197.3		2671.20	
		11/5/09		199.10		2669.40	
		2/10/10		186.00		2682.50	
		5/14/10		190.10		2678.40	
		7/27/10		198.52		2669.98	
		10/14/10		195.31		2673.19	
		2/24/11		191.62		2676.88	
		4/28/11		196.15		2672.35	
		7/20/11		199.75		2668.75	
		12/14/11		191.70		2676.80	
		1/24/12		189.73		2678.77	
		5/9/12		197.20		2671.30	
		8/29/12		201.50		2667.00	
		12/12/12		199.93		2668.57	
		2/6/13		197.87		2670.63	
		5/15/13		209.50		2659.00	
		7/17/13		212.61		2655.89	
		10/23/13		215.14		2653.36	
		1/14/14		203.86		2664.64	
		4/16/14		210.15		2658.35	
		7/22/14		220.59	Static	2647.91	
		10/13/14		223.99	Static	2644.51	

APPENDIX C

Water Elevation Data

Well Name	Measuring Point Elevation (ft amsl)	Date	Depth to Water (ft bls) ¹	Depth to Water (ft bmp)	Static/ Dynamic	Groundwater Elevation (ft amsl)	Data Source
ESP-1	2953.43	11/28/06		352.20		2601.23	Sierrita EDMS
		1/3/07		350.10		2603.33	
		5/24/07		349.55		2603.88	
		7/10/07		351.11		2602.32	
		10/12/07		343.00		2610.43	
		10/30/08		355.47		2597.96	
		1/29/09		354		2599.43	
		4/16/09		350.50		2602.93	
		11/10/09		355.67		2597.76	
		4/28/10		354.10		2599.33	
		10/15/10		357.40		2596.03	
		5/3/11		355.79		2597.64	
		11/22/11		357.82		2595.61	
		12/13/11		355.60		2597.83	
		6/19/12		357.76		2595.67	
		11/21/12		358.70		2594.73	
		5/20/13		357.15		2596.28	
		4/28/14		Obstructed		NA	
ESP-2	2934.60	11/28/06		342.55		2592.05	Sierrita EDMS
		1/3/07		343.10		2591.50	
		5/14/07		339.90		2594.70	
		7/10/07		341.25		2593.35	
		10/12/07		342.26		2592.34	
		1/23/08		340.40		2594.20	
		4/18/08		340.93		2593.67	
		7/25/08		342.30		2592.30	
		10/30/08		344.82		2589.78	
		1/29/09		395.16		2539.44	
		4/16/09		341.45		2593.15	
		11/10/09		346.50		2588.10	
		4/28/10		343.99		2590.61	
		10/15/10		347.33		2587.27	
		5/3/11		345.44		2589.16	
		11/22/11		347.26		2587.34	
		6/19/12		346.84		2587.76	
		11/21/12		348.11		2586.49	
		5/20/13		348.45		2586.15	
		11/5/13		362.28		2572.32	
		3/12/14		354.98		2579.62	
		4/28/14		358.88		2575.72	
		5/6/14		358.90		2575.70	
		6/23/14		358.86		2575.74	
		7/28/14		365.59		2569.01	
		8/8/14		367.53		2567.07	
		9/9/14		368.29	Static	2566.31	
		10/1/14		369.45		2565.15	
		10/1/14		369.45		2565.15	
		11/26/14		369.90		2564.70	
		12/17/14		370.22	Static	2564.38	
ESP-3	2935.80	11/28/06		360.40		2575.40	Sierrita EDMS
		1/3/07		358.60		2577.20	
		5/14/07		355.85		2579.95	
		7/1/07		358.05		2577.75	
		10/30/08		361.12		2574.68	
		1/29/09		410.05		2525.75	
		4/16/09		353.20		2582.60	
		11/12/09		363.37		2572.43	
		4/28/10		361.69		2574.11	
		10/15/10		365.00		2570.80	
		5/3/11		363.35		2572.45	
		11/22/11		364.91		2570.89	
		6/19/12		364.50		2571.30	
		11/21/12		357.92		2577.88	
		5/22/13		356.23		2579.57	
		11/5/13		367.84		2567.96	
		4/28/14		374.61		2561.19	
		10/1/14		375.53	Static	2560.27	

APPENDIX C

Water Elevation Data

Well Name	Measuring Point Elevation (ft amsl)	Date	Depth to Water (ft bls) ¹	Depth to Water (ft bmp)	Static/ Dynamic	Groundwater Elevation (ft amsl)	Data Source
ESP-4	2958.60	11/28/06		349.20		2609.40	Sierrita EDMS
		1/12/07		348.30		2610.30	
		5/4/07		346.90		2611.70	
		7/24/07		348.80		2609.80	
		10/12/07		352.41		2606.19	
		1/23/08		349.65		2608.95	
		4/18/08		350.39		2608.21	
		7/25/08		352.13		2606.47	
		10/30/08		355.42		2603.18	
		1/29/09		352.50		2606.10	
		4/16/09		356.87		2601.73	
		10/23/09		355.64		2602.96	
		4/28/10		351.56		2607.04	
		10/15/10		358.16		2600.44	
		5/3/11		355.65		2602.95	
		11/22/11		356.91		2601.69	
		11/12/12		358.92		2599.68	
		5/20/13		363.95		2594.65	
ESP-5	2820.00	11/5/13		362.37		2596.23	Sierrita EDMS
		4/28/14		372.14		2586.46	
		10/1/14		383.76	Static	2574.84	
		2/12/07		219.50		2600.50	Sierrita EDMS
		5/4/07		217.75		2602.25	
		7/3/07		224.60		2595.40	
		11/8/07		228.42		2591.58	
		1/28/08		222.00		2598.00	
		4/22/08		220.08		2599.92	
		8/7/08		225.88		2594.12	
		11/3/08		228.92		2591.08	
		2/17/09		221.89		2598.11	
		6/2/09		224.10		2595.90	
		4/28/10		223.28		2596.72	
		5/3/11		224.15		2595.85	
		6/19/12		229.73		2590.27	
		5/20/13		230.08		2589.92	
		4/29/14		232.72		2587.28	
FFS-1	3071.40	5/10/13 ¹	396.74		Static	2674.66	BasinWells, 2015a
		5/10/13	427.19		Dynamic	2644.21	BasinWells, 2015a
		1/15/14		438.94	Dynamic	2632.46	Sierrita EDMS
		1/15/14	438.94		Dynamic		BasinWells, 2015a
		1/22/14		439.09	Dynamic	2632.31	Sierrita EDMS
		1/22/14	439.09		Dynamic		BasinWells, 2015a
		1/29/14		379.85	Dynamic	2691.55	Sierrita EDMS
		2/5/14	436.58		Dynamic		BasinWells, 2015a
		2/12/14	437.02		Dynamic		BasinWells, 2015a
		3/13/14		446.91	Dynamic	2624.49	Sierrita EDMS
		5/14/14		453.40	Dynamic	2618.00	Sierrita EDMS
		5/30/14	453.40		Dynamic		BasinWells, 2015a
		6/5/14		457.50	Dynamic	2613.90	Sierrita EDMS
		6/5/14	457.50		Dynamic		BasinWells, 2015a
		7/6/14		455.90	Dynamic	2615.50	Sierrita EDMS
		7/6/14	454.90		Dynamic		BasinWells, 2015a
		7/31/14		457.00	Dynamic	2614.40	Sierrita EDMS
		7/31/14	457.00		Dynamic		BasinWells, 2015a
		8/27/14		457.80	Dynamic	2613.60	Sierrita EDMS
		8/27/14	457.80		Dynamic		BasinWells, 2015a
		10/1/14		428.40	Static	2643.00	Sierrita EDMS
		10/1/14	427.4		Static		BasinWells, 2015a
		11/4/14		462.50	Static	2608.90	Sierrita EDMS
		11/4/14	461.50		Dynamic		BasinWells, 2015a
		12/2/14		464.00	Dynamic	2607.40	Sierrita EDMS
		12/2/14	463.00		Dynamic		BasinWells, 2015a

APPENDIX C

Water Elevation Data

Well Name	Measuring Point Elevation (ft amsl)	Date	Depth to Water (ft bls) ¹	Depth to Water (ft bmp)	Static/ Dynamic	Groundwater Elevation (ft amsl)	Data Source
FFS-2	3082.11	4/29/13 ¹	416.50		Static	2665.61	BasinWells, 2015a
		4/29/13	446.60		Dynamic	2635.51	BasinWells, 2015a
		1/15/14		459.42	Dynamic	2622.69	Sierrita EDMS
		1/15/14	459.42		Dynamic		BasinWells, 2015a
		1/22/14		460.08	Dynamic	2622.03	Sierrita EDMS
		1/22/14	460.08		Dynamic		BasinWells, 2015a
		1/28/14	462.21		Dynamic		BasinWells, 2015a
		1/29/14		462.21	Dynamic	2619.90	Sierrita EDMS
		2/5/14	463.82		Dynamic		BasinWells, 2015a
		3/13/14		468.92	Dynamic	2613.19	Sierrita EDMS
		5/13/14		444.00	Dynamic	2638.11	Sierrita EDMS
		5/30/14	474.00		Dynamic		BasinWells, 2015a
		6/5/14		476.75	Dynamic	2605.36	Sierrita EDMS
		6/5/14	476.75		Dynamic		BasinWells, 2015a
		7/6/14		479.70	Dynamic	2602.41	Sierrita EDMS
		7/6/14	479.03		Dynamic		BasinWells, 2015a
		7/31/14		480.80	Dynamic	2601.31	Sierrita EDMS
		7/31/14	480.80		Dynamic		BasinWells, 2015a
		8/27/14		482.20	Dynamic	2599.91	Sierrita EDMS
		8/27/14	482.20		Dynamic		BasinWells, 2015a
		10/1/14		453.20	Static	2628.91	Sierrita EDMS
		10/1/14	452.53		Static		BasinWells, 2015a
		11/4/14		487.37	Dynamic	2594.74	Sierrita EDMS
		11/4/14	486.70		Dynamic		BasinWells, 2015a
		12/2/14		489.05	Dynamic	2593.06	Sierrita EDMS
		12/2/14	488.38		Dynamic		BasinWells, 2015a
FFS-3	3083.90	4/20/13 ¹	461.90		Static	2622.00	BasinWells, 2015a
		4/20/13	532.50		Dynamic	2551.40	BasinWells, 2015a
		1/15/14		497.29	Dynamic	2586.61	Sierrita EDMS
		1/15/14	497.29		Dynamic		BasinWells, 2015a
		1/22/14		497.31	Dynamic	2586.59	Sierrita EDMS
		1/22/14	497.31		Dynamic		BasinWells, 2015a
		1/28/14	497.98		Dynamic		BasinWells, 2015a
		1/29/14		497.98	Dynamic	2585.92	Sierrita EDMS
		2/5/14	499.18		Dynamic		BasinWells, 2015a
		3/13/14		502.16	Dynamic	2581.74	Sierrita EDMS
		5/14/14		508.87	Dynamic	2575.03	Sierrita EDMS
		5/30/14	508.87		Dynamic		BasinWells, 2015a
		6/9/14		509.68	Dynamic	2574.22	Sierrita EDMS
		6/9/14	509.68		Dynamic		BasinWells, 2015a
		7/6/14		511.70	Dynamic	2572.20	Sierrita EDMS
		7/6/14	510.70		Dynamic		BasinWells, 2015a
		7/31/14		513.10	Dynamic	2570.80	Sierrita EDMS
		7/31/14	513.10		Dynamic		BasinWells, 2015a
		8/27/14		514.25	Dynamic	2569.65	Sierrita EDMS
		8/27/14	514.25		Dynamic		BasinWells, 2015a
		10/1/14		497.80	Static	2586.10	Sierrita EDMS
		10/1/14	496.80		Static		BasinWells, 2015a
		11/4/14		519.50	Dynamic	2564.40	Sierrita EDMS
		11/4/14	518.50		Dynamic		BasinWells, 2015a
		12/2/14		521.35	Dynamic	2562.55	Sierrita EDMS
		12/2/14	520.35		Dynamic		BasinWells, 2015a

APPENDIX C

Water Elevation Data

Well Name	Measuring Point Elevation (ft amsl)	Date	Depth to Water (ft bls) ¹	Depth to Water (ft bmp)	Static/ Dynamic	Groundwater Elevation (ft amsl)	Data Source
FFS-4	3097.92	5/29/13 ¹	497.96		Static	2599.96	BasinWells, 2015a
		5/29/13	544.45		Dynamic	2553.47	BasinWells, 2015a
		1/15/14		548.14	Dynamic	2549.78	Sierrita EDMS
		1/15/14	548.14		Dynamic		BasinWells, 2015a
		1/22/14		550.75	Dynamic	2547.17	Sierrita EDMS
		1/22/14	550.75		Dynamic		BasinWells, 2015a
		1/28/14	552.10		Dynamic		BasinWells, 2015a
		1/29/14		552.10	Dynamic	2545.82	Sierrita EDMS
		2/5/14	554.16		Dynamic		BasinWells, 2015a
		3/13/14		559.71	Dynamic	2538.21	Sierrita EDMS
		5/14/14		570.41	Dynamic	2527.51	Sierrita EDMS
		5/30/14	570.41		Dynamic		BasinWells, 2015a
		6/9/14		572.45	Dynamic	2525.47	Sierrita EDMS
		6/9/14	572.45		Dynamic		BasinWells, 2015a
		7/6/14		576.05	Dynamic	2521.87	Sierrita EDMS
		7/6/14	574.88		Dynamic		BasinWells, 2015a
		7/31/14		578.25	Dynamic	2519.67	Sierrita EDMS
		7/31/14	578.25		Dynamic		BasinWells, 2015a
		8/27/14		580.50	Dynamic	2517.42	Sierrita EDMS
		8/27/14	580.50		Dynamic		BasinWells, 2015a
		10/1/14		529.75	Static	2568.17	Sierrita EDMS
		10/1/14	528.58		Static		BasinWells, 2015a
		11/4/14		595.40	Dynamic	2502.52	Sierrita EDMS
		11/4/14	594.23		Dynamic		BasinWells, 2015a
		12/2/14		602.10	Dynamic	2495.82	Sierrita EDMS
		12/2/14	600.93		Dynamic		BasinWells, 2015a
FFS-5	3107.73	1/28/13	522.49		Static		BasinWells, 2015a
		1/28/13	555.55		Dynamic		BasinWells, 2015a
		3/13/14		Obstructed		NA	Sierrita EDMS
		5/13/14		554.32	Dynamic	2553.41	Sierrita EDMS
		5/15/14		554.32	Dynamic	2553.41	Sierrita EDMS
		5/15/14	554.32		Dynamic		BasinWells, 2015a
		5/22/14		563.67	Dynamic	2544.06	Sierrita EDMS
		5/22/14	563.67		Dynamic		BasinWells, 2015a
		6/9/14		565.20	Dynamic	2542.53	Sierrita EDMS
		6/9/14	565.20		Dynamic		BasinWells, 2015a
		7/6/14		566.80	Dynamic	2540.93	Sierrita EDMS
		7/6/14	565.80		Dynamic		BasinWells, 2015a
		7/31/14		568.60	Dynamic	2539.13	Sierrita EDMS
		7/31/14	568.60		Dynamic		BasinWells, 2015a
		8/27/14		569.80	Dynamic	2537.93	Sierrita EDMS
		8/27/14	569.80		Dynamic		BasinWells, 2015a
		10/1/14		554.18	Static	2553.55	Sierrita EDMS
		10/1/14	553.18		Static		BasinWells, 2015a
		11/4/14		575.55	Dynamic	2532.18	Sierrita EDMS
		11/4/14	574.55		Dynamic		BasinWells, 2015a
		12/2/14		577.65	Dynamic	2530.08	Sierrita EDMS
		12/2/14	576.65		Dynamic		BasinWells, 2015a

APPENDIX C

Water Elevation Data

Well Name	Measuring Point Elevation (ft amsl)	Date	Depth to Water (ft bls) ¹	Depth to Water (ft bmp)	Static/ Dynamic	Groundwater Elevation (ft amsl)	Data Source
FFS-6	3110.44	12/17/12	535.30		Static		BasinWells, 2015a
		12/17/12	549.40		Dynamic		BasinWells, 2015a
		1/15/14		539.28	Dynamic	2571.16	Sierrita EDMS
		1/15/14	550.79		Dynamic		BasinWells, 2015a
		1/22/14		552.04	Dynamic	2558.40	Sierrita EDMS
		1/22/14	552.04		Dynamic		BasinWells, 2015a
		1/28/14	547.78		Dynamic		BasinWells, 2015a
		1/29/14		547.78	Dynamic	2562.66	Sierrita EDMS
		2/5/14	554.68		Dynamic		BasinWells, 2015a
		3/12/14		559.21	Dynamic	2551.23	Sierrita EDMS
		5/13/14		566.06	Dynamic	2544.38	Sierrita EDMS
		5/30/14	566.06		Dynamic		BasinWells, 2015a
		6/9/14		567.10	Dynamic	2543.34	Sierrita EDMS
		6/9/14	567.10		Dynamic		BasinWells, 2015a
		7/6/14		569.00	Dynamic	2541.44	Sierrita EDMS
		7/6/14	568.04		Dynamic		BasinWells, 2015a
		7/31/14		571.10	Dynamic	2539.34	Sierrita EDMS
		7/31/14	571.10		Dynamic		BasinWells, 2015a
		8/27/14		572.90	Dynamic	2537.54	Sierrita EDMS
		8/27/14	572.90		Dynamic		BasinWells, 2015a
		10/1/14		564.20	Static	2546.24	Sierrita EDMS
		10/1/14	563.24		Static		BasinWells, 2015a
		11/4/14		577.80	Dynamic	2532.64	Sierrita EDMS
		11/4/14	576.84		Dynamic		BasinWells, 2015a
		12/2/14	578.62		Dynamic		BasinWells, 2015a
GV-01-GVDWID	2942.35	1/9/07		221.00		2721.35	Sierrita EDMS
		4/10/07		218.11		2724.24	
		8/6/07		231.00		2711.35	
		1/7/08		221.50		2720.85	
		4/16/08		225.50		2716.85	
		7/7/08		231.00		2711.35	
		11/25/08		228.00		2714.35	
		3/3/09		220.50		2721.85	
		7/29/09		201.9		2740.45	
		11/4/09		232.80		2709.55	
		1/27/10		224.80		2717.55	
		4/1/10		227.12		2715.23	
		10/14/10		233.00		2709.35	
		3/18/11		224.00		2718.35	
		4/28/11		231.00		2711.35	
		12/7/11		233.20		2709.15	
		3/14/12		234.25		2708.10	
		6/7/12		242.28		2700.07	
		8/29/12		231.00		2711.35	
		11/15/12		239.00		2703.35	
		1/29/13		238.61		2703.74	
		5/16/13		254.09		2688.26	
		7/11/13		248.19		2694.16	
		7/21/14		229.00		2713.35	
		10/14/14		257.60	Static	2684.75	

APPENDIX C

Water Elevation Data

Well Name	Measuring Point Elevation (ft amsl)	Date	Depth to Water (ft bls) ¹	Depth to Water (ft bmp)	Static/ Dynamic	Groundwater Elevation (ft amsl)	Data Source
GV-02-GVDWID	2930.47	1/9/07		185.30		2745.17	Sierrita EDMS
		4/10/07		187.10		2743.37	
		7/11/07		200.45		2730.02	
		10/3/07		199.33		2731.14	
		1/7/08		190.62		2739.85	
		4/16/08		194.95		2735.52	
		7/7/08		201.05		2729.42	
		11/25/08		199.58		2730.89	
		2/4/09		192.88		2737.59	
		7/29/09		231.9		2698.57	
		11/4/09		203.50		2726.97	
		1/27/10		195.15		2735.32	
		4/1/10		197.10		2733.37	
		7/28/10		202.76		2727.71	
		10/14/10		204.55		2725.92	
		1/20/11		198.88		2731.59	
		4/28/11		204.77		2725.70	
		7/20/11		206.14		2724.33	
		12/7/11		204.43		2726.04	
		3/14/12		204.35		2726.12	
		6/7/12		211.76		2718.71	
		8/29/12		219.00		2711.47	
		11/15/12		214.51		2715.96	
		1/29/13		209.49		2720.98	
		5/16/13		219.48		2710.99	
		7/11/13		220.75		2709.72	
GV-SI-GVDWID	3042.65	1/10/14		221.29		2709.18	Sierrita EDMS
		10/14/14		229.70	Static	2700.77	
		01/09/07		237.50		2805.15	
		04/10/07		238.55		2804.10	
		08/06/07		240.31		2802.34	
		10/03/07		244.40		2798.25	
		01/07/08		237.75		2804.90	
		04/16/08		247.55		2795.10	
		8/14/08		245.50		2797.15	
		11/6/08		246.00		2796.65	
		2/4/09		247.46		2795.19	
		4/1/10		247.60		2795.05	
		4/28/11		257.00		2785.65	
		6/20/12		257.92		2784.73	
HAVEN GOLF	ND	5/16/13		267.53		2775.12	Sierrita EDMS
		5/29/12		220.00		NA	
I-10	3210.58	1/15/07		655.89		2554.69	Sierrita EDMS
		4/16/07		630.00		2580.58	
		7/10/07		656.00		2554.58	
		1/8/08		659.58		2551.00	
		4/14/08		658.80		2551.78	
		7/21/08		657.10		2553.48	
		10/24/08		660.82		2549.76	
		5/12/09		660.80		2549.78	
		6/15/12		662.39		2548.19	
		6/11/13		661.26		2549.32	
		4/30/14		668.91	Dynamic	2541.67	
		9/11/14		670.20		2540.38	

APPENDIX C

Water Elevation Data

Well Name	Measuring Point Elevation (ft amsl)	Date	Depth to Water (ft bls) ¹	Depth to Water (ft bmp)	Static/ Dynamic	Groundwater Elevation (ft amsl)	Data Source
IW-1	3144.69	1/14/06	379.80		Dynamic		BasinWells, 2015a
		2/20/06	380.29		Dynamic		BasinWells, 2015a
		3/14/06	379.27		Dynamic		BasinWells, 2015a
		4/15/06	379.95		Dynamic		BasinWells, 2015a
		5/14/06	383.00		Dynamic		BasinWells, 2015a
		6/10/06	383.60		Dynamic		BasinWells, 2015a
		7/16/06	382.53		Dynamic		BasinWells, 2015a
		8/13/06	383.30		Dynamic		BasinWells, 2015a
		9/16/06	382.20		Dynamic		BasinWells, 2015a
		10/21/06	381.32		Dynamic		BasinWells, 2015a
		11/11/06	383.80		Dynamic		BasinWells, 2015a
		12/16/06		360.95		2783.74	Sierrita EDMS
		12/16/06	360.95		Static		BasinWells, 2015a
		1/25/07	385.10		Dynamic		BasinWells, 2015a
		2/24/07		386.70		2757.99	Sierrita EDMS
		2/24/07	386.70		Dynamic		BasinWells, 2015a
		3/17/07	388.20		Dynamic		BasinWells, 2015a
		4/24/07	390.55		Dynamic		BasinWells, 2015a
		5/30/07	391.70		Dynamic		BasinWells, 2015a
		6/26/07	394.05		Dynamic		BasinWells, 2015a
		8/29/07	402.50		Dynamic		BasinWells, 2015a
		10/19/07		399.90		2744.79	Sierrita EDMS
		11/29/07	402.45		Dynamic		BasinWells, 2015a
		1/29/08		400.45		2744.24	Sierrita EDMS
		1/29/08	400.45		Dynamic		BasinWells, 2015a
		2/29/08	400.25		Dynamic		BasinWells, 2015a
		3/31/08	398.00		Dynamic		BasinWells, 2015a
		5/7/08		398.90		2745.79	Sierrita EDMS
		5/27/08	402.00		Dynamic		BasinWells, 2015a
		6/30/08	405.35		Dynamic		BasinWells, 2015a
		7/29/08		405.85		2738.84	Sierrita EDMS
		7/29/08	405.85		Dynamic		BasinWells, 2015a
		8/29/08	404.00		Dynamic		BasinWells, 2015a
		9/29/08	404.44		Dynamic		BasinWells, 2015a
		10/24/08		404.80		2739.89	Sierrita EDMS
		10/24/08	404.08		Dynamic		BasinWells, 2015a
		1/21/09		400		2744.69	Sierrita EDMS
		3/10/09	370.50		Static		BasinWells, 2015a
		5/13/09		370.50		2774.19	Sierrita EDMS
		5/13/09	397.50		Dynamic		BasinWells, 2015a
		12/15/09	396.40		Dynamic		BasinWells, 2015a
		4/12/10		394.45		2750.24	Sierrita EDMS
		3/9/11	370.98		Static		BasinWells, 2015a
		4/15/11	370.92		Static		BasinWells, 2015a
		5/11/11		392.80		2751.89	Sierrita EDMS
		5/11/11	392.90		Dynamic		BasinWells, 2015a
		6/27/11	391.25		Dynamic		BasinWells, 2015a
		7/12/11	372.75		Static		BasinWells, 2015a
		8/23/11	369.54		Static		BasinWells, 2015a
		12/29/11	439.80		Dynamic		BasinWells, 2015a
		1/26/12	440.54		Dynamic		BasinWells, 2015a
		2/28/12	369.94		Static		BasinWells, 2015a
		3/30/12	438.73		Dynamic		BasinWells, 2015a
		5/21/12		438.48		2706.21	Sierrita EDMS
		5/21/12	438.48		Dynamic		BasinWells, 2015a

APPENDIX C

Water Elevation Data

Well Name	Measuring Point Elevation (ft amsl)	Date	Depth to Water (ft bls) ¹	Depth to Water (ft bmp)	Static/ Dynamic	Groundwater Elevation (ft amsl)	Data Source
IW-1	3144.69	6/27/12	380.00		Static		BasinWells, 2015a
		7/31/12	431.11		Dynamic		BasinWells, 2015a
		8/21/12	379.84		Static		BasinWells, 2015a
		9/28/12	442.81		Dynamic		BasinWells, 2015a
		10/25/12	382.39		Static		BasinWells, 2015a
		11/28/12	442.71		Dynamic		BasinWells, 2015a
		4/15/13		439.81	Dynamic	2704.88	Sierrita EDMS
		6/24/13	384.67		Static		BasinWells, 2015a
		7/31/13	443.70		Dynamic		BasinWells, 2015a
		8/1/13	384.56		Static		BasinWells, 2015a
		9/30/13	444.16		Dynamic		BasinWells, 2015a
		10/31/13	391.01		Static		BasinWells, 2015a
		11/28/13	472.29		Dynamic		BasinWells, 2015a
		12/9/13	391.38		Static		BasinWells, 2015a
		1/28/14		461.65	Dynamic	2683.04	Sierrita EDMS
		1/28/14	461.65		Dynamic		BasinWells, 2015a
		2/24/14		392.49	Dynamic	2752.20	Sierrita EDMS
		2/24/14	392.49		Static		BasinWells, 2015a
		3/25/14		393.89	Dynamic	2750.80	Sierrita EDMS
		3/31/14	393.89		Static		BasinWells, 2015a
		4/25/14		Obstructed		NA	Sierrita EDMS
		5/30/14		Obstructed		NA	Sierrita EDMS
		6/5/14		445.60	Dynamic	2699.09	Sierrita EDMS
		6/5/14	445.60		Dynamic		BasinWells, 2015a
		7/6/14		387.90	Dynamic	2756.79	Sierrita EDMS
		7/6/14	387.19		Static		BasinWells, 2015a
		7/31/14		441.90	Dynamic	2702.79	Sierrita EDMS
		7/31/14	441.90		Dynamic		BasinWells, 2015a
		8/27/14		383.00	Dynamic	2761.69	Sierrita EDMS
		8/27/14	383.00		Static		BasinWells, 2015a
		10/1/14		445.50	Dynamic	2699.19	Sierrita EDMS
		10/1/14	444.79		Dynamic		BasinWells, 2015a
		11/4/14		443.90	Dynamic	2700.79	Sierrita EDMS
		11/4/14	443.19		Dynamic		BasinWells, 2015a
		12/2/14		446.60	Dynamic	2698.09	Sierrita EDMS
		12/2/14	445.89		Dynamic		BasinWells, 2015a
IW-2	3098.29	12/16/06		404.30		2693.99	Sierrita EDMS
		2/24/07		406.80		2691.49	Sierrita EDMS
		5/4/07		344.00		2754.29	Sierrita EDMS
		7/31/07		381.00		2717.29	Sierrita EDMS

APPENDIX C

Water Elevation Data

Well Name	Measuring Point Elevation (ft amsl)	Date	Depth to Water (ft bls) ¹	Depth to Water (ft bmp)	Static/ Dynamic	Groundwater Elevation (ft amsl)	Data Source
IW-2A	3112.28	2/5/08	351.52		Static		BasinWells, 2015a
		2/5/08	392.32		Dynamic		BasinWells, 2015a
		3/31/08	412.80		Dynamic		BasinWells, 2015a
		4/25/08		412.90		2699.38	Sierrita EDMS
		4/30/08	412.90		Dynamic		BasinWells, 2015a
		3/10/09	358.20		Static		BasinWells, 2015a
		5/13/09		358.80		2753.48	Sierrita EDMS
		4/12/10		410.18		2702.10	Sierrita EDMS
		3/9/11	396.82		Dynamic		BasinWells, 2015a
		4/15/11	358.88		Static		BasinWells, 2015a
		5/11/11		394.91		2717.37	Sierrita EDMS
		5/11/11	394.91		Dynamic		BasinWells, 2015a
		6/27/11	395.50		Dynamic		BasinWells, 2015a
		7/12/11	361.00		Static		BasinWells, 2015a
		8/23/11	398.38		Dynamic		BasinWells, 2015a
		12/29/11	404.13		Dynamic		BasinWells, 2015a
		1/26/12	404.22		Dynamic		BasinWells, 2015a
		2/28/12	365.63		Static		BasinWells, 2015a
		5/21/12		404.32		2707.96	Sierrita EDMS
		5/21/12	404.32		Dynamic		BasinWells, 2015a
		8/21/12	369.52		Static		BasinWells, 2015a
		9/28/12	417.08		Dynamic		BasinWells, 2015a
		10/25/12	374.18		Static		BasinWells, 2015a
		11/28/12	423.40		Dynamic		BasinWells, 2015a
		4/15/13		370.91	Dynamic	2741.37	Sierrita EDMS
		6/24/13	376.98		Static		BasinWells, 2015a
		7/31/13	424.16		Dynamic		BasinWells, 2015a
		8/1/13	376.86		Static		BasinWells, 2015a
		9/30/13	424.21		Dynamic		BasinWells, 2015a
		10/31/13	383.28		Static		BasinWells, 2015a
		11/28/13	425.78		Dynamic		BasinWells, 2015a
		12/9/13	382.12		Static		BasinWells, 2015a
		1/28/14		439.64	Dynamic	2672.64	Sierrita EDMS
		1/28/14	439.64		Dynamic		BasinWells, 2015a
		2/24/14		384.22	Dynamic	2728.06	Sierrita EDMS
		2/24/14	384.22		Static		BasinWells, 2015a
		3/25/14		440.29	Dynamic	2671.99	Sierrita EDMS
		3/31/14	440.29		Dynamic		BasinWells, 2015a
		4/25/14		384.28	Dynamic	2728.00	Sierrita EDMS
		5/30/14		440.37	Dynamic	2671.91	Sierrita EDMS
		5/30/14	440.37		Dynamic		BasinWells, 2015a
		6/9/14		429.35	Dynamic	2682.93	Sierrita EDMS
		6/9/14	429.35		Dynamic		BasinWells, 2015a
		7/6/14		379.90	Dynamic	2732.38	Sierrita EDMS
		7/6/14	379.44		Static		BasinWells, 2015a
		7/31/14		423.50	Dynamic	2688.78	Sierrita EDMS
		7/31/14	423.50		Dynamic		BasinWells, 2015a
		8/27/14		377.70	Dynamic	2734.58	Sierrita EDMS
		8/27/14	377.70		Static		BasinWells, 2015a
		10/1/14		377.60	Dynamic	2734.68	Sierrita EDMS
		10/1/14	377.14		Static		BasinWells, 2015a
		11/4/14		420.10	Dynamic	2692.18	Sierrita EDMS
		11/4/14	419.64		Dynamic		BasinWells, 2015a
		12/2/14		422.20	Dynamic	2690.08	Sierrita EDMS
		12/2/14	421.74		Dynamic		BasinWells, 2015a

APPENDIX C

Water Elevation Data

Well Name	Measuring Point Elevation (ft amsl)	Date	Depth to Water (ft bls) ¹	Depth to Water (ft bmp)	Static/ Dynamic	Groundwater Elevation (ft amsl)	Data Source
IW-3A	3121.45	1/14/06	410.83		Dynamic		BasinWells, 2015a
		2/20/06	408.25		Dynamic		BasinWells, 2015a
		3/14/06	410.00		Dynamic		BasinWells, 2015a
		4/15/06	401.60		Dynamic		BasinWells, 2015a
		5/14/06	391.75		Dynamic		BasinWells, 2015a
		6/10/06	385.50		Dynamic		BasinWells, 2015a
		7/16/06	379.42		Dynamic		BasinWells, 2015a
		8/13/06	369.11		Dynamic		BasinWells, 2015a
		10/21/06	432.25		Dynamic		BasinWells, 2015a
		11/11/06	431.80		Dynamic		BasinWells, 2015a
		12/5/06		431.80		2689.65	Sierrita EDMS
		1/25/07	431.00		Dynamic		BasinWells, 2015a
		2/24/07	440.00		Dynamic		BasinWells, 2015a
		3/17/07	440.60		Dynamic		BasinWells, 2015a
		4/24/07	439.30		Dynamic		BasinWells, 2015a
		5/30/07	436.22		Dynamic		BasinWells, 2015a
		6/26/07	436.00		Dynamic		BasinWells, 2015a
		7/31/07		381.50		2739.95	Sierrita EDMS
		8/29/07	430.20		Dynamic		BasinWells, 2015a
		10/19/07		427.80		2693.65	Sierrita EDMS
		11/29/07	427.40		Dynamic		BasinWells, 2015a
		1/29/08		425.60		2695.85	Sierrita EDMS
		1/29/08	425.60		Dynamic		BasinWells, 2015a
		2/29/08	423.80		Dynamic		BasinWells, 2015a
		4/25/08		421.30		2700.15	Sierrita EDMS
		4/30/08	421.30		Dynamic		BasinWells, 2015a
		6/30/08	425.20		Dynamic		BasinWells, 2015a
		7/29/08		420.90		2700.55	Sierrita EDMS
		7/29/08	420.90		Dynamic		BasinWells, 2015a
		8/29/08	413.90		Dynamic		BasinWells, 2015a
		9/29/08	414.22		Dynamic		BasinWells, 2015a
		10/24/08		141.50		2979.95	Sierrita EDMS
		10/24/08	414.50		Dynamic		BasinWells, 2015a
		5/13/09	413.30		Dynamic		BasinWells, 2015a
		12/15/09	410.00		Dynamic		BasinWells, 2015a
		4/12/10		420.23		2701.22	Sierrita EDMS
		3/9/11	402.95		Dynamic		BasinWells, 2015a
		4/15/11	378.58		Static		BasinWells, 2015a
		5/11/11		413.40		2708.05	Sierrita EDMS
		5/11/11	413.40		Dynamic		BasinWells, 2015a
		6/27/11	415.70		Dynamic		BasinWells, 2015a
		7/12/11	377.59		Static		BasinWells, 2015a
		8/23/11	416.08		Dynamic		BasinWells, 2015a
		12/29/11	419.50		Dynamic		BasinWells, 2015a
		1/26/12	419.34		Dynamic		BasinWells, 2015a
		2/28/12	381.70		Static		BasinWells, 2015a
		3/30/12	409.57		Dynamic		BasinWells, 2015a
		6/20/12		401.37		2720.08	Sierrita EDMS
		6/27/12	383.95		Static		BasinWells, 2015a
		7/31/12	429.81		Dynamic		BasinWells, 2015a
		8/21/12	388.48		Static		BasinWells, 2015a
		9/28/12	449.48		Dynamic		BasinWells, 2015a
		10/25/12	394.88		Static		BasinWells, 2015a
		11/28/12	450.08		Dynamic		BasinWells, 2015a
		5/14/13		449.56		2671.89	Sierrita EDMS
		6/24/13	398.14		Static		BasinWells, 2015a
		7/31/13	451.92		Dynamic		BasinWells, 2015a
		8/1/13	397.74		Static		BasinWells, 2015a
		9/30/13	452.32		Dynamic		BasinWells, 2015a
		10/30/13	410.79		Static		BasinWells, 2015a
		11/28/13	453.60		Dynamic		BasinWells, 2015a
		12/9/13	409.38		Static		BasinWells, 2015a
		1/28/14		455.66		2665.79	Sierrita EDMS
		1/28/14	455.66		Dynamic		BasinWells, 2015a
		2/24/14		408.59		2712.86	Sierrita EDMS
		2/24/14	408.59		Static		BasinWells, 2015a
		3/25/14		454.96		2666.49	Sierrita EDMS

APPENDIX C

Water Elevation Data

Well Name	Measuring Point Elevation (ft amsl)	Date	Depth to Water (ft bls) ¹	Depth to Water (ft bmp)	Static/ Dynamic	Groundwater Elevation (ft amsl)	Data Source
IW-3A	3121.45	3/31/14	454.96		Dynamic		BasinWells, 2015a
		4/25/14		403.99	Dynamic	2717.46	Sierrita EDMS
		5/30/14		454.72	Dynamic	2666.73	Sierrita EDMS
		5/30/14	454.72		Dynamic		BasinWells, 2015a
		6/9/14		446.10	Dynamic	2675.35	Sierrita EDMS
		6/9/14	446.10		Dynamic		BasinWells, 2015a
		7/6/14		398.60	Static	2722.85	Sierrita EDMS
		7/6/14	397.89		Static		BasinWells, 2015a
		7/31/14		441.40	Dynamic	2680.05	Sierrita EDMS
		7/31/14	441.40		Dynamic		BasinWells, 2015a
		8/27/14		394.90	Static	2726.55	Sierrita EDMS
		8/27/14	394.90		Static		BasinWells, 2015a
		10/1/14		451.05	Dynamic	2670.40	Sierrita EDMS
		10/1/14	450.34		Dynamic		BasinWells, 2015a
		11/4/14		442.75	Dynamic	2678.70	Sierrita EDMS
		11/4/14	442.04		Dynamic		BasinWells, 2015a
IW-4	3137.06	12/2/14	445.39		Dynamic		BasinWells, 2015a
		1/14/06	495.10		Dynamic		BasinWells, 2015a
		2/20/06	419.27		Dynamic		BasinWells, 2015a
		3/14/06	385.75		Static		BasinWells, 2015a
		4/15/06	424.75		Dynamic		BasinWells, 2015a
		5/14/06	419.70		Dynamic		BasinWells, 2015a
		6/10/06	420.36		Dynamic		BasinWells, 2015a
		7/16/06	422.05		Dynamic		BasinWells, 2015a
		8/13/06	420.30		Dynamic		BasinWells, 2015a
		9/16/06	417.30		Dynamic		BasinWells, 2015a
		10/21/06	415.75		Dynamic		BasinWells, 2015a
		11/10/06	417.25		Dynamic		BasinWells, 2015a
		12/16/06	416.20		Dynamic		BasinWells, 2015a
		1/17/07	379.65		Static		BasinWells, 2015a
		2/24/07		417.70		2719.36	Sierrita EDMS
		2/24/07	417.70		Dynamic		BasinWells, 2015a
		3/19/07	417.80		Dynamic		BasinWells, 2015a
		4/24/07	422.50		Dynamic		BasinWells, 2015a
		5/29/07	423.55		Dynamic		BasinWells, 2015a
		6/26/07	424.30		Dynamic		BasinWells, 2015a
		7/21/07		425.30		2711.76	Sierrita EDMS
		7/21/07	425.30		Dynamic		BasinWells, 2015a
		8/29/07	427.50		Dynamic		BasinWells, 2015a
		10/19/07		428.90		2708.16	Sierrita EDMS
		11/28/07	434.05		Dynamic		BasinWells, 2015a
		1/19/08		433.70		2703.36	Sierrita EDMS
		1/29/08	433.70		Dynamic		BasinWells, 2015a
		2/29/08	437.50		Dynamic		BasinWells, 2015a
		4/21/08		441.90		2695.16	Sierrita EDMS
		4/30/08	441.90		Dynamic		BasinWells, 2015a
		7/29/08		409.22		2727.84	Sierrita EDMS
		7/29/08	409.22		Dynamic		BasinWells, 2015a
		8/29/08	448.50		Dynamic		BasinWells, 2015a
		9/29/08	449.75		Dynamic		BasinWells, 2015a
		10/24/08		452.10		2684.96	Sierrita EDMS
		10/24/08	452.10		Dynamic		BasinWells, 2015a
		1/21/09		453		2684.06	Sierrita EDMS
		3/10/09	383.20		Static		BasinWells, 2015a
		5/13/09		383.20		2753.86	Sierrita EDMS
		5/13/09	455.50		Dynamic		BasinWells, 2015a
		10/21/09	421.50				BasinWells, 2015a
		12/15/09	419.00		Dynamic		BasinWells, 2015a
		4/12/10		420.70		2716.36	Sierrita EDMS
		3/10/11	426.33		Dynamic		BasinWells, 2015a
		4/15/11	377.11		Static		BasinWells, 2015a
		5/11/11		414.25		2722.81	Sierrita EDMS
		5/11/11	414.25		Dynamic		BasinWells, 2015a
		6/27/11	409.23		Dynamic		BasinWells, 2015a
		7/12/11	379.00		Static		BasinWells, 2015a

APPENDIX C

Water Elevation Data

Well Name	Measuring Point Elevation (ft amsl)	Date	Depth to Water (ft bls) ¹	Depth to Water (ft bmp)	Static/ Dynamic	Groundwater Elevation (ft amsl)	Data Source
IW-4	3137.06	8/23/11	406.05		Dynamic		BasinWells, 2015a
		12/29/11	407.19		Dynamic		BasinWells, 2015a
		1/26/12	409.42		Dynamic		BasinWells, 2015a
		2/28/12	381.88		Static		BasinWells, 2015a
		3/30/12	408.98		Dynamic		BasinWells, 2015a
		5/21/12		402.19		2734.87	Sierrita EDMS
		5/21/12	402.19		Dynamic		BasinWells, 2015a
		6/27/12	386.94		Static		BasinWells, 2015a
		8/21/12	388.60		Static		BasinWells, 2015a
		9/28/12	403.20		Dynamic		BasinWells, 2015a
		10/25/12	388.42		Static		BasinWells, 2015a
		11/28/12	408.98		Dynamic		BasinWells, 2015a
		4/15/13		402.34	Dynamic	2734.72	Sierrita EDMS
		6/24/13	390.86		Static		BasinWells, 2015a
		7/31/13	411.10		Dynamic		BasinWells, 2015a
		8/1/13	390.61		Static		BasinWells, 2015a
		9/30/13	410.90		Dynamic		BasinWells, 2015a
		10/30/13	394.62		Static		BasinWells, 2015a
		11/28/13	414.08		Dynamic		BasinWells, 2015a
		12/9/13	393.74		Static		BasinWells, 2015a
		1/28/14		410.69	Dynamic	2726.37	Sierrita EDMS
		1/28/14	410.69		Dynamic		BasinWells, 2015a
		2/24/14		393.32	Static	2743.74	Sierrita EDMS
		2/24/14	393.32		Static		BasinWells, 2015a
		3/25/14		410.27	Dynamic	2726.79	Sierrita EDMS
		3/31/14	410.27		Dynamic		BasinWells, 2015a
		4/25/14		390.98	Dynamic	2746.08	Sierrita EDMS
		5/30/14		410.30	Dynamic	2726.76	Sierrita EDMS
		5/30/14	410.30		Dynamic		BasinWells, 2015a
		6/9/14		408.10	Dynamic	2728.96	Sierrita EDMS
		6/9/14	408.10		Dynamic		BasinWells, 2015a
		7/6/14		388.15	Static	2748.91	Sierrita EDMS
		7/6/14	387.44		Static		BasinWells, 2015a
		7/31/14		427.20	Dynamic	2709.86	Sierrita EDMS
		7/31/14	427.20		Dynamic		BasinWells, 2015a
		8/27/14		388.20	Static	2748.86	Sierrita EDMS
		8/27/14	388.20		Static		BasinWells, 2015a
		10/1/14		Insufficient Flow		NA	Sierrita EDMS
		11/4/14		426.05	Dynamic	2711.01	Sierrita EDMS
		11/4/14	425.34		Dynamic		BasinWells, 2015a
		12/2/14		424.10	Dynamic	2712.96	Sierrita EDMS
		12/2/14	423.39		Dynamic		BasinWells, 2015a
IW-5	3137.65	5/13/09		375.90		2761.75	Sierrita EDMS
		4/12/10		430.60		2707.05	Sierrita EDMS

APPENDIX C

Water Elevation Data

Well Name	Measuring Point Elevation (ft amsl)	Date	Depth to Water (ft bls) ¹	Depth to Water (ft bmp)	Static/ Dynamic	Groundwater Elevation (ft amsl)	Data Source
IW-5A	ND	8/18/10	413.90		Dynamic		BasinWells, 2015a
		8/18/10	377.50		Static		BasinWells, 2015a
		4/15/11	377.25		Static		BasinWells, 2015a
		6/27/11	416.52		Dynamic		BasinWells, 2015a
		7/12/11	379.31		Static		BasinWells, 2015a
		8/23/11	383.44		Dynamic		BasinWells, 2015a
		12/29/11	421.55		Dynamic		BasinWells, 2015a
		1/26/12	421.04		Dynamic		BasinWells, 2015a
		2/28/12	380.65		Static		BasinWells, 2015a
		3/29/12	426.14		Dynamic		BasinWells, 2015a
		5/22/12		468.65		NA	Sierrita EDMS
		5/22/12	468.65		Dynamic		BasinWells, 2015a
		7/31/12	452.38		Dynamic		BasinWells, 2015a
		8/21/12	388.09		Static		BasinWells, 2015a
		10/25/12	389.56		Static		BasinWells, 2015a
		11/27/12	512.20		Dynamic		BasinWells, 2015a
		4/15/13		514.20	Dynamic	NA	Sierrita EDMS
		6/24/13	388.89		Static		BasinWells, 2015a
		7/31/13	514.18		Dynamic		BasinWells, 2015a
		8/1/13	388.64		Static		BasinWells, 2015a
		9/30/13	514.02		Dynamic		BasinWells, 2015a
		10/30/13	392.27		Static		BasinWells, 2015a
		11/28/13	516.11		Dynamic		BasinWells, 2015a
		12/9/13	390.72		Static		BasinWells, 2015a
		1/28/14	531.51		Dynamic		BasinWells, 2015a
		1/29/14		531.51	Dynamic	NA	Sierrita EDMS
		2/24/14		390.02	Static	NA	Sierrita EDMS
		2/24/14	390.02		Static		BasinWells, 2015a
		3/24/14		Obstructed		NA	Sierrita EDMS
		4/25/14		389.58	Dynamic	NA	Sierrita EDMS
		5/30/14		511.90	Dynamic	NA	Sierrita EDMS
		5/30/14	511.90		Dynamic		BasinWells, 2015a
		6/9/14		621.00	Dynamic	NA	Sierrita EDMS
		6/9/14	621.00		Dynamic		BasinWells, 2015a
		7/6/14		387.80	Static	NA	Sierrita EDMS
		7/6/14	387.30		Static		BasinWells, 2015a
		7/31/14		387.30	Static	NA	Sierrita EDMS
		7/31/14	387.30		Static		BasinWells, 2015a
		8/27/14		386.30	Static	NA	Sierrita EDMS
		8/27/14	386.30		Static		BasinWells, 2015a
		10/1/14		386.75	Static	NA	Sierrita EDMS
		10/1/14	386.25		Static		BasinWells, 2015a
		11/4/14		389.10	Static	NA	Sierrita EDMS
		11/4/14	388.60		Static		BasinWells, 2015a
		12/2/14		389.80	Static	NA	Sierrita EDMS
		12/2/14	389.30		Static		BasinWells, 2015a

APPENDIX C

Water Elevation Data

Well Name	Measuring Point Elevation (ft amsl)	Date	Depth to Water (ft bls) ¹	Depth to Water (ft bmp)	Static/ Dynamic	Groundwater Elevation (ft amsl)	Data Source
IW-6A	3132.26	1/14/06	415.90		Dynamic		BasinWells, 2015a
		2/20/06	409.20		Dynamic		BasinWells, 2015a
		3/14/06	424.68		Dynamic		BasinWells, 2015a
		4/15/06	422.90		Dynamic		BasinWells, 2015a
		5/14/06	410.09		Dynamic		BasinWells, 2015a
		6/10/06	407.04		Dynamic		BasinWells, 2015a
		7/16/06	412.00		Dynamic		BasinWells, 2015a
		8/13/06	412.98		Dynamic		BasinWells, 2015a
		9/16/06	413.80		Dynamic		BasinWells, 2015a
		10/20/06	438.70		Dynamic		BasinWells, 2015a
		11/11/06	425.00		Dynamic		BasinWells, 2015a
		11/15/06		425.00		2707.26	Sierrita EDMS
		12/16/06	433.30		Dynamic		BasinWells, 2015a
		1/29/07	432.60		Dynamic		BasinWells, 2015a
		2/24/07		433.60		2698.66	Sierrita EDMS
		2/24/07	433.60		Dynamic		BasinWells, 2015a
		3/17/07	432.90		Dynamic		BasinWells, 2015a
		4/24/07	430.33		Dynamic		BasinWells, 2015a
		5/29/07	433.00		Dynamic		BasinWells, 2015a
		6/22/07	431.75		Dynamic		BasinWells, 2015a
		7/31/07		432.28		2699.98	Sierrita EDMS
		8/29/07	433.90		Dynamic		BasinWells, 2015a
		10/17/07		433.35		2698.91	Sierrita EDMS
		11/29/07	421.90		Dynamic		BasinWells, 2015a
		1/29/08		416.90		2715.36	Sierrita EDMS
		1/29/08	416.90		Dynamic		BasinWells, 2015a
		2/29/08	415.85		Dynamic		BasinWells, 2015a
		4/22/08		415.45		2716.81	Sierrita EDMS
		4/30/08	415.45		Dynamic		BasinWells, 2015a
		7/29/08		416.82		2715.44	Sierrita EDMS
		7/29/08	416.82		Dynamic		BasinWells, 2015a
		8/29/08	418.65		Dynamic		BasinWells, 2015a
		9/29/08	419.00		Dynamic		BasinWells, 2015a
		10/24/08		419.33		2712.93	Sierrita EDMS
		10/24/08	419.33		Dynamic		BasinWells, 2015a
		1/29/09		418		2714.26	Sierrita EDMS
		3/10/09	387.30		Static		BasinWells, 2015a
		5/13/09		387.30		2744.96	Sierrita EDMS
		5/13/09	417.00		Dynamic		BasinWells, 2015a
		12/15/09	415.20		Dynamic		BasinWells, 2015a
		4/12/10		384.70		2747.56	Sierrita EDMS
		3/9/11	408.45		Dynamic		BasinWells, 2015a
		4/15/11	383.52		Static		BasinWells, 2015a
		5/11/11		410.61		2721.65	Sierrita EDMS
		5/11/11	410.61		Dynamic		BasinWells, 2015a
		6/29/11	411.24		Dynamic		BasinWells, 2015a
		7/12/11	384.23		Static		BasinWells, 2015a
		8/23/11	411.45		Dynamic		BasinWells, 2015a
		12/29/11	388.75		Static		BasinWells, 2015a
		1/26/12	413.41		Dynamic		BasinWells, 2015a
		5/22/12		419.75		2712.51	Sierrita EDMS
		5/22/12	419.75		Dynamic		BasinWells, 2015a
		7/31/12	429.91		Dynamic		BasinWells, 2015a
		9/26/12	435.34		Dynamic		BasinWells, 2015a
		10/25/12	400.84		Static		BasinWells, 2015a
		11/27/12	436.72		Dynamic		BasinWells, 2015a
		4/15/13		433.21		2699.05	Sierrita EDMS
		6/24/13	404.24		Static		BasinWells, 2015a
		7/31/13	439.11		Dynamic		BasinWells, 2015a
		8/1/13	404.22		Static		BasinWells, 2015a
		9/30/13	439.14		Dynamic		BasinWells, 2015a
		10/29/13	406.02		Static		BasinWells, 2015a
		11/28/13	440.29		Dynamic		BasinWells, 2015a
		12/9/13	405.19		Static		BasinWells, 2015a
		1/28/14		435.59		2696.67	Sierrita EDMS
		1/28/14	435.64		Dynamic		BasinWells, 2015a
		2/24/14		407.02		2725.24	Sierrita EDMS

APPENDIX C

Water Elevation Data

Well Name	Measuring Point Elevation (ft amsl)	Date	Depth to Water (ft bls) ¹	Depth to Water (ft bmp)	Static/ Dynamic	Groundwater Elevation (ft amsl)	Data Source
IW-6A	3132.26	2/24/14	407.02		Static		BasinWells, 2015a
		3/24/14		432.16	Dynamic	2700.10	Sierrita EDMS
		3/31/14	432.16		Dynamic		BasinWells, 2015a
		4/25/14		408.39	Dynamic	2723.87	Sierrita EDMS
		5/30/14		431.90	Dynamic	2700.36	Sierrita EDMS
		5/30/14	431.90		Dynamic		BasinWells, 2015a
		6/9/14		435.40	Dynamic	2696.86	Sierrita EDMS
		6/9/14	435.40		Dynamic		BasinWells, 2015a
		7/7/14		435.40	Dynamic	2696.86	Sierrita EDMS
		7/7/14	434.98		Dynamic		BasinWells, 2015a
		7/31/14		438.80	Dynamic	2693.46	Sierrita EDMS
		7/31/14	438.80		Dynamic		BasinWells, 2015a
		8/27/14		403.40	Static	2728.86	Sierrita EDMS
		8/27/14	403.40		Static		BasinWells, 2015a
		10/1/14		435.70	Dynamic	2696.56	Sierrita EDMS
		10/1/14	435.28		Dynamic		BasinWells, 2015a
		11/4/14		436.00	Dynamic	2696.26	Sierrita EDMS
		11/4/14	435.58		Dynamic		BasinWells, 2015a
IW-8	3122.19	12/2/14		436.00	Dynamic	2696.26	Sierrita EDMS
		12/2/14	435.58		Dynamic		BasinWells, 2015a
		1/14/06	462.10		Dynamic		BasinWells, 2015a
		2/20/06	456.60		Dynamic		BasinWells, 2015a
		3/14/06	461.30		Dynamic		BasinWells, 2015a
		4/15/06	460.25		Dynamic		BasinWells, 2015a
		5/14/06	460.75		Dynamic		BasinWells, 2015a
		6/10/06	465.50		Dynamic		BasinWells, 2015a
		10/19/06	359.29		Static		BasinWells, 2015a
		10/19/06	386.40		Dynamic		BasinWells, 2015a
		12/16/06	435.88		Dynamic		BasinWells, 2015a
		1/19/07	428.30		Dynamic		BasinWells, 2015a
		2/24/07		434.05		2688.14	Sierrita EDMS
		2/24/07	434.05		Dynamic		BasinWells, 2015a
		3/17/07	437.37		Dynamic		BasinWells, 2015a
		4/24/07	444.00		Dynamic		BasinWells, 2015a
		5/30/07	440.60		Dynamic		BasinWells, 2015a
		6/26/07	442.35		Dynamic		BasinWells, 2015a
		7/31/07		438.75		2683.44	Sierrita EDMS
		8/29/07	439.00		Dynamic		BasinWells, 2015a
		10/19/07		436.80		2685.39	Sierrita EDMS
		11/29/07	435.00		Dynamic		BasinWells, 2015a
		1/29/08		437.25		2684.94	Sierrita EDMS
		1/29/08	437.25		Dynamic		BasinWells, 2015a
		2/29/08	436.00		Dynamic		BasinWells, 2015a
		3/31/08	455.00		Dynamic		BasinWells, 2015a
		4/25/08		436.70		2685.49	Sierrita EDMS
		4/30/08	436.70		Dynamic		BasinWells, 2015a
		7/29/08		437.00		2685.19	Sierrita EDMS
		7/29/08	437.00		Dynamic		BasinWells, 2015a
		8/29/08	436.35		Dynamic		BasinWells, 2015a
		9/29/08	436.50		Dynamic		BasinWells, 2015a
		10/24/08		436.92		2685.27	Sierrita EDMS
		10/24/08	436.92		Dynamic		BasinWells, 2015a
		1/21/09		439		2683.19	Sierrita EDMS
		3/10/09	377.80		Static		BasinWells, 2015a
		5/13/09		377.80		2744.39	Sierrita EDMS
		5/13/09	438.00		Dynamic		BasinWells, 2015a
		12/15/09	436.70		Dynamic		BasinWells, 2015a
		4/12/10		438.36		2683.83	Sierrita EDMS
		3/10/11	435.58		Dynamic		BasinWells, 2015a
		4/15/11	374.08		Static		BasinWells, 2015a
		5/11/11		430.52		2691.67	Sierrita EDMS
		5/11/11	430.52		Dynamic		BasinWells, 2015a
		6/27/11	432.55		Dynamic		BasinWells, 2015a
		7/12/11	378.15		Static		BasinWells, 2015a
		8/23/11	434.14		Dynamic		BasinWells, 2015a
		12/29/11	435.30		Dynamic		BasinWells, 2015a

APPENDIX C

Water Elevation Data

Well Name	Measuring Point Elevation (ft amsl)	Date	Depth to Water (ft bls) ¹	Depth to Water (ft bmp)	Static/ Dynamic	Groundwater Elevation (ft amsl)	Data Source
IW-8	3122.19	1/26/12	437.51		Dynamic		BasinWells, 2015a
		2/28/12	381.39		Static		BasinWells, 2015a
		3/30/12	437.32		Dynamic		BasinWells, 2015a
		5/21/12		438.67		2683.52	Sierrita EDMS
		5/21/12	438.69		Dynamic		BasinWells, 2015a
		6/27/12	386.50		Static		BasinWells, 2015a
		7/31/12	441.33		Dynamic		BasinWells, 2015a
		8/21/12	384.85		Static		BasinWells, 2015a
		9/28/12	385.39		Static		BasinWells, 2015a
		10/25/12	385.68		Static		BasinWells, 2015a
		11/28/12	386.97		Static		BasinWells, 2015a
		5/14/13		379.15	Dynamic	2743.04	Sierrita EDMS
		6/24/13	388.58		Static		BasinWells, 2015a
		7/31/13	390.25		Static		BasinWells, 2015a
		8/1/13	387.34		Static		BasinWells, 2015a
		9/30/13	391.14		Static		BasinWells, 2015a
		11/28/13	392.23		Static		BasinWells, 2015a
		12/9/13	401.69		Static		BasinWells, 2015a
		1/28/14		466.20	Dynamic	2655.99	Sierrita EDMS
		1/28/14	466.20		Dynamic		BasinWells, 2015a
		2/24/14		400.57	Dynamic	2721.62	Sierrita EDMS
		2/24/14	400.57		Static		BasinWells, 2015a
		3/25/14		392.79	Dynamic	2729.40	Sierrita EDMS
		3/31/14	392.79		Static		BasinWells, 2015a
		4/25/14		Obstructed		NA	Sierrita EDMS
		5/30/14		Obstructed		NA	Sierrita EDMS
		6/9/14		Obstructed		NA	Sierrita EDMS
		7/6/14		391.10	Dynamic	2731.09	Sierrita EDMS
		7/6/14	390.60		Static		BasinWells, 2015a
		7/31/14		459.90	Dynamic	2662.29	Sierrita EDMS
		7/31/14	459.90		Dynamic		BasinWells, 2015a
		8/27/14		389.20	Static	2732.99	Sierrita EDMS
		8/27/14	389.20		Static		BasinWells, 2015a
		10/1/14		452.30	Dynamic	2669.89	Sierrita EDMS
		10/1/14	451.80		Dynamic		BasinWells, 2015a
		11/4/14		446.40	Dynamic	2675.79	Sierrita EDMS
		11/4/14	445.90		Dynamic		BasinWells, 2015a
		12/2/14		449.00	Dynamic	2673.19	Sierrita EDMS
		12/2/14	448.50		Dynamic		BasinWells, 2015a
IW-9	3102.94	1/14/06	450.73		Dynamic		BasinWells, 2015a
		2/20/06	438.00		Dynamic		BasinWells, 2015a
		3/14/06	465.15		Dynamic		BasinWells, 2015a
		4/15/06	437.70		Dynamic		BasinWells, 2015a
		5/14/06	423.75		Dynamic		BasinWells, 2015a
		6/10/06	425.75		Dynamic		BasinWells, 2015a
		7/16/06	409.70		Dynamic		BasinWells, 2015a
		8/13/06	408.50		Dynamic		BasinWells, 2015a
		9/16/06	403.10		Dynamic		BasinWells, 2015a
		10/21/06	400.40		Dynamic		BasinWells, 2015a
		11/10/06	402.72		Dynamic		BasinWells, 2015a
		11/15/06		402.72		2700.22	Sierrita EDMS
		12/16/06	404.00		Dynamic		BasinWells, 2015a
		1/17/07	346.62		Static		BasinWells, 2015a
		2/24/07		405.95		2696.99	Sierrita EDMS
		2/24/07	405.95		Dynamic		BasinWells, 2015a
		3/19/07	405.90		Dynamic		BasinWells, 2015a
		4/24/07	408.00		Dynamic		BasinWells, 2015a
		5/29/07	407.60		Dynamic		BasinWells, 2015a
		6/26/07	408.35		Dynamic		BasinWells, 2015a
		7/21/07		405.68		2697.26	Sierrita EDMS
		7/21/07	405.68		Dynamic		BasinWells, 2015a
		8/29/07	398.00		Dynamic		BasinWells, 2015a
		10/19/07		379.00		2723.94	Sierrita EDMS
		1/19/08		491.10		2611.84	Sierrita EDMS
		1/29/08	491.10		Dynamic		BasinWells, 2015a
		2/29/08	476.20		Dynamic		BasinWells, 2015a
		4/21/08		480.80		2622.14	Sierrita EDMS

APPENDIX C

Water Elevation Data

Well Name	Measuring Point Elevation (ft amsl)	Date	Depth to Water (ft bls) ¹	Depth to Water (ft bmp)	Static/ Dynamic	Groundwater Elevation (ft amsl)	Data Source
IW-9	3102.94	4/30/08	480.80		Dynamic		BasinWells, 2015a
		7/29/08		473.00		2629.94	Sierrita EDMS
		7/29/08	473.00		Dynamic		BasinWells, 2015a
		8/29/08	478.80		Dynamic		BasinWells, 2015a
		9/29/08	478.29		Dynamic		BasinWells, 2015a
		10/24/08		475.03		2627.91	Sierrita EDMS
		10/24/08	475.03		Dynamic		BasinWells, 2015a
		1/21/09		469		2633.94	Sierrita EDMS
		3/10/09	357.20		Static		BasinWells, 2015a
		5/13/09		357.20		2745.74	Sierrita EDMS
		5/13/09	464.60		Dynamic		BasinWells, 2015a
		12/15/09	434.50		Dynamic		BasinWells, 2015a
		4/12/10		426.67		2676.27	Sierrita EDMS
		3/9/11	377.51		Dynamic		BasinWells, 2015a
		4/15/11	348.92		Static		BasinWells, 2015a
		5/26/11		503.43		2599.51	Sierrita EDMS
		6/27/11	541.95		Dynamic		BasinWells, 2015a
		7/12/11	353.63		Static		BasinWells, 2015a
		8/23/11	532.85		Dynamic		BasinWells, 2015a
		12/29/11	527.68		Dynamic		BasinWells, 2015a
		1/26/12	519.52		Dynamic		BasinWells, 2015a
		2/28/12	357.62		Static		BasinWells, 2015a
		3/30/12	498.65		Dynamic		BasinWells, 2015a
		5/21/12		518.95		2583.99	Sierrita EDMS
		5/21/12	518.95		Dynamic		BasinWells, 2015a
		6/27/12	365.39		Static		BasinWells, 2015a
		8/21/12	364.63		Static		BasinWells, 2015a
		9/28/12	517.21		Dynamic		BasinWells, 2015a
		10/25/12	365.94		Static		BasinWells, 2015a
		11/28/12	515.27		Dynamic		BasinWells, 2015a
		4/15/13		502.13	Dynamic	2600.81	Sierrita EDMS
		6/24/13	367.33		Static		BasinWells, 2015a
		7/31/13	517.14		Dynamic		BasinWells, 2015a
		8/1/13	366.73		Static		BasinWells, 2015a
		9/30/13	517.08		Dynamic		BasinWells, 2015a
		10/30/13	376.14		Static		BasinWells, 2015a
		11/28/13	511.24		Dynamic		BasinWells, 2015a
		12/9/13	374.47		Static		BasinWells, 2015a
		1/28/14		483.69	Dynamic	2619.25	Sierrita EDMS
		1/28/14	483.69		Dynamic		BasinWells, 2015a
		2/24/14		373.42	Static	2729.52	Sierrita EDMS
		2/24/14	373.42		Static		BasinWells, 2015a
		3/25/14		455.68	Dynamic	2647.26	Sierrita EDMS
		3/31/14	455.68		Dynamic		BasinWells, 2015a
		4/25/14		366.85	Dynamic	2736.09	Sierrita EDMS
		5/30/14		367.02	Static	2735.92	Sierrita EDMS
		5/30/14	367.02		Static		BasinWells, 2015a
		6/9/14		425.70	Dynamic	2677.24	Sierrita EDMS
		6/9/14	425.70		Dynamic		BasinWells, 2015a
		7/6/14		364.20	Static	2738.74	Sierrita EDMS
		7/6/14	363.66		Static		BasinWells, 2015a
		7/31/14		420.70	Dynamic	2682.24	Sierrita EDMS
		7/31/14	420.70		Dynamic		BasinWells, 2015a
		8/27/14		362.50	Static	2740.44	Sierrita EDMS
		8/27/14	362.50		Static		BasinWells, 2015a
		10/1/14		363.03	Dynamic	2739.91	Sierrita EDMS
		10/1/14	362.49		Static		BasinWells, 2015a
		11/4/14		360.80	Static	2742.14	Sierrita EDMS
		11/4/14	360.26		Static		BasinWells, 2015a
		12/2/14		362.40	Dynamic	2740.54	Sierrita EDMS
		12/2/14	361.86		Static		BasinWells, 2015a

APPENDIX C

Water Elevation Data

Well Name	Measuring Point Elevation (ft amsl)	Date	Depth to Water (ft bls) ¹	Depth to Water (ft bmp)	Static/ Dynamic	Groundwater Elevation (ft amsl)	Data Source
IW-10	3129.64	2/20/06	459.50		Dynamic		BasinWells, 2015a
		3/14/06	460.50		Dynamic		BasinWells, 2015a
		4/15/06	468.10		Dynamic		BasinWells, 2015a
		5/14/06	453.00		Dynamic		BasinWells, 2015a
		6/10/06	490.55		Dynamic		BasinWells, 2015a
		7/16/06	453.40		Dynamic		BasinWells, 2015a
		8/13/06	458.00		Dynamic		BasinWells, 2015a
		9/16/06	460.60		Dynamic		BasinWells, 2015a
		10/20/06	458.95		Dynamic		BasinWells, 2015a
		11/10/06	464.05		Dynamic		BasinWells, 2015a
		11/15/06		464.05		2665.59	Sierrita EDMS
		12/16/06	463.21		Dynamic		BasinWells, 2015a
		1/17/07	370.70		Static		BasinWells, 2015a
		2/24/07		463.40		2666.24	Sierrita EDMS
		2/24/07	463.40		Dynamic		BasinWells, 2015a
		3/19/07	466.30		Dynamic		BasinWells, 2015a
		4/24/07	465.60		Dynamic		BasinWells, 2015a
		5/29/07	464.80		Dynamic		BasinWells, 2015a
		6/26/07	466.05		Dynamic		BasinWells, 2015a
		7/21/07		464.22		2665.42	Sierrita EDMS
		7/21/07	465.70		Dynamic		BasinWells, 2015a
		8/29/07	465.00		Dynamic		BasinWells, 2015a
		10/18/07		465.25		2664.39	Sierrita EDMS
		11/28/07	466.10		Dynamic		BasinWells, 2015a
		1/19/08		465.75		2663.89	Sierrita EDMS
		1/29/08	465.75		Dynamic		BasinWells, 2015a
		2/29/08	463.75		Dynamic		BasinWells, 2015a
		3/31/08	464.20		Dynamic		BasinWells, 2015a
		4/21/08		463.29		2666.35	Sierrita EDMS
		4/30/08	463.29		Dynamic		BasinWells, 2015a
		5/27/08	464.00		Dynamic		BasinWells, 2015a
		6/30/08	465.35		Dynamic		BasinWells, 2015a
		7/29/08		466.11		2663.53	Sierrita EDMS
		7/29/08	466.11		Dynamic		BasinWells, 2015a
		8/16/08	352.36		Static		BasinWells, 2015a
		8/29/08	467.52		Dynamic		BasinWells, 2015a
		9/29/08	468.22		Dynamic		BasinWells, 2015a
		10/24/08		468.33		2661.31	Sierrita EDMS
		10/24/08	468.33		Dynamic		BasinWells, 2015a
		1/21/09		465		2664.64	Sierrita EDMS
		3/10/09	391.20		Static		BasinWells, 2015a
		5/13/09		391.20		2738.44	Sierrita EDMS
		5/13/09	467.00		Dynamic		BasinWells, 2015a
		12/15/09	465.00		Dynamic		BasinWells, 2015a
		4/12/10		463.16		2666.48	Sierrita EDMS
		3/9/11	457.23		Dynamic		BasinWells, 2015a
		4/15/11	385.42		Static		BasinWells, 2015a
		5/11/11		456.68		2672.96	Sierrita EDMS
		5/11/11	456.68		Dynamic		BasinWells, 2015a
		6/27/11	456.74		Dynamic		BasinWells, 2015a
		7/12/11	387.19		Static		BasinWells, 2015a
		8/23/11	457.70		Dynamic		BasinWells, 2015a
		12/29/11	465.20		Dynamic		BasinWells, 2015a
		1/26/12	460.47		Dynamic		BasinWells, 2015a
		2/28/12	389.21		Static		BasinWells, 2015a
		3/29/12	465.39		Dynamic		BasinWells, 2015a
		5/22/12		466.57		2663.07	Sierrita EDMS
		5/22/12	466.57		Dynamic		BasinWells, 2015a
		6/27/12	398.46		Static		BasinWells, 2015a
		8/21/12	408.19		Static		BasinWells, 2015a
		9/26/12	483.26		Dynamic		BasinWells, 2015a
		10/25/12	411.87		Static		BasinWells, 2015a
		4/15/13		405.06	Dynamic	2724.58	Sierrita EDMS
		6/24/13	413.49		Static		BasinWells, 2015a
		7/31/13	482.88		Dynamic		BasinWells, 2015a
		8/1/13	413.74		Static		BasinWells, 2015a
		9/30/13	483.33		Dynamic		BasinWells, 2015a

APPENDIX C

Water Elevation Data

Well Name	Measuring Point Elevation (ft amsl)	Date	Depth to Water (ft bls) ¹	Depth to Water (ft bmp)	Static/ Dynamic	Groundwater Elevation (ft amsl)	Data Source
IW-10	3129.64	10/30/13	417.82		Static		BasinWells, 2015a
		11/28/13	484.51		Dynamic		BasinWells, 2015a
		12/9/13	414.63		Static		BasinWells, 2015a
		1/28/14	487.15		Dynamic		BasinWells, 2015a
		1/29/14		487.15	Dynamic	2642.49	Sierrita EDMS
		2/24/14		416.79	Static	2712.85	Sierrita EDMS
		2/24/14	416.79		Static		BasinWells, 2015a
		3/24/14		485.73	Dynamic	2643.91	Sierrita EDMS
		3/31/14	485.73		Dynamic		BasinWells, 2015a
		4/25/14		415.32	Dynamic	2714.32	Sierrita EDMS
		5/30/14		485.78	Dynamic	2643.86	Sierrita EDMS
		5/30/14	485.78		Dynamic		BasinWells, 2015a
		6/9/14		480.10	Dynamic	2649.54	Sierrita EDMS
		6/9/14	480.10		Dynamic		BasinWells, 2015a
		7/6/14		478.30	Dynamic	2651.34	Sierrita EDMS
		7/6/14	477.80		Dynamic		BasinWells, 2015a
		7/31/14		472.30	Dynamic	2657.34	Sierrita EDMS
		7/31/14	472.30		Dynamic		BasinWells, 2015a
		8/27/14		Insufficient Flow		NA	Sierrita EDMS
		10/1/14		Obstructed		NA	Sierrita EDMS
		11/4/14		Obstructed		NA	Sierrita EDMS
		12/2/14		Obstructed		NA	Sierrita EDMS
IW-11	3127.20	1/14/06	439.25		Dynamic		BasinWells, 2015a
		2/20/06	446.40		Dynamic		BasinWells, 2015a
		3/14/06	382.25		Static		BasinWells, 2015a
		4/15/06	385.38		Static		BasinWells, 2015a
		7/16/06	379.58		Static		BasinWells, 2015a
		8/13/06	381.30		Static		BasinWells, 2015a
		9/16/06	429.65		Dynamic		BasinWells, 2015a
		10/20/06	427.48		Dynamic		BasinWells, 2015a
		11/11/06	429.25		Dynamic		BasinWells, 2015a
		11/21/06		429.25		2697.95	Sierrita EDMS
		12/16/06	427.72		Dynamic		BasinWells, 2015a
		1/25/07	428.20		Dynamic		BasinWells, 2015a
		2/24/07		428.05		2699.15	Sierrita EDMS
		2/24/07	428.05		Dynamic		BasinWells, 2015a
		3/17/07	429.00		Dynamic		BasinWells, 2015a
		4/24/07	428.95		Dynamic		BasinWells, 2015a
		5/30/07	428.82		Dynamic		BasinWells, 2015a
		6/22/07	429.85		Dynamic		BasinWells, 2015a
		7/31/07		428.50		2698.70	Sierrita EDMS
		8/29/07	429.80		Dynamic		BasinWells, 2015a
		10/17/07		430.00		2697.20	Sierrita EDMS
		11/29/07	429.85		Dynamic		BasinWells, 2015a
		1/29/08		430.00		2697.20	Sierrita EDMS
		1/29/08	430.00		Dynamic		BasinWells, 2015a
		2/28/08	428.75		Dynamic		BasinWells, 2015a
		3/31/08	428.50		Dynamic		BasinWells, 2015a
		4/22/08		428.00		2699.20	Sierrita EDMS
		4/30/08	428.00		Dynamic		BasinWells, 2015a
		5/27/08	424.80		Dynamic		BasinWells, 2015a
		6/30/08	430.55		Dynamic		BasinWells, 2015a
		7/29/08		430.90		2696.30	Sierrita EDMS
		7/29/08	430.90		Dynamic		BasinWells, 2015a
		8/29/08	431.80		Dynamic		BasinWells, 2015a
		9/29/08	432.87		Dynamic		BasinWells, 2015a
		10/24/08		433.01		2694.19	Sierrita EDMS
		10/24/08	433.01		Dynamic		BasinWells, 2015a
		1/21/09		429		2698.20	Sierrita EDMS
		3/10/09	379.70		Static		BasinWells, 2015a
		5/13/09		379.70		2747.50	Sierrita EDMS
		5/13/09	429.00		Dynamic		BasinWells, 2015a
		12/15/09	424.60		Dynamic		BasinWells, 2015a
		4/12/10		421.14		2706.06	Sierrita EDMS
		3/9/11	413.68		Dynamic		BasinWells, 2015a
		4/15/11	375.43		Static		BasinWells, 2015a
		5/11/11		414.21		2712.99	Sierrita EDMS

APPENDIX C

Water Elevation Data

Well Name	Measuring Point Elevation (ft amsl)	Date	Depth to Water (ft bls) ¹	Depth to Water (ft bmp)	Static/ Dynamic	Groundwater Elevation (ft amsl)	Data Source
IW-11	3127.20	5/11/11	414.21		Dynamic		BasinWells, 2015a
		6/27/11	411.76		Dynamic		BasinWells, 2015a
		8/23/11	450.45		Dynamic		BasinWells, 2015a
		12/29/11	452.00		Dynamic		BasinWells, 2015a
		1/26/12	449.33		Dynamic		BasinWells, 2015a
		3/29/12	451.42		Dynamic		BasinWells, 2015a
		5/22/12		439.67		2687.53	Sierrita EDMS
		5/22/12	439.67		Dynamic		BasinWells, 2015a
		7/31/12	459.23		Dynamic		BasinWells, 2015a
		8/22/12	392.18		Static		BasinWells, 2015a
		9/26/12	466.43		Dynamic		BasinWells, 2015a
		11/25/12	400.03		Static		BasinWells, 2015a
		11/27/12	467.67		Dynamic		BasinWells, 2015a
		4/15/13		463.19	Dynamic	2664.01	Sierrita EDMS
		6/25/13	400.53		Static		BasinWells, 2015a
		7/31/13	468.40		Dynamic		BasinWells, 2015a
		8/1/13	400.57		Static		BasinWells, 2015a
		9/30/13	468.46		Dynamic		BasinWells, 2015a
		10/29/13	405.57		Static		BasinWells, 2015a
		11/28/13	469.52		Dynamic		BasinWells, 2015a
		12/9/13	404.57		Static		BasinWells, 2015a
		1/28/14	472.74		Dynamic		BasinWells, 2015a
		1/29/14		472.74	Dynamic	2654.46	Sierrita EDMS
		2/24/14	404.71		Static		BasinWells, 2015a
		2/25/14		404.71	Static	2722.49	Sierrita EDMS
		3/24/14		473.94	Dynamic	2653.26	Sierrita EDMS
		3/31/14	473.94		Dynamic		BasinWells, 2015a
		4/28/14		403.28	Dynamic	2723.92	Sierrita EDMS
		5/30/14		Obstructed		NA	Sierrita EDMS
		6/9/14		398.70	Static	2728.50	Sierrita EDMS
		6/9/14	398.70		Static		BasinWells, 2015a
		7/7/14		370.70	Static	2756.50	Sierrita EDMS
		7/7/14	369.95		Static		BasinWells, 2015a
		7/31/14		360.70	Static	2766.50	Sierrita EDMS
		7/31/14	360.70		Static		BasinWells, 2015a
		8/27/14		338.50	Static	2788.70	Sierrita EDMS
		8/27/14	338.50		Static		BasinWells, 2015a
		10/1/14		339.20	Static	2788.00	Sierrita EDMS
		10/1/14	338.45		Static		BasinWells, 2015a
		11/4/14		Obstructed		NA	Sierrita EDMS
		12/2/14		Obstructed		NA	Sierrita EDMS

APPENDIX C

Water Elevation Data

Well Name	Measuring Point Elevation (ft amsl)	Date	Depth to Water (ft bls) ¹	Depth to Water (ft bmp)	Static/ Dynamic	Groundwater Elevation (ft amsl)	Data Source
IW-12	3138.18	2/20/06	447.10		Dynamic		BasinWells, 2015a
		3/14/06	375.33		Static		BasinWells, 2015a
		4/15/06	368.35		Static		BasinWells, 2015a
		5/14/06	433.60		Dynamic		BasinWells, 2015a
		6/10/06	429.70		Dynamic		BasinWells, 2015a
		7/16/06	430.70		Dynamic		BasinWells, 2015a
		8/13/06	420.80		Dynamic		BasinWells, 2015a
		9/16/06	417.98		Dynamic		BasinWells, 2015a
		10/20/06	413.20		Dynamic		BasinWells, 2015a
		11/10/06	413.20		Dynamic		BasinWells, 2015a
		12/16/06	443.18		Dynamic		BasinWells, 2015a
		1/17/07	376.60		Static		BasinWells, 2015a
		2/24/07		456.20		2681.98	Sierrita EDMS
		2/24/07	456.20		Dynamic		BasinWells, 2015a
		3/19/07	464.00		Dynamic		BasinWells, 2015a
		4/24/07	451.90		Dynamic		BasinWells, 2015a
		5/29/07	449.10		Dynamic		BasinWells, 2015a
		6/22/07	432.20		Dynamic		BasinWells, 2015a
		7/21/07		428.78		2709.40	Sierrita EDMS
		7/21/07	428.78		Dynamic		BasinWells, 2015a
		8/29/07	431.80		Dynamic		BasinWells, 2015a
		10/17/07		433.00		2705.18	Sierrita EDMS
		11/28/07	434.80		Dynamic		BasinWells, 2015a
		6/30/08	426.20		Dynamic		BasinWells, 2015a
		7/29/08		425.90		2712.28	Sierrita EDMS
		7/29/08	425.90		Dynamic		BasinWells, 2015a
		8/29/08	428.58		Dynamic		BasinWells, 2015a
		9/29/08	427.40		Dynamic		BasinWells, 2015a
		10/24/08		425.90		2712.28	Sierrita EDMS
		10/24/08	425.90		Dynamic		BasinWells, 2015a
		1/29/09		427		2711.18	Sierrita EDMS
		3/10/09	375.80		Static		BasinWells, 2015a
		5/13/09		375.80		2762.38	Sierrita EDMS
		5/13/09	430.60		Dynamic		BasinWells, 2015a
		12/15/09	428.90		Dynamic		BasinWells, 2015a
		4/12/10		425.40		2712.78	Sierrita EDMS
		3/9/11	414.92		Dynamic		BasinWells, 2015a
		4/14/11	371.21		Static		BasinWells, 2015a
		5/11/11		415.81		2722.37	Sierrita EDMS
		5/11/11	415.81		Dynamic		BasinWells, 2015a
		6/29/11	415.29		Dynamic		BasinWells, 2015a
		7/12/11	372.05		Static		BasinWells, 2015a
		8/23/11	411.60		Dynamic		BasinWells, 2015a
		12/29/11	372.28		Static		BasinWells, 2015a
		1/26/12	415.39		Dynamic		BasinWells, 2015a
		2/28/12	373.26		Static		BasinWells, 2015a
		3/29/12	393.68		Dynamic		BasinWells, 2015a
		5/22/12		411.45		2726.73	Sierrita EDMS
		5/22/12	411.45		Dynamic		BasinWells, 2015a
		6/27/12	371.15		Static		BasinWells, 2015a
		7/31/12	427.28		Dynamic		BasinWells, 2015a
		8/22/12	376.92		Static		BasinWells, 2015a
		9/26/12	422.48		Dynamic		BasinWells, 2015a
		10/25/12	382.92		Static		BasinWells, 2015a
		11/27/12	426.02		Dynamic		BasinWells, 2015a
		5/14/13		420.22	Dynamic	2717.96	Sierrita EDMS
		6/25/13	386.04		Static		BasinWells, 2015a
		7/31/13	440.86		Dynamic		BasinWells, 2015a
		8/1/13	386.00		Static		BasinWells, 2015a
		9/30/13	441.10		Dynamic		BasinWells, 2015a
		10/29/13	395.37		Static		BasinWells, 2015a
		11/28/13	435.47		Dynamic		BasinWells, 2015a
		12/9/13	391.32		Static		BasinWells, 2015a
		1/28/14		381.41	Static	2756.77	Sierrita EDMS
		1/28/14	381.41		Static		BasinWells, 2015a
		2/24/14		380.19	Static	2757.99	Sierrita EDMS
		2/24/14	380.19		Static		BasinWells, 2015a

APPENDIX C

Water Elevation Data

Well Name	Measuring Point Elevation (ft amsl)	Date	Depth to Water (ft bls) ¹	Depth to Water (ft bmp)	Static/ Dynamic	Groundwater Elevation (ft amsl)	Data Source
IW-12	3138.18	3/24/14		380.01	Static	2758.17	Sierrita EDMS
		3/31/14	380.01		Static		BasinWells, 2015a
		4/28/14		386.78	Dynamic	2751.40	Sierrita EDMS
		5/30/14		434.66	Dynamic	2703.52	Sierrita EDMS
		5/30/14	434.66		Dynamic		BasinWells, 2015a
		6/9/14		500.10	Dynamic	2638.08	Sierrita EDMS
		7/7/14		490.40	Dynamic	2647.78	Sierrita EDMS
		7/7/14	489.69		Dynamic		BasinWells, 2015a
		7/31/14		478.50	Dynamic	2659.68	Sierrita EDMS
		7/31/14	478.50		Dynamic		BasinWells, 2015a
		8/27/14		386.40	Static	2751.78	Sierrita EDMS
		8/27/14	386.40		Static		BasinWells, 2015a
		10/1/14		486.30	Dynamic	2651.88	Sierrita EDMS
		10/1/14	485.59		Dynamic		BasinWells, 2015a
		11/4/14		475.70	Dynamic	2662.48	Sierrita EDMS
IW-13	3143.35	11/4/14	474.99		Dynamic		BasinWells, 2015a
		12/2/14		475.95	Dynamic	2662.23	Sierrita EDMS
		12/2/14	475.24		Dynamic		BasinWells, 2015a
		1/14/06	382.10		Static		BasinWells, 2015a
		2/20/06	398.95		Dynamic		BasinWells, 2015a
		3/14/06	386.25		Static		BasinWells, 2015a
		4/15/06	403.55		Dynamic		BasinWells, 2015a
		5/14/06	402.85		Dynamic		BasinWells, 2015a
		6/10/06	405.27		Dynamic		BasinWells, 2015a
		7/16/06	406.30		Dynamic		BasinWells, 2015a
		8/13/06	408.80		Dynamic		BasinWells, 2015a
		9/16/06	409.38		Dynamic		BasinWells, 2015a
		10/20/06	408.10		Dynamic		BasinWells, 2015a
		11/11/06	409.95		Dynamic		BasinWells, 2015a
		12/16/06	408.25		Dynamic		BasinWells, 2015a
		1/29/07	411.20		Dynamic		BasinWells, 2015a
		2/24/07	411.90		Dynamic		BasinWells, 2015a
		3/17/07	411.60		Dynamic		BasinWells, 2015a
		4/24/07	411.15		Dynamic		BasinWells, 2015a
		5/30/07	412.91		Dynamic		BasinWells, 2015a
		6/22/07	412.75		Dynamic		BasinWells, 2015a
		7/31/07		412.13		2731.22	Sierrita EDMS
		8/29/07	411.88		Dynamic		BasinWells, 2015a
		10/17/07		413.30		2730.05	Sierrita EDMS
		11/29/07	413.40		Dynamic		BasinWells, 2015a
		1/29/08		412.21		2731.14	Sierrita EDMS
		1/29/08	412.21		Dynamic		BasinWells, 2015a
		2/28/08	411.10		Dynamic		BasinWells, 2015a
		3/31/08	410.79		Dynamic		BasinWells, 2015a
		4/22/08		410.42		2732.93	Sierrita EDMS
		4/30/08	410.42		Dynamic		BasinWells, 2015a
		5/27/08	409.50		Dynamic		BasinWells, 2015a
		6/30/08	409.18		Dynamic		BasinWells, 2015a
		7/29/08		410.00		2733.35	Sierrita EDMS
		7/29/08	410.00		Dynamic		BasinWells, 2015a
		8/29/08	410.30		Dynamic		BasinWells, 2015a
		9/29/08	411.02		Dynamic		BasinWells, 2015a
		10/24/08		410.95		2732.40	Sierrita EDMS
		10/24/08	410.95		Dynamic		BasinWells, 2015a
		1/29/09		411		2732.35	Sierrita EDMS
		3/10/09	388.90		Static		BasinWells, 2015a
		5/13/09		388.90		2754.45	Sierrita EDMS
		5/13/09	410.00		Dynamic		BasinWells, 2015a
		12/15/09	408.60		Dynamic		BasinWells, 2015a
		4/12/10		404.66		2738.69	Sierrita EDMS
		3/9/11	386.19		Static		BasinWells, 2015a
		4/14/11	382.59		Static		BasinWells, 2015a

APPENDIX C

Water Elevation Data

Well Name	Measuring Point Elevation (ft amsl)	Date	Depth to Water (ft bls) ¹	Depth to Water (ft bmp)	Static/ Dynamic	Groundwater Elevation (ft amsl)	Data Source
IW-13	3143.35	5/11/11		401.85		2741.50	Sierrita EDMS
		5/11/11	401.85		Dynamic		BasinWells, 2015a
		6/29/11	401.54		Dynamic		BasinWells, 2015a
		7/12/11	383.55		Static		BasinWells, 2015a
		8/23/11	402.38		Dynamic		BasinWells, 2015a
		12/29/11	402.00		Dynamic		BasinWells, 2015a
		1/26/12	401.86		Dynamic		BasinWells, 2015a
		2/28/12	386.00		Static		BasinWells, 2015a
		3/29/12	403.60		Dynamic		BasinWells, 2015a
		6/20/12		405.53		2737.82	Sierrita EDMS
		6/27/12	387.62		Static		BasinWells, 2015a
		7/31/12	443.39		Dynamic		BasinWells, 2015a
		8/22/12	389.92		Static		BasinWells, 2015a
		9/26/12	450.28		Dynamic		BasinWells, 2015a
		10/26/12	392.99		Static		BasinWells, 2015a
		11/27/12	420.16		Dynamic		BasinWells, 2015a
		4/15/13		410.89	Dynamic	2732.46	Sierrita EDMS
		6/25/13	396.57		Static		BasinWells, 2015a
		7/31/13	422.24		Dynamic		BasinWells, 2015a
		8/1/13	396.63		Static		BasinWells, 2015a
		9/30/13	422.31		Dynamic		BasinWells, 2015a
		10/29/13	409.74		Static		BasinWells, 2015a
		11/28/13	423.62		Dynamic		BasinWells, 2015a
		12/9/13	398.81		Static		BasinWells, 2015a
		1/28/14		432.93	Dynamic	2710.42	Sierrita EDMS
		1/28/14	432.93		Dynamic		BasinWells, 2015a
		2/24/14	401.88		Static		BasinWells, 2015a
		2/25/14		401.88	Static	2741.47	Sierrita EDMS
		3/24/14		438.75	Dynamic	2704.60	Sierrita EDMS
		3/31/14	438.75		Dynamic		BasinWells, 2015a
		4/25/14		403.78	Dynamic	2739.57	Sierrita EDMS
		5/30/14		438.80	Dynamic	2704.55	Sierrita EDMS
		5/30/14	438.80		Dynamic		BasinWells, 2015a
		6/9/14		416.40	Static	2726.95	Sierrita EDMS
		6/9/14	416.40		Static		BasinWells, 2015a
		7/7/14		405.70	Static	2737.65	Sierrita EDMS
		7/7/14	404.74		Static		BasinWells, 2015a
		7/31/14		405.70	Static	2737.65	Sierrita EDMS
		7/31/14	405.70		Static		BasinWells, 2015a
		8/27/14		404.30	Static	2739.05	Sierrita EDMS
		8/27/14	404.30		Static		BasinWells, 2015a
		10/1/14		459.50	Static	2683.85	Sierrita EDMS
		10/1/14		406.90	Static	2736.45	Sierrita EDMS
		10/1/14	405.94		Static		BasinWells, 2015a
		11/4/14		404.20	Static	2739.15	Sierrita EDMS
		11/4/14	403.24		Static		BasinWells, 2015a
		12/2/14		402.80	Static	2740.55	Sierrita EDMS
		12/2/14	401.84		Static		BasinWells, 2015a

APPENDIX C

Water Elevation Data

Well Name	Measuring Point Elevation (ft amsl)	Date	Depth to Water (ft bls) ¹	Depth to Water (ft bmp)	Static/ Dynamic	Groundwater Elevation (ft amsl)	Data Source
IW-14	3146.42	1/14/06	441.20		Dynamic		BasinWells, 2015a
		2/20/06	436.10		Dynamic		BasinWells, 2015a
		3/14/06	379.95		Static		BasinWells, 2015a
		4/15/06	459.58		Dynamic		BasinWells, 2015a
		5/14/06	445.42		Dynamic		BasinWells, 2015a
		6/10/06	447.55		Dynamic		BasinWells, 2015a
		7/16/06	450.11		Dynamic		BasinWells, 2015a
		8/13/06	458.50		Dynamic		BasinWells, 2015a
		9/16/06	458.09		Dynamic		BasinWells, 2015a
		10/20/06	456.00		Dynamic		BasinWells, 2015a
		11/11/06	471.68		Dynamic		BasinWells, 2015a
		11/15/06		471.68		2674.74	Sierrita EDMS
		12/16/06	470.30		Dynamic		BasinWells, 2015a
		1/29/07	474.40		Dynamic		BasinWells, 2015a
		2/24/07		463.35		2683.07	Sierrita EDMS
		2/24/07	463.35		Dynamic		BasinWells, 2015a
		3/17/07	479.00		Dynamic		BasinWells, 2015a
		4/24/07	471.90		Dynamic		BasinWells, 2015a
		5/29/07	476.90		Dynamic		BasinWells, 2015a
		6/22/07	476.40		Dynamic		BasinWells, 2015a
		7/31/07		474.00		2672.42	Sierrita EDMS
		8/29/07	480.50		Dynamic		BasinWells, 2015a
		10/16/07		480.00		2666.42	Sierrita EDMS
		11/29/07	491.30		Dynamic		BasinWells, 2015a
		1/29/08		478.50		2667.92	Sierrita EDMS
		1/29/08	478.50		Dynamic		BasinWells, 2015a
		2/28/08	465.10		Dynamic		BasinWells, 2015a
		3/31/08	464.99		Dynamic		BasinWells, 2015a
		4/21/08		457.75		2688.67	Sierrita EDMS
		4/30/08	457.75		Dynamic		BasinWells, 2015a
		5/27/08	473.90		Dynamic		BasinWells, 2015a
		6/30/08	477.77		Dynamic		BasinWells, 2015a
		7/29/08		478.06		2668.36	Sierrita EDMS
		7/29/08	478.06		Dynamic		BasinWells, 2015a
		8/29/08	467.20		Dynamic		BasinWells, 2015a
		9/29/08	466.99		Dynamic		BasinWells, 2015a
		10/24/08		467.07		2679.35	Sierrita EDMS
		10/24/08	467.07		Dynamic		BasinWells, 2015a
		1/29/09		466		2680.42	Sierrita EDMS
		3/10/09	383.30		Static		BasinWells, 2015a
		5/13/09		383.30		2763.12	Sierrita EDMS
		5/13/09	460.00		Dynamic		BasinWells, 2015a
		12/15/09	447.90		Dynamic		BasinWells, 2015a
		4/21/10		422.20		2724.22	Sierrita EDMS
		3/10/11	406.36		Dynamic		BasinWells, 2015a
		4/14/11	378.11		Static		BasinWells, 2015a
		5/11/11		404.48		2741.94	Sierrita EDMS
		5/11/11	404.48		Dynamic		BasinWells, 2015a
		6/29/11	403.37		Dynamic		BasinWells, 2015a
		7/12/11	349.52		Static		BasinWells, 2015a
		8/23/11	404.40		Dynamic		BasinWells, 2015a
		12/29/11	395.50		Dynamic		BasinWells, 2015a
		2/28/12	380.28		Static		BasinWells, 2015a
		3/29/12	459.54		Dynamic		BasinWells, 2015a
		5/22/12		458.57		2687.85	Sierrita EDMS
		5/22/12	458.57		Dynamic		BasinWells, 2015a
		6/27/12	381.75		Static		BasinWells, 2015a
		7/31/12	455.15		Dynamic		BasinWells, 2015a
		8/22/12	383.91		Static		BasinWells, 2015a
		9/26/12	459.39		Dynamic		BasinWells, 2015a
		10/26/12	386.33		Static		BasinWells, 2015a
		11/27/12	459.43		Dynamic		BasinWells, 2015a
		4/15/13		460.72		2685.70	Sierrita EDMS
		6/25/13	386.94		Static		BasinWells, 2015a
		8/1/13	386.93		Static		BasinWells, 2015a
		9/30/13	458.60		Dynamic		BasinWells, 2015a
		10/28/13	391.09		Static		BasinWells, 2015a

APPENDIX C

Water Elevation Data

Well Name	Measuring Point Elevation (ft amsl)	Date	Depth to Water (ft bls) ¹	Depth to Water (ft bmp)	Static/ Dynamic	Groundwater Elevation (ft amsl)	Data Source
IW-14	3146.42	11/28/13	451.70		Dynamic		BasinWells, 2015a
		12/9/13	390.79		Static		BasinWells, 2015a
		1/28/14		459.02	Dynamic	2687.40	Sierrita EDMS
		1/28/14	459.02		Dynamic		BasinWells, 2015a
		2/24/14	393.02		Static		BasinWells, 2015a
		2/25/14		393.02	Dynamic	2753.40	Sierrita EDMS
		3/24/14		455.21	Dynamic	2691.21	Sierrita EDMS
		3/31/14	455.21		Dynamic		BasinWells, 2015a
		4/28/14		394.49	Dynamic	2751.93	Sierrita EDMS
		5/30/14		453.19	Dynamic	2693.23	Sierrita EDMS
		5/30/14	453.19		Dynamic		BasinWells, 2015a
		6/9/14		459.40	Dynamic	2687.02	Sierrita EDMS
		6/9/14	459.40		Dynamic		BasinWells, 2015a
		7/7/14		459.30	Dynamic	2687.12	Sierrita EDMS
		7/7/14	459.13		Dynamic		BasinWells, 2015a
		7/31/14		459.30	Dynamic	2687.12	Sierrita EDMS
		7/31/14	459.30		Dynamic		BasinWells, 2015a
		8/27/14		394.60	Static	2751.82	Sierrita EDMS
		8/27/14	394.60		Static		BasinWells, 2015a
		10/1/14	459.33		Dynamic		BasinWells, 2015a
IW-15	3152.02	11/4/14		459.40	Dynamic	2687.02	Sierrita EDMS
		11/4/14	459.23		Dynamic		BasinWells, 2015a
		12/2/14		459.40	Dynamic	2687.02	Sierrita EDMS
		12/2/14	459.23		Dynamic		BasinWells, 2015a
		2/20/06	416.20		Dynamic		BasinWells, 2015a
		3/14/06	387.55		Static		BasinWells, 2015a
		4/15/06	420.70		Dynamic		BasinWells, 2015a
		5/14/06	417.60		Dynamic		BasinWells, 2015a
		6/10/06	419.48		Dynamic		BasinWells, 2015a
		7/16/06	422.65		Dynamic		BasinWells, 2015a
		8/13/06	423.60		Dynamic		BasinWells, 2015a
		9/16/06	424.60		Dynamic		BasinWells, 2015a
		10/20/06	424.35		Dynamic		BasinWells, 2015a
		11/11/06	427.27		Dynamic		BasinWells, 2015a
		11/15/06		427.27		2724.75	Sierrita EDMS
		12/16/06	427.79		Dynamic		BasinWells, 2015a
		1/29/07	429.75		Dynamic		BasinWells, 2015a
		2/24/07		429.89		2722.13	Sierrita EDMS
		2/24/07	429.89		Dynamic		BasinWells, 2015a
		3/17/07	431.05		Dynamic		BasinWells, 2015a
		4/24/07	431.40		Dynamic		BasinWells, 2015a
		5/30/07	431.90		Dynamic		BasinWells, 2015a
		6/22/07	431.60		Dynamic		BasinWells, 2015a
		7/31/07		430.55		2721.47	Sierrita EDMS
		8/29/07	429.70		Dynamic		BasinWells, 2015a
		10/16/07		390.30		2761.72	Sierrita EDMS
		11/29/07	428.15		Dynamic		BasinWells, 2015a
		1/29/08		430.45		2721.57	Sierrita EDMS
		1/29/08	430.45		Dynamic		BasinWells, 2015a
		2/28/08	430.18		Dynamic		BasinWells, 2015a
		3/31/08	429.95		Dynamic		BasinWells, 2015a
		4/22/08		429.70		2722.32	Sierrita EDMS
		4/30/08	429.70		Dynamic		BasinWells, 2015a
		5/27/08	427.81				BasinWells, 2015a
		6/30/08	429.65		Dynamic		BasinWells, 2015a
		7/29/08		429.50		2722.52	Sierrita EDMS
		7/29/08	429.50		Dynamic		BasinWells, 2015a
		8/29/08	430.95		Dynamic		BasinWells, 2015a
		9/29/08	430.50		Dynamic		BasinWells, 2015a
		10/24/08		430.49		2721.53	Sierrita EDMS
		10/24/08	430.49		Dynamic		BasinWells, 2015a
		1/29/09		430		2722.02	Sierrita EDMS
		3/10/09	388.00		Static		BasinWells, 2015a
		5/13/09		388.00		2764.02	Sierrita EDMS
		5/13/09	427.80		Dynamic		BasinWells, 2015a
		12/15/09	425.40		Dynamic		BasinWells, 2015a

APPENDIX C

Water Elevation Data

Well Name	Measuring Point Elevation (ft amsl)	Date	Depth to Water (ft bls) ¹	Depth to Water (ft bmp)	Static/ Dynamic	Groundwater Elevation (ft amsl)	Data Source
IW-15	3152.02	4/12/10		419.39		2732.63	Sierrita EDMS
		3/9/11	415.00		Dynamic		BasinWells, 2015a
		4/14/11	394.57		Static		BasinWells, 2015a
		5/11/11		414.82		2737.20	Sierrita EDMS
		5/11/11	414.82		Dynamic		BasinWells, 2015a
		6/29/11	412.55		Dynamic		BasinWells, 2015a
		7/12/11	384.89		Static		BasinWells, 2015a
		8/23/11	416.35		Dynamic		BasinWells, 2015a
		12/30/11	414.20		Dynamic		BasinWells, 2015a
		1/26/12	418.02		Dynamic		BasinWells, 2015a
		2/28/12	373.03		Static		BasinWells, 2015a
		3/29/12	421.94		Dynamic		BasinWells, 2015a
		5/22/12		410.54		2741.48	Sierrita EDMS
		5/22/12	410.54		Dynamic		BasinWells, 2015a
		6/27/12	387.88		Static		BasinWells, 2015a
		7/31/12	418.27		Dynamic		BasinWells, 2015a
		8/22/12	389.33		Static		BasinWells, 2015a
		9/26/12	433.77		Dynamic		BasinWells, 2015a
		10/26/12	391.31		Static		BasinWells, 2015a
		11/27/12	438.04		Dynamic		BasinWells, 2015a
		5/14/13		439.64	Dynamic	2712.38	Sierrita EDMS
		6/25/13	392.73		Dynamic		BasinWells, 2015a
		7/31/13	440.11		Dynamic		BasinWells, 2015a
		8/1/13	392.95		Static		BasinWells, 2015a
		9/30/13	440.52		Dynamic		BasinWells, 2015a
		10/28/13	395.39		Static		BasinWells, 2015a
		11/28/13	441.34		Dynamic		BasinWells, 2015a
		12/9/13	395.57		Static		BasinWells, 2015a
		1/28/14		458.15	Dynamic	2693.87	Sierrita EDMS
		1/28/14	458.15		Dynamic		BasinWells, 2015a
		2/24/14	397.32		Static		BasinWells, 2015a
		2/25/14		397.32	Dynamic	2754.70	Sierrita EDMS
		3/24/14		477.16	Dynamic	2674.86	Sierrita EDMS
		3/31/14	477.16		Dynamic		BasinWells, 2015a
		4/28/14		399.11	Dynamic	2752.91	Sierrita EDMS
		5/30/14		477.18	Dynamic	2674.84	Sierrita EDMS
		5/30/14	477.18		Dynamic		BasinWells, 2015a
		6/9/14		491.25	Dynamic	2660.77	Sierrita EDMS
		6/9/14	491.25		Dynamic		BasinWells, 2015a
		7/7/14		399.40	Static	2752.62	Sierrita EDMS
		7/7/14	399.15		Static		BasinWells, 2015a
		7/31/14		491.30	Dynamic	2660.72	Sierrita EDMS
		7/31/14	491.30		Dynamic		BasinWells, 2015a
		8/27/14		400.60	Static	2751.42	Sierrita EDMS
		8/27/14	400.60		Static		BasinWells, 2015a
		10/1/14		491.40	Dynamic	2660.62	Sierrita EDMS
		10/1/14	491.15		Dynamic		BasinWells, 2015a
		11/4/14		491.40	Dynamic	2660.62	Sierrita EDMS
		11/4/14	491.15		Dynamic		BasinWells, 2015a
		12/2/14		491.40	Dynamic	2660.62	Sierrita EDMS
		12/2/14	491.15		Dynamic		BasinWells, 2015a

APPENDIX C

Water Elevation Data

Well Name	Measuring Point Elevation (ft amsl)	Date	Depth to Water (ft bls) ¹	Depth to Water (ft bmp)	Static/ Dynamic	Groundwater Elevation (ft amsl)	Data Source
IW-16	3162.85	1/14/06	399.60		Static		BasinWells, 2015a
		2/20/06	405.00		Dynamic		BasinWells, 2015a
		3/14/06	405.60		Dynamic		BasinWells, 2015a
		4/15/06	406.97		Dynamic		BasinWells, 2015a
		5/14/06	406.45		Dynamic		BasinWells, 2015a
		6/10/06	407.55		Dynamic		BasinWells, 2015a
		7/16/06	408.31		Dynamic		BasinWells, 2015a
		8/13/06	408.95		Dynamic		BasinWells, 2015a
		9/16/06	409.20		Dynamic		BasinWells, 2015a
		10/20/06	408.94		Dynamic		BasinWells, 2015a
		11/11/06	409.69		Dynamic		BasinWells, 2015a
		11/15/06		409.69		2753.16	Sierrita EDMS
		12/16/06	409.81		Dynamic		BasinWells, 2015a
		1/29/07	410.00		Dynamic		BasinWells, 2015a
		2/24/07		409.95		2752.90	Sierrita EDMS
		2/24/07	409.95		Dynamic		BasinWells, 2015a
		3/17/07	409.35		Dynamic		BasinWells, 2015a
		4/24/07	409.00		Dynamic		BasinWells, 2015a
		5/30/07	409.50		Dynamic		BasinWells, 2015a
		6/22/07	409.10		Dynamic		BasinWells, 2015a
		7/31/07		409.50		2753.35	Sierrita EDMS
		8/29/07	409.65		Dynamic		BasinWells, 2015a
		10/16/07		409.17		2753.68	Sierrita EDMS
		11/29/07	408.90		Dynamic		BasinWells, 2015a
		1/29/08		409.20		2753.65	Sierrita EDMS
		1/29/08	409.20		Dynamic		BasinWells, 2015a
		2/28/08	408.80		Dynamic		BasinWells, 2015a
		3/31/08	408.92		Dynamic		BasinWells, 2015a
		4/22/08		408.89		2753.96	Sierrita EDMS
		4/30/08	408.89		Dynamic		BasinWells, 2015a
		5/27/08	408.92		Dynamic		BasinWells, 2015a
		6/30/08	408.48		Dynamic		BasinWells, 2015a
		7/29/08		409.02		2753.83	Sierrita EDMS
		7/29/08	409.02		Dynamic		BasinWells, 2015a
		8/29/08	408.44		Dynamic		BasinWells, 2015a
		9/29/08	408.24		Dynamic		BasinWells, 2015a
		10/24/08		408.29		2754.56	Sierrita EDMS
		10/24/08	408.29		Dynamic		BasinWells, 2015a
		1/29/09		409		2753.85	Sierrita EDMS
		3/10/09	402.00		Static		BasinWells, 2015a
		5/13/09		402.00		2760.85	Sierrita EDMS
		5/13/09	409.00		Dynamic		BasinWells, 2015a
		12/15/09	408.80		Dynamic		BasinWells, 2015a
		4/12/10		405.68		2757.17	Sierrita EDMS
		3/9/11	399.82		Dynamic		BasinWells, 2015a
		4/14/11	399.44		Static		BasinWells, 2015a
		6/29/11		339.30		2823.55	Sierrita EDMS
		6/29/11	399.30		Static		BasinWells, 2015a
		7/12/11	399.56		Static		BasinWells, 2015a
		8/25/11	400.05		Static		BasinWells, 2015a
		12/29/11	398.25		Static		BasinWells, 2015a
		1/26/12	400.69		Static		BasinWells, 2015a
		2/28/12	401.00		Static		BasinWells, 2015a
		3/29/12	401.53		Static		BasinWells, 2015a
		6/27/12		402.80		2760.05	Sierrita EDMS
		6/27/12	402.80		Static		BasinWells, 2015a
		7/31/12	432.47		Static		BasinWells, 2015a
		8/22/12	403.78		Static		BasinWells, 2015a
		9/26/12	404.54		Static		BasinWells, 2015a
		10/26/12	405.16		Static		BasinWells, 2015a
		11/27/12	405.72		Static		BasinWells, 2015a
		5/14/13		407.10		2755.75	Sierrita EDMS
		5/14/13	407.10		Static		BasinWells, 2015a
		6/25/13	407.10		Static		BasinWells, 2015a
		8/1/13	406.93		Static		BasinWells, 2015a
		10/28/13	408.18		Static		BasinWells, 2015a
		1/28/14		409.04		2753.81	Sierrita EDMS
		2/24/14		410.15		2752.70	Sierrita EDMS
		3/24/14		411.11		2751.74	Sierrita EDMS
		4/25/14		411.92		2750.93	Sierrita EDMS
		5/30/14		411.90		2750.95	Sierrita EDMS

APPENDIX C

Water Elevation Data

Well Name	Measuring Point Elevation (ft amsl)	Date	Depth to Water (ft bls) ¹	Depth to Water (ft bmp)	Static/ Dynamic	Groundwater Elevation (ft amsl)	Data Source
IW-17	3160.76	1/14/06	423.54		Static		BasinWells, 2015a
		2/17/06	426.60		Dynamic		BasinWells, 2015a
		3/14/06	427.00		Dynamic		BasinWells, 2015a
		4/15/06	427.50		Dynamic		BasinWells, 2015a
		5/14/06	427.70		Dynamic		BasinWells, 2015a
		6/10/06	427.60		Dynamic		BasinWells, 2015a
		7/16/06	428.10		Dynamic		BasinWells, 2015a
		8/13/06	426.35		Static		BasinWells, 2015a
		9/16/06	428.81		Dynamic		BasinWells, 2015a
		10/20/06	428.72		Dynamic		BasinWells, 2015a
		11/11/06	429.15		Dynamic		BasinWells, 2015a
		11/15/06		429.15		2731.61	Sierrita EDMS
		12/16/06	429.25		Dynamic		BasinWells, 2015a
		1/29/07	429.58		Dynamic		BasinWells, 2015a
		2/24/07		429.70		2731.06	Sierrita EDMS
		2/24/07	429.70		Dynamic		BasinWells, 2015a
		3/17/07	429.50		Dynamic		BasinWells, 2015a
		4/24/07	428.80		Dynamic		BasinWells, 2015a
		5/30/07	429.60		Dynamic		BasinWells, 2015a
		6/22/07	428.25		Dynamic		BasinWells, 2015a
		7/26/07		427.97		2732.79	Sierrita EDMS
		8/29/07	428.35		Dynamic		BasinWells, 2015a
		10/16/07		427.70		2733.06	Sierrita EDMS
		11/29/07	427.48		Dynamic		BasinWells, 2015a
		1/29/08		428.12		2732.64	Sierrita EDMS
		1/29/08	428.12		Dynamic		BasinWells, 2015a
		2/28/08	427.95		Dynamic		BasinWells, 2015a
		3/31/08	428.30		Dynamic		BasinWells, 2015a
		4/22/08		428.23		2732.53	Sierrita EDMS
		4/30/08	428.23		Dynamic		BasinWells, 2015a
		5/27/08	428.50		Dynamic		BasinWells, 2015a
		6/30/08	428.33		Dynamic		BasinWells, 2015a
		7/29/08		428.40		2732.36	Sierrita EDMS
		7/29/08	428.40		Dynamic		BasinWells, 2015a
		8/29/08	428.00		Dynamic		BasinWells, 2015a
		9/29/08	428.33		Dynamic		BasinWells, 2015a
		10/24/08		428.45		2732.31	Sierrita EDMS
		10/24/08	428.45		Dynamic		BasinWells, 2015a
		1/29/09		428		2732.76	Sierrita EDMS
		3/10/09	425.00		Static		BasinWells, 2015a
		5/13/09		425.00		2735.76	Sierrita EDMS
		5/13/09	428.00		Dynamic		BasinWells, 2015a
		12/15/09	427.60		Dynamic		BasinWells, 2015a
		4/12/10		425.12		2735.64	Sierrita EDMS
		3/9/11	423.13		Dynamic		BasinWells, 2015a
		4/14/11	422.59		Static		BasinWells, 2015a
		6/29/11		422.10		2738.66	Sierrita EDMS
		6/29/11	422.10		Static		BasinWells, 2015a
		7/12/11	421.01		Static		BasinWells, 2015a
		8/25/11	422.00		Static		BasinWells, 2015a
		12/29/11	422.00		Static		BasinWells, 2015a
		1/26/12	423.06		Static		BasinWells, 2015a
		2/28/12	423.15		Static		BasinWells, 2015a
		3/29/12	423.21		Static		BasinWells, 2015a
		6/27/12		424.10		2736.66	Sierrita EDMS
		6/27/12	424.10		Static		BasinWells, 2015a
		7/31/12	429.62		Static		BasinWells, 2015a
		8/22/12	424.92		Static		BasinWells, 2015a
		9/26/12	425.55		Static		BasinWells, 2015a
		10/26/12	426.15		Static		BasinWells, 2015a
		11/27/12	426.82		Static		BasinWells, 2015a
		5/14/13		428.86		2731.90	Sierrita EDMS
		5/14/13	428.86		Static		BasinWells, 2015a
		6/25/13	428.86		Static		BasinWells, 2015a
		8/1/13	428.94		Static		BasinWells, 2015a
		10/28/13	429.63		Static		BasinWells, 2015a
		1/28/14		432.11		2728.65	Sierrita EDMS
		2/24/14		422.09		2738.67	Sierrita EDMS
		3/24/14		435.40		2725.36	Sierrita EDMS
		4/25/14		437.29		2723.47	Sierrita EDMS
		5/30/14		437.35		2723.41	Sierrita EDMS

APPENDIX C

Water Elevation Data

Well Name	Measuring Point Elevation (ft amsl)	Date	Depth to Water (ft bls) ¹	Depth to Water (ft bmp)	Static/ Dynamic	Groundwater Elevation (ft amsl)	Data Source
IW-18	3171.15	1/14/06	441.60		Static		BasinWells, 2015a
		2/20/06	450.55		Dynamic		BasinWells, 2015a
		3/14/06	450.40		Dynamic		BasinWells, 2015a
		4/15/06	448.70		Dynamic		BasinWells, 2015a
		5/14/06	446.80		Dynamic		BasinWells, 2015a
		6/10/06	447.02		Dynamic		BasinWells, 2015a
		7/16/06	448.21		Dynamic		BasinWells, 2015a
		8/13/06	448.90		Dynamic		BasinWells, 2015a
		9/16/06	448.98		Dynamic		BasinWells, 2015a
		10/20/06	448.50		Dynamic		BasinWells, 2015a
		11/10/06	449.35		Dynamic		BasinWells, 2015a
		11/21/06		449.02		2722.13	Sierrita EDMS
		12/16/06	449.68		Dynamic		BasinWells, 2015a
		1/17/07	444.50		Static		BasinWells, 2015a
		2/24/07		449.55		2721.60	Sierrita EDMS
		2/24/07	449.55		Dynamic		BasinWells, 2015a
		3/19/07	448.80		Dynamic		BasinWells, 2015a
		4/24/07	447.80		Dynamic		BasinWells, 2015a
		5/29/07	447.19		Dynamic		BasinWells, 2015a
		6/22/07	446.50		Dynamic		BasinWells, 2015a
		7/21/07		446.35		2724.80	Sierrita EDMS
		8/29/07	446.40		Dynamic		BasinWells, 2015a
		10/16/07		445.25		2725.90	Sierrita EDMS
		11/28/07	445.00		Dynamic		BasinWells, 2015a
		1/19/08		446.75		2724.40	Sierrita EDMS
		1/29/08	446.75		Dynamic		BasinWells, 2015a
		2/28/08	447.00		Dynamic		BasinWells, 2015a
		3/31/08	447.35		Dynamic		BasinWells, 2015a
		4/21/08		447.48		2723.67	Sierrita EDMS
		4/30/08	447.48		Dynamic		BasinWells, 2015a
		5/27/08	447.80		Dynamic		BasinWells, 2015a
		6/30/08	447.47		Dynamic		BasinWells, 2015a
		7/29/08		447.00		2724.15	Sierrita EDMS
		7/29/08	447.00		Dynamic		BasinWells, 2015a
		8/29/08	446.80		Dynamic		BasinWells, 2015a
		9/29/08	446.36		Dynamic		BasinWells, 2015a
		10/24/08		446.30		2724.85	Sierrita EDMS
		10/24/08	446.30		Dynamic		BasinWells, 2015a
		1/29/09		447		2724.15	Sierrita EDMS
		3/10/09	441.50		Static		BasinWells, 2015a
		5/13/09		441.50		2729.65	Sierrita EDMS
		5/13/09	447.00		Dynamic		BasinWells, 2015a
		12/15/09	447.20		Dynamic		BasinWells, 2015a
		4/12/10		442.94		2728.21	Sierrita EDMS
		3/9/11	436.89		Dynamic		BasinWells, 2015a
		4/14/11	432.82		Static		BasinWells, 2015a
		6/29/11		435.35		2735.80	Sierrita EDMS
		6/29/11	435.35		Static		BasinWells, 2015a
		7/12/11	435.16		Static		BasinWells, 2015a
		8/25/11	435.50		Static		BasinWells, 2015a
		12/29/11	434.90		Static		BasinWells, 2015a
		1/26/12	436.09		Static		BasinWells, 2015a
		2/28/12	436.22		Static		BasinWells, 2015a
		3/29/12	436.47		Static		BasinWells, 2015a
		6/27/12		436.97		2734.18	Sierrita EDMS
		6/27/12	436.97		Static		BasinWells, 2015a
		7/31/12	437.20		Static		BasinWells, 2015a
		8/22/12	437.68		Static		BasinWells, 2015a
		9/26/12	438.78		Static		BasinWells, 2015a
		10/26/12	439.56		Static		BasinWells, 2015a
		11/27/12	440.41		Static		BasinWells, 2015a
		5/14/13		443.11		2728.04	Sierrita EDMS
		5/14/13	443.11		Static		BasinWells, 2015a
		6/25/13	443.11		Static		BasinWells, 2015a
		8/1/13	442.87		Static		BasinWells, 2015a
		10/28/13	441.41		Static		BasinWells, 2015a
		1/28/14		447.78		2723.37	Sierrita EDMS
		2/24/14		449.75		2721.40	Sierrita EDMS
		3/24/14		451.75		2719.40	Sierrita EDMS
		4/25/14		453.68		2717.47	Sierrita EDMS
		5/30/14		453.70		2717.45	Sierrita EDMS

APPENDIX C

Water Elevation Data

Well Name	Measuring Point Elevation (ft amsl)	Date	Depth to Water (ft bls) ¹	Depth to Water (ft bmp)	Static/ Dynamic	Groundwater Elevation (ft amsl)	Data Source
IW-19	3155.39	1/14/06	449.07		Dynamic		BasinWells, 2015a
		2/20/06	447.90		Dynamic		BasinWells, 2015a
		3/14/06	448.30		Dynamic		BasinWells, 2015a
		4/15/06	449.90		Dynamic		BasinWells, 2015a
		5/14/06	444.50		Dynamic		BasinWells, 2015a
		6/10/06	445.36		Dynamic		BasinWells, 2015a
		7/16/06	447.60		Dynamic		BasinWells, 2015a
		8/13/06	447.80		Dynamic		BasinWells, 2015a
		9/16/06	447.38		Dynamic		BasinWells, 2015a
		10/20/06	448.80		Dynamic		BasinWells, 2015a
		11/11/06	418.60		Static		BasinWells, 2015a
		11/21/06		418.60		2736.79	Sierrita EDMS
		12/16/06	448.60		Dynamic		BasinWells, 2015a
		1/29/07	448.65		Dynamic		BasinWells, 2015a
		2/23/07		444.65		2710.74	Sierrita EDMS
		2/23/07	444.65		Dynamic		BasinWells, 2015a
		3/16/07	443.38		Dynamic		BasinWells, 2015a
		4/24/07	441.30		Dynamic		BasinWells, 2015a
		5/29/07	433.70		Dynamic		BasinWells, 2015a
		6/22/07	432.95		Dynamic		BasinWells, 2015a
		7/26/07		435.85		2719.54	Sierrita EDMS
		8/29/07	435.05		Dynamic		BasinWells, 2015a
		11/29/07	450.52		Dynamic		BasinWells, 2015a
		1/29/08		451.28		2704.11	Sierrita EDMS
		1/29/08	451.28		Dynamic		BasinWells, 2015a
		2/28/08	451.22		Dynamic		BasinWells, 2015a
		3/31/08	452.19		Dynamic		BasinWells, 2015a
		4/21/08		452.00		2703.39	Sierrita EDMS
		4/30/08	452.00		Dynamic		BasinWells, 2015a
		5/27/08	452.45		Dynamic		BasinWells, 2015a
		6/30/08	451.40		Dynamic		BasinWells, 2015a
		7/29/08		451.88		2703.51	Sierrita EDMS
		7/29/08	451.88		Dynamic		BasinWells, 2015a
		8/29/08	450.25		Dynamic		BasinWells, 2015a
		9/29/08	450.35		Dynamic		BasinWells, 2015a
		10/24/08		451.08		2704.31	Sierrita EDMS
		10/24/08	451.08		Dynamic		BasinWells, 2015a
		1/29/09		451		2704.39	Sierrita EDMS
		3/10/09	413.90		Static		BasinWells, 2015a
		5/13/09		413.90		2741.49	Sierrita EDMS
		5/13/09	450.00		Dynamic		BasinWells, 2015a
		12/15/09	448.30		Dynamic		BasinWells, 2015a
		4/12/10		445.24		2710.15	Sierrita EDMS
		3/9/11	437.57		Dynamic		BasinWells, 2015a
		4/14/11	407.82		Static		BasinWells, 2015a
		5/11/11		436.15		2719.24	Sierrita EDMS
		5/11/11	436.15		Dynamic		BasinWells, 2015a
		6/29/11	430.75		Dynamic		BasinWells, 2015a
		7/12/11	407.21		Static		BasinWells, 2015a
		8/25/11	399.60				BasinWells, 2015a
		12/29/11	433.09		Dynamic		BasinWells, 2015a
		1/26/12	433.88		Dynamic		BasinWells, 2015a
		2/28/12	408.38		Static		BasinWells, 2015a
		3/29/12	434.42		Dynamic		BasinWells, 2015a
		5/22/12		432.62		2722.77	Sierrita EDMS
		5/22/12	432.62		Dynamic		BasinWells, 2015a
		6/27/12	409.19		Static		BasinWells, 2015a
		8/22/12	409.73		Static		BasinWells, 2015a
		9/26/12	435.37		Dynamic		BasinWells, 2015a
		10/26/12	411.86		Static		BasinWells, 2015a
		11/27/12	437.02		Dynamic		BasinWells, 2015a
		5/14/13		439.33	Dynamic	2716.06	Sierrita EDMS
		6/25/13	415.12		Static		BasinWells, 2015a
		7/31/13	438.92		Dynamic		BasinWells, 2015a
		8/1/13	415.19		Static		BasinWells, 2015a
		10/28/13	416.00		Static		BasinWells, 2015a
		11/28/13	468.62		Dynamic		BasinWells, 2015a
		1/28/14		465.41	Dynamic	2689.98	Sierrita EDMS
		1/28/14	465.41		Dynamic		BasinWells, 2015a
		2/24/14	422.21		Static		BasinWells, 2015a
		2/25/14		422.21	Static	2733.18	Sierrita EDMS

APPENDIX C

Water Elevation Data

Well Name	Measuring Point Elevation (ft amsl)	Date	Depth to Water (ft bls) ¹	Depth to Water (ft bmp)	Static/ Dynamic	Groundwater Elevation (ft amsl)	Data Source
IW-19	3155.39	3/24/14		469.27	Dynamic	2686.12	Sierrita EDMS
		3/31/14	469.27		Dynamic		BasinWells, 2015a
		4/28/14		425.55	Dynamic	2729.84	Sierrita EDMS
		5/30/14		469.21	Dynamic	2686.18	Sierrita EDMS
		5/30/14	469.21		Dynamic		BasinWells, 2015a
		6/9/14		473.38	Dynamic	2682.01	Sierrita EDMS
		6/9/14	473.38		Dynamic		BasinWells, 2015a
		7/7/14		474.40	Dynamic	2680.99	Sierrita EDMS
		7/7/14	473.57		Dynamic		BasinWells, 2015a
		7/31/14		473.70	Dynamic	2681.69	Sierrita EDMS
		7/31/14	473.70		Dynamic		BasinWells, 2015a
		8/27/14		428.00	Static	2727.39	Sierrita EDMS
		8/27/14	428.00		Static		BasinWells, 2015a
		10/1/14		475.80	Dynamic	2679.59	Sierrita EDMS
		10/1/14	474.97		Dynamic		BasinWells, 2015a
		11/4/14		475.50	Dynamic	2679.89	Sierrita EDMS
		11/4/14	474.67		Dynamic		BasinWells, 2015a
		12/2/14		476.05	Dynamic	2679.34	Sierrita EDMS
		12/2/14	475.22		Dynamic		BasinWells, 2015a
IW-20	3164.21	1/14/06		450.32	Dynamic		BasinWells, 2015a
		2/20/06		451.65	Dynamic		BasinWells, 2015a
		3/14/06		453.50	Dynamic		BasinWells, 2015a
		4/15/06		450.23	Dynamic		BasinWells, 2015a
		5/14/06		450.33	Dynamic		BasinWells, 2015a
		6/10/06		450.60	Dynamic		BasinWells, 2015a
		7/16/06		442.80	Dynamic		BasinWells, 2015a
		8/13/06		450.55	Dynamic		BasinWells, 2015a
		9/16/06		435.70	Dynamic		BasinWells, 2015a
		10/20/06		441.60	Dynamic		BasinWells, 2015a
		11/11/06		421.25	Static		BasinWells, 2015a
		11/21/06		421.25		2742.96	Sierrita EDMS
		12/16/06		449.60	Dynamic		BasinWells, 2015a
		1/29/07		445.30		2718.91	Sierrita EDMS
		1/29/07		445.30	Dynamic		BasinWells, 2015a
		3/16/07		417.72	Static		BasinWells, 2015a
		4/24/07		428.00	Dynamic		BasinWells, 2015a
		5/29/07		427.60	Dynamic		BasinWells, 2015a
		6/22/07		427.20	Dynamic		BasinWells, 2015a
		7/26/07		426.21		2738.00	Sierrita EDMS
		8/29/07		447.90	Dynamic		BasinWells, 2015a
		10/16/07		424.15		2740.06	Sierrita EDMS
		11/29/07		423.30	Dynamic		BasinWells, 2015a
		1/29/08		424.65		2739.56	Sierrita EDMS
		1/29/08		424.65	Dynamic		BasinWells, 2015a
		2/28/08		424.68	Dynamic		BasinWells, 2015a
		3/31/08		425.05	Dynamic		BasinWells, 2015a
		4/21/08		425.15		2739.06	Sierrita EDMS
		4/30/08		425.15	Dynamic		BasinWells, 2015a
		5/27/08		425.18	Dynamic		BasinWells, 2015a
		6/30/08		423.04	Dynamic		BasinWells, 2015a
		7/29/08		422.99		2741.22	Sierrita EDMS
		7/29/08		422.99	Dynamic		BasinWells, 2015a
		8/29/08		424.44	Dynamic		BasinWells, 2015a
		9/29/08		424.04	Dynamic		BasinWells, 2015a
		10/24/08		424.14		2740.07	Sierrita EDMS
		10/24/08		424.14	Dynamic		BasinWells, 2015a
		1/29/09		442		2722.21	Sierrita EDMS
		3/10/09		414.00	Static		BasinWells, 2015a
		5/13/09		414.00		2750.21	Sierrita EDMS
		5/13/09		423.00	Dynamic		BasinWells, 2015a
		12/15/09		418.80	Dynamic		BasinWells, 2015a
		4/29/10		418.07		2746.14	Sierrita EDMS
		3/9/11		412.78	Dynamic		BasinWells, 2015a
		4/14/11		407.11	Static		BasinWells, 2015a
		5/11/11		413.15		2751.06	Sierrita EDMS
		5/11/11		413.15	Dynamic		BasinWells, 2015a

APPENDIX C

Water Elevation Data

Well Name	Measuring Point Elevation (ft amsl)	Date	Depth to Water (ft bls) ¹	Depth to Water (ft bmp)	Static/ Dynamic	Groundwater Elevation (ft amsl)	Data Source
IW-20	3164.21	6/29/11	412.53		Dynamic		BasinWells, 2015a
		7/12/11	406.25		Static		BasinWells, 2015a
		8/25/11	412.15		Dynamic		BasinWells, 2015a
		12/29/11	412.80		Dynamic		BasinWells, 2015a
		1/26/12	406.99		Static		BasinWells, 2015a
		2/28/12	408.09		Static		BasinWells, 2015a
		3/29/12	414.89		Dynamic		BasinWells, 2015a
		6/20/12		414.50		2749.71	Sierrita EDMS
		6/27/12	407.99		Static		BasinWells, 2015a
		8/22/12	409.11		Static		BasinWells, 2015a
		9/26/12	419.49		Dynamic		BasinWells, 2015a
		10/26/12	411.89		Static		BasinWells, 2015a
		11/27/12	419.84		Dynamic		BasinWells, 2015a
		6/17/13		417.26	Dynamic	2746.95	Sierrita EDMS
		6/17/13	417.26		Dynamic		BasinWells, 2015a
		6/25/13	413.74		Static		BasinWells, 2015a
		8/1/13	415.77		Static		BasinWells, 2015a
		9/30/13	421.16		Dynamic		BasinWells, 2015a
		10/28/13	413.71		Static		BasinWells, 2015a
		11/28/13	421.93		Dynamic		BasinWells, 2015a
		12/9/13	417.48		Static		BasinWells, 2015a
		1/28/14		424.25	Dynamic	2739.96	Sierrita EDMS
		1/28/14	424.25		Dynamic		BasinWells, 2015a
		2/24/14	420.71		Static		BasinWells, 2015a
		2/25/14		420.71	Static	2743.50	Sierrita EDMS
		3/24/14		427.83	Dynamic	2736.38	Sierrita EDMS
		3/31/14	427.83		Dynamic		BasinWells, 2015a
		4/28/14		421.94	Dynamic	2742.27	Sierrita EDMS
		5/30/14		427.89	Dynamic	2736.32	Sierrita EDMS
		5/30/14	427.89		Dynamic		BasinWells, 2015a
		6/9/14		429.20	Dynamic	2735.01	Sierrita EDMS
		6/9/14	429.20		Dynamic		BasinWells, 2015a
		7/7/14		430.10	Dynamic	2734.11	Sierrita EDMS
		7/7/14	429.77		Dynamic		BasinWells, 2015a
		7/31/14		430.00	Dynamic	2734.21	Sierrita EDMS
		7/31/14	430.00		Dynamic		BasinWells, 2015a
		8/27/14		424.80	Static	2739.41	Sierrita EDMS
		8/27/14	424.80		Static		BasinWells, 2015a
		10/1/14		432.80	Dynamic	2731.41	Sierrita EDMS
		10/1/14	432.47		Dynamic		BasinWells, 2015a
		11/4/14		432.90	Dynamic	2731.31	Sierrita EDMS
		11/4/14	432.57		Dynamic		BasinWells, 2015a
		12/2/14		435.80	Dynamic	2728.41	Sierrita EDMS
		12/2/14	435.47		Dynamic		BasinWells, 2015a

APPENDIX C

Water Elevation Data

Well Name	Measuring Point Elevation (ft amsl)	Date	Depth to Water (ft bls) ¹	Depth to Water (ft bmp)	Static/ Dynamic	Groundwater Elevation (ft amsl)	Data Source
IW-21	3171.37	1/14/06	452.50		Dynamic		BasinWells, 2015a
		2/20/06	455.75		Dynamic		BasinWells, 2015a
		3/14/06	452.00		Dynamic		BasinWells, 2015a
		4/15/06	453.20		Dynamic		BasinWells, 2015a
		5/14/06	447.90		Dynamic		BasinWells, 2015a
		6/10/06	448.00		Dynamic		BasinWells, 2015a
		7/16/06	450.16		Dynamic		BasinWells, 2015a
		8/13/06	450.10		Dynamic		BasinWells, 2015a
		9/16/06	449.10		Dynamic		BasinWells, 2015a
		10/20/06	448.28		Dynamic		BasinWells, 2015a
		11/11/06	424.80		Static		BasinWells, 2015a
		11/21/06		424.80		2746.57	Sierrita EDMS
		12/16/06	450.70		Dynamic		BasinWells, 2015a
		1/29/07	451.68		Dynamic		BasinWells, 2015a
		2/23/07		449.65		2721.72	Sierrita EDMS
		2/23/07	449.65		Dynamic		BasinWells, 2015a
		3/16/07	448.68		Dynamic		BasinWells, 2015a
		4/24/07	447.70		Dynamic		BasinWells, 2015a
		5/29/07	446.36		Dynamic		BasinWells, 2015a
		6/22/07	444.15		Dynamic		BasinWells, 2015a
		7/26/07		454.04		2717.33	Sierrita EDMS
		8/29/07	443.35		Dynamic		BasinWells, 2015a
		10/16/07		442.10		2729.27	Sierrita EDMS
		11/29/07	441.00		Dynamic		BasinWells, 2015a
		1/29/08		441.68		2729.69	Sierrita EDMS
		1/29/08	441.68		Dynamic		BasinWells, 2015a
		2/28/08	441.61		Dynamic		BasinWells, 2015a
		3/31/08	442.00		Dynamic		BasinWells, 2015a
		4/21/08		441.50		2729.87	Sierrita EDMS
		4/30/08	441.50		Dynamic		BasinWells, 2015a
		5/27/08	439.42		Dynamic		BasinWells, 2015a
		7/29/08		454.00		2717.37	Sierrita EDMS
		7/29/08	454.00		Dynamic		BasinWells, 2015a
		8/29/08	455.94		Dynamic		BasinWells, 2015a
		9/29/08	456.00		Dynamic		BasinWells, 2015a
		10/24/08		443.08		2728.29	Sierrita EDMS
		10/24/08	455.89		Dynamic		BasinWells, 2015a
		1/29/09		484		2687.37	Sierrita EDMS
		3/10/09	415.60		Static		BasinWells, 2015a
		5/13/09		415.60		2755.77	Sierrita EDMS
		5/13/09	452.00		Dynamic		BasinWells, 2015a
		12/15/09	447.50		Dynamic		BasinWells, 2015a
		5/11/11		736.00		2435.37	Sierrita EDMS
		4/15/13		612.58	Dynamic	2558.79	Sierrita EDMS
		1/28/14		Obstructed		NA	Sierrita EDMS
		3/24/14		Obstructed		NA	Sierrita EDMS
		4/25/14		Obstructed		NA	Sierrita EDMS
		5/30/14		Obstructed		NA	Sierrita EDMS
		6/9/14		Obstructed		NA	Sierrita EDMS
		7/7/14		Obstructed		NA	Sierrita EDMS
		7/31/14		Obstructed		NA	Sierrita EDMS
		8/27/14		Obstructed		NA	Sierrita EDMS
		10/1/14		Obstructed		NA	Sierrita EDMS
		11/4/14		Obstructed		NA	Sierrita EDMS
		12/2/14		Obstructed		NA	Sierrita EDMS
		12/2/14	506.93		Dynamic		BasinWells, 2015a

APPENDIX C

Water Elevation Data

Well Name	Measuring Point Elevation (ft amsl)	Date	Depth to Water (ft bls) ¹	Depth to Water (ft bmp)	Static/ Dynamic	Groundwater Elevation (ft amsl)	Data Source
IW-22	3128.25	1/14/06	469.88		Dynamic		BasinWells, 2015a
		2/20/06	470.92		Dynamic		BasinWells, 2015a
		3/14/06	390.50		Static		BasinWells, 2015a
		4/15/06	477.00		Dynamic		BasinWells, 2015a
		5/14/06	462.00		Dynamic		BasinWells, 2015a
		6/10/06	461.37		Dynamic		BasinWells, 2015a
		7/16/06	460.80		Dynamic		BasinWells, 2015a
		8/13/06	464.28		Dynamic		BasinWells, 2015a
		9/16/06	466.65		Dynamic		BasinWells, 2015a
		10/20/06	465.25		Dynamic		BasinWells, 2015a
		11/11/06	434.75		Dynamic		BasinWells, 2015a
		11/21/06		434.75		2693.50	Sierrita EDMS
		12/16/06	432.65		Dynamic		BasinWells, 2015a
		1/29/07	439.45		Dynamic		BasinWells, 2015a
		2/24/07		433.58		2694.67	Sierrita EDMS
		2/24/07	433.58		Dynamic		BasinWells, 2015a
		3/17/07	434.90		Dynamic		BasinWells, 2015a
		4/24/07	435.60		Dynamic		BasinWells, 2015a
		5/30/07	435.10		Dynamic		BasinWells, 2015a
		6/22/07	438.55		Dynamic		BasinWells, 2015a
		7/31/07		430.00		2698.25	Sierrita EDMS
		8/29/07	436.75		Dynamic		BasinWells, 2015a
		10/18/07		435.75		2692.50	Sierrita EDMS
		11/29/07	436.90		Dynamic		BasinWells, 2015a
		1/29/08		438.50		2689.75	Sierrita EDMS
		1/29/08	438.50		Dynamic		BasinWells, 2015a
		2/29/08	437.50		Dynamic		BasinWells, 2015a
		3/31/08	436.90		Dynamic		BasinWells, 2015a
		4/25/08		439.30		2688.95	Sierrita EDMS
		4/30/08	439.30		Dynamic		BasinWells, 2015a
		5/27/08	439.00		Dynamic		BasinWells, 2015a
		6/30/08	441.00		Dynamic		BasinWells, 2015a
		7/29/08		442.08		2686.17	Sierrita EDMS
		7/29/08	442.08		Dynamic		BasinWells, 2015a
		8/29/08	442.80		Dynamic		BasinWells, 2015a
		9/29/08	443.06		Dynamic		BasinWells, 2015a
		10/24/08		455.89		2672.36	Sierrita EDMS
		10/24/08	443.08		Dynamic		BasinWells, 2015a
		1/21/09		442		2686.25	Sierrita EDMS
		3/10/09	384.00		Static		BasinWells, 2015a
		5/13/09		384.00		2744.25	Sierrita EDMS
		5/13/09	443.00		Dynamic		BasinWells, 2015a
		12/15/09	438.00		Dynamic		BasinWells, 2015a
		4/12/10		434.62		2693.63	Sierrita EDMS
		3/9/11	424.56		Dynamic		BasinWells, 2015a
		4/15/11	378.72		Static		BasinWells, 2015a
		5/11/11		431.21		2697.04	Sierrita EDMS
		5/11/11	431.21		Dynamic		BasinWells, 2015a
		6/27/11	430.12		Dynamic		BasinWells, 2015a
		7/12/11	369.50		Static		BasinWells, 2015a
		8/23/11	433.80		Dynamic		BasinWells, 2015a
		12/29/11	402.80		Dynamic		BasinWells, 2015a
		1/26/12	418.31		Dynamic		BasinWells, 2015a
		3/29/12	452.67		Dynamic		BasinWells, 2015a
		5/22/12		448.78		2679.47	Sierrita EDMS
		5/22/12	448.78		Dynamic		BasinWells, 2015a
		6/27/12	382.79		Static		BasinWells, 2015a
		7/31/12	442.68		Dynamic		BasinWells, 2015a
		8/22/12	400.60		Static		BasinWells, 2015a
		9/26/12	462.71		Dynamic		BasinWells, 2015a
		10/26/12	408.11		Static		BasinWells, 2015a
		11/27/12	460.35		Dynamic		BasinWells, 2015a
		4/15/13		459.72		2668.53	Sierrita EDMS
		6/25/13	408.44		Static		BasinWells, 2015a
		7/31/13	467.14		Dynamic		BasinWells, 2015a
		8/1/13	408.82		Static		BasinWells, 2015a
		9/30/13	467.52		Dynamic		BasinWells, 2015a
		10/29/13	415.89		Static		BasinWells, 2015a
		11/28/13	468.90		Dynamic		BasinWells, 2015a
		12/9/13	414.17		Static		BasinWells, 2015a
		1/28/14	467.14		Dynamic		BasinWells, 2015a

APPENDIX C

Water Elevation Data

Well Name	Measuring Point Elevation (ft amsl)	Date	Depth to Water (ft bls) ¹	Depth to Water (ft bmp)	Static/ Dynamic	Groundwater Elevation (ft amsl)	Data Source
IW-22	3128.25	1/29/14		467.14	Dynamic	2661.11	Sierrita EDMS
		2/24/14	414.41		Static		BasinWells, 2015a
		2/25/14		414.41	Static	2713.84	Sierrita EDMS
		3/24/14		471.95	Dynamic	2656.30	Sierrita EDMS
		3/31/14	471.95		Dynamic		BasinWells, 2015a
		4/28/14		411.44		2716.81	Sierrita EDMS
		5/30/14		466.14	Dynamic	2662.11	Sierrita EDMS
		5/30/14	466.14		Dynamic		BasinWells, 2015a
		6/9/14		461.20	Dynamic	2667.05	Sierrita EDMS
		6/9/14	461.20		Dynamic		BasinWells, 2015a
		7/7/14		459.10	Dynamic	2669.15	Sierrita EDMS
		7/7/14	458.43		Dynamic		BasinWells, 2015a
		7/31/14		452.40	Dynamic	2675.85	Sierrita EDMS
		7/31/14	452.40		Dynamic		BasinWells, 2015a
		8/27/14		397.80	Static	2730.45	Sierrita EDMS
		8/27/14	397.80		Static		BasinWells, 2015a
		10/1/14		461.00	Dynamic	2667.25	Sierrita EDMS
		10/1/14	460.33		Dynamic		BasinWells, 2015a
		11/4/14		452.80	Dynamic	2675.45	Sierrita EDMS
		11/4/14	452.13		Dynamic		BasinWells, 2015a
IW-23	3128.53	12/2/14		453.20	Dynamic	2675.05	Sierrita EDMS
		12/2/14	452.53		Dynamic		BasinWells, 2015a
		1/14/06	464.40		Dynamic		BasinWells, 2015a
		3/14/06	377.75		Static		BasinWells, 2015a
		4/15/06	504.00		Dynamic		BasinWells, 2015a
		5/14/06	472.25		Dynamic		BasinWells, 2015a
		6/10/06	490.55		Dynamic		BasinWells, 2015a
		7/16/06	470.30		Dynamic		BasinWells, 2015a
		11/11/06	544.50		Dynamic		BasinWells, 2015a
		12/16/06		544.50		2584.03	Sierrita EDMS
		12/16/06	493.02		Dynamic		BasinWells, 2015a
		1/29/07	497.00		Dynamic		BasinWells, 2015a
		2/24/07		499.20		2629.33	Sierrita EDMS
		2/24/07	499.20		Dynamic		BasinWells, 2015a
		3/17/07	496.00		Dynamic		BasinWells, 2015a
		4/24/07	491.30		Dynamic		BasinWells, 2015a
		5/30/07	497.70		Dynamic		BasinWells, 2015a
		6/26/07	503.30		Dynamic		BasinWells, 2015a
		7/31/07		500.00		2628.53	Sierrita EDMS
		8/29/07	500.50		Dynamic		BasinWells, 2015a
		10/18/07		518.95		2609.58	Sierrita EDMS
		3/10/09	375.00		Static		BasinWells, 2015a
		5/13/09		375.00		2753.53	Sierrita EDMS
		5/13/09	510.00		Dynamic		BasinWells, 2015a
		4/12/10		538.78		2589.75	Sierrita EDMS
		3/9/11	384.85				BasinWells, 2015a
		4/15/11	369.88		Static		BasinWells, 2015a
		5/11/11		516.15		2612.38	Sierrita EDMS
		5/11/11	516.15		Dynamic		BasinWells, 2015a
		6/27/11	525.00		Dynamic		BasinWells, 2015a
		7/12/11	372.42		Static		BasinWells, 2015a
		8/23/11	538.30		Dynamic		BasinWells, 2015a
		12/29/11	534.50		Dynamic		BasinWells, 2015a
		1/26/12	529.71		Dynamic		BasinWells, 2015a
		3/29/12	546.38		Dynamic		BasinWells, 2015a
		5/22/12		523.21		2605.32	Sierrita EDMS
		5/22/12	523.21		Dynamic		BasinWells, 2015a
		8/22/12	381.70		Static		BasinWells, 2015a
		9/26/12	535.61		Dynamic		BasinWells, 2015a
		10/26/12	384.71		Static		BasinWells, 2015a
		11/27/12	483.41		Dynamic		BasinWells, 2015a
		4/15/13		482.11	Dynamic	2646.42	Sierrita EDMS
		6/25/13	385.08		Static		BasinWells, 2015a
		8/1/13	385.44		Static		BasinWells, 2015a
		9/30/13	426.62		Dynamic		BasinWells, 2015a
		10/30/13	394.39		Static		BasinWells, 2015a
		11/28/13	428.20		Dynamic		BasinWells, 2015a
		12/9/13	387.59		Static		BasinWells, 2015a
		1/28/14	528.47		Dynamic		BasinWells, 2015a
		1/29/14		528.47	Dynamic	2600.06	Sierrita EDMS

APPENDIX C

Water Elevation Data

Well Name	Measuring Point Elevation (ft amsl)	Date	Depth to Water (ft bls) ¹	Depth to Water (ft bmp)	Static/ Dynamic	Groundwater Elevation (ft amsl)	Data Source
IW-23	3128.53	2/24/14	389.51		Static		BasinWells, 2015a
		2/25/14		389.51	Static	2739.02	Sierrita EDMS
		3/24/14		Obstructed		NA	Sierrita EDMS
		4/28/14		385.17	Dynamic	2743.36	Sierrita EDMS
		5/30/14		519.31	Dynamic	2609.22	Sierrita EDMS
		5/30/14	519.31		Dynamic		BasinWells, 2015a
		6/9/14		546.60	Dynamic	2581.93	Sierrita EDMS
		6/9/14	546.60		Dynamic		BasinWells, 2015a
		7/6/14		546.60	Dynamic	2581.93	Sierrita EDMS
		7/6/14	545.73		Dynamic		BasinWells, 2015a
		7/31/14		534.90	Dynamic	2593.63	Sierrita EDMS
		7/31/14	534.90		Dynamic		BasinWells, 2015a
		8/27/14		Insufficient Flow		NA	Sierrita EDMS
		10/1/14		546.65	Dynamic	2581.88	Sierrita EDMS
		10/1/14	545.78		Dynamic		BasinWells, 2015a
		11/4/14		525.20	Dynamic	2603.33	Sierrita EDMS
		11/4/14	524.33		Dynamic		BasinWells, 2015a
		12/2/14		539.60	Dynamic	2588.93	Sierrita EDMS
IW-24	3113.29	12/2/14	538.73		Dynamic		BasinWells, 2015a
		1/14/06	416.70		Dynamic		BasinWells, 2015a
		2/20/06	392.50		Dynamic		BasinWells, 2015a
		3/14/06	353.90		Static		BasinWells, 2015a
		4/15/06	495.72		Dynamic		BasinWells, 2015a
		5/14/06	418.20		Dynamic		BasinWells, 2015a
		6/10/06	446.65		Dynamic		BasinWells, 2015a
		7/16/06	412.75		Dynamic		BasinWells, 2015a
		8/13/06	477.00		Dynamic		BasinWells, 2015a
		9/16/06	418.00		Dynamic		BasinWells, 2015a
		10/20/06	545.50		Dynamic		BasinWells, 2015a
		11/11/06	395.80		Dynamic		BasinWells, 2015a
		3/3/07	344.00		Static		BasinWells, 2015a
		5/30/07	353.50		Dynamic		BasinWells, 2015a
		2/29/08	555.10		Dynamic		BasinWells, 2015a
		3/31/08	525.25		Dynamic		BasinWells, 2015a
		4/25/08		522.50		2590.79	Sierrita EDMS
		4/30/08	522.50		Dynamic		BasinWells, 2015a
		5/27/08	433.30		Dynamic		BasinWells, 2015a
		6/30/08	451.50		Dynamic		BasinWells, 2015a
		7/29/08		452.50		2660.79	Sierrita EDMS
		7/29/08	452.50		Dynamic		BasinWells, 2015a
		8/29/08	467.00		Dynamic		BasinWells, 2015a
		8/29/08	467.66		Dynamic		BasinWells, 2015a
		10/24/08		466.99		2646.30	Sierrita EDMS
		10/24/08	466.99		Dynamic		BasinWells, 2015a
		3/10/09	348.00		Static		BasinWells, 2015a
		5/13/09		348.00		2765.29	Sierrita EDMS
		5/13/09	526.50		Dynamic		BasinWells, 2015a
		4/12/10		522.90		2590.39	Sierrita EDMS
		3/24/11	480.11		Dynamic		BasinWells, 2015a
		4/15/11	345.38		Static		BasinWells, 2015a
		5/11/11		456.05		2657.24	Sierrita EDMS
		5/11/11	456.05		Dynamic		BasinWells, 2015a
		6/27/11	446.19		Dynamic		BasinWells, 2015a
		7/12/11	346.60		Static		BasinWells, 2015a
		8/23/11	426.80		Dynamic		BasinWells, 2015a
		12/29/11	458.40		Dynamic		BasinWells, 2015a
		1/26/12	478.61		Dynamic		BasinWells, 2015a
		2/28/12	349.58		Static		BasinWells, 2015a
		5/22/12		512.88		2600.41	Sierrita EDMS
		5/22/12	512.88		Dynamic		BasinWells, 2015a
		6/27/12	354.00		Static		BasinWells, 2015a
		7/31/12	439.87		Dynamic		BasinWells, 2015a
		8/22/12	355.46		Static		BasinWells, 2015a
		9/28/12	441.60		Dynamic		BasinWells, 2015a
		10/26/12	355.87		Static		BasinWells, 2015a
		11/28/12	543.91		Dynamic		BasinWells, 2015a
		4/15/13		533.21	Dynamic	2580.08	Sierrita EDMS
		6/25/13	356.47		Static		BasinWells, 2015a
		7/31/13	544.16		Dynamic		BasinWells, 2015a
		8/1/13	355.91		Static		BasinWells, 2015a

APPENDIX C

Water Elevation Data

Well Name	Measuring Point Elevation (ft amsl)	Date	Depth to Water (ft bls) ¹	Depth to Water (ft bmp)	Static/ Dynamic	Groundwater Elevation (ft amsl)	Data Source
IW-24	3113.29	9/30/13	544.71		Dynamic		BasinWells, 2015a
		10/30/13	359.61		Static		BasinWells, 2015a
		11/28/13	536.89		Dynamic		BasinWells, 2015a
		1/28/14		522.00	Dynamic	2591.29	Sierrita EDMS
		1/28/14	522.00		Dynamic		BasinWells, 2015a
		2/24/14	358.72		Static		BasinWells, 2015a
		2/25/14		358.72	Static	2754.57	Sierrita EDMS
		3/25/14		517.78	Dynamic	2595.51	Sierrita EDMS
		3/31/14	517.78		Dynamic		BasinWells, 2015a
		4/28/14		356.88	Dynamic	2756.41	Sierrita EDMS
		5/30/14		514.60	Dynamic	2598.69	Sierrita EDMS
		5/30/14	514.60		Dynamic		BasinWells, 2015a
		6/9/14		499.00	Dynamic	2614.29	Sierrita EDMS
		6/9/14	499.00		Dynamic		BasinWells, 2015a
		7/6/14		483.40	Dynamic	2629.89	Sierrita EDMS
		7/6/14	482.90		Dynamic		BasinWells, 2015a
		7/31/14		457.10	Dynamic	2656.19	Sierrita EDMS
		7/31/14	457.10		Dynamic		BasinWells, 2015a
		8/27/14		355.00	Static	2758.29	Sierrita EDMS
		8/27/14	355.00		Static		BasinWells, 2015a
		10/1/14		458.25	Dynamic	2655.04	Sierrita EDMS
		10/1/14	457.75		Dynamic		BasinWells, 2015a
		11/4/14		475.15	Dynamic	2638.14	Sierrita EDMS
		11/4/14	474.65		Dynamic		BasinWells, 2015a
		12/2/14		466.90	Dynamic	2646.39	Sierrita EDMS
		12/2/14	466.40		Dynamic		BasinWells, 2015a
IW-25	3091.66	10/28/10	351.00		Static		BasinWells, 2015a
		10/28/10	375.00		Dynamic		BasinWells, 2015a
		5/21/12	400.85		Dynamic		BasinWells, 2015a
		6/30/12	380.50		Static		BasinWells, 2015a
		7/31/12	465.37		Dynamic		BasinWells, 2015a
		8/25/12	380.20		Static		BasinWells, 2015a
		9/28/12	462.88		Dynamic		BasinWells, 2015a
		11/28/12	427.43		Static		BasinWells, 2015a
		4/15/13		422.52	Dynamic	2669.14	Sierrita EDMS
		6/26/13	380.43		Static		BasinWells, 2015a
		7/31/13	451.60		Dynamic		BasinWells, 2015a
		8/1/13	378.56		Static		BasinWells, 2015a
		9/30/13	451.58		Dynamic		BasinWells, 2015a
		10/31/13	384.18		Static		BasinWells, 2015a
		11/28/13	452.68		Dynamic		BasinWells, 2015a
		12/9/13	388.78		Static		BasinWells, 2015a
		1/28/14	447.14		Dynamic		BasinWells, 2015a
		3/31/14	445.09		Dynamic		BasinWells, 2015a
		5/30/14	442.11		Dynamic		BasinWells, 2015a
		6/9/14		436.90	Dynamic	2654.76	Sierrita EDMS
		6/9/14	436.90		Dynamic		BasinWells, 2015a
		7/6/14	434.97		Dynamic		BasinWells, 2015a
		7/31/14	436.10		Dynamic		BasinWells, 2015a
		8/27/14	379.50		Static		BasinWells, 2015a
		10/1/14	442.32		Dynamic		BasinWells, 2015a
		11/4/14	437.37		Dynamic		BasinWells, 2015a
		12/2/14 ¹	440.87		Dynamic	2650.78	BasinWells, 2015a

APPENDIX C

Water Elevation Data

Well Name	Measuring Point Elevation (ft amsl)	Date	Depth to Water (ft bls) ¹	Depth to Water (ft bmp)	Static/ Dynamic	Groundwater Elevation (ft amsl)	Data Source
IW-26	3100.03	10/10/10	361.00		Static		BasinWells, 2015a
		10/10/10	394.00		Dynamic		BasinWells, 2015a
		5/21/12	484.33		Dynamic		BasinWells, 2015a
		6/30/12	376.70		Static		BasinWells, 2015a
		7/31/12	487.67		Dynamic		BasinWells, 2015a
		8/25/12	376.70		Static		BasinWells, 2015a
		9/28/12	481.21		Dynamic		BasinWells, 2015a
		11/28/12	493.38		Dynamic		BasinWells, 2015a
		4/15/13		492.21	Dynamic	2607.82	Sierrita EDMS
		6/26/13	384.32		Static		BasinWells, 2015a
		7/31/13	494.16		Dynamic		BasinWells, 2015a
		8/1/13	383.28		Static		BasinWells, 2015a
		9/30/13	494.24		Dynamic		BasinWells, 2015a
		10/29/13	384.54		Static		BasinWells, 2015a
		10/31/13	384.21		Static		BasinWells, 2015a
		11/28/13	382.75		Static		BasinWells, 2015a
		12/9/13	382.88		Static		BasinWells, 2015a
		1/28/14	380.61		Static		BasinWells, 2015a
		3/31/14	380.55		Static		BasinWells, 2015a
		5/30/14	379.35		Static		BasinWells, 2015a
		6/9/14		376.80	Static	2723.23	Sierrita EDMS
		6/9/14	376.80		Static		BasinWells, 2015a
		7/6/14	378.29		Static		BasinWells, 2015a
		7/31/14	377.60		Static		BasinWells, 2015a
		8/27/14	377.60		Static		BasinWells, 2015a
		10/1/14	377.69		Static		BasinWells, 2015a
		11/4/14	377.89		Static		BasinWells, 2015a
		12/2/14 ¹	379.19		Static	2720.84	BasinWells, 2015a
IW-27	3120.33	12/3/10	378.50		Static		BasinWells, 2015a
		12/3/10	393.30		Dynamic		BasinWells, 2015a
		5/22/12	416.34		Dynamic		BasinWells, 2015a
		10/30/13	395.56		Static		BasinWells, 2015a
		11/28/13	395.04		Static		BasinWells, 2015a
		12/9/13	395.21		Static		BasinWells, 2015a
		1/28/14	394.70		Static		BasinWells, 2015a
		2/24/14	418.11		Dynamic		BasinWells, 2015a
		3/31/14	394.72		Static		BasinWells, 2015a
		5/30/14	394.32		Static		BasinWells, 2015a
		6/5/14		393.50	Static	2726.83	Sierrita EDMS
		6/5/14	393.50		Static		BasinWells, 2015a
		7/6/14	392.32		Static		BasinWells, 2015a
		7/31/14	392.50		Static		BasinWells, 2015a
		8/27/14	392.70		Static		BasinWells, 2015a
		10/1/14	393.02		Static		BasinWells, 2015a
		11/4/14	455.07		Dynamic		BasinWells, 2015a
		12/2/14 ¹	459.52		Dynamic	3120.33	BasinWells, 2015a

APPENDIX C

Water Elevation Data

Well Name	Measuring Point Elevation (ft amsl)	Date	Depth to Water (ft bls) ¹	Depth to Water (ft bmp)	Static/ Dynamic	Groundwater Elevation (ft amsl)	Data Source
IW-28	3110.71	1/5/11	382.00		Static		BasinWells, 2015a
		1/5/11	409.00		Dynamic		BasinWells, 2015a
		5/22/12	439.61		Dynamic		BasinWells, 2015a
		6/30/12	392.40		Static		BasinWells, 2015a
		7/31/12	451.37		Dynamic		BasinWells, 2015a
		8/25/12	392.40		Static		BasinWells, 2015a
		9/28/12	449.60		Dynamic		BasinWells, 2015a
		11/27/12	451.70		Dynamic		BasinWells, 2015a
		4/15/13		447.89	Dynamic	2662.82	Sierrita EDMS
		6/26/13	403.12		Static		BasinWells, 2015a
		7/31/13	453.58		Dynamic		BasinWells, 2015a
		8/1/13	401.30		Static		BasinWells, 2015a
		9/30/13	454.16		Dynamic		BasinWells, 2015a
		10/31/13	405.26		Static		BasinWells, 2015a
		11/28/13	442.66		Dynamic		BasinWells, 2015a
		12/9/13	405.53		Static		BasinWells, 2015a
		1/28/14	424.78		Dynamic		BasinWells, 2015a
		2/24/14	405.49		Static		BasinWells, 2015a
		3/31/14	439.97		Dynamic		BasinWells, 2015a
		5/30/14	440.07		Dynamic		BasinWells, 2015a
		6/9/14		434.70	Dynamic	2676.01	Sierrita EDMS
		6/9/14	434.70		Dynamic		BasinWells, 2015a
		7/6/14	432.39		Dynamic		BasinWells, 2015a
		7/31/14	431.80		Dynamic		BasinWells, 2015a
		8/27/14	400.95		Static		BasinWells, 2015a
		10/1/14	433.44		Dynamic		BasinWells, 2015a
		11/4/14	433.39		Dynamic		BasinWells, 2015a
		12/2/14 ¹	434.49		Dynamic	2676.22	BasinWells, 2015a
IW-29	ND	5/12/14		389.50	Static	NA	Sierrita EDMS
		5/13/14	389.75		Static		BasinWells, 2015b
		8/27/14	394.7		Static		BasinWells, 2015b
M-8	2999.53	1/15/07		460.92		2538.61	Sierrita EDMS
		4/16/07		458.83		2540.70	
		7/10/07		462.57		2536.96	
		10/8/07		465.65		2533.88	
		1/9/08		464.68		2534.85	
		4/14/08		462.50		2537.03	
		7/25/08		466.18		2533.35	
		10/28/08		468.82		2530.71	
		1/20/09		466.25		2533.28	
		5/12/09		465.10		2534.43	
		11/5/09		465.60		2533.93	
		5/28/10		466.61		2532.92	
		10/21/10		471.61		2527.92	
		6/15/11		467.35		2532.18	
		11/17/11		471.23		2528.30	
		6/29/12		464.98		2534.55	
		10/29/12		472.66		2526.87	
		4/17/13		466.32		2533.21	
		5/21/13		464.70		2534.83	
		10/29/13		472.55		2526.98	
		3/12/14		472.63		2526.90	
		3/12/14		472.63		2526.90	
		4/22/14		473.69		2525.84	
		5/8/14		473.53		2526.00	
		6/9/14		476.70	Static	2522.83	
		7/28/14		479.96		2519.57	
		8/7/14		480.13		2519.40	
		9/8/14		481.99	Static	2517.54	
		10/28/14		484.31		2515.22	
		11/4/14		484.66		2514.87	
		12/16/14		484.74	Static	2514.79	

APPENDIX C

Water Elevation Data

Well Name	Measuring Point Elevation (ft amsl)	Date	Depth to Water (ft bls) ¹	Depth to Water (ft bmp)	Static/ Dynamic	Groundwater Elevation (ft amsl)	Data Source
M-9	2973.81	7/18/06		442.70		2531.11	Sierrita EDMS
		1/15/07		445.76		2528.05	
		7/10/07		450.75		2523.06	
		10/8/07		453.15		2520.66	
		1/8/08		447.50		2526.31	
		4/14/08		448.50		2525.31	
		7/21/08		454.27		2519.54	
		10/28/08		457.72		2516.09	
		1/20/09		450.78		2523.03	
		5/13/09		452.00		2521.81	
		6/16/10		453.85		2519.96	
		6/2/11		452.35		2521.46	
		6/27/12		455.78		2518.03	
		5/1/13		473.80		2500.01	
		3/12/14		483.66		2490.15	
		3/12/14		483.66		2490.15	
		4/22/14		464.39		2509.42	
		5/8/14		464.37		2509.44	
		6/9/14		457.78		2516.03	
		7/28/14		461.34		2512.47	
		8/7/14		462.06		2511.75	
		9/8/14		463.43	Static	2510.38	
		10/28/14		464.55		2509.26	
		11/4/14		466.10		2507.71	
		12/16/14		467.81	Static	2506.00	
M-10	3005.68	7/18/06		472.72		2532.96	Sierrita EDMS
		1/15/07		473.65		2532.03	
		4/16/07		471.47		2534.21	
		7/10/07		477.16		2528.52	
		10/8/07		478.45		2527.23	
		1/8/08		477.60		2528.08	
		4/14/08		475.48		2530.20	
		7/21/08		480.15		2525.53	
		10/28/08		483.70		2521.98	
		1/20/09		475.85		2529.83	
		5/12/09		478.80		2526.88	
		11/5/09		481.20		2524.48	
		6/4/10		480.29		2525.39	
		10/21/10		486.40		2519.28	
		5/10/11		478.33		2527.35	
		11/16/11		484.66		2521.02	
		6/25/12		482.73		2522.95	
		10/29/12		486.64		2519.04	
		4/17/13		478.63		2527.05	
		10/29/13		486.07		2519.61	
		4/22/14		483.06	Static	2522.62	
		11/4/14		493.67	Static	2512.01	
M-20	3054.00	7/18/06		484.18		2569.82	Sierrita EDMS
		1/15/07		489.14		2564.86	
		7/10/07		486.70		2567.30	
		7/12/07		493.26		2560.74	
		1/9/08		495.80		2558.20	
		4/14/08		494.22		2559.78	
		7/25/08		493.70		2560.30	
		10/28/08		498.00		2556.00	
		1/20/09		497.75		2556.25	
		5/12/09		496.80		2557.20	
		5/28/10		498.51		2555.49	
		5/9/11		499.14		2554.86	
		6/26/12		500.50		2553.50	
		4/23/13		499.65		2554.35	
		4/22/14		511.42	Static	2542.58	

APPENDIX C

Water Elevation Data

Well Name	Measuring Point Elevation (ft amsl)	Date	Depth to Water (ft bls) ¹	Depth to Water (ft bmp)	Static/ Dynamic	Groundwater Elevation (ft amsl)	Data Source
MC-1	3038.621	5/22/13 ¹	418.97		Static	2619.65	BasinWells, 2015a
		5/22/13	435.55		Dynamic		BasinWells, 2015a
		1/15/14		440.93	Dynamic	3038.62	Sierrita EDMS
		1/15/14	440.93		Dynamic		BasinWells, 2015a
		1/22/14		437.02	Dynamic	3038.62	Sierrita EDMS
		1/22/14	437.02		Dynamic		BasinWells, 2015a
		1/28/14	442.57		Dynamic		BasinWells, 2015a
		1/29/14		442.57	Dynamic	3038.62	Sierrita EDMS
		2/5/14	443.86		Dynamic		BasinWells, 2015a
		2/12/14	444.84		Dynamic		BasinWells, 2015a
		3/13/14		447.98	Dynamic	3038.62	Sierrita EDMS
		5/14/14		455.31	Dynamic	3038.62	Sierrita EDMS
		5/30/14	455.31		Dynamic		BasinWells, 2015a
		6/9/14		456.50	Dynamic	3038.62	Sierrita EDMS
		6/9/14	456.50		Dynamic		BasinWells, 2015a
		7/6/14		458.90	Dynamic	3038.62	Sierrita EDMS
		7/6/14	458.40		Dynamic		BasinWells, 2015a
		7/31/14		460.50	Dynamic	3038.62	Sierrita EDMS
		7/31/14	460.50		Dynamic		BasinWells, 2015a
		8/27/14		462.20	Dynamic	3038.62	Sierrita EDMS
		8/27/14	462.20		Dynamic		BasinWells, 2015a
		10/1/14		450.25	Static	3038.62	Sierrita EDMS
		10/1/14	449.75		Static		BasinWells, 2015a
		11/4/14		466.80	Dynamic	3038.62	Sierrita EDMS
		11/4/14	466.30		Dynamic		BasinWells, 2015a
		12/2/14		468.10	Dynamic	3038.62	Sierrita EDMS
		12/2/14	467.60		Dynamic		BasinWells, 2015a
MC-2	3008.28	3/24/13	412.55		Static		BasinWells, 2015a
		3/24/13	431.52		Dynamic		BasinWells, 2015a
		3/14/14		Obstructed		NA	Sierrita EDMS
		5/14/14		440.68	Dynamic	2567.60	Sierrita EDMS
		5/15/14		440.66	Dynamic	2567.62	Sierrita EDMS
		5/15/14	440.66		Dynamic		BasinWells, 2015a
		5/22/14		442.47	Dynamic	2565.81	Sierrita EDMS
		5/22/14	442.47		Dynamic		BasinWells, 2015a
		5/30/14	442.47		Dynamic		BasinWells, 2015a
		6/9/14		443.70	Dynamic	2564.58	Sierrita EDMS
		6/9/14	443.70		Dynamic		BasinWells, 2015a
		7/6/14		445.80	Dynamic	2562.48	Sierrita EDMS
		7/6/14	445.63		Dynamic		BasinWells, 2015a
		7/31/14		447.50	Dynamic	2560.78	Sierrita EDMS
		7/31/14	447.50		Dynamic		BasinWells, 2015a
		8/27/14		449.30	Dynamic	2558.98	Sierrita EDMS
		8/27/14	449.30		Dynamic		BasinWells, 2015a
		10/1/14		442.65	Static	2565.63	Sierrita EDMS
		10/1/14	442.48		Static		BasinWells, 2015a
		11/4/14		453.60	Dynamic	2554.68	Sierrita EDMS
		11/4/14	453.43		Dynamic		BasinWells, 2015a
		12/2/14		454.75	Dynamic	2553.53	Sierrita EDMS
		12/2/14	454.58		Dynamic		BasinWells, 2015a

APPENDIX C

Water Elevation Data

Well Name	Measuring Point Elevation (ft amsl)	Date	Depth to Water (ft bls) ¹	Depth to Water (ft bmp)	Static/ Dynamic	Groundwater Elevation (ft amsl)	Data Source
MC-3	3062.33	12/3/12	491.98		Static		BasinWells, 2015a
		12/3/12	507.05		Dynamic		BasinWells, 2015a
		3/13/14		Obstructed		NA	Sierrita EDMS
		5/13/14		515.62	Dynamic	2546.71	Sierrita EDMS
		5/15/14		515.62	Dynamic	2546.71	Sierrita EDMS
		5/15/14	515.62		Dynamic		BasinWells, 2015a
		5/22/14		516.21	Dynamic	2546.12	Sierrita EDMS
		5/22/14	516.21		Dynamic		BasinWells, 2015a
		5/30/14	516.21		Dynamic		BasinWells, 2015a
		6/9/14		517.70	Dynamic	2544.63	Sierrita EDMS
		6/9/14	517.70		Dynamic		BasinWells, 2015a
		7/6/14		519.50	Dynamic	2542.83	Sierrita EDMS
		7/6/14	518.83		Dynamic		BasinWells, 2015a
		7/31/14		521.40	Dynamic	2540.93	Sierrita EDMS
		7/31/14	521.40		Dynamic		BasinWells, 2015a
		8/27/14		522.95	Dynamic	2539.38	Sierrita EDMS
		8/27/14	522.95		Dynamic		BasinWells, 2015a
		10/1/14		519.75	Static	2542.58	Sierrita EDMS
		10/1/14	519.08		Static		BasinWells, 2015a
		11/4/14		527.25	Dynamic	2535.08	Sierrita EDMS
		11/4/14	526.58		Dynamic		BasinWells, 2015a
		12/2/14		528.65	Dynamic	2533.68	Sierrita EDMS
		12/2/14	527.98		Dynamic		BasinWells, 2015a
MC-4	3096.035	8/13/12	530.67		Static		BasinWells, 2015a
		8/13/12	548.72		Dynamic		BasinWells, 2015a
		3/13/14		Obstructed		NA	Sierrita EDMS
		5/13/14		560.86	Dynamic	2535.18	Sierrita EDMS
		5/15/14		560.86	Dynamic	2535.18	Sierrita EDMS
		5/15/14	560.86		Dynamic		BasinWells, 2015a
		5/22/14		561.09	Dynamic	2534.95	Sierrita EDMS
		5/22/14	561.09		Dynamic		BasinWells, 2015a
		5/30/14	561.09		Dynamic		BasinWells, 2015a
		6/5/14		561.90	Dynamic	2534.14	Sierrita EDMS
		6/5/14	561.90		Dynamic		BasinWells, 2015a
		7/6/14		564.00	Dynamic	2532.04	Sierrita EDMS
		7/6/14	563.06		Dynamic		BasinWells, 2015a
		7/31/14		565.70	Dynamic	2530.34	Sierrita EDMS
		7/31/14	565.70		Dynamic		BasinWells, 2015a
		8/27/14		567.25	Dynamic	2528.79	Sierrita EDMS
		8/27/14	567.25		Dynamic		BasinWells, 2015a
		10/1/14		558.80	Static	2537.24	Sierrita EDMS
		10/1/14	557.86		Static		BasinWells, 2015a
		11/4/14		572.20	Dynamic	2523.84	Sierrita EDMS
		11/4/14	571.26		Dynamic		BasinWells, 2015a
		12/2/14		573.70	Dynamic	2522.34	Sierrita EDMS
		12/2/14	572.76		Dynamic		BasinWells, 2015a
MH-1	3179.27	11/21/06		443.90		2735.37	Sierrita EDMS
		1/10/07		444.15		2735.12	
		4/20/07		442.70		2736.57	
		7/3/07		441.33		2737.94	
		11/8/07		440.10		2739.17	
		1/28/08		439.97		2739.30	
		4/24/08		440.44		2738.83	
		8/7/08		439.65		2739.62	
		11/14/08		441.45		2737.82	
		2/17/09		440.90		2738.37	
		6/2/09		440.70		2738.57	
		4/13/10		438.62		2740.65	
		4/19/11		436.65		2742.62	
		4/25/12		436.95		2742.32	
		4/29/14		448.90		2730.37	

APPENDIX C

Water Elevation Data

Well Name	Measuring Point Elevation (ft amsl)	Date	Depth to Water (ft bls) ¹	Depth to Water (ft bmp)	Static/ Dynamic	Groundwater Elevation (ft amsl)	Data Source
MH-3	3155.87	12/18/06		427.70		2728.17	Sierrita EDMS
		2/23/07		427.31		2728.56	
		4/23/07		425.51		2730.36	
		7/21/07		424.22		2731.65	
		10/20/07		422.15		2733.72	
		1/19/08		424.80		2731.07	
		4/21/08		425.44		2730.43	
		7/29/08		424.15		2731.72	
		10/24/08		426.10		2729.77	
		2/17/09		425.46		2730.41	
		6/2/09		425.18		2730.69	
		4/13/10		418.92		2736.95	
		4/19/11		420.10		2735.77	
		4/25/12		419.53		2736.34	
		4/2/13		425.84		2730.03	
		3/12/14		433.09		2722.78	
		4/25/14		436.44		2719.43	
		5/14/14		436.40		2719.47	
		6/24/14		436.38		2719.49	
		7/7/14		439.20		2716.67	
		8/8/14		440.46		2715.41	
MH-5	3123.47	9/9/14		441.45	Static	2714.42	Sierrita EDMS
		10/28/14		441.25		2714.62	
		11/26/14		441.30		2714.57	
		12/20/14		441.33	Static	2714.54	
		11/21/06		389.22		2734.25	
		1/12/07		390.70		2732.77	
		4/20/07		391.60		2731.87	
		7/3/07		391.66		2731.81	
		11/8/07		392.95		2730.52	
		1/28/08		391.40		2732.07	
		4/24/08		390.30		2733.17	
		8/7/08		391.55		2731.92	
		11/14/08		391.98		2731.49	
		2/17/09		391.33		2732.14	
		6/2/09		391.30		2732.17	
		4/13/10		381.47		2742.00	
		4/18/11		387.96		2735.51	
MH-6	3133.97	6/14/12		398.80		2724.67	Sierrita EDMS
		5/23/13		403.59		2719.88	
		4/29/14	Obstructed			NA	
		5/22/14	Obstructed			NA	
		5/28/14		408.22		2715.25	
		11/14/06		381.65		2752.32	
		1/9/07		378.32		2755.65	
		4/20/07		374.80		2759.17	
		7/3/07		379.00		2754.97	
		11/8/07		380.30		2753.67	
		1/28/08		379.15		2754.82	
		4/24/08		379.20		2754.77	
		8/7/08		379.50		2754.47	
		11/14/08		379.50		2754.47	
		2/17/09		378.52		2755.45	
		6/2/09		379.45		2754.52	
		4/13/10		389.35		2744.62	
		5/17/11		387.85		2746.12	
		6/7/12		382.63		2751.34	
		4/2/13		402.02		2731.95	
		4/29/14		403.91		2730.06	

APPENDIX C

Water Elevation Data

Well Name	Measuring Point Elevation (ft amsl)	Date	Depth to Water (ft bls) ¹	Depth to Water (ft bmp)	Static/ Dynamic	Groundwater Elevation (ft amsl)	Data Source
MH-7	3111.23	11/21/06		357.85		2753.38	Sierrita EDMS
		1/12/07		360.20		2751.03	
		4/20/07		368.20		2743.03	
		7/3/07		370.20		2741.03	
		11/8/07		370.60		2740.63	
		1/28/08		371.00		2740.23	
		4/24/08		370.92		2740.31	
		8/8/08		372.22		2739.01	
		11/14/08		373.20		2738.03	
		2/17/09		372.48		2738.75	
		6/2/09		371.53		2739.70	
		4/13/10		372.63		2738.60	
		4/18/11		368.76		2742.47	
		6/14/12		381.09		2730.14	
		5/23/13		391.31		2719.92	
MH-9	3162.57	4/29/14		389.57		2721.66	Sierrita EDMS
		11/8/06		380.58		2781.99	
		1/9/07		362.10		2800.47	
		4/20/07		363.60		2798.97	
		7/3/07		365.25		2797.32	
		11/8/07		367.95		2794.62	
		1/28/08		368.58		2793.99	
		4/24/08		367.08		2795.49	
		8/8/08		370.38		2792.19	
		11/14/08		371.70		2790.87	
		2/17/09		371.97		2790.60	
		6/2/09		370.30		2792.27	
		4/15/10		373.30		2789.27	
		4/19/11		375.11		2787.46	
		4/26/12		380.49		2782.08	
		5/23/13		386.04		2776.53	
		3/12/14		390.22		2772.35	
		4/25/14		390.54		2772.03	
		5/14/14		390.45		2772.12	
		6/24/14		390.41		2772.16	
		7/29/14		388.82		2773.75	
		8/8/14		387.62		2774.95	
		9/9/14		387.00	Static	2775.57	
		10/28/14		387.73		2774.84	
		11/26/14		388.10		2774.47	
MH-10	3187.84	12/21/14		388.40	Static	2774.17	Sierrita EDMS
		11/8/06		346.70		2841.14	
		1/9/07		364.80		2823.04	
		4/3/07		355.65		2832.19	
		7/16/07		356.75		2831.09	
		10/16/07		357.60		2830.24	
		1/3/08		358.32		2829.52	
		4/28/08		358.83		2829.01	
		7/31/08		358.50		2829.34	
		11/4/08		360.00		2827.84	
		1/2/09		360.15		2827.69	
		4/14/09		363.50		2824.34	
		4/26/10		362.04		2825.80	
		5/18/11		363.39		2824.45	
		6/5/12		366.25		2821.59	
		6/10/13		369.96		2817.88	
		4/23/14		371.84	Static	2816.00	

APPENDIX C

Water Elevation Data

Well Name	Measuring Point Elevation (ft amsl)	Date	Depth to Water (ft bls) ¹	Depth to Water (ft bmp)	Static/ Dynamic	Groundwater Elevation (ft amsl)	Data Source
MH-11	3041.76	11/9/06		369.90		2671.86	Sierrita EDMS
		1/11/07		369.55		2672.21	
		4/10/07		370.46		2671.30	
		7/17/07		372.75		2669.01	
		10/3/07		373.80		2667.96	
		1/4/08		373.36		2668.40	
		4/29/08		373.89		2667.87	
		7/29/08		375.10		2666.66	
		11/7/08		376.85		2664.91	
		3/19/09		374.88		2666.88	
		5/13/09		375.75		2666.01	
		4/27/10		375.85		2665.91	
		5/24/11		376.65		2665.11	
		5/24/12		376.65		2665.11	
		4/23/13		383.85		2657.91	
		3/12/14		399.52		2642.24	
		4/29/14		404.51		2637.25	
		5/14/14		404.48		2637.28	
		6/12/14		408.00		2633.76	
		7/28/14		411.79		2629.97	
		8/7/14		412.19		2629.57	
MH-12	3055.08	9/8/14		413.51	Static	2628.25	Sierrita EDMS
		10/29/14		416.87		2624.89	
		11/26/14		419.24		2622.52	
		12/17/14		421.06	Static	2620.70	
		3/12/14		Obstructed		NA	
		4/29/14		DRY		NA	
		5/14/14		DRY		NA	
		6/9/14		DRY		NA	
		7/28/14		DRY		NA	
		8/7/14		DRY		NA	
MH-13A	3026.23	9/8/14		DRY	Static	NA	Sierrita EDMS
		10/28/14		DRY		NA	
		11/26/14		DRY		NA	
		12/17/14		DRY	Static	NA	
		11/10/06		327.84		2698.39	
		1/24/07		326.35		2699.88	
		4/18/07		328.14		2698.09	
		7/17/07		330.98		2695.25	
		10/4/07		331.70		2694.53	
		1/4/08		330.85		2695.38	
		4/29/08		331.80		2694.43	
		7/16/08		333.78		2692.45	
		10/20/08		334.64		2691.59	
		1/23/09		332.98		2693.25	
		4/15/09		332.19		2694.04	
		4/21/10		333.27		2692.96	
		5/23/11		334.40		2691.83	
		6/11/12		337.90		2688.33	
		4/3/13		344.58		2681.65	
		3/12/14		353.78		2672.45	
		4/10/14		355.73		2670.50	
		5/14/14		355.70		2670.53	
		6/12/14		360.00		2666.23	
		7/28/14		362.78		2663.45	
		8/7/14		363.32		2662.91	
		9/8/14		364.56	Static	2661.67	
		10/29/14		365.24		2660.99	
		11/26/14		365.91		2660.32	
		12/17/14		366.51	Static	2659.72	

APPENDIX C

Water Elevation Data

Well Name	Measuring Point Elevation (ft amsl)	Date	Depth to Water (ft bls) ¹	Depth to Water (ft bmp)	Static/ Dynamic	Groundwater Elevation (ft amsl)	Data Source
MH-13B	3025.63	11/10/06		330.70		2694.93	Sierrita EDMS
		1/24/07		330.58		2695.05	
		4/18/07		332.21		2693.42	
		7/17/07		335.47		2690.16	
		10/3/07		335.90		2689.73	
		1/4/08		334.85		2690.78	
		4/29/08		336.35		2689.28	
		7/16/08		337.92		2687.71	
		10/20/08		339.14		2686.49	
		1/23/09		337.20		2688.43	
		4/15/09		336.50		2689.13	
		4/21/10		337.47		2688.16	
		5/23/11		338.75		2686.88	
		6/11/12		342.50		2683.13	
		4/3/13		348.98		2676.65	
		3/12/14		358.93		2666.70	
		4/10/14		361.02		2664.61	
		5/14/14		360.97		2664.66	
		6/12/14		365.82		2659.81	
		7/28/14		368.39		2657.24	
		8/7/14		369.30		2656.33	
		9/8/14		369.93	Static	2655.70	
		10/29/14		370.39		2655.24	
		11/26/14		370.78		2654.85	
		12/17/14		371.23	Static	2654.40	
MH-13C	3028.46	11/10/06		335.38		2693.08	Sierrita EDMS
		1/24/07		335.45		2693.01	
		4/18/07		337.80		2690.66	
		7/17/07		339.82		2688.64	
		10/4/07		340.75		2687.71	
		1/4/08		340.42		2688.04	
		4/29/08		341.55		2686.91	
		7/16/08		343.35		2685.11	
		10/20/08		344.57		2683.89	
		1/23/09		343.82		2684.64	
		4/15/09		343.08		2685.38	
		4/21/10		343.86		2684.60	
		5/23/11		344.30		2684.16	
		6/11/12		348.75		2679.71	
		4/3/13		353.62		2674.84	
		3/12/14		362.99		2665.47	
		4/10/14		365.21		2663.25	
		5/14/14		365.22		2663.24	
		6/12/14		370.51		2657.95	
		7/28/14		373.52		2654.94	
		8/7/14		374.46		2654.00	
		9/8/14		375.79	Static	2652.67	
		10/29/14		376.54		2651.92	
		11/26/14		377.00		2651.46	
		12/17/14		377.60	Static	2650.86	

APPENDIX C

Water Elevation Data

Well Name	Measuring Point Elevation (ft amsl)	Date	Depth to Water (ft bls) ¹	Depth to Water (ft bmp)	Static/ Dynamic	Groundwater Elevation (ft amsl)	Data Source
MH-14	3153.46	12/18/06		427.28		2726.18	Sierrita EDMS
		2/23/07		426.75		2726.71	
		4/23/07		425.58		2727.88	
		7/10/07		424.20		2729.26	
		10/17/07		422.80		2730.66	
		1/18/08		424.87		2728.59	
		4/8/08		425.13		2728.33	
		7/22/08		423.92		2729.54	
		10/6/08		426.03		2727.43	
		2/13/09		425.90		2727.56	
		4/7/09		424.90		2728.56	
		4/15/10		422.91		2730.55	
		8/12/10		421.82		2731.64	
		4/19/11		418.94		2734.52	
		4/25/12		419.83		2733.63	
		4/2/13		425.59		2727.87	
		10/21/13		426.13		2727.33	
		1/3/14		426.45		2727.01	
		3/12/14		Dry		NA	
		3/25/14		435.04		2718.42	
		4/9/14		436.20		2717.26	
		5/14/14		436.12		2717.34	
		6/24/14		436.09		2717.37	
		7/7/14		440.32		2713.14	
		8/8/14		441.58		2711.88	
		9/9/14		442.76	Static	2710.70	
		10/28/14		442.79		2710.67	
		11/4/14		443.64		2709.82	
		11/4/14		443.64		2709.82	
		12/20/14		444.48	Static	2708.98	
MH-15E	3111.37	11/10/06		385.25		2726.12	Sierrita EDMS
		2/23/07		384.07		2727.30	
		4/23/07		385.11		2726.26	
		7/21/07		385.80		2725.57	
		10/20/07		387.08		2724.29	
		1/18/08		386.60		2724.77	
		4/21/08		386.18		2725.19	
		7/29/08		387.39		2723.98	
		10/24/08		388.51		2722.86	
		2/17/09		387.46		2723.91	
		6/2/09		386.98		2724.39	
		4/13/10		386.17		2725.20	
		4/18/11		382.69		2728.68	
		6/14/12		391.96		2719.41	
		4/2/13		407.42		2703.95	
		3/12/14		409.49		2701.88	
		4/25/14		410.59		2700.78	
		5/14/14		410.62		2700.75	
		6/24/14		410.60		2700.77	
		7/29/14		404.02		2707.35	
		8/8/14		404.33		2707.04	
		9/9/14		404.56	Static	2706.81	
		10/28/14		402.90		2708.47	
		11/26/14		403.20		2708.17	
		12/20/14		403.49	Static	2707.88	

APPENDIX C

Water Elevation Data

Well Name	Measuring Point Elevation (ft amsl)	Date	Depth to Water (ft bls) ¹	Depth to Water (ft bmp)	Static/ Dynamic	Groundwater Elevation (ft amsl)	Data Source
MH-15W	3117.07	12/18/06		391.30		2725.77	Sierrita EDMS
		2/23/07		390.00		2727.07	
		4/23/07		391.18		2725.89	
		7/11/07		390.85		2726.22	
		10/17/07		393.10		2723.97	
		1/18/08		392.90		2724.17	
		4/8/08		391.00		2726.07	
		7/1/08		392.70		2724.37	
		10/6/08		394.00		2723.07	
		1/7/09		392.55		2724.52	
		5/6/09		390.25		2726.82	
		4/15/10		390.58		2726.49	
		8/12/10		389.20		2727.87	
		5/17/11		388.95		2728.12	
		4/25/12		397.62		2719.45	
		5/28/13		409.15		2707.92	
		12/12/13		414.19		2702.88	
		1/3/14		412.60		2704.47	
		3/12/14		414.01		2703.06	
		4/9/14		412.76		2704.31	
		5/14/14		412.77		2704.30	
		6/24/14		412.74		2704.33	
		7/7/14		413.44		2703.63	
		8/8/14		409.65		2707.42	
		9/9/14		407.53	Static	2709.54	
		10/28/14		403.64		2713.43	
		11/4/14		405.18		2711.89	
		12/20/14		406.58	Static	2710.49	
MH-16E	3097.72	12/18/06		344.70		2753.02	Sierrita EDMS
		2/23/07		349.39		2748.33	
		4/23/07		352.85		2744.87	
		7/21/07		355.00		2742.72	
		10/20/07		355.55		2742.17	
		1/19/08		355.30		2742.42	
		4/21/08		355.15		2742.57	
		7/29/08		356.78		2740.94	
		10/24/08		357.62		2740.10	
		2/17/09		357.02		2740.70	
		6/2/09		354.15		2743.57	
		4/13/10		357.71		2740.01	
		4/18/11		354.93		2742.79	
		4/26/12		362.82		2734.90	
		5/23/13		364.82		2732.90	
		3/12/14		384.61		2713.11	
		4/25/14		382.54		2715.18	
		5/14/14		382.56		2715.16	
		6/24/14		382.55		2715.17	
		7/29/14		380.17		2717.55	
		8/8/14		381.30		2716.42	
		9/9/14		382.26	Static	2715.46	
		10/28/14		379.10		2718.62	
		11/26/14		380.26		2717.46	
		12/21/14		381.24	Static	2716.48	

APPENDIX C

Water Elevation Data

Well Name	Measuring Point Elevation (ft amsl)	Date	Depth to Water (ft bls) ¹	Depth to Water (ft bmp)	Static/ Dynamic	Groundwater Elevation (ft amsl)	Data Source
MH-16W	3100.24	12/18/06		346.62		2753.62	Sierrita EDMS
		2/23/07		352.18		2748.06	
		4/23/07		355.75		2744.49	
		7/11/07		357.47		2742.77	
		10/17/07		357.75		2742.49	
		1/3/08		357.80		2742.44	
		4/24/08		357.87		2742.37	
		7/22/08		359.24		2741.00	
		10/8/08		360.03		2740.21	
		3/19/09		358.73		2741.51	
		4/7/09		358.60		2741.64	
		4/15/10		360.31		2739.93	
		8/12/10		360.42		2739.82	
		5/17/11		357.55		2742.69	
		4/25/12		364.24		2736.00	
		4/2/13		377.99		2722.25	
		10/21/13		387.88		2712.36	
		1/3/14		389.39		2710.85	
		3/12/14		385.88		2714.36	
		4/9/14		383.83		2716.41	
		5/14/14		383.87		2716.37	
		6/24/14		383.89		2716.35	
		7/7/14		381.43		2718.81	
		7/7/14		381.43		2718.81	
		8/8/14		382.48		2717.76	
		9/9/14		383.38	Static	2716.86	
		10/28/14		379.41		2720.83	
		11/4/14		380.82		2719.42	
		11/4/14		380.82		2719.42	
		12/21/14		382.11	Static	2718.13	
MH-24	3131.16	11/21/06		397.50		2733.66	Sierrita EDMS
		4/20/07		399.35		2731.81	
		8/3/07		399.33		2731.83	
		11/8/07		400.50		2730.66	
		1/30/08		396.90		2734.26	
		4/24/08		395.89		2735.27	
		8/7/08		396.78		2734.38	
		11/14/08		396.88		2734.28	
		2/17/09		396.31		2734.85	
		6/2/09		396.50		2734.66	
		4/13/10		386.43		2744.73	
		4/18/11		392.84		2738.32	
		4/25/12		396.58		2734.58	
		4/2/13		408.56		2722.60	
		4/29/14		Obstructed		NA	
		5/22/14		407.41		2723.75	
MH-25A	3056.57	11/13/06		454.11		2602.46	Sierrita EDMS
		1/10/07		453.10		2603.47	
		4/4/07		452.20		2604.37	
		7/20/07		454.02		2602.55	
		10/3/07		454.69		2601.88	
		1/2/08		454.82		2601.75	
		4/25/08		454.47		2602.10	
		7/2/08		455.68		2600.89	
		10/17/08		457.49		2599.08	
		1/5/09		457		2599.57	
		4/15/09		455.90		2600.67	
		4/13/10		458.10		2598.47	
		4/27/11		459.25		2597.32	
		5/1/12		459.69		2596.88	
		4/3/13		461.70		2594.87	
		3/12/14		473.95		2582.62	
		4/15/14		477.45		2579.12	
		5/13/14		477.40		2579.17	
		6/9/14		482.36		2574.21	
		7/28/14		486.66		2569.91	
		8/7/14		488.09		2568.48	
		9/8/14		489.49	Static	2567.08	
		10/29/14		492.67		2563.90	
		11/26/14		495.20		2561.37	
		12/17/14		497.76	Static	2558.81	

APPENDIX C

Water Elevation Data

Well Name	Measuring Point Elevation (ft amsl)	Date	Depth to Water (ft bls) ¹	Depth to Water (ft bmp)	Static/ Dynamic	Groundwater Elevation (ft amsl)	Data Source
MH-25B	3058.22	11/13/06		455.36		2602.86	Sierrita EDMS
		1/10/07		454.28		2603.94	
		4/4/07		453.20		2605.02	
		7/20/07		455.32		2602.90	
		10/3/07		456.01		2602.21	
		1/2/08		456.05		2602.17	
		4/25/08		456.02		2602.20	
		7/2/08		457.10		2601.12	
		10/17/08		458.39		2599.83	
		1/5/09		458.38		2599.84	
		4/15/09		457.28		2600.94	
		4/13/10		458.27		2599.95	
		4/27/11		460.35		2597.87	
		6/15/11		460.85		2597.37	
		5/1/12		460.90		2597.32	
		4/3/13		463.02		2595.20	
		3/12/14		475.49		2582.73	
		4/15/14		478.92		2579.30	
		5/13/14		478.93		2579.29	
		6/9/14		483.75		2574.47	
		7/28/14		488.06		2570.16	
MH-25C	3057.24	8/7/14		489.41		2568.81	Sierrita EDMS
		9/8/14		490.78	Static	2567.44	
		10/29/14		493.95		2564.27	
		11/26/14		496.89		2561.33	
		12/17/14		499.64	Static	2558.58	
		11/13/06		454.65		2602.59	
		1/10/07		453.57		2603.67	
		4/13/07		452.30		2604.94	
		7/20/07		454.42		2602.82	
		10/3/07		455.19		2602.05	
		1/2/08		455.06		2602.18	
		4/25/08		454.84		2602.40	
		7/2/08		456.23		2601.01	
		10/17/08		457.49		2599.75	
		1/5/09		457.30		2599.94	
		4/15/09		456.41		2600.83	
		4/13/10		459.28		2597.96	
		4/27/11		459.16		2598.08	
		6/15/11		459.52		2597.72	
		5/1/12		459.76		2597.48	
		4/3/13		461.80		2595.44	
		3/12/14		474.31		2582.93	
		4/15/14		477.67		2579.57	
		5/13/14		477.63		2579.61	
		6/9/14		482.63		2574.61	
		7/28/14		487.01		2570.23	
		8/7/14		488.25		2568.99	
		9/8/14		489.69	Static	2567.55	
		10/29/14		492.81		2564.43	
		11/26/14		495.28		2561.96	
		12/17/14		497.94	Static	2559.30	

APPENDIX C

Water Elevation Data

Well Name	Measuring Point Elevation (ft amsl)	Date	Depth to Water (ft bls) ¹	Depth to Water (ft bmp)	Static/ Dynamic	Groundwater Elevation (ft amsl)	Data Source
MH-26A	3070.89	11/13/06		495.74		2575.15	Sierrita EDMS
		1/15/07		495.65		2575.24	
		4/4/07		493.75		2577.14	
		7/19/07		495.02		2575.87	
		10/2/07		496.12		2574.77	
		1/2/08		496.28		2574.61	
		4/25/08		495.73		2575.16	
		7/2/08		496.98		2573.91	
		10/17/08		498.23		2572.66	
		1/5/09		498.76		2572.13	
		4/21/09		497.85		2573.04	
		4/13/10		499.68		2571.21	
		4/27/11		500.71		2570.18	
		5/2/12		501.05		2569.84	
		4/4/13		501.96		2568.93	
		3/12/14		513.50		2557.39	
		4/15/14		513.40		2557.49	
		5/13/14		513.36		2557.53	
		6/9/14		520.93		2549.96	
		7/28/14		524.95		2545.94	
		8/7/14		525.55		NA	
		9/8/14		DRY	Static	NA	
		10/28/14		DRY		NA	
		11/26/14		DRY		NA	
		12/16/14		DRY	Static	NA	
MH-26B	3070.50	11/13/06		493.00		2577.50	Sierrita EDMS
		1/15/07		492.85		2577.65	
		4/4/07		490.78		2579.72	
		7/19/07		492.01		2578.49	
		10/2/07		493.18		2577.32	
		1/2/08		493.76		2576.74	
		4/25/08		492.98		2577.52	
		7/2/08		494.10		2576.40	
		10/20/08		495.31		2575.19	
		1/5/09		495.88		2574.62	
		4/21/09		494.90		2575.60	
		4/13/10		496.77		2573.73	
		5/5/11		497.73		2572.77	
		5/1/12		498.00		2572.50	
		4/4/13		499.03		2571.47	
		3/12/14		510.69		2559.81	
		4/15/14		510.67		2559.83	
		5/13/14		510.68		2559.82	
		6/9/14		517.75		2552.75	
		7/28/14		522.14		2548.36	
		8/7/14		523.46		2547.04	
		9/8/14		524.35	Static	2546.15	
		10/28/14		527.68		2542.82	
		11/26/14		529.90		2540.60	
		12/16/14		531.11	Static	2539.39	

APPENDIX C

Water Elevation Data

Well Name	Measuring Point Elevation (ft amsl)	Date	Depth to Water (ft bls) ¹	Depth to Water (ft bmp)	Static/ Dynamic	Groundwater Elevation (ft amsl)	Data Source
MH-26C	3069.11	11/13/06		494.45		2574.66	Sierrita EDMS
		1/15/07		494.10		2575.01	
		4/4/07		492.30		2576.81	
		7/19/07		493.62		2575.49	
		10/2/07		496.58		2572.53	
		1/2/08		495.35		2573.76	
		4/25/08		494.37		2574.74	
		7/2/08		495.55		2573.56	
		10/20/08		496.78		2572.33	
		1/5/09		497.21		2571.90	
		4/21/09		493.95		2575.16	
		4/13/10		498.14		2570.97	
		4/27/11		499.14		2569.97	
		5/1/12		499.44		2569.67	
		4/4/13		500.61		2568.50	
		3/12/14		512.31		2556.80	
		4/15/14		512.27		2556.84	
		5/13/14		512.30		2556.81	
		6/9/14		519.21		2549.90	
		7/28/14		523.77		2545.34	
		8/7/14		525.34		2543.77	
		9/8/14		526.04	Static	2543.07	
		10/28/14		529.30		2539.81	
		11/26/14		532.02		2537.09	
		12/16/14		535.02	Static	2534.09	
MH-28	3142.18	11/14/06		401.10		2741.08	Sierrita EDMS
		2/19/07		401.10		2741.08	
		4/17/07		402.32		2739.86	
		7/16/07		403.18		2739.00	
		10/11/07		403.00		2739.18	
		1/21/08		402.72		2739.46	
		4/8/08		401.90		2740.28	
		7/1/08		401.48		2740.70	
		10/6/08		402.17		2740.01	
		1/7/09		402		2740.18	
		4/7/09		401.06		2741.12	
		10/13/09		401.10		2741.08	
		4/15/10		395.65		2746.53	
		8/12/10		398.60		2743.58	
		10/12/10		399.00		2743.18	
		5/17/11		396.89		2745.29	
		10/4/11		397.90		2744.28	
		5/21/12		398.64		2743.54	
		10/9/12		403.77		2738.41	
		4/2/13		405.08		2737.10	
		10/21/13		407.88		2734.30	
		1/3/14		408.01		2734.17	
		3/12/14		411.69		2730.49	
		4/9/14		412.72		2729.46	
		5/14/14		412.74		2729.44	
		6/24/14		412.76		2729.42	
		7/7/14		414.90		2727.28	
		7/7/14		414.90		2727.28	
		8/8/14		414.60		2727.58	
		9/9/14		414.19	Static	2727.99	
		10/28/14		415.32		2726.86	
		11/4/14		415.92		2726.26	
		11/4/14		415.92		2726.26	
		12/20/14		416.46	Static	2725.72	

APPENDIX C

Water Elevation Data

Well Name	Measuring Point Elevation (ft amsl)	Date	Depth to Water (ft bls) ¹	Depth to Water (ft bmp)	Static/ Dynamic	Groundwater Elevation (ft amsl)	Data Source
MH-29	3123.15	11/14/06		378.05		2745.10	Sierrita EDMS
		2/19/07		376.58		2746.57	
		4/17/07		376.75		2746.40	
		7/16/07		379.07		2744.08	
		10/11/07		381.92		2741.23	
		1/18/08		380.41		2742.74	
		4/8/08		380.16		2742.99	
		7/1/08		380.50		2742.65	
		10/7/08		381.52		2741.63	
		1/9/09		380.25		2742.90	
		4/7/09		379.90		2743.25	
		10/13/09		380.52		2742.63	
		4/15/10		379.59		2743.56	
		8/12/10		378.65		2744.50	
		10/12/10		379.31		2743.84	
		4/20/11		377.75		2745.40	
		5/23/11		377.80		2745.35	
		10/4/11		380.25		2742.90	
		5/21/12		389.39		2733.76	
		10/9/12		365.70		2757.45	
		4/2/13		392.00		2731.15	
		11/8/13		393.39		2729.76	
		12/11/13		394.82		2728.33	
		1/3/14		394.63		2728.52	
		3/12/14		394.25		2728.90	
		4/9/14		393.95		2729.20	
		5/14/14		393.92		2729.23	
		6/24/14		393.94		2729.21	
		7/7/14		392.13		2731.02	
		8/8/14		392.28		2730.87	
		9/9/14		392.59	Static	2730.56	
		10/28/14		400.46		2722.69	
		11/4/14		400.90		2722.25	
		11/4/14		400.90		2722.25	
		12/21/14		401.30	Static	2721.85	
MH-30	3232.45	11/10/06		422.78		2809.67	Sierrita EDMS
		1/9/07		421.65		2810.80	
		4/9/07		419.32		2813.13	
		7/11/07		416.85		2815.60	
		10/2/07		416.95		2815.50	
		1/18/08		417.34		2815.11	
		4/8/08		418.12		2814.33	
		7/1/08		417.71		2814.74	
		10/6/08		417.11		2815.34	
		1/7/09		416.37		2816.08	
		4/7/09		415.10		2817.35	
		4/15/10		412.03		2820.42	
		5/17/11		412.18		2820.27	
		4/26/12		420.61		2811.84	
		6/6/13		427.36		2805.09	
		3/12/14		429.01		2803.44	
		4/8/14		429.46		2802.99	
		5/14/14		429.47		2802.98	
		6/24/14		429.48		2802.97	
		7/29/14		430.12		2802.33	
		8/8/14		430.23		2802.22	
		9/9/14		430.41	Static	2802.04	
		10/28/14		451.78		2780.67	
		11/26/14		430.82		2801.63	
		12/20/14		436.19	Static	2796.26	

APPENDIX C

Water Elevation Data

Well Name	Measuring Point Elevation (ft amsl)	Date	Depth to Water (ft bls) ¹	Depth to Water (ft bmp)	Static/ Dynamic	Groundwater Elevation (ft amsl)	Data Source
MO-2007-1A	2967.65	7/30/07		425.87		2541.78	Sierrita EDMS
		10/9/07		428.32		2539.33	
		1/24/08		426.32		2541.33	
		4/9/08		424.72		2542.93	
		7/14/08		428.42		2539.23	
		10/17/08		431.02		2536.63	
		1/16/09		428.90		2538.75	
		4/1/09		426.86		2540.79	
		7/1/09		426.90		2540.75	
		10/22/09		434.05		2533.60	
		4/16/10		428.89		2538.76	
		10/13/10		434.09		2533.56	
		5/5/11		429.31		2538.34	
		10/6/11		433.60		2534.05	
		6/12/12		431.38		2536.27	
		10/24/12		435.12		2532.53	
		4/8/13		429.69		2537.96	
		10/23/13		435.06		2532.59	
		3/12/14		435.92		2531.73	
		4/29/14		437.74		2529.91	
		5/8/14		437.72		2529.93	
		6/9/14		440.59		2527.06	
		7/28/14		443.83		2523.82	
		8/7/14		444.58		2523.07	
		9/8/14		445.78	Static	2521.87	
		10/28/14		448.18		2519.47	
		11/12/14		448.42		2519.23	
		11/12/14		448.42		2519.23	
		12/16/14		448.63	Static	2519.02	
MO-2007-1B	2966.82	7/30/07		425.67		2541.15	Sierrita EDMS
		10/9/07		429.20		2537.62	
		1/24/08		426.41		2540.41	
		4/9/08		425.05		2541.77	
		7/14/08		428.98		2537.84	
		10/17/08		431.64		2535.18	
		1/16/09		429.05		2537.77	
		4/1/09		427.23		2539.59	
		7/1/09		427.70		2539.12	
		10/22/09		434.90		2531.92	
		4/16/10		429.13		2537.69	
		10/13/10		434.47		2532.35	
		5/5/11		429.65		2537.17	
		10/6/11		434.10		2532.72	
		6/12/12		431.95		2534.87	
		10/24/12		435.62		2531.20	
		4/8/13		429.03		2537.79	
		10/23/13		435.71		2531.11	
		3/12/14		436.56		2530.26	
		4/29/14		438.64		2528.18	
		5/8/14		438.67		2528.15	
		6/9/14		441.65		2525.17	
		7/28/14		444.85		2521.97	
		8/7/14		445.81		2521.01	
		9/8/14		446.61	Static	2520.21	
		10/28/14		448.92		2517.90	
		11/12/14		449.05		2517.77	
		11/12/14		449.05		2517.77	
		12/16/14		449.19	Static	2517.63	

APPENDIX C

Water Elevation Data

Well Name	Measuring Point Elevation (ft amsl)	Date	Depth to Water (ft bls) ¹	Depth to Water (ft bmp)	Static/ Dynamic	Groundwater Elevation (ft amsl)	Data Source
MO-2007-1C	2968.58	7/30/07		423.87		2544.71	Sierrita EDMS
		10/9/07		427.02		2541.56	
		1/24/08		424.00		2544.58	
		4/9/08		423.30		2545.28	
		7/14/08		426.73		2541.85	
		10/21/08		429.49		2539.09	
		1/16/09		426.75		2541.83	
		4/1/09		424.90		2543.68	
		7/1/09		428.81		2539.77	
		10/22/09		427.60		2540.98	
		4/16/10		426.93		2541.65	
		10/13/10		431.88		2536.70	
		4/20/11		427.32		2541.26	
		10/6/11		431.80		2536.78	
		6/12/12		429.40		2539.18	
		10/24/12		433.08		2535.50	
		4/8/13		426.50		2542.08	
		10/23/13		433.06		2535.52	
		3/12/14		434.69		2533.89	
		4/29/14		437.08		2531.50	
		5/8/14		436.98		2531.60	
		6/9/14		440.40		2528.18	
		7/28/14		443.49		2525.09	
		8/7/14		444.30		2524.28	
		9/8/14		445.02	Static	2523.56	
		10/28/14		447.53		2521.05	
		11/12/14		447.62		2520.96	
		11/12/14		447.62		2520.96	
		12/16/14		447.70	Static	2520.88	
MO-2007-2	3153.83	8/9/07		575.30		2578.53	Sierrita EDMS
		10/9/07		576.60		2577.23	
		1/22/08		577.22		2576.61	
		4/17/08		576.65		2577.18	
		7/14/08		577.35		2576.48	
		10/17/08		578.54		2575.29	
		1/15/09		579.10		2574.73	
		4/1/09		578.38		2575.45	
		4/13/10		580.50		2573.33	
		4/27/11		581.41		2572.42	
		5/2/12		581.75		2572.08	
		4/8/13		582.45		2571.38	
		3/12/14		592.12		2561.71	
		4/9/14		591.93		2561.90	
		5/8/14		590.86		2562.97	
		6/9/14		600.45		2553.38	
		7/28/14		604.52		2549.31	
		8/7/14		605.29		2548.54	
		9/8/14		607.39	Static	2546.44	
		10/28/14		610.63		2543.20	
		11/26/14		612.53		2541.30	
		12/16/14		613.88	Static	2539.95	

APPENDIX C

Water Elevation Data

Well Name	Measuring Point Elevation (ft amsl)	Date	Depth to Water (ft bls) ¹	Depth to Water (ft bmp)	Static/ Dynamic	Groundwater Elevation (ft amsl)	Data Source
MO-2007-3B	2912.15	9/10/07		359.38		2552.77	Sierrita EDMS
		10/9/07		359.55		2552.60	
		1/21/08		357.13		2555.02	
		4/16/08		357.10		2555.05	
		7/14/08		358.71		2553.44	
		10/22/08		361.77		2550.38	
		1/19/09		358.95		2553.20	
		4/1/09		357.70		2554.45	
		7/27/09		361.21		2550.94	
		10/22/09		365.50		2546.65	
		3/11/10		359.36		2552.79	
		4/14/10		360.30		2551.85	
		7/21/10		362.20		2549.95	
		10/26/10		364.82		2547.33	
		1/18/11		361.99		2550.16	
		5/4/11		361.59		2550.56	
		7/6/11		363.80		2548.35	
		11/22/11		365.10		2547.05	
		1/11/12		363.36		2548.79	
		5/8/12		362.09		2550.06	
		8/7/12		363.87		2548.28	
		1/8/13		362.33		2549.82	
		4/9/13		360.13		2552.02	
		5/21/13		359.84		2552.31	
		8/27/13		365.16		2546.99	
		10/24/13		366.19		2545.96	
		1/7/14		364.11		2548.04	
		3/12/14		368.18		2543.97	
		4/16/14		369.34		2542.81	
		5/14/14		369.35		2542.80	
		6/23/14		369.35		2542.80	
		7/1/14		375.64		2536.51	
		7/1/14		375.64		2536.51	
		7/8/14		375.64		2536.51	
		8/8/14		377.48		2534.67	
		9/9/14		378.82	Static	2533.33	
		10/29/14		379.96		2532.19	
		11/13/14		381.17		2530.98	
		11/13/14		381.17		2530.98	
		12/17/14		382.07	Static	2530.08	

APPENDIX C

Water Elevation Data

Well Name	Measuring Point Elevation (ft amsl)	Date	Depth to Water (ft bls) ¹	Depth to Water (ft bmp)	Static/ Dynamic	Groundwater Elevation (ft amsl)	Data Source
MO-2007-3C	2911.90	7/5/07		356.30		2555.60	Sierrita EDMS
		10/10/07		359.85		2552.05	
		1/21/08		356.74		2555.16	
		4/15/08		357.18		2554.72	
		7/14/08		359.84		2552.06	
		10/21/08		361.99		2549.91	
		1/19/09		359.61		2552.29	
		4/1/09		358		2553.90	
		7/22/09		362		2549.90	
		10/22/09		362.80		2549.10	
		3/11/10		359.62		2552.28	
		4/14/10		360.45		2551.45	
		7/21/10		367.50		2544.40	
		10/26/10		365.13		2546.77	
		1/18/11		361.62		2550.28	
		5/4/11		361.61		2550.29	
		7/6/11		363.75		2548.15	
		10/5/11		365.50		2546.40	
		1/11/12		363.36		2548.54	
		5/7/12		362.35		2549.55	
		8/7/12		364.49		2547.41	
		10/10/12		366.50		2545.40	
		1/8/13		362.59		2549.31	
		4/9/13		360.45		2551.45	
		8/27/13		365.47		2546.43	
		10/24/13		366.79		2545.11	
		1/7/14		364.19		2547.71	
		3/12/14		368.09		2543.81	
		4/16/14		369.60		2542.30	
		5/14/14		369.63		2542.27	
		6/23/14		369.65		2542.25	
		7/1/14		376.55		2535.35	
		7/1/14		376.55		2535.35	
		7/9/14		376.55		2535.35	
		8/8/14		377.79		2534.11	
		9/9/14		379.28	Static	2532.62	
		10/29/14		380.51		2531.39	
		11/13/14		381.92		2529.98	
		11/13/14		381.92		2529.98	
		12/17/14		383.22	Static	2528.68	

APPENDIX C

Water Elevation Data

Well Name	Measuring Point Elevation (ft amsl)	Date	Depth to Water (ft bls) ¹	Depth to Water (ft bmp)	Static/ Dynamic	Groundwater Elevation (ft amsl)	Data Source
MO-2007-4A	2923.63	10/9/07		307.67		2615.96	Sierrita EDMS
		1/22/08		303.85		2619.78	
		4/16/08		305.46		2618.17	
		7/17/08		308.05		2615.58	
		10/22/08		309.65		2613.98	
		1/19/09		306.28		2617.35	
		4/2/09		306.69		2616.94	
		7/1/09		307.92		2615.71	
		10/26/09		309.10		2614.53	
		1/26/10		308.52		2615.11	
		4/14/10		308.53		2615.10	
		7/21/10		311.05		2612.58	
		10/13/10		312.00		2611.63	
		1/19/11		308.82		2614.81	
		5/4/11		309.68		2613.95	
		7/6/11		311.75		2611.88	
		10/5/11		312.50		2611.13	
		1/17/12		310.05		2613.58	
		5/7/12		310.42		2613.21	
		8/13/12		313.30		2610.33	
		10/23/12		314.17		2609.46	
		2/21/13		311.70		2611.93	
		4/10/13		312.68		2610.95	
		7/10/13		316.31		2607.32	
		10/22/13		318.07		2605.56	
		1/10/14		316.34		2607.29	
		3/12/14		319.78		2603.85	
		4/8/14		321.40		2602.23	
		5/6/14		321.36		2602.27	
		6/23/14		321.33		2602.30	
		7/8/14		329.06		2594.57	
		7/8/14		329.06		2594.57	
		8/8/14		331.16		2592.47	
		9/9/14		332.77	Static	2590.86	
		10/29/14		334.28		2589.35	
		11/12/14		335.68		2587.95	
		11/12/14		335.68		2587.95	
		12/17/14		336.93	Static	2586.70	

APPENDIX C

Water Elevation Data

Well Name	Measuring Point Elevation (ft amsl)	Date	Depth to Water (ft bls) ¹	Depth to Water (ft bmp)	Static/ Dynamic	Groundwater Elevation (ft amsl)	Data Source
MO-2007-4B	2923.57	10/11/07		308.72		2614.85	Sierrita EDMS
		1/7/08		304.22		2619.35	
		4/16/08		306.48		2617.09	
		7/18/08		308.95		2614.62	
		10/22/08		310.77		2612.80	
		1/21/09		306		2617.57	
		4/2/09		306.72		2616.85	
		7/1/09		309.1		2614.47	
		10/26/09		313.00		2610.57	
		1/26/10		308.29		2615.28	
		4/14/10		308.79		2614.78	
		7/21/10		311.22		2612.35	
		10/13/10		312.39		2611.18	
		1/19/11		308.84		2614.73	
		5/4/11		310.40		2613.17	
		7/6/11		312.85		2610.72	
		10/5/11		313.50		2610.07	
		1/17/12		309.81		2613.76	
		5/7/12		311.47		2612.10	
		8/13/12		314.42		2609.15	
		10/23/12		315.28		2608.29	
		2/21/13		311.79		2611.78	
		4/10/13		313.17		2610.40	
		7/10/13		317.96		2605.61	
		10/22/13		319.56		2604.01	
		1/10/14		316.92		2606.65	
		3/12/14		322.35		2601.22	
		4/8/14		324.09		2599.48	
		5/6/14		324.03		2599.54	
		6/23/14		324.00		2599.57	
		7/8/14		333.65		2589.92	
		7/8/14		333.65		2589.92	
		8/8/14		335.20		2588.37	
		9/9/14		336.99	Static	2586.58	
		10/29/14		338.56		2585.01	
		11/12/14		339.10		2584.47	
		11/12/14		339.10		2584.47	
		12/17/14		339.66	Static	2583.91	

APPENDIX C

Water Elevation Data

Well Name	Measuring Point Elevation (ft amsl)	Date	Depth to Water (ft bls) ¹	Depth to Water (ft bmp)	Static/ Dynamic	Groundwater Elevation (ft amsl)	Data Source
MO-2007-4C	2923.66	8/12/07		307.13		2616.53	Sierrita EDMS
		10/12/07		308.78		2614.88	
		1/22/08		304.90		2618.76	
		4/16/08		306.75		2616.91	
		7/18/08		309.10		2614.56	
		10/22/08		311.41		2612.25	
		1/21/09		306.80		2616.86	
		4/2/09		311.49		2612.17	
		7/1/09		311.68		2611.98	
		10/26/09		311.30		2612.36	
		1/26/10		309.53		2614.13	
		4/14/10		309.58		2614.08	
		7/21/10		312.75		2610.91	
		10/13/10		313.49		2610.17	
		1/19/11		309.94		2613.72	
		5/4/11		311.53		2612.13	
		7/6/11		314.05		2609.61	
		10/5/11		314.80		2608.86	
		1/12/12		311.00		2612.66	
		5/7/12		312.37		2611.29	
		8/13/12		315.55		2608.11	
		10/23/12		316.47		2607.19	
		2/21/13		312.89		2610.77	
		4/10/13		314.14		2609.52	
		7/10/13		318.94		2604.72	
		10/22/13		320.63		2603.03	
		1/10/14		318.02		2605.64	
		3/12/14		323.88		2599.78	
		4/8/14		325.83		2597.83	
		5/6/14		325.81		2597.85	
		6/23/14		325.84		2597.82	
		7/8/14		335.70		2587.96	
		7/8/14		335.70		2587.96	
		8/8/14		336.88		2586.78	
		9/9/14		338.81	Static	2584.85	
		10/29/14		340.60		2583.06	
		11/12/14		341.00		2582.66	
		11/12/14		341.00		2582.66	
		12/17/14		341.53	Static	2582.13	
MO-2007-5B	2944.35	10/12/07		268.27		2676.08	Sierrita EDMS
		1/7/08		262.09		2682.26	
		4/17/08		266.22		2678.13	
		7/24/08		268.61		2675.74	
		10/23/08		272.16		2672.19	
		1/21/09		265.83		2678.52	
		4/2/09		269.20		2675.15	
		1/25/10		268.30		2676.05	
		4/27/10		268.02		2676.33	
		12/10/10		272.31		2672.04	
		6/24/11		275.70		2668.65	
		11/21/11		273.28		2671.07	
		6/20/12		277.46		2666.89	
		11/6/12		280.33		2664.02	
		6/12/13		288.32		2656.03	
		10/24/13		287.84		2656.51	
		3/12/14		287.24		2657.11	
		4/29/14		294.80		2649.55	
		5/14/14		294.78		2649.57	
		6/23/14		294.76		2649.59	
		7/28/14		299.29		2645.06	
		8/7/14		301.38		2642.97	
		9/8/14		302.31	Static	2642.04	
		10/15/14		300.14		2644.21	
		10/15/14		300.14		2644.21	
		11/26/14		300.87		2643.48	
		12/17/14		301.43	Static	2642.92	

APPENDIX C

Water Elevation Data

Well Name	Measuring Point Elevation (ft amsl)	Date	Depth to Water (ft bls) ¹	Depth to Water (ft bmp)	Static/ Dynamic	Groundwater Elevation (ft amsl)	Data Source
MO-2007-5C	2944.91	8/23/07		294.04		2650.87	Sierrita EDMS
		10/13/07		289.70		2655.21	
		1/7/08		285.09		2659.82	
		4/17/08		281.52		2663.39	
		7/24/08		282.42		2662.49	
		10/23/08		285.03		2659.88	
		1/22/09		281.38		2663.53	
		5/13/09		282.35		2662.56	
		10/27/09		284.70		2660.21	
		4/27/10		276.49		2668.42	
		12/10/10		278.31		2666.60	
		5/24/11		278.21		2666.70	
		11/21/11		280.98		2663.93	
		6/18/12		281.66		2663.25	
		11/6/12		286.84		2658.07	
		6/13/13		292.47		2652.44	
		11/12/13		292.49		2652.42	
		3/12/14		291.79		2653.12	
		5/6/14		298.74		2646.17	
		5/6/14		298.74		2646.17	
		6/23/14		298.76		2646.15	
		7/28/14		304.81		2640.10	
		8/7/14		305.34		2639.57	
		9/8/14		305.94	Static	2638.97	
		10/15/14		305.76		2639.15	
		10/15/14		305.76		2639.15	
		11/26/14		305.90		2639.01	
		11/26/14		332.08		2612.83	
		12/17/14		306.05	Static	2638.86	
MO-2007-6A	3043.37	10/2/07		303.60		2739.77	Sierrita EDMS
		1/22/08		303.27		2740.10	
		4/18/08		304.02		2739.35	
		7/24/08		305.81		2737.56	
		10/23/08		307.85		2735.52	
		1/22/09		305.87		2737.50	
		4/2/09		304.87		2738.50	
		7/22/09		307.15		2736.22	
		10/26/09		307.00		2736.37	
		3/11/10		306.15		2737.22	
		4/21/10		306.44		2736.93	
		8/10/10		309.12		2734.25	
		10/26/10		308.95		2734.42	
		1/18/11		307.78		2735.59	
		5/5/11		308.13		2735.24	
		7/7/11		309.90		2733.47	
		10/6/11		311.10		2732.27	
		1/11/12		311.24		2732.13	
		6/12/12		314.95		2728.42	
		8/13/12		317.93		2725.44	
		10/18/12		316.94		2726.43	
		1/8/13		321.98		2721.39	
		4/9/13		323.05		2720.32	
		7/10/13		326.23		2717.14	
		10/22/13		329.74		2713.63	
		1/6/14		329.94		2713.43	
		3/12/14		329.85		2713.52	
		4/9/14		330.14		2713.23	
		5/14/14		330.12		2713.25	
		6/23/14		330.08		2713.29	
		7/8/14		331.19		2712.18	
		8/7/14		331.41		2711.96	
		9/8/14		331.78	Static	2711.59	
		10/29/14		331.92		2711.45	
		11/26/14		332.08		2711.29	
		12/2/14		331.73		2711.64	
		12/2/14		331.73	Static	2711.64	

APPENDIX C

Water Elevation Data

Well Name	Measuring Point Elevation (ft amsl)	Date	Depth to Water (ft bls) ¹	Depth to Water (ft bmp)	Static/ Dynamic	Groundwater Elevation (ft amsl)	Data Source
MO-2007-6B	3043.05	10/4/07		319.17		2723.88	Sierrita EDMS
		1/21/08		314.78		2728.27	
		4/17/08		314.75		2728.30	
		7/24/08		317.04		2726.01	
		10/23/08		318.17		2724.88	
		1/22/09		316.58		2726.47	
		4/2/09		316.05		2727.00	
		7/22/09		317.49		2725.56	
		10/26/09		319.37		2723.68	
		3/11/10		316.58		2726.47	
		4/21/10		316.64		2726.41	
		8/10/10		318.40		2724.65	
		10/26/10		318.66		2724.39	
		1/18/11		317.52		2725.53	
		5/5/11		317.00		2726.05	
		7/7/11		318.58		2724.47	
		10/6/11		319.92		2723.13	
		1/11/12		320.03		2723.02	
		6/12/12		325.69		2717.36	
		8/13/12		329.12		2713.93	
		10/18/12		332.52		2710.53	
		1/8/13		333.92		2709.13	
		4/9/13		335.80		2707.25	
		7/10/13		337.52		2705.53	
		10/22/13		340.62		2702.43	
		1/6/14		340.62		2702.43	
		3/12/14		340.61		2702.44	
		4/9/14		340.98		2702.07	
		5/14/14		341.00		2702.05	
		6/23/14		341.04		2702.01	
		7/8/14		341.95		2701.10	
		8/7/14		342.50		2700.55	
		9/8/14		342.88	Static	2700.17	
		10/29/14		342.96		2700.09	
		11/26/14		343.11		2699.94	
		12/2/14		345.25		2697.80	
		12/2/14		345.25	Static	2697.80	
MO-2009-1	2890.78	6/2/09		226.35		2664.43	Sierrita EDMS
		7/29/09		222.46		2668.32	
		11/3/09		225.90		2664.88	
		1/25/10		212.26		2678.52	
		4/20/10		219.94		2670.84	
		8/10/10		227.88		2662.90	
		12/15/10		215.16		2675.62	
		2/2/11		214.99		2675.79	
		6/16/11		226.45		2664.33	
		8/31/11		223.97		2666.81	
		12/1/11		219.96		2670.82	
		1/11/12		222.55		2668.23	
		5/9/12		225.63		2665.15	
		8/15/12		234.23		2656.55	
		11/29/12		229.30		2661.48	
		1/8/13		229.63		2661.15	
		4/10/13		233.98		2656.80	
		7/11/13		238.53		2652.25	
		10/16/13		237.57		2653.21	
		1/6/14		236.58		2654.20	
		3/12/14		237.34		2653.44	
		4/24/14		248.16		2642.62	
		5/6/14		248.19		2642.59	
		6/23/14		248.22		2642.56	
		7/8/14		252.36		2638.42	
		7/8/14		252.36		2638.42	
		8/7/14		254.35		2636.43	
		9/8/14		256.45	Static	2634.33	
		10/29/14		258.27		2632.51	
		11/26/14		259.64		2631.14	
		12/2/14		248.01		2642.77	
		12/2/14		248.01	Static	2642.77	

APPENDIX C

Water Elevation Data

Well Name	Measuring Point Elevation (ft amsl)	Date	Depth to Water (ft bls) ¹	Depth to Water (ft bmp)	Static/ Dynamic	Groundwater Elevation (ft amsl)	Data Source
NP-2 ²	2906.56	11/6/07		355.10		2551.46	Sierrita EDMS
		1/11/08		353.67		2552.89	
		4/17/08		352.20		2554.36	
		7/11/08		355.10		2551.46	
		10/9/08		356.24		2550.32	
		2/9/09		355.00		2551.56	
		4/24/09		354.80		2551.76	
		9/22/09		358.90		2547.66	
		12/31/09		358.57		2547.99	
		2/17/10		357.20		2549.36	
		4/22/10		356.38		2550.18	
		8/5/10		357.93		2548.63	
		10/25/10		360.80		2545.76	
		1/19/11		358.68		2547.88	
		5/3/11		358.30		2548.26	
		7/18/11		359.72		2546.84	
		12/5/11		360.27		2546.29	
		3/21/12		358.10		2548.46	
		6/18/12		359.28		2547.28	
		8/15/12		360.45		2546.11	
		11/29/12		360.79		2545.77	
		2/20/13		356.92		2549.64	
		6/17/13		358.19		2548.37	
		8/27/13		360.56		2546.00	
		10/30/13		362.56		2544.00	
		1/7/14		361.24		2545.32	
		3/12/14		363.18		2543.38	
		4/23/14		364.29		2542.27	
		5/14/14		364.22		2542.34	
		6/23/14		364.24		2542.32	
		7/1/14		368.67		2537.89	
		7/1/14		368.67		2537.89	
		8/8/14		370.36		2536.20	
		9/9/14		372.75	Static	2533.81	
		10/13/14		374.58		2531.98	
		10/13/14		374.58		2531.98	
		11/26/14		375.76		2530.80	
		12/17/14		376.89	Static	2529.67	
PS-1	3040.665	12/30/11	497.01		Static		BasinWells, 2015a
		12/30/11	517.69		Dynamic		BasinWells, 2015a
		3/13/14		Obstructed		NA	Sierrita EDMS
		5/8/14		516.79	Dynamic	2523.88	Sierrita EDMS
		5/15/14		516.79	Dynamic	2523.88	Sierrita EDMS
		5/15/14	516.79		Dynamic		BasinWells, 2015a
		5/22/14		525.44	Dynamic	2515.23	Sierrita EDMS
		5/22/14	525.44		Dynamic		BasinWells, 2015a
		5/30/14	525.44		Dynamic		BasinWells, 2015a
		6/5/14		525.25	Dynamic	2515.42	Sierrita EDMS
		6/5/14	525.25		Dynamic		BasinWells, 2015a
		7/6/14		527.00	Dynamic	2513.67	Sierrita EDMS
		7/6/14	526.79		Dynamic		BasinWells, 2015a
		7/31/14		527.40	Dynamic	2513.27	Sierrita EDMS
		7/31/14	527.40		Dynamic		BasinWells, 2015a
		8/27/14		527.40	Dynamic	2513.27	Sierrita EDMS
		8/27/14	527.40		Dynamic		BasinWells, 2015a
		10/1/14		517.95	Static	2522.72	Sierrita EDMS
		10/1/14	517.74		Static		BasinWells, 2015a
		11/4/14		531.19	Dynamic	2509.48	Sierrita EDMS
		11/4/14	530.98		Dynamic		BasinWells, 2015a
		12/2/14		532.05	Dynamic	2508.62	Sierrita EDMS
		12/2/14	531.84		Dynamic		BasinWells, 2015a

APPENDIX C

Water Elevation Data

Well Name	Measuring Point Elevation (ft amsl)	Date	Depth to Water (ft bls) ¹	Depth to Water (ft bmp)	Static/ Dynamic	Groundwater Elevation (ft amsl)	Data Source
PS-2	3027.673	6/5/12	486.97		Static		BasinWells, 2015a
		6/5/12	509.07		Dynamic		BasinWells, 2015a
		1/15/14		507.18	Dynamic	2520.49	Sierrita EDMS
		1/15/14	507.18		Dynamic		BasinWells, 2015a
		1/22/14		494.54	Dynamic	2533.13	Sierrita EDMS
		1/28/14	507.91		Dynamic		BasinWells, 2015a
		2/5/14	506.02		Dynamic		BasinWells, 2015a
		3/13/14		510.78	Dynamic	2516.89	Sierrita EDMS
		5/8/14		514.76	Dynamic	2512.91	Sierrita EDMS
		5/30/14	514.76		Dynamic		BasinWells, 2015a
		6/5/14		514.95	Dynamic	2512.72	Sierrita EDMS
		6/5/14	514.95		Dynamic		BasinWells, 2015a
		7/6/14		516.80	Dynamic	2510.87	Sierrita EDMS
		7/6/14	516.59		Dynamic		BasinWells, 2015a
		7/31/14		518.30	Dynamic	2509.37	Sierrita EDMS
		7/31/14	518.30		Dynamic		BasinWells, 2015a
		8/27/14		519.40	Dynamic	2508.27	Sierrita EDMS
		8/27/14	519.40		Dynamic		BasinWells, 2015a
		10/1/14		507.20	Static	2520.47	Sierrita EDMS
		10/1/14	506.99		Static		BasinWells, 2015a
PS-3	3006.351	11/4/14		523.35	Dynamic	2504.32	Sierrita EDMS
		11/4/14	523.14		Dynamic		BasinWells, 2015a
		12/2/14		523.80	Dynamic	2503.87	Sierrita EDMS
		12/2/14	523.59		Dynamic		BasinWells, 2015a
		5/14/12	466.60		Static		BasinWells, 2015a
		5/14/12	490.30		Dynamic		BasinWells, 2015a
		1/15/14		488.84	Dynamic	2517.51	Sierrita EDMS
		1/15/14	488.84		Dynamic		BasinWells, 2015a
		1/22/14		488.23	Dynamic	2518.12	Sierrita EDMS
		1/22/14	488.23		Dynamic		BasinWells, 2015a
		1/28/14	487.89		Dynamic		BasinWells, 2015a
		2/5/14	490.26		Dynamic		BasinWells, 2015a
		3/13/14		491.86	Dynamic	2514.49	Sierrita EDMS
		5/8/14		495.82	Dynamic	2510.53	Sierrita EDMS
		5/30/14	495.82		Dynamic		BasinWells, 2015a
		6/5/14		495.90	Dynamic	2510.45	Sierrita EDMS
		6/5/14	495.90		Dynamic		BasinWells, 2015a
		7/6/14		497.70	Dynamic	2508.65	Sierrita EDMS
		7/6/14	497.47		Dynamic		BasinWells, 2015a
		7/31/14		498.90	Dynamic	2507.45	Sierrita EDMS
		7/31/14	498.90		Dynamic		BasinWells, 2015a
		8/27/14		500.25	Dynamic	2506.10	Sierrita EDMS
		8/27/14	500.25		Dynamic		BasinWells, 2015a
		10/1/14		486.45	Static	2519.90	Sierrita EDMS
		10/1/14	486.22		Static		BasinWells, 2015a
		11/4/14		503.75	Dynamic	2502.60	Sierrita EDMS
		11/4/14	503.52		Dynamic		BasinWells, 2015a
		12/2/14		504.20	Dynamic	2502.15	Sierrita EDMS
		12/2/14	503.97		Dynamic		BasinWells, 2015a

APPENDIX C

Water Elevation Data

Well Name	Measuring Point Elevation (ft amsl)	Date	Depth to Water (ft bls) ¹	Depth to Water (ft bmp)	Static/ Dynamic	Groundwater Elevation (ft amsl)	Data Source
PS-4	3045.74	7/6/12	497.85		Static		BasinWells, 2015a
		7/6/12	508.95		Dynamic		BasinWells, 2015a
		1/15/14		513.92	Dynamic	2531.82	Sierrita EDMS
		1/15/14	513.92		Dynamic		BasinWells, 2015a
		1/22/14		514.38	Dynamic	2531.36	Sierrita EDMS
		1/22/14	514.38		Dynamic		BasinWells, 2015a
		1/28/14	514.64		Dynamic		BasinWells, 2015a
		2/5/14	515.45		Dynamic		BasinWells, 2015a
		3/13/14		508.14	Dynamic	2537.60	Sierrita EDMS
		5/8/14		522.58	Dynamic	2523.16	Sierrita EDMS
		5/30/14	522.58		Dynamic		BasinWells, 2015a
		6/5/14		523.05	Dynamic	2522.69	Sierrita EDMS
		6/5/14	523.05		Dynamic		BasinWells, 2015a
		7/6/14		525.25	Dynamic	2520.49	Sierrita EDMS
		7/6/14	525.02		Dynamic		BasinWells, 2015a
		7/31/14		526.30	Dynamic	2519.44	Sierrita EDMS
		7/31/14	526.30		Dynamic		BasinWells, 2015a
		8/27/14		527.50	Dynamic	2518.24	Sierrita EDMS
		8/27/14	527.50		Dynamic		BasinWells, 2015a
		10/1/14		520.05	Static	2525.69	Sierrita EDMS
		10/1/14	519.82		Static		BasinWells, 2015a
		11/4/14		531.80	Dynamic	2513.94	Sierrita EDMS
		11/4/14	531.57		Dynamic		BasinWells, 2015a
		12/2/14		532.60	Dynamic	2513.14	Sierrita EDMS
		12/2/14	532.37		Dynamic		BasinWells, 2015a
PZ-7	3549.17	11/16/06		139.55		3409.62	Sierrita EDMS
		1/12/07		139.50		3409.67	
		4/9/07		139.65		3409.52	
		7/24/07		139.76		3409.41	
		10/16/07		139.49		3409.68	
		1/7/08		139.25		3409.92	
		4/28/08		139.59		3409.58	
		7/11/08		139.71		3409.46	
		10/14/08		139.73		3409.44	
		2/9/09		139.79		3409.38	
		4/6/09		139.80		3409.37	
		4/23/10		140.22		3408.95	
		5/18/11		140.62		3408.55	
		6/6/12		136.67		3412.50	
		6/10/13		136.91		3412.26	
		4/8/14		135.75		3413.42	
PZ-8	3480.36	11/14/06		206.30		3274.06	Sierrita EDMS
		1/10/07		207.42		3272.94	
		4/17/07		198.52		3281.84	
		7/12/07		209.46		3270.90	
		10/5/07		205.30		3275.06	
		1/3/08		212.94		3267.42	
		4/8/08		217.43		3262.93	
		7/1/08		221.70		3258.66	
		10/8/08		222.49		3257.87	
		1/8/09		223.63		3256.73	
		4/8/09		224.72		3255.64	
		4/20/10		227.87		3252.49	
		4/19/11		228.73		3251.63	
		4/25/12		229.66		3250.70	
		6/10/13		230.86		3249.50	
		4/23/14		232.32		3248.04	
		4/24/14		232.59		3247.77	

APPENDIX C

Water Elevation Data

Well Name	Measuring Point Elevation (ft amsl)	Date	Depth to Water (ft bls) ¹	Depth to Water (ft bmp)	Static/ Dynamic	Groundwater Elevation (ft amsl)	Data Source
TMM-1	2967.08	6/18/07		432.50		2534.58	Sierrita EDMS
		6/19/07		432.00		2535.08	
		10/4/07		437.58		2529.50	
		1/10/08		435.75		2531.33	
		4/18/08		433.30		2533.78	
		7/9/08		437.37		2529.71	
		10/9/08		439.80		2527.28	
		2/4/09		436.62		2530.46	
		4/21/09		433.35		2533.73	
		10/14/09		444.00		2523.08	
		4/20/10		436.99		2530.09	
		10/6/10		442.98		2524.10	
		4/21/11		437.13		2529.95	
		12/21/11		435.50		2531.58	
		5/15/12		438.57		2528.51	
		11/23/12		443.30		2523.78	
		6/19/13		439.14		2527.94	
		10/29/13		443.13		2523.95	
		4/23/14		442.13		2524.95	
		10/2/14		451.94	Static	2515.14	

Notes:

¹ Surface elevation is not known. Groundwater elevation calculated by subtracting water level below land surface from measuring point elevation

² Anomalous data removed for NP-2 (6/7/07; 8/13/07), MO-2007-3B (10/10/12), and MO-2009-1 (8/27/13)

ft amsl = feet above mean sea level

ft bls = feet below measuring point

EDMS = Environmental Data Management System

GVDWID = Green Valley Domestic Water Improvement District

ND = No elevation data

NA = Not applicable

Anomalous data removed for NP-2 (6/7/07; 8/13/07), MO-2007-3B (10/10/12), and MO-2009-1 (8/27/13)

REFERENCES

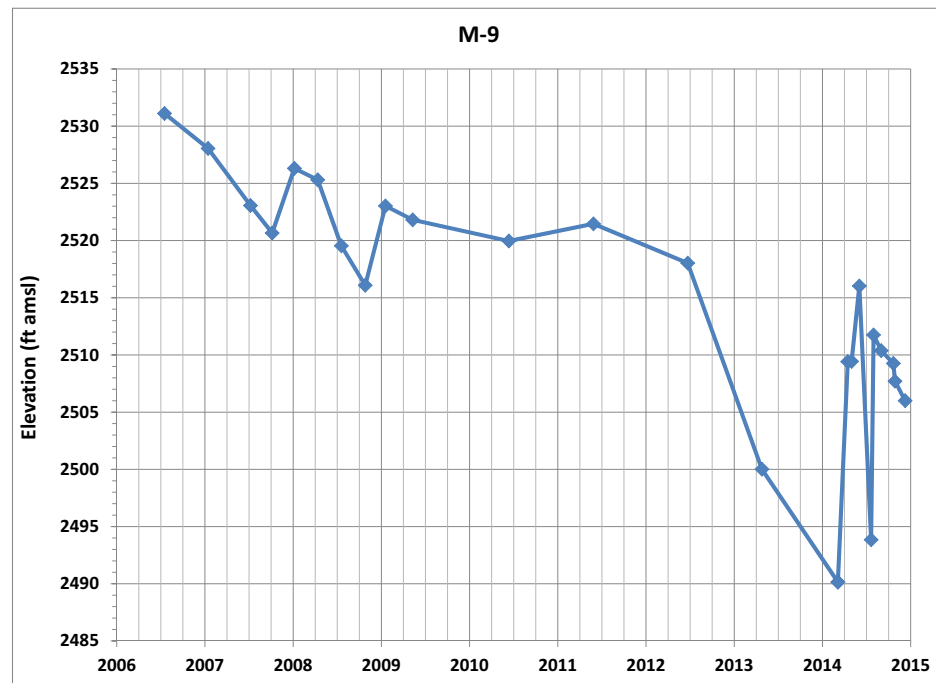
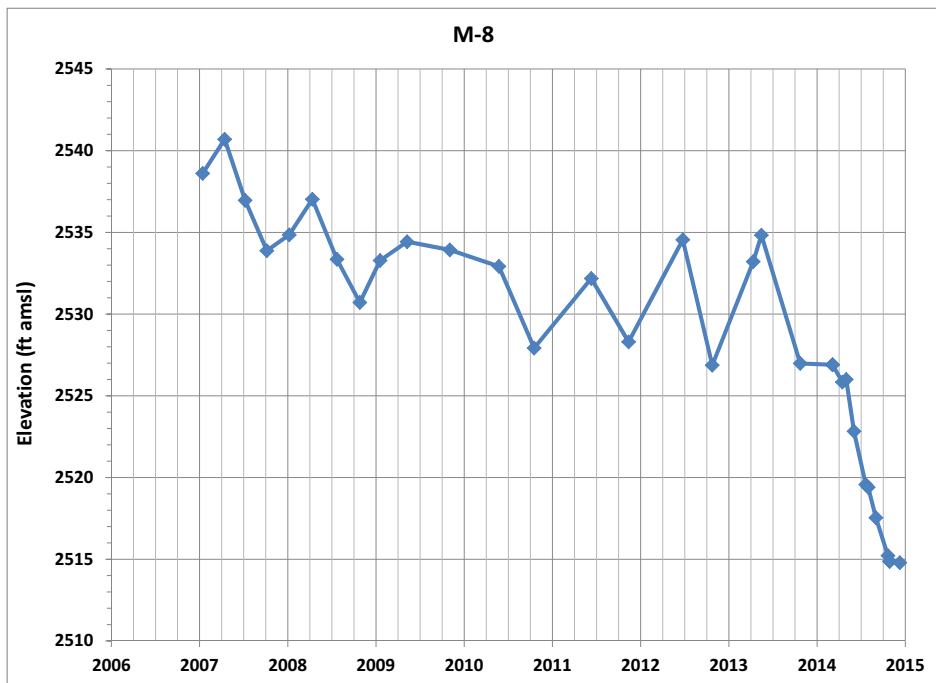
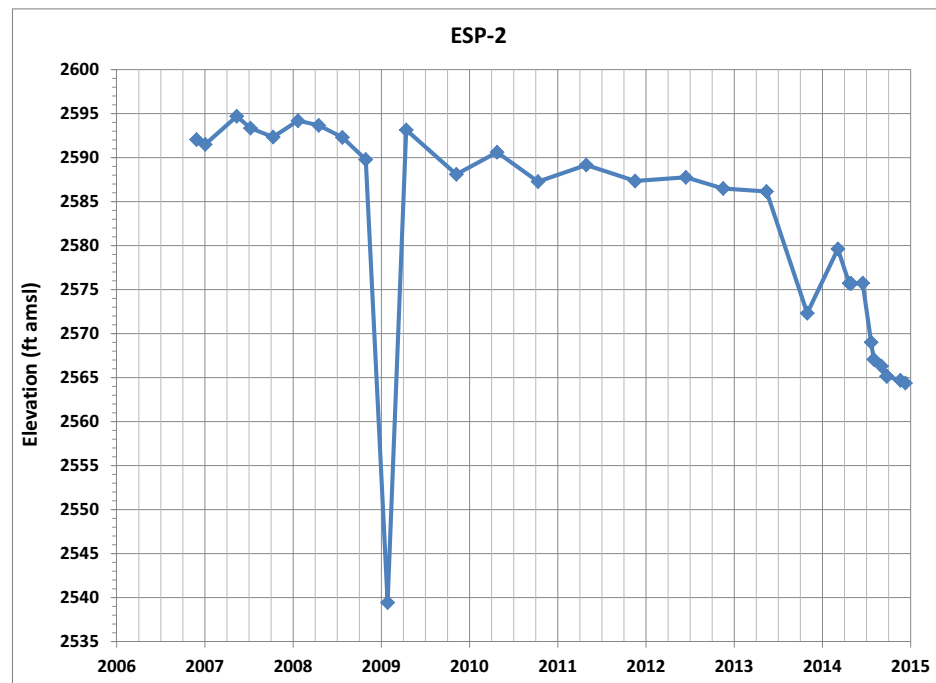
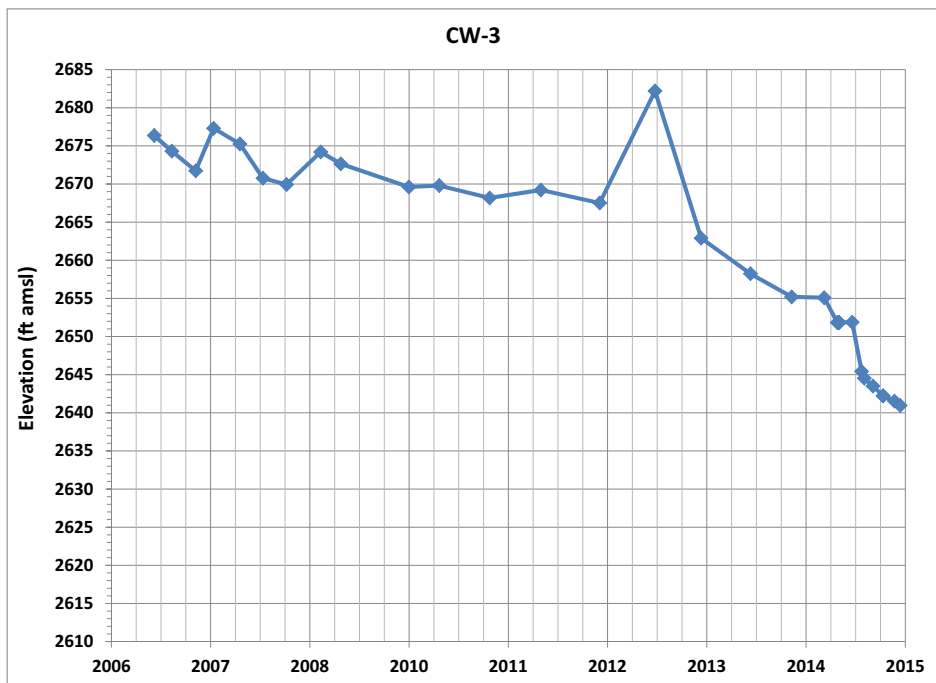
BasinWells Associates. 2015a. Email Correspondence from Buck Schmidt, BasinWells Associates, to James Norris, Clear Creek Associates, Re: BasinWells Associates PLLC/FMI Sierrita Groundwater Sulfate Mitigation Action Well Field Measurements – October 2014. January 22, 2015.

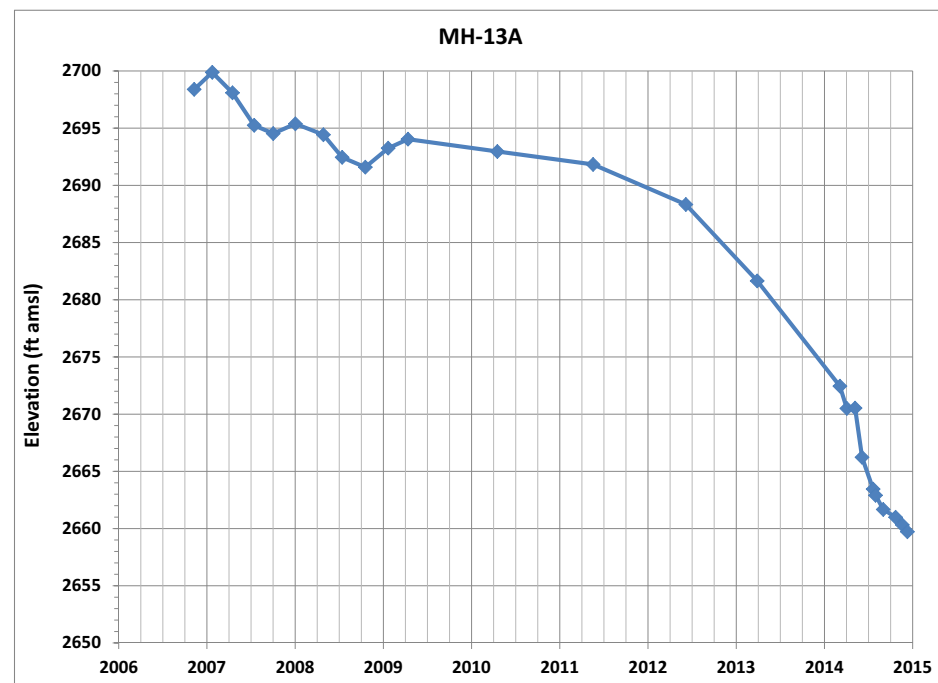
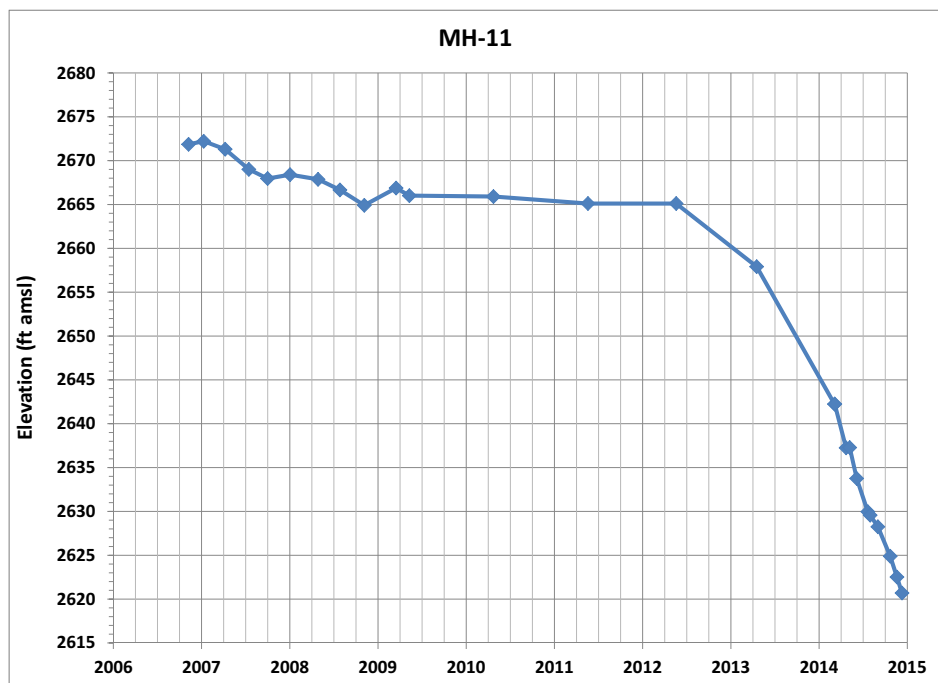
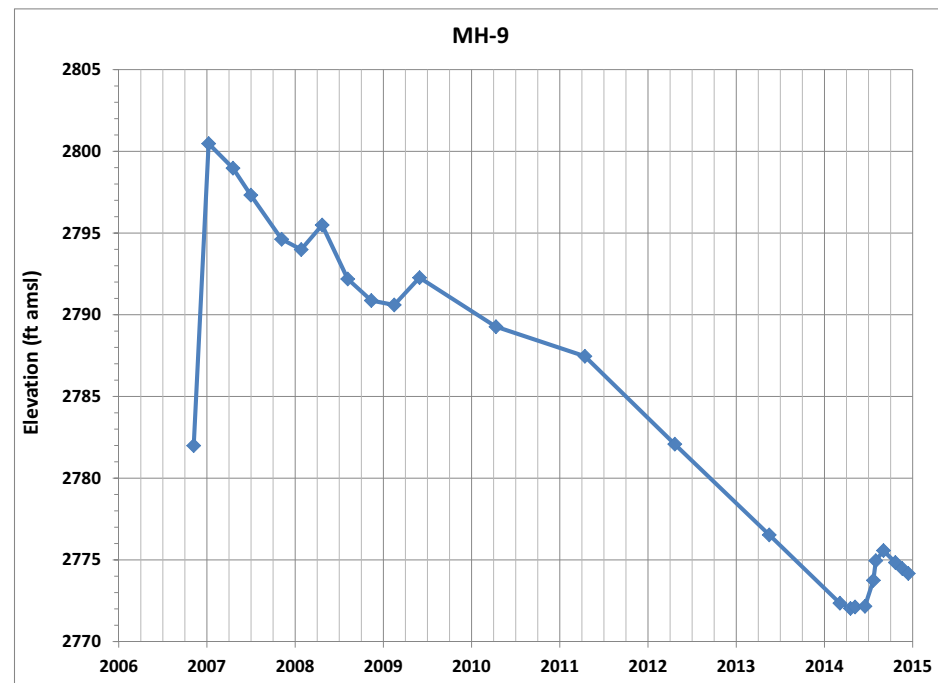
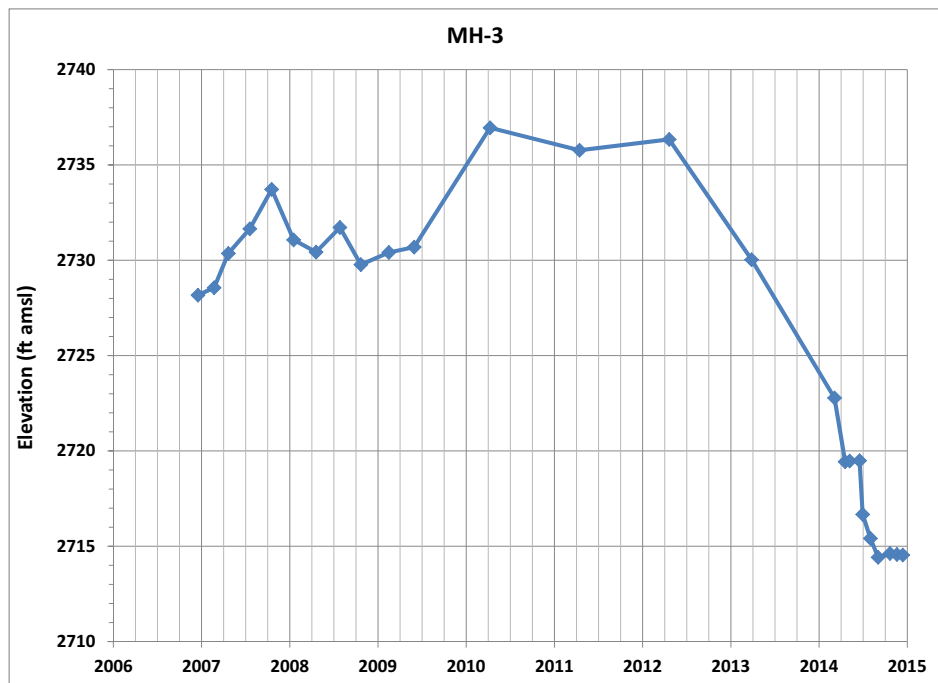
BasinWells Associates. 2015b. Email Correspondence from Buck Schmidt, BasinWells Associates, to James Norris, Clear Creek Associates, Re: BasinWells Associates PLLC/FMI Sierrita Groundwater Sulfate Mitigation Action Well Field Measurements – October 2014. February 10, 2015.

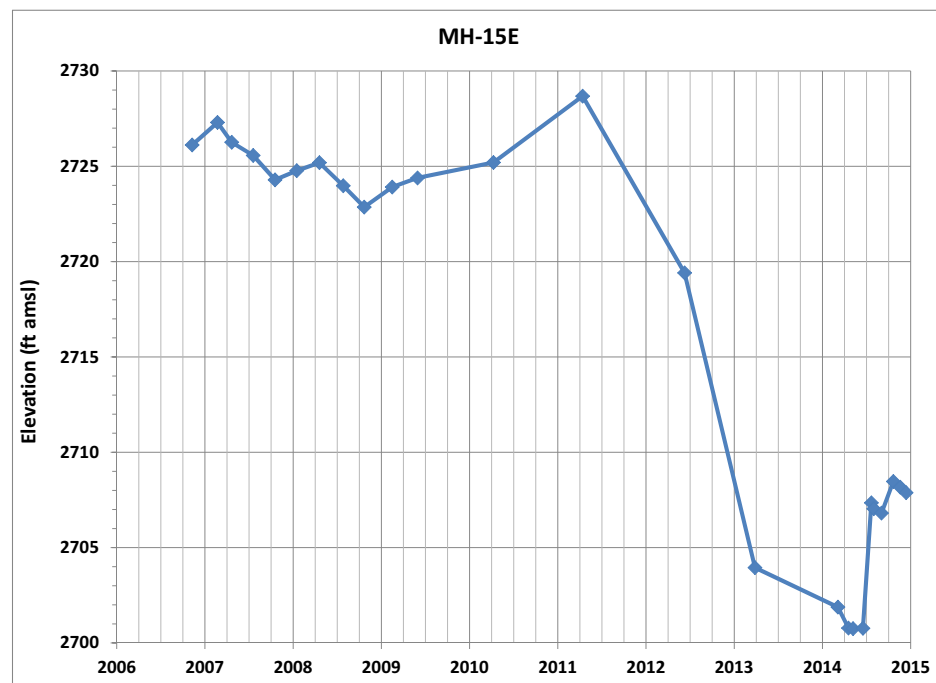
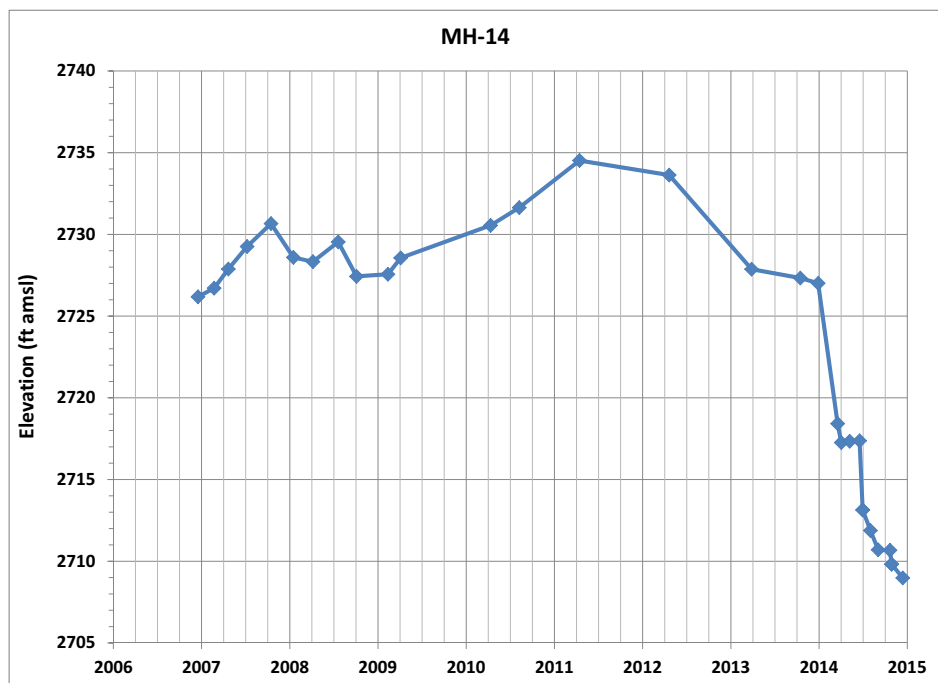
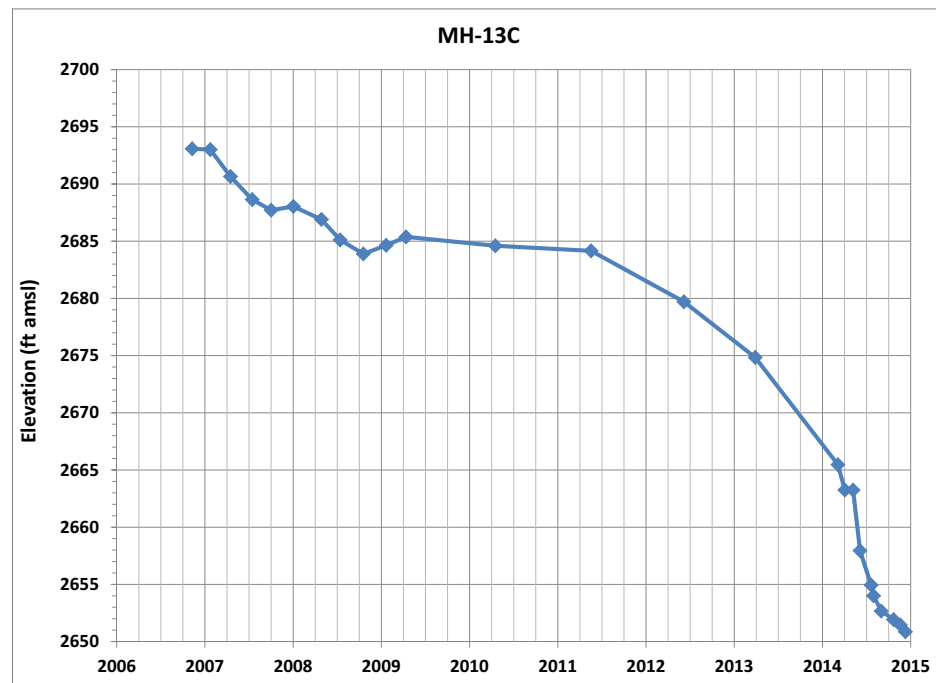
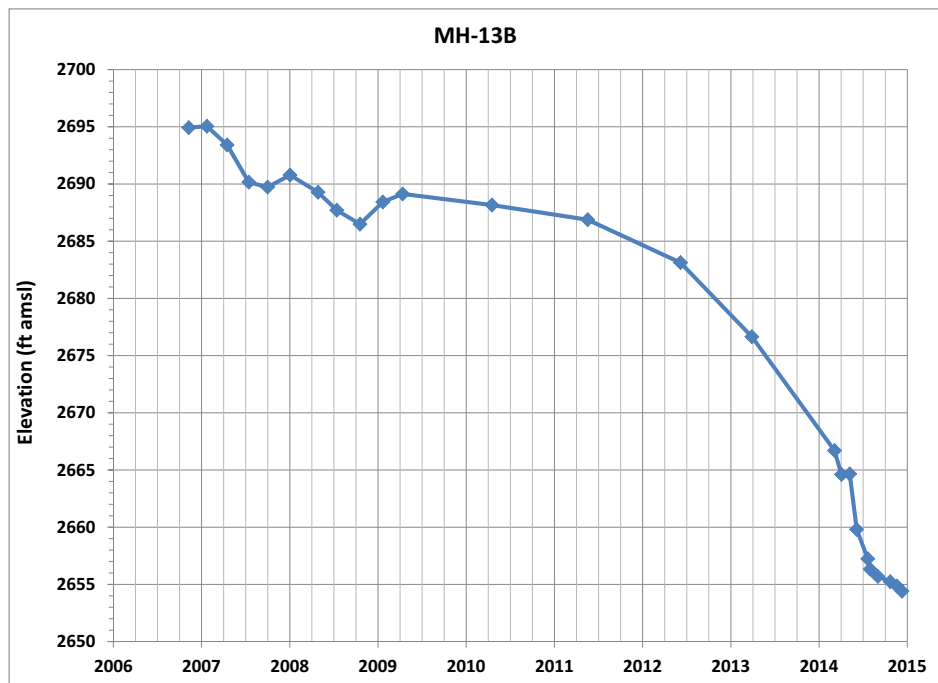
Sierrita Environmental Data Management System Database.

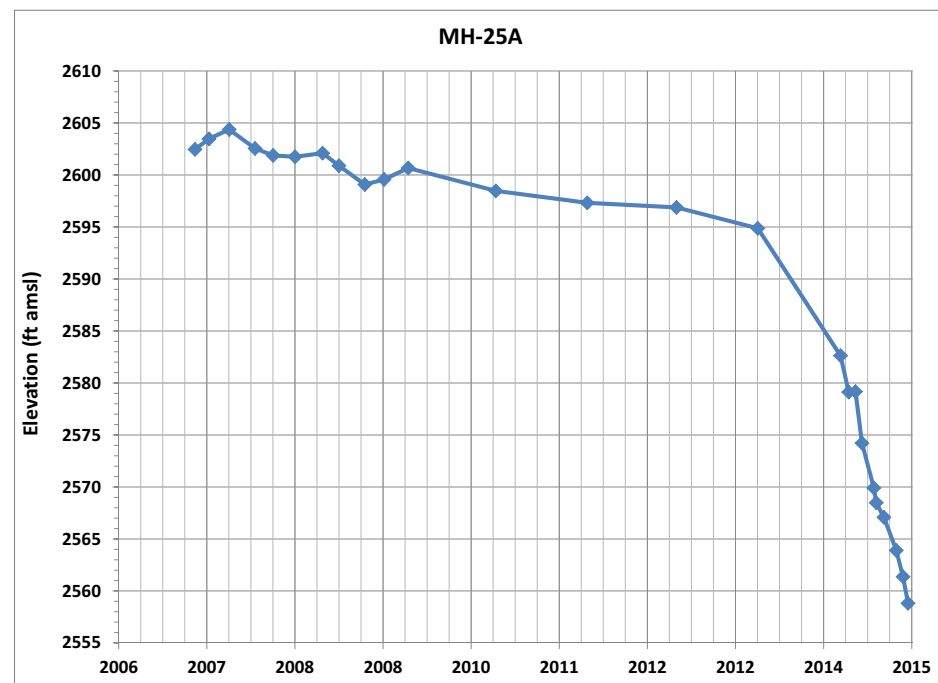
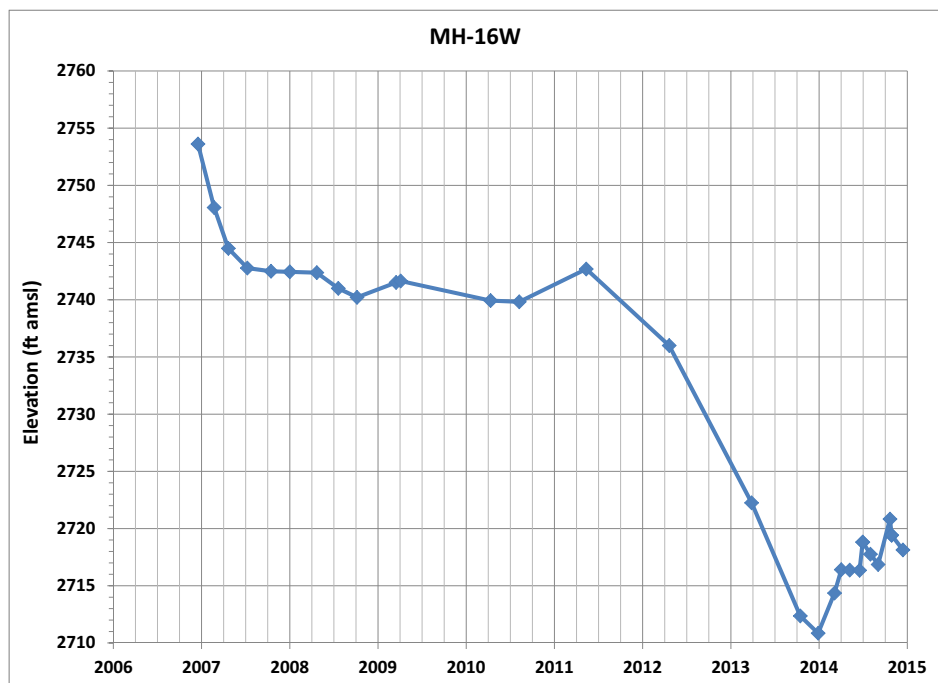
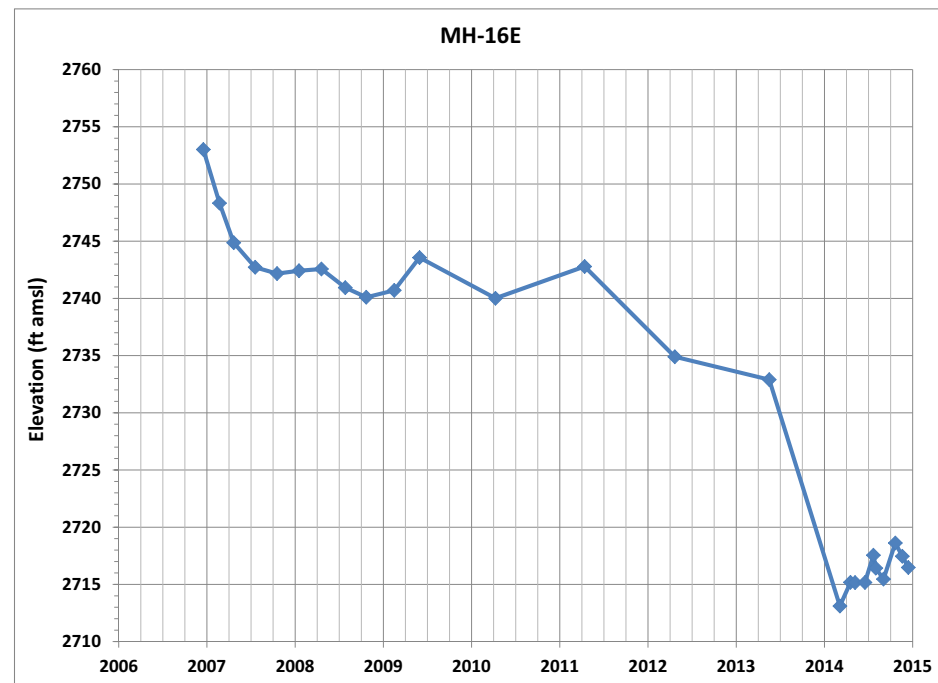
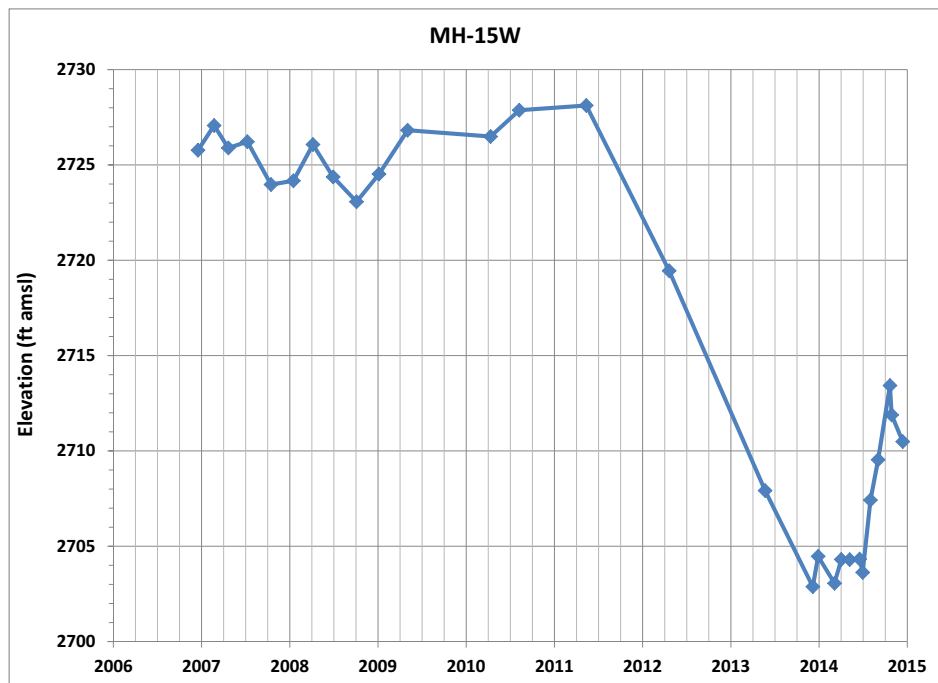
APPENDIX D

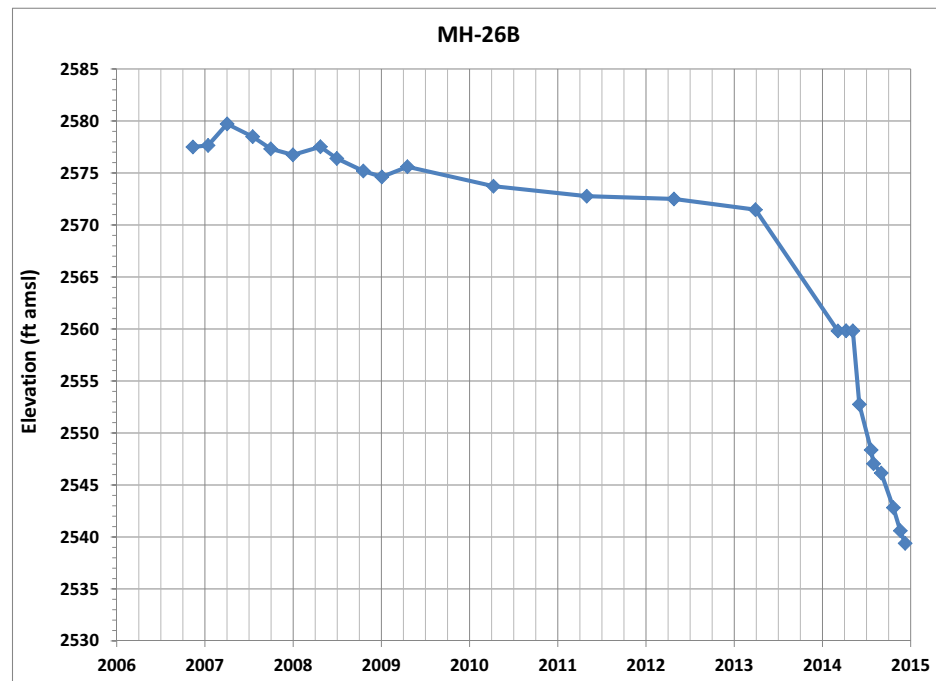
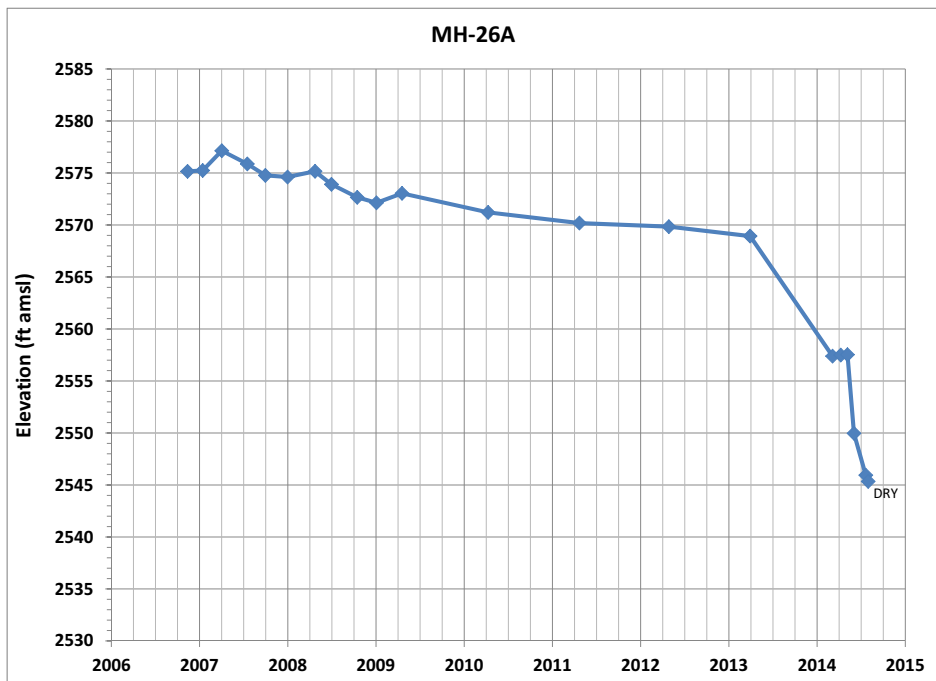
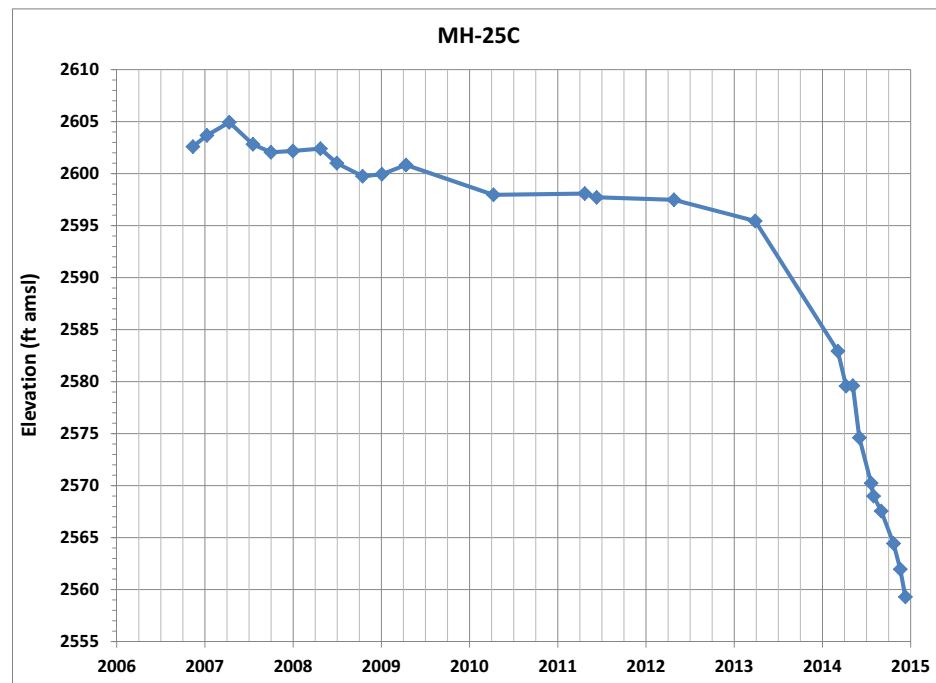
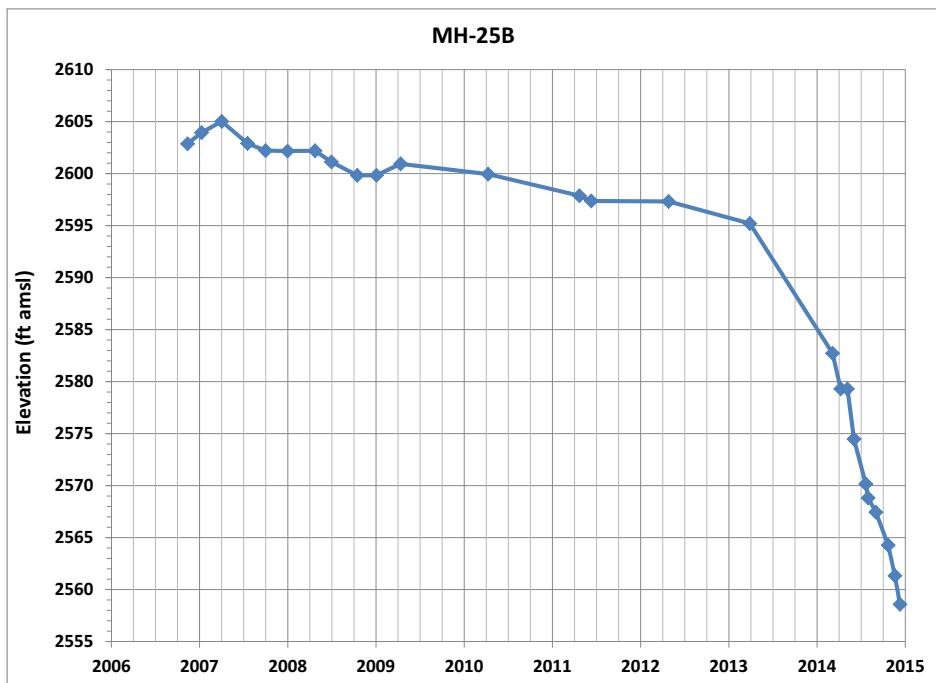
HYDROGRAPHS FOR WELLS WITH MONTHLY MEASUREMENTS IN 2014 (ALPHABETIC BY WELL NAME)

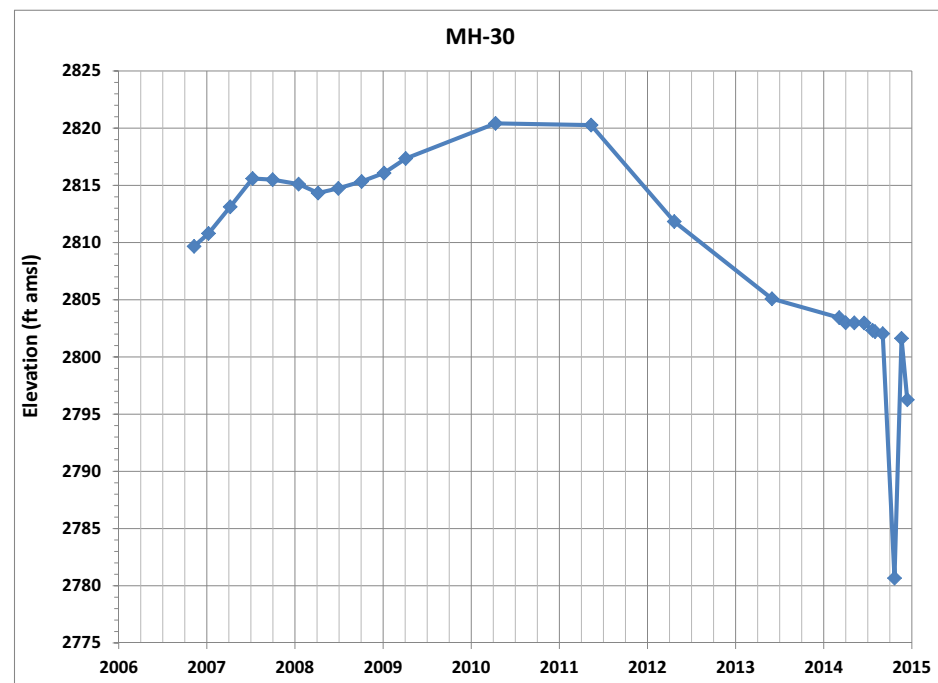
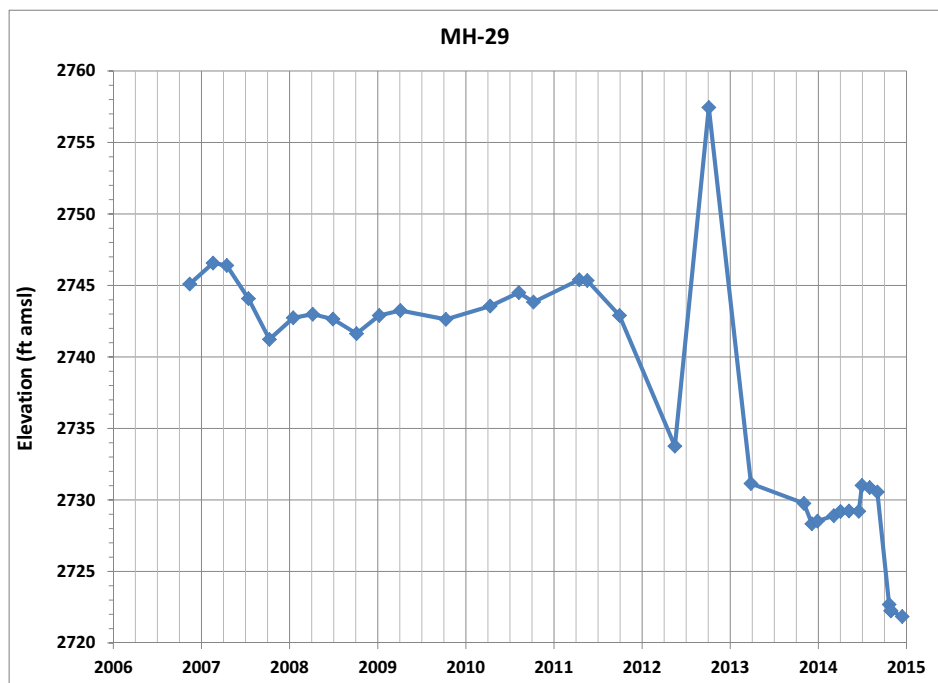
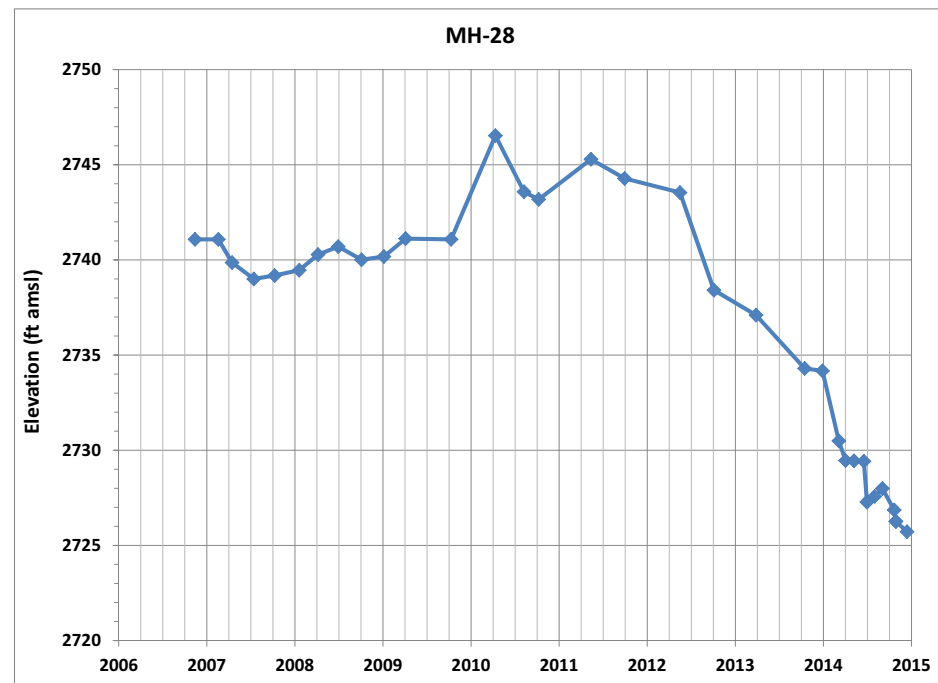
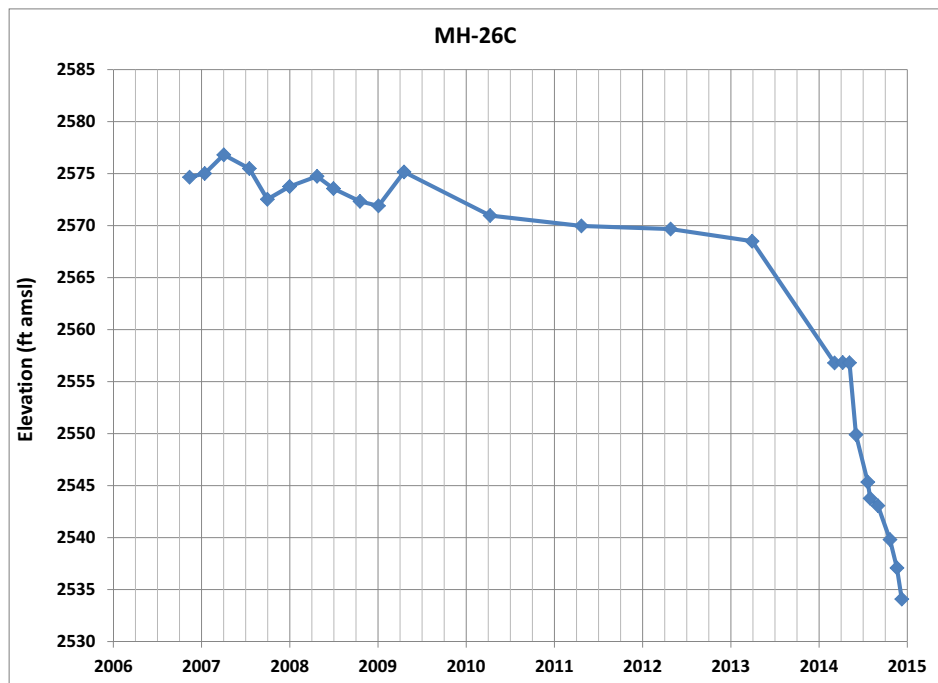


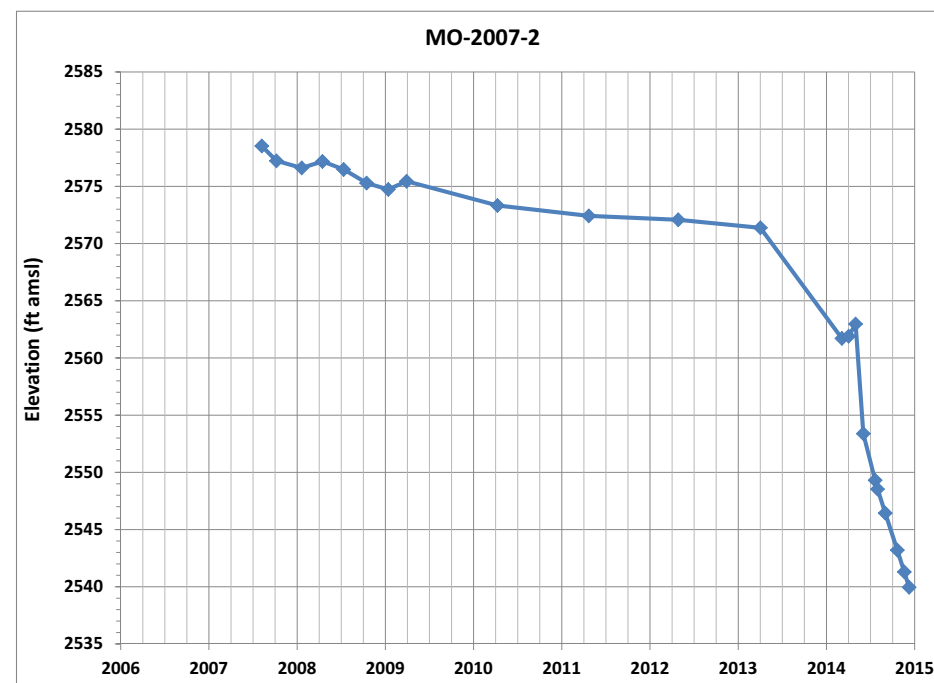
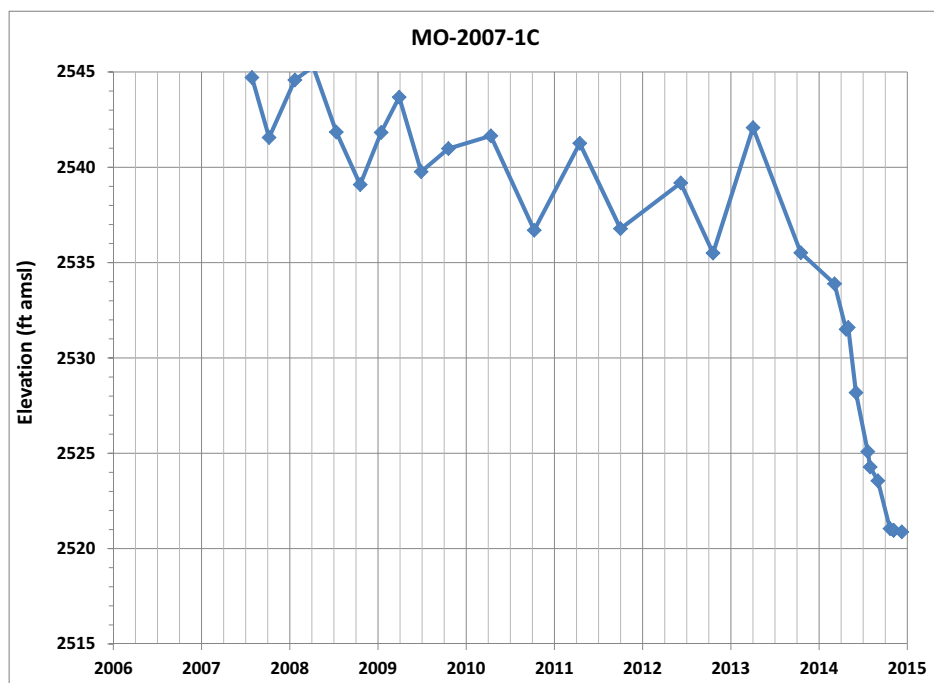
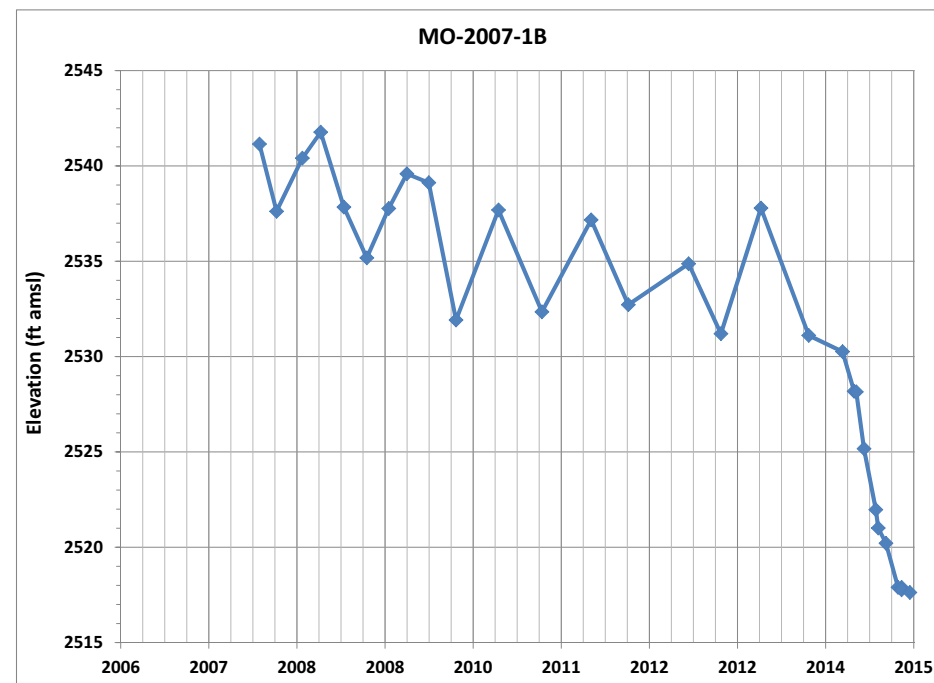
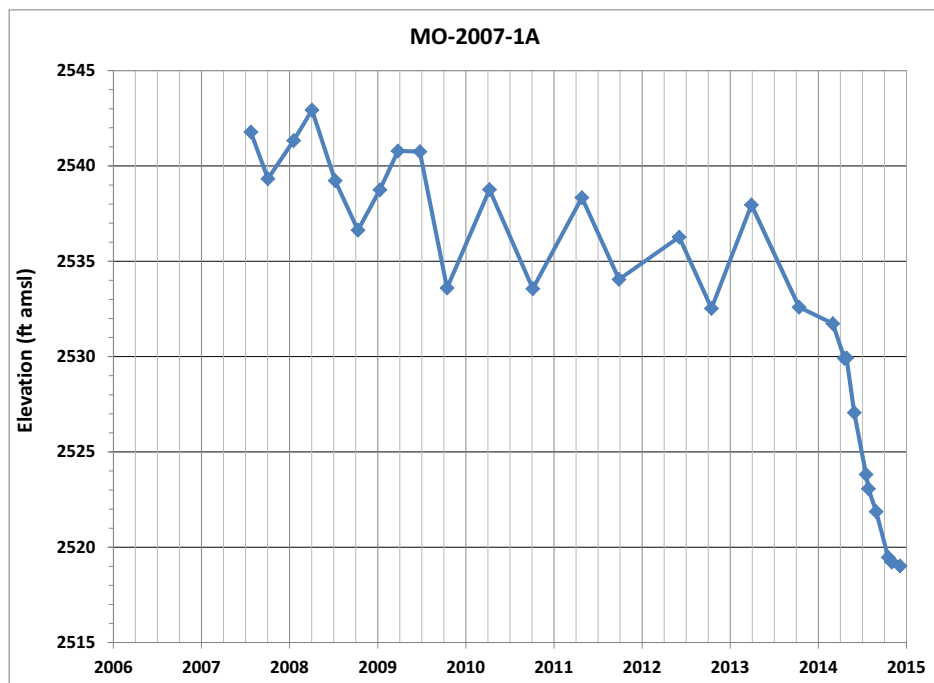


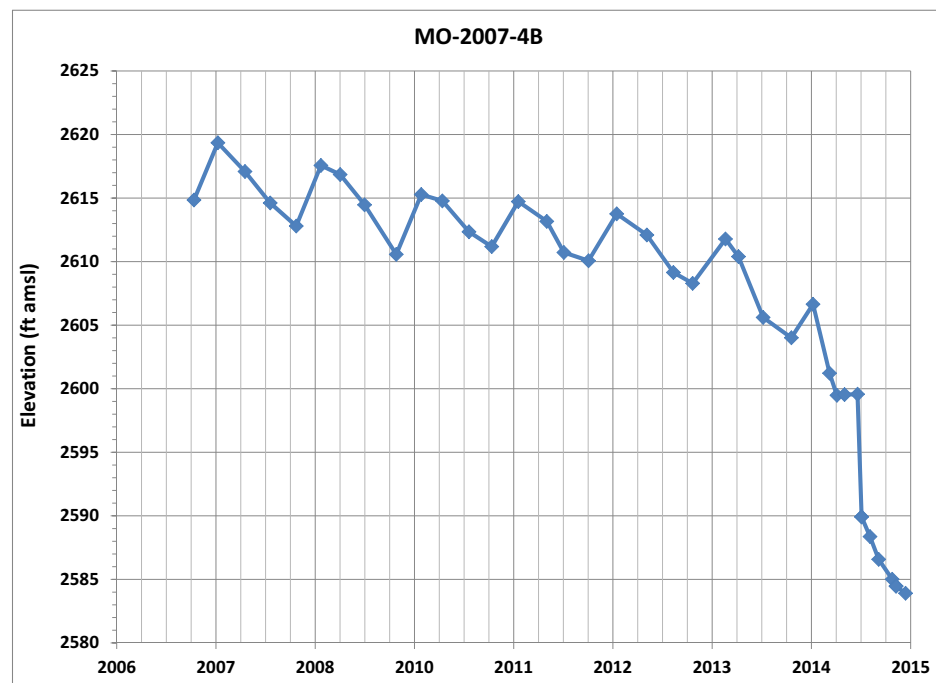
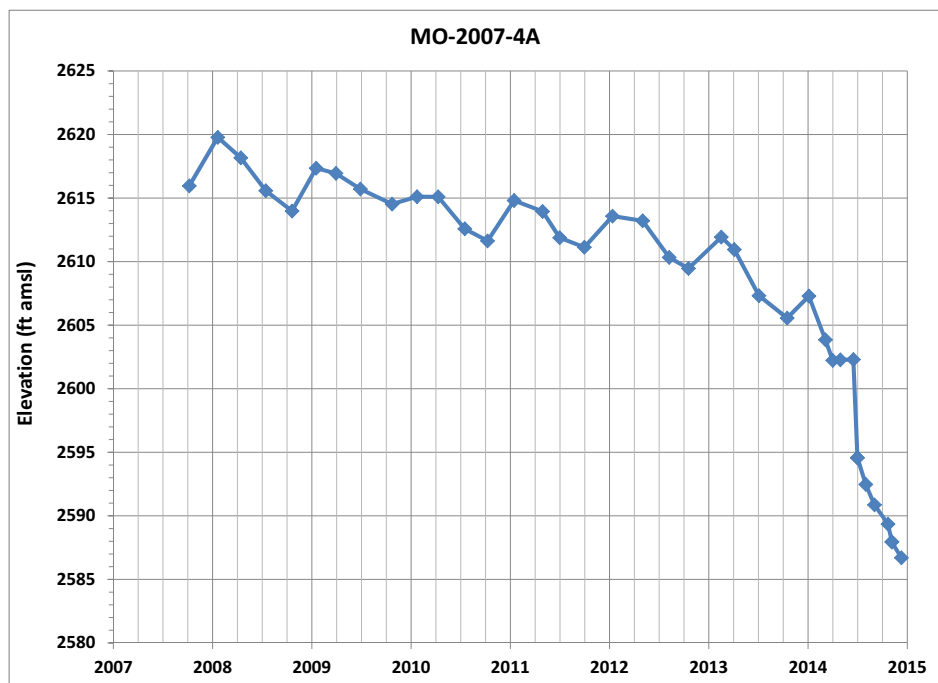
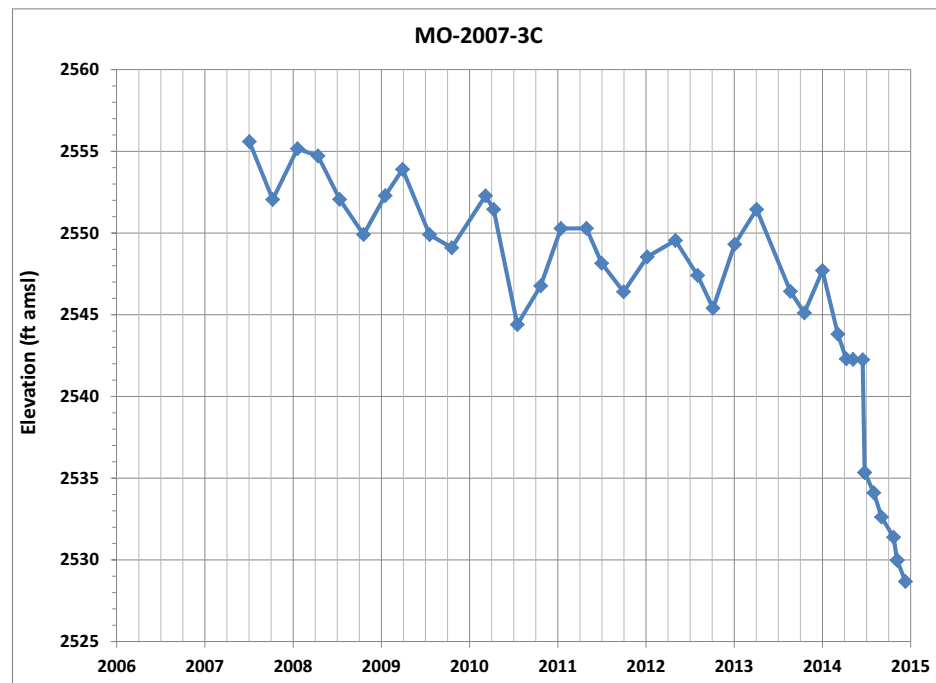
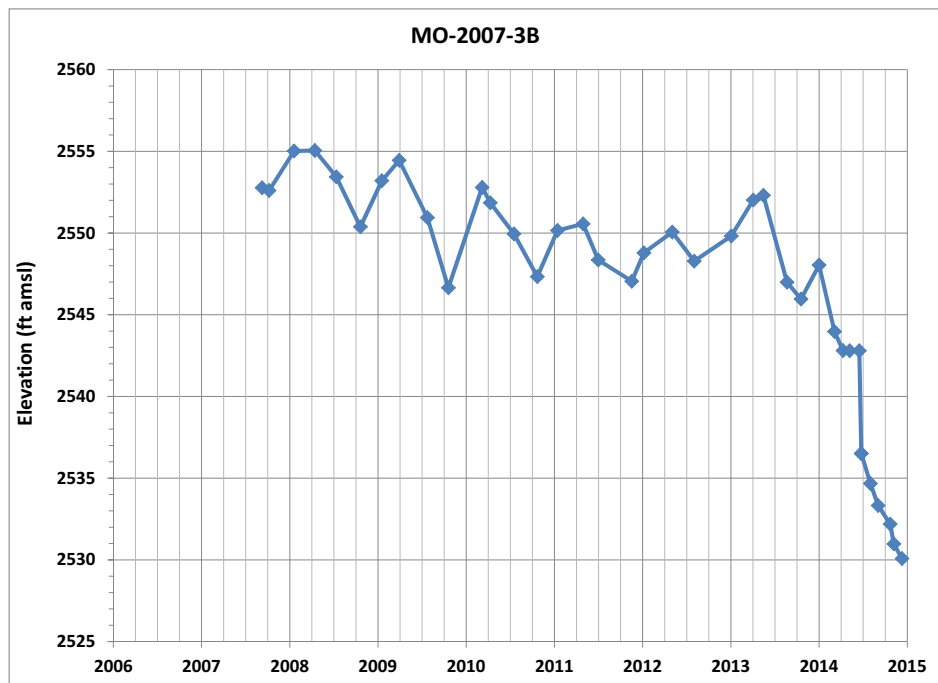


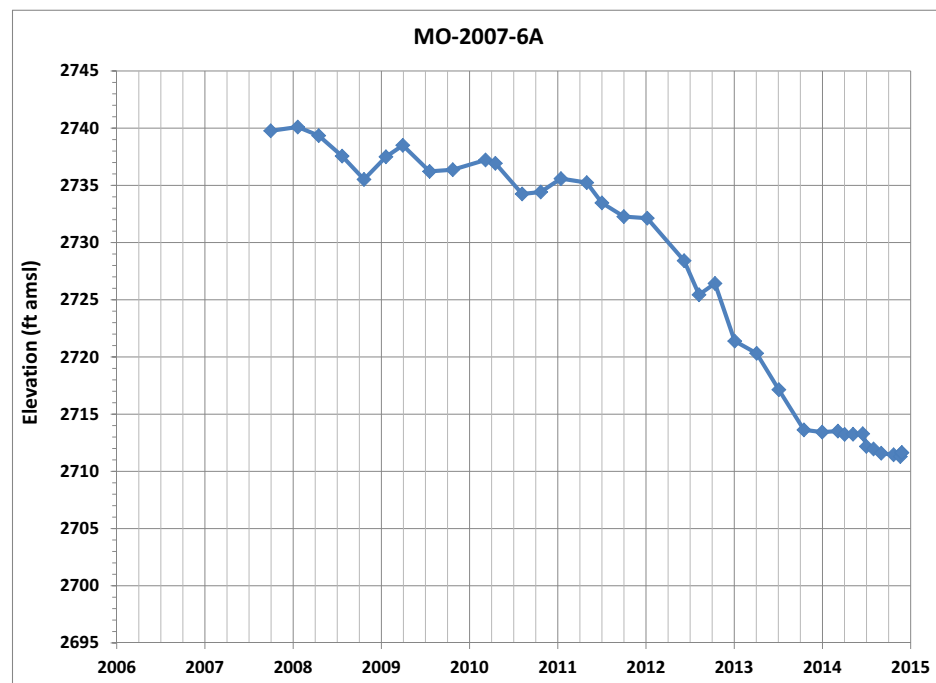
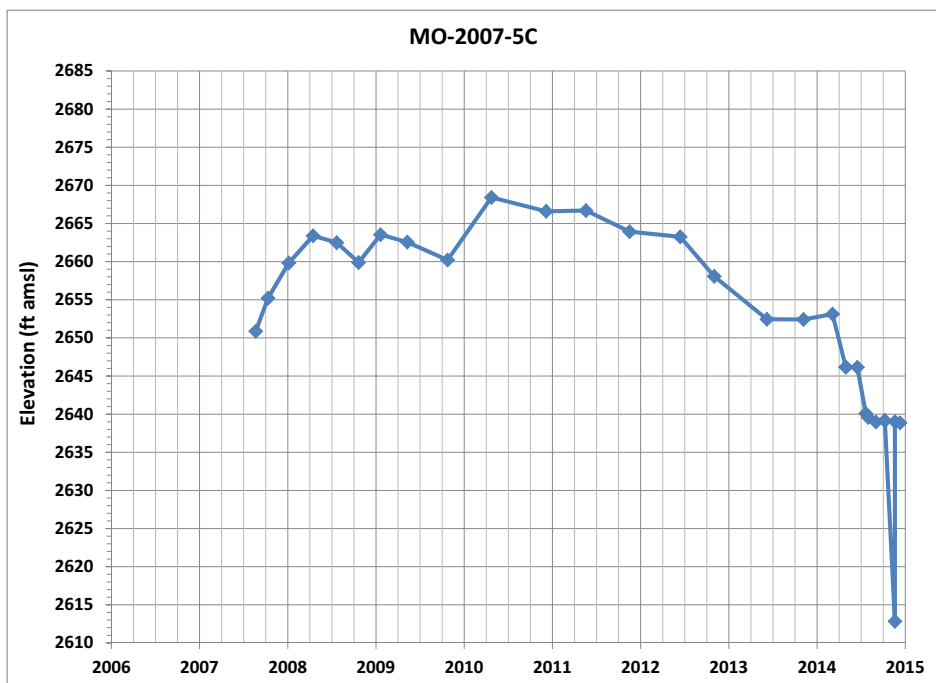
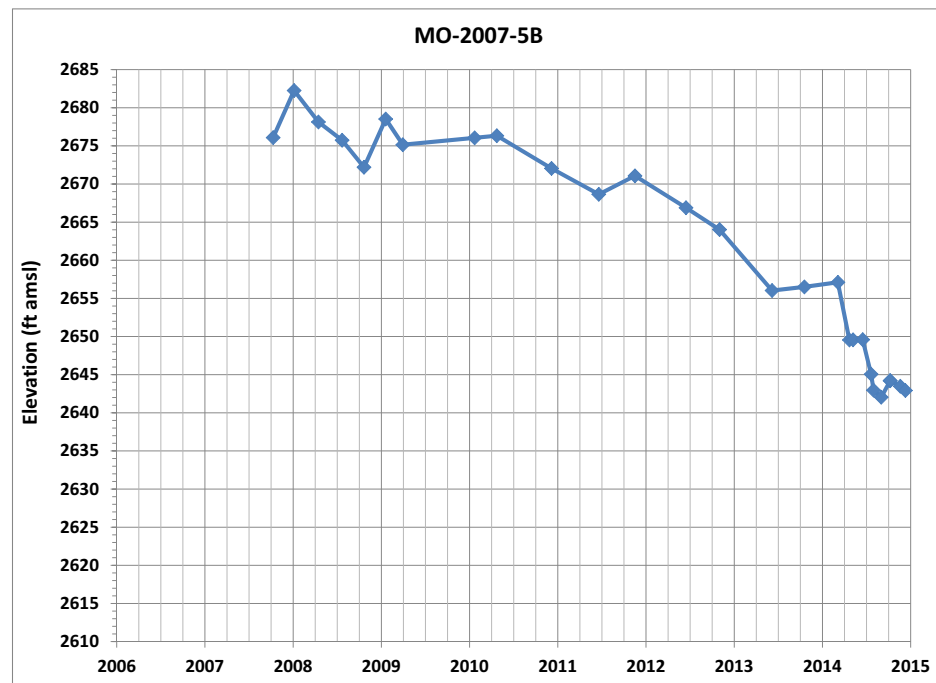
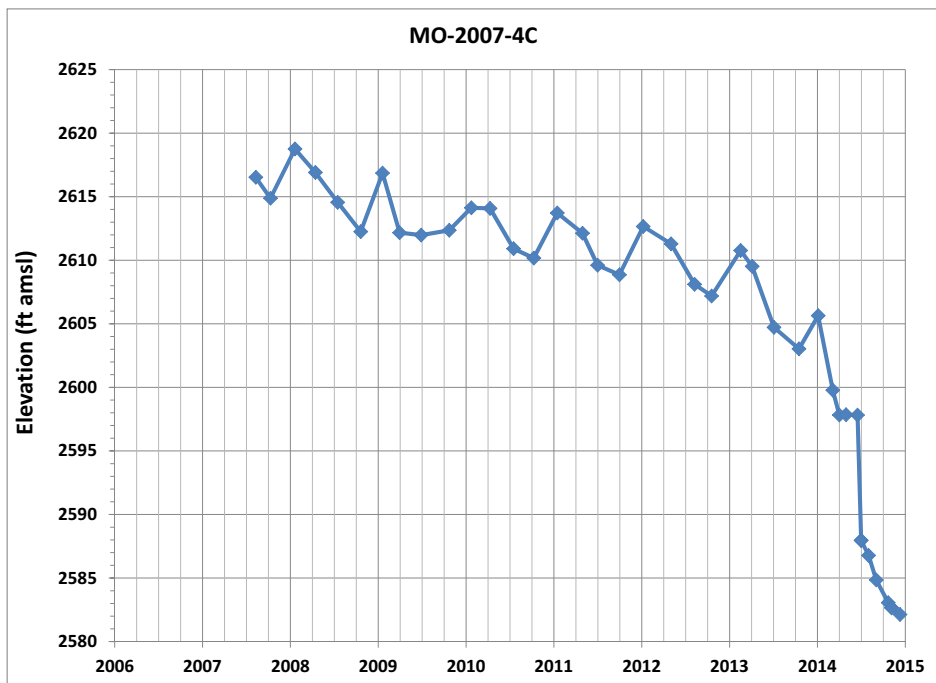


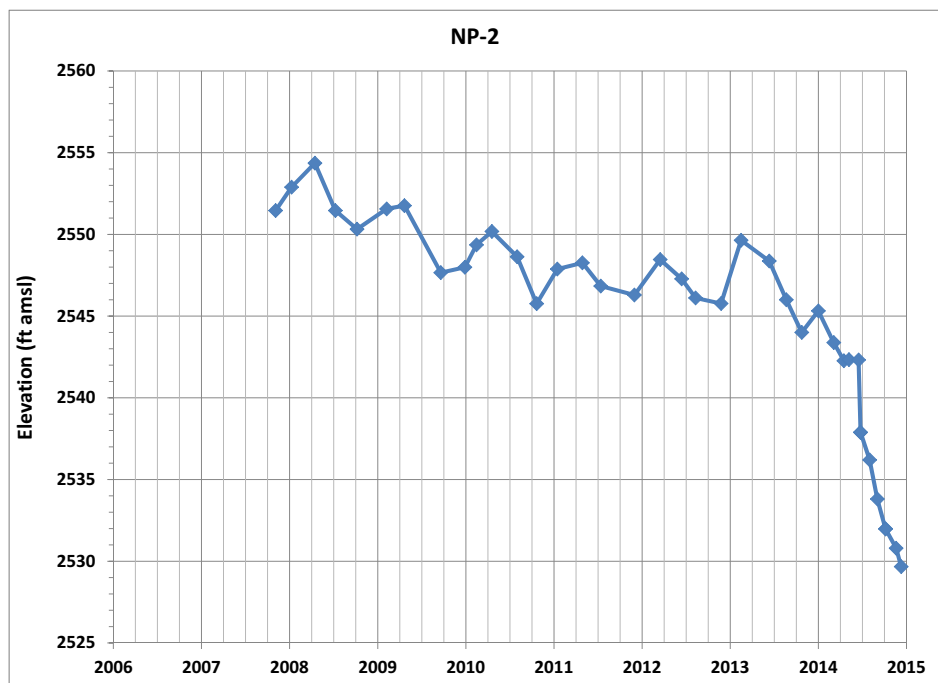
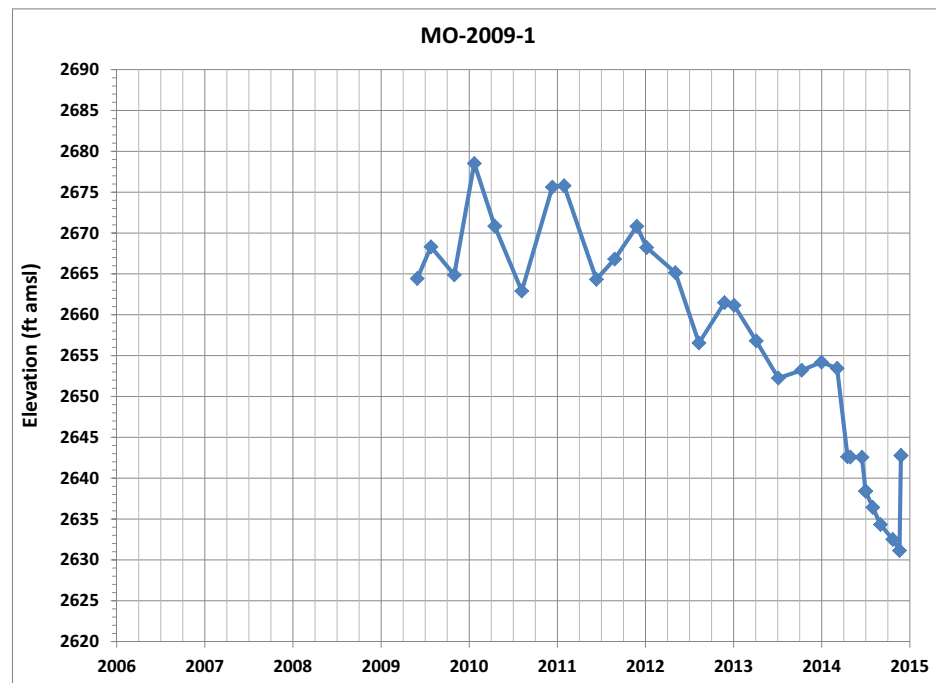
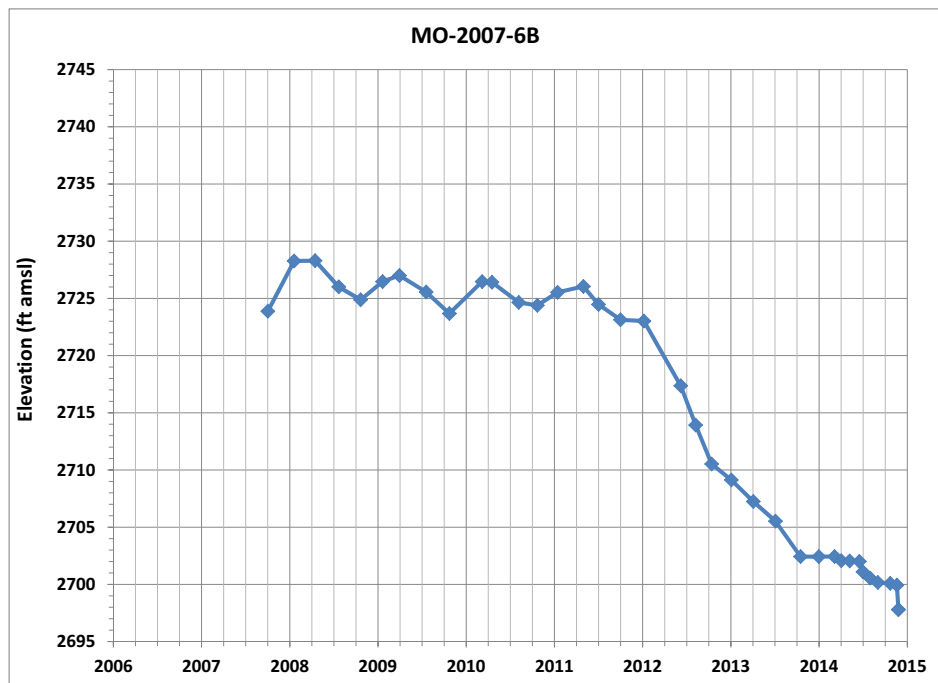












APPENDIX E
NUMERICAL MODEL UPDATE



TECHNICAL MEMORANDUM

To: Deborah Chismar, Freeport-McMoRan Sierrita, Inc.
From: Steven W. Corell, R.G., Clear Creek Associates
Subject: Sierrita Mitigation Order, Numerical Model Update & Performance Review
Date: April 24, 2015

1 Introduction

This technical memorandum has been prepared for Freeport-McMoRan Sierrita Inc. (Sierrita), to document the results of groundwater modeling using the updated basin-fill groundwater flow and sulfate transport numerical model to simulate future water levels and sulfate distribution under the assumptions of the Mitigation Plan (Clear Creek Associates, 2013).

2 Numerical Model Revisions for the Basin-Fill Model Update

The previous Sierrita Basin-Fill model update (Clear Creek Associates, 2014) included the following specific revisions:

1. An update of as-built well locations and pump capacities of extraction wells installed for the recommended alternative,
 - a. IW-25, IW-26, IW-27, and IW-28
 - b. FFS-1, FFS-2, FFS-3, and FFS-4
 - c. PS-1, PS-2, PS-3, and PS-4
 - d. MC-1, MC-2, MC-3, and MC-4
2. Groundwater pumping specifications were updated for 2009 – 2012 based on ADWRs Wells55 Registry database.
3. Groundwater recharge specifications were updated from ADWRs Tucson AMA model (Mason and Hipke, 2013).
4. The groundwater level and water quality target dataset were updated through year 2013 using data from ADWRs Groundwater Site Inventory (GWSI) database, and Sierrita's Environmental Data Management Database.
5. Estimates of Sierrita Tailing Impoundment (STI) seepage to the basin-fill aquifer were updated to year 2012 based on tailing deposition rates.
6. Time-varying specified head boundaries for 1941 – 2012 were obtained from ADWRs Tucson AMA model (Mason and Hipke, 2013).

TECHNICAL MEMORANDUM

Updated Numerical Simulation of Feasibility Study Alternative 3

April 24, 2015

Page 2

7. Estimates of future pumping of non-Sierrita wells were based on the Upper Santa Cruz Providers and Users Group water usage report (USCPUG, 2012).
8. Future STI seepage estimates were updated based on projected tailing deposition rates provided by Sierra.

Numerical model revisions specific to this annual model update and mitigation performance review include:

1. Interceptor well IW-29 is now included in the numerical model.
2. Groundwater pumping specifications for non-Sierrita wells that includes municipal, agricultural, and domestic users have been updated through year 2013 based on annual pumping information obtained from ADWRs Wells55 Registry Database. 2014 pumping rates for non-Sierrita wells were not available, and 2013 rates were carried forward to year 2014.
3. Groundwater pumping specifications for Sierra wells have been updated through year 2014 based on Sierra's ADWR Annual Reports.
4. STI seepage to the basin-fill aquifer has been updated for years 2013 and 2014 based on tailing deposition rates.

2.1 STI Seepage Update

The Sierra Tailing Impoundment (STI) seepage estimates have been updated for 2013-2014 for the current study. The 2012-2013 estimate of water available for seepage at the STI uses the water balance method described in Errol L. Montgomery and Associates (ELMA, 2007) for estimation of historical seepage. 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. Water inputs include water delivered to the STI, 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.

Table 1 shows the average value for each component of the water balance. With the exception of water delivery to and water reclaimed from the STI, estimates of rainfall on the impoundment are based on an average of 2008-2012 values, and estimates of evaporation are based on an average of 2010-2012 values. Water delivered to and reclaimed from the STI is estimated by accounting for current mine operations and projected ore milling rates. For 2015-2088 the annual volumes of water delivered and reclaimed are estimated as the 10-year average of 2005-2014. The 2005-2014 10-year

TECHNICAL MEMORANDUM

Updated Numerical Simulation of Feasibility Study Alternative 3

April 24, 2015

Page 3

average value of seepage from the impoundment is 8,462 AF/yr. Water delivery is assumed as zero beginning the year after the end of tailing slurry application to the STI (year 2088).

2.2 Groundwater Pumping 2013-2014

Groundwater pumping is the primary groundwater sink in the Sierrita basin-fill model domain. The previous basin-fill model update (Clear Creek Associates, 2014) included historical reported pumping rates to year 2012. Groundwater pumping for 2013 for non-Sierrita wells was updated from ADWR's Wells 55 Registry Database, pumping data for 2014 was unavailable and 2013 values were carried forward to 2014 for non-Sierrita wells. Sierrita wells were updated with 2013-2014 groundwater pumping rates from ADWR Annual Water Withdrawal and Use Reports – Groundwater Summary. **Tables 2** and **3** provides a list of well locations and pumping volumes used in the 1941-2014 transient historical model.

3 TRANSIENT SIMULATION 1941-2014

The work reported here focused on updating the basin-fill model to current conditions and verifying that the previous model calibration is still valid. No additional model calibration has been performed for this study. Model simulated groundwater level contours are compared with measured groundwater level contours for the fourth quarter of 2014 on **Figure 1**. Also shown on **Figure 1** are model calculated residuals for the fourth quarter of 2014, negative residuals indicate model computed heads are too high. This update of the basin-fill model is not replicating water level declines associated with the first year of mitigation pumping. Model calculated residuals for the fourth quarter of 2014 as shown on **Figure 1** shows the model has bias toward under simulating observed water levels (calculated residuals range from -6 feet to -98 feet). **Attachment A** includes selected well hydrographs of observed and computed groundwater levels. Selected hydrographs are representative of the calibration at different areas of the model domain. Selected hydrographs shown in **Attachment A** generally show that the model is under simulating the recent water level declines associated with the first year of Mitigation Plan pumping.

TECHNICAL MEMORANDUM

Updated Numerical Simulation of Feasibility Study Alternative 3

April 24, 2015

Page 4

Model simulated sulfate concentration contours for 2014 are compared with the measured 250 mg/L concentration contour from the fourth quarter of 2014 on **Figure 2**. The updated basin-fill model simulates the general shape of the sulfate plume. The model is unable to match measured concentrations at every location; however, the model does simulate the general trends of groundwater flow and sulfate migration over time.

4 PREDICTIVE SIMULATION UNDER 2014 PUMPING RATES

4.1 Numerical Model

The updated numerical model was used to simulate future plume migration under actual 2014 pumping conditions. The objective of the predictive modeling is to assess the adequacy of Mitigation Plan pumping at controlling future sulfate plume migration. The first full year of Mitigation Plan pumping specifications was 2014. Numerical modeling 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.

Model construction, calibration, and updates are described in previous reports; Hydro Geo Chem, Inc. (2007), Hydro Geo Chem, Inc. and Clear Creek Associates (2010), and Clear Creek Associates (2014). The model is constructed using the numerical code MODFLOW-SURFACT version 3.0 (HydroGeoLogic, Inc., 1996) for groundwater flow and transport simulations. MODFLOW-SURFACT is based on the U.S. Geological Survey modeling program MODFLOW (McDonald and Harbaugh, 1988). The Graphical User Interface (GUI) code "Groundwater Vistas" version 6.74 Build 27 (Environmental Simulations, Inc, 2013) was used to run simulations and evaluate model output. The Groundwater Vistas GUI allows for ease of model construction, execution, and processing of model output. The MODFLOW-SURFACT program is a 3D finite-difference flow and transport modeling code with significant improvements over public-domain versions of MODFLOW. MODFLOW-SURFACT addresses re-wetting of drained cells, handling of pumping wells, solute mass balance problems, numerical dispersion and oscillations, and impacts of transient flow storage effects on transport (HydroGeoLogic, Inc., 1996).

TECHNICAL MEMORANDUM

Updated Numerical Simulation of Feasibility Study Alternative 3

April 24, 2015

Page 5

Sierrita Pumping

The predictive simulation includes an updated estimate of future pumping and STI seepage. The predictive simulation was run to year 2114 to evaluate mitigation pumping under 2014 pumping conditions.

Estimates of Non-Sierrita Pumping

Future estimates of pumping at non-Sierrita wells are the same as previously described in Clear Creek's July 10, 2014 Technical Memorandum. Estimates of future pumping at non-Sierrita wells within the model domain were obtained from the Upper Santa Cruz Providers and Users Group (USCPUG, 2012). The USCPUG provides estimates of future pumping for mining, agricultural, municipal water providers, golf courses, and other water users through 2035. The USCPUG (2012) also estimates pumping for potential major users such as State Trust land use, and FICO residential development.

Future STI Seepage

The STI seepage rate for the predictive model has been estimated for input to the basin-fill model. The end of slurry application to the STI assumes drain-down begins after year 2088 when the STI is closed and tailing delivery ends. 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.

4.2 Mitigation Plan Pumping – Source Control, Plume Stabilization, and Mass Removal

The Mitigation Plan pumping specifications includes groundwater pumping at four groups of wells: the IW, FFS, PS, and MC wells. As described in the FS, there are different pumping objectives for groundwater extraction at the different well groups. The IW and FFS wells are pumped 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 additional down-gradient movement of the plume. The MC wells are pumped primarily to reduce the plume extent by extracting sulfate mass, although some pumping of the MC wells is used for plume stabilization.

TECHNICAL MEMORANDUM

Updated Numerical Simulation of Feasibility Study Alternative 3

April 24, 2015

Page 6

The combined pumping for source control and plume stabilization is designed to limit the future migration of the plume so that drinking water supply wells are not affected by the plume. The mitigation action objective would be met by source control and plume stabilization pumping only. Pumping in excess of source control and plume stabilization is conducted for plume reduction. Plume reduction pumping is not needed to meet the mitigation action objective, but can be used to reduce the volume of future pumping and shorten the duration of the mitigation action.

Table 4 summarizes the well pumping specifications for the predictive simulation under constant 2014 pumping conditions. Source control pumping includes pumping at the existing IW well-field, the recently installed IW-29 well, and the FFS production wells (FFS-1 to FFS-6). The aggregate pumping rate at existing IW wells (IW-01 to IW-24) is 2,573 gpm (**Table 4**) for the entire predictive simulation. The total pumping rate for wells IW-25 to IW-29 is about 906 gpm (**Table 4**) for the entire predictive simulation. A total of 3,565 gpm is pumped at the FFS wells and this pumping rate is held constant for the entire simulation.

Plume stabilization includes pumping from wells PS-1 to PS-4 located in the northern portion of the plume to pump groundwater and stabilize the northern extent of the plume. The predictive simulation has the PS well-field pumping at a constant rate of about 2,480 gpm (**Table 4**), equivalent to 2014 reported rates for the PS wells.

Mass removal pumping includes groundwater pumping from the FFS wells, and the MC wells located east of the FFS well-field.

Sulfate Plume Maps

Maps showing the extent of the sulfate plume over time were prepared by comparing the model cell output of sulfate concentration in all three model layers and showing the maximum concentration. Model cells with a saturated thickness of less than 25 feet (7.5 meters) were not included in the analysis. 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 over time for the predictive simulation under 2014 pumping rates is shown on **Figure 3**. Simulated groundwater level maps and sulfate plume extent maps in 20-year increments are provided in **Attachment B**. The predictive simulation under constant 2014

TECHNICAL MEMORANDUM

Updated Numerical Simulation of Feasibility Study Alternative 3

April 24, 2015

Page 7

pumping conditions shows small residual plumes located to the northwest and northeast of the PS well-field remaining from year 2060 to the end of the simulation in year 2114 (**Figures B.5, B.7, B.9, and B.11**). Numerical model results suggest that groundwater pumping for down-gradient source control, plume stabilization, and mass capture contains seepage from the STI. The predictive simulation under 2014 pumping conditions indicates that the areal extent of the down-gradient plume decreases over time and the sulfate plume is not predicted to impact public or private drinking water supply wells.

5 RECOMMENDATION

The updated transient (1941-2014) basin-fill model is not replicating water level declines associated with the first year of mitigation pumping. The model demonstrates a bias to under simulating recent water level declines in the area of the mitigation well field. Model computed residuals for the end of 2014 show residuals ranging from -6 feet to -98 feet (**Figure 1**). Selected hydrographs provided in Attachment A also show that the model is under simulating the recent water level declines associated with the first year of Mitigation Plan pumping. Therefore, it is recommended that a model sensitivity analysis and re-calibration to current conditions be conducted.

TECHNICAL MEMORANDUM

Updated Numerical Simulation of Feasibility Study Alternative 3

April 24, 2015

Page 8

6 REFERENCES

Arizona Department of Water Resources. 2015. ADWR Wells55 Registry Database

Arizona Department of Water Resources. 2015. ADWR Groundwater Site Inventory (GWSI) Database

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

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.

Environmental Simulations, Inc. 2013. Groundwater Vistas (Version 6.21 Build 3): Reinholds, PA.

Errol L. Montgomery and Associates (ELMA). 2007. Evaluation of the Current Effectiveness of the Sierrita Interceptor Wellfield, Phelps Dodge Sierrita Mine. Prepared for Phelps Dodge Sierrita, Inc., November 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.

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

HydroGeologic, Inc. 1996. MODFLOW-SURFACT version 3.0 Software Documentation, Copyright 1996, Herndon, Virginia.

Mason, D., and Hipke, W. 2013. Regional Groundwater Flow Model of the Tucson Active Management Area, Arizona. Model Update and Calibration. Arizona Department of Water Resources Modeling Report No. 24.

McDonald, M.G., and Harbaugh, A.W. 1988. A Modular Three-Dimensional Finite-Difference Groundwater Flow Model: U.S. Geological Survey Techniques of Water Resources Investigations, Book 6, Chapter A.1.

USCPUG. 2012. Upper Santa Cruz Providers and Users Group (USCPUG) Water Usage Report for Years 2010-2035. May 8, 2012.

TECHNICAL MEMORANDUM

Updated Numerical Simulation of Feasibility Study Alternative 3

April 24, 2015

Page 9

TABLES

- 1 Water Budget Components for Seepage Estimate
- 2 Well Locations and Pumping Rates for Transient Simulation, Source ADWR Model
- 3 Well Locations and Pumping Rates for Transient Simulation, Various Sources
- 4 Predictive Simulation With 2014 Pumping Specifications

FIGURES

- 1 Simulated Groundwater Level Contours in 2014
- 2 Simulated Average Sulfate Concentration in 2014
- 3 Simulated Extent of Sulfate Plume from 2020 to 2114 for Predictive Simulation Under 2014 Pumping Conditions

ATTACHMENTS

- A Selected Well Hydrographs 1941-2014 Transient Simulation
- B Predictive Simulation Under 2014 Pumping Conditions, Sulfate Plume and Groundwater Level Maps

TABLES

TABLE 1.
WATER BUDGET COMPONENTS FOR SEEPAGE ESTIMATE

Year(s)	Ore Milled (million tons/yr)	Pulp Density	Water Delivered to Impoundment (ac-ft/yr)	Reclaimed Water (ac-ft/yr)	Surface Water Discharge (ac-ft/yr)	Precipitation (ac-ft/yr)	Evaporation (ac-ft/yr)	Retained in Impoundment (ac-ft/yr)	Available Seepage Water (ac-ft/yr)
2005	39.20	0.52	26,396	6,015	281	3,322	12,772	5,383	5,777
2006	38.44	0.52	26,302	6,429	350	4,485	11,983	5,279	7,467
2007	40.06	0.52	27,307	5,401	260	2,692	10,102	5,500	9,255
2008	38.37	0.52	26,213	3,762	278	3,175	10,186	5,269	10,449
2009	37.91	0.53	24,669	4,300	0	1,857	9,850	5,205	7,171
2010	38.01	0.50	27,554	3,686	0	3,457	9,910	5,219	12,196
2011	38.53	0.52	26,348	3,707	0	1,901	10,298	5,291	8,953
2012	38.98	0.51	27,320	4,299	0	2,423	12,174	5,353	7,917
2013	37.06	0.51	25,966	5,614	0	2,563	10,794	5,090	7,032
2014	38.01	0.51	26,608	4,751	0	2,563	10,794	5,220	8,406
2015 - EOM	38.46	0.514	26,467	4,796	0	2,844	10,886	5,281	8,462

Notes:

1. Values for 2010 and 2011 from M&A August 29, 2012 Sierrita Tailing Impoundment Water Balance Analysis for Year 2011, FMI Sierrita Mine, Pima County, Arizona.
2. Values for 2012 - 2014 water balance calculations based on data provided by FMI Sierrita.
2. Values for 2015 - EOM based on average value for 2005 - 2014

EOM = end of mine life

ac-ft/yr = acre-feet per year

na = not applicable

**TABLE 2. WELL LOCATION AND PUMPING RATES
FOR TRANSIENT SIMULATION,
source ADWR Model (Mason and Bota, 2006)**

WeName	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	0	1080	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			
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	0	0	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			
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	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	0	420	290	260	310	290	220	100	80	60	110	100	110	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	0	260	290	200	190	220	20	0	0	0	0	0	0	0	0		
CD2	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	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	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	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	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	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	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				
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			
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	280	0	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	0											

TABLE 2. WELL LOCATION AND PUMPING RATES
FOR TRANSIENT SIMULATION,
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	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			
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	0	
FICO	504942	3537215	0	160	160	150	150	150	140	140	0	80	60	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
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	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	0	
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	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		
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	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	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	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	0	10	10	160	10	10	20	20	10	10	10	10	10	10	10	10	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	0	
W06	504097	3538824	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	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	260	540	830	570	310	560	640	690	540	570	0		
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	90	2310	2130	1570	830	1460	1340	1450	1250	1150	0	0	0
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	0	
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	0	

No pumping specified after 1983.
All pumping units in gallons per minute (gpm)

TABLE 3. WELL LOCATIONS AND PUMPING RATES FOR
TRANSIENT SIMULATION FROM VARIOUS SOURCES

Well Name	Owner	Registry ID	UTM83E	UTM83N	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992
201058	FICO/FARMERS WATER CO	201058	506980	3532009	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
203265	PIMA COUNTY SOLID WASTE	203265	500739	3534868	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
603430	GREEN VALLEY DWID	603430	497134	3519902	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
603504	GREEN VALLEY DWID	603504	496754	3518699	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	2	0	1	1
608517	ANAMAX	608517	497370	3529040	0	0	0	0	0	0	0	0	0	0	0	0	0	132	29	0	0	0	0	0	0	179
608594	ROBSON RANCH/QUAIL CREEK	608594	503823	3527583	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
801075	PIMA COUNTY	801075	503396	3531617	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11caa	COMMUNITY WATER CO	801179	501186	3526788	0	0	0	0	0	0	0	0	0	0	0	0	0	1	55	36	70	38	46	54	53	46
Amado	STEWART TITLE AND TRUST	623888	495913	3511786	0	0	0	0	0	0	0	0	0	0	0	0	0	55	71	82	90	45	108	84	92	120
AN1	ROBSON RANCH/QUAIL CREEK	608589	502595	3527990	2323	2323	2323	2323	1130	1130	1130	1130	1130	1130	1265	1247	166	10	19	0	0	0	0	0	0	0
AN-2(RRQC2)	QUAIL CREEK WATER CO	608519	503457	3529250	1548	1548	1548	1548	1130	1130	1130	1130	1130	1130	1189	1220	126	0	0	0	0	0	0	0	1	5
AN-4(RRQC1)	QUAIL CREEK WATER CO	608521	503457	3527990	0	0	0	0	1130	1130	1130	1130	1130	1130	1278	664	58	69	60	3	0	0	0	0	0	0
C1	FICO/FARMERS WATER CO	624008	503353	3529320	50	50	50	50	50	50	50	50	50	50	47	39	35	0	0	0	0	0	0	0	0	0
C4	FICO/FARMERS WATER CO	624010	501760	3525384	1331	1331	1331	1331	1331	1331	1331	1331	1331	1331	1246	1033	922	853	822	1159	931	710	783	756	921	910
CCoGV	COUNTRY CLUB OF GREEN VALLEY	501760	501635	3527876	484	484	484	484	484	484	484	484	484	484	453	376	335	310	280	375	336	339	389	324	396	379
CCoGV(CW-5)	COUNTRY CLUB OF GREEN VALLEY	627484	501234	3522497	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ContSD39	CONTINENTAL SCHOOL DISTRICT 39	601769	504049	3522942	0	0	0	0	0	0	0	0	0	0	0	0	0	22	10	0	0	11	9	7	7	7
Cox	COX, W	604432	508795	3534015	0	0	0	0	0	0	0	0	0	0	0	0	0	4	3	2	3	2	2	0	2	2
Cox	COX	627079	508795	3534015	0	0	0	0	0	0	0	0	0	0	0	0	0	3	4	2	5	5	3	0	3	6
CSD39	CONTINENTAL SCHOOL DISTRICT 39	638581	504049	3522942	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	9	9	0	0	0	0	0
CW10	COMMUNITY WATER CO	207982	500975	3523255	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CW11	COMMUNITY WATER CO	608518	502442	3530984	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CW3	COMMUNITY WATER CO	627483	500064	3523810	137	137	137	137	137	137	137	137	137	137	212	176	157	145	142	5	0	1	0	0	1	1
CW6	COMMUNITY WATER CO	627485	500891	3525794	420	420	420	420	420	420	420	420	420	420	393	326	291	269	276	403	352	348	319	366	311	352
CW7	COMMUNITY WATER CO	502546	499660	3528094	0	0	0	0	0	0	0	0	0	0	0	511	456	422	284	408	0	0	0	0	0	0
CW8	COMMUNITY WATER CO	543600	499799	3525661	300	300	300	300	300	300	300	300	300	300	300	300	300	0	0	0	0	0	0	0	0	0
CW9	COMMUNITY WATER CO	588121	501072	3528741	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Davis	DAVIS, RA	621257	506996	3533678	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Davis_Robert	Davis	516216	507647	3533428	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	20	25	21
Duckett	DUCKETT, K	800365	508809	3533012	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
E10A	FICO/FARMERS WATER CO	86931	502452	3523995	43	43	43	43	43	43	43	43	43	43	40	33	30	27	27	38	28	0	0	0	0	0
E11A	FICO/FARMERS WATER CO	624018	502092	3527822	468	468	468	468	468	468	468	468	468	468	438	363	324	300	325	191	100	245	296	294	304	373
E12	FICO/FARMERS WATER CO	624019	500635	3520347	490	490	490	490	490	490	490	490	490	490	458	380	339	314	341	447	325	202	199	183	190	232
E13	FICO/FARMERS WATER CO	624020	503122	3526403	1130	1130	1130	1130	1130	1130	1130	1130	1130	1130	1057	877	782	724	881	968	609	528	620	697	714	765
E15	FICO/FARMERS WATER CO	624022	500333	3518794	0	0	0	0	393	0	0	0	0	0	0	0	0	409	319	390	391	276	261	296	289	305
E16	FICO/FARMERS WATER CO	624023	503328	3525727	701	701	701	701	701	701	701	701	701	701	656	544	485	449	573	624	404	394	436	464	471	456
E3A	FICO/FARMERS WATER CO	624011	502198	3523933	648	648	648	648	648	648	648	648	648	648	607	503	449	416	404	390	315	344	368	380	443	476
E5A	FICO/FARMERS WATER CO	624012	502184	3524332	521	521	521	521	521	521	521	521	521	521	488	404	361	334	282	125	103	209	92	57	59	59
E6	FICO/FARMERS WATER CO	624013	502425	3525169	554	554	554	554	554	554	554	554	554	554	519	430	384	355	351	476	305	258	277	292	337	314
E7	FICO/FARMERS WATER CO	624014	503086	3525553	0	0	0	0	0	0	0	0	0	0	0	0	0	2	1	0	1	1	1	1	1	4
E8	FICO/FARMERS WATER CO	624015	502374	3525166	208	208	208	208	208	208	208	208	208	208	195	162	144	134	172	234	243	196	146	193	172	236
E9	FICO/FARMERS WATER CO	624016	500862	3521222	274	274	274	274	274	274	274	274	274	274	256	213	190	176	214	153	68	162	162	156	214	171
ESP1	FREEPORT MCMORAN	623102	499970	3526449	827	827	827	827	827	659	543	103	277	431	266	33	0	0	0	0	0	0	0	0	4	8
ESP2	FREEPORT MCMORAN	623103	500242	3526925	413	413	413	413	413	330	271	51	138	216	133	17	0	0	0	0	3	38	8	71	173	7
ESP3	FREEPORT MCMORAN	623104	500234	3527377	827	827	827	827	827	659	543	103	277	431	266	33	0	0	0	43	1	10	9	56	47	0
ESP4	FREEPORT MCMORAN	623105	499917	3526133	827	827	827	827	827	659	543	103	277	431	266	33	0	0	0	1	6	305	71	81	435	782
Estrada	OTHER USERS	603835	502489	3531323	0	0	0	0	0	0	0	0	0	0	0	0	0	15	19	1	13	1	1	1	1	1
FFS-1	FREEPORT MCMORAN	221662	498327	3524076	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
FFS-2	FREEPORT MCMORAN	221663	498316	3524528	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
FFS-3	FREEPORT MCMORAN	221664	498357	3525295	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
FFS-4	FREEPORT MCMORAN	221665	498354	3525934	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
FFS-5	FREEPORT MCMORAN	221666	498346	3526693	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
FFS-6	FREEPORT MCMORAN	221667	498330	3527287	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
FICO543409	FICO/FARMERS WATER CO	543409	500252	3521313	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
FICO623990	FICO/FARMERS WATER CO	623990	505931	3536661	0	0	0	0	0	0	0	0	0	0	0	0	0	124	0	0	0	0	0	0	0	0
FICO624008	FICO/FARMERS WATER CO	624008	500844	3522312	0	0	0	0	0	0	0	0	0	0	0	0	0	32	61	67	90	44	0	0	0	0
FICO624017	FICO/FARMERS WATER CO	624017	502434	3523937	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0
FICO624042	FICO/FARMERS WATER CO	624042	502790	3531624	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
GV1	GREEN VALLEY DWID	603428	499813	3522254	663	663	663	663	663	663	663	663	663	663	621	514	459	425	352	442						

TABLE 3. WELL LOCATIONS AND PUMPING RATES FOR
TRANSIENT SIMULATION FROM VARIOUS SOURCES

Well Name	Owner	Registry ID	UTM83E	UTM83N	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992
GVINV_625712	GREEN VALLEY INVESTORS	625712	501600	3526400	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	200	199	176	244	229
HavenGC	HAVEN GOLF COURSE	515867	501609	3526344	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Hoogerwerk_RL	HOOGERWERK, RL	601910	509871	3532610	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
I07	FREEPORT MCMORAN	608528	497807	3528530	0	0	0	0	0	0	0	0	0	0	0	0	0	0	621	4	0	0	589	846	666	740
I09	FREEPORT MCMORAN	608526	497823	3528672	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	56	109	0	0
I10	FREEPORT MCMORAN	608525	497798	3528469	0	0	0	0	1068	1068	1068	1068	1068	1130	1130	1130	1130	428	336	2	0	0	28	685	869	750
I11	FREEPORT MCMORAN	608524	497919	3528485	0	0	0	0	1068	1068	1068	1068	1068	1130	1130	1130	1130	7	0	0	0	0	0	0	0	0
I12	FREEPORT MCMORAN	608523	498110	3528580	0	0	0	0	1068	1068	1068	1068	1068	1130	1130	1130	1130	925	865	11	36	127	597	1005	976	960
I13	FREEPORT MCMORAN	87309	498196	3528505	0	0	0	0	1068	1068	1068	1068	1068	1130	1130	1130	1130	1297	972	153	1	95	885	816	1157	1061
IW-01	FREEPORT MCMORAN	623129	496906	3521278	0	0	0	0	0	0	0	0	686	941	425	485	604	677	767	643	719	647	441	336	0	0
IW-02	FREEPORT MCMORAN	623130	497485	3521360	0	0	0	0	0	0	0	0	620	1030	729	513	512	710	769	469	776	523	630	309	812	851
IW-02A	FREEPORT MCMORAN	216464	497469	3521338	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
IW-03	FREEPORT MCMORAN	623131	497366	3521720	0	0	0	0	0	0	0	0	526	1049	691	287	622	658	729	510	800	687	652	438	718	666
IW-03A	FREEPORT MCMORAN	201732	497366	3521723	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
IW-04	FREEPORT MCMORAN	623132	497372	3522466	0	0	0	0	0	0	0	0	431	912	870	485	540	625	731	491	300	394	400	383	204	662
IW-05	FREEPORT MCMORAN	623133	497370	3522815	0	0	0	0	0	0	0	0	0	154	489	352	265	248	453	294	822	689	776	702	815	524
IW-05A	FREEPORT MCMORAN	219131	497526	3522758	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
IW-06A	FREEPORT MCMORAN	545565	497381	3523709	0	0	0	0	0	0	0	0	0	0	375	207	222	0	0	0	0	0	0	0	0	0
IW-07	FREEPORT MCMORAN	623135	496428	3521310	0	0	0	0	0	0	0	0	0	0	55	42	49	0	0	0	0	0	0	0	0	0
IW-08	FREEPORT MCMORAN	508238	497370	3522208	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	32	275	347	340	327	431	457
IW-09	FREEPORT MCMORAN	508236	497368	3522021	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	652	430	711	768	421	834	783
IW-10	FREEPORT MCMORAN	508237	497370	3523122	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	363	259	331	442	302	570	297
IW-11	FREEPORT MCMORAN	508235	497371	3523430	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	699	806	442	718	499	471	579
IW-12	FREEPORT MCMORAN	545555	497365	3523970	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
IW-13	FREEPORT MCMORAN	545556	497364	3524167	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
IW-14	FREEPORT MCMORAN	545557	497367	3524373	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
IW-15	FREEPORT MCMORAN	545558	497373	3524567	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
IW-16	FREEPORT MCMORAN	545559	497371	3524783	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
IW-17	FREEPORT MCMORAN	545560	497374	3525003	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
IW-18	FREEPORT MCMORAN	545561	497374	3525170	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
IW-19	FREEPORT MCMORAN	545562	497374	3525343	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
IW-20	FREEPORT MCMORAN	545563	497365	3525569	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
IW-21	FREEPORT MCMORAN	545564	497375	3525773	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
IW-22	FREEPORT MCMORAN	200554	497370	3523270	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
IW-23	FREEPORT MCMORAN	200555	497369	3522971	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
IW-24	FREEPORT MCMORAN	200556	497372	3522634	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
IW-25	FREEPORT MCMORAN	219596	497631	3521725	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
IW-26	FREEPORT MCMORAN	219143	497652	3522307	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
IW-27	FREEPORT MCMORAN	219136	497603	3522658	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
IW-28	FREEPORT MCMORAN	219137	497651	3523179	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
IW-29	FREEPORT MCMORAN	999019	498071	3523080	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Jurs	JURS, L	801442	496055	3519512	0	0	0	0	0	0	0	0	0	0	0	0	0	0	10	10	10	5	5	5	5	20
Kiewit	UNITED METRO MATERIALS	583888	504190	3530600	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Lamb	LAMB, V	628534	505340	3535044	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	3	1	1	1
Lawyers	ROBSON RANCH/QUAIL CREEK	608599	504207	3527782	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2	0	0	0	0	0	0	0
LosArboles	LOS ARBOLES MHP	524178	502573	3533448	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	27	32	36
LosArboles	LosArboles	610277	502467	3533753	0	0	0	0	0	0	0	0	0	0	0	0	0	19	164	18	23	25	28	0	0	0
Madera_Highlands	MADERA HIGHLANDS	624019	503285	3526162	0	0	0	0	0	0	0	0	0	0	0	0	0	93	101	132	96	60	59	184	191	232
MC-1	FREEPORT MCMORAN	221660	498913	3525205	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
MC-2	FREEPORT MCMORAN	221761	499369	3526366	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
MC-3	FREEPORT MCMORAN	221661	498858	3526912	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
MC-4	FREEPORT MCMORAN	220842	498626	3527773	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NP1	COMMUNITY WATER CO	605899	501004	3529212	81	81	81	81	81	81	81	81	81	81	76	63	56	52	32	32	35	41	39	24	0	0
NP2	COMMUNITY WATER CO	605898	500909	3520050	0	0	0	0	0	0	0	0	0	0	0	0	0	0	20	27	25	20	22	21	0	0
NP2	FICO/FARMERS WATER CO	624028	500929	3519541	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
OcotilloCommunity	OCOTILLO COMMUNITY	801309	498963	3511412	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2	2	2	1	2	7	5	4
Olivas	OLIVAS, EUGENE	801154	503396	3531213	0	0	0	0	0	0	0	0	0	0	0	0	0	1	3	10	10	6	3	6	6	4
PimaCoCanoaRanch	PIMA COUNTY	623128	498467	3517655	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Pollux1	POLLUX PROPERTIES	213787	504871	3514658	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Poole	POOLE, M	801975	495659	3519508	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	2	3	2	2	2	2	2
PS-1	FREEPORT MCMORAN	220861	499148	3529128	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PS-2	FREEPORT MCMORAN	220862	499318	3529357	0	0	0	0																		

TABLE 3. WELL LOCATIONS AND PUMPING RATES FOR
TRANSIENT SIMULATION FROM VARIOUS SOURCES

Well Name	Owner	Registry ID	UTM83E	UTM83N	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992
PS-4	FREEPORT MCMORAN	220864	499153	3528830	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
QCWC_No11	QUAIL CREEK WATER CO	608597	505964	3526918	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
QCWC_No13	QUAIL CREEK WATER CO	608522	504788	3528380	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	10	2	7
QCWC_No16	ROBSON RANCH/QUAIL CREEK	608598	506962	3526858	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
RanchoSonado	RANCHO SONADO	507495	496705	3510791	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Rosemont1	ROSEMONT COPPER CO	214277	505997	3535073	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Rosemont2	ROSEMONT COPPER CO	216391	508421	3533513	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
RT1	FREEPORT MCMORAN	504946	499811	3530971	0	0	0	0	0	0	0	0	0	0	0	538	1687	2230	2293	58	0	0	0	0	0	0
S-01	FREEPORT MCMORAN	623111	499931	3518793	0	0	0	0	0	0	0	0	0	0	0	0	0	1232	946	1682	1565	1331	1445	862	1662	1038
S-02	FREEPORT MCMORAN	623112	499133	3517459	0	0	0	0	0	0	0	0	0	0	0	0	0	2144	2024	1071	271	2027	1673	1850	2328	1266
S-03	FREEPORT MCMORAN	623113	498136	3516037	0	0	0	0	0	0	0	0	0	0	0	0	0	2317	1637	1734	1584	1670	1553	1592	1927	1122
S-04	FREEPORT MCMORAN	623114	497344	3514807	0	0	0	0	0	0	0	0	0	0	0	0	0	1820	1433	822	1796	1419	1566	1652	2038	1523
S-05	FREEPORT MCMORAN	623115	496561	3513401	0	0	0	0	0	0	0	0	0	0	0	0	0	753	2576	1424	538	151	1403	1830	1834	1106
S-06	FREEPORT MCMORAN	623116	496371	3511992	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2356	791	1458	879	1211	1191	1883	935
S12	FICO/FARMERS WATER CO	623981	505183	3535660	0	0	0	0	0	0	0	0	0	0	0	0	0	660	805	890	706	636	721	711	661	686
S19	FICO/FARMERS WATER CO	623982	504841	3532023	0	0	0	0	0	0	0	0	0	0	0	0	0	642	1076	1113	796	656	876	846	886	867
S22	FICO/FARMERS WATER CO	623983	503660	3531621	0	0	0	0	0	0	0	0	0	0	0	0	0	432	433	458	308	276	273	270	351	322
S25	FICO/FARMERS WATER CO	623985	503037	3533248	0	0	0	0	0	0	0	0	0	0	0	0	0	518	815	906	809	880	872	633	784	880
S29	FICO/FARMERS WATER CO	623986	503806	3535671	0	0	0	0	0	0	0	0	0	0	0	0	0	308	376	361	299	296	235	255	347	310
S31	FICO/FARMERS WATER CO	623987	505995	3537476	0	0	0	0	0	0	0	0	0	0	0	0	0	312	357	304	278	256	280	240	341	338
S33	FICO/FARMERS WATER CO	623988	503859	3532226	583	583	583	583	583	583	583	583	583	583	630	522	466	431	433	458	308	276	272	270	350	322
S40	FICO/FARMERS WATER CO	623991	505004	3534851	0	0	0	0	0	0	0	0	0	0	0	0	0	846	967	999	854	758	844	682	761	897
S43	FICO/FARMERS WATER CO	623993	503813	3537068	0	0	0	0	0	0	0	0	0	0	0	0	0	527	517	526	356	520	477	458	506	370
S44	FICO/FARMERS WATER CO	623994	503859	3530811	0	0	0	0	351	329	197	249	288	0	0	0	0	830	1062	1134	892	747	818	936	976	882
S45	FICO/FARMERS WATER CO	623995	504834	3532831	0	0	0	194	1295	1521	937	1008	939	647	827	768	619	1245	1262	1525	1149	950	1076	1055	1139	1141
S46	FICO/FARMERS WATER CO	623996	502647	3532239	0	0	0	0	0	0	0	0	0	0	0	0	0	354	508	765	802	351	770	573	810	846
S48	FICO/FARMERS WATER CO	623997	504987	3537067	0	0	0	4	213	0	0	0	0	0	0	0	0	547	529	439	451	413	343	403	443	444
S49	FICO/FARMERS WATER CO	623998	504793	3538083	0	0	0	79	488	382	246	287	533	406	519	482	388	407	253	213	342	328	328	346	358	371
S50	FICO/FARMERS WATER CO	623999	504991	3538690	0	0	0	0	522	257	257	173	386	254	324	301	243	259	396	353	154	124	0	0	0	0
S51	FICO/FARMERS WATER CO	624000	503017	3535471	0	0	0	0	0	0	0	0	0	0	0	0	0	339	483	791	870	786	824	709	842	823
S52	FICO/FARMERS WATER CO	624001	504790	3535663	0	0	0	3	427	346	335	290	388	445	569	528	426	354	393	385	264	296	359	872	841	865
S52A	FICO/FARMERS WATER CO	534922	504806	3534853	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
S53	FICO/FARMERS WATER CO	624002	503453	3532635	0	0	0	0	1130	57	34	37	49	36	46	43	34	1185	1267	1343	1101	1091	1100	1076	1060	1174
S54	FICO/FARMERS WATER CO	624003	503069	3531047	1337	1337	1337	1337	1337	1337	1337	1337	1337	1337	1251	1037	925	857	932	661	716	723	557	63	0	529
S55	FICO/FARMERS WATER CO	624004	502062	3531858	667	667	667	667	667	667	667	667	667	667	625	518	462	428	455	825	1014	875	1053	827	1049	1109
S56	FICO/FARMERS WATER CO	624005	505213	3534443	0	0	0	0	0	0	0	0	0	0	0	0	0	353	315	381	163	275	216	235	261	261
SAH-2B	PIMA COUNTY SOLID WASTE	211809	500959	3534907	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sahuarita	PIMA COUNTY	611142	506745	3536662	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sahuarita2	SAHUARITA VILLAGE	534039	502953	3538272	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
SahVal_WC	SAHUARITA VILLAGE WATER CO	607626	503052	3536369	0	0	0	0	0	0	0	0	0	0	0	0	0	16	17	20	21	15	0	14	15	14
SC23A	TUCSON WATER	619897	506943	3538481	0	0	0	0	0	0	0	0	0	0	0	0	0	526	555	447	468	448	452	381	480	427
SC24A	TUCSON WATER	619898	507953	3538486	0	0	0	0	0	0	0	0	0	0	0	0	0	544	329	335	528	416	444	437	433	271
Spafford_Jack	OTHER USERS	602952	495920	3518583	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	2	2
ST5	LAS QUINTAS SERENAS WATER CO	608531	500619	3531941	0	0	0	0	0	0	87	87	87	87	81	67	60	56	59	0	67	60	47	46	55	43
ST6	LAS QUINTAS SERENAS WATER CO	608530	501248	3531353	0	0	0	0	73	73	73	73	73	73	68	57	50	47	60	0	50	61	92	78	81	92
ST7	LAS QUINTAS SERENAS WATER CO	566940	500778	3531036	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Stoeckel	STOECKEL, GEORGE, DORIS	801401	496059	3518416	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	1	1
SUS_605342	SAHUARITA SCHOOL DISTRICT 30	605342	501863	3535970	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SUS_605344	SAHUARITA SCHOOL DISTRICT 30	605344	501863	3535970	0	0	0	0	0	0	0	0	0	0	0	0	0	37	37	39	39	42	56	35	45	41
SWC1	SAHUARITA WATER CO	611144	502752	3537471	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TorresBlancas	TORRES BLANCAS	543409	502409	3521313	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Underdown	RANCHO SONADO	626063	496709	3511387	0	0	0	0	0	0	0	0	0	0	0	0	0	3	23	22	20	16	27	13	18	12
ValVerde	VALLE VERDE INC	803064	502386	3531830	0	0	0	0	0	0	0	0	0	0	0	0	0	2	4	3	0	4	3	4	5	4
VVDN_WC	VERDE WATER CO	602019	501674	3532142	0	0	0	0	0	0	0	0	0	0	0	0	0	0	26	28	0	21	32	25	35	33
W11	FICO/FARMERS WATER CO	624025	499969	3520085	13	13	13	13	13	13	13	13	13	13	12	10	9	8	186	690	744	501	548	494	524	486
W12	FICO/FARMERS WATER CO	624026	500156	3521299	920	920	920	920	920	920	920	920	920	920	862	714	638	590	600	744	627	545	611	643	758	736
W9	FICO/FARMERS WATER CO	624024	501271	3524132	856	856	856	856	856	856	856	856	856	856	801	664	593	549	616	612	558	411	607	614	659	604
Wilson	WILSON, ROBERT, PEGGY	640149	509102	3533110	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	2	3	2	2	2	2	1
Total GPM					20,688	20,688	20,688	20,968	29,371	26,855																

TABLE 3. WELL LOCATIONS AND PUMPING RATES FOR
TRANSIENT SIMULATION FROM VARIOUS SOURCES

Well Name	Owner	Registry ID	UTM83E	UTM83N	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
201058	FICO/FARMERS WATER CO	201058	506980	3532009	0	0	0	0	0	0	0	0	0	0	0	0	2	0	3	0	5	6	7	9	14	14
203265	PIMA COUNTY SOLID WASTE	203265	500739	3534868	0	0	0	0	0	0	0	0	0	0	0	14	0	0	0	0	0	0	0	0	0	0
603430	GREEN VALLEY DWID	603430	497134	3519902	0	781	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
603504	GREEN VALLEY DWID	603504	496754	3518699	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
608517	ANAMAX	608517	497370	3529040	103	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
608594	ROBSON RANCH/QUAIL CREEK	608594	503823	3527583	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
801075	PIMA COUNTY	801075	503396	3531617	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11caa	COMMUNITY WATER CO	801179	501186	3526788	42	58	46	41	35	42	31	28	37	48	37	19	0	0	0	0	0	0	0	0	0	0
Amado	STEWART TITLE AND TRUST	623888	495913	3511786	107	97	2	195	110	149	105	117	113	129	125	139	129	126	130	158	204	206	212	212	181	181
AN1	ROBSON RANCH/QUAIL CREEK	608589	502595	3527990	0	0	0	0	0	0	0	0	0	0	0	0	0	0	379	668	0	0	0	0	0	0
AN-2(RRQC2)	QUAIL CREEK WATER CO	608519	503457	3529250	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
AN-4(RRQC1)	QUAIL CREEK WATER CO	608521	503457	3527990	94	156	0	0	0	0	261	266	334	378	384	362	326	357	460	359	407	384	407	370	435	435
C1	FICO/FARMERS WATER CO	624008	503353	3529320	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
C4	FICO/FARMERS WATER CO	624010	501760	3525384	852	833	1166	817	986	840	914	888	756	794	807	908	920	1112	1129	1093	1074	866	850	854	825	825
CCoGV	COUNTRY CLUB OF GREEN VALLEY	501760	501635	3527876	364	388	440	453	407	378	376	353	340	393	371	289	117	54	121	82	159	211	167	159	262	262
CCoGV(CW-5)	COUNTRY CLUB OF GREEN VALLEY	627484	501234	3522497	0	0	0	0	0	0	0	0	0	0	0	0	0	0	302	341	279	238	251	232	130	130
ContSD39	CONTINENTAL SCHOOL DISTRICT 39	601769	504049	3522942	0	0	0	0	0	6	17	2	2	2	2	2	2	3	0	0	2	2	2	3	3	3
Cox	COX, W	604432	508795	3534015	7	3	3	2	4	4	3	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Cox	COX	627079	508795	3534015	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CSD39	CONTINENTAL SCHOOL DISTRICT 39	638581	504049	3522942	8	7	7	9	9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CW10	COMMUNITY WATER CO	207982	500975	3523255	0	0	0	0	0	0	0	0	0	0	0	0	0	0	769	566	630	615	596	412	655	655
CW11	COMMUNITY WATER CO	608518	502442	3530984	0	0	0	0	0	0	0	0	0	0	0	0	0	0	380	671	656	494	475	711	654	654
CW3	COMMUNITY WATER CO	627483	500064	3523810	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CW6	COMMUNITY WATER CO	627485	500891	3525794	336	388	439	248	371	341	103	326	401	418	221	295	252	183	156	205	115	93	23	10	2	2
CW7	COMMUNITY WATER CO	502546	499660	3528094	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CW8	COMMUNITY WATER CO	543600	499799	3525661	0	0	9	427	453	517	623	676	527	722	713	426	1	1	1	0	0	0	0	0	0	0
CW9	COMMUNITY WATER CO	588121	501072	3528741	0	0	0	0	0	0	0	0	0	0	202	396	551	304	354	227	328	389	463	387	203	203
Davis	DAVIS, RA	621257	506996	3533678	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	0	1	1	0	0
Davis_Robert	Davis	516216	507647	3533428	23	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Duckett	DUCKETT, K	800365	508809	3533012	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
E10A	FICO/FARMERS WATER CO	86931	502452	3523995	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0	0	0	0	0	0
E11A	FICO/FARMERS WATER CO	624018	502092	3527822	294	339	298	246	341	332	378	329	305	283	446	496	501	445	517	505	520	371	413	469	512	512
E12	FICO/FARMERS WATER CO	624019	500635	3520347	220	263	242	228	249	176	171	163	183	144	146	126	287	0	38	0	43	39	38	39	18	18
E13	FICO/FARMERS WATER CO	624020	503122	3526403	621	724	700	697	768	636	734	667	664	612	705	827	261	48	81	156	184	231	204	195	208	208
E15	FICO/FARMERS WATER CO	624022	500333	3518794	287	439	474	266	301	236	252	247	259	305	487	527	543	587	741	791	787	557	654	639	560	560
E16	FICO/FARMERS WATER CO	624023	503328	3525727	404	411	436	353	430	388	423	387	400	395	466	469	427	429	541	568	462	349	494	354	366	366
E3A	FICO/FARMERS WATER CO	624011	502198	3523933	449	486	513	385	386	427	469	172	404	311	433	496	494	521	553	568	511	380	420	434	454	454
E5A	FICO/FARMERS WATER CO	624012	502184	3524332	58	65	81	97	105	104	134	147	157	191	194	200	197	272	188	146	142	97	127	132	136	136
E6	FICO/FARMERS WATER CO	624013	502425	3525169	298	283	272	280	312	244	249	372	308	354	350	332	347	402	499	486	451	369	403	338	355	355
E7	FICO/FARMERS WATER CO	624014	503086	3525553	6	9	8	6	7	6	9	10	10	11	9	1	1	1	0	0	0	0	0	0	0	0
E8	FICO/FARMERS WATER CO	624015	502374	3525166	215	230	219	196	253	209	189	181	169	180	186	209	198	0	0	0	0	0	0	0	0	0
E9	FICO/FARMERS WATER CO	624016	500862	3521222	166	235	166	186	215	163	135	43	121	136	242	343	204	147	87	0	0	0	0	0	0	0
ESP1	FREEPORT MCMORAN	623102	499970	3526449	12	151	13	20	0	0	0	0	0	0	0	21	272	173	9	0	14	1	0	0	0	0
ESP2	FREEPORT MCMORAN	623103	500242	3526925	92	172	22	1	0	0	0	0	1	0	8	143	308	367	43	0	2	1	0	0	0	0
ESP3	FREEPORT MCMORAN	623104	500234	3527377	0	0	0	0	0	0	0	0	0	1	0	44	259	598	96	0	17	0	0	0	0	0
ESP4	FREEPORT MCMORAN	623105	499917	3526133	211	380	1	14	1	5	0	0	1	0	12	45	0	0	1	1	1	0	0	0	0	0
Estrada	OTHER USERS	603835	502489	3531323	1	1	1	1	1	1	1	1	1	1	0	2	2	2	0	1	0	0	0	0	0	0
FFS-1	FREEPORT MCMORAN	221662	498327	3524076	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7	853
FFS-2	FREEPORT MCMORAN	221663	498316	3524528	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7	782
FFS-3	FREEPORT MCMORAN	221664	498357	3525295	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	244
FFS-4	FREEPORT MCMORAN	221665	498354	3525934	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	178
FFS-5	FREEPORT MCMORAN	221666	498346	3526693	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7	956
FFS-6	FREEPORT MCMORAN	221667	498330	3527287	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	553
FICO543409	FICO/FARMERS WATER CO	543409	500252	3521313	0	0	258	492	350	322	308	306	281	284	251	255	330	330	0	331	372	349	361	309	328	328
FICO623990	FICO/FARMERS WATER CO	623990	505931	3536661	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
FICO624008	FICO/FARMERS WATER CO	624008	500844	3522312	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
FICO624017	FICO/FARMERS WATER CO	624017	502434	3523937	0	391	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
FICO624042	FICO/FARMERS WATER CO	624042	502790	3531624	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
GV1	GREEN VALLEY DWID	603428	499813	3522254	694	570	753	660	840	504	805	610	612	614	793	793	730	730	690	643	621	610	612	577	565	565
GV2	GREEN VALLEY DWID	603429	499786	3521650	559	0																				

TABLE 3. WELL LOCATIONS AND PUMPING RATES FOR
TRANSIENT SIMULATION FROM VARIOUS SOURCES

Well Name	Owner	Registry ID	UTM83E	UTM83N	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
GVINV_625712	GREEN VALLEY INVESTORS	625712	501600	3526400	195	146	192	198	184	163	183	181	160	198	191	182	192	152	140	161	27	68	58	66	80	80
HavenGC	HAVEN GOLF COURSE	515867	501609	3526344	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Hoogerwerk_RL	HOogerWERK, RL	601910	509871	3532610	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0
I07	FREEPORT MCMORAN	608528	497807	3528530	338	188	671	667	517	347	171	19	0	0	0	0	0	0	0	0	0	0	0	0	0	0
I09	FREEPORT MCMORAN	608526	497823	3528672	0	50	145	73	11	1	24	28	63	14	0	0	0	0	0	0	0	0	0	0	0	0
I10	FREEPORT MCMORAN	608525	497798	3528469	1080	815	802	919	173	1502	389	690	816	674	552	0	0	0	30	10	6	0	0	0	0	0
I11	FREEPORT MCMORAN	608524	497919	3528485	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
I12	FREEPORT MCMORAN	608523	498110	3528580	946	866	844	0	758	338	469	138	5	55	210	0	0	0	0	0	0	0	0	0	0	0
I13	FREEPORT MCMORAN	87309	498196	3528505	877	624	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
IW-01	FREEPORT MCMORAN	623129	496906	3521278	0	253	18	0	3	141	682	447	79	233	412	404	23	358	327	298	267	229	213	361	345	202
IW-02	FREEPORT MCMORAN	623130	497485	3521360	673	436	249	333	98	322	460	631	811	321	417	804	708	580	473	0	0	0	0	0	0	0
IW-02A	FREEPORT MCMORAN	216464	497469	3521338	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	409	450	348	358	335	239	226
IW-03	FREEPORT MCMORAN	623131	497366	3521720	804	536	605	85	259	453	633	754	855	666	486	0	0	0	0	0	0	0	0	0	0	0
IW-03A	FREEPORT MCMORAN	201732	497366	3521723	0	0	0	0	0	0	0	0	0	0	0	344	704	397	722	650	512	603	559	481	579	436
IW-04	FREEPORT MCMORAN	623132	497372	3522466	645	687	482	635	579	473	494	523	221	448	19	534	171	242	210	122	88	78	71	42	69	76
IW-05	FREEPORT MCMORAN	623133	497370	3522815	1002	1195	1093	1031	510	649	638	83	2	52	517	423	44	127	103	93	92	73	0	0	0	0
IW-05A	FREEPORT MCMORAN	219131	497526	3522758	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	63	66	40	18
IW-06A	FREEPORT MCMORAN	545565	497381	3523709	0	0	0	45	79	0	169	269	141	54	4	153	97	119	133	95	92	73	88	80	62	62
IW-07	FREEPORT MCMORAN	623135	496428	3521310	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
IW-08	FREEPORT MCMORAN	508238	497370	3522208	470	297	210	108	0	0	0	2	1	5	585	971	709	349	440	423	430	425	414	257	383	225
IW-09	FREEPORT MCMORAN	508236	497368	3522021	524	705	580	497	277	216	125	318	231	758	116	251	74	261	214	266	252	234	200	233	183	104
IW-10	FREEPORT MCMORAN	508237	497370	3523122	594	780	728	205	295	563	672	252	0	479	178	115	352	291	353	350	346	343	330	304	276	236
IW-11	FREEPORT MCMORAN	508235	497371	3523430	466	458	632	65	365	58	165	494	5	839	495	590	538	278	377	363	326	292	270	386	343	119
IW-12	FREEPORT MCMORAN	545555	497365	3523970	0	0	0	45	200	305	299	338	126	64	214	138	79	135	166	154	157	151	123	123	131	79
IW-13	FREEPORT MCMORAN	545556	497364	3524167	0	0	0	17	59	24	64	0	0	13	72	67	22	33	26	25	25	25	23	23	22	6
IW-14	FREEPORT MCMORAN	545557	497367	3524373	0	0	0	30	188	178	137	156	89	129	0	84	94	88	89	78	161	64	52	69	38	45
IW-15	FREEPORT MCMORAN	545558	497373	3524567	0	0	0	15	112	92	90	102	14	0	17	22	30	41	46	49	49	47	37	47	46	33
IW-16	FREEPORT MCMORAN	545559	497371	3524783	0	0	0	0	49	31	0	0	0	0	0	0	0	9	9	9	9	8	0	0	0	0
IW-17	FREEPORT MCMORAN	545560	497374	3525003	0	0	0	33	205	169	134	95	66	67	0	83	28	9	9	8	6	3	0	0	0	0
IW-18	FREEPORT MCMORAN	545561	497374	3525170	0	0	0	21	128	80	55	37	0	0	0	50	3	8	9	9	7	6	0	0	0	0
IW-19	FREEPORT MCMORAN	545562	497374	3525343	0	0	0	51	189	256	264	229	135	0	0	169	195	179	154	206	197	186	159	149	120	163
IW-20	FREEPORT MCMORAN	545563	497365	3525569	0	0	0	25	169	94	111	121	42	115	162	88	78	74	44	44	35	32	32	34	27	23
IW-21	FREEPORT MCMORAN	545564	497375	3525773	0	0	0	30	217	219	106	172	130	242	217	86	159	153	159	148	177	163	123	107	101	47
IW-22	FREEPORT MCMORAN	200554	497370	3523270	0	0	0	0	0	0	0	0	0	0	0	0	262	479	337	352	366	353	324	306	329	280
IW-23	FREEPORT MCMORAN	200555	497369	3522971	0	0	0	0	0	0	0	0	0	0	0	0	136	203	193	164	167	135	159	133	128	137
IW-24	FREEPORT MCMORAN	200556	497372	3522634	0	0	0	0	0	0	0	0	0	0	0	0	241	404	77	142	100	88	105	69	61	56
IW-25	FREEPORT MCMORAN	219596	497631	3521725	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	324	425	423
IW-26	FREEPORT MCMORAN	219143	497652	3522307	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	249	248	0
IW-27	FREEPORT MCMORAN	219136	497603	3522658	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	138	3	59
IW-28	FREEPORT MCMORAN	219137	497651	3523179	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	274	346	277
IW-29	FREEPORT MCMORAN	999019	498071	3523080	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	145
Jurs	JURS, L	801442	496055	3519512	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Kiewit	UNITED METRO MATERIALS	583888	504190	3530600	0	0	0	0	0	0	0	0	0	0	127	0	0	0	182	116	0	0	0	0	0	0
Lamb	LAMB, V	628534	505340	3535044	1	2	5	5	5	2	2	2	2	2	2	2	2	2	2	2	2	0	4	4	4	4
Lawyers	ROBSON RANCH/QUAIL CREEK	608599	504207	3527782	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
LosArboles	LOS ARBOLES MHP	524178	502573	3533448	42	496	45	44	38	32	31	32	30	32	33	32	28	29	37	7	33	11	21	20	22	22
LosArboles	LosArboles	610277	502467	3533753	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Madera_Highlands	MADERA HIGHLANDS	624019	503285	3526162	221	263	243	229	249	176	171	164	183	144	0	0	0	0	38	0	42	39	38	39	18	18
MC-1	FREEPORT MCMORAN	221660	498913	3525205	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7	844
MC-2	FREEPORT MCMORAN	221761	499369	3526366	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	619
MC-3	FREEPORT MCMORAN	221661	498858	3526912	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	564
MC-4	FREEPORT MCMORAN	220842	498626	3527773	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	557
NP1	COMMUNITY WATER CO	605899	501004	3529212	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NP2	COMMUNITY WATER CO	605898	500909	3520050	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NP2	FICO/FARMERS WATER CO	624028	500929	3519541	0	0	1	1	1	1	2	2	4	0	6	0	4	6	7	7	0	0	9	9	10	10
OcotilloCommunity	OCOTILLO COMMUNITY	801309	498963	3511412	8	5	12	12	20	22	8	8	11	14	10	11	11	11	13	12	13	11	11	14	12	12
Olivas	OLIVAS, EUGENE	801154	503396	3531213	3	2	0	0	1	0	1	1	1	1	1	1	1	1	1	0	0	0	0	0	0	0
PimaCoCanoaRanch	PIMA COUNTY	623128	498467	3517655	0	0	0	0	0	0	0	12	9	0	0	0	0	0	0	0	0	0	0	19	4	4
Pollux1	POLLUX PROPERTIES	213787	504871	3514658	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6	0	0	0	0	0	0	0
Poole	POOLE, M	801975	49565																							

TABLE 3. WELL LOCATIONS AND PUMPING RATES FOR
TRANSIENT SIMULATION FROM VARIOUS SOURCES

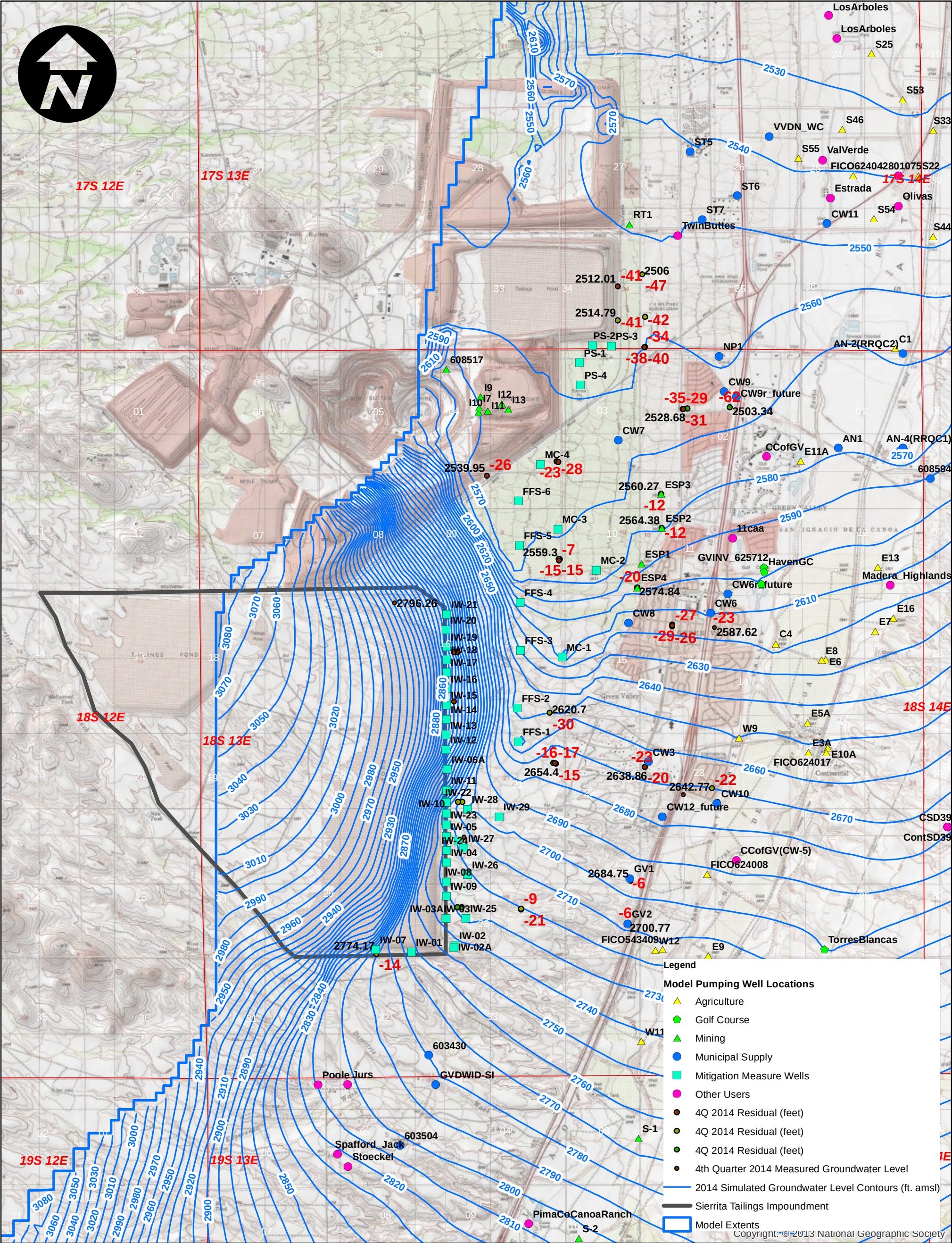
Well Name	Owner	Registry ID	UTM83E	UTM83N	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
PS-4	FREEPORT MCMORAN	220864	499153	3528830	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	9	709	
QCWC_No11	QUAIL CREEK WATER CO	608597	505964	3526918	0	0	0	0	0	0	0	0	0	1	15	77	106	0	99	93	14	21	30	25	1	1
QCWC_No13	QUAIL CREEK WATER CO	608522	504788	3528380	13	21	9	8	9	27	23	59	61	84	119	73	139	164	222	313	317	350	304	275	18	18
QCWC_No16	ROBSON RANCH/QUAIL CREEK	608598	506962	3526858	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	8	31	0	0	0	0	0
RanchoSonado	RANCHO SONADO	507495	496705	3510791	0	0	0	0	0	0	0	0	0	0	0	0	0	0	95	231	273	227	199	240	390	390
Rosemont1	ROSEMONT COPPER CO	214277	505997	3535073	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0
Rosemont2	ROSEMONT COPPER CO	216391	508421	3533513	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0	0	0	0	0	0	0
RT1	FREEPORT MCMORAN	504946	499811	3530971	0	0	796	1608	1747	1715	1609	1092	1494	1090	1069	0	0	0	43	75	36	93	54	134	47	64
S-01	FREEPORT MCMORAN	623111	499931	3518793	786	1703	1001	1407	1775	668	748	1582	1349	963	1739	1164	1882	1443	1431	1867	1414	928	1355	1396	1875	751
S-02	FREEPORT MCMORAN	623112	499133	3517459	2423	1913	2156	2568	1971	892	607	1287	1210	600	1671	1326	1408	981	1515	1609	1781	1510	2004	1748	2192	856
S-03	FREEPORT MCMORAN	623113	498136	3516037	1341	1294	1250	1808	1069	1192	1308	2146	1796	83	657	1993	1494	1640	1804	1853	1453	2269	2325	2355	2461	1211
S-04	FREEPORT MCMORAN	623114	497344	3514807	1224	1373	1031	975	1533	1582	1946	2404	2199	884	2762	2442	2398	2233	2067	2451	2222	2745	2711	2321	2027	873
S-05	FREEPORT MCMORAN	623115	496561	3513401	1309	2718	2566	2475	2136	2266	2646	1866	2117	1151	4	2641	2791	2840	2632	2482	2259	2385	2377	2234	2110	1074
S-06	FREEPORT MCMORAN	623116	496371	3511992	1652	2542	3276	2953	2479	3144	3036	1896	2584	3126	1167	1457	2268	2593	2370	2133	1916	2403	2050	1884	1944	963
S12	FICO/FARMERS WATER CO	623981	505183	3535660	579	620	590	677	591	535	642	663	639	624	580	603	779	871	930	838	819	764	799	809	854	854
S19	FICO/FARMERS WATER CO	623982	504841	3532023	757	854	658	866	841	659	785	771	736	795	831	915	846	937	879	849	805	484	527	0	0	0
S22	FICO/FARMERS WATER CO	623983	503660	3531621	501	403	351	301	288	221	76	305	319	262	373	448	388	466	425	328	425	394	386	278	349	349
S25	FICO/FARMERS WATER CO	623985	503037	3533248	204	817	807	754	778	704	683	874	749	795	776	700	828	943	1007	884	801	748	581	742	694	694
S29	FICO/FARMERS WATER CO	623986	503806	3535671	275	222	233	200	242	204	207	391	305	317	377	363	363	407	456	435	470	358	383	395	413	413
S31	FICO/FARMERS WATER CO	623987	505995	3537476	308	305	289	265	223	214	140	44	0	0	0	106	127	218	109	184	143	107	81	55	29	29
S33	FICO/FARMERS WATER CO	623988	503859	3532226	500	403	351	301	288	221	76	305	319	261	831	406	405	344	434	405	434	407	367	382	383	383
S40	FICO/FARMERS WATER CO	623991	505004	3534851	812	841	787	818	813	684	769	875	750	666	728	770	675	713	714	670	754	685	766	768	728	728
S43	FICO/FARMERS WATER CO	623993	503813	3537068	503	460	587	539	548	513	453	575	604	515	526	618	597	539	562	492	569	475	602	403	644	644
S44	FICO/FARMERS WATER CO	623994	503859	3530811	796	867	894	938	980	889	895	1179	985	1032	1028	1174	1024	1162	1048	1044	1100	931	1005	889	863	863
S45	FICO/FARMERS WATER CO	623995	504834	3532831	1014	1061	988	1032	834	914	1062	1091	1030	862	1029	1097	998	1011	1153	1262	1197	1041	1017	1122	1030	1030
S46	FICO/FARMERS WATER CO	623996	502647	3532239	533	719	695	772	605	613	438	394	570	992	755	557	501	616	751	630	823	834	753	499	472	472
S48	FICO/FARMERS WATER CO	623997	504987	3537067	407	433	424	406	396	369	391	406	368	294	344	443	429	436	487	404	411	337	361	355	357	357
S49	FICO/FARMERS WATER CO	623998	504793	3538083	333	255	245	253	245	206	253	243	247	245	238	334	292	292	306	337	344	347	349	335	336	336
S50	FICO/FARMERS WATER CO	623999	504991	3538690	0	82	88	0	0	0	0	0	0	0	0	0	90	157	164	152	158	114	124	130	151	151
S51	FICO/FARMERS WATER CO	624000	503017	3535471	653	1001	849	791	819	711	804	891	717	544	752	887	894	831	929	904	904	772	739	740	770	770
S52	FICO/FARMERS WATER CO	624001	504790	3535663	659	352	354	344	357	323	357	379	387	358	360	403	316	302	247	302	366	256	125	173	74	74
S52A	FICO/FARMERS WATER CO	534922	504806	3534853	36	55	45	45	51	65	67	74	66	70	65	66	31	35	36	33	28	35	27	0	4	4
S53	FICO/FARMERS WATER CO	624002	503453	3532635	960	985	911	852	790	785	880	818	826	790	832	985	860	1239	1178	1157	1115	1038	947	970	992	992
S54	FICO/FARMERS WATER CO	624003	503069	3531047	732	970	1076	981	852	784	739	871	741	397	691	1090	1080	774	1113	987	1117	545	691	924	856	856
S55	FICO/FARMERS WATER CO	624004	502062	3531858	987	1081	1136	1034	944	1000	875	1020	1094	780	1032	1117	1092	1147	1173	1120	1180	932	1034	1079	1128	1128
S56	FICO/FARMERS WATER CO	624005	505213	3534443	285	309	280	237	213	214	74	301	253	321	427	358	281	307	297	303	278	323	328	246	164	164
SAH-2B	PIMA COUNTY SOLID WASTE	211809	500959	3534907	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8	7	5	3	3	5	5
Sahuarita	PIMA COUNTY	611142	506745	3536662	0	0	0	0	0	0	0	0	85	183	354	211	311	181	235	247	285	186	171	166	82	82
Sahuarita2	SAHUARITA VILLAGE	534039	502953	3538272	8	10	10	9	10	7	8	8	19	20	15	17	17	21	236	248	286	186	15	17	0	0
SahVal_WC	SAHUARITA VILLAGE WATER CO	607626	503052	3536369	15	16	16	17	20	20	19	21	17	19	17	17	18	18	19	18	19	12	38	10	15	15
SC23A	TUCSON WATER	619897	506943	3538481	331	391	545	466	502	450	487	407	451	382	0	0	0	0	398	120	0	0	0	0	0	0
SC24A	TUCSON WATER	619898	507953	3538486	0	289	402	386	399	402	198	432	464	396	466	430	415	0	440	267	0	0	0	0	0	0
Spafford_Jack	OTHER USERS	602952	495920	3518583	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ST5	LAS QUINTAS SERENAS WATER CO	608531	500619	3531941	56	142	157	156	93	113	147	103	93	165	36	80	54	17	8	43	15	15	3	5	30	30
ST6	LAS QUINTAS SERENAS WATER CO	608530	501248	3531353	95	36	31	52	121	100	43	64	26	56	24	23	19	19	12	19	13	1	0	0	1	1
ST7	LAS QUINTAS SERENAS WATER CO	566940	500778	3531036	0	0	0	0	0	10	78	107	150	86	240	196	243	329	316	260	310	292	315	289	284	284
Stoeckel	STOECKEL, GEORGE, DORIS	801401	496059	3518416	1	0	1	1	1	0	1	1	1	1	1	1	1	1	1	1	1	0	0	1	0	0
SUS_605342	SAHUARITA SCHOOL DISTRICT 30	605342	501863	3535970	0	30	0	0	0	0	0	76	0	0	0	0	0	0	0	0	40	42	24	13	27	27
SUS_605344	SAHUARITA SCHOOL DISTRICT 30	605344	501863	3535970	48	0	33	23	52	61	70	0	0	83	82	96	96	95	75	79	0	0	0	0	0	0
SWC1	SAHUARITA WATER CO	611144	502752	3537471	0	0	0	0	0	0	18	133	116	85	31	242	298	534	667	669	782	201	302	451	527	527
TorresBlancas	TORRES BLANCAS	543409	502409	3521313	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	332	373	351	361	309	328	328
Underdown	RANCHO SONADO	626063	496709	3511387	11	10	10	22	22	12	35	7	5	10	10	14	4	12	13	36	20	8	9	11	12	12
ValVerde	VALLE VERDE INC	803064	502386	3531830	4	0	4	6	0	6	5	6	6	5	5	4	5	4	19	4	1	2	1	1	1	1
VVDN_WC	VERDE WATER CO	602019	501674	3532142	37	47	43	48	53	50	42	45	43	51	48	47	44	41	38	41	42	41	41	43	41	41
W11	FICO/FARMERS WATER CO	624025	499969	3520085	549	767	541	400	488	407	462	568	500</													

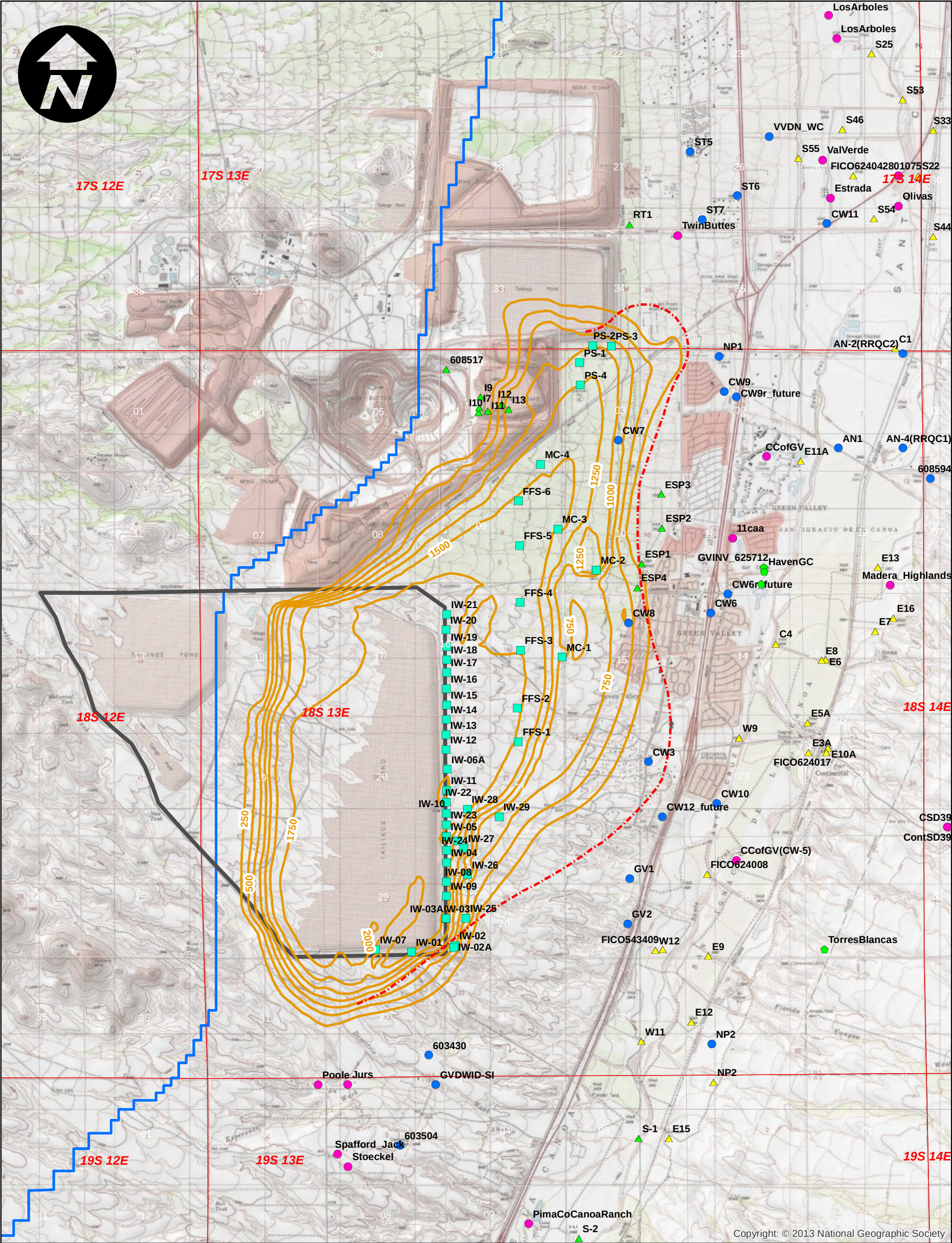
TABLE 4
PREDICTIVE SIMULATION WITH 2014 PUMPING SPECIFICATIONS

FFS Wellfield	Reg_ID	PUMPING RATE (GPM)								
		2015-2020	2021-2025	2026-2030	2031-2035	2036-2042	2043-2050	2051-2060	2061-2089	2090-2114
FFS-1	221662	853	853	853	853	853	853	853	853	853
FFS-2	221663	782	782	782	782	782	782	782	782	782
FFS-3	221664	244	244	244	244	244	244	244	244	244
FFS-4	221665	178	178	178	178	178	178	178	178	178
FFS-5	221666	956	956	956	956	956	956	956	956	956
FFS-6	221667	553	553	553	553	553	553	553	553	553
FFS WELL TOTAL		3565	3565	3565	3565	3565	3565	3565	3565	3565
Interceptor Wellfield										
IW-01	623129	202	202	202	202	202	202	202	202	202
IW-02A	216464	226	226	226	226	226	226	226	226	226
IW-03A	201732	436	436	436	436	436	436	436	436	436
IW-04	623132	76	76	76	76	76	76	76	76	76
IW-05A	623133	18	18	18	18	18	18	18	18	18
IW-06A	545565	62	62	62	62	62	62	62	62	62
IW-08	508238	225	225	225	225	225	225	225	225	225
IW-09	508236	104	104	104	104	104	104	104	104	104
IW-10	508237	236	236	236	236	236	236	236	236	236
IW-11	508235	119	119	119	119	119	119	119	119	119
IW-12	545555	79	79	79	79	79	79	79	79	79
IW-13	545556	6	6	6	6	6	6	6	6	6
IW-14	545557	45	45	45	45	45	45	45	45	45
IW-15	545558	33	33	33	33	33	33	33	33	33
IW-16	545559	0	0	0	0	0	0	0	0	0
IW-17	545560	0	0	0	0	0	0	0	0	0
IW-18	545561	0	0	0	0	0	0	0	0	0
IW-19	545562	163	163	163	163	163	163	163	163	163
IW-20	545563	23	23	23	23	23	23	23	23	23
IW-21	545564	47	47	47	47	47	47	47	47	47
IW-22	200554	280	280	280	280	280	280	280	280	280
IW-23	200555	137	137	137	137	137	137	137	137	137
IW-24	200556	56	56	56	56	56	56	56	56	56
EXISTING IW WELL TOTAL		2573	2573	2573	2573	2573	2573	2573	2573	2573
New Interceptor Wells										
IW-25	219596	423	423	423	423	423	423	423	423	423
IW-26	219143	0	0	0	0	0	0	0	0	0
IW-27	219136	59	59	59	59	59	59	59	59	59
IW-28	219137	277	277	277	277	277	277	277	277	277
IW-29	999019	145	145	145	145	145	145	145	145	145
NEW IW WELL TOTAL		906	906	906	906	906	906	906	906	906
Plume Stabilization Wellfield										
PS-1	220861	588	588	588	588	588	588	588	588	588
PS-2	220862	592	592	592	592	592	592	592	592	592
PS-3	220863	591	591	591	591	591	591	591	591	591
PS-4	220864	709	709	709	709	709	709	709	709	709
PS WELL TOTAL		2480	2480	2480	2480	2480	2480	2480	2480	2480
Mass Capture Wellfield										
MC-1	999014	844	844	844	844	844	844	844	844	844
MC-2	221761	619	619	619	619	619	619	619	619	619
MC-3	221661	564	564	564	564	564	564	564	564	564
MC-4	220842	557	557	557	557	557	557	557	557	557
MC WELL TOTAL		2584	2584	2584	2584	2584	2584	2584	2584	2584
Canoe Wellfield										
S1	623111	751	751	751	751	751	751	751	751	751
S2	623112	856	856	856	856	856	856	856	856	856
S3	623113	1211	1211	1211	1211	1211	1211	1211	1211	1211
S4	623114	873	873	873	873	873	873	873	873	873
S5	623115	1074	1074	1074	1074	1074	1074	1074	1074	1074
S6	623116	963	963	963	963	963	963	963	963	963
CANOA WELL TOTAL (GPM)		5,727	5,727	5,727	5,727	5,727	5,727	5,727	5,727	5,727
MITIGATION WELL TOTAL (GPM)		12,107	12,107	12,107	12,107	12,107	12,107	12,107	12,107	12,107
PUMPING TOTAL (GPM)		17,834	17,834	17,834	17,834	17,834	17,834	17,834	17,834	17,834
PUMPING TOTAL (AC-FT)		28,766	28,766	28,766	28,766	28,766	28,766	28,766	28,766	28,766

FFS: Focused Feasibility Study Wells
IW: Interceptor Wells
PS: Plume Stabilization Wells
MC: Mass Capture Wells

FIGURES





Legend

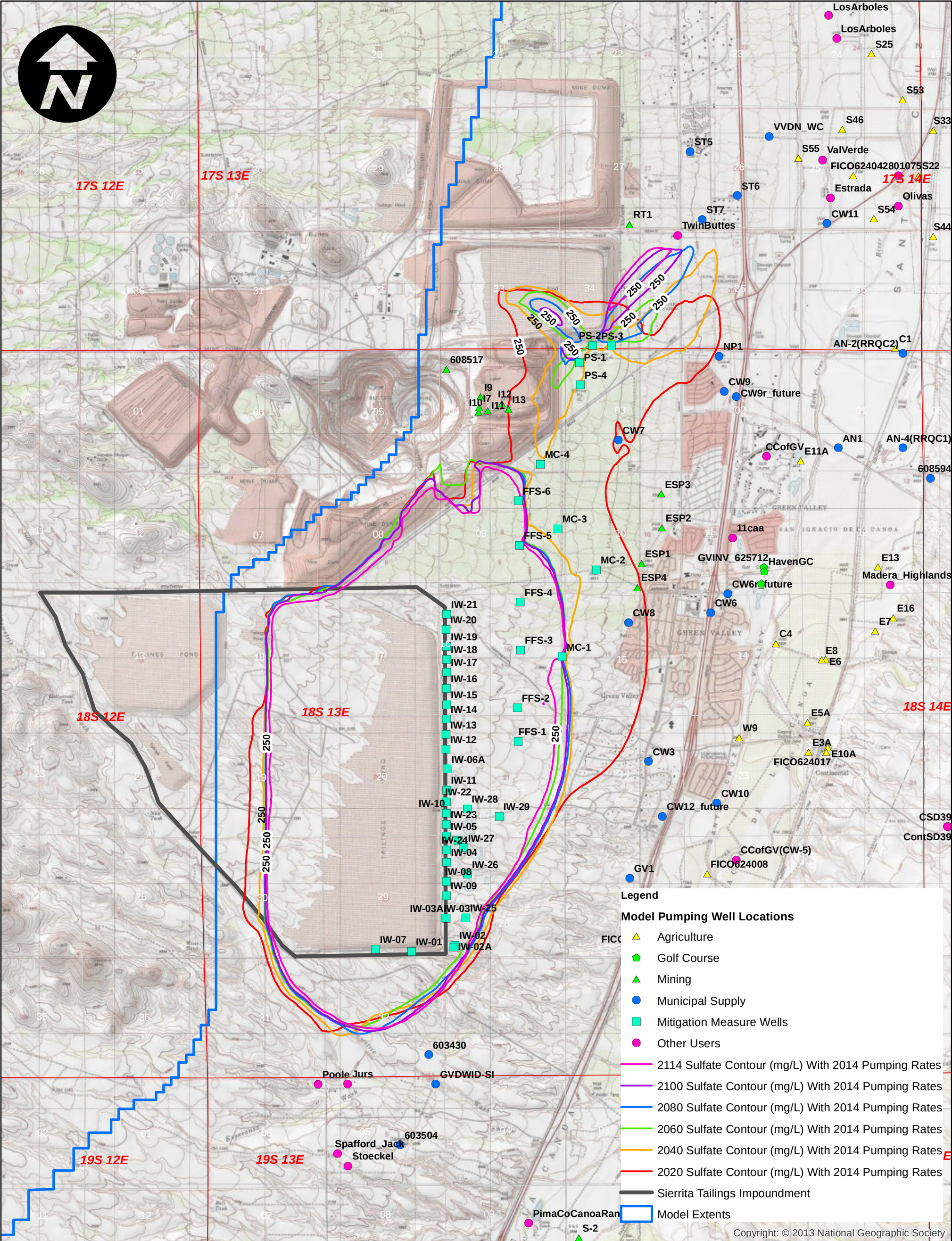
Model Pumping Well Locations

- ▲ Agriculture
- ◆ Golf Course
- ▲ Mining
- Municipal Supply
- Mitigation Measure Wells
- Other Users
- - - Sulfate 4th Quarter 2014 Measured 250 mg/L
- 2014 Simulated Average Sulfate Concentration (mg/L)
- Sierrita Tailings Impoundment
- Model Extents

0 0.25 0.5
Miles

CLEAR
CREEK
ASSOCIATES

FIGURE 2
SIMULATED AVERAGE SULFATE CONCENTRATION
IN 2014



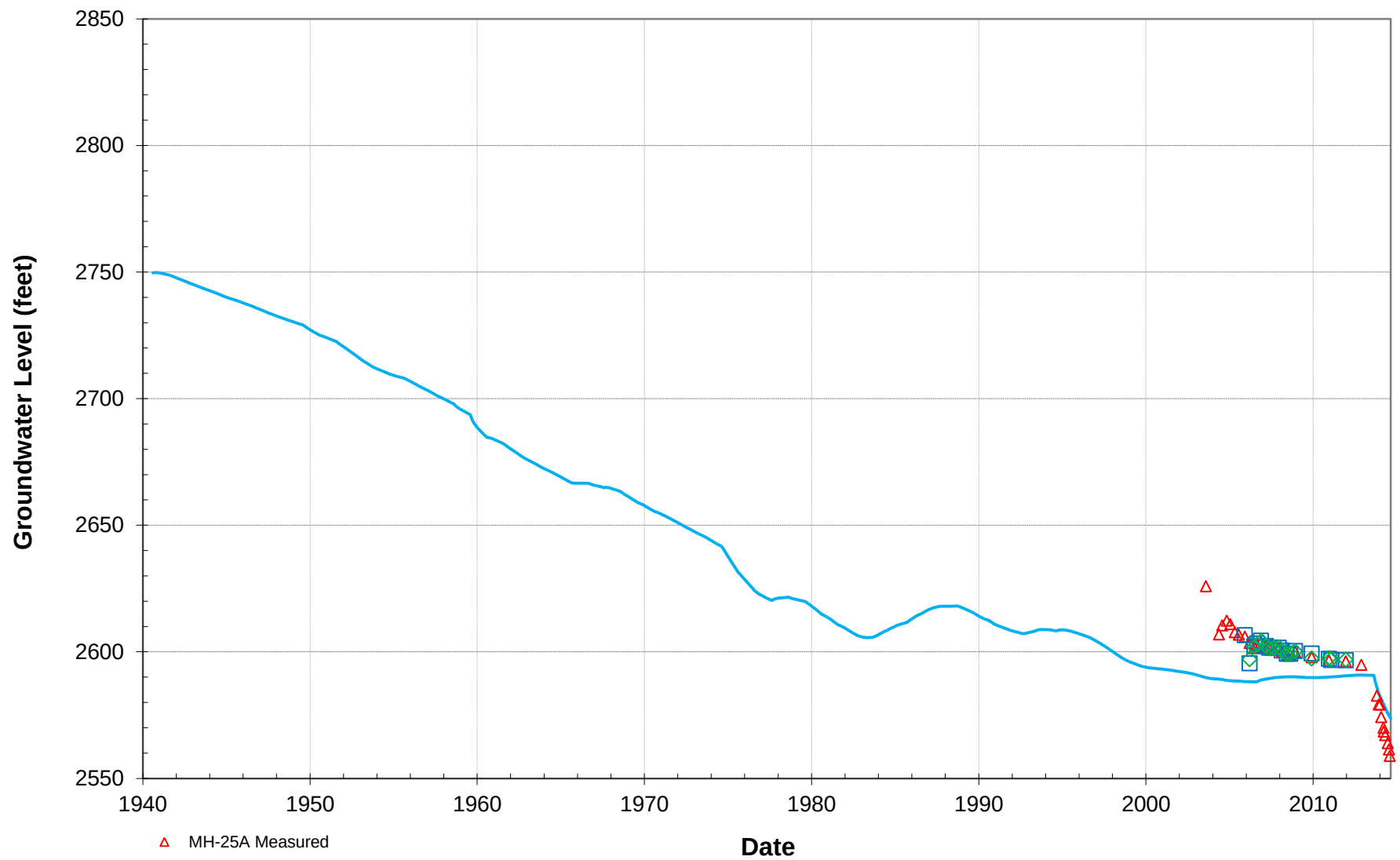
ATTACHMENT A

SELECTED WELL HYDROGRAPHS FOR 1941-2014 TRANSIENT SIMULATION

TABLE OF CONTENTS

FIGURES

- A.1. Simulated & Measured Groundwater Levels at Well Nest MH-25
- A.2. Simulated & Measured Groundwater Levels at Well Nest MH-26
- A.3. Simulated & Measured Groundwater Levels at Well Nest MO-2007-1
- A.4. Simulated & Measured Groundwater Levels at Well Nest MO-2007-3

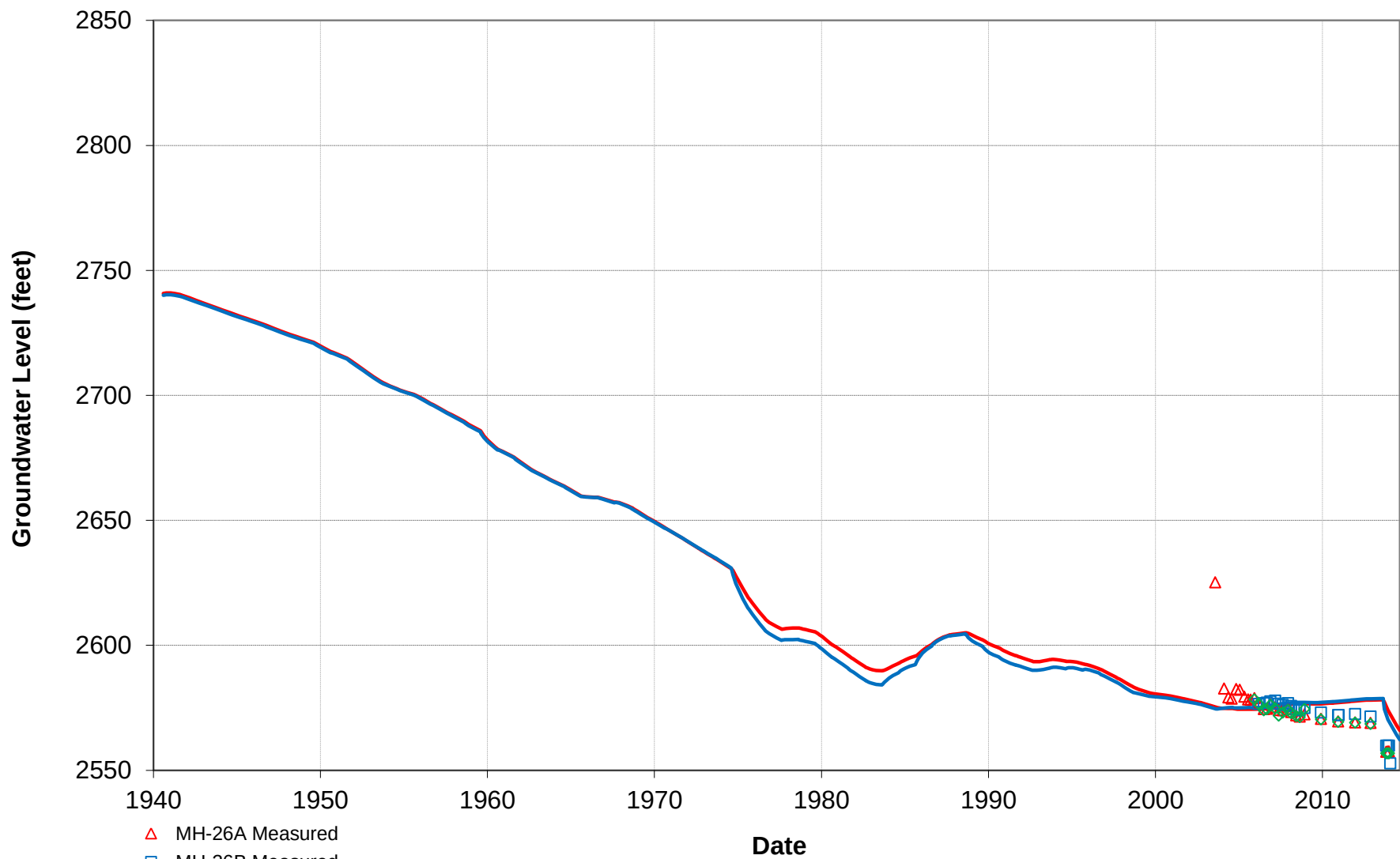


**Simulated and Measured
Groundwater Levels at Well Nest MH-25**

APPROVED

DATE 03/18/2015

FIGURE **A.1**



**Simulated and Measured
Groundwater Levels at Well Nest MH-26**

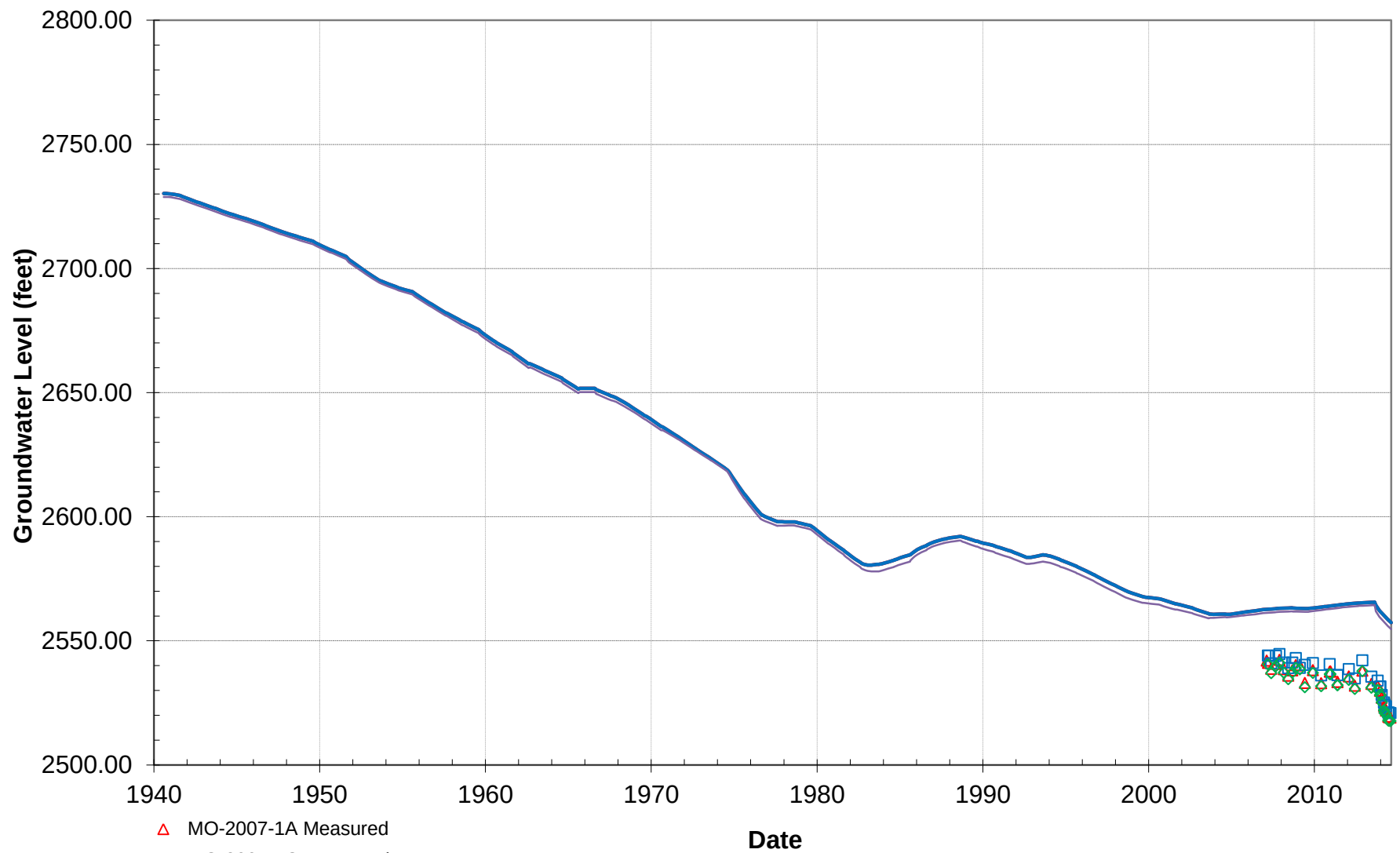
APPROVED

DATE

03/18/2015

FIGURE

A.2



**Simulated and Measured
Groundwater Levels at Well Nest MO-2007-1**

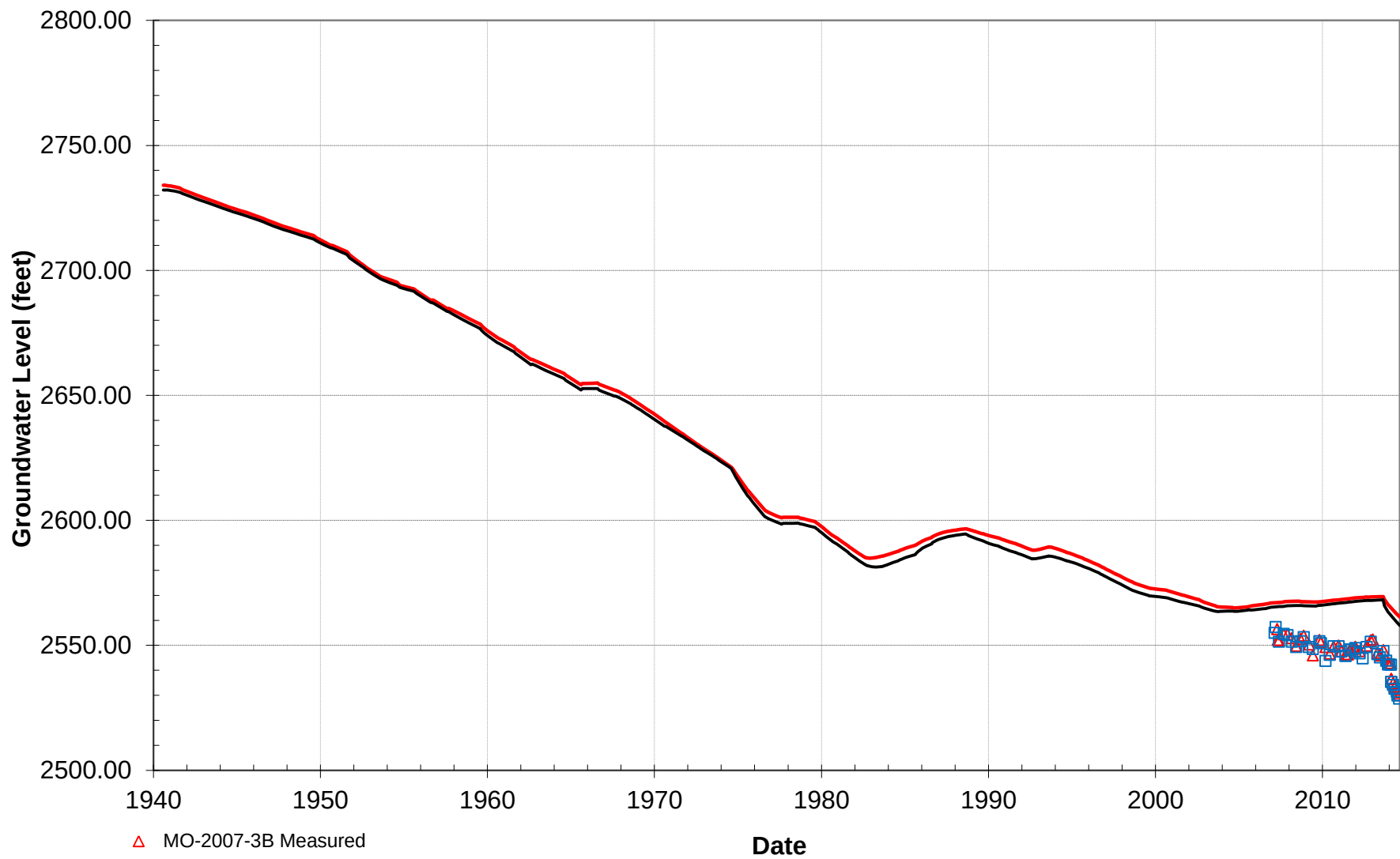
APPROVED

DATE

03/18/2015

FIGURE

A.3



**Simulated and Measured
Groundwater Levels at Well Nest MO-2007-3**

APPROVED

DATE

03/18/2015

FIGURE

A.4

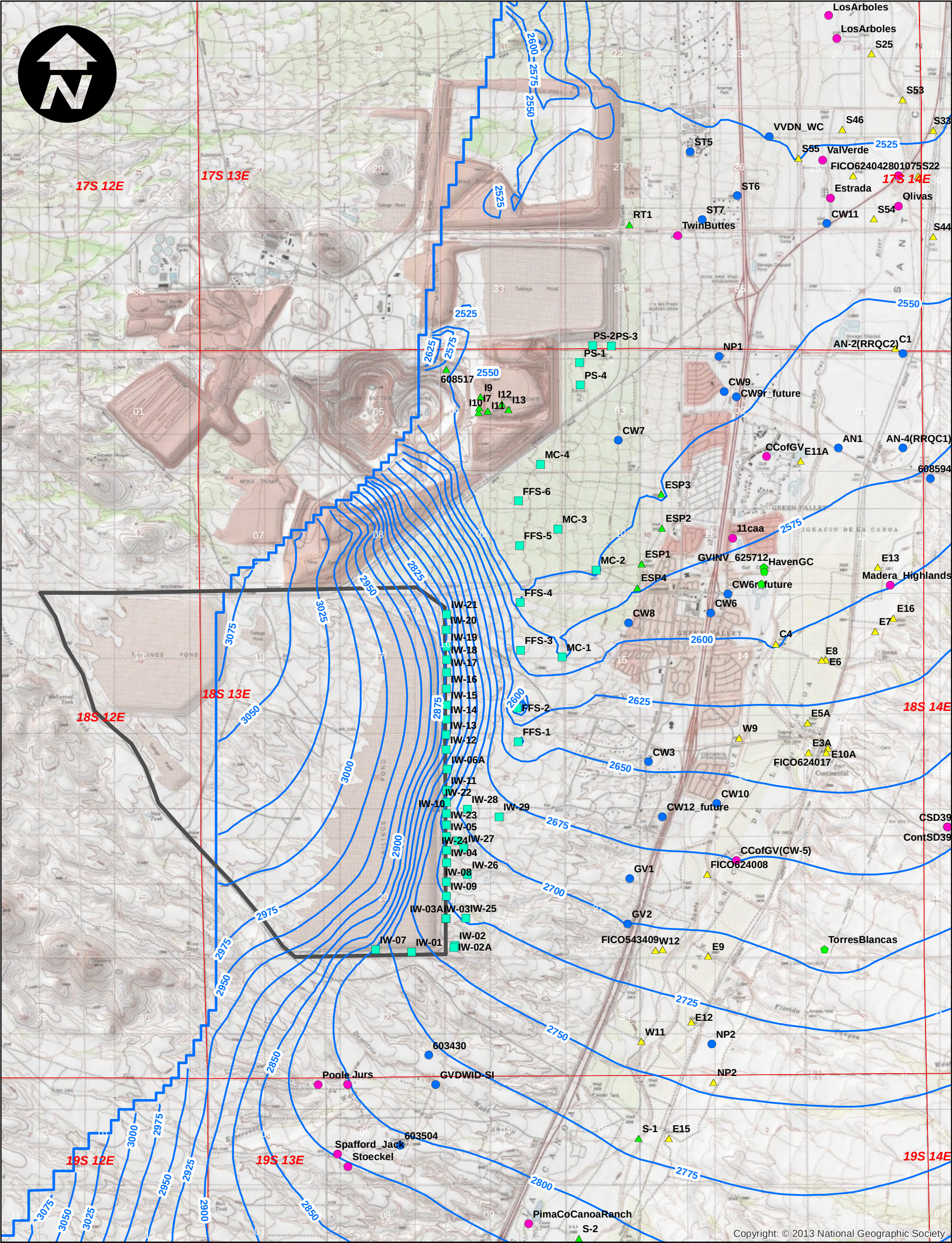
ATTACHMENT B

**PREDICTIVE SIMULATION UNDER 2014 PUMPING CONDITIONS, SULFATE PLUME AND
GROUNDWATER LEVEL MAPS**

TABLE OF CONTENTS

FIGURES

- B.1. Simulated Sulfate Contours in 2020 for Predictive Simulation With 2014 Pumping Rates
- B.2. Simulated Groundwater Contours in 2020 for Predictive Simulation With 2014 Pumping Rates
- B.3. Simulated Sulfate Contours in 2040 for Predictive Simulation With 2014 Pumping Rates
- B.4. Simulated Groundwater Contours in 2040 for Predictive Simulation With 2014 Pumping Rates
- B.5. Simulated Sulfate Contours in 2060 for Predictive Simulation With 2014 Pumping Rates
- B.6. Simulated Groundwater Contours in 2060 for Predictive Simulation With 2014 Pumping Rates
- B.7. Simulated Sulfate Contours in 2080 for Predictive Simulation With 2014 Pumping Rates
- B.8. Simulated Groundwater Contours in 2080 for Predictive Simulation With 2014 Pumping Rates
- B.9. Simulated Sulfate Contours in 2100 for Predictive Simulation With 2014 Pumping Rates
- B.10. Simulated Groundwater Contours in 2100 for Predictive Simulation With 2014 Pumping Rates
- B.11. Simulated Sulfate Contours in 2114 for Predictive Simulation With 2014 Pumping Rates
- B.12. Simulated Groundwater Contours in 2114 for Predictive Simulation With 2014 Pumping Rates



Legend

Model Pumping Well Locations

- Agriculture
- Golf Course
- Mining
- Municipal Supply
- Mitigation Measure Wells
- Other Users
- 2020 Groundwater Contour (ft. amsl) With 2014 Pumping Rates
- Sierrita Tailings Impoundment
- Model Extents

CLEAR
CREEK
ASSOCIATES

FIGURE B.2

SIMULATED GROUNDWATER CONTOURS IN 2020 FOR
PREDICTIVE SIMULATION WITH 2014 PUMPING RATES

0 0.25 0.5
Miles

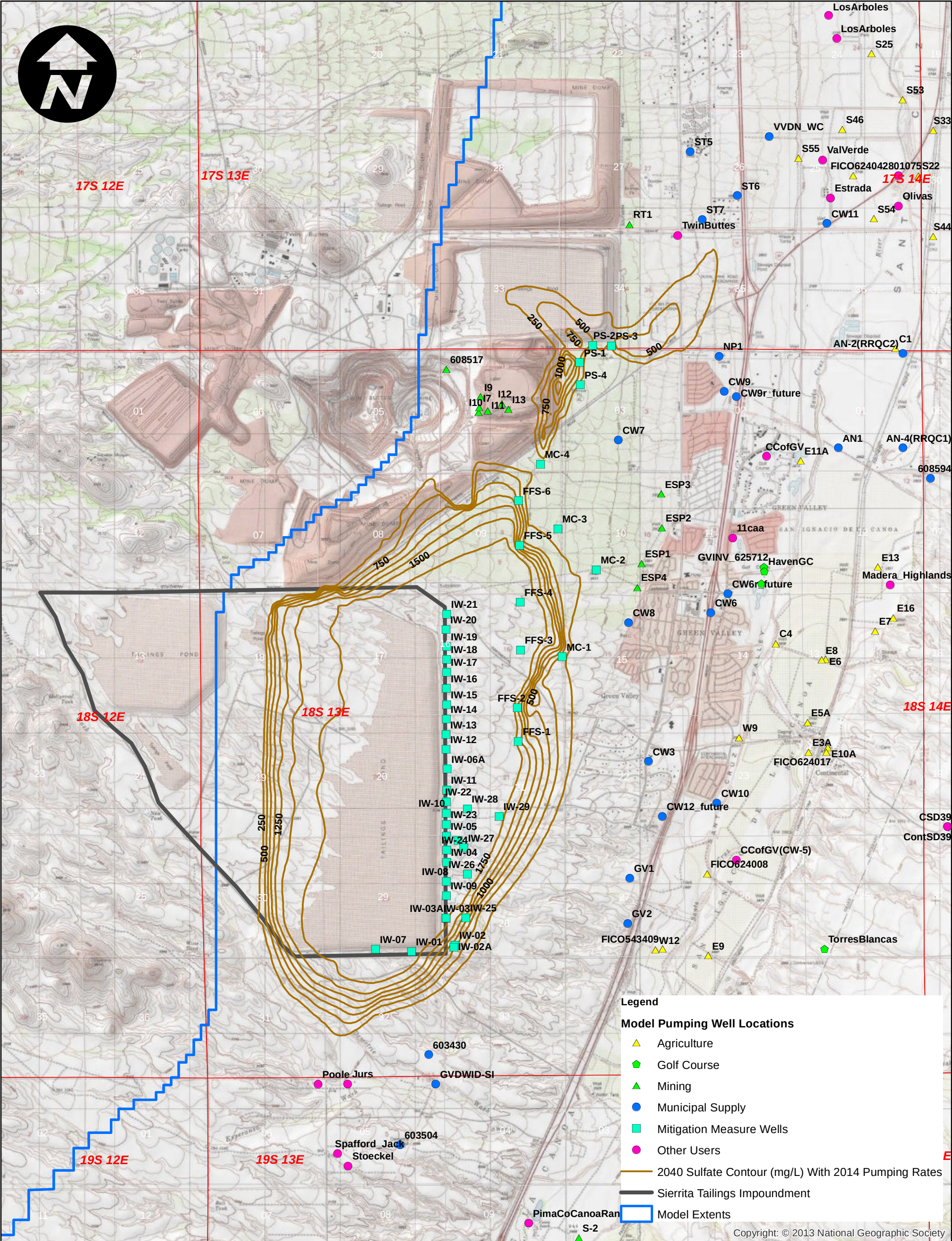
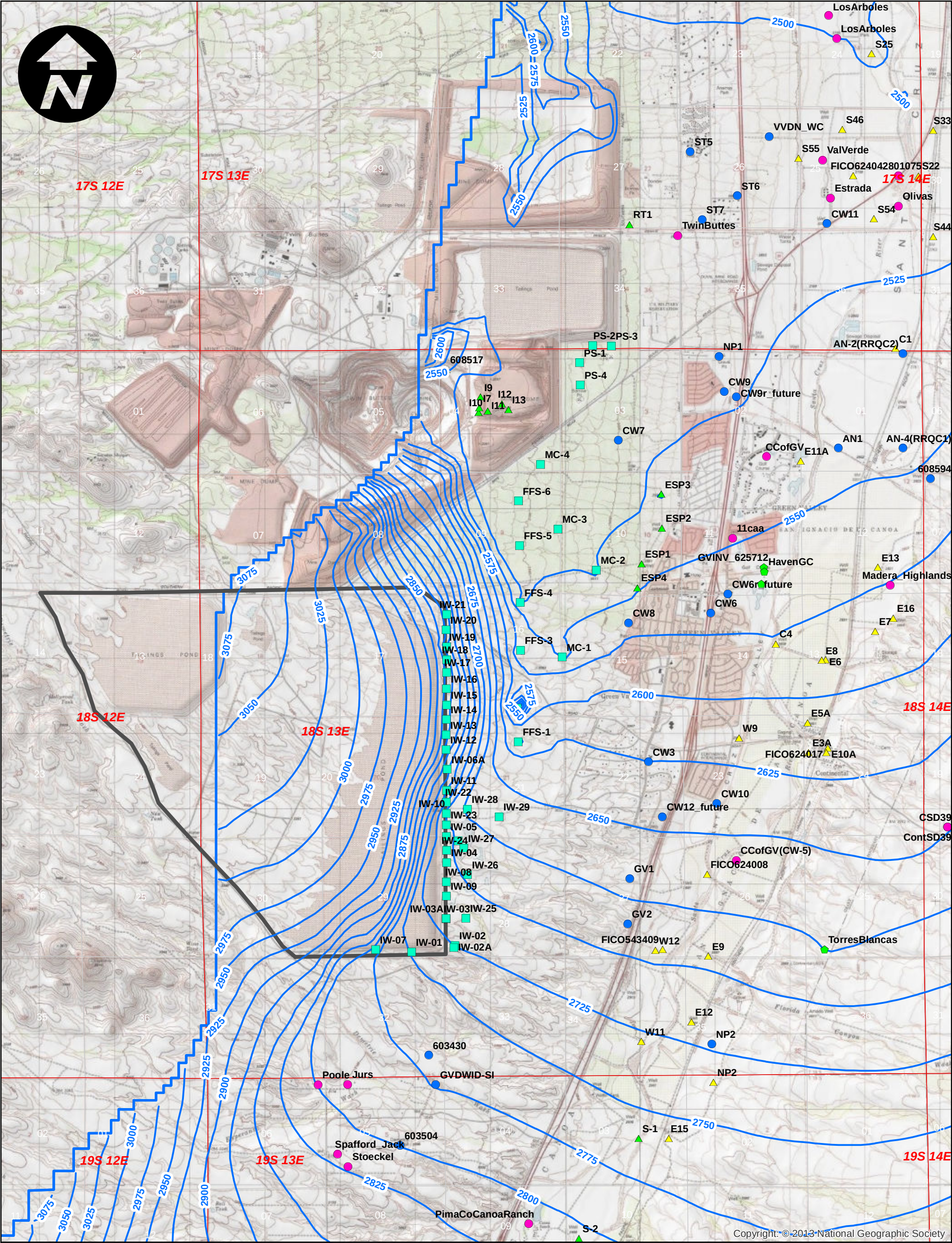


FIGURE B.3
SIMULATED SULFATE CONTOURS IN 2040 FOR
PREDICTIVE SIMULATION WITH 2014 PUMPING RATES



Legend

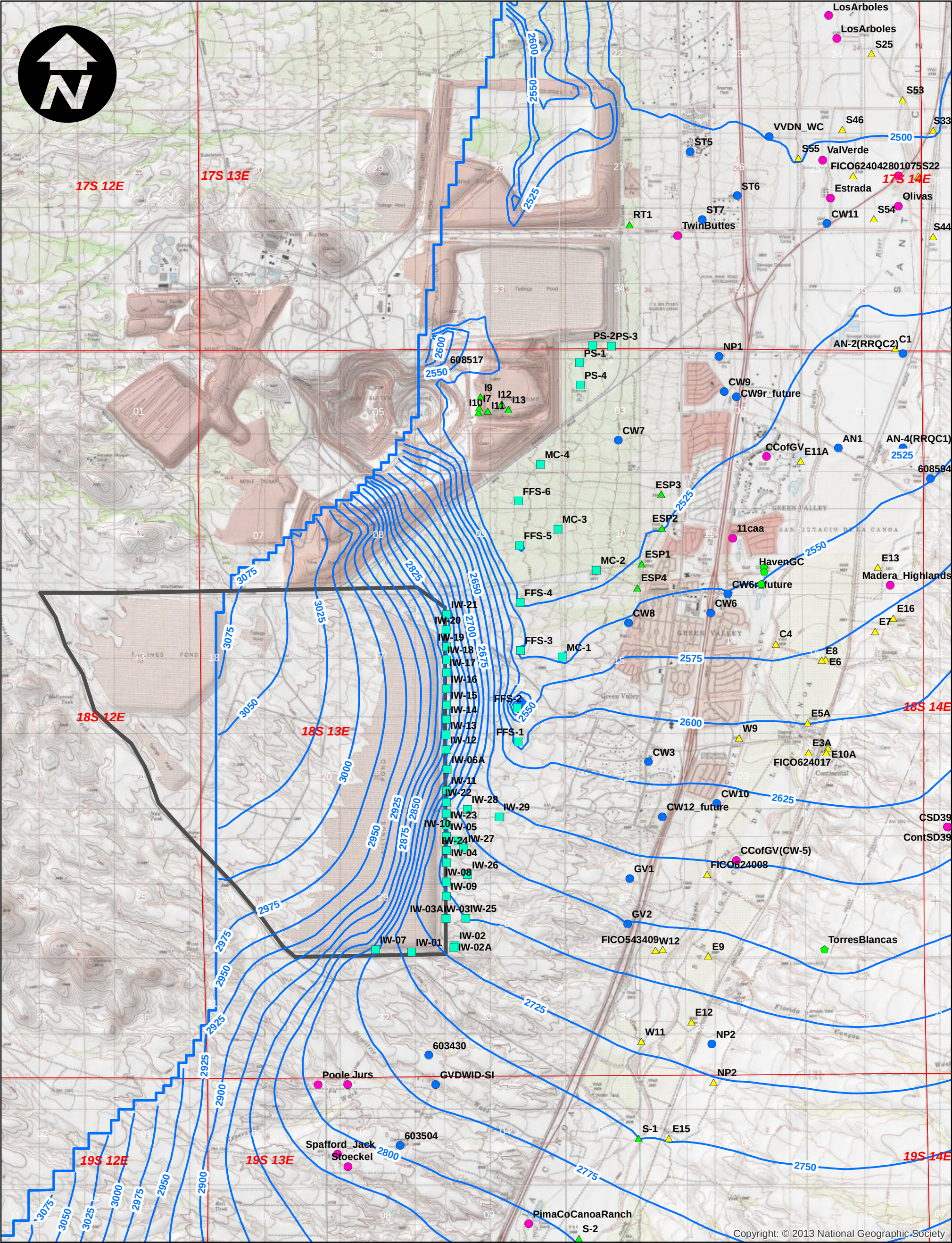
Model Pumping Well Locations

- ▲ Agriculture
- ◆ Golf Course
- ▲ Mining
- Municipal Supply
- Mitigation Measure Wells
- Other Users
- 2040 Groundwater Contour (ft. amsl) With 2014 Pumping Rates
- Sierrita Tailings Impoundment
- Model Extents

CLEAR
CREEK
ASSOCIATES

FIGURE B.4

SIMULATED GROUNDWATER CONTOURS IN 2040 FOR
PREDICTIVE SIMULATION WITH 2014 PUMPING RATES



Legend

Model Pumping Well Locations

- ▲ Agriculture
- ◆ Golf Course
- ▲ Mining
- Municipal Supply
- Mitigation Measure Wells
- Other Users
- 2060 Groundwater Contour (ft. amsl) With 2014 Pumping Rates
- Sierrita Tailings Impoundment
- Model Extents

CLEAR
CREEK
ASSOCIATES

FIGURE B.6

SIMULATED GROUNDWATER CONTOURS IN 2060 FOR
PREDICTIVE SIMULATION WITH 2014 PUMPING RATES

0 0.25 0.5
Miles

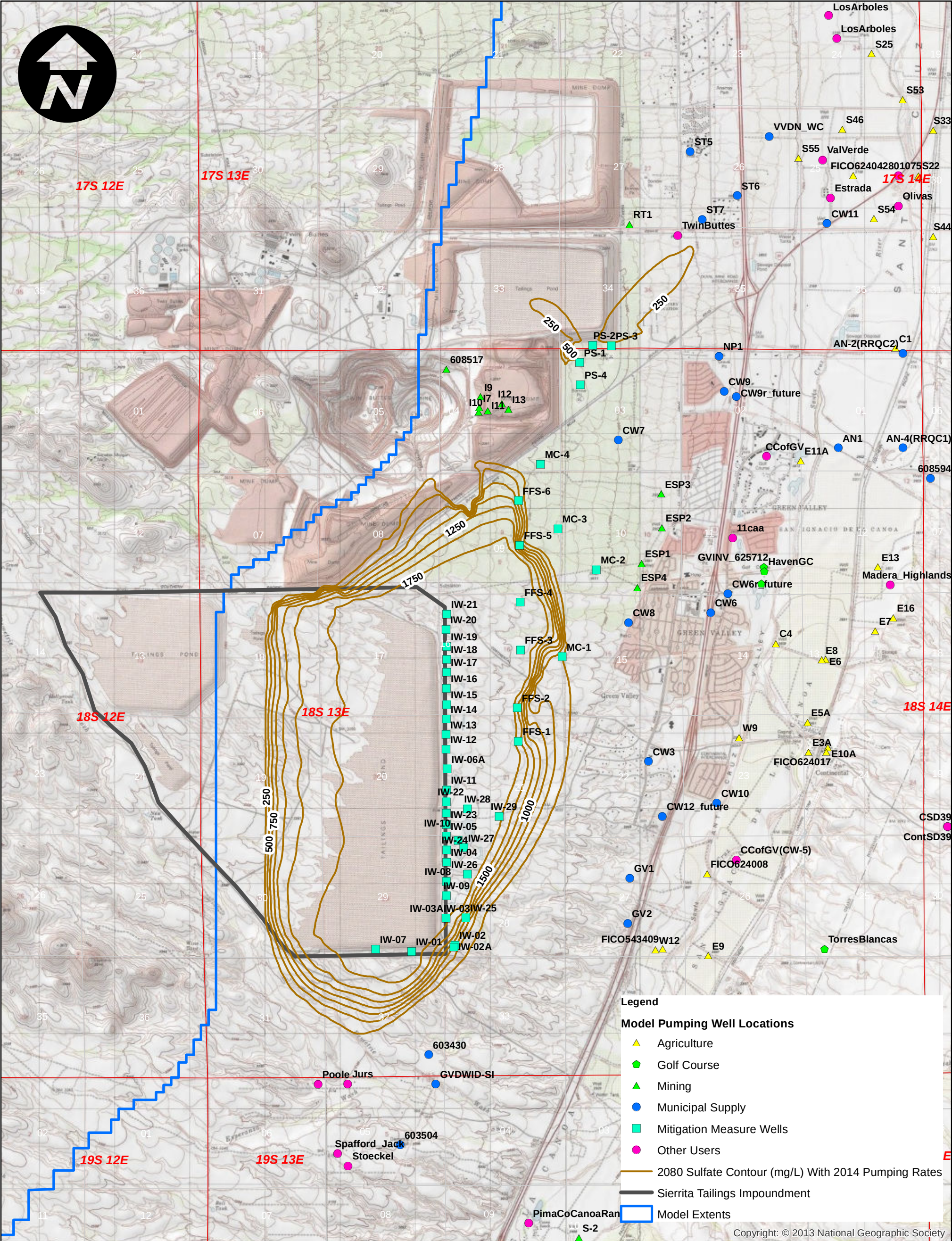
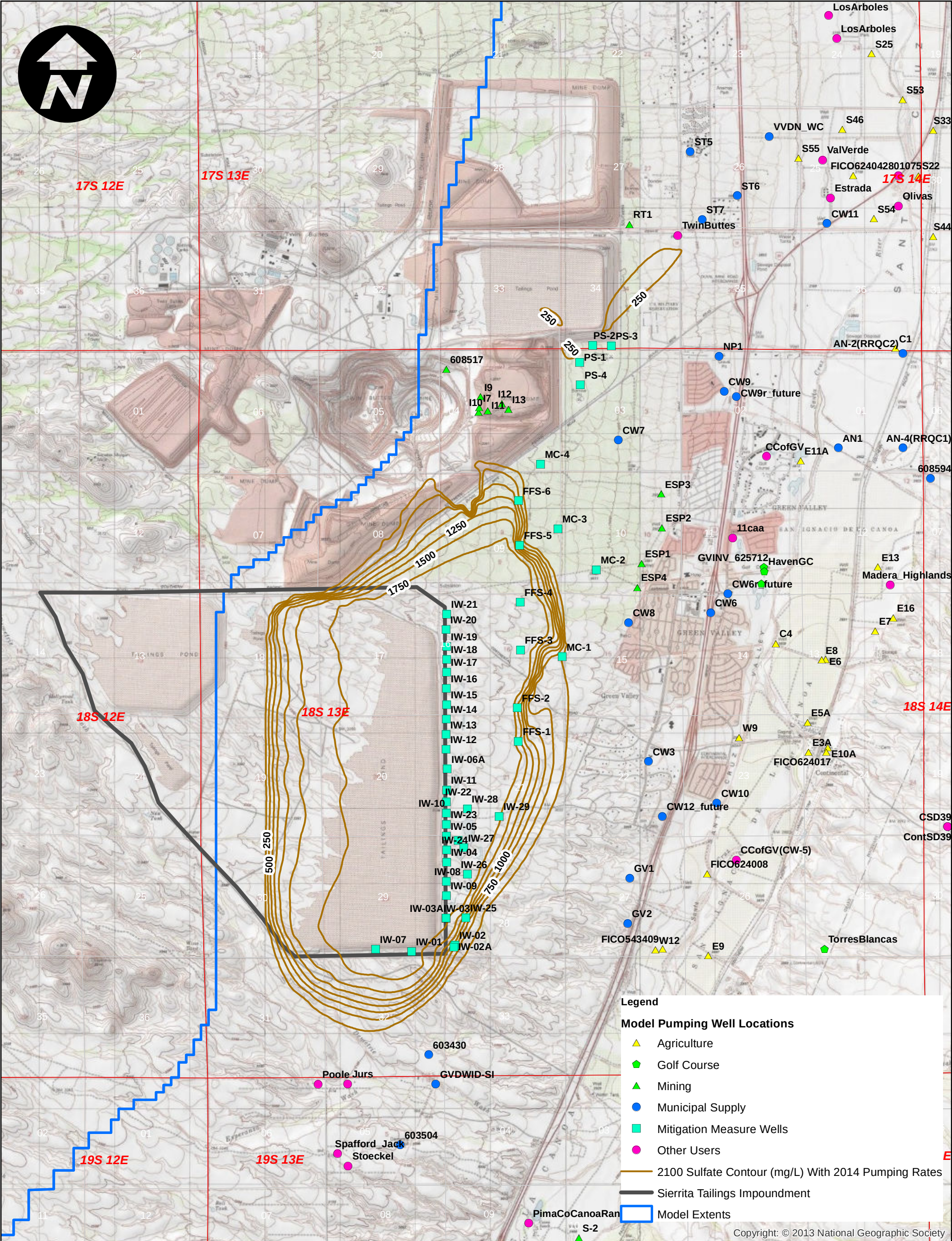
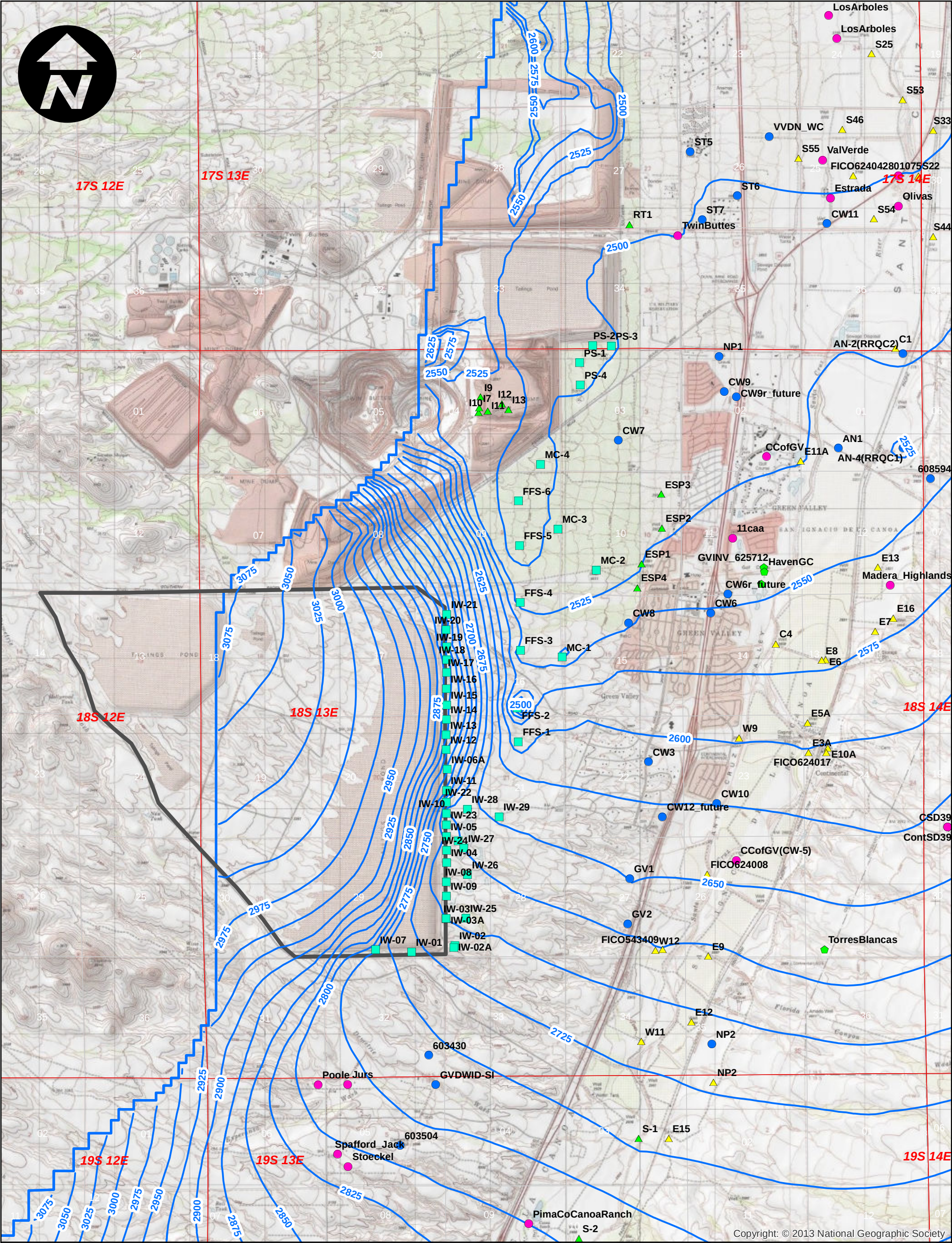


FIGURE B.7
SIMULATED SULFATE CONTOURS IN 2080 FOR
PREDICTIVE SIMULATION WITH 2014 PUMPING RATES





Legend

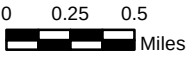
Model Pumping Well Locations

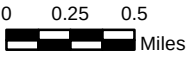
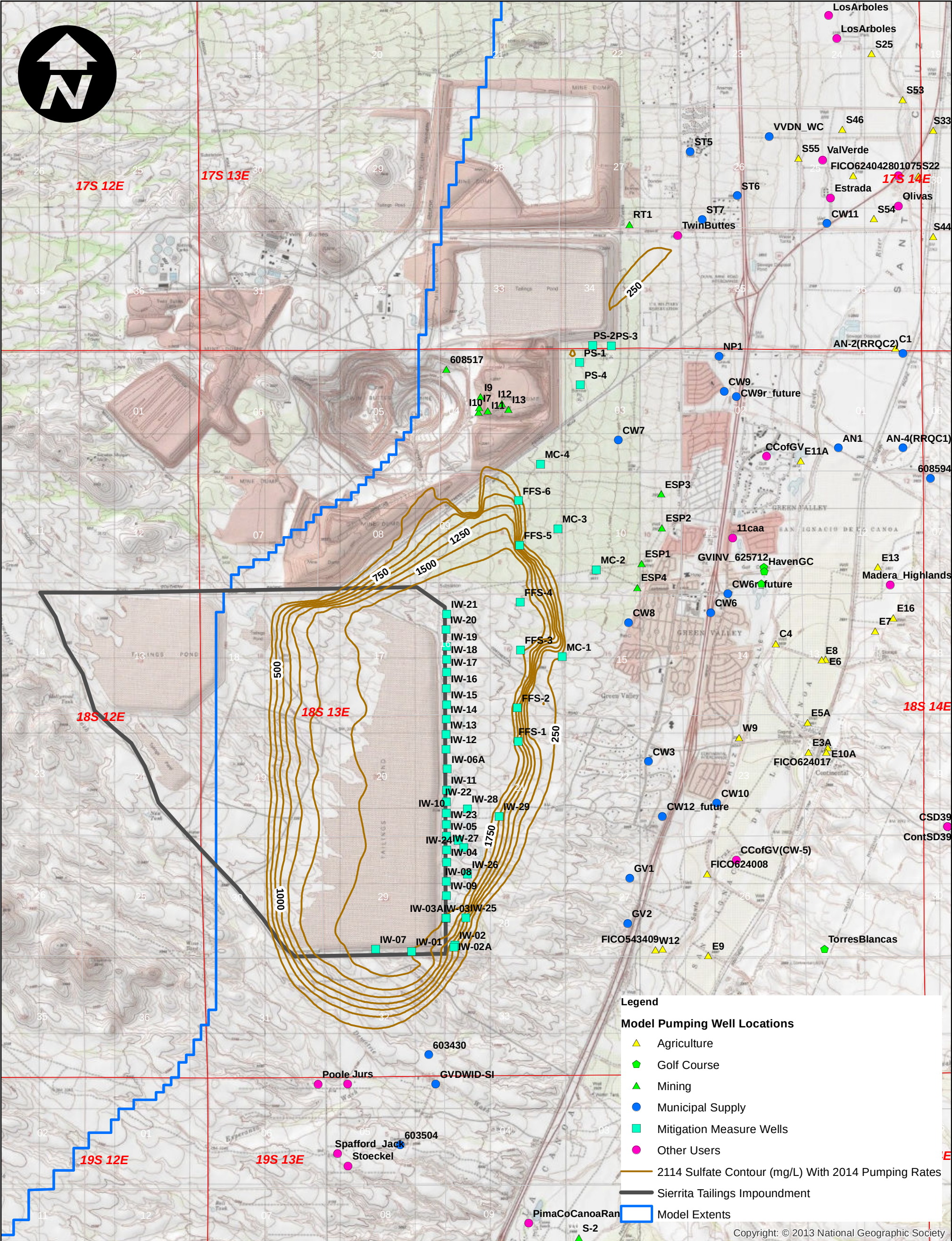
- ▲ Agriculture
- ◆ Golf Course
- ▲ Mining
- Municipal Supply
- Mitigation Measure Wells
- Other Users
- 2100 Groundwater Contour (ft. amsl) With 2014 Pumping Rates
- Sierrita Tailings Impoundment
- Model Extents

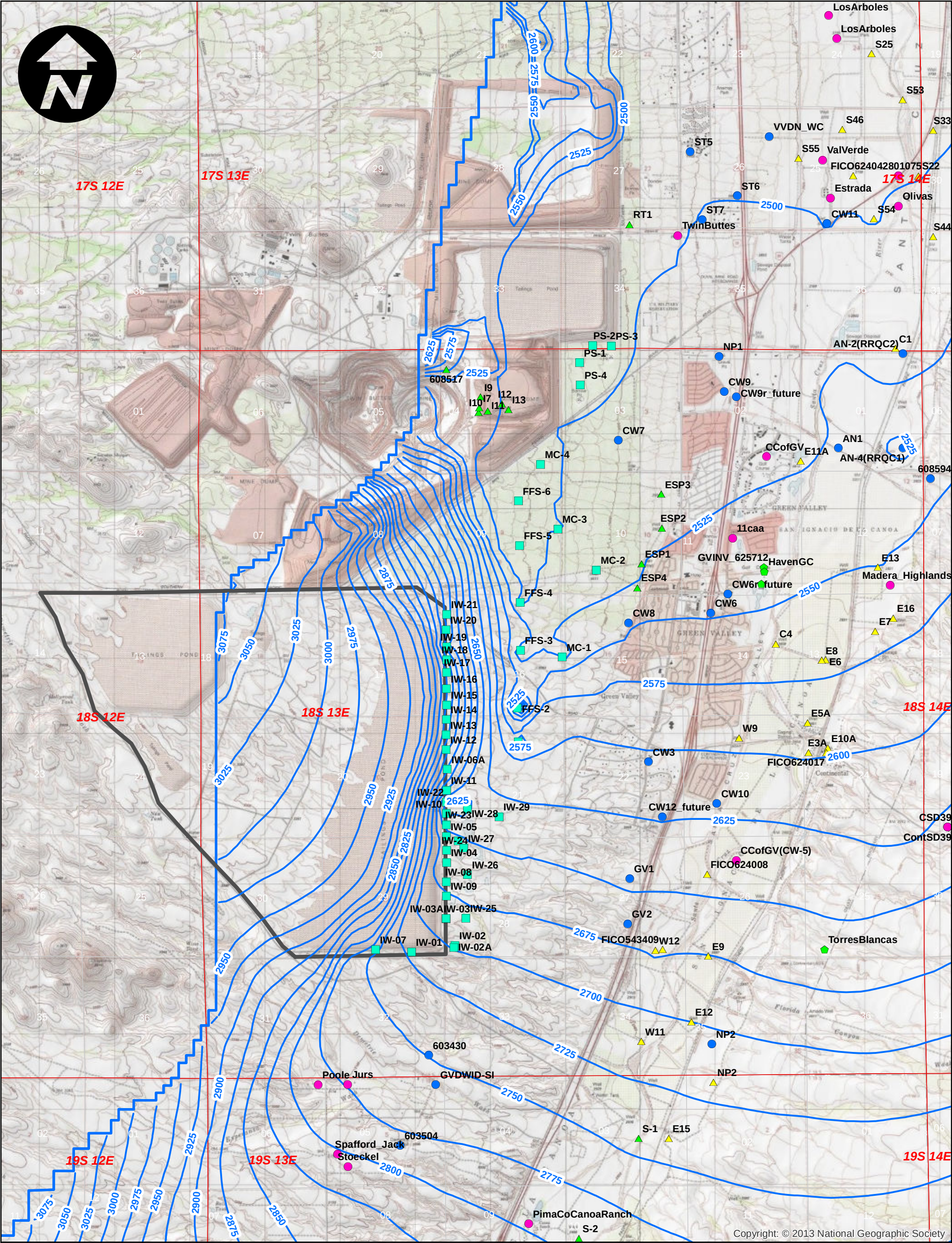


FIGURE B.10

SIMULATED GROUNDWATER CONTOURS IN 2100 FOR PREDICTIVE SIMULATION WITH 2014 PUMPING RATES







Legend

Model Pumping Well Locations

- ▲ Agriculture
- ◆ Golf Course
- ▲ Mining
- Municipal Supply
- Mitigation Measure Wells
- Other Users
- 2114 Groundwater Contour (ft. amsl) With 2014 Pumping Rates
- Sierrita Tailings Impoundment
- Model Extents



FIGURE B.12

SIMULATED GROUNDWATER CONTOURS IN 2114 FOR
PREDICTIVE SIMULATION WITH 2014 PUMPING RATES

