

MONTEREY PENINSULA WATER SUPPLY PROJECT

Test Slant Well Long Term Pumping
Monitoring Report No. 169
15-January-20 - 8-April-20

April 14, 2020

PREPARED FOR:
California American Water



GEOSCIENCE Support Services, Inc., **Ground Water Resources Development**
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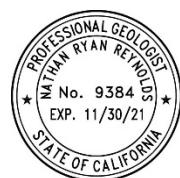
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THE FOLLOWING DESIGN PROFESSIONAL LICENSED BY THE STATE OF
CALIFORNIA AND BASED ON THE MOST RECENT AVAILABLE
INFORMATION.



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Note: As they become available additional data will be added to Appendices with each subsequent report

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**MONTEREY PENINSULA
WATER SUPPLY PROJECT**

**TEST SLANT WELL LONG TERM PUMPING MONITORING REPORT NO. 169
15-JANUARY-20 - 8-APRIL-20**

1.0 GENERAL

1.1 Purpose and Scope

Coastal Development Permit #A-3-MRA-14-0050 dated 8-Dec-14 granted California American Water Company (CalAm) permission for development consisting of: Construction, operation and decommissioning of a test slant well at the CEMEX sand mining facility in the City of Marina and beneath Monterey Bay in the County of Monterey. Special condition 11, "Protection of Nearby Wells", of that permit required that groundwater monitoring of a minimum of four wells on the CEMEX site within 2,000 ft of the test well and one or more offsite wells to record water and salinity levels (see Appendix A-1). Monitoring was conducted for permit compliance from April of 2015 through February 2018.

On February 28, 2018 the Coastal Development Permit (CDP) expired and pumping ceased at the Test Slant Well. California American water has elected to continue with the monitoring program for the purpose of collecting additional data of aquifer conditions during the extended non-pumping period. Monitoring of water levels and salinity will continue at the Test Slant Well and monitoring well sites during this new stage of non-pumping. The purpose of this report is to present data that reflects aquifer conditions during both Test Slant Well pumping (April 2015 through February 2018) and the on-going non-pumping periods for comparative purposes. Monitoring Report 169 is the first quarterly report presenting twelve weeks of data. Report 169 and each subsequent quarterly report will be provided in two parts with the first part consisting of the Text, Figures, and Tables and the second part providing the Appendices.

1.2 Monitoring Well Construction

During the period from December 2014 to March 2015, four monitoring well clusters were constructed (MW-1, MW-3, MW-4, and MW-5) with each cluster consisting of three monitoring wells completed at different depth intervals. In addition, four monitoring well clusters (MW-6, MW-8, MW-9, and MW-7) were completed on 5-Apr-15, 29-May-15, 30-Jun-15, and 9-Aug-15. An additional cluster had been

planned for construction (MW-10), however, due to inaccessibility the proposed cluster was removed from the proposed monitoring network. The naming convention for the monitoring wells in each cluster is as follows: MW-1S, MW-1M and MW-1D refer to shallow, middle and deep monitoring zones, respectively, for monitoring well cluster MW-1. In addition, there are several existing wells that were monitored for water level and salinity for several months in 2015: one well at the Monterey Regional Water Pollution Control Agency Plant (MRWPCA Well 1); and one existing well on the CEMEX property (CEMEX North Well). In addition to the constructed and existing groundwater monitoring wells, a stilling well was installed at the north end of CEMEX's dredge pond (CP-1) and was also monitored. However, the transducer installed in the dredge pond was buried in sand due to winter storms surges in December 2015. Transducer data from MRWPCA Well 1, CEMEX North Well and CP-1 are not included in this report as these locations are no longer being monitored due to environmental or access issues. Previous data and figures for these sites can be found in Test Slant Well Long Term Pumping Report No. 145 or earlier.

Table 1 summarizes general technical details of the monitoring wells and Figure 1-1 shows the monitoring well locations.

2.0 BACKGROUND OF MONITORING PROGRAM

2.1 Baseline Water Level and Water Quality Weekly Monitoring Reports

As part of the long term pumping program weekly reports containing baseline water levels and water quality data were completed. A total of seven weekly reports were produced providing data for the period: February 19, 2015 through April 22, 2015. These initial Monitoring Reports (Nos. 1 through 7), providing baseline data collected prior to the initiation of the long term pumping test, can be found on the CalAm project website.

2.2 Test Slant Well Baseline Water Level and Quality Data

A report entitled "TECHNICAL MEMORANDUM - Monterey Peninsula Water Supply Project Baseline Water and Total Dissolved Solids Levels Test Slant Well Area" was prepared on April 20, 2015 and submitted to the Hydrogeologic Working Group (HWG) for review and concurrence. The report provided observations of the trends in water levels and water quality from the data provided weekly in the monitoring reports and included recommendations for a methodology to evaluate changes in water level and water quality trends at MW-4 series in order to comply with the conditions of Coastal Development Permit #A-3-MRA-14-0050. The report is available at: www.watersupplyproject.org

2.3 Test Slant Well Long Term Pumping Test Monitoring Reports

The long term pumping test of the Test Slant Well commenced on April 22, 2015. In adherence with the Coastal Development Permit #A-3-MRA-14-0050 for the Test Slant Well project a second set of weekly monitoring reports were required during the pumping period from April 22, 2015 to February 28, 2018, providing water level and water quality data from the project monitoring wells. Figure 1-1 shows the location of the monitoring wells.

On June 5, 2015, the Test Slant Well was voluntarily shut off so that the HWG could evaluate regional trends in water levels and salinity. During the shut off period, the California Coastal Commission allowed for weekly maintenance pumping of 6-hours per week to maintain the Test Slant Well (TSW) in an operational condition. Long term pumping of the Test Slant Well resumed on October 27, 2015 under Coastal Development Permit Amendment No. A-3-MRA-14-0050-A1 dated 13-Oct-15 (Appendix A-2).

In addition to the weekly reports monthly reports were prepared by the HWG for submittal to the California Coastal Commission. The focus of the reports was water level and conductivity responses in MW-4 (permit threshold well) to comply with the CDP. However, the reports summarized water level and water quality data from the Test Slant Well and entire monitoring network in addition to MW-4. Twenty-eight (28) monthly reports were prepared during the TSW pumping period, which concluded on February 28, 2018. These monthly reports are available on the CalAm project website.

The last effective date of the coastal development permit was February 28, 2018. On February 28, 2018 5:47 pm the TSW pump was turned off, concluding the MPWSP Test Slant Well Long Term Pumping Test and the required reporting period set forth by the CCC. Report No. 1 through Report No. 145 provide the weekly results of monitoring during the baseline and long term pumping test. The reports are available on the CalAm project website. Report Nos. 146 through 169 have been issued since the TSW has been shut off. This report summarizes monitoring performed for the period January 15, 2020 through April 8, 2020 during the post-pumping period but is presented with data collected since the start of the long term pumping test. This report is the first quarterly report prepared after completion of the long term pumping test following twenty-one monthly reports and biweekly Report Nos. 146 and 147. Twelve weeks of transducer data has been included in Appendix B.

3.0 MONITORING PROGRAM DURING CURRENT NON-PUMPING PERIOD

Since turning off the Test Slant Well pump at the end of February 2018 and ending the Long Term Test, CalAm has voluntarily elected to continue the monitoring program and issuing monitoring reports to compare water level and water quality trends during pumping and non-pumping periods. The March 2018 monitoring reports were issued as biweekly (every two weeks) and provided an additional 14 days of data. Report No. 148 through No. 168 were issued as monthly reports and provided four-

week periods of data. Going forward, beginning with Report No. 169, twelve weeks of data will be presented in each quarterly report. This report covers the twelve-week period from January 15, 2020 through April 8, 2020. The post pumping reports will be available on the project website.

3.1 Water Levels

All downloaded pressure transducer data as well as specific conductivity (EC) during the monitoring period are included in Appendix B. Appendix B data is cumulative and only the appended data will be printed in this report or in subsequent quarterly monitoring reports. Figures 2-1 to 2-8 show graphical plots of groundwater elevations for the eight monitoring well clusters (MW-1, MW-3, MW-4, MW-5, MW-6, MW-7, MW-8, and MW-9). Figures 3-1 through 3-8 show corresponding graphical plots of the specific conductivity for the above-mentioned wells. Figures 2-9a and 3-9a show the water level and conductivity for the TSW respectively since the TSW was shut-off. For comparison of water levels and conductivity during long term testing and the current non-pumping period, Figures 2-9b and 3-9b show water levels and specific conductivity, respectively, from April 2015. A summary of the method used to convert transducer pressure measurements to groundwater elevations can be found in Appendix C.

3.2 Test Slant Well Water Quality

Groundwater quality samples were collected from the Test Slant Well on April 8, 2015, prior to initiation of the long term pumping operations, on April 29, 2015, weekly during the month of May and on June 3, 2015. A summary of the water quality laboratory results from the Test Slant Well are included in Table 2. Since October 27, 2015, water quality data had been collected weekly on average while the well was in operation and the data are presented in Table 2. TSW water quality samples will not be collected during the current non-pumping period (after February 28, 2018) since the well is off. However, electrical conductivity measurements from a downhole transducer in the TSW will be reported in this and subsequent reports.

3.2.1 Specific Conductivity in the Test Slant Well

During Test Slant Well pumping periods between the start of the Long Term Pumping Test on April 22, 2015 until the completion of the test on February 28, 2018 specific conductivity of the well discharge was monitored for analytical and permit compliance purposes using water quality field instruments (Horiba U-50 or YSI Pro Plus) installed along the TSW discharge line. These EC readings represent a mixed water sample from the TSW screens which span both the shallow Dune Sand Aquifer and 180 FTE. Specific conductance during non-pumping periods has been continuously recorded using a data logger (In Situ Aqua TROLL 200) installed inside the TSW at a lineal depth of 305 ft bgs MD (lineal feet at 19 degrees from ground surface) above the submersible pump. The EC data recorded by this

instrument represents a depth specific sample of water column during non-pumping conditions. Beginning in Monitoring Report No. 146 conductivity during pumping and non-pumping periods is presented in Figure 3-9a and 3-9b. Figure 3-9a provides a plot of conductivity with primary focus during the current non-pumping period while Figure 3-9b, for comparison provides a plot of conductivity for the entire study period beginning in April 2015. A summary of the method used to estimate total dissolved solids from electrical conductivity (EC) measurements can be found in Appendix D.

3.3 Monitoring Well Water Quality

Groundwater quality samples were collected from the MPWSP monitoring wells in April 2018, following the completion of the Test Slant Well Long Term Pumping Test on February 28, 2018. Semiannual (twice a year) samples are planned to be collected from the monitoring wells through 2020 during the period of TSW non-pumping. The most recent set of semiannual samples was collected from April 6 to 9, 2020. Previous semiannual sample sets were collected from April 23 to 26, 2018, October 8 to 12, 2018, April 8 to 10, 2019, and October 14 to 17, 2019. A summary of the water quality laboratory results were first reported as part of Table 3 in Monitoring Report No. 149. Subsequent Monitoring Reports will continue to show the laboratory results in Table 3 along with the addition of monitoring well water quality results as samples are collected in the future.

Samples are also collected from the MW-4 monitoring wells quarterly. A summary of the water quality laboratory results for the MW-4 monitoring wells quarterly sampling events, since the conclusion of the Long Term Pumping Test, completed on April 27, 2018, July 25, 2018, October 11 to 12, 2018, January 23, 2019, April 11, 2019, July 24 to 25, 2019, October 16, 2019, and January 15, 2020 are reported in Table 3. Specific conductivity and TDS results from quarterly sampling of the MW-4 monitoring wells taken during the Long Term Pumping Test were reported in Table 2 of the MPWSP Test Slant Well Long Term Pumping Monthly Monitoring Reports. Table 2 in the final Monthly Monitoring Report 28 contains the full record of specific conductance and TDS for the MW-4 monitoring wells sampling for the duration of the Long Term Pumping Test, from April 22, 2015 to February 28, 2018.

Laboratory water quality results will be posted in future monitoring reports as they become available.

3.4 Periodic Pumping for Well Maintenance

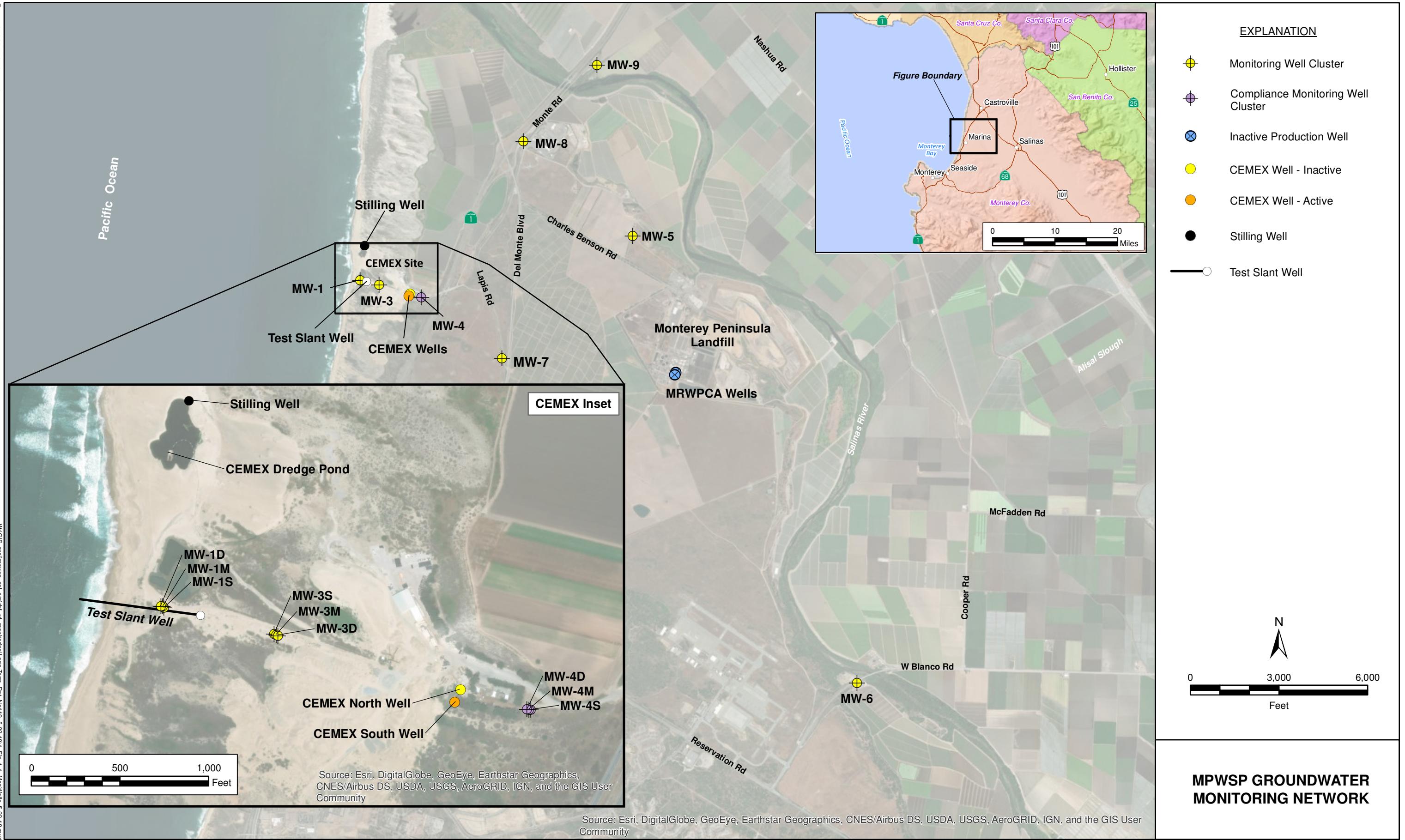
On February 28, 2018 the Test Slant Well pump was turned off, concluding the Long Term Pumping Test. Going forward maintenance pumping of the Test Slant Well will be performed on an approximately monthly basis. The purpose of this short-term pumping is to preserve the pump and to circulate water through the well screen to help prevent biological growth and encrustation that may form during

stagnant conditions. These periods of temporary pumping are summarized in the table in Figure 2-9a and Figure 3-9a.

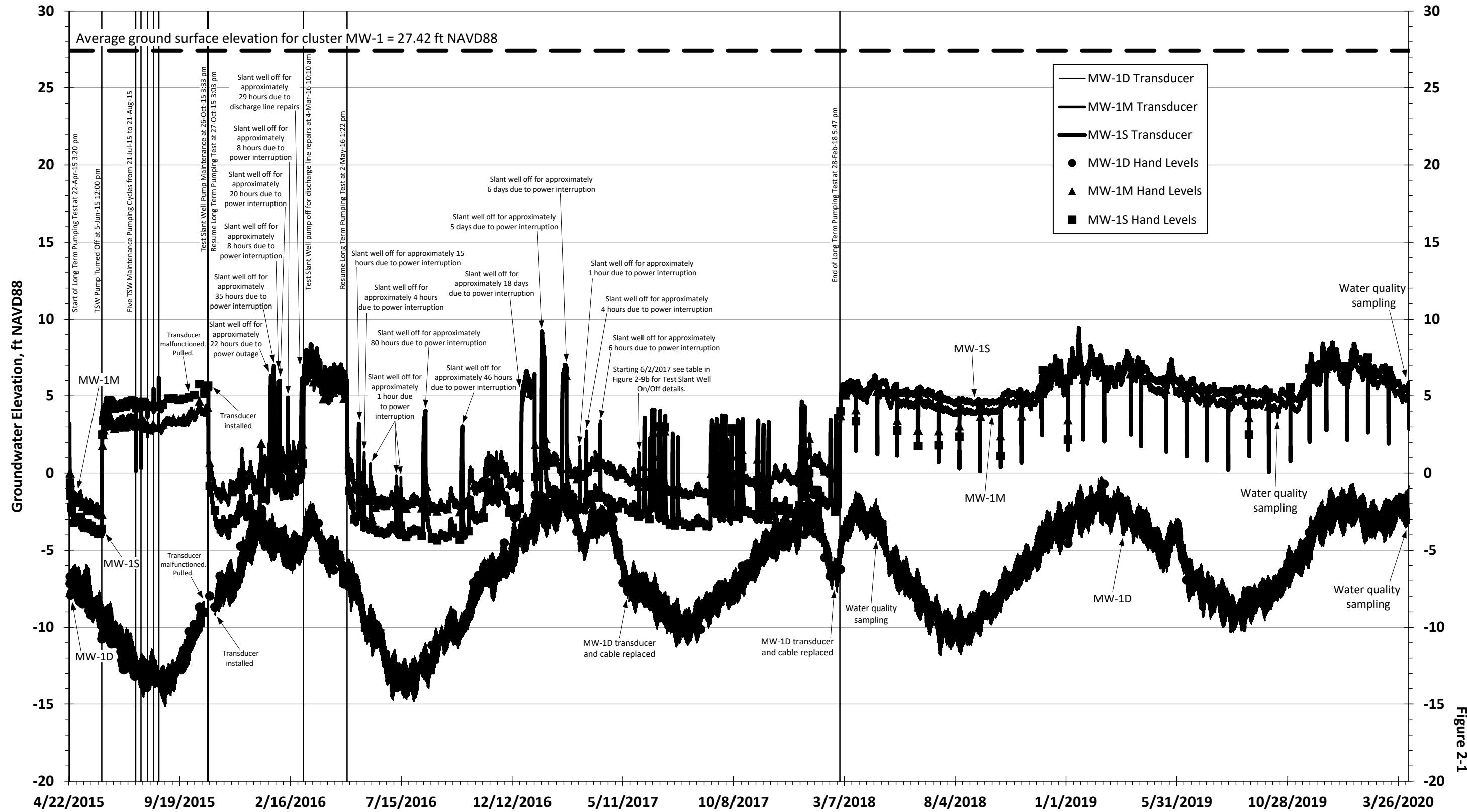
FIGURES

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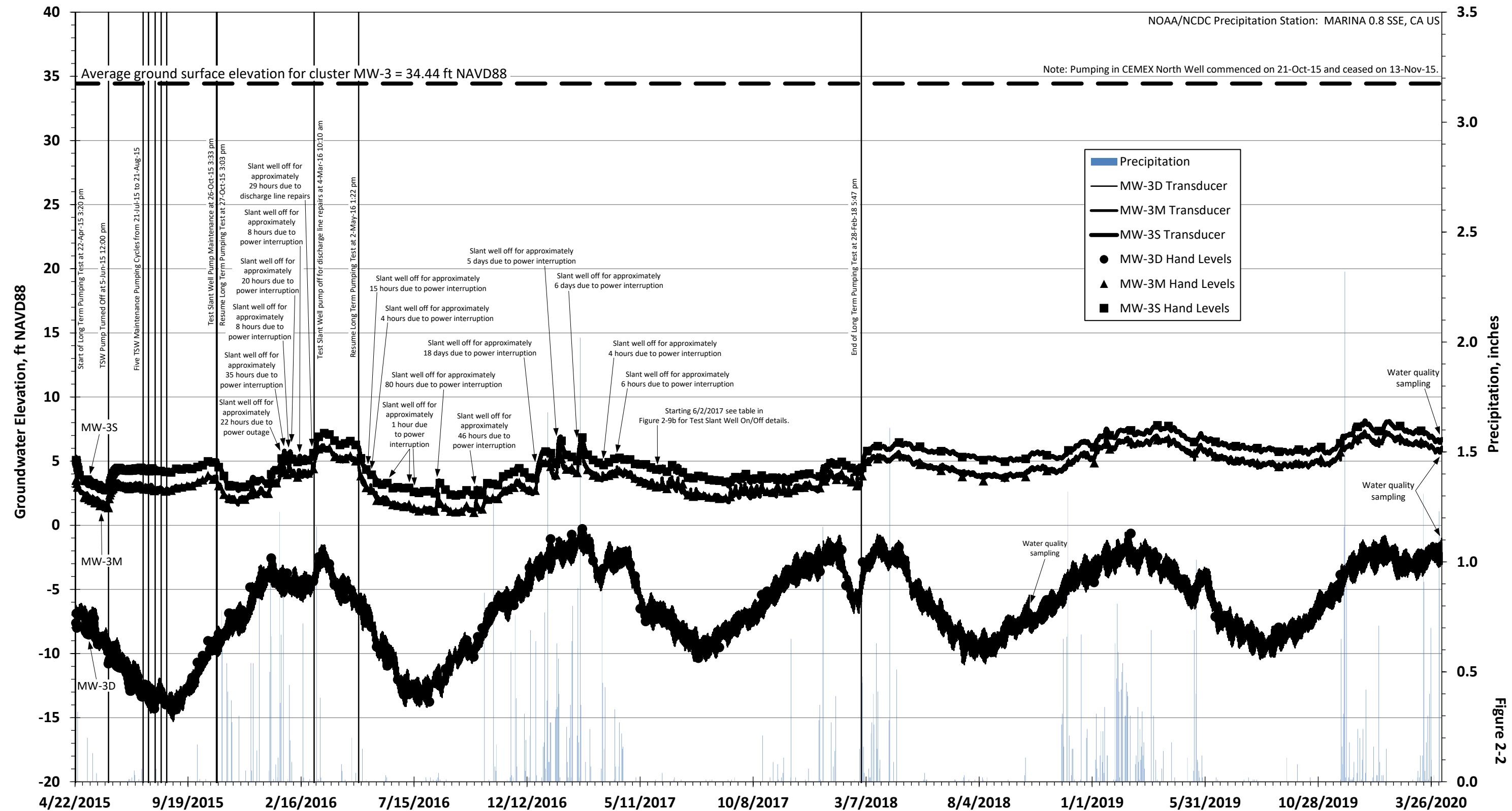




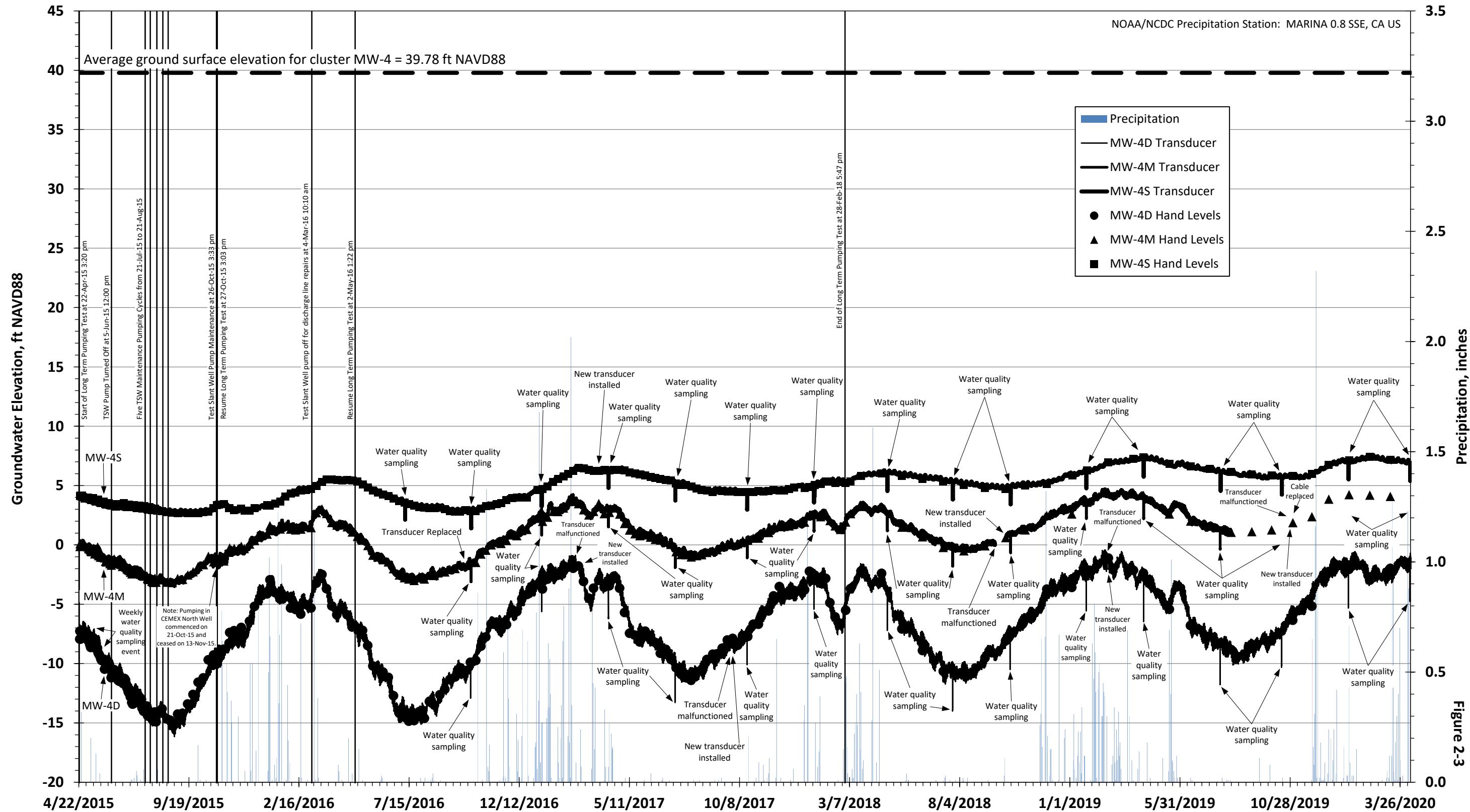
Groundwater Elevation in MPWSP MW-1



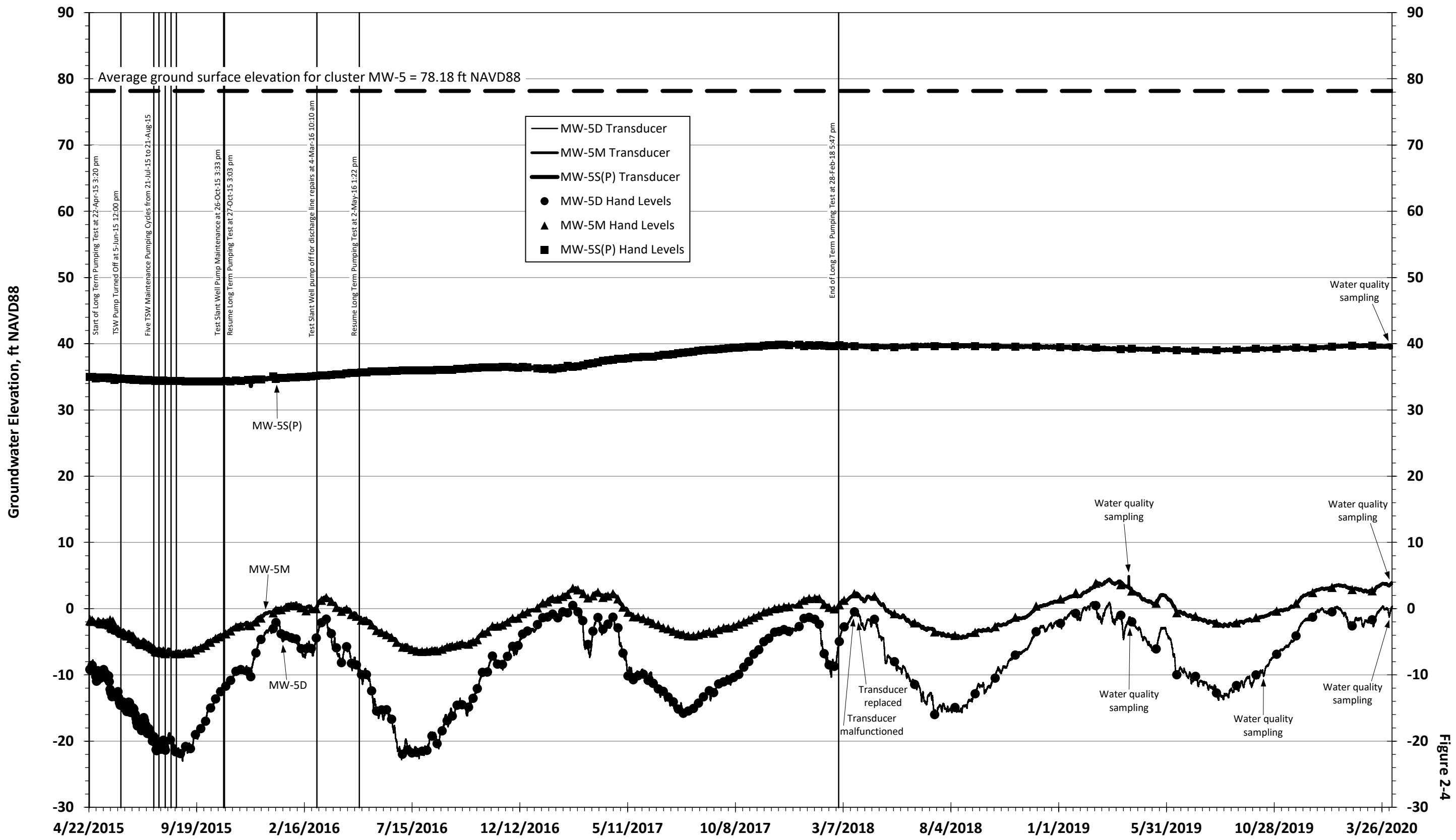
Groundwater Elevation in MPWSP MW-3



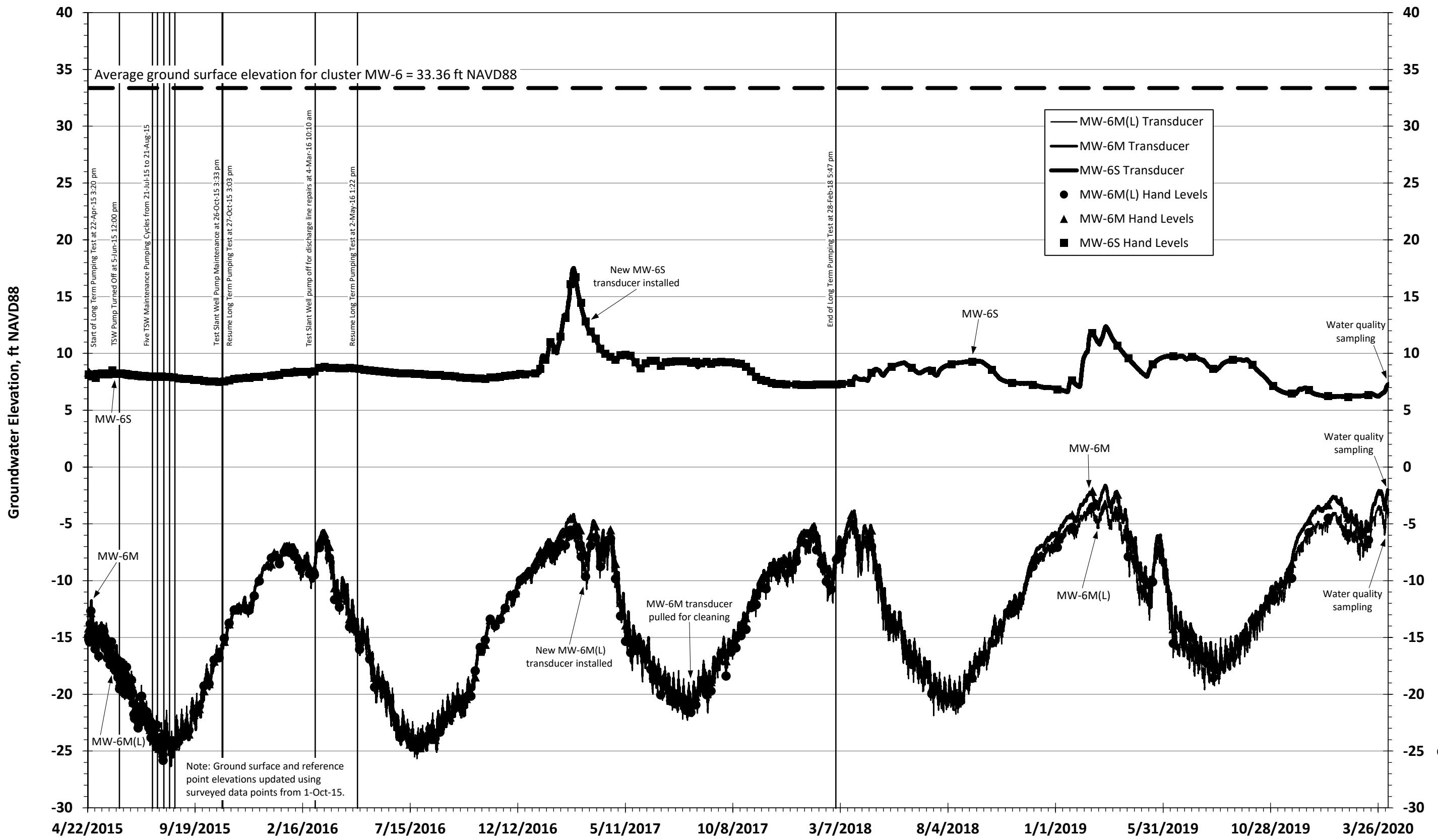
Groundwater Elevation in MPWSP MW-4



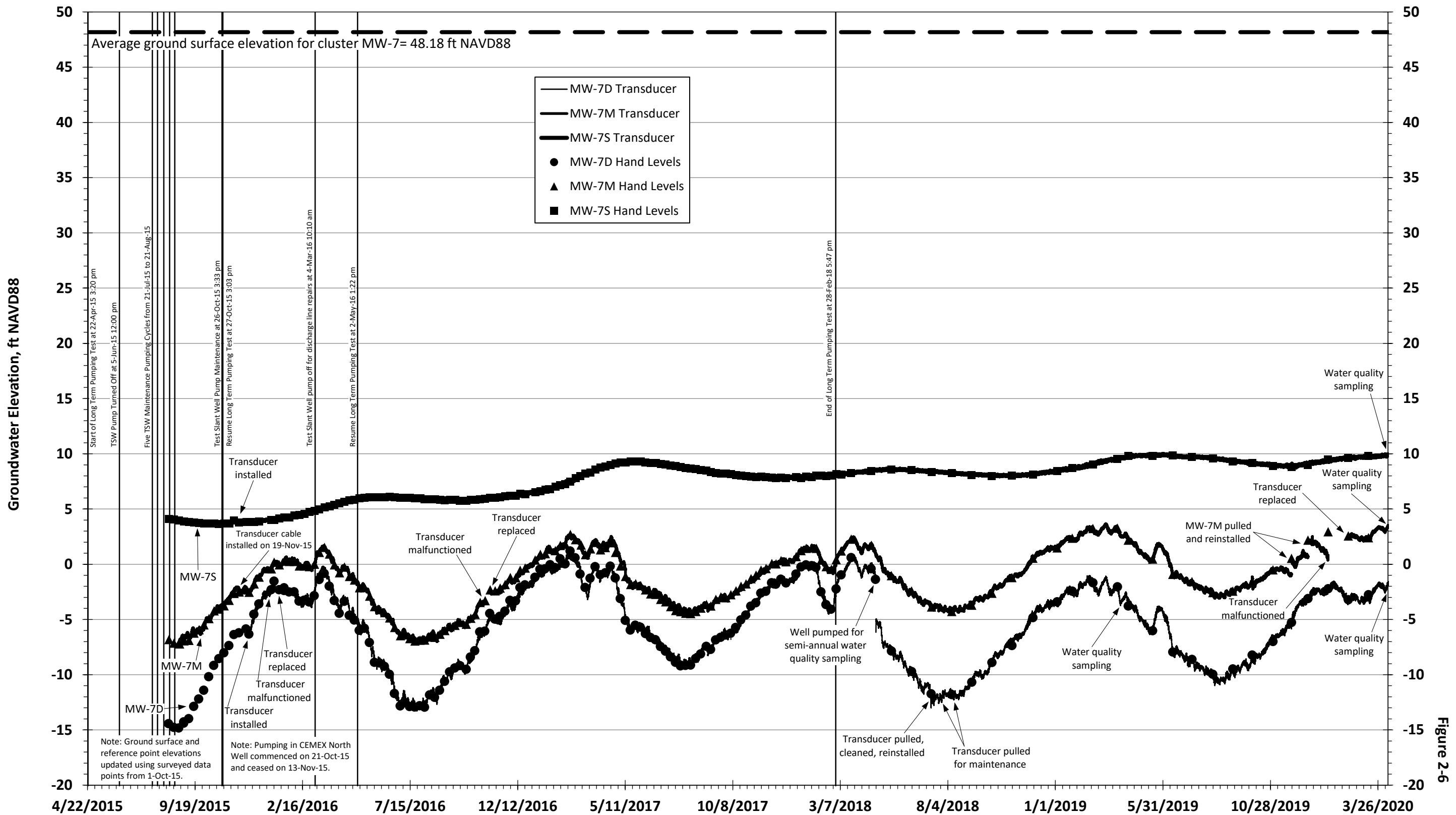
Groundwater Elevation in MPWSP MW-5



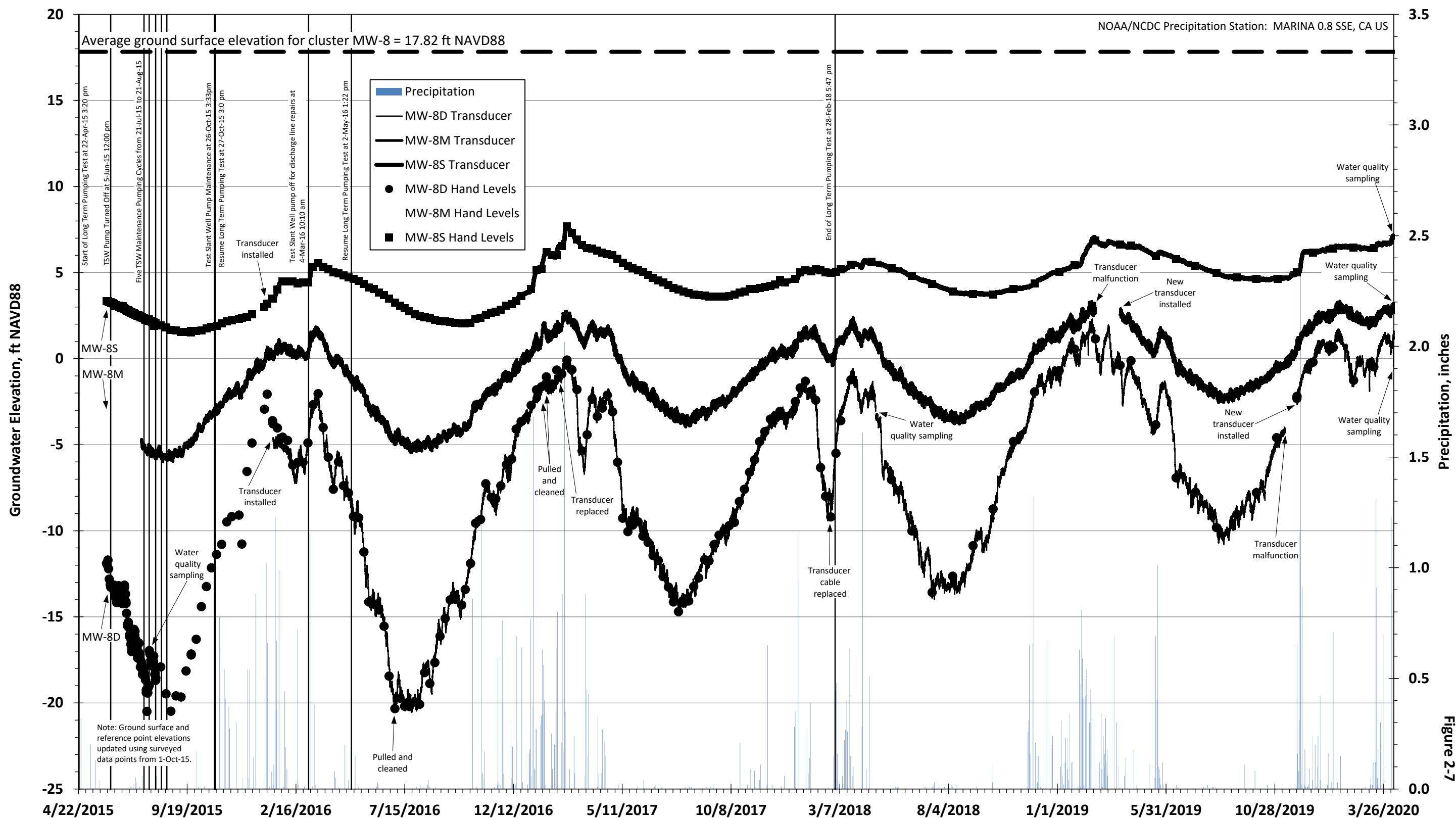
Groundwater Elevation in MPWSP MW-6



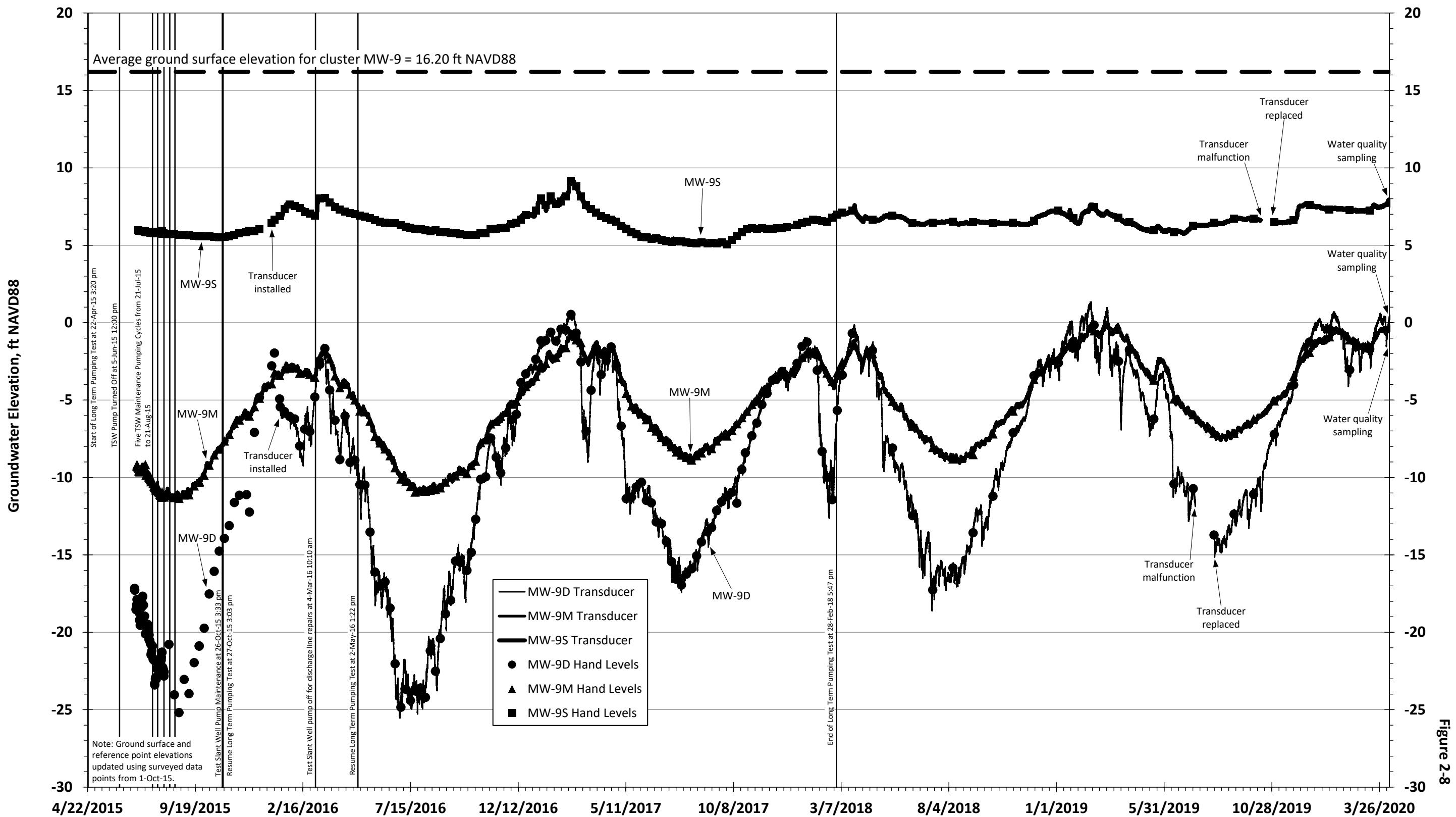
Groundwater Elevation in MPWSP MW-7



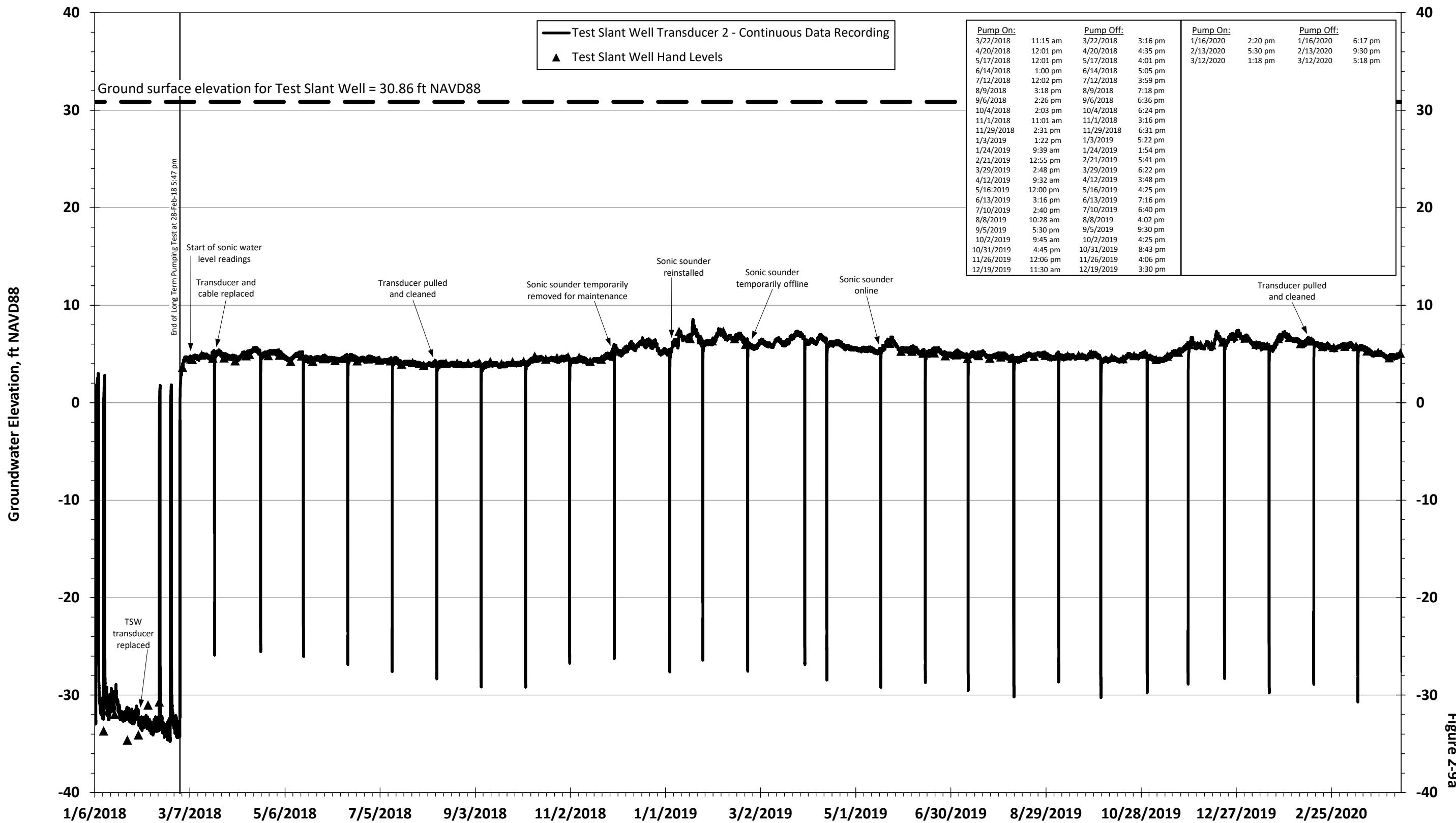
Groundwater Elevation in MPWSP MW-8



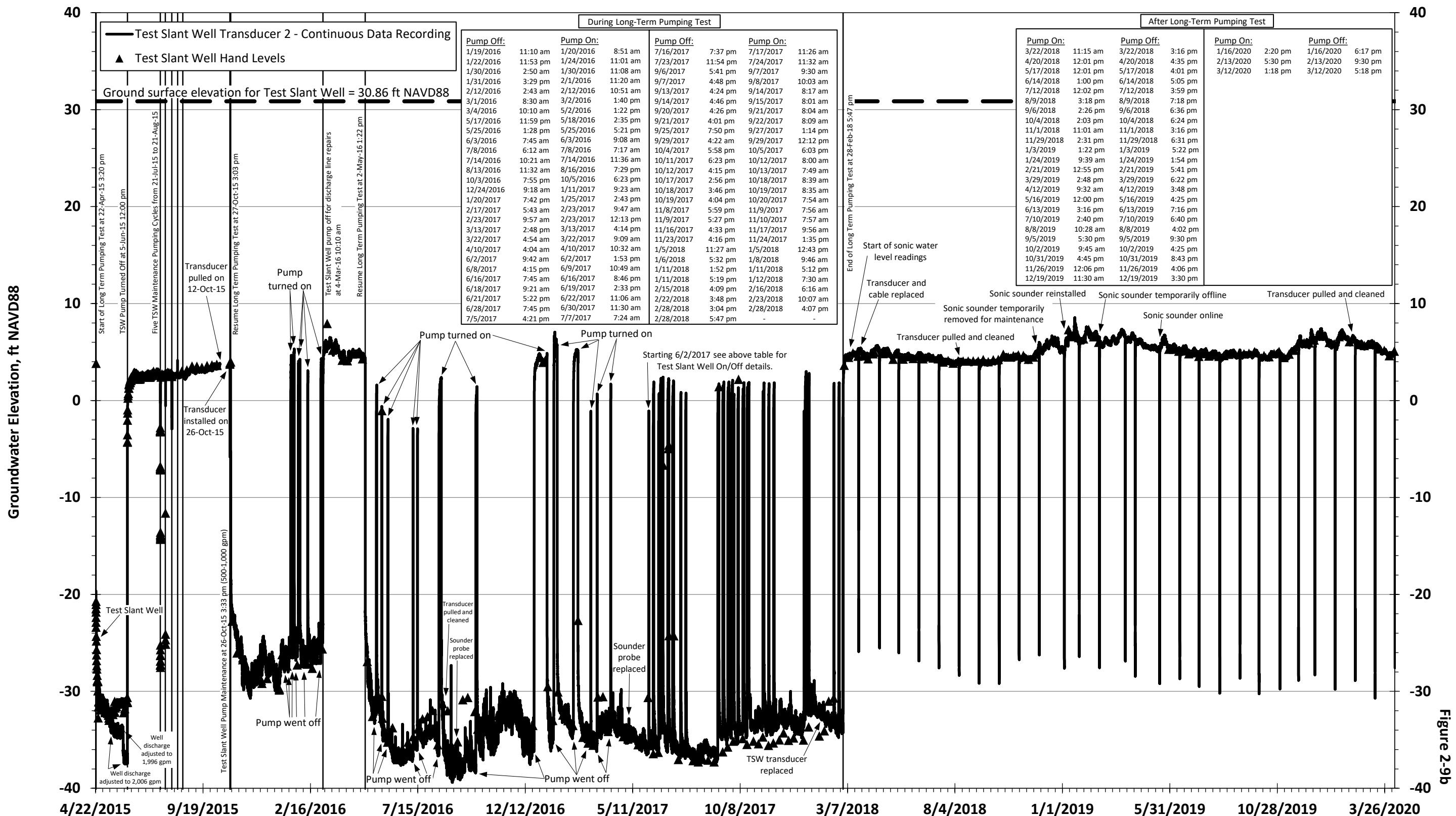
Groundwater Elevation in MPWSP MW-9



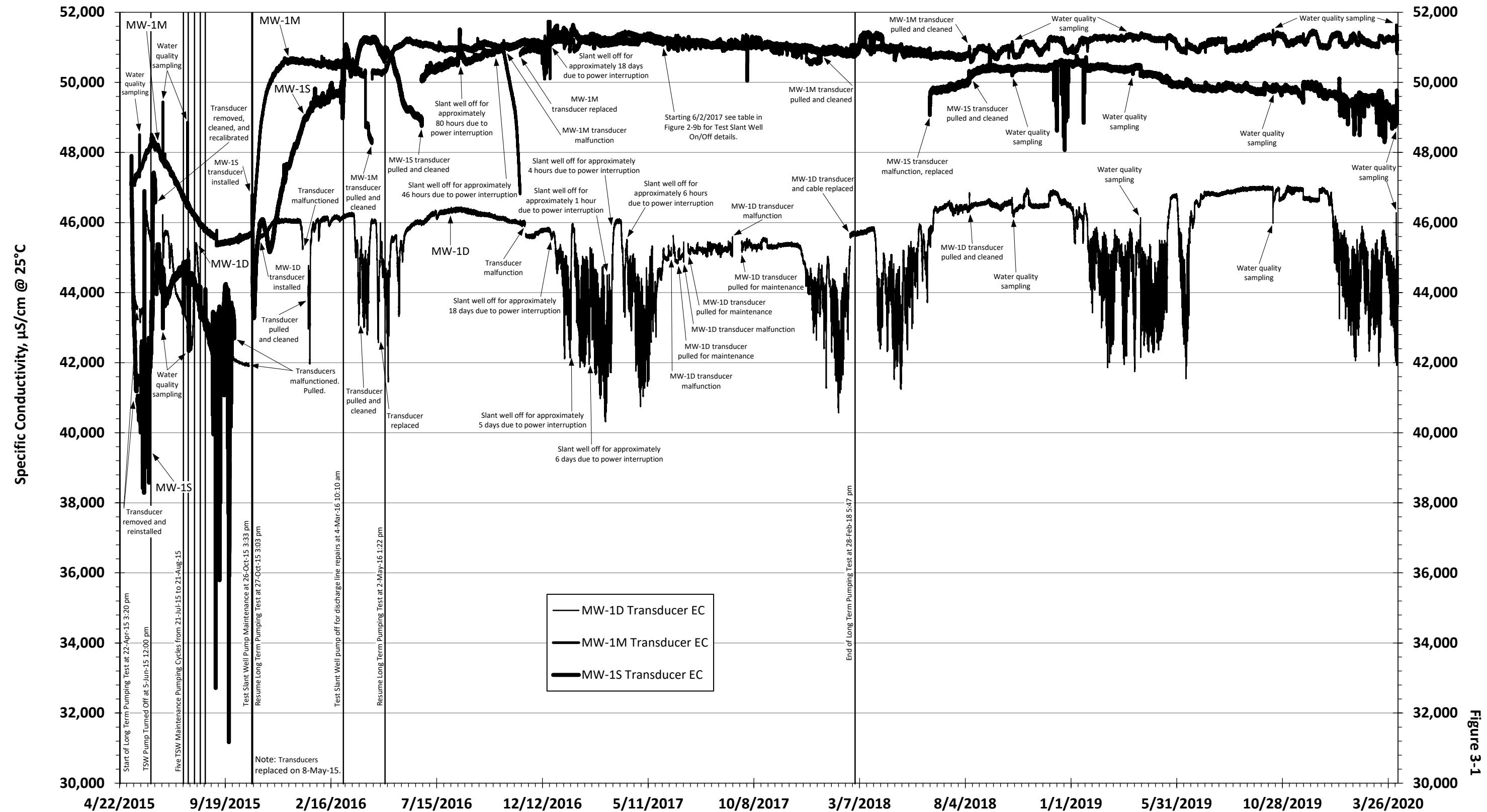
Groundwater Elevation in MPWSP Test Slant Well



Groundwater Elevation in MPWSP Test Slant Well During and After Long-Term Pumping Test



Specific Conductivity in MPWSP MW-1



Specific Conductivity in MPWSP MW-3

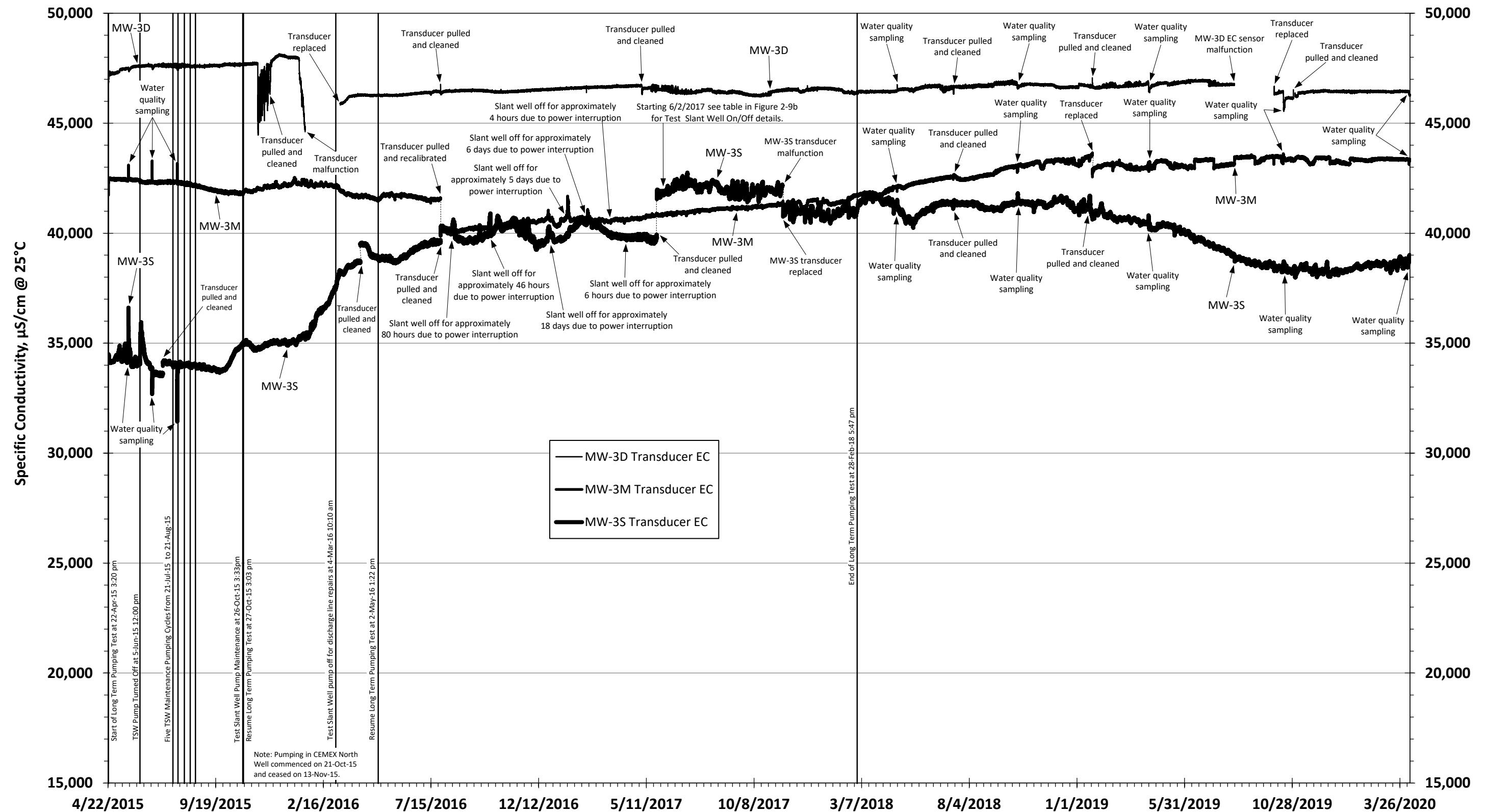


Figure 3-2

Specific Conductivity in MPWSP MW-4

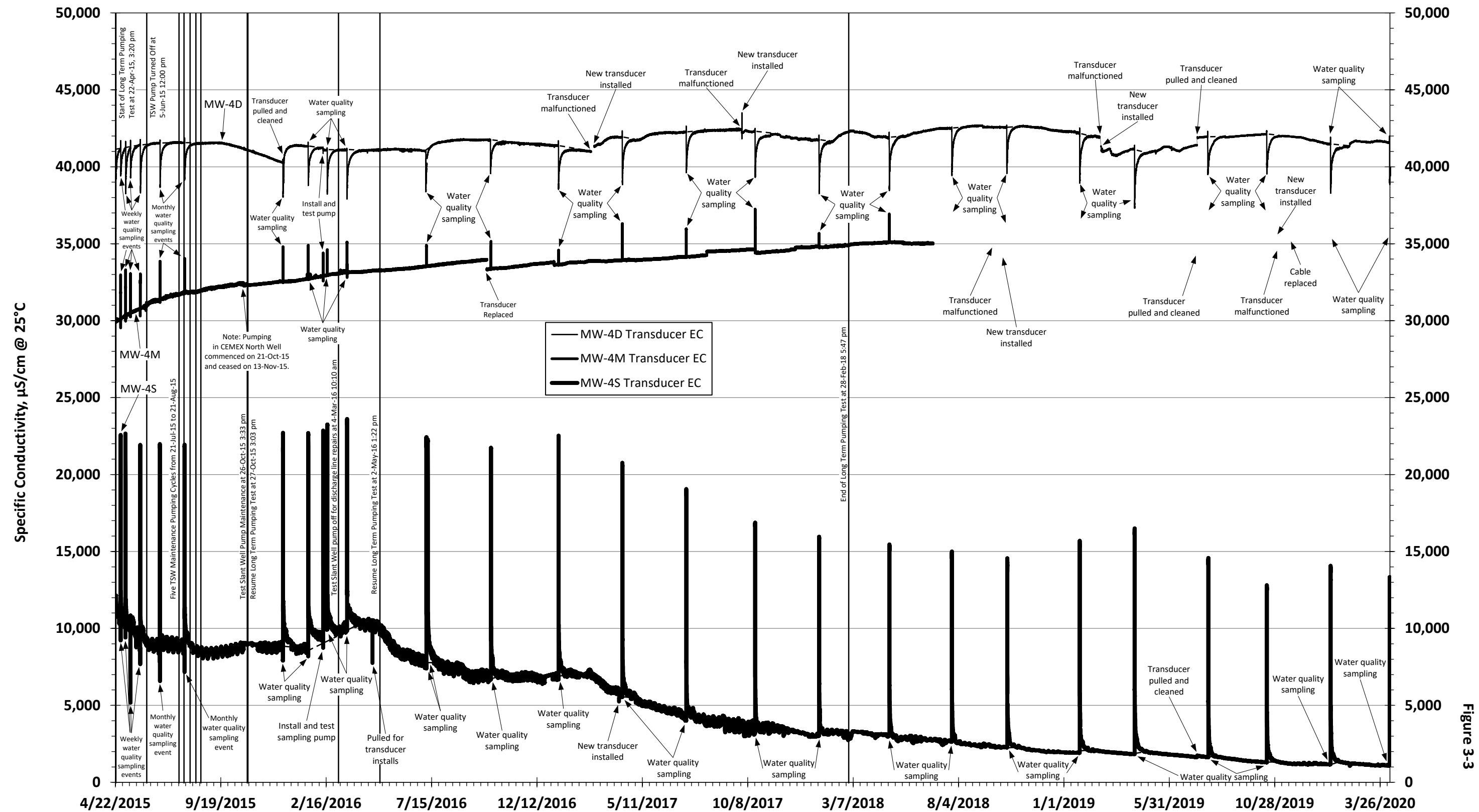
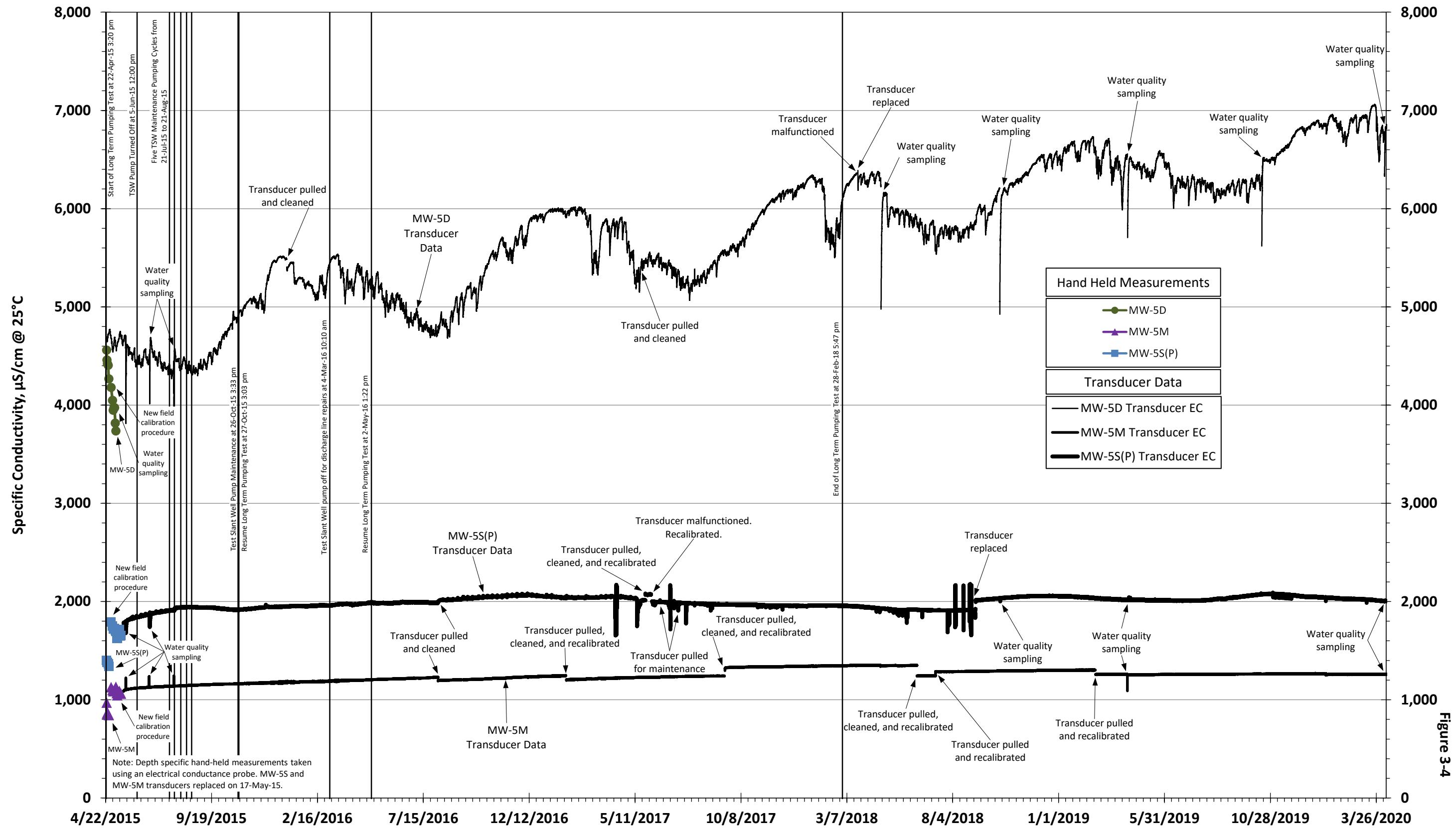


Figure 3-3

Specific Conductivity in MPWSP MW-5



Specific Conductivity in MPWSP MW-6

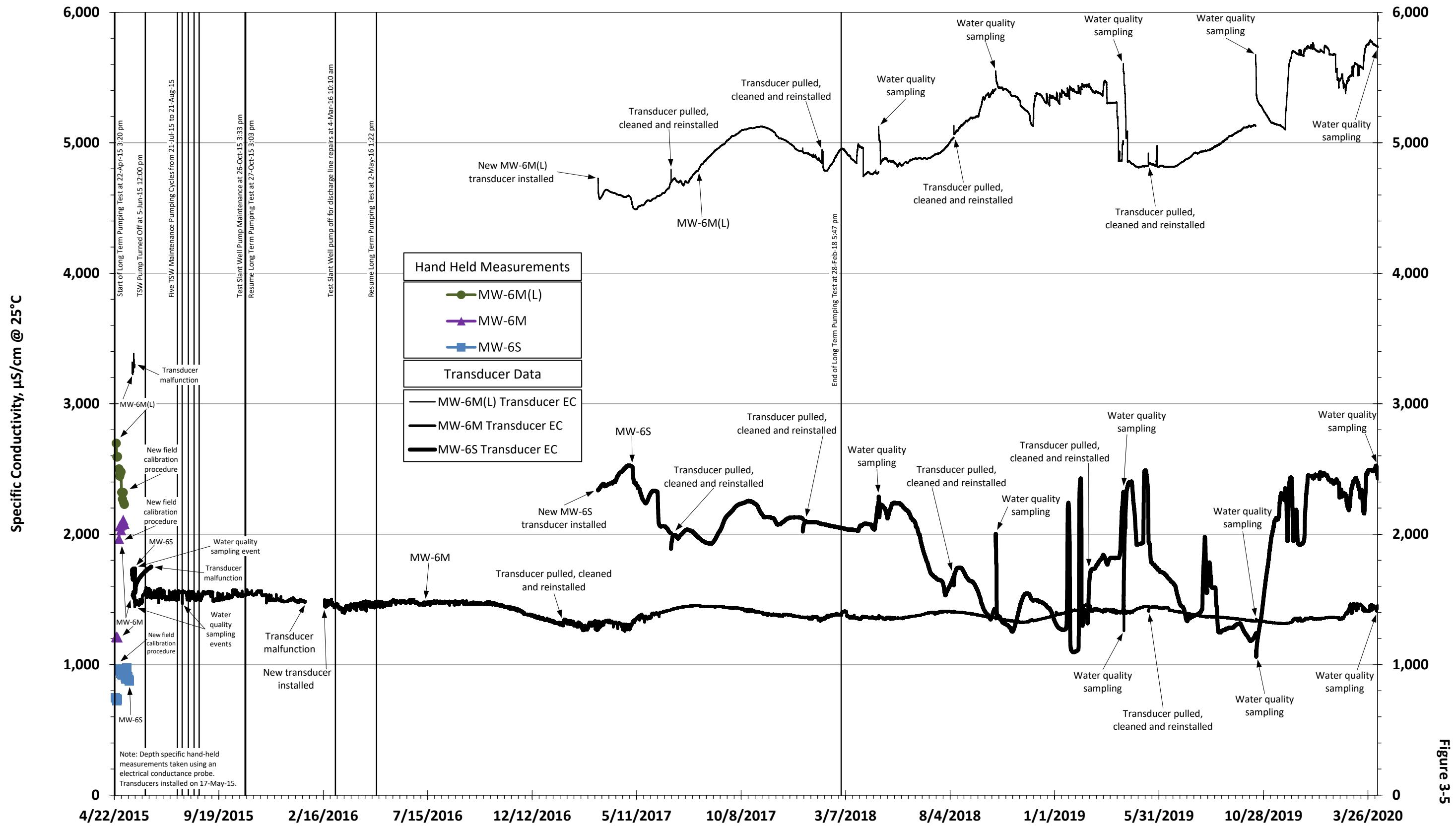


Figure 3-5

Specific Conductivity in MPWSP MW-7

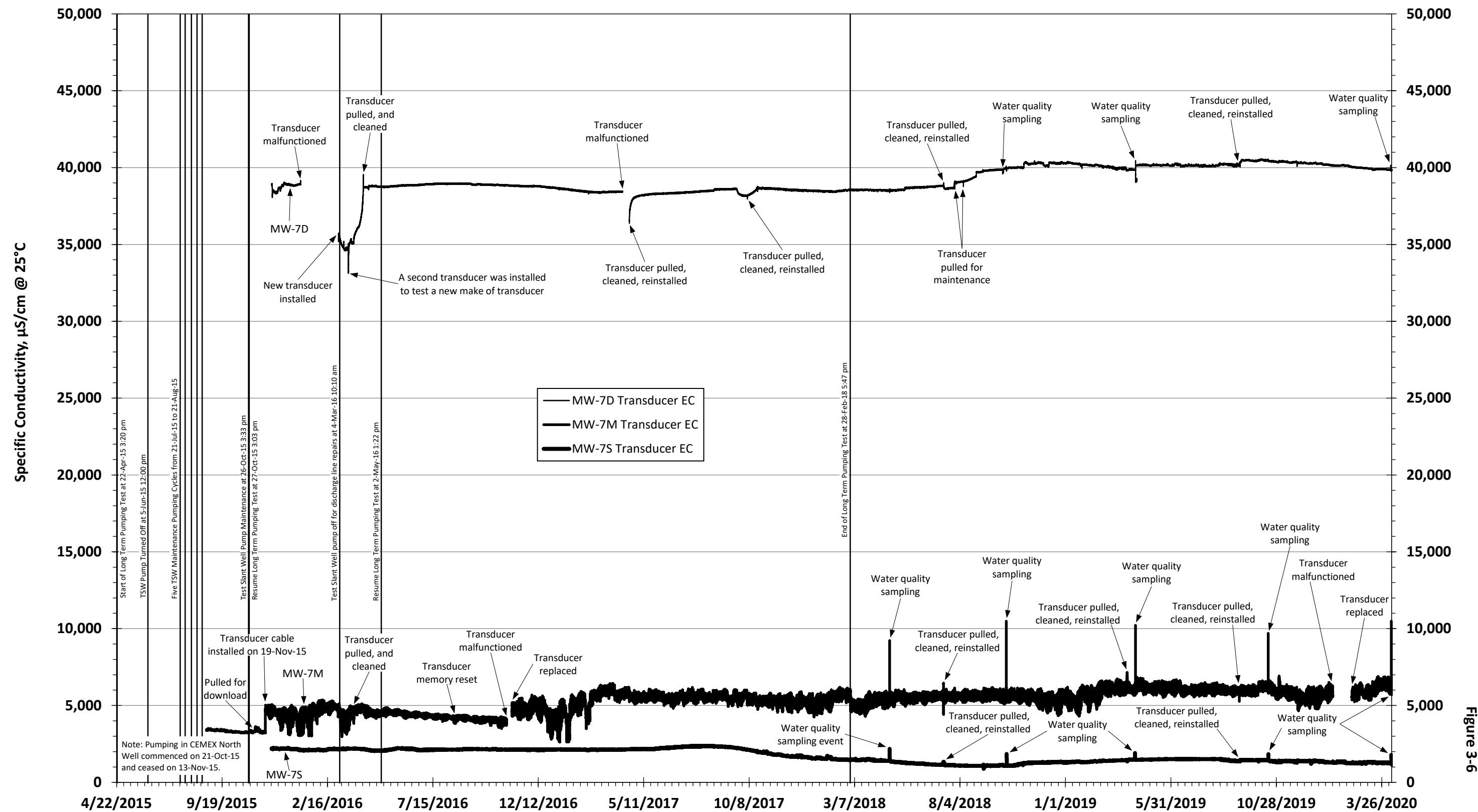


Figure 3-6

Specific Conductivity in MPWSP MW-8

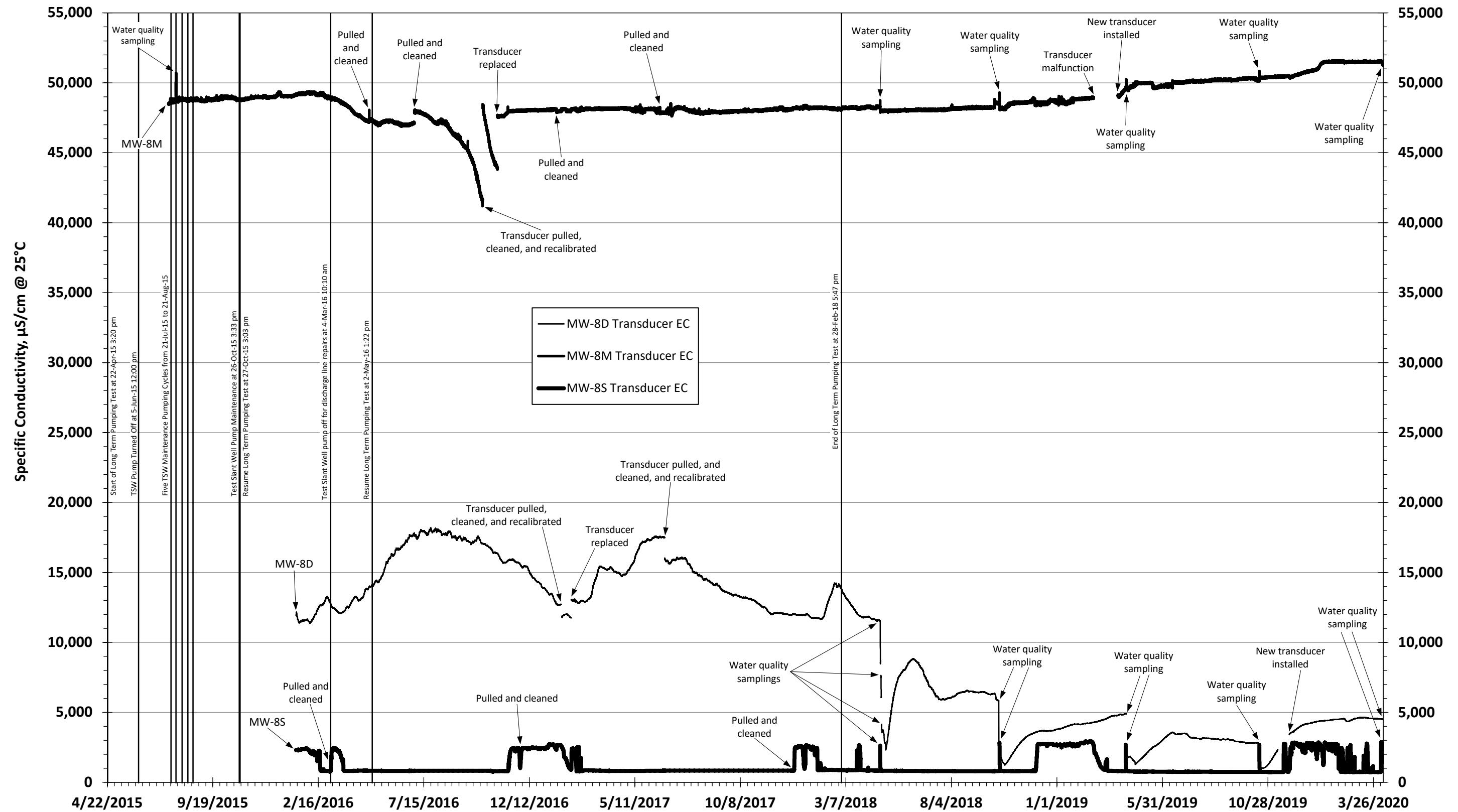
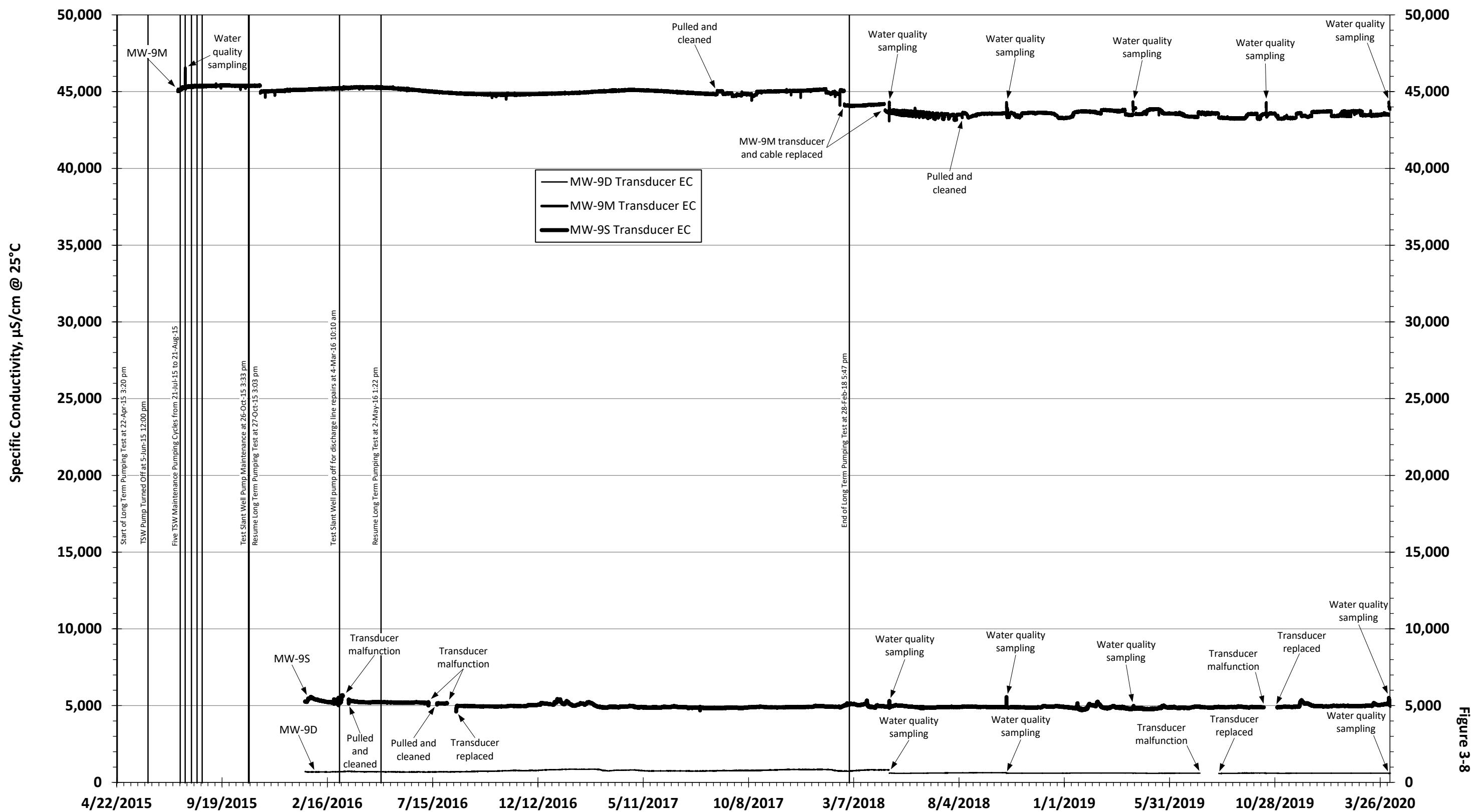


Figure 3-7

Specific Conductivity in MPWSP MW-9



Specific Conductivity in MPWSP Test Slant Well

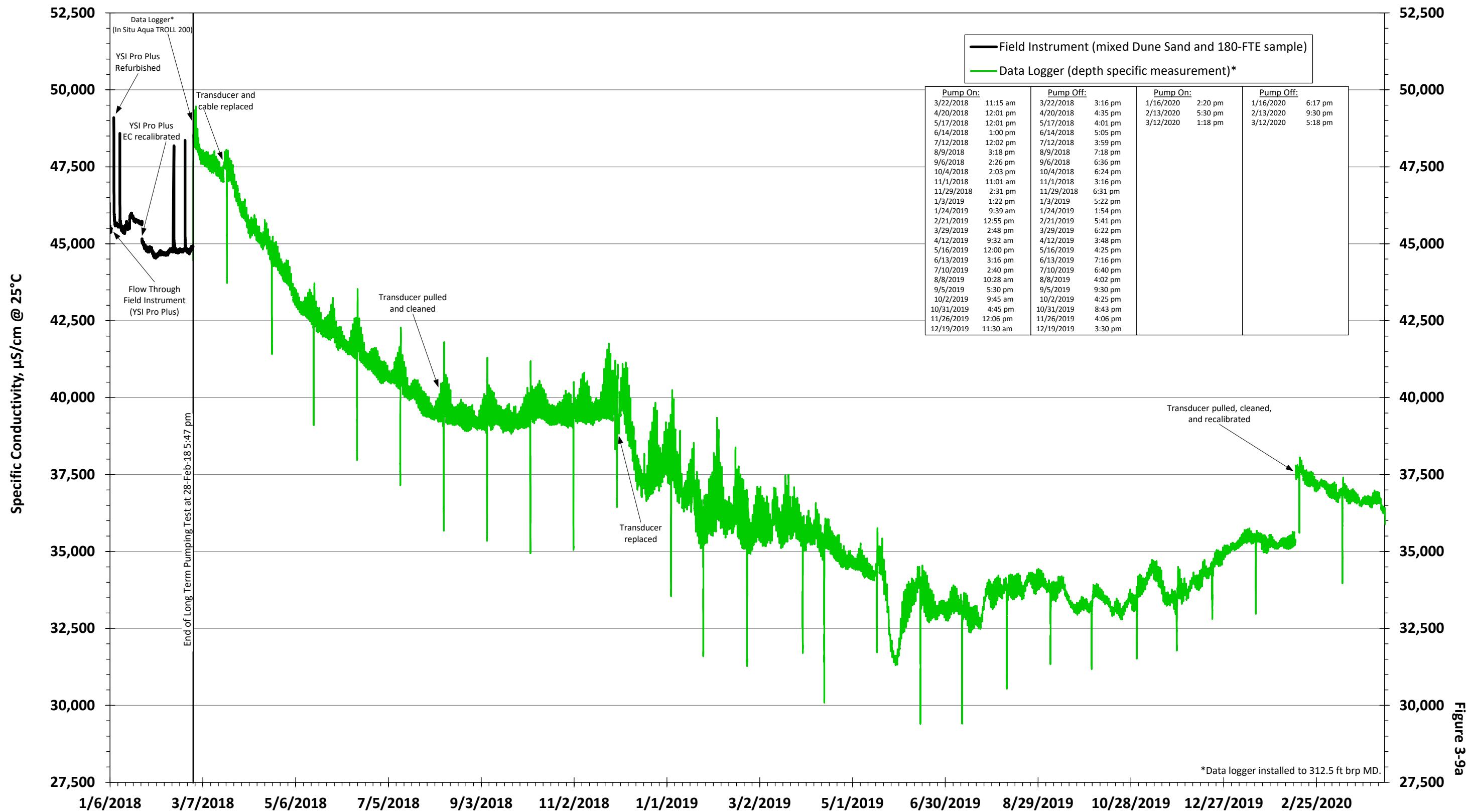
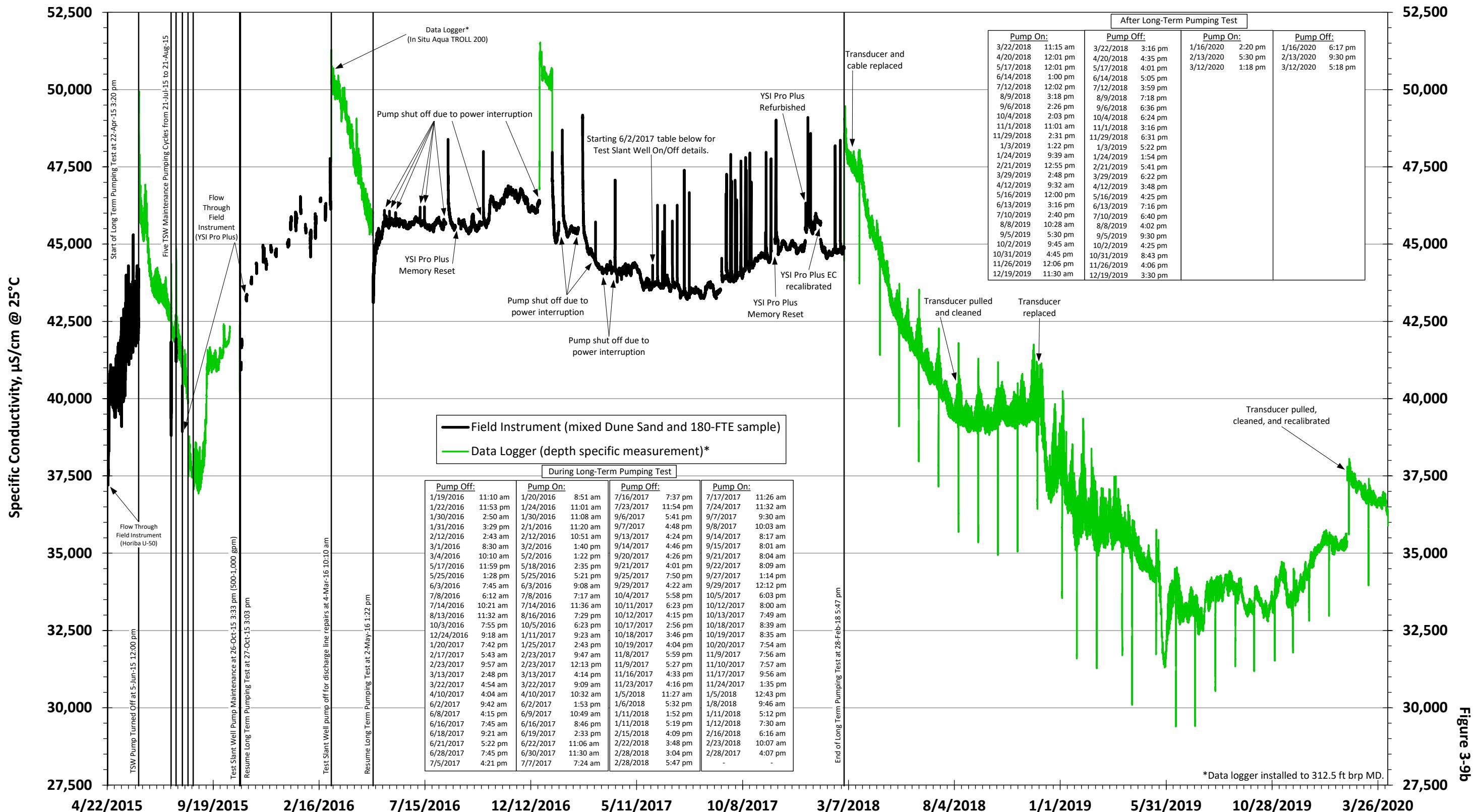


Figure 3.9a

Specific Conductivity in MPWSP Test Slant Well During and After Long-Term Pumping Test



TABLES

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Table 1: Well Information Table

| State Plane Coordinates | | | | | | | | | | | | | |
|-------------------------------|---------|-----------------------------|--------------|--------------|------------------------|-------------------------|--|--------------------------------------|---|--|-------------|-------------------------|---------------------|
| Well Name | Cluster | Reference Point (RP) | Northing | Easting | RP Elevation ft NAVD88 | RP Height (ft above GS) | Distance of RP from Slant Well Head (ft) | Top of Screen Interval (ft below GS) | Bottom of Screen Interval (ft below GS) | Transducer Installed Depth (ft below RP) | Survey Date | Data Logging Start Date | Data Collected |
| MW-1S | MW-1 | Top of ABS Transducer Mount | 2,154,745.35 | 5,739,355.82 | 30.51 ¹ | 2.65 ¹ | 211 | 55 | 95 | 76 | 26-Mar-15 | 19-Feb-15 | Level, Conductivity |
| MW-1M | MW-1 | Top of ABS Transducer Mount | 2,154,751.93 | 5,739,347.94 | 29.86 | 2.48 | 220 | 115 | 225 | 182 | 26-Mar-15 | 19-Feb-15 | Level, Conductivity |
| MW-1D | MW-1 | Top of ABS Transducer Mount | 2,154,753.60 | 5,739,337.98 | 29.68 ¹ | 2.65 ¹ | 230 | 277 | 327 | 309 | 26-Mar-15 | 19-Feb-15 | Level, Conductivity |
| MW-3S | MW-3 | Top of ABS Transducer Mount | 2,154,599.85 | 5,739,977.02 | 37.16 | 2.66 | 428 | 50 | 90 | 76 | 26-Mar-15 | 4-Mar-15 | Level, Conductivity |
| MW-3M | MW-3 | Top of ABS Transducer Mount | 2,154,592.96 | 5,739,988.54 | 37.35 | 2.73 | 441 | 105 | 215 | 182 | 26-Mar-15 | 4-Mar-15 | Level, Conductivity |
| MW-3D | MW-3 | Top of ABS Transducer Mount | 2,154,589.81 | 5,739,998.68 | 36.93 | 2.74 | 451 | 285 | 330 | 321 | 26-Mar-15 | 4-Mar-15 | Level, Conductivity |
| MW-4S | MW-4 | Top of ABS Transducer Mount | 2,154,170.90 | 5,741,427.62 | 41.96 | 2.26 | 1,940 | 60 | 100 | 66 | 26-Mar-15 | 9-Mar-15 | Level, Conductivity |
| MW-4M | MW-4 | Top of ABS Transducer Mount | 2,154,172.79 | 5,741,416.78 | 41.99 | 2.15 | 1,929 | 130 | 260 | 208 | 26-Mar-15 | 9-Mar-15 | Level, Conductivity |
| MW-4D | MW-4 | Top of ABS Transducer Mount | 2,154,174.30 | 5,741,406.08 | 41.95 | 2.15 | 1,918 | 290 | 330 | 317 | 26-Mar-15 | 20-Feb-15 | Level, Conductivity |
| MW-5S(P) | MW-5 | Top of ABS Transducer Mount | 2,156,239.19 | 5,748,566.86 | 80.25 ¹ | 2.20 ¹ | 9,135 | 43 | 83 | 71 | 26-Mar-15 | 10-Mar-15 | Level, Conductivity |
| MW-5M | MW-5 | Top of ABS Transducer Mount | 2,156,230.38 | 5,748,564.26 | 80.48 ¹ | 2.31 ¹ | 9,131 | 100 | 310 | 171 | 26-Mar-15 | 10-Mar-15 | Level, Conductivity |
| MW-5D | MW-5 | Top of ABS Transducer Mount | 2,156,220.77 | 5,748,560.95 | 80.06 | 1.97 | 9,126 | 395 | 435 | 417 | 26-Mar-15 | 19-Feb-15 | Level, Conductivity |
| MW-6S | MW-6 | Top of ABS Transducer Mount | 2,141,142.87 | 5,756,164.01 | 35.89 | 2.45 ¹ | 21,436 | 30 | 60 | 54 | 1-Oct-15 | 22-Apr-15 | Level, Conductivity |
| MW-6M | MW-6 | Top of ABS Transducer Mount | 2,141,138.40 | 5,756,154.35 | 35.68 | 2.44 ¹ | 21,431 | 150 | 210 | 184 | 1-Oct-15 | 22-Apr-15 | Level, Conductivity |
| MW-6M(L) | MW-6 | Top of ABS Transducer Mount | 2,141,133.06 | 5,756,144.94 | 35.82 | 2.42 ¹ | 21,427 | 255 | 325 | 315 | 1-Oct-15 | 22-Apr-15 | Level, Conductivity |
| MW-7S | MW-7 | Top of ABS Transducer Mount | 2,152,099.25 | 5,744,148.10 | 50.64 | 2.06 | 5,274 | 60 | 80 | 72 | 1-Oct-15 | 13-Aug-15 | Level, Conductivity |
| MW-7M | MW-7 | Top of ABS Transducer Mount | 2,152,110.46 | 5,744,146.08 | 50.29 | 2.09 | 5,266 | 130 | 220 | 187 | 1-Oct-15 | 13-Aug-15 | Level, Conductivity |
| MW-7D | MW-7 | Top of ABS Transducer Mount | 2,152,120.50 | 5,744,144.38 | 50.24 | 2.24 | 5,260 | 295 | 345 | 322 | 1-Oct-15 | 13-Aug-15 | Level, Conductivity |
| MW-8S | MW-8 | Top of ABS Transducer Mount | 2,159,440.33 | 5,744,871.52 | 19.96 | 2.14 ³ | 7,116 | 40 | 80 | 61 | 1-Oct-15 | 30-May-15 | Level, Conductivity |
| MW-8M | MW-8 | Top of ABS Transducer Mount | 2,159,430.86 | 5,744,866.05 | 19.99 | 2.17 ² | 7,106 | 125 | 215 | 181 | 1-Oct-15 | 30-May-15 | Level, Conductivity |
| MW-8D | MW-8 | Top of ABS Transducer Mount | 2,159,421.47 | 5,744,861.04 | 20.08 | 2.10 ³ | 7,096 | 300 | 350 | 326 | 1-Oct-15 | 30-May-15 | Level, Conductivity |
| MW-9S | MW-9 | Top of ABS Transducer Mount | 2,162,010.77 | 5,747,345.03 | 18.42 | 2.16 ³ | 10,677 | 30 | 110 | 71 | 1-Oct-15 | 1-Jul-15 | Level, Conductivity |
| MW-9M | MW-9 | Top of ABS Transducer Mount | 2,162,016.58 | 5,747,353.64 | 18.32 | 2.13 ² | 10,687 | 145 | 225 | 182 | 1-Oct-15 | 29-Jun-15 | Level, Conductivity |
| MW-9D | MW-9 | Top of ABS Transducer Mount | 2,162,022.89 | 5,747,362.25 | 18.32 | 2.15 ³ | 10,697 | 353 | 393 | 377 | 1-Oct-15 | 26-Jun-15 | Level, Conductivity |
| Well No. 1 ⁴ | MRWPCA | Well Cover | 2,151,622.14 | 5,750,015.59 | 114 ft amsl (GS) | 1.60 | 10,898 | 260 | 340 | 299 | - | 19-Feb-15 | Level, Conductivity |
| Well No. 2 ⁴ | MRWPCA | Well Cover | 2,151,550.18 | 5,749,987.41 | 115 ft amsl (GS) | 1.65 | 10,892 | 260 | 340 | 319 | - | 19-Feb-15 | Level, Conductivity |
| CEMEX Dredge Pond | CEMEX | Top of ABS Transducer Mount | 2,155,912.41 | 5,739,497.26 | 14.14 | 8.92* | 1,212 | - | - | - | 26-Mar-15 | 8-Mar-15 | Level, Conductivity |
| Test Slant Well | CEMEX | Near Ground Surface | 2,154,702.56 | 5,739,561.92 | 30.86 | 0 | 0 | 46** | 231** | 305MD | 26-Mar-15 | 1-Apr-15 | Level, Conductivity |
| CEMEX North Well | CEMEX | Well Cover | 2,154,284.48 | 5,741,032.07 | 39.20 | 0.25 | 1,529 | 244 | 481 | 150 | 1-Oct-15 | 1-Apr-15 | Level, Conductivity |
| CEMEX South Well ⁴ | CEMEX | Ground Surface | 2,154,213.90 | 5,740,998.57 | 31 ft amsl (GS) | 0 | 1,518 | 400 | 506 | - | - | - | - |

Horizontal Datum: NAD83 State Plane Zone 4

Vertical Datum: NAVD88

* RP height above pond water level 5.22 ft NAVD88 (8-11 am 26-Mar-15)

** Top of 18 in. screen = 140 ft x Sin(19) = 46 ft TVD, Bottom of 14 in. screen = 710 x Sin(19) = 231 ft TVD

¹ RP/elevation change on May 17, 2015 - New caps² RP/elevation change on July 17, 2015 - New caps³ RP/elevation change on September 24, 2015 - New caps⁴ Estimated - not surveyed.

MD: Measured Depth - lineal feet along the angle of the slant well

GS: Ground Surface - approximate ground surface elevation based on Google Earth

Table 2: Summary of Test Slant Well Laboratory Water Quality Results

| | | Sample Collection Date: | 8-Apr-15 | 29-Apr-15 | 6-May-15 | 13-May-15 | 20-May-15 | 27-May-15 | 3-Jun-15 | 28-Oct-15 | 12-Nov-15 | 19-Nov-15 |
|---|----------------------------|-------------------------|----------|-----------|----------|-----------|-----------|-----------|----------|-----------|-----------|-----------|
| Constituent | Method | Units | Result | Result | Result | Result | Result | Result | Result | Result | Result | Result |
| Alkalinity, Total (as CaCO ₃) | SM2320B | mg/L | 117 | - | 121 | 120 | 121 | 118 | 124 | - | - | 117 |
| Aluminum, Total | EPA 200.8 | µg/L | ND | - | 70 | ND | ND | 321 | ND | - | - | ND |
| Ammonia-N, Dissolved | SM4500NH3 D & EPA 350.1 | mg/L | ND | - | ND | ND | ND | ND | ND | - | - | ND |
| Arsenic, Total ¹ | EPA 200.8 | µg/L | 33 | - | 31 | 31 | 38 | 38 | 37 | - | - | 38 |
| Arsenic, Total | EPA 1640 | µg/L | - | - | - | - | - | - | - | - | - | - |
| Barium, Dissolved | EPA 200.8 | µg/L | 95 | - | 106 | 106 | 100 | 110 | 87 | - | - | 88 |
| Bicarbonate (as HCO ₃ -) | SM2320B | mg/L | 143 | - | 148 | 146 | 148 | 144 | 151 | - | - | 143 |
| Boron, Dissolved | EPA 200.7 | mg/L | 2.6 | - | 2.51 | 3.10 | 2.88 | 2.71 | 2.86 | - | - | 3.37 |
| Bromide, Dissolved | EPA 300.0 | mg/L | 37.0 | - | 45 | 45 | 48.7 | 48 | 47.4 | - | - | 53.6 |
| Calcium | EPA 200.7 | mg/L | 349 | - | 621 | 606 | 607 | 587 | 598 | - | - | 541 |
| Calcium, Dissolved | EPA 200.7 | mg/L | 371 | - | 581 | 660 | 595 | 584 | 583 | - | - | 551 |
| Carbamates by HPLC (EPA 531) | EPA 531 | µg/L | ND | - | - | - | - | - | - | - | - | - |
| Carbonate as CaCO ₃ | SM2320B | mg/L | ND | - | ND | ND | ND | ND | ND | - | - | ND |
| Chloride, Dissolved | EPA 300.0 | mg/L | 13,830 | - | 14,476 | 14,344 | 15,724 | 15,721 | 15,869 | - | - | 14,186 |
| Chlorinated Pesticides and PCB (EPA 508) | EPA 508 | µg/L | ND | - | - | - | - | - | - | - | - | - |
| Color, Apparent (Unfiltered) | SM2120B | Color Units | 4 | - | 4 | ND | ND | ND | ND | 6 | - | 4 |
| Copper | EPA 200.7 | µg/L | - | - | - | - | - | ND | ND | - | - | ND |
| Copper, Total | EPA 200.8 | µg/L | 44 | - | 75 | 74 | 40 | - | - | - | - | - |
| DBCP & EDB | EPA 504.1 | µg/L | ND | - | - | - | - | - | - | - | - | - |
| Dioxin | EPA 1613 | pg/L | ND | - | - | - | - | - | - | - | - | - |
| Diquat (EPA 549) | EPA 549 | µg/L | ND | - | - | - | - | - | - | - | - | - |
| Dissolved Anions | Calculation | Meq/L | 431.33 | - | 453.50 | 451.38 | 491.70 | 491.97 | 496.41 | - | - | 447.47 |
| Total Anions | Calculation | Meq/L | 431.33 | - | 453.50 | 451.38 | 491.70 | 491.97 | 496.41 | - | - | 447.47 |
| Dissolved Cations | Calculation | Meq/L | 455.09 | - | 435.45 | 479.03 | 508.91 | 458.32 | 460.38 | - | - | 494.88 |
| Total Cations | Calculation | Meq/L | 430.99 | - | 477.91 | 445.16 | 524.66 | 458.67 | 465.32 | - | - | 483.86 |
| Fluoride, Dissolved | EPA 300.0 | mg/L | 0.2 | - | 0.7 | ND | ND | 0.7 | ND | - | - | 0.8 |
| Hardness (as CaCO ₃) | SM2340B/Calc | mg/L | 4,751 | - | 5,879 | 5,796 | 6,066 | 5,748 | 5,924 | - | - | 5,798 |
| Hydroxide | SM2320B | mg/L | ND | - | ND | ND | ND | ND | ND | - | - | ND |
| Iodide | EPA 9056M | µg/L | ND | - | ND | ND | ND | ND | ND | - | - | ND |
| Iron | EPA 200.7 | µg/L | 69 | - | 99 | ND | ND | ND | ND | - | - | ND |
| Iron, Dissolved | EPA 200.7 | µg/L | 65 | - | ND | ND | ND | ND | ND | - | - | ND |
| Total Kjeldahl Nitrogen, Dissolved | SM4500-NH3 B,C,E & EPA 351 | mg/L | ND | - | ND | ND | ND | ND | ND | - | - | ND |
| Lead, Total | EPA 200.8 | µg/L | ND | - | ND | ND | ND | ND | ND | - | - | ND |
| Lithium | EPA 200.8 | µg/L | 152 | - | 169 | 144 | 165 | 250 | 212 | - | - | 106 |
| Magnesium | EPA 200.7 | mg/L | 942 | - | 1,050 | 1,040 | 1,100 | 1,040 | 1,080 | - | - | 1,080 |
| Magnesium, Dissolved | EPA 200.7 | mg/L | 989 | - | 970 | 1,110 | 1,080 | 1,040 | 1,060 | - | - | 1,110 |
| Manganese, Dissolved | EPA 200.7 | µg/L | 26 | - | ND | ND | ND | ND | ND | - | - | ND |
| Manganese, Total | EPA 200.7 | µg/L | 26 | - | ND | ND | ND | ND | ND | - | - | ND |
| MBAS (Surfactants) | SM5540C | mg/L | ND | - | ND | ND | ND | ND | ND | - | - | ND |
| Nitrate as N | EPA 300.0 | mg/L | - | - | - | - | - | - | - | - | - | - |
| Nitrate as NO ₃ | EPA 300.0 | mg/L | 5 | - | 7 | 8 | ND | 6 | 8 | - | - | 6 |
| Nitrate+Nitrite as N | EPA 300.0 | mg/L | 1.0 | - | 1.9 | 1.8 | 1.8 | 1.8 | 1.7 | - | - | 1.4 |
| Nitrite as NO ₂ -N, Dissolved | EPA 300.0 | mg/L | ND | - | 0.2 | ND | ND | 0.3 | ND | - | - | ND |
| Odor Threshold at 60 C | SM2150B | TON | 2 | - | 1 | 1 | 1 | 1 | 1 | - | - | 2 |
| o-Phosphate-P | Hach 8048 & EPA 365.1 | mg/L | 0.10 | - | 0.12 | 0.13 | 0.12 | 0.11 | 0.13 | - | - | 0.14 |
| pH (Field Test) | SM4500-H+B | pH | 7.03 | 6.86 | 6.84 | 6.85 | 6.94 | 6.91 | 6.94 | 7.01 | 7.05 | 7.04 |
| pH (Laboratory) | SM4500-H+B | pH (H) | 7.2 | - | 7.4 | 7.4 | 7.4 | 7.4 | 7.4 | 7.2 | - | 7.1 |
| Phenoxy Acid Herbicides (515.3) | EPA 515.3 | µg/L | ND | - | - | - | - | - | - | - | - | - |
| Phosphorus, Dissolved Total | HACH 8190 & EPA 365.1 | mg/L | 0.09 | - | 0.10 | 0.13 | 0.13 | 0.07 | 0.14 | - | - | 0.10 |
| Potassium | EPA 200.7 | mg/L | 203 | - | 212 | 209 | 231 | 220 | 226 | - | - | 256 |
| Potassium, Dissolved | EPA 200.7 | mg/L | 213 | - | 185 | 230 | 227 | 219 | 220 | - | - | 263 |
| QC Ratio TDS/SEC | Calculation | - | 0.67 | 0.66 | 0.64 | 0.66 | 0.67 | 0.67 | 0.68 | 0.67 | 0.67 | 0.68 |
| Reg. Org. Compounds (EPA 525) | EPA 525 | µg/L | ND | - | - | - | - | - | - | - | - | - |
| Salinity | SM2520B | psu | - | - | - | - | - | - | - | - | - | - |
| Silica as SiO ₂ , Dissolved | EPA 200.7 | mg/L | 20 | - | 16 | 22 | 19 | 17 | 20 | - | - | 19 |
| Sodium | EPA 200.7 | mg/L | 7,606 | - | 8,163 | 7,448 | 9,148 | 7,774 | 7,835 | - | - | 8,309 |
| Sodium, Dissolved | EPA 200.7 | mg/L | 8,040 | - | 7,400 | 8,020 | 8,840 | 7,770 | 7,780 | - | - | 8,490 |
| Specific Conductance (E.C.) | SM2510B | µmhos/cm | 37,860 | 39,500 | 41,110 | 41,800 | 42,100 | 42,410 | 42,950 | 41,400 | 43,940 | 43,730 |
| Specific Conductance (E.C.) (Field) | SM2510B | µmhos/cm | 38,097 | 40,100 | 40,600 | 42,400 | 41,900 | 42,400 | 43,300 | 40,915 | 43,940 | 44,222 |
| Strontium, Dissolved | EPA 200.8 | µg/L | 7,440 | - | 7,820 | 8,008 | 8,349 | 7,734 | 7,900 | - | - | 7,670 |
| Sulfate, Dissolved | EPA 300.0 | mg/L | 1,840 | - | 2,018 | 2,096 | 2,160 | 2,181 | 2,188 | - | - | 1,973 |
| Temperature (Field) | SM2550 | ° C | 17.20 | 16.79 | 16.71 | 16.86 | 16.63 | 16.35 | 16.68 | 18.4 | 17.1 | 17.1 |
| Total Diss. Solids | SM2540C | mg/L | 25,400 | 26,000 | 26,300 | 27,600 | 28,400 | 28,500 | 29,100 | 27,700 | 29,400 | 29,800 |
| Turbidity | EPA 180.1 | NTU | 0.40 | - | 0.30 | 0.30 | 0.25 | 0.25 | 0.15 | 0.5 | - | 0.30 |
| Turbidity (Field) | EPA 180.1 | NTU | 0.74 | 0.84 | 0.69 | 0.76 | 0.30 | 0.29 | 0.353 | 0.59 | 0.98 | 0.61 |
| Volatile Org. Compounds (524) | EPA 524 | µg/L | ND | - | - | - | - | - | - | - | - | - |
| Zinc | EPA 200.7 | µg/L | - | - | - | - | - | 142 | ND | - | | |

Table 2: Summary of Test Slant Well Laboratory Water Quality Results

| | | Sample Collection Date: | 30-Nov-15 | 3-Dec-15 | 10-Dec-15 | 17-Dec-15 | 4-Jan-16 | 14-Jan-16 | 21-Jan-16 | 28-Jan-16 | 4-Feb-16 | 11-Feb-16 |
|---|----------------------------|-------------------------|-----------|----------|-----------|-----------|----------|-----------|-----------|-----------|----------|-----------|
| Constituent | Method | Units | Result | Result | Result | Result | Result | Result | Result | Result | Result | Result |
| Alkalinity, Total (as CaCO ₃) | SM2320B | mg/L | 114 | 111 | 113 | 112 | 111 | 110 | 111 | 110 | 109 | 110 |
| Aluminum, Total | EPA 200.8 | µg/L | ND | ND | 53 | ND | ND | ND | ND | ND | ND | ND |
| Ammonia-N, Dissolved | SM4500NH3 D & EPA 350.1 | mg/L | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Arsenic, Total ¹ | EPA 200.8 | µg/L | 45 | 42 | 42 | 40 | 47 | ND | 48 | 50 | 46 | 42 |
| Arsenic, Total | EPA 1640 | µg/L | - | - | - | - | - | - | - | - | - | 0.39 |
| Barium, Dissolved | EPA 200.8 | µg/L | 81 | 88 | 82 | 78 | 78 | 74 | 82 | 74 | 69 | ND |
| Bicarbonate (as HCO ₃ -) | SM2320B | mg/L | 139 | 135 | 138 | 137 | 135 | 134 | 135 | 134 | 133 | 134 |
| Boron, Dissolved | EPA 200.7 | mg/L | 3.38 | 3.16 | 3.14 | 3.97 | 3.21 | 3.71 | 3.48 | 3.35 | 3.33 | 3.41 |
| Bromide, Dissolved | EPA 300.0 | mg/L | 53 | 52.6 | 50.2 | 50.2 | 50.0 | 52.4 | 48.2 | 51.3 | 50.1 | 51.8 |
| Calcium | EPA 200.7 | mg/L | 582 | 538 | 511 | 657 | 515 | 531 | 493 | 523 | 522 | 523 |
| Calcium, Dissolved | EPA 200.7 | mg/L | 577 | 532 | 518 | 686 | 511 | 537 | 532 | 523 | 526 | 533 |
| Carbamates by HPLC (EPA 531) | EPA 531 | µg/L | ND | - | - | - | - | - | ND | - | - | - |
| Carbonate as CaCO ₃ | SM2320B | mg/L | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Chloride, Dissolved | EPA 300.0 | mg/L | 16,111 | 16,383 | 16,257 | 16,579 | 16,510 | 16,972 | 15,685 | 16,798 | 17,195 | 16,980 |
| Chlorinated Pesticides and PCB (EPA 50) | EPA 508 | µg/L | ND | - | - | - | - | - | - | ND | - | - |
| Color, Apparent (Unfiltered) | SM2120B | Color Units | 7 | 4 | ND | ND | 3 | 5 | ND | ND | ND | 5 |
| Copper | EPA 200.7 | µg/L | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Copper, Total | EPA 200.8 | µg/L | - | - | - | - | - | - | - | - | - | - |
| DBCP & EDB | EPA 504.1 | µg/L | ND | - | - | - | - | - | - | ND | - | - |
| Dioxin | EPA 1613 | pg/L | ND | - | - | - | - | - | - | ND | - | - |
| Diquat (EPA 549) | EPA 549 | µg/L | ND | - | - | - | - | - | - | ND | - | - |
| Dissolved Anions | Calculation | Meq/L | 503.06 | 503.06 | 507.53 | 516.55 | 514.28 | 529.53 | 493.46 | 524.48 | 535.83 | 529.87 |
| Total Anions | Calculation | Meq/L | 503.06 | 510.47 | 507.53 | 516.55 | 514.28 | 529.53 | 493.46 | 524.48 | 535.83 | 529.87 |
| Dissolved Cations | Calculation | Meq/L | 526.37 | 498.07 | 506.84 | 484.86 | 457.70 | 533.96 | 514.92 | 523.20 | 521.97 | 537.19 |
| Total Cations | Calculation | Meq/L | 544.39 | 500.67 | 500.01 | 510.72 | 466.00 | 526.46 | 484.44 | 516.68 | 524.71 | 526.05 |
| Fluoride, Dissolved | EPA 300.0 | mg/L | 0.8 | 0.8 | ND | ND | ND | ND | ND | ND | ND | ND |
| Hardness (as CaCO ₃) | SM2340B/Calc | mg/L | 6,383 | 5,890 | 5,756 | 6,710 | 5,651 | 5,938 | 5,909 | 5,918 | 5,940 | 5,972 |
| Hydroxide | SM2320B | mg/L | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Iodide | EPA 9056M | µg/L | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Iron | EPA 200.7 | µg/L | ND | ND | ND | 96 | ND | ND | ND | ND | ND | ND |
| Iron, Dissolved | EPA 200.7 | µg/L | ND | ND | ND | 126 | ND | ND | ND | ND | ND | ND |
| Total Kjeldahl Nitrogen, Dissolved | SM4500-NH3 B,C,E & EPA 351 | mg/L | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Lead, Total | EPA 200.8 | µg/L | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Lithium | EPA 200.8 | µg/L | 135 | 131 | 142 | 149 | 133 | 160 | 129 | 128 | 117 | 170 |
| Magnesium | EPA 200.7 | mg/L | 1,200 | 1,100 | 1,090 | 1,230 | 1,060 | 1,120 | 1,140 | 1,120 | 1,130 | 1,130 |
| Magnesium, Dissolved | EPA 200.7 | mg/L | 1,170 | 1,090 | 1,100 | 1,310 | 1,050 | 1,150 | 1,190 | 1,130 | 1,130 | 1,150 |
| Manganese, Dissolved | EPA 200.7 | µg/L | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Manganese, Total | EPA 200.7 | µg/L | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| MBAS (Surfactants) | SM5540C | mg/L | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Nitrate as N | EPA 300.0 | mg/L | - | - | - | - | - | - | - | - | - | - |
| Nitrate as NO ₃ | EPA 300.0 | mg/L | 6 | 6 | 2 | 9 | 8 | 8 | 8 | 8 | 8 | 8 |
| Nitrate+Nitrite as N | EPA 300.0 | mg/L | 1.4 | 1.3 | 2.0 | 2.0 | 1.9 | 1.9 | 1.8 | 1.8 | 1.8 | 1.8 |
| Nitrite as NO ₂ -N, Dissolved | EPA 300.0 | mg/L | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Odor Threshold at 60 C | SM2150B | TON | 2 | 2 | 3 | 1 | 2 | 2 | 1 | 1 | 2 | 1 |
| o-Phosphate-P | Hach 8048 & EPA 365.1 | mg/L | 0.15 | 0.15 | 0.14 | 0.13 | 0.13 | 0.12 | 0.11 | 0.12 | 0.12 | 0.13 |
| pH (Field Test) | SM4500-H+B | pH | 7.06 | 8.14 | 7.10 | 7.08 | 7.11 | 7.07 | 7.08 | 7.06 | 7.04 | 7.05 |
| pH (Laboratory) | SM4500-H+B | pH (H) | 7.1 | 7.1 | 7.1 | 7.1 | 7.1 | 7.3 | 7.2 | 7.2 | 7.1 | 7.2 |
| Phenoxy Acid Herbicides (515.3) | EPA 515.3 | µg/L | ND | - | - | - | - | - | - | ND | - | - |
| Phosphorus, Dissolved Total | HACH 8190 & EPA 365.1 | mg/L | 0.14 | 0.13 | 0.13 | 0.13 | 0.10 | 0.10 | 0.10 | 0.11 | 0.09 | 0.10 |
| Potassium | EPA 200.7 | mg/L | 284 | 268 | 266 | 293 | 256 | 275 | 271 | 267 | 270 | 268 |
| Potassium, Dissolved | EPA 200.7 | mg/L | 281 | 268.0 | 266 | 308 | 254 | 278 | 282 | 272 | 269 | 276 |
| QC Ratio TDS/SEC | Calculation | - | 0.68 | 0.69 | 0.68 | 0.67 | 0.66 | 0.69 | 0.67 | 0.67 | 0.67 | 0.69 |
| Reg. Org. Compounds (EPA 525) | EPA 525 | µg/L | ND | - | - | - | - | - | - | ND | - | - |
| Salinity | SM2520B | psu | - | - | - | - | - | - | - | - | - | - |
| Silica as SiO ₂ , Dissolved | EPA 200.7 | mg/L | 18 | 16 | 16 | 20 | 16 | 20 | 17 | 15 | 14 | 14 |
| Sodium | EPA 200.7 | mg/L | 9,410 | 8,654 | 8,691 | 8,488 | 7,966 | 9,213 | 8,255 | 9,002 | 9,167 | 9,198 |
| Sodium, Dissolved | EPA 200.7 | mg/L | 9,060 | 8,620 | 8,820 | 7,700 | 7,800 | 9,320 | 8,810 | 9,130 | 9,100 | 9,400 |
| Specific Conductance (E.C.) | SM2510B | µmhos/cm | 44,110 | 44,470 | 44,380 | 44,870 | 45,370 | 45,720 | 46,900 | 45,720 | 45,790 | 45,650 |
| Specific Conductance (E.C.) (Field) | SM2510B | µmhos/cm | 44,835 | 44,246 | 44,834 | 44,649 | 45,090 | 45,937 | 46,026 | 45,487 | 45,392 | 45,697 |
| Strontium, Dissolved | EPA 200.8 | µg/L | 7,767 | 7,668 | 7,444 | 7,194 | 7,306 | 7,800 | 7,481 | 7,503 | 5,865 | 5,796 |
| Sulfate, Dissolved | EPA 300.0 | mg/L | 2,187 | 2,177 | 2,204 | 2,202 | 2,188 | 2,294 | 2,307 | 2,288 | 2,297 | 2,300 |
| Temperature (Field) | SM2550 | ° C | 16.3 | 16.9 | 16.9 | 16.7 | 15.6 | 15.2 | 15.5 | 15.3 | 15.5 | 15.9 |
| Total Diss. Solids | SM2540C | mg/L | 29,800 | 30,900 | 30,200 | 30,200 | 30,100 | 31,700 | 31,400 | 30,600 | 30,500 | 31,400 |
| | | | | | | | | | | | | |

Table 2: Summary of Test Slant Well Laboratory Water Quality Results

| | | Sample Collection Date: | 18-Feb-16 | 25-Feb-16 | 3-Mar-16 | 3-May-16 | 12-May-16 | 19-May-16 | 26-May-16 | 2-Jun-16 | 9-Jun-16 | 16-Jun-16 |
|---|----------------------------|-------------------------|-----------|-----------|----------|----------|-----------|-----------|-----------|----------|----------|-----------|
| Constituent | Method | Units | Result | Result | Result | Result | Result | Result | Result | Result | Result | Result |
| Alkalinity, Total (as CaCO ₃) | SM2320B | mg/L | 110 | 110 | 110 | 108 | 110 | 114 | 112 | 111 | 110 | 112 |
| Aluminum, Total | EPA 200.8 | µg/L | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Ammonia-N, Dissolved | SM4500NH3 D & EPA 350.1 | mg/L | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Arsenic, Total ¹ | EPA 200.8 | µg/L | - | - | - | - | - | - | - | - | - | - |
| Arsenic, Total | EPA 1640 | µg/L | 0.28 | 0.30 | 0.28 | 0.32 | 0.26 | 0.24 | 0.29 | 0.28 | 0.27 | 0.30 |
| Barium, Dissolved | EPA 200.8 | µg/L | ND | 71 | 75 | ND | ND | 74 | ND | ND | 62 | ND |
| Bicarbonate (as HCO ₃ -) | SM2320B | mg/L | 134 | 134 | 134 | 132 | 134 | 139 | 137 | 135 | 134 | 137 |
| Boron, Dissolved | EPA 200.7 | mg/L | 3.19 | 3.31 | 3.43 | 3.62 | 3.30 | 3.54 | 3.11 | 3.18 | 3.47 | 3.38 |
| Bromide, Dissolved | EPA 300.0 | mg/L | 52.6 | 52.6 | 52.3 | 50.3 | 43.2 | 59.4 | 59.6 | 50.5 | 40.1 | 35.4 |
| Calcium | EPA 200.7 | mg/L | 497 | 510 | 493 | 458 | 489 | 542 | 430 | 469 | 506 | 498 |
| Calcium, Dissolved | EPA 200.7 | mg/L | 503 | 510 | 502 | 456 | 496 | 528 | 396 | 479 | 506 | 499 |
| Carbamates by HPLC (EPA 531) | EPA 531 | µg/L | - | - | - | - | - | - | - | - | - | - |
| Carbonate as CaCO ₃ | SM2320B | mg/L | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Chloride, Dissolved | EPA 300.0 | mg/L | 17,243 | 17,186 | 17,337 | 15,946 | 15,872 | 16,965 | 16,326 | 16,326 | 16,807 | 16,547 |
| Chlorinated Pesticides and PCB (EPA 50) | EPA 508 | µg/L | - | - | - | - | - | - | - | - | - | - |
| Color, Apparent (Unfiltered) | SM2120B | Color Units | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Copper | EPA 200.7 | µg/L | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Copper, Total | EPA 200.8 | µg/L | - | - | - | - | - | - | - | - | - | - |
| DBCP & EDB | EPA 504.1 | µg/L | - | - | - | - | - | - | - | - | - | - |
| Dioxin | EPA 1613 | pg/L | - | - | - | - | - | - | - | - | - | - |
| Diquat (EPA 549) | EPA 549 | µg/L | - | - | - | - | - | - | - | - | - | - |
| Dissolved Anions | Calculation | Meq/L | 538.01 | 536.27 | 541.32 | 499.99 | 499.14 | 530.65 | 509.47 | 510.34 | 528.27 | 520.48 |
| Total Anions | Calculation | Meq/L | 538.01 | 536.27 | 541.32 | 499.99 | 499.14 | 530.65 | 509.47 | 510.34 | 528.27 | 520.48 |
| Dissolved Cations | Calculation | Meq/L | 522.84 | 541.86 | 557.28 | 520.85 | 514.63 | 529.51 | 491.98 | 515.26 | 496.63 | 479.25 |
| Total Cations | Calculation | Meq/L | 520.40 | 544.60 | 540.75 | 516.58 | 507.73 | 540.16 | 497.14 | 507.81 | 493.75 | 481.32 |
| Fluoride, Dissolved | EPA 300.0 | mg/L | ND | ND | 1.1 | 1.0 | ND | ND | ND | ND | ND | ND |
| Hardness (as CaCO ₃) | SM2340B/Calc | mg/L | 5,870 | 6,112 | 5,901 | 5,739 | 5,776 | 6,316 | 5,492 | 5,656 | 5,822 | 5,732 |
| Hydroxide | SM2320B | mg/L | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Iodide | EPA 9056M | µg/L | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Iron | EPA 200.7 | µg/L | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Iron, Dissolved | EPA 200.7 | µg/L | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Total Kjeldahl Nitrogen, Dissolved | SM4500-NH3 B,C,E & EPA 351 | mg/L | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Lead, Total | EPA 200.8 | µg/L | ND | ND | 4 | ND | ND | 5 | ND | ND | ND | ND |
| Lithium | EPA 200.8 | µg/L | 154 | 164 | 166 | 153 | 149 | 145 | 164 | 159 | 177 | 132 |
| Magnesium | EPA 200.7 | mg/L | 1,120 | 1,180 | 1,130 | 1,120 | 1,110 | 1,200 | 1,070 | 1,090 | 1,110 | 1,090 |
| Magnesium, Dissolved | EPA 200.7 | mg/L | 1,120 | 1,170 | 1,180 | 1,120 | 1,120 | 1,180 | 1,040 | 1,100 | 1,110 | 1,090 |
| Manganese, Dissolved | EPA 200.7 | µg/L | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Manganese, Total | EPA 200.7 | µg/L | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| MBAS (Surfactants) | SM5540C | mg/L | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Nitrate as N | EPA 300.0 | mg/L | - | - | - | - | - | - | - | - | - | - |
| Nitrate as NO ₃ | EPA 300.0 | mg/L | 8 | 8 | 8 | 6 | 6 | 3 | ND | ND | 1 | ND |
| Nitrate+Nitrite as N | EPA 300.0 | mg/L | 1.8 | 1.8 | 1.8 | 1.4 | 1.3 | 0.7 | ND | ND | 0.2 | ND |
| Nitrite as NO ₂ -N, Dissolved | EPA 300.0 | mg/L | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Odor Threshold at 60 C | SM2150B | TON | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| o-Phosphate-P | Hach 8048 & EPA 365.1 | mg/L | 0.11 | 0.12 | 0.11 | 0.11 | 0.12 | 0.12 | 0.12 | 0.11 | 0.11 | 0.11 |
| pH (Field Test) | SM4500-H+B | pH | 7.11 | 7.12 | 7.14 | 7.25 | 7.10 | 7.07 | 7.16 | 7.04 | 7.17 | 7.07 |
| pH (Laboratory) | SM4500-H+B | pH (H) | 7.3 | 6.8 | 7.3 | 7.3 | 7.2 | 7.2 | 7.2 | 7.3 | 7.3 | 7.4 |
| Phenoxy Acid Herbicides (515.3) | EPA 515.3 | µg/L | - | - | - | - | - | - | - | - | - | - |
| Phosphorus, Dissolved Total | HACH 8190 & EPA 365.1 | mg/L | 0.11 | 0.10 | 0.10 | 0.13 | 0.11 | 0.10 | 0.12 | 0.11 | 0.09 | 0.09 |
| Potassium | EPA 200.7 | mg/L | 261 | 271 | 273 | 310 | 276 | 287 | 257 | 258 | 264 | 261 |
| Potassium, Dissolved | EPA 200.7 | mg/L | 261 | 271 | 280 | 309 | 277 | 280 | 252 | 263 | 266 | 260 |
| QC Ratio TDS/SEC | Calculation | - | 0.67 | 0.67 | 0.69 | 0.68 | 0.68 | 0.70 | 0.70 | 0.68 | 0.69 | 0.68 |
| Reg. Org. Compounds (EPA 525) | EPA 525 | µg/L | - | - | - | - | - | - | - | - | - | - |
| Salinity | SM2520B | psu | - | - | - | 28.8 | 29.1 | 29.4 | 29.6 | 29.7 | 29.7 | 29.3 |
| Silica as SiO ₂ , Dissolved | EPA 200.7 | mg/L | 12 | 12 | 14 | ND | 13 | 10 | 12 | 13 | 17 | 16 |
| Sodium | EPA 200.7 | mg/L | 9,121 | 9,543 | 9,401 | 9,049 | 8,849 | 9,357 | 8,760 | 8,922 | 8,515 | 8,278 |
| Sodium, Dissolved | EPA 200.7 | mg/L | 9,170 | 9,480 | 9,680 | 9,150 | 8,980 | 9,170 | 8,740 | 9,060 | 8,580 | 8,230 |
| Specific Conductance (E.C.) | SM2510B | µmhos/cm | 45,560 | 46,190 | 46,380 | 44,530 | 45,030 | 45,430 | 45,730 | 45,880 | 45,800 | 45,340 |
| Specific Conductance (E.C.) (Field) | SM2510B | µmhos/cm | 46,403 | 46,259 | 46,381 | 44,112 | 45,258 | 45,810 | 45,693 | 45,759 | 45,762 | 45,685 |
| Strontium, Dissolved | EPA 200.8 | µg/L | 7,671 | 7,823 | 7,910 | 7,601 | 7,910 | 7,976 | 7,515 | 7,735 | 7,600 | 7,377 |
| Sulfate, Dissolved | EPA 300.0 | mg/L | 2,334 | 2,328 | 2,366 | 2,270 | 2,332 | 2,353 | 2,206 | 2,254 | 2,470 | 2,450 |
| Temperature (Field) | SM2550 | ° C | 15.1 | 15.0 | 15.0 | 15.1 | 15.4 | 15.5 | 15.4 | 15.6 | 15.8 | 15.9 |
| Total Diss. Solids | SM2540C | mg/L | 30,700 | 30,800 | 31,800 | 30,200 | 30,800 | 31,900 | 32,200 | 31,300 | 31,600 | 30 |

Table 2: Summary of Test Slant Well Laboratory Water Quality Results

| | | Sample Collection Date: | 23-Jun-16 | 30-Jun-16 | 7-Jul-16 | 15-Jul-16 | 21-Jul-16 | 28-Jul-16 | 4-Aug-16 | 10-Aug-16 | 18-Aug-16 | 25-Aug-16 |
|---|----------------------------|-------------------------|-----------|-----------|----------|-----------|-----------|-----------|----------|-----------|-----------|-----------|
| Constituent | Method | Units | Result | Result | Result | Result | Result | Result | Result | Result | Result | Result |
| Alkalinity, Total (as CaCO ₃) | SM2320B | mg/L | 113 | 114 | 113 | 114 | 113 | 114 | 115 | 114 | 113 | 116 |
| Aluminum, Total | EPA 200.8 | µg/L | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Ammonia-N, Dissolved | SM4500NH3 D & EPA 350.1 | mg/L | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Arsenic, Total ¹ | EPA 200.8 | µg/L | - | - | - | - | - | - | - | - | - | - |
| Arsenic, Total | EPA 1640 | µg/L | 0.33 | 0.30 | 0.27 | 0.27 | 0.28 | 0.18 | 0.27 | 0.23 | 0.22 | 0.24 |
| Barium, Dissolved | EPA 200.8 | µg/L | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Bicarbonate (as HCO ₃ -) | SM2320B | mg/L | 138 | 139 | 138 | 139 | 138 | 139 | 140 | 139 | 138 | 142 |
| Boron, Dissolved | EPA 200.7 | mg/L | 3.46 | 3.58 | 3.21 | 3.18 | 3.53 | 3.40 | 3.54 | 3.18 | 3.61 | 3.37 |
| Bromide, Dissolved | EPA 300.0 | mg/L | 37.3 | 40.2 | 50.8 | 39.8 | 44.6 | 52.9 | 31.2 | 27.8 | 31.3 | 48.9 |
| Calcium | EPA 200.7 | mg/L | 489 | 510 | 482 | 471 | 559 | 495 | 486 | 520 | 505 | 490 |
| Calcium, Dissolved | EPA 200.7 | mg/L | 494 | 515 | 467 | 481 | 531 | 493 | 506 | 504 | 510 | 470 |
| Carbamates by HPLC (EPA 531) | EPA 531 | µg/L | - | - | - | - | - | - | - | - | - | - |
| Carbonate as CaCO ₃ | SM2320B | mg/L | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Chloride, Dissolved | EPA 300.0 | mg/L | 17,230 | 17,425 | 17,982 | 16,795 | 17,100 | 18,028 | 18,231 | 18,374 | 17,490 | 17,636 |
| Chlorinated Pesticides and PCB (EPA 50) | EPA 508 | µg/L | - | - | - | - | - | - | - | - | - | - |
| Color, Apparent (Unfiltered) | SM2120B | Color Units | ND | ND | ND | ND | 3 | ND | ND | ND | ND | ND |
| Copper | EPA 200.7 | µg/L | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Copper, Total | EPA 200.8 | µg/L | - | - | - | - | - | - | - | - | - | - |
| DBCP & EDB | EPA 504.1 | µg/L | - | - | - | - | - | - | - | - | - | - |
| Dioxin | EPA 1613 | pg/L | - | - | - | - | - | - | - | - | - | - |
| Diquat (EPA 549) | EPA 549 | µg/L | - | - | - | - | - | - | - | - | - | - |
| Dissolved Anions | Calculation | Meq/L | 536.91 | 541.24 | 558.08 | 524.21 | 532.46 | 563.12 | 564.83 | 568.56 | 545.43 | 546.73 |
| Total Anions | Calculation | Meq/L | 536.91 | 541.24 | 558.08 | 524.21 | 532.46 | 563.12 | 564.83 | 568.56 | 545.43 | 546.73 |
| Dissolved Cations | Calculation | Meq/L | 505.36 | 544.69 | 514.15 | 518.34 | 556.30 | 517.87 | 529.65 | 512.33 | 531.64 | 494.71 |
| Total Cations | Calculation | Meq/L | 495.32 | 523.17 | 511.63 | 499.31 | 583.22 | 514.08 | 509.12 | 523.03 | 528.35 | 527.38 |
| Fluoride, Dissolved | EPA 300.0 | mg/L | ND | 1.2 | ND | 1 | 1.1 | 0.5 | 1.2 | 1.1 | 1.3 | ND |
| Hardness (as CaCO ₃) | SM2340B/Calc | mg/L | 5,907 | 6,009 | 5,799 | 5,611 | 6,531 | 5,918 | 5,785 | 6,038 | 6,310 | 5,671 |
| Hydroxide | SM2320B | mg/L | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Iodide | EPA 9056M | µg/L | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Iron | EPA 200.7 | µg/L | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Iron, Dissolved | EPA 200.7 | µg/L | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Total Kjeldahl Nitrogen, Dissolved | SM4500-NH3 B,C,E & EPA 351 | mg/L | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Lead, Total | EPA 200.8 | µg/L | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Lithium | EPA 200.8 | µg/L | 145 | 162 | 128 | 142 | 150 | 135 | 145 | 142 | 152 | 162 |
| Magnesium | EPA 200.7 | mg/L | 1,140 | 1,150 | 1,120 | 1,080 | 1,250 | 1,140 | 1,110 | 1,150 | 1,230 | 1,080 |
| Magnesium, Dissolved | EPA 200.7 | mg/L | 1,150 | 1,160 | 1,100 | 1,090 | 1,200 | 1,140 | 1,160 | 1,150 | 1,200 | 1,010 |
| Manganese, Dissolved | EPA 200.7 | µg/L | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Manganese, Total | EPA 200.7 | µg/L | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| MBAS (Surfactants) | SM5540C | mg/L | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Nitrate as N | EPA 300.0 | mg/L | - | - | - | - | - | - | - | - | - | - |
| Nitrate as NO ₃ | EPA 300.0 | mg/L | 3 | 3 | 3 | 3 | 3 | 4 | 3 | 3 | 3 | 2 |
| Nitrate+Nitrite as N | EPA 300.0 | mg/L | 0.7 | 0.7 | 0.7 | 0.7 | 0.7 | 0.8 | 0.6 | 0.6 | 0.6 | 0.4 |
| Nitrite as NO ₂ -N, Dissolved | EPA 300.0 | mg/L | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Odor Threshold at 60 C | SM2150B | TON | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| o-Phosphate-P | Hach 8048 & EPA 365.1 | mg/L | 0.11 | 0.11 | 0.10 | 0.11 | 0.10 | 0.10 | 0.10 | 0.11 | 0.11 | 0.10 |
| pH (Field Test) | SM4500-H+B | pH | 7.17 | 7.11 | 7.14 | 7.65 | 7.10 | 7.10 | 7.15 | 7.15 | 7.08 | 7.05 |
| pH (Laboratory) | SM4500-H+B | pH (H) | 7.3 | 7.2 | 7.3 | 7.2 | 7.2 | 7.3 | 7.2 | 7.2 | 7.2 | 7.3 |
| Phenoxy Acid Herbicides (515.3) | EPA 515.3 | µg/L | - | - | - | - | - | - | - | - | - | - |
| Phosphorus, Dissolved Total | HACH 8190 & EPA 365.1 | mg/L | 0.10 | 0.09 | 0.09 | 0.09 | 0.05 | 0.14 | 0.09 | 0.11 | 0.10 | 0.10 |
| Potassium | EPA 200.7 | mg/L | 262 | 276 | 262 | 279 | 317 | 273 | 285 | 285 | 306 | 285 |
| Potassium, Dissolved | EPA 200.7 | mg/L | 264 | 282.9 | 260.2 | 276 | 305 | 277.1 | 291 | 279 | 300 | 277 |
| QC Ratio TDS/SEC | Calculation | - | 0.69 | 0.65 | 0.68 | 0.66 | 0.68 | 0.69 | 0.69 | 0.68 | 0.67 | 0.67 |
| Reg. Org. Compounds (EPA 525) | EPA 525 | µg/L | - | - | - | - | - | - | - | - | - | - |
| Salinity | SM2520B | psu | 29.3 | 29.4 | 29.7 | 29.3 | 29.1 | 29.1 | 28.6 | 29.4 | 29.8 | 29.2 |
| Silica as SiO ₂ , Dissolved | EPA 200.7 | mg/L | 10 | 16 | 14 | 12 | 14 | 9.0 | 12 | 14 | 12 | 11 |
| Sodium | EPA 200.7 | mg/L | 8,515 | 9,104 | 8,936 | 8,731 | 10,215 | 8,933 | 8,879 | 9,084 | 9,060 | 9,351 |
| Sodium, Dissolved | EPA 200.7 | mg/L | 8,720 | 9,570 | 9,050 | 9,140 | 9,730 | 9,020 | 9,230 | 8,860 | 9,190 | 8,760 |
| Specific Conductance (E.C.) | SM2510B | µmhos/cm | 45,330 | 45,380 | 45,800 | 45,240 | 45,000 | 45,070 | 44,370 | 45,360 | 46,050 | 45,200 |
| Specific Conductance (E.C.) (Field) | SM2510B | µmhos/cm | 45,663 | 45,769 | 45,763 | 45,620 | 45,544 | 45,613 | 45,770 | 45,632 | 46,081 | 45,509 |
| Strontium, Dissolved | EPA 200.8 | µg/L | 7,438 | 7,460 | 7,791 | 7,147 | 7,366 | 7,164 | 7,552 | 7,884 | 7,620 | 7,785 |
| Sulfate, Dissolved | EPA 300.0 | mg/L | 2,309 | 2,250 | 2,299 | 2,286 | 2,267 | 2,476 | 2,296 | 2,282 | 2,370 | 2,221 |
| Temperature (Field) | SM2550 | ° C | 15.9 | 15.8 | 15.9 | 15.9 | 16.2 | 16.1 | 15.9 | 16.0 | 15.9 | 15.9 |
| Total Diss. Solids | SM2540C | mg/L | 31,300 | 29,700 | 31,000 | 29,800 | 30,700 | 30,900 | | | | |

Table 2: Summary of Test Slant Well Laboratory Water Quality Results

| | | Sample Collection Date: | 1-Sep-16 | 8-Sep-16 | 15-Sep-16 | 22-Sep-16 | 30-Sep-16 | 7-Oct-16 | 13-Oct-16 | 20-Oct-16 | 27-Oct-16 | 3-Nov-16 |
|---|----------------------------|-------------------------|----------|----------|-----------|-----------|-----------|----------|-----------|-----------|-----------|----------|
| Constituent | Method | Units | Result | Result | Result | Result | Result | Result | Result | Result | Result | Result |
| Alkalinity, Total (as CaCO ₃) | SM2320B | mg/L | 116 | 117 | 116 | 115 | 117 | 115 | 113 | 118 | 116 | 114 |
| Aluminum, Total | EPA 200.8 | µg/L | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Ammonia-N, Dissolved | SM4500NH3 D & EPA 350.1 | mg/L | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Arsenic, Total ¹ | EPA 200.8 | µg/L | - | - | - | - | - | - | - | - | - | - |
| Arsenic, Total | EPA 1640 | µg/L | 0.27 | 0.23 | 0.22 | 0.22 | 0.22 | 0.21 | 0.25 | 0.27 | 0.23 | 0.46 |
| Barium, Dissolved | EPA 200.8 | µg/L | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Bicarbonate (as HCO ₃ -) | SM2320B | mg/L | 142 | 143 | 142 | 140 | 143 | 140 | 138 | 144 | 142 | 139 |
| Boron, Dissolved | EPA 200.7 | mg/L | 3.20 | 3.23 | 3.20 | 3.17 | 3.41 | 3.36 | 3.40 | 3.34 | 3.33 | 3.19 |
| Bromide, Dissolved | EPA 300.0 | mg/L | 56.4 | 51.8 | 47.2 | 54.0 | 50 | 50.0 | 50.4 | 50.9 | 51.2 | 50.6 |
| Calcium | EPA 200.7 | mg/L | 461 | 461 | 460 | 494 | 492 | 508 | 510 | 471 | 493 | 488 |
| Calcium, Dissolved | EPA 200.7 | mg/L | 467 | 457 | 454 | 488 | 495 | 458 | 473 | 472 | 492 | 488 |
| Carbamates by HPLC (EPA 531) | EPA 531 | µg/L | - | - | - | - | - | - | - | - | - | - |
| Carbonate as CaCO ₃ | SM2320B | mg/L | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Chloride, Dissolved | EPA 300.0 | mg/L | 16,683 | 16,820 | 15,643 | 16,179 | 16,705 | 16,568 | 16,897 | 17,065 | 17,350 | 16,949 |
| Chlorinated Pesticides and PCB (EPA 50) | EPA 508 | µg/L | - | - | - | - | - | - | - | - | - | - |
| Color, Apparent (Unfiltered) | SM2120B | Color Units | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Copper | EPA 200.7 | µg/L | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Copper, Total | EPA 200.8 | µg/L | - | - | - | - | - | - | - | - | - | - |
| DBCP & EDB | EPA 504.1 | µg/L | - | - | - | - | - | - | - | - | - | - |
| Dioxin | EPA 1613 | pg/L | - | - | - | - | - | - | - | - | - | - |
| Diquat (EPA 549) | EPA 549 | µg/L | - | - | - | - | - | - | - | - | - | - |
| Dissolved Anions | Calculation | Meq/L | 521.27 | 526.22 | 493.31 | 508.70 | 523.28 | 519.14 | 532.46 | 535.53 | 543.47 | 532.28 |
| Total Anions | Calculation | Meq/L | 521.27 | 526.22 | 493.31 | 508.70 | 523.28 | 519.14 | 532.46 | 535.53 | 543.47 | 532.28 |
| Dissolved Cations | Calculation | Meq/L | 501.83 | 487.61 | 466.60 | 537.27 | 528.58 | 521.64 | 545.47 | 503.68 | 542.16 | 496.51 |
| Total Cations | Calculation | Meq/L | 512.46 | 489.96 | 483.65 | 530.53 | 543.94 | 537.38 | 544.72 | 516.26 | 549.54 | 534.35 |
| Fluoride, Dissolved | EPA 300.0 | mg/L | 0.8 | 1.1 | 0.9 | 1.0 | 0.9 | 1.1 | 0.9 | 1.0 | 0.9 | 0.8 |
| Hardness (as CaCO ₃) | SM2340B/Calc | mg/L | 5,286 | 5,619 | 5,534 | 5,924 | 5,874 | 5,918 | 5,964 | 5,764 | 5,781 | 5,728 |
| Hydroxide | SM2320B | mg/L | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Iodide | EPA 9056M | µg/L | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Iron | EPA 200.7 | µg/L | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Iron, Dissolved | EPA 200.7 | µg/L | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Total Kjeldahl Nitrogen, Dissolved | SM4500-NH3 B,C,E & EPA 351 | mg/L | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Lead, Total | EPA 200.8 | µg/L | ND | ND | ND | ND | ND | ND | 6 | ND | ND | ND |
| Lithium | EPA 200.8 | µg/L | 166 | 156 | 153 | 132 | 138 | 124 | 141 | 149 | 140 | 141 |
| Magnesium | EPA 200.7 | mg/L | 1,000 | 1,080 | 1,060 | 1,140 | 1,130 | 1,130 | 1,140 | 1,110 | 1,100 | 1,100 |
| Magnesium, Dissolved | EPA 200.7 | mg/L | 968 | 1,060 | 1,040 | 1,060 | 1,130 | 1,090 | 1,120 | 1,110 | 1,090 | 1,100 |
| Manganese, Dissolved | EPA 200.7 | µg/L | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Manganese, Total | EPA 200.7 | µg/L | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| MBAS (Surfactants) | SM5540C | mg/L | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Nitrate as N | EPA 300.0 | mg/L | - | - | - | - | - | - | - | - | - | - |
| Nitrate as NO ₃ | EPA 300.0 | mg/L | 3 | 5 | 4 | 4 | 5 | 4 | 4 | 4 | 4 | 4 |
| Nitrate+Nitrite as N | EPA 300.0 | mg/L | 0.6 | 1.1 | 1.1 | 1.0 | 1.1 | 1.0 | 1.2 | 1.1 | 1.3 | 1.1 |
| Nitrite as NO ₂ -N, Dissolved | EPA 300.0 | mg/L | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Odor Threshold at 60 C | SM2150B | TON | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| o-Phosphate-P | Hach 8048 & EPA 365.1 | mg/L | 0.11 | 0.10 | 0.10 | 0.10 | 0.10 | 0.09 | 0.08 | 0.09 | 0.09 | 0.09 |
| pH (Field Test) | SM4500-H+B | pH | 7.06 | 7.06 | 7.08 | 7.09 | 7.09 | 7.10 | 7.02 | 7.02 | 7.03 | 7.04 |
| pH (Laboratory) | SM4500-H+B | pH (H) | 7.2 | 7.2 | 7.1 | 7.2 | 7.0 | 7.2 | 7.2 | 7.2 | 7.2 | 7.2 |
| Phenoxy Acid Herbicides (515.3) | EPA 515.3 | µg/L | - | - | - | - | - | - | - | - | - | - |
| Phosphorus, Dissolved Total | HACH 8190 & EPA 365.1 | mg/L | 0.10 | 0.07 | 0.11 | 0.08 | 0.07 | 0.10 | 0.06 | 0.09 | 0.11 | 0.11 |
| Potassium | EPA 200.7 | mg/L | 269 | 273 | 273 | 271 | 283 | 286 | 285 | 328 | 304 | 308 |
| Potassium, Dissolved | EPA 200.7 | mg/L | 271.0 | 272 | 269 | 278 | 282 | 276 | 286 | 321 | 301 | 292 |
| QC Ratio TDS/SEC | Calculation | - | 0.69 | 0.66 | 0.67 | 0.66 | 0.68 | 0.69 | 0.67 | 0.66 | 0.66 | 0.69 |
| Reg. Org. Compounds (EPA 525) | EPA 525 | µg/L | - | - | - | - | - | - | - | - | - | - |
| Salinity | SM2520B | psu | 29.4 | 29.3 | 29.3 | 29.6 | 29.4 | 29.4 | 29.5 | 29.8 | 29.7 | 29.8 |
| Silica as SiO ₂ , Dissolved | EPA 200.7 | mg/L | 12 | 12 | 13 | 12 | 13 | 11 | 14 | 12 | 15 | 15 |
| Sodium | EPA 200.7 | mg/L | 9,202 | 8,531 | 8,425 | 9,567 | 9,636 | 9,467 | 9,613 | 9,035 | 9,808 | 9,462 |
| Sodium, Dissolved | EPA 200.7 | mg/L | 9,010 | 8,520 | 8,080 | 9,680 | 9,280 | 9,240 | 9,710 | 8,750 | 9,660 | 8,590 |
| Specific Conductance (E.C.) | SM2510B | µmhos/cm | 45,450 | 45,260 | 45,250 | 45,680 | 45,380 | 45,420 | 45,610 | 46,000 | 45,800 | 45,980 |
| Specific Conductance (E.C.) (Field) | SM2510B | µmhos/cm | 45,669 | 45,720 | 45,362 | 45,682 | 45,648 | 45,682 | 45,775 | 46,308 | 46,223 | 46,352 |
| Strontium, Dissolved | EPA 200.8 | µg/L | 7,458 | 7,875 | 7,415 | 7,158 | 7,293 | 7,430 | 7,259 | 7,542 | 7,275 | 7,302 |
| Sulfate, Dissolved | EPA 300.0 | mg/L | 2,285 | 2,337 | 2,355 | 2,365 | 2,353 | 2,342 | 2,537 | 2,452 | 2,448 | 2,457 |
| Temperature (Field) | SM2550 | ° C | 16.1 | 16.2 | 16.1 | 16.1 | 16.1 | 16.4 | 16.3 | 16.2 | 16.3 | 16.3 |
| Total Diss. Solids | SM2540C | mg/L | 31,200 | 30,000 | 30,200 | 30,300 | 30,800 | 31,400 | 30,500 | | | |

Table 2: Summary of Test Slant Well Laboratory Water Quality Results

| | | Sample Collection Date: | 10-Nov-16 | 17-Nov-16 | 23-Nov-16 | 1-Dec-16 | 8-Dec-16 | 15-Dec-16 | 21-Dec-16 | 12-Jan-17 | 19-Jan-17 | 26-Jan-17 |
|---|----------------------------|-------------------------|-----------|-----------|-----------|----------|----------|-----------|-----------|-----------|-----------|-----------|
| Constituent | Method | Units | Result | Result | Result | Result | Result | Result | Result | Result | Result | Result |
| Alkalinity, Total (as CaCO ₃) | SM2320B | mg/L | 113 | 115 | 114 | 112 | 106 | 111 | 112 | 107 | 112 | 117 |
| Aluminum, Total | EPA 200.8 | µg/L | ND | ND | ND | ND | ND | ND | 55 | 160 | ND | ND |
| Ammonia-N, Dissolved | SM4500NH3 D & EPA 350.1 | mg/L | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Arsenic, Total ¹ | EPA 200.8 | µg/L | - | - | - | - | - | - | - | - | - | - |
| Arsenic, Total | EPA 1640 | µg/L | 0.25 | 0.27 | 0.27 | 0.26 | 0.21 | 0.22 | 0.26 | 0.20 | 0.21 | 0.28 |
| Barium, Dissolved | EPA 200.8 | µg/L | ND | ND | ND | ND | 69 | ND | 65 | 66 | ND | ND |
| Bicarbonate (as HCO ₃ -) | SM2320B | mg/L | 138 | 140 | 139 | 137 | 129 | 135 | 137 | 131 | 137 | 143 |
| Boron, Dissolved | EPA 200.7 | mg/L | 3.73 | 3.84 | 3.29 | 3.42 | 3.09 | 3.10 | 3.73 | 3.2 | 3.30 | 3.42 |
| Bromide, Dissolved | EPA 300.0 | mg/L | 53.0 | 50 | 52 | 54 | 51 | 54 | 57 | 56.7 | 55.8 | 58.6 |
| Calcium | EPA 200.7 | mg/L | 493 | 517 | 462 | 532 | 540 | 549 | 542 | 407 | 481 | 467 |
| Calcium, Dissolved | EPA 200.7 | mg/L | 503 | 531 | 453 | 536 | 539 | 529 | 543 | 401 | 485 | 466 |
| Carbamates by HPLC (EPA 531) | EPA 531 | µg/L | - | - | - | - | - | - | - | - | - | - |
| Carbonate as CaCO ₃ | SM2320B | mg/L | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Chloride, Dissolved | EPA 300.0 | mg/L | 17,651 | 17,082 | 17,145 | 17,215 | 17,283 | 18,271 | 16,460 | 16,984 | 16,509 | 17,164 |
| Chlorinated Pesticides and PCB (EPA 50) | EPA 508 | µg/L | - | - | - | - | - | - | - | - | - | - |
| Color, Apparent (Unfiltered) | SM2120B | Color Units | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Copper | EPA 200.7 | µg/L | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Copper, Total | EPA 200.8 | µg/L | - | - | - | - | - | - | - | - | - | - |
| DBCP & EDB | EPA 504.1 | µg/L | - | - | - | - | - | - | - | - | - | - |
| Dioxin | EPA 1613 | pg/L | - | - | - | - | - | - | - | - | - | - |
| Diquat (EPA 549) | EPA 549 | µg/L | - | - | - | - | - | - | - | - | - | - |
| Dissolved Anions | Calculation | Meq/L | 540.88 | 527.60 | 533.74 | 528.40 | 541.73 | 569.71 | 518.18 | 532.63 | 523.58 | 537.43 |
| Total Anions | Calculation | Meq/L | 540.88 | 527.60 | 533.74 | 528.40 | 541.73 | 569.71 | 518.18 | 532.63 | 523.58 | 537.43 |
| Dissolved Cations | Calculation | Meq/L | 545.78 | 565.18 | 540.61 | 582.47 | 562.53 | 557.54 | 555.00 | 506.56 | 514.77 | 517.04 |
| Total Cations | Calculation | Meq/L | 536.10 | 570.96 | 527.00 | 558.83 | 559.45 | 569.62 | 580.06 | 509.59 | 505.75 | 518.85 |
| Fluoride, Dissolved | EPA 300.0 | mg/L | 0.5 | 0.8 | 0.9 | 0.5 | 1.0 | 0.9 | 1.2 | 0.9 | ND | 1.0 |
| Hardness (as CaCO ₃) | SM2340B/Calc | mg/L | 6,185 | 6,401 | 5,601 | 6,344 | 6,451 | 6,452 | 6,542 | 5,678 | 5,961 | 6,050 |
| Hydroxide | SM2320B | mg/L | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Iodide | EPA 9056M | µg/L | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Iron | EPA 200.7 | µg/L | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Iron, Dissolved | EPA 200.7 | µg/L | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Total Kjeldahl Nitrogen, Dissolved | SM4500-NH3 B,C,E & EPA 351 | mg/L | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Lead, Total | EPA 200.8 | µg/L | ND | ND | ND | 4 | ND | ND | - | ND | ND | ND |
| Lithium | EPA 200.8 | µg/L | 146 | 162 | 139 | 141 | 146 | 148 | ND | ND | 161 | 165 |
| Magnesium | EPA 200.7 | mg/L | 1,200 | 1,240 | 1,080 | 1,220 | 1,240 | 1,230 | 1,260 | 1,130 | 1,160 | 1,190 |
| Magnesium, Dissolved | EPA 200.7 | mg/L | 1,220 | 1,250 | 1,070 | 1,260 | 1,240 | 1,210 | 1,240 | 1,140 | 1,150 | 1,170 |
| Manganese, Dissolved | EPA 200.7 | µg/L | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Manganese, Total | EPA 200.7 | µg/L | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| MBAS (Surfactants) | SM5540C | mg/L | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Nitrate as N | EPA 300.0 | mg/L | - | - | - | - | - | - | - | - | - | - |
| Nitrate as NO ₃ | EPA 300.0 | mg/L | ND | 4 | 4 | 4 | 5 | 4 | 4 | 3 | 2 | 2 |
| Nitrate+Nitrite as N | EPA 300.0 | mg/L | 0.7 | 1.0 | 0.8 | 0.8 | 1.1 | 1.0 | 0.9 | 0.6 | 0.6 | 0.4 |
| Nitrite as NO ₂ -N, Dissolved | EPA 300.0 | mg/L | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Odor Threshold at 60 C | SM2150B | TON | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| o-Phosphate-P | Hach 8048 & EPA 365.1 | mg/L | 0.09 | 0.10 | 0.09 | 0.09 | 0.09 | 0.10 | 0.09 | 0.09 | 0.09 | 0.09 |
| pH (Field Test) | SM4500-H+B | pH | 7.05 | 7.05 | 7.05 | 7.07 | 7.07 | 7.07 | 7.07 | 7.37 | 6.94 | 7.23 |
| pH (Laboratory) | SM4500-H+B | pH (H) | 7.2 | 7.2 | 7.2 | 7.2 | 7.3 | 7.1 | 7.2 | 7.2 | 7.2 | 7.3 |
| Phenoxy Acid Herbicides (515.3) | EPA 515.3 | µg/L | - | - | - | - | - | - | - | - | - | - |
| Phosphorus, Dissolved Total | HACH 8190 & EPA 365.1 | mg/L | 0.09 | 0.09 | 0.09 | 0.09 | 0.09 | 0.08 | 0.08 | 0.09 | 0.08 | 0.09 |
| Potassium | EPA 200.7 | mg/L | 314 | 331 | 284 | 317 | 316 | 313 | 322 | 334 | 286 | 304 |
| Potassium, Dissolved | EPA 200.7 | mg/L | 326 | 338 | 279 | 326 | 319 | 308 | 323 | 331 | 285 | 303 |
| QC Ratio TDS/SEC | Calculation | - | 0.67 | 0.67 | 0.69 | 0.68 | 0.68 | 0.66 | 0.66 | 0.66 | 0.70 | 0.67 |
| Reg. Org. Compounds (EPA 525) | EPA 525 | µg/L | - | - | - | - | - | - | - | - | - | - |
| Salinity | SM2520B | psu | 30.0 | 30.1 | 30.0 | 30.2 | 30.0 | 29.7 | 29.7 | 29.9 | 29.3 | 29.6 |
| Silica as SiO ₂ , Dissolved | EPA 200.7 | mg/L | 16 | 17 | 12 | 20 | 11 | ND | 13 | ND | 11 | 9.0 |
| Sodium | EPA 200.7 | mg/L | 9,304 | 9,992 | 9,375 | 9,742 | 9,710 | 9,954 | 10,140 | 8,910 | 8,712 | 8,962 |
| Sodium, Dissolved | EPA 200.7 | mg/L | 9,470 | 9,820 | 9,720 | 10,200 | 9,780 | 9,740 | 9,600 | 8,830 | 8,770 | 8,960 |
| Specific Conductance (E.C.) | SM2510B | µmhos/cm | 46,230 | 46,370 | 46,270 | 46,540 | 46,330 | 45,810 | 45,840 | 46,060 | 45,310 | 45,700 |
| Specific Conductance (E.C.) (Field) | SM2510B | µmhos/cm | 46,803 | 46,648 | 46,445 | 46,511 | 46,179 | 46,097 | 46,063 | 46,477 | 45,300 | 46,236 |
| Strontium, Dissolved | EPA 200.8 | µg/L | 7,700 | 7,183 | 7,212 | 7,624 | 7,583 | 7,530 | 6,800 | 6,700 | 7,229 | 7,372 |
| Sulfate, Dissolved | EPA 300.0 | mg/L | 1,920 | 2,052 | 2,262 | 1,911 | 2,466 | 2,465 | 2,441 | 2,431 | 2,363 | 2,408 |
| Temperature (Field) | SM2550 | ° C | 16.4 | 16.1 | 16.1 | 15.9 | 15.6 | 15.6 | 15.4 | 15.3 | 15.3 | 15.1 |
| Total Diss. Solids | SM2540C | mg/L | 30,900 | 31,000 | 31,800 | 31,500 | 31,600 | 30,400 | 30,200 | 30 | | |

Table 2: Summary of Test Slant Well Laboratory Water Quality Results

| | | Sample Collection Date: | 2-Feb-17 | 9-Feb-17 | 15-Feb-17 | 24-Feb-17 | 1-Mar-17 | 8-Mar-17 | 15-Mar-17 | 23-Mar-17 | 29-Mar-17 | 5-Apr-17 |
|---|----------------------------|-------------------------|----------|----------|-----------|-----------|----------|----------|-----------|-----------|-----------|----------|
| Constituent | Method | Units | Result | Result | Result | Result | Result | Result | Result | Result | Result | Result |
| Alkalinity, Total (as CaCO ₃) | SM2320B | mg/L | 114 | 117 | 113 | 110 | 113 | 112 | 110 | 109 | 107 | 108 |
| Aluminum, Total | EPA 200.8 | µg/L | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Ammonia-N, Dissolved | SM4500NH3 D & EPA 350.1 | mg/L | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Arsenic, Total ¹ | EPA 200.8 | µg/L | - | - | - | - | - | - | - | - | - | - |
| Arsenic, Total | EPA 1640 | µg/L | 0.26 | 0.20 | 0.24 | 0.30 | 0.30 | 0.29 | 0.26 | 0.28 | 0.29 | 0.30 |
| Barium, Dissolved | EPA 200.8 | µg/L | ND | ND | ND | ND | ND | ND | ND | ND | 68 | ND |
| Bicarbonate (as HCO ₃ -) | SM2320B | mg/L | 139 | 143 | 138 | 134 | 138 | 137 | 134 | 133 | 131 | 132 |
| Boron, Dissolved | EPA 200.7 | mg/L | 3.36 | 3.37 | 3.31 | 3.51 | 3.56 | 3.25 | 3.27 | 3.11 | 3.44 | 3.21 |
| Bromide, Dissolved | EPA 300.0 | mg/L | 55.4 | 55.2 | 55.6 | 56.1 | 55.7 | 55.1 | 53.7 | 52.3 | 54.1 | 52.2 |
| Calcium | EPA 200.7 | mg/L | 486 | 497 | 467 | 492 | 464 | 459 | 478 | 405 | 398 | 415 |
| Calcium, Dissolved | EPA 200.7 | mg/L | 487 | 484 | 466 | 481 | 473 | 477 | 464 | 420 | 420 | 406 |
| Carbamates by HPLC (EPA 531) | EPA 531 | µg/L | - | - | - | - | - | - | - | - | - | - |
| Carbonate as CaCO ₃ | SM2320B | mg/L | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Chloride, Dissolved | EPA 300.0 | mg/L | 16,638 | 16,746 | 16,794 | 17,028 | 16,860 | 16,522 | 16,264 | 16,086 | 16,048 | 16,370 |
| Chlorinated Pesticides and PCB (EPA 508) | EPA 508 | µg/L | - | - | - | - | - | - | - | - | - | - |
| Color, Apparent (Unfiltered) | SM2120B | Color Units | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Copper | EPA 200.7 | µg/L | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Copper, Total | EPA 200.8 | µg/L | - | - | - | - | - | - | - | - | - | - |
| DBCP & EDB | EPA 504.1 | µg/L | - | - | - | - | - | - | - | - | - | - |
| Dioxin | EPA 1613 | pg/L | - | - | - | - | - | - | - | - | - | - |
| Diquat (EPA 549) | EPA 549 | µg/L | - | - | - | - | - | - | - | - | - | - |
| Dissolved Anions | Calculation | Meq/L | 521.35 | 524.61 | 526.53 | 532.85 | 525.63 | 516.22 | 508.39 | 502.66 | 503.45 | 512.21 |
| Total Anions | Calculation | Meq/L | 521.35 | 524.61 | 526.53 | 532.85 | 525.63 | 516.22 | 508.39 | 502.66 | 503.45 | 512.21 |
| Dissolved Cations | Calculation | Meq/L | 516.21 | 512.58 | 496.59 | 497.38 | 492.63 | 488.89 | 494.69 | 495.32 | 500.18 | 483.86 |
| Total Cations | Calculation | Meq/L | 530.41 | 541.45 | 489.87 | 501.11 | 490.19 | 489.96 | 488.39 | 485.02 | 462.87 | 492.88 |
| Fluoride, Dissolved | EPA 300.0 | mg/L | 0.7 | 0.9 | 0.9 | 0.8 | 0.8 | 0.9 | 0.8 | 0.9 | ND | 0.7 |
| Hardness (as CaCO ₃) | SM2340B/Calc | mg/L | 6,258 | 6,273 | 5,609 | 5,927 | 5,903 | 5,692 | 5,843 | 5,327 | 5,515 | 5,714 |
| Hydroxide | SM2320B | mg/L | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Iodide | EPA 9056M | µg/L | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Iron | EPA 200.7 | µg/L | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Iron, Dissolved | EPA 200.7 | µg/L | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Total Kjeldahl Nitrogen, Dissolved | SM4500-NH3 B,C,E & EPA 351 | mg/L | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Lead, Total | EPA 200.8 | µg/L | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Lithium | EPA 200.8 | µg/L | 188 | 97 | 155 | 146 | 144 | 151 | 155 | 224 | 182 | 186 |
| Magnesium | EPA 200.7 | mg/L | 1,220 | 1,220 | 1,080 | 1,140 | 1,150 | 1,100 | 1,130 | 1,050 | 1,100 | 1,140 |
| Magnesium, Dissolved | EPA 200.7 | mg/L | 1,210 | 1,190 | 1,090 | 1,130 | 1,180 | 1,120 | 1,130 | 1,090 | 1,150 | 1,120 |
| Manganese, Dissolved | EPA 200.7 | µg/L | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Manganese, Total | EPA 200.7 | µg/L | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| MBAS (Surfactants) | SM5540C | mg/L | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Nitrate as N | EPA 300.0 | mg/L | - | - | - | - | - | - | - | - | - | - |
| Nitrate as NO ₃ | EPA 300.0 | mg/L | 3 | 3 | 2 | 3 | 5 | 4 | 5 | 5 | 3 | 3 |
| Nitrate+Nitrite as N | EPA 300.0 | mg/L | 0.7 | 0.8 | 0.8 | 0.8 | 1.1 | 1.0 | 1.0 | 1.0 | 0.7 | 0.7 |
| Nitrite as NO ₂ -N, Dissolved | EPA 300.0 | mg/L | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Odor Threshold at 60 C | SM2150B | TON | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| o-Phosphate-P | Hach 8048 & EPA 365.1 | mg/L | 0.09 | 0.08 | 0.08 | 0.10 | 0.10 | 0.10 | 0.09 | 0.09 | 0.11 | 0.08 |
| pH (Field Test) | SM4500-H+B | pH | 7.07 | 7.01 | 7.00 | 7.13 | 7.09 | 7.08 | 7.00 | 7.22 | 7.22 | 7.07 |
| pH (Laboratory) | SM4500-H+B | pH (H) | 7.2 | 7.3 | 7.2 | 7.3 | 7.2 | 7.2 | 7.2 | 7.3 | 7.3 | 7.2 |
| Phenoxy Acid Herbicides (515.3) | EPA 515.3 | µg/L | - | - | - | - | - | - | - | - | - | - |
| Phosphorus, Dissolved Total | HACH 8190 & EPA 365.1 | mg/L | 0.09 | 0.09 | 0.10 | 0.08 | 0.08 | 0.08 | 0.08 | 0.08 | 0.09 | 0.09 |
| Potassium | EPA 200.7 | mg/L | 306 | 301 | 285 | 299 | 284 | 272 | 278 | 272 | 276 | 289 |
| Potassium, Dissolved | EPA 200.7 | mg/L | 305 | 301 | 288 | 297 | 289 | 277 | 276 | 277 | 291 | 287 |
| QC Ratio TDS/SEC | Calculation | - | 0.66 | 0.65 | 0.66 | 0.69 | 0.65 | 0.67 | 0.65 | 0.67 | 0.69 | 0.66 |
| Reg. Org. Compounds (EPA 525) | EPA 525 | µg/L | - | - | - | - | - | - | - | - | - | - |
| Salinity | SM2520B | psu | 29.3 | 29.7 | 29.4 | 29.3 | 29.0 | 28.8 | 28.9 | 28.4 | 28.5 | 28.5 |
| Silica as SiO ₂ , Dissolved | EPA 200.7 | mg/L | 12 | 13 | 14 | 13 | 13 | 10 | ND | 12 | 13 | 12 |
| Sodium | EPA 200.7 | mg/L | 9,148 | 9,392 | 8,515 | 8,623 | 8,394 | 8,496 | 8,378 | 8,539 | 7,941 | 8,528 |
| Sodium, Dissolved | EPA 200.7 | mg/L | 8,840 | 8,800 | 8,650 | 8,570 | 8,380 | 8,410 | 8,540 | 8,680 | 8,670 | 8,370 |
| Specific Conductance (E.C.) | SM2510B | µmhos/cm | 45,270 | 45,820 | 45,460 | 45,310 | 44,910 | 44,540 | 44,710 | 44,060 | 44,140 | 44,200 |
| Specific Conductance (E.C.) (Field) | SM2510B | µmhos/cm | 45,256 | 45,414 | 45,429 | 45,816 | 44,951 | 44,725 | 44,351 | 44,064 | 44,279 | 44,184 |
| Strontium, Dissolved | EPA 200.8 | µg/L | 7,066 | 7,254 | 7,194 | 7,238 | 7,093 | 7,271 | 7,197 | 8,222 | 7,208 | 7,922 |
| Sulfate, Dissolved | EPA 300.0 | mg/L | 2,352 | 2,359 | 2,390 | 2,379 | 2,256 | 2,264 | 2,240 | 2,208 | 2,298 | 2,284 |
| Temperature (Field) | SM2550 | ° C | 15.3 | 15.2 | 15.3 | 15.0 | 15 | 15.1 | 15.0 | 15.2 | 15.0 | 15.0 |
| Total Diss. Solids | SM2540C | mg/L | 29,900 | 29,800 | 30,000 | 31,100 | 29,100 | 29,700 | 29,100 | | | |

Table 2: Summary of Test Slant Well Laboratory Water Quality Results

| | | Sample Collection Date: | 13-Apr-17 | 19-Apr-17 | 26-Apr-17 | 3-May-17 | 10-May-17 | 18-May-17 | 24-May-17 | 31-May-17 | 8-Jun-17 | 14-Jun-17 |
|---|----------------------------|-------------------------|-----------|-----------|-----------|----------|-----------|-----------|-----------|-----------|----------|-----------|
| Constituent | Method | Units | Result | Result | Result | Result | Result | Result | Result | Result | Result | Result |
| Alkalinity, Total (as CaCO ₃) | SM2320B | mg/L | 107 | 108 | 108 | 109 | 108 | 108 | 108 | 111 | 113 | 113 |
| Aluminum, Total | EPA 200.8 | µg/L | ND | 116 | 106 | ND | ND | ND | ND | ND | ND | ND |
| Ammonia-N, Dissolved | SM4500NH3 D & EPA 350.1 | mg/L | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Arsenic, Total ¹ | EPA 200.8 | µg/L | - | - | - | - | - | - | - | - | - | - |
| Arsenic, Total | EPA 1640 | µg/L | 0.29 | 0.29 | 0.30 | 0.33 | 0.34 | 0.29 | 0.32 | 0.32 | 0.30 | 0.30 |
| Barium, Dissolved | EPA 200.8 | µg/L | ND | ND | ND | ND | ND | ND | ND | ND | 72 | ND |
| Bicarbonate (as HCO ₃ -) | SM2320B | mg/L | 131 | 132 | 132 | 133 | 132 | 132 | 132 | 135 | 138 | 138 |
| Boron, Dissolved | EPA 200.7 | mg/L | 2.87 | 3.06 | 2.86 | 3.2 | 3.13 | 3.34 | 3.33 | 2.77 | 3.55 | 2.84 |
| Bromide, Dissolved | EPA 300.0 | mg/L | 51.9 | 55.3 | 54.5 | 54.1 | 55.9 | 55.7 | 56.6 | 53.9 | 62.2 | 57 |
| Calcium | EPA 200.7 | mg/L | 442 | 460 | 439 | 439 | 464 | 462 | 456 | 521 | 500 | 494 |
| Calcium, Dissolved | EPA 200.7 | mg/L | 450 | 418 | 429 | 433 | 464 | 469 | 478 | 526 | 496 | 490 |
| Carbamates by HPLC (EPA 531) | EPA 531 | µg/L | - | - | - | - | - | - | - | - | - | - |
| Carbonate as CaCO ₃ | SM2320B | mg/L | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Chloride, Dissolved | EPA 300.0 | mg/L | 16,528 | 16,171 | 15,973 | 15,733 | 16,016 | 15,903 | 15,975 | 15,393 | 16,064 | 15,908 |
| Chlorinated Pesticides and PCB (EPA 508) | EPA 508 | µg/L | - | - | - | - | - | - | - | - | - | - |
| Color, Apparent (Unfiltered) | SM2120B | Color Units | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Copper | EPA 200.7 | µg/L | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Copper, Total | EPA 200.8 | µg/L | - | - | - | - | - | - | - | - | - | - |
| DBCP & EDB | EPA 504.1 | µg/L | - | - | - | - | - | - | - | - | - | - |
| Dioxin | EPA 1613 | pg/L | - | - | - | - | - | - | - | - | - | - |
| Diquat (EPA 549) | EPA 549 | µg/L | - | - | - | - | - | - | - | - | - | - |
| Dissolved Anions | Calculation | Meq/L | 516.78 | 506.03 | 500.60 | 493.11 | 501.27 | 498.04 | 499.89 | 482.94 | 502.84 | 498.13 |
| Total Anions | Calculation | Meq/L | 516.78 | 506.03 | 500.60 | 493.11 | 501.27 | 498.04 | 499.89 | 482.94 | 502.84 | 498.13 |
| Dissolved Cations | Calculation | Meq/L | 496.81 | 518.02 | 487.93 | 457.64 | 483.41 | 511.09 | 529.98 | 511.80 | 539.35 | 538.05 |
| Total Cations | Calculation | Meq/L | 479.82 | 531.51 | 486.29 | 470.10 | 483.80 | 499.09 | 514.21 | 502.48 | 540.68 | 555.31 |
| Fluoride, Dissolved | EPA 300.0 | mg/L | ND | 0.8 | 0.9 | 0.7 | 0.8 | 0.8 | 0.8 | 0.8 | 0.8 | 0.8 |
| Hardness (as CaCO ₃) | SM2340B/Calc | mg/L | 5,403 | 5,378 | 5,268 | 5,255 | 5,503 | 5,675 | 5,796 | 5,790 | 5,745 | 5,916 |
| Hydroxide | SM2320B | mg/L | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Iodide | EPA 9056M | µg/L | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Iron | EPA 200.7 | µg/L | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Iron, Dissolved | EPA 200.7 | µg/L | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Total Kjeldahl Nitrogen, Dissolved | SM4500-NH3 B,C,E & EPA 351 | mg/L | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Lead, Total | EPA 200.8 | µg/L | ND | ND | ND | ND | ND | ND | ND | - | ND | ND |
| Lithium | EPA 200.8 | µg/L | 184 | 177 | 187 | 154 | 158 | 160 | 145 | 134 | 175 | 173 |
| Magnesium | EPA 200.7 | mg/L | 1,040 | 1,030 | 1,010 | 1,010 | 1,060 | 1,100 | 1,130 | 1,090 | 1,090 | 1,140 |
| Magnesium, Dissolved | EPA 200.7 | mg/L | 1,080 | 1,150 | 921 | 973 | 1,051 | 1,130 | 1,120 | 1,120 | 1,120 | 1,120 |
| Manganese, Dissolved | EPA 200.7 | µg/L | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Manganese, Total | EPA 200.7 | µg/L | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| MBAS (Surfactants) | SM5540C | mg/L | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Nitrate as N | EPA 300.0 | mg/L | - | - | - | - | - | - | - | - | - | - |
| Nitrate as NO ₃ | EPA 300.0 | mg/L | 3 | 7 | 7 | 4 | 4 | 4 | 4 | 4 | 4 | 4 |
| Nitrate+Nitrite as N | EPA 300.0 | mg/L | 0.8 | 1.5 | 1.5 | 1.1 | 0.9 | 1.0 | 0.9 | 0.9 | 0.9 | 0.9 |
| Nitrite as NO ₂ -N, Dissolved | EPA 300.0 | mg/L | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Odor Threshold at 60 C | SM2150B | TON | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 1 | 1 |
| o-Phosphate-P | Hach 8048 & EPA 365.1 | mg/L | 0.09 | 0.08 | 0.08 | 0.08 | 0.08 | 0.09 | 0.08 | 0.08 | 0.08 | 0.08 |
| pH (Field Test) | SM4500-H+B | pH | 7.08 | 7.08 | 7.08 | 7.08 | 7.08 | 7.01 | 7.02 | 7.02 | 6.98 | 7.16 |
| pH (Laboratory) | SM4500-H+B | pH (H) | 6.8 | 7.1 | 7.2 | 7.3 | 7.3 | 7.2 | 7.2 | 7.1 | 7.3 | 7.2 |
| Phenoxy Acid Herbicides (515.3) | EPA 515.3 | µg/L | - | - | - | - | - | - | - | - | - | - |
| Phosphorus, Dissolved Total | HACH 8190 & EPA 365.1 | mg/L | 0.08 | 0.08 | 0.09 | 0.08 | 0.06 | 0.09 | 0.07 | 0.08 | 0.09 | 0.06 |
| Potassium | EPA 200.7 | mg/L | 272 | 273 | 272 | 314 | 276 | 288 | 291 | 324 | 384 | 319 |
| Potassium, Dissolved | EPA 200.7 | mg/L | 275 | 278 | 259 | 264 | 276 | 295 | 300 | 295 | 325 | 320 |
| QC Ratio TDS/SEC | Calculation | - | 0.65 | 0.67 | 0.67 | 0.68 | 0.67 | 0.68 | 0.68 | 0.67 | 0.67 | 0.68 |
| Reg. Org. Compounds (EPA 525) | EPA 525 | µg/L | - | - | - | - | - | - | - | - | - | - |
| Salinity | SM2520B | psu | 28.4 | 28.4 | 28.4 | 28.5 | 28.7 | 28.2 | 28.2 | 28.2 | 28.5 | 28.3 |
| Silica as SiO ₂ , Dissolved | EPA 200.7 | mg/L | ND | 14 | 11 | ND | 13 | 15 | 15 | 20 | 17 | ND |
| Sodium | EPA 200.7 | mg/L | 8,396 | 9,582 | 8,605 | 8,208 | 8,422 | 8,693 | 8,989 | 8,701 | 9,568 | 9,855 |
| Sodium, Dissolved | EPA 200.7 | mg/L | 8,700 | 9,090 | 8,830 | 8,270 | 8,430 | 8,900 | 9,340 | 8,870 | 9,520 | 9,500 |
| Specific Conductance (E.C.) | SM2510B | µmhos/cm | 44,010 | 44,100 | 44,020 | 44,120 | 44,420 | 43,820 | 43,730 | 43,740 | 44,180 | 43,840 |
| Specific Conductance (E.C.) (Field) | SM2510B | µmhos/cm | 44,004 | 44,144 | 44,093 | 44,202 | 44,254 | 43,823 | 43,689 | 43,626 | 43,677 | 43,625 |
| Strontium, Dissolved | EPA 200.8 | µg/L | 7,948 | 7,160 | 7,098 | 7,256 | 6,858 | 6,773 | 6,865 | 6,810 | 7,575 | 7,244 |
| Sulfate, Dissolved | EPA 300.0 | mg/L | 2,290 | 2,252 | 2,260 | 2,226 | 2,235 | 2,233 | 2,224 | 2,197 | 2,237 | 2,225 |
| Temperature (Field) | SM2550 | ° C | 15.0 | 15.3 | 15.3 | 15.4 | 15.2 | 15.2 | 15.3 | 15.4 | 15.3 | 15.4 |
| Total Diss. Solids | SM2540C | mg/L | 28,800 | 29,600 | 29,400 | 29,900 | 29,800 | 29,600 | 29,600</ | | | |

Table 2: Summary of Test Slant Well Laboratory Water Quality Results

| | | Sample Collection Date: | 21-Jun-17 | 28-Jun-17 | 5-Jul-17 | 12-Jul-17 | 19-Jul-17 | 26-Jul-17 | 2-Aug-17 | 9-Aug-17 | 16-Aug-17 | 23-Aug-17 |
|---|----------------------------|-------------------------|-----------|-----------|----------|-----------|-----------|-----------|----------|----------|-----------|-----------|
| Constituent | Method | Units | Result | Result | Result | Result | Result | Result | Result | Result | Result | Result |
| Alkalinity, Total (as CaCO ₃) | SM2320B | mg/L | 112 | 114 | 114 | 115 | 114 | 114 | 113 | 114 | 113 | 114 |
| Aluminum, Total | EPA 200.8 | µg/L | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Ammonia-N, Dissolved | SM4500NH3 D & EPA 350.1 | mg/L | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Arsenic, Total ¹ | EPA 200.8 | µg/L | - | - | - | - | - | - | - | - | - | - |
| Arsenic, Total | EPA 1640 | µg/L | 0.29 | 0.36 | 0.36 | 0.23 | 0.28 | 0.22 | 0.21 | 0.23 | 0.22 | 0.28 |
| Barium, Dissolved | EPA 200.8 | µg/L | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Bicarbonate (as HCO ₃ -) | SM2320B | mg/L | 137 | 139 | 139 | 140 | 139 | 138 | 138 | 139 | 138 | 139 |
| Boron, Dissolved | EPA 200.7 | mg/L | 3.77 | 3.33 | 3.3 | 2.44 | 3.33 | 3.40 | 2.92 | 3.28 | 3.45 | 3.74 |
| Bromide, Dissolved | EPA 300.0 | mg/L | 51.9 | 51.0 | 52.2 | 55.3 | 56.5 | 57.9 | 59.1 | 55.8 | 54.9 | 39.8 |
| Calcium | EPA 200.7 | mg/L | 559 | 490 | 561 | 523 | 486 | 504 | 407 | 489 | 504 | 738 |
| Calcium, Dissolved | EPA 200.7 | mg/L | 580 | 482 | 508 | 541 | 488 | 506 | 427 | 483 | 485 | 740 |
| Carbamates by HPLC (EPA 531) | EPA 531 | µg/L | - | - | - | - | - | - | - | - | - | - |
| Carbonate as CaCO ₃ | SM2320B | mg/L | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Chloride, Dissolved | EPA 300.0 | mg/L | 15,110 | 15,550 | 15,817 | 15,996 | 16,292 | 16,572 | 17,007 | 16,452 | 16,738 | 15,992 |
| Chlorinated Pesticides and PCB (EPA 508) | EPA 508 | µg/L | - | - | - | - | - | - | - | - | - | - |
| Color, Apparent (Unfiltered) | SM2120B | Color Units | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Copper | EPA 200.7 | µg/L | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Copper, Total | EPA 200.8 | µg/L | - | - | - | - | - | - | - | - | - | - |
| DBCP & EDB | EPA 504.1 | µg/L | - | - | - | - | - | - | - | - | - | - |
| Dioxin | EPA 1613 | pg/L | - | - | - | - | - | - | - | - | - | - |
| Diquat (EPA 549) | EPA 549 | µg/L | - | - | - | - | - | - | - | - | - | - |
| Dissolved Anions | Calculation | Meq/L | 475.36 | 488.10 | 495.48 | 496.86 | 509.36 | 518.74 | 531.54 | 514.72 | 524.04 | 500.45 |
| Total Anions | Calculation | Meq/L | 475.36 | 488.10 | 495.48 | 496.86 | 509.36 | 518.74 | 531.54 | 514.72 | 524.04 | 500.45 |
| Dissolved Cations | Calculation | Meq/L | 526.04 | 508.51 | 529.93 | 502.41 | 499.74 | 499.71 | 497.53 | 499.13 | 487.85 | 520.31 |
| Total Cations | Calculation | Meq/L | 520.58 | 511.83 | 549.43 | 514.48 | 488.40 | 490.03 | 489.71 | 506.68 | 504.92 | 525.08 |
| Fluoride, Dissolved | EPA 300.0 | mg/L | 0.8 | 0.8 | 0.8 | 0.7 | 0.7 | 0.7 | 0.7 | 0.7 | 0.6 | 0.6 |
| Hardness (as CaCO ₃) | SM2340B/Calc | mg/L | 6,255 | 5,622 | 6,095 | 5,473 | 5,212 | 5,607 | 4,702 | 5,594 | 5,681 | 6,447 |
| Hydroxide | SM2320B | mg/L | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Iodide | EPA 9056M | µg/L | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Iron | EPA 200.7 | µg/L | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Iron, Dissolved | EPA 200.7 | µg/L | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Total Kjeldahl Nitrogen, Dissolved | SM4500-NH3 B,C,E & EPA 351 | mg/L | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Lead, Total | EPA 200.8 | µg/L | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Lithium | EPA 200.8 | µg/L | 152 | 166 | 163 | 182 | 219 | 116 | 191 | 177 | 177 | 192 |
| Magnesium | EPA 200.7 | mg/L | 1,180 | 1,070 | 1,140 | 1,010 | 971 | 1,060 | 895 | 1,060 | 1,070 | 1,120 |
| Magnesium, Dissolved | EPA 200.7 | mg/L | 1,200 | 1,070 | 1,140 | 960 | 975 | 1,080 | 937 | 1,060 | 1,040 | 1,110 |
| Manganese, Dissolved | EPA 200.7 | µg/L | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Manganese, Total | EPA 200.7 | µg/L | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| MBAS (Surfactants) | SM5540C | mg/L | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Nitrate as N | EPA 300.0 | mg/L | - | - | - | - | - | - | - | - | - | - |
| Nitrate as NO ₃ | EPA 300.0 | mg/L | 4 | 4 | 4 | 5 | 6 | 5 | 6 | 6 | 6 | 5 |
| Nitrate+Nitrite as N | EPA 300.0 | mg/L | 1.1 | 0.9 | 0.9 | 1.2 | 1.3 | 1.2 | 1.3 | 1.3 | 1.3 | 1.0 |
| Nitrite as NO ₂ -N, Dissolved | EPA 300.0 | mg/L | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Odor Threshold at 60 C | SM2150B | TON | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| o-Phosphate-P | Hach 8048 & EPA 365.1 | mg/L | 0.06 | 0.08 | 0.08 | 0.07 | 0.07 | 0.08 | 0.10 | 0.09 | 0.08 | 0.08 |
| pH (Field Test) | SM4500-H+B | pH | 7.12 | 7.18 | 7.18 | 7.18 | 7.18 | 7.01 | 7.00 | 7.00 | 7.00 | 7.00 |
| pH (Laboratory) | SM4500-H+B | pH (H) | 7.2 | 7.3 | 6.9 | 7.2 | 7.3 | 7.2 | 7.3 | 7.2 | 7.4 | 7.2 |
| Phenoxy Acid Herbicides (515.3) | EPA 515.3 | µg/L | - | - | - | - | - | - | - | - | - | - |
| Phosphorus, Dissolved Total | HACH 8190 & EPA 365.1 | mg/L | 0.06 | 0.08 | 0.08 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.08 | 0.08 |
| Potassium | EPA 200.7 | mg/L | 328 | 277 | 295 | 249 | 259 | 275 | 231 | 277 | 278 | 288 |
| Potassium, Dissolved | EPA 200.7 | mg/L | 336 | 277 | 294 | 260 | 262 | 279 | 245 | 273 | 270 | 284 |
| QC Ratio TDS/SEC | Calculation | - | 0.64 | 0.67 | 0.66 | 0.67 | 0.66 | 0.68 | 0.67 | 0.69 | 0.68 | 0.70 |
| Reg. Org. Compounds (EPA 525) | EPA 525 | µg/L | - | - | - | - | - | - | - | - | - | - |
| Salinity | SM2520B | psu | 28.3 | 28.1 | 28.3 | 28.0 | 27.9 | 28.1 | 28.4 | 28.0 | 28.7 | 28.5 |
| Silica as SiO ₂ , Dissolved | EPA 200.7 | mg/L | 18 | 12 | 10 | 11 | 14 | 17 | 10 | 13 | 17 | 15 |
| Sodium | EPA 200.7 | mg/L | 8,901 | 9,017 | 9,657 | 9,170 | 8,681 | 8,520 | 8,962 | 8,915 | 8,834 | 8,940 |
| Sodium, Dissolved | EPA 200.7 | mg/L | 8,960 | 8,950 | 9,270 | 8,960 | 8,930 | 8,700 | 9,030 | 8,760 | 8,540 | 8,850 |
| Specific Conductance (E.C.) | SM2510B | µmhos/cm | 43,900 | 43,570 | 43,840 | 43,480 | 43,360 | 43,600 | 44,000 | 43,430 | 44,420 | 44,180 |
| Specific Conductance (E.C.) (Field) | SM2510B | µmhos/cm | 43,687 | 43,633 | 43,501 | 43,353 | 43,305 | 43,451 | 43,437 | 43,266 | 43,408 | 43,583 |
| Strontium, Dissolved | EPA 200.8 | µg/L | 7,297 | 7,718 | 7,210 | 6,593 | 7,967 | 6,799 | 6,348 | 7,320 | 7,406 | 6,853 |
| Sulfate, Dissolved | EPA 300.0 | mg/L | 2,216 | 2,231 | 2,223 | 2,043 | 2,242 | 2,313 | 2,338 | 2,267 | 2,329 | 2,218 |
| Temperature (Field) | SM2550 | ° C | 15.6 | 15.4 | 16.3 | 15.5 | 15.7 | 15.8 | 15.7 | 15.9 | 15.9 | 15.9 |
| Total Diss. Solids | SM2540C | mg/L | 28,100 | 29,400 | 29,000 | 29,000 | 28,500 | 29,600 | 29,600 | 3 | | |

Table 2: Summary of Test Slant Well Laboratory Water Quality Results

| | | Sample Collection Date: | 31-Aug-17 | 6-Sep-17 | 13-Sep-17 | 20-Sep-17 | 28-Sep-17 | 4-Oct-17 | 11-Oct-17 | 17-Oct-17 | 25-Oct-17 | 1-Nov-17 |
|---|----------------------------|-------------------------|-----------|----------|-----------|-----------|-----------|----------|-----------|-----------|-----------|----------|
| Constituent | Method | Units | Result | Result | Result | Result | Result | Result | Result | Result | Result | Result |
| Alkalinity, Total (as CaCO ₃) | SM2320B | mg/L | 114 | 115 | 114 | 114 | 112 | 113 | 114 | 113 | 112 | 113 |
| Aluminum, Total | EPA 200.8 | µg/L | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Ammonia-N, Dissolved | SM4500NH3 D & EPA 350.1 | mg/L | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Arsenic, Total ¹ | EPA 200.8 | µg/L | - | - | - | - | - | - | - | - | - | - |
| Arsenic, Total | EPA 1640 | µg/L | 0.23 | 0.22 | 0.22 | 0.24 | 0.24 | 0.21 | 0.20 | 0.20 | 0.23 | 0.24 |
| Barium, Dissolved | EPA 200.8 | µg/L | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Bicarbonate (as HCO ₃ -) | SM2320B | mg/L | 139 | 140 | 139 | 139 | 137 | 138 | 139 | 138 | 137 | 138 |
| Boron, Dissolved | EPA 200.7 | mg/L | 3.39 | 3.68 | 3.80 | 2.67 | 3.20 | 3.00 | 3.30 | 3.00 | 3.00 | 2.52 |
| Bromide, Dissolved | EPA 300.0 | mg/L | 53.2 | 56.1 | 56.1 | 53.7 | 56.0 | 56.0 | 57.7 | 57.8 | 55.5 | 55.3 |
| Calcium | EPA 200.7 | mg/L | 759 | 404 | 535 | 535 | 520 | 440 | 476 | 580 | 447 | 392 |
| Calcium, Dissolved | EPA 200.7 | mg/L | 824 | 456 | 499 | 515 | 450 | 410 | 502 | 458 | 447 | 400 |
| Carbamates by HPLC (EPA 531) | EPA 531 | µg/L | - | - | - | - | - | - | - | - | - | - |
| Carbonate as CaCO ₃ | SM2320B | mg/L | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Chloride, Dissolved | EPA 300.0 | mg/L | 16,661 | 16,432 | 16,200 | 16,100 | 16,500 | 16,100 | 16,500 | 17,100 | 17,000 | 16,400 |
| Chlorinated Pesticides and PCB (EPA 508) | EPA 508 | µg/L | - | - | - | - | - | - | - | - | - | - |
| Color, Apparent (Unfiltered) | SM2120B | Color Units | ND | ND | ND | ND | ND | 3 | ND | ND | ND | ND |
| Copper | EPA 200.7 | µg/L | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Copper, Total | EPA 200.8 | µg/L | - | - | - | - | - | - | - | - | - | - |
| DBCP & EDB | EPA 504.1 | µg/L | - | - | - | - | - | - | - | - | - | - |
| Dioxin | EPA 1613 | pg/L | - | - | - | - | - | - | - | - | - | - |
| Diquat (EPA 549) | EPA 549 | µg/L | - | - | - | - | - | - | - | - | - | - |
| Dissolved Anions | Calculation | Meq/L | 520.32 | 512.79 | 506.32 | 503.25 | 515.78 | 504.91 | 515.40 | 532.93 | 531.32 | 513.36 |
| Total Anions | Calculation | Meq/L | 520.32 | 512.79 | 506.32 | 503.25 | 515.78 | 504.91 | 515.40 | 532.93 | 531.32 | 513.36 |
| Dissolved Cations | Calculation | Meq/L | 497.84 | 515.38 | 516.67 | 517.83 | 447.57 | 458.17 | 512.27 | 482.68 | 473.64 | 506.73 |
| Total Cations | Calculation | Meq/L | 508.00 | 529.94 | 548.05 | 516.68 | 521.57 | 460.18 | 488.57 | 506.41 | 459.71 | 496.32 |
| Fluoride, Dissolved | EPA 300.0 | mg/L | 0.6 | 0.5 | 0.6 | 0.7 | 0.5 | 0.7 | 0.7 | 0.7 | 0.7 | 0.6 |
| Hardness (as CaCO ₃) | SM2340B/Calc | mg/L | 6,200 | 5,750 | 6,210 | 5,980 | 6,240 | 5,220 | 5,260 | 5,780 | 4,870 | 4,770 |
| Hydroxide | SM2320B | mg/L | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Iodide | EPA 9056M | µg/L | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Iron | EPA 200.7 | µg/L | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Iron, Dissolved | EPA 200.7 | µg/L | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Total Kjeldahl Nitrogen, Dissolved | SM4500-NH3 B,C,E & EPA 351 | mg/L | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Lead, Total | EPA 200.8 | µg/L | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Lithium | EPA 200.8 | µg/L | 214 | 226 | 170 | 153 | 200 | 169 | 172 | 171 | 192 | 227 |
| Magnesium | EPA 200.7 | mg/L | 1,068 | 1,030 | 1,180 | 1,130 | 1,200 | 1,000 | 988 | 1,050 | 1,020 | 921 |
| Magnesium, Dissolved | EPA 200.7 | mg/L | 1,024 | 918 | 1,120 | 1,110 | 990 | 1,000 | 1,050 | 1,020 | 1,030 | 932 |
| Manganese, Dissolved | EPA 200.7 | µg/L | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Manganese, Total | EPA 200.7 | µg/L | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| MBAS (Surfactants) | SM5540C | mg/L | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Nitrate as N | EPA 300.0 | mg/L | 1.2 | 1.3 | 1.6 | 1.4 | 1.5 | 1.2 | 1.2 | 1.2 | 1.3 | 1.2 |
| Nitrate as NO ₃ | EPA 300.0 | mg/L | 5 | 6 | 7 | 6 | 7 | 5 | 6 | 5 | 6 | 5 |
| Nitrate+Nitrite as N | EPA 300.0 | mg/L | 1.2 | 1.3 | 1.6 | 1.4 | 1.5 | 1.2 | 1.2 | 1.2 | 1.3 | 1.2 |
| Nitrite as NO ₂ -N, Dissolved | EPA 300.0 | mg/L | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Odor Threshold at 60 C | SM2150B | TON | 1 | 1 | 2 | 1 | 1 | 1 | 2 | 4 | 1 | 1 |
| o-Phosphate-P | Hach 8048 & EPA 365.1 | mg/L | 0.08 | 0.07 | 0.08 | 0.08 | 0.07 | 0.07 | 0.08 | 0.08 | 0.07 | 0.07 |
| pH (Field Test) | SM4500-H+B | pH | 7.00 | 7.01 | 7.17 | 7.17 | 7.06 | 7.04 | 7.04 | 7.30 | 7.05 | 7.04 |
| pH (Laboratory) | SM4500-H+B | pH (H) | 7.4 | 7.2 | 7.2 | 7.2 | 7.2 | 6.7 | 7.2 | 7.2 | 7.1 | 7.1 |
| Phenoxy Acid Herbicides (515.3) | EPA 515.3 | µg/L | - | - | - | - | - | - | - | - | - | - |
| Phosphorus, Dissolved Total | HACH 8190 & EPA 365.1 | mg/L | 0.08 | 0.08 | 0.09 | 0.08 | 0.07 | 0.07 | 0.08 | 0.08 | 0.08 | 0.08 |
| Potassium | EPA 200.7 | mg/L | 279 | 290 | 311 | 283 | 380 | 310 | 266 | 340 | 251.0 | 285 |
| Potassium, Dissolved | EPA 200.7 | mg/L | 269 | 269 | 283 | 295 | 510 | 460 | 279 | 274 | 254.0 | 284 |
| QC Ratio TDS/SEC | Calculation | - | 0.67 | 0.68 | 0.68 | 0.66 | 0.67 | 0.66 | 0.69 | 0.70 | 0.70 | 0.68 |
| Reg. Org. Compounds (EPA 525) | EPA 525 | µg/L | - | - | - | - | - | - | - | - | - | - |
| Salinity | SM2520B | psu | 28.2 | 28.2 | 28.4 | 28.4 | 28.4 | 28.4 | 28.5 | 28.4 | 28.6 | 28.8 |
| Silica as SiO ₂ , Dissolved | EPA 200.7 | mg/L | 14 | 12 | 10 | 13 | 13 | 13 | 9 | ND | ND | 19 |
| Sodium | EPA 200.7 | mg/L | 8,623 | 9,600 | 9,570 | 8,960 | 8,900 | 8,000 | 8,660 | 8,790 | 7,980 | 9,050 |
| Sodium, Dissolved | EPA 200.7 | mg/L | 8,404 | 9,430 | 9,020 | 9,040 | 7,600 | 7,900 | 9,050 | 8,480 | 8,270 | 9,260 |
| Specific Conductance (E.C.) | SM2510B | µmhos/cm | 43,710 | 43,810 | 44,080 | 44,030 | 44,080 | 44,100 | 44,130 | 44,080 | 44,350 | 44,590 |
| Specific Conductance (E.C.) (Field) | SM2510B | µmhos/cm | 43,261 | 43,510 | 43,920 | 43,820 | 43,860 | 44,050 | 44,170 | 44,160 | 44,510 | 44,590 |
| Strontium, Dissolved | EPA 200.8 | µg/L | 6,822 | 7,060 | 6,510 | 5,900 | 7,770 | 8,280 | 7,700 | 7,770 | 7,180 | 7,120 |
| Sulfate, Dissolved | EPA 300.0 | mg/L | 2,271 | 2,262 | 2,220 | 2,210 | 2,270 | 2,290 | 2,250 | 2,280 | 2,340 | 2,290 |
| Temperature (Field) | SM2550 | ° C | 15.9 | 16.0 | 16.1 | 16.3 | 16.2 | 16.1 | 16.1 | 16.2 | 16.2 | 16.2 |
| Total Diss. Solids | SM2540C | mg/L | 29,400 | 29,700 | 29,800 | 29,100 | 29 | | | | | |

Table 2: Summary of Test Slant Well Laboratory Water Quality Results

| | | Sample Collection Date: | 8-Nov-17 | 15-Nov-17 | 22-Nov-17 | 30-Nov-17 | 6-Dec-17 | 13-Dec-17 | 20-Dec-17 | 4-Jan-18 | 10-Jan-18 | 17-Jan-18 |
|---|----------------------------|-------------------------|----------|-----------|-----------|-----------|----------|-----------|-----------|----------|-----------|-----------|
| Constituent | Method | Units | Result | Result | Result | Result | Result | Result | Result | Result | Result | Result |
| Alkalinity, Total (as CaCO ₃) | SM2320B | mg/L | 112 | 112 | 113 | 112 | 111 | 112 | 112 | 112 | 104 | 111 |
| Aluminum, Total | EPA 200.8 | µg/L | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Ammonia-N, Dissolved | SM4500NH3 D & EPA 350.1 | mg/L | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Arsenic, Total ¹ | EPA 200.8 | µg/L | - | - | - | - | - | - | - | - | - | - |
| Arsenic, Total | EPA 1640 | µg/L | 0.25 | 0.26 | 0.28 | 0.25 | 0.25 | 0.26 | 0.25 | 0.24 | 0.24 | 0.27 |
| Barium, Dissolved | EPA 200.8 | µg/L | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Bicarbonate (as HCO ₃ -) | SM2320B | mg/L | 137 | 137 | 138 | 137 | 135 | 137 | 137 | 137 | 127 | 135 |
| Boron, Dissolved | EPA 200.7 | mg/L | 3.50 | 3.60 | 3.10 | 3.60 | 3.1 | 3.3 | 3.4 | 3.7 | 3.8 | 3.82 |
| Bromide, Dissolved | EPA 300.0 | mg/L | 56.2 | 53.2 | 52.3 | 52.8 | 53.2 | 58.9 | 59.9 | 58.0 | 55.9 | 54.4 |
| Calcium | EPA 200.7 | mg/L | 565 | 509 | 484 | 746 | 479 | 414 | 447 | 730 | 442 | 473 |
| Calcium, Dissolved | EPA 200.7 | mg/L | 542 | 496 | 496 | 710 | 466 | 478 | 485 | 745 | 496 | 466 |
| Carbamates by HPLC (EPA 531) | EPA 531 | µg/L | - | - | - | - | - | - | - | - | - | - |
| Carbonate as CaCO ₃ | SM2320B | mg/L | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Chloride, Dissolved | EPA 300.0 | mg/L | 16,400 | 16,200 | 17,200 | 16,800 | 16,400 | 16,400 | 17,100 | 17,100 | 16,500 | 16,500 |
| Chlorinated Pesticides and PCB (EPA 508) | EPA 508 | µg/L | - | - | - | - | - | - | - | - | - | - |
| Color, Apparent (Unfiltered) | SM2120B | Color Units | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Copper | EPA 200.7 | µg/L | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Copper, Total | EPA 200.8 | µg/L | - | - | - | - | - | - | - | - | - | - |
| DBCP & EDB | EPA 504.1 | µg/L | - | - | - | - | - | - | - | - | - | - |
| Dioxin | EPA 1613 | pg/L | - | - | - | - | - | - | - | - | - | - |
| Diquat (EPA 549) | EPA 549 | µg/L | - | - | - | - | - | - | - | - | - | - |
| Dissolved Anions | Calculation | Meq/L | 513.14 | 508.09 | 541.29 | 525.62 | 513.69 | 513.37 | 533.76 | 537.72 | 515.79 | 516.32 |
| Total Anions | Calculation | Meq/L | 513.14 | 508.09 | 541.29 | 525.62 | 513.69 | 513.37 | 533.76 | 537.72 | 515.79 | 516.32 |
| Dissolved Cations | Calculation | Meq/L | 512.96 | 491.61 | 467.56 | 510.36 | 490.44 | 510.03 | 522.47 | 517.31 | 498.00 | 509.74 |
| Total Cations | Calculation | Meq/L | 548.24 | 458.49 | 463.09 | 507.82 | 494.33 | 480.40 | 478.29 | 536.73 | 510.55 | 520.15 |
| Fluoride, Dissolved | EPA 300.0 | mg/L | 0.7 | 0.9 | 0.7 | 0.5 | 0.6 | 0.9 | 0.7 | 0.4 | 0.8 | 0.5 |
| Hardness (as CaCO ₃) | SM2340B/Calc | mg/L | 6,250 | 5,440 | 5,060 | 6,290 | 4,820 | 5,030 | 5,180 | 6,510 | 5,370 | 5,930 |
| Hydroxide | SM2320B | mg/L | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Iodide | EPA 9056M | µg/L | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Iron | EPA 200.7 | µg/L | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Iron, Dissolved | EPA 200.7 | µg/L | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Total Kjeldahl Nitrogen, Dissolved | SM4500-NH3 B,C,E & EPA 351 | mg/L | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Lead, Total | EPA 200.8 | µg/L | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Lithium | EPA 200.8 | µg/L | 160 | 176 | 162 | 136 | 177 | 118 | 199 | 174 | 176 | 252 |
| Magnesium | EPA 200.7 | mg/L | 1,180 | 969 | 936 | 1,070 | 1,050 | 972 | 987 | 1,140 | 1,040 | 1,150 |
| Magnesium, Dissolved | EPA 200.7 | mg/L | 1,110 | 1,080 | 942 | 1,100 | 1,040 | 1,020 | 1,050 | 1,200 | 1,070 | 1,170 |
| Manganese, Dissolved | EPA 200.7 | µg/L | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Manganese, Total | EPA 200.7 | µg/L | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| MBAS (Surfactants) | SM5540C | mg/L | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Nitrate as N | EPA 300.0 | mg/L | 1.1 | 1.2 | 1.0 | 1.0 | 0.9 | 1.1 | 1.2 | 1.4 | 1.1 | 1.0 |
| Nitrate as NO ₃ | EPA 300.0 | mg/L | 5 | 5 | ND | 4.3 | 4 | 5 | 5 | 6 | 5 | 4 |
| Nitrate+Nitrite as N | EPA 300.0 | mg/L | 1.1 | 1.2 | 1.0 | 1.0 | 0.9 | 1.1 | 1.2 | 1.4 | 1.1 | 1.0 |
| Nitrite as NO ₂ -N, Dissolved | EPA 300.0 | mg/L | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Odor Threshold at 60 C | SM2150B | TON | 2 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| o-Phosphate-P | Hach 8048 & EPA 365.1 | mg/L | 0.08 | 0.07 | 0.08 | 0.08 | 0.08 | 0.08 | 0.08 | 0.07 | 0.07 | 0.07 |
| pH (Field Test) | SM4500-H+B | pH | 7.05 | 7.05 | 7.05 | 7.01 | 7.03 | 7.02 | 7.02 | 7.23 | 7.05 | |
| pH (Laboratory) | SM4500-H+B | pH (H) | 7.2 | 7.1 | 7.2 | 7.6 | 7.0 | 7.2 | 7.2 | 7.2 | 7.2 | 7.2 |
| Phenoxy Acid Herbicides (515.3) | EPA 515.3 | µg/L | - | - | - | - | - | - | - | - | - | - |
| Phosphorus, Dissolved Total | HACH 8190 & EPA 365.1 | mg/L | 0.08 | 0.08 | 0.09 | 0.08 | 0.08 | 0.08 | 0.08 | 0.07 | 0.08 | 0.08 |
| Potassium | EPA 200.7 | mg/L | 328 | 262 | 238 | 275 | 282 | 272 | 264 | 297 | 293 | 322.0 |
| Potassium, Dissolved | EPA 200.7 | mg/L | 307 | 288 | 251 | 282.0 | 281 | 284 | 286 | 319 | 298 | 322.0 |
| QC Ratio TDS/SEC | Calculation | - | 0.67 | 0.68 | 0.68 | 0.69 | 0.68 | 0.68 | 0.67 | 0.66 | 0.69 | 0.67 |
| Reg. Org. Compounds (EPA 525) | EPA 525 | µg/L | - | - | - | - | - | - | - | - | - | - |
| Salinity | SM2520B | psu | 28.8 | 28.5 | 28.5 | 28.7 | 28.8 | 28.8 | 28.7 | 28.7 | 28.8 | 28.9 |
| Silica as SiO ₂ , Dissolved | EPA 200.7 | mg/L | 16 | 22 | 13 | 11 | 12 | 16 | 15 | 15 | 17 | 29 |
| Sodium | EPA 200.7 | mg/L | 9,530 | 7,970 | 8,180 | 8,630 | 8,670 | 8,570 | 8,460 | 9,170 | 9,090 | 9,050 |
| Sodium, Dissolved | EPA 200.7 | mg/L | 8,890 | 8,520 | 8,250 | 8,680 | 8,610 | 9,080 | 9,300 | 8,580 | 8,680 | 8,970 |
| Specific Conductance (E.C.) | SM2510B | µmhos/cm | 44,530 | 44,190 | 44,130 | 44,420 | 44,600 | 44,610 | 44,460 | 44,450 | 44,530 | 44,680 |
| Specific Conductance (E.C.) (Field) | SM2510B | µmhos/cm | 44,580 | 44,520 | 44,490 | 44,790 | 45,010 | 44,930 | 44,980 | 45,050 | 45,660 | 45,600 |
| Strontium, Dissolved | EPA 200.8 | µg/L | 6,200 | 7,130 | 7,900 | 8,250 | 8,110 | 8,970 | 8,830 | 7,480 | 7,740 | 7,060 |
| Sulfate, Dissolved | EPA 300.0 | mg/L | 2,280 | 2,310 | 2,550 | 2,300 | 2,310 | 2,290 | 2,320 | 2,510 | 2,280 | 2,300 |
| Temperature (Field) | SM2550 | ° C | 16.3 | 16.2 | 16.1 | 16.0 | 15.7 | 15.7 | 15.6 | 15.5 | 15.5 | 15.3 |
| Total Diss. Solids | SM2540C | mg/L | 29,900 | 30,100 | 30,100 | 30,500 | 30,50 | | | | | |

Table 2: Summary of Test Slant Well Laboratory Water Quality Results

| | | Sample Collection Date: | 25-Jan-18 | 31-Jan-18 | 7-Feb-18 | 14-Feb-18 | 21-Feb-18 | 28-Feb-18 |
|---|----------------------------|-------------------------|-----------|-----------|----------|-----------|-----------|-----------|
| Constituent | Method | Units | Result | Result | Result | Result | Result | Result |
| Alkalinity, Total (as CaCO ₃) | SM2320B | mg/L | 111 | 112 | 110 | 109 | 109 | 110 |
| Aluminum, Total | EPA 200.8 | µg/L | ND | ND | ND | ND | ND | ND |
| Ammonia-N, Dissolved | SM4500NH3 D & EPA 350.1 | mg/L | ND | ND | ND | ND | ND | ND |
| Arsenic, Total ¹ | EPA 200.8 | µg/L | - | - | - | - | - | - |
| Arsenic, Total | EPA 1640 | µg/L | 0.23 | 0.23 | 0.26 | 0.26 | 0.25 | 0.20 |
| Barium, Dissolved | EPA 200.8 | µg/L | ND | ND | ND | ND | ND | ND |
| Bicarbonate (as HCO ₃ -) | SM2320B | mg/L | 135 | 137 | 134 | 133 | 133 | 134 |
| Boron, Dissolved | EPA 200.7 | mg/L | 3.5 | 3.4 | 3.4 | 3.3 | 3.2 | 3.5 |
| Bromide, Dissolved | EPA 300.0 | mg/L | 52.1 | 49.4 | 55.3 | 48.4 | 56.4 | 55.2 |
| Calcium | EPA 200.7 | mg/L | 484 | 465 | 516 | 485 | 491 | 549 |
| Calcium, Dissolved | EPA 200.7 | mg/L | 464 | 487 | 496 | 490 | 465 | 553 |
| Carbamates by HPLC (EPA 531) | EPA 531 | µg/L | - | - | - | - | - | - |
| Carbonate as CaCO ₃ | SM2320B | mg/L | ND | ND | ND | ND | ND | ND |
| Chloride, Dissolved | EPA 300.0 | mg/L | 16,800 | 16,600 | 16,700 | 16,400 | 16,800 | 16,500 |
| Chlorinated Pesticides and PCB (EPA 508) | EPA 508 | µg/L | - | - | - | - | - | - |
| Color, Apparent (Unfiltered) | SM2120B | Color Units | ND | ND | ND | 3 | ND | ND |
| Copper | EPA 200.7 | µg/L | ND | ND | ND | ND | ND | ND |
| Copper, Total | EPA 200.8 | µg/L | - | - | - | - | - | - |
| DBCP & EDB | EPA 504.1 | µg/L | - | - | - | - | - | - |
| Dioxin | EPA 1613 | pg/L | - | - | - | - | - | - |
| Diquat (EPA 549) | EPA 549 | µg/L | - | - | - | - | - | - |
| Dissolved Anions | Calculation | Meq/L | 526.03 | 519.31 | 522.37 | 512.05 | 523.30 | 517.56 |
| Total Anions | Calculation | Meq/L | 526.03 | 519.31 | 522.37 | 512.05 | 523.30 | 517.56 |
| Dissolved Cations | Calculation | Meq/L | 509.32 | 509.73 | 529.93 | 534.21 | 506.57 | 524.34 |
| Total Cations | Calculation | Meq/L | 489.40 | 477.11 | 542.33 | 518.66 | 533.73 | 525.01 |
| Fluoride, Dissolved | EPA 300.0 | mg/L | 0.5 | 0.5 | 0.5 | 0.7 | 0.7 | 0.7 |
| Hardness (as CaCO ₃) | SM2340B/Calc | mg/L | 5,600 | 5,560 | 5,980 | 5,530 | 5,580 | 6,070 |
| Hydroxide | SM2320B | mg/L | ND | ND | ND | ND | ND | ND |
| Iodide | EPA 9056M | µg/L | ND | ND | ND | ND | ND | ND |
| Iron | EPA 200.7 | µg/L | ND | ND | ND | ND | ND | ND |
| Iron, Dissolved | EPA 200.7 | µg/L | ND | ND | ND | ND | ND | ND |
| Total Kjeldahl Nitrogen, Dissolved | SM4500-NH3 B,C,E & EPA 351 | mg/L | ND | ND | ND | ND | ND | ND |
| Lead, Total | EPA 200.8 | µg/L | ND | ND | ND | ND | ND | ND |
| Lithium | EPA 200.8 | µg/L | 87 | 179 | 170 | 180 | 163 | 157 |
| Magnesium | EPA 200.7 | mg/L | 1,070 | 1,070 | 1,140 | 1,050 | 1,060 | 1,140 |
| Magnesium, Dissolved | EPA 200.7 | mg/L | 1,120 | 1,120 | 1,120 | 1,060 | 1,010 | 1,130 |
| Manganese, Dissolved | EPA 200.7 | µg/L | ND | ND | ND | ND | ND | ND |
| Manganese, Total | EPA 200.7 | µg/L | ND | ND | ND | ND | ND | ND |
| MBAS (Surfactants) | SM5540C | mg/L | ND | ND | ND | ND | ND | ND |
| Nitrate as N | EPA 300.0 | mg/L | 1.3 | 1.0 | 1.0 | 0.8 | 0.8 | 0.9 |
| Nitrate as NO ₃ | EPA 300.0 | mg/L | 5.6 | 4 | 4 | 3.6 | 4 | 4 |
| Nitrate+Nitrite as N | EPA 300.0 | mg/L | 1.3 | 1.0 | 1.0 | 0.8 | 0.8 | 0.9 |
| Nitrite as NO ₂ -N, Dissolved | EPA 300.0 | mg/L | ND | ND | ND | ND | ND | ND |
| Odor Threshold at 60 C | SM2150B | TON | 1 | 1 | 1 | 1 | 1 | 1 |
| o-Phosphate-P | Hach 8048 & EPA 365.1 | mg/L | 0.07 | 0.07 | 0.07 | 0.07 | 0.07 | 0.07 |
| pH (Field Test) | SM4500-H+B | pH | 7.06 | 7.09 | 7.08 | 7.09 | 7.10 | 7.10 |
| pH (Laboratory) | SM4500-H+B | pH (H) | 7.4 | 7.2 | 7.3 | 7.2 | 7.1 | 7.3 |
| Phenoxy Acid Herbicides (515.3) | EPA 515.3 | µg/L | - | - | - | - | - | - |
| Phosphorus, Dissolved Total | HACH 8190 & EPA 365.1 | mg/L | 0.08 | 0.08 | 0.07 | 0.07 | 0.08 | 0.08 |
| Potassium | EPA 200.7 | mg/L | 274 | 273 | 304 | 290 | 291 | 294 |
| Potassium, Dissolved | EPA 200.7 | mg/L | 285 | 290 | 297 | 295 | 274 | 292 |
| QC Ratio TDS/SEC | Calculation | - | 0.67 | 0.69 | 0.67 | 0.67 | 0.71 | 0.69 |
| Reg. Org. Compounds (EPA 525) | EPA 525 | µg/L | - | - | - | - | - | - |
| Salinity | SM2520B | psu | 28.8 | 28.8 | 28.8 | 28.8 | 28.5 | 28.8 |
| Silica as SiO ₂ , Dissolved | EPA 200.7 | mg/L | 16 | 15 | 17 | 15 | 14 | 18 |
| Sodium | EPA 200.7 | mg/L | 8,510 | 8,250 | 9,540 | 9,210 | 9,530 | 9,110 |
| Sodium, Dissolved | EPA 200.7 | mg/L | 8,890 | 8,870 | 9,320 | 9,540 | 9,040 | 9,100 |
| Specific Conductance (E.C.) | SM2510B | µmhos/cm | 44,640 | 44,570 | 44,560 | 44,520 | 44,120 | 44,520 |
| Specific Conductance (E.C.) (Field) | SM2510B | µmhos/cm | 45,680 | 44,890 | 44,750 | 44,840 | 44,770 | 44,930 |
| Strontium, Dissolved | EPA 200.8 | µg/L | 7,280 | 7,440 | 7,520 | 7,390 | 7,130 | 7,180 |
| Sulfate, Dissolved | EPA 300.0 | mg/L | 2,360 | 2,310 | 2,320 | 2,250 | 2,230 | 2,360 |
| Temperature (Field) | SM2550 | ° C | 15.1 | 15.1 | 15.3 | 15.2 | 15.1 | 15.1 |
| Total Diss. Solids | SM2540C | mg/L | 29,900 | 30,600 | 30,000 | 29,900 | 31,300 | 30,600 |
| Turbidity | EPA 180.1 | NTU | 0.20 | 0.05 | 0.15 | 0.25 | 0.15 | 0.15 |
| Turbidity (Field) | EPA 180.1 | NTU | 0.13 | 0.14 | 0.08 | 0.09 | 0.11 | 0.08 |
| Volatile Org. Compounds (524) | EPA 524 | µg/L | - | - | - | - | - | - |
| Zinc | EPA 200.7 | µg/L | ND | ND | ND | ND | ND | ND |
| Zinc, Total | EPA 200.8 | µg/L | - | - | - | - | - | - |
| PCBs, Total | EPA 508 | µg/L | - | - | - | - | - | - |
| Total PCB | EPA 1668C | pg/L | - | - | - | - | - | - |

Notes:

°C = Degrees Celsius

CU = Color Units

Meq/L = Milliequivalents per Liter

mg/L = Milligrams per Liter

NTU = Nephelometric Turbidity Units

pg/L = Picograms per Liter

TON = Threshold Odor Number

µg/L = Micorgrams per Liter

µmhos/cm = Micromhos per Centimeter

ND = NOT DETECTED at or above the Reporting Limit (RL) or Practical Quantitation Limit (PQL). See laboratory water quality reports for RL and PQL values.

¹ Using EPA Method 200.8, Arsenic values are overstated due to matrix interference caused by high chloride levels. The overstated values are in laboratory reports through February 11, 2016. Going forward, EPA Method 1640 will be used for Arsenic analysis only.

Table 3: Summary of Quarterly and Semiannual Monitoring Well Laboratory Water Quality Results Following Long-Term Pumping Test

| Constituent | Method | Units | Monitoring Well Name: | | | | MW-1S | | | | MW-1M | | | | MW-1D | | | | MW-3S |
|---|--|-------------|-------------------------|-----------|----------|----------|-----------|-----------|----------|----------|-----------|-----------|----------|----------|-----------|-----------|----|--|-------|
| | | | Sample Collection Date: | 24-Apr-18 | 9-Oct-18 | 9-Apr-19 | 14-Oct-19 | 24-Apr-18 | 9-Oct-18 | 9-Apr-19 | 14-Oct-19 | 24-Apr-18 | 9-Oct-18 | 9-Apr-19 | 14-Oct-19 | 25-Apr-18 | | | |
| Alkalinity, Total (as CaCO ₃) | SM2320B | mg/L | 103 | 106 | 110 | 108 | 106 | 103 | 103 | 96 | 119 | 118 | 120 | 114 | 98 | | | | |
| Aluminum, Total | EPA 200.8 | µg/L | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | | ND | | |
| Ammonia-N, Dissolved | SM4500NH ₃ D & EPA 350.1 | mg/L | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | | ND | | |
| Arsenic, Total ¹ | EPA 200.8 | µg/L | - | - | - | - | - | - | - | - | - | - | - | - | - | | - | | |
| Arsenic, Total | EPA 1640 | µg/L | 0.13 | 0.13 | 0.17 | 0.14 | 0.13 | 0.12 | 0.14 | 0.18 | 0.67 | 0.50 | 0.76 | 0.57 | 0.27 | | | | |
| Barium, Dissolved | EPA 200.8 | µg/L | ND | 53.0 | 51.3 | 63 | ND | 65.0 | 58.2 | 74 | ND | 123 | 108 | 108 | ND | | ND | | |
| Bicarbonate (as HCO ₃ -) | SM2320B | mg/L | 126 | 129 | 134 | 132 | 129 | 126 | 126 | 117 | 145 | 144 | 146 | 139 | 120 | | | | |
| Boron, Dissolved | EPA 200.7 | mg/L | 4.01 | 3.87 | 4.0 | 3.5 | 3.91 | 3.71 | 3.95 | 3.8 | 1.33 | 1.38 | 1.49 | 1.5 | 2.50 | | | | |
| Bromide, Dissolved | EPA 300.0 | mg/L | 47.6 | 59.1 | 65.1 | 58.2 | 54.4 | 62.8 | 64.8 | 70.4 | 46.8 | 55.5 | 50.3 | 65.6 | 42.7 | | | | |
| Calcium | EPA 200.7 | mg/L | 411 | 376 | 410 | 382 | 445 | 510 | 419 | 404 | 2,400 | 2,430 | 2,300 | 2,330 | 614 | | | | |
| Calcium, Dissolved | EPA 200.7 | mg/L | 390 | 379 | 408 | 382 | 442 | 501 | 420 | 404 | 2,460 | 2,390 | 2,260 | 2,320 | 608 | | | | |
| Carbamates by HPLC (EPA 531) | EPA 531 | µg/L | - | - | - | - | - | - | - | - | - | - | - | - | - | | - | | |
| Carbonate as CaCO ₃ | SM2320B | mg/L | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | | ND | | |
| Chloride, Dissolved | EPA 300.0 | mg/L | 17,200 | 18,100 | 19,200 | 15,800 | 19,400 | 19,200 | 18,800 | 18,900 | 16,900 | 17,100 | 16,400 | 17,500 | 13,300 | | | | |
| Chlorinated Pesticides and PCB (EPA 508) | EPA 508 | µg/L | - | - | - | - | - | - | - | - | - | - | - | - | - | | - | | |
| Color, Apparent (Unfiltered) | SM2120B | Color Units | ND | ND | 3 | ND | ND | ND | ND | ND | 4 | 5 | 6 | ND | ND | | | | |
| Copper | EPA 200.7 | µg/L | ND | ND | ND | 8 | ND | ND | ND | 11 | ND | ND | ND | 35 | ND | | | | |
| Copper, Total | EPA 200.8 | µg/L | - | - | - | - | - | - | - | - | - | - | - | - | - | | - | | |
| DBCP & EDB | EPA 504.1 | µg/L | - | - | - | - | - | - | - | - | - | - | - | - | - | | - | | |
| Dioxin | EPA 1613 | pg/L | - | - | - | - | - | - | - | - | - | - | - | - | - | | - | | |
| Diquat (EPA 549) | EPA 549 | µg/L | - | - | - | - | - | - | - | - | - | - | - | - | - | | - | | |
| Dissolved Anions | Calculation | Meq/L | 571.07 | 566.33 | 601.52 | 495.34 | 605.32 | 600.48 | 591.74 | 591.37 | 528.28 | 533.96 | 516.48 | 546.56 | 417.18 | | | | |
| Total Anions | Calculation | Meq/L | 571.07 | 566.33 | 601.52 | 495.34 | 605.32 | 600.48 | 591.74 | 591.37 | 528.28 | 533.96 | 516.48 | 546.56 | 417.18 | | | | |
| Dissolved Cations | Calculation | Meq/L | 552.35 | 529.36 | 568.66 | 494.77 | 650.58 | 572.23 | 594.23 | 582.86 | 533.55 | 536.30 | 514.56 | 530.01 | 413.94 | | | | |
| Total Cations | Calculation | Meq/L | 557.83 | 541.00 | 571.37 | 486.66 | 659.35 | 583.20 | 598.66 | 574.95 | 529.97 | 538.36 | 528.42 | 541.27 | 419.19 | | | | |
| Fluoride, Dissolved | EPA 300.0 | mg/L | 0.2 | 0.8 | 0.5 | 1.0 | 0.1 | 0.4 | 0.4 | 0.2 | 0.2 | 0.1 | 0.1 | 0.5 | 0.9 | | | | |
| Hardness (as CaCO ₃) | SM2340B/Calc | mg/L | 6,690 | 5,680 | 5,880 | 5,310 | 6,600 | 6,260 | 6,150 | 6,130 | 11,300 | 11,100 | 10,800 | 11,100 | 5,230 | | | | |
| Hydroxide | SM2320B | mg/L | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | | ND | | |
| Iodide | EPA 9056M & EPA 314.0 | µg/L | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 3.8 | ND | | | |
| Iron | EPA 200.7 | µg/L | ND | ND | ND | ND | ND | ND | ND | 532 | ND | 261 | 219 | 205 | 215 | ND | | | |
| Iron, Dissolved | EPA 200.7 | µg/L | ND | ND | ND | ND | ND | ND | ND | 27 | 189 | 194 | 123 | 130 | ND | | | | |
| Total Kjeldahl Nitrogen, Dissolved | SM4500-NH ₃ B,C,E & EPA 351.2 | mg/L | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | | ND | | |
| Lead, Total | EPA 200.8 | µg/L | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | | | | |
| Lithium | EPA 200.8 | µg/L | 193 | 201 | 222 | 241 | 197 | 215 | 236 | 302 | 273 | 316 | 322 | 438 | 114 | | | | |
| Magnesium | EPA 200.7 | mg/L | 1,380 | 1,150 | 1,180 | 1,060 | 1,330 | 1,210 | 1,240 | 1,240 | 1,290 | 1,220 | 1,230 | 1,270 | 897 | | | | |
| Magnesium, Dissolved | EPA 200.7 | mg/L | 1,310 | 1,120 | 1,200 | 1,000 | 1,330 | 1,190 | 1,240 | 1,230 | 1,380 | 1,220 | 1,220 | 1,250 | 910 | | | | |
| Manganese, Dissolved | EPA 200.7 | µg/L | ND | ND | ND | ND | ND | ND | ND | ND | ND | 49 | ND | 114 | ND | | | | |
| Manganese, Total | EPA 200.7 | µg/L | ND | ND | ND | ND | ND | ND | ND | ND | 68 | 51 | 64 | 113 | ND | | | | |
| MBAS (Surfactants) | SM5540C | mg/L | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | | | | |
| Nitrate as N | EPA 300.0 | mg/L | 1.0 | 0.7 | 0.5 | 1.3 | 1.0 | 0.2 | 0.2 | 0.3 | 0.8 | 0.05 | ND | 0.3 | 2.0 | | | | |
| Nitrate as NO ₃ | EPA 300.0 | mg/L | 4.4 | 3.1 | 2.2 | 5.7 | 4.3 | 0.9 | ND | 1.3 | 3.6 | 0.2 | ND | 1.3 | 8.9 | | | | |
| Nitrate+Nitrite as N | EPA 300.0 | mg/L | 1.0 | 0.7 | 0.5 | 1.3 | 1.0 | 0.2 | 0.2 | 0.3 | 0.8 | 0.05 | ND | 0.3 | 2.0 | | | | |
| Nitrite as NO ₂ -N, Dissolved | EPA 300.0 | mg/L | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | | | | |
| Odor Threshold at 60 C | SM2150B | TON | ND | 1 | 1 | 1 | ND | 1 | 1 | 1 | 2 | 1 | 1 | 3 | ND | | | | |
| o-Phosphate-P | Hach 8048 & EPA 365.1 | mg/L | 0.04 | 0.03 | 0.05 | 0.05 | 0.05 | 0.04 | 0.05 | 0.05 | 0.02 | 0.02 | 0.02 | 0.03 | 0.11 | | | | |
| pH (Field Test) | SM4500-H+B | pH | 6.96 | 7.00 | 7.28 | 7.21 | 6.64 | 6.84 | 7.05 | 6.94 | 6.16 | 6.28 | 6.59 | 6.35 | 6.62 | | | | |
| pH (Laboratory) | SM4500-H+B | pH (H) | 7.1 | 7.3 | 7.3 | 7.6 | 7.1 | 7.1 | 7.1 | 7.4 | 6.7 | 6.7 | 6.7 | 7.0 | 7.0 | | | | |
| Phenoxy Acid Herbicides (515.3) | EPA 515.3 | µg/L | - | - | - | - | - | - | - | - | - | - | - | - | - | | - | | |
| Phosphorus, Dissolved Total | HACH 81 | | | | | | | | | | | | | | | | | | |

Table 3: Summary of Quarterly and Semiannual Monitoring Well Laboratory Water Quality Results Following Long-Term Pumping Test

| Monitoring Well Name: | | | MW-3S | | | MW-3M | | | | MW-3D | | | | |
|--|------------------------------|-------------|-----------|-----------|-----------|-----------|----------|-----------|-----------|-----------|----------|-----------|-----------|-----------------|
| | | | 10-Oct-18 | 10-Apr-19 | 15-Oct-19 | 25-Apr-18 | 9-Oct-18 | 10-Apr-19 | 15-Oct-19 | 25-Apr-18 | 9-Oct-18 | 10-Apr-19 | 15-Oct-19 | 27-Apr-18 13:04 |
| Constituent | Method | Units | Result | Result | Result | Result | Result | Result | Result | Result | Result | Result | Result | Result |
| Alkalinity, Total (as CaCO3) | SM2320B | mg/L | 98 | 96 | 98 | 91 | 94 | 98 | 97 | 118 | 118 | 117 | 101 | 70 |
| Aluminum, Total | EPA 200.8 | µg/L | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Ammonia-N, Dissolved | SM4500NH3 D & EPA 350.1 | mg/L | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Arsenic, Total ¹ | EPA 200.8 | µg/L | - | - | - | - | - | - | - | - | - | - | - | - |
| Arsenic, Total | EPA 1640 | µg/L | 0.23 | 0.24 | 0.28 | 0.15 | 0.17 | 0.17 | 0.18 | 0.49 | 0.48 | 0.58 | 0.52 | 0.2 |
| Barium, Dissolved | EPA 200.8 | µg/L | 94.0 | 70 | 76 | ND | 72.0 | 58 | 76 | 118 | 135.0 | 112 | 140 | ND |
| Bicarbonate (as HCO3-) | SM2320B | mg/L | 120 | 117 | 120 | 111 | 115 | 120 | 118 | 144 | 144 | 143 | 123 | 85 |
| Boron, Dissolved | EPA 200.7 | mg/L | 2.64 | 2.6 | 3.1 | 2.7 | 2.6 | 2.7 | 3.1 | 1.21 | 1.29 | 1.3 | 1.5 | 0.73 |
| Bromide, Dissolved | EPA 300.0 | mg/L | 47.0 | 52.3 | 45.5 | 48.0 | 53.4 | 56.2 | 53.8 | 53.6 | 58.1 | 54.4 | 59.3 | 12.9 |
| Calcium | EPA 200.7 | mg/L | 640 | 388 | 360 | 753 | 829 | 605 | 630 | 2,370 | 2,400 | 2,030 | 2,110 | 427 |
| Calcium, Dissolved | EPA 200.7 | mg/L | 613 | 390 | 348 | 728 | 819 | 629 | 625 | 2,260 | 2,260 | 2,010 | 2,130 | 429 |
| Carbamates by HPLC (EPA 531) | EPA 531 | µg/L | - | - | - | - | - | - | - | - | - | - | - | - |
| Carbonate as CaCO3 | SM2320B | mg/L | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Chloride, Dissolved | EPA 300.0 | mg/L | 14,500 | 14,800 | 13,400 | 15,200 | 14,900 | 16,000 | 15,700 | 16,600 | 17,700 | 15,400 | 17,300 | 4,290 |
| Chlorinated Pesticides and PCB (EPA 508) | EPA 508 | µg/L | - | - | - | - | - | - | - | - | - | - | - | - |
| Color, Apparent (Unfiltered) | SM2120B | Color Units | ND | 5 | ND | ND | ND | ND | ND | ND | 5 | 5 | 5 | ND |
| Copper | EPA 200.7 | µg/L | ND | ND | ND | ND | ND | ND | ND | ND | ND | 119 | ND | ND |
| Copper, Total | EPA 200.8 | µg/L | - | - | - | - | - | - | - | - | - | - | - | - |
| DBCP & EDB | EPA 504.1 | µg/L | - | - | - | - | - | - | - | - | - | - | - | - |
| Dioxin | EPA 1613 | pg/L | - | - | - | - | - | - | - | - | - | - | - | - |
| Diquat (EPA 549) | EPA 549 | µg/L | - | - | - | - | - | - | - | - | - | - | - | - |
| Dissolved Anions | Calculation | Meq/L | 452.90 | 464.36 | 420.82 | 475.69 | 465.49 | 500.85 | 491.34 | 519.48 | 552.18 | 487.10 | 540.42 | 135.18 |
| Total Anions | Calculation | Meq/L | 452.90 | 464.36 | 420.82 | 475.69 | 465.49 | 500.85 | 491.34 | 519.48 | 552.18 | 487.10 | 540.42 | 135.18 |
| Dissolved Cations | Calculation | Meq/L | 408.39 | 466.15 | 402.59 | 481.52 | 444.78 | 482.84 | 489.58 | 565.93 | 497.36 | 478.71 | 511.11 | 139.50 |
| Total Cations | Calculation | Meq/L | 413.34 | 463.42 | 419.92 | 496.84 | 439.03 | 461.47 | 481.15 | 578.90 | 522.62 | 486.55 | 502.09 | 139.55 |
| Fluoride, Dissolved | EPA 300.0 | mg/L | 0.4 | 0.3 | 0.7 | 0.3 | 0.3 | 0.2 | 0.3 | 0.6 | 1.2 | ND | 0.1 | 0.1 |
| Hardness (as CaCO3) | SM2340B/Calc | mg/L | 5,240 | 4,190 | 4,650 | 6,140 | 5,930 | 5,100 | 6,020 | 11,800 | 11,100 | 9,930 | 10,400 | 2,420 |
| Hydroxide | SM2320B | mg/L | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Iodide | EPA 9056M & EPA 314.0 | µg/L | ND | ND | ND | ND | ND | ND | ND | ND | ND | 2.2 | ND | 2.5 |
| Iron | EPA 200.7 | µg/L | ND | ND | 7 | ND | ND | ND | ND | 244 | 313 | 193 | 141 | ND |
| Iron, Dissolved | EPA 200.7 | µg/L | ND | ND | ND | ND | ND | ND | 244 | 267 | 166 | 132 | ND | ND |
| Total Kjeldahl Nitrogen, Dissolved | SM4500-NH3 B,C,E & EPA 351.2 | mg/L | 0.7 | ND | 0.6 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Lead, Total | EPA 200.8 | µg/L | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Lithium | EPA 200.8 | µg/L | 133 | 111 | 137 | 151 | 178 | 172 | 220 | 265 | 313 | 301 | 434 | 15 |
| Magnesium | EPA 200.7 | mg/L | 885 | 936 | 911 | 1,040 | 938 | 944 | 1,080 | 1,420 | 1,250 | 1,180 | 1,240 | 328 |
| Magnesium, Dissolved | EPA 200.7 | mg/L | 878 | 931 | 879 | 1,100 | 948 | 982 | 1,020 | 1,340 | 1,210 | 1,150 | 1,270 | 326 |
| Manganese, Dissolved | EPA 200.7 | µg/L | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Manganese, Total | EPA 200.7 | µg/L | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 30 | ND |
| MBAS (Surfactants) | SM5540C | mg/L | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Nitrate as N | EPA 300.0 | mg/L | 2.1 | 1.9 | 2.4 | 1.8 | 1.1 | 0.9 | 1.4 | 1.0 | 0.2 | ND | 0.2 | 5.0 |
| Nitrate as NO3 | EPA 300.0 | mg/L | 9.3 | 8.5 | 11 | 7.9 | 4.4 | 4.1 | 6.1 | 4.4 | 0.9 | ND | 0.8 | 22 |
| Nitrate+Nitrite as N | EPA 300.0 | mg/L | 2.1 | 1.9 | 2.4 | 1.8 | 1.1 | 0.9 | 1.4 | 1.0 | 0.2 | 0.0 | 0.2 | 5.0 |
| Nitrite as NO2-N, Dissolved | EPA 300.0 | mg/L | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Odor Threshold at 60 C | SM2150B | TON | 1 | 1 | 1 | ND | 1 | 1 | 1 | 2 | 1 | 2 | 1 | ND |
| o-Phosphate-P | Hach 8048 & EPA 365.1 | mg/L | 0.10 | 0.11 | 0.11 | 0.05 | 0.05 | 0.05 | 0.05 | 0.03 | 0.01 | 0.03 | 0.03 | 0.07 |
| pH (Field Test) | SM4500-H+B | pH | 6.55 | 6.88 | 6.90 | 6.55 | 6.69 | 6.90 | 6.77 | 6.47 | 6.36 | 6.16 | 6.37 | 6.92 |
| pH (Laboratory) | SM4500-H+B | pH (H) | 7.0 | 7.0 | 7.4 | 7.0 | 7.0 | 7.0 | 7.3 | 6.8 | 6.8 | 6.7 | 7.1 | 7.1 |
| Phenoxy Acid Herbicides (515.3) | EPA 515.3 | µg/L | - | - | - | - | - | - | - | - | - | - | - | - |
| Phosphorus, Dissolved Total | HACH 8190 & EPA 365.1 | mg/L | 0.11 | 0.10 | 0.10 | 0.06 | 0.05 | 0.05 | 0.06 | ND | ND | 0.04 | 0.05 | 0.06 |
| Potassium | EPA 200.7 | mg/L | 227 | 234 | 267 | 239 | 216.0 | 219 | 247 | 73.4 | 78.7 | 75 | 61.3 | 30.2 |
| Potassium, Dissolved | EPA 200.7 | mg/L | 228 | 234 | 260 | 244 | 224 | 222 | 252 | 72.2 | 71.2 | 74 | 61.6 | 30.8 |
| QC Ratio TDS/SEC | Calculation | - | 0.65 | 0.65 | 0.67 | 0.65 | 0.69 | 0.68 | 0.64 | 0.73 | 0.69 | 0.71 | 0.69 | 0.72 |
| Reg. Org. Compounds (EPA 525) | EPA 525 | µg/L | - | - | - | - | - | - | - | - | - | - | - | - |
| Salinity | SM2520B | psu | 24.1 | 29.8 | 26.2 | 29.1 | 26.2 | 29.8 | 30.5 | 31.6 | 28.6 | 31.5 | 32.4 | 8.3 |
| Silica as SiO2, Dissolved | EPA 200.7 | mg/L | 16 | 12 | 16 | 22 | 18 | 18 | 22 | 31 | 32 | 32 | 34 | 28 |
| Sodium | EPA 200.7 | mg/L | 6,960 | 8,300 | 7,360 | 8,450 | 7,240 | 8,000 | 8,150 | 7,860 | 6,850 | 6,580 | 6,740 | 2,080 |
| | | | | | | | | | | | | | | |

Notes:

°C = Degrees Celsius

°C = Degrees Celcius

Mg/L = Milliequivalents per Liter

Meq/L = Milliequivalents per liter

mg/L = Milligrams per Liter

NTU = Nephelometric Turbi

pg/L = Picograms per Liter

TON = Threshold Odor Number

ND = NOT DETECTED at or above the Reporting Limit (RL) or Practical Quantitation Limit (PQL). See laboratory water quality reports for RL and PQL values.

¹ Using EPA Method 200.8, Arsenic values are overstated due to matrix interference caused by high chloride levels. The overstated values are in laboratory reports through February 11, 2016. Going forward, EPA Method 1640 will be used for Arsenic analysis.

Table 3: Summary of Quarterly and Semiannual Monitoring Well Laboratory Water Quality Results Following Long-Term Pumping Test

| Constituent | Method | Units | MW-4S | | | | | | | | | |
|---|------------------------------|-------------|-----------------------|-------------------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|
| | | | Monitoring Well Name: | Sample Collection Date: | 27-Apr-18 13:19 | 27-Apr-18 13:34 | 25-Jul-18 13:40 | 25-Jul-18 13:55 | 25-Jul-18 14:10 | 12-Oct-18 11:35 | 12-Oct-18 11:50 | 12-Oct-18 12:05 |
| Alkalinity, Total (as CaCO ₃) | SM2320B | mg/L | 70 | | 68 | 68 | 68 | 68 | 71 | 68 | 68 | 68 |
| Aluminum, Total | EPA 200.8 | µg/L | ND | | ND |
| Ammonia-N, Dissolved | SM4500NH3 D & EPA 350.1 | mg/L | ND | | ND |
| Arsenic, Total ¹ | EPA 200.8 | µg/L | - | | - | - | - | - | - | - | - | - |
| Arsenic, Total | EPA 1640 | µg/L | 0.18 | | 0.18 | 0.22 | 0.20 | 0.19 | 0.24 | 0.21 | 0.21 | 0.20 |
| Barium, Dissolved | EPA 200.8 | µg/L | ND | | ND | ND | ND | ND | 42.0 | 40.0 | 43.5 | |
| Bicarbonate (as HCO ₃ -) | SM2320B | mg/L | 85 | | 83 | 83 | 83 | 83 | 87 | 83 | 83 | |
| Boron, Dissolved | EPA 200.7 | mg/L | 0.74 | | 0.75 | 0.69 | 0.61 | 0.61 | 0.54 | 0.51 | 0.50 | |
| Bromide, Dissolved | EPA 300.0 | mg/L | 13.0 | | 12.7 | 12.7 | 12.5 | 12.5 | 11.7 | 12.1 | 11.4 | |
| Calcium | EPA 200.7 | mg/L | 432 | | 443 | 419 | 389 | 401 | 410 | 411 | 413 | |
| Calcium, Dissolved | EPA 200.7 | mg/L | 434 | | 444 | 388 | 343 | 351 | 407 | 412 | 411 | |
| Carbamates by HPLC (EPA 531) | EPA 531 | µg/L | - | | - | - | - | - | - | - | - | - |
| Carbonate as CaCO ₃ | SM2320B | mg/L | ND | | ND | |
| Chloride, Dissolved | EPA 300.0 | mg/L | 4,340 | | 4,300 | 4,150 | 4,130 | 4,090 | 3,890 | 4,090 | 3,980 | |
| Chlorinated Pesticides and PCB (EPA 508) | EPA 508 | µg/L | - | | - | - | - | - | - | - | - | |
| Color, Apparent (Unfiltered) | SM2120B | Color Units | ND | | ND | |
| Copper | EPA 200.7 | µg/L | ND | | ND | |
| Copper, Total | EPA 200.8 | µg/L | - | | - | - | - | - | - | - | - | |
| DBCP & EDB | EPA 504.1 | µg/L | - | | - | - | - | - | - | - | - | |
| Dioxin | EPA 1613 | pg/L | - | | - | - | - | - | - | - | - | |
| Diquat (EPA 549) | EPA 549 | µg/L | - | | - | - | - | - | - | - | - | |
| Dissolved Anions | Calculation | Meq/L | 136.36 | | 135.19 | 130.73 | 130.60 | 129.01 | 122.84 | 128.42 | 125.32 | |
| Total Anions | Calculation | Meq/L | 136.36 | | 135.19 | 130.73 | 130.60 | 129.01 | 122.84 | 128.42 | 125.32 | |
| Dissolved Cations | Calculation | Meq/L | 136.36 | | 142.77 | 127.80 | 113.22 | 118.93 | 123.07 | 119.56 | 124.44 | |
| Total Cations | Calculation | Meq/L | 140.52 | | 141.91 | 126.22 | 109.34 | 115.47 | 117.74 | 123.40 | 121.55 | |
| Fluoride, Dissolved | EPA 300.0 | mg/L | ND | | ND | ND | ND | ND | ND | ND | 0.1 | |
| Hardness (as CaCO ₃) | SM2340B/Calc | mg/L | 2,420 | | 2,490 | 2,050 | 1,850 | 1,910 | 1,720 | 2,000 | 1,940 | |
| Hydroxide | SM2320B | mg/L | ND | | ND | |
| Iodide | EPA 9056M & EPA 314.0 | µg/L | ND | | ND | |
| Iron | EPA 200.7 | µg/L | ND | | ND | |
| Iron, Dissolved | EPA 200.7 | µg/L | ND | | ND | |
| Total Kjeldahl Nitrogen, Dissolved | SM4500-NH3 B,C,E & EPA 351.2 | mg/L | ND | | ND | ND | ND | ND | 1.50 | 1.31 | 1.28 | |
| Lead, Total | EPA 200.8 | µg/L | ND | | ND | |
| Lithium | EPA 200.8 | µg/L | 15 | | 14 | 17 | 17 | 17 | 17 | 18 | 18 | |
| Magnesium | EPA 200.7 | mg/L | 326 | | 336 | 244 | 212 | 221 | 222 | 274 | 266 | |
| Magnesium, Dissolved | EPA 200.7 | mg/L | 327 | | 335 | 314 | 287 | 293 | 262 | 269 | 271 | |
| Manganese, Dissolved | EPA 200.7 | µg/L | ND | | ND | |
| Manganese, Total | EPA 200.7 | µg/L | ND | | ND | |
| MBAS (Surfactants) | SM5540C | mg/L | ND | | ND | |
| Nitrate as N | EPA 300.0 | mg/L | 5.0 | | 5.0 | 5.3 | 5.2 | 5.2 | 5.3 | 5.4 | 5.4 | |
| Nitrate as NO ₃ | EPA 300.0 | mg/L | 22 | | 22 | 23 | 23 | 23 | 23 | 24 | 24 | |
| Nitrate+Nitrite as N | EPA 300.0 | mg/L | 5.0 | | 5.0 | 5.3 | 5.2 | 5.2 | 5.3 | 5.4 | 5.4 | |
| Nitrite as NO ₂ -N, Dissolved | EPA 300.0 | mg/L | ND | | ND | |
| Odor Threshold at 60 C | SM2150B | TON | ND | | ND | ND | ND | ND | 1 | 1 | 1 | |
| o-Phosphate-P | Hach 8048 & EPA 365.1 | mg/L | 0.07 | | 0.07 | 0.07 | 0.08 | 0.08 | 0.08 | 0.07 | 0.08 | |
| pH (Field Test) | SM4500-H+B | pH | 6.90 | | 6.90 | 6.98 | 6.96 | 6.96 | 7.02 | 7.01 | 7.00 | |
| pH (Laboratory) | SM4500-H+B | pH (H) | 7.1 | | 7.2 | 7.1 | 7.1 | 7.1 | 7.0 | 7.0 | 7.1 | |
| Phenoxy Acid Herbicides (515.3) | EPA 515.3 | µg/L | - | | - | - | - | - | - | - | - | |
| Phosphorus, Dissolved Total | HACH 8190 & EPA 365.1 | mg/L | 0.06 | | 0.06 | 0.06 | 0.06 | 0.06 | 0.08 | 0.09 | 0.09 | |
| Potassium | EPA 200.7 | mg/L | 30.7 | | 31.6 | 32.8 | 27.6 | 27.8 | 28.0 | 28.7 | 29.4 | |
| Potassium, Dissolved | EPA 200.7 | mg/L | 31.1 | | 32.4 | 31.9 | 27.8 | 29.0 | 28.2 | 28.8 | 28.1 | |
| QC Ratio TDS/SEC | Calculation | - | 0.71 | | 0.65 | 0.65 | 0.69 | 0.67 | 0.63 | 0.55 | 0.53 | |
| Reg. Org. Compounds (EPA 525) | EPA 525 | µg/L | - | | - | - | - | - | - | - | - | |
| Salinity | SM2520B | psu | 8.2 | | 8.2 | 7.9 | 7.8 | 7.9 | 6.7 | 6.7 | 6.7 | |
| Silica as SiO ₂ , Dissolved | EPA 200.7 | mg/L | 29 | | 30 | 23 | 20 | 20 | 26 | 27 | 26 | |
| Sodium | EPA 200.7 | mg/L | 2,100 | | 2,100 | 1,940 | 1,650 | 1,760 | 1,800 | 1,830 | 1,800 | |
| Sodium, Dissolved | EPA 200.7 | mg/L | 2,000 | | 2,120 | 1,880 | 1,650 | 1,760 | 1,850 | 1,750 | 1,860 | |
| Specific Conductance (E.C.) | SM2510B | µmhos/cm | 12,770 | | 12,760 | 12,350 | 12,230 | 12,300 | 11,780 | 11,740 | 11,730 | |
| Specific Conductance (E.C.) (Field) | SM2510B | µmhos/cm | 13,000 | | 12,990 | 12,510 | 12,490 | 12,480 | 11,940 | 11,960 | 11,930 | |
| Strontium, Dissolved | EPA 200.8 | µg/L | 3,260 | | 3,250 | 2,830 | 2,870 | 2,820 | 3,110 | 3,100 | 3,210 | |
| Sulfate, Dissolved | EPA 300.0 | mg/L | 577 | | 577 | 565 | 586 | 564 | 536 | 535 | 536 | |
| Temperature (Field) | SM2550 | °C | 17.8 | | 17.8 | 17.9 | 17.9 | 17.9 | 17.8 | 17.8 | 17.8 | |
| Total Diss. Solids | SM2540C | mg/L | 9,100 | | 8,300 | 8,000 | 8,400 | 8,200 | 7,400 | 6,500 | 6,200 | |
| Turbidity | EPA 180.1 | NTU | 0.10 | | 0.10 | 0.05 | 0.05 | 0.05 | 0.10 | 0.10 | 0.10 | |
| Turbidity (Field) | EPA 180.1 | NTU | 0.07 | | 0.09 | 0.26 | 0.33 | 0.10 | 0.07 | 0.06 | 0.06 | |
| Volatile Org. Compounds (524) | EPA 524 | µg/L | - | | - | - | - | - | - | - | - | |
| Zinc | EPA 200.7 | µg/L | ND | | ND | | | | | | | |

Table 3: Summary of Quarterly and Semiannual Monitoring Well Laboratory Water Quality Results Following Long-Term Pumping Test

| Constituent | Method | Units | MW-4S | | | | | | | | |
|---|------------------------------|-------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|--|
| | | | 23-Jan-19 12:46 | 23-Jan-19 13:01 | 23-Jan-19 13:16 | 11-Apr-19 12:34 | 11-Apr-19 12:49 | 11-Apr-19 13:08 | 25-Jul-19 09:02 | 25-Jul-19 09:17 | |
| Alkalinity, Total (as CaCO ₃) | SM2320B | mg/L | 68 | 67 | 66 | 65 | 64 | 65 | 65 | 65 | |
| Aluminum, Total | EPA 200.8 | µg/L | ND | |
| Ammonia-N, Dissolved | SM4500NH3 D & EPA 350.1 | mg/L | ND | |
| Arsenic, Total ¹ | EPA 200.8 | µg/L | - | - | - | - | - | - | - | - | |
| Arsenic, Total | EPA 1640 | µg/L | 0.24 | 0.21 | 0.21 | 0.27 | 0.23 | 0.19 | 0.28 | 0.25 | |
| Barium, Dissolved | EPA 200.8 | µg/L | 98.0 | 51.4 | 46.8 | 33.8 | 34.4 | 34.2 | 31.2 | 31.5 | |
| Bicarbonate (as HCO ₃ -) | SM2320B | mg/L | 83 | 82 | 80 | 79 | 78 | 79 | 79 | 79 | |
| Boron, Dissolved | EPA 200.7 | mg/L | 0.71 | 0.72 | 0.69 | 0.54 | 0.56 | 0.56 | 0.47 | 0.47 | |
| Bromide, Dissolved | EPA 300.0 | mg/L | 11.1 | 11.3 | 10.5 | 80.9 | 82.2 | 78.9 | 13.7 | 13.3 | |
| Calcium | EPA 200.7 | mg/L | 428 | 430 | 427 | 413 | 442 | 405 | 319 | 327 | |
| Calcium, Dissolved | EPA 200.7 | mg/L | 421 | 434 | 405 | 375 | 409 | 400 | 313 | 319 | |
| Carbamates by HPLC (EPA 531) | EPA 531 | µg/L | - | - | - | - | - | - | - | - | |
| Carbonate as CaCO ₃ | SM2320B | mg/L | ND | |
| Chloride, Dissolved | EPA 300.0 | mg/L | 4,050 | 4,030 | 3,800 | 4,330 | 4,350 | 4,360 | 3,780 | 3,670 | |
| Chlorinated Pesticides and PCB (EPA 508) | EPA 508 | µg/L | - | - | - | - | - | - | - | - | |
| Color, Apparent (Unfiltered) | SM2120B | Color Units | ND | |
| Copper | EPA 200.7 | µg/L | ND | |
| Copper, Total | EPA 200.8 | µg/L | - | - | - | - | - | - | - | - | |
| DBCP & EDB | EPA 504.1 | µg/L | - | - | - | - | - | - | - | - | |
| Dioxin | EPA 1613 | pg/L | - | - | - | - | - | - | - | - | |
| Diquat (EPA 549) | EPA 549 | µg/L | - | - | - | - | - | - | - | - | |
| Dissolved Anions | Calculation | Meq/L | 127.90 | 127.28 | 120.61 | 137.67 | 138.34 | 138.39 | 119.04 | 115.55 | |
| Total Anions | Calculation | Meq/L | 127.90 | 127.28 | 120.61 | 137.67 | 138.34 | 138.39 | 119.04 | 115.55 | |
| Dissolved Cations | Calculation | Meq/L | 131.43 | 125.88 | 124.34 | 119.71 | 125.66 | 125.87 | 106.64 | 109.63 | |
| Total Cations | Calculation | Meq/L | 129.04 | 132.23 | 128.26 | 124.72 | 134.57 | 126.41 | 110.40 | 112.34 | |
| Fluoride, Dissolved | EPA 300.0 | mg/L | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.2 | 0.1 | 0.1 | |
| Hardness (as CaCO ₃) | SM2340B/Calc | mg/L | 2,360 | 2,380 | 2,370 | 2,350 | 2,540 | 2,300 | 1,860 | 1,910 | |
| Hydroxide | SM2320B | mg/L | ND | |
| Iodide | EPA 9056M & EPA 314.0 | µg/L | ND | |
| Iron | EPA 200.7 | µg/L | ND | |
| Iron, Dissolved | EPA 200.7 | µg/L | ND | |
| Total Kjeldahl Nitrogen, Dissolved | SM4500-NH3 B,C,E & EPA 351.2 | mg/L | ND | ND | ND | 0.8 | 0.8 | 1.00 | 0.9 | 1.0 | |
| Lead, Total | EPA 200.8 | µg/L | ND | |
| Lithium | EPA 200.8 | µg/L | 12.6 | 11.6 | 11.2 | 13 | 12 | 11 | 12.6 | 13.0 | |
| Magnesium | EPA 200.7 | mg/L | 315 | 316 | 317 | 321 | 348 | 312 | 258 | 266 | |
| Magnesium, Dissolved | EPA 200.7 | mg/L | 317 | 326 | 310 | 297 | 317 | 319 | 248 | 254 | |
| Manganese, Dissolved | EPA 200.7 | µg/L | ND | |
| Manganese, Total | EPA 200.7 | µg/L | ND | |
| MBAS (Surfactants) | SM5540C | mg/L | ND | |
| Nitrate as N | EPA 300.0 | mg/L | 5.1 | 5.1 | 5.1 | 4.4 | 4.6 | 4.5 | 5.0 | 4.9 | |
| Nitrate as NO ₃ | EPA 300.0 | mg/L | 23 | 23 | 22 | 19.5 | 20.4 | 19.5 | 22 | 22 | |
| Nitrate+Nitrite as N | EPA 300.0 | mg/L | 5.1 | 5.1 | 5.1 | 4.4 | 4.6 | 4.5 | 5.0 | 4.9 | |
| Nitrite as NO ₂ -N, Dissolved | EPA 300.0 | mg/L | ND | |
| Odor Threshold at 60 C | SM2150B | TON | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | |
| o-Phosphate-P | Hach 8048 & EPA 365.1 | mg/L | 0.08 | 0.08 | 0.08 | 0.08 | 0.08 | 0.09 | 0.09 | 0.09 | |
| pH (Field Test) | SM4500-H+B | pH | 7.01 | 6.99 | 6.98 | 7.04 | 7.03 | 7.03 | 6.95 | 6.94 | |
| pH (Laboratory) | SM4500-H+B | pH (H) | 7.0 | 7.0 | 7.0 | 7.0 | 7.0 | 7.0 | 7.2 | 7.2 | |
| Phenoxy Acid Herbicides (515.3) | EPA 515.3 | µg/L | - | - | - | - | - | - | - | - | |
| Phosphorus, Dissolved Total | HACH 8190 & EPA 365.1 | mg/L | 0.08 | 0.07 | 0.08 | 0.08 | 0.08 | 0.08 | 0.09 | 0.09 | |
| Potassium | EPA 200.7 | mg/L | 33.3 | 31.7 | 32.3 | 27.3 | 31.0 | 27.5 | 23.7 | 24.3 | |
| Potassium, Dissolved | EPA 200.7 | mg/L | 32.0 | 32.8 | 29.4 | 27.1 | 27.0 | 27.8 | 22.6 | 23.6 | |
| QC Ratio TDS/SEC | Calculation | - | 0.57 | 0.59 | 0.56 | 0.59 | 0.64 | 0.60 | 0.71 | 0.66 | |
| Reg. Org. Compounds (EPA 525) | EPA 525 | µg/L | - | - | - | - | - | - | - | - | |
| Salinity | SM2520B | psu | 7.0 | 7.0 | 7.0 | 8.3 | 8.2 | 8.2 | 6.4 | 6.4 | |
| Silica as SiO ₂ , Dissolved | EPA 200.7 | mg/L | 28 | 28 | 28 | 22 | 24 | 26 | 23 | 24 | |
| Sodium | EPA 200.7 | mg/L | 1,860 | 1,930 | 1,840 | 1,770 | 1,910 | 1,840 | 1,670 | 1,690 | |
| Sodium, Dissolved | EPA 200.7 | mg/L | 1,920 | 1,760 | 1,790 | 1,740 | 1,800 | 1,820 | 1,610 | 1,660 | |
| Specific Conductance (E.C.) | SM2510B | µmhos/cm | 12,300 | 12,300 | 12,300 | 12,890 | 12,800 | 12,740 | 11,200 | 11,190 | |
| Specific Conductance (E.C.) (Field) | SM2510B | µmhos/cm | 12,430 | 12,380 | 12,380 | 13,070 | 13,000 | 12,940 | 11,320 | 11,280 | |
| Strontium, Dissolved | EPA 200.8 | µg/L | 3,540 | 3,560 | 3,610 | 3,560 | 3,530 | 3,480 | 2,990 | 3,100 | |
| Sulfate, Dissolved | EPA 300.0 | mg/L | 566 | 564 | 557 | 619 | 624 | 614 | 508 | 490 | |
| Temperature (Field) | SM2550 | °C | 17.9 | 17.9 | 17.9 | 17.8 | 17.8 | 17.8 | 17.8 | 17.8 | |
| Total Diss. Solids | SM2540C | mg/L | 6,950 | 7,200 | 6,900 | 7,600 | 8,200 | 7,700 | 7,900 | 7,400 | |
| Turbidity | EPA 180.1 | NTU | 0.05 | 0.05 | 0.05 | 0.10 | 0.25 | 0.15 | 0.15 | 0.15 | |
| Turbidity (Field) | EPA 180.1 | NTU | 0.1 | 0.14 | 0.13 | 0.1 | 0.07 | 0.08 | 0.11 | 0.09 | |
| Volatile Org. Compounds (524) | EPA 524 | µg/L | - | - | - | - | - | - | - | - | |
| Zinc | EPA 200.7 | µg/L | ND | 33 | ND | ND | ND | ND | ND | ND | |
| Zinc, Total | EPA 200.8 | µg/L | - | - | - | - | - | - | - | - | |
| PCBs, Total | EPA 508 | µg/L | - | - | - | - | - | - | - | - | |
| Total PCB | EPA 1668C | pg/L | - | - | - | - | - | - | - | - | |

Notes:

°C = Degrees Celsius
 CU = Color Units
 Meq/L = Milliequivalents per Liter
 mg/L = Milligrams per Liter
 NTU = Nephelometric Turbidity Units
 pg/L = Picograms per Liter
 TON = Threshold Odor Number
 µg/L = Micorgrams per Liter
 µmhos/cm = Micromhos per Centimeter

ND = NOT DETECTED at or above the Reporting Limit (RL) or Practical Quantitation Limit (PQL). See laboratory water quality reports for RL and PQL values.

¹ Using EPA Method 200.8

Table 3: Summary of Quarterly and Semiannual Monitoring Well Laboratory Water Quality Results Following Long-Term Pumping Test

| Monitoring Well Name: | Sample Collection Date: | MW-4S | | | | | | | MW-4M |
|---|--|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|
| | | 25-Jul-19 09:32 | 17-Oct-19 15:34 | 17-Oct-19 15:49 | 17-Oct-19 16:04 | 15-Jan-20 13:48 | 15-Jan-20 14:03 | 15-Jan-20 14:18 | 27-Apr-18 11:47 |
| Constituent | Method | Units | Result |
| Alkalinity, Total (as CaCO ₃) | SM2320B | mg/L | 64 | 58 | 59 | 59 | 59 | 58 | 58 |
| Aluminum, Total | EPA 200.8 | µg/L | ND |
| Ammonia-N, Dissolved | SM4500NH ₃ D & EPA 350.1 | mg/L | ND |
| Arsenic, Total ¹ | EPA 200.8 | µg/L | - | - | - | - | - | - | - |
| Arsenic, Total | EPA 1640 | µg/L | 0.26 | 0.34 | 0.31 | 0.27 | 0.35 | 0.31 | 0.30 |
| Barium, Dissolved | EPA 200.8 | µg/L | 31.6 | 31 | 30 | 27 | 48.1 | 52.4 | 53.5 |
| Bicarbonate (as HCO ₃ -) | SM2320B | mg/L | 78 | 71 | 72 | 72 | 71 | 71 | 118 |
| Boron, Dissolved | EPA 200.7 | mg/L | 0.48 | 0.62 | 0.12 | 0.13 | 0.60 | 0.59 | 0.59 |
| Bromide, Dissolved | EPA 300.0 | mg/L | 13.1 | 10.9 | 11.2 | 11.1 | 9.0 | 9.9 | 36.7 |
| Calcium | EPA 200.7 | mg/L | 344 | 298 | 287 | 289 | 386 | 388 | 1,220 |
| Calcium, Dissolved | EPA 200.7 | mg/L | 333 | 294 | 287 | 289 | 385 | 389 | 1,240 |
| Carbamates by HPLC (EPA 531) | EPA 531 | µg/L | - | - | - | - | - | - | - |
| Carbonate as CaCO ₃ | SM2320B | mg/L | ND |
| Chloride, Dissolved | EPA 300.0 | mg/L | 3,600 | 3,070 | 3,120 | 3,100 | 3,370 | 3,620 | 3,650 |
| Chlorinated Pesticides and PCB (EPA 508) | EPA 508 | µg/L | - | - | - | - | - | - | - |
| Color, Apparent (Unfiltered) | SM2120B | Color Units | ND |
| Copper | EPA 200.7 | µg/L | ND |
| Copper, Total | EPA 200.8 | µg/L | - | - | - | - | - | - | - |
| DBCP & EDB | EPA 504.1 | µg/L | - | - | - | - | - | - | - |
| Dioxin | EPA 1613 | pg/L | - | - | - | - | - | - | - |
| Diquat (EPA 549) | EPA 549 | µg/L | - | - | - | - | - | - | - |
| Dissolved Anions | Calculation | Meq/L | 113.40 | 100.69 | 99.11 | 98.45 | 105.90 | 113.69 | 114.61 |
| Total Anions | Calculation | Meq/L | 113.40 | 100.69 | 99.11 | 98.45 | 105.90 | 113.69 | 114.61 |
| Dissolved Cations | Calculation | Meq/L | 115.08 | 102.11 | 102.07 | 100.19 | 116.01 | 115.36 | 116.01 |
| Total Cations | Calculation | Meq/L | 120.21 | 104.73 | 100.52 | 98.97 | 116.58 | 114.94 | 116.03 |
| Fluoride, Dissolved | EPA 300.0 | mg/L | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | ND |
| Hardness (as CaCO ₃) | SM2340B/Calc | mg/L | 2,020 | 1,970 | 1,940 | 1,920 | 2,170 | 2,170 | 2,200 |
| Hydroxide | SM2320B | mg/L | ND |
| Iodide | EPA 9056M & EPA 314.0 | µg/L | ND |
| Iron | EPA 200.7 | µg/L | ND |
| Iron, Dissolved | EPA 200.7 | µg/L | ND |
| Total Kjeldahl Nitrogen, Dissolved | SM4500-NH ₃ B,C,E & EPA 351.2 | mg/L | 1.13 | ND | ND | ND | 1.0 | 1.1 | 1.6 |
| Lead, Total | EPA 200.8 | µg/L | ND |
| Lithium | EPA 200.8 | µg/L | 12.8 | 13.0 | 12.4 | 12.2 | 9.3 | 8.9 | 8.6 |
| Magnesium | EPA 200.7 | mg/L | 282 | 247 | 241 | 241 | 292 | 292 | 986 |
| Magnesium, Dissolved | EPA 200.7 | mg/L | 269 | 241 | 252 | 239 | 291 | 286 | 292 |
| Manganese, Dissolved | EPA 200.7 | µg/L | ND |
| Manganese, Total | EPA 200.7 | µg/L | ND |
| MBAS (Surfactants) | SM5540C | mg/L | ND | ND | ND | ND | 0.06 | 0.07 | 0.06 |
| Nitrate as N | EPA 300.0 | mg/L | 4.8 | 5.2 | 5.3 | 5.2 | 5.2 | 5.2 | 5.3 |
| Nitrate as NO ₃ | EPA 300.0 | mg/L | 21 | 23 | 23 | 23 | 23 | 23 | 23 |
| Nitrate+Nitrite as N | EPA 300.0 | mg/L | 4.8 | 5.2 | 5.3 | 5.2 | 5.2 | 5.2 | 5.3 |
| Nitrite as NO ₂ -N, Dissolved | EPA 300.0 | mg/L | ND |
| Odor Threshold at 60 C | SM2150B | TON | 1 | 1 | 1 | 1 | 1 | 1 | ND |
| o-Phosphate-P | Hach 8048 & EPA 365.1 | mg/L | 0.09 | 0.13 | 0.14 | 0.12 | 0.12 | 0.12 | 0.04 |
| pH (Field Test) | SM4500-H+B | pH | 6.94 | 7.02 | 7.00 | 7.00 | 6.99 | 6.97 | 6.95 |
| pH (Laboratory) | SM4500-H+B | pH (H) | 7.2 | 7.1 | 7.1 | 7.1 | 7.1 | 7.2 | 6.9 |
| Phenoxy Acid Herbicides (515.3) | EPA 515.3 | µg/L | - | - | - | - | - | - | - |
| Phosphorus, Dissolved Total | HACH 8190 & EPA 365.1 | mg/L | 0.09 | 0.13 | 0.13 | 0.13 | 0.11 | 0.12 | 0.03 |
| Potassium | EPA 200.7 | mg/L | 26.0 | 24.7 | 23.2 | 23.2 | 25.2 | 25.3 | 25.6 |
| Potassium, Dissolved | EPA 200.7 | mg/L | 25.1 | 24.1 | 27.9 | 23.0 | 25.2 | 24.8 | 25.2 |
| QC Ratio TDS/SEC | Calculation | - | 0.72 | 0.52 | 0.50 | 0.53 | 0.63 | 0.65 | 0.50 |
| Reg. Org. Compounds (EPA 525) | EPA 525 | µg/L | - | - | - | - | - | - | - |
| Salinity | SM2520B | psu | 6.3 | 6.4 | 6.3 | 6.3 | 6.7 | 6.7 | 23.5 |
| Silica as SiO ₂ , Dissolved | EPA 200.7 | mg/L | 25 | 29 | 29 | 28 | 30 | 30 | 30 |
| Sodium | EPA 200.7 | mg/L | 1,820 | 1,580 | 1,510 | 1,470 | 1,670 | 1,630 | 1,640 |
| Sodium, Dissolved | EPA 200.7 | mg/L | 1,740 | 1,540 | 1,520 | 1,510 | 1,660 | 1,650 | 1,650 |
| Specific Conductance (E.C.) | SM2510B | µmhos/cm | 11,140 | 9,840 | 9,750 | 9,760 | 10,540 | 10,740 | 10,750 |
| Specific Conductance (E.C.) (Field) | SM2510B | µmhos/cm | 11,250 | 9,661 | 9,677 | 9,706 | 10,730 | 10,870 | 10,870 |
| Strontium, Dissolved | EPA 200.8 | µg/L | 3,110 | 2,350 | 2,450 | 2,620 | 3,050 | 3,050 | 2,980 |
| Sulfate, Dissolved | EPA 300.0 | mg/L | 483 | 443 | 450 | 446 | 440 | 476 | 479 |
| Temperature (Field) | SM2550 | °C | 17.8 | 17.7 | 17.7 | 17.7 | 17.8 | 17.8 | 18.0 |
| Total Diss. Solids | SM2540C | mg/L | 8,000 | 5,100 | 4,900 | 5,200 | 6,620 | 7,000 | 5,400 |
| Turbidity | EPA 180.1 | NTU | 0.15 | ND | ND | 0.05 | 0.05 | 0.05 | 0.10 |
| Turbidity (Field) | EPA 180.1 | NTU | 0.07 | 0.15 | 0.07 | 0.07 | 0.07 | 0.08 | 0.07 |
| Volatile Org. Compounds (524) | EPA 524 | µg/L | - | - | - | - | - | - | - |
| Zinc | EPA 200.7 | µg/L | ND |
| Zinc, Total | EPA 200.8 | µg/L | - | - | - | - | - | - | - |
| PCBs, Total | EPA 508 | µg/L | - | - | - | - | - | - | - |
| Total PCB | EPA 1668C | pg/L | - | - | - | - | - | - | - |

Notes:

°C = Degrees Celsius
 CU = Color Units
 Meq/L = Milliequivalents per Liter
 mg/L = Milligrams per Liter
 NTU = Nephelometric Turbidity Units
 pg/L = Picograms per Liter
 TON = Threshold Odor Number
 µg/L = Micorgrams per Liter
 µmhos/cm = Micromhos per Centimeter

ND = NOT DETECTED at or above the Reporting Limit (RL) or Practical Quantitation Limit (PQL). See laboratory water quality reports for RL and PQL values.

¹ Using EPA Method 200.8, Arsenic values are overstated due to matrix interference caused by high chloride levels. The overstated values are in laboratory reports through February 11, 2016. Going forward, EPA Method 1640 will be used for Arsenic analysis only.

Table 3: Summary of Quarterly and Semiannual Monitoring Well Laboratory Water Quality Results Following Long-Term Pumping Test

| Constituent | Method | Units | MW-4M | | | | | | | |
|---|------------------------------|-------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|
| | | | 27-Apr-18 12:02 | 27-Apr-18 12:17 | 25-Jul-18 12:22 | 25-Jul-18 12:37 | 25-Jul-18 12:52 | 12-Oct-18 10:04 | 12-Oct-18 10:19 | 12-Oct-18 10:34 |
| Alkalinity, Total (as CaCO ₃) | SM2320B | mg/L | 96 | 97 | 96 | 97 | 96 | 97 | 97 | 97 |
| Aluminum, Total | EPA 200.8 | µg/L | ND |
| Ammonia-N, Dissolved | SM4500NH3 D & EPA 350.1 | mg/L | ND |
| Arsenic, Total ¹ | EPA 200.8 | µg/L | - | - | - | - | - | - | - | - |
| Arsenic, Total | EPA 1640 | µg/L | 0.094 | 0.090 | 0.09 | 0.09 | 0.09 | 0.088 | 0.087 | 0.088 |
| Barium, Dissolved | EPA 200.8 | µg/L | ND | 101 | 103 | 103 | 104 | 100 | 100 | 104 |
| Bicarbonate (as HCO ₃ -) | SM2320B | mg/L | 117 | 118 | 117 | 118 | 117 | 118 | 118 | 118 |
| Boron, Dissolved | EPA 200.7 | mg/L | 1.6 | 1.6 | 1.45 | 1.46 | 1.47 | 1.17 | 1.29 | 1.26 |
| Bromide, Dissolved | EPA 300.0 | mg/L | 35.1 | 36.4 | 39.4 | 43.7 | 41.3 | 40.0 | 40.6 | 40.0 |
| Calcium | EPA 200.7 | mg/L | 1,240 | 1,240 | 1,330 | 1,310 | 1,310 | 1,290 | 1,330 | 1,310 |
| Calcium, Dissolved | EPA 200.7 | mg/L | 1,230 | 1,230 | 1,270 | 1,290 | 1,240 | 1,290 | 1,320 | 1,320 |
| Carbamates by HPLC (EPA 531) | EPA 531 | µg/L | - | - | - | - | - | - | - | - |
| Carbonate as CaCO ₃ | SM2320B | mg/L | ND |
| Chloride, Dissolved | EPA 300.0 | mg/L | 12,300 | 12,700 | 12,200 | 14,000 | 12,600 | 12,500 | 12,800 | 12,600 |
| Chlorinated Pesticides and PCB (EPA 508) | EPA 508 | µg/L | - | - | - | - | - | - | - | - |
| Color, Apparent (Unfiltered) | SM2120B | Color Units | ND |
| Copper | EPA 200.7 | µg/L | ND |
| Copper, Total | EPA 200.8 | µg/L | - | - | - | - | - | - | - | - |
| DBCP & EDB | EPA 504.1 | µg/L | - | - | - | - | - | - | - | - |
| Dioxin | EPA 1613 | pg/L | - | - | - | - | - | - | - | - |
| Diquat (EPA 549) | EPA 549 | µg/L | - | - | - | - | - | - | - | - |
| Dissolved Anions | Calculation | Meq/L | 384.42 | 395.55 | 379.94 | 435.79 | 392.30 | 389.68 | 398.15 | 392.30 |
| Total Anions | Calculation | Meq/L | 384.42 | 395.55 | 379.94 | 435.79 | 392.30 | 389.68 | 398.15 | 392.30 |
| Dissolved Cations | Calculation | Meq/L | 404.78 | 401.27 | 395.61 | 385.43 | 379.71 | 371.77 | 369.16 | 365.16 |
| Total Cations | Calculation | Meq/L | 409.19 | 404.41 | 407.29 | 379.78 | 383.80 | 375.13 | 370.13 | 379.00 |
| Fluoride, Dissolved | EPA 300.0 | mg/L | ND | ND | ND | ND | ND | 0.1 | ND | ND |
| Hardness (as CaCO ₃) | SM2340B/Calc | mg/L | 7,220 | 7,240 | 7,220 | 7,040 | 7,080 | 6,370 | 6,340 | 6,410 |
| Hydroxide | SM2320B | mg/L | ND |
| Iodide | EPA 9056M & EPA 314.0 | µg/L | ND |
| Iron | EPA 200.7 | µg/L | ND |
| Iron, Dissolved | EPA 200.7 | µg/L | ND |
| Total Kjeldahl Nitrogen, Dissolved | SM4500-NH3 B,C,E & EPA 351.2 | mg/L | ND | ND | ND | ND | ND | 0.5 | ND | 0.5 |
| Lead, Total | EPA 200.8 | µg/L | ND |
| Lithium | EPA 200.8 | µg/L | 40 | 41 | 47 | 47 | 47 | 55 | 54 | 54 |
| Magnesium | EPA 200.7 | mg/L | 1,000 | 1,000 | 947 | 916 | 922 | 858 | 848 | 862 |
| Magnesium, Dissolved | EPA 200.7 | mg/L | 1,000 | 984 | 957 | 949 | 936 | 855 | 869 | 874 |
| Manganese, Dissolved | EPA 200.7 | µg/L | ND |
| Manganese, Total | EPA 200.7 | µg/L | ND |
| MBAS (Surfactants) | SM5540C | mg/L | ND |
| Nitrate as N | EPA 300.0 | mg/L | 1.4 | 1.6 | 0.8 | 0.8 | 0.9 | 0.8 | 0.8 | 0.8 |
| Nitrate as NO ₃ | EPA 300.0 | mg/L | 6.4 | 6.9 | 3.5 | 3.5 | 4 | 3.5 | 3.5 | ND |
| Nitrate+Nitrite as N | EPA 300.0 | mg/L | 1.4 | 1.6 | 0.8 | 0.8 | 0.9 | 0.8 | 0.8 | 0.8 |
| Nitrite as NO ₂ -N, Dissolved | EPA 300.0 | mg/L | ND |
| Odor Threshold at 60 C | SM2150B | TON | 2 | ND | ND | ND | ND | 1 | 1 | 1 |
| o-Phosphate-P | Hach 8048 & EPA 365.1 | mg/L | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.03 | 0.03 | 0.03 |
| pH (Field Test) | SM4500-H+B | pH | 6.64 | 6.64 | 6.68 | 6.68 | 6.68 | 6.72 | 6.72 | 6.72 |
| pH (Laboratory) | SM4500-H+B | pH (H) | 6.9 | 6.8 | 6.8 | 6.8 | 6.9 | 6.8 | 7.0 | 7.0 |
| Phenoxy Acid Herbicides (515.3) | EPA 515.3 | µg/L | - | - | - | - | - | - | - | - |
| Phosphorus, Dissolved Total | HACH 8190 & EPA 365.1 | mg/L | 0.03 | 0.02 | 0.03 | 0.02 | 0.03 | 0.04 | 0.04 | 0.04 |
| Potassium | EPA 200.7 | mg/L | 72.1 | 72.5 | 78.0 | 76.7 | 78.2 | 86.2 | 83.2 | 83.8 |
| Potassium, Dissolved | EPA 200.7 | mg/L | 72.4 | 71.7 | 80.2 | 77.1 | 78.1 | 83.8 | 82.0 | 79.6 |
| QC Ratio TDS/SEC | Calculation | - | 0.68 | 0.67 | 0.74 | 0.74 | 0.70 | 0.67 | 0.70 | 0.64 |
| Reg. Org. Compounds (EPA 525) | EPA 525 | µg/L | - | - | - | - | - | - | - | - |
| Salinity | SM2520B | psu | 23.9 | 23.9 | 23.1 | 23.2 | 22.8 | 21.2 | 20.0 | 21.1 |
| Silica as SiO ₂ , Dissolved | EPA 200.7 | mg/L | 30 | 29 | 26 | 24 | 26 | 30 | 32 | 30 |
| Sodium | EPA 200.7 | mg/L | 6,050 | 5,940 | 6,000 | 5,450 | 5,530 | 5,470 | 5,330 | 5,530 |
| Sodium, Dissolved | EPA 200.7 | mg/L | 5,960 | 5,910 | 5,780 | 5,540 | 5,490 | 5,400 | 5,280 | 5,180 |
| Specific Conductance (E.C.) | SM2510B | µmhos/cm | 34,050 | 34,030 | 32,950 | 33,130 | 32,650 | 33,760 | 32,090 | 33,720 |
| Specific Conductance (E.C.) (Field) | SM2510B | µmhos/cm | 34,860 | 34,830 | 33,790 | 33,810 | 33,810 | 34,600 | 34,620 | 34,640 |
| Strontium, Dissolved | EPA 200.8 | µg/L | 10,300 | 10,300 | 9,450 | 9,530 | 9,330 | 11,100 | 10,800 | 10,800 |
| Sulfate, Dissolved | EPA 300.0 | mg/L | 1,680 | 1,670 | 1,600 | 1,840 | 1,650 | 1,660 | 1,660 | 1,650 |
| Temperature (Field) | SM2550 | °C | 18.0 | 18.0 | 18.0 | 18.0 | 18.0 | 18.1 | 18.1 | 18.1 |
| Total Diss. Solids | SM2540C | mg/L | 23,100 | 22,800 | 24,400 | 24,400 | 22,900 | 22,500 | 22,400 | 21,700 |
| Turbidity | EPA 180.1 | NTU | 0.05 | 0.10 | 0.10 | 0.10 | 0.10 | 0.05 | 0.05 | 0.05 |
| Turbidity (Field) | EPA 180.1 | NTU | 0.06 | 0.06 | 0.08 | 0.11 | 0.09 | 0.07 | 0.05 | 0.05 |
| Volatile Org. Compounds (524) | EPA 524 | µg/L | - | - | - | - | - | - | - | - |
| Zinc | EPA 200.7 | µg/L | ND |
| Zinc, Total | EPA 200.8 | µg/L | - | - | - | - | - | - | - | - |
| PCBs, Total | EPA 508 | µg/L | - | - | - | - | - | - | - | - |
| Total PCB | EPA 1668C | pg/L | - | - | - | - | - | - | - | - |

Notes:

°C = Degrees Celsius
 CU = Color Units
 Meq/L = Milliequivalents per Liter
 mg/L = Milligrams per Liter
 NTU = Nephelometric Turbidity Units
 pg/L = Picograms per Liter
 TON = Threshold Odor Number
 µg/L = Micograms per Liter
 µmhos/cm = Micromhos per Centimeter

ND = NOT DETECTED at or above the Reporting Limit (RL) or Practical Quantitation Limit (PQL). See laboratory water quality reports for RL and PQL values.</p

Table 3: Summary of Quarterly and Semiannual Monitoring Well Laboratory Water Quality Results Following Long-Term Pumping Test

| Constituent | Method | Units | MW-4M | | | | | | | | |
|---|------------------------------|-------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|--|
| | | | 23-Jan-19 11:40 | 23-Jan-19 11:55 | 23-Jan-19 12:10 | 11-Apr-19 11:34 | 11-Apr-19 11:49 | 11-Apr-19 12:04 | 24-Jul-19 14:48 | 24-Jul-19 15:03 | |
| Alkalinity, Total (as CaCO ₃) | SM2320B | mg/L | 97 | 97 | 97 | 96 | 97 | 98 | 98 | 97 | |
| Aluminum, Total | EPA 200.8 | µg/L | ND | |
| Ammonia-N, Dissolved | SM4500NH3 D & EPA 350.1 | mg/L | ND | |
| Arsenic, Total ¹ | EPA 200.8 | µg/L | - | - | - | - | - | - | - | - | |
| Arsenic, Total | EPA 1640 | µg/L | 0.10 | 0.098 | 0.094 | 0.11 | 0.11 | 0.11 | 0.097 | 0.10 | |
| Barium, Dissolved | EPA 200.8 | µg/L | 87.0 | 88.0 | 86.0 | 78 | 78 | 77 | 94 | 94 | |
| Bicarbonate (as HCO ₃ -) | SM2320B | mg/L | 118 | 118 | 118 | 117 | 118 | 120 | 120 | 118 | |
| Boron, Dissolved | EPA 200.7 | mg/L | 1.54 | 1.77 | 1.69 | 1.4 | 1.3 | 1.3 | 1.1 | 1.1 | |
| Bromide, Dissolved | EPA 300.0 | mg/L | 42.1 | 42.5 | 42.0 | 45.4 | 36.2 | 46.2 | 39.6 | 44.3 | |
| Calcium | EPA 200.7 | mg/L | 1,170 | 1,140 | 1,140 | 1,090 | 1,090 | 1,100 | 1,060 | 1,060 | |
| Calcium, Dissolved | EPA 200.7 | mg/L | 1,160 | 1,170 | 1,160 | 1,110 | 1,130 | 1,080 | 1,060 | 1,050 | |
| Carbamates by HPLC (EPA 531) | EPA 531 | µg/L | - | - | - | - | - | - | - | - | |
| Carbonate as CaCO ₃ | SM2320B | mg/L | ND | |
| Chloride, Dissolved | EPA 300.0 | mg/L | 12,800 | 12,800 | 12,600 | 12,900 | 13,000 | 12,700 | 11,700 | 12,500 | |
| Chlorinated Pesticides and PCB (EPA 508) | EPA 508 | µg/L | - | - | - | - | - | - | - | - | |
| Color, Apparent (Unfiltered) | SM2120B | Color Units | ND | ND | ND | ND | ND | 3 | ND | ND | |
| Copper | EPA 200.7 | µg/L | ND | |
| Copper, Total | EPA 200.8 | µg/L | - | - | - | - | - | - | - | - | |
| DBCP & EDB | EPA 504.1 | µg/L | - | - | - | - | - | - | - | - | |
| Dioxin | EPA 1613 | pg/L | - | - | - | - | - | - | - | - | |
| Diquat (EPA 549) | EPA 549 | µg/L | - | - | - | - | - | - | - | - | |
| Dissolved Anions | Calculation | Meq/L | 398.80 | 397.97 | 392.53 | 403.09 | 405.82 | 397.50 | 363.16 | 387.59 | |
| Total Anions | Calculation | Meq/L | 398.80 | 397.97 | 392.53 | 403.09 | 405.82 | 397.50 | 363.16 | 387.59 | |
| Dissolved Cations | Calculation | Meq/L | 380.26 | 385.93 | 401.46 | 373.83 | 384.55 | 367.03 | 356.15 | 350.51 | |
| Total Cations | Calculation | Meq/L | 393.79 | 376.29 | 381.20 | 370.56 | 367.20 | 371.37 | 357.48 | 349.51 | |
| Fluoride, Dissolved | EPA 300.0 | mg/L | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.2 | 0.1 | |
| Hardness (as CaCO ₃) | SM2340B/Calc | mg/L | 6,790 | 6,590 | 6,710 | 5,820 | 5,740 | 5,780 | 6,140 | 6,090 | |
| Hydroxide | SM2320B | mg/L | ND | |
| Iodide | EPA 9056M & EPA 314.0 | µg/L | ND | |
| Iron | EPA 200.7 | µg/L | ND | |
| Iron, Dissolved | EPA 200.7 | µg/L | ND | |
| Total Kjeldahl Nitrogen, Dissolved | SM4500-NH3 B,C,E & EPA 351.2 | mg/L | ND | |
| Lead, Total | EPA 200.8 | µg/L | ND | |
| Lithium | EPA 200.8 | µg/L | 39.0 | 39.0 | 37.0 | 41.2 | 38.8 | 40.0 | 40 | 38 | |
| Magnesium | EPA 200.7 | mg/L | 940 | 909 | 937 | 869 | 882 | 872 | 847 | 835 | |
| Magnesium, Dissolved | EPA 200.7 | mg/L | 908 | 934 | 938 | 875 | 894 | 859 | 847 | 832 | |
| Manganese, Dissolved | EPA 200.7 | µg/L | ND | |
| Manganese, Total | EPA 200.7 | µg/L | ND | |
| MBAS (Surfactants) | SM5540C | mg/L | ND | |
| Nitrate as N | EPA 300.0 | mg/L | 0.8 | 0.8 | 0.8 | 0.7 | 0.7 | 0.7 | 0.6 | 0.8 | |
| Nitrate as NO ₃ | EPA 300.0 | mg/L | 3.5 | 3.5 | 3.5 | 3.1 | 3.0 | 3.0 | 2.7 | 3.5 | |
| Nitrate+Nitrite as N | EPA 300.0 | mg/L | 0.8 | 0.8 | 0.8 | 0.7 | 0.7 | 0.7 | 0.6 | 0.8 | |
| Nitrite as NO ₂ -N, Dissolved | EPA 300.0 | mg/L | ND | |
| Odor Threshold at 60 C | SM2150B | TON | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | |
| o-Phosphate-P | Hach 8048 & EPA 365.1 | mg/L | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | |
| pH (Field Test) | SM4500-H+B | pH | 6.69 | 6.70 | 6.71 | 6.77 | 6.78 | 6.78 | 6.70 | 6.70 | |
| pH (Laboratory) | SM4500-H+B | pH (H) | 6.8 | 6.8 | 6.8 | 6.7 | 6.8 | 6.7 | 7.0 | 7.0 | |
| Phenoxy Acid Herbicides (515.3) | EPA 515.3 | µg/L | - | - | - | - | - | - | - | - | |
| Phosphorus, Dissolved Total | HACH 8190 & EPA 365.1 | mg/L | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.06 | 0.04 | 0.04 | |
| Potassium | EPA 200.7 | mg/L | 89.0 | 90.2 | 90.2 | 75.3 | 72.2 | 78.1 | 67.6 | 66.5 | |
| Potassium, Dissolved | EPA 200.7 | mg/L | 90.4 | 89.9 | 91.5 | 76.9 | 72.8 | 74.3 | 66.7 | 66.7 | |
| QC Ratio TDS/SEC | Calculation | - | 0.66 | 0.65 | 0.65 | 0.68 | 0.68 | 0.66 | 0.60 | 0.63 | |
| Reg. Org. Compounds (EPA 525) | EPA 525 | µg/L | - | - | - | - | - | - | - | - | |
| Salinity | SM2520B | psu | 21.9 | 21.9 | 21.9 | 23.7 | 23.7 | 23.8 | 20.7 | 20.7 | |
| Silica as SiO ₂ , Dissolved | EPA 200.7 | mg/L | 29 | 26 | 31 | 26 | 23 | 22 | 25 | 24 | |
| Sodium | EPA 200.7 | mg/L | 5,880 | 5,570 | 5,630 | 5,580 | 5,480 | 5,580 | 5,360 | 5,200 | |
| Sodium, Dissolved | EPA 200.7 | mg/L | 5,640 | 5,710 | 6,070 | 5,620 | 5,810 | 5,530 | 5,330 | 5,240 | |
| Specific Conductance (E.C.) | SM2510B | µmhos/cm | 34,850 | 34,780 | 34,810 | 33,760 | 33,760 | 33,860 | 33,100 | 33,100 | |
| Specific Conductance (E.C.) (Field) | SM2510B | µmhos/cm | 35,150 | 35,130 | 35,150 | 34,650 | 34,520 | 34,580 | 33,660 | 33,660 | |
| Strontium, Dissolved | EPA 200.8 | µg/L | 10,400 | 10,700 | 10,400 | 10,300 | 10,300 | 10,100 | 10,700 | 11,000 | |
| Sulfate, Dissolved | EPA 300.0 | mg/L | 1,690 | 1,650 | 1,660 | 1,760 | 1,760 | 1,760 | 1,470 | 1,550 | |
| Temperature (Field) | SM2550 | °C | 18.0 | 18.0 | 18.0 | 18.0 | 18.0 | 18.0 | 18.0 | 18.0 | |
| Total Diss. Solids | SM2540C | mg/L | 23,100 | 22,500 | 22,800 | 22,800 | 22,900 | 22,200 | 19,900 | 20,700 | |
| Turbidity | EPA 180.1 | NTU | 0.05 | 0.05 | 0.05 | 0.15 | 0.15 | 0.10 | 0.20 | 0.20 | |
| Turbidity (Field) | EPA 180.1 | NTU | 0.09 | 0.15 | 0.06 | 0.08 | 0.11 | 0.06 | 0.1 | 0.16 | |
| Volatile Org. Compounds (524) | EPA 524 | µg/L | - | - | - | - | - | - | - | - | |
| Zinc | EPA 200.7 | µg/L | ND | |
| Zinc, Total | EPA 200.8 | µg/L | - | - | - | - | - | - | - | - | |
| PCBs, Total | EPA 508 | µg/L | - | - | - | - | - | - | - | - | |
| Total PCB | EPA 1668C | pg/L | - | - | - | - | - | - | - | - | |

Notes:

°C = Degrees Celsius
 CU = Color Units
 Meq/L = Milliequivalents per Liter
 mg/L = Milligrams per Liter
 NTU = Nephelometric Turbidity Units
 pg/L = Picograms per Liter
 TON = Threshold Odor Number
 µg/L = Micograms per Liter
 µmhos/cm = Micromhos per Centimeter

ND = NOT DETECTED at or above the Reporting Limit (RL) or Practical

Table 3: Summary of Quarterly and Semiannual Monitoring Well Laboratory Water Quality Results Following Long-Term Pumping Test

| Monitoring Well Name: | Sample Collection Date: | MW-4M | | | | | | | MW-4D |
|---|--|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|
| | | 24-Jul-19 15:18 | 16-Oct-19 14:01 | 16-Oct-19 14:16 | 16-Oct-19 14:36 | 15-Jan-20 12:40 | 15-Jan-20 12:55 | 15-Jan-20 13:10 | 27-Apr-18 09:32 |
| Constituent | Method | Units | Result |
| Alkalinity, Total (as CaCO ₃) | SM2320B | mg/L | 94 | 96 | 92 | 92 | 91 | 90 | 92 |
| Aluminum, Total | EPA 200.8 | µg/L | ND |
| Ammonia-N, Dissolved | SM4500NH ₃ D & EPA 350.1 | mg/L | ND |
| Arsenic, Total ¹ | EPA 200.8 | µg/L | - | - | - | - | - | - | - |
| Arsenic, Total | EPA 1640 | µg/L | 0.10 | 0.14 | 0.16 | 0.14 | 0.088 | 0.089 | 0.10 |
| Barium, Dissolved | EPA 200.8 | µg/L | 93 | 90 | 99 | 102 | 87.9 | 84.6 | 84.6 |
| Bicarbonate (as HCO ₃ -) | SM2320B | mg/L | 115 | 117 | 112 | 112 | 111 | 110 | 112 |
| Boron, Dissolved | EPA 200.7 | mg/L | 1.1 | 1.50 | 1.54 | 1.51 | 1.86 | 1.78 | 2.0 |
| Bromide, Dissolved | EPA 300.0 | mg/L | 41.3 | 40.1 | 40.9 | 40.4 | 41.3 | 42.7 | 41.0 |
| Calcium | EPA 200.7 | mg/L | 1,120 | 1,120 | 1,120 | 1,170 | 1,230 | 1,250 | 1,030 |
| Calcium, Dissolved | EPA 200.7 | mg/L | 1,090 | 1,080 | 1,130 | 1,130 | 1,240 | 1,250 | 985 |
| Carbamates by HPLC (EPA 531) | EPA 531 | µg/L | - | - | - | - | - | - | - |
| Carbonate as CaCO ₃ | SM2320B | mg/L | ND |
| Chloride, Dissolved | EPA 300.0 | mg/L | 12,000 | 11,900 | 12,100 | 12,100 | 13,100 | 13,400 | 13,000 |
| Chlorinated Pesticides and PCB (EPA 508) | EPA 508 | µg/L | - | - | - | - | - | - | - |
| Color, Apparent (Unfiltered) | SM2120B | Color Units | ND | ND | ND | ND | ND | ND | 3 |
| Copper | EPA 200.7 | µg/L | ND |
| Copper, Total | EPA 200.8 | µg/L | - | - | - | - | - | - | - |
| DBCP & EDB | EPA 504.1 | µg/L | - | - | - | - | - | - | - |
| Dioxin | EPA 1613 | pg/L | - | - | - | - | - | - | - |
| Diquat (EPA 549) | EPA 549 | µg/L | - | - | - | - | - | - | - |
| Dissolved Anions | Calculation | Meq/L | 372.40 | 371.91 | 378.31 | 379.99 | 407.75 | 417.04 | 407.75 |
| Total Anions | Calculation | Meq/L | 372.40 | 371.91 | 378.31 | 379.99 | 407.75 | 417.04 | 407.75 |
| Dissolved Cations | Calculation | Meq/L | 356.08 | 361.59 | 382.12 | 366.62 | 411.96 | 423.26 | 431.81 |
| Total Cations | Calculation | Meq/L | 370.92 | 357.69 | 383.72 | 375.04 | 417.54 | 419.81 | 470.99 |
| Fluoride, Dissolved | EPA 300.0 | mg/L | 0.1 | ND | ND | ND | 0.1 | ND | 0.1 |
| Hardness (as CaCO ₃) | SM2340B/Calc | mg/L | 6,450 | 8,470 | 8,500 | 7,890 | 7,210 | 7,290 | 8,780 |
| Hydroxide | SM2320B | mg/L | ND |
| Iodide | EPA 9056M & EPA 314.0 | µg/L | ND |
| Iron | EPA 200.7 | µg/L | ND |
| Iron, Dissolved | EPA 200.7 | µg/L | ND | ND | 22 | ND | ND | ND | ND |
| Total Kjeldahl Nitrogen, Dissolved | SM4500-NH ₃ B,C,E & EPA 351.2 | mg/L | ND | ND | ND | ND | ND | 0.5 | 0.6 |
| Lead, Total | EPA 200.8 | µg/L | ND |
| Lithium | EPA 200.8 | µg/L | 37 | 52 | 51 | 52 | 33.4 | 32.3 | 32.4 |
| Magnesium | EPA 200.7 | mg/L | 883 | 888 | 942 | 924 | 1,000 | 1,010 | 1,190 |
| Magnesium, Dissolved | EPA 200.7 | mg/L | 854 | 895 | 940 | 905 | 1,000 | 1,020 | 1,110 |
| Manganese, Dissolved | EPA 200.7 | µg/L | ND |
| Manganese, Total | EPA 200.7 | µg/L | ND |
| MBAS (Surfactants) | SM5540C | mg/L | ND | 0.12 | 0.13 | 0.13 | 0.15 | 0.12 | 0.10 |
| Nitrate as N | EPA 300.0 | mg/L | 0.6 | 0.9 | 0.8 | 1.1 | 0.7 | 0.6 | 0.6 |
| Nitrate as NO ₃ | EPA 300.0 | mg/L | 2.7 | 4 | 3.5 | 4.9 | 3.1 | 2.7 | 2.7 |
| Nitrate+Nitrite as N | EPA 300.0 | mg/L | 0.6 | 0.9 | 0.8 | 1.1 | 0.7 | 0.6 | 0.6 |
| Nitrite as NO ₂ -N, Dissolved | EPA 300.0 | mg/L | ND |
| Odor Threshold at 60 C | SM2150B | TON | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| o-Phosphate-P | Hach 8048 & EPA 365.1 | mg/L | 0.04 | 0.04 | 0.04 | 0.04 | 0.03 | 0.03 | 0.03 |
| pH (Field Test) | SM4500-H+B | pH | 6.70 | 6.64 | 6.64 | 6.64 | 6.65 | 6.65 | 6.55 |
| pH (Laboratory) | SM4500-H+B | pH (H) | 7.0 | 6.8 | 6.8 | 6.8 | 7.2 | 7.2 | 6.8 |
| Phenoxy Acid Herbicides (515.3) | EPA 515.3 | µg/L | - | - | - | - | - | - | - |
| Phosphorus, Dissolved Total | HACH 8190 & EPA 365.1 | mg/L | 0.04 | 0.04 | 0.04 | 0.04 | 0.03 | 0.03 | ND |
| Potassium | EPA 200.7 | mg/L | 71.0 | 67.4 | 72.5 | 71.0 | 78.3 | 78.7 | 95.3 |
| Potassium, Dissolved | EPA 200.7 | mg/L | 67.9 | 68.8 | 72.0 | 69.5 | 78.5 | 79.3 | 86.5 |
| QC Ratio TDS/SEC | Calculation | - | 0.60 | 0.63 | 0.67 | 0.66 | 0.64 | 0.70 | 0.66 |
| Reg. Org. Compounds (EPA 525) | EPA 525 | µg/L | - | - | - | - | - | - | - |
| Salinity | SM2520B | psu | 20.5 | 23.2 | 23.3 | 23.3 | 24.0 | 23.8 | 23.7 |
| Silica as SiO ₂ , Dissolved | EPA 200.7 | mg/L | 26 | 28 | 29 | 28 | 30 | 31 | 36 |
| Sodium | EPA 200.7 | mg/L | 5,530 | 5,220 | 5,710 | 5,490 | 6,250 | 6,260 | 6,164 |
| Sodium, Dissolved | EPA 200.7 | mg/L | 5,280 | 5,340 | 5,670 | 5,380 | 6,110 | 6,320 | 6,650 |
| Specific Conductance (E.C.) | SM2510B | µmhos/cm | 32,800 | 33,400 | 33,800 | 33,400 | 34,100 | 33,900 | 33,800 |
| Specific Conductance (E.C.) (Field) | SM2510B | µmhos/cm | 33,650 | 34,030 | 34,020 | 34,030 | 35,290 | 35,260 | 35,270 |
| Strontium, Dissolved | EPA 200.8 | µg/L | 10,900 | 10,300 | 10,300 | 10,600 | 9,980 | 9,970 | 10,300 |
| Sulfate, Dissolved | EPA 300.0 | mg/L | 1,510 | 1,620 | 1,660 | 1,740 | 1,720 | 1,760 | 1,710 |
| Temperature (Field) | SM2550 | °C | 18.0 | 17.9 | 17.9 | 17.9 | 17.9 | 18.0 | 19.9 |
| Total Diss. Solids | SM2540C | mg/L | 19,600 | 21,200 | 22,800 | 21,900 | 21,700 | 23,600 | 22,400 |
| Turbidity | EPA 180.1 | NTU | 0.20 | ND | ND | ND | 0.05 | 0.05 | 0.25 |
| Turbidity (Field) | EPA 180.1 | NTU | 0.07 | 0.060 | 0.070 | 0.070 | 0.19 | 0.16 | 0.12 |
| Volatile Org. Compounds (524) | EPA 524 | µg/L | - | - | - | - | - | - | - |
| Zinc | EPA 200.7 | µg/L | ND |
| Zinc, Total | EPA 200.8 | µg/L | - | - | - | - | - | - | - |
| PCBs, Total | EPA 508 | µg/L | - | - | - | - | - | - | - |
| Total PCB | EPA 1668C | pg/L | - | - | - | - | - | - | - |

Notes:

°C = Degrees Celsius
 CU = Color Units
 Meq/L = Milliequivalents per Liter
 mg/L = Milligrams per Liter
 NTU = Nephelometric Turbidity Units
 pg/L = Picograms per Liter
 TON = Threshold Odor Number
 µg/L = Micorgrams per Liter
 µmhos/cm = Micromhos per Centimeter

ND = NOT DETECTED at or above the Reporting Limit (RL) or Practical Quantitation Limit (PQL). See laboratory water quality reports for RL and PQL values.

¹ Using EPA Method 200.8, Arsenic values are overstated due to matrix interference caused by high chloride levels. The overstated values are in laboratory reports through February 11, 2016. Going forward, EPA Method 1640 will be used for Arsenic analysis only.

Table 3: Summary of Quarterly and Semiannual Monitoring Well Laboratory Water Quality Results Following Long-Term Pumping Test

| Constituent | Method | Units | MW-4D | | | | | | | | |
|---|------------------------------|-------------|--|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|
| | | | Monitoring Well Name: Sample Collection Date: | 27-Apr-18 09:47 | 27-Apr-18 10:02 | 25-Jul-18 10:12 | 25-Jul-18 10:27 | 25-Jul-18 10:42 | 11-Oct-18 15:16 | 11-Oct-18 15:31 | 11-Oct-18 15:46 |
| Alkalinity, Total (as CaCO ₃) | SM2320B | mg/L | 116 | 116 | 114 | 114 | 114 | 114 | 114 | 113 | 113 |
| Aluminum, Total | EPA 200.8 | µg/L | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Ammonia-N, Dissolved | SM4500NH3 D & EPA 350.1 | mg/L | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Arsenic, Total ¹ | EPA 200.8 | µg/L | - | - | - | - | - | - | - | - | - |
| Arsenic, Total | EPA 1640 | µg/L | 0.36 | 0.35 | 0.36 | 0.35 | 0.35 | 0.34 | 0.32 | 0.32 | 0.35 |
| Barium, Dissolved | EPA 200.8 | µg/L | 114 | 122 | 139 | 136 | 147 | 155 | 152.0 | 156.0 | |
| Bicarbonate (as HCO ₃ -) | SM2320B | mg/L | 142 | 142 | 139 | 139 | 139 | 139 | 138 | 138 | |
| Boron, Dissolved | EPA 200.7 | mg/L | 1.0 | 1.0 | 0.87 | 0.82 | 0.88 | 0.38 | 0.42 | 0.42 | 0.43 |
| Bromide, Dissolved | EPA 300.0 | mg/L | 43.5 | 44.1 | 52.6 | 52.5 | 50.9 | 50.2 | 52.9 | 49.8 | |
| Calcium | EPA 200.7 | mg/L | 2,930 | 2,990 | 2,790 | 2,900 | 2,940 | 2,890 | 2,870 | 2,890 | |
| Calcium, Dissolved | EPA 200.7 | mg/L | 2,980 | 3,030 | 2,800 | 2,890 | 2,990 | 2,850 | 2,850 | 2,880 | |
| Carbamates by HPLC (EPA 531) | EPA 531 | µg/L | - | - | - | - | - | - | - | - | - |
| Carbonate as CaCO ₃ | SM2320B | mg/L | ND | ND | ND | ND | ND | ND | ND | ND | |
| Chloride, Dissolved | EPA 300.0 | mg/L | 14,900 | 15,100 | 15,700 | 15,500 | 15,500 | 15,300 | 16,100 | 15,100 | |
| Chlorinated Pesticides and PCB (EPA 508) | EPA 508 | µg/L | - | - | - | - | - | - | - | - | |
| Color, Apparent (Unfiltered) | SM2120B | Color Units | ND | ND | 3 | 3 | 3 | 3 | 3 | ND | |
| Copper | EPA 200.7 | µg/L | ND | ND | ND | ND | ND | ND | ND | ND | |
| Copper, Total | EPA 200.8 | µg/L | - | - | - | - | - | - | - | - | |
| DBCP & EDB | EPA 504.1 | µg/L | - | - | - | - | - | - | - | - | |
| Dioxin | EPA 1613 | pg/L | - | - | - | - | - | - | - | - | |
| Diquat (EPA 549) | EPA 549 | µg/L | - | - | - | - | - | - | - | - | |
| Dissolved Anions | Calculation | Meq/L | 464.07 | 469.71 | 487.90 | 481.63 | 481.61 | 475.13 | 497.92 | 469.45 | |
| Total Anions | Calculation | Meq/L | 464.07 | 469.71 | 487.90 | 481.63 | 481.61 | 475.13 | 497.92 | 469.45 | |
| Dissolved Cations | Calculation | Meq/L | 492.48 | 490.08 | 449.04 | 460.90 | 467.89 | 436.94 | 456.63 | 439.64 | |
| Total Cations | Calculation | Meq/L | 477.42 | 488.52 | 439.94 | 475.13 | 465.53 | 453.22 | 454.81 | 438.24 | |
| Fluoride, Dissolved | EPA 300.0 | mg/L | ND | ND | ND | ND | ND | 0.1 | 0.1 | 0.1 | |
| Hardness (as CaCO ₃) | SM2340B/Calc | mg/L | 11,800 | 12,000 | 11,300 | 11,800 | 11,800 | 10,400 | 10,600 | 10,800 | |
| Hydroxide | SM2320B | mg/L | ND | ND | ND | ND | ND | ND | ND | ND | |
| Iodide | EPA 9056M & EPA 314.0 | µg/L | ND | ND | 3.6 | 3 | ND | ND | ND | ND | |
| Iron | EPA 200.7 | µg/L | 33 | ND | |
| Iron, Dissolved | EPA 200.7 | µg/L | ND | ND | ND | ND | ND | ND | ND | ND | |
| Total Kjeldahl Nitrogen, Dissolved | SM4500-NH3 B,C,E & EPA 351.2 | mg/L | ND | ND | ND | ND | ND | ND | ND | ND | |
| Lead, Total | EPA 200.8 | µg/L | ND | ND | ND | ND | ND | ND | ND | ND | |
| Lithium | EPA 200.8 | µg/L | 218 | 226 | 307 | 298 | 308 | 356 | 342 | 333 | |
| Magnesium | EPA 200.7 | mg/L | 1,080 | 1,110 | 1,040 | 1,100 | 1,080 | 936 | 950 | 953 | |
| Magnesium, Dissolved | EPA 200.7 | mg/L | 1,090 | 1,120 | 1,040 | 1,070 | 1,100 | 915 | 948 | 919 | |
| Manganese, Dissolved | EPA 200.7 | µg/L | ND | ND | ND | ND | ND | ND | ND | ND | |
| Manganese, Total | EPA 200.7 | µg/L | ND | ND | ND | ND | ND | ND | ND | ND | |
| MBAS (Surfactants) | SM5540C | mg/L | ND | ND | ND | ND | ND | ND | ND | ND | |
| Nitrate as N | EPA 300.0 | mg/L | 0.9 | 0.9 | 0.1 | 0.1 | 0.1 | 0.1 | 0.2 | 0.1 | |
| Nitrate as NO ₃ | EPA 300.0 | mg/L | 3.9 | 3.9 | ND | ND | ND | 0.4 | 0.9 | 0.4 | |
| Nitrate+Nitrite as N | EPA 300.0 | mg/L | 0.9 | 0.9 | 0.1 | 0.1 | 0.1 | 0.1 | 0.2 | 0.1 | |
| Nitrite as NO ₂ -N, Dissolved | EPA 300.0 | mg/L | ND | ND | ND | ND | ND | ND | ND | ND | |
| Odor Threshold at 60 C | SM2150B | TON | ND | 2 | ND | ND | ND | 1 | 1 | 1 | |
| o-Phosphate-P | Hach 8048 & EPA 365.1 | mg/L | 0.02 | 0.02 | 0.02 | 0.02 | 0.02 | 0.02 | 0.02 | 0.03 | |
| pH (Field Test) | SM4500-H+B | pH | 6.55 | 6.55 | 6.58 | 6.58 | 6.58 | 6.61 | 6.61 | 6.61 | |
| pH (Laboratory) | SM4500-H+B | pH (H) | 6.8 | 6.8 | 6.7 | 6.8 | 6.8 | 6.8 | 6.7 | 6.7 | |
| Phenoxy Acid Herbicides (515.3) | EPA 515.3 | µg/L | - | - | - | - | - | - | - | - | |
| Phosphorus, Dissolved Total | HACH 8190 & EPA 365.1 | mg/L | ND | ND | ND | ND | ND | 0.03 | 0.03 | 0.03 | |
| Potassium | EPA 200.7 | mg/L | 52.8 | 52.2 | 60.8 | 59.4 | 61.6 | 56.2 | 61.4 | 61.9 | |
| Potassium, Dissolved | EPA 200.7 | mg/L | 52.8 | 53.9 | 56.9 | 61.2 | 59.9 | 58.6 | 58.7 | 58.5 | |
| QC Ratio TDS/SEC | Calculation | - | 0.72 | 0.74 | 0.81 | 0.80 | 0.81 | 0.68 | 0.70 | 0.68 | |
| Reg. Org. Compounds (EPA 525) | EPA 525 | µg/L | - | - | - | - | - | - | - | - | |
| Salinity | SM2520B | psu | 27.8 | 28.0 | 28.0 | 28.1 | 28.1 | 25.3 | 23.6 | 24.6 | |
| Silica as SiO ₂ , Dissolved | EPA 200.7 | mg/L | 34 | 37 | 31 | 30 | 32 | 33 | 34 | 33 | |
| Sodium | EPA 200.7 | mg/L | 5,540 | 5,670 | 4,910 | 5,480 | 5,250 | 5,300 | 5,330 | 4,920 | |
| Sodium, Dissolved | EPA 200.7 | mg/L | 5,810 | 5,640 | 5,110 | 5,220 | 5,210 | 5,010 | 5,400 | 5,030 | |
| Specific Conductance (E.C.) | SM2510B | µmhos/cm | 38,940 | 39,220 | 39,290 | 39,300 | 39,330 | 39,650 | 37,230 | 38,630 | |
| Specific Conductance (E.C.) (Field) | SM2510B | µmhos/cm | 40,160 | 40,140 | 40,280 | 40,270 | 40,300 | 40,610 | 40,630 | 40,650 | |
| Strontium, Dissolved | EPA 200.8 | µg/L | 15,400 | 15,700 | 15,300 | 14,900 | 15,000 | 17,200 | 16,600 | 17,300 | |
| Sulfate, Dissolved | EPA 300.0 | mg/L | 1,960 | 1,960 | 2,020 | 1,990 | 1,990 | 1,950 | 1,960 | 1,950 | |
| Temperature (Field) | SM2550 | °C | 20.0 | 20.0 | 20.0 | 20.0 | 20.0 | 19.9 | 19.9 | 20.0 | |
| Total Diss. Solids | SM2540C | mg/L | 28,200 | 28,900 | 32,900 | 32,400 | 32,400 | 26,900 | 26,000 | 26,100 | |
| Turbidity | EPA 180.1 | NTU | 0.35 | 0.15 | 0.30 | 0.25 | 0.30 | 0.25 | 0.25 | 0.25 | |
| Turbidity (Field) | EPA 180.1 | NTU | 0.1 | 0.14 | 0.13 | 0.130 | 0.09 | 0.10 | 0.11 | 0.15 | |
| Volatile Org. Compounds (524) | EPA 524 | µg/L | - | - | - | - | - | - | - | - | |
| Zinc | EPA 200.7 | µg/L | ND | ND | ND | ND | ND | ND | ND | ND | |
| Zinc, Total | EPA 200.8 | µg/L | - | - | - | - | - | - | - | - | |
| PCBs, Total | EPA 508 | µg/L | | | | | | | | | |

Table 3: Summary of Quarterly and Semiannual Monitoring Well Laboratory Water Quality Results Following Long-Term Pumping Test

| Constituent | Method | Units | MW-4D | | | | | | | | |
|---|------------------------------|-------------|-------------------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|
| | | | Sample Collection Date: | 23-Jan-19 09:36 | 23-Jan-19 09:51 | 23-Jan-19 10:06 | 11-Apr-19 09:40 | 11-Apr-19 09:55 | 11-Apr-19 10:10 | 24-Jul-19 12:40 | 24-Jul-19 12:55 |
| Alkalinity, Total (as CaCO ₃) | SM2320B | mg/L | Result | 116 | 116 | 116 | 117 | 117 | 117 | 112 | 106 |
| Aluminum, Total | EPA 200.8 | µg/L | Result | ND |
| Ammonia-N, Dissolved | SM4500NH3 D & EPA 350.1 | mg/L | Result | ND |
| Arsenic, Total ¹ | EPA 200.8 | µg/L | Result | - | - | - | - | - | - | - | - |
| Arsenic, Total | EPA 1640 | µg/L | Result | 0.40 | 0.48 | 0.37 | 0.52 | 0.52 | 0.55 | 0.39 | 0.41 |
| Barium, Dissolved | EPA 200.8 | µg/L | Result | 148 | 149 | 149 | 116 | 116 | 115 | 133 | 137 |
| Bicarbonate (as HCO ₃ -) | SM2320B | mg/L | Result | 142 | 142 | 142 | 143 | 143 | 143 | 137 | 129 |
| Boron, Dissolved | EPA 200.7 | mg/L | Result | 1.00 | 0.77 | 0.98 | 0.76 | 0.77 | 0.80 | 0.71 | 0.69 |
| Bromide, Dissolved | EPA 300.0 | mg/L | Result | 52.2 | 52.7 | 51.7 | 52.3 | 56.0 | 50.7 | 52.7 | 52.6 |
| Calcium | EPA 200.7 | mg/L | Result | 3,000 | 2,960 | 2,930 | 2,740 | 2,680 | 2,660 | 3,160 | 3,120 |
| Calcium, Dissolved | EPA 200.7 | mg/L | Result | 3,000 | 2,880 | 2,900 | 2,680 | 2,660 | 2,610 | 3,160 | 3,100 |
| Carbamates by HPLC (EPA 531) | EPA 531 | µg/L | Result | - | - | - | - | - | - | - | - |
| Carbonate as CaCO ₃ | SM2320B | mg/L | Result | ND |
| Chloride, Dissolved | EPA 300.0 | mg/L | Result | 15,200 | 15,100 | 15,000 | 15,700 | 15,600 | 15,600 | 15,900 | 15,500 |
| Chlorinated Pesticides and PCB (EPA 508) | EPA 508 | µg/L | Result | - | - | - | - | - | - | - | - |
| Color, Apparent (Unfiltered) | SM2120B | Color Units | Result | ND |
| Copper | EPA 200.7 | µg/L | Result | ND |
| Copper, Total | EPA 200.8 | µg/L | Result | - | - | - | - | - | - | - | - |
| DBCP & EDB | EPA 504.1 | µg/L | Result | - | - | - | - | - | - | - | - |
| Dioxin | EPA 1613 | pg/L | Result | - | - | - | - | - | - | - | - |
| Diquat (EPA 549) | EPA 549 | µg/L | Result | - | - | - | - | - | - | - | - |
| Dissolved Anions | Calculation | Meq/L | Result | 471.53 | 469.76 | 466.92 | 485.44 | 483.19 | 483.91 | 492.88 | 479.59 |
| Total Anions | Calculation | Meq/L | Result | 471.53 | 469.76 | 466.92 | 485.44 | 483.19 | 483.91 | 492.88 | 479.59 |
| Dissolved Cations | Calculation | Meq/L | Result | 463.19 | 443.04 | 449.59 | 452.50 | 432.62 | 412.51 | 474.55 | 467.11 |
| Total Cations | Calculation | Meq/L | Result | 474.23 | 465.62 | 462.56 | 445.36 | 433.33 | 417.09 | 488.37 | 475.29 |
| Fluoride, Dissolved | EPA 300.0 | mg/L | Result | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | ND |
| Hardness (as CaCO ₃) | SM2340B/Calc | mg/L | Result | 11,700 | 11,500 | 11,400 | 6,340 | 9,330 | 9,750 | 10,800 | 10,600 |
| Hydroxide | SM2320B | mg/L | Result | ND |
| Iodide | EPA 9056M & EPA 314.0 | µg/L | Result | ND |
| Iron | EPA 200.7 | µg/L | Result | ND |
| Iron, Dissolved | EPA 200.7 | µg/L | Result | ND |
| Total Kjeldahl Nitrogen, Dissolved | SM4500-NH3 B,C,E & EPA 351.2 | mg/L | Result | ND |
| Lead, Total | EPA 200.8 | µg/L | Result | ND |
| Lithium | EPA 200.8 | µg/L | Result | 293 | 267 | 268 | 250 | 257 | 281 | 236 | 230 |
| Magnesium | EPA 200.7 | mg/L | Result | 1,020 | 1,010 | 996 | 967 | 949 | 913 | 1,010 | 973 |
| Magnesium, Dissolved | EPA 200.7 | mg/L | Result | 1,050 | 980 | 973 | 949 | 935 | 897 | 982 | 966 |
| Manganese, Dissolved | EPA 200.7 | µg/L | Result | ND |
| Manganese, Total | EPA 200.7 | µg/L | Result | ND |
| MBAS (Surfactants) | SM5540C | mg/L | Result | ND | ND | ND | ND | ND | ND | 0.11 | 0.11 |
| Nitrate as N | EPA 300.0 | mg/L | Result | ND | ND | ND | ND | ND | ND | 0.2 | ND |
| Nitrate as NO ₃ | EPA 300.0 | mg/L | Result | ND | ND | ND | ND | ND | ND | 1.0 | ND |
| Nitrate+Nitrite as N | EPA 300.0 | mg/L | Result | ND | ND | ND | ND | ND | ND | 0.2 | ND |
| Nitrite as NO ₂ -N, Dissolved | EPA 300.0 | mg/L | Result | ND |
| Odor Threshold at 60 C | SM2150B | TON | Result | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| o-Phosphate-P | Hach 8048 & EPA 365.1 | mg/L | Result | 0.02 | 0.02 | 0.02 | 0.02 | 0.02 | 0.02 | 0.03 | 0.02 |
| pH (Field Test) | SM4500-H+B | pH | Result | 6.60 | 6.60 | 6.60 | 6.65 | 6.65 | 6.65 | 6.58 | 6.58 |
| pH (Laboratory) | SM4500-H+B | pH (H) | Result | 6.8 | 6.8 | 6.7 | 6.7 | 6.7 | 6.7 | 6.9 | 6.9 |
| Phenoxy Acid Herbicides (515.3) | EPA 515.3 | µg/L | Result | - | - | - | - | - | - | - | - |
| Phosphorus, Dissolved Total | HACH 8190 & EPA 365.1 | mg/L | Result | 0.02 | 0.02 | 0.02 | 0.03 | 0.03 | 0.03 | 0.02 | 0.02 |
| Potassium | EPA 200.7 | mg/L | Result | 69.4 | 64.3 | 65.1 | 57.0 | 54.4 | 52.3 | 51.4 | 49.0 |
| Potassium, Dissolved | EPA 200.7 | mg/L | Result | 68.6 | 63.3 | 64.8 | 59.6 | 56.6 | 55.8 | 51.0 | 49.6 |
| QC Ratio TDS/SEC | Calculation | - | Result | 0.69 | 0.67 | 0.69 | 0.70 | 0.69 | 0.70 | 0.75 | 0.74 |
| Reg. Org. Compounds (EPA 525) | EPA 525 | µg/L | Result | - | - | - | - | - | - | - | - |
| Salinity | SM2520B | psu | Result | 25.2 | 25.2 | 25.3 | 27.8 | 27.8 | 27.8 | 24.8 | 24.7 |
| Silica as SiO ₂ , Dissolved | EPA 200.7 | mg/L | Result | 34 | 32 | 31 | 27 | 27 | 26 | 29 | 28 |
| Sodium | EPA 200.7 | mg/L | Result | 5,490 | 5,360 | 5,350 | 5,240 | 5,060 | 4,800 | 5,660 | 5,480 |
| Sodium, Dissolved | EPA 200.7 | mg/L | Result | 5,180 | 4,990 | 5,130 | 5,500 | 5,090 | 4,760 | 5,400 | 5,330 |
| Specific Conductance (E.C.) | SM2510B | µmhos/cm | Result | 39,580 | 39,590 | 39,680 | 39,040 | 38,940 | 38,940 | 39,000 | 38,900 |
| Specific Conductance (E.C.) (Field) | SM2510B | µmhos/cm | Result | 40,070 | 40,060 | 40,070 | 40,080 | 40,090 | 40,080 | 40,200 | 40,240 |
| Strontium, Dissolved | EPA 200.8 | µg/L | Result | 16,500 | 16,500 | 16,700 | 15,700 | 15,612 | 15,800 | 16,800 | 16,900 |
| Sulfate, Dissolved | EPA 300.0 | mg/L | Result | 1,910 | 1,960 | 1,960 | 1,960 | 1,920 | 1,980 | 1,990 | 1,900 |
| Temperature (Field) | SM2550 | °C | Result | 19.9 | 19.9 | 19.9 | 19.9 | 19.9 | 20.0 | 20.0 | 20.0 |
| Total Diss. Solids | SM2540C | mg/L | Result | 27,200 | 26,700 | 27,500 | 27,500 | 27,000 | 27,400 | 29,400 | 28,800 |
| Turbidity | EPA 180.1 | NTU | Result | 0.25 | 0.25 | 0.25 | 0.25 | 0.10 | 0.15 | 0.20 | 0.20 |
| Turbidity (Field) | EPA 180.1 | NTU | Result | 0.1 | 0.12 | 0.1 | 0.18 | 0.08 | 0.15 | 0.14 | 0.21 |
| Volatile Org. Compounds (524) | EPA 524 | µg/L | Result | - | - | - | - | - | - | - | - |
| Zinc | EPA 200.7 | µg/L | Result | ND |
| Zinc, Total | EPA 200.8 | µg/L | Result</ | | | | | | | | |

Table 3: Summary of Quarterly and Semiannual Monitoring Well Laboratory Water Quality Results Following Long-Term Pumping Test

| Constituent | Method | Units | MW-4D | | | | | | | MW-5S(P) | |
|---|------------------------------|-------------|--|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------|
| | | | Monitoring Well Name: Sample Collection Date: | 24-Jul-19 13:10 | 16-Oct-19 11:27 | 16-Oct-19 11:42 | 16-Oct-19 11:57 | 15-Jan-20 10:38 | 15-Jan-20 10:53 | 15-Jan-20 11:08 | 23-Apr-18 |
| Alkalinity, Total (as CaCO ₃) | SM2320B | mg/L | 113 | 96 | 110 | 108 | 111 | 112 | 98 | 66 | 66 |
| Aluminum, Total | EPA 200.8 | µg/L | ND | ND | ND | ND | ND | ND | ND | 40 | 11 |
| Ammonia-N, Dissolved | SM4500NH3 D & EPA 350.1 | mg/L | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Arsenic, Total ¹ | EPA 200.8 | µg/L | - | - | - | - | - | - | - | - | - |
| Arsenic, Total | EPA 1640 | µg/L | 0.45 | 0.44 | 0.52 | 0.50 | 0.38 | 0.39 | 0.41 | 0.2 | 0.16 |
| Barium, Dissolved | EPA 200.8 | µg/L | 137 | 157 | 146 | 141 | 133 | 132 | 136 | 113 | 118.0 |
| Bicarbonate (as HCO ₃ -) | SM2320B | mg/L | 138 | 117 | 134 | 132 | 135 | 137 | 120 | 80 | 80 |
| Boron, Dissolved | EPA 200.7 | mg/L | 0.65 | 0.9 | 0.9 | 0.9 | 1.10 | 1.10 | 1.10 | 0.06 | 0.05 |
| Bromide, Dissolved | EPA 300.0 | mg/L | 52.1 | 55.8 | 51.8 | 50.3 | 50.1 | 49.3 | 56.8 | 3.3 | 4.0 |
| Calcium | EPA 200.7 | mg/L | 3,100 | 2,940 | 2,850 | 2,690 | 3,060 | 3,110 | 3,110 | 154 | 147 |
| Calcium, Dissolved | EPA 200.7 | mg/L | 3,090 | 2,720 | 2,740 | 2,650 | 3,060 | 3,060 | 3,110 | 148 | 147 |
| Carbamates by HPLC (EPA 531) | EPA 531 | µg/L | - | - | - | - | - | - | - | - | - |
| Carbonate as CaCO ₃ | SM2320B | mg/L | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Chloride, Dissolved | EPA 300.0 | mg/L | 15,200 | 15,300 | 14,800 | 15,100 | 15,600 | 15,300 | 15,200 | 299 | 306 |
| Chlorinated Pesticides and PCB (EPA 508) | EPA 508 | µg/L | - | - | - | - | - | - | - | - | - |
| Color, Apparent (Unfiltered) | SM2120B | Color Units | ND | ND | ND | ND | ND | ND | ND | ND | 8 |
| Copper | EPA 200.7 | µg/L | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Copper, Total | EPA 200.8 | µg/L | - | - | - | - | - | - | - | - | - |
| DBCP & EDB | EPA 504.1 | µg/L | - | - | - | - | - | - | - | - | - |
| Dioxin | EPA 1613 | pg/L | - | - | - | - | - | - | - | - | - |
| Diquat (EPA 549) | EPA 549 | µg/L | - | - | - | - | - | - | - | - | - |
| Dissolved Anions | Calculation | Meq/L | 470.44 | 475.93 | 463.27 | 469.99 | 483.95 | 474.90 | 536.73 | 18.98 | 19.26 |
| Total Anions | Calculation | Meq/L | 470.44 | 475.93 | 463.27 | 469.99 | 483.95 | 474.90 | 536.73 | 18.98 | 19.26 |
| Dissolved Cations | Calculation | Meq/L | 457.18 | 441.25 | 435.26 | 434.12 | 506.33 | 502.50 | 511.44 | 19.40 | 18.43 |
| Total Cations | Calculation | Meq/L | 459.64 | 462.83 | 454.92 | 442.56 | 502.50 | 512.74 | 507.12 | 19.56 | 18.00 |
| Fluoride, Dissolved | EPA 300.0 | mg/L | ND | 0.1 | 0.1 | 0.1 | 0.2 | 0.1 | 0.1 | ND | ND |
| Hardness (as CaCO ₃) | SM2340B/Calc | mg/L | 10,500 | 11,800 | 11,500 | 10,900 | 12,200 | 12,500 | 12,400 | 668 | 616 |
| Hydroxide | SM2320B | mg/L | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Iodide | EPA 9056M & EPA 314.0 | µg/L | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Iron | EPA 200.7 | µg/L | ND | ND | ND | ND | ND | ND | ND | 90 | 19 |
| Iron, Dissolved | EPA 200.7 | µg/L | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Total Kjeldahl Nitrogen, Dissolved | SM4500-NH3 B,C,E & EPA 351.2 | mg/L | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Lead, Total | EPA 200.8 | µg/L | ND | ND | ND | ND | ND | ND | ND | ND | 0.3 |
| Lithium | EPA 200.8 | µg/L | 226 | 382 | 377 | 189 | 215 | 206 | 207 | 10 | 10 |
| Magnesium | EPA 200.7 | mg/L | 967 | 1,080 | 1,060 | 1,010 | 1,120 | 1,140 | 1,130 | 69 | 61 |
| Magnesium, Dissolved | EPA 200.7 | mg/L | 961 | 984 | 1,010 | 981 | 1,140 | 1,120 | 1,140 | 67 | 62 |
| Manganese, Dissolved | EPA 200.7 | µg/L | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Manganese, Total | EPA 200.7 | µg/L | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| MBAS (Surfactants) | SM5540C | mg/L | 0.10 | 0.16 | 0.16 | 0.19 | 0.09 | 0.12 | 0.10 | ND | ND |
| Nitrate as N | EPA 300.0 | mg/L | 0.2 | 1.1 | 0.3 | 0.1 | 0.1 | 0.5 | 0.2 | 61.5 | 63.5 |
| Nitrate as NO ₃ | EPA 300.0 | mg/L | 1.0 | 5.1 | 1.3 | 0.4 | 0.4 | 2.2 | 0.9 | 270 | 280 |
| Nitrate+Nitrite as N | EPA 300.0 | mg/L | 0.2 | 1.1 | 0.3 | 0.1 | 0.1 | 0.5 | 0.2 | 61.5 | 63.5 |
| Nitrite as NO ₂ -N, Dissolved | EPA 300.0 | mg/L | ND | ND | ND | ND | ND | ND | ND | 0.1 | ND |
| Odor Threshold at 60 C | SM2150B | TON | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 1 |
| o-Phosphate-P | Hach 8048 & EPA 365.1 | mg/L | 0.02 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.06 | 0.05 |
| pH (Field Test) | SM4500-H+B | pH | 6.58 | 6.53 | 6.53 | 6.53 | 6.58 | 6.58 | 6.58 | 6.32 | 6.22 |
| pH (Laboratory) | SM4500-H+B | pH (H) | 6.9 | 6.7 | 6.7 | 6.7 | 7.2 | 7.1 | 7.0 | 6.5 | 6.6 |
| Phenoxy Acid Herbicides (515.3) | EPA 515.3 | µg/L | - | - | - | - | - | - | - | - | - |
| Phosphorus, Dissolved Total | HACH 8190 & EPA 365.1 | mg/L | 0.02 | 0.05 | 0.03 | 0.04 | 0.02 | 0.02 | 0.02 | 0.05 | 0.06 |
| Potassium | EPA 200.7 | mg/L | 48.8 | 58.2 | 56.8 | 52.7 | 55.6 | 56.1 | 55.6 | 4.3 | 4.3 |
| Potassium, Dissolved | EPA 200.7 | mg/L | 48.6 | 54.4 | 54.6 | 52.0 | 56.3 | 55.6 | 56.3 | 4.2 | 4.4 |
| QC Ratio TDS/SEC | Calculation | - | 0.79 | 0.62 | 0.66 | 0.65 | 0.75 | 0.75 | 0.66 | 0.70 | 0.63 |
| Reg. Org. Compounds (EPA 525) | EPA 525 | µg/L | - | - | - | - | - | - | - | - | - |
| Salinity | SM2520B | psu | 25 | 28.0 | 28.1 | 28.1 | 28.2 | 28.4 | 28.8 | NA | ND |
| Silica as SiO ₂ , Dissolved | EPA 200.7 | mg/L | 28 | 32 | 34 | 32 | 37 | 37 | 38 | 42 | 42 |
| Sodium | EPA 200.7 | mg/L | 5,150 | 5,190 | 5,150 | 5,150 | 5,890 | 6,030 | 5,920 | 140 | 127 |
| Sodium, Dissolved | EPA 200.7 | mg/L | 5,120 | 5,130 | 4,920 | 5,050 | 5,940 | 5,890 | 6,000 | 147 | 135 |
| Specific Conductance (E.C.) | SM2510B | µmhos/cm | 39,300 | 39,900 | 40,100 | 39,800 | 39,480 | 39,800 | 40,300 | 1,941 | 1,898 |
| Specific Conductance (E.C.) (Field) | SM2510B | µmhos/cm | 40,260 | 40,370 | 40,420 | 40,430 | 40,350 | 40,340 | 40,340 | 2,544 | 1,914 |
| Strontium, Dissolved | EPA 200.8 | µg/L | 16,900 | 18,900 | 16,900 | 18,700 | 16,200 | 16,900 | 15,800 | 1,390 | 1,180 |
| Sulfate, Dissolved | EPA 300.0 | mg/L | 1,860 | 2,000 | 2,060 | 1,980 | 1,970 | 1,940 | 2,210 | 230 | 227 |
| Temperature (Field) | SM2550 | °C | 20.0 | 19.9 | 19.9 | 19.9 | 19.8 | 19.9 | 19.9 | 17.0 | 17.5 |
| Total Diss. Solids | SM2540C | mg/L | 30,900 | 24,600 | 26,400 | 25,900 | 29,500 | 29,800 | 26,400 | 1,350 | 1,200 |
| Turbidity | EPA 180.1 | NTU | 0.20 | 0.10 | 0.15 | 0.25 | 0.15 | 0.15 | 0.15 | 1.80 | 0.35 |
| Turbidity (Field) | EPA 180.1 | NTU | 0.11 | 0.16 | 0.12 | 0.15 | 0.09 | 0.14 | 0.13 | 4.8 | ND |
| Volatile Org. Compounds (524) | EPA 52 | | | | | | | | | | |

Table 3: Summary of Quarterly and Semiannual Monitoring Well Laboratory Water Quality Results Following Long-Term Pumping Test

| Constituent | Method | Units | Monitoring Well Name: | | MW-5S(P) | | | MW-5M | | | MW-5D | | | MW-6S | | |
|---|------------------------------|-------------|-------------------------|-------|-----------|-----------|-----------|----------|----------|-----------|-----------|----------|----------|-----------|-----------|----------|
| | | | Sample Collection Date: | | 10-Apr-19 | 14-Oct-19 | 23-Apr-18 | 9-Oct-18 | 8-Apr-19 | 14-Oct-19 | 24-Apr-18 | 9-Oct-18 | 8-Apr-19 | 15-Oct-19 | 23-Apr-18 | 8-Oct-18 |
| Alkalinity, Total (as CaCO ₃) | SM2320B | mg/L | Result | 59 | 62 | 166 | 165 | 195 | 168 | 114 | 115 | 114 | 116 | 456 | 362 | 302 |
| Aluminum, Total | EPA 200.8 | µg/L | Result | ND | 8 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 8 |
| Ammonia-N, Dissolved | SM4500NH3 D & EPA 350.1 | mg/L | Result | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.6 | 0.5 | ND |
| Arsenic, Total ¹ | EPA 200.8 | µg/L | Result | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Arsenic, Total | EPA 1640 | µg/L | Result | 0.16 | 0.16 | 1.5 | 1.60 | 1.3 | 1.7 | 0.4 | 0.47 | 0.51 | 0.49 | 8.70 | 9.40 | 8.6 |
| Barium, Dissolved | EPA 200.8 | µg/L | Result | 101 | 104 | 78 | 87 | 97.9 | 82.6 | 392 | 465 | 539 | 467 | 219 | 132 | 134 |
| Bicarbonate (as HCO ₃ -) | SM2320B | mg/L | Result | 72 | 76 | 203 | 201 | 238 | 205 | 139 | 140 | 140 | 142 | 556 | 442 | 368 |
| Boron, Dissolved | EPA 200.7 | mg/L | Result | 0.05 | 0.05 | 0.12 | 0.11 | 0.13 | 0.12 | ND | 0.08 | 0.56 | 0.10 | 0.28 | 0.27 | 0.28 |
| Bromide, Dissolved | EPA 300.0 | mg/L | Result | 4.5 | 4.9 | 0.3 | 0.3 | 0.4 | 0.4 | 4.9 | 5.3 | 5.0 | 6.2 | 0.9 | 0.4 | 0.5 |
| Calcium | EPA 200.7 | mg/L | Result | 151 | 144 | 83 | 81 | 92 | 79 | 520 | 502 | 602 | 618 | 180 | 96 | 107 |
| Calcium, Dissolved | EPA 200.7 | mg/L | Result | 150 | 144 | 82 | 80 | 94 | 77 | 524 | 504 | 589 | 639 | 183 | 98 | 107 |
| Carbamates by HPLC (EPA 531) | EPA 531 | µg/L | Result | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Carbonate as CaCO ₃ | SM2320B | mg/L | Result | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Chloride, Dissolved | EPA 300.0 | mg/L | Result | 299 | 283 | 108 | 106 | 111 | 104 | 1,640 | 1,610 | 1,740 | 1,860 | 185 | 115 | 112 |
| Chlorinated Pesticides and PCB (EPA 508) | EPA 508 | µg/L | Result | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Color, Apparent (Unfiltered) | SM2120B | Color Units | Result | 3 | ND | ND | ND | ND | ND | ND | ND | ND | ND | 7 | 22 | 15 |
| Copper | EPA 200.7 | µg/L | Result | ND | ND | ND | ND | ND | ND | ND | ND | 33 | ND | ND | ND | ND |
| Copper, Total | EPA 200.8 | µg/L | Result | - | - | - | - | - | - | - | - | - | - | - | - | - |
| DBCP & EDB | EPA 504.1 | µg/L | Result | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Dioxin | EPA 1613 | pg/L | Result | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Diquat (EPA 549) | EPA 549 | µg/L | Result | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Dissolved Anions | Calculation | Meq/L | Result | 18.71 | 17.72 | 9.26 | 9.11 | 10.02 | 9.17 | 50.53 | 49.78 | 53.30 | 57.63 | 22.62 | 14.69 | 14.87 |
| Total Anions | Calculation | Meq/L | Result | 18.71 | 17.72 | 9.26 | 9.11 | 10.02 | 9.17 | 50.53 | 49.78 | 53.30 | 57.63 | 22.62 | 14.69 | 14.87 |
| Dissolved Cations | Calculation | Meq/L | Result | 18.27 | 17.20 | 8.99 | 8.77 | 10.58 | 8.65 | 48.62 | 47.69 | 52.62 | 55.17 | 23.18 | 14.74 | 14.61 |
| Total Cations | Calculation | Meq/L | Result | 18.58 | 17.33 | 9.25 | 9.08 | 10.21 | 8.66 | 48.21 | 47.26 | 54.17 | 54.88 | 23.08 | 14.25 | 14.57 |
| Fluoride, Dissolved | EPA 300.0 | mg/L | Result | ND | 0.0 | 0.2 | ND | 0.1 | 0.1 | ND | 0.1 | 0.2 | 0.2 | ND | 0.2 | ND |
| Hardness (as CaCO ₃) | SM2340B/Calc | mg/L | Result | 563 | 592 | 313 | 306 | 350 | 299 | 2,070 | 2,000 | 2,370 | 2,420 | 751 | 402 | 451 |
| Hydroxide | SM2320B | mg/L | Result | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Iodide | EPA 9056M & EPA 314.0 | µg/L | Result | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 1,030 | 14 | 12 |
| Iron | EPA 200.7 | µg/L | Result | 10 | 25 | ND | ND | ND | ND | ND | ND | 242 | 14 | 233 | 123 | 190 |
| Iron, Dissolved | EPA 200.7 | µg/L | Result | ND | 12 | ND | ND | ND | ND | ND | ND | ND | 19 | 119 | 171 | |
| Total Kjeldahl Nitrogen, Dissolved | SM4500-NH3 B,C,E & EPA 351.2 | mg/L | Result | ND | ND | ND | 1.40 | 1.70 | 1.4 | ND | ND | ND | 0.3 | 0.8 | 0.7 | 0.5 |
| Lead, Total | EPA 200.8 | µg/L | Result | ND | ND | ND | 0.3 | ND | ND | 0.3 | 3.9 | ND | ND | ND | 0.2 | ND |
| Lithium | EPA 200.8 | µg/L | Result | 10.1 | 10.7 | 6 | 6 | 7.0 | 6.8 | 65 | 79 | 80.1 | 95.4 | 7 | 6 | 6.5 |
| Magnesium | EPA 200.7 | mg/L | Result | 60 | 56.1 | 26 | 25 | 29 | 24 | 188 | 182 | 210 | 214 | 73 | 40 | 44 |
| Magnesium, Dissolved | EPA 200.7 | mg/L | Result | 59 | 56 | 25 | 25 | 30 | 24 | 190 | 186 | 200 | 202 | 75 | 41 | 45 |
| Manganese, Dissolved | EPA 200.7 | µg/L | Result | ND | ND | ND | ND | ND | ND | ND | 8 | ND | 6 | 3,140 | 1,830 | 2,040 |
| Manganese, Total | EPA 200.7 | µg/L | Result | ND | ND | ND | ND | ND | ND | ND | 7 | 14 | 12 | 3,090 | 1,770 | 2,030 |
| MBAS (Surfactants) | SM5540C | mg/L | Result | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Nitrate as N | EPA 300.0 | mg/L | Result | 58.9 | 57.8 | 15.4 | 15.0 | 14.6 | 15.4 | 1.3 | 0.8 | 0.6 | 0.9 | 0.2 | ND | ND |
| Nitrate as NO ₃ | EPA 300.0 | mg/L | Result | 260 | 260 | 68 | 67 | 65 | 68 | 5.8 | 3.4 | 2.5 | 4.2 | 1 | ND | ND |
| Nitrate+Nitrite as N | EPA 300.0 | mg/L | Result | 58.9 | 57.8 | 15.4 | 15 | 14.6 | 15.4 | 1.3 | 0.8 | 0.6 | 0.9 | 0.2 | ND | ND |
| Nitrite as NO ₂ -N, Dissolved | EPA 300.0 | mg/L | Result | ND | ND | ND | ND | 0.1 | ND | ND | ND | ND | ND | ND | ND | ND |
| Odor Threshold at 60 C | SM2150B | TON | Result | 1 | 1 | ND | 1 | 2 | 1 | 2 | 1 | 1 | 1 | ND | 1 | 2 |
| o-Phosphate-P | Hach 8048 & EPA 365.1 | mg/L | Result | ND | 0.05 | 0.12 | 0.12 | 0.10 | 0.11 | ND | 0.01 | 0.01 | 0.01 | 1.26 | 1.41 | 1.55 |
| pH (Field Test) | SM4500-H+B | pH | Result | 6.52 | 7.10 | 7.23 | 7.10 | 7.30 | 7.43 | 7.10 | 6.65 | 6.70 | 6.73 | 6.94 | 7.01 | 7.04 |
| pH (Laboratory) | SM4500-H+B | pH (H) | Result | 6.5 | 6.9 | 7.4 | 7.4 | 7.5 | 7.7 | 7.2 | 7.1 | 7.0 | 7.1 | 7.2 | 7.3 | 7.3 |
| Phenoxy Acid Herbicides (515.3) | EPA 515.3 | µg/L | Result | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Phosphorus, Dissolved Total | HACH 8190 & EPA 365.1 | mg/L | Result | 0.06 | 0.06 | 0.12 | 0.12 | 0.09 | 0.11 | ND | ND | 0.02 | 0.02 | 1.24 | 1.42 | 1.20 |
| Potassium | EPA 200.7 | mg/L | Result | 4.0 | 3.9 | 3.7 | 3.9 | 4.1 | 3.6 | 12.3 | 8.6 | 9.4 | 8.2 | 10.4 | 8.3 | 8.5 |
| Potassium, Dissolved | EPA 200.7 | mg/L | Result | 4.03 | 3.96 | 3.9 | | | | | | | | | | |

Table 3: Summary of Quarterly and Semiannual Monitoring Well Laboratory Water Quality Results Following Long-Term Pumping Test

| Monitoring Well Name: | | MW-6S | MW-6M(L) | | | | | MW-6D | | | | | MW-7S | | | |
|--|------------------------------|-------------|-------------------------|-----------|-----------|----------|-----------|-----------|-----------|----------|----------|-----------|-----------|----------|----------|-----------|
| | | | Sample Collection Date: | 17-Oct-19 | 23-Apr-18 | 8-Oct-18 | 10-Apr-19 | 17-Oct-19 | 23-Apr-18 | 8-Oct-18 | 9-Apr-19 | 16-Oct-19 | 25-Apr-18 | 9-Oct-18 | 9-Apr-19 | 16-Oct-19 |
| Constituent | Method | Units | Result | Result | Result | Result | Result | Result | Result | Result | Result | Result | Result | Result | Result | Result |
| Alkalinity, Total (as CaCO3) | SM2320B | mg/L | 292 | 386 | 391 | 391 | 379 | 108 | 109 | 107 | 107 | 20 | 22 | 20 | 22 | |
| Aluminum, Total | EPA 200.8 | µg/L | ND | ND | ND | ND | ND | ND | ND | ND | ND | 6 | ND | ND | ND | |
| Ammonia-N, Dissolved | SM4500NH3 D & EPA 350.1 | mg/L | 0.40 | ND | 0.1 | 0.1 | 0.11 | ND | ND | ND | ND | ND | ND | ND | ND | |
| Arsenic, Total ¹ | EPA 200.8 | µg/L | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| Arsenic, Total | EPA 1640 | µg/L | 8.60 | 1.50 | 1.90 | 1.8 | 1.8 | 0.49 | 0.48 | 0.54 | 0.46 | 0.12 | 0.11 | 0.12 | 0.10 | |
| Barium, Dissolved | EPA 200.8 | µg/L | 104 | 133 | 149 | 146 | 110 | 264 | 301 | 260 | 233 | 249 | 270 | 276 | 238 | |
| Bicarbonate (as HCO3-) | SM2320B | mg/L | 356 | 471 | 477 | 477 | 462 | 132 | 133 | 131 | 131 | 24 | 27 | 24 | 27 | |
| Boron, Dissolved | EPA 200.7 | mg/L | 0.22 | 0.26 | 0.26 | 0.25 | 0.29 | ND | 0.08 | 0.09 | 0.09 | ND | 0.03 | 0.03 | 0.03 | |
| Bromide, Dissolved | EPA 300.0 | mg/L | 0.2 | 0.4 | 0.3 | 0.8 | 0.4 | 3.7 | 4.4 | 4.8 | 4.9 | 1.2 | 1.1 | 1.6 | 1.4 | |
| Calcium | EPA 200.7 | mg/L | 96 | 118 | 112 | 119 | 125 | 507 | 523 | 514 | 655 | 134 | 115 | 136 | 121 | |
| Calcium, Dissolved | EPA 200.7 | mg/L | 86 | 119 | 112 | 121 | 117 | 500 | 522 | 531 | 640 | 134 | 120 | 135 | 118 | |
| Carbamates by HPLC (EPA 531) | EPA 531 | µg/L | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| Carbonate as CaCO3 | SM2320B | mg/L | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | |
| Chloride, Dissolved | EPA 300.0 | mg/L | 68 | 142 | 138 | 144 | 149 | 1,210 | 1,350 | 1,280 | 1,280 | 431 | 409 | 431 | 394 | |
| Chlorinated Pesticides and PCB (EPA 508) | EPA 508 | µg/L | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| Color, Apparent (Unfiltered) | SM2120B | Color Units | 15 | 4 | 3 | 4 | 3 | ND | ND | 1 | ND | 5 | 4 | 1 | ND | |
| Copper | EPA 200.7 | µg/L | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | |
| Copper, Total | EPA 200.8 | µg/L | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| DBCP & EDB | EPA 504.1 | µg/L | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| Dioxin | EPA 1613 | pg/L | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| Diquat (EPA 549) | EPA 549 | µg/L | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| Dissolved Anions | Calculation | Meq/L | 11.16 | 14.74 | 14.65 | 15.33 | 14.71 | 38.47 | 42.76 | 40.89 | 40.79 | 17.18 | 16.60 | 16.98 | 17.18 | |
| Total Anions | Calculation | Meq/L | 11.16 | 14.74 | 14.65 | 15.33 | 14.71 | 38.47 | 42.76 | 40.89 | 40.79 | 17.18 | 16.60 | 16.98 | 17.18 | |
| Dissolved Cations | Calculation | Meq/L | 11.26 | 14.75 | 14.55 | 14.72 | 15.16 | 37.91 | 43.17 | 40.67 | 47.52 | 17.30 | 16.39 | 16.89 | 14.86 | |
| Total Cations | Calculation | Meq/L | 12.27 | 15.35 | 14.12 | 14.53 | 15.56 | 38.90 | 41.52 | 39.70 | 50.06 | 17.53 | 15.75 | 17.07 | 15.19 | |
| Fluoride, Dissolved | EPA 300.0 | mg/L | 0.3 | 0.1 | ND | 0.2 | 0.2 | ND | ND | 0.1 | 0.1 | 0.4 | ND | ND | ND | |
| Hardness (as CaCO3) | SM2340B/Calc | mg/L | 390 | 466 | 441 | 470 | 484 | 1,760 | 1,840 | 1,800 | 2,270 | 609 | 518 | 608 | 527 | |
| Hydroxide | SM2320B | mg/L | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | |
| Iodide | EPA 9056M & EPA 314.0 | µg/L | 12 | ND | 39 | 42 | 31 | ND | ND | ND | ND | ND | ND | ND | ND | |
| Iron | EPA 200.7 | µg/L | 183 | ND | 5 | 12 | ND | ND | ND | ND | ND | 33 | 17 | 16 | ND | |
| Iron, Dissolved | EPA 200.7 | µg/L | 163 | ND | ND | 12 | 8 | ND | ND | ND | ND | ND | ND | ND | ND | |
| Total Kjeldahl Nitrogen, Dissolved | SM4500-NH3 B,C,E & EPA 351.2 | mg/L | ND | ND | ND | ND | ND | ND | 0.6 | ND | ND | ND | ND | ND | 0.1 | |
| Lead, Total | EPA 200.8 | µg/L | ND | ND | ND | ND | ND | ND | 0.6 | ND | ND | 0.3 | ND | ND | ND | |
| Lithium | EPA 200.8 | µg/L | 4.7 | 20 | 22 | 20.4 | 18.9 | 40 | 42 | 47 | 45.4 | 3 | 3 | 4.1 | 3.6 | |
| Magnesium | EPA 200.7 | mg/L | 37 | 42 | 39 | 42 | 42 | 121 | 131 | 124 | 154 | 66 | 56 | 65 | 60.0 | |
| Magnesium, Dissolved | EPA 200.7 | mg/L | 35 | 41 | 40 | 42 | 42 | 119 | 130 | 125 | 134 | 67 | 58 | 64 | 52 | |
| Manganese, Dissolved | EPA 200.7 | µg/L | 1,750 | 308 | 332 | 352 | 394 | 104 | 67 | 81 | 50 | ND | ND | ND | ND | |
| Manganese, Total | EPA 200.7 | µg/L | 1,850 | 314 | 327 | 358 | 401 | 104 | 69 | 77 | 56 | ND | ND | ND | ND | |
| MBAS (Surfactants) | SM5540C | mg/L | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.06 | ND | ND | ND | |
| Nitrate as N | EPA 300.0 | mg/L | ND | 0.2 | ND | ND | 0.0 | 1.2 | 0.7 | 0.6 | 0.7 | 45.3 | 42.4 | 40.7 | 41.8 | |
| Nitrate as NO3 | EPA 300.0 | mg/L | ND | 1 | ND | ND | ND | 5.5 | ND | ND | 3.1 | 200 | 190 | 180 | 190 | |
| Nitrate+Nitrite as N | EPA 300.0 | mg/L | ND | 0.2 | ND | ND | ND | 1.2 | 0.7 | 0.6 | 0.7 | 45.3 | 42.4 | 40.7 | 41.8 | |
| Nitrite as NO2-N, Dissolved | EPA 300.0 | mg/L | ND | ND | ND | ND | ND | 0.0 | ND | ND | ND | ND | ND | ND | ND | |
| Odor Threshold at 60 C | SM2150B | TON | 1 | ND | 1 | 1 | 1 | 2 | 1 | 1 | 2 | ND | 1 | 1 | 1 | |
| o-Phosphate-P | Hach 8048 & EPA 365.1 | mg/L | 1.33 | 0.15 | 0.14 | 0.15 | 0.16 | ND | ND | 0.01 | 0.02 | 0.06 | 0.05 | 0.05 | 0.05 | |
| pH (Field Test) | SM4500-H+B | pH | 7.00 | 7.08 | 7.09 | 6.97 | 6.98 | 6.99 | 6.92 | 6.96 | 6.96 | 6.84 | 6.20 | 6.59 | 7.05 | |
| pH (Laboratory) | SM4500-H+B | pH (H) | 7.3 | 7.2 | 7.3 | 7.3 | 7.3 | 7.2 | 7.1 | 7.2 | 7.3 | 6.6 | 6.7 | 6.7 | 6.7 | |
| Phenoxy Acid Herbicides (515.3) | EPA 515.3 | µg/L | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| Phosphorus, Dissolved Total | HACH 8190 & EPA 365.1 | mg/L | 1.37 | 0.16 | 0.16 | 0.13 | 0.18 | ND | ND | 0.02 | 0.02 | 0.04 | 0.06 | 0.05 | 0.06 | |
| Potassium | EPA 200.7 | mg/L | 7.4 | 7.0 | 7.3 | 6.9 | 7.9 | 9.7 | 9.6 | 9.1 | 10.2 | 4.0 | 3.8 | 4.0 | 3.6 | |
| Potassium, Dissolved | EPA 200.7 | mg/L | 7.21 | 7 | 7.2 | 7.20 | 7.92 | 9.8 | 9.3 | 9 | 9.9 | 4 | 3.9 | 4 | 3.57 | |
| QC Ratio TDS/SEC | Calculation | - | 0.56 | 0.64 | 0.61 | 0.63 | 0.55 | 0.72 | 0.63 | 0.65 | 0.57 | 0.71 | 0.61 | 0.64 | 0.56 | |
| Reg. Org. Compounds (EPA 525) | EPA 525 | µg/L | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| Salinity | SM2520B | psu | ND | NA | ND | ND | ND | 2.3 | 2.3 | 2.4 | 2.6 | NA | ND | | | |

Notes:

°C = Degrees Celsius

CU = Color Units

Meq/L = Milliequivalents per Liter

mg/L = Milligrams per Liter

mg/L = Milligrams per Liter
NTU = Nephelometric Turbidity Units

ng/l = Picograms per Liter

TON = Threshold Odor Number

$\mu\text{g/l}$ = Micorgrams per Lit

$\mu\text{g/L}$ = Micorgrams per Liter

ND = NOT DETECTED at or above the Reporting Limit (RL) or Practical Quantitation Limit (PQL). See laboratory water quality reports for RL and PQL values.

¹ Using EPA Method 200.8, Arsenic values are overstated due to matrix interference caused by high chloride levels. The overstated values are in laboratory reports through February 11, 2016. Going forward, EPA Method 1640 will be used for Arsenic analysis only.

Table 3: Summary of Quarterly and Semiannual Monitoring Well Laboratory Water Quality Results Following Long-Term Pumping Test

| Constituent | Method | Units | Monitoring Well Name: | | | | MW-7M | | | | MW-7D | | | | MW-8S | | | | MW-8M | | |
|---|--|-------------|-------------------------|-----------|----------|-----------|-----------|-----------|----------|-----------|-----------|-----------|-----------|----------|-----------|-----------|--------|--------|--------|--------|--------|
| | | | Sample Collection Date: | 25-Apr-18 | 8-Oct-18 | 10-Apr-19 | 16-Oct-19 | 25-Apr-18 | 8-Oct-18 | 10-Apr-19 | 16-Oct-19 | 24-Apr-18 | 11-Oct-18 | 8-Apr-19 | 15-Oct-19 | 24-Apr-18 | Result | Result | Result | Result | Result |
| Alkalinity, Total (as CaCO ₃) | SM2320B | mg/L | 82 | 83 | 83 | 78 | 103 | 104 | 104 | 100 | 330 | 341 | 331 | 337 | 144 | - | - | - | - | - | - |
| Aluminum, Total | EPA 200.8 | µg/L | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Ammonia-N, Dissolved | SM4500NH ₃ D & EPA 350.1 | mg/L | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Arsenic, Total ¹ | EPA 200.8 | µg/L | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Arsenic, Total | EPA 1640 | µg/L | 0.09 | 0.094 | 0.11 | 0.11 | 0.50 | 0.45 | 0.58 | 0.56 | 0.26 | 0.25 | 0.21 | 0.25 | 0.34 | - | - | - | - | - | - |
| Barium, Dissolved | EPA 200.8 | µg/L | 377 | 459 | 390 | 403 | ND | 104.0 | 88 | 99.7 | 107 | 138.0 | 522 | 101 | ND | - | - | - | - | - | ND |
| Bicarbonate (as HCO ₃ -) | SM2320B | mg/L | 100 | 101 | 101 | 95 | 126 | 127 | 127 | 122 | 403 | 416 | 403 | 411 | 176 | - | - | - | - | - | - |
| Boron, Dissolved | EPA 200.7 | mg/L | ND | 0.08 | 0.08 | ND | 1.95 | 2.11 | 1.9 | 1.9 | 0.25 | 0.26 | 0.28 | 0.30 | 1.3 | - | - | - | - | - | - |
| Bromide, Dissolved | EPA 300.0 | mg/L | 8.7 | 8.0 | 10.3 | 10.1 | 43.2 | 45.1 | 53.8 | 45.6 | 1.0 | 1.2 | 0.6 | 1.1 | 35.5 | - | - | - | - | - | - |
| Calcium | EPA 200.7 | mg/L | 823 | 882 | 864 | 882 | 1,490 | 1,410 | 1,360 | 1,300 | 133 | 143 | 138 | 143 | 1,420 | - | - | - | - | - | - |
| Calcium, Dissolved | EPA 200.7 | mg/L | 811 | 860 | 866 | 889 | 1,500 | 1,430 | 1,360 | 1,370 | 135 | 138 | 137 | 138 | 1,310 | - | - | - | - | - | - |
| Carbamates by HPLC (EPA 531) | EPA 531 | µg/L | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Carbonate as CaCO ₃ | SM2320B | mg/L | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Chloride, Dissolved | EPA 300.0 | mg/L | 2,560 | 2,780 | 2,750 | 2,820 | 13,700 | 14,300 | 14,800 | 14,500 | 313 | 347 | 307 | 304 | 11,300 | - | - | - | - | - | - |
| Chlorinated Pesticides and PCB (EPA 508) | EPA 508 | µg/L | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Color, Apparent (Unfiltered) | SM2120B | Color Units | ND | ND | ND | ND | ND | ND | ND | ND | ND | 3 | ND | 1 | 3 | ND | - | - | - | - | - |
| Copper | EPA 200.7 | µg/L | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Copper, Total | EPA 200.8 | µg/L | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| DBCP & EDB | EPA 504.1 | µg/L | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Dioxin | EPA 1613 | pg/L | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Diquat (EPA 549) | EPA 549 | µg/L | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Dissolved Anions | Calculation | Meq/L | 78.33 | 84.88 | 84.98 | 86.34 | 430.44 | 449.85 | 461.92 | 453.33 | 23.12 | 24.94 | 23.23 | 23.30 | 354.47 | - | - | - | - | - | - |
| Total Anions | Calculation | Meq/L | 78.33 | 84.88 | 84.98 | 86.34 | 430.44 | 449.85 | 461.92 | 453.33 | 23.12 | 24.94 | 23.23 | 23.30 | 354.47 | - | - | - | - | - | - |
| Dissolved Cations | Calculation | Meq/L | 77.15 | 78.67 | 79.75 | 82.74 | 435.37 | 433.86 | 422.35 | 428.41 | 23.34 | 22.98 | 23.08 | 23.00 | 386.44 | - | - | - | - | - | - |
| Total Cations | Calculation | Meq/L | 79.35 | 80.19 | 79.50 | 81.15 | 442.68 | 447.57 | 421.31 | 424.17 | 22.72 | 23.11 | 23.47 | 23.77 | 382.44 | - | - | - | - | - | - |
| Fluoride, Dissolved | EPA 300.0 | mg/L | 0.3 | 0.0 | 0.1 | ND | 0.8 | 0.1 | 0.1 | 0.1 | 0.3 | ND | ND | ND | 0.5 | - | - | - | - | - | - |
| Hardness (as CaCO ₃) | SM2340B/Calc | mg/L | 3,110 | 3,240 | 3,190 | 3,260 | 7,530 | 7,320 | 6,960 | 6,790 | 567 | 587 | 580 | 699 | 6,360 | - | - | - | - | - | - |
| Hydroxide | SM2320B | mg/L | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Iodide | EPA 9056M & EPA 314.0 | µg/L | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 7.3 | 4.6 | 4.0 | ND | - | - |
| Iron | EPA 200.7 | µg/L | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Iron, Dissolved | EPA 200.7 | µg/L | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Total Kjeldahl Nitrogen, Dissolved | SM4500-NH ₃ B,C,E & EPA 351.2 | mg/L | ND | 0.8 | 1.0 | 0.6 | ND | 0.6 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.7 |
| Lead, Total | EPA 200.8 | µg/L | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.4 | 0.3 | ND | ND | - | - |
| Lithium | EPA 200.8 | µg/L | 26 | 32 | 35.1 | 42.7 | 179 | 186 | 202 | 253 | 4 | 5 | 4.2 | 37.5 | 106 | - | - | - | - | - | - |
| Magnesium | EPA 200.7 | mg/L | 255 | 252 | 250 | 256 | 925 | 920 | 863 | 860 | 57 | 56 | 57 | 57 | 683 | - | - | - | - | - | - |
| Magnesium, Dissolved | EPA 200.7 | mg/L | 251 | 249 | 253 | 261 | 941 | 910 | 862 | 852 | 58 | 56 | 56 | 56 | 703 | - | - | - | - | - | - |
| Manganese, Dissolved | EPA 200.7 | µg/L | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Manganese, Total | EPA 200.7 | µg/L | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 2 | ND | ND | ND | ND | ND |
| MBAS (Surfactants) | SM5540C | mg/L | ND | ND | ND | ND | 0.07 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Nitrate as N | EPA 300.0 | mg/L | 4.5 | 4.7 | 4.4 | 4.9 | 1.9 | 1.1 | 0.9 | 1.0 | 27.6 | 28.4 | 23.7 | 23.0 | 1.4 | - | - | - | - | - | - |
| Nitrate as NO ₃ | EPA 300.0 | mg/L | 20 | 21 | 19 | 22 | 8.3 | 4.9 | ND | 4.3 | 120 | 126 | 100 | 102 | 6.0 | - | - | - | - | - | - |
| Nitrate+Nitrite as N | EPA 300.0 | mg/L | 4.5 | 4.7 | 4.4 | 4.9 | 1.9 | 1.1 | 0.9 | 1.0 | | | | | | | | | | | |

Table 3: Summary of Quarterly and Semiannual Monitoring Well Laboratory Water Quality Results Following Long-Term Pumping Test

| Constituent | Method | Units | Monitoring Well Name: Sample Collection Date: | | | MW-8M | | MW-8D | | | | MW-9S | | | | MW-9M | |
|---|------------------------------|-------------|--|----------|-----------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| | | | 11-Oct-18 | 9-Apr-19 | 15-Oct-19 | Result |
| Alkalinity, Total (as CaCO ₃) | SM2320B | mg/L | 142 | 141 | 134 | 149 | 156 | 155 | 148 | 964 | 961 | 945 | 915 | 116 | 118 | | |
| Aluminum, Total | EPA 200.8 | µg/L | ND | ND | ND | ND | 6 | ND | 9 | ND | ND | 14 | ND | ND | ND | ND | ND |
| Ammonia-N, Dissolved | SM4500NH3 D & EPA 350.1 | mg/L | ND | ND | ND | ND | ND | ND | ND | 3.1 | 3.0 | 3.3 | 2.99 | ND | ND | ND | ND |
| Arsenic, Total ¹ | EPA 200.8 | µg/L | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Arsenic, Total | EPA 1640 | µg/L | 0.32 | 0.43 | 0.44 | 0.78 | 1.0 | 0.95 | 1.1 | 6.3 | 6.30 | 6.2 | 5.5 | 0.54 | 0.54 | 0.54 | 0.54 |
| Barium, Dissolved | EPA 200.8 | µg/L | 111 | 98.8 | 96 | 40 | 50.8 | 52.7 | 68.0 | 308 | 314 | 262 | 182 | ND | 83 | | |
| Bicarbonate (as HCO ₃ ⁻) | SM2320B | mg/L | 173 | 172 | 163 | 182 | 190 | 190 | 181 | 1,180 | 1,170 | 1,150 | 1,120 | 142 | 144 | | |
| Boron, Dissolved | EPA 200.7 | mg/L | 1.2 | 1.49 | 1.69 | ND | 0.08 | ND | 0.08 | 0.64 | 0.63 | 0.62 | 0.62 | 2.33 | 1.87 | | |
| Bromide, Dissolved | EPA 300.0 | mg/L | 38.6 | 37.7 | 43.0 | 1.9 | 0.9 | 0.8 | 0.6 | 3.0 | 3.2 | 3.6 | 3.1 | 49.3 | 57.0 | | |
| Calcium | EPA 200.7 | mg/L | 1,440 | 925 | 1,000 | 67 | 48 | 50 | 49 | 213 | 217 | 215 | 198 | 1,370 | 1,680 | | |
| Calcium, Dissolved | EPA 200.7 | mg/L | 1,420 | 992 | 994 | 67 | 47 | 46 | 48 | 219 | 213 | 215 | 200 | 1,390 | 1,450 | | |
| Carbamates by HPLC (EPA 531) | EPA 531 | µg/L | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Carbonate as CaCO ₃ | SM2320B | mg/L | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Chloride, Dissolved | EPA 300.0 | mg/L | 12,100 | 11,600 | 12,400 | 692 | 306 | 246 | 177 | 1,000 | 980 | 950 | 913 | 16,800 | 17,300 | | |
| Chlorinated Pesticides and PCB (EPA 508) | EPA 508 | µg/L | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Color, Apparent (Unfiltered) | SM2120B | Color Units | ND | 5 | ND | 4 | 3 | 5 | 3 | 28 | 20 | 100 | 100 | 4 | 3 | | |
| Copper | EPA 200.7 | µg/L | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Copper, Total | EPA 200.8 | µg/L | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| DBCP & EDB | EPA 504.1 | µg/L | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Dioxin | EPA 1613 | pg/L | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Diquat (EPA 549) | EPA 549 | µg/L | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Dissolved Anions | Calculation | Meq/L | 377.60 | 364.91 | 387.12 | 24.47 | 12.67 | 12.56 | 8.51 | 53.30 | 54.06 | 51.61 | 51.18 | 526.28 | 540.24 | | |
| Total Anions | Calculation | Meq/L | 377.60 | 364.91 | 387.12 | 24.47 | 12.67 | 12.56 | 8.51 | 53.30 | 54.06 | 51.61 | 51.18 | 526.28 | 540.24 | | |
| Dissolved Cations | Calculation | Meq/L | 356.42 | 383.16 | 390.19 | 22.73 | 12.10 | 11.72 | 8.61 | 50.98 | 52.21 | 49.73 | 49.18 | 477.51 | 489.73 | | |
| Total Cations | Calculation | Meq/L | 375.79 | 342.76 | 401.23 | 23.00 | 11.51 | 12.81 | 8.75 | 50.93 | 52.62 | 52.09 | 49.27 | 477.83 | 491.20 | | |
| Fluoride, Dissolved | EPA 300.0 | mg/L | ND | 0.1 | 0.1 | 0.2 | 0.3 | 0.3 | 0.3 | ND | 0.2 | 0.2 | 0.2 | ND | ND | | |
| Hardness (as CaCO ₃) | SM2340B/Calc | mg/L | 6,270 | 4,520 | 5,220 | 359 | 219 | 279 | 207 | 1,110 | 1,090 | 1,070 | 997 | 7,860 | 8,350 | | |
| Hydroxide | SM2320B | mg/L | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Iodide | EPA 9056M & EPA 314.0 | µg/L | ND | ND | ND | ND | 1.2 | ND | ND | 180 | 300 | 180 | 250 | ND | ND | | |
| Iron | EPA 200.7 | µg/L | 36 | ND | ND | ND | 6 | ND | 35 | 5,570 | 5,170 | 5,490 | 5,250 | 37 | 140 | | |
| Iron, Dissolved | EPA 200.7 | µg/L | ND | ND | ND | ND | ND | ND | ND | 5,580 | 5,140 | 4,950 | 859 | ND | ND | | |
| Total Kjeldahl Nitrogen, Dissolved | SM4500-NH3 B,C,E & EPA 351.2 | mg/L | ND | ND | ND | ND | 0.7 | ND | ND | 3.6 | 4 | 4 | 3.5 | ND | ND | | |
| Lead, Total | EPA 200.8 | µg/L | ND | 0.9 | ND | ND | 0.2 | ND | |
| Lithium | EPA 200.8 | µg/L | 144 | 157.0 | 145 | 30 | 36 | 43.9 | 25.0 | 14 | 22 | 39.7 | 21.0 | 209 | 286 | | |
| Magnesium | EPA 200.7 | mg/L | 648 | 536 | 659 | 47 | 24 | 24 | 20.4 | 140 | 133 | 130 | 122 | 1,080 | 1,010 | | |
| Magnesium, Dissolved | EPA 200.7 | mg/L | 632 | 584 | 586 | 46 | 24 | 24 | 21 | 140 | 132 | 120 | 122 | 1,000 | 1,020 | | |
| Manganese, Dissolved | EPA 200.7 | µg/L | ND | 8 | 8 | ND | ND | ND | ND | 4,120 | 3,730 | 3,730 | 3,810 | ND | 218 | | |
| Manganese, Total | EPA 200.7 | µg/L | ND | 9 | 8 | ND | ND | ND | 7 | 4,100 | 3,720 | 4,050 | 3,970 | 96 | 234 | | |
| MBAS (Surfactants) | SM5540C | mg/L | ND | ND | ND | ND | ND | ND | ND | 0.06 | ND | ND | ND | ND | ND | | |
| Nitrate as N | EPA 300.0 | mg/L | 0.6 | 0.4 | 0.6 | 1.1 | 0.4 | 0.5 | 0.4 | 0.8 | ND | ND | ND | ND | 1.0 | 0.3 | |
| Nitrate as NO ₃ | EPA 300.0 | mg/L | 2.7 | 1.8 | 2.7 | 4.9 | ND | 2.2 | 1.8 | 3.5 | ND | ND | ND | 4.6 | 1.3 | | |
| Nitrate+Nitrite as N | EPA 300.0 | mg/L | 0.6 | 0.4 | 0.6 | 1.1 | 0.4 | 0.5 | 0.4 | 0.8 | ND | ND | ND | 1.0 | 0.3 | | |
| Nitrite as NO ₂ -N, Dissolved | EPA 300.0 | mg/L | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | |
| Odor Threshold at 60 C | SM2150B | TON | 1 | 1 | 1 | ND | 1 | 1 | 1 | 2 | 2 | 3 | 2 | ND | 1 | | |
| o-Phosphate-P | Hach 8048 & EPA 365.1 | mg/L | 0.03 | 0.03 | 0.04 | 0.02 | 0.02 | 0.02 | 0.02 | 1.38 | 1.04 | 0.39 | 0.50 | 0.04 | 0.03 | | |
| pH (Field Test) | SM4500-H+B | pH | 6.41 | 6.62 | 6.81 | 7.12 | 7.31 | 7.19 | 7.33 | 6.65 | 6.97 | 7.06 | 7.00 | 6.34 | 6.48 | | |
| pH (Laboratory) | SM4500-H+B | pH (H) | 6.9 | 6.9 | 7.1 | 7.4 | 7.5 | 7.5 | 7.8 | 7.1 | 7.2 | 7.1 | 7.5 | 6.8 | 6.9 | | |
| Phenoxy Acid Herbicides (515.3) | EPA 515.3 | µg/L | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Phosphorus, Dissolved Total | HACH 8190 & EPA 365.1 | mg/L | 0.04 | 0.05 | 0.06 | ND | 0.02 | 0.02 | 0.03 | 1.26 | 1.04 | 0.39 | 0.82 | 0.0 | | | |

Table 3: Summary of Quarterly and Semiannual Monitoring Well Laboratory Water Quality Results Following Long-Term Pumping Test

| Constituent | Method | Units | Monitoring Well Name: | | MW-9M | | | | MW-9D | | | |
|---|--|-------------|-------------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| | | | Sample Collection Date: | Result |
| Alkalinity, Total (as CaCO ₃) | SM2320B | mg/L | 117 | 112 | 168 | 168 | 168 | 168 | 162 | | | |
| Aluminum, Total | EPA 200.8 | µg/L | ND | ND | ND | ND | ND | ND | ND | ND | | |
| Ammonia-N, Dissolved | SM4500NH ₃ D & EPA 350.1 | mg/L | ND | ND | ND | ND | ND | ND | ND | ND | | |
| Arsenic, Total ¹ | EPA 200.8 | µg/L | - | - | - | - | - | - | - | - | | |
| Arsenic, Total | EPA 1640 | µg/L | 0.60 | 0.58 | 0.9 | 1.10 | 1.2 | 1.3 | | | | |
| Barium, Dissolved | EPA 200.8 | µg/L | 72.4 | 82.9 | 54 | 62.0 | 54.6 | 47.2 | | | | |
| Bicarbonate (as HCO ₃ -) | SM2320B | mg/L | 142 | 137 | 205 | 205 | 205 | 198 | | | | |
| Boron, Dissolved | EPA 200.7 | mg/L | 2.20 | 2.12 | 0.07 | 0.05 | 0.07 | 0.07 | 0.07 | 0.07 | | |
| Bromide, Dissolved | EPA 300.0 | mg/L | 55.5 | 55.8 | 0.1 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | | |
| Calcium | EPA 200.7 | mg/L | 1,550 | 1,480 | 32 | 32 | 35 | 35 | 35 | | | |
| Calcium, Dissolved | EPA 200.7 | mg/L | 1,540 | 1,510 | 31 | 32 | 36 | 35 | 35 | | | |
| Carbamates by HPLC (EPA 531) | EPA 531 | µg/L | - | - | - | - | - | - | - | - | | |
| Carbonate as CaCO ₃ | SM2320B | mg/L | ND | ND | ND | ND | ND | ND | ND | | | |
| Chloride, Dissolved | EPA 300.0 | mg/L | 17,000 | 17,200 | 66 | 68 | 64 | 68 | 68 | | | |
| Chlorinated Pesticides and PCB (EPA 508) | EPA 508 | µg/L | - | - | - | - | - | - | - | | | |
| Color, Apparent (Unfiltered) | SM2120B | Color Units | 8 | 4 | 4 | ND | 2 | 4 | | | | |
| Copper | EPA 200.7 | µg/L | ND | ND | ND | ND | ND | ND | ND | | | |
| Copper, Total | EPA 200.8 | µg/L | - | - | - | - | - | - | - | | | |
| DBCP & EDB | EPA 504.1 | µg/L | - | - | - | - | - | - | - | | | |
| Dioxin | EPA 1613 | pg/L | - | - | - | - | - | - | - | | | |
| Diquat (EPA 549) | EPA 549 | µg/L | - | - | - | - | - | - | - | | | |
| Dissolved Anions | Calculation | Meq/L | 531.14 | 539.67 | 5.72 | 5.79 | 5.69 | 5.70 | | | | |
| Total Anions | Calculation | Meq/L | 531.14 | 539.67 | 5.72 | 5.79 | 5.69 | 5.70 | | | | |
| Dissolved Cations | Calculation | Meq/L | 528.95 | 484.55 | 5.73 | 5.20 | 5.78 | 5.38 | | | | |
| Total Cations | Calculation | Meq/L | 520.95 | 494.36 | 5.73 | 5.16 | 5.59 | 5.55 | | | | |
| Fluoride, Dissolved | EPA 300.0 | mg/L | ND | 0.1 | 0.2 | 0.2 | 0.2 | 0.3 | | | | |
| Hardness (as CaCO ₃) | SM2340B/Calc | mg/L | 8,110 | 8,090 | 134 | 136 | 143 | 141 | | | | |
| Hydroxide | SM2320B | mg/L | ND | ND | ND | ND | ND | ND | | | | |
| Iodide | EPA 9056M & EPA 314.0 | µg/L | 13 | 7.2 | ND | ND | ND | ND | | | | |
| Iron | EPA 200.7 | µg/L | 142 | 86 | ND | ND | ND | ND | | | | |
| Iron, Dissolved | EPA 200.7 | µg/L | ND | 85 | ND | ND | ND | ND | | | | |
| Total Kjeldahl Nitrogen, Dissolved | SM4500-NH ₃ B,C,E & EPA 351.2 | mg/L | ND | ND | ND | ND | ND | ND | | | | |
| Lead, Total | EPA 200.8 | µg/L | ND | ND | ND | ND | ND | ND | | | | |
| Lithium | EPA 200.8 | µg/L | 235 | 338 | 26 | 34 | 28.0 | 22.5 | | | | |
| Magnesium | EPA 200.7 | mg/L | 1,030 | 1,060 | 13 | 14 | 14 | 13.2 | | | | |
| Magnesium, Dissolved | EPA 200.7 | mg/L | 1,030 | 986 | 13 | 14 | 14 | 13 | | | | |
| Manganese, Dissolved | EPA 200.7 | µg/L | 213 | 298 | ND | ND | ND | ND | | | | |
| Manganese, Total | EPA 200.7 | µg/L | 203 | 306 | ND | ND | ND | ND | | | | |
| MBAS (Surfactants) | SM5540C | mg/L | ND | ND | ND | ND | ND | ND | | | | |
| Nitrate as N | EPA 300.0 | mg/L | 0.3 | 0.4 | 0.6 | 0.5 | 0.6 | 0.6 | | | | |
| Nitrate as NO ₃ | EPA 300.0 | mg/L | 1.2 | 1.8 | 2.8 | 2.2 | 2.7 | 2.7 | | | | |
| Nitrate+Nitrite as N | EPA 300.0 | mg/L | 0.3 | 0.4 | 0.6 | 0.5 | 0.6 | 0.6 | | | | |
| Nitrite as NO ₂ -N, Dissolved | EPA 300.0 | mg/L | ND | ND | ND | ND | ND | ND | | | | |
| Odor Threshold at 60 C | SM2150B | TON | 1 | 1 | ND | 1 | 1 | 1 | | | | |
| o-Phosphate-P | Hach 8048 & EPA 365.1 | mg/L | 0.03 | 0.04 | 0.02 | 0.02 | 0.02 | 0.02 | | | | |
| pH (Field Test) | SM4500-H+B | pH | 6.72 | 6.55 | 7.09 | 7.27 | 7.34 | 7.12 | | | | |
| pH (Laboratory) | SM4500-H+B | pH (H) | 6.9 | 7.2 | 7.5 | 7.5 | 7.4 | 7.7 | | | | |
| Phenoxy Acid Herbicides (515.3) | EPA 515.3 | µg/L | - | - | - | - | - | - | | | | |
| Phosphorus, Dissolved Total | HACH 8190 & EPA 365.1 | mg/L | 0.04 | 0.05 | ND | 0.03 | 0.03 | 0.03 | | | | |
| Potassium | EPA 200.7 | mg/L | 186 | 156 | 7.6 | 4.0 | 3.3 | 3.3 | | | | |
| Potassium, Dissolved | EPA 200.7 | mg/L | 178 | 158 | 7.56 | 4.08 | 3.7 | 3.05 | | | | |
| QC Ratio TDS/SEC | Calculation | - | 0.74 | 0.63 | 0.65 | 0.64 | 0.59 | 0.58 | | | | |
| Reg. Org. Compounds (EPA 525) | EPA 525 | µg/L | - | - | - | - | - | - | | | | |
| Salinity | SM2520B | psu | 32.3 | 32.0 | NA | ND | ND | ND | | | | |
| Silica as SiO ₂ , Dissolved | EPA 200.7 | mg/L | 29 | 31 | 46 | 42 | 46 | 43 | | | | |
| Sodium | EPA 200.7 | mg/L | 8,140 | 7,570 | 66 | 53 | 60 | 61 | | | | |
| Sodium, Dissolved | EPA 200.7 | mg/L | 8,340 | 7,450 | 67 | 54 | 63 | 57 | | | | |
| Specific Conductance (E.C.) | SM2510B | µmhos/cm | 44,630 | 44,200 | 571 | 518 | 565 | 574 | | | | |
| Specific Conductance (E.C.) (Field) | SM2510B | µmhos/cm | 44,650 | 45,160 | 587 | 593 | 510 | 613 | | | | |
| Strontium, Dissolved | EPA 200.8 | µg/L | 9,680 | 10,700 | 267 | 260 | 268 | 218 | | | | |
| Sulfate, Dissolved | EPA 300.0 | mg/L | 2,330 | 2,460 | 22 | 23 | 23 | 24 | | | | |
| Temperature (Field) | SM2550 | °C | 17.4 | 17.2 | 21.1 | 21.3 | 21.4 | 20.8 | | | | |
| Total Diss. Solids | SM2540C | mg/L | 32,900 | 27,700 | 371 | 334 | 334 | 334 | | | | |
| Turbidity | EPA 180.1 | NTU | 0.15 | 0.35 | 0.40 | 0.20 | 0.10 | ND | | | | |
| Turbidity (Field) | EPA 180.1 | NTU | 0.35 | 0.450 | 0.6 | 0.46 | 0.46 | 0.240 | | | | |
| Volatile Org. Compounds (524) | EPA 524 | µg/L | - | - | - | - | - | - | | | | |
| Zinc | EPA 200.7 | µg/L | ND | ND | ND | ND | ND | ND | | | | |
| Zinc, Total | EPA 200.8 | µg/L | - | - | - | - | - | - | | | | |
| PCBs, Total | EPA 508 | µg/L | - | - | - | - | - | - | | | | |
| Total PCB | EPA 1668C | pg/L | - | - | - | - | - | - | | | | |

Notes:

°C = Degrees Celsius
 CU = Color Units
 Meq/L = Milliequivalents per Liter
 mg/L = Milligrams per Liter
 NTU = Nephelometric Turbidity Units
 pg/L = Picograms per Liter
 TON = Threshold Odor Number
 µg/L = Micograms per Liter
 µmhos/cm = Micromhos per Centimeter

ND = NOT DETECTED at or above the Reporting Limit (RL) or Practical Quantitation Limit (PQL). See laboratory water quality reports for RL and PQL values.

¹ Using EPA Method 200.8, Arsenic values are overstated due to matrix interference caused by high chloride levels. The overstated values are in laboratory reports through February 11, 2016. Going forward, EPA Method 1640 will be used for Arsenic analysis only.