



Technical Memorandum

Third Quarter 2022 Groundwater Monitoring Summary

National Aeronautics and Space Administration

Jet Propulsion Laboratory, Pasadena, California

Final

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This technical memorandum summarizes the results of the third quarter 2022 groundwater sampling event completed as part of the groundwater monitoring program at the National Aeronautics and Space Administration (NASA) Jet Propulsion Laboratory (JPL). The third quarter 2022 groundwater sampling event was conducted from July 29 through August 12, 2022.

INTRODUCTION

The JPL groundwater monitoring well (MW) network consists of 25 monitoring wells, ten of which are shallow standpipe wells constructed with a single screen, and 15 of which are multiport wells constructed with 2 to 5 screens for a combined total of 82 individual monitoring locations. Standard sampling protocol requires sample collection from 68 of 82 monitoring points during the first and third quarterly monitoring events and sample collection from all 82 monitoring points during the second and fourth quarterly monitoring events. Deviations from this sampling protocol are typically due to dry wells and ports. During the third quarter 2022 sampling event, groundwater samples were collected from 16 of 23 JPL MWs, both on-and off-facility and analyzed for volatile organic compounds (VOCs), total chromium, hexavalent chromium [Cr(VI)], perchlorate, lead, arsenic, major cations and anions, alkalinity, total dissolved solids (TDS), and pH. In select wells, 1,4-dioxane, N nitrosodimethylamine (NDMA), chloride, nitrate, sulfate, nitrite, and orthophosphate were also analyzed. During the third quarter 2022 sampling event, shallow standpipe wells MW-5, MW-6, MW-7, MW-8, MW-10, MW-13, and MW-16 were dry and not sampled. In addition, the uppermost screen (i.e., Screen 1) of multiport wells MW-4, MW-12, MW-14, MW-20, MW-21, MW-22, MW-23, and MW-26 were dry and not sampled. In total, 53 of 82 sampling locations were sampled during this monitoring event. Figure 1 shows the locations of the groundwater monitoring wells. In addition, samples were collected from the Monk Hill Treatment System (MHTS) upgradient surveillance monitoring wells and analyzed in accordance with the City of Pasadena's State Water Resources Control Board (SWRCB) Division of Drinking Water (DDW) drinking water permit. Figure 1 shows the locations of the groundwater monitoring wells.

Groundwater samples were transported via courier to Pace Analytical Environmental Sciences (Pace) in Bakersfield, California for chemical analysis. Pace is certified by the SWRCB DDW. Pace acquired BC Laboratories on October 6, 2021, so laboratory documentation lists both names interchangeably. Sample collection procedures and sample analyses were conducted in accordance with the approved *Work Plan for Performing a Remedial Investigation/Feasibility Study*¹. No reported data was rejected for non-compliance with method requirements during validation and no reported data were deemed unusable.

Table 1 summarizes analytical results for VOCs and perchlorate and Table 2 summarizes analytical results for metals from the last five sampling events. Table 3 summarizes VOC and perchlorate concentrations in

¹ Ebasco. 1993. *Work Plan for Performing a Remedial Investigation/Feasibility Study*, National Aeronautics and Space Administration Jet Propulsion Laboratory, Pasadena, California. December.

production wells located near the JPL facility from the last five sampling events. No tentatively identified compounds (TICs) were detected in the samples collected during the third quarter of 2022.

Figures summarizing the results from the third quarter 2022 sampling event are included in this technical memorandum. Figure 2 shows the lateral extent of carbon tetrachloride concentrations in groundwater, and Figure 3 provides a cross-section detailing the horizontal and vertical extent of carbon tetrachloride. Figure 4 shows the lateral extent of perchlorate concentrations in groundwater, and Figure 5 provides a cross-section detailing the horizontal and vertical extent of perchlorate in groundwater. Figure 6 shows the lateral extent of tetrachloroethene (PCE) concentrations in groundwater. Figure 7 shows the lateral extent of trichloroethene (TCE) concentrations in groundwater. Figure 8 shows groundwater elevation contours from the third quarter 2022 event and groundwater flow directions.

Attachment 1 summarizes the field and laboratory quality assurance (QA), data verification and data validation procedures utilized for the JPL groundwater monitoring program. Attachment 2 contains the data validation reports performed by an independent subcontractor, Laboratory Data Consultants, Inc., of Carlsbad, California. Attachment 3 contains the laboratory analytical reports prepared by Pace. Attachment 4 contains the groundwater sample collection field logs for the JPL groundwater monitoring wells. Attachment 5 contains water level field measurement log sheets. Attachment 6 presents time series plots for select wells and analytes. Attachment 7 presents historical perchlorate, VOC, and metals concentrations from 1996 to present. A summary of the well construction details for the JPL groundwater monitoring wells is included in Attachment 8.

The groundwater monitoring wells have been grouped into four categories:

- On-facility source area wells (MW-7, MW-13, MW-16, and MW-24);
- Other on-facility wells (MW-6, MW-8, MW-11, MW-22, and MW-23);
- Perimeter off-facility wells (MW-1, MW-3, MW-4, MW-5, MW-9, MW-10, MW-12, MW-14, and MW-15 [MW-1 and MW-9 are only sampled during the second and fourth quarter events]); and
- Off-facility wells (MW-17, MW-18, MW-19, MW-20, MW-21, MW-25, and MW-26).

MW-2 was decommissioned in July 2018. Well MW-2 had not been sampled during the groundwater monitoring program since it was replaced with well MW-14.

ON-FACILITY SOURCE AREA WELLS

On-facility source area wells consist of wells that have historically contained the highest concentration of site-related chemicals. This group of wells is located within the JPL facility (on-facility) and consists of monitoring wells MW-7, MW-13, MW-16, and MW-24.

The source area treatment system has been operating since 2005 and addresses groundwater beneath the JPL facility, which has historically contained the highest concentrations of perchlorate and VOCs (i.e., the source area). Operation of the source area treatment system appears to have resulted in a significant reduction of chemicals of interest in wells MW-7, MW-13, MW-16, and MW-24, which are located within the treatment zone. Additional details regarding chemical concentrations in the on-facility source area wells are presented below.

It should be noted that during the third quarter 2022, MW-7, MW-13, and MW-16 were dry and therefore not sampled. Declining water levels are associated with the drought in California.

PERCHLORATE ANALYTICAL RESULTS

- During the third quarter 2022, perchlorate was detected above the state Maximum Contaminant Level (MCL) (6.0 µg/L) in MW-24 (Screens 1 [95.0 µg/L] and 2 [15.0 µg/L]).
- During the third quarter 2022, perchlorate was not detected in MW-24 (Screen 3) with a reporting limit of 2.0 µg/L.
- Perchlorate concentrations increased from the second quarter 2022 sampling event to the third quarter 2022 in MW-24 (Screen 2 [9.6J µg/L to 15.0 µg/L]). 'J' qualifier indicates an estimated concentration.
- Perchlorate concentrations decreased from the second quarter 2022 sampling event to the third quarter 2022 in MW-24 (Screen 1 [140.0 µg/L to 95.0 µg/L]).
- Perchlorate concentrations remained non-detect in MW-24 (Screen 3) from the second quarter 2022 sampling event to third quarter 2022.

VOC ANALYTICAL RESULTS

- During the third quarter 2022, carbon tetrachloride was not detected in the on-facility wells that were sampled with a reporting limit of 0.5 µg/L.
- During the third quarter 2022, TCE was not detected in the on-facility wells that were sampled with a reporting limit of 0.5 µg/L.
- During the third quarter 2022, PCE was not detected in the on-facility wells that were sampled with a reporting limit of 0.5 µg/L.

OTHER NOTABLE ANALYTICAL RESULTS

- During the third quarter 2022, Cr(VI)² was detected below the state MCL (50.0 µg/L) in MW-24 (Screens 1, 2 and 4 [0.27 µg/L, 1.80 µg/L, and 0.10J µg/L, respectively]). Cr(VI) was non-detect in MW-24 (Screen 3) with a reporting limit of 0.20 µg/L.
- During the third quarter 2022, total chromium was detected below the state MCL (50.0 µg/L) and federal MCL (100.0 µg/L) in MW-24 (Screens 1 through 3 [2.5J µg/L, 2.0J µg/L, and 1.1J µg/L, respectively]). Total chromium results were non-detect in MW-24 (Screen 4) with a reporting limit of 3.0 µg/L.

OTHER ON-FACILITY WELLS

This well group consists of monitoring wells MW-6, MW-8, MW-11, MW-22, and MW-23. These wells are located on the JPL facility but outside the source area.

It should be noted that during third quarter 2022, MW-6, MW-8, MW-22 (Screen 1) and MW-23 (Screen 1) were dry, and no samples were collected.

² On August 1, 2017, the State Water Resources Control Board (SWRCB) removed the previously adopted MCL for Cr(VI). See https://www.waterboards.ca.gov/press_room/press_releases/2017/pr080117_mcl_removal.pdf.

PERCHLORATE ANALYTICAL RESULTS

- During the third quarter 2022, perchlorate was detected below the state MCL (6.0 µg/L) in MW-22 (Screens 2 and 3 [2.3 µg/L, and 3.1 µg/L, respectively]), and MW-23 (Screens 2 and 3 [4.4 µg/L, and 3.5 µg/L, respectively]).
- Perchlorate concentrations increased from their respective last sampling event to the third quarter 2022 in MW-22 (Screen 3 [2.9] µg/L to 3.1 µg/L), and MW-23 (Screen 2 [3.8] µg/L to 4.4 µg/L, and 3 [3.2] µg/L to 3.5 µg/L).
- Perchlorate concentrations remained unchanged from their last respective sampling event to third quarter 2022 in MW-22 (Screen 2 [2.3] µg/L and 2.3 µg/L) and non-detect in MW-11 (Screens 1 through 4).

VOC ANALYTICAL RESULTS

- During the third quarter 2022, carbon tetrachloride was not detected in the other on-facility wells that were sampled with a reporting limit of 0.5 µg/L.
- During the third quarter 2022, TCE was detected below the state and federal MCL (5.0 µg/L) in MW-11 (Screen 4 [0.6 µg/L]) and MW-23 (Screen 2 [1.0 µg/L]). No other TCE detections occurred in the remaining other on-facility wells that were sampled during the third quarter 2022.
- During the third quarter 2022, PCE was detected below the state and federal MCL (5.0 µg/L) in MW-23 (Screen 2 [0.5 µg/L]). No other PCE detections occurred in the remaining other on-facility wells that were sampled during the third quarter 2022.

OTHER NOTABLE ANALYTICAL RESULTS

- During the third quarter 2022, Cr(VI) was detected below the state MCL (50.0 µg/L) in MW-22 (Screens 2 and 3 [2.00 µg/L and 2.20 µg/L, respectively]) and MW-23 (Screens 2 through 4 [1.80] µg/L, 2.60 µg/L, and 4.20 µg/L, respectively]). Cr(VI) was not detected in the remaining other on-facility wells that were sampled during the third quarter 2022.
- During the third quarter 2022, total chromium was detected below the state MCL (50.0 µg/L) in MW-22 (Screens 2 and 3 [2.0] µg/L and 1.8] µg/L, respectively]) and MW-23 (Screens 2 through 4 [1.7] µg/L, 3.3 µg/L, 4.6 µg/L, respectively]). No other total chromium detections occurred in the remaining other on-facility wells that were sampled during the third quarter 2022.

PERIMETER OFF-FACILITY WELLS

The perimeter off-facility wells are located near the JPL fence line along the perimeter of the property. This group of wells consists of MW-1, MW-3, MW-4, MW-5, MW-9, MW-10, MW-12, MW-14, and MW-15 (MW-1 and MW-9 are not sampled during the third quarter 2022 monitoring event, but only during the second and fourth quarters).

It should be noted that during third quarter 2022, MW-5, MW-10, MW-12 (Screen 1), and MW-14 (Screen 1) were dry and not sampled.

PERCHLORATE ANALYTICAL RESULTS

- During the third quarter 2022, perchlorate was detected above the state MCL (6.0 µg/L) in well MW-4 (Screen 2 [46.0 µg/L]).
- Perchlorate was detected below the state MCL (6.0 µg/L) in MW-3 (Screens 2 through 4 [3.6 µg/L, 3.1 µg/L, and 3.2 µg/L, respectively]), MW-4 (Screen 3 [1.4] µg/L), MW-12 (Screens 2 through 5 [0.9] µg/L, 2.6 µg/L, 2.3 µg/L, and 1.1] µg/L, respectively), and MW-14 (Screens 2 through 4 [3.2 µg/L, 4.2 µg/L, and 3.7 µg/L, respectively]).
- During the third quarter 2022, perchlorate was not detected in MW-14 (Screen 5) with a reporting limit of 2.0 µg/L.
- Perchlorate concentrations increased from their respective last sampling event to the third quarter 2022 in MW-3 (Screens 2 [3.4] µg/L to 3.6 µg/L), 3 [2.4] µg/L to 3.1 µg/L, and 4 [2.7] µg/L to 3.2 µg/L), and MW-14 (Screen 4 [3.4 µg/L to 3.7 µg/L]).
- Perchlorate concentrations decreased from their respective last sampling event to the third quarter 2022 in MW-4 (Screen 3 [2.3 µg/L to 1.4] µg/L), MW-12 (Screens 2 [1.8] µg/L to 0.9] µg/L and 5 [2.0 µg/L to 1.1] µg/L), and MW-14 (Screen 2 [3.3 µg/L to 3.2 µg/L]).
- Perchlorate concentrations remained unchanged from their respective last sampling event to the third quarter 2022 sampling event in MW-4 (Screen 2 [46.0] µg/L to 46.0 µg/L), MW-12 (Screens 3 [2.6 µg/L] and 4 [2.3 µg/L]), and MW-14 (Screens 3 [4.2 µg/L] and 5 [non-detect]).
- The perchlorate concentration of 46.0 µg/L in MW-4 (Screen 2) during the third quarter 2022 continues to be down from the high detection of 250.0 µg/L (third quarter 2013). Since the first quarter 2011, perchlorate concentrations have exceeded the state MCL (6.0 µg/L) in thirty-four of forty-seven quarters ranging from 6.5 µg/L to 250.0 µg/L. Perchlorate concentrations will continue to be closely monitored since MW-4 is within the capture zone of the MHTS.

VOC ANALYTICAL RESULTS

- During the third quarter 2022, carbon tetrachloride was detected above the state MCL (0.5 µg/L) in MW-12 (Screen 3 [0.9 µg/L]) and below the state MCL in MW-12 (Screen 4 [0.4] µg/L) and Screen 5 [0.3] µg/L). No other carbon tetrachloride detections occurred in the perimeter off-facility wells that were sampled during the third quarter 2022.
- During the third quarter 2022, TCE was below the state and federal MCL (5.0 µg/L) in MW-4 (Screen 2 [0.4] µg/L), and MW-14 (Screens 2 through 4 [1.8 µg/L, 0.9 µg/L, and 0.2] µg/L, respectively). No other TCE detections occurred in the perimeter off-facility wells that were sampled during the third quarter 2022.
- During the third quarter 2022, PCE was detected below the state and federal MCL (5.0 µg/L) in MW-14 (Screens 2 and 3 [0.6 µg/L and 0.7 µg/L, respectively]). No other PCE detections occurred in the perimeter off-facility wells that were sampled during the third quarter 2022.

OTHER NOTABLE ANALYTICAL RESULTS

- During the third quarter 2022, Cr(VI) was detected below the state MCL (50.0 µg/L) in MW-4 (Screens 2 and 3 [0.22] µg/L and 0.04] µg/L, respectively), MW-12 (Screens 2 and 3 [0.21] µg/L

and 0.40] $\mu\text{g/L}$, respectively]), and MW-15 (0.89 $\mu\text{g/L}$). No other Cr(VI) detections occurred in the perimeter off-facility wells that were sampled during the third quarter 2022.

- During the third quarter 2022, total chromium was detected below the state MCL (50.0 $\mu\text{g/L}$) in MW-3 (Screens 3 and 4 [2.6] $\mu\text{g/L}$, and 15.0 $\mu\text{g/L}$, respectively]), MW-4 (Screens 2 and 3 [0.5] $\mu\text{g/L}$ and 0.8] $\mu\text{g/L}$, respectively]), and MW-12 (Screen 2 [1.4] $\mu\text{g/L}$). No other total chromium detections occurred in the perimeter off-facility wells that were sampled during the third quarter 2022.

OFF-FACILITY WELLS

The off-facility wells consist of monitoring wells MW-17, MW-18, MW-19, MW-20, MW-21, MW-25, and MW-26. These wells are located near and down gradient of the two off-facility treatment plants: MHTS and Lincoln Avenue Water Company (LAWC) treatment system. Daily operation of the MHTS began in February 2011. Operation of the LAWC perchlorate treatment system began in July 2004.

It should be noted that during third quarter 2022, MW-20 (Screen 1), MW-21 (Screen 1), and MW-26 (Screen 1) were dry and not sampled. MW-17 (Screen 1) and MW-18 (Screen 1) were also dry but are not sampled in the third quarter.

PERCHLORATE ANALYTICAL RESULTS

- During the third quarter 2022 sampling event, concentrations of perchlorate above the state MCL (6.0 $\mu\text{g/L}$) were reported in samples collected from wells MW-18 (Screen 4 [15.0 $\mu\text{g/L}$]) and MW-25 (Screens 1 through 4 [6.7 $\mu\text{g/L}$, 12.0 $\mu\text{g/L}$, 9.5 $\mu\text{g/L}$, and 8.6 $\mu\text{g/L}$, respectively]).
- During the third quarter 2022 sampling event, concentrations of perchlorate below the state MCL (6.0 $\mu\text{g/L}$) were reported in samples collected from wells MW-17 (Screen 4 [3.6 $\mu\text{g/L}$]), MW-19 (Screens 2 through 5 [2.0 $\mu\text{g/L}$, 3.5 $\mu\text{g/L}$, 2.7 $\mu\text{g/L}$, and 2.6 $\mu\text{g/L}$, respectively]), MW-20 (Screen 2 [1.2] $\mu\text{g/L}$), MW-21 (Screens 2 through 5 [1.4] $\mu\text{g/L}$, 3.1 $\mu\text{g/L}$, 3.6 $\mu\text{g/L}$, and 2.4 $\mu\text{g/L}$, respectively]), and MW-26 (Screen 2 [3.0 $\mu\text{g/L}$]).
- During the third quarter 2022, concentrations of perchlorate were not detected in MW-17 (Screens 2 and 3), MW-18 (Screens 2, 3, and 5), MW-19 (Screen 1), MW-20 (Screens 3 through 5), and MW-25 (Screen 5) with a reporting limit of 2.0 $\mu\text{g/L}$.
- Perchlorate concentrations increased from second quarter to the third quarter 2022 in MW-18 (Screen 4 [12.0] $\mu\text{g/L}$ to 15.0 $\mu\text{g/L}$), MW-19 (Screen 2 [1.6] $\mu\text{g/L}$ to 2.0 $\mu\text{g/L}$] and Screen 3 [3.4] $\mu\text{g/L}$ to 3.5 $\mu\text{g/L}$]), MW-21 (Screen 3 [2.8 $\mu\text{g/L}$ to 3.1 $\mu\text{g/L}$] and Screen 4 [2.6 $\mu\text{g/L}$ to 3.6 $\mu\text{g/L}$]), MW-25 (Screens 1 [6.2] $\mu\text{g/L}$ to 6.7 $\mu\text{g/L}$], 2 [9.7] $\mu\text{g/L}$ to 12.0 $\mu\text{g/L}$], 3 [8.2] $\mu\text{g/L}$ to 9.5 $\mu\text{g/L}$], and 4 [7.3] $\mu\text{g/L}$ to 8.6 $\mu\text{g/L}$]), and MW-26 (Screen 2 [2.4 $\mu\text{g/L}$ to 3.0 $\mu\text{g/L}$]).
- Perchlorate concentrations decreased from second quarter to the third quarter 2022 in MW-17 (Screen 4 [4.1 $\mu\text{g/L}$ to 3.6 $\mu\text{g/L}$]), MW-19 (Screen 4 [2.9 $\mu\text{g/L}$ to 2.7 $\mu\text{g/L}$] and Screen 5 [2.8] $\mu\text{g/L}$ to 2.6 $\mu\text{g/L}$]), MW-20 (Screen 2 [1.8] $\mu\text{g/L}$ to 1.2] $\mu\text{g/L}$]), and MW-21 (Screen 2 [1.7] $\mu\text{g/L}$ to 1.4] $\mu\text{g/L}$] and Screen 5 [2.6 $\mu\text{g/L}$ to 2.4 $\mu\text{g/L}$]).
- Perchlorate concentrations remained non-detect from second quarter to the third quarter 2022 in MW-17 (Screens 2 and 3), MW-18 (Screens 2, 3, and 5), MW-19 (Screen 1), MW-20 (Screens 3 through 5), and MW-25 (Screen 5).

- Perchlorate concentrations in MW-17 (Screen 3) have remained relatively stable since 2011 with concentrations ranging from non-detect to 8.5 µg/L. MW-17 is located within the capture zone of the LAWC treatment system.
- The perchlorate concentration of 3.6 µg/L in MW-17 (Screen 4) is the thirtieth detection below the state MCL (6.0 µg/L) since the first quarter 2015. From the third quarter 2002 to the fourth quarter 2012, the perchlorate concentrations in MW-17 (Screen 4) had been either non-detect or below the state MCL (6.0 µg/L) with only one detection that exceeded the state MCL (second quarter 2003 [6.5 µg/L]). From the first quarter 2013 through the fourth quarter 2014, the perchlorate concentrations in MW-17 (Screen 4) exceeded the state MCL in seven of the eight quarters with exceedances ranging from 6.8 µg/L to 18.0 µg/L. From the first quarter 2015 to the third quarter 2022 sampling events, perchlorate in MW-17 (Screen 4) remained below the state MCL (6.0 µg/L) with concentrations ranging from non-detect (first quarter 2017) to 5.4 µg/L (fourth quarter 2020). The changes in perchlorate concentrations at MW-17 (Screen 4) are believed to be associated with changes in groundwater flow associated with operation of NASA's mid-plume treatment system, which began operation in 2011.
- Perchlorate concentrations in MW-18 (Screen 3) have been below the state MCL (6.0 µg/L) since third quarter 2017, ranging from 4.6 µg/L (second quarter 2012) to non-detect (first quarter 2020, third quarter 2021, and first, second, and third quarters 2022). From the fourth quarter 2005 to second quarter 2017 perchlorate concentrations in MW-18 (Screen 3) were above the state MCL (6.0 µg/L) ranging from 6.2 µg/L (second quarter 2017) to 144.0 µg/L (third quarter 2011) with one exception (non-detect [second quarter 2007]).
- Perchlorate concentrations in MW-20 (Screen 2) have exceeded the state MCL (6.0 µg/L) four times since it was first sampled and analyzed for perchlorate beginning in the second quarter 1997 (second quarter 2012 [6.4 µg/L], first quarter 2015 [7.0 µg/L], fourth quarter 2020 [9.8 µg/L], and second quarter 2021 [7.4 µg/L]). During the period from second quarter 1997 through third quarter 2007 (forty sampling events) perchlorate was not detected. Perchlorate was first detected in MW-20 (Screen 2) during the fourth quarter 2007 with a concentration of 3.7 µg/L. From fourth quarter 2007 through third quarter 2020 (excluding second quarter 2012 [6.4 µg/L] and first quarter 2015 [7.0 µg/L]), perchlorate was detected during forty-three of fifty-two sampling events with concentrations ranging from 0.9 µg/L to 5.2 µg/L. During the ten sampling events preceding the fourth quarter 2020, perchlorate concentrations ranged from 0.9 µg/L to 2.2 µg/L. Perchlorate has remained non-detect three out of the last five sampling events (the second and third quarters 2021 and the first quarter 2022).
- Perchlorate concentrations in MW-20 (Screen 3) have been non-detect ninety-four of one hundred one quarters since it was first sampled and analyzed for perchlorate beginning in the second quarter 1997. Perchlorate detections ranged from 1.0 µg/L to 3.67 µg/L except for one detection that exceeded the state MCL (6.0 µg/L) during first quarter 2012 (12.6 µg/L).
- During the period from the third quarter 2008 through first quarter 2012, perchlorate was detected in MW-20 (Screen 4) at concentrations exceeding the state MCL (6.0 µg/L) during seven of fifteen sampling events. Concentrations exceeding the state MCL ranged from 15.8 µg/L to 123.0 µg/L. Perchlorate was not detected during the remaining eight sampling events between third quarter 2008 and first quarter 2012. Perchlorate has not been detected in MW-20 (Screen 4) since the first quarter 2012 (42 sampling events).
- During the period from third quarter 2008 through first quarter 2012, perchlorate was detected in MW-20 (Screen 5) at concentrations exceeding the state MCL (6.0 µg/L) during six of fifteen sampling events. During this time, perchlorate concentrations exceeding the state MCL ranged

from 11.5 µg/L to 56.5 µg/L. Perchlorate was not detected during the remaining eight sampling events during this period with one exception (4.2 µg/L [second quarter 2011]). From the second quarter 2012 to third quarter 2022 (42 sampling events) perchlorate concentrations have remained non-detect in MW-20 (Screen 5).

- The perchlorate concentrations in MW-25 (Screens 1 through 4) have remained relatively stable above the state MCL (6.0 µg/L) ranging from 6.0 µg/L (Screen 1 [fourth quarter 2012 and first quarter 2018]) to 19.0 µg/L (Screen 4 first quarter 2013) with eight exceptions (Screen 1 [non-detect (first quarter 2005, and second quarter 2007), and (5.9 µg/L third quarter 2005)], Screen 2 [non-detect (first quarter 2005)], Screen 3 [non-detect (second quarter 2006)], and Screen 4 [non-detect (second and third quarters 2007), and (5.6 µg/L fourth quarter 2012)]).
- Perchlorate has been detected in MW-25 (Screen 5) during seven (7) of seventy (70) quarters and has exceeded the state MCL six (6) times with concentrations ranging from 12.0 µg/L (fourth quarter 2009) to 54.8 µg/L (first quarter 2012). Except for first quarter 2017 (2.0 µg/L), perchlorate has not been detected in Screen 5 for forty (40) consecutive quarters.

VOC ANALYTICAL RESULTS

- During the third quarter 2022, carbon tetrachloride was detected above the state MCL (0.5 µg/L) in MW-18 (Screen 4 [2.2 µg/L]). No other carbon tetrachloride detections occurred in the remaining off-facility wells that were sampled during the third quarter 2022.
- Prior to third quarter 2018, the carbon tetrachloride concentrations in MW-18 (Screen 3) had exceeded the state MCL (0.5 µg/L) since the first quarter 2005 with concentrations ranging from 0.5 µg/L to 43.0 µg/L. Since third quarter 2018, carbon tetrachloride in MW-18 (Screen 3) has ranged from non-detect to 0.4 µg/L.
- Carbon tetrachloride detections in MW-18 (Screen 4) have exceeded the state MCL since the third quarter 1996 with one exception (non-detect [fourth quarter 2010]).
- During the third quarter 2022, TCE was detected below the state and federal MCL (5.0 µg/L) in MW-17 (Screens 3 and 4 [0.9 µg/L and 0.4 µg/L, respectively]), MW-18 (Screen 4 [1.0 µg/L]), MW-19 (Screens 2 through 5 [1.1 µg/L, 0.8 µg/L, 0.8 µg/L, and 0.6 µg/L, respectively]), MW-20 (Screen 2 [0.4 µg/L]), MW-21 (Screens 3 and 4 [1.0 µg/L and 0.4 µg/L, respectively]), MW-25 (Screen 2 [0.3 µg/L]), and MW-26 (Screen 2 [0.2 µg/L]). No other TCE detections occurred in the remaining off-facility wells that were sampled during the third quarter 2022.
- During the third quarter 2022, PCE was detected below the state and federal MCL (5.0 µg/L) in MW-17 (Screen 4 [0.4 µg/L]), MW-18 (Screen 4 [0.7 µg/L]), MW-19 (Screens 2 through 5 [2.1 µg/L, 2.3 µg/L, 2.0 µg/L, and 1.6 µg/L, respectively]), MW-20 (Screens 2 and 3 [0.4 µg/L and 0.8 µg/L, respectively]), MW-21 (Screens 2 through 5 [0.3 µg/L, 0.6 µg/L, 0.8 µg/L, and 0.7 µg/L, respectively]), MW-25 (Screens 2 and 3 [0.4 µg/L and 3.0 µg/L, respectively]), and MW-26 (Screen 2 [1.1 µg/L]). PCE was not detected in the remaining off-facility wells that were sampled during the third quarter 2022.

OTHER NOTABLE ANALYTICAL RESULTS

- During the third quarter 2022, Cr(VI) was detected below the state MCL (50.0 µg/L) in MW-17 (Screen 4 [2.10] µg/L), MW-18 (Screens 3 and 4 [1.90 µg/L and 3.00 µg/L, respectively]), MW-21 (Screens 4 and 5 [1.70 µg/L and 1.40] µg/L, respectively]), MW-25 (Screens 2 through 4 [2.90 µg/L, 3.50 µg/L, and 1.20 µg/L, respectively]), and MW-26 (Screen 2 [0.95 µg/L]). Cr(VI) was not detected in the remaining off-facility wells that were sampled during the third quarter 2022.
- During the third quarter 2022, total chromium was detected below the state MCL (50.0 µg/L) in MW-17 (Screen 4 [2.0] µg/L]), MW-18 (Screen 4 [2.7] µg/L]), MW-20 (Screen 2 [0.8] µg/L]), MW-25 (Screens 1 through 3 [3.6 µg/L, 1.9] µg/L, and 2.2] µg/L, respectively]), and MW-26 (Screen 2 [9.1 µg/L]). Total chromium was not detected in the remaining off-facility wells that were sampled during the third quarter 2022.

ALL WELL CATEGORIES (OTHER RESULTS)

- Comparing the second quarter 2022 to the third quarter 2022, groundwater elevations decreased by an average of 7.53 feet.
- The shallow standpipe wells MW-5, MW-6, MW-7, MW-8, MW-10, MW-13, and MW-16 were dry and could not be sampled during the third quarter 2022. This is the first quarter in which MW-5, MW-8, and MW-10 were dry. This is the eighth consecutive quarter in which well MW-7 was dry. This is the ninth consecutive quarter in which wells MW-6, MW-13, and MW-16 were dry.
- The uppermost sampling port (i.e., Screen 1) in multiport monitoring wells MW-4, MW-12, MW-14, MW-20, MW-21, and MW-26 were dry and could not be sampled during the third quarter 2022. In addition, MW-17 (Screen 1) and MW-18 (Screen 1), which are only sampled during the second and fourth quarters but are measured for water levels during the first and third quarters, were also dry. This is the first quarter in which Screen 1 in wells MW-4, MW-12, MW-17, MW-22, and MW-23 were dry. This is the seventh consecutive quarter Screen 1 in well MW-26 was dry. This is the ninth consecutive quarter in which Screen 1 in well MW-18 was dry. This is the twelfth consecutive quarter in which Screen 1 in wells MW-14, MW-20, and MW-21 were dry.
- Groundwater elevations recorded in the JPL monitoring wells generally appear to fluctuate over time, with occasional spikes or dips that follow a seasonal pattern. Typically, the groundwater levels reach their highest during the second quarter of the year and decrease through the fourth quarter. From 1996/1997 through 2011, the groundwater elevations generally increased with some fluctuations, but then decreased from 2011 through 2022 with occasional fluctuations. As of the third quarter of 2022, the groundwater levels are approximately 86 feet below the elevations recorded in the third quarter of 2011. The monitoring of groundwater elevations will continue closely monitored.
- Groundwater level measurements collected during the third quarter 2022 indicate that groundwater gradients and flow directions are generally consistent with previous observations (see Figure 8).

ATTACHMENTS

Attachments to this technical memorandum include the following:

- Attachment 1: Quality Assurance/Quality Control Summary
 - Attachment 2: Data Validation Reports
 - Attachment 3: Laboratory Analytical Reports
 - Attachment 4: Field Logs
 - Attachment 5: Water Level Measurements
 - Attachment 6: Time Series Concentration Plots
 - Attachment 7: Tables 1A, 2A and 3A (Historical Perchlorate, VOCs, and Metals from 1996 to present)
 - Attachment 8: Summary of Construction Details for All JPL Groundwater Monitoring Wells
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TABLES

TABLE 1
SUMMARY OF VOLATILE ORGANIC COMPOUNDS AND PERCHLORATE DETECTED DURING THE
LAST FIVE SAMPLING EVENTS OF THE LONG-TERM QUARTERLY GROUNDWATER SAMPLING PROGRAM

(All concentrations reported in µg/L.)

(Shaded values exceed State or Federal MCL or action levels.)

Sample Location	Sampling Event	Sample Number	Carbon tetrachloride	TCE	PCE	1,1-DCA	1,2-DCA	1,1-DCE	Freon 113	Chloroform	Perchlorate	Other Volatile Organic Compounds and 1,4-Dioxane, NDMA, NDPA, 1,2,3-TCP
MW-1												
MW-1	May/June 2021	MW-1	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	4.0 U	
MW-1	Oct/Nov 2021	MW-1	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2.0 U	
MW-3-Screen-1												
MW-3-Screen-1	May/June 2021	MW-3-1	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	4.0 U	
MW-3-Screen-1	Apr/May 2022	MW-3-1	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2.0 UJ	
MW-3-Screen-2												
MW-3-Screen-2	July 2021	MW-3-2	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2.0 U	
MW-3-Screen-2	Oct/Nov 2021	MW-3-2	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1.4 J	
MW-3-Screen-2	Oct/Nov 2021	DUP-1-4Q21	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2 U	
MW-3-Screen-2	Jan/Feb 2022	MW-3-2	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	4.0 U	
MW-3-Screen-2	Apr/May 2022	MW-3-2	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	3.4 J	
MW-3-Screen-2	Jul/Aug 2022	MW-3-2	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	3.6	
MW-3-Screen-3												
MW-3-Screen-3	July 2021	MW-3-3	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1.0 J	
MW-3-Screen-3	Oct/Nov 2021	MW-3-3	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	3.7	
MW-3-Screen-3	Jan/Feb 2022	MW-3-3	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.9 J	
MW-3-Screen-3	Jan/Feb 2022	DUP-6-1Q22	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1.0 J	
MW-3-Screen-3	Apr/May 2022	MW-3-3	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2.4 J	
MW-3-Screen-3	Jul/Aug 2022	MW-3-3	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	3.1	
MW-3-Screen-4												
MW-3-Screen-4	July 2021	MW-3-4	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1.1 J	
MW-3-Screen-4	Oct/Nov 2021	MW-3-4	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	3.7	
MW-3-Screen-4	Jan/Feb 2022	MW-3-4	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1.1 J	
MW-3-Screen-4	Apr/May 2022	MW-3-4	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2.7 J	
MW-3-Screen-4	Apr/May 2022	DUP-5-2Q22	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2.6 J	
MW-3-Screen-4	Jul/Aug 2022	MW-3-4	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	3.2	
MW-3-Screen-5												
MW-3-Screen-5	May/June 2021	MW-3-5	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1.7 J	
MW-3-Screen-5	Oct/Nov 2021	MW-3-5	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	3.1	
MW-3-Screen-5	Apr/May 2022	MW-3-5	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2.6	
MW-4-Screen-1												
MW-4-Screen-1	Jan/Feb 2022	MW-4-1	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	4.0 U	
MW-4-Screen-1	Apr/May 2022	MW-4-1	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2.0 UJ	

Sample Location	Sampling Event	Sample Number	Carbon tetrachloride	TCE	PCE	1,1-DCA	1,2-DCA	1,1-DCE	Freon 113	Chloroform	Perchlorate	Other Volatile Organic Compounds and 1,4-Dioxane, NDMA, NDPA, 1,2,3-TCP	
MW-4-Screen-2													
MW-4-Screen-2	July 2021	MW-4-2	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.6	53.0		
MW-4-Screen-2	Oct/Nov 2021	MW-4-2	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.7	59.1		
MW-4-Screen-2	Oct/Nov 2021	DUP-3-4Q21	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.7	57.2		
MW-4-Screen-2	Jan/Feb 2022	MW-4-2	0.5 U	0.4 J	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.7	49.9		
MW-4-Screen-2	Apr/May 2022	MW-4-2	0.5 U	0.6	0.5 J	0.5 U	0.5 U	0.5 U	0.5 U	1.4	46.0 J	Trichlorofluoromethane	0.2 J
MW-4-Screen-2	Jul/Aug 2022	MW-4-2	0.5 U	0.4 J	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.9	46.0		
MW-4-Screen-3													
MW-4-Screen-3	July 2021	MW-4-3	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1.9 J		
MW-4-Screen-3	Oct/Nov 2021	MW-4-3	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	3.0		
MW-4-Screen-3	Jan/Feb 2022	MW-4-3	0.5 U	0.2 J	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	4.0 U	Methylene chloride	0.5 J
MW-4-Screen-3	Apr/May 2022	MW-4-3	0.5 U	0.2 J	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2.3		
MW-4-Screen-3	Jul/Aug 2022	MW-4-3	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1.4 J		
MW-4-Screen-4													
MW-4-Screen-4	May/June 2021	MW-4-4	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.1 J	2.5 J		
MW-4-Screen-4	Oct/Nov 2021	MW-4-4	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2.0 U		
MW-4-Screen-4	Apr/May 2022	MW-04-4	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2.1		
MW-4-Screen-4	Apr/May 2022	DUP-3-2Q22	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1.9 J	1,2,3-Trichloropropane	0.005 J
MW-4-Screen-5													
MW-4-Screen-5	May/June 2021	MW-4-5	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	4.0 U		
MW-4-Screen-5	Oct/Nov 2021	MW-4-5	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2.0 U		
MW-4-Screen-5	Apr/May 2022	MW-04-5	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1.0 J		
MW-5													
MW-5	Apr/May 2022	MW-5	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2.0 U		
MW-8													
MW-8	Apr/May 2022	MW-8	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.2 J	7.9		
MW-9													
MW-9	May/June 2021	MW-9	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	4.0 U		
MW-9	Oct/Nov 2021	MW-9	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2.0 U		
MW-9	Apr/May 2022	MW-9	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2.0 U		
MW-9	Apr/May 2022	DUP-6-2Q22	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2.0 U		
MW-10													
MW-10	Apr/May 2022	MW-10	0.5 U	0.8	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2.0 U		
MW-11-Screen-1													
MW-11-Screen-1	May/June 2021	MW-11-1	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	4.0 U		
MW-11-Screen-1	July 2021	MW-11-1	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2.0 U		
MW-11-Screen-1	Oct/Nov 2021	MW-11-1	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2.0 U		
MW-11-Screen-1	Jan/Feb 2022	MW-11-1	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	4.0 U		
MW-11-Screen-1	Jul/Aug 2022	MW-11-1	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2.0 U		
MW-11-Screen-2													

Sample Location	Sampling Event	Sample Number	Carbon tetrachloride	TCE	PCE	1,1-DCA	1,2-DCA	1,1-DCE	Freon 113	Chloroform	Perchlorate	Other Volatile Organic Compounds and 1,4-Dioxane, NDMA, NDPA, 1,2,3-TCP	
MW-11-Screen-2	July 2021	MW-11-2	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2.0 U		
MW-11-Screen-2	Oct/Nov 2021	MW-11-2	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2.0 U		
MW-11-Screen-2	Oct/Nov 2021	DUP-7-4Q21	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2.0 U		
MW-11-Screen-2	Jan/Feb 2022	MW-11-2	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	4.0 U		
MW-11-Screen-2	Apr/May 2022	MW-11-2	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2.0 U		
MW-11-Screen-2	Apr/May 2022	DUP-4-2Q22	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2.0 U		
MW-11-Screen-2	Jul/Aug 2022	MW-11-2	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2.0 U		
MW-11-Screen-3													
MW-11-Screen-3	July 2021	MW-11-3	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2.0 U	Carbon disulfide	0.6
MW-11-Screen-3	Oct/Nov 2021	MW-11-3	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2.0 U	Styrene	0.1 J
MW-11-Screen-3	Jan/Feb 2022	MW-11-3	0.5 U	0.5	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	4.0 U	Carbon disulfide	0.7
MW-11-Screen-3	Apr/May 2022	MW-11-3	0.5 U	0.3 J	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2.0 U	Carbon disulfide	0.6
MW-11-Screen-3	Jul/Aug 2022	MW-11-3	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2.0 U	Styrene	0.2 J
MW-11-Screen-3	Jul/Aug 2022	MW-11-3	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2.0 U	Ethylbenzene	0.2 J
MW-11-Screen-3	Jul/Aug 2022	MW-11-3	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2.0 U	Methyl-tert-butyl ether (MTBE)	0.3 J
MW-11-Screen-3	Jul/Aug 2022	MW-11-3	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2.0 U	Styrene	0.5 J
MW-11-Screen-3	Jul/Aug 2022	MW-11-3	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2.0 U	Toluene	0.2 J
MW-11-Screen-4													
MW-11-Screen-4	July 2021	MW-11-4	0.5 U	0.5 J	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2.0 U	Styrene	0.1 J
MW-11-Screen-4	Oct/Nov 2021	MW-11-4	0.5 U	0.7	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2.0 U		
MW-11-Screen-4	Jan/Feb 2022	MW-11-4	0.5 U	0.6	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	4.0 U	Styrene	0.2 J
MW-11-Screen-4	Apr/May 2022	MW-11-4	0.5 U	0.8	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2.0 U		
MW-11-Screen-4	Jul/Aug 2022	MW-11-4	0.5 U	0.6	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2.0 U	Styrene	0.2 J
MW-11-Screen-5													
MW-11-Screen-5	May/June 2021	MW-11-5	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	4.0 U		
MW-11-Screen-5	Oct/Nov 2021	MW-11-5	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2.0 U		
MW-11-Screen-5	Apr/May 2022	MW-11-5	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2.0 U	Carbon disulfide	0.6
MW-12-Screen-2													
MW-12-Screen-2	July 2021	MW-12-2	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1.3 J		
MW-12-Screen-2	July 2021	DUP-5-3Q21	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1.2 J	Trichlorofluoromethane	0.2 J
MW-12-Screen-2	Oct/Nov 2021	MW-12-2	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1.8 J		
MW-12-Screen-2	Oct/Nov 2021	DUP-4-4Q21	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1.8 J		
MW-12-Screen-2	Jul/Aug 2022	MW-12-2	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.9 J		
MW-12-Screen-3													
MW-12-Screen-3	July 2021	MW-12-3	1.5	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.8	2.8		
MW-12-Screen-3	Oct/Nov 2021	MW-12-3	0.4 J	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1.2	1.2 J		
MW-12-Screen-3	Jul/Aug 2022	MW-12-3	0.8	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.6	2.6		
MW-12-Screen-3	Jul/Aug 2022	DUP-5-3Q22	0.9	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.7	2.6		

Sample Location	Sampling Event	Sample Number	Carbon tetrachloride	TCE	PCE	1,1-DCA	1,2-DCA	1,1-DCE	Freon 113	Chloroform	Perchlorate	Other Volatile Organic Compounds and 1,4-Dioxane, NDMA, NDPA, 1,2,3-TCP	
MW-12-Screen-4													
MW-12-Screen-4	Mar/Apr 2021	MW-12-4	0.5 J	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.4 J	2.7 J		
MW-12-Screen-4	May/June 2021	MW-12-4	1.5	0.3 J	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.7	2.3 J		
MW-12-Screen-4	July 2021	MW-12-4	0.9	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.6	2.2		
MW-12-Screen-4	Oct/Nov 2021	MW-12-4	0.3 J	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.3 J	2.3		
MW-12-Screen-4	Jul/Aug 2022	MW-12-4	0.4 J	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.4 J	2.3		
MW-12-Screen-5													
MW-12-Screen-5	Mar/Apr 2021	MW-12-5	0.2 J	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.2 J	1.3 J		
MW-12-Screen-5	May/June 2021	MW-12-5	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.2 J	1.2 J		
MW-12-Screen-5	July 2021	MW-12-5	0.4 J	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.3 J	1.3 J		
MW-12-Screen-5	Oct/Nov 2021	MW-12-5	0.2 J	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.3 J	2.0		
MW-12-Screen-5	Jul/Aug 2022	MW-12-5	0.3 J	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.3 J	1.1 J		
MW-14-Screen-2													
MW-14-Screen-2	July 2021	MW-14-2	0.5 U	1.3	0.3 J	0.5 U	0.5 U	0.5 U	0.5 U	0.5	2.8 J		
MW-14-Screen-2	Oct/Nov 2021	MW-14-2	0.5 U	1.0	0.3 J	0.5 U	0.5 U	0.5 U	0.5 U	0.4 J	4.3		
MW-14-Screen-2	Jan/Feb 2022	MW-14-2	0.5 U	1.8	0.6	0.2 J	0.5 U	0.5 U	0.5 U	0.7	6.5		
MW-14-Screen-2	Apr/May 2022	MW-14-2	0.5 U	1.0	0.3 J	0.5 U	0.5 U	0.5 U	0.5 U	0.4 J	3.3		
MW-14-Screen-2	Jul/Aug 2022	MW-14-2	0.5 U	1.8	0.6	0.2 J	0.5 U	0.5 U	0.5 U	0.6	3.2		
MW-14-Screen-3													
MW-14-Screen-3	July 2021	MW-14-3	0.5 U	0.7	0.4 J	0.3 J	0.5 U	0.5 U	0.5 U	0.5 J	4.2 J		
MW-14-Screen-3	Oct/Nov 2021	MW-14-3	0.5 U	0.8	0.6	0.3 J	0.5 U	0.5 U	0.5 U	0.5 J	5.1		
MW-14-Screen-3	Jan/Feb 2022	MW-14-3	0.5 U	1.2	0.9	0.4 J	0.5 U	0.5 U	0.5 U	0.7	12.0	1,2,3-Trichlorobenzene	0.2 J
MW-14-Screen-3	Apr/May 2022	MW-14-3	0.5 U	1.0	0.8	0.4 J	0.5 U	0.5 U	0.5 U	0.5 J	4.2		
MW-14-Screen-3	Apr/May 2022	DUP-2-2022	0.5 U	0.6	0.4 J	0.2 J	0.5 U	0.5 U	0.5 U	0.4 J	3.7		
MW-14-Screen-3	Jul/Aug 2022	MW-14-3	0.5 U	0.9	0.7	0.4 J	0.5 U	0.5 U	0.5 U	0.5	4.2		
MW-14-Screen-3	Jul/Aug 2022	MW-14-3	0.5 U	0.9	0.7	0.4 J	0.5 U	0.5 U	0.5 U	0.5	4.2		
MW-14-Screen-4													
MW-14-Screen-4	July 2021	MW-14-4	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.1 J	4.5 J		
MW-14-Screen-4	Oct/Nov 2021	MW-14-4	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	4.6		
MW-14-Screen-4	Jan/Feb 2022	MW-14-4	0.5 U	0.3 J	0.3 J	0.5 U	0.5 U	0.5 U	0.5 U	0.3 J	4.0		
MW-14-Screen-4	Apr/May 2022	MW-14-4	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.2 J	3.4		
MW-14-Screen-4	Jul/Aug 2022	MW-14-4	0.5 U	0.2 J	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.2 J	3.7		
MW-14-Screen-5													
MW-14-Screen-5	July 2021	MW-14-5	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2.0 U		
MW-14-Screen-5	Oct/Nov 2021	MW-14-5	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2.0 U		
MW-14-Screen-5	Jan/Feb 2022	MW-14-5	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.2 J	3.9 J		
MW-14-Screen-5	Apr/May 2022	MW-14-5	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2.0 U		
MW-14-Screen-5	Jul/Aug 2022	MW-14-5	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.1 J	2.0 U	Styrene	0.2 J
MW-15													
MW-15	May/June 2021	MW-15	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	4.0 U		

Sample Location	Sampling Event	Sample Number	Carbon tetrachloride	TCE	PCE	1,1-DCA	1,2-DCA	1,1-DCE	Freon 113	Chloroform	Perchlorate	Other Volatile Organic Compounds and 1,4-Dioxane, NDMA, NDPA, 1,2,3-TCP	
MW-15	Oct/Nov 2021	MW-15	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2.0 U		
MW-15	Apr/May 2022	MW-15	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2.0 U		
MW-15	Apr/May 2022	DUP-7-2Q22	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2.0 U		
MW-17-Screen-1													
MW-17-Screen-1	Apr/May 2022	MW-17-1	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2.0 U		
MW-17-Screen-2													
MW-17-Screen-2	July 2021	MW-17-2	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2.0 U		
MW-17-Screen-2	Oct/Nov 2021	MW-17-2	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2.1		
MW-17-Screen-2	Jan/Feb 2022	MW-17-2	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	8.5		
MW-17-Screen-2	Jan/Feb 2022	DUP-4-1Q22	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	4.0 U		
MW-17-Screen-2	Apr/May 2022	MW-17-2	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2.0 U		
MW-17-Screen-2	Jul/Aug 2022	MW-17-2	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2.0 U		
MW-17-Screen-3													
MW-17-Screen-3	July 2021	MW-17-3	0.5 U	1.3	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.2 J	2.0 U	Styrene	0.1 J
MW-17-Screen-3	Oct/Nov 2021	MW-17-3	0.5 U	0.9	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1.5 J	Styrene	0.1 J
MW-17-Screen-3	Oct/Nov 2021	DUP-2-4Q21	0.5 U	0.9	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1.2 J	Styrene	0.1 J
MW-17-Screen-3	Jan/Feb 2022	MW-17-3	0.5 U	2.2	0.3 J	0.5 U	0.5 U	0.5 U	0.5 U	0.2 J	1.9 J	Styrene Toluene	0.4 J 0.2 J
MW-17-Screen-3	Apr/May 2022	MW-17-3	0.5 U	1.7	0.2 J	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2.0 U	Toluene	0.2 J
MW-17-Screen-3	Jul/Aug 2022	MW-17-3	0.5 U	0.9	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2.0 U		
MW-17-Screen-4													
MW-17-Screen-4	July 2021	MW-17-4	0.5 U	0.7	0.4 J	0.5 U	0.5 U	0.5 U	0.5 U	0.6	3.9		
MW-17-Screen-4	July 2021	DUP-2-3Q21	0.5 U	0.8	0.5	0.5 U	0.5 U	0.5 U	0.5 U	0.7	4.4		
MW-17-Screen-4	Oct/Nov 2021	MW-17-4	0.2 J	1.4	1.1	0.2 J	0.5 U	0.5 U	0.5 U	1.0	4.3		
MW-17-Screen-4	Jan/Feb 2022	MW-17-4	0.5 U	0.7	0.6	0.5 U	0.5 U	0.5 U	0.5 U	0.7	4.9		
MW-17-Screen-4	Apr/May 2022	MW-17-4	0.5 U	0.4 J	0.4 J	0.5 U	0.5 U	0.5 U	0.5 U	0.6	4.1		
MW-17-Screen-4	Jul/Aug 2022	MW-17-4	0.5 U	0.4 J	0.4 J	0.5 U	0.5 U	0.5 U	0.5 U	0.6	3.6		
MW-17-Screen-5													
MW-17-Screen-5	May/June 2021	MW-17-5	0.5 U	0.8	0.5 J	0.5 U	0.5 U	0.5 U	0.5 U	0.6	4.5		
MW-17-Screen-5	Oct/Nov 2021	MW-17-5	0.5 U	0.7	0.4 J	0.5 U	0.5 U	0.5 U	0.5 U	0.6	4.7	Methyl-tert-butyl ether (MTBE)	0.2 J
MW-17-Screen-5	Apr/May 2022	MW-17-5	0.5 U	1.1	1.0	0.5 U	0.5 U	0.5 U	0.5 U	1.0	3.7		
MW-18-Screen-2													
MW-18-Screen-2	July 2021	MW-18-2	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2.0 U		
MW-18-Screen-2	Oct/Nov 2021	MW-18-2	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2.0 U		
MW-18-Screen-2	Jan/Feb 2022	MW-18-2	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	16.7		
MW-18-Screen-2	Apr/May 2022	MW-18-2	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2.0 UJ		
MW-18-Screen-2	Jul/Aug 2022	MW-18-2	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2.0 U		
MW-18-Screen-3													
MW-18-Screen-3	July 2021	MW-18-3	0.2 J	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2.0 U	Trichlorofluoromethane	0.2 J
MW-18-Screen-3	Oct/Nov 2021	MW-18-3	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1.1 J		

Sample Location	Sampling Event	Sample Number	Carbon tetrachloride	TCE	PCE	1,1-DCA	1,2-DCA	1,1-DCE	Freon 113	Chloroform	Perchlorate	Other Volatile Organic Compounds and 1,4-Dioxane, NDMA, NDPA, 1,2,3-TCP	
MW-18-Screen-3	Jan/Feb 2022	MW-18-3	0.2 J	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	4.0 U		
MW-18-Screen-3	Apr/May 2022	MW-18-3	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2.0 UJ	Trichlorofluoromethane	0.2 J
MW-18-Screen-3	Jul/Aug 2022	MW-18-3	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2.0 U		
MW-18-Screen-4													
MW-18-Screen-4	July 2021	MW-18-4	2.4	1.0	0.8	0.5 U	0.5 U	0.5 U	0.5 U	1.0	14.0		
MW-18-Screen-4	Oct/Nov 2021	MW-18-4	3.1 J	1.6 J	1.1	0.5 U	0.5 U	0.5 U	0.5 U	1.2	15.0		
MW-18-Screen-4	Oct/Nov 2021	DUP-6-4Q21	1.8 J	1.0 J	0.8	0.5 U	0.5 U	0.5 U	0.5 U	0.9	15.8		
MW-18-Screen-4	Jan/Feb 2022	MW-18-4	4.3	1.6	1.2	0.5 U	0.5 U	0.5 U	0.5 U	1.2	12.8		
MW-18-Screen-4	Apr/May 2022	MW-18-4	1.5	0.8	0.6	0.5 U	0.5 U	0.5 U	0.5 U	0.7	12.0 J	1,2,3-Trichloropropane	0.03
MW-18-Screen-4	Jul/Aug 2022	MW-18-4	2.2	1.0	0.7	0.5 U	0.5 U	0.5 U	0.5 U	0.8	15.0		
MW-18-Screen-5													
MW-18-Screen-5	July 2021	MW-18-5	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2.0 U		
MW-18-Screen-5	Oct/Nov 2021	MW-18-5	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2.0 U		
MW-18-Screen-5	Jan/Feb 2022	MW-18-5	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	5.9	Styrene	0.2 J
MW-18-Screen-5	Apr/May 2022	MW-18-5	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2.0 UJ		
MW-18-Screen-5	Jul/Aug 2022	MW-18-5	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2.0 U	Styrene	0.2 J
MW-18-Screen-5	Jul/Aug 2022	DUP-7-3Q22	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2.0 U	Styrene	0.1 J
MW-19-Screen-1													
MW-19-Screen-1	July 2021	MW-19-1	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1.0	2.0 U		
MW-19-Screen-1	Oct/Nov 2021	MW-19-1	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2.6	2.0 U		
MW-19-Screen-1	Jan/Feb 2022	MW-19-1	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1.1	2.0 U		
MW-19-Screen-1	Apr/May 2022	MW-19-1	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1.6	2.0 U		
MW-19-Screen-1	Jul/Aug 2022	MW-19-1	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	4.3	2.0 U		
MW-19-Screen-2													
MW-19-Screen-2	July 2021	MW-19-2	0.5 U	0.6	1.0	0.5 U	0.5 U	0.5 U	0.5 U	1.2	3.3		
MW-19-Screen-2	Oct/Nov 2021	MW-19-2	0.5 U	0.5 J	0.7 J	0.5 U	0.5 U	0.5 U	0.5 U	0.9 J	3.6		
MW-19-Screen-2	Oct/Nov 2021	DUP-8-4Q21	0.5 U	1.5 J	2.4 J	0.2 J	0.5 U	0.5 U	0.5 U	2.1 J	3.5	cis-1,2-Dichloroethene	0.3 J
MW-19-Screen-2	Jan/Feb 2022	MW-19-2	0.5 U	0.8	1.6	0.5 U	0.5 U	0.5 U	0.5 U	1.6	3.4		
MW-19-Screen-2	Apr/May 2022	MW-19-2	0.5 U	0.9	1.4	0.5 U	0.5 U	0.5 U	0.5 U	1.7	1.6 J		
MW-19-Screen-2	Jul/Aug 2022	MW-19-2	0.5 U	1.1	2.1	0.5 U	0.5 U	0.5 U	0.5 U	1.8	2.0		
MW-19-Screen-3													
MW-19-Screen-3	July 2021	MW-19-3	0.5 U	0.4 J	1.1	0.5 U	0.5 U	0.5 U	0.5 U	1.9	4.0		
MW-19-Screen-3	Oct/Nov 2021	MW-19-3	0.5 U	1.1	3.7	0.3 J	0.5 U	0.5 U	0.5 U	3.6	4.0	cis-1,2-Dichloroethene	0.4 J
MW-19-Screen-3	Jan/Feb 2022	MW-19-3	0.5 U	1.0	2.9	0.2 J	0.5 U	0.5 U	0.5 U	3.3	4.6	cis-1,2-Dichloroethene	0.4 J
MW-19-Screen-3	Jan/Feb 2022	DUP-2-1Q22	0.5 U	1.0	3.0	0.2 J	0.5 U	0.5 U	0.5 U	3.3	4.3	cis-1,2-Dichloroethene	0.4 J
MW-19-Screen-3	Apr/May 2022	MW-19-3	0.5 U	0.8	2.2	0.2 J	0.5 U	0.5 U	0.5 U	3.0	3.4 J	cis-1,2-Dichloroethene	0.4 J
MW-19-Screen-3	Jul/Aug 2022	MW-19-3	0.5 U	0.8	2.3	0.2 J	0.5 U	0.5 U	0.5 U	2.4	3.5	cis-1,2-Dichloroethene	0.4 J
MW-19-Screen-4													
MW-19-Screen-4	July 2021	MW-19-4	0.5 U	0.3 J	0.7	0.5 U	0.5 U	0.5 U	0.5 U	2.4	3.1		
MW-19-Screen-4	July 2021	DUP-1-3Q21	0.5 U	0.3 J	0.8	0.5 U	0.5 U	0.5 U	0.5 U	2.7	3.1		

Sample Location	Sampling Event	Sample Number	Carbon tetrachloride	TCE	PCE	1,1-DCA	1,2-DCA	1,1-DCE	Freon 113	Chloroform	Perchlorate	Other Volatile Organic Compounds and 1,4-Dioxane, NDMA, NDPA, 1,2,3-TCP	
MW-19-Screen-4	Oct/Nov 2021	MW-19-4	0.5 U	1.1	3.1	0.3 J	0.5 U	0.5 U	0.5 U	4.6	3.7		
MW-19-Screen-4	Jan/Feb 2022	MW-19-4	0.5 U	1.0	2.7	0.2 J	0.5 U	0.5 U	0.5 U	4.7	3.5	cis-1,2-Dichloroethene	0.4 J
MW-19-Screen-4	Apr/May 2022	MW-19-4	0.5 U	0.4 J	0.9	0.5 U	0.5 U	0.5 U	0.5 U	2.4	2.9		
MW-19-Screen-4	Jul/Aug 2022	MW-19-4	0.5 U	0.8	2.0	0.2 J	0.5 U	0.5 U	0.5 U	3.6	2.7	cis-1,2-Dichloroethene	0.4 J
MW-19-Screen-5													
MW-19-Screen-5	Mar/Apr 2021	MW-19-5	0.5 U	0.2 J	0.7	0.5 U	0.5 U	0.5 U	0.5 U	2.6	3.3 J		
MW-19-Screen-5	May/June 2021	MW-19-5	0.5 U	0.2 J	0.5	0.5 U	0.5 U	0.5 U	0.5 U	2.1	2.9 J		
MW-19-Screen-5	July 2021	MW-19-5	0.5 U	0.3 J	1.0	0.5 U	0.5 U	0.5 U	0.5 U	3.2	3.0		
MW-19-Screen-5	Oct/Nov 2021	MW-19-5	0.5 U	0.7	2.2	0.2 J	0.5 U	0.5 U	0.5 U	4.2	3.5		
MW-19-Screen-5	Jan/Feb 2022	MW-19-5	0.5 U	0.7	2.1	0.2 J	0.5 U	0.5 U	0.5 U	4.6	3.2		
MW-19-Screen-5	Apr/May 2022	MW-19-5	0.5 U	0.3 J	0.7	0.5 U	0.5 U	0.5 U	0.5 U	2.2	2.8 J		
MW-19-Screen-5	Jul/Aug 2022	MW-19-5	0.5 U	0.6	1.6	0.2 J	0.5 U	0.5 U	0.5 U	3.3	2.6		
MW-20-Screen-2													
MW-20-Screen-2	July 2021	MW-20-2	0.5 U	0.2 J	0.2 J	0.5 U	0.5 U	0.5 U	0.5 U	0.4 J	2.0 U		
MW-20-Screen-2	Oct/Nov 2021	MW-20-2	0.5 U	0.3 J	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.4 J	2.0 U		
MW-20-Screen-2	Jan/Feb 2022	MW-20-2	0.5 U	0.6	0.5	0.5 U	0.5 U	0.5 U	0.5 U	0.6	2.0 U		
MW-20-Screen-2	Jan/Feb 2022	DUP-1-1Q22	0.5 U	0.5 J	0.4 J	0.5 U	0.5 U	0.5 U	0.5 U	0.6	2.0 U		
MW-20-Screen-2	Apr/May 2022	MW-20-2	0.5 U	0.3 J	0.3 J	0.5 U	0.5 U	0.5 U	0.5 U	0.4 J	1.8 J		
MW-20-Screen-2	Apr/May 2022	DUP-8-2Q22	0.5 U	0.5	0.4 J	0.5 U	0.5 U	0.5 U	0.5 U	0.7	1.5 J		
MW-20-Screen-2	Jul/Aug 2022	MW-20-2	0.5 U	0.4 J	0.4 J	0.5 U	0.5 U	0.5 U	0.5 U	0.5	1.2 J		
MW-20-Screen-3													
MW-20-Screen-3	July 2021	MW-20-3	0.5 U	0.5 U	0.9	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2.0 U	Styrene	0.4 J
MW-20-Screen-3	Oct/Nov 2021	MW-20-3	0.5 U	0.5 U	0.7 J	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2.0 U	Styrene	0.3 J
MW-20-Screen-3	Oct/Nov 2021	DUP-5-4Q21	0.5 U	0.2 J	1.8 J	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2.0 U	Ethylbenzene Styrene	0.2 J 0.3 J
MW-20-Screen-3	Jan/Feb 2022	MW-20-3	0.5 U	0.5 U	0.7	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2.0 U	Carbon disulfide Styrene	0.6 0.4 J
MW-20-Screen-3	Apr/May 2022	MW-20-3	0.5 U	0.5 U	0.5	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2.0 U		
MW-20-Screen-3	Jul/Aug 2022	MW-20-3	0.5 U	0.5 U	0.8	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2.0 U	Carbon disulfide Styrene	0.8 0.4 J
MW-20-Screen-4													
MW-20-Screen-4	July 2021	MW-20-4	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2.0 U	Carbon disulfide	0.5
MW-20-Screen-4	Oct/Nov 2021	MW-20-4	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2.0 U		
MW-20-Screen-4	Jan/Feb 2022	MW-20-4	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2.0 U	Carbon disulfide	0.5
MW-20-Screen-4	Apr/May 2022	MW-20-4	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2.0 UJ		
MW-20-Screen-4	Jul/Aug 2022	MW-20-4	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2.0 U		
MW-20-Screen-4	Jul/Aug 2022	DUP-1-3Q22	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2.0 U		
MW-20-Screen-5													
MW-20-Screen-5	July 2021	MW-20-5	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2.0 U	Carbon disulfide Styrene	0.5 J 0.2 J

Sample Location	Sampling Event	Sample Number	Carbon tetrachloride	TCE	PCE	1,1-DCA	1,2-DCA	1,1-DCE	Freon 113	Chloroform	Perchlorate	Other Volatile Organic Compounds and 1,4-Dioxane, NDMA, NDPA, 1,2,3-TCP	
MW-20-Screen-5	Oct/Nov 2021	MW-20-5	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2.0 U	Styrene	0.1 J
MW-20-Screen-5	Jan/Feb 2022	MW-20-5	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2.0 U	Styrene	0.1 J
MW-20-Screen-5	Apr/May 2022	MW-20-5	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2.0 UJ		
MW-20-Screen-5	Jul/Aug 2022	MW-20-5	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2.0 U	Styrene	0.2 J
MW-21-Screen-2													
MW-21-Screen-2	July 2021	MW-21-2	0.5 U	0.5 UJ	0.4 J	0.5 U	0.5 U	0.5 U	0.5 U	0.2 J	1.6 J		
MW-21-Screen-2	Oct/Nov 2021	MW-21-2	0.5 U	0.5 U	0.3 J	0.5 U	0.5 U	0.5 U	0.5 U	0.2 J	2.6		
MW-21-Screen-2	Jan/Feb 2022	MW-21-2	0.5 U	0.5 U	0.5 J	0.5 U	0.5 U	0.5 U	0.5 U	0.3 J	1.7 J		
MW-21-Screen-2	Apr/May 2022	MW-21-2	0.5 U	0.5 U	0.6	0.5 U	0.5 U	0.5 U	0.5 U	0.4 J	1.7 J		
MW-21-Screen-2	Jul/Aug 2022	MW-21-2	0.5 U	0.5 U	0.3 J	0.5 U	0.5 U	0.5 U	0.5 U	0.2 J	1.4 J		
MW-21-Screen-3													
MW-21-Screen-3	July 2021	MW-21-3	0.5 U	1.1 J	1.0 J	0.5 U	0.5 U	0.5 U	0.5 U	0.5 J	2.6		
MW-21-Screen-3	July 2021	DUP-6-3Q21	0.5 U	2.0 J	2.1 J	0.2 J	0.5 U	0.5 U	0.5 U	0.7	2.8		
MW-21-Screen-3	Oct/Nov 2021	MW-21-3	0.5 U	0.7	0.6	0.5 U	0.5 U	0.5 U	0.5 U	0.4 J	3.8		
MW-21-Screen-3	Jan/Feb 2022	MW-21-3	0.5 U	1.2	1.0	0.2 J	0.5 U	0.5 U	0.5 U	0.6	3.0 J		
MW-21-Screen-3	Jan/Feb 2022	DUP-7-1Q22	0.5 U	2.0	1.7	0.3 J	0.5 U	0.5 U	0.5 U	0.7	2.9 J		
MW-21-Screen-3	Apr/May 2022	MW-21-3	0.5 U	0.8	0.4 J	0.5 U	0.5 U	0.5 U	0.5 U	0.3 J	2.8		
MW-21-Screen-3	Jul/Aug 2022	MW-21-3	0.5 U	1.0	0.6	0.5 U	0.5 U	0.5 U	0.5 U	0.4 J	3.1		
MW-21-Screen-4													
MW-21-Screen-4	July 2021	MW-21-4	0.5 U	0.5 J	1.0 J	0.5 U	0.5 U	0.5 U	0.5 U	4.9	2.8		
MW-21-Screen-4	Oct/Nov 2021	MW-21-4	0.5 U	0.3 J	0.6	0.5 U	0.5 U	0.5 U	0.5 U	3.9	2.9		
MW-21-Screen-4	Jan/Feb 2022	MW-21-4	0.5 U	0.6	1.2	0.5 U	0.5 U	0.5 U	0.5 U	5.2	3.0 J		
MW-21-Screen-4	Apr/May 2022	MW-21-4	0.5 U	0.5 J	0.8	0.5 U	0.5 U	0.5 U	0.5 U	4.3	2.6		
MW-21-Screen-4	Jul/Aug 2022	MW-21-4	0.5 U	0.4 J	0.8	0.5 U	0.5 U	0.5 U	0.5 U	4.0	3.2		
MW-21-Screen-4	Jul/Aug 2022	DUP-6-3Q22	0.5 U	0.4 J	0.6	0.5 U	0.5 U	0.5 U	0.5 U	3.7	3.6		
MW-21-Screen-5													
MW-21-Screen-5	July 2021	MW-21-5	0.5 U	0.5 UJ	0.8 J	0.5 U	0.5 U	0.5 U	0.5 U	4.5	2.4		
MW-21-Screen-5	Oct/Nov 2021	MW-21-5	0.5 U	0.5 U	0.7	0.5 U	0.5 U	0.5 U	0.5 U	3.8	2.9		
MW-21-Screen-5	Jan/Feb 2022	MW-21-5	0.5 U	0.3 J	1.8	0.2 J	0.5 U	0.5 U	0.5 U	7.0	2.7 J		
MW-21-Screen-5	Apr/May 2022	MW-21-5	0.5 U	0.5 U	0.8	0.5 U	0.5 U	0.5 U	0.5 U	3.8	2.6		
MW-21-Screen-5	Jul/Aug 2022	MW-21-5	0.5 U	0.5 U	0.7	0.5 U	0.5 U	0.5 U	0.5 U	3.2	2.4		

Sample Location	Sampling Event	Sample Number	Carbon tetrachloride	TCE	PCE	1,1-DCA	1,2-DCA	1,1-DCE	Freon 113	Chloroform	Perchlorate	Other Volatile Organic Compounds and 1,4-Dioxane, NDMA, NDPA, 1,2,3-TCP	
MW-22-Screen-1													
MW-22-Screen-1	Mar/Apr 2021	MW-22-1	0.5 U	1.2	0.3 J	0.5 U	0.5 U	0.5 U	0.5 U	0.5	3.4 J		
MW-22-Screen-1	May/June 2021	MW-22-1	0.5 U	0.4 J	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.3 J	3.9 J		
MW-22-Screen-1	Jan/Feb 2022	MW-22-1	0.5 U	0.4 J	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 J	17.6		
MW-22-Screen-1	Apr/May 2022	MW-22-1	0.5 U	1.9	0.6	0.5 U	0.5 U	0.5 U	0.5 U	0.9	60.0		
MW-22-Screen-2													
MW-22-Screen-2	July 2021	MW-22-2	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2.3		
MW-22-Screen-2	Oct/Nov 2021	MW-22-2	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2.8		
MW-22-Screen-2	Jan/Feb 2022	MW-22-2	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	3.7		
MW-22-Screen-2	Apr/May 2022	MW-22-2	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2.3 J		
MW-22-Screen-2	Jul/Aug 2022	MW-22-2	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2.3		
MW-22-Screen-3													
MW-22-Screen-3	July 2021	MW-22-3	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2.8		
MW-22-Screen-3	Oct/Nov 2021	MW-22-3	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	3.6		
MW-22-Screen-3	Jan/Feb 2022	MW-22-3	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.1 J	3.5		
MW-22-Screen-3	Apr/May 2022	MW-22-3	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.2 J	2.9 J		
MW-22-Screen-3	Jul/Aug 2022	MW-22-3	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	3.1		
MW-22-Screen-4													
MW-22-Screen-4	May/June 2021	MW-22-4	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1.1 J		
MW-22-Screen-4	Oct/Nov 2021	MW-22-4	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1.4 J		
MW-22-Screen-4	Apr/May 2022	MW-22-4	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1.1 J		
MW-22-Screen-5													
MW-22-Screen-5	May/June 2021	MW-22-5	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	4.0 U	Carbon disulfide	0.5
MW-22-Screen-5	Oct/Nov 2021	MW-22-5	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U			
MW-22-Screen-5	Apr/May 2022	MW-22-5	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2.0 J		
MW-23-Screen-1													
MW-23-Screen-1	Apr/May 2022	MW-23-1	0.5 U	1.0	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.4 J	6.7 J		
MW-23-Screen-2													
MW-23-Screen-2	July 2021	MW-23-2	0.5 U	0.6	0.3 J	0.5 U	0.5 U	0.5 U	0.5 U	0.4 J	3.6		
MW-23-Screen-2	Oct/Nov 2021	MW-23-2	0.5 U	0.7	0.3 J	0.2 J	0.5 U	0.5 U	0.5 U	0.4 J	6.1		
MW-23-Screen-2	Jan/Feb 2022	MW-23-2	0.5 U	1.0	0.5 J	0.2 J	0.5 U	0.5 U	0.5 U	0.5	5.0		
MW-23-Screen-2	Jan/Feb 2022	DUP-5-1Q22	0.5 U	2.2	1.0	0.4 J	0.5 U	0.5 U	0.5 U	1.0	4.0 U	1,2,3-Trichlorobenzene	0.2 J
MW-23-Screen-2	Apr/May 2022	MW-23-2	0.5 U	0.6	0.3 J	0.2 J	0.5 U	0.5 U	0.5 U	0.4 J	3.6 J		
MW-23-Screen-2	Apr/May 2022	DUP-1-2022	0.5 U	0.6	0.2 J	0.5 U	0.5 U	0.5 U	0.5 U	0.4 J	3.8 J		
MW-23-Screen-2	Jul/Aug 2022	MW-23-2	0.5 U	1.0	0.5	0.2 J	0.5 U	0.5 U	0.5 U	0.5	4.4		
MW-23-Screen-3													
MW-23-Screen-3	July 2021	MW-23-3	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	3.1		
MW-23-Screen-3	July 2021	DUP-4-3Q21	0.5 U	0.2 J	0.3 J	0.5 U	0.5 U	0.5 U	0.5 U	0.2 J	3.3		
MW-23-Screen-3	Oct/Nov 2021	MW-23-3	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	4.8		
MW-23-Screen-3	Jan/Feb 2022	MW-23-3	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.2 J	3.9		

Sample Location	Sampling Event	Sample Number	Carbon tetrachloride	TCE	PCE	1,1-DCA	1,2-DCA	1,1-DCE	Freon 113	Chloroform	Perchlorate	Other Volatile Organic Compounds and 1,4-Dioxane, NDMA, NDPA, 1,2,3-TCP	
MW-23-Screen-3	Apr/May 2022	MW-23-3	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	3.2 J		
MW-23-Screen-3	Jul/Aug 2022	MW-23-3	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	3.5		
MW-23-Screen-4													
MW-23-Screen-4	May/June 2021	MW-23-4	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2.4 J		
MW-23-Screen-4	Oct/Nov 2021	MW-23-4	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	3.2		
MW-23-Screen-4	Apr/May 2022	MW-23-4	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1.9 J		
MW-23-Screen-5													
MW-23-Screen-5	May/June 2021	MW-23-5	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	4.0 U	Styrene	0.2 J
MW-23-Screen-5	Oct/Nov 2021	MW-23-5	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2.0 U	Styrene	0.2 J
MW-23-Screen-5	Apr/May 2022	MW-23-5	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2.0 UJ	Styrene	0.2 J
MW-24-Screen-1													
MW-24-Screen-1	July 2021	MW-24-1	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2.3	140.0	Bromodichloromethane	0.3 J
MW-24-Screen-1	Oct/Nov 2021	MW-24-1	0.5 J	0.5 U	0.3 J	0.5 U	0.5 U	0.5 U	0.5 U	5.8	21.2		
MW-24-Screen-1	Jan/Feb 2022	MW-24-1	2.3	0.3 J	1.6	0.5 U	0.5 U	0.5 U	0.5 U	4.7	164.0		
MW-24-Screen-1	Apr/May 2022	MW-24-1	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1.6	140.0	Bromodichloromethane	0.3 J
MW-24-Screen-1	Jul/Aug 2022	MW-24-1	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1.5	95.0	Bromodichloromethane	0.3 J
MW-24-Screen-2													
MW-24-Screen-2	July 2021	MW-24-2	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.6	8.7		
MW-24-Screen-2	Oct/Nov 2021	MW-24-2	0.5 U	0.5 U	0.2 J	0.2 J	0.5 U	0.5 U	0.5 U	1.0	11.5		
MW-24-Screen-2	Jan/Feb 2022	MW-24-2	0.5 U	0.5 U	0.5 U	0.2 J	0.4 J	0.5 U	0.5 U	0.7	5.2		
MW-24-Screen-2	Apr/May 2022	MW-24-2	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.6	9.6 J		
MW-24-Screen-2	Jul/Aug 2022	MW-24-2	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.8	15.0		
MW-24-Screen-2	Jul/Aug 2022	DUP-3-3Q22	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.9	15.0		
MW-24-Screen-3													
MW-24-Screen-3	July 2021	MW-24-3	0.5 U	0.5 U	0.5 U	0.2 J	0.5 U	0.5 U	0.5 U	0.5 U	2.0 U		
MW-24-Screen-3	Oct/Nov 2021	MW-24-3	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2.0 U		
MW-24-Screen-3	Jan/Feb 2022	MW-24-3	0.5 U	0.5 U	0.5 U	0.2 J	0.5 U	0.5 U	0.5 U	0.5 U	2.0 U		
MW-24-Screen-3	Jan/Feb 2022	DUP-3-1Q22	0.5 U	0.5 U	0.5 U	0.2 J	0.5 U	0.5 U	0.5 U	0.5 U	2.0 U		
MW-24-Screen-3	Apr/May 2022	MW-24-3	0.5 U	0.5 U	0.5 U	0.2 J	0.5 U	0.5 U	0.5 U	0.5 U	2.0 UJ		
MW-24-Screen-3	Jul/Aug 2022	MW-24-3	0.5 U	0.5 U	0.5 U	0.2 J	0.5 U	0.5 U	0.5 U	0.5 U	2.0 U		
MW-24-Screen-4													
MW-24-Screen-4	May/June 2021	MW-24-4	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	4.0 U	Styrene	0.1 J
MW-24-Screen-4	Oct/Nov 2021	MW-24-4	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2.0 U	Ethylbenzene	0.2 J
MW-24-Screen-4	Apr/May 2022	MW-24-4	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2.0 UJ	Styrene	0.2 J
MW-24-Screen-4	Apr/May 2022	MW-24-4	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2.0 UJ	Styrene	0.1 J
MW-24-Screen-5													
MW-24-Screen-5	May/June 2021	MW-24-5	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	4.0 U		
MW-24-Screen-5	Oct/Nov 2021	MW-24-5	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1.5 J		
MW-24-Screen-5	Apr/May 2022	MW-24-5	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2.0 UJ		
MW-25-Screen-1													

Sample Location	Sampling Event	Sample Number	Carbon tetrachloride	TCE	PCE	1,1-DCA	1,2-DCA	1,1-DCE	Freon 113	Chloroform	Perchlorate	Other Volatile Organic Compounds and 1,4-Dioxane, NDMA, NDPA, 1,2,3-TCP
MW-25-Screen-1	July 2021	MW-25-1	0.5 U	0.5 J	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.6	6.8	Methyl-tert-butyl ether (MTBE) 0.5 J
MW-25-Screen-1	Oct/Nov 2021	MW-25-1	0.5 U	0.3 J	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.4 J	7.6	Methyl-tert-butyl ether (MTBE) 0.4 J
MW-25-Screen-1	Jan/Feb 2022	MW-25-1	0.5 U	0.3 J	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5	8.3	Methyl-tert-butyl ether (MTBE) 0.4 J
MW-25-Screen-1	Apr/May 2022	MW-25-1	0.5 U	0.4 J	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.8	6.2 J	Methyl-tert-butyl ether (MTBE) 0.4 J
MW-25-Screen-1	Jul/Aug 2022	MW-25-1	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.4 J	6.7	Methyl-tert-butyl ether (MTBE) 0.3 J
MW-25-Screen-2												
MW-25-Screen-2	July 2021	MW-25-2	0.5 U	0.5 U	0.3 J	0.5 U	0.5 U	0.5 U	0.5 U	0.2 J	11.0	
MW-25-Screen-2	Oct/Nov 2021	MW-25-2	0.5 U	0.5 U	0.3 J	0.5 U	0.5 U	0.5 U	0.5 U	0.1 J	12.0	
MW-25-Screen-2	Jan/Feb 2022	MW-25-2	0.5 U	0.5 U	0.2 J	0.5 U	0.5 U	0.5 U	0.5 U	0.2 J	13.4	
MW-25-Screen-2	Apr/May 2022	MW-25-2	0.5 U	0.3 J	0.6	0.5 U	0.5 U	0.5 U	0.5 U	0.3 J	9.7 J	
MW-25-Screen-2	Jul/Aug 2022	MW-25-2	0.5 U	0.5 U	0.3 J	0.5 U	0.5 U	0.5 U	0.5 U	0.2 J	12.0	
MW-25-Screen-2	Jul/Aug 2022	DUP-2-3Q22	0.5 U	0.3 J	0.4 J	0.5 U	0.5 U	0.5 U	0.5 U	0.3 J	11.0	
MW-25-Screen-3												
MW-25-Screen-3	July 2021	MW-25-3	0.5 U	0.5 U	2.2	0.5 U	0.5 U	0.5 U	0.5 U	0.4 J	9.5	
MW-25-Screen-3	Oct/Nov 2021	MW-25-3	0.5 U	0.5 U	1.8	0.5 U	0.5 U	0.5 U	0.5 U	0.4 J	10.2	
MW-25-Screen-3	Jan/Feb 2022	MW-25-3	0.5 U	0.5 U	2.1	0.5 U	0.5 U	0.5 U	0.5 U	0.4 J	11.4	
MW-25-Screen-3	Apr/May 2022	MW-25-3	0.5 U	0.5 U	3.4	0.5 U	0.5 U	0.5 U	0.5 U	0.4 J	8.2 J	
MW-25-Screen-3	Jul/Aug 2022	MW-25-3	0.5 U	0.5 U	3.0	0.5 U	0.5 U	0.5 U	0.5 U	0.3 J	9.5	
MW-25-Screen-4												
MW-25-Screen-4	July 2021	MW-25-4	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	8.4	
MW-25-Screen-4	Oct/Nov 2021	MW-25-4	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	9.0	
MW-25-Screen-4	Jan/Feb 2022	MW-25-4	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	9.5	
MW-25-Screen-4	Apr/May 2022	MW-25-4	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	7.3 J	
MW-25-Screen-4	Jul/Aug 2022	MW-25-4	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	8.6	
MW-25-Screen-5												
MW-25-Screen-5	July 2021	MW-25-5	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2.0 U	
MW-25-Screen-5	Oct/Nov 2021	MW-25-5	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2.0 U	
MW-25-Screen-5	Jan/Feb 2022	MW-25-5	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2.0 U	
MW-25-Screen-5	Apr/May 2022	MW-25-5	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2.0 UJ	
MW-25-Screen-5	Jul/Aug 2022	MW-25-5	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2.0 U	
MW-26-Screen-2												
MW-26-Screen-2	July 2021	MW-26-2	0.5 U	0.2 J	1.5	0.5 U	0.5 U	0.5 U	0.5 U	1.6	2.8	
MW-26-Screen-2	Oct/Nov 2021	MW-26-2	0.5 U	0.3 J	1.8	0.5 U	0.5 U	0.5 U	0.5 U	1.8	4.0	
MW-26-Screen-2	Jan/Feb 2022	MW-26-2	0.5 U	0.3 J	2.0	0.5 U	0.5 U	0.5 U	0.5 U	1.8	17.5	cis-1,2-Dichloroethene 0.3 J

Sample Location	Sampling Event	Sample Number	Carbon tetrachloride	TCE	PCE	1,1-DCA	1,2-DCA	1,1-DCE	Freon 113	Chloroform	Perchlorate	Other Volatile Organic Compounds and 1,4-Dioxane, NDMA, NDPA, 1,2,3-TCP
MW-26-Screen-2	Apr/May 2022	MW-26-2	0.5 U	0.5	4.1	0.5 U	0.5 U	0.5 U	0.5 U	2.3	2.4	
MW-26-Screen-2	Jul/Aug 2022	MW-26-2	0.5 U	0.2 J	1.1	0.5 U	0.5 U	0.5 U	0.5 U	1.2	3.0	
MW-26-Screen-2	Jul/Aug 2022	DUP-4-3Q22	0.5 U	0.2 J	1.1	0.5 U	0.5 U	0.5 U	0.5 U	1.3	3.0	

Analyte concentration exceeds the standard for:

CA MCL	0.5	5.0	5.0	5.0	0.5	6.0	1200.0	TTHM	6.0	
EPA REGION IX MCL	5.0	5.0	5.0	NE	5.0	7.0	NE	TTHM	NE	

Notes

DUP(E)	Field Duplicate
NA	Not analyzed
NE	Not established
TTHM	Chloroform is regulated under the state and federal MCL of 80 µg/L for Total Trihalomethanes (TTHMs); the MCL applies to the sum of all four THMs (Bromodichloromethane, Bromoform, Dibromochloromethane, and Chloroform) as an annual average
B	Analyte is present in method blank
UB	Result should be considered "not-detected" because it was detected in a method blank or equipment blank at a similar level.
E	Analyte concentration is above calibration range
J	Analyte concentration is an estimated value
U	Analyte was analyzed for but not detected at or above the stated limit
UJ	Analyte was analyzed for but not detected; analyte concentration is an estimated value

TABLE 2
SUMMARY OF METALS DETECTED DURING THE LAST FIVE
SAMPLING EVENTS OF THE LONG-TERM QUARTERLY GROUNDWATER SAMPLING PROGRAM
(Shaded values exceed State or Federal MCLs or action levels.)

Sample Location	Sampling Event	Sample Number	Arsenic (µg/L)	Lead (µg/L)	Chromium, Total (µg/L)	Chromium, Hexavalent (µg/L)
MW-1						
MW-1	Oct/Nov 2021	MW-1	NA	NA	3.0 U	0.10 UB
MW-3-Screen-1						
MW-3-Screen-1	Apr/May 2022	MW-3-1	2.0 U	1.00 U	3.0 U	0.20 U
MW-3-Screen-2						
MW-3-Screen-2	July 2021	MW-3-2	NA	NA	0.5 J	0.69 J
MW-3-Screen-2	Oct/Nov 2021	MW-3-2	NA	NA	0.5 J	0.79 J
MW-3-Screen-2	Oct/Nov 2021	DUP-1-4Q21	NA	NA	0.7 J	0.74 J
MW-3-Screen-2	Jan/Feb 2022	MW-3-2	NA	NA	1.0 J	0.62
MW-3-Screen-2	Apr/May 2022	MW-3-2	2.0 U	1.00 U	3.0 U	0.36
MW-3-Screen-2	Jul/Aug 2022	MW-3-2	NA	NA	3.0 U	0.20 U
MW-3-Screen-3						
MW-3-Screen-3	July 2021	MW-3-3	NA	NA	1.6 J	0.79 J
MW-3-Screen-3	Oct/Nov 2021	MW-3-3	NA	NA	3.8	0.66 J
MW-3-Screen-3	Jan/Feb 2022	MW-3-3	NA	NA	6.3	0.67
MW-3-Screen-3	Jan/Feb 2022	DUP-6-1Q22	NA	NA	3.1	0.69
MW-3-Screen-3	Apr/May 2022	MW-3-3	1.5 J	1.00 U	0.8 J	0.41
MW-3-Screen-3	Jul/Aug 2022	MW-3-3	NA	NA	2.6 J	0.42 UJ
MW-3-Screen-4						
MW-3-Screen-4	July 2021	MW-3-4	NA	NA	14.0	0.68 J
MW-3-Screen-4	Oct/Nov 2021	MW-3-4	NA	NA	31.0	0.59 J
MW-3-Screen-4	Jan/Feb 2022	MW-3-4	NA	NA	61.0	0.61
MW-3-Screen-4	Apr/May 2022	MW-3-4	4.7 J	1.00 UJ	5.9 J	0.39 J
MW-3-Screen-4	Apr/May 2022	DUP-5-2Q22	2.9	1.00 U	4.7	0.33
MW-3-Screen-4	Jul/Aug 2022	MW-3-4	NA	NA	15.0	0.20 U
MW-3-Screen-5						
MW-3-Screen-5	Oct/Nov 2021	MW-3-5	NA	NA	53.0	0.43 UB
MW-3-Screen-5	Apr/May 2022	MW-3-5	1.9 J	1.00 U	5.3	0.34 J
MW-4-Screen-1						
MW-4-Screen-1	Jan/Feb 2022	MW-4-1	NA	NA	3.0 U	0.20
MW-4-Screen-1	Apr/May 2022	MW-4-1	2.0 U	1.00 U	0.7 J	0.20 U
MW-4-Screen-2						
MW-4-Screen-2	July 2021	MW-4-2	NA	NA	3.0 UB	0.20 UB
MW-4-Screen-2	Oct/Nov 2021	MW-4-2	NA	NA	3.0 U	0.19 UB
MW-4-Screen-2	Oct/Nov 2021	DUP-3-4Q21	NA	NA	3.0 U	0.19 UB
MW-4-Screen-2	Jan/Feb 2022	MW-4-2	NA	NA	1.9 J	1.60
MW-4-Screen-2	Apr/May 2022	MW-4-2	2.0 U	1.00 U	1.2 J	0.20 U
MW-4-Screen-2	Jul/Aug 2022	MW-4-2	NA	NA	0.5 J	0.22 J
MW-4-Screen-3						
MW-4-Screen-3	July 2021	MW-4-3	NA	NA	3.0 UB	0.20 UB

Sample Location	Sampling Event	Sample Number	Arsenic (µg/L)	Lead (µg/L)	Chromium, Total (µg/L)	Chromium, Hexavalent (µg/L)
MW-4-Screen-3	Oct/Nov 2021	MW-4-3	NA	NA	0.8 UB	0.19 UB
MW-4-Screen-3	Jan/Feb 2022	MW-4-3	NA	NA	0.8 J	0.20 U
MW-4-Screen-3	Apr/May 2022	MW-4-3	1.9 J	1.00 U	1.8 J	0.20 U
MW-4-Screen-3	Jul/Aug 2022	MW-4-3	NA	NA	0.8 J	0.04 J
MW-4-Screen-4						
MW-4-Screen-4	May/June 2021	MW-4-4	2.0 U	1.00 U	3.0 U	0.06 UB
MW-4-Screen-4	Oct/Nov 2021	MW-4-4	NA	NA	3.0 U	0.07 UB
MW-4-Screen-4	Apr/May 2022	MW-04-4	3.8	1.00 U	13.0	0.20 UJ
MW-4-Screen-4	Apr/May 2022	DUP-3-2Q22	3.3	1.00 U	10.0	0.20 UJ
MW-4-Screen-5						
MW-4-Screen-5	May/June 2021	MW-4-5	2.0 U	1.00 U	3.0 U	0.06 UB
MW-4-Screen-5	Oct/Nov 2021	MW-4-5	NA	NA	1.2 UB	0.05 UB
MW-4-Screen-5	Apr/May 2022	MW-04-5	2.0 U	1.00 U	3.0 U	0.20 UJ
MW-9						
MW-9	May/June 2021	MW-9	0.8 J	1.00 U	3.0	0.46 J
MW-9	Oct/Nov 2021	MW-9	NA	NA	140.0 J	0.58 UB
MW-9	Apr/May 2022	MW-9	1.3 J	1.00 U	28.0	1.50 J
MW-9	Apr/May 2022	DUP-6-2Q22	1.0 J	1.00 U	29.0	1.30 J
MW-11-Screen-1						
MW-11-Screen-1	July 2021	MW-11-1	NA	NA	3.0 U	0.20 UB
MW-11-Screen-1	Oct/Nov 2021	MW-11-1	NA	NA	3.0 U	0.16 UB
MW-11-Screen-1	Jan/Feb 2022	MW-11-1	NA	NA	3.0 U	0.10 J
MW-11-Screen-1	Jul/Aug 2022	MW-11-1	NA	NA	3.0 U	0.20 U
MW-11-Screen-2						
MW-11-Screen-2	Oct/Nov 2021	MW-11-2	NA	NA	3.0 U	0.08 UB
MW-11-Screen-2	Oct/Nov 2021	DUP-7-4Q21	NA	NA	3.0 U	0.12 UB
MW-11-Screen-2	Jan/Feb 2022	MW-11-2	NA	NA	3.0 U	0.08 J
MW-11-Screen-2	Apr/May 2022	MW-11-2	1.0 J	1.00 U	3.0 U	0.20 U
MW-11-Screen-2	Apr/May 2022	DUP-4-2Q22	1.0 J	1.00 U	3.0 U	0.20 U
MW-11-Screen-2	Jul/Aug 2022	MW-11-2	NA	NA	3.0 U	0.16 UJ
MW-11-Screen-3						
MW-11-Screen-3	July 2021	MW-11-3	NA	NA	3.0 U	0.20 UB
MW-11-Screen-3	Oct/Nov 2021	MW-11-3	NA	NA	1.4 UB	0.07 UB
MW-11-Screen-3	Jan/Feb 2022	MW-11-3	NA	NA	0.6 J	0.07 J
MW-11-Screen-3	Apr/May 2022	MW-11-3	3.5	1.00 U	0.7 J	0.20 UJ
MW-11-Screen-3	Jul/Aug 2022	MW-11-3	NA	NA	3.0 U	0.20 U
MW-11-Screen-4						
MW-11-Screen-4	May/June 2021	MW-11-4	1.4 J	1.00 U	3.0 U	0.14 UB
MW-11-Screen-4	Oct/Nov 2021	MW-11-4	NA	NA	3.0 U	0.11 UB
MW-11-Screen-4	Apr/May 2022	MW-11-4	3.8	1.00 U	3.0 U	0.20 U
MW-11-Screen-5						
MW-11-Screen-5	May/June 2021	MW-11-5	5.4	0.13 J	0.8 UB	0.28 UB
MW-11-Screen-5	Oct/Nov 2021	MW-11-5	NA	NA	3.4	0.26 UB
MW-11-Screen-5	Apr/May 2022	MW-11-5	6.1	2.40	6.1	0.20 U

Sample Location	Sampling Event	Sample Number	Arsenic (µg/L)	Lead (µg/L)	Chromium, Total (µg/L)	Chromium, Hexavalent (µg/L)
MW-12-Screen-2						
MW-12-Screen-2	July 2021	MW-12-2	NA	NA	3.0 UB	0.20 UB
MW-12-Screen-2	July 2021	DUP-5-3Q21	NA	NA	3.0 UB	0.20 UB
MW-12-Screen-2	Oct/Nov 2021	MW-12-2	NA	NA	0.8 UB	0.41 UB
MW-12-Screen-2	Oct/Nov 2021	DUP-4-4Q21	NA	NA	0.9 UB	0.41 UB
MW-12-Screen-2	Jul/Aug 2022	MW-12-2	NA	NA	1.4 J	0.21 J
MW-12-Screen-3						
MW-12-Screen-3	July 2021	MW-12-3	NA	NA	3.0 UB	0.20 UB
MW-12-Screen-3	Oct/Nov 2021	MW-12-3	NA	NA	3.0 U	0.24 UB
MW-12-Screen-3	Jul/Aug 2022	MW-12-3	NA	NA	3.0 U	0.40 J
MW-12-Screen-3	Jul/Aug 2022	DUP-5-3Q22	NA	NA	3.0 U	0.39 J
MW-12-Screen-4						
MW-12-Screen-4	Oct/Nov 2021	MW-12-4	NA	NA	1.2 UB	0.43 UB
MW-12-Screen-5						
MW-12-Screen-5	Oct/Nov 2021	MW-12-5	NA	NA	2.0 UB	1.10 J
MW-14-Screen-2						
MW-14-Screen-2	July 2021	MW-14-2	NA	NA	0.6 J	0.20 UB
MW-14-Screen-2	July 2021	MW-14-2	NA	NA	0.6 J	0.20 UB
MW-14-Screen-2	Oct/Nov 2021	MW-14-2	NA	NA	0.5 J	0.17 UB
MW-14-Screen-2	Jan/Feb 2022	MW-14-2	NA	NA	0.9 J	0.20 U
MW-14-Screen-2	Apr/May 2022	MW-14-2	2.0 U	0.17 J	3.0 U	1.30
MW-14-Screen-2	Jul/Aug 2022	MW-14-2	NA	NA	3.0 U	0.20 U
MW-14-Screen-3						
MW-14-Screen-3	July 2021	MW-14-3	NA	NA	3.0 U	0.20 UB
MW-14-Screen-3	Oct/Nov 2021	MW-14-3	NA	NA	3.0 U	0.58 J
MW-14-Screen-3	Jan/Feb 2022	MW-14-3	NA	NA	0.9 J	0.24
MW-14-Screen-3	Apr/May 2022	MW-14-3	2.0 U	1.00 U	3.0 U	0.20 U
MW-14-Screen-3	Apr/May 2022	DUP-2-2022	2.0 U	1.00 U	3.0 U	0.20 U
MW-14-Screen-3	Jul/Aug 2022	MW-14-3	NA	NA	3.0 U	0.20 U
MW-14-Screen-4						
MW-14-Screen-4	May/June 2021	MW-14-4	2.0 U	1.00 U	3.3 UB	2.00 J
MW-14-Screen-4	Oct/Nov 2021	MW-14-4	NA	NA	2.4 J	2.10 J
MW-14-Screen-4	Apr/May 2022	MW-14-4	2.0 U	1.00 U	2.1 J	0.20 U
MW-14-Screen-5						
MW-14-Screen-5	May/June 2021	MW-14-5	1.2 J	1.00 U	0.6 UB	0.30 UB
MW-14-Screen-5	Oct/Nov 2021	MW-14-5	NA	NA	0.7 J	0.30 UB
MW-14-Screen-5	Apr/May 2022	MW-14-5	0.9 J	1.00 U	3.0 U	2.30
MW-15						
MW-15	July 2021	MW-15	NA	NA	5.6 J	0.20 UB
MW-15	July 2021	DUP-7-3Q21	NA	NA	9.2 J	0.67 J
MW-15	Oct/Nov 2021	MW-15	NA	NA	14.0 J	0.25 UB
MW-15	Jan/Feb 2022	MW-15	NA	NA	3.5 J	0.69
MW-15	Apr/May 2022	MW-15	1.1 J	1.00 U	3.9	0.74 J
MW-15	Apr/May 2022	DUP-7-2Q22	0.8 J	1.00 U	3.4	0.76 J
MW-15	Jul/Aug 2022	MW-15	NA	NA	3.0 U	0.89

Sample Location	Sampling Event	Sample Number	Arsenic (µg/L)	Lead (µg/L)	Chromium, Total (µg/L)	Chromium, Hexavalent (µg/L)
MW-17-Screen-1						
MW-17-Screen-1	Apr/May 2022	MW-17-1	0.7 J	1.00 U	3.0 U	0.20 U
MW-17-Screen-2						
MW-17-Screen-2	July 2021	MW-17-2	NA	NA	3.0 U	0.20 UB
MW-17-Screen-2	Oct/Nov 2021	MW-17-2	NA	NA	3.0 U	0.07 UB
MW-17-Screen-2	Jan/Feb 2022	MW-17-2	NA	NA	3.0 U	0.20 U
MW-17-Screen-2	Jan/Feb 2022	DUP-4-1Q22	NA	NA	3.0 U	0.09 UJ
MW-17-Screen-2	Apr/May 2022	MW-17-2	2.0 U	1.00 U	3.0 U	0.20 U
MW-17-Screen-2	Jul/Aug 2022	MW-17-2	NA	NA	3.0 U	0.20 U
MW-17-Screen-3						
MW-17-Screen-3	July 2021	MW-17-3	NA	NA	3.0 U	NA
MW-17-Screen-3	Oct/Nov 2021	MW-17-3	NA	NA	0.6 UB	0.06 UB
MW-17-Screen-3	Oct/Nov 2021	DUP-2-4Q21	NA	NA	3.0 U	0.07 UB
MW-17-Screen-3	Jan/Feb 2022	MW-17-3	NA	NA	1.6 J	0.20 U
MW-17-Screen-3	Apr/May 2022	MW-17-3	2.0 U	1.00 U	3.0 U	0.20 U
MW-17-Screen-3	Jul/Aug 2022	MW-17-3	NA	NA	3.0 U	0.09 UJ
MW-17-Screen-4						
MW-17-Screen-4	July 2021	MW-17-4	NA	NA	2.0 J	2.30 J
MW-17-Screen-4	July 2021	DUP-2-3Q21	NA	NA	1.8 J	2.40 J
MW-17-Screen-4	Oct/Nov 2021	MW-17-4	NA	NA	2.2 J	2.20 J
MW-17-Screen-4	Jan/Feb 2022	MW-17-4	NA	NA	2.4 J	1.50
MW-17-Screen-4	Apr/May 2022	MW-17-4	2.4	1.00 U	1.8 J	2.10 J
MW-17-Screen-4	Jul/Aug 2022	MW-17-4	NA	NA	2.0 J	2.10 J
MW-17-Screen-5						
MW-17-Screen-5	May/June 2021	MW-17-5	1.2 J	0.21 J	1.5 J	0.67 J
MW-17-Screen-5	Oct/Nov 2021	MW-17-5	NA	NA	2.2 J	1.50 J
MW-17-Screen-5	Apr/May 2022	MW-17-5	1.8 J	0.13 J	1.4 J	1.30
MW-18-Screen-2						
MW-18-Screen-2	July 2021	MW-18-2	NA	NA	3.0 U	0.20 UB
MW-18-Screen-2	Oct/Nov 2021	MW-18-2	NA	NA	3.0 U	0.10 UB
MW-18-Screen-2	Jan/Feb 2022	MW-18-2	NA	NA	3.0 U	0.19 J
MW-18-Screen-2	Apr/May 2022	MW-18-2	1.4 J	1.00 U	3.0 U	0.20 U
MW-18-Screen-2	Jul/Aug 2022	MW-18-2	NA	NA	3.0 U	0.20 U
MW-18-Screen-3						
MW-18-Screen-3	July 2021	MW-18-3	NA	NA	2.1 J	2.30 J
MW-18-Screen-3	Oct/Nov 2021	MW-18-3	NA	NA	1.3 J	1.60 J
MW-18-Screen-3	Jan/Feb 2022	MW-18-3	NA	NA	2.0 J	1.80
MW-18-Screen-3	Apr/May 2022	MW-18-3	0.9 J	1.00 U	2.0 J	1.90 J
MW-18-Screen-3	Jul/Aug 2022	MW-18-3	NA	NA	3.0 U	1.90
MW-18-Screen-4						
MW-18-Screen-4	July 2021	MW-18-4	NA	NA	3.1	3.40 J
MW-18-Screen-4	Oct/Nov 2021	MW-18-4	NA	NA	2.5 J	2.30 J
MW-18-Screen-4	Oct/Nov 2021	DUP-6-4Q21	NA	NA	2.6 J	2.20 J
MW-18-Screen-4	Jan/Feb 2022	MW-18-4	NA	NA	7.6	1.60
MW-18-Screen-4	Apr/May 2022	MW-18-4	2.0 U	1.00 U	2.7 J	2.90

Sample Location	Sampling Event	Sample Number	Arsenic (µg/L)	Lead (µg/L)	Chromium, Total (µg/L)	Chromium, Hexavalent (µg/L)
MW-18-Screen-4	Jul/Aug 2022	MW-18-4	NA	NA	2.7 J	3.00
MW-18-Screen-5						
MW-18-Screen-5	May/June 2021	MW-18-5	2.0 U	0.10 J	3.0 U	0.14 UB
MW-18-Screen-5	Oct/Nov 2021	MW-18-5	NA	NA	3.0 U	0.12 UB
MW-18-Screen-5	Apr/May 2022	MW-18-5	2.0 U	1.00 U	3.0 U	0.20 U
MW-19-Screen-1						
MW-19-Screen-1	May/June 2021	MW-19-1	2.0 U	1.00 U	3.0 U	0.15 UB
MW-19-Screen-1	Oct/Nov 2021	MW-19-1	NA	NA	3.0 U	0.33 UB
MW-19-Screen-1	Apr/May 2022	MW-19-1	2.0 U	1.00 U	3.0 U	0.38 J
MW-19-Screen-2						
MW-19-Screen-2	May/June 2021	MW-19-2	2.0 U	1.00 U	2.1 UB	0.87 J
MW-19-Screen-2	Oct/Nov 2021	MW-19-2	NA	NA	1.2 J	0.13 UB
MW-19-Screen-2	Oct/Nov 2021	DUP-8-4Q21	NA	NA	0.9 J	0.13 UB
MW-19-Screen-2	Apr/May 2022	MW-19-2	2.0 U	1.00 U	1.9 J	0.80 J
MW-19-Screen-3						
MW-19-Screen-3	May/June 2021	MW-19-3	1.8 J	1.00 U	2.2 J	0.84 J
MW-19-Screen-3	Oct/Nov 2021	MW-19-3	NA	NA	1.7 J	0.40 UB
MW-19-Screen-3	Apr/May 2022	MW-19-3	2.0 U	1.00 U	1.8 J	1.80
MW-19-Screen-4						
MW-19-Screen-4	May/June 2021	MW-19-4	1.2 J	1.00 U	2.5 J	1.30 J
MW-19-Screen-4	Oct/Nov 2021	MW-19-4	NA	NA	2.2 J	2.60 J
MW-19-Screen-4	Apr/May 2022	MW-19-4	0.9 J	1.00 U	2.0 J	2.60 J
MW-19-Screen-5						
MW-19-Screen-5	May/June 2021	MW-19-5	1.3 J	1.00 U	2.3 J	1.10 J
MW-19-Screen-5	Oct/Nov 2021	MW-19-5	NA	NA	1.8 J	2.30 J
MW-19-Screen-5	Apr/May 2022	MW-19-5	0.9 J	1.00 U	1.8 J	2.40
MW-20-Screen-2						
MW-20-Screen-2	July 2021	MW-20-2	NA	NA	3.0 U	0.20 UB
MW-20-Screen-2	Oct/Nov 2021	MW-20-2	NA	NA	3.0 U	0.06 UB
MW-20-Screen-2	Jan/Feb 2022	MW-20-2	NA	NA	1.1 J	0.05 J
MW-20-Screen-2	Jan/Feb 2022	DUP-1-1Q22	NA	NA	3.0 U	0.08 J
MW-20-Screen-2	Apr/May 2022	MW-20-2	2.0 U	1.00 U	3.0 U	0.20 UJ
MW-20-Screen-2	Apr/May 2022	DUP-8-2Q22	2.0 U	1.00 U	3.0 U	0.20 UJ
MW-20-Screen-2	Jul/Aug 2022	MW-20-2	NA	NA	0.8 J	0.20 U
MW-20-Screen-3						
MW-20-Screen-3	July 2021	MW-20-3	NA	NA	3.0 U	0.20 UB
MW-20-Screen-3	Oct/Nov 2021	MW-20-3	NA	NA	3.0 U	0.09 UB
MW-20-Screen-3	Oct/Nov 2021	DUP-5-4Q21	NA	NA	3.0 U	0.10 UB
MW-20-Screen-3	Jan/Feb 2022	MW-20-3	NA	NA	1.1 J	0.17 J
MW-20-Screen-3	Apr/May 2022	MW-20-3	0.9 J	1.00 U	0.7 J	0.20 UJ
MW-20-Screen-3	Jul/Aug 2022	MW-20-3	NA	NA	3.0 U	0.12 UJ
MW-20-Screen-4						
MW-20-Screen-4	July 2021	MW-20-4	NA	NA	3.0 U	0.20 UB
MW-20-Screen-4	Oct/Nov 2021	MW-20-4	NA	NA	3.0 U	0.20 UB
MW-20-Screen-4	Jan/Feb 2022	MW-20-4	NA	NA	3.0 U	0.25 J

Sample Location	Sampling Event	Sample Number	Arsenic (µg/L)	Lead (µg/L)	Chromium, Total (µg/L)	Chromium, Hexavalent (µg/L)
MW-20-Screen-4	Apr/May 2022	MW-20-4	1.3 J	1.00 U	3.0 U	0.20 U
MW-20-Screen-4	Jul/Aug 2022	MW-20-4	NA	NA	3.0 U	0.20 U
MW-20-Screen-4	Jul/Aug 2022	DUP-1-3Q22	NA	NA	3.0 U	0.20 U
MW-20-Screen-5						
MW-20-Screen-5	July 2021	MW-20-5	NA	NA	3.0 U	0.20 UB
MW-20-Screen-5	Oct/Nov 2021	MW-20-5	NA	NA	3.0 U	0.18 UB
MW-20-Screen-5	Jan/Feb 2022	MW-20-5	NA	NA	3.0 U	0.13 J
MW-20-Screen-5	Apr/May 2022	MW-20-5	1.1 J	1.00 U	3.0 U	0.20 U
MW-20-Screen-5	Jul/Aug 2022	MW-20-5	NA	NA	3.0 U	0.20 U
MW-21-Screen-2						
MW-21-Screen-2	July 2021	MW-21-2	NA	NA	3.0 UJ	0.20 UB
MW-21-Screen-2	Oct/Nov 2021	MW-21-2	NA	NA	0.5 UB	0.26 UB
MW-21-Screen-2	Jan/Feb 2022	MW-21-2	NA	NA	3.0 U	0.07 UJ
MW-21-Screen-2	Apr/May 2022	MW-21-2	2.0 U	1.00 U	3.0 U	0.20 U
MW-21-Screen-2	Jul/Aug 2022	MW-21-2	NA	NA	3.0 U	0.20 U
MW-21-Screen-3						
MW-21-Screen-3	July 2021	MW-21-3	NA	NA	3.0 U	0.20 UB
MW-21-Screen-3	July 2021	DUP-6-3Q21	NA	NA	3.0 UJ	0.20 UB
MW-21-Screen-3	Oct/Nov 2021	MW-21-3	NA	NA	0.6 UB	0.52 UB
MW-21-Screen-3	Jan/Feb 2022	MW-21-3	NA	NA	3.0 U	0.12 UJ
MW-21-Screen-3	Jan/Feb 2022	DUP-7-1Q22	NA	NA	3.0 U	0.10 UJ
MW-21-Screen-3	Apr/May 2022	MW-21-3	2.0 U	1.00 U	3.0 U	0.20 U
MW-21-Screen-3	Jul/Aug 2022	MW-21-3	NA	NA	3.0 U	0.46 UJ
MW-21-Screen-4						
MW-21-Screen-4	July 2021	MW-21-4	NA	NA	1.3 J	1.50 J
MW-21-Screen-4	Oct/Nov 2021	MW-21-4	NA	NA	1.6 UB	1.10 J
MW-21-Screen-4	Jan/Feb 2022	MW-21-4	NA	NA	1.1 J	1.30 J
MW-21-Screen-4	Apr/May 2022	MW-21-4	2.0 U	1.00 U	1.0 J	0.20 U
MW-21-Screen-4	Jul/Aug 2022	MW-21-4	NA	NA	3.0 U	1.60
MW-21-Screen-4	Jul/Aug 2022	DUP-6-3Q22	NA	NA	3.0 U	1.70
MW-21-Screen-5						
MW-21-Screen-5	July 2021	MW-21-5	NA	NA	1.1 J	1.40 J
MW-21-Screen-5	Oct/Nov 2021	MW-21-5	NA	NA	1.5 UB	1.20 J
MW-21-Screen-5	Jan/Feb 2022	MW-21-5	NA	NA	1.5 J	1.20 J
MW-21-Screen-5	Apr/May 2022	MW-21-5	2.0 U	1.00 U	0.6 J	1.50
MW-21-Screen-5	Jul/Aug 2022	MW-21-5	NA	NA	3.0 U	1.40 J
MW-22-Screen-1						
MW-22-Screen-1	Mar/Apr 2021	MW-22-1	NA	NA	0.6 J	0.90 J
MW-22-Screen-1	May/June 2021	MW-22-1	2.0 U	1.00 U	0.7 J	0.73
MW-22-Screen-1	Jan/Feb 2022	MW-22-1	NA	NA	1.8 J	0.72
MW-22-Screen-1	Apr/May 2022	MW-22-1	2.0 U	1.00 U	0.7 J	0.20 U
MW-22-Screen-2						
MW-22-Screen-2	July 2021	MW-22-2	NA	NA	2.1 J	2.20 J
MW-22-Screen-2	Oct/Nov 2021	MW-22-2	NA	NA	1.5 J	2.00 J
MW-22-Screen-2	Jan/Feb 2022	MW-22-2	NA	NA	2.3 J	1.40

Sample Location	Sampling Event	Sample Number	Arsenic (µg/L)	Lead (µg/L)	Chromium, Total (µg/L)	Chromium, Hexavalent (µg/L)
MW-22-Screen-2	Apr/May 2022	MW-22-2	2.0 U	1.00 U	1.8 J	2.00
MW-22-Screen-2	Jul/Aug 2022	MW-22-2	NA	NA	2.0 J	2.00
MW-22-Screen-3						
MW-22-Screen-3	July 2021	MW-22-3	NA	NA	1.5 J	1.60 J
MW-22-Screen-3	Oct/Nov 2021	MW-22-3	NA	NA	1.4 J	2.20 J
MW-22-Screen-3	Jan/Feb 2022	MW-22-3	NA	NA	2.4 J	2.10
MW-22-Screen-3	Apr/May 2022	MW-22-3	0.9 J	1.00 U	2.1 J	2.20 J
MW-22-Screen-3	Jul/Aug 2022	MW-22-3	NA	NA	1.8 J	2.20
MW-22-Screen-4						
MW-22-Screen-4	May/June 2021	MW-22-4	0.7 J	1.00 U	2.6 J	1.70
MW-22-Screen-4	Oct/Nov 2021	MW-22-4	NA	NA	2.2 J	2.50 J
MW-22-Screen-4	Apr/May 2022	MW-22-4	0.9 J	1.00 U	2.3 J	2.90
MW-22-Screen-5						
MW-22-Screen-5	May/June 2021	MW-22-5	2.0 U	0.11 J	3.0 U	0.20
MW-22-Screen-5	Oct/Nov 2021	MW-22-5	NA	NA	3.0 U	0.17 UB
MW-22-Screen-5	Apr/May 2022	MW-22-5	2.0 U	0.20 J	3.0 U	0.20 U
MW-23-Screen-1						
MW-23-Screen-1	Apr/May 2022	MW-23-1	2.0 U	1.00 U	0.9 J	1.50 J
MW-23-Screen-2						
MW-23-Screen-2	July 2021	MW-23-2	NA	NA	3.0 U	2.10 J
MW-23-Screen-2	Oct/Nov 2021	MW-23-2	NA	NA	1.7 J	1.90 J
MW-23-Screen-2	Jan/Feb 2022	MW-23-2	NA	NA	1.8 J	1.50 J
MW-23-Screen-2	Jan/Feb 2022	DUP-5-1Q22	NA	NA	1.5 J	1.50
MW-23-Screen-2	Apr/May 2022	MW-23-2	1.2 J	1.00 U	1.2 J	1.70 J
MW-23-Screen-2	Apr/May 2022	DUP-1-2022	2.0 U	1.00 U	1.5 J	1.90
MW-23-Screen-2	Jul/Aug 2022	MW-23-2	NA	NA	1.7 J	1.80 J
MW-23-Screen-3						
MW-23-Screen-3	July 2021	MW-23-3	NA	NA	1.7 J	3.40 J
MW-23-Screen-3	July 2021	DUP-4-3Q21	NA	NA	1.6 J	3.50 J
MW-23-Screen-3	Oct/Nov 2021	MW-23-3	NA	NA	2.9 J	3.30 J
MW-23-Screen-3	Jan/Feb 2022	MW-23-3	NA	NA	3.1	2.80 J
MW-23-Screen-3	Apr/May 2022	MW-23-3	1.1 J	0.18 J	2.8 J	2.80
MW-23-Screen-3	Jul/Aug 2022	MW-23-3	NA	NA	3.3	2.60
MW-23-Screen-4						
MW-23-Screen-4	July 2021	MW-23-4	NA	NA	2.8 J	4.00 J
MW-23-Screen-4	Oct/Nov 2021	MW-23-4	NA	NA	3.8	4.00 J
MW-23-Screen-4	Jan/Feb 2022	MW-23-4	NA	NA	3.9	4.10
MW-23-Screen-4	Apr/May 2022	MW-23-4	1.7 J	1.00 U	3.5 J	4.20
MW-23-Screen-4	Jul/Aug 2022	MW-23-4	NA	NA	4.6	4.20
MW-23-Screen-5						
MW-23-Screen-5	May/June 2021	MW-23-5	1.8 J	0.55 J	1.7 J	0.24 UB
MW-23-Screen-5	Oct/Nov 2021	MW-23-5	NA	NA	3.0 U	0.13 UB
MW-23-Screen-5	Apr/May 2022	MW-23-5	2.4	0.20 J	3.0 UJ	0.20 U
MW-24-Screen-1						
MW-24-Screen-1	July 2021	MW-24-1	NA	NA	1.4 J	NA

Sample Location	Sampling Event	Sample Number	Arsenic (µg/L)	Lead (µg/L)	Chromium, Total (µg/L)	Chromium, Hexavalent (µg/L)
MW-24-Screen-1	Oct/Nov 2021	MW-24-1	NA	NA	2.6 J	0.22 UB
MW-24-Screen-1	Jan/Feb 2022	MW-24-1	NA	NA	5.6	1.10
MW-24-Screen-1	Apr/May 2022	MW-24-1	1.3 J	1.00 U	3.8	0.20 U
MW-24-Screen-1	Jul/Aug 2022	MW-24-1	NA	NA	2.5 J	0.27
MW-24-Screen-2						
MW-24-Screen-2	July 2021	MW-24-2	NA	NA	2.0 J	2.30 J
MW-24-Screen-2	Oct/Nov 2021	MW-24-2	NA	NA	1.1 J	2.10 J
MW-24-Screen-2	Jan/Feb 2022	MW-24-2	NA	NA	0.8 J	0.31
MW-24-Screen-2	Apr/May 2022	MW-24-2	2.0	0.53 J	1.2 J	1.40
MW-24-Screen-2	Jul/Aug 2022	MW-24-2	NA	NA	2.0 J	1.70
MW-24-Screen-2	Jul/Aug 2022	DUP-3-3Q22	NA	NA	1.7 J	1.80
MW-24-Screen-3						
MW-24-Screen-3	July 2021	MW-24-3	NA	NA	0.5 J	NA
MW-24-Screen-3	Oct/Nov 2021	MW-24-3	NA	NA	3.0 U	0.04 UB
MW-24-Screen-3	Jan/Feb 2022	MW-24-3	NA	NA	0.9 J	0.20 U
MW-24-Screen-3	Apr/May 2022	MW-24-3	1.7 J	1.00 U	3.0 UJ	0.20 UJ
MW-24-Screen-3	Jul/Aug 2022	MW-24-3	NA	NA	1.1 J	0.20 U
MW-24-Screen-4						
MW-24-Screen-4	July 2021	MW-24-4	NA	NA	3.0 U	0.20 UB
MW-24-Screen-4	July 2021	DUP-3-3Q21	NA	NA	3.0 U	0.20 UB
MW-24-Screen-4	Oct/Nov 2021	MW-24-4	NA	NA	3.0 U	0.17 UB
MW-24-Screen-4	Jan/Feb 2022	MW-24-4	NA	NA	2.5 J	0.11 J
MW-24-Screen-4	Apr/May 2022	MW-24-4	1.3 J	1.00 U	3.0 UJ	0.20 U
MW-24-Screen-4	Jul/Aug 2022	MW-24-4	NA	NA	3.0 U	0.10 J
MW-24-Screen-5						
MW-24-Screen-5	May/June 2021	MW-24-5	2.5	1.00 U	2.4 J	2.60 J
MW-24-Screen-5	Oct/Nov 2021	MW-24-5	NA	NA	2.5 J	2.50 J
MW-24-Screen-5	Apr/May 2022	MW-24-5	2.7	0.45 J	3.5 J	2.30
MW-25-Screen-1						
MW-25-Screen-1	July 2021	MW-25-1	NA	NA	1.8 J	0.20 UB
MW-25-Screen-1	Oct/Nov 2021	MW-25-1	NA	NA	1.8 J	0.24 UB
MW-25-Screen-1	Jan/Feb 2022	MW-25-1	NA	NA	2.3 J	0.17 UJ
MW-25-Screen-1	Apr/May 2022	MW-25-1	2.0 U	1.00 U	1.9 J	0.82 J
MW-25-Screen-1	Jul/Aug 2022	MW-25-1	NA	NA	3.6	0.20 U
MW-25-Screen-2						
MW-25-Screen-2	July 2021	MW-25-2	NA	NA	1.8 J	2.00 J
MW-25-Screen-2	Oct/Nov 2021	MW-25-2	NA	NA	2.0 J	1.90 J
MW-25-Screen-2	Jan/Feb 2022	MW-25-2	NA	NA	2.0 J	1.70 J
MW-25-Screen-2	Apr/May 2022	MW-25-2	2.0 U	1.00 U	2.6 J	3.00 J
MW-25-Screen-2	Jul/Aug 2022	MW-25-2	NA	NA	1.8 J	2.70
MW-25-Screen-2	Jul/Aug 2022	DUP-2-3Q22	NA	NA	1.9 J	2.90
MW-25-Screen-3						
MW-25-Screen-3	July 2021	MW-25-3	NA	NA	2.5 J	3.30 J
MW-25-Screen-3	Oct/Nov 2021	MW-25-3	NA	NA	3.5	3.10 J
MW-25-Screen-3	Jan/Feb 2022	MW-25-3	NA	NA	2.8 J	1.60 J

Sample Location	Sampling Event	Sample Number	Arsenic (µg/L)	Lead (µg/L)	Chromium, Total (µg/L)	Chromium, Hexavalent (µg/L)
MW-25-Screen-3	Apr/May 2022	MW-25-3	2.0 U	1.00 U	3.5	3.80
MW-25-Screen-3	Jul/Aug 2022	MW-25-3	NA	NA	2.2 J	3.50
MW-25-Screen-4						
MW-25-Screen-4	July 2021	MW-25-4	NA	NA	1.3 J	0.88 J
MW-25-Screen-4	Oct/Nov 2021	MW-25-4	NA	NA	1.9 J	0.89 J
MW-25-Screen-4	Jan/Feb 2022	MW-25-4	NA	NA	2.1 J	0.25 UJ
MW-25-Screen-4	Apr/May 2022	MW-25-4	1.1 J	1.00 U	1.0 J	1.30
MW-25-Screen-4	Jul/Aug 2022	MW-25-4	NA	NA	3.0 U	1.20
MW-25-Screen-5						
MW-25-Screen-5	July 2021	MW-25-5	NA	NA	3.0 U	NA
MW-25-Screen-5	Oct/Nov 2021	MW-25-5	NA	NA	3.0 U	0.15 UB
MW-25-Screen-5	Jan/Feb 2022	MW-25-5	NA	NA	1.6 J	0.22 UJ
MW-25-Screen-5	Apr/May 2022	MW-25-5	2.0 U	1.00 U	3.0 U	0.20 U
MW-25-Screen-5	Jul/Aug 2022	MW-25-5	NA	NA	3.0 U	0.20 U
MW-26-Screen-2						
MW-26-Screen-2	July 2021	MW-26-2	NA	NA	1.2 J	0.20 UB
MW-26-Screen-2	Oct/Nov 2021	MW-26-2	NA	NA	1.0 J	0.84 J
MW-26-Screen-2	Jan/Feb 2022	MW-26-2	NA	NA	1.5 J	0.20 U
MW-26-Screen-2	Apr/May 2022	MW-26-2	2.0 U	1.00 U	1.2 J	0.73 J
MW-26-Screen-2	Jul/Aug 2022	MW-26-2	NA	NA	2.5 J	0.80 J
MW-26-Screen-2	Jul/Aug 2022	DUP-4-3Q22	NA	NA	9.1	0.95
Analyte concentration exceeds the standard for:						
CA MCL			10.0	15.0*	50.0	50.0**
EPA REGION IX MCL			10.0	15.0*	100.0	NE
Notes						
DUP(E)	Field Duplicate					
NA	Not analyzed					
NE	Not established					
*	Regulatory Action Level					
**	Due to a court ruling, the State Water Resources Control Board adopted a resolution on August 1, 2017 to remove the current maximum contaminant level (MCL[10.0 µg/L]) for CrVI. CrVI is regulated under the 50.0 µg/L MCL for total chromium."					
J	Analyte concentration is an estimated value					
U	Analyte was analyzed for but not detected at or above the stated limit					
UB	Result should be considered "not-detected" because it was detected in a method blank or equipment blank at a similar level.					
UJ	Analyte was analyzed for but not detected; analyte concentration is an estimated value					

TABLE 3
SUMMARY OF VOLATILE ORGANIC COMPOUNDS AND PERCHLORATE REPORTED IN MUNICIPAL
PRODUCTION WELLS NEAR JPL DURING THE LAST FIVE SAMPLING EVENTS OF THE
LONG-TERM QUARTERLY GROUNDWATER SAMPLING PROGRAM

(All concentrations reported in µg/L.)

(Shaded values exceed State or Federal MCLs or action levels.)

Purveyor, Well Name	Sample Date	Perchlorate	Carbon tetrachloride	PCE	TCE
LA CANADA IRRIGATION DIST. WELL 06					
LCID#6	6/28/2021	3.5	0.5 U	0.5 U	0.7
LAS FLORES WATER CO. WELL 02					
LFWC#2	4/5/2021	4.0	NA	1.7	NA
LFWC#2	4/12/2021	5.8	NA	1.6	NA
LFWC#2	4/19/2021	4.0 U	NA	1.8	NA
LFWC#2	4/26/2021	4.0 U	NA	1.4	NA
LFWC#2	5/3/2021	4.0 U	NA	0.5	NA
LFWC#2	5/10/2021	4.3	NA	1.8	NA
LFWC#2	5/17/2021	4.0 U	NA	2.1	NA
LFWC#2	5/24/2021	4.1	NA	2.0	NA
LFWC#2	6/1/2021	4.1	NA	1.5	NA
LFWC#2	6/7/2021	4.6	NA	1.9	NA
LFWC#2	6/14/2021	4.0 U	NA	2.0	NA
LFWC#2	6/21/2021	4.0 U	NA	2.3	NA
LFWC#2	6/28/2021	4.4	NA	2.8	NA
LFWC#2	7/6/2021	4.1	NA	3.1	NA
LFWC#2	7/12/2021	3.8	NA	3.4	NA
LFWC#2	7/19/2021	4.2	NA	4.3	NA
LFWC#2	7/26/2021	3.4	NA	3.9	NA
LFWC#2	8/2/2021	3.4	NA	4.1	NA
LFWC#2	8/10/2021	2.8	NA	5.1	NA
LFWC#2	8/16/2021	3.7	NA	6.8	NA
LFWC#2	8/23/2021	2.8	NA	6.5	NA
LFWC#2	8/30/2021	2.0 U	NA	7.6	NA
LFWC#2	9/7/2021	3.7	NA	9.0	NA
LFWC#2	9/13/2021	3.8	NA	8.0	NA
LFWC#2	9/20/2021	4.3	NA	7.1	NA
LFWC#2	9/27/2021	3.4	NA	9.3	NA
LFWC#2	10/4/2021	3.5	NA	9.3	NA
LFWC#2	10/11/2021	2.4	NA	10.0	NA
LFWC#2	10/18/2021	3.8	NA	8.8	NA
LFWC#2	10/25/2021	3.4	NA	8.1	NA
LFWC#2	11/1/2021	3.1	NA	9.0	NA
LFWC#2	11/8/2021	3.9	NA	7.2	NA
LFWC#2	11/15/2021	3.9	NA	8.6	NA
LFWC#2	11/22/2021	4.2	NA	7.1	NA
LFWC#2	11/29/2021	3.1	NA	9.4	NA
LFWC#2	12/6/2021	3.0	0.5 U	9.2	0.5 U
LFWC#2	12/13/2021	3.5	NA	11.0	NA
LFWC#2	12/27/2021	2.9	NA	8.9	NA
LFWC#2	1/4/2022	3.1	NA	11.0	NA

Purveyor, Well Name	Sample Date	Perchlorate	Carbon tetrachloride	PCE	TCE
LFWC#2	1/10/2022	2.9	NA	9.8	NA
LFWC#2	1/17/2022	2.7	NA	10.0	NA
LFWC#2	1/24/2022	3.1	NA	11.0	NA
LFWC#2	1/31/2022	2.9	NA	12.0	NA
LFWC#2	2/7/2022	3.1	NA	11.0	NA
LFWC#2	2/14/2022	2.8	NA	11.0	NA
LFWC#2	2/22/2022	3.5	NA	9.6	NA
LFWC#2	2/28/2022	4.2	NA	9.8	NA
LFWC#2	3/7/2022	3.2	NA	9.2	NA
LFWC#2	3/14/2022	4.3	NA	9.7	NA
LFWC#2	3/21/2022	3.4	NA	9.9	NA
LFWC#2	4/4/2022	3.7	NA	11.0	NA
LFWC#2	4/11/2022	3.9	NA	9.8	NA
LFWC#2	4/18/2022	3.1	NA	11.0	NA
LFWC#2	4/25/2022	2.5	NA	12.0	NA
LFWC#2	5/2/2022	3.3	NA	10.0	NA
LFWC#2	5/9/2022	3.8	NA	11.0	NA
LFWC#2	5/16/2022	3.8	NA	11.0	NA
LFWC#2	5/23/2022	3.7	NA	9.6	NA
LFWC#2	5/31/2022	3.2	NA	9.3	NA
LFWC#2	6/6/2022	2.1	NA	9.3	NA
LFWC#2	6/13/2022	2.4	NA	7.8	NA
LFWC#2	6/20/2022	2.5	NA	7.5	NA
LFWC#2	6/27/2022	2.7	NA	8.1	NA
LFWC#2	7/5/2022	4.0	NA	6.9	NA
LFWC#2	7/25/2022	4.8	NA	6.9	NA
LFWC#2	8/1/2022	4.9	NA	5.4	NA
LFWC#2	8/8/2022	4.5	NA	5.8	NA
LFWC#2	8/15/2022	4.6	NA	4.9	NA
LFWC#2	8/22/2022	4.7	NA	4.5	NA
LFWC#2	8/29/2022	4.8	NA	4.5	NA
LFWC#2	9/12/2022	5.0	NA	3.8	NA
LFWC#2	9/19/2022	5.8	NA	4.0	NA
LFWC#2	9/26/2022	4.7	NA	3.3	NA
LINCOLN AVENUE WATER CO. WELL 05					
LAWC#5	4/27/2021	4.0 U	NA	NA	NA
LAWC#5	5/3/2021	NA	1.8	0.5 U	0.7
LAWC#5	5/4/2021	4.2	3.5	0.5 U	0.6
LAWC#5	6/4/2021	4.0 U	3.9	0.5 U	0.5 U
LAWC#5	6/8/2021	4.0 U	NA	NA	NA
LAWC#5	6/15/2021	4.7	NA	NA	NA
LAWC#5	6/22/2021	5.3	NA	NA	NA
LAWC#5	6/30/2021	5.6	NA	NA	NA
LAWC#5	7/6/2021	5.5	NA	NA	NA
LAWC#5	7/7/2021	NA	2.0	0.6	1.0
LAWC#5	7/13/2021	5.6	NA	NA	NA
LAWC#5	7/20/2021	6.0	NA	NA	NA
LAWC#5	7/27/2021	5.8	NA	NA	NA
LAWC#5	8/3/2021	5.9	1.7	0.5	1.0

Purveyor, Well Name	Sample Date	Perchlorate	Carbon tetrachloride	PCE	TCE
LAWC#5	8/10/2021	6.8	NA	NA	NA
LAWC#5	3/1/2022	5.7	2.0	0.6	1.0
LAWC#5	3/8/2022	5.4	NA	NA	NA
LAWC#5	3/15/2022	4.7	NA	NA	NA
LAWC#5	3/22/2022	4.7	NA	NA	NA
LAWC#5	3/29/2022	5.4	NA	NA	NA
LAWC#5	4/5/2022	4.5	1.9	0.6	1.4
LAWC#5	4/12/2022	5.4	NA	NA	NA
LAWC#5	4/19/2022	4.7	NA	NA	NA
LAWC#5	4/26/2022	3.5	NA	NA	NA
LAWC#5	5/3/2022	3.6	1.9	0.7	1.3
LAWC#5	5/10/2022	5.5	NA	NA	NA
LAWC#5	5/17/2022	5.8	NA	NA	NA
LAWC#5	5/24/2022	5.6	NA	NA	NA
LAWC#5	5/31/2022	5.5	NA	NA	NA
LAWC#5	6/7/2022	5.4	1.7	0.7	1.2
LAWC#5	6/14/2022	5.3	NA	NA	NA
LAWC#5	6/21/2022	5.5	NA	NA	NA
LAWC#5	6/28/2022	6.0	NA	NA	NA
LAWC#5	7/5/2022	5.4	2.0	0.5	1.0
LAWC#5	7/12/2022	5.6	NA	NA	NA
LAWC#5	7/19/2022	4.6	NA	NA	NA
LAWC#5	8/9/2022	3.9	4.1	0.5 U	0.8
LAWC#5	8/16/2022	3.8	NA	NA	NA
LAWC#5	8/23/2022	3.6	NA	NA	NA
LAWC#5	8/30/2022	3.8	NA	NA	NA
LAWC#5	9/6/2022	3.7	3.9	0.5 U	0.7
LAWC#5	9/20/2022	2.1	NA	NA	NA
LAWC#5	9/27/2022	3.3	NA	NA	NA
LAWC#5	10/7/2022	2.0 U	4.9	0.5 U	0.6
LAWC#5	10/14/2022	3.6	NA	NA	NA
LAWC#5	10/18/2022	3.8	NA	NA	NA
LAWC#5	10/25/2022	3.6	NA	NA	NA
LINCOLN AVENUE WATER CO. WELL #6					
LAWC#6	4/6/2021	5.2	1.4	0.5 U	0.8
LAWC#6	4/12/2021	5.2	NA	NA	NA
LAWC#6	4/20/2021	5.4	NA	NA	NA
LAWC#6	5/4/2021	9.9	0.9	0.8	1.6
LAWC#6	5/11/2021	7.1	NA	NA	NA
LAWC#6	5/18/2021	6.1	NA	NA	NA
LAWC#6	5/25/2021	5.6	NA	NA	NA
LAWC#6	6/1/2021	5.6	1.6	0.5	1.0
LAWC#6	8/17/2021	5.8	0.8	0.7	1.1
LAWC#6	8/24/2021	5.2	NA	NA	NA
LAWC#6	8/31/2021	3.5	NA	NA	NA
LAWC#6	9/9/2021	5.5	NA	NA	NA
LAWC#6	9/10/2021	NA	1.3	0.6	0.9
LAWC#6	9/14/2021	5.7	NA	NA	NA
LAWC#6	9/21/2021	5.4	NA	NA	NA

Purveyor, Well Name	Sample Date	Perchlorate	Carbon tetrachloride	PCE	TCE
LAWC#6	9/28/2021	5.1	NA	NA	NA
LAWC#6	10/5/2021	4.4	1.5	0.5 U	0.8
LAWC#6	10/13/2021	4.9	NA	NA	NA
LAWC#6	10/19/2021	4.6	NA	NA	NA
LAWC#6	10/26/2021	5.1	NA	NA	NA
LAWC#6	11/2/2021	4.3	1.3	0.6	0.9
LAWC#6	11/5/2021	NA	1.8	0.5 U	0.9
LAWC#6	11/9/2021	4.5	NA	NA	NA
LAWC#6	11/16/2021	5.4	NA	NA	NA
LAWC#6	11/22/2021	5.4	NA	NA	NA
LAWC#6	11/30/2021	5.3	NA	NA	NA
LAWC#6	12/7/2021	1.7	5.5	0.7	0.9
LAWC#6	12/14/2021	NA	4.1	NA	NA
LAWC#6	12/21/2021	NA	3.9	NA	NA
LAWC#6	12/28/2021	NA	5.9	NA	NA
LAWC#6	1/4/2022	1.5	4.7	0.5	1.0
LAWC#6	7/19/2022	3.1	0.5 U	0.5 U	0.9
LAWC#6	7/26/2022	5.3	NA	NA	NA
LAWC#6	8/2/2022	2.0 U	1.1	0.6	0.9
LAWC#6	8/9/2022	5.4	NA	NA	NA
LAWC#6	8/16/2022	5.3	NA	NA	NA
LAWC#6	8/23/2022	5.0	NA	NA	NA
LAWC#6	8/30/2022	5.2	NA	NA	NA
LAWC#6	9/6/2022	5.1	0.6	0.7	1.2
LAWC#6	9/13/2022	2.3	NA	NA	NA
LAWC#6	9/20/2022	3.4	NA	NA	NA
LAWC#6	9/27/2022	4.6	NA	NA	NA
LAWC#6	10/4/2022	5.0	0.5	0.6	0.9
LAWC#6	10/11/2022	5.2	NA	NA	NA
LAWC#6	10/18/2022	4.5	NA	NA	NA
LAWC#6	10/25/2022	4.9	NA	NA	NA
PASADENA-CITY, WATER DEPT. ARROYO					
ARROYO	4/6/2021	7.9	1.2	0.5 U	1.0
ARROYO	4/14/2021	8.3	1.1	0.5 U	0.9
ARROYO	4/20/2021	8.8	1.0	0.5 U	1.0
ARROYO	4/27/2021	8.1	1.3	0.5 U	1.0
ARROYO	5/4/2021	8.1	1.2	0.5 U	1.0
ARROYO	5/11/2021	7.6	1.3	0.5 U	1.0
ARROYO	5/18/2021	7.7	1.3	0.5 U	1.0
ARROYO	5/25/2021	9.1	1.2	0.5 U	1.0
ARROYO	6/1/2021	8.0	1.0	0.5 U	1.0
ARROYO	6/9/2021	8.5	1.0	0.5 U	0.5 U
ARROYO	6/15/2021	9.0	1.2	0.5 U	0.9
ARROYO	6/22/2021	9.7	1.1	0.5 U	1.0
ARROYO	6/29/2021	8.2	1.0	0.5 U	1.0
ARROYO	7/6/2021	9.6	1.1	0.5 U	1.1
ARROYO	7/13/2021	6.6	1.1	0.5 U	1.0
ARROYO	7/20/2021	7.6	1.1	0.5 U	0.9
ARROYO	7/27/2021	8.1	1.1	0.5 U	0.9

Purveyor, Well Name	Sample Date	Perchlorate	Carbon tetrachloride	PCE	TCE
ARROYO	8/3/2021	7.9	1.0	0.5 U	1.0
ARROYO	8/10/2021	7.7	1.1	0.5 U	1.0
ARROYO	8/17/2021	8.1	1.1	0.5 U	1.2
ARROYO	8/24/2021	7.2	1.0	0.5 U	1.0
ARROYO	8/31/2021	9.0	0.9	0.5 U	0.9
ARROYO	9/7/2021	7.7	1.1	0.5 U	1.1
ARROYO	9/14/2021	7.5	1.0	0.5 U	1.1
ARROYO	9/21/2021	8.7	0.8	0.5 U	0.9
ARROYO	9/28/2021	7.7	1.0	0.5 U	1.0
ARROYO	10/5/2021	6.9	1.1	0.5 U	1.0
ARROYO	10/11/2021	7.7	NA	NA	NA
ARROYO	10/14/2021	NA	0.8	0.5 U	0.8
ARROYO	10/19/2021	8.0	0.9	0.5 U	0.9
ARROYO	10/26/2021	7.2	0.9	0.5 U	1.0
ARROYO	11/2/2021	7.5	0.8	0.5 U	1.0
ARROYO	11/9/2021	7.3	0.9	0.5 U	1.0
ARROYO	11/16/2021	7.1	0.6	0.5 U	0.7
ARROYO	11/23/2021	7.6	0.6	0.5 U	0.9
ARROYO	11/30/2021	7.3	0.7	0.5 U	0.9
ARROYO	12/7/2021	7.2	0.7	0.5 U	0.9
ARROYO	12/14/2021	7.3	0.9	0.5 U	0.9
ARROYO	12/21/2021	7.7	0.8	0.5 U	0.9
ARROYO	12/28/2021	7.8	0.8	0.5 U	0.9
ARROYO	1/4/2022	8.4	0.7	0.5 U	0.9
ARROYO	1/11/2022	7.7	0.7	0.5 U	0.9
ARROYO	1/18/2022	8.6	0.8	0.5 U	1.0
ARROYO	1/25/2022	7.9	0.9	0.5 U	1.0
ARROYO	2/1/2022	8.0	0.7	0.5 U	0.9
ARROYO	2/8/2022	8.4	0.8	0.5 U	1.0
ARROYO	2/15/2022	8.7	1.0	0.5 U	1.0
ARROYO	2/22/2022	7.5	1.0	0.5 U	1.1
ARROYO	3/1/2022	7.9	0.8	0.5 U	0.9
ARROYO	3/8/2022	8.2	0.9	0.5 U	1.1
ARROYO	3/15/2022	8.5	1.0	0.5 U	1.1
ARROYO	3/22/2022	8.7	0.7	0.5 U	0.9
ARROYO	3/29/2022	8.4	0.9	0.5 U	0.9
ARROYO	4/5/2022	8.5	0.8	0.5 U	1.0
ARROYO	4/12/2022	8.6	0.8	0.5 U	0.9
ARROYO	4/18/2022	8.6	0.8	0.5 U	0.9
ARROYO	4/26/2022	8.5	1.0	0.5 U	0.8
ARROYO	5/3/2022	9.1	NA	NA	NA
ARROYO	5/10/2022	9.6	1.0	0.5 U	0.9
ARROYO	5/17/2022	9.2	1.0	0.5 U	1.0
ARROYO	5/24/2022	8.3	0.9	0.5 U	0.9
ARROYO	5/31/2022	6.9	1.0	0.5 U	1.0
ARROYO	6/7/2022	8.3	0.9	0.5	1.1
ARROYO	6/14/2022	7.8	0.8	0.5 U	0.9
ARROYO	6/21/2022	9.3	0.8	0.5 U	0.9
ARROYO	6/28/2022	8.5	0.8	0.5	0.9

Purveyor, Well Name	Sample Date	Perchlorate	Carbon tetrachloride	PCE	TCE
ARROYO	7/5/2022	8.2	0.8	0.6	1.2
ARROYO	7/12/2022	8.2	0.9	0.5 U	1.0
ARROYO	7/19/2022	8.6	0.9	0.5 U	0.9
ARROYO	7/26/2022	8.6	1.0	0.5 U	1.0
ARROYO	8/2/2022	7.9	0.7	0.5 U	0.8
ARROYO	8/9/2022	6.3	0.7	0.5 U	0.8
ARROYO	8/16/2022	7.9	0.8	0.5 U	0.9
ARROYO	8/23/2022	8.3	0.8	0.5 U	1.0
ARROYO	8/30/2022	9.6	0.7	0.5 U	0.9
ARROYO	9/6/2022	8.6	0.8	0.5 U	1.0
ARROYO	9/13/2022	9.2	0.9	0.5	1.0
ARROYO	9/20/2022	8.4	0.9	0.5	1.1
ARROYO	9/28/2022	8.2	0.7	0.5 U	0.9
ARROYO	10/4/2022	7.8	0.8	0.5 U	0.9
ARROYO	10/11/2022	9.7	0.7	0.5 U	1.0
ARROYO	10/25/2022	8.8	0.7	0.5 U	0.8
PASADENA-CITY, WATER DEPT. WELL 52					
WELL 52	4/6/2021	4.0 U	0.5 U	0.9	2.3
WELL 52	4/14/2021	4.0 U	0.5 U	0.8	2.0
WELL 52	4/20/2021	4.0 U	0.5 U	0.8	2.0
WELL 52	4/27/2021	4.0 U	0.5 U	0.8	2.1
WELL 52	5/4/2021	4.0 U	0.5 U	0.8	2.2
WELL 52	5/11/2021	4.0 U	0.5 U	0.9	2.2
WELL 52	5/18/2021	4.0 U	0.5 U	0.8	2.0
WELL 52	5/25/2021	4.1	0.5 U	0.9	2.3
WELL 52	6/1/2021	4.0 U	0.5 U	0.8	1.9
WELL 52	6/9/2021	4.0 U	0.5 U	0.6	1.8
WELL 52	6/15/2021	4.0 U	0.5 U	0.9	2.1
WELL 52	6/22/2021	4.0 U	0.5 U	0.8	2.0
WELL 52	6/29/2021	4.0 U	0.5 U	0.8	2.1
WELL 52	7/6/2021	3.0	0.5 U	0.9	2.1
WELL 52	7/13/2021	3.3	0.5 U	0.7	1.8
WELL 52	7/20/2021	2.8	0.5 U	0.8	1.7
WELL 52	7/27/2021	3.1	0.5 U	0.7	1.9
WELL 52	8/3/2021	3.3	0.5 U	0.8	1.9
WELL 52	8/10/2021	3.1	0.5 U	0.8	2.0
WELL 52	8/17/2021	3.2	0.5 U	0.9	2.1
WELL 52	8/24/2021	3.0	0.5 U	0.7	1.9
WELL 52	8/31/2021	3.8	0.5 U	0.7	1.8
WELL 52	9/7/2021	3.7	0.5 U	0.9	2.0
WELL 52	9/14/2021	3.0	0.5 U	0.9	2.0
WELL 52	9/21/2021	4.2	0.5 U	0.8	1.8
WELL 52	1/11/2022	3.4	0.5 U	0.7	2.4
WELL 52	1/18/2022	3.7	0.5 U	0.6	2.4
WELL 52	1/25/2022	3.4	0.5 U	0.8	2.3
WELL 52	2/1/2022	3.7	0.5 U	0.9	2.2
WELL 52	2/8/2022	3.6	0.5 U	0.9	2.2
WELL 52	2/15/2022	5.3	0.5 U	0.9	2.2
WELL 52	2/22/2022	3.1	0.5 U	0.9	2.2

Purveyor, Well Name	Sample Date	Perchlorate	Carbon tetrachloride	PCE	TCE
WELL 52	3/1/2022	3.1	0.5 U	1.0	2.3
WELL 52	3/8/2022	3.2	0.5 U	1.0	2.1
WELL 52	3/15/2022	3.3	0.5 U	1.0	2.2
WELL 52	3/22/2022	3.3	0.5 U	0.8	1.7
WELL 52	3/29/2022	3.7	0.5 U	1.0	1.9
WELL 52	4/5/2022	4.2	0.5 U	0.9	2.0
WELL 52	4/12/2022	3.3	0.5 U	1.0	1.9
WELL 52	4/18/2022	3.5	0.5 U	1.0	1.8
WELL 52	4/26/2022	3.7	0.5 U	0.8	1.7
WELL 52	5/3/2022	3.1	NA	NA	NA
WELL 52	5/10/2022	4.0	0.5 U	0.9	1.8
WELL 52	5/17/2022	6.6	0.5 U	0.9	1.8
WELL 52	5/24/2022	3.3	0.5 U	0.9	1.8
WELL 52	5/31/2022	3.2	0.5 U	1.0	1.9
WELL 52	6/7/2022	4.2	0.5 U	1.0	2.0
WELL 52	6/14/2022	3.3	0.5 U	1.1	1.9
WELL 52	6/21/2022	3.2	0.5 U	1.0	1.9
WELL 52	6/28/2022	3.5	0.5 U	0.9	1.8
WELL 52	7/5/2022	3.4	0.5 U	1.0	2.0
WELL 52	7/12/2022	3.7	0.5 U	1.0	1.9
WELL 52	7/19/2022	3.3	0.5 U	0.9	1.8
WELL 52	7/26/2022	2.4	0.5 U	1.1	2.0
WELL 52	8/2/2022	2.8	0.5 U	0.8	1.6
WELL 52	8/9/2022	3.6	0.5 U	0.8	1.6
WELL 52	8/16/2022	3.2	0.5 U	1.0	1.8
WELL 52	8/23/2022	3.6	0.5 U	0.9	1.8
WELL 52	8/30/2022	3.2	0.5 U	1.0	1.8
WELL 52	9/6/2022	3.4	0.5 U	1.0	1.9
WELL 52	9/13/2022	4.3	0.5 U	1.1	2.0
WELL 52	9/20/2022	4.0	0.5 U	1.2	2.2
WELL 52	9/28/2022	3.5	0.5 U	0.9	1.7
WELL 52	10/4/2022	3.1	0.5 U	0.9	1.8
WELL 52	10/11/2022	3.0	0.5 U	0.9	1.7
WELL 52	10/25/2022	3.3	0.5 U	0.8	1.9
RUBIO CANON LAND & WATER ASSOCIATION WELL 04					
RCLW#4	4/5/2021	4.0 U	NA	NA	NA
RCLW#4	4/12/2021	4.0 U	NA	4.5	NA
RCLW#4	4/19/2021	4.0 U	NA	NA	NA
RCLW#4	4/26/2021	4.0 U	NA	NA	NA
RCLW#4	5/3/2021	4.0 U	NA	NA	NA
RCLW#4	5/10/2021	4.0 U	NA	NA	NA
RCLW#4	5/17/2021	4.0 U	NA	NA	NA
RCLW#4	5/24/2021	4.0 U	NA	NA	NA
RCLW#4	4/4/2022	NA	NA	1.0	NA
RCLW#4	5/4/2022	2.0 U	0.5 U	1.2	0.6
RCLW#4	5/9/2022	2.0 U	NA	NA	NA
RCLW#4	5/16/2022	2.0 U	NA	NA	NA
RCLW#4	5/23/2022	2.0 U	NA	NA	NA
RCLW#4	5/31/2022	2.0 U	NA	NA	NA

Purveyor, Well Name	Sample Date	Perchlorate	Carbon tetrachloride	PCE	TCE
RCLW#4	6/6/2022	2.0 U	NA	NA	NA
RCLW#4	6/13/2022	2.0 U	NA	NA	NA
RCLW#4	6/20/2022	2.0 U	NA	NA	NA
RCLW#4	6/27/2022	2.0 U	NA	NA	NA
RCLW#4	7/5/2022	2.0 U	NA	11.0	NA
RCLW#4	7/11/2022	2.0	NA	NA	NA
RCLW#4	7/14/2022	NA	NA	7.3	NA
RCLW#4	7/18/2022	2.0 U	NA	NA	NA
RCLW#4	7/25/2022	2.0 U	NA	NA	NA
RCLW#4	8/1/2022	NA	NA	1.7	NA
RCLW#4	8/8/2022	2.0 U	NA	NA	NA
RCLW#4	8/15/2022	2.1	NA	NA	NA
RCLW#4	8/22/2022	2.0 U	NA	NA	NA
RCLW#4	8/29/2022	2.4	NA	NA	NA
RCLW#4	9/6/2022	2.0	NA	2.7	NA
RCLW#4	9/12/2022	2.3	NA	NA	NA
RCLW#4	9/19/2022	2.6	NA	NA	NA
RCLW#4	9/26/2022	2.0 U	NA	NA	NA
RCLW#4	10/3/2022	2.6	0.5 U	3.7	0.9
RCLW#4	10/11/2022	2.2	NA	NA	NA
RCLW#4	10/18/2022	2.1	NA	NA	NA
RCLW#4	10/24/2022	2.0 U	NA	NA	NA
RCLW#4	10/31/2022	2.2	NA	NA	NA
RUBIO CANON LAND & WATER ASSOCIATION WELL 07					
RCLW#7	4/4/2022	NA	NA	1.0	NA
RCLW#7	5/4/2022	2.0 U	0.5 U	1.2	0.6
RCLW#7	5/9/2022	2.0 U	NA	NA	NA
RCLW#7	5/16/2022	2.0 U	NA	NA	NA
RCLW#7	5/23/2022	2.0 U	NA	NA	NA
RCLW#7	5/31/2022	2.0 U	NA	NA	NA
RCLW#7	6/6/2022	2.0 U	NA	NA	NA
RCLW#7	6/13/2022	2.0 U	NA	NA	NA
RCLW#7	6/20/2022	2.0 U	NA	NA	NA
RCLW#7	6/27/2022	2.0 U	NA	NA	NA
RCLW#7	5/4/2022	2.3	0.5 U	2.7	0.5 U
RCLW#7	5/9/2022	2.2	NA	NA	NA
RCLW#7	5/16/2022	2.3	NA	NA	NA
RCLW#7	5/23/2022	2.0 U	NA	NA	NA
RCLW#7	5/31/2022	2.0 U	NA	NA	NA
RCLW#7	6/6/2022	2.0 U	NA	NA	NA
RCLW#7	6/13/2022	2.3	NA	NA	NA
RCLW#7	6/20/2022	2.0 U	NA	NA	NA
RCLW#7	6/27/2022	2.0 U	NA	NA	NA
RCLW#7	7/5/2022	2.3	NA	1.0	NA
RCLW#7	7/11/2022	2.3	NA	NA	NA
RCLW#7	7/18/2022	2.5	NA	NA	NA
RCLW#7	7/25/2022	2.9	NA	NA	NA
RCLW#7	8/8/2022	2.8	NA	NA	NA
RCLW#7	8/15/2022	3.0	NA	NA	NA

Purveyor, Well Name	Sample Date	Perchlorate	Carbon tetrachloride	PCE	TCE
RCLW#7	8/22/2022	2.2	NA	NA	NA
RCLW#7	8/29/2022	2.1	NA	NA	NA
RCLW#7	9/6/2022	2.9	NA	NA	NA
RCLW#7	9/12/2022	2.0 U	NA	NA	NA
RCLW#7	9/19/2022	2.4	NA	NA	NA
RCLW#7	9/26/2022	2.0	NA	NA	NA
RCLW#7	10/3/2022	2.0 U	NA	0.8	NA
RCLW#7	10/11/2022	2.7	NA	NA	NA
RCLW#7	10/18/2022	2.1	NA	NA	NA
RCLW#7	10/24/2022	2.1	NA	NA	NA
RCLW#7	10/31/2022	2.6	NA	NA	NA
VALLEY WATER CO. WELL 01					
VWC#1	5/5/2021	4.0 U	0.5 U	0.8	1.2
VWC#1	6/2/2021	NA	0.5 U	0.5 U	0.7
VWC#1	7/7/2021	2.9	0.5 U	0.9	0.9
VWC#1	8/3/2021	3.4	0.5 U	0.6	0.8
VWC#1	9/8/2021	3.0	0.5 U	0.7	0.9
VWC#1	10/6/2021	3.2	0.5 U	0.8	0.9
VALLEY WATER CO. WELL 02					
VWC#2	5/5/2021	4.0 U	0.5 U	0.8	0.8
VWC#2	6/2/2021	NA	0.5 U	0.5 U	0.6
VWC#2	7/7/2021	3.1	0.5 U	0.6	0.7
VWC#2	8/3/2021	3.7	0.5 U	0.5 U	0.7
VWC#2	9/8/2021	3.3	0.5 U	0.5 U	0.7
VWC#2	10/6/2021	3.0	0.5 U	0.5 U	0.7
VWC#2	3/2/2022	2.0 U	0.5 U	0.5 U	0.5 U
VWC#2	5/5/2022	2.7	NA	NA	NA
VWC#2	5/6/2022	NA	0.5 U	0.8	1.0
VWC#2	6/22/2022	NA	0.5 U	0.6	0.8
VWC#2	7/8/2022	3.5	0.5 U	0.7	1.0
VWC#2	8/3/2022	3.2	0.5 U	0.7	0.9
VWC#2	9/7/2022	2.9	0.5 U	0.6	0.7
VWC#2	10/3/2022	3.7	0.5 U	0.6	0.8
VALLEY WATER CO. WELL 03					
VWC#3	5/5/2021	4.0 U	0.5 U	1.2	0.7
VWC#3	6/2/2021	NA	0.5 U	0.9	0.6
VWC#3	7/7/2021	3.4	0.5 U	1.6	0.8
VWC#3	8/3/2021	3.9	0.5 U	1.3	0.8
VWC#3	3/2/2022	2.0 U	0.5 U	0.5 U	0.5 U
VWC#3	6/22/2022	NA	0.5 U	0.8	0.5 U
VWC#3	7/8/2022	3.3	0.5 U	1.2	0.6
VWC#3	8/3/2022	2.5	0.5 U	1.0	0.5
VWC#3	9/7/2022	2.5	0.5 U	1.3	0.7
VALLEY WATER CO. WELL 04					
VWC#4	5/5/2021	4.0 U	0.5 U	1.8	1.8
VWC#4	6/2/2021	NA	0.5 U	0.8	1.0
VWC#4	7/7/2021	3.3	0.5 U	1.3	1.2
VWC#4	8/3/2021	3.9	0.5 U	1.0	1.4
VWC#4	5/5/2022	3.5	NA	NA	NA

Purveyor, Well Name	Sample Date	Perchlorate	Carbon tetrachloride	PCE	TCE
VWC#4	5/6/2022	NA	0.5 U	0.9	1.3
VWC#4	6/22/2022	NA	0.5 U	0.6	1.1
VWC#4	7/8/2022	3.3	0.5 U	0.7	1.1
VWC#4	8/3/2022	3.1	0.5 U	0.7	1.1
VWC#4	9/7/2022	2.7	0.5 U	0.8	1.0

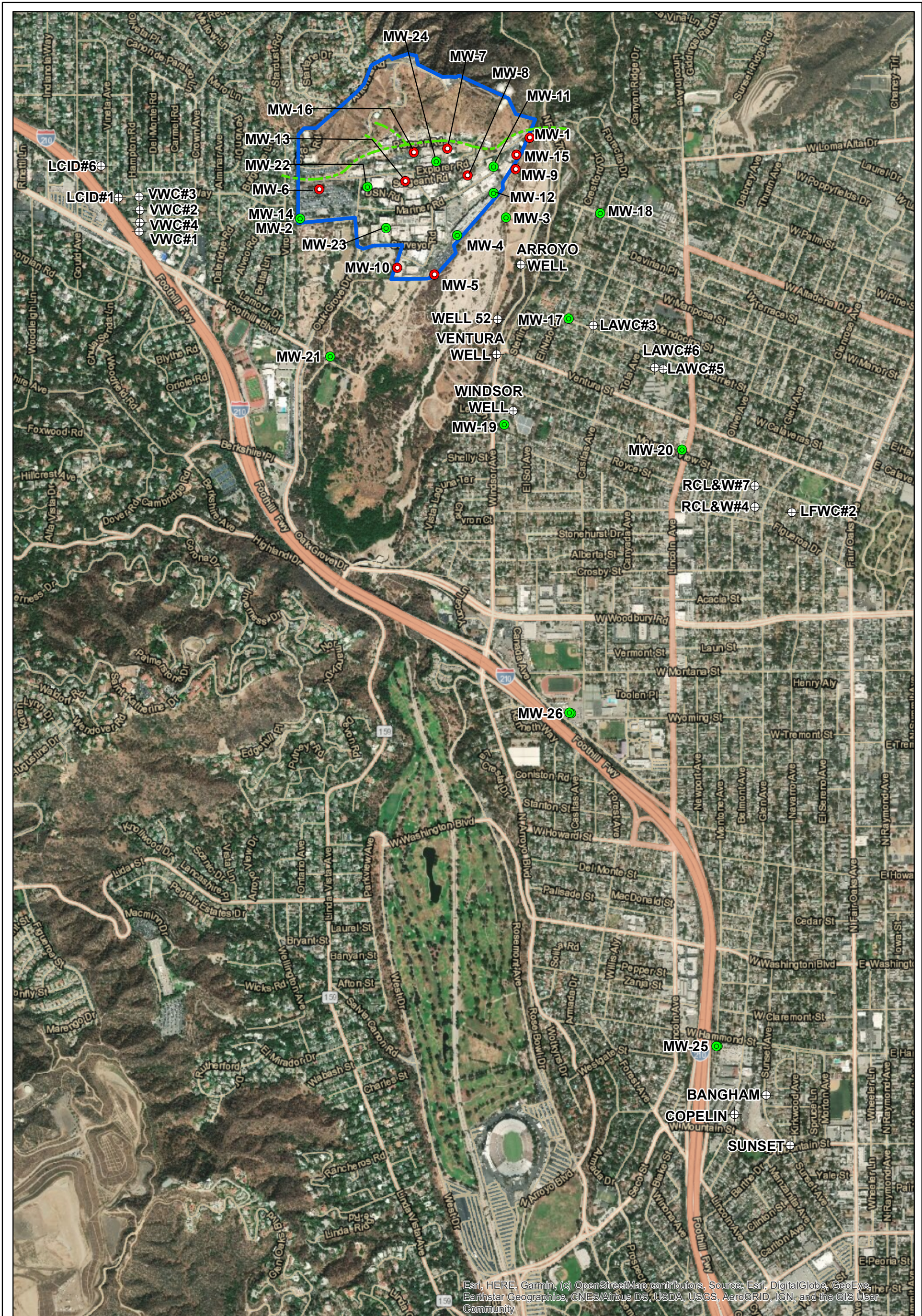
Analyte concentration exceeds the standard for:

CA MCL	6.0	0.5	5.0	5.0
EPA REGION IX MCL	NE	5.0	5.0	5.0

Notes

NA	Not analyzed
NE	Not established
Source	State Water Resources Control Board (Division of Drinking Water) Water Quality Index Database
U	Analyte was analyzed for but not detected at or above the stated limit

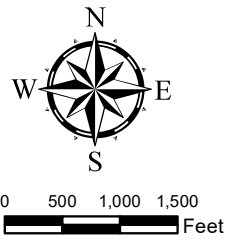
FIGURES



Esri, HERE, Garmin, (c) OpenStreetMap contributors, Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

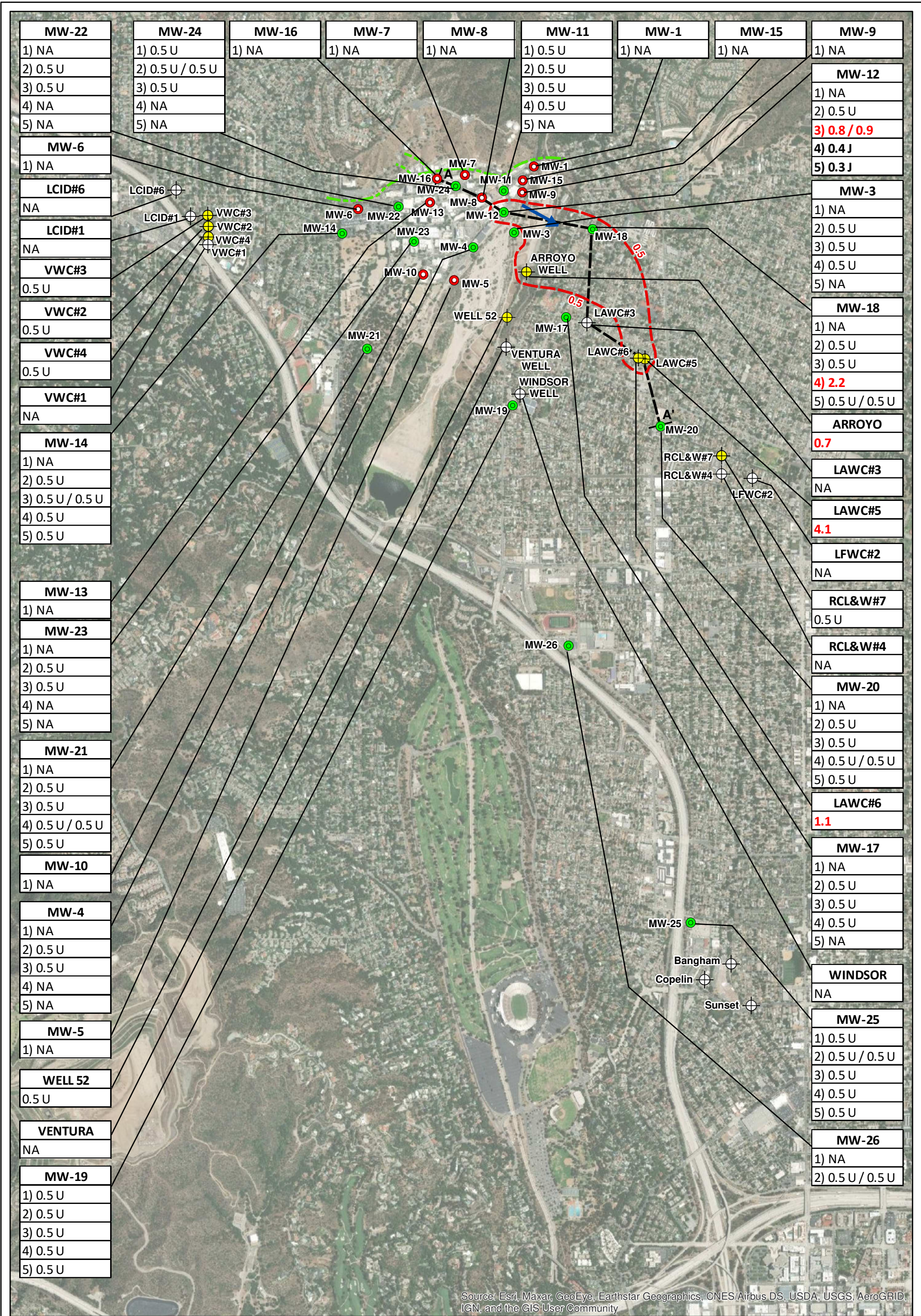
Legend

- Deep Multi-Port Monitoring Well Location
- Shallow Monitoring Well Location
- ⊕ Municipal Production Well
- Approximate Location of Thrust Fault
- JPL Facility Boundary

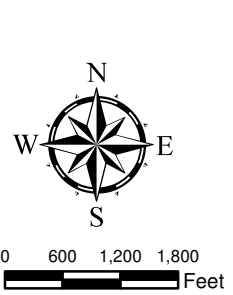


Locations of JPL Groundwater Monitoring Wells and Nearby Municipal Production Wells

DESIGNED BY JHG	JPL - Pasadena, CA	Figure 1
DRAWN BY JHG	Contract No: W912PL-13-D-0018 TO 001	Oct 2019
CHECKED BY DC		



Source: Esri, Maxar, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community



Legend

- Deep Multi-Port Monitoring Well Location
- Shallow Monitoring Well Location
- Municipal Production Well (Data Not Available)
- Municipal Production Well (Data From Jul/Aug 2022)
- Cross-Section Transect A-A'
- Estimated Isoconcentration Line (0.5 µg/L)
- JPL Facility Boundary
- Approximate Location of Thrust Fault
- Groundwater Flow Direction

MW-8
1) 0.5 U

Well ID
Screen number
Concentration in micrograms per liter
J = Detected estimated value
U = Not detected estimated value
NA = Not Analyzed

Bold font indicates detected concentration below the State maximum contaminant level (MCL) of 0.5 micrograms per liter; red font indicates concentration exceeds MCL.



Carbon Tetrachloride in Groundwater July/August 2022

DESIGNED BY JHG	JPL - Pasadena, CA	Figure 2
DRAWN BY JHG		
CHECKED BY DC	Contract No: W912PL22C0003	Mar 2023

MW-22
1) NA
2) 0.5 U
3) 0.5 U
4) NA
5) NA

MW-24
1) 0.5 U
2) 0.5 U / 0.5 U
3) 0.5 U
4) NA
5) NA

MW-16
1) NA

MW-7
1) NA

MW-8
1) NA

MW-11
1) 0.5 U
2) 0.5 U
3) 0.5 U
4) 0.5 U
5) NA

MW-1
1) NA

MW-15
1) NA

MW-9
1) NA

MW-6
1) NA

LCID#6
NA

LCID#1
NA

VWC#3
0.5 U

VWC#2
0.5 U

VWC#4
0.5 U

VWC#1
NA

MW-14
1) NA
2) 0.5 U
3) 0.5 U / 0.5 U
4) 0.5 U
5) 0.5 U

MW-13
1) NA

MW-23
1) NA
2) 0.5 U
3) 0.5 U
4) NA
5) NA

MW-21
1) NA
2) 0.5 U
3) 0.5 U
4) 0.5 U / 0.5 U
5) 0.5 U

MW-10
1) NA

MW-4
1) NA
2) 0.5 U
3) 0.5 U
4) NA
5) NA

MW-5
1) NA

WELL 52
0.5 U

VENTURA
NA

MW-19
1) 0.5 U
2) 0.5 U
3) 0.5 U
4) 0.5 U
5) 0.5 U

MW-12
1) NA
2) 0.5 U
3) 0.8 / 0.9
4) 0.4 J
5) 0.3 J

MW-3
1) NA
2) 0.5 U
3) 0.5 U
4) 0.5 U
5) NA

MW-18
1) NA
2) 0.5 U
3) 0.5 U
4) 2.2
5) 0.5 U / 0.5 U

ARROYO
0.7

LAWC#3
NA

LAWC#5
4.1

LFWC#2
NA

RCL&W#7
0.5 U

RCL&W#4
NA

MW-20
1) NA
2) 0.5 U
3) 0.5 U
4) 0.5 U / 0.5 U
5) 0.5 U

LAWC#6
1.1

MW-17
1) NA
2) 0.5 U
3) 0.5 U
4) 0.5 U
5) NA

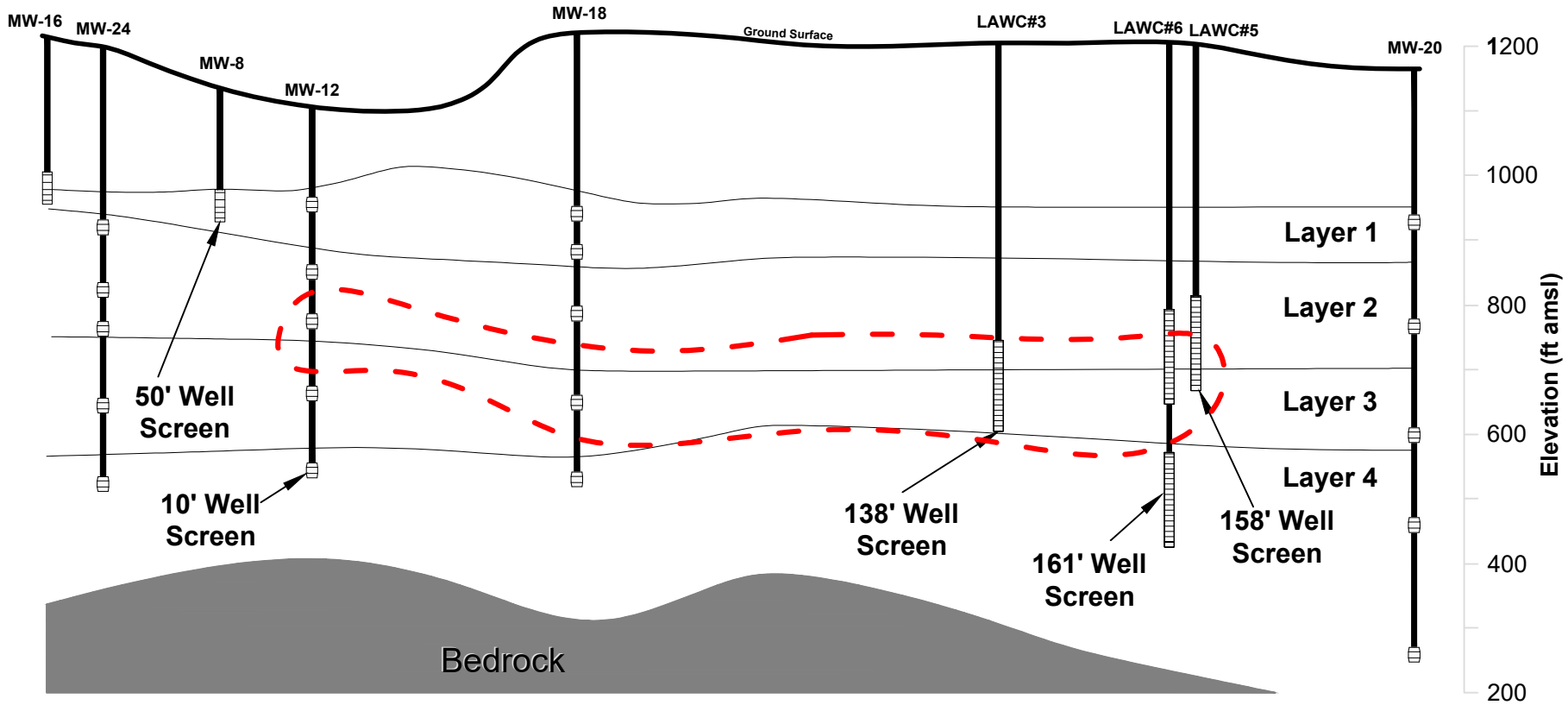
WINDSOR
NA

MW-25
1) 0.5 U
2) 0.5 U / 0.5 U
3) 0.5 U
4) 0.5 U
5) 0.5 U

MW-26
1) NA
2) 0.5 U / 0.5 U

NW

SE



Note: Concentrations are Reported in $\mu\text{g/L}$
 Plume depicted above delineates concentrations
 exceeding state MLC (0.5 $\mu\text{g/L}$)

----- Estimated concentration line (0.5 ug/L)



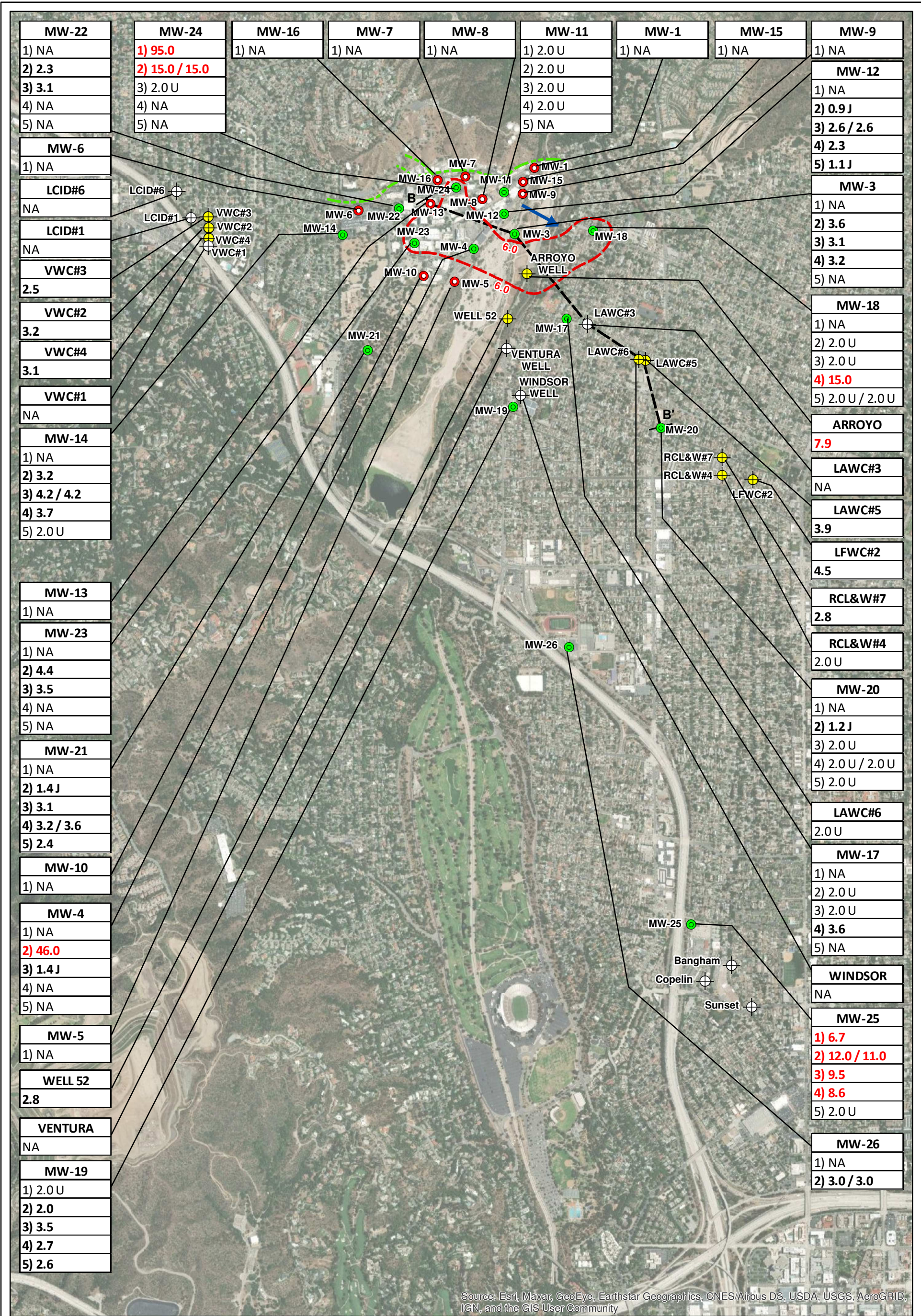
HORIZONTAL SCALE
 IN FEET
 (Approximate)

Z exag: 3.0

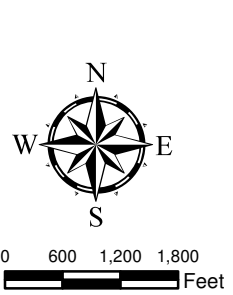


Horizontal and Vertical Extent
 of Carbon Tetrachloride in Groundwater
 July/August 2022

DESIGNED BY	JPL - Pasadena, CA	Figure 3
DRAWN BY		
CHECKED BY	Contract No: W912PL22C0003	Mar 2023
DC		



Source: Esri, Maxar, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community



Legend

- Deep Multi-Port Monitoring Well Location
- Shallow Monitoring Well Location
- Municipal Production Well (Data Not Available)
- Municipal Production Well (Data From Jul/Aug 2022)
- Cross-Section Transect B-B'
- Estimated Isoconcentration Line (6 µg/L)
- Approximate Location of Thrust Fault
- JPL Facility Boundary
- Groundwater Flow Direction

MW-8
1) 0.5 U

Well ID
 Screen number
 Concentration in micrograms per liter
 J = Detected estimated value
 U = Not detected estimated value
 NA = Not Analyzed

Bold font indicates detected concentration below the State maximum contaminant level (MCL) of 6 micrograms per liter; red font indicates concentration exceeds MCL.



Perchlorate in Groundwater July/August 2022

DESIGNED BY JHG	JPL - Pasadena, CA	Figure 4
DRAWN BY JHG	Contract No: W912PL22C0003	Mar 2023
CHECKED BY DC		

MW-22
1) NA
2) 2.3
3) 3.1
4) NA
5) NA

MW-24
1) 95.0
2) 15.0 / 15.0
3) 2.0 U
4) NA
5) NA

MW-16
1) NA

MW-7
1) NA

MW-8
1) NA

MW-11
1) 2.0 U
2) 2.0 U
3) 2.0 U
4) 2.0 U
5) NA

MW-1
1) NA

MW-15
1) NA

MW-9
1) NA

MW-6
1) NA

LCID#6
NA

LCID#1
NA

VWC#3
2.5

VWC#2
3.2

VWC#4
3.1

VWC#1
NA

MW-14
1) NA
2) 3.2
3) 4.2 / 4.2
4) 3.7
5) 2.0 U

MW-13
1) NA

MW-23
1) NA
2) 4.4
3) 3.5
4) NA
5) NA

MW-21
1) NA
2) 1.4 J
3) 3.1
4) 3.2 / 3.6
5) 2.4

MW-10
1) NA

MW-4
1) NA
2) 46.0
3) 1.4 J
4) NA
5) NA

MW-5
1) NA

WELL 52
2.8

VENTURA
NA

MW-19
1) 2.0 U
2) 2.0
3) 3.5
4) 2.7
5) 2.6

MW-12
1) NA
2) 0.9 J
3) 2.6 / 2.6
4) 2.3
5) 1.1 J

MW-3
1) NA
2) 3.6
3) 3.1
4) 3.2
5) NA

MW-18
1) NA
2) 2.0 U
3) 2.0 U
4) 15.0
5) 2.0 U / 2.0 U

ARROYO
7.9

LAWC#3
NA

LAWC#5
3.9

LFWC#2
4.5

RCL&W#7
2.8

RCL&W#4
2.0 U

MW-20
1) NA
2) 1.2 J
3) 2.0 U
4) 2.0 U / 2.0 U
5) 2.0 U

LAWC#6
2.0 U

MW-17
1) NA
2) 2.0 U
3) 2.0 U
4) 3.6
5) NA

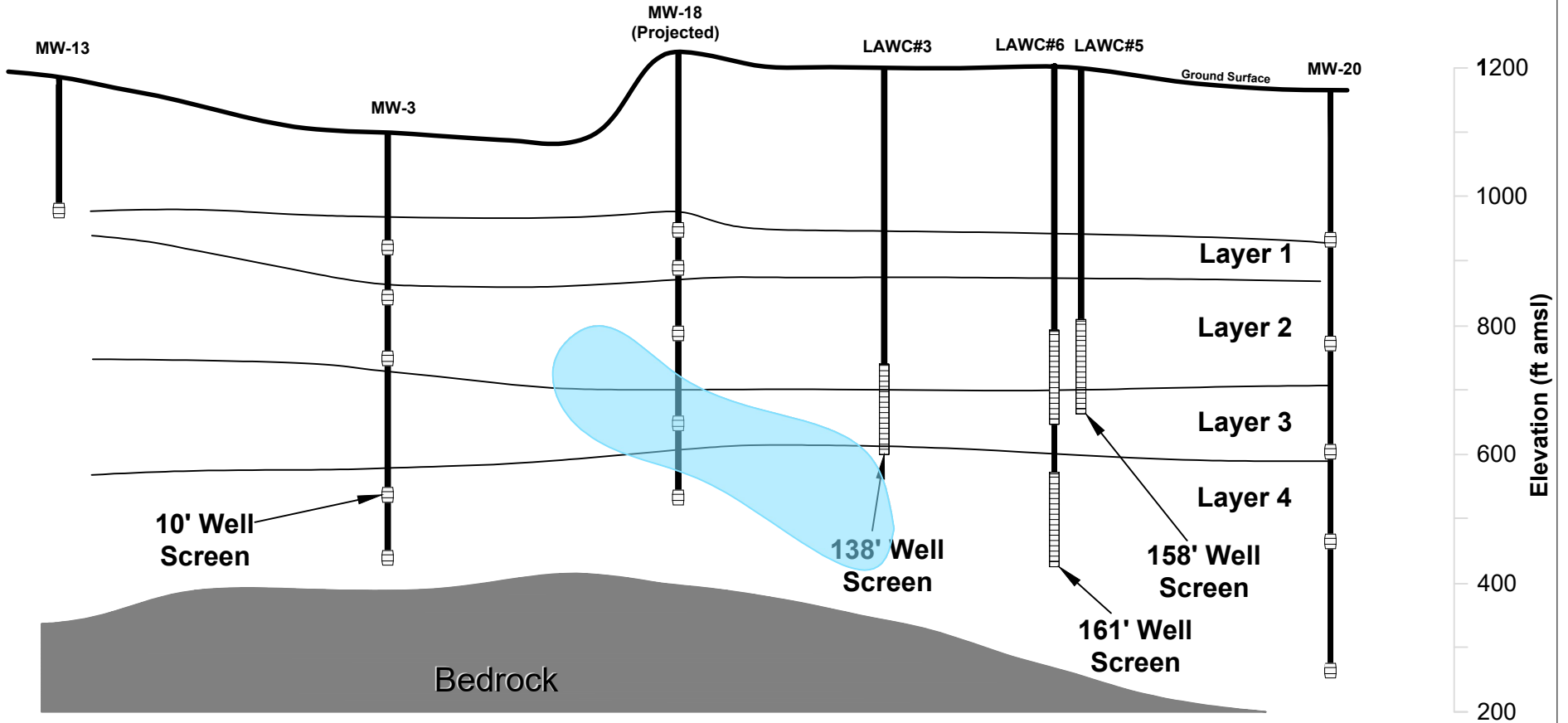
WINDSOR
NA

MW-25
1) 6.7
2) 12.0 / 11.0
3) 9.5
4) 8.6
5) 2.0 U

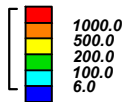
MW-26
1) NA
2) 3.0 / 3.0

NW

SE



Note: Concentrations are Reported in $\mu\text{g/L}$
 Plume depicted above delineates concentrations
 exceeding state MCL ($6.0 \mu\text{g/L}$)



Z exag: 3.0



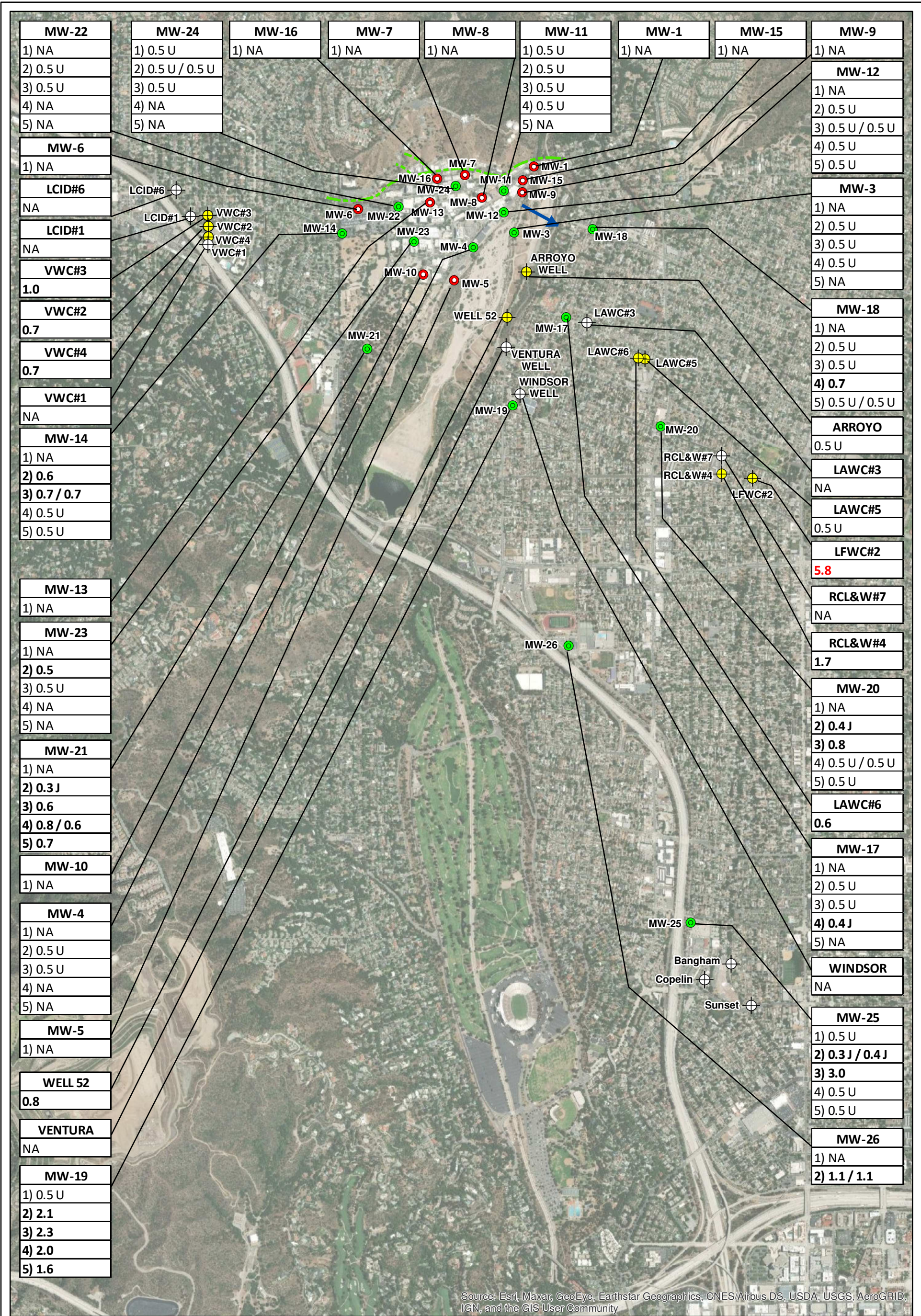
HORIZONTAL SCALE
 IN FEET
 (Approximate)



TIDEWATER INC
ENGINEERS / SCIENTISTS / PROGRAM MANAGERS

Horizontal and Vertical Extent
 of Perchlorate in Groundwater
 July/August 2022

DESIGNED BY JHG	JPL - Pasadena, CA	Figure 5
DRAWN BY JHG		
CHECKED BY DC	Contract No: W912PL22C0003	Mar 2023



Source: Esri, Maxar, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

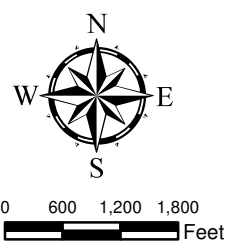
Legend

- Deep Multi-Port Monitoring Well Location
- Shallow Monitoring Well Location
- Municipal Production Well (Data Not Available)
- Municipal Production Well (Data From Jul/Aug 2022)
- Estimated Isoconcentration Line (5 µg/L)
- JPL Facility Boundary
- Approximate Location of Thrust Fault
- Groundwater Flow Direction

MW-8
1) 0.5 U

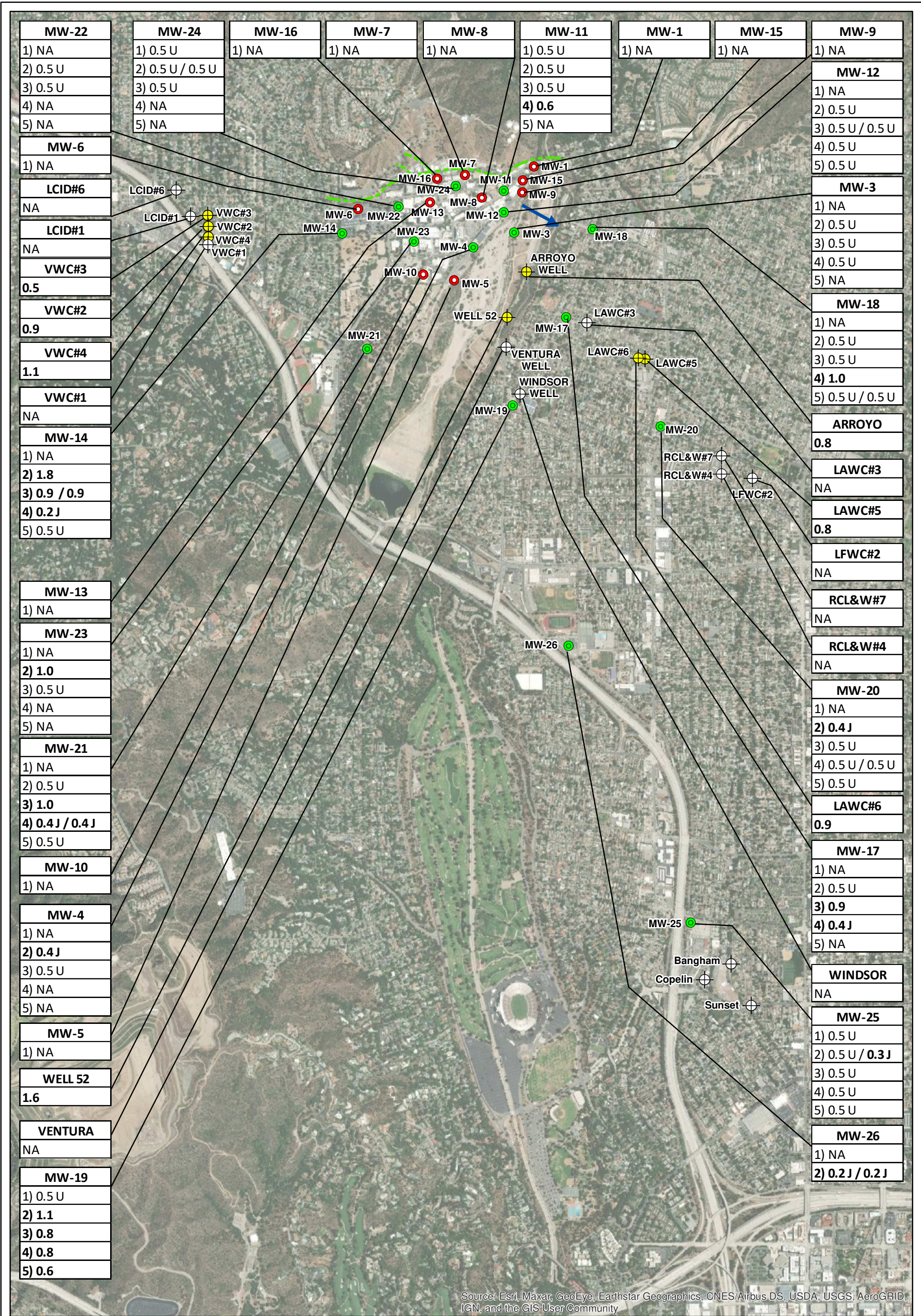
Well ID
 Screen number
 Concentration in micrograms per liter
 J = Detected estimated value
 U = Not detected estimated value
 NA = Not Analyzed

Bold font indicates detected concentration below the State maximum contaminant level (MCL) of 5 micrograms per liter; red font indicates concentration exceeds MCL.

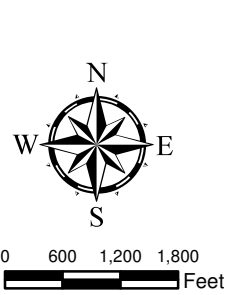


Tetrachloroethene in Groundwater July/August 2022

DESIGNED BY JHG	JPL - Pasadena, CA	Figure 6
DRAWN BY JHG		
CHECKED BY DC	Contract No: W912PL22C0003	Mar 2023



Source: Esri, Maxar, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community



Legend

- Deep Multi-Port Monitoring Well Location
- Shallow Monitoring Well Location
- Municipal Production Well (Data Not Available)
- Municipal Production Well (Data From Jul/Aug 2022)
- Estimated Isoconcentration Line (5 µg/L)
- JPL Facility Boundary
- Approximate Location of Thrust Fault
- Groundwater Flow Direction

MW-8
1) 0.5 U

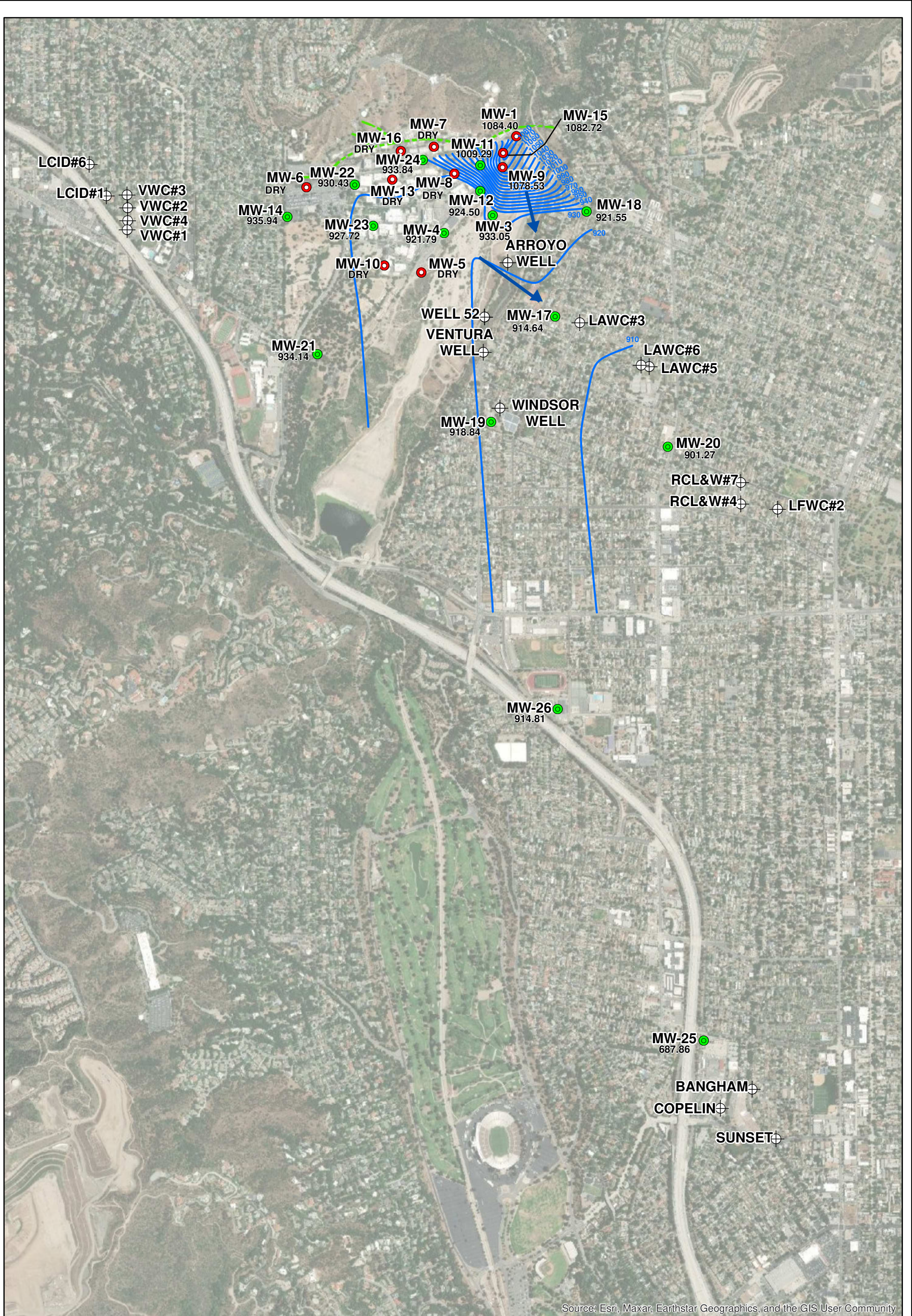
Well ID
 Screen number
 Concentration in micrograms per liter
 J = Detected estimated value
 U = Not detected estimated value
 NA = Not Analyzed

Bold font indicates detected concentration below the State maximum contaminant level (MCL) of 5 micrograms per liter; red font indicates concentration exceeds MCL.



Trichloroethene in Groundwater July/August 2022

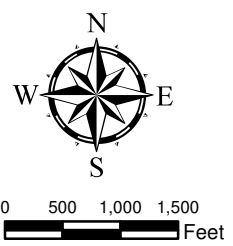
DESIGNED BY JHG	JPL - Pasadena, CA	Figure 7
DRAWN BY JHG		
CHECKED BY DC	Contract No: W912PL22C0003	Mar 2023



Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community

Legend

- Shallow Monitoring Well Location
- Deep Multi-Port Monitoring Well Location
- ⊕ Municipal Production Well
- JPL Facility Boundary
- Approximate Location of Thrust Fault
- ➔ Groundwater Flow Direction
- Groundwater Elevation Contour (ft amsl)



**Groundwater Elevation Contours
July 2022**

DESIGNED BY JHG	JPL - Pasadena, CA	Figure 8
DRAWN BY JHG	Contract No: W912PL22C0003	Mar 2023
CHECKED BY DC		