TECHNICAL MEMORANDUM

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DATE: March 31, 2025

Project No.: 940-80-24-10 350
SENT VIA: EMAIL

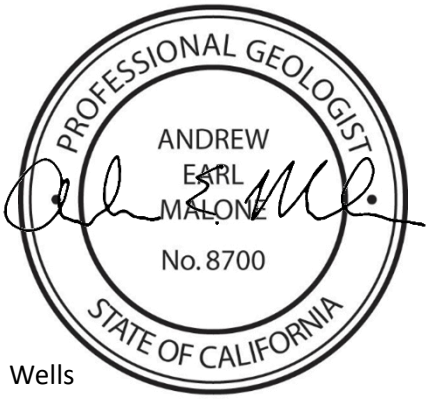
TO: Board of Directors, Borrego Springs Watermaster

CC: Technical Advisory Committee

FROM: Clay Kelty, GIT, Project Geologist

REVIEWED BY: Andy Malone, PG, Principal Geologist

SUBJECT: Expansion of the Borrego Springs Subbasin Groundwater Monitoring Program and Conversion of Inactive/Abandoned Wells



BACKGROUND AND OBJECTIVES

On April 6, 2023, the Watermaster adopted an updated Groundwater Monitoring Plan for the Borrego Springs Subbasin (GWMP) [1] that defined: (1) the wells included in the groundwater monitoring network and (2) the actions and schedule to fill data gaps and improve monitoring documentation and reporting protocols. Per the GWMP, groundwater-level and groundwater-quality monitoring is performed semi-annually in the spring and fall each year. Generally, the main objectives of the monitoring program are to collect the data that can be used to:

- Demonstrate progress toward meeting the Sustainability Goal of the Groundwater Management Plan (GMP), which is to ensure that by 2040 the Borrego Springs Subbasin (Basin) is operated within its Sustainable Yield without causing Undesirable Results. The main Undesirable Results to be avoided are the significant and unreasonable occurrences of the following Sustainability Indicators[2]: chronic lowering of groundwater levels; reduction in groundwater storage; and degradation of groundwater quality.
- Inform adaptive management to achieve the Sustainability Goal.
- Improve the Borrego Valley Hydrologic Model (BVHM) in a cost-effective manner that offers the most benefit for the resources expended.

The GWMP identified and recommended areas for additional monitoring to improve the monitoring programs. Filling these data gaps and expanding the groundwater monitoring networks will improve the understanding of the hydrogeology of the Basin by improved characterization of: seasonal and long-term trends in groundwater quality and groundwater levels; the effects of recharge and GMP

[1] Available on the Watermaster's website at: https://borregospringswatermaster.com/wp-content/uploads/2023/04/R-BSW-Groundwater-Monitoring-Program-FINAL-20230411.pdf

[2] "Sustainability Indicator" refers to any of the effects caused by groundwater conditions occurring throughout the Basin that, when significant and unreasonable, cause undesirable results (California Water Code Section 10721(x)).

implementation on groundwater levels and quality, and the areal and depth-specific distribution of groundwater quality, groundwater elevations, groundwater-flow directions, and hydraulic gradients.

To implement the recommended improvements to the groundwater monitoring network, the GWMP identified three primary methods to add a well to the monitoring network: (1) using an existing pumping well; (2) converting an abandoned well into a monitoring well; and (3) constructing a new monitoring well. Expanding the groundwater monitoring network during the first two years of implementation of the GWMP has focused on (1) using existing wells in the Basin and (2) converting abandoned wells[3] into monitoring wells.

To expand the groundwater monitoring network, the Watermaster used funding from the California Department of Water Resources (DWR) Sustainable Groundwater Management (SGM) grant. The DWR SGM grant allocated $237,000 under Category C for *Task 5: Identify and Address Improperly Abandoned Wells* and *Task 3: Construction Management* (to support Task 5). SGM grant funding was used to accomplish the following objectives:

1. Expand the Watermaster's groundwater monitoring network to fill in data gaps identified in the GWMP.
2. Improve the longevity of existing wells in the groundwater monitoring program.

This technical memorandum (TM) describes the Watermaster's initial groundwater monitoring program as described in the GWMP, the efforts related to expanding and improving the groundwater monitoring network using SGM funding, and the Watermaster's current groundwater monitoring network (as of March 2025) upon completion of this project.

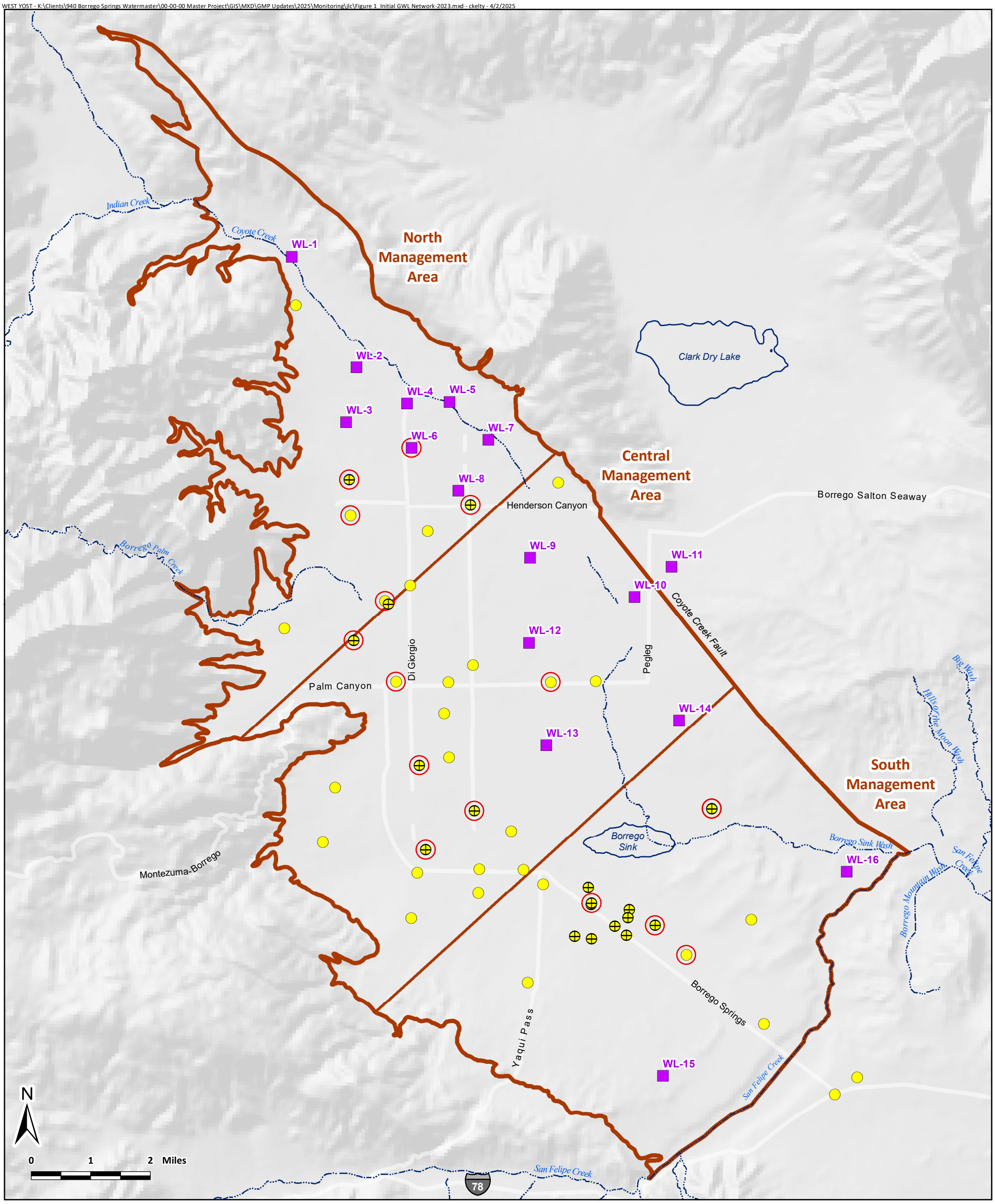
INITIAL GROUNDWATER MONITORING PROGRAM (WY 2023)

Wells included in the initial groundwater monitoring network were incorporated from previous monitoring networks established by the Borrego Water District (BWD), the County of San Diego, DWR, and United States Geological Survey (USGS). The wells included in the initial groundwater monitoring network are shown on Figure 1 (groundwater-level monitoring) and Figure 2 (groundwater-quality monitoring). Figures 1 and 2 also identify the recommended areas for additional monitoring as identified in the GWMP. As shown on Figures 1 and 2, the initial monitoring network included:

- 48 wells monitored for groundwater-levels (Figure 1). Of these 48 wells:
  - 29 wells have groundwater-level measurements collected manually in the spring and fall of each year.
  - 19 wells have groundwater-level measurements collected at a high frequency interval (once every 15 minutes to 1 hour) using a pressure transducer with an integrated data logger.
- 16 general locations where additional groundwater-level monitoring is recommended.
- 29 wells monitored for groundwater-quality (Figure 2).
- 20 general locations where additional groundwater-quality monitoring is recommended.

[3] Abandoned wells are defined in the DWR Well Standards as wells that have "not been used for one year, unless the owner demonstrates intention to use the well again." DWR. California Well Standards, Chapter 21. Definition of Abandoned Well. Available at: Part III. Destruction of Water Wells (ca.gov)

WEST YOST - K:\Clients\940 Borrego Springs Watermaster\00-00-00 Master Project\GIS\MXD\GMP Updates\2025\Monitoring\jlc\Figure 1_Initial GWL Network-2023.mxd - ckelty - 4/2/2025



Wells in Groundwater-Level Monitoring Network

Representative Monitoring Site

Monitoring Frequency (symbol size)

15-minutes

Semi-Annual

Areas of Recommended Additional Water-Level Monitoring

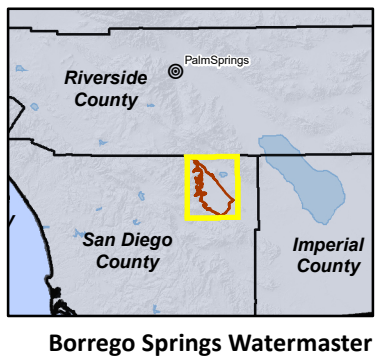


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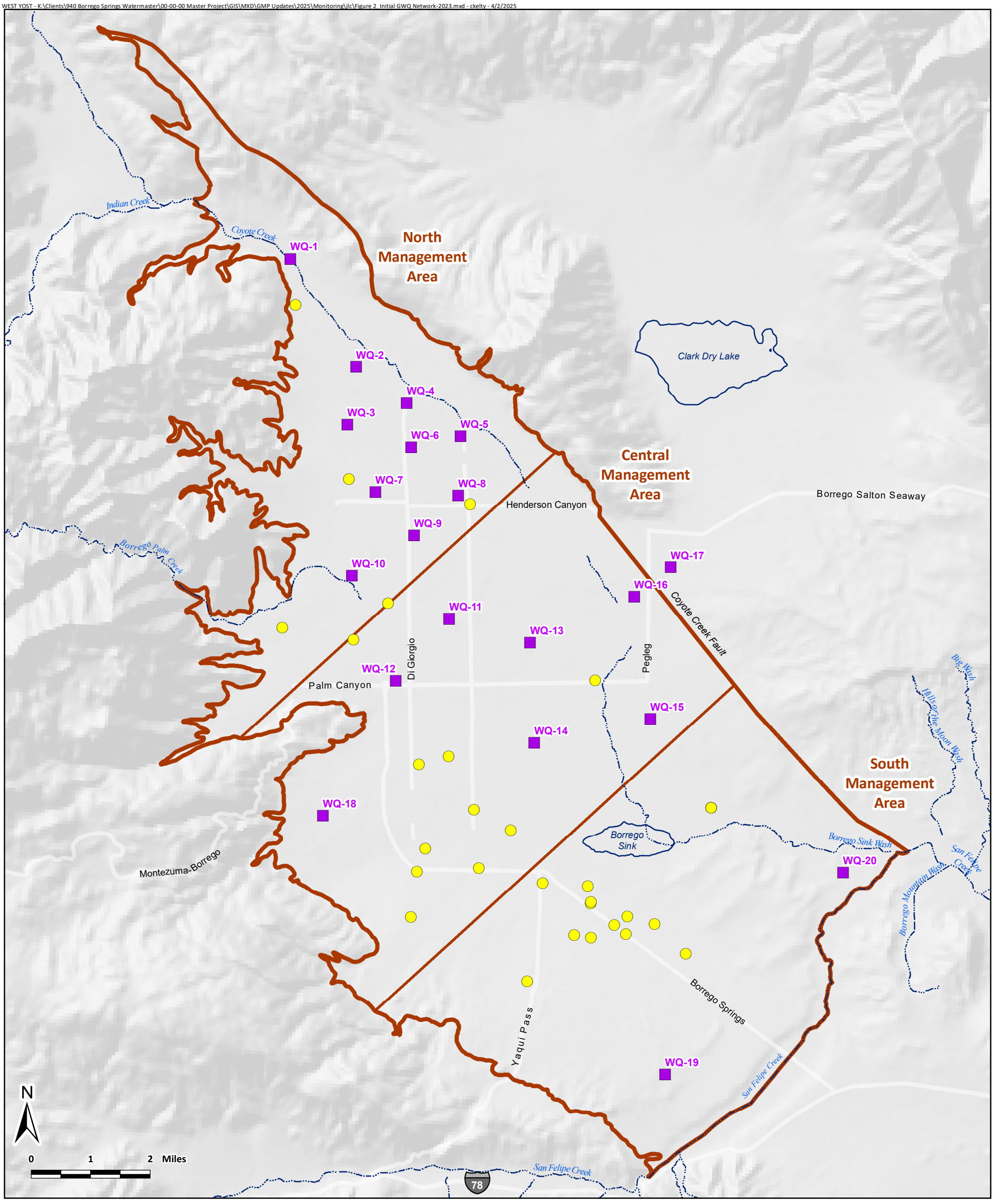
Figure 1

Watermaster's Initial Groundwater-Level Monitoring Network (WY 2023)



Wells in Groundwater-Quality Monitoring Network

Areas of Recommended Additional Water-Quality Monitoring

- Area Filled with Monitoring Well
- Area Remains Unfilled

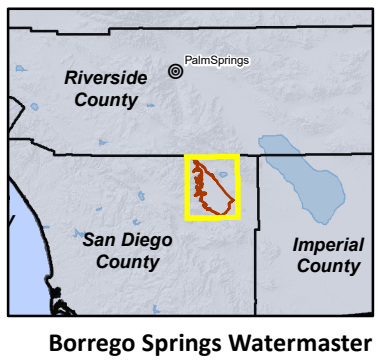


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Figure 2

Watermaster's Initial Groundwater-Quality Monitoring Network (WY 2023)

APPROACH TO EXPAND AND IMPROVE THE GROUNDWATER MONITORING NETWORK

To expand and improve the Watermaster's groundwater monitoring network of wells, the following approach was developed and executed:

- **Performed desktop and field investigations** to identify: (1) wells in the current monitoring network in need of rehabilitation and/or securing and (2) existing wells in the Basin that could be added to the monitoring networks to fill data gaps.
- **Performed public outreach and executed entry agreements** with well owners to: (1) identify potential new candidate wells to add to the monitoring network and (2) obtain access to their wells to conduct well conversion activities (if any) and semi-annual monitoring activities.
- **Developed well conversion workplans** for the wells that required rehabilitation, conversion and/or securing activities.
- **Performed field work to rehabilitate, convert, and/or secure wells** based on the well conversion workplans. A brief description of the type of field work performed and discussed throughout this TM is provided below:
  - Well **rehabilitation** was performed to extend the lifespan of monitoring wells (often performed on older wells). Well rehabilitation typically included pumping or bailing the well to remove obstructions, sediment, or oil within the well.
  - Well **conversion** activities were performed to convert an abandoned well into a monitoring well. Well conversion activities typically included: removing downhole pumping equipment; video logging the well casing to document the well screen intervals and conditions; installing new well head access points to allow for groundwater-level monitoring and/or low-flow groundwater-quality sampling; and/or installing transducers to measure groundwater levels.
  - Well **securing** activities were performed at the well head to make a well safer and protect groundwater. These activities were performed on both existing monitoring wells and wells converted into monitoring wells. Well securing activities included: installing locking well caps; improving the well head; installing a concrete pad around the well head; and installing bollards to physically protect the well head.
- **Performed well inspections** of the converted, rehabilitated, and/or secured wells. The final well inspections were performed by a California-licensed Professional Geologist.
- **Added the well to monitoring network and began semi-annual monitoring of groundwater levels or quality**. The rehabilitated, secured, and converted wells (along with the newly identified wells in the Basin that required no modifications) were added to the monitoring network and monitored during the Spring 2025 semi-annual monitoring event.

Each step listed above is described in the more detail below.

Performed Desktop and Field Investigations

To help identify wells that could fill monitoring gaps, Watermaster sought to identify all wells in the Basin that could be potential candidates for monitoring wells. To do so, Watermaster engaged with the public and the pumpers in the Basin to identify well candidates and solicit well owners to participate in the monitoring program. To assist this effort, public outreach materials were developed for distribution. The public outreach materials are listed below and are available on the Watermaster's website:[4]

1. Letter to Request Participation
2. Potential Participant Information Form
3. Map of the Current Groundwater Monitoring Network
4. Frequently Asked Questions

With the help of the Borrego Springs community, a total of 67 candidate wells were identified in the Basin. A desktop assessment of the 67 wells was conducted to evaluate their suitability for inclusion in the groundwater-level and/or groundwater-quality monitoring networks. Where available, well owners shared well construction information for their wells, which was added to the Watermaster's data management system and used to evaluate which wells to pursue as monitoring wells. The study considered factors such as: (1) the location of the well relative to gaps in the monitoring network; (2) the suitability of the well for inclusion in the groundwater-level and/or groundwater-quality monitoring network (i.e. active pumping wells are more appropriate for groundwater-quality monitoring, whereas inactive wells are more appropriate for groundwater-level monitoring); (3) the well construction information (i.e. depth of the screened intervals and aquifer layer(s) monitored by the well); (4) the accessibility of the well; and (5) the willingness of well owners to voluntarily participate.

Based on the results of the desktop assessment, Watermaster staff visited wells deemed as suitable candidates for inclusion in the monitoring network. Four site visits were conducted in the spring and fall of 2023 and 2024 to assess the suitability of the abandoned wells for rehabilitation and/or conversion activities and to assess whether existing wells in the monitoring network need securing to extend their monitoring life. In total, 43 wells were visited during the site visits. The outcomes of the visits were:

- **Eight wells** were suitable candidates and did not require any conversion activities prior to being added to the monitoring network.
- **Five wells** were identified as suitable candidates for monitoring, but only after well securing, rehabilitation, and/or conversion activities occurred.
- **Ten wells** that were part of the current monitoring network needed to be secured or rehabilitated to extend the useful life of the well as a monitoring well.
- **Twenty wells** that were visited were deemed unsuitable for monitoring purposes due to logistical issues (i.e. no connection to power, location, etc.) or lack of approval from the well owner. For private wells that cannot be converted to a monitoring well, SGM grant funding was used to develop outreach materials to notify private well owners that their well is considered abandoned by the State and describe the necessary steps and available resources to properly destroy their well (see Attachment A).

[4] Available on the Watermaster's website at: https://borregospringswatermaster.com/groundwater-monitoring-program/

Additionally, five monitoring wells at the Borrego Landfill were identified as potential candidates to add to the monitoring network. Groundwater-level and groundwater-quality monitoring at five shallow monitoring wells (less than 155 feet deep) is conducted semi-annually during the summer and winter by Geo-Logic Associates at the Borrego Landfill to comply with State regulations and the data are made publicly available via GeoTracker (i.e., the Watermaster will not physically monitor these wells). These wells were added to the monitoring network and Watermaster staff downloaded, processed, and uploaded the groundwater-level and groundwater-quality data from 2005 to 2024 to the Watermaster's data management system. The data will be downloaded annually going forward.

Figure 3 identifies all 43 wells visited during the four site visits, plus the five Borrego Landfill wells. Figure 3 identifies:

- 13 private wells added to the monitoring network and if any modifications (securing, rehabilitation, and/or conversion) were required prior to adding the well to the monitoring network.
- 10 existing wells in the monitoring network that needed to be secured and/or rehabilitated.
- 5 Borrego Landfill wells added to the monitoring network.
- 20 wells visited, but not added to the monitoring network.

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North Management Area

Central Management Area

South Management Area

Clark Dry Lake

Borrego Sink

Henderson Canyon

Palm Canyon

Borrego Salton Seaway

Coyote Creek Fault

Di Giorgio

Pegleg

Borrego Valley

Palm Creek

Montezuma-Borrego

Borrego Springs

Yaqui Pass

Anza-Borrego State Park

San Felipe Creek

78

N

0 1 2 Miles

Status of Wells Considered for the Groundwater Monitoring Program

- Well Visited and Secured (exisiting well in network)
- Well Visited and Added after Conversion
- Well Visited and Added (no work needed)
- Well Not Visited and Added (no work needed)
- Well Visited and Not Added
- Well Not Visted and Not Added

Other Features

- Area of Recommended Additional Water-Level Monitoring
- Area of Recommended Additional Water-Quality Monitoring
- Borrego Springs Subbasin with Management Area Divisions

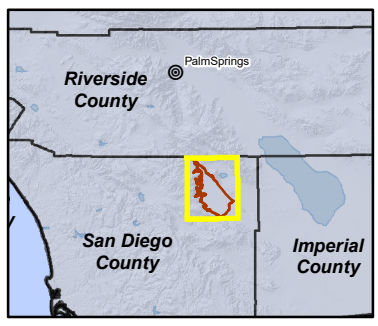

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Figure 3

Wells Evaluated for Inclusion in the Groundwater Monitoring Program

Performed Public Outreach and Executed Entry Agreements

Entry agreements were executed between the Watermaster and the owners of the 13 new private wells added to the Watermaster's monitoring network and the 10 existing wells in the monitoring network in need of improvements.[5,6] These agreements are designed to provide the Watermaster with access to perform any conversion, rehabilitation, and/or securing activity. They also provide long-term access to the well to perform semi-annual monitoring activities, as well as provide protection to well owners from liability for any damage or injury resulting from the Watermaster's entry onto the parcel for monitoring purposes. In some cases, well owners requested their entry agreements also include data confidentiality clauses to ensure the privacy of the well and prevent the well from being publicly identified by name and exact location.

Developed Well Conversion Workplans

For the eight wells that did not require any conversion activities prior to being added to the monitoring network, these wells were added to the monitoring program in water year (WY) 2024 following execution of the entry agreements (i.e. no additional work was performed).

For the remaining 15 wells, additional work was performed. A subcontractor, Well Tec, was hired to perform field work to convert abandoned wells into monitoring wells and to secure existing wells in the monitoring program. Well Tec was issued a Notice of Award to perform the work on August 15, 2024.

Well Tec developed a schedule and drafted site-specific well conversion workplans to rehabilitate, secure, and/or convert abandoned wells into monitoring wells after conducting field visits to the wells with Watermaster staff in Fall 2024.

Performed Field Work to Secure, Rehabilitate, and Convert Wells

Field work was performed from January 20, 2025 through February 18, 2025. A total of 15 wells were secured, rehabilitated, and/or converted (Figure 4). Of these 15 wells, five wells are new to the Watermaster's Monitoring Program. The field work performed included:

- **Secured six inactive/abandoned wells.** Well securing activities are intended to make wells safer for the public and protect groundwater. While 15 wells were secured as part of the field work, at six of the wells, the only activity required was securing. Of the six wells secured:
  - Five wells were already in the Watermaster's Groundwater-Level Monitoring Network (Cameron 2, Bing Crosby, Hayden, MW-1, Hanna-Flowers).
  - One well is new to the Watermaster's Groundwater-Level Monitoring Network (Viking well).
  - Two transducers were installed at the newly secured wells, which are located near Basin boundaries and can potentially improve our understanding of subsurface inflows in these areas (Hayden and Viking wells).

[5] Entry agreements were not required for the Borrego Landfill wells as Watermaster does not enter the property to obtain data. The data is publicly available through GeoTracker.

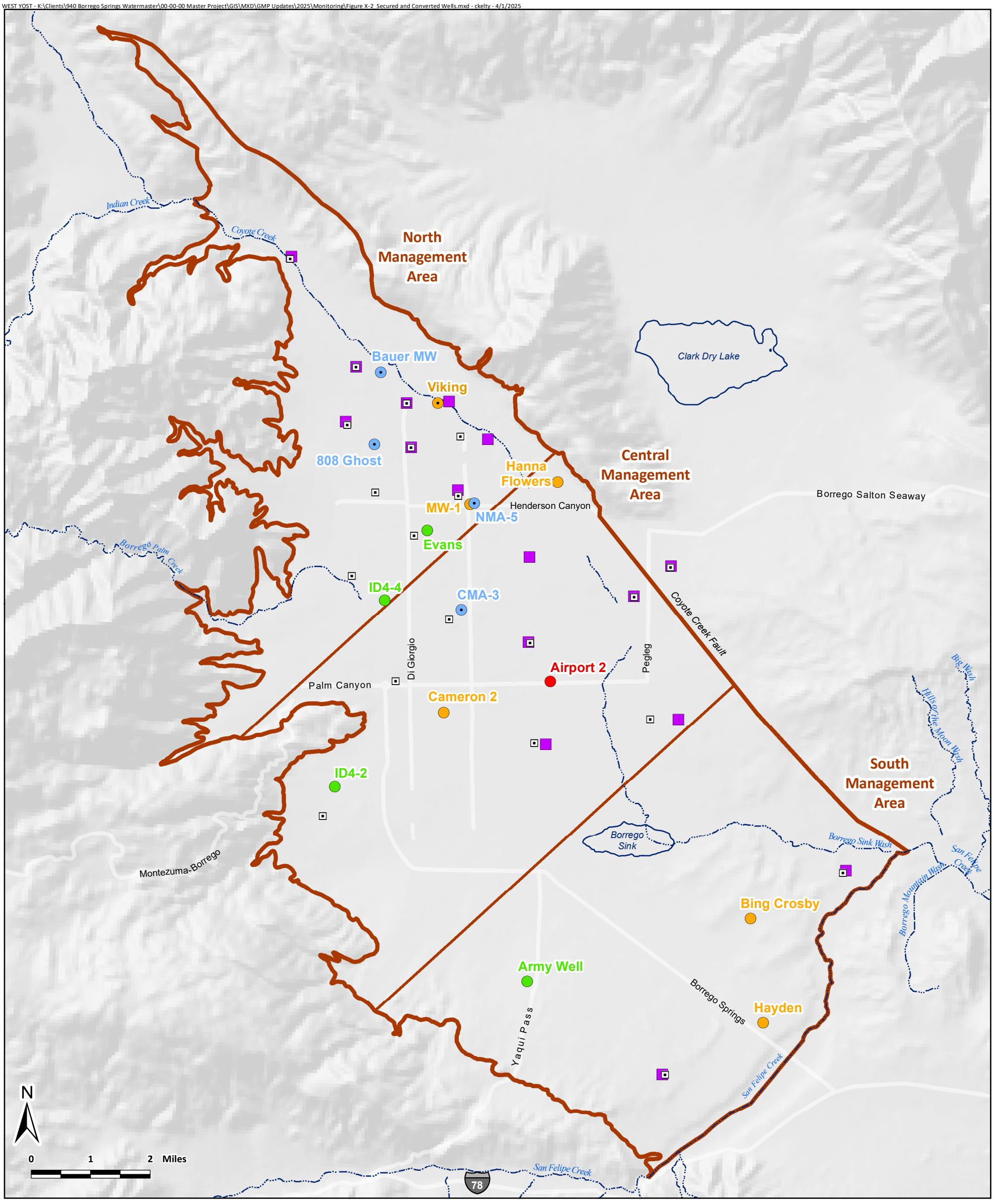
[6] While executing entry agreements, DWR alerted the grantee (BWD) that they had recently had issues with agreements for monitoring at private wells and that the verbal agreement between BWD and prior grant manager may no longer be valid. All executed entry agreements at the time were submitted to DWR Legal Counsel for review. Upon review, DWR deemed the Watermaster's entry agreements acceptable on December 16, 2024. Following DWR approval, the Watermaster completed executing entry agreements with all well owners and submitted the fully executed agreements to DWR.

- **Video logged, rehabilitated, and secured four existing wells in the Groundwater Monitoring Program.** Video logs were taken to document the well depth, screen intervals, and overall condition to determine if any additional work or rehabilitation was needed. Based on the video log results, a rehabilitation workplan was developed and implemented, and the wells were secured. Specifically:
  - Three wells were bailed to remove obstructions, sediment, and/or oil and to restore the original well depth (ID4-2, ID4-4, and Army well). After completing the bailing and rehabilitation activities, all three wells were secured. One of these wells (ID4-2), previously monitored for groundwater levels, had new polyvinyl chloride (PVC) casing installed and is now also monitored for groundwater-quality. This well has been added to the Groundwater-Quality Monitoring Network.
  - One well was in good condition and no rehabilitation activities were required (Evans well). This well was secured.
  - Two transducers were installed at the newly rehabilitated and secured wells (ID4-4 and Army well).
- **Video logged, converted, and secured four wells and added them to the Groundwater Monitoring Program.** Video logs were recorded at four (4) wells previously not in the monitoring program (NMA-5, CMA-3, Bauer MW, 808-Ghost). Well conversion activities at these wells included removing downhole equipment, well-specific rehabilitation, and installing new well head access points for water-level monitoring and/or low-flow water-quality sampling, specifically:
  - Two wells were determined to be in good condition based on the results of video logs, so no additional rehabilitation activities were performed (NMA-5 and CMA-3).[7] Both wells were converted, secured, and added to the Groundwater-Level Monitoring Network.
  - Two wells required additional rehabilitation activities based on the results of video logs. Bailing was performed at 808-Ghost to gain additional depth to water and at Bauer MW to remove oil. Additionally, new PVC casing was installed in 808-Ghost to replace the existing casing that was damaged. After bailing and rehabilitation activities were completed, both wells were secured and added to Groundwater-Level Monitoring Network.
- **Video logged one well in the Groundwater Monitoring Program and recommended proper destruction.** A video log was taken of the Airport 2 well, which has not been able to be monitored by Watermaster staff since fall 2023 due to obstructions in the well. The video log was taken to document the condition of the well and identify the cause of the obstruction. It revealed that the well is in poor condition with collapsed well casing and complete obstruction at approximately fifty (50) feet below ground surface (ft-bgs). Rehabilitation of this well would be expensive and time-consuming; thus, it is recommended that this well be properly destroyed.

Well Tec documented activities at each well in well conversion reports (see Attachment B). These reports include the change in reference point, the date of completion, the video log findings, and the photos taken before, during, and after the conversion activities. At the two wells where new PVC casing was installed, well diagrams are also included in the well conversion reports. These reports were provided to the well owners and submitted to the DWR.

[7] Due to data confidentiality agreements, some wells in the groundwater monitoring program are not identified by name or owner. Instead, they are assigned anonymous names based on their relative location in the Management Area.

WEST YOST - K:\Clients\940 Borrego Springs Watermaster\00-00-00 Master Project\GIS\MXD\GMP Updates\2025\Monitoring\Figure X-2_Secured and Converted Wells.mxd - ckelty - 4/1/2025



Type of Inactive/Abandoned Well Converted and/or Secured

- New well added to Monitoring Program
- Existing well in Monitoring Program

Type of Conversion and/or Securing Activity Performed

- Secure only
- Video Log, Rehab, and Secure
- Video Log, Rehab, Secure and Convert to a Monitoring Well
- Video Log, destruction recommended

Other Features

- Area of Recommended Additional Water-Level Monitoring
- Area of Recommended Additional Water-Quality Monitoring
- Borrego Springs Subbasin with Management Area Divisions

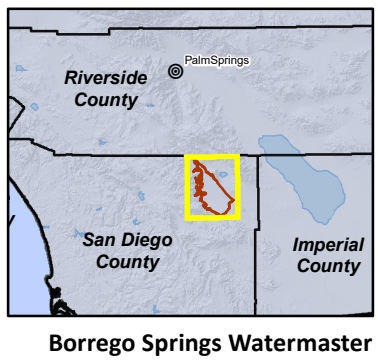


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Figure 4

Inactive/Abandoned Wells Converted and/or Secured in the Basin

Performed Well Inspections

The wells secured, rehabilitated, and converted by Well Tec were inspected and approved by a California-licensed Professional Geologist on February 20, 2025, to ensure compliance with DWR monitoring well standards. The field inspection forms that were signed and stamped by the Professional Geologist specify the type of modification that occurred, the well-specific tasks that were performed, the additional work (if needed) to improve the modified wells, and the date of approval (see Attachment C). Minor repairs identified during the well inspections, such as replacing rubber plugs for sample ports and improving well lid hooks to hang transducers, were addressed from March 16 to 18, 2025.

Upon completion of all work, a Notice of Completion was issued to Well Tec on March 28, 2025 informing them that the work was completed satisfactorily.

Added Wells to the Groundwater Monitoring Program

Compared to the monitoring network in the GWMP (see Figures 1 and 2), a total 21 new wells were added to the monitoring network, including:

- 18 wells identified and added through the efforts described in this memo and funded using SGM funding:
  - 13 private wells
  - Five monitoring wells at the Borrego Landfill
- One new well recently constructed by BWD (an existing participant in the monitoring program). This well is monitored by BWD and data is shared with Watermaster staff semi-annually.
- A multi-depth completion well (two wells) constructed using DWR Technical Support Services (TSS) funding. These wells are monitored by DWR and the data is shared semi-annually with Watermaster staff.

The current groundwater-level and groundwater-quality monitoring networks as of March 2025 are shown on Figures 5 and 6, respectively.

Figures 5 and 6 also show the areas of recommended expanded monitoring that have been filled because of the efforts to date to expand the groundwater-level and groundwater-quality monitoring networks.

The revisions to the groundwater-level monitoring network include:

- There are now 63 wells monitored for groundwater-levels (see Figure 5):
  - 34 wells have groundwater-level measurements collected manually in the spring and fall of each year.
  - 29 wells have groundwater-level measurements collected at a high frequency interval (15 minutes to 1 hour) using a pressure transducer with an integrated data logger.

  - Of the 63 wells, a total of 17 wells are new wells added to the groundwater-level monitoring network as a result of GWMP implementation. 10 wells are located in the North Management Area and 7 wells in the Central Management Area.[8]
- Of the 16 areas recommended for additional monitoring, nine areas were filled through the efforts described herein. Many of the areas in the North Management Area were filled. Seven areas of recommended monitoring remain in the monitoring network, primarily located in the Central and South Management Areas.
- Two wells (White Well and Airport 2) in the initial groundwater-level monitoring network were removed due to obstructions in the well casing that prevented the measurement of groundwater-levels. Removal of these wells from the monitoring network did not result in a new gap in the monitoring network because there are sufficient wells nearby. It is important to note that the Airport 2 well is a Representative Monitoring Well defined in the GMP, so additional efforts were taken to evaluate its condition and attempt to retrofit the well. As described herein, rehabilitation of this well would be expensive, time-consuming, and it is not guaranteed to add significant monitoring life to the well. Thus, staff recommended that this well be properly destroyed by the owner. A new Representative Monitoring well will need to be added to the management program as a result.

The revisions to the groundwater-quality monitoring network include:

- 43 wells are now monitored for groundwater-quality (see Figure 6):
  - A total of 17 wells were added to the groundwater-quality monitoring network. Of the 17 wells added to the monitoring, 7 wells are located in the North Management Area and 10 wells in the Central Management Area.[9]
  - Three wells (ID1-8, Army, and Terry) were removed from the groundwater-quality monitoring network due to 1) a well being taken offline due to water quality concerns, 2) a well with groundwater-levels consistently too low to pump water out, and 3) well access issues.
  - Of the 20 areas recommended for additional monitoring, 11 areas were filled through the efforts described herein. Significant success was achieved in the North Management Area, the area of greatest monitoring need in terms of water quality. Nine areas remain in the monitoring network, primarily located in the Central and South Management Areas.

[8] Of the seven wells added to the groundwater-level monitoring network in the Central Management Area, five of the wells are monitoring wells at the Borrego Springs Landfill.

[9] Of the 7 wells added to the groundwater-quality monitoring network in the Central Management Area, 5 of the wells are monitoring wells at the Borrego Springs Landfill (same set of wells added to the groundwater-level monitoring network).

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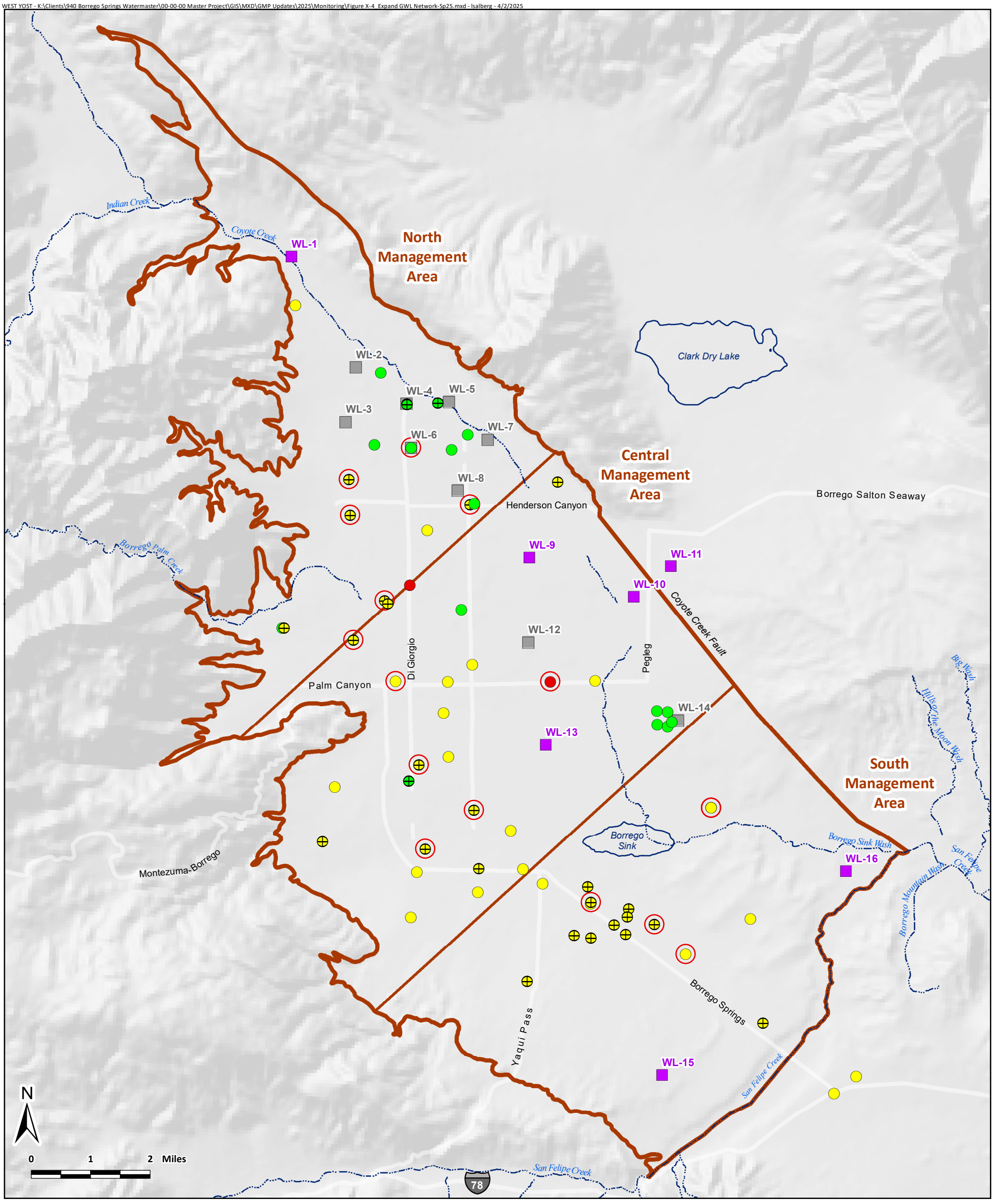

Wells in Groundwater-Level Monitoring Network

- Representative Monitoring Site
- Well Part of Initial Network
- Well Added to Network
- Well Removed from Network

Monitoring Frequency (symbol)

- ⊕ 15-minutes
- ○ Semi-Annual

Areas of Recommended Additional Water-Level Monitoring

- Area Filled with Monitoring Well
- Area Remains Unfilled

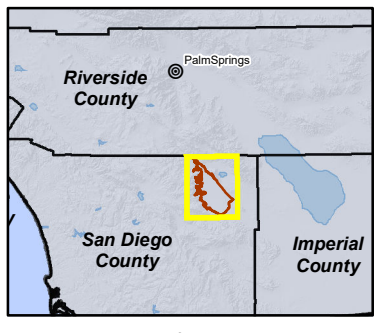

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Figure 5

Watermaster's Expansion of the Groundwater-Level Monitoring Network (WY 2025)

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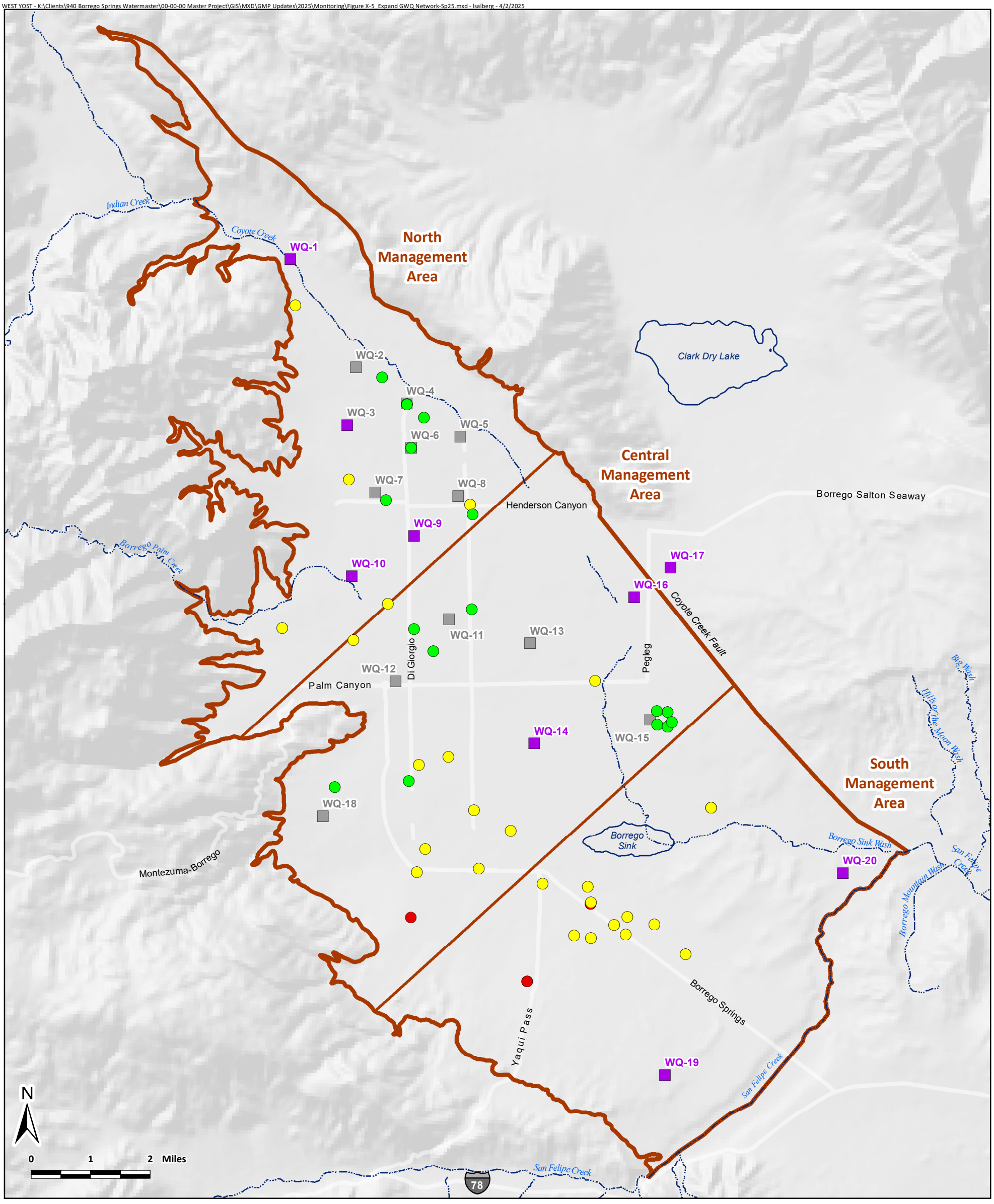

Wells in Groundwater-Quality Monitoring Network

- Well Part of Initial Network
- Well Added to Network
- Well Removed from Network

Areas of Recommended Additional Water-Quality Monitoring

- Area Filled with Monitoring Well
- Area Remains Unfilled

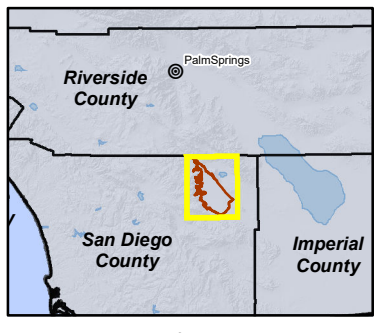

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Figure 6

Watermaster's Expansion of the Groundwater-Quality Monitoring Network (WY 2025)

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WEST YOST

NEXT STEPS

Semi-annually, Watermaster Staff will monitor for groundwater levels and groundwater quality in the spring and fall of each water year and request data from the appropriate cooperators (GeoTracker, BWD, and DWR). All data will continue to be reviewed and assessed against the main objectives of the monitoring program.

For the remaining seven data gaps in the Groundwater-Level Monitoring Network and the nine data gaps in the Groundwater-Quality Monitoring Network, the Watermaster will continue to solicit public interest and identify existing wells in the Basin that could be used as monitoring wells. As needed, Watermaster will consider the construction of new monitoring wells in areas where there are no other options. Additional grant funding will be needed for new monitoring well conversions or construction.

ENCLOSED

Attachment A – Abandoned Wells Flyer
Attachment B – Well Conversion Reports
Attachment C – Field Inspection Reports

Attachment A

Abandoned Wells Flyer

How to Properly Address Abandoned Wells for the Protection of Public Health & Safety

Borrego Springs Watermaster

A well is considered abandoned when it has not been pumped or used for supplying water for at least one year. Oftentimes, abandoned wells are left unsecured and open at the wellhead.

Example of an uncovered Abandoned well

Example of an Abandoned well with pump still intact

Dangers of Abandoned Wells

Abandoned wells can lead to many safety and environmental hazards such as:

- Physical hazards to humans and wildlife at the well head
- Well collapse and sink hole risks
- Debris and contaminants can enter the well at the ground surface and potentially pollute the underlying groundwater basin
- If toxic chemicals reside in an abandoned well, such as oils, such toxic chemicals can also contaminate the groundwater basin
- If the well is constructed across multiple layers of the aquifer system (think of it as a layered cake), the well screens can provide a pathway for cross-contamination between aquifers. An example would be the movement of high nitrate groundwater in a shallow aquifer impacted by septic systems to the deeper, higher quality groundwater.

Regulations for Abandoned Wells

Abandoned wells in Borrego Springs are regulated by the state of California and San Diego County.

State Regulations:
More Information on State of California regulations on wells can be found here: California Health & Safety Code

County Regulations:
More Information on County of San Diego regulations on wells can be found here: Chapter_4_Well_Ordinance.pdf

Options for Addressing Abandoned Wells

There are three potential options to address abandoned wells for well owners in the Borrego Springs Subbasin:

1. Properly destroy the abandoned well in accordance with County regulations
2. Collaborate with the Watermaster to convert the abandoned well into a monitoring well.
3. If intending to use the well in the future, file an Inactive Wells - Intent of Use Declaration Form with DEHQ. Fiscal year 2024-2025 fees: $806 (until June 30, 2025). This will prevent the well from being defined as abandoned.

Process to Properly Destroy a Well

Landowners are responsible for the proper destruction of abandoned wells on their property.

- Inspection: An inspection by a C-57 licensed driller must first be conducted to assess the well's location, condition, construction, and any potential obstructions.
- Obtain a Permit: Obtain a written permit from the San Diego County Department of Environmental Health and Quality (DEHQ). The necessary forms and applications are here. The DEHQ permit will not be issued without a C-57 licensed driller first inspecting and verifying that the well is in good condition.
- Licensed Contractor: Once a thorough inspection is conducted, the well destruction must be performed by the C-57 licensed contractor.
- Filling and Sealing: Proper well destruction typically involves filling and sealing of the well casing. These requirements may vary based on the well location and condition.

How to Properly Address Abandoned Wells for the Protection of Public Health & Safety

Borrego Springs Watermaster

Process for Converting to Monitoring Well

The Borrego Springs Watermaster conducts groundwater monitoring of the Borrego Springs Groundwater Subbasin and is actively looking to expand the monitoring network of wells. If an owner of an abandoned well is interested in volunteering the well for Watermaster monitoring (and thereby avoiding the cost to properly destroy the abandoned well), the following is required*:

Review Watermaster Information. The Borrego Springs Watermaster maintains a webpage here that describes its Groundwater Monitoring Program and opportunities for private well owners to participate in the program.

Notify Borrego Springs Watermaster. Inform the Borrego Springs Watermaster of your interest to participate in the monitoring program by completing and returning a Potential Participant Form.

Provide Well Information. The following information must be submitted to the Watermaster (if available):

- Well Completion Report and/or Well Driller's Log that describe the well construction information (e.g., depth of well screens)
- Historical water-level and/or water-quality data

Conduct Site Visit. The Watermaster will then conduct a site visit to inspect, assess, and document information such as site access, well condition, and current well use.

Obtain Permits:

- **Monitoring Well Permit through the County of San Diego DEHQ.** Once Watermaster has determined the well is appropriate for monitoring, a monitoring well permit must be obtained from the DEHQ by the landowner. Permit approval is not guaranteed and will be based on compliance with applicable regulations and site-specific conditions. If the request is not approved and the well has been abandoned, it must be properly destroyed in accordance with all applicable requirements (see destruction process on page 1).
- **Entry Permit from the Borrego Springs Watermaster.** The Entry Permit is intended to protect the well owner from liability for damage and injury resulting from Watermaster's entry onto the parcel for the purposes of monitoring. At the request of the well owner, a Data Confidentiality Agreement may also be included.

**The Well Owner will be responsible for all costs to convert the monitoring well.*

Additional Resources on Abandoned Wells

- Further details on San Diego County's Requirements for Wells can be found here: https://www.sandiegocounty.gov/content/dam/sdc/deh/lwqd/Chapter_4_Well_Ordinance.pdf
- Information on the San Diego County's DEHQ Monitoring Well Program Permits: https://www.sandiegocounty.gov/content/sdc/deh/lwqd/sam_monitoring_well_page.html#ProgramInformation
- Further details on the destruction of water wells can be found in the California State Department of Water Resources Bulletin No. 74-90:
  - https://water.ca.gov/Programs/Groundwater-Management/Wells/Well-Standards/Combined-Well-Standards/Bulletin-74-90-Intro
  - https://water.ca.gov/Programs/Groundwater-Management/Wells/Well-Standards/Combined-Well-Standards/Water-Destruction
  - https://water.ca.gov/Programs/Groundwater-Management/Wells/Well-Standards/Combined-Well-Standards/Monitoring-Destruction

Want to learn more?
Scan me to visit the Borrego Springs Watermaster Website

Scan to view the Particpant form

Scan to view water.ca.gov

35 YEARS Of Excellence WEST YOST

Attachment B

Well Conversion Reports

Well Conversion Report

Well Name: MW-1
Well ID: 1245897
Coordinates: 33.300674°, -116.349492°
Final Reference Point (RP): 41 1/16 inches above original reference point

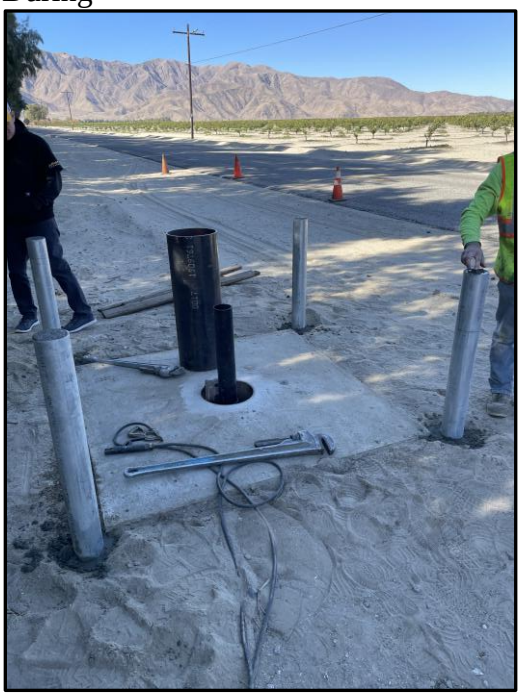
Change in RP: The original RP was on the north side of the casing inside of the well cover. After extending the standpipe and adding a new well lid, the new RP is located at the top of the well cover lock box.

Date Work Completed: January 20, 2025

Work Completed: Removed existing well cover, extended existing casing and documented change in reference point, secured new locking well cover, painted yellow, added 4 bollards.

Before

During



Completed

Well Conversion Report

Well Name: Hanna Flowers
Well ID: 1245873
Coordinates: 33.306155°, -116.323982°
Change in Reference Point (RP): 0.18 ft above original reference point

Change in RP: The original RP was on the north side of the top of the casing. After replacing the well lid, the new RP is located at the top of the well cover lock box.

Date Work Completed: March 16, 2025

Completed Work: Removed existing well cover, documented change in reference point, secured new locking well cover to hang a transducer, painted yellow.

Before

During

Completed

P.O. Box 3375 Beaumont, CA 92223 (909) 754-7020 (951)849-1601 fax Lic. #802369

Well Conversion Report

Well Name: 808 Ghost
Well ID: 1246887
Coordinates: 33.315242°, -116.377365°
Final Reference Point (RP): 26 5/8 inches above original reference point

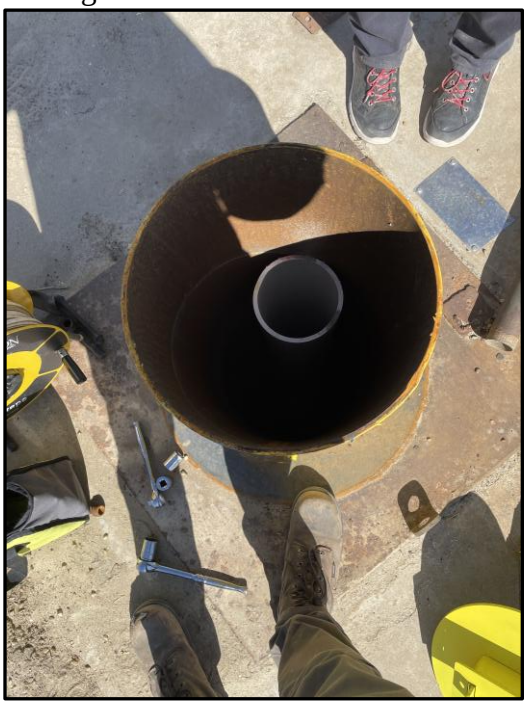
Change in Reference Point (RP): The original RP was on the north side of the top of the casing. After extending the standpipe and adding a new well lid, the new RP is located at the top of the well cover lock box.

Date Work Completed: January 28 & February 12-13, 2025

Completed Work: Removed existing well cover, video logged (report attached), extended existing casing, documented change in reference point, secured new locking well cover, painted yellow, bailed well to depth of 384', installed new 6" PVC casing (see attached well diagram.)

Before

During



Completed

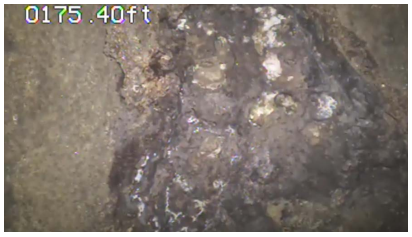
P.O. Box 3375 Beaumont, CA 92223 (909) 754-7020 (951)849-1601 fax Lic. #802369

VIDEO LOG REPORT

Company Name: West Yost
Well Name: 808 Ghost
Location:
City: Borrego Springs
State: CA
Measured From:

Date: January 28, 2025
Depth: 355'
Water Level: 350.55' **Oil?** Little
Operator: Carter **Truck:** Service
Tool Zero:
Reason for Video: Inspection

Depth	Video Findings	Casing / Perforation Information	
170'-190'	Casing falling apart	**Casing Size:**	**Depth**
240'	Looks like casing reduces	14"	355'
240'	Perfs		
240'-280'	Casing is falling apart		
240'	Down build up on pipe to bad had to pull out and		
	make stabilizer smaller		
		Perforation:	
		240'	

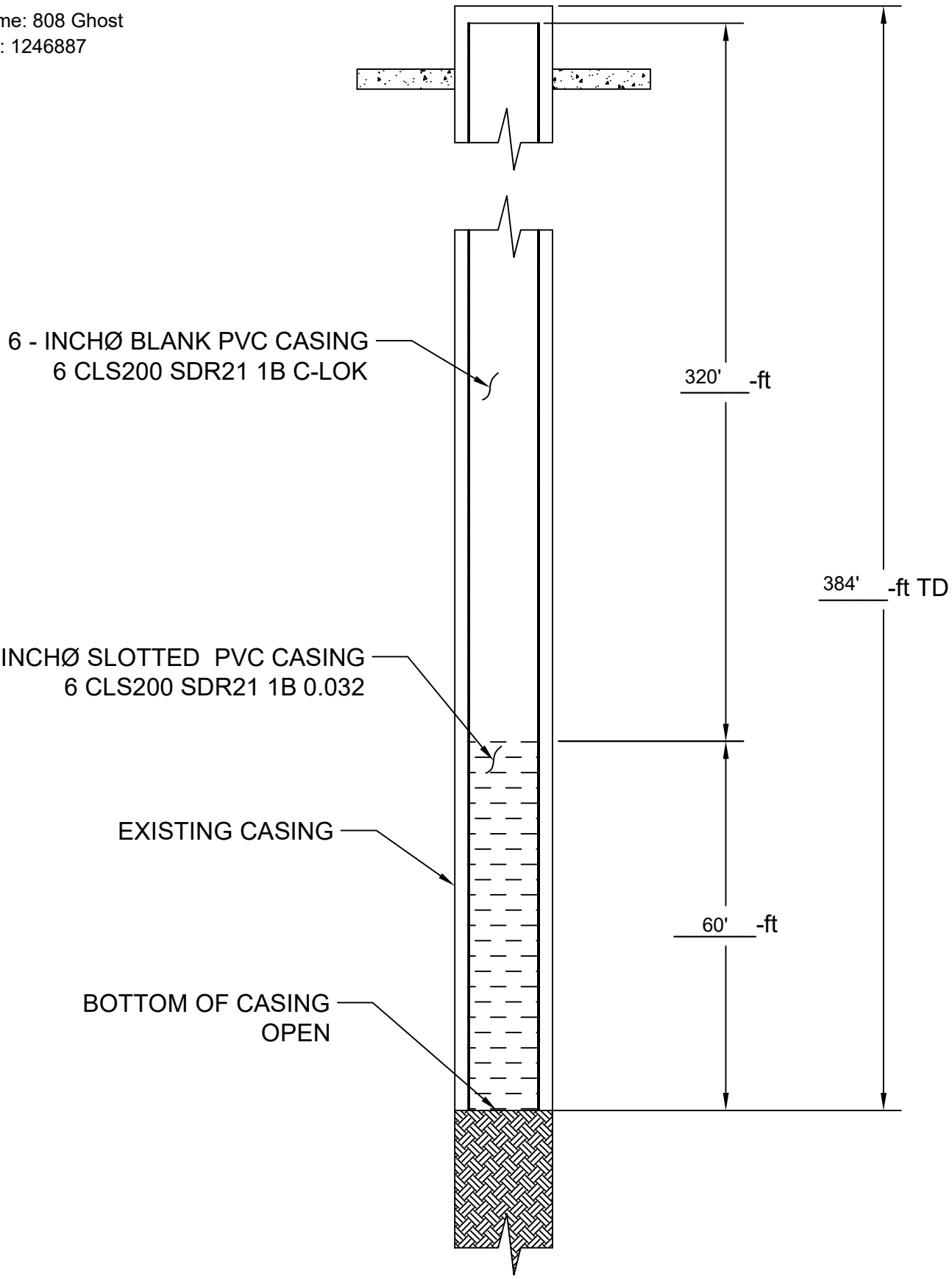


Office: (909) 754-7020

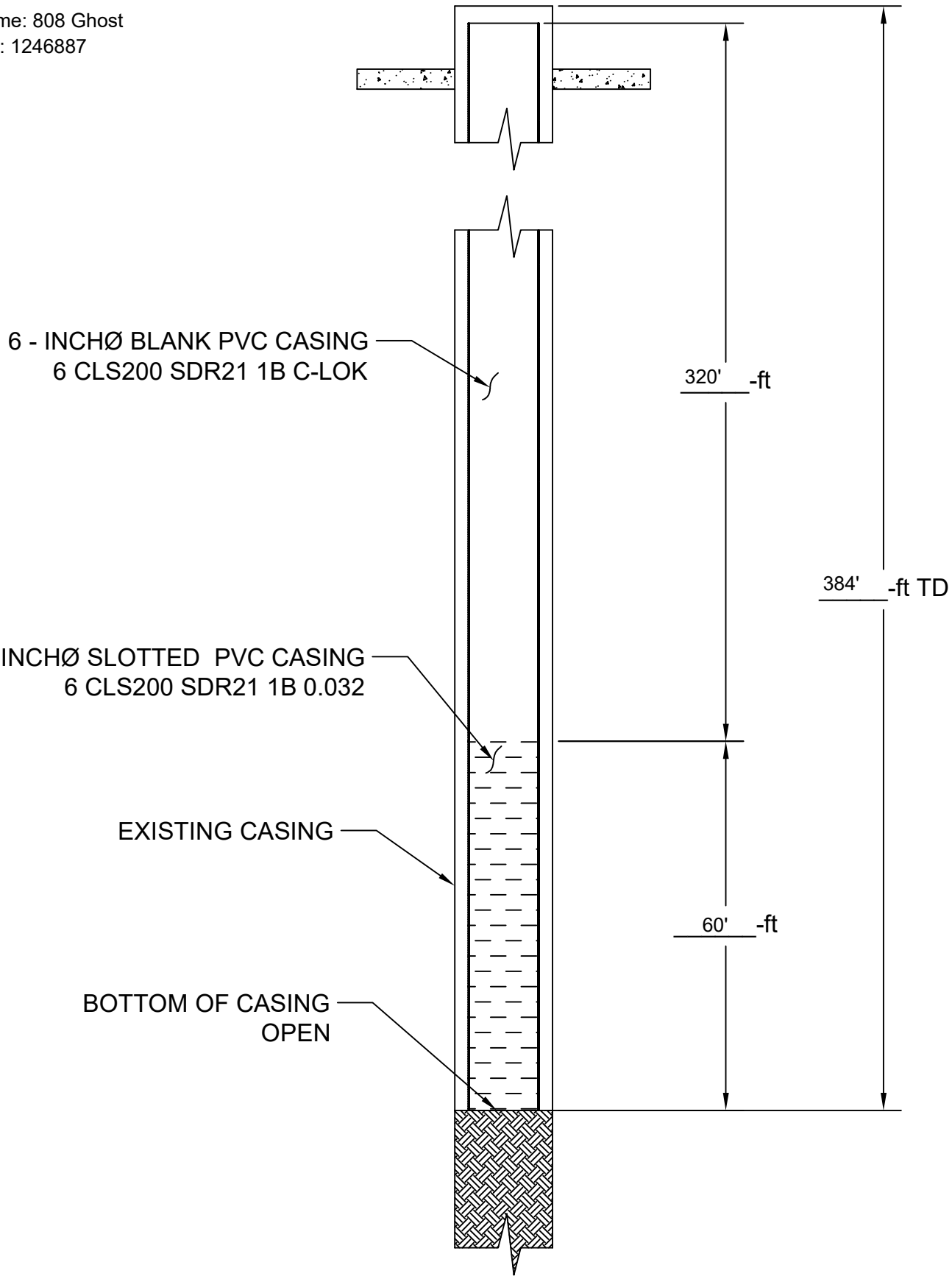
Well Tec Services, Inc
PO Box 3375
Beaumont, CA 92223

Email: rwelltec@aol.com

Well Name: 808 Ghost
Well ID: 1246887



Well Name: 808 Ghost
Well ID: 1246887



Well Conversion Report

Well Name: Bauer Monitoring Well
Well ID: 1246868
Coordinates: 33.332853°, -116.375497°
Final Reference Point (RP): 2 5/8 inches above ground surface

Change in RP: The original RP was on the north side of the top of the casing. After extending the standpipe and adding a new well lid, the new RP is located at the top of the well cover lock box.

Date Work Completed: January 23 & February 14, 2025

Completed Work: Removed existing well cover, video logged (report attached), documented change in reference point, constructed 3'x3'x4" concrete cleaning pad around casing, secured new locking well cover, painted yellow, bailed oil out of well.

Before

Completed

P.O. Box 3375 Beaumont, CA 92223 (909) 754-7020 (951)849-1601 fax Lic. #802369

VIDEO LOG REPORT

Company Name: West Yost
Well Name: Bauer
Location: 33.332853, -116.375497
City: Borrego Springs
State: CA
Measured From:

Date: January 23, 2025
Depth: 973.21'
Water Level: 418.37' **Oil?** Yes 2'
Operator: Carter **Truck:**
Tool Zero:
Reason for Video: Inspection

Depth	Video Findings	Casing / Perforation Information	
320'	Build up on sides of casing gets wosrse as it gets deeper	**Casing Size:**	**Depth**
973.21'		14"	973.21'
		Perforation:	
		410'	

Well Tec Services, Inc
PO Box 3375
Beaumont, CA 92223

Office: (909) 754-7020

Email: rwelltec@aol.com

Well Conversion Report

Well Name: Cameron 2
Well ID: 1245862
Coordinates: 33.249668°, -116.357111°
Final Reference Point (RP): 22 5/8 inches above the original reference point

Change RP: The original RP was on the north side of the top of the casing. After extending the standpipe and adding a new well lid, the new RP is located at the top of the well cover lock box.

Date Work Completed: January 21, 2025

Work Completed: Removed existing well cover, extended existing casing, documented change in reference point, constructed 3’x3’x4” concrete cleaning pad around casing, secured new locking well cover, painted yellow.

Before

During

Completed

P.O. Box 3375 Beaumont, CA 92223 (909) 754-7020 (951)849-1601 fax Lic. #802369

Well Conversion Report

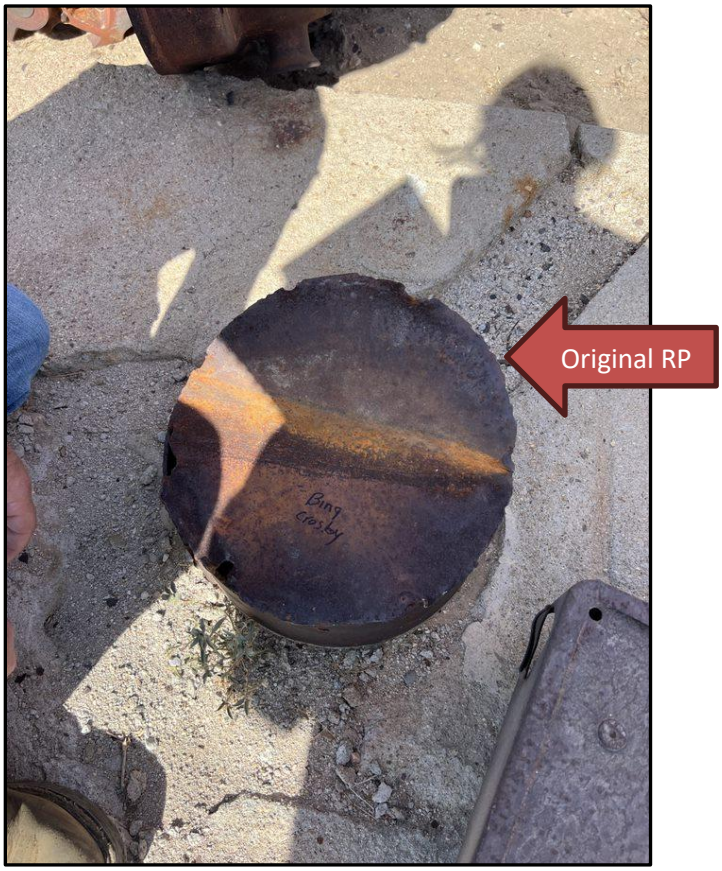
Well Name: Bing Crosby
Well ID: 1245859
Coordinates: 33.199492°, -116.267987°
Final Reference Point (RP): 25 ¾ inches above the original reference point

Change in RP: The original RP was on the north side of the top of the casing. After extending the standpipe and adding a new well lid, the new RP is located at the top of the well cover lock box.

Date Work Completed: January 22, 2025

Work Completed: Removed existing well cover, extended existing casing, documented change in reference point, constructed 3'x3'x4" concrete cleaning pad around casing, secured new locking well cover, painted yellow.

Before



Completed

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Well Conversion Report

Well Name: Hayden
Well ID: 1245875
Coordinates: 33.174013°, -116.264368°
Final Reference Point (RP): 12 5/8 inches above the original RP

Change in RP: The original RP was the bottom right corner of the hole in the casing. After extending the standpipe and adding a new well lid, the new RP is located at the top of the well cover lock box.

Date Work Completed: January 22, 2025

Work Completed: Removed existing well cover, extended existing, documented change in reference point, constructed 3’x3’x4” concrete cleaning pad around casing, secured new locking well cover, painted yellow.

Before

During

Completed

P.O. Box 3375 Beaumont, CA 92223 (909) 754-7020 (951)849-1601 fax Lic. #802369

Well Conversion Report

Well Name: Viking
Well ID: 1245929
Coordinates: 33.249668°, -116.357111°
Final Reference Point (RP): 26 5/8 inches above original reference point

Change in RP: The original RP was on the north side of the top of the casing. After extending the standpipe and adding a new well lid, the new RP is located at the top of the well cover lock box.

Date Work Completed: January 21, 2025

Work Completed: Removed existing well cover, extended existing casing, documented change in reference point, secured new locking well cover, painted yellow.

Before

Completed

P.O. Box 3375 Beaumont, CA 92223 (909) 754-7020 (951)849-1601 fax Lic. #802369

Well Conversion Report

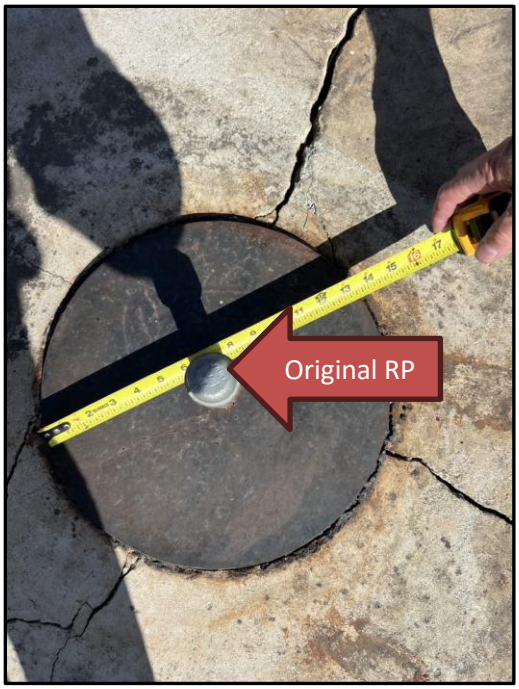
Well Name: ID4-2
Well ID: 1245887
Coordinates: 33.231705°, -116.388653°
Final Reference Point (RP): 18 11/16 inches above the original reference point

Change in RP: The original RP was on the north side of the top of the sounding tube. After extending the standpipe and adding a new well lid, the new RP is located at the top of the well cover lock box.

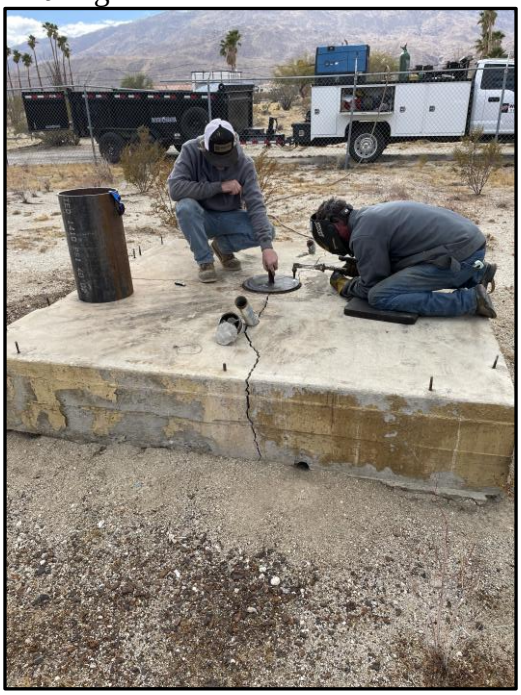
Date Work Completed: January 30, February 10-12, 18, 2025

Work Completed: Removed existing well cover, video logged (report attached), extended existing casing, documented change in reference point, constructed 3'x3'x4" concrete cleaning pad around casing, secured new locking well cover, painted yellow, bailed well to depth of 360', installed new 6" PVC casing (see well diagram), pumped three casing volumes of water, collected a groundwater-quality sample.

Before



During



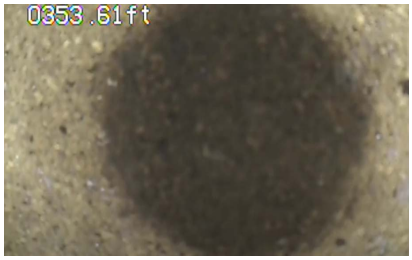
Completed

VIDEO LOG REPORT

Company Name: West Yost
Well Name: ID4-2
Location:
City: Borrego Springs
State: CA
Measured From:

Date: January 28, 2025
Depth: 353.61'
Water Level: 312.49' **Oil?**
Operator: Carter **Truck:** Service
Tool Zero:
Reason for Video: Inspection

Depth	Video Findings	Casing / Perforation Information	
60'	Build up on casing	**Casing Size:**	**Depth**
219.40'	Hole in casing	14"	353.61'
223.09'	Hole in casing		
229.42'	Hole in casing		
340.19'	Piece of PVC		
341.74'	Piece of PVC		
		Perforation:	Perforations not visible

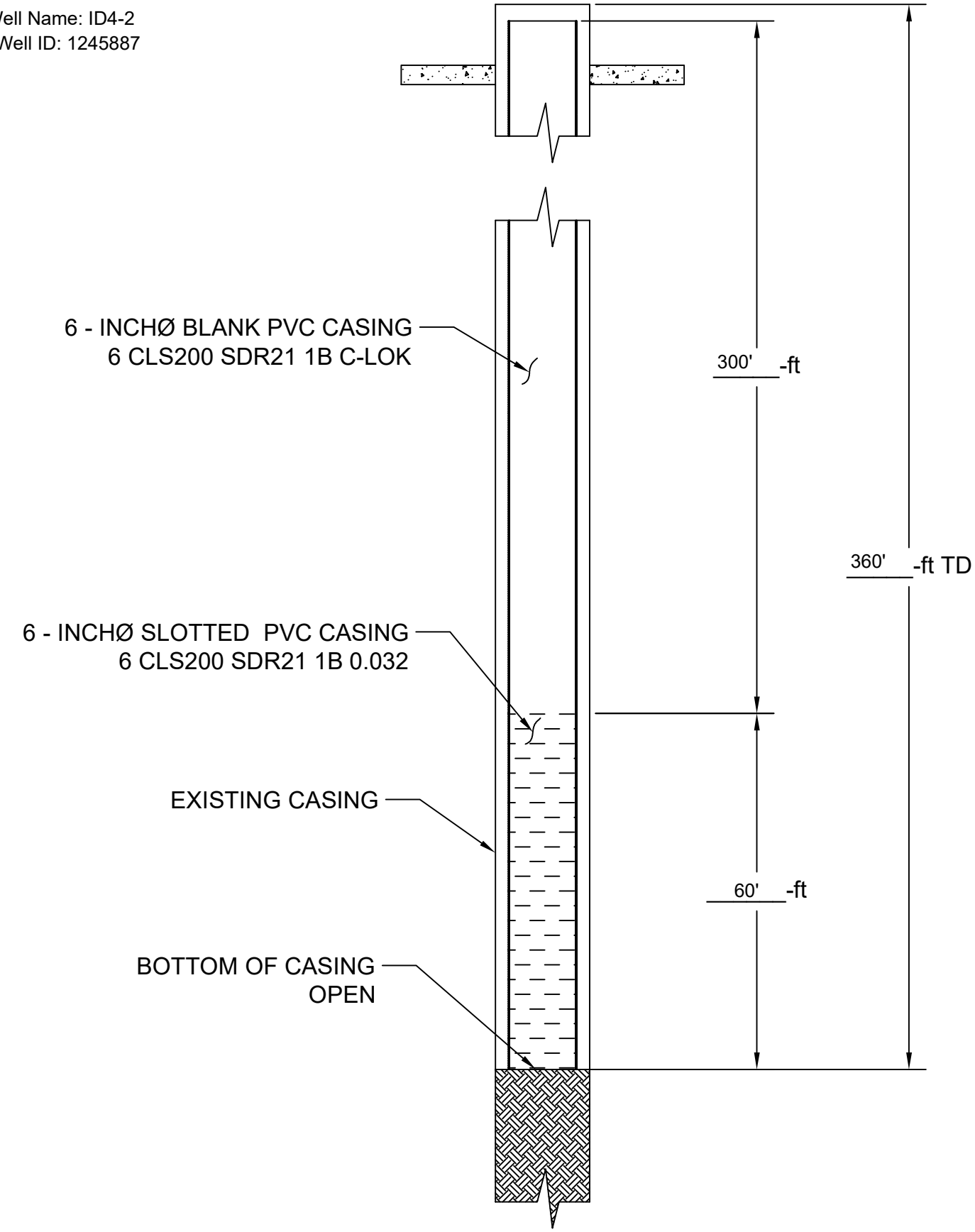


Office: (909) 754-7020

Well Tec Services, Inc
PO Box 3375
Beaumont, CA 92223

Email: rwelltec@aol.com

Well Name: ID4-2
Well ID: 1245887



Well Conversion Report

Well Name: Army Well
Well ID: 1245854
Coordinates: 33.184161°, -116.332829°
Final Reference Point (RP): 22 5/8 inches above original reference point

Change in RP: The original RP was on the north side of the top of the casing. After extending the standpipe and adding a new well lid, the new RP is located at the top of the well cover lock box.

Date Work Completed: January 24, February 4-5, 2025

Completed Work: Removed existing well cover, video logged (report attached), extended existing casing, documented change in reference point, constructed 3'x3'x4" concrete cleaning pad around casing, secured new locking well cover, painted yellow, bailed well to depth of 442'.

Before

During

Completed

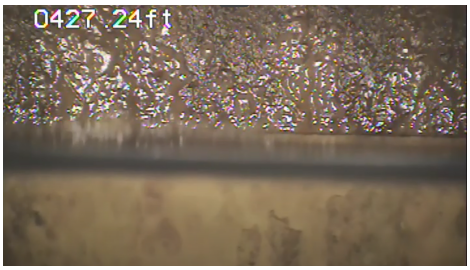
P.O. Box 3375 Beaumont, CA 92223 (909) 754-7020 (951)849-1601 fax Lic. #802369

VIDEO LOG REPORT

Company Name: West Yost
Well Name: Army
Location: 33.184161, -116.332829
City: Borrego Springs
State: CA
Measured From:

Date: January 23, 2025
Depth: 434.24'
Water Level: 427.24' **Oil?** No
Operator: Carter **Truck:**
Tool Zero:
Reason for Video: Inspection

Depth	Video Findings	Casing / Perforation Information	
0-120'	Spider webs	**Casing Size:**	**Depth**
434'	Rock at bottom	8"	434.24'
427'	Dirty casing		
		Perforation:	
		427'- 434.24'	



Office: (909) 754-7020

Well Tec Services, Inc
PO Box 3375
Beaumont, CA 92223

Email: rwelltec@aol.com

Well Conversion Report

Well Name: CDZ Nursery
Well ID: 1246862
Coordinates: 33.300864°, -116.348250°
Final Reference Point (RP): 21 ½ inches above original reference point

Change in RP: The original RP was on the north side of the top of the sounding tube. After extending the standpipe and adding a new well lid, the new RP is located at the top of the well cover lock box.

Date Work Completed: January 29, 2025

Completed Work: Removed existing well cover, video logged (report attached), extended existing casing, documented change in reference point, constructed 3'x3'x4" concrete cleaning pad around casing, secured new locking well cover, painted yellow.

Before

During

Completed

P.O. Box 3375 Beaumont, CA 92223 (909) 754-7020 (951)849-1601 fax Lic. #802369

VIDEO LOG REPORT

Company Name: West Yost
Well Name: CDZ Nursery
Location:
City: Borrego Springs
State: CA
Measured From:

Date: January 29, 2025
Depth: 491.57'
Water Level: 253.42' **Oil?**
Operator: Carter **Truck:** Service
Tool Zero:
Reason for Video: Inspection

Depth	Video Findings	Casing / Perforation Information	
15'	Build up on casing	**Casing Size:**	**Depth**
40'	Build up gets worse	12"	491.57"
		Perforation:	Perforations not visible

Office: (909) 754-7020

Well Tec Services, Inc
PO Box 3375
Beaumont, CA 92223

Email: rwelltec@aol.com

Well Conversion Report

Well Name: ID4-4
Well ID: 1245889
Coordinates: 33.277160°, -116.374329°
Final Change in Reference Point (RP): 20 ¾ inches above the original reference point

Change in RP: The original RP was the top of the sounding tube. After extending the standpipe and adding a new well lid, the new RP is located at the top of the well cover lock box.

Date Work Completed: January 31, 2025

Work Completed: Removed existing well cover, video logged (report attached), extended existing casing, documented change in reference point, secured new locking well cover, painted yellow, bailed oil out of well.

Before

Completed

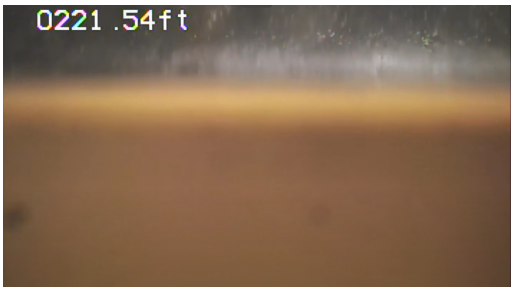
P.O. Box 3375 Beaumont, CA 92223 (909) 754-7020 (951)849-1601 fax Lic. #802369

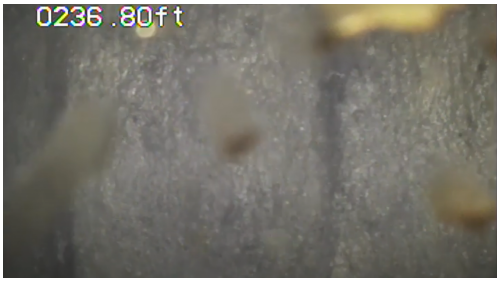
VIDEO LOG REPORT

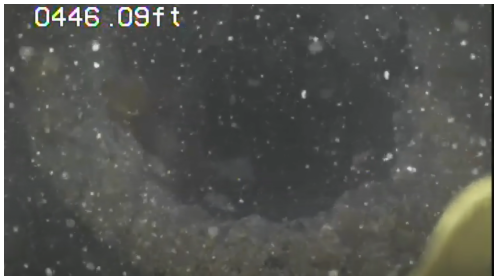
Company Name: West Yost
Well Name: ID4-4
Location:
City: Borrego Springs
State: CA
Measured From:

Date: January 31, 2025
Depth:
Water Level: 233.12' **Oil?** Yes
Operator: Carter **Truck:** Service
Tool Zero:
Reason for Video: Inspection

Depth	Video Findings	Casing / Perforation Information	
60'	Build up on casing	**Casing Size:**	**Depth**
221.53'	Oil	14"	
233.12'	Water		
235'	Perfs		
444.28'	Well diameter reduced		
448.90'	Camera stuck, won't go further		
		Perforation:	
		235'	







Office: (909) 754-7020

Well Tec Services, Inc
PO Box 3375
Beaumont, CA 92223

Email: rwelltec@aol.com

Well Conversion Report

Well Name: Evans
Well ID: 1245868
Coordinates: 33.294307°, -116.361964°
Final Reference Point (RP): 26 7/8 inches above the original reference point

Change in RP: The original RP was on the north side of the top of the casing. After extending the standpipe and adding a new well lid, the new RP is located at the top of the well cover lock box.

Date Work Completed: January 30, 2025

Work Completed: Removed existing well cover, video logged (report attached), extended existing casing, documented change in reference point, constructed 3’x3’x4” concrete cleaning pad around casing, secured new locking well cover, painted yellow.

Before

During

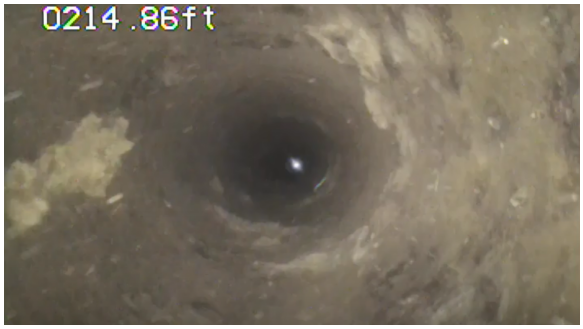
Completed

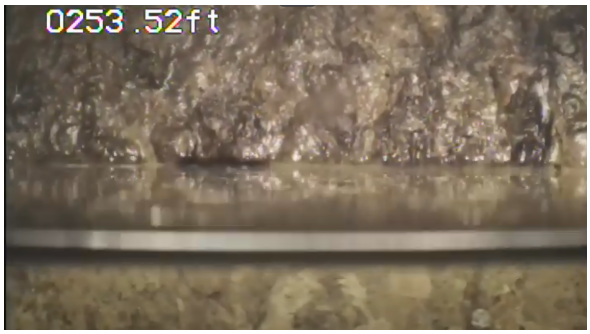
VIDEO LOG REPORT

Company Name: West Yost
Well Name: Evans
Location:
City: Borrego Springs
State: CA
Measured From:

Date: January 31, 2025
Depth: 809.60'
Water Level: 253.52' **Oil?** No
Operator: Carter **Truck:** Service
Tool Zero:
Reason for Video: Inspection

Depth	Video Findings	Casing / Perforation Information	
	Buildup on casing to bottom	**Casing Size:**	**Depth**
		16"	809.60'
		Perforation:	Perforations not visible





Office: (909) 754-7020

Well Tec Services, Inc
PO Box 3375
Beaumont, CA 92223

Email: rwelltec@aol.com

Well Conversion Report

Well Name: Evans West
Well ID: 1245980
Coordinates: 33.274898°, -116.352194°
Final Reference Point (RP): 3 15/16 inches above the original reference point

Change in RP: The original RP is at the top of the sounding tube. After extending the standpipe and adding a new locking well lid, the new RP is located at the top of the well cover lock box

Date Work Completed: February 3 & 6, 2025

Work Completed: Removed existing well equipment, video logged (report attached), extended existing casing, documented change in reference point, constructed 3'x3'x4" concrete cleaning pad around casing, secured new locking well cover, painted yellow.

Before

During

Completed

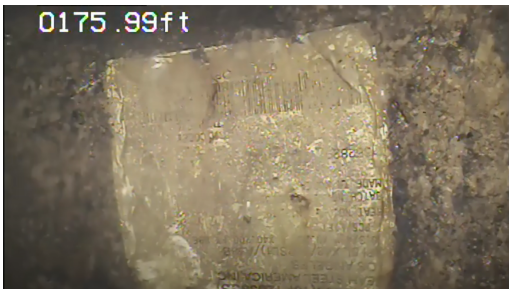
P.O. Box 3375 Beaumont, CA 92223 (909) 754-7020 (951)849-1601 fax Lic. #802369

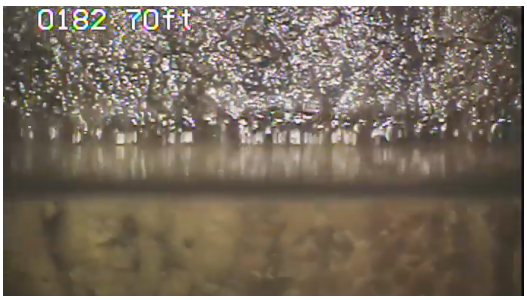
VIDEO LOG REPORT

Company Name: West Yost
Well Name: Evans West
Location:
City: Borrego Springs
State: CA
Measured From:

Date: February 6, 2025
Depth: 605'
Water Level: 182.70' **Oil?** No
Operator: Carter **Truck:** service
Tool Zero:
Reason for Video: Inspection

Depth	Video Findings	Casing / Perforation Information	
		Casing Size:	**Depth**
		10"	605'
		Perforation:	
		295'	





Office: (909) 754-7020

Well Tec Services, Inc
PO Box 3375
Beaumont, CA 92223

Email: rwelltec@aol.com

Attachment C

Field Inspection Reports

Wells	Simplified Task at Well	In Existing Monitoring Network?	Detailed Tasks at Well	Completed	Date of Approval	Signature of Approval
MW-1	Secure Only	Yes	- Take photos before - Remove existing well cover and repair existing casing - Extend existing casing 24-inches above ground level, document change in reference point. The current RP is the top of casing on the north side. - Construct 3'x3'x4" concrete cleaning pad around extended casing - Secure well with new locking well cover - Add 4 Bollards - Finish well with caution yellow paint and clear site of materials generated from WellTec Services site work - Take photos after	YES	2/26/25	ANDREW E. MALONE
Hanna Flowers	Secure Only	Yes	- Take photos before - Remove existing well cover - Document change in reference point. The current RP is the top of casing on the north side. - Secure well with new locking well cover - Clear site of materials generated from WellTec Services site work - Take photos after	YES. NO NEED WELL LID FIXED	3/16/25	ANDREW E. MALONE

Wells	Simplified Task at Well	In Existing Monitoring Network?	Detailed Tasks at Well	Completed	Date of Approval	Signature of Approval
808 Ghost	Convert, Video Log, Rehab, and Secure Well	No	- Take photos before - Remove existing well cover and repair existing casing - Extend existing casing 24-inches above ground level, document change in reference point - Construct 3'x3'x4" concrete cleaning pad around extended casing - Secure well with new locking well cover - Finish well with caution yellow paint and clear site of materials generated from WellTec Services site work - Video Log - Bail Well - Install 6-inch PVC sleeve down to protect well casing - Take photos after	YES	2/20/25	ANDREW E. MALONE
Bauer Monitoring Well	Convert, Video Log, Rehab, and Secure	No	- Take photos before - Remove existing well cover and repair existing casing - Document change in reference point - Secure well with new locking well cover - Finish well with caution yellow paint and clear site of materials generated from WellTec Services site work - Video Log - Bail oil out of well - Take photos after	YES, BUT NEED PLUG AFE#	2/20/25	ANDREW E. MALONE

Wells	Simplified Task at Well	In Existing Monitoring Network?	Detailed Tasks at Well	Completed	Date of Approval	Signature of Approval
Cameron 2	Secure Only	Yes	- Take photos before - Remove existing well cover and repair existing casing - Extend existing casing 24-inches above ground level, document change in reference point. The current RP is the top of casing on the north side. - Construct 3'x3'x4" concrete cleaning pad around extended casing - Secure well with new locking well cover - Finish well with caution yellow paint and clear site of materials generated from WellTec Services site work - Take photos after	YES. NEEDS NEW PLUG AEM	2/20/25	ANDREW E. MALONE
Bing Crosby	Secure Only	Yes	- Take photos before - Remove existing well cover and repair existing casing - Extend existing casing 24-inches above ground level, document change in reference point. The current RP is the top of casing on the north side. - Construct 3'x3'x4" concrete cleaning pad around extended casing - Secure well with new locking well cover - Finish well with caution yellow paint and clear site of materials generated from WellTec Services site work - Take photos after	YES. NEEDS NEW PLUG. AEM	2/20/25	ANDREW E. MALONE

Wells	Simplified Task at Well	In Existing Monitoring Network?	Detailed Tasks at Well	Completed	Date of Approval	Signature of Approval
Hayden	Secure Only	Yes	-Take photos before - Remove existing well cover and repair existing casing - Extend existing casing 24-inches above ground level, document change in reference point. The current RP is the bottom right corner of the opening. - Construct 3'x3'x4" concrete cleaning pad around extended casing - Secure well with new locking well cover - Finish well with caution yellow paint and clear site of materials generated from WellTec Services site work - Take photos after	YES	2/20/25	ANDREW E MALONE
Viking	Secure Only	No	- Take photos before - Remove existing well cover and repair existing casing - Extend existing casing 24-inches above ground level, document change in reference point. The current RP is the top of casing on the north side. - Secure well with new locking well cover - Finish well with caution yellow paint and clear site of materials generated from WellTec Services site work - Take photos after	YES	2/20/25	ANDREW E. MALONE

Wells	Simplified Task at Well	In Existing Monitoring Network?	Detailed Tasks at Well	Completed	Date of Approval	Signature of Approval
Airport 2	Video Log and Secure	Yes	- Take photos before - Remove existing well cover and repair existing casing. The current RP is the top of casing. - Document change in reference point - Secure existing well lid - Clear site of materials generated from WellTec Services site work - Video Log - Take photos after	YES WELL CAP SECURED	2/20/25	ANDREW E. MALONE
ID4-2	Convert, Video Log, Rehab, and Secure Well	Yes	- Take photos before - Remove existing well cover and repair existing casing - Extend existing casing 24-inches above ground level, document change in reference point. The current RP is displayed in photo - Secure well with new locking well cover - Finish well with caution yellow paint and clear site of materials generated from WellTec Services site work - Video Log - Bail well - Install 6-inch PVC sleeve down to protect well casing - High flow pumping rehab to collect water quality sample - Take photos after	YES	2/20/25	ANDREW E. MALONE

Wells	Simplified Task at Well	In Existing Monitoring Network?	Detailed Tasks at Well	Completed	Date of Approval	Signature of Approval
Army Well	Video Log, Rehab, and Secure Well	Yes	- Take photos before - Remove existing well cover and repair existing casing - Extend existing casing 24-inches above ground level, document change in reference point. - Construct 3'x3'x4" concrete cleaning pad around extended casing - Secure well with new locking well cover - Finish well with caution yellow paint and clear site of materials generated from WellTec Services site work - Video Log - Bail well - Take photos after	YES	2/20/25	Andrew E. Malone
CDZ Nursery	Convert, Video Log, and Secure	No	- Take photos before - Remove existing well cover and repair existing casing - Extend existing casing 24-inches above ground level, document change in reference point. The current RP is the top of casing (where the yellow plate is located). - Construct 3'x3'x4" concrete cleaning pad around extended casing - Secure well with new locking well cover - Finish well with caution yellow paint and clear site of materials generated from WellTec Services site work - Video Log - Take photos after	YES	2/20/25	Andrew E. Malone

Wells	Simplified Task at Well	In Existing Monitoring Network?	Detailed Tasks at Well	Completed	Date of Approval	Signature of Approval
ID4-4	Video Log, Rehab, and Secure	Yes	- Take photos before - Remove existing well cover and repair existing casing - Extend existing casing 24-inches above ground level, document change in reference point. The current RP is displayed in photo - Secure well with new locking well cover - Finish well with caution yellow paint and clear site of materials generated from WellTec Services site work - Video Log - Bail Oil out of well - Take photos after	YES	2/20/25	ANDREW E. MALONE
Evans	Video Log and Secure	Yes	- Take photos before - Remove existing well cover and repair existing casing - Extend existing casing 24-inches above ground level, document change in reference point. The current RP is hole underneath the rock in photo - Construct 3'x3'x4" concrete cleaning pad around extended casing - Secure well with new locking well cover - Finish well with caution yellow paint and clear site of materials generated from WellTec Services site work - Video Log - Take photos after	YES	2/20/25	ANDREW E. MALONE

Wells	Simplified Task at Well	In Existing Monitoring Network?	Detailed Tasks at Well	Completed	Date of Approval	Signature of Approval
Evans West	Convert, Video Log, and Secure	No	- Take photos before - Remove exisiting pumping equipment - Remove existing well cover and repair existing casing - Extend existing casing 24-inches above ground level, document change in reference point. The current RP is top of the PVC sounding tube - Construct 3'x3'x4" concrete cleaning pad around extended casing - Secure well with new locking well cover - Finish well with caution yellow paint and clear site of materials generated from WellTec Services site work - Video Log	YES	3/18/25	ANDREW E. MALONE

Stamp:

PROFESSIONAL GEOLOGIST
ANDREW EARL MALONE No. 8700
STATE OF CALIFORNIA