

**DOCKETED**

<b>Docket Number:</b>	09-AFC-08C
<b>Project Title:</b>	Genesis Solar Energy Project
<b>TN #:</b>	244311
<b>Document Title:</b>	2022 S1 Groundwater Quality Monitoring Report
<b>Description:</b>	N/A
<b>Filer:</b>	Maria E Lopez
<b>Organization:</b>	NextEra Energy
<b>Submitter Role:</b>	Public
<b>Submission Date:</b>	8/4/2022 11:50:01 AM
<b>Docketed Date:</b>	8/4/2022



2022 FIRST SEMIANNUAL  
GROUNDWATER QUALITY MONITORING REPORT  
Genesis Solar Energy Project

Riverside County, California

COC S&W-20

July 12, 2022

Prepared By:

Northstar Environmental Remediation

26225 Enterprise Court

Lake Forest, California 92630

## SIGNATURE PAGE

### 2022 FIRST SEMIANNUAL GROUNDWATER QUALITY MONITORING REPORT

#### RIVERSIDE COUNTY, CALIFORNIA

#### PROFESSIONAL STATEMENT

I declare under the penalty of law that I have personally examined and am familiar with the information submitted in this document, and that based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of a fine and imprisonment for knowing violations.

I further certify that this report has been reviewed by the appropriate authority at NextEra Energy Resources and is being submitted with their written consent.

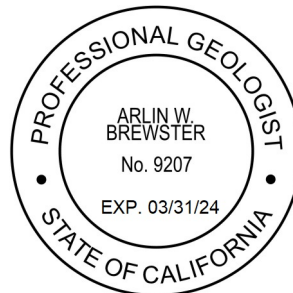


---

Arlin W. Brewster

Professional Geologist 9207

July 12, 2022



# Table of Contents

1.0 INTRODUCTION .....	1
1.1 Background .....	1
1.2 Geographic Setting .....	1
1.3 Hydrogeologic Setting .....	2
1.4 Monitoring Program Objectives.....	3
2.0 GROUNDWATER MONITORING PROGRAM .....	4
2.1 Monitoring Well Network .....	4
2.2 Groundwater Quality Monitoring Activities .....	4
3.0 FIELD METHODS .....	5
3.1 Manual Water Level Measurements .....	5
3.2 Electronic Water Level Measurements.....	5
3.3 Groundwater Sampling .....	5
3.4 Equipment Decontamination.....	6
3.5 Collection of Groundwater Samples .....	6
3.6 Laboratory Analytical .....	7
3.7 Sample Handling .....	7
3.8 Quality Assurance / Quality Control .....	7
4.0 RESULTS OF LABORATORY ANALYSES .....	8
4.1 General Inorganic Chemical Analysis .....	8
4.2 Organic Chemical Analysis .....	9
4.3 Stable Isotope Analysis .....	9
4.4 Statistical Analysis .....	10
4.5 Quality Assurance/Quality Control .....	11
5.0 ANNUAL SUMMARY .....	12
6.0 CONCLUSIONS.....	13
7.0 REFERENCES .....	14

## **LIST OF FIGURES**

- Figure 1 Site Vicinity Map  
Figure 2 Hydrogeologic Setting  
Figure 3 Monitoring Area Showing all Groundwater Monitoring Wells  
Figure 4 Bouse Formation Groundwater Elevation Contour Map – June 2022

## **LIST OF TABLES**

- Table 1 Inventory of Wells in the Groundwater Monitoring Area  
Table 2 Groundwater Level Measurements  
Table 3 Most Recent Groundwater Quality Monitoring Data  
Table 4 Summary of Laboratory Analytical Results  
Table 5 Historical Analytical Data for Offsite Wells Within the Monitoring Area

## **LIST OF APPENDICES**

- Appendix A Field Data Sheets  
Appendix B Time Series Charts 1 - 29  
Appendix C Mann-Kendall Trend Analysis  
Appendix D Laboratory Reports

## 1.0 INTRODUCTION

Northstar Environmental Remediation (Northstar) has prepared this 2022 First Semiannual Groundwater Quality Monitoring Report on behalf of Genesis Solar, LLC (Genesis). This report details groundwater quality monitoring performed in June 2022 at the Genesis Solar Energy Project (GSEP). The GSEP lies roughly 25 miles west of the city of Blythe, California in eastern Riverside County on lands managed by the Bureau of Land Management (BLM) (**Figure 1**). The GSEP consist of two independent concentrated solar electric generating facilities with a nominal net electric output of 125 megawatts (MW) each (a total net electrical output of 250 MW).

Northstar conducts groundwater quality monitoring in accordance with Condition of Certification Soil & Water 20 (COC S&W-20) as presented in the California Energy Commission (CEC) Final Decision document dated October 12, 2010 (CEC, 2010). The COC S&W-20 requires compliance with Waste Discharge Requirements (WDR) and Monitoring and Reporting Program (MRP) Board Order No. R7-2013-0005, issued by the California Regional Water Quality Control Board, Colorado River Basin Region (CRWQCB).

### 1.1 Background

Genesis filed an updated Plan of Development (POD) for the GSEP to the BLM in September 2010 (Genesis Solar, LLC, 2010), and an Application for Certification (AFC) to the California Energy Commission (CEC) in August 2009 (Genesis Solar, LLC, 2009). The CEC issued its Final Decision on the GSEP on October 12, 2010 (CEC, 2010). The BLM issued the Final Environmental Impact Statement (FEIS) for the GSEP for public comment on August 27, 2010. The Final Decision and the FEIS adopted COC S&W-20 to monitor groundwater quality within a 10-mile radius of the GSEP.

GSEP uses dry cooling technology and relies on groundwater as a water source during operation. Three groundwater production wells were installed within the GSEP site boundary between July and October 2011. These production wells are permitted to pump groundwater at an average rate of 202 acre-feet per year (afy) (up to 1,348 afy during construction).

Two evaporation ponds, licensed as Class II Surface Impoundments, located between Solar Fields 1 and 2 accept wastewater generated during operation of the GSEP. Three detection monitoring wells (DM-1, DM-2, and DM-3) were installed, per the Final Decision, along the west, east, and south perimeter of the evaporation ponds in February 2012. Groundwater samples were collected for four quarterly events prior to GSEP operation to establish baseline conditions. Semiannual sampling is conducted to comply with the requirements of COC S&W-6 and the WDR and MRP documents.

### 1.2 Geographic Setting

The GSEP is located between the communities of Blythe and Desert Center, California (**Figure 1**). Land use is predominantly open space and conservation and wilderness areas occupied by a community of low creosote and bursage vegetation. Chuckwalla and Ironwood State Prisons are located roughly 6 miles to the southeast.

The GSEP lies on a broad, relatively flat topography sloping north to south at elevations between 400 and 370 feet above mean sea level (amsl). The surface is underlain by alluvial deposits derived from the Palen Mountains to the north-northwest, and the McCoy Mountains to the northeast (**Figure 1**).

The deposits immediately adjacent the mountains have formed alluvial fans from multiple identifiable sources. The multiple fan surfaces have coalesced into a single bajada surface that wraps around each of these mountain fronts. Between the bajada surfaces lies a broad valley-axial drainage that extends southward between the mountains and drains to the Ford Dry Lake playa, located about 1 mile south of the GSEP facility (DWR, 1963).

Climatic data collected from Weather Station Blythe Riverside Airport (33.61°N, -114.71°W, at an elevation of about 387 feet amsl) indicate that the average maximum temperature in the airport vicinity is approximately 87.8°F (31.0°C). Average rainfall is reported to be approximately 3.83 inches (97.3 mm). These data were received from National Oceanic and Atmospheric Administration (NOAA) National Centers for Environmental Information 1981-2010 Normals.

### 1.3 Hydrogeologic Setting

The GSEP lies within the Chuckwalla Valley Groundwater Basin (Chuckwalla Basin) which has a surface area of approximately 940 mi<sup>2</sup> (2,435 km<sup>2</sup>) underlying Chuckwalla Valley. It is bounded up gradient by three groundwater basins including the eastern part of the Orocopia Valley and Pinto Valley Groundwater Basins and the southern part of the Cadiz Valley Groundwater Basin; and, down gradient by the Palo Verde Mesa Groundwater Basin (Palo Verde Basin) (U.S. Bureau of Reclamation, 1972). Groundwater occurs at depths of about 80 to 130 feet below ground surface (bgs), and flow direction is southeast to eastward from the Chuckwalla Basin into the Palo Verde Basin (**Figure 2**).

Sources of groundwater recharge to the Chuckwalla Basin include precipitation, inflow from the Orocopia Valley and Pinto Valley Groundwater Basins, and return flows from agricultural sources and treated wastewater effluent. Groundwater is the only available water resource in Chuckwalla Valley, with extraction to meet local demand the primary source of groundwater outflow. Other minor sources of outflow include underflow to the Palo Verde Basin and evapotranspiration in portions of Palen Dry Lake (where shallow groundwater is present).

Calculations of the Chuckwalla Basin groundwater budget before GSEP operations indicate a stable surplus of 2,600 afy (CEC, 2010). Current operational demand, based on calendar year 2021 extraction data, is approximately 125 afy.

The region of the Chuckwalla Basin occupied by the GSEP and associated groundwater monitoring wells is underlain by four geological units. The shallowest unit is the unconsolidated Holocene-aged Alluvium, consisting of geologically recent lake, river, and wind deposits (DWR, 1963). Beneath the alluvium is the unconsolidated Pleistocene-aged Pinto Formation consisting of coarse alluvial fan deposits (known as fanglomerate), interspersed with clays and basalt (DWR, 1963). Beneath the Pinto Formation lies the unconsolidated to partially consolidated Pliocene-aged Bouse Formation, consisting of coarse alluvium and fanglomerate deposits (Wilson and Owen-Joyce, 1994). The Bouse Formation is underlain by bedrock consisting of metamorphic rocks and intrusive igneous basalts (DWR, 1963).

Groundwater in the GSEP monitoring region occurs in two aquifers: the shallower Alluvium aquifer, extending to a maximum approximate depth of 250 feet bgs; and, the deeper Bouse Formation aquifer, extending between approximately 250 to 6,500 feet bgs (Wilson and Owen-Joyce, 1994). The Pinto Formation exists only on the eastern fringe of the Chuckwalla Basin and is not encountered by the GSEP monitoring wells. Monitoring data indicate a downward vertical hydraulic gradient of groundwater flow from the Alluvium to the Bouse Formation aquifer.

Based on recent monitoring data, the depth to groundwater in the Bouse Formation ranges from approximately 87.40 feet bgs (300.00 feet amsl) in TW-1, located upgradient of the site, to 127.11 feet bgs (262.29 feet amsl) in Well 24-1, located downgradient of the site. Perched water exists at the Chuckwalla State Prison but is unlikely to occur within the GSEP boundaries as there is no irrigation.

#### **1.4 Monitoring Program Objectives**

Northstar performs groundwater quality monitoring in accordance with COC S&W-20 as described in the CEC's Final Decision. Monitoring is completed semiannually during the Second and Fourth Quarter of each year. The primary objectives of groundwater quality monitoring are:

- to identify potential changes in the existing water quality of the water supply resulting from GSEP pumping in compliance with COC S&W-20;
- to establish groundwater quality data within a 10-mile radius of the GSEP; and,
- to provide a mechanism for early warning to help avoid, minimize, or mitigate significant impacts to groundwater quality.



## 2.0 GROUNDWATER MONITORING PROGRAM

### 2.1 Monitoring Well Network

The following provides a summary of the monitoring well network for the GSEP required under COC S&W-20. Well locations are illustrated in **Figure 3** and summarized in **Table 1**.

- Offsite wells installed for the project include deep test wells TW-1 and TW-2, shallow observation well OBS-1, and buried-transducer well OBS-2 (currently inoperative).
- Existing and functional offsite wells located within two miles of the GSEP and project right-of-way include CalTrans water supply well 23a and Sempra Energy wells 24-1, 24-2, and 24-3.
- Well 14, a water supply well located along Chuckwalla Valley Road south of I-10, was added to the program at the request of CEC staff.
- Three groundwater extraction wells (PW-0, PW-1, and PW-2) were installed on the GSEP facility to provide water for construction and operations. Currently, PW-0 pumps water intermittently; PW-1 is sealed with a metal plate; and PW-2 pumps regularly. All three wells are equipped with pressure transducers and totalizers are installed on PW-0 and PW-2.
- Three groundwater monitoring wells (DM-1, DM-2, and DM-3) were installed adjacent the evaporation ponds and serve to monitor the surrounding groundwater for signs of releases.
- Other water wells within 10 miles of GSEP for which water level data are available from the National Water Information System (NWIS) database maintained by the U.S. Geological Survey (USGS). Data reported for these wells has been inconsistent but is used for general groundwater contouring if data exists within the last six months.

### 2.2 Groundwater Quality Monitoring Activities

Groundwater quality monitoring includes the following scope of work:

- Field staff collect groundwater level measurements in the monitoring well network;
- Purging and sampling of wells;
- Analysis of the groundwater samples for general minerals, major anions and cations, deuterium and oxygen-18, oil & grease, heat transfer fluid, and general parameters;
- Compilation of water level and water quality data for wells located in the Chuckwalla Basin within 10 miles of the GSEP for which data is available from public sources;
- Evaluation of water quality data, including appropriate statistical and graphical methods;
- Evaluation of stable isotope data for potential water sources; and,
- Evaluation of water level data and preparation of a potentiometric surface map.

## 3.0 FIELD METHODS

Northstar performed the most recent semiannual groundwater quality monitoring at the GSEP on June 2 and 3, 2022. A description of the field methods used is provided below.

### 3.1 Manual Water Level Measurements

Northstar measured depth to groundwater in each well using a Solinst interface probe (Solinst) as quickly as practical to best represent the potentiometric surface across the GSEP at a given time. Field staff recorded depth to water to the nearest hundredth (0.01) foot below a surveyed measuring mark located on the north side of the top of casing (toc) on a groundwater level measurement form (**Appendix A**).

**Table 2** provides a summary of current and historical groundwater level measurements and calculated groundwater elevations for wells included in the monitoring well network, and additional wells in the Chuckwalla Basin located within 10 miles of the GSEP. Groundwater elevation contours and flow direction are illustrated in **Figure 4**.

### 3.2 Electronic Water Level Measurements

In past monitoring events, field staff used a Geokon Model 800 data logger to retrieve groundwater level data from an array of four Geokon Model 4500S vibrating wire pressure transducers installed in OBS-2 (**Table 2**). The transducers were placed at depths of 270, 315, 370, and 400 feet below ground surface. Data from the transducers became irretrievable in 2014 due to calibration issues and are currently not monitored.

Solinst Levellogger pressure transducers are currently installed in OBS-1 and TW-1. The transducers record the feet of water above the sensor at 6-hour intervals. In addition, a Solinst Barologger installed in Well OBS-1 above the water table records changes in barometric pressure. Using Solinst software, the Levellogger data is calibrated to the manual groundwater elevation measurements and adjusted for changes in barometric pressure using the Barologger data. Data is used to assess seasonal and diurnal trends in the shallower Alluvium aquifer (OBS-1) and the deeper Bouse Formation aquifer (TW-1). Transducer data is currently collected and kept on file for reference.

### 3.3 Groundwater Sampling

Northstar collected groundwater samples from offsite monitoring wells TW-1, TW-2, and OBS-1 using disposable bailers. Field data sheets are included in **Appendix A**. Monitoring well 23A was not sampled during this event because the encroachment permit was being renewed and was not available at the time of sampling.

Detection monitoring wells DM-1, DM-2, and DM-3 are each equipped with a dedicated 1.66-inch diameter Geotech® submersible bladder pump with water intakes set at the middle of wetted screen (approximately 115 feet btoc). Field staff collect samples from these wells using the low flow purging method in accordance with the most recent EPA guidance document (USEPA, 2017). Field data sheets are included in **Appendix A**.

Groundwater extraction wells PW-0 and PW-2 are equipped with dedicated water production pumps. Pumps may intermittently be turned online or offline depending on the needs of the facility. Northstar coordinates with GSEP staff to turn on these pumps when necessary to collect groundwater samples. Field data sheets are included in **Appendix A**.

Field staff measured groundwater parameters with a Horiba groundwater quality field instrument equipped with a flow-through cell. Staff calibrated the Horiba at the beginning of each day and decontaminated the instrument prior to use and between wells. Measurements of field parameters (pH, electrical conductivity (EC), temperature, turbidity, and oxidation-reduction potential (ORP)) were taken at 5-minute intervals and at the time of sampling as part of the low flow purge method of sampling. An equipment blank was not collected from the instrument because it is disconnected prior to sampling.

Staff purged each detection monitoring well until water quality parameters stabilized over three successive readings (+/- 0.2 for pH, +/- 10% for EC, ORP and turbidity) and the discharge volume exceeded the drawdown, tubing, and flow-through cell volume. Northstar staff recorded the sampling methods, volume of water purged, pumping rate, field parameter measurements, and observations of water turbidity and odor on the groundwater sampling field form (**Appendix A**).

Groundwater purged from the GSEP wells was temporarily contained in a sealed container and then disposed in the evaporation ponds as directed in the MRP (Part II A.1.b.). The measured field parameters documented at the end of purging are included in **Table 3**.

### 3.4 Equipment Decontamination

Northstar decontaminated reusable/non-dedicated equipment (e.g., water level probe and flow-through cell) before use at each well. Decontamination of reusable equipment consisted of washing with a laboratory-grade non-phosphate detergent (Liquinox, Alconox, or equivalent) and potable water solution followed by a double rinse with demineralized water.

### 3.5 Collection of Groundwater Samples

Groundwater samples were collected using standard field procedures. The sampler wore new nitrile gloves while collecting groundwater samples. Samples were collected directly from the pump discharge tube, extraction well sampling port, or sampling bailer into laboratory-prepared bottles. Where directed by the laboratory, samples were passed through a new, disposable 0.45 micrometer filter utilizing a peristaltic pump. The purpose of the filter is to remove particulates larger than 0.45 micrometers before being placed in bottles. Prior to sampling, the tubing is disconnected from the flow-through cell and the flow rate reduced as low as feasible to minimize volatilization.

### 3.6 Laboratory Analytical

Laboratory samples are submitted to SunStar Laboratories, Inc. (SunStar) of Lake Forest, California. SunStar subcontracts the heat transfer fluid analysis to Eurofins Calscience Laboratories, Inc. (Eurofins) of Tustin, California. They also subcontract the oxygen-18 and deuterium stable isotope analyses to Isotech Laboratories, Inc. of Champaign, Illinois. All laboratories are state and federally certified and analyze the samples by the following methods, as detailed in the Final Decision, WDR, and MRP documents:

- Chloride, Sulfate, and Nitrate by EPA Method 300.0;
- Mercury by Standard Method 7470A;
- Total Dissolved Solids by Standard Method 2540C;
- pH by Standard Method 4500H;
- Specific Conductance by Standard Method 2510B;
- Heat Transfer Fluid (HTF) by EPA Method 8015B;
- Heavy Metals by EPA Method 200.7 and 200.8;
- Oil & Grease by EPA Method 1664A; and,
- Oxygen-18 and Deuterium by Isotope Geochemistry.

### 3.7 Sample Handling

Field staff labeled sample containers before sampling and placed them into an ice cooled chest immediately after sample collection. Glass bottles were sealed in protective packing sleeves for transport. Exposure to dust, direct sunlight, high temperature, adverse weather conditions and possible cross-contamination were avoided.

Standard chain of custody (COC) protocols were followed for the groundwater samples. Northstar delivered the samples under proper chain of custody protocol to SunStar which signed as receiver of the samples. SunStar sent the subcontract samples under proper COC protocols.

### 3.8 Quality Assurance / Quality Control

The laboratory conducted standard Quality Assurance/Quality Control (QA/QC) to assure analytical accuracy and precision. This included preparation and analysis of method blanks, surrogate spikes, matrix spike/matrix spike duplicate (MS/MSD) pairs and laboratory control samples (LCS).

Northstar collects a duplicate sample once per sampling event from a single well and submits it to the laboratory without identifiers including date and time. During this event, a duplicate sample was collected from well PW-2. Analytical results for the duplicate sample are included in **Table 4** immediately below the regular sample for this well.

A set of quality control blank samples (including a field and trip blank) were collected and put on hold at the laboratory pending analysis of the groundwater samples. The field blank bottle set is filled with demineralized water and set adjacent to the work area with the lids off during the workday and is intended to screen out constituents in ambient air. The trip blank bottle sets are prepared at the laboratory and are sealed throughout the groundwater sampling event. They are stored inside the sample coolers and are intended to screen out constituents in the coolers. The quality control blank samples are only analyzed if there is anomalous data present for the groundwater sampling results.

## 4.0 RESULTS OF LABORATORY ANALYSES

All laboratory analytical reports for this reporting period are included in **Appendix D**. Results are tabulated for the monitoring network in **Table 4** and for wells outside the monitoring network (but still within the Chuckwalla Groundwater Basin) in **Table 5**.

### 4.1 General Inorganic Chemical Analysis

This section presents results of inorganic chemical analyses (major cations and anions, mineral constituents, and general parameters) performed on groundwater samples collected in the monitoring well network. Time series plots for each inorganic constituent are included as Charts 1 to 24 in **Appendix B**. Remarks about each chart are as follows:

- Chart 1: **Chloride** – Concentrations have increased compared to the previous monitoring event and are similar to baseline values.
- Chart 2: **Sulfate as SO<sub>4</sub>** – Concentrations have increased compared to the previous monitoring event and are similar to baseline values.
- Chart 3: **Nitrate as NO<sub>3</sub>** – Appears in low concentrations mostly in shallow monitoring wells, including upgradient well OBS-1. Concentrations are generally similar to the previous monitoring event but increased slightly in shallow detection monitoring well DM-2.
- Chart 4: **Calcium** – Concentrations fluctuated slightly compared to the previous monitoring event and are similar to baseline results.
- Chart 5: **Copper** – Historically occurs in only a few wells at low concentrations, and was not detected during this event. There are no apparent trends.
- Chart 6: **Sodium** – Concentrations fluctuated slightly compared to the previous monitoring event and are similar to baseline results.
- Chart 7: **Potassium** – Was not detected in any wells during this monitoring event.
- Chart 8: **Iron** – Was not detected in any wells during this monitoring event.
- Chart 9: **Magnesium** – Concentrations have increased slightly in all wells compared to the previous monitoring event and are similar to baseline values.
- Chart 10: **Antimony** – There have been no detections to date.
- Chart 11: **Arsenic** – Detected only in production well PW-0 during this event, and at the highest concentration ever reported for the site.
- Chart 12: **Barium** – Only detected in PW-0 and TW-2 during this monitoring event. The concentration in PW-0 decreased slightly and is similar to baseline values, while the concentration in TW-2 increased slightly and is higher than all previous detections in this well.
- Chart 13: **Cadmium** – There have been no detections to date.
- Chart 14: **Chromium (Total)** – Not detected during this event.
- Chart 15: **Cobalt** – There have been no detections to date.
- Chart 16: **Lead** – There have only been two detections to date – one in TW-1 (fourth quarter 2017) and in 23a (second quarter 2016).
- Chart 17: **Manganese** – Occurs in very low concentrations in most wells but punctuated by two larger detections in 23a (fourth quarter 2010) and TW-1 (second quarter 2016). Manganese has not been analyzed since the 2<sup>nd</sup> quarter of 2018 because it is no longer part of the standard set of analytes included in the analytical method.
- Chart 18: **Nickel** – Not detected during this event.

- Chart 19: **Selenium** – Occurs sporadically in several wells but has appeared more consistently in shallow monitoring wells, particularly upgradient well OBS-1. There are no apparent trends.
- Chart 20: **Zinc** – Occurs only in well 23a from fourth quarter 2014, but in several other wells since fourth quarter 2017, a result of lower detection limits. There are no apparent trends.
- Chart 21: **Mercury** – Has occurred only once at a very low concentration in well DM-1 (second quarter 2015). Mercury has never been detected in the evaporation ponds.
- Chart 22: **Total Dissolved Solids** – Concentrations generally decreased in all monitoring wells or were near baseline values where it was detected except for OBS-1, which increased since the previous monitoring event and is now closer to baseline values.
- Chart 23: **Specific Conductance** - Concentrations remain near baseline values for this event.
- Chart 24: **pH** – Values are near baseline conditions for this reporting period for all wells except TW-1, which increased compared to the previous monitoring event. TW-1 has occasionally exhibited spikes in pH value in the second quarter of each year.

## 4.2 Organic Chemical Analysis

This section presents results of organic chemical analyses (oil & grease and heat transfer fluid) performed on groundwater samples collected in the monitoring well network. Time series plots for each organic constituent are included as Charts 25 and 26 in **Appendix B**. Remarks about each chart are as follows:

- Chart 25: **Oil & Grease** – Appears only sporadically in wells TW-2, OBS-1, PW-0, and PW-2. Was not detected during this monitoring event. There are no apparent trends.
- Chart 26: **Heat Transfer Fluid** – There have been no detections to date.

## 4.3 Stable Isotope Analysis

Oxygen-18 and deuterium are naturally occurring stable isotopes of oxygen and hydrogen that occur at varying concentrations in all water. Concentrations of these heavier isotopes varies in precipitation depending on latitude, elevation and climate (Froehlich and Yurtsever, 1995; Izbicki, Martin and Michel, 1995; Kendall and Coplen, 2001). Precipitation falling at higher elevations, higher latitudes, or cooler climates tend to be depleted in these heavier isotopes. The isotope depletion relative to Vienna Standard Mean Ocean Water (VSMOW) is expressed in delta notation as parts per thousand (‰). The ratio of oxygen-18 to deuterium has been well established around the world as falling on a straight line called the Global Meteoric Water Line (GMWL). This relationship between oxygen-18 and deuterium is useful for determining the source and history of a water sample. Departures from the GMWL can occur due to evaporation (which leaves the remaining water enriched in heavier isotopes), due to mixing with waters from other origins, or due to chemical reactions with surrounding materials or the atmosphere (Domenico and Schwartz, 1998).

**Table 4** provides the oxygen-18 and deuterium content of the water samples collected to date. A time series plot of the stable isotopes are presented in Chart 27 and 28, and a graph of the oxygen-18 and deuterium relative to the GMWL is presented as Chart 29 in **Appendix B**. The data indicates several environmental conditions, as follows:

- Groundwater in the shallow Alluvium aquifer is less depleted than the deeper Bouse Formation aquifer, indicating that it is closer to the point of origin of groundwater recharge (ie, it is recharged by precipitation or runoff that occurs locally).

- Both aquifers are more depleted downgradient, indicating they are further from the source of precipitation or groundwater recharge.
- Upgradient groundwater in both aquifers display a greater depletion compared to the GMWL, indicating that the groundwater is becoming more enriched in oxygen-18 and deuterium in the downgradient direction, which may be a function of evapotranspiration.

The 2022 first semiannual monitoring event show results that are consistent with historical data.

#### 4.4 Statistical Analysis

In addition to the graphical representation of concentration trends, the results were analyzed using the Mann-Kendall (M-K), non-parametric statistical test to evaluate trends as directed in COC S&W-20, Part E. The M-K test compares the most recent round of groundwater data with the results of historical rounds. The statistical analysis tests whether the trend in the data set is increasing, decreasing, or stable/has no determined trend. The M-K test typically requires a minimum data set of between 4 to 10 values, and M-K tests performed on data sets within this range may not necessarily yield reliable results. The M-K test results are also subject to seasonal variations when there is a limited data set.

For this reporting period, the Mann-Kendall statistical analysis was applied to wells 23a, TW-1, TW-2, OBS-1, DM-1, DM-2, DM-3, PW-0, PW-1, and PW-2. A summary of the results is included in **Appendix C**. The analysis was run for arsenic, barium, calcium, chloride, selenium, sulfate, specific conductance, total dissolved solids, and zinc for each well and trend direction is reported at the 95% confidence interval. Additional constituents that are projected to be present in the wastewater discharge in the evaporation ponds, as identified in the WDR (CRWQCB, 2013b), either lack sufficient data to be statistically analyzed (chromium, copper, lead, mercury, and nickel) or have not been detected above reporting limits to date (antimony, cadmium, and cobalt). The M-K statistical analysis will be applied to these constituents once enough data points are available. Below is a summary of the M-K statistical analysis for this reporting period:

- TW-1: No increasing trends identified.
- TW-2: An increasing trend was identified for barium and chloride.
- OBS-1: No increasing trends identified.
- 23a: No new data was available.
- DM-1: An increasing trend was identified for chloride and selenium.
- DM-2: An increasing trend was identified for chloride, selenium, and conductivity.
- DM-3: An increasing trend was identified for chloride only.
- PW-0: An increasing trend was identified for conductivity only.
- PW-1: There is not enough data available for this well to perform the Mann-Kendall analysis.

- PW-2: No increasing trends identified.

#### 4.5 Quality Assurance/Quality Control

As documented in the attached laboratory reports (**Appendix D**), groundwater samples collected from network wells during the reporting period were received by the laboratory in good condition, within the temperature limits required, and analyzed within the required holding times using the specified methods (with the exception of pH, which has a 15-minute hold time).

Calcium was detected in the method blank sample. The concentration was less than 10% of the sample results and was therefore considered to be negligible according to the method criteria.

Matrix spike/matrix spike duplicate (MS/MSD) and laboratory control sample (LCS) recoveries for each method and analytical batch were within the laboratory's established control limits for the final report, with the following exceptions:

- The spike recovery was outside acceptable limits for the MS and/or MSD due to possible matrix interference. The LCS was within acceptable criteria. The following analytes were potentially affected:
  - Arsenic
  - Chloride
  - Copper
  - Mercury
  - Potassium
  - Sodium
  - Sulfide as SO<sub>4</sub>

Duplicate sample control: For this event, a duplicate sample (named DUP) was collected from sample point PW-2. The sample was submitted to the laboratory without date or time qualifiers. For this event, all sample results for PW-2 and DUP agreed within 10% except for the following:

- Total Dissolved Solids by Standard Method 2540C, which was reported at concentrations of 2,000 and 4,000 mg/L, respectively (50% difference).



## **5.0 ANNUAL SUMMARY**

The 2022 annual summary will be included in the 2022 Second Semiannual and Annual Groundwater Quality Monitoring Report, which will be produced by Northstar by January 15, 2023.

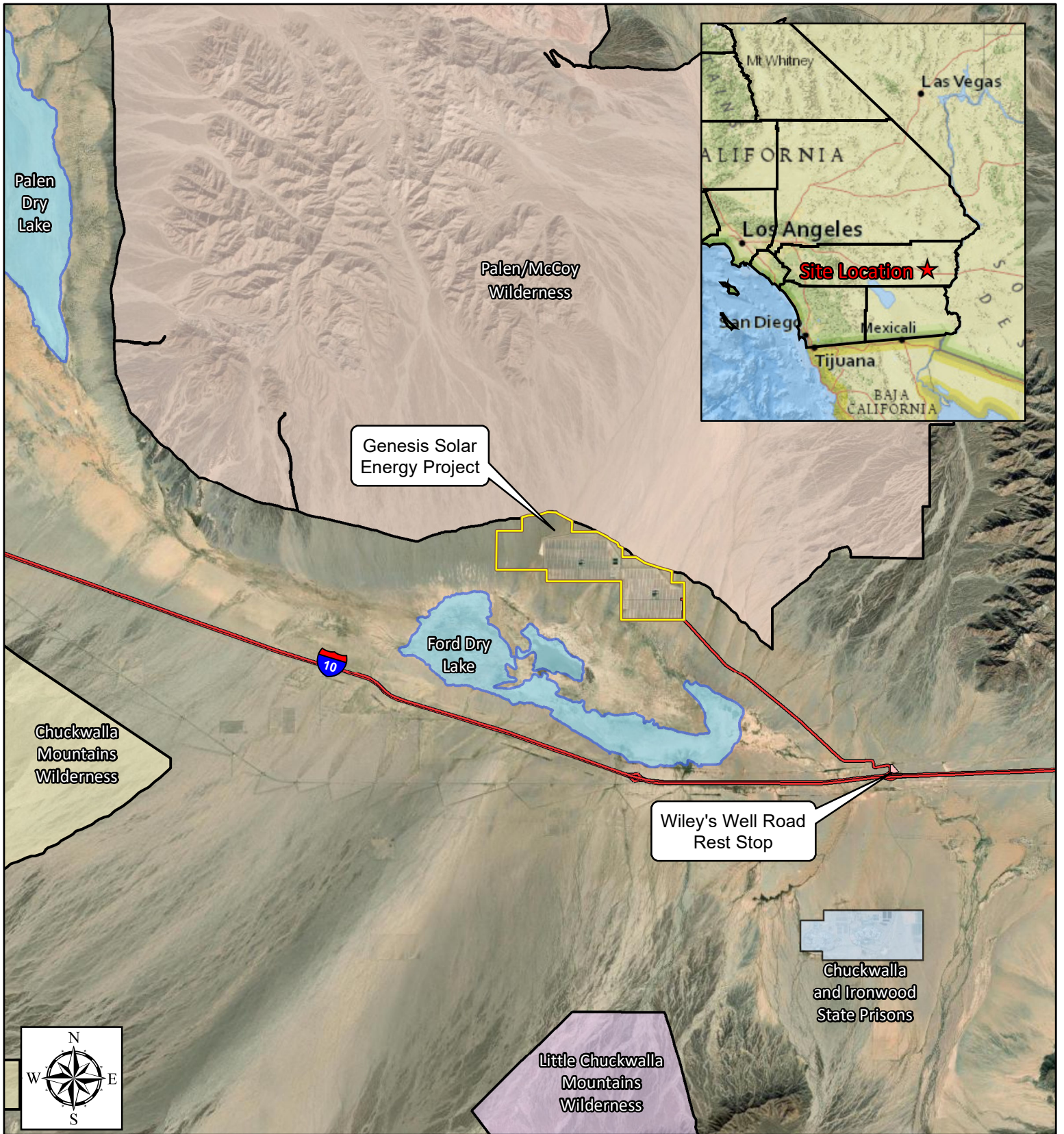
## 6.0 CONCLUSIONS

Based on the available data, it does not appear the GSEP has negatively impacted the groundwater quality in the Chuckwalla Basin or within a 10-mile radius of the GSEP facility to date. All available groundwater quality data is generally stable and consistent with historical data.

## 7.0 REFERENCES

- Bureau of Land Management, 2010. *Final Environmental Impact Statement, Genesis Solar Energy Project*. August 27, 2010.
- California Department of Water Resources (DWR), 1963. *Data on Water Wells and Springs in the Chuckwalla Valley Area, Riverside County, California*. Bulletin No. 91-7.
- California Energy Commission (CEC), 2010. *Genesis Solar Energy Project Commission Decision*. October 12, 2010.
- California Regional Water Quality Control Board – Colorado River Basin Region, 2013a. *Board Order R7-2013-0005: Monitoring and Reporting Program for Genesis Solar LLC*. March 21, 2013.
- California Regional Water Quality Control Board – Colorado River Basin Region, 2013b. *Board Order R7-2013-0005: Waste Discharge Requirements for Genesis Solar LLC*. March 21, 2013.
- Domenico, P. and Schwartz, F., 1998. *Physical and Chemical Hydrogeology*. J. Wiley & Sons.
- Froehlich, K. and Yurtsever, Y., 1995. *Isotope Techniques for Water Resources in Arid and Semiarid Regions: in Applications of Tracers in Arid Zone Hydrology*. IAHS Publication no. 232.
- Genesis Solar, LLC, 2009. *Application for Certification, Genesis Solar Energy Project, Riverside County, California*. August 31, 2009.
- Genesis Solar, LLC, 2010. *Plan of Development CA48880, Genesis Solar Energy Project, Riverside County, California*. October 2010.
- Izbicki, J., Martin, P. and Michel, R., 1995. *Source, Movement and Age of Groundwater in the Upper Part of the Mojave River Basin, California, USA: in Applications of Tracers in Arid Zone Hydrology*. IAHS Publication no. 232.
- Kendall, C. and Coplen, T., 2001. *Distribution of Oxygen-18 and Deuterium in River Waters Across the United States*.
- U.S. Bureau of Reclamation, 1972. *Inland Basins Project, California-Nevada, Summary Report: Reconnaissance Investigations*. 1972.
- U.S. Environmental Protection Agency (USEPA), 2017. *Low Stress (low flow) Purging and Sampling Procedure for the Collection of Groundwater Samples from Monitoring Wells*. September 19, 2017.
- Wilson, R.P., and Owen-Joyce, S.J., 1994. *Method to identify wells that yield water that will be replaced by Colorado River water in Arizona, California, Nevada, and Utah*. U.S. Geological Survey, Water Resources Investigation Report 94-4005.

# FIGURES



**Legend**

-  GSEP Property Boundary
-  Chuckwalla and Ironwood State Prisons
-  Chuckwalla Mountains Wilderness Area
-  Little Chuckwalla Mountains Wilderness Area
-  Palen/McCoy Wilderness Area
-  Dry Lakes
-  Roads

Genesis Solar Energy Project  
 11995 Wiley's Well Road, Blythe, CA 92225

**FIGURE 1**  
**Site Vicinity Map**

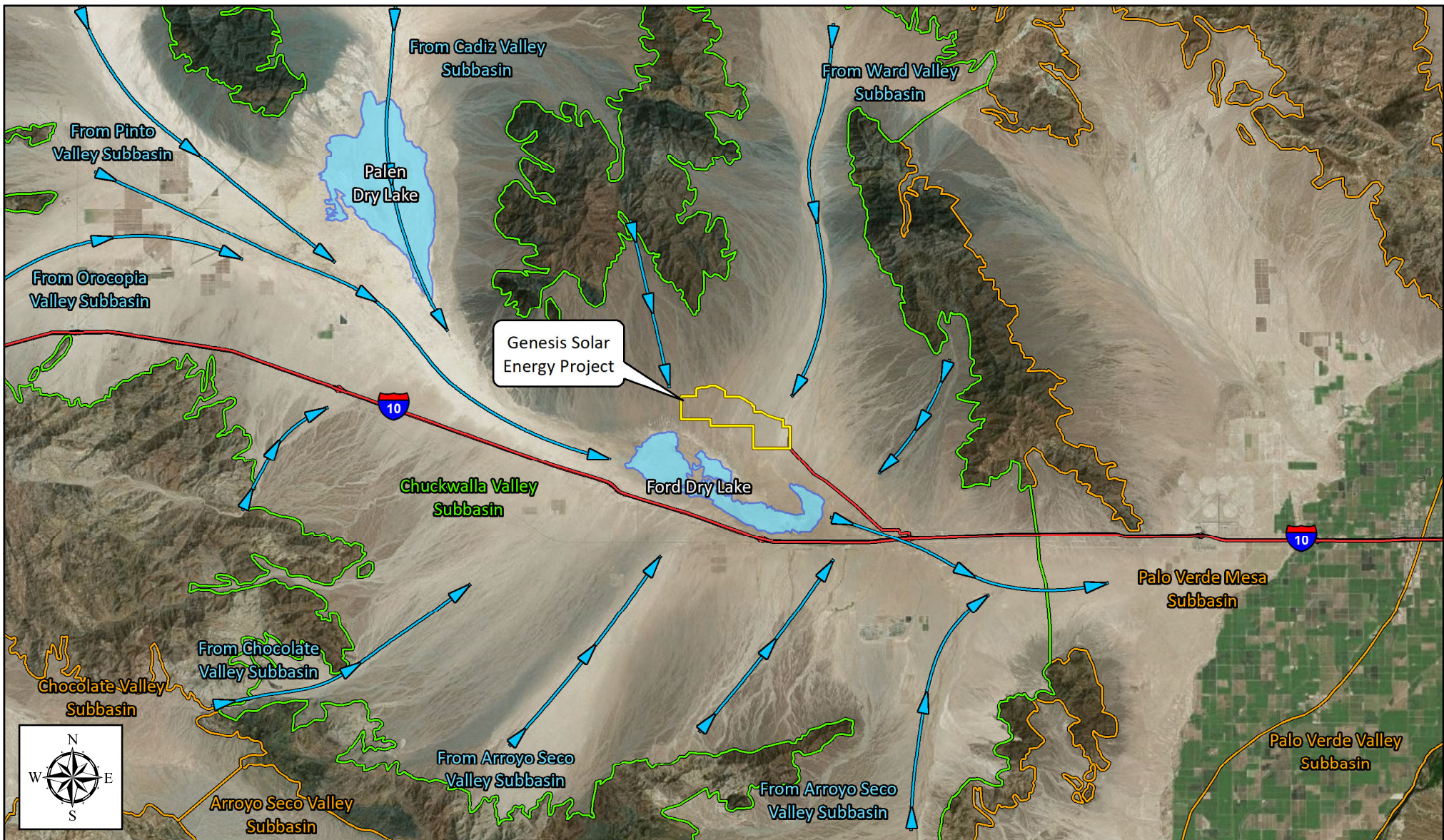


Scale: 1:200,000

Draw Date: 07/06/22

Drawn By: AWB

Checked By: AWB



**Legend**

- GSEP Property Boundary
- Chuckwalla Valley Groundwater Subbasin
- Adjacent Groundwater Subbasins
- Dry Lakes
- Water Flow Direction

Genesis Solar Energy Project  
 11995 Wiley's Well Road, Blythe, CA 92225

**FIGURE 2**  
**Hydrogeologic Setting**

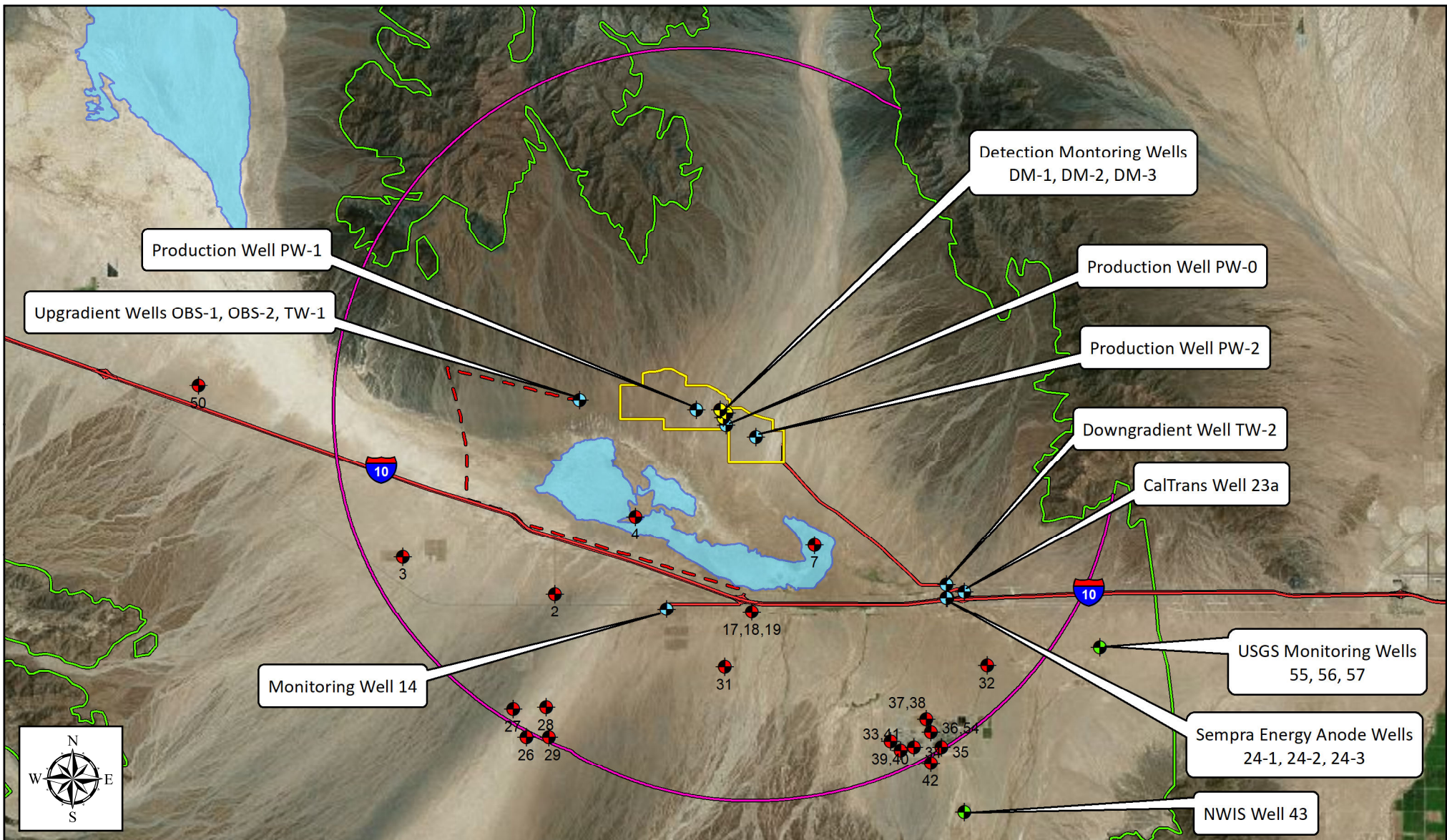


Scale: 1:360,000

Draw Date: 07/06/22

Drawn By: AWB

Checked By: AWB

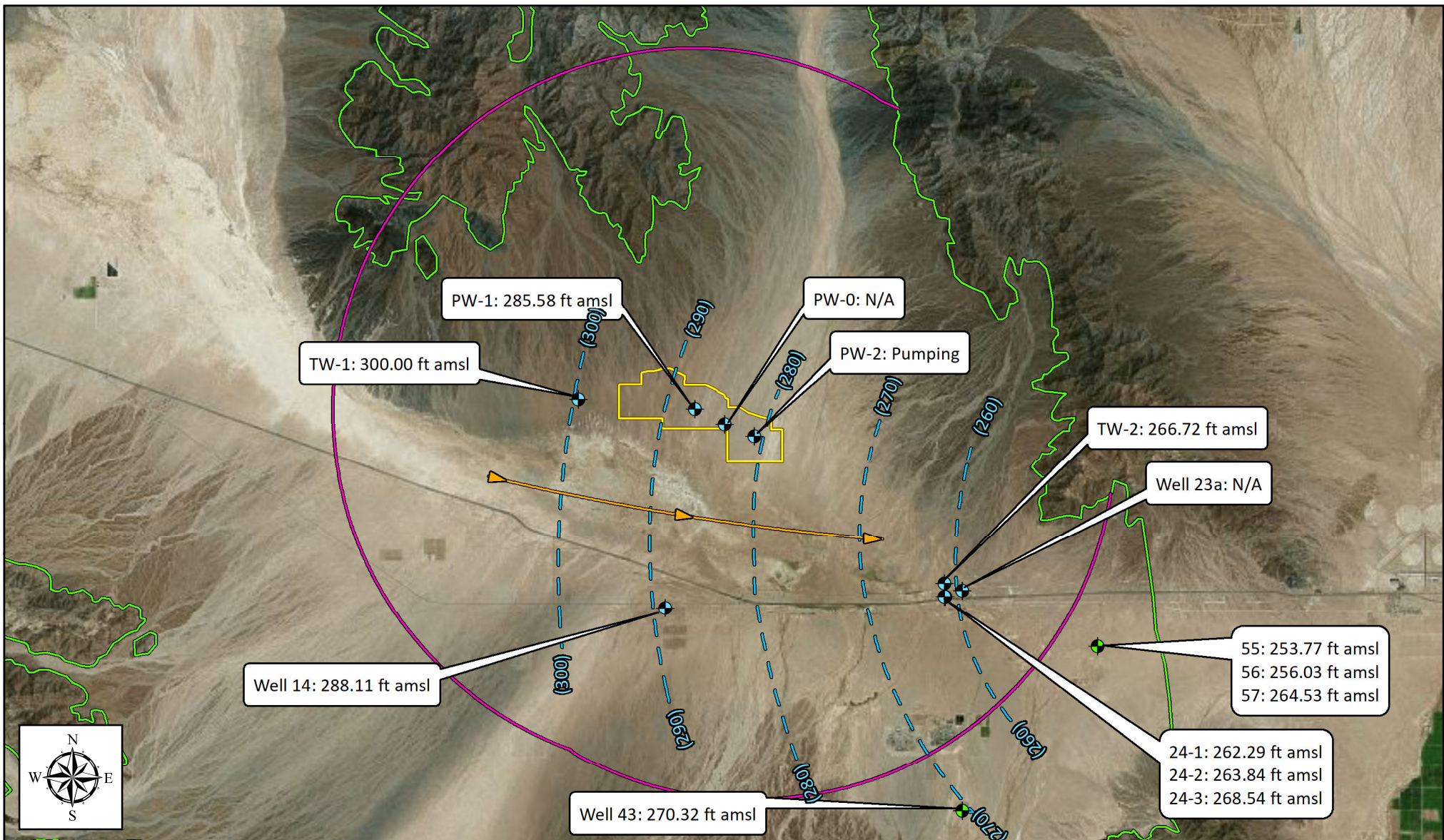


- Legend**
- GSEP Property Boundary
  - Chuckwalla Valley Groundwater Subbasin
  - 10 Mile Boundary
  - Dry Lakes
  - Paved Access Road
  - Unpaved Well Access Road
  - Active Monitoring Wells
  - Detection Monitoring Wells
  - Active NWIS Wells
  - Inactive NWIS Wells








Genesis Solar Energy Project  
11995 Wiley's Well Road, Blythe, CA 92225

**FIGURE 3**  
**Monitoring Area Showing all**  
**Groundwater Monitoring Wells**

	Scale: 1:240,000	Draw Date: 07/06/22
	Drawn By: AWB	Checked By: AWB



**Legend**

-  GSEP Property Boundary
-  Chuckwalla Valley Groundwater Subbasin
-  10 Mile Boundary
-  Groundwater Elevation Contour
-  Groundwater Gradient Direction
-  Active Monitoring Wells
-  Active NWIS Wells

Genesis Solar Energy Project  
11995 Wiley's Well Road, Blythe, CA 92225

**FIGURE 4**  
**Bouse Formation Groundwater Elevation**  
**Contour Map - June 2022**



Scale: 1:240,000

Draw Date: 07/06/22

Drawn By: AWB

Checked By: AWB



# **TABLES**

**TABLE 1**  
**INVENTORY OF WELLS IN THE GROUNDWATER MONITORING AREA**  
 Genesis Solar Energy Project, Riverside County, California

Well ID	State Well Number	Other Name	Owner	Installation Date	Use/Status	Well Casing Diameter (inches)	Approximate Ground Surface Elevation (feet amsl)	Top Of Casing Elevation (feet amsl)	Well Depth (feet bgs)	Screened Interval (feet bgs)	Geologic Unit
<b>WELLS INCLUDED IN THE GROUNDWATER MONITORING PROGRAM</b>											
OBS-1 <sup>1</sup>	--	Shallow Observation Well 1	Genesis Solar, LLC	5/9/2009	Monitoring / Active	5	385.857	388.3	160	100 to 150	Alluvium
OBS-2-270 <sup>1,2</sup>	--	Nested Observation Well 2	Genesis Solar, LLC	7/2/2009	Buried Transducer / Inactive	--	385.617	388.14	270	265 to 275	Bouse Formation
OBS-2-315 <sup>1,2</sup>	--	Nested Observation Well 2	Genesis Solar, LLC	7/2/2009	Buried Transducer / Inactive	--	385.617	388.14	315	304 to 327	Bouse Formation
OBS-2-370 <sup>1,2</sup>	--	Nested Observation Well 2	Genesis Solar, LLC	7/2/2009	Buried Transducer / Inactive	--	385.617	388.14	370	359 to 374	Bouse Formation
OBS-2-400 <sup>1,2</sup>	--	Nested Observation Well 2	Genesis Solar, LLC	7/2/2009	Buried Transducer / Inactive	--	385.617	388.14	400	387 to 418	Bouse Formation
TW-1 <sup>1</sup>	--	Test Well 1	Genesis Solar, LLC	5/22/2009	Monitoring / Active	5	385.91	387.4	565	340 to 564	Bouse Formation
TW-2 <sup>1</sup>	--	Test Well 2	Genesis Solar, LLC	12/9/2009	Monitoring and Dust Control / Active	5	390.003	393.47	1,841	793-873, 1042-1123, 1439-1601, 1739-1820	Bouse Formation / Fanglomerate
PW-0	--	Production Well 0	Genesis Solar, LLC	7/9/2011	Production Well	10	--	--	1,251	882-1002, 1226-1251	Bouse Formation / Fanglomerate
PW-1	--	Production Well 1	Genesis Solar, LLC	8/14/2011	Production Well	10	--	--	1,360	930-950, 990-1000, 1040-1100, 1120-1140, 1160-1200, 1260-1360	Bouse Formation / Fanglomerate
PW-2	--	Production Well 2	Genesis Solar, LLC	9/15/2011	Production Well	10	--	--	1,125	770-930, 980-1120	Bouse Formation
DM-1	--	Detection Monitoring Well 1	Genesis Solar, LLC	2/22/2012	Monitoring / Active	4	--	391.49	120	100 to 120	Alluvium
DM-2	--	Detection Monitoring Well 2	Genesis Solar, LLC	2/21/2012	Monitoring / Active	4	--	391.32	120	100 to 120	Alluvium
DM-3	--	Detection Monitoring Well 3	Genesis Solar, LLC	2/20/2012	Monitoring / Active	4	--	388.34	120	100 to 120	Alluvium
14 <sup>1,3</sup>	6S/19E-32	--	Lorne Froats (AZCA Drilling)	5/1/1991	Domestic/ Irrigation/ Dust Control	12 to 10	393.548	388.14	982 (obstructed at 450)	890 to 940	Fanglomerate
23a <sup>1,4</sup>	6S/20E-33C1	CalTrans Well @ WWRS	CalTrans	Unknown	Water Supply / Inactive	8	397.28	392.1	1,825	1800-1825	Fanglomerate
24-1 <sup>1,5</sup>	6S/20E-33	SCG Anode Well	So Cal Gas	4/29/1989	Anode / Inactive	2	389.3	389.4	435	235 to 435	Alluvium/Bouse Formation
24-2 <sup>5</sup>	6S/20E-33	SCG Anode Well	So Cal Gas	Unknown	Anode / Inactive	1	389.09	388.86	Obstructed at 373 feet	235 to 435	Alluvium/Bouse Formation
24-3 <sup>5</sup>	6S/20E-33	SCG Anode Well	So Cal Gas	Unknown	Anode / Inactive	1	388.2	392.04	Unknown	--	Alluvium/Bouse Formation
<b>ADDITIONAL WELLS IN THE CHUCKWALLA VALLEY GROUNDWATER BASIN WITHIN 10 MILES OF THE SITE FOR WHICH MONITORING DATA IS AVAILABLE</b>											
2	6S/18E-36E1	--	CA Jojoba Research and Development	12/18/1981	Irrigation	10 to 6	424	--	940	250 to 290 770 to 810	Alluvium/Bouse Formation
3	6S/18E-29	Siddall Well	Agra Energy Corp.	2/26/1982	Irrigation	20 to 8	498	--	957	560 to 940	Bouse Formation
4	6S/19E-1911	--	--	--	Unused	12	354	--	--	--	--
9	6S/19E-28R1	--	--	--	Unused	--	354	--	--	--	--
15	6S/19E-32K1	--	--	--	--	12.5	390.2	--	Obstructed at 526 feet	--	Bouse Formation
16	6S/19E-32K2	--	--	--	--	10.5	390	--	Obstructed at 297 feet	--	Bouse Formation
22	6S/20E-33L1	--	--	--	Unknown / Destroyed	--	--	--	--	--	Bouse Formation
23	6S/20E-33C1	--	--	--	Unknown / Destroyed	10	392	--	400	--	--
26	7S/18E-14F1	--	U.S. AgriResearch and Development	12/26/1982	Irrigation	16 to 10	562.58	--	1,000 (obstructed at 952 feet)	410 to 630 750 to 770 810 to 870	Alluvium/Bouse Formation
27	7S/18E-11N1	--	--	--	Unused	16	555	--	486.4	--	Bouse Formation
28	7S/18E-11R1	--	--	--	Unused	16	520	--	779.4	--	Bouse Formation
29	7S/18E-14H1	--	U.S. AgriResearch and Development	1/16/1983	Irrigation	10	545.91	--	985 (obstructed at 950 feet)	420 to 460, 500 to 520, 540 to 580, 620-820, 840-990	Bouse Formation
31	7S/19E-4R1	Teaque Well	--	--	Unused	12	423.89	--	242.2	--	Alluvium
32	7S/20E-4R1	Vada McBride	--	--	Unused	16	418	--	315.7	--	Bouse Formation
33	7S/20E-16M1	--	CA Department of Corrections	--	--	30 to 16	456.02	--	1,200	690 to 1190	Bouse Formation / Fanglomerate
34	7S/20E-17L1	WP-4	CA Department of Corrections	9/8/1992	Public Water Supply	24	458.3	--	1,200	690 to 1190	Bouse Formation / Fanglomerate
35	7S/20E-17K1	--	CA Department of Corrections	12/20/1989	--	30 to 16	456.48	--	1,200	690 to 1190	Bouse Formation / Fanglomerate
36 <sup>6</sup>	7S/20E-17G1	--	CA Department of Corrections	12/30/1987	Industrial	30 to 16 to 10	443.5	--	1,200	690 to 1190	Bouse Formation / Fanglomerate
37 <sup>6</sup>	7S/20E-17C1	78, North Well	CA Department of Corrections	7/28/1981	Irrigation	14-10	433.09	--	1,050	750 to 1,050	Bouse Formation / Fanglomerate
39	7S/20E-18H1	--	CA Department of Corrections	--	--	--	442.9	--	1,139	--	Bouse Formation / Fanglomerate
40	7S/20E-18K1	WP-6	CA Department of Corrections	11/4/1992	Public Water Supply	15 to 10	449.4	--	1,200	690 to 1,200	Bouse Formation / Fanglomerate
41	7S/20E-18R1	WP-5	CA Department of Corrections	10/24/1992	Public Water Supply	13.5 to 10	453.6	--	1,160	--	Fanglomerate
42	7S/20E-20B1	79 / Observation Well 3	--	6/4/1905	Irrigation	16 to 12	470	--	1,100	738 to 1,100	Bouse Formation / Fanglomerate
43	7S/20E-28C1	7S/20E-28F1/80	Jojoba Inc.	3/15/1982	Irrigation	10 to 8	505.6	--	830	510 to 600 and 680 to 780	Bouse Formation
44	7S/20E-28C2	--	Jojoba Southwest	11/30/1989	Irrigation	16 to 12	505.3	--	1,100	700 to 1,100	Bouse Formation / Fanglomerate
47	8S/20E-10N2	60	--	1984	--	4	621	--	872	500 to 580, 620 to 640, 710 to 850	Bouse Formation
50	6S/17E-3M1	--	--	--	--	--	566	--	818	--	Bouse Formation
54	8S/20E-28N1	--	--	--	--	--	654.5	--	500	--	Bouse Formation
55	7S/20E-1M1	CWV1#1	USGS	1/23/2012	Exploratory	2	415.4	--	993	973 to 993	Bouse Formation
56	7S/20E-1M2	CWV1#2	USGS	1/23/2012	Exploratory	2	415.4	--	505	485 to 505	Pinto Formation
57	7S/20E-1M3	CWV1#3	USGS	1/23/2012	Exploratory	2	415.4	--	230	210 to 230	Alluvium

**TABLE 1**  
**INVENTORY OF WELLS IN THE GROUNDWATER MONITORING AREA**  
 Genesis Solar Energy Project, Riverside County, California

Well ID	State Well Number	Other Name	Owner	Installation Date	Use/Status	Well Casing Diameter (inches)	Approximate Ground Surface Elevation (feet amsl)	Top Of Casing Elevation (feet amsl)	Well Depth (feet bgs)	Screened Interval (feet bgs)	Geologic Unit
<b>ADDITIONAL WELLS IN THE CHUCKWALLA VALLEY GROUNDWATER BASIN WITHIN 10 MILES OF THE SITE FOR WHICH MONITORING DATA ARE NOT AVAILABLE</b>											
1	5S/20E-16M1	McCoy Spring and DWR-17	--	--	Unused	--	889	--	--	--	--
5	6S/19E-25P1	--	--	--	Unknown / Destroyed	10	360	--	85.7	--	Alluvium
6	6S/19E-25R1	--	--	--	Unknown / Destroyed	10	360	--	61.9	--	Alluvium
7	6S/19E-25	Boreholes 1A, 1B, 1C	USGS	1978	Exploratory Borehole / Abandoned	--	358	--	--	--	--
8	6S/19E-26Z1	--	--	--	Unknown / Destroyed	--	--	--	--	--	--
10	6S/19E-29E1	--	--	--	Destroyed / Collapsed	6	377	--	Obstructed at 19.7	--	--
11	6S/19E-30H1	--	--	--	Destroyed	6	370	--	28.7	--	Alluvium
12	6S/19E-31Z1	--	--	--	Destroyed	--	--	--	--	--	--
13	6S/19E-32	--	Jacado Agri Corp.	6/27/1982	Destroyed	22 to 18 to 12	392	--	732	307 to 327 365 to 732	Bouse Formation
17	6S/19E-33A1	Hopkins Well and DWR-33X1	--	1911	Destroyed	12 to 8	361	--	1,200 (obstructed at 267 feet)	1,175 to 1,200	Fanglomerate
18	6S/19E-34	--	So Cal Gas	4/29/1989	Anode	1	368	--	400	200 to 400	Alluvium/Bouse Formation
19	6S/19E-34	--	So Cal Gas	7/15/1981	Other	--	369	--	274	0 to 274	Alluvium/Bouse Formation
20	6S/19E-36A1	--	--	--	Destroyed	10	365	--	64.8	--	Alluvium
21	6S/20E-30Z1	Ford Well	--	--	Stock / Destroyed	10	--	--	--	--	--
25	6S/20E-33	--	So Cal Gas	7/20/1981	Monitoring / Presumed Destroyed	1	397	--	278	0 to 278	Alluvium/Bouse Formation
30	7S/18E-14H1	--	--	--	Destroyed	6	546	--	123.9	--	Alluvium
38	7/20E-17C2	Observation Well 1	CA Department of Corrections	6/20/1986	Monitoring / Presumed Destroyed	1 1/4	433	--	1,040	795 to 815 and 995 to 1,015	Bouse Formation / Fanglomerate
45	7S/20E-28	--	Chuckwalla Jojoba inc Great American Securities	6/6/1989	Test Hole/Abandoned	--	505	--	825	--	--
46	7S/20E-27L1	--	--	--	Destroyed	8	517	--	53.6	--	Alluvium

**Notes:**

-- = information not available or unknown

amsl = above mean sea level

bgs = below ground surface

1. Wells were surveyed on February 8 & 9, 2011. Ground surface elevation survey measurement taken at top of concrete pad.

2. Nested pressure transducer buried in place.

3. Well is obstructed at 450 feet and therefore not suitable for groundwater quality monitoring. Used for groundwater level monitoring only.

4. Well completion and screened interval determined by video log performed on 11/09/2010.

5. Anode well completed with Coke Breeze and not considered to be suitable for water quality sampling and used for groundwater level monitoring program only.

6. No access port for groundwater level monitoring; used for groundwater quality monitoring only.

**TABLE 2**  
**GROUNDWATER LEVEL MEASUREMENTS**  
 Genesis Solar Energy Project, Riverside County, California

Well ID	Date	Source	Top of Casing Elevation (feet amsl) <sup>1</sup>	Depth to Water (feet below TOC)	Groundwater Elevation (feet amsl)	Difference from Baseline (feet)	Comments / Use
<b>WELLS INCLUDED IN THE GROUNDWATER LEVEL MONITORING PROGRAM</b>							
TW-1	5/23/2009	WorleyParsons	387.40	89.75	297.65	N/A	Monitoring
TW-1	11/10/2010	WorleyParsons	387.40	86.65	300.75	0.00	Baseline
TW-1	2/8/2011	WorleyParsons	387.40	86.67	300.73	-0.02	Monitoring
TW-1	6/8/2011	WorleyParsons	387.40	86.58	300.82	0.07	Monitoring
TW-1	9/25/2011	WorleyParsons	387.40	86.48	300.92	0.17	Monitoring
TW-1	12/13/2011	WorleyParsons	387.40	86.25	301.15	0.40	Monitoring
TW-1	2/21/2012	WorleyParsons	387.40	86.58	300.82	0.07	Monitoring
TW-1	5/23/2012	WorleyParsons	387.40	86.43	300.97	0.22	Monitoring
TW-1	7/26/2012	WorleyParsons	387.40	86.47	300.93	0.18	Monitoring
TW-1	10/23/2012	WorleyParsons	387.40	86.43	300.97	0.22	Monitoring
TW-1	3/29/2013	WorleyParsons	387.40	86.46	300.94	0.19	Monitoring
TW-1	6/20/2013	WorleyParsons	387.40	86.43	300.97	0.22	Monitoring
TW-1	8/13/2013	WorleyParsons	387.40	86.43	300.97	0.22	Monitoring
TW-1	11/14/2013	WorleyParsons	387.40	86.53	300.87	0.12	Monitoring
TW-1	2/26/2014	WorleyParsons	387.40	86.49	300.91	0.16	Monitoring
TW-1	5/20/2014	Northstar	387.40	86.47	300.93	0.18	Monitoring
TW-1	8/8/2014	Northstar	387.40	86.46	300.94	0.19	Monitoring
TW-1	12/4/2014	Northstar	387.40	86.50	300.90	0.15	Monitoring
TW-1	3/26/2015	Northstar	387.40	86.56	300.84	0.09	Monitoring
TW-1	6/11/2015	Northstar	387.40	86.50	300.90	0.15	Monitoring
TW-1	12/10/2015	Northstar	387.40	86.56	300.84	0.09	Monitoring
TW-1	6/2/2016	Northstar	387.40	86.58	300.82	0.07	Monitoring
TW-1	11/30/2016	Northstar	387.40	86.70	300.70	-0.05	Monitoring
TW-1	6/1/2017	Northstar	387.40	86.60	300.80	0.05	Monitoring
TW-1	12/5/2017	Northstar	387.40	86.70	300.70	-0.05	Monitoring
TW-1	6/1/2018	Northstar	387.40	86.61	300.79	0.04	Monitoring
TW-1	12/4/2018	Northstar	387.40	86.75	300.65	-0.10	Monitoring
TW-1	6/13/2019	Northstar	387.40	86.70	300.70	-0.05	Monitoring
TW-1	12/5/2019	Northstar	387.40	86.70	300.70	-0.05	Monitoring
TW-1	6/5/2020	Northstar	387.40	86.78	300.62	-0.13	Monitoring
TW-1	12/3/2020	Northstar	387.40	87.05	300.35	-0.40	Monitoring
TW-1	6/4/2021	Northstar	387.40	87.10	300.30	-0.45	Monitoring
TW-1	12/3/2021	Northstar	387.40	87.72	299.68	-1.07	Monitoring
TW-1	6/2/2022	Northstar	387.40	87.40	300.00	-0.75	Monitoring
TW-2	1/5/2010	WorleyParsons	393.47	132.37	261.10	N/A	Monitoring
TW-2	11/9/2010	WorleyParsons	393.47	127.09	266.38	0.00	Baseline
TW-2	1/19/2011	WorleyParsons	393.47	125.68	267.79	1.41	Monitoring
TW-2	2/8/2011	WorleyParsons	393.47	Pumping		N/A	Pumping
TW-2	6/9/2011	WorleyParsons	393.47	126.46	267.01	0.63	Monitoring
TW-2	9/26/2011	WorleyParsons	393.47	128.04	265.43	-0.95	Monitoring
TW-2	12/14/2011	WorleyParsons	393.47	127.75	265.72	-0.66	Monitoring
TW-2	2/21/2012	WorleyParsons	393.47	127.85	265.62	-0.76	Monitoring
TW-2	5/24/2012	WorleyParsons	393.47	127.88	265.59	-0.79	Monitoring
TW-2	7/26/2012	WorleyParsons	393.47	128.09	265.38	-1.00	Monitoring
TW-2	10/23/2012	WorleyParsons	393.47	127.87	265.60	-0.78	Monitoring
TW-2	3/28/2013	WorleyParsons	393.47	127.22	266.25	-0.13	Monitoring
TW-2	6/20/2013	WorleyParsons	393.47	127.52	265.95	-0.43	Monitoring
TW-2	8/13/2013	WorleyParsons	393.47	127.88	265.59	-0.79	Monitoring
TW-2	11/12/2013	WorleyParsons	393.47	128.07	265.40	-0.98	Monitoring
TW-2	2/26/2014	WorleyParsons	393.47	127.00	266.47	0.09	Monitoring
TW-2	5/20/2014	Northstar	393.47	127.18	266.29	-0.09	Monitoring
TW-2	8/8/2014	Northstar	393.47	127.40	266.07	-0.31	Monitoring
TW-2	12/4/2014	Northstar	393.47	127.22	266.25	-0.13	Monitoring
TW-2	3/26/2015	Northstar	393.47	127.08	266.39	0.01	Monitoring
TW-2	6/11/2015	Northstar	393.47	127.00	266.47	0.09	Monitoring
TW-2	12/10/2015	Northstar	393.47	126.71	266.76	0.38	Monitoring
TW-2	6/2/2016	Northstar	393.47	126.60	266.87	0.49	Monitoring
TW-2	11/30/2016	Northstar	393.47	126.86	266.61	0.23	Monitoring
TW-2	6/1/2017	Northstar	393.47	126.60	266.87	0.49	Monitoring
TW-2	12/5/2017	Northstar	393.47	126.75	266.72	0.34	Monitoring
TW-2	6/1/2018	Northstar	393.47	126.78	266.69	0.31	Monitoring
TW-2	12/4/2018	Northstar	393.47	127.38	266.09	-0.29	Monitoring
TW-2	6/14/2019	Northstar	393.47	127.05	266.42	0.04	Monitoring
TW-2	12/5/2019	Northstar	393.47	126.75	266.72	0.34	Monitoring
TW-2	6/5/2020	Northstar	393.47	126.60	266.87	0.49	Monitoring
TW-2	12/3/2020	Northstar	393.47	126.98	266.49	0.11	Monitoring
TW-2	6/4/2021	Northstar	393.47	126.60	266.87	0.49	Monitoring
TW-2	12/2/2021	Northstar	393.47	127.01	266.46	0.08	Monitoring
TW-2	6/2/2022	Northstar	393.47	126.75	266.72	0.34	Monitoring

**TABLE 2**  
**GROUNDWATER LEVEL MEASUREMENTS**  
 Genesis Solar Energy Project, Riverside County, California

Well ID	Date	Source	Top of Casing Elevation (feet amsl) <sup>1</sup>	Depth to Water (feet below TOC)	Groundwater Elevation (feet amsl)	Difference from Baseline (feet)	Comments / Use
OBS-1	5/25/2009	WorleyParsons	388.30	79.22	309.08	N/A	Monitoring
OBS-1	11/10/2010	WorleyParsons	388.30	77.67	310.63	0.00	Baseline
OBS-1	2/8/2011	WorleyParsons	388.30	77.98	310.32	-0.31	Monitoring
OBS-1	6/8/2011	WorleyParsons	388.30	77.99	310.31	-0.32	Monitoring
OBS-1	9/25/2011	WorleyParsons	388.30	78.08	310.22	-0.41	Monitoring
OBS-1	12/13/2011	WorleyParsons	388.30	78.29	310.01	-0.62	Monitoring
OBS-1	2/21/2012	WorleyParsons	388.30	78.17	310.13	-0.50	Monitoring
OBS-1	5/23/2012	WorleyParsons	388.30	78.14	310.16	-0.47	Monitoring
OBS-1	7/26/2012	WorleyParsons	388.30	78.15	310.15	-0.48	Monitoring
OBS-1	10/23/2012	WorleyParsons	388.30	78.09	310.21	-0.42	Monitoring
OBS-1	3/29/2013	WorleyParsons	388.30	78.06	310.24	-0.39	Monitoring
OBS-1	6/20/2013	WorleyParsons	388.30	78.05	310.25	-0.38	Monitoring
OBS-1	8/13/2013	WorleyParsons	388.30	78.07	310.23	-0.40	Monitoring
OBS-1	11/14/2013	WorleyParsons	388.30	78.15	310.15	-0.48	Monitoring
OBS-1	2/26/2014	WorleyParsons	388.30	78.12	310.18	-0.45	Monitoring
OBS-1	5/20/2014	Northstar	388.30	78.06	310.24	-0.39	Monitoring
OBS-1	8/8/2014	Northstar	388.30	78.05	310.25	-0.38	Monitoring
OBS-1	12/4/2014	Northstar	388.30	78.10	310.20	-0.43	Monitoring
OBS-1	3/26/2015	Northstar	388.30	78.15	310.15	-0.48	Monitoring
OBS-1	6/11/2015	Northstar	388.30	78.10	310.20	-0.43	Monitoring
OBS-1	12/10/2015	Northstar	388.30	78.20	310.10	-0.53	Monitoring
OBS-1	6/2/2016	Northstar	388.30	78.14	310.16	-0.47	Monitoring
OBS-1	11/30/2016	Northstar	388.30	78.20	310.10	-0.53	Monitoring
OBS-1	6/1/2017	Northstar	388.30	78.13	310.17	-0.46	Monitoring
OBS-1	12/5/2017	Northstar	388.30	78.18	310.12	-0.51	Monitoring
OBS-1	6/1/2018	Northstar	388.30	78.10	310.20	-0.43	Monitoring
OBS-1	12/4/2018	Northstar	388.30	78.18	310.12	-0.51	Monitoring
OBS-1	6/13/2019	Northstar	388.30	78.12	310.18	-0.45	Monitoring
OBS-1	12/5/2019	Northstar	388.30	78.10	310.20	-0.43	Monitoring
OBS-1	6/5/2020	Northstar	388.30	78.10	310.20	-0.43	Monitoring
OBS-1	12/3/2020	Northstar	388.30	78.25	310.05	-0.58	Monitoring
OBS-1	6/4/2021	Northstar	388.30	78.15	310.15	-0.48	Monitoring
OBS-1	12/3/2021	Northstar	388.30	78.22	310.08	-0.55	Monitoring
OBS-1	6/2/2022	Northstar	388.30	78.15	310.15	-0.48	Monitoring
OBS-2-270 <sup>6</sup>	7/9/2009	WorleyParsons	388.14	78.75	309.39	N/A	Monitoring
OBS-2-270 <sup>6</sup>	11/10/2010	WorleyParsons	388.14	80.56	307.58	0.00	Baseline
OBS-2-270 <sup>6</sup>	2/8/2011	WorleyParsons	388.14	80.61	307.53	-0.05	Monitoring
OBS-2-270 <sup>6</sup>	2/8/2011	WorleyParsons	388.14	80.68	307.46	-0.12	Monitoring
OBS-2-270 <sup>6</sup>	9/25/2011	WorleyParsons	388.14	80.77	307.37	-0.21	Monitoring
OBS-2-270 <sup>6</sup>	12/14/2011	WorleyParsons	388.14	NM <sup>2</sup>		N/A	Monitoring
OBS-2-270 <sup>6</sup>	2/21/2012	WorleyParsons	388.14	80.47	307.67	0.09	Monitoring
OBS-2-270 <sup>6</sup>	5/25/2012	WorleyParsons	388.14	81.28	306.86	-0.72	Monitoring
OBS-2-270 <sup>6</sup>	7/26/2012	WorleyParsons	388.14	81.00	307.14	-0.44	Monitoring
OBS-2-270 <sup>6</sup>	10/23/2012	WorleyParsons	388.14	81.01	307.13	-0.45	Monitoring
OBS-2-270 <sup>6</sup>	3/29/2013	WorleyParsons	388.14	80.99	307.15	-0.43	Monitoring
OBS-2-270 <sup>6</sup>	6/20/2013	WorleyParsons	388.14	NM <sup>2</sup>		N/A	Monitoring
OBS-2-270 <sup>6</sup>	8/13/2013	WorleyParsons	388.14	NM <sup>2</sup>		N/A	Monitoring
OBS-2-270 <sup>6</sup>	11/12/2013	WorleyParsons	388.14	81.24	306.90	-0.68	Monitoring
OBS-2-270 <sup>6</sup>	2/26/2014	WorleyParsons	388.14	81.48	306.66	-0.92	Monitoring
OBS-2-315 <sup>6</sup>	7/9/2009	WorleyParsons	388.14	80.89	307.25	N/A	Monitoring
OBS-2-315 <sup>6</sup>	11/10/2010	WorleyParsons	388.14	82.51	305.63	0.00	Baseline
OBS-2-315 <sup>6</sup>	2/8/2011	WorleyParsons	388.14	82.61	305.53	-0.10	Monitoring
OBS-2-315 <sup>6</sup>	2/8/2011	WorleyParsons	388.14	82.83	305.31	-0.32	Monitoring
OBS-2-315 <sup>6</sup>	9/25/2011	WorleyParsons	388.14	83.03	305.11	-0.52	Monitoring
OBS-2-315 <sup>6</sup>	12/14/2011	WorleyParsons	388.14	NM <sup>2</sup>		N/A	Monitoring
OBS-2-315 <sup>6</sup>	2/21/2012	WorleyParsons	388.14	82.81	305.33	-0.30	Monitoring
OBS-2-315 <sup>6</sup>	5/25/2012	WorleyParsons	388.14	NM <sup>2</sup>		N/A	Monitoring
OBS-2-315 <sup>6</sup>	7/26/2012	WorleyParsons	388.14	83.38	304.76	-0.87	Monitoring
OBS-2-315 <sup>6</sup>	10/23/2012	WorleyParsons	388.14	83.43	304.71	-0.92	Monitoring
OBS-2-315 <sup>6</sup>	3/29/2013	WorleyParsons	388.14	83.45	304.69	-0.94	Monitoring
OBS-2-315 <sup>6</sup>	6/20/2013	WorleyParsons	388.14	NM <sup>2</sup>		N/A	Monitoring
OBS-2-315 <sup>6</sup>	8/13/2013	WorleyParsons	388.14	NM <sup>2</sup>		N/A	Monitoring
OBS-2-315 <sup>6</sup>	11/12/2013	WorleyParsons	388.14	83.74	304.40	-1.23	Monitoring
OBS-2-315 <sup>6</sup>	2/26/2014	WorleyParsons	388.14	83.96	304.18	-1.45	Monitoring

**TABLE 2**  
**GROUNDWATER LEVEL MEASUREMENTS**  
 Genesis Solar Energy Project, Riverside County, California

Well ID	Date	Source	Top of Casing Elevation (feet amsl) <sup>1</sup>	Depth to Water (feet below TOC)	Groundwater Elevation (feet amsl)	Difference from Baseline (feet)	Comments / Use
OBS-2-370 <sup>6</sup>	7/9/2009	WorleyParsons	388.14	82.46	305.68	N/A	Monitoring
OBS-2-370 <sup>6</sup>	11/10/2010	WorleyParsons	388.14	84.60	303.54	0.00	Baseline
OBS-2-370 <sup>6</sup>	2/8/2011	WorleyParsons	388.14	85.01	303.13	-0.41	Monitoring
OBS-2-370 <sup>6</sup>	9/25/2011	WorleyParsons	388.14	85.24	302.90	-0.64	Monitoring
OBS-2-370 <sup>6</sup>	12/14/2011	WorleyParsons	388.14	NM <sup>2</sup>		N/A	Monitoring
OBS-2-370 <sup>6</sup>	2/21/2012	WorleyParsons	388.14	85.05	303.09	-0.45	Monitoring
OBS-2-370 <sup>6</sup>	5/25/2012	WorleyParsons	388.14	85.84	302.30	-1.24	Monitoring
OBS-2-370 <sup>6</sup>	7/26/2012	WorleyParsons	388.14	85.64	302.50	-1.04	Monitoring
OBS-2-370 <sup>6</sup>	10/23/2012	WorleyParsons	388.14	85.70	302.44	-1.10	Monitoring
OBS-2-370 <sup>6</sup>	3/29/2013	WorleyParsons	388.14	85.75	302.39	-1.15	Monitoring
OBS-2-370 <sup>6</sup>	6/20/2013	WorleyParsons	388.14	NM <sup>2</sup>		N/A	Monitoring
OBS-2-370 <sup>6</sup>	8/13/2013	WorleyParsons	388.14	NM <sup>2</sup>		N/A	Monitoring
OBS-2-370 <sup>6</sup>	11/12/2013	WorleyParsons	388.14	86.05	302.09	-1.45	Monitoring
OBS-2-370 <sup>6</sup>	2/26/2014	WorleyParsons	388.14	86.27	301.87	-1.67	Monitoring
OBS-2-400 <sup>6</sup>	7/9/2009	WorleyParsons	388.14	86.26	301.88	N/A	Monitoring
OBS-2-400 <sup>6</sup>	11/10/2010	WorleyParsons	388.14	87.34	300.80	0.00	Baseline
OBS-2-400 <sup>6</sup>	2/8/2011	WorleyParsons	388.14	87.41	300.73	-0.07	Monitoring
OBS-2-400 <sup>6</sup>	2/8/2011	WorleyParsons	388.14	87.57	300.57	-0.23	Monitoring
OBS-2-400 <sup>6</sup>	9/25/2011	WorleyParsons	388.14	87.73	300.41	-0.39	Monitoring
OBS-2-400 <sup>6</sup>	12/14/2011	WorleyParsons	388.14	NM <sup>2</sup>		N/A	Monitoring
OBS-2-400 <sup>6</sup>	2/21/2012	WorleyParsons	388.14	87.47	300.67	-0.13	Monitoring
OBS-2-400 <sup>6</sup>	5/25/2012	WorleyParsons	388.14	88.20	299.94	-0.86	Monitoring
OBS-2-400 <sup>6</sup>	7/26/2012	WorleyParsons	388.14	87.96	300.18	-0.62	Monitoring
OBS-2-400 <sup>6</sup>	10/23/2012	WorleyParsons	388.14	87.97	300.17	-0.63	Monitoring
OBS-2-400 <sup>6</sup>	3/29/2013	WorleyParsons	388.14	88.20	299.94	-0.86	Monitoring
OBS-2-400 <sup>6</sup>	6/20/2013	WorleyParsons	388.14	NM <sup>2</sup>		N/A	Monitoring
OBS-2-400 <sup>6</sup>	8/13/2013	WorleyParsons	388.14	NM <sup>2</sup>		N/A	Monitoring
OBS-2-400 <sup>6</sup>	11/12/2013	WorleyParsons	388.14	88.12	300.02	-0.78	Monitoring
OBS-2-400 <sup>6</sup>	2/26/2014	WorleyParsons	388.14	88.31	299.83	-0.97	Monitoring
14	6/8/2011	WorleyParsons	388.14	100.98	287.16	0.00	Baseline
14	9/26/2011	WorleyParsons	388.14	100.65	287.49	0.33	Monitoring
14	12/14/2011	WorleyParsons	388.14	100.87	287.27	0.11	Monitoring
14	2/21/2012	WorleyParsons	388.14	100.85	287.29	0.13	Monitoring
14	5/24/2012	WorleyParsons	388.14	100.70	287.44	0.28	Monitoring
14	7/26/2012	WorleyParsons	388.14	100.72	287.42	0.26	Monitoring
14	10/23/2012	WorleyParsons	388.14	100.66	287.48	0.32	Monitoring
14	3/28/2013	WorleyParsons	388.14	100.49	287.65	0.49	Monitoring
14	6/20/2013	WorleyParsons	388.14	100.46	287.68	0.52	Monitoring
14	8/13/2013	WorleyParsons	388.14	100.46	287.68	0.52	Monitoring
14	11/12/2013	WorleyParsons	388.14	NM <sup>4</sup>		N/A	Monitoring
14	2/26/2014	WorleyParsons	388.14	100.39	287.75	0.59	Monitoring
14	5/20/2014	Northstar	388.14	100.35	287.79	0.63	Monitoring
14	8/8/2014	Northstar	388.14	100.26	287.88	0.72	Monitoring
14	12/4/2014	Northstar	388.14	100.25	287.89	0.73	Monitoring
14	3/26/2015	Northstar	388.14	100.25	287.89	0.73	Monitoring
14	6/11/2015	Northstar	388.14	100.15	287.99	0.83	Monitoring
14	12/10/2015	Northstar	388.14	100.12	288.02	0.86	Monitoring
14	6/2/2016	Northstar	388.14	100.08	288.06	0.90	Monitoring
14	11/30/2016	Northstar	388.14	100.10	288.04	0.88	Monitoring
14	6/2/2017	Northstar	388.14	100.13	288.01	0.85	Monitoring
14 <sup>8</sup>	12/5/2017	Northstar	388.14	128.75		N/A	Monitoring
14	6/1/2018	Northstar	388.14	100.60	287.54	0.38	Monitoring
14	12/4/2018	Northstar	388.14	100.52	287.62	0.46	Monitoring
14	6/13/2019	Northstar	388.14	100.20	287.94	0.78	Monitoring
14	12/5/2019	Northstar	388.14	100.85	287.29	0.13	Monitoring
14	6/4/2020	Northstar	388.14	100.60	287.54	0.38	Monitoring
14	12/3/2020	Northstar	388.14	100.47	287.67	0.51	Monitoring
14	6/3/2021	Northstar	388.14	100.15	287.99	0.83	Monitoring
14	12/3/2021	Northstar	388.14	100.20	287.94	0.78	Monitoring
14	6/2/2022	Northstar	388.14	100.03	288.11	0.95	Monitoring
23a	11/11/2010	WorleyParsons	392.10	138.05	254.05	0.00	Baseline
23a	2/8/2011	WorleyParsons	392.10	137.12	254.98	0.93	Monitoring
23a	6/7/2011	WorleyParsons	392.10	137.58	254.52	0.47	Monitoring
23a	9/26/2011	WorleyParsons	392.10	138.01	254.09	0.04	Monitoring

**TABLE 2**  
**GROUNDWATER LEVEL MEASUREMENTS**  
 Genesis Solar Energy Project, Riverside County, California

Well ID	Date	Source	Top of Casing Elevation (feet amsl) <sup>1</sup>	Depth to Water (feet below TOC)	Groundwater Elevation (feet amsl)	Difference from Baseline (feet)	Comments / Use
23a	12/14/2011	WorleyParsons	392.10	138.88	253.22	-0.83	Monitoring
23a	2/22/2012	WorleyParsons	392.10	137.70	254.40	0.35	Monitoring
23a	5/24/2012	WorleyParsons	392.10	137.74	254.36	0.31	Monitoring
23a	7/26/2012	WorleyParsons	392.10	137.76	254.34	0.29	Monitoring
23a	10/23/2012	WorleyParsons	392.10	137.94	254.16	0.11	Monitoring
23a	3/28/2013	WorleyParsons	392.10	137.27	254.83	0.78	Monitoring
23a	6/20/2013	WorleyParsons	392.10	137.77	254.33	0.28	Monitoring
23a	8/13/2013	WorleyParsons	392.10	137.81	254.29	0.24	Monitoring
23a	11/12/2013	WorleyParsons	392.10	138.01	254.09	0.04	Monitoring
23a	2/25/2014	WorleyParsons	392.10	136.90	255.20	1.15	Monitoring
23a	5/20/2014	Northstar	392.10	137.15	254.95	0.90	Monitoring
23a	8/8/2014	Northstar	392.10	137.31	254.79	0.74	Monitoring
23a	12/4/2014	Northstar	392.10	137.18	254.92	0.87	Monitoring
23a	3/26/2015	Northstar	392.10	NM <sup>7</sup>		N/A	Monitoring
23a	6/11/2015	Northstar	392.10	NM <sup>7</sup>		N/A	Monitoring
23a	12/10/2015	Northstar	392.10	136.60	255.50	1.45	Monitoring
23a	6/2/2016	Northstar	392.10	136.55	255.55	1.50	Monitoring
23a	11/30/2016	Northstar	392.10	136.75	255.35	1.30	Monitoring
23a	6/1/2017	Northstar	392.10	136.40	255.70	1.65	Monitoring
23a	12/5/2017	Northstar	392.10	136.70	255.40	1.35	Monitoring
23a	6/1/2018	Northstar	392.10	136.60	255.50	1.45	Monitoring
23a	12/4/2018	Northstar	392.10	NM <sup>7</sup>		N/A	Monitoring
23a	6/14/2019	Northstar	392.10	136.60	255.50	1.45	Monitoring
23a	12/5/2019	Northstar	392.10	136.75	255.35	1.30	Monitoring
23a	6/5/2020	Northstar	392.10	136.40	255.70	1.65	Monitoring
23a	12/3/2020	Northstar	392.10	136.80	255.30	1.25	Monitoring
23a	6/4/2021	Northstar	392.10	136.35	255.75	1.70	Monitoring
23a	12/3/2021	Northstar	392.10	136.68	255.42	1.37	Monitoring
23a	12/3/2021	Northstar	392.10	NM <sup>7</sup>		N/A	Monitoring
24-1	2/8/2011	WorleyParsons	389.40	123.66	265.74	N/A	Monitoring
24-1	6/8/2011	WorleyParsons	389.40	126.71	262.69	0.00	Baseline
24-1	9/26/2011	WorleyParsons	389.40	127.15	262.25	-0.44	Monitoring
24-1	12/13/2011	WorleyParsons	389.40	126.98	262.42	-0.27	Monitoring
24-1	2/22/2012	WorleyParsons	389.40	127.20	262.20	-0.49	Monitoring
24-1	5/23/2012	WorleyParsons	389.40	127.14	262.26	-0.43	Monitoring
24-1	7/26/2012	WorleyParsons	389.40	127.31	262.09	-0.60	Monitoring
24-1	10/23/2012	WorleyParsons	389.40	127.21	262.19	-0.50	Monitoring
24-1	3/28/2013	WorleyParsons	389.40	126.73	262.67	-0.02	Monitoring
24-1	6/19/2013	WorleyParsons	389.40	127.95	261.45	-1.24	Monitoring
24-1	8/14/2013	WorleyParsons	389.40	127.18	262.22	-0.47	Monitoring
24-1	11/13/2013	WorleyParsons	389.40	127.31	262.09	-0.60	Monitoring
24-1	2/25/2014	WorleyParsons	389.40	125.70	263.70	1.01	Monitoring
24-1	5/22/2014	Northstar	389.40	126.84	262.56	-0.13	Monitoring
24-1	8/8/2014	Northstar	389.40	126.91	262.49	-0.20	Monitoring
24-1	12/5/2014	Northstar	389.40	126.91	262.49	-0.20	Monitoring
24-1	3/26/2015	Northstar	389.40	127.10	262.30	-0.39	Monitoring
24-1	6/11/2015	Northstar	389.40	127.02	262.38	-0.31	Monitoring
24-1	12/11/2015	Northstar	389.40	126.80	262.60	-0.09	Monitoring
24-1	6/3/2016	Northstar	389.40	126.79	262.61	-0.08	Monitoring
24-1	11/30/2016	Northstar	389.40	126.93	262.47	-0.22	Monitoring
24-1	6/2/2017	Northstar	389.40	126.88	262.52	-0.17	Monitoring
24-1	12/5/2017	Northstar	389.40	126.95	262.45	-0.24	Monitoring
24-1	6/1/2018	Northstar	389.40	126.91	262.49	-0.20	Monitoring
24-1	12/4/2018	Northstar	389.40	127.36	262.04	-0.65	Monitoring
24-1	6/13/2019	Northstar	389.40	127.27	262.13	-0.56	Monitoring
24-1	12/5/2019	Northstar	389.40	127.10	262.30	-0.39	Monitoring
24-1	6/4/2020	Northstar	389.40	126.90	262.50	-0.19	Monitoring
24-1	12/3/2020	Northstar	389.40	127.30	262.10	-0.59	Monitoring
24-1	6/3/2021	Northstar	389.40	126.98	262.42	-0.27	Monitoring
24-1	12/3/2021	Northstar	389.40	127.31	262.09	-0.60	Monitoring
24-1	6/2/2022	Northstar	389.40	127.11	262.29	-0.40	Monitoring
24-2	2/8/2011	WorleyParsons	388.86	124.91	263.95	0.00	Baseline
24-2	10/23/2011	WorleyParsons	388.86	125.69	263.17	-0.78	Monitoring
24-2	6/19/2013	WorleyParsons	388.86	125.40	263.46	-0.49	Monitoring
24-2	8/14/2013	WorleyParsons	388.86	126.60	262.26	-1.69	Monitoring
24-2	5/22/2014	Northstar	388.86	125.82	263.04	-0.91	Monitoring
24-2	8/8/2014	Northstar	388.86	125.33	263.53	-0.42	Monitoring
24-2	12/5/2014	Northstar	388.86	125.95	262.91	-1.04	Monitoring
24-2	3/26/2015	Northstar	388.86	125.20	263.66	-0.29	Monitoring

**TABLE 2**  
**GROUNDWATER LEVEL MEASUREMENTS**  
 Genesis Solar Energy Project, Riverside County, California

Well ID	Date	Source	Top of Casing Elevation (feet amsl) <sup>1</sup>	Depth to Water (feet below TOC)	Groundwater Elevation (feet amsl)	Difference from Baseline (feet)	Comments / Use
24-2	6/11/2015	Northstar	388.86	125.15	263.71	-0.24	Monitoring
24-2	12/11/2015	Northstar	388.86	124.90	263.96	0.01	Monitoring
24-2	6/3/2016	Northstar	388.86	124.90	263.96	0.01	Monitoring
24-2	11/30/2016	Northstar	388.86	125.08	263.78	-0.17	Monitoring
24-2	6/2/2017	Northstar	388.86	125.00	263.86	-0.09	Monitoring
24-2	12/5/2017	Northstar	388.86	125.05	263.81	-0.14	Monitoring
24-2	6/1/2018	Northstar	388.86	125.00	263.86	-0.09	Monitoring
24-2	12/4/2018	Northstar	388.86	125.45	263.41	-0.54	Monitoring
24-2	6/13/2019	Northstar	388.86	125.35	263.51	-0.44	Monitoring
24-2	12/5/2019	Northstar	388.86	125.10	263.76	-0.19	Monitoring
24-2	6/4/2020	Northstar	388.86	124.89	263.97	0.02	Monitoring
24-2	12/3/2020	Northstar	388.86	125.30	263.56	-0.39	Monitoring
24-2	6/3/2021	Northstar	388.86	124.97	263.89	-0.06	Monitoring
24-2	12/3/2021	Northstar	388.86	125.25	263.61	-0.34	Monitoring
24-2	12/3/2021	Northstar	388.86	125.02	263.84	-0.11	Monitoring
24-3	2/8/2011	WorleyParsons	392.04	126.45	265.59	N/A	Monitoring
24-3	10/23/2011	WorleyParsons	392.04	124.48	267.56	0.00	Baseline
24-3	6/19/2013	WorleyParsons	392.04	124.15	267.89	0.33	Monitoring
24-3	8/14/2013	WorleyParsons	392.04	124.44	267.60	0.04	Monitoring
24-3	5/22/2014	Northstar	392.04	124.00	268.04	0.48	Monitoring
24-3	8/8/2014	Northstar	392.04	124.07	267.97	0.41	Monitoring
24-3	12/5/2014	Northstar	392.04	124.05	267.99	0.43	Monitoring
24-3	3/26/2015	Northstar	392.04	123.90	268.14	0.58	Monitoring
24-3	6/11/2015	Northstar	392.04	123.85	268.19	0.63	Monitoring
24-3	12/11/2015	Northstar	392.04	123.55	268.49	0.93	Monitoring
24-3	6/3/2016	Northstar	392.04	123.48	268.56	1.00	Monitoring
24-3	11/30/2016	Northstar	392.04	123.65	268.39	0.83	Monitoring
24-3	6/2/2017	Northstar	392.04	123.55	268.49	0.93	Monitoring
24-3	12/5/2017	Northstar	392.04	123.65	268.39	0.83	Monitoring
24-3	6/1/2018	Northstar	392.04	123.57	268.47	0.91	Monitoring
24-3	12/4/2018	Northstar	392.04	124.08	267.96	0.40	Monitoring
24-3	6/13/2019	Northstar	392.04	123.95	268.09	0.53	Monitoring
24-3	12/5/2019	Northstar	392.04	123.71	268.33	0.77	Monitoring
24-3	6/4/2020	Northstar	392.04	123.43	268.61	1.05	Monitoring
24-3	12/3/2020	Northstar	392.04	123.81	268.23	0.67	Monitoring
24-3	6/3/2021	Northstar	392.04	123.50	268.54	0.98	Monitoring
24-3	12/3/2021	Northstar	392.04	123.72	268.32	0.76	Monitoring
24-3	6/2/2022	Northstar	392.04	123.50	268.54	0.98	Monitoring
PW-0	12/14/2011	WorleyParsons	385.64	NM <sup>3</sup>		N/A	Production/Monitoring
PW-0	2/23/2012	WorleyParsons	385.64	NM <sup>3</sup>		N/A	Production/Monitoring
PW-0	5/23/2012	WorleyParsons	385.64	NM <sup>3</sup>		N/A	Production/Monitoring
PW-0	7/26/2012	WorleyParsons	385.64	NM <sup>3</sup>		N/A	Production/Monitoring
PW-0	10/23/2012	WorleyParsons	385.64	Pumping		N/A	Production/Monitoring
PW-0	3/28/2013	WorleyParsons	385.64	67.71	317.93	N/A	Production/Monitoring
PW-0	6/19/2013	WorleyParsons	385.64	Pumping		N/A	Production/Monitoring
PW-0	8/13/2013	WorleyParsons	385.64	100.49	285.15	N/A	Production/Monitoring
PW-0	11/13/2013	WorleyParsons	385.64	118.10	267.54	N/A	Production/Monitoring
PW-0	2/26/2014	WorleyParsons	385.64	98.46	287.18	N/A	Production/Monitoring
PW-0	5/20/2014	Northstar	385.64	99.60	286.04	N/A	Production/Monitoring
PW-0	8/8/2014	Northstar	385.64	99.06	286.58	N/A	Production/Monitoring
PW-0	12/4/2014	Northstar	385.64	99.65	285.99	N/A	Production/Monitoring
PW-0	3/26/2015	Northstar	385.64	99.62	286.02	N/A	Production/Monitoring
PW-0	6/11/2015	Northstar	385.64	98.00	287.64	N/A	Production/Monitoring
PW-0	12/10/2015	Northstar	385.64	99.55	286.09	N/A	Production/Monitoring
PW-0	6/3/2016	Northstar	385.64	99.78	285.86	N/A	Production/Monitoring
PW-0	11/30/2016	Northstar	385.64	99.50	286.14	N/A	Production/Monitoring
PW-0	6/1/2017	Northstar	385.64	99.32	286.32	N/A	Production/Monitoring
PW-0	12/5/2017	Northstar	385.64	98.00	287.64	N/A	Production/Monitoring
PW-0	5/30/2018	Northstar	385.64	99.27	286.37	N/A	Production/Monitoring
PW-0	12/4/2018	Northstar	385.64	NM <sup>3</sup>		N/A	Production/Monitoring
PW-0	6/13/2019	Northstar	385.64	NM <sup>3</sup>		N/A	Production/Monitoring
PW-0	12/5/2019	Northstar	385.64	NM <sup>3</sup>		N/A	Production/Monitoring
PW-0	6/4/2020	Northstar	385.64	NM <sup>3</sup>		N/A	Production/Monitoring
PW-0	12/3/2020	Northstar	385.64	NM <sup>3</sup>		N/A	Production/Monitoring
PW-0	6/4/2021	Northstar	385.64	NM <sup>3</sup>		N/A	Production/Monitoring
PW-0	12/2/2021	Northstar	385.64	NM <sup>3</sup>		N/A	Production/Monitoring
PW-0	6/2/2022	Northstar	385.64	NM <sup>3</sup>		N/A	Production/Monitoring



**TABLE 2**  
**GROUNDWATER LEVEL MEASUREMENTS**  
 Genesis Solar Energy Project, Riverside County, California

Well ID	Date	Source	Top of Casing Elevation (feet amsl) <sup>1</sup>	Depth to Water (feet below TOC)	Groundwater Elevation (feet amsl)	Difference from Baseline (feet)	Comments / Use
PW-1	12/14/2011	WorleyParsons	384.43	Pumping		N/A	Production/Monitoring
PW-1	2/23/2012	WorleyParsons	384.43	100.84	283.59	N/A	Production/Monitoring
PW-1	5/23/2012	WorleyParsons	384.43	Pumping		N/A	Production/Monitoring
PW-1	7/26/2012	WorleyParsons	384.43	101.09		N/A	Production/Monitoring
PW-1	10/23/2012	WorleyParsons	384.43	100.89	283.54	N/A	Production/Monitoring
PW-1	3/28/2013	WorleyParsons	384.43	100.60	283.83	N/A	Production/Monitoring
PW-1	6/19/2013	WorleyParsons	384.43	Pumping		N/A	Production/Monitoring
PW-1	8/13/2013	WorleyParsons	384.43	109.35	275.08	N/A	Production/Monitoring
PW-1	11/13/2013	WorleyParsons	384.43	99.89	284.54	N/A	Production/Monitoring
PW-1	2/26/2014	WorleyParsons	384.43	98.49	285.94	N/A	Production/Monitoring
PW-1	5/20/2014	Northstar	384.43	NM <sup>5</sup>		N/A	Production/Monitoring
PW-1	8/8/2014	Northstar	384.43	NM <sup>5</sup>		N/A	Production/Monitoring
PW-1	12/4/2014	Northstar	384.43	NM <sup>5</sup>		N/A	Production/Monitoring
PW-1	3/26/2015	Northstar	384.43	NM <sup>5</sup>		N/A	Production/Monitoring
PW-1	6/11/2015	Northstar	384.43	NM <sup>5</sup>		N/A	Production/Monitoring
PW-1	12/10/2015	Northstar	384.43	NM <sup>5</sup>		N/A	Production/Monitoring
PW-1	6/2/2016	Northstar	384.43	NM <sup>5</sup>		N/A	Production/Monitoring
PW-1	11/30/2016	Northstar	384.43	NM <sup>5</sup>		N/A	Production/Monitoring
PW-1	6/1/2017	Northstar	384.43	98.20	286.23	N/A	Production/Monitoring
PW-1	12/5/2017	Northstar	384.43	98.30	286.13	N/A	Production/Monitoring
PW-1	5/30/2018	Northstar	384.43	98.24	286.19	N/A	Production/Monitoring
PW-1	12/4/2018	Northstar	384.43	98.78	285.65	N/A	Production/Monitoring
PW-1	6/13/2019	Northstar	384.43	98.55	285.88	N/A	Production/Monitoring
PW-1	12/5/2019	Northstar	384.43	98.12	286.31	N/A	Production/Monitoring
PW-1	6/4/2020	Northstar	384.43	98.25	286.18	N/A	Production/Monitoring
PW-1	12/3/2020	Northstar	384.43	NM <sup>5</sup>		N/A	Production/Monitoring
PW-1	6/4/2021	Northstar	384.43	NM <sup>5</sup>		N/A	Production/Monitoring
PW-1	12/2/2021	Northstar	384.43	NM <sup>5</sup>		N/A	Production/Monitoring
PW-1	6/2/2022	Northstar	384.43	98.85	285.58	N/A	Production/Monitoring
PW-2	12/14/2011	WorleyParsons	385.15	Pumping		N/A	Production/Monitoring
PW-2	2/23/2012	WorleyParsons	385.15	Pumping		N/A	Production/Monitoring
PW-2	5/23/2012	WorleyParsons	385.15	Pumping		N/A	Production/Monitoring
PW-2	7/26/2012	WorleyParsons	385.15	101.30	283.85	N/A	Production/Monitoring
PW-2	10/23/2012	WorleyParsons	385.15	Pumping		N/A	Production/Monitoring
PW-2	3/28/2013	WorleyParsons	385.15	Pumping		N/A	Production/Monitoring
PW-2	6/19/2013	WorleyParsons	385.15	Pumping		N/A	Production/Monitoring
PW-2	8/13/2013	WorleyParsons	385.15	101.75	283.40	N/A	Production/Monitoring
PW-2	11/12/2013	WorleyParsons	385.15	102.69	282.46	N/A	Production/Monitoring
PW-2	2/26/2014	WorleyParsons	385.15	100.52	284.63	N/A	Production/Monitoring
PW-2	5/20/2014	Northstar	385.15	Pumping		N/A	Production/Monitoring
PW-2	8/8/2014	Northstar	385.15	Pumping		N/A	Production/Monitoring
PW-2	12/4/2014	Northstar	385.15	Pumping		N/A	Production/Monitoring
PW-2	3/26/2015	Northstar	385.15	Pumping		N/A	Production/Monitoring
PW-2	6/11/2015	Northstar	385.15	Pumping		N/A	Production/Monitoring
PW-2	12/10/2015	Northstar	385.15	Pumping		N/A	Production/Monitoring
PW-2	6/2/2016	Northstar	385.15	Pumping		N/A	Production/Monitoring
PW-2	11/30/2016	Northstar	385.15	Pumping		N/A	Production/Monitoring
PW-2	6/1/2017	Northstar	385.15	Pumping		N/A	Production/Monitoring
PW-2	12/5/2017	Northstar	385.15	Pumping		N/A	Production/Monitoring
PW-2	5/30/2018	Northstar	385.15	105.69	279.46	N/A	Production/Monitoring
PW-2	12/4/2018	Northstar	385.15	NM <sup>9</sup>		N/A	Production/Monitoring
PW-2	6/13/2019	Northstar	385.15	NM <sup>9</sup>		N/A	Production/Monitoring
PW-2	12/5/2019	Northstar	385.15	NM <sup>9</sup>		N/A	Production/Monitoring
PW-2	6/4/2020	Northstar	385.15	NM <sup>9</sup>		N/A	Production/Monitoring
PW-2	12/3/2020	Northstar	385.15	NM <sup>9</sup>		N/A	Production/Monitoring
PW-2	6/4/2021	Northstar	385.15	NM <sup>9</sup>		N/A	Production/Monitoring
PW-2	12/2/2021	Northstar	385.15	NM <sup>9</sup>		N/A	Production/Monitoring
PW-2	6/2/2022	Northstar	385.15	NM <sup>9</sup>		N/A	Production/Monitoring
DM-1	2/27/2012	WorleyParsons	391.49	106.63	284.86	N/A	Monitoring
DM-1	5/24/2012	WorleyParsons	391.49	107.11	284.38	0.00	Baseline
DM-1	7/26/2012	WorleyParsons	391.49	107.10	284.39	0.01	Monitoring
DM-1	11/14/2012	WorleyParsons	391.49	108.15	283.34	-1.04	Monitoring
DM-1	3/29/2013	WorleyParsons	391.49	107.34	284.15	-0.23	Monitoring
DM-1	6/19/2013	WorleyParsons	391.49	107.19	284.30	-0.08	Monitoring
DM-1	8/13/2013	WorleyParsons	391.49	107.07	284.42	0.04	Monitoring
DM-1	11/12/2013	WorleyParsons	391.49	107.22	284.27	-0.11	Monitoring
DM-1	2/26/2014	WorleyParsons	391.49	107.13	284.36	-0.02	Monitoring

**TABLE 2**  
**GROUNDWATER LEVEL MEASUREMENTS**  
 Genesis Solar Energy Project, Riverside County, California

Well ID	Date	Source	Top of Casing Elevation (feet amsl) <sup>1</sup>	Depth to Water (feet below TOC)	Groundwater Elevation (feet amsl)	Difference from Baseline (feet)	Comments / Use
DM-1	5/22/2014	Northstar	391.49	107.05	284.44	0.06	Monitoring
DM-1	8/8/2014	Northstar	391.49	107.11	284.38	0.00	Monitoring
DM-1	12/4/2014	Northstar	391.49	107.03	284.46	0.08	Monitoring
DM-1	3/26/2015	Northstar	391.49	107.22	284.27	-0.11	Monitoring
DM-1	6/11/2015	Northstar	391.49	107.01	284.48	0.10	Monitoring
DM-1	12/10/2015	Northstar	391.49	106.98	284.51	0.13	Monitoring
DM-1	6/2/2016	Northstar	391.49	107.18	284.31	-0.07	Monitoring
DM-1	11/30/2016	Northstar	391.49	107.27	284.22	-0.16	Monitoring
DM-1	6/1/2017	Northstar	391.49	107.12	284.37	-0.01	Monitoring
DM-1	12/5/2017	Northstar	391.49	107.38	284.11	-0.27	Monitoring
DM-1	5/30/2018	Northstar	391.49	107.10	284.39	0.01	Monitoring
DM-1	12/4/2018	Northstar	391.49	107.45	284.04	-0.34	Monitoring
DM-1	6/14/2019	Northstar	391.49	107.18	284.31	-0.07	Monitoring
DM-1	12/5/2019	Northstar	391.49	107.42	284.07	-0.31	Monitoring
DM-1	6/4/2020	Northstar	391.49	107.10	284.39	0.01	Monitoring
DM-1	12/3/2020	Northstar	391.49	107.70	283.79	-0.59	Monitoring
DM-1	6/3/2021	Northstar	391.49	107.06	284.43	0.05	Monitoring
DM-1	12/2/2021	Northstar	391.49	107.35	284.14	-0.24	Monitoring
DM-1	6/2/2022	Northstar	391.49	107.25	284.24	-0.14	Monitoring
DM-2	2/27/2012	WorleyParsons	391.32	106.92	284.40	N/A	Monitoring
DM-2	5/24/2012	WorleyParsons	391.32	107.37	283.95	0.00	Baseline
DM-2	7/26/2012	WorleyParsons	391.32	107.33	283.99	0.04	Monitoring
DM-2	11/14/2012	WorleyParsons	391.32	108.33	282.99	-0.96	Monitoring
DM-2	3/29/2013	WorleyParsons	391.32	107.59	283.73	-0.22	Monitoring
DM-2	6/19/2013	WorleyParsons	391.32	107.41	283.91	-0.04	Monitoring
DM-2	8/13/2013	WorleyParsons	391.32	107.31	284.01	0.06	Monitoring
DM-2	11/12/2013	WorleyParsons	391.32	107.63	283.69	-0.26	Monitoring
DM-2	2/26/2014	WorleyParsons	391.32	107.40	283.92	-0.03	Monitoring
DM-2	5/22/2014	Northstar	391.32	107.28	284.04	0.09	Monitoring
DM-2	8/8/2014	Northstar	391.32	107.28	284.04	0.09	Monitoring
DM-2	12/4/2014	Northstar	391.32	107.43	283.89	-0.06	Monitoring
DM-2	3/26/2015	Northstar	391.32	107.61	283.71	-0.24	Monitoring
DM-2	6/11/2015	Northstar	391.32	107.40	283.92	-0.03	Monitoring
DM-2	12/10/2015	Northstar	391.32	107.30	284.02	0.07	Monitoring
DM-2	6/2/2016	Northstar	391.32	107.38	283.94	-0.01	Monitoring
DM-2	11/30/2016	Northstar	391.32	107.52	283.80	-0.15	Monitoring
DM-2	6/1/2017	Northstar	391.32	107.47	283.85	-0.10	Monitoring
DM-2	12/5/2017	Northstar	391.32	107.78	283.54	-0.41	Monitoring
DM-2	5/30/2018	Northstar	391.32	107.45	283.87	-0.08	Monitoring
DM-2	12/4/2018	Northstar	391.32	107.80	283.52	-0.43	Monitoring
DM-2	6/14/2019	Northstar	391.32	107.55	283.77	-0.18	Monitoring
DM-2	12/5/2019	Northstar	391.32	107.72	283.60	-0.35	Monitoring
DM-2	6/4/2020	Northstar	391.32	107.45	283.87	-0.08	Monitoring
DM-2	12/3/2020	Northstar	391.32	108.03	283.29	-0.66	Monitoring
DM-2	6/3/2021	Northstar	391.32	107.64	283.68	-0.27	Monitoring
DM-2	12/2/2021	Northstar	391.32	107.71	283.61	-0.34	Monitoring
DM-2	6/2/2022	Northstar	391.32	107.65	283.67	-0.28	Monitoring
DM-3	2/27/2012	WorleyParsons	388.34	103.85	284.49	N/A	Monitoring
DM-3	5/24/2012	WorleyParsons	388.34	104.35	283.99	0.00	Baseline
DM-3	7/26/2012	WorleyParsons	388.34	104.28	284.06	0.07	Monitoring
DM-3	11/14/2012	WorleyParsons	388.34	105.25	283.09	-0.90	Monitoring
DM-3	3/29/2013	WorleyParsons	388.34	104.35	283.99	0.00	Monitoring
DM-3	6/19/2013	WorleyParsons	388.34	104.20	284.14	0.15	Monitoring
DM-3	8/13/2013	WorleyParsons	388.34	104.31	284.03	0.04	Monitoring
DM-3	11/12/2013	WorleyParsons	388.34	104.43	283.91	-0.08	Monitoring
DM-3	2/26/2014	WorleyParsons	388.34	104.31	284.03	0.04	Monitoring
DM-3	5/22/2014	Northstar	388.34	104.20	284.14	0.15	Monitoring
DM-3	8/8/2014	Northstar	388.34	104.21	284.13	0.14	Monitoring
DM-3	12/4/2014	Northstar	388.34	104.39	283.95	-0.04	Monitoring
DM-3	3/26/2015	Northstar	388.34	104.59	283.75	-0.24	Monitoring
DM-3	6/12/2015	Northstar	388.34	104.18	284.16	0.17	Monitoring
DM-3	12/11/2015	Northstar	388.34	103.96	284.38	0.39	Monitoring
DM-3	6/3/2016	Northstar	388.34	104.38	283.96	-0.03	Monitoring
DM-3	12/2/2016	Northstar	388.34	104.28	284.06	0.07	Monitoring
DM-3	6/1/2017	Northstar	388.34	104.25	284.09	0.10	Monitoring
DM-3	12/5/2017	Northstar	388.34	104.62	283.72	-0.27	Monitoring
DM-3	5/30/2018	Northstar	388.34	104.27	284.07	0.08	Monitoring
DM-3	12/4/2018	Northstar	388.34	104.68	283.66	-0.33	Monitoring
DM-3	6/14/2019	Northstar	388.34	104.38	283.96	-0.03	Monitoring
DM-3	12/6/2019	Northstar	388.34	104.66	283.68	-0.31	Monitoring

**TABLE 2**  
**GROUNDWATER LEVEL MEASUREMENTS**  
 Genesis Solar Energy Project, Riverside County, California

Well ID	Date	Source	Top of Casing Elevation (feet amsl) <sup>1</sup>	Depth to Water (feet below TOC)	Groundwater Elevation (feet amsl)	Difference from Baseline (feet)	Comments / Use
DM-3	6/5/2020	Northstar	388.34	104.32	284.02	0.03	Monitoring
DM-3	12/3/2020	Northstar	388.34	104.80	283.54	-0.45	Monitoring
DM-3	6/3/2021	Northstar	388.34	104.29	284.05	0.06	Monitoring
DM-3	12/2/2021	Northstar	388.34	104.50	283.84	-0.15	Monitoring
DM-3	6/2/2022	Northstar	388.34	104.50	283.84	-0.15	Monitoring
<b>ADDITIONAL WELLS IN THE CHUCKWALLA VALLEY GROUNDWATER BASIN WITHIN 10 MILES OF THE SITE FOR WHICH GROUNDWATER LEVEL DATA IS AVAILABLE</b>							
2	5/19/1961	DWR, 1963	424	140.00	284.00	N/A	Irrigation
3	2/26/1982	DWRWell Records	498	180.00	318.00	N/A	Irrigation
4	7/24/1961	DWR, 1963	354	60.05	293.95	N/A	Unused
9	9/16/1990	USGS-NWIS	354	81.36	272.64	N/A	Unknown
9	9/24/1990	USGS-NWIS	354	81.56	272.44	N/A	Unknown
9	2/13/1992	USGS-NWIS	354	81.20	272.80	N/A	Unknown
15	2/17/1992	USGS-NWIS	390.2	104.36	285.84	N/A	Unknown
15	3/15/2000	USGS-NWIS	390.2	97.36	292.84	N/A	Unknown
15	9/23/2009	WorleyParsons	390.2	97.00	293.20	N/A	Unknown
16	2/17/1992	USGS-NWIS	390	110.39	279.61	N/A	Unknown
16	9/23/2009	WorleyParsons	390	103.00	287.00	N/A	Unknown
22	2/4/2002	USGS-NWIS	387.6	125.29	262.31	N/A	Unknown
23	9/26/1990	USGS-NWIS	392.1	134.10	258.00	N/A	Unknown
23	2/10/1992	USGS-NWIS	392.1	134.80	257.30	N/A	Unknown
26	12/26/1982	USGS-NWIS	562.6	300.00	262.60	N/A	Irrigation
26	2/13/1992	USGS-NWIS	562.6	270.28	292.32	N/A	Irrigation
26	3/15/2000	USGS-NWIS	562.6	269.85	292.75	N/A	Irrigation
26	9/23/2009	WorleyParsons	562.6	282.00	280.60	N/A	Irrigation
27	6/19/1961	DWR, 1963	555	258.83	296.17	N/A	Unused
28	6/19/1961	DWR, 1963	520	21.65	498.35	N/A	Unused
29	1/16/1983	USGS-NWIS	545.9	270.00	275.90	N/A	Irrigation
29	2/13/1992	USGS-NWIS	545.9	257.61	288.29	N/A	Irrigation
29	3/15/2000	USGS-NWIS	545.9	257.22	288.68	N/A	Irrigation
29	9/23/2009	WorleyParsons	545.9	250.00	295.90	N/A	Irrigation
29	4/28/2011	USGS-NWIS	545.9	257.83	288.07	N/A	Irrigation
31	9/16/1990	USGS-NWIS	423.9	144.25	279.65	N/A	Unused
31	3/29/2000	USGS-NWIS	423.9	144.41	279.49	N/A	Unused
32	6/12/1961	USGS-NWIS	418	151.83	266.17	N/A	Unused
32	10/10/1961	USGS-NWIS	418	151.09	266.91	N/A	Unused
32	11/8/1961	USGS-NWIS	418	151.03	266.97	N/A	Unused
32	1/10/1962	USGS-NWIS	418	151.04	266.96	N/A	Unused
32	3/8/1962	USGS-NWIS	418	150.89	267.11	N/A	Unused
32	4/9/1962	USGS-NWIS	418	150.73	267.27	N/A	Unused
32	5/7/1962	USGS-NWIS	418	150.83	267.17	N/A	Unused
32	10/31/1962	USGS-NWIS	418	150.90	267.10	N/A	Unused
32	3/13/1963	USGS-NWIS	418	150.84	267.16	N/A	Unused
32	10/31/1963	USGS-NWIS	418	150.91	267.09	N/A	Unused
32	3/19/1964	USGS-NWIS	418	150.77	267.23	N/A	Unused
32	11/25/1964	USGS-NWIS	418	151.13	266.87	N/A	Unused
32	3/18/1965	USGS-NWIS	418	151.21	266.79	N/A	Unused
32	11/18/1965	USGS-NWIS	418	151.40	266.60	N/A	Unused
32	3/2/1966	USGS-NWIS	418	150.66	267.34	N/A	Unused
32	10/27/1966	USGS-NWIS	418	150.89	267.11	N/A	Unused
32	3/16/1967	USGS-NWIS	418	150.92	267.08	N/A	Unused
32	10/25/1967	USGS-NWIS	418	150.86	267.14	N/A	Unused
32	10/23/1969	USGS-NWIS	418	150.89	267.11	N/A	Unused
32	4/30/1970	USGS-NWIS	418	150.95	267.05	N/A	Unused
33	1987	USGS-NWIS	457.5	202.25	255.25	N/A	Unknown
33	9/17/1990	USGS-NWIS	457.5	205.62	251.88	N/A	Unknown
33	2/10/1992	USGS-NWIS	457.5	206.70	250.80	N/A	Unknown
33	2/11/1992	USGS-NWIS	457.5	206.27	251.23	N/A	Unknown
34	10/8/1992	USGS-NWIS	458.3	213.00	245.30	N/A	Public Water Supply
35	12/1987	USGS-NWIS	456.5	205.00	251.50	N/A	Unknown
35	2/10/1992	USGS-NWIS	456.5	200.50	256.00	N/A	Unknown
35	2/11/1992	USGS-NWIS	456.5	199.07	257.43	N/A	Unknown
35	2/11/1992	USGS-NWIS	456.5	199.60	256.90	N/A	Unknown
36	12/1987	USGS-NWIS	443.5	203.00	240.50	N/A	Public Water Supply
36	9/17/1990	USGS-NWIS	443.5	189.05	254.45	N/A	Public Water Supply
36	2/10/1992	USGS-NWIS	443.5	187.70	255.80	N/A	Public Water Supply
36	2/10/1992	USGS-NWIS	443.5	186.20	257.30	N/A	Public Water Supply
36	3/16/2000	USGS-NWIS	443.5	199.24	244.26	N/A	Public Water Supply
37	7/1/1981	Kennedy/Jenks/Chilton	433.09	163.00	270.09	N/A	Irrigation (abandoned)
37	2/11/1992	USGS-NWIS	433.09	174.47	258.62	N/A	Irrigation (abandoned)
39	4/5/1961	USGS-NWIS	442.9	168.37	274.53	N/A	Irrigation
39	4/30/1970	USGS-NWIS	442.9	171.81	271.09	N/A	Irrigation

**TABLE 2**  
**GROUNDWATER LEVEL MEASUREMENTS**  
**Genesis Solar Energy Project, Riverside County, California**

Well ID	Date	Source	Top of Casing Elevation (feet amsl) <sup>1</sup>	Depth to Water (feet below TOC)	Groundwater Elevation (feet amsl)	Difference from Baseline (feet)	Comments / Use
39	7/31/1979	USGS-NWIS	442.9	173.48	269.42	N/A	Irrigation
39	7/24/1980	USGS-NWIS	442.9	169.06	273.84	N/A	Irrigation
39	1/23/1981	USGS-NWIS	442.9	169.22	273.68	N/A	Irrigation
39	9/23/1981	USGS-NWIS	442.9	169.23	273.67	N/A	Irrigation
39	3/3/1982	USGS-NWIS	442.9	170.26	272.64	N/A	Irrigation
39	1/28/1983	USGS-NWIS	442.9	170.54	272.36	N/A	Irrigation
39	7/31/1984	USGS-NWIS	442.9	170.65	272.25	N/A	Irrigation
39	2/27/1985	USGS-NWIS	442.9	171.10	271.80	N/A	Irrigation
39	6/12/1985	USGS-NWIS	442.9	172.90	270.00	N/A	Irrigation
39	2/9/1992	USGS-NWIS	442.9	183.46	259.44	N/A	Irrigation
40	10/30/1992	USGS-NWIS	449.4	193.00	256.40	N/A	Public Water Supply
41	10/19/1992	USGS-NWIS	453.6	202.00	251.60	N/A	Public Water Supply
42	1/1/1982	Kennedy/Jenks/Chilton	470	197.00	273.00	N/A	Irrigation
43	3/15/1982	USGS-NWIS	505.6	248.00	257.60	N/A	Irrigation
43	2/13/1992	USGS-NWIS	505.6	232.35	273.25	N/A	Irrigation
43	3/29/2000	USGS-NWIS	505.6	234.50	271.10	N/A	Baseline
43	10/5/2000	USGS-NWIS	505.6	234.84	270.76	N/A	Irrigation
43	1/10/2001	USGS-NWIS	505.6	234.89	270.71	N/A	Irrigation
43	2/23/2001	USGS-NWIS	505.6	234.45	271.15	N/A	Irrigation
43	4/16/2001	USGS-NWIS	505.6	234.82	270.78	N/A	Irrigation
43	4/16/2001	USGS-NWIS	505.6	234.82	270.78	N/A	Irrigation
43	7/10/2001	USGS-NWIS	505.6	235.40	270.20	N/A	Irrigation
43	11/7/2001	USGS-NWIS	505.6	235.66	269.94	N/A	Irrigation
43	11/7/2001	USGS-NWIS	505.6	235.69	269.91	N/A	Irrigation
43	4/3/2002	USGS-NWIS	505.6	234.69	270.91	N/A	Irrigation
43	4/3/2002	USGS-NWIS	505.6	234.69	270.91	N/A	Irrigation
43	10/2/2002	USGS-NWIS	505.6	236.04	269.56	N/A	Irrigation
43	10/2/2002	USGS-NWIS	505.6	236.16	269.44	N/A	Irrigation
43	6/3/2003	USGS-NWIS	505.6	235.59	270.01	N/A	Irrigation
43	6/3/2003	USGS-NWIS	505.6	235.61	269.99	N/A	Irrigation
43	11/5/2003	USGS-NWIS	505.6	236.46	269.14	N/A	Irrigation
43	11/5/2003	USGS-NWIS	505.6	236.45	269.15	N/A	Irrigation
43	3/2/2004	USGS-NWIS	505.6	235.65	269.95	N/A	Irrigation
43	3/2/2004	USGS-NWIS	505.6	235.63	269.97	N/A	Irrigation
43	8/4/2004	USGS-NWIS	505.6	235.85	269.75	N/A	Irrigation
43	12/8/2004	USGS-NWIS	505.6	235.78	269.82	N/A	Irrigation
43	4/15/2005	USGS-NWIS	505.6	235.28	270.32	N/A	Irrigation
43	8/31/2005	USGS-NWIS	505.6	235.89	269.71	N/A	Irrigation
43	8/31/2005	USGS-NWIS	505.6	235.84	269.76	N/A	Irrigation
43	2/14/2006	USGS-NWIS	505.6	235.78	269.82	N/A	Irrigation
43	2/14/2006	USGS-NWIS	505.6	235.79	269.81	N/A	Irrigation
43	5/5/2006	USGS-NWIS	505.6	236.38	269.22	N/A	Irrigation
43	5/5/2006	USGS-NWIS	505.6	236.39	269.21	N/A	Irrigation
43	8/10/2006	USGS-NWIS	505.6	236.66	268.94	N/A	Irrigation
43	8/10/2006	USGS-NWIS	505.6	236.66	268.94	N/A	Irrigation
43	12/8/2006	USGS-NWIS	505.6	236.57	269.03	N/A	Irrigation
43	12/8/2006	USGS-NWIS	505.6	236.57	269.03	N/A	Irrigation
43	2/7/2007	USGS-NWIS	505.6	236.16	269.44	N/A	Irrigation
43	2/7/2007	USGS-NWIS	505.6	236.16	269.44	N/A	Irrigation
43	5/17/2007	USGS-NWIS	505.6	236.55	269.05	N/A	Irrigation
43	5/17/2007	USGS-NWIS	505.6	236.56	269.04	N/A	Irrigation
43	9/5/2007	USGS-NWIS	505.6	236.91	268.69	N/A	Irrigation
43	9/5/2007	USGS-NWIS	505.6	236.91	268.69	N/A	Irrigation
43	9/5/2007	USGS-NWIS	505.6	236.91	268.69	N/A	Irrigation
43	12/13/2007	USGS-NWIS	505.6	236.55	269.05	N/A	Irrigation
43	12/13/2007	USGS-NWIS	505.6	236.54	269.06	N/A	Irrigation
43	3/19/2008	USGS-NWIS	505.6	235.65	269.95	N/A	Irrigation
43	3/19/2008	USGS-NWIS	505.6	235.64	269.96	N/A	Irrigation
43	3/19/2008	USGS-NWIS	505.6	235.67	269.93	N/A	Irrigation
43	6/25/2008	USGS-NWIS	505.6	235.62	269.98	N/A	Irrigation
43	6/25/2008	USGS-NWIS	505.6	235.60	270.00	N/A	Irrigation
43	9/24/2008	USGS-NWIS	505.6	235.73	269.87	N/A	Irrigation
43	9/24/2008	USGS-NWIS	505.6	235.73	269.87	N/A	Irrigation
43	9/24/2008	USGS-NWIS	505.6	235.72	269.88	N/A	Irrigation
43	1/14/2009	USGS-NWIS	505.6	235.25	270.35	N/A	Irrigation
43	1/14/2009	USGS-NWIS	505.6	235.26	270.34	N/A	Irrigation
43	4/16/2009	USGS-NWIS	505.6	235.28	270.32	N/A	Irrigation
43	4/16/2009	USGS-NWIS	505.6	235.29	270.31	N/A	Irrigation
43	7/30/2009	USGS-NWIS	505.6	235.80	269.80	N/A	Irrigation
43	7/30/2009	USGS-NWIS	505.6	235.79	269.81	N/A	Irrigation
43	10/29/2009	USGS-NWIS	505.6	235.61	269.99	N/A	Irrigation
43	10/29/2009	USGS-NWIS	505.6	235.60	270.00	N/A	Irrigation

**TABLE 2**  
**GROUNDWATER LEVEL MEASUREMENTS**  
 Genesis Solar Energy Project, Riverside County, California

Well ID	Date	Source	Top of Casing Elevation (feet amsl) <sup>1</sup>	Depth to Water (feet below TOC)	Groundwater Elevation (feet amsl)	Difference from Baseline (feet)	Comments / Use
43	1/20/2010	USGS-NWIS	505.6	235.98	269.62	N/A	Irrigation
43	1/20/2010	USGS-NWIS	505.6	235.99	269.61	N/A	Irrigation
43	4/23/2010	USGS-NWIS	505.6	235.26	270.34	N/A	Irrigation
43	4/23/2010	USGS-NWIS	505.6	235.26	270.34	N/A	Irrigation
43	7/22/2010	USGS-NWIS	505.6	235.67	269.93	N/A	Irrigation
43	11/4/2010	USGS-NWIS	505.6	235.71	269.89	N/A	Irrigation
43	11/4/2010	USGS-NWIS	505.6	235.73	269.87	N/A	Irrigation
43	1/13/2011	USGS-NWIS	505.6	235.27	270.33	N/A	Irrigation
43	4/28/2011	USGS-NWIS	505.6	235.12	270.48	N/A	Irrigation
43	10/18/2011	USGS-NWIS	505.6	235.48	270.12	N/A	Irrigation
43	5/9/2012	USGS-NWIS	505.6	235.25	270.35	N/A	Irrigation
43	5/11/2012	USGS-NWIS	505.6	235.24	270.36	N/A	Irrigation
43	10/5/2012	USGS-NWIS	505.6	235.65	269.95	N/A	Irrigation
43	2/12/2013	USGS-NWIS	505.6	235.36	270.24	N/A	Irrigation
43	8/29/2013	USGS-NWIS	505.6	235.62	269.98	N/A	Irrigation
43	11/21/2013	USGS-NWIS	505.6	235.36	270.24	N/A	Irrigation
43	5/7/2014	USGS-NWIS	505.6	235.08	270.52	N/A	Irrigation
43	12/19/2014	USGS-NWIS	505.6	235.35	270.25	N/A	Irrigation
43	4/7/2015	USGS-NWIS	505.6	235.17	270.43	N/A	Irrigation
43	9/2/2015	USGS-NWIS	505.6	235.12	270.48	N/A	Irrigation
43	1/26/2016	USGS-NWIS	505.6	234.89	270.71	N/A	Irrigation
43	3/23/2016	USGS-NWIS	505.6	234.76	270.84	N/A	Irrigation
43	6/15/2016	USGS-NWIS	505.6	234.74	270.86	N/A	Irrigation
43	10/19/2016	USGS-NWIS	505.6	234.94	270.66	N/A	Irrigation
43	1/24/2017	USGS-NWIS	505.6	234.63	270.97	N/A	Irrigation
43	5/23/2017	USGS-NWIS	505.6	234.67	270.93	N/A	Irrigation
43	8/22/2017	USGS-NWIS	505.6	235.13	270.47	N/A	Irrigation
43	12/5/2017	USGS-NWIS	505.6	234.99	270.61	N/A	Irrigation
43	3/14/2018	USGS-NWIS	505.6	234.59	271.01	N/A	Irrigation
43	5/29/2018	USGS-NWIS	505.6	234.83	270.77	N/A	Irrigation
43	9/4/2018	USGS-NWIS	505.6	235.27	270.33	N/A	Irrigation
43	11/14/2018	USGS-NWIS	505.6	235.54	270.06	N/A	Irrigation
43	3/18/2019	USGS-NWIS	505.6	235.21	270.39	N/A	Irrigation
43	6/12/2019	USGS-NWIS	505.6	235.60	270.00	N/A	Irrigation
43	8/21/2019	USGS-NWIS	505.6	235.36	270.24	N/A	Irrigation
43	11/6/2019	USGS-NWIS	505.6	235.18	270.42	N/A	Irrigation
43	3/19/2020	USGS-NWIS	505.6	234.87	270.73	N/A	Irrigation
43	5/27/2020	USGS-NWIS	505.6	234.94	270.66	N/A	Irrigation
43	8/26/2020	USGS-NWIS	505.6	234.92	270.68	N/A	Irrigation
43	10/19/2020	USGS-NWIS	505.6	235.17	270.43	N/A	Irrigation
43	3/31/2021	USGS-NWIS	505.6	234.88	270.72	N/A	Irrigation
43	6/2/2021	USGS-NWIS	505.6	234.85	270.75	N/A	Irrigation
43	9/1/2021	USGS-NWIS	505.6	235.00	270.60	N/A	Irrigation
43	12/27/2021	USGS-NWIS	505.6	235.02	270.58	N/A	Irrigation
43	3/24/2022	USGS-NWIS	505.6	235.28	270.32	N/A	Irrigation
44	11/29/1989	USGS-NWIS	505.3	234.00	271.30	N/A	Irrigation
47	2/14/1984	USGS-NWIS	580.90	300.00	280.90	N/A	Unknown
47	9/28/1990	USGS-NWIS	580.90	299.61	281.29	N/A	Unknown
47	2/9/1992	USGS-NWIS	580.90	299.69	281.21	N/A	Unknown
47	3/30/2000	USGS-NWIS	580.90	300.05	280.85	N/A	Unknown
50	4/7/1961	USGS-NWIS	566	189.85	376.15	N/A	Unknown
50	4/20/1961	USGS-NWIS	566	189.98	376.02	N/A	Unknown
54	5/1/1985	USGS-NWIS	654.5	360.00	294.50	N/A	Unknown
54	9/28/1990	USGS-NWIS	654.5	369.19	285.31	N/A	Unknown
54	2/10/1992	USGS-NWIS	654.5	369.15	285.35	N/A	Unknown
54	3/30/2000	USGS-NWIS	654.5	369.08	285.42	N/A	Unknown
55	1/23/2012	USGS-NWIS	415.4	162.60	252.80	N/A	Exploratory
55	5/9/2012	USGS-NWIS	415.4	162.57	252.83	N/A	Exploratory
55	9/2/2015	USGS-NWIS	415.4	161.88	253.52	N/A	Exploratory
55	1/26/2016	USGS-NWIS	415.4	161.42	253.98	N/A	Exploratory
55	3/23/2016	USGS-NWIS	415.4	161.43	253.97	N/A	Exploratory
55	6/15/2016	USGS-NWIS	415.4	161.37	254.03	N/A	Exploratory
55	10/19/2016	USGS-NWIS	415.4	161.63	253.77	N/A	Exploratory
55	1/24/2017	USGS-NWIS	415.4	161.31	254.09	N/A	Exploratory
55	5/23/2017	USGS-NWIS	415.4	161.37	254.03	N/A	Exploratory
55	8/22/2017	USGS-NWIS	415.4	161.89	253.51	N/A	Exploratory
55	12/5/2017	USGS-NWIS	415.4	161.47	253.93	N/A	Exploratory
55	3/14/2018	USGS-NWIS	415.4	161.24	254.16	N/A	Exploratory
55	5/29/2018	USGS-NWIS	415.4	161.51	253.89	N/A	Exploratory
55	9/4/2018	USGS-NWIS	415.4	162.08	253.32	N/A	Exploratory
55	11/14/2018	USGS-NWIS	415.4	162.04	253.36	N/A	Exploratory

**TABLE 2**  
**GROUNDWATER LEVEL MEASUREMENTS**  
 Genesis Solar Energy Project, Riverside County, California

Well ID	Date	Source	Top of Casing Elevation (feet amsl) <sup>1</sup>	Depth to Water (feet below TOC)	Groundwater Elevation (feet amsl)	Difference from Baseline (feet)	Comments / Use
55	3/18/2019	USGS-NWIS	415.4	161.82	253.58	N/A	Exploratory
55	6/12/2019	USGS-NWIS	415.4	162.24	253.16	N/A	Exploratory
55	8/21/2019	USGS-NWIS	415.4	162.06	253.34	N/A	Exploratory
55	11/7/2019	USGS-NWIS	415.4	161.70	253.70	N/A	Exploratory
55	3/19/2020	USGS-NWIS	415.4	161.31	254.09	N/A	Exploratory
55	5/27/2020	USGS-NWIS	415.4	161.54	253.86	N/A	Exploratory
55	8/27/2020	USGS-NWIS	415.4	161.63	253.77	N/A	Exploratory
55	10/20/2020	USGS-NWIS	415.4	161.85	253.55	N/A	Exploratory
55	3/31/2021	USGS-NWIS	415.4	161.15	254.25	N/A	Exploratory
55	6/2/2021	USGS-NWIS	415.4	161.38	254.02	N/A	Exploratory
55	9/1/2021	USGS-NWIS	415.4	161.60	253.80	N/A	Exploratory
55	12/27/2021	USGS-NWIS	415.4	161.41	253.99	N/A	Exploratory
55	3/24/2022	USGS-NWIS	415.4	161.63	253.77	N/A	Exploratory
56	1/23/2012	USGS-NWIS	415.4	159.69	255.71	N/A	Exploratory
56	5/9/2012	USGS-NWIS	415.4	159.89	255.51	N/A	Exploratory
56	1/26/2016	USGS-NWIS	415.4	159.71	255.69	N/A	Exploratory
56	3/23/2016	USGS-NWIS	415.4	159.63	255.77	N/A	Exploratory
56	6/15/2016	USGS-NWIS	415.4	159.58	255.82	N/A	Exploratory
56	10/19/2016	USGS-NWIS	415.4	159.57	255.83	N/A	Exploratory
56	1/24/2017	USGS-NWIS	415.4	159.57	255.83	N/A	Exploratory
56	5/23/2017	USGS-NWIS	415.4	159.38	256.02	N/A	Exploratory
56	8/22/2017	USGS-NWIS	415.4	159.53	255.87	N/A	Exploratory
56	12/5/2017	USGS-NWIS	415.4	159.55	255.85	N/A	Exploratory
56	3/14/2018	USGS-NWIS	415.4	159.29	256.11	N/A	Exploratory
56	5/29/2018	USGS-NWIS	415.4	159.30	256.10	N/A	Exploratory
56	9/4/2018	USGS-NWIS	415.4	159.40	256.00	N/A	Exploratory
56	11/14/2018	USGS-NWIS	415.4	159.75	255.65	N/A	Exploratory
56	3/18/2019	USGS-NWIS	415.4	159.38	256.02	N/A	Exploratory
56	6/12/2019	USGS-NWIS	415.4	159.53	255.87	N/A	Exploratory
56	8/21/2019	USGS-NWIS	415.4	159.40	256.00	N/A	Exploratory
56	11/7/2019	USGS-NWIS	415.4	159.44	255.96	N/A	Exploratory
56	3/19/2020	USGS-NWIS	415.4	159.32	256.08	N/A	Exploratory
56	5/27/2020	USGS-NWIS	415.4	159.34	256.06	N/A	Exploratory
56	8/27/2020	USGS-NWIS	415.4	159.23	256.17	N/A	Exploratory
56	10/20/2020	USGS-NWIS	415.4	159.36	256.04	N/A	Exploratory
56	3/31/2021	USGS-NWIS	415.4	159.39	256.01	N/A	Exploratory
56	6/2/2021	USGS-NWIS	415.4	159.27	256.13	N/A	Exploratory
56	9/1/2021	USGS-NWIS	415.4	159.20	256.20	N/A	Exploratory
56	12/27/2021	USGS-NWIS	415.4	159.21	256.19	N/A	Exploratory
56	3/24/2022	USGS-NWIS	415.4	159.37	256.03	N/A	Exploratory
57	1/23/2012	USGS-NWIS	415.4	154.20	261.20	N/A	Exploratory
57	5/9/2012	USGS-NWIS	415.4	154.28	261.12	N/A	Exploratory
57	9/2/2015	USGS-NWIS	415.4	153.39	262.01	N/A	Exploratory
57	3/23/2016	USGS-NWIS	415.4	153.29	262.11	N/A	Exploratory
57	6/15/2016	USGS-NWIS	415.4	153.15	262.25	N/A	Exploratory
57	10/19/2016	USGS-NWIS	415.4	153.08	262.32	N/A	Exploratory
57	1/24/2017	USGS-NWIS	415.4	153.12	262.28	N/A	Exploratory
57	5/23/2017	USGS-NWIS	415.4	152.78	262.62	N/A	Exploratory
57	8/22/2017	USGS-NWIS	415.4	152.73	262.67	N/A	Exploratory
57	12/5/2017	USGS-NWIS	415.4	152.66	262.74	N/A	Exploratory
57	3/14/2018	USGS-NWIS	415.4	152.49	262.91	N/A	Exploratory
57	5/29/2018	USGS-NWIS	415.4	152.35	263.05	N/A	Exploratory
57	9/4/2018	USGS-NWIS	415.4	152.37	263.03	N/A	Exploratory
57	11/14/2018	USGS-NWIS	415.4	152.24	263.16	N/A	Exploratory
57	3/18/2019	USGS-NWIS	415.4	152.09	263.31	N/A	Exploratory
57	6/12/2019	USGS-NWIS	415.4	152.00	263.40	N/A	Exploratory
57	8/21/2019	USGS-NWIS	415.4	151.95	263.45	N/A	Exploratory
57	11/7/2019	USGS-NWIS	415.4	151.83	263.57	N/A	Exploratory
57	3/19/2020	USGS-NWIS	415.4	151.85	263.55	N/A	Exploratory
57	5/27/2020	USGS-NWIS	415.4	151.60	263.80	N/A	Exploratory
57	8/27/2020	USGS-NWIS	415.4	151.49	263.91	N/A	Exploratory
57	10/20/2020	USGS-NWIS	415.4	151.44	263.96	N/A	Exploratory
57	3/31/2021	USGS-NWIS	415.4	151.37	264.03	N/A	Exploratory
57	6/2/2021	USGS-NWIS	415.4	151.17	264.23	N/A	Exploratory
57	9/1/2021	USGS-NWIS	415.4	151.10	264.30	N/A	Exploratory
57	12/27/2021	USGS-NWIS	415.4	150.94	264.46	N/A	Exploratory
57	3/24/2022	USGS-NWIS	415.4	150.87	264.53	N/A	Exploratory

Notes:

**TABLE 2**  
**GROUNDWATER LEVEL MEASUREMENTS**  
 Genesis Solar Energy Project, Riverside County, California

Well ID	Date	Source	Top of Casing Elevation (feet amsl) <sup>1</sup>	Depth to Water (feet below TOC)	Groundwater Elevation (feet amsl)	Difference from Baseline (feet)	Comments / Use
---------	------	--------	---	------------------------------------	--------------------------------------	------------------------------------	----------------

amsl = above mean sea level  
 TOC = top of casing

1. Wells were surveyed on February 8 & 9, 2011. Top of Casing elevation for all other wells are approximate.
2. No data was collected due to equipment or software malfunction
3. Sounding tube is blocked with concrete
4. Well not accessible - Unknown lock on well
5. Well not accessible - Steel plate welded over well
6. Due to loss of configuration file and calibration data following the 1st Quarter 2014 monitoring event, the OBS-2 buried transducers are no longer accessible.
7. Well not accessible - Access agreement issue
8. Well pumped by others on 10/10/17 at 250-300 gpm; water level at time of monitoring was 128.75 ft bgs / 259.39 ft amsl.
9. Sounding port obstructed

**TABLE 3**  
**MOST RECENT GROUNDWATER QUALITY MONITORING DATA**  
 Genesis Solar Energy Project, Riverside, California

Well ID	Date	Groundwater Purging			Field Parameters					
		Rate of Groundwater Discharge (mL/min)	Purging Method	Total Volume Purged (mL)	pH	Conductivity (mS/cm)	Turbidity (NTU)	D.O. (mg/L)	Temperature (°C)	ORP (mV)
23a	6/2/2022	N/A	Bailer	N/A <sup>1</sup>	-	-	-	-	-	-
OBS-1	6/2/2022	N/A	Bailer	5,750	7.96	23.9	17.6	6.60	28.3	+53
TW-1	6/2/2022	N/A	Bailer	5,750	7.33	15.70	37.0	7.01	27.7	-208
TW-2	6/2/2022	N/A	Bailer	5,750	9.29	6.13	136	6.56	34.2	-132
PW-0	6/2/2022	N/A	Production Pump	N/A <sup>2</sup>	8.50	6.70	1.9	5.25	38.1	-147
PW-1	6/2/2022	N/A	N/A	N/A <sup>1</sup>	-	-	-	-	-	-
PW-2	6/2/2022	N/A	Production Pump	N/A <sup>2</sup>	8.15	4.10	38.0	3.96	45.5	-1
DM-1	6/2/2022	94	Bladder Pump	3,760	7.77	17.6	120	3.41	32.1	+106
DM-2	6/2/2022	94	Bladder Pump	3,760	7.61	18.0	39.0	1.00	31.0	+104
DM-3	6/2/2022	94	Bladder Pump	3,760	7.66	17.3	3.6	1.58	29.6	+106

**NOTES:**

- mL = milliliters
- mL/min = milliliters per minute
- mS/cm = millisiemens per centimeter
- NTU = Nephelometric Turbidity Units
- DO = Dissolved Oxygen
- mg/L = milligrams per liter
- °C = degrees Celsius
- mV = millivolts
- N/A = Not Applicable or Not Available
- = Not Measured
- 1. Not sampled - well not accessible
- 2. Well was sampled during continuous production pumping and therefore purging was not necessary









**TABLE 4  
SUMMARY OF LABORATORY ANALYTICAL RESULTS**

Genesis Solar Energy Project

			Chloride (mg/L)	Sulfate (SO4) (mg/L)	Nitrate (NO3)-N (mg/L)	Calcium (mg/L)	Copper (mg/L)	Sodium (mg/L)	Potassium (mg/L)	Iron (mg/L)	Magnesium (mg/L)	Antimony (ug/L)	Arsenic (ug/L)	Barium (ug/L)	Cadmium (ug/L)	Chromium (Total) (ug/L)	Cobalt (ug/L)	Lead (ug/L)	Manganese (ug/L)	Nickel (ug/L)	Selenium (ug/L)	Zinc (ug/L)	Mercury (ug/L)	Total Dissolved Solids (mg/L)	Specific Conductance (us/cm)	pH (standard Units)	Oil & Grease / HEM (mg/L)	HTF <sup>†</sup> (mg/L)	Deuterium (% relative to VSMOW)	Oxygen-18 (% relative to VSMOW)
		Sampling																												
PW-2	6/1/2018	Spigot	865	449	<2.50	51	0.099 <sup>J</sup>	1000	9.8	<10	4.1 <sup>†</sup>	<0.50	19	14	<0.50	<0.50	<0.50	<0.50	-	<0.50	<5.0	<5.0	<0.50	2,000	3,620	8.5	<5.00	<0.11	-77.70	-10.22
PW-2	6/1/2018 <sup>1</sup>	Spigot	857	445	<2.50	54	0.11 <sup>J</sup>	1100	10	<10	4.2 <sup>J</sup>	<0.50	12	7.3	<0.50	<0.50	<0.50	<0.50	-	<0.50	<5.0	<5.0	<0.50	2,000	3,630	8.2	<5.00	<0.11	-78.20	-10.26
PW-2	12/4/2018	Spigot	895	454	<0.500	55	<0.5	690	11	<20	<10	<10	34	41	<10	<10	<10	<10	-	<10	<10	<10	<0.50	1,900	3,580	8.1	<5.00	<0.11	-77.90	-10.24
PW-2	12/4/2018 <sup>1</sup>	Spigot	998	454	<0.500	72	<0.5	950	12	<20	<10	<10	33	44	<10	<10	<10	<10	-	<10	<10	<10	<0.50	1,800	3,580	8.1	15.4	<0.10	-77.80	-10.24
PW-2	6/13/2019	Spigot	860	431	<0.500	62	<0.005	780	13	<0.20	5.0	<10	<10	<10	<10	<10	<10	<10	-	<10	<10	-	<0.50	2,300	3,600	7.4	<5.00	<0.11	-78.20	-10.26
PW-2	6/13/2019 <sup>1</sup>	Spigot	820	436	<0.500	64	<0.005	800	13	<0.20	5.2	<10	<10	<10	<10	<10	<10	<10	-	<10	<10	-	<0.50	2,600	3,630	7.9	<5.00	<0.11	-78.20	-10.25
PW-2	12/5/2019	Spigot	1,300	515	<0.500	52	0.003 <sup>J</sup>	800	6.5	0.039 <sup>J</sup>	4.7	<5.0	25	43	<5.0	1.2 <sup>J</sup>	<5.0	<5.0	-	<5.0	<5.0	50	<0.50	2,100	3,610	8.1	<5.00	<0.10	-77.80	-10.22
PW-2	12/5/2019 <sup>1</sup>	Spigot	1,370	584	<0.500	52	0.002 <sup>J</sup>	820	7.9	0.150 <sup>J</sup>	4.5	<5.0	26	42	<5.0	0.30 <sup>J</sup>	<5.0	<5.0	-	<5.0	<5.0	46	<0.50	1,600	3,600	8.1	<5.00	<0.10	-78.30	-10.22
PW-2	6/4/2020	Spigot	864	<500	<0.500	49	<0.005	710	6.4	<0.20	4.1	<5.0	34	41	<5.0	<5.0	<5.0	<5.0	-	<5.0	<5.0	11	<0.50	2,100	3,610	8.1	<5.00	<0.10	-78.00	-10.22
PW-2	6/4/2020 <sup>1</sup>	Spigot	876	<500	<0.500	48	0.006	700	6.3	<0.20	4.0	<5.0	34	44	<5.0	<5.0	<5.0	<5.0	-	<5.0	6.7	64	<0.50	2,000	3,610	7.9	<5.00	<0.097	-78.60	-10.27
PW-2	12/3/2020	Spigot	1,010	436	<0.500	47	<0.005	1,200	6.4	<0.20	3.8	<5.0	<5.0	52	<5.0	<5.0	<5.0	<5.0	-	<5.0	<0.50	<0.50	<0.50	1,900	3,700	8.3	<5.00	<0.097	-78.30	-10.30
PW-2	12/3/2020 <sup>1</sup>	Spigot	920	431	<0.500	46	<0.005	2,000	6.3	<0.20	3.9	<5.0	<5.0	53	<5.0	<5.0	<5.0	<5.0	-	<5.0	<0.50	0.66	<0.50	1,900	3,700	8.3	<5.00	<0.11	-78.80	-10.31
PW-2	6/4/2021	Spigot	893	452	<0.500	42	<0.50	730	<50	<20	<10	<10	32	43	<10	<10	<10	<10	-	<10	19	<10	<0.50	2,100	3,630	8.1	<5.00	<0.094	-77.70	-10.24
PW-2	6/4/2021 <sup>1</sup>	Spigot	901	457	<0.500	42	<0.50	720	<50	<20	<10	<10	38	47	<10	<10	<10	<10	-	<10	15	<10	<0.50	1,900	3,620	8.1	<5.00	<0.094	-77.60	-10.22
PW-2	12/2/2021	Spigot	886	444	<0.500	52	<0.50	800	<50	<20	<10	<0.50	36	47	<0.50	<0.50	<0.50	<0.50	-	0.70	0.75	2.1	<1.0	1,300	3,630	8.2	<5.00	<0.100	-77.60	-10.22
PW-2	12/2/2021 <sup>1</sup>	Spigot	891	448	<0.500	51	<0.50	800	<50	<20	<10	<0.50	38	46	<0.50	<0.50	<0.50	<0.50	-	0.64	0.78	1.2	<1.0	2,100	3,640	8.0	<5.00	<0.098	-77.80	-10.24
PW-2	6/2/2022	Spigot	944	438	<0.500	<50	<2.5	630	<250	<100	<50	<50	<50	<50	<50	<50	<50	<50	-	<50	<50	<50	<1.0	2,000	3,680	8.1	<5.00	<0.093	-77.80	-10.30
PW-2	6/2/2022 <sup>1</sup>	Spigot	953	444	<0.500	<50	<2.5	670	<250	<100	<50	<50	<50	<50	<50	<50	<50	<50	-	<50	<50	<50	<1.0	4,000	3,730	8.2	<5.00	<0.092	-77.70	-10.27

NOTES:

mg/L = milligrams per liter

ug/L = micrograms per liter

uS/cm = microsiemens per centimeter

% = parts per thousand

VSMOW = Vienna Standard Mean Ocean Water

< = not detected at or above the indicated reporting limit

- = information is unknown / not applicable / not analyzed

B - Compound was detected in the laboratory equipment blank.

J - Result is less than the reporting limit but greater than or equal to the method detection limit, thus the concentration is an approximate value.

† - Heat Transfer Fluid (HTF) is characterized by the analytes 1,1'-oxybis-benzene and 1,1'-biphenyl.

1 - Duplicate sample

**TABLE 5**  
**HISTORICAL ANALYTICAL DATA FOR OFFSITE WELLS WITHIN MONITORING AREA**  
**Genesis Solar Energy Project, Riverside, California**

Well ID	Date Sampled	Data Source	Sample Depth (ft amsl)	Fluoride (mg/L)	Chloride (mg/L)	Sulfate (SO4) (mg/L)	Sodium (mg/L)	Silica (Total) (mg/L)	Potassium (mg/L)	Magnesium (mg/L)	Calcium (mg/L)	Total Hardness (as CaCO3) (mg/L)	Total Dissolved Solids (mg/L)
1	5/19/1961	DWR, 1963	--	--	656	--	--	--	--	--	--	--	1,760
3	4/20/2009	Azca Drilling and Pump	560 to 940	--	--	--	--	--	--	--	--	--	910
3	9/3/2009	WorleyParsons	560 to 940	--	--	--	--	--	--	--	--	--	970
5	10/10/1961	DWR, 1963	? to 85.7	--	1,770	--	--	--	--	--	--	--	5,730
14	6/25/1991	DWR Well Records	890 to 940	--	--	--	--	--	--	--	--	--	2,400
14	7/29/2009	WorleyParsons	--	--	3,400	--	--	--	--	--	--	--	6,600
15	9/16/2009	WorleyParsons	200.0	--	--	--	--	--	--	--	--	--	19,000
15	9/16/2009	WorleyParsons	500.0	--	--	--	--	--	--	--	--	--	26,000
16	9/16/2009	WorleyParsons	247.00	--	--	--	--	--	--	--	--	--	3,100
17	1959	DWR, 1963	1,175 to 1,200	--	986	--	--	--	--	--	--	--	2,150
17	9/17/2009	WorleyParsons	247	--	--	--	--	--	--	--	--	--	20,000
21	10/17/1917	DWR, 1963	--	--	865	--	--	--	--	--	--	--	3,820
23	4/19/1979	NWIS	--	6.3	950	450	800	38	16	0.6	67	170	2,350
26	9/16/2009	WorleyParsons	760.00	--	--	--	--	--	--	--	--	--	1,100
27	10/10/1961	DWR, 1963	? to 486.4	--	718	--	--	--	--	--	--	--	2,210
28	10/10/1961	DWR, 1963	? to 779.4	--	273	--	--	--	--	--	--	--	1,470
29	9/16/2009	WorleyParsons	720	--	--	--	--	--	--	--	--	--	1,100
31	10/10/1961	DWR, 1963	? to 242.2	--	734	--	--	--	--	--	--	--	2,560
32	10/10/1961	DWR, 1963	? to 315.7	--	3,250	--	--	--	--	--	--	--	8,150
37	6/4/1990	Engineering Science, 1990	750 to 1,050	--	214	--	--	--	--	--	--	--	752
38	6/20/1986	Woodward-Clyde Consultants	275 to 815	--	519	--	--	--	--	--	--	--	1,313
38	6/20/1986	Woodward-Clyde Consultants	835 to 1,015	--	267	--	--	--	--	--	--	--	719
39	6/12/1961	DWR, 1963	853 to 1,083	--	216	--	--	--	--	--	--	--	--
39	1/1986	CH2M Hill and Boyle Eng.	853 to 1,083	--	--	--	--	--	--	--	--	--	786
42	8/24/1983	Woodward-Clyde Consultants	738 to 1,100	--	199	--	--	--	--	--	--	--	--
42	5/1/1988	CH2M Hill and Boyle Eng.	738 to 1,100	--	--	--	--	--	--	--	--	--	765
43	1/1986	Kennedy/Jenks/Chilton, 1986	510 to 780	--	460	--	--	--	--	--	--	--	1,150
47	1/4/1984	Woodward-Clyde Consultants	490	--	550	--	--	--	--	--	--	--	1,380
47	1/5/1984	Woodward-Clyde Consultants	590	--	586	--	--	--	--	--	--	--	1,350
47	2/7/1984	Woodward-Clyde Consultants	850	--	570	--	--	--	--	--	--	--	2,090
47	1/1986	Kennedy/Jenks/Chilton, 1986	500 to 850	--	520	--	--	--	--	--	--	--	1,740
50	1959	DWR, 1963	? to 818	--	131	--	--	--	--	--	--	--	--

**NOTES:**

amsl = above mean sea level  
mg/L = milligrams per liter  
-- = Information not available or not applicable

**SOURCES:**

CH2M Hill and Boyle Engineering, 1995. Technical Memorandum, Water Treatment Plant Evaluation - Phase I. Dated March 30, 1995.  
DWR, 1963. Data on Water Wells and Springs in the Chuckwalla Valley Area. DWR Bulletin 91-7.  
Kennedy/Jenks/Chilton, 1986. Final Report Sampling and Analysis in the Wiley's Well Area. Dated March 19, 1986.  
NWIS = National Water Information System  
Woodward-Clyde Consultants, 1986. Final Report, Groundwater Quality Investigation, Wiley's Well Area. Dated March 13, 1986.

# **APPENDIX A**

## **FIELD DATA SHEETS**



### GROUNDWATER LEVEL MEASUREMENT FORM

Date: June 2022	Site: Genesis Solar Energy Project	Project No: 196-004-06
Project: Groundwater Level Monitoring Program		PM: AWB
Measurement Method/Device: Solinst Interface Probe		Technicians: AWB/RCD

Weather: Clear, hot

Well No.	Date	TOC Reference Elevation (ft)	Depth to Water (ft)	Corrected Water Level Elevation (ft)	Comments
TW-1	6/2/2022	387.40	87.40	300.00	Levellogger 62100045
TW-2	6/2/2022	393.47	126.75	266.72	Manual Measurement
OBS-1	6/2/2022	388.30	78.15	310.15	Levellogger 32045678; Barologger 12100120
OBS-2-270	N/A	388.14	N/A	N/A	Buried Transducer Cable
OBS-2-315	N/A	388.14	N/A	N/A	Buried Transducer Cable
OBS-2-370	N/A	388.14	N/A	N/A	Buried Transducer Cable
OBS-2-400	N/A	388.14	N/A	N/A	Buried Transducer Cable
14	6/2/2022	388.14	100.03	288.11	Manual Measurement
23a	6/2/2022	392.10	N/A	N/A	Manual Measurement
24-1	6/2/2022	389.40	127.11	262.29	Manual Measurement
24-2	6/2/2022	388.86	125.02	263.84	Manual Measurement
24-3	6/2/2022	392.04	123.50	268.54	Manual Measurement
PW-0	6/2/2022	385.64	N/A	N/A	Manual Measurement
PW-1	6/2/2022	384.43	98.85	285.58	Levellogger 62149233
PW-2	6/2/2022	385.15	N/A	N/A	Manual Measurement
DM-1	6/2/2022	391.49	107.25	284.24	Manual Measurement
DM-2	6/2/2022	391.32	107.65	283.67	Manual Measurement
DM-3	6/2/2022	388.34	104.50	283.84	Manual Measurement

Additional Notes:




## GROUNDWATER SAMPLING FIELD FORM

Date: June 2022      Site: Genesis Solar Energy Project      Project No: 196-004-06

Project: Groundwater Quality Monitoring Program      Project Manager: AWB

Technicians: AWB, RCD      Weather: Clear, hot

Sampling Method: Bailer Grab Sample

Well No.	23a	Temp °C	pH	Conductivity (mS/cm)	Turbidity (NTUs)	ORP (mV)	DO (mg/L)
Casing Diameter (in.)	8.0						
Total Depth (ft btoc)	1,825						
Screen Interval (ft btoc)	1800 - 1825						
Depth to Water (ft btoc)							
Sample Date							
Sample Time							

**General Well Location:** CalTrans Rest Stop at Wiley's Well Road (2 days notice to CalTrans required)

**COMMENTS:** Could not sample on this event - encroachment permit expired

Well No.	OBS-1	Temp °C	pH	Conductivity (mS/cm)	Turbidity (NTUs)	ORP (mV)	DO (mg/L)
Casing Diameter (in.)	5.0	28.3	7.96	23.90	17.6	+53	6.60
Total Depth (ft btoc)	160						
Screen Interval (ft btoc)	100 - 150						
Depth to Water (ft btoc)	78.15						
Sample Date	6/2/2022						
Sample Time	9:20						

**General Well Location:** Approximately 1 mile west of property boundary; access via Ford Dry Lake service road

**COMMENTS:**

Well No.	TW-1	Temp °C	pH	Conductivity (mS/cm)	Turbidity (NTUs)	ORP (mV)	DO (mg/L)
Casing Diameter (in.)	5.0	27.7	7.33	15.70	37	-208	7.01
Total Depth (ft btoc)	565						
Screen Interval (ft btoc)	340 - 564						
Depth to Water (ft btoc)	87.40						
Sample Date	6/2/2022						
Sample Time	9:05						

**General Well Location:** Approximately 1 mile west of property boundary; access via Ford Dry Lake service road

**COMMENTS:**

Well No.	TW-2	Temp °C	pH	Conductivity (mS/cm)	Turbidity (NTUs)	ORP (mV)	DO (mg/L)
Casing Diameter (in.)	5.0	34.2	9.29	6.13	136	-132	6.56
Total Depth (ft btoc)	1,841						
Screen Interval (ft btoc)	Multiple						
Depth to Water (ft btoc)	126.75						
Sample Date	6/2/2022						
Sample Time	10:15						

**General Well Location:** NE corner of Section 32 (Township 7S, Range 20E); near bend in site access road

**COMMENTS:**





## GROUNDWATER SAMPLING FIELD FORM

Date: June 2022      Site: Genesis Solar Energy Project      Project No: 196-004-06

Project: Groundwater Quality Monitoring Program      Project Manager: AWB

Technicians: AWB/RCD      Weather: Clear, hot

Sampling Method: Production Well Effluent Grab Sample

Well No.	PW-0	Temp °C	pH	Conductivity (mS/cm)	Turbidity (NTUs)	ORP (mV)	DO (mg/L)
Casing Diameter (in.)	10.0	38.1	8.50	6.70	1.9	-147	5.25
Total Depth (ft btoc)	1,251						
Screen Interval (ft btoc)	Multiple						
Depth to Water (ft btoc)	N/A						
Sample Date	6/2/2022						
Sample Time	11:00						

**General Well Location:** Between Solar Field #1 and #2, near main road

**COMMENTS:** Access port is blocked

Well No.	PW-1	Temp °C	pH	Conductivity (mS/cm)	Turbidity (NTUs)	ORP (mV)	DO (mg/L)
Casing Diameter (in.)	10.0	-	-	-	-	-	-
Total Depth (ft btoc)	1,360						
Screen Interval (ft btoc)	Multiple						
Depth to Water (ft btoc)	98.85						
Sample Date	6/2/2022						
Sample Time	N/A						

**General Well Location:** NE corner of Solar Field 1 cooling/processing facility, between Block 6 & Block 7

**COMMENTS:** Not sampled - no access; well is welded shut. stockpile

Well No.	PW-2	Temp °C	pH	Conductivity (mS/cm)	Turbidity (NTUs)	ORP (mV)	DO (mg/L)
Casing Diameter (in.)	10.0	45.5	8.15	4.10	38	-1	3.96
Total Depth (ft btoc)	1,125						
Screen Interval (ft btoc)	Multiple						
Depth to Water (ft btoc)	N/A						
Sample Date	6/2/2022						
Sample Time	11:10						

**General Well Location:** NW corner of Solar Field 2 cooling/processing facility, between Block 7 & Block 8

**COMMENTS:** Pump running at time of readings; did not collect water level

Well No.		Temp °C	pH	Conductivity (mS/cm)	Turbidity (NTUs)	ORP (mV)	DO (mg/L)
Casing Diameter (in.)							
Total Depth (ft btoc)							
Screen Interval (ft btoc)							
Depth to Water (ft btoc)							
Sample Date							
Sample Time							

**General Well Location:**

**COMMENTS:**



## GROUNDWATER SAMPLING FIELD FORM

Date: June 2022	Site: Genesis Solar Energy Project	Project No: 196-004-06
Project: Groundwater Quality Monitoring Program		Project Manager: AWB
Technicians: AWB/RCD		Weather: Clear, hot
Sampling Method: Low-Flow Sampling with Submersible Pump (EPA 2017 Protocols)		

Well No.	DM-1	Time (5 Min Int)	Water Level (ft btoc)	Temp °C (3%)	pH (+/- 0.1)	Cond (mS/cm) (3%)	Turbidity (NTUs) (10%)	ORP (mV) (+/- 10)	DO (mg/L) (10%)
Casing Diameter (in.)	4.0	19:47	107.25	33.4	7.78	17.5	109	+101	6.02
Total Depth (ft btoc)	120	19:52	107.27	32.3	7.77	17.5	123	+105	4.11
Screen Interval (ft btoc)	100 - 120	19:57	107.27	32.1	7.77	17.6	120	+106	3.41
Depth to Water (ft btoc)	107.25								
Depth of Inlet (ft btoc)	115.00								
Discharge Time (sec)	35								
Fill Time (sec)	45								
Cycles per Minute	0.8								
Volume per Cycle (mL)	125								
Pump Rate (mL/min)	94								
Volume Purged (mL)	1,880								
Sample Time	20:00								

Purge Volume Calculation: Total must exceed tubing volume (1,204 mL) plus drawdown volume (2,460 mL/foot) = **1,254 mL**

COMMENTS: Sampled 6/2/2022

Well No.	DM-2	Time (5 Min Int)	Water Level (ft btoc)	Temp °C (3%)	pH (+/- 0.1)	Cond (mS/cm) (3%)	Turbidity (NTUs) (10%)	ORP (mV) (+/- 10)	DO (mg/L) (10%)
Casing Diameter (in.)	4.0	21:28	107.98	31.3	7.69	17.6	54.0	+105	2.14
Total Depth (ft btoc)	120	21:33	108.05	31.0	7.64	17.9	40.0	+106	1.01
Screen Interval (ft btoc)	100 - 120	21:38	108.10	31.1	7.62	17.9	36.0	+105	1.00
Depth to Water (ft btoc)	107.65	21:43	108.15	31.0	7.61	18.0	39.0	+104	1.00
Depth of Inlet (ft btoc)	115.00								
Discharge Time (sec)	35								
Fill Time (sec)	45								
Cycles per Minute	0.8								
Volume per Cycle (mL)	125								
Pump Rate (mL/min)	94								
Volume Purged (mL)	2,820								
Sample Time	21:45								

Purge Volume Calculation: Total must exceed tubing volume (1,204 mL) plus drawdown volume (2,460 mL/foot) = **2,434 mL**

COMMENTS: Sampled 6/2/2022

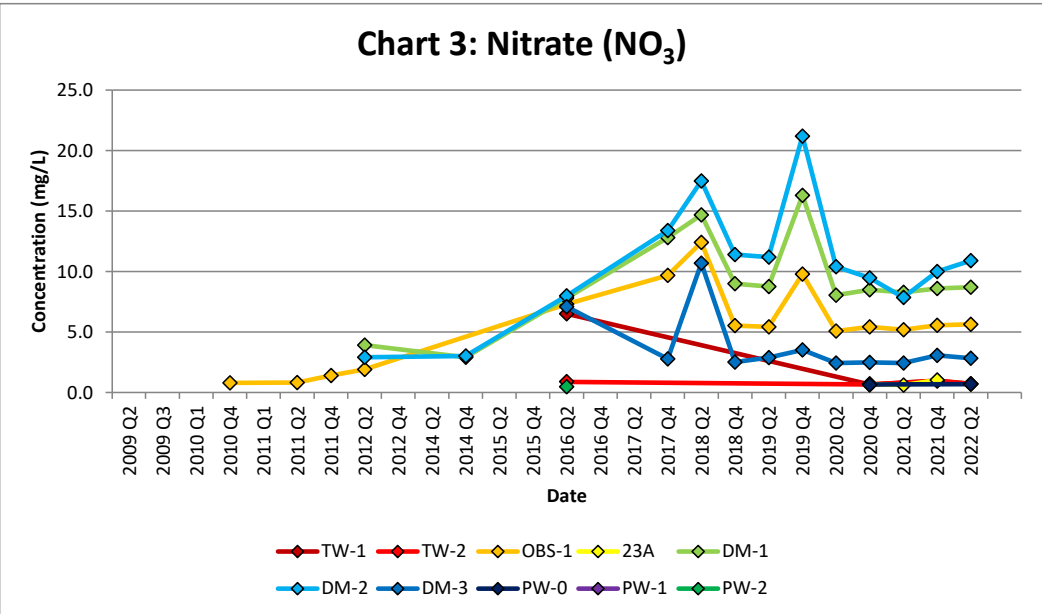
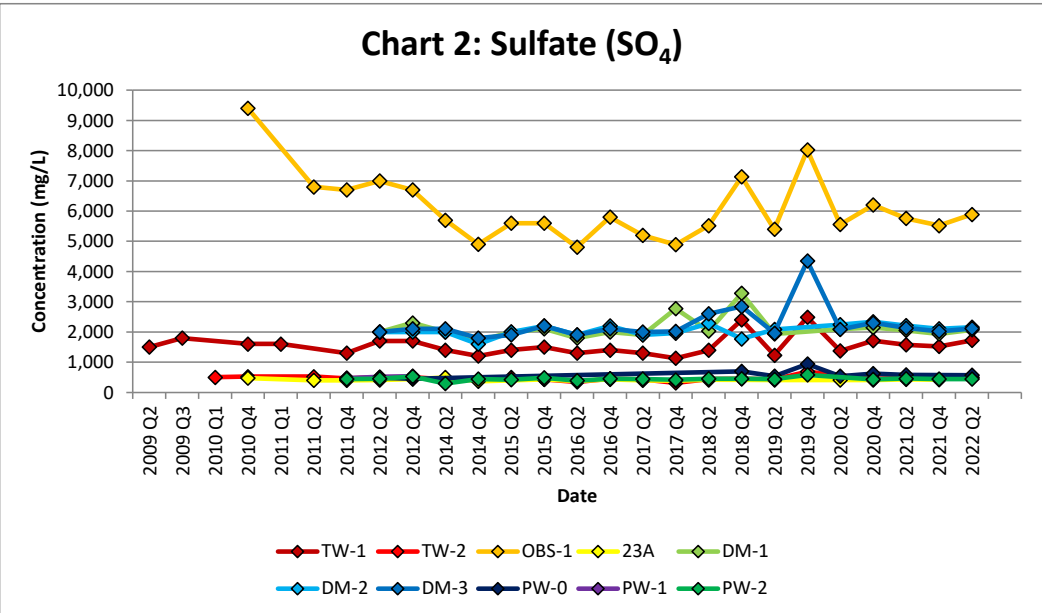
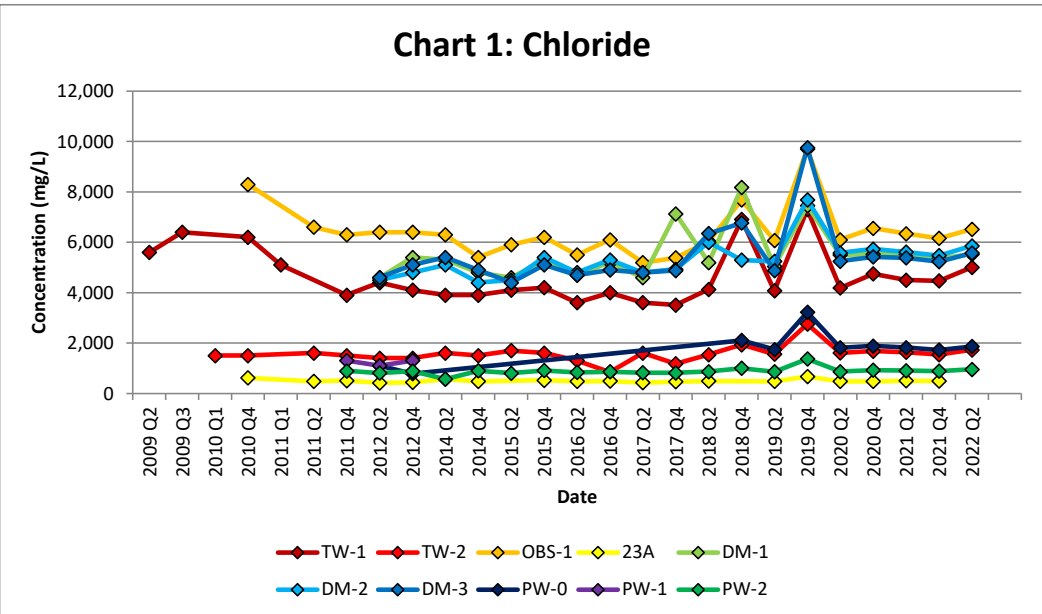
Well No.	DM-3	Time (5 Min Int)	Water Level (ft btoc)	Temp °C (3%)	pH (+/- 0.1)	Cond (mS/cm) (3%)	Turbidity (NTUs) (10%)	ORP (mV) (+/- 10)	DO (mg/L) (10%)
Casing Diameter (in.)	4.0	23:06	104.50	30.7	7.73	17.5	13.7	+120	2.39
Total Depth (ft btoc)	120	23:11	104.52	29.8	7.68	17.4	5.8	+110	1.74
Screen Interval (ft btoc)	100 - 120	23:16	104.50	29.7	7.67	17.3	3.7	+107	1.63
Depth to Water (ft btoc)	104.50	23:21	104.52	29.6	7.66	17.3	3.6	+106	1.58
Depth of Inlet (ft btoc)	115.00								
Discharge Time (sec)	35								
Fill Time (sec)	45								
Cycles per Minute	0.8								
Volume per Cycle (mL)	125								
Pump Rate (mL/min)	94								
Volume Purged (mL)	2,820								
Sample Time	23:25								

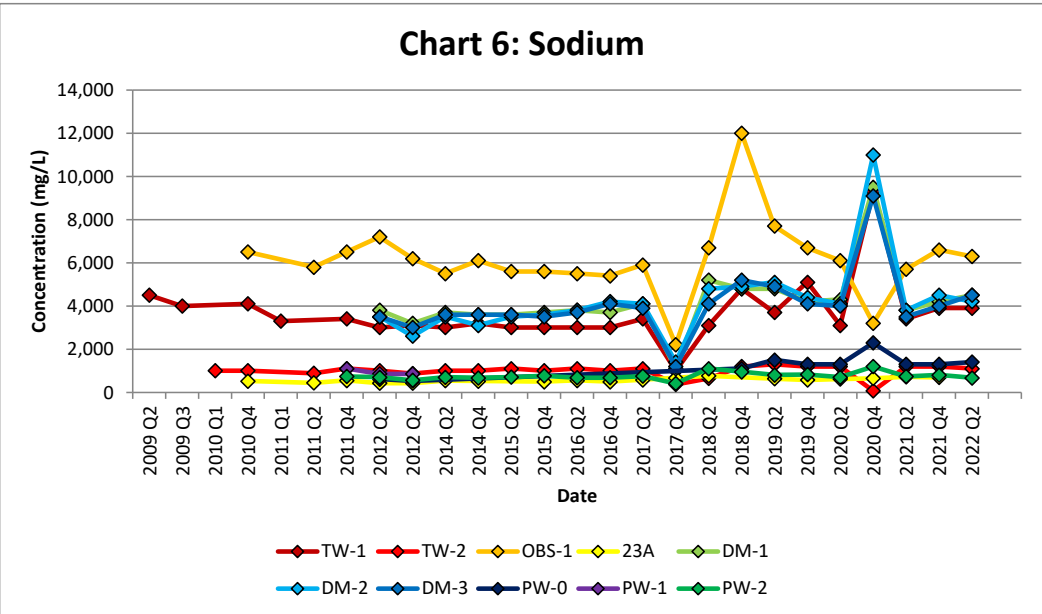
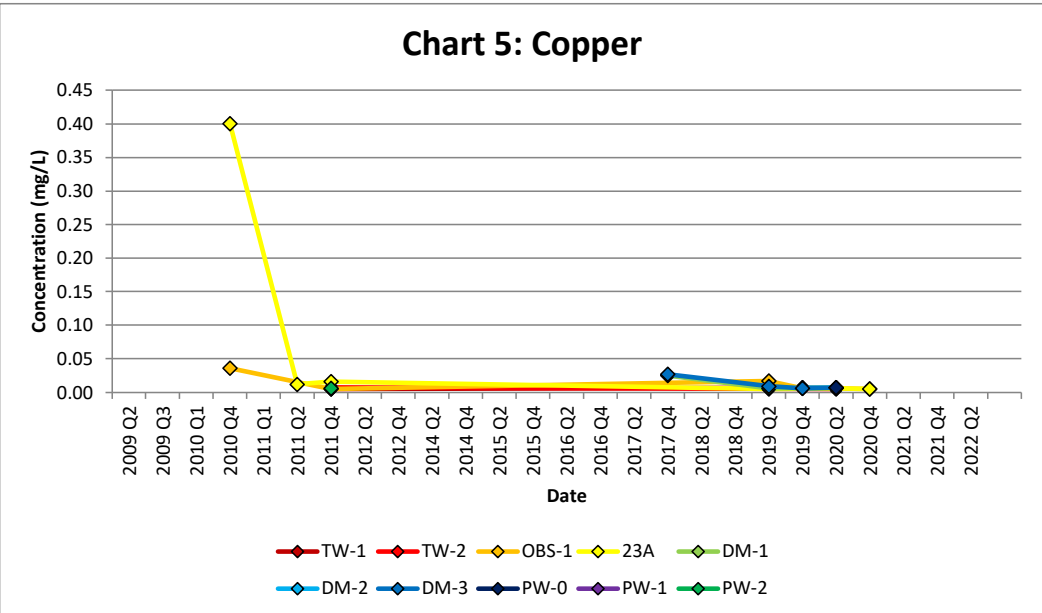
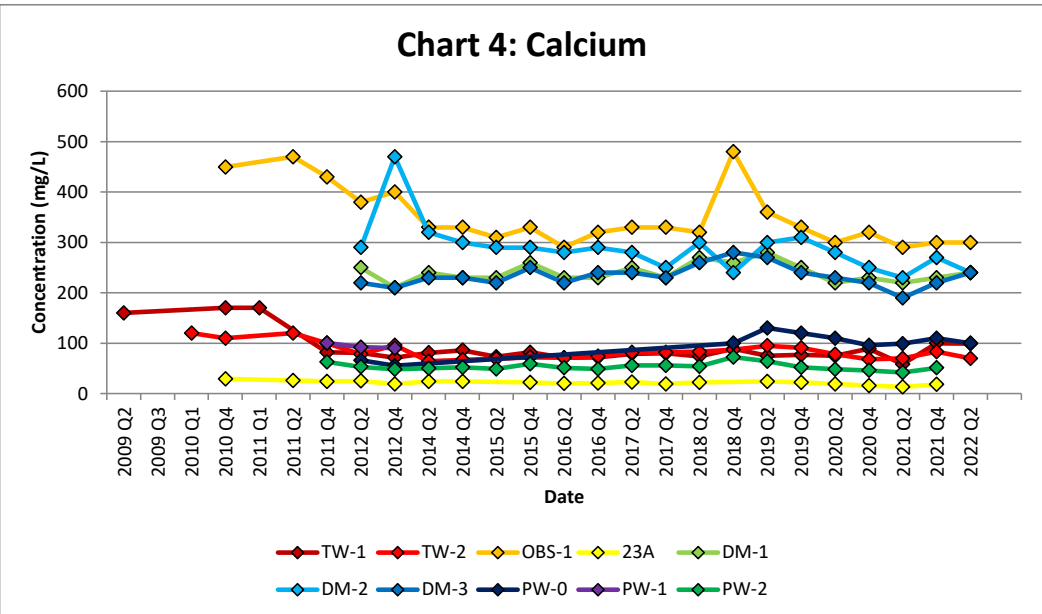
Purge Volume Calculation: Total must exceed tubing volume (1,204 mL) plus drawdown volume (2,460 mL/foot) = **1,254 mL**

COMMENTS: Sampled 6/2/2022

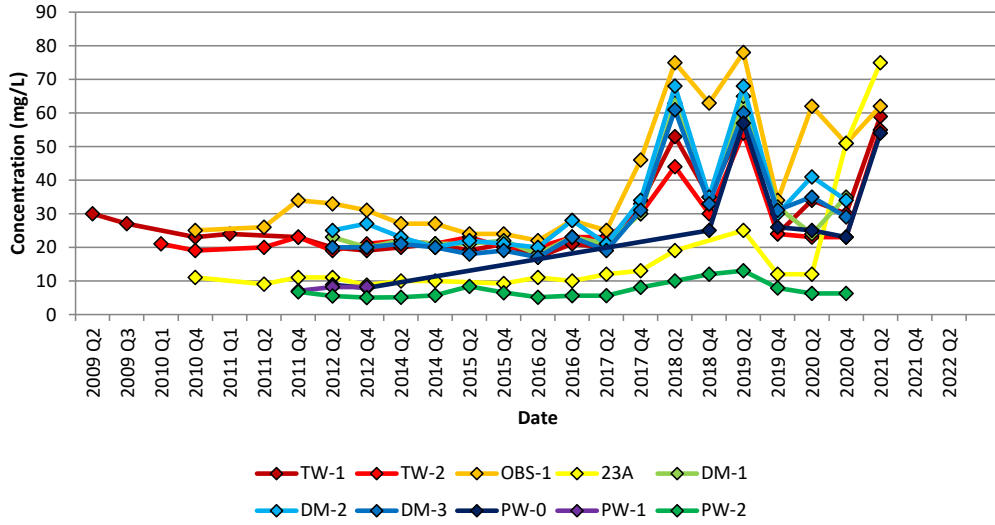
# **APPENDIX B**

**CHARTS 1 - 29**

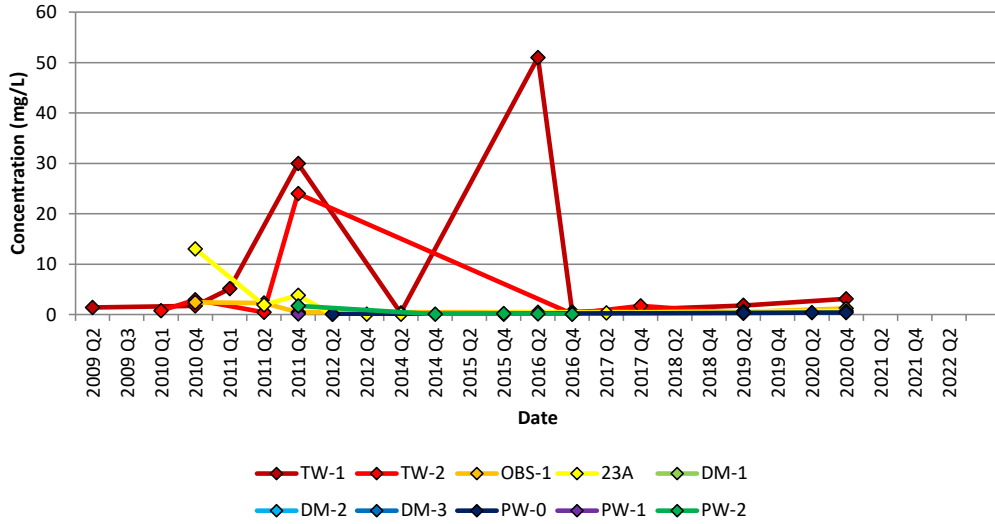




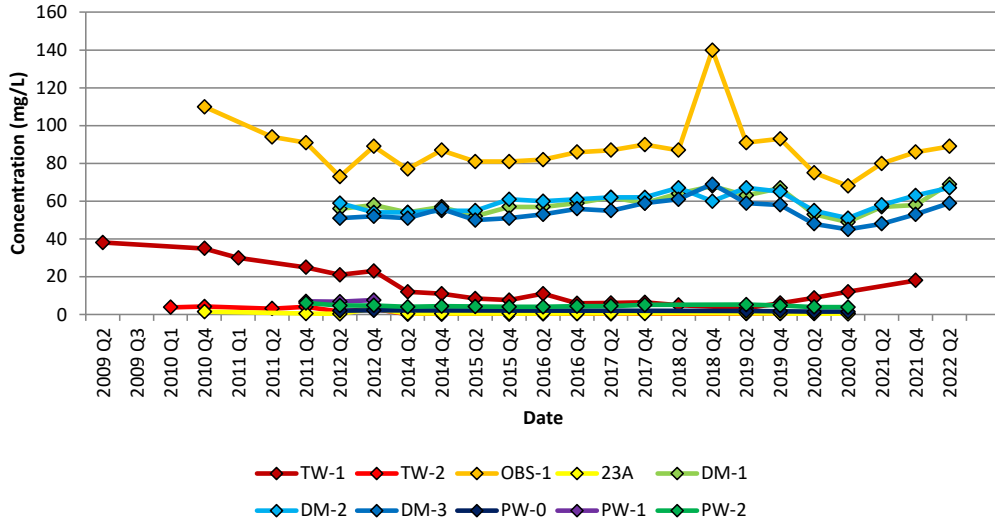
### Chart 7: Potassium



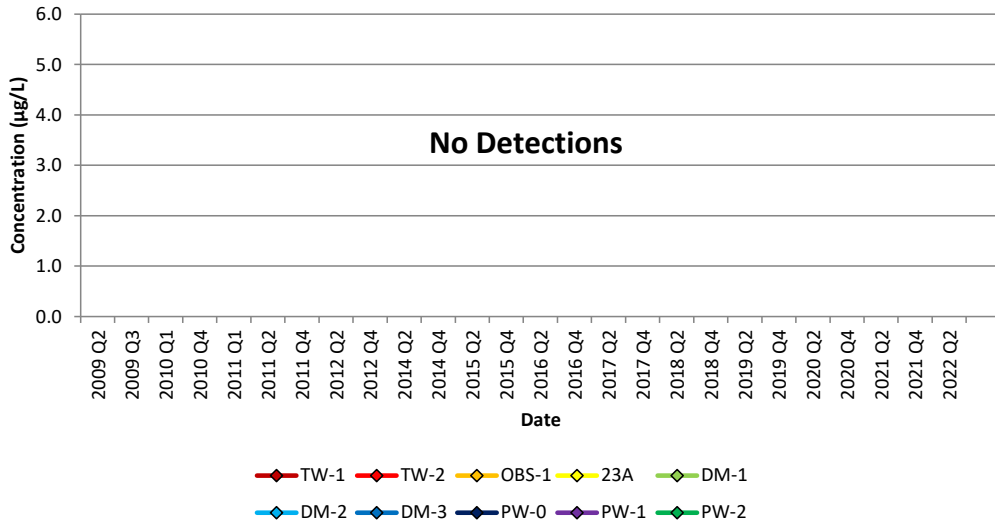
### Chart 8: Iron



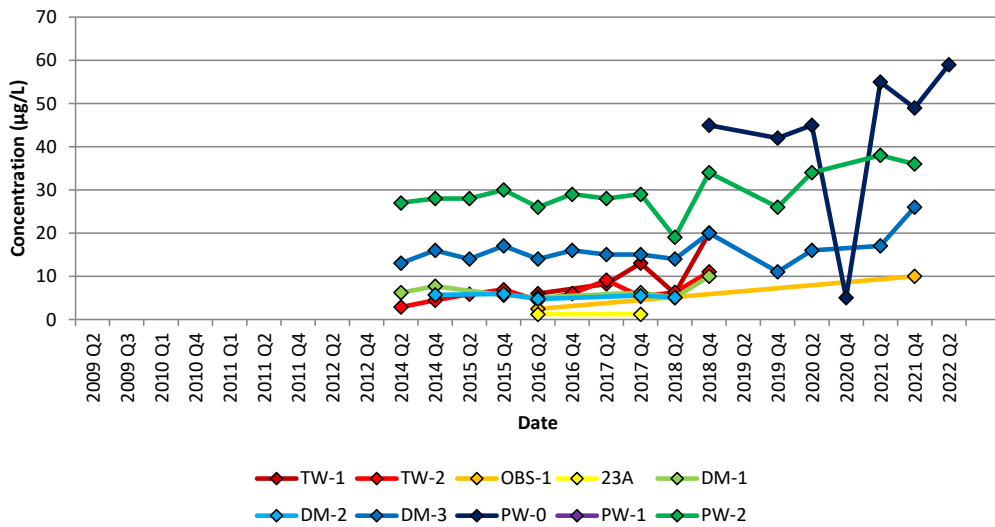
### Chart 9: Magnesium



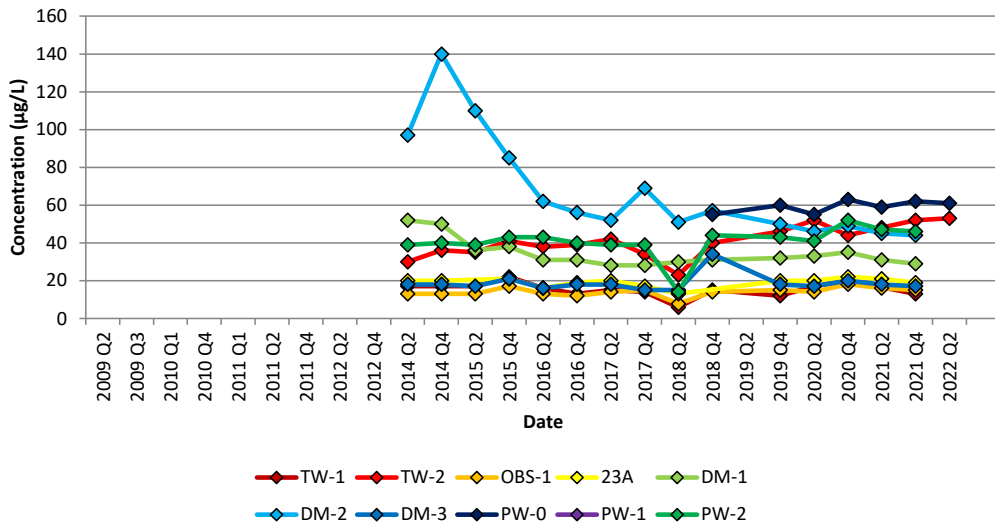
### Chart 10: Antimony



### Chart 11: Arsenic



### Chart 12: Barium

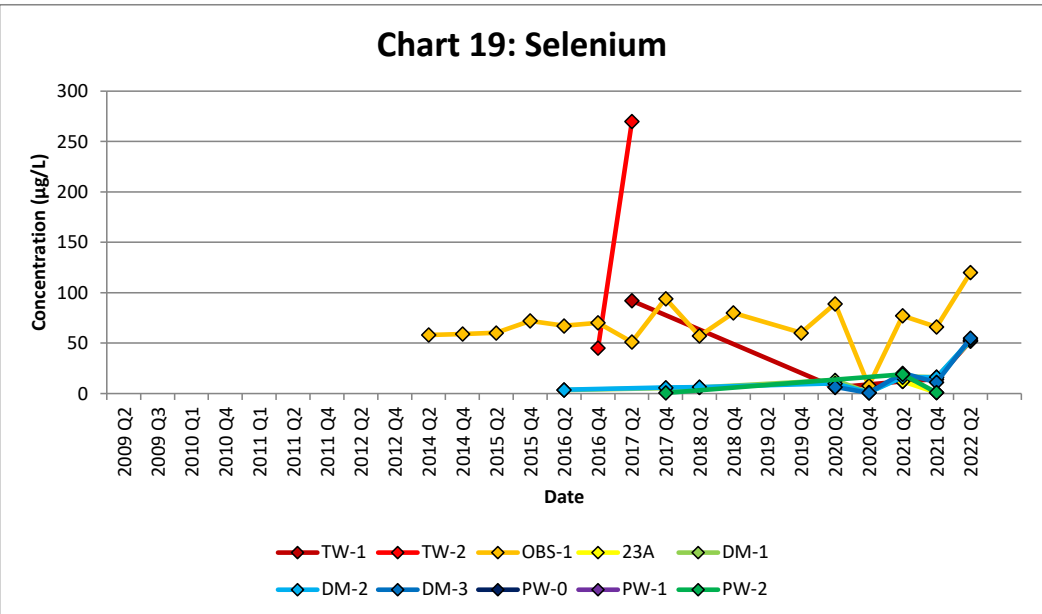




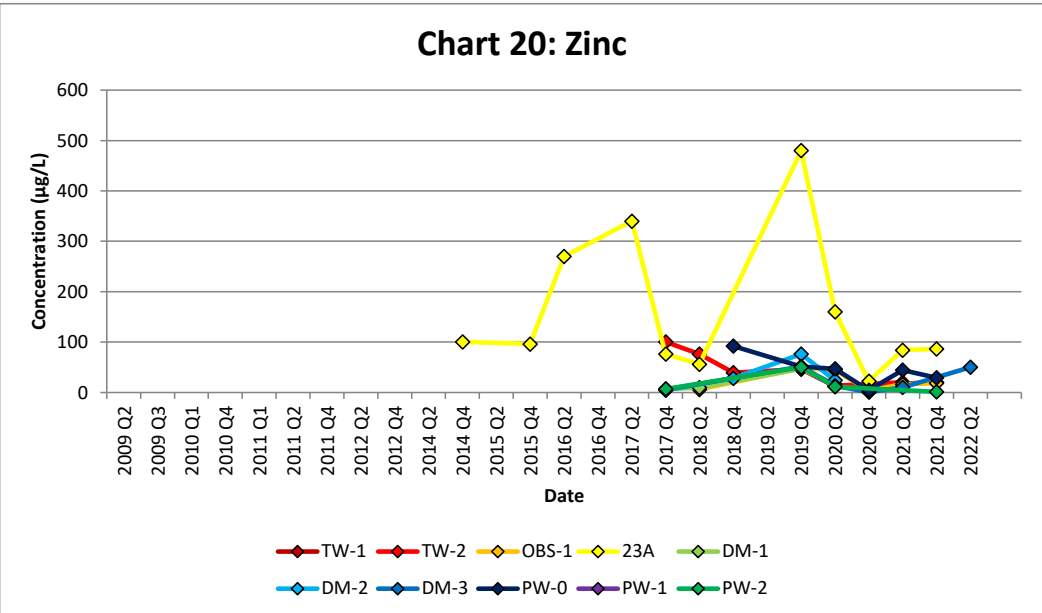




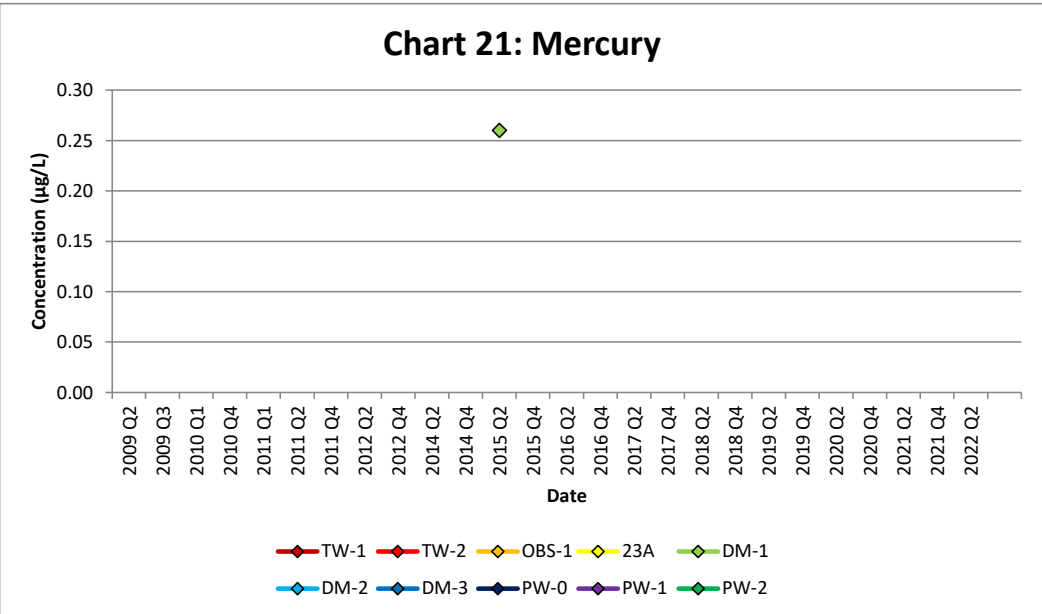
**Chart 19: Selenium**

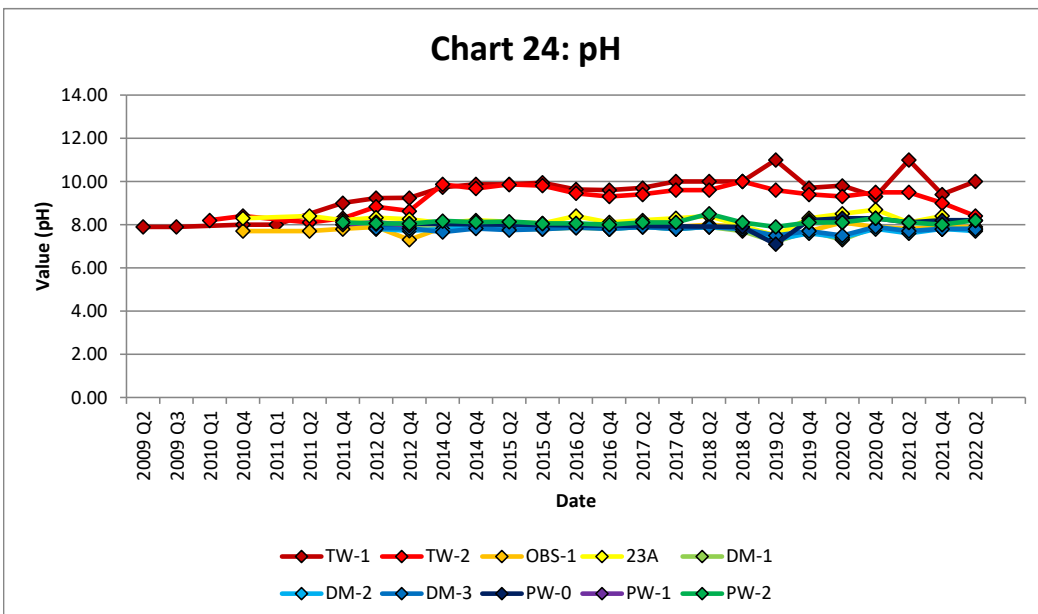
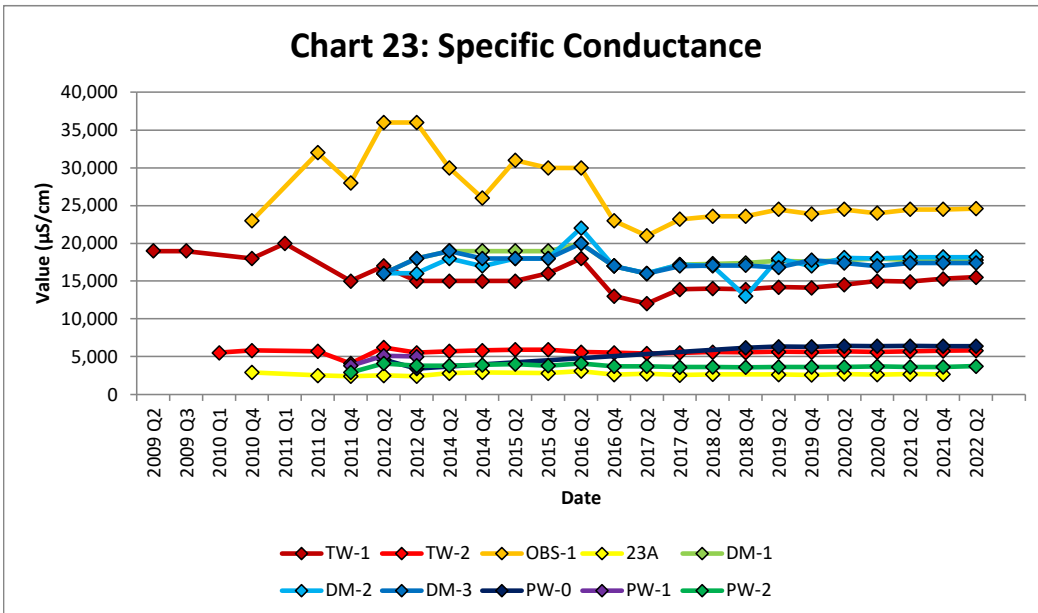
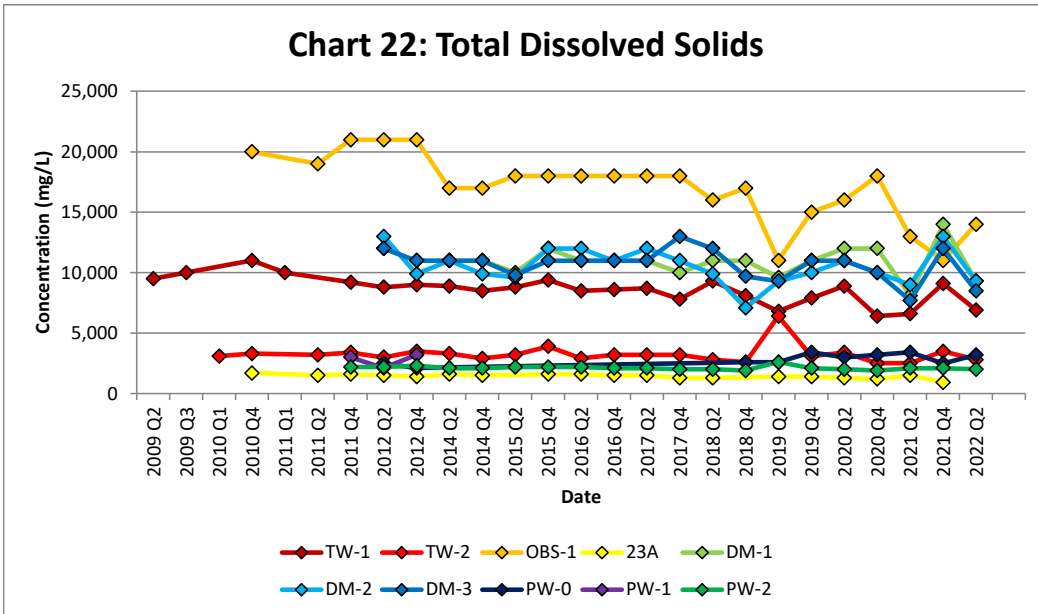


**Chart 20: Zinc**

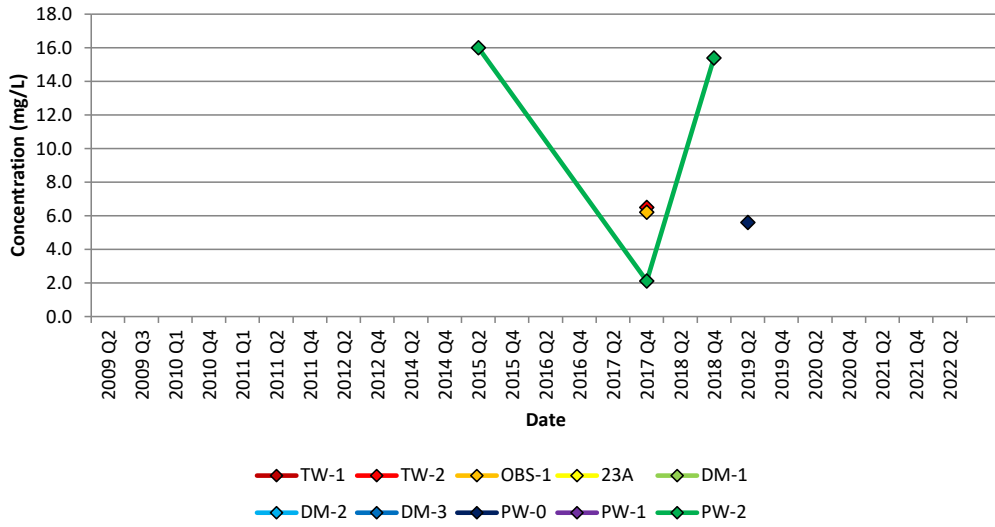


**Chart 21: Mercury**

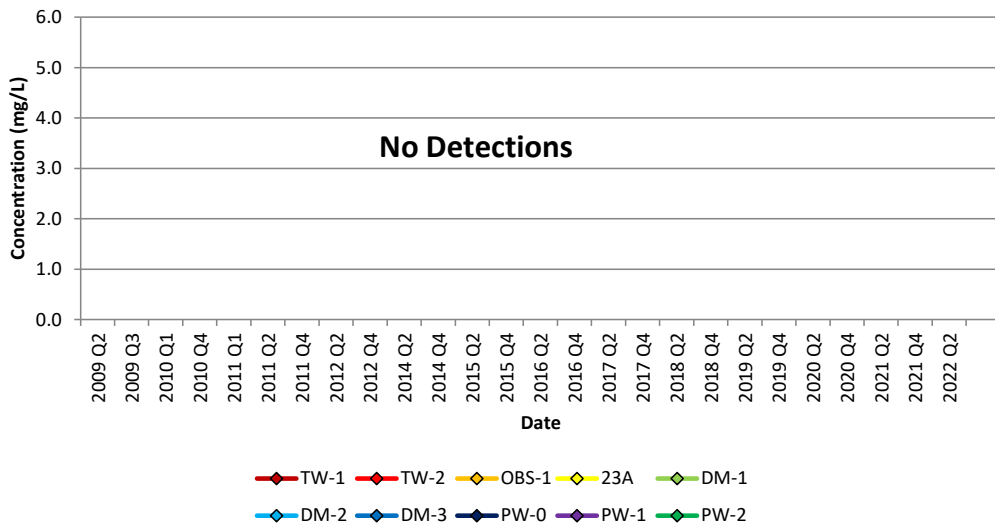




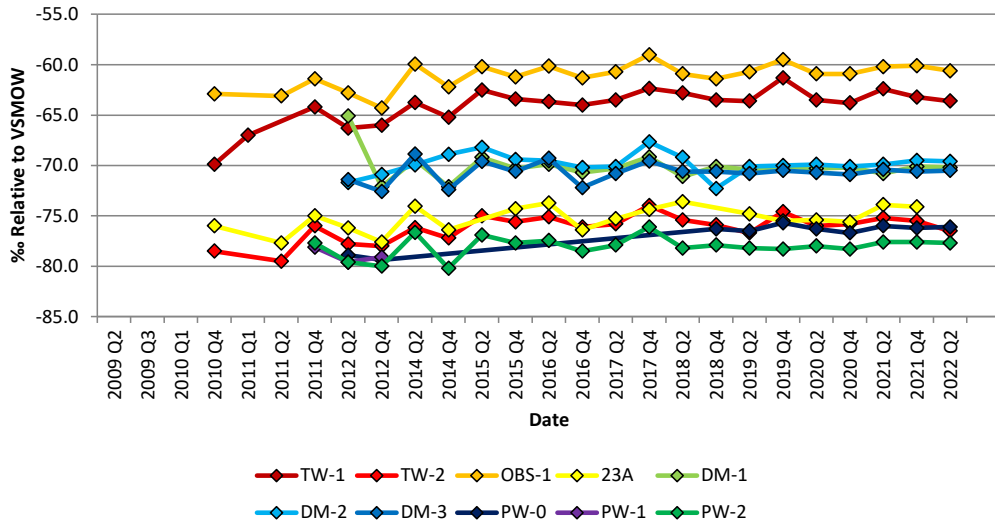
### Chart 25: Oil & Grease



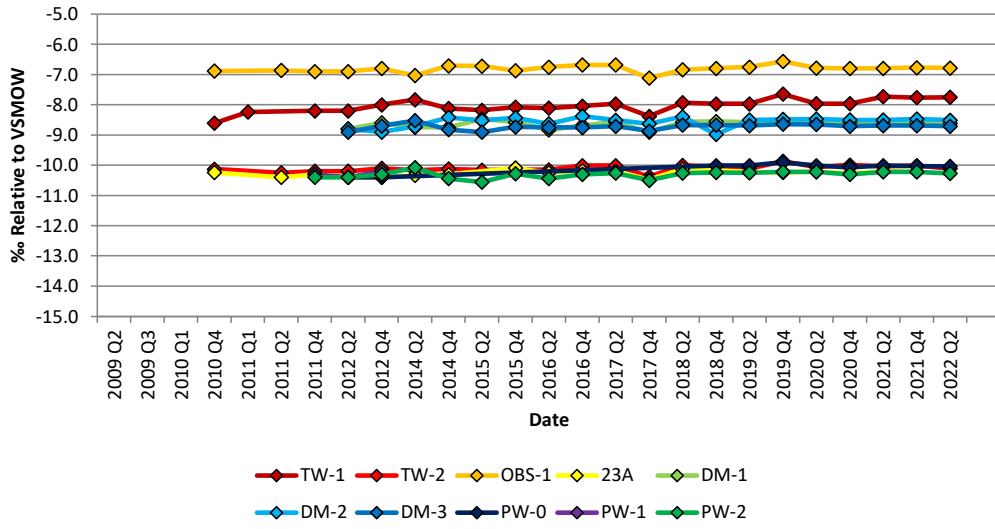
### Chart 26: Heat Transfer Fluid



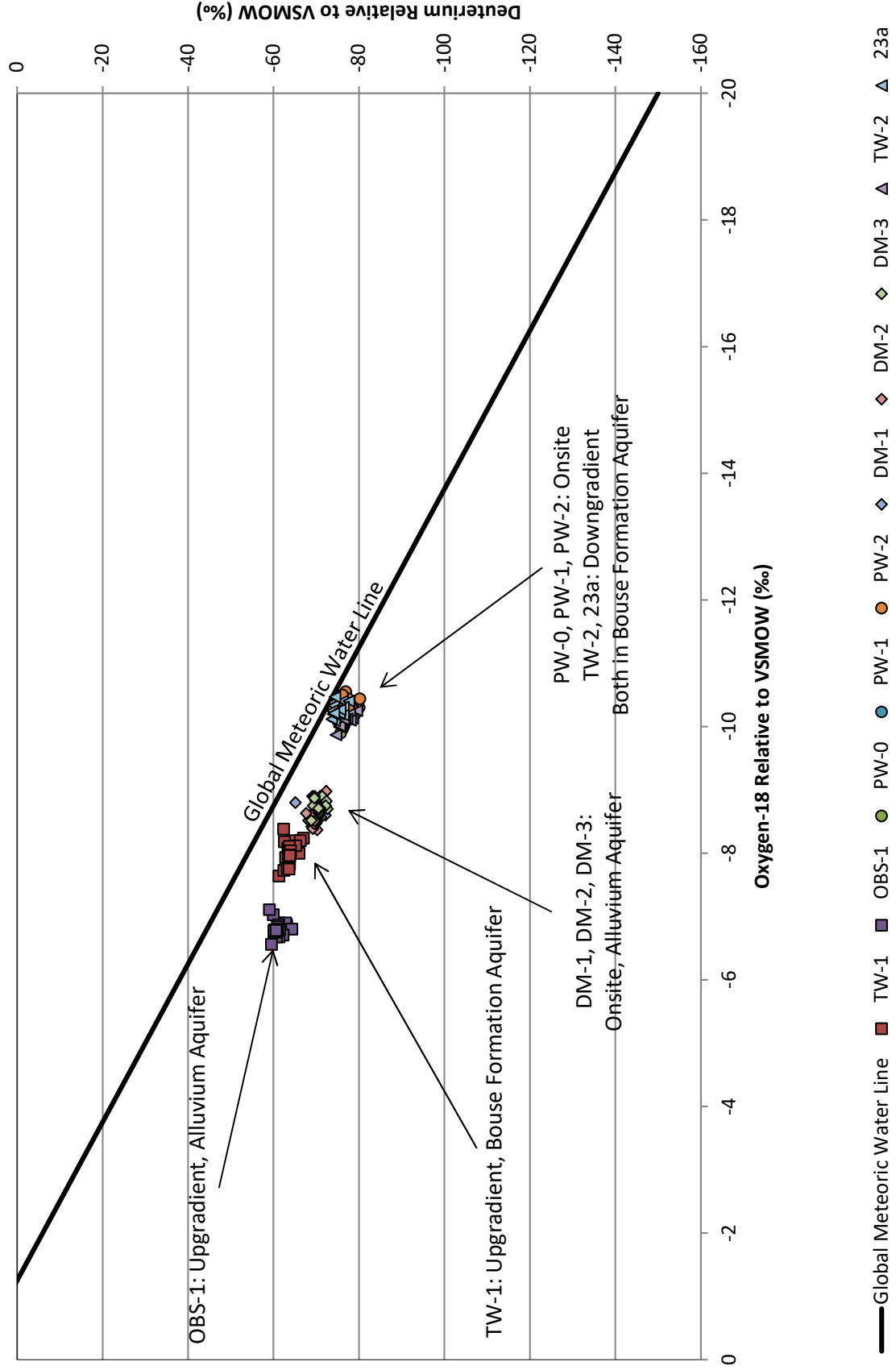
### Chart 27: Deuterium



### Chart 28: Oxygen-18



# Chart 29: Deuterium vs. Oxygen-18 Concentrations Relative to Vienna Standard Mean Oceanic Water



# **APPENDIX C**

## **MANN-KENDALL TREND ANALYSIS**

**Appendix C**  
**2022 First Semiannual Summary of Mann-Kendall Test for Trend**  
**Genesis Solar Energy Project, Blythe, CA**

Well ID	Constituent	Minimum	Maximum	Mean	Kendall Tau Value	2-Sided p-Value	Trend Direction at 95% Confidence Interval
TW-1	Arsenic	N/A	N/A	N/A	N/A	N/A	No New Data
	Barium	N/A	N/A	N/A	N/A	N/A	No New Data
	Calcium	58	170	90	-0.164	0.28977	No Statistical Trend
	Chloride	3,510	7,300	4,682	-0.087	0.55121	No Statistical Trend
	Selenium	5.8	92	35	0.200	0.80650	No Statistical Trend
	Specific Conductivity	12,000	20,000	15,704	-0.396	0.00620	Decreasing Trend
	Sulfate	1,130	2,490	1,532	0.057	0.70677	No Statistical Trend
	Total Dissolved Solids	6,400	10,000	8,615	-0.560	0.00077	Decreasing Trend
Zinc	N/A	N/A	N/A	N/A	N/A	No New Data	
TW-2	Arsenic	N/A	N/A	N/A	N/A	N/A	No New Data
	Barium	23	53	41	0.628	0.00085	Increasing Trend
	Calcium	64	120	85	-0.242	0.10625	No Statistical Trend
	Chloride	850	2,750	1,571	0.322	0.03348	Increasing Trend
	Selenium	N/A	N/A	N/A	N/A	N/A	No New Data
	Specific Conductivity	4,100	6,200	5,598	0.126	0.41102	No Statistical Trend
	Sulfate	315	686	466	-0.206	0.20079	No New Data
	Total Dissolved Solids	2,500	6,400	3,250	-0.169	0.27118	No Statistical Trend
Zinc	N/A	N/A	N/A	N/A	N/A	No New Data	
OBS-1	Arsenic	N/A	N/A	N/A	N/A	N/A	No New Data
	Barium	N/A	N/A	N/A	N/A	N/A	No New Data
	Calcium	290	480	350	-0.514	0.00135	Decreasing Trend
	Chloride	5,200	9,710	6,416	-0.052	0.75614	No Statistical Trend
	Selenium	7.6	120	68	0.259	0.17636	No Statistical Trend
	Specific Conductivity	21,000	36,000	26,677	-0.209	0.19186	No Statistical Trend
	Sulfate	4,800	9,400	6,095	-0.183	0.24707	No Statistical Trend
	Total Dissolved Solids	11,000	21,000	17,045	-0.630	0.00010	Decreasing Trend
Zinc	N/A	N/A	N/A	N/A	N/A	No New Data	
23a	Arsenic	N/A	N/A	N/A	N/A	N/A	No New Data
	Barium	N/A	N/A	N/A	N/A	N/A	No New Data
	Calcium	N/A	N/A	N/A	N/A	N/A	No New Data
	Chloride	N/A	N/A	N/A	N/A	N/A	No New Data
	Selenium	N/A	N/A	N/A	N/A	N/A	No New Data
	Specific Conductivity	N/A	N/A	N/A	N/A	N/A	No New Data
	Sulfate	N/A	N/A	N/A	N/A	N/A	No New Data
	Total Dissolved Solids	N/A	N/A	N/A	N/A	N/A	No New Data
Zinc	N/A	N/A	N/A	N/A	N/A	No New Data	
DM-1	Arsenic	N/A	N/A	N/A	N/A	N/A	No New Data
	Barium	N/A	N/A	N/A	N/A	N/A	No New Data
	Calcium	210	280	240	0.000	1.00000	No Statistical Trend
	Chloride	4,600	8,180	5,523	0.356	0.03833	Increasing Trend
	Selenium	0.87	52	14	0.643	0.03545	Increasing Trend
	Specific Conductivity	16,000	20,000	17,863	0.031	0.88737	No Statistical Trend
	Sulfate	1,700	3,280	2,117	0.147	0.42313	No Statistical Trend
	Total Dissolved Solids	8,100	14,000	10,947	-0.108	0.57491	No Statistical Trend
Zinc	N/A	N/A	N/A	N/A	N/A	Not Enough Data	
DM-2	Arsenic	N/A	N/A	N/A	N/A	N/A	No New Data
	Barium	N/A	N/A	N/A	N/A	N/A	No New Data
	Calcium	230	470	288	-0.494	0.00465	Decreasing Trend
	Chloride	4,400	7,680	5,315	0.574	0.00076	Increasing Trend
	Selenium	0.94	53	14	0.691	0.02482	Increasing Trend
	Specific Conductivity	13,000	22,000	17,416	0.382	0.03216	Increasing Trend
	Sulfate	1,600	2,340	2,052	0.316	0.07911	No Statistical Trend
	Total Dissolved Solids	7,100	13,000	10,526	-0.220	0.21535	No Statistical Trend
Zinc	N/A	N/A	N/A	N/A	N/A	No New Data	
DM-3	Arsenic	N/A	N/A	N/A	N/A	N/A	No New Data
	Barium	N/A	N/A	N/A	N/A	N/A	No New Data
	Calcium	190	280	234	0.119	0.52005	No Statistical Trend
	Chloride	4,400	9,760	5,442	0.366	0.03251	Increasing Trend
	Selenium	0.68	55	19	0.600	0.22067	No New Data
	Specific Conductivity	16,000	20,000	17,495	-0.136	0.45611	No Statistical Trend
	Sulfate	1,800	2,840	2,237	0.280	0.10611	No Statistical Trend
	Total Dissolved Solids	7,700	13,000	10,684	-0.280	0.12687	No Statistical Trend
Zinc	N/A	N/A	N/A	N/A	N/A	Not Enough Data	



**Appendix C**  
**2022 First Semiannual Summary of Mann-Kendall Test for Trend**  
**Genesis Solar Energy Project, Blythe, CA**

Well ID	Constituent	Minimum	Maximum	Mean	Kendall Tau Value	2-Sided p-Value	Trend Direction at 95% Confidence Interval
PW-0	Arsenic	5	59	43	0.488	0.17156	No Statistical Trend
	Barium	55	63	59	0.390	0.28761	No Statistical Trend
	Calcium	55	130	99	0.159	0.58851	No Statistical Trend
	Chloride	780	3,220	1,803	0.200	0.47427	No Statistical Trend
	Selenium	N/A	N/A	N/A	N/A	N/A	Not Enough Data
	Specific Conductivity	3,400	6,400	5,872	0.659	0.01158	Increasing Trend
	Sulfate	450	944	602	0.278	0.34808	No New Data
	Total Dissolved Solids	2,100	3,400	2,850	0.442	0.10176	No Statistical Trend
PW-1	Zinc	N/A	N/A	N/A	N/A	N/A	No New Data
	Arsenic	N/A	N/A	N/A	N/A	N/A	Not Enough Data
	Barium	N/A	N/A	N/A	N/A	N/A	Not Enough Data
	Calcium	N/A	N/A	N/A	N/A	N/A	Not Enough Data
	Chloride	N/A	N/A	N/A	N/A	N/A	Not Enough Data
	Selenium	N/A	N/A	N/A	N/A	N/A	Not Enough Data
	Specific Conductivity	N/A	N/A	N/A	N/A	N/A	Not Enough Data
	Sulfate	N/A	N/A	N/A	N/A	N/A	Not Enough Data
PW-2	Total Dissolved Solids	N/A	N/A	N/A	N/A	N/A	Not Enough Data
	Zinc	N/A	N/A	N/A	N/A	N/A	Not Enough Data
	Arsenic	N/A	N/A	N/A	N/A	N/A	No New Data
	Barium	N/A	N/A	N/A	N/A	N/A	No New Data
	Calcium	N/A	N/A	N/A	N/A	N/A	No New Data
	Chloride	570	1,300	872	0.322	0.05145	No Statistical Trend
	Selenium	N/A	N/A	N/A	N/A	N/A	No New Data
	Specific Conductivity	2,900	4,100	3,686	-0.118	0.49353	No Statistical Trend
PW-2	Sulfate	290	530	436	0.118	0.50544	No Statistical Trend
	Total Dissolved Solids	1,300	2,300	2,025	-0.612	0.00039	Decreasing Trend
	Zinc	N/A	N/A	N/A	N/A	N/A	No New Data

N/A - Not Applicable; not enough data to calculate trend or no new data for the reporting period

# **APPENDIX D**

## **LABORATORY REPORTS**



25712 Commercentre Drive  
Lake Forest, California 92630  
949.297.5020 Phone  
949.297.5027 Fax

30 June 2022

Arlin Brewster  
Northstar Environmental Remediation  
26225 Enterprise Court  
Lake Forest, CA 92630  
RE: Genesis Solar Groundwater

Enclosed are the results of analyses for samples received by the laboratory on 06/03/22 11:45. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Jeff Lee  
Project Manager

Northstar Environmental Remediation  
26225 Enterprise Court  
Lake Forest CA, 92630

Project: Genesis Solar Groundwater  
Project Number: 196-004-06  
Project Manager: Arlin Brewster

**Reported:**  
06/30/22 11:37

**ANALYTICAL REPORT FOR SAMPLES**

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
TW-1	T221596-01	Water	06/02/22 09:20	06/03/22 11:45
OBS-1	T221596-02	Water	06/02/22 09:05	06/03/22 11:45
TW-2	T221596-03	Water	06/02/22 10:15	06/03/22 11:45
PW-0	T221596-04	Water	06/02/22 11:00	06/03/22 11:45
PW-2	T221596-05	Water	06/02/22 11:10	06/03/22 11:45
DM-1	T221596-06	Water	06/02/22 20:00	06/03/22 11:45
DM-2	T221596-07	Water	06/02/22 21:45	06/03/22 11:45
DM-3	T221596-08	Water	06/02/22 23:25	06/03/22 11:45
DUP	T221596-09	Water	06/02/22 00:00	06/03/22 11:45

Per client's email request on 6/30/22. Sample ID OBS-1 and TW-1 has been swapped back. JL 6/30/22

SunStar Laboratories, Inc.



*The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.*

Jeff Lee, Project Manager

Northstar Environmental Remediation  
26225 Enterprise Court  
Lake Forest CA, 92630

Project: Genesis Solar Groundwater  
Project Number: 196-004-06  
Project Manager: Arlin Brewster

**Reported:**  
06/30/22 11:37

**DETECTIONS SUMMARY**

**Sample ID:** TW-1

**Laboratory ID:** T221596-01

**Reporting**

Analyte	Result	Limit	Units	Method	Notes
Selenium	52	50	ug/l	200.8	FILT, R-07
Calcium	84	50	mg/l	EPA 200.7	FILT
Sodium	3400	250	mg/l	EPA 200.7	FILT
pH	10	0.10	pH Units	SM 4500-H+B	O-04
Total Dissolved Solids	6900	10	mg/l	TDS by SM2540C	
Specific Conductance (EC)	15500	10.0	mho/cm @25°t	SM2510b mod.	
Chloride	5010	500	mg/l	EPA 300.0	
Sulfate as SO4	1720	500	mg/l	EPA 300.0	
Nitrate as NO3	0.720	0.500	mg/l	EPA 300.0	

**Sample ID:** TW-1

**Laboratory ID:** T221596-01RE1

**Reporting**

Analyte	Result	Limit	Units	Method	Notes
Calcium	99	50	mg/l	EPA 200.7	FILT
Sodium	3900	250	mg/l	EPA 200.7	FILT

**Sample ID:** OBS-1

**Laboratory ID:** T221596-02

**Reporting**

Analyte	Result	Limit	Units	Method	Notes
Selenium	120	50	ug/l	200.8	FILT, R-07
Total Dissolved Solids	14000	10	mg/l	TDS by SM2540C	
pH	7.9	0.10	pH Units	SM 4500-H+B	O-04
Specific Conductance (EC)	24600	10.0	mho/cm @25°t	SM2510b mod.	
Chloride	6520	500	mg/l	EPA 300.0	
Sulfate as SO4	5890	500	mg/l	EPA 300.0	
Nitrate as NO3	5.64	0.500	mg/l	EPA 300.0	
Nitrate as N	1.27	0.200	mg/l	EPA 300.0	

SunStar Laboratories, Inc.



Jeff Lee, Project Manager

*The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.*

Northstar Environmental Remediation  
26225 Enterprise Court  
Lake Forest CA, 92630

Project: Genesis Solar Groundwater  
Project Number: 196-004-06  
Project Manager: Arlin Brewster

**Reported:**  
06/30/22 11:37

**Sample ID:** OBS-1

**Laboratory ID:** T221596-02RE1

Analyte	Result	Reporting		Units	Method	Notes
		Limit				
Calcium	300	50		mg/l	EPA 200.7	FILT
Magnesium	89	50		mg/l	EPA 200.7	FILT
Sodium	6300	250		mg/l	EPA 200.7	FILT

**Sample ID:** TW-2

**Laboratory ID:** T221596-03

Analyte	Result	Reporting		Units	Method	Notes
		Limit				
Barium	53	50		ug/l	200.8	FILT, R-07
pH	8.4	0.10		pH Units	SM 4500-H+B	O-04
Total Dissolved Solids	2800	10		mg/l	TDS by SM2540C	
Specific Conductance (EC)	5800	10.0		mho/cm @25°t	SM2510b mod.	
Chloride	1730	250		mg/l	EPA 300.0	
Sulfate as SO4	490	100		mg/l	EPA 300.0	
Nitrate as NO3	0.702	0.500		mg/l	EPA 300.0	

**Sample ID:** TW-2

**Laboratory ID:** T221596-03RE1

Analyte	Result	Reporting		Units	Method	Notes
		Limit				
Calcium	70	50		mg/l	EPA 200.7	FILT
Sodium	1100	250		mg/l	EPA 200.7	FILT

**Sample ID:** PW-0

**Laboratory ID:** T221596-04

Analyte	Result	Reporting		Units	Method	Notes
		Limit				
Arsenic	59	50		ug/l	200.8	FILT, R-07
Barium	61	50		ug/l	200.8	FILT, R-07
pH	8.2	0.10		pH Units	SM 4500-H+B	O-04
Total Dissolved Solids	3200	10		mg/l	TDS by SM2540C	
Specific Conductance (EC)	6380	10.0		mho/cm @25°t	SM2510b mod.	
Fluoride	6.44	0.500		mg/l	EPA 300.0	
Chloride	1860	250		mg/l	EPA 300.0	
Sulfate as SO4	566	250		mg/l	EPA 300.0	
Nitrate as NO3	0.668	0.500		mg/l	EPA 300.0	

SunStar Laboratories, Inc.



Jeff Lee, Project Manager

*The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.*

Northstar Environmental Remediation  
26225 Enterprise Court  
Lake Forest CA, 92630

Project: Genesis Solar Groundwater  
Project Number: 196-004-06  
Project Manager: Arlin Brewster

**Reported:**  
06/30/22 11:37

**Sample ID:** PW-0

**Laboratory ID:** T221596-04RE1

Analyte	Result	Reporting		Units	Method	Notes
		Limit				
Calcium	100	50		mg/l	EPA 200.7	FILT
Sodium	1400	250		mg/l	EPA 200.7	FILT

**Sample ID:** PW-2

**Laboratory ID:** T221596-05

Analyte	Result	Reporting		Units	Method	Notes
		Limit				
pH	8.1	0.10		pH Units	SM 4500-H+B	O-04
Total Dissolved Solids	2000	10		mg/l	TDS by SM2540C	
Specific Conductance (EC)	3680	10.0		mho/cm @25°t	SM2510b mod.	
Fluoride	6.91	0.500		mg/l	EPA 300.0	
Chloride	944	250		mg/l	EPA 300.0	
Sulfate as SO4	438	250		mg/l	EPA 300.0	

**Sample ID:** PW-2

**Laboratory ID:** T221596-05RE1

Analyte	Result	Reporting		Units	Method	Notes
		Limit				
Sodium	630	250		mg/l	EPA 200.7	FILT

**Sample ID:** DM-1

**Laboratory ID:** T221596-06

Analyte	Result	Reporting		Units	Method	Notes
		Limit				
Selenium	52	50		ug/l	200.8	FILT, R-07
pH	7.8	0.10		pH Units	SM 4500-H+B	
Total Dissolved Solids	9300	10		mg/l	TDS by SM2540C	
Specific Conductance (EC)	17800	10.0		mho/cm @25°t	SM2510b mod.	
Chloride	5530	500		mg/l	EPA 300.0	
Sulfate as SO4	2070	250		mg/l	EPA 300.0	
Nitrate as NO3	8.70	0.500		mg/l	EPA 300.0	
Nitrate as N	1.97	0.200		mg/l	EPA 300.0	

**Sample ID:** DM-1

**Laboratory ID:** T221596-06RE1

Analyte	Result	Reporting		Units	Method	Notes
		Limit				

SunStar Laboratories, Inc.



Jeff Lee, Project Manager

*The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.*

Northstar Environmental Remediation  
26225 Enterprise Court  
Lake Forest CA, 92630

Project: Genesis Solar Groundwater  
Project Number: 196-004-06  
Project Manager: Arlin Brewster

Reported:  
06/30/22 11:37

Sample ID: DM-1

Laboratory ID: T221596-06RE1

Analyte	Result	Reporting		Units	Method	Notes
		Limit				
Calcium	240	50		mg/l	EPA 200.7	FILT
Magnesium	69	50		mg/l	EPA 200.7	FILT
Sodium	4500	250		mg/l	EPA 200.7	FILT

Sample ID: DM-2

Laboratory ID: T221596-07

Analyte	Result	Reporting		Units	Method	Notes
		Limit				
Selenium	53	50		ug/l	200.8	FILT, R-07
pH	7.7	0.10		pH Units	SM 4500-H+B	
Total Dissolved Solids	9300	10		mg/l	TDS by SM2540C	
Specific Conductance (EC)	18200	10.0		mho/cm @25°t	SM2510b mod.	
Chloride	5860	500		mg/l	EPA 300.0	
Sulfate as SO4	2160	250		mg/l	EPA 300.0	
Nitrate as NO3	10.9	0.500		mg/l	EPA 300.0	
Nitrate as N	2.47	0.200		mg/l	EPA 300.0	

Sample ID: DM-2

Laboratory ID: T221596-07RE1

Analyte	Result	Reporting		Units	Method	Notes
		Limit				
Calcium	240	50		mg/l	EPA 200.7	FILT
Magnesium	67	50		mg/l	EPA 200.7	FILT
Sodium	4200	250		mg/l	EPA 200.7	FILT

Sample ID: DM-3

Laboratory ID: T221596-08

Analyte	Result	Reporting		Units	Method	Notes
		Limit				
Selenium	55	50		ug/l	200.8	R-07, FILT
Zinc	50	50		ug/l	200.8	FILT, R-07
pH	7.8	0.10		pH Units	SM 4500-H+B	
Total Dissolved Solids	8500	10		mg/l	TDS by SM2540C	
Specific Conductance (EC)	17400	10.0		mho/cm @25°t	SM2510b mod.	
Chloride	5570	500		mg/l	EPA 300.0	
Sulfate as SO4	2110	250		mg/l	EPA 300.0	
Nitrate as NO3	2.82	0.500		mg/l	EPA 300.0	

SunStar Laboratories, Inc.



Jeff Lee, Project Manager

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Northstar Environmental Remediation  
26225 Enterprise Court  
Lake Forest CA, 92630

Project: Genesis Solar Groundwater  
Project Number: 196-004-06  
Project Manager: Arlin Brewster

**Reported:**  
06/30/22 11:37

**Sample ID:** DM-3

**Laboratory ID:** T221596-08

Analyte	Result	Reporting		Units	Method	Notes
		Limit				
Nitrate as N	0.640	0.200		mg/l	EPA 300.0	

**Sample ID:** DM-3

**Laboratory ID:** T221596-08RE1

Analyte	Result	Reporting		Units	Method	Notes
		Limit				
Calcium	240	50		mg/l	EPA 200.7	FILT
Magnesium	59	50		mg/l	EPA 200.7	FILT
Sodium	4500	250		mg/l	EPA 200.7	FILT

**Sample ID:** DUP

**Laboratory ID:** T221596-09

Analyte	Result	Reporting		Units	Method	Notes
		Limit				
pH	8.2	0.10		pH Units	SM 4500-H+B	O-04
Total Dissolved Solids	4000	10		mg/l	TDS by SM2540C	
Specific Conductance (EC)	3730	10.0		mho/cm @25°t	SM2510b mod.	
Chloride	953	100		mg/l	EPA 300.0	
Sulfate as SO4	444	100		mg/l	EPA 300.0	

**Sample ID:** DUP

**Laboratory ID:** T221596-09RE1

Analyte	Result	Reporting		Units	Method	Notes
		Limit				
Sodium	670	250		mg/l	EPA 200.7	FILT

SunStar Laboratories, Inc.



*The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.*

Jeff Lee, Project Manager

Northstar Environmental Remediation  
26225 Enterprise Court  
Lake Forest CA, 92630

Project: Genesis Solar Groundwater  
Project Number: 196-004-06  
Project Manager: Arlin Brewster

Reported:  
06/30/22 11:37

**TW-1  
T221596-01 (Water)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
---------	--------	-----------------	-------	----------	-------	----------	----------	--------	-------

**SunStar Laboratories, Inc.**

**Metals by EPA 200 Series Methods**

Copper	ND	2.5	mg/l	500	22F0053	06/03/22	06/10/22	EPA 200.7	FILT
<b>Calcium</b>	<b>84</b>	50	"	"	"	"	"	"	FILT
Iron	ND	100	"	"	"	"	"	"	FILT
Magnesium	ND	50	"	"	"	"	"	"	FILT
Potassium	ND	250	"	"	"	"	"	"	FILT
<b>Sodium</b>	<b>3400</b>	250	"	"	"	"	"	"	FILT
Antimony	ND	50	ug/l	100	22F0058	06/03/22	06/07/22	200.8	FILT, R-07
Arsenic	ND	50	"	"	"	"	"	"	FILT, R-07
Barium	ND	50	"	"	"	"	"	"	FILT, R-07
Cadmium	ND	50	"	"	"	"	"	"	FILT, R-07
Chromium	ND	50	"	"	"	"	"	"	FILT, R-07
Cobalt	ND	50	"	"	"	"	"	"	FILT, R-07
Lead	ND	50	"	"	"	"	"	"	FILT, R-07
Nickel	ND	50	"	"	"	"	"	"	FILT, R-07
<b>Selenium</b>	<b>52</b>	50	"	"	"	"	"	"	FILT, R-07
Zinc	ND	50	"	"	"	"	"	"	FILT, R-07

**Cold Vapor Extraction EPA 7470/7471**

Mercury	ND	1.0	ug/l	1	22F0059	06/03/22	06/06/22	EPA 7470A Water	FILT
---------	----	-----	------	---	---------	----------	----------	--------------------	------

**Conventional Chemistry Parameters by APHA/EPA/ASTM Methods**

Oil & Grease	ND	5.00	mg/l	1	22F0069	06/03/22	06/14/22	EPA 1664B	
<b>Specific Conductance (EC)</b>	<b>15500</b>	10.0	umho/cm @25°C	"	22F0183	06/10/22	06/10/22	SM2510b mod.	
<b>pH</b>	<b>10</b>	0.10	pH Units	"	22F0064	06/03/22	06/06/22	SM 4500-H+B	O-04
<b>Total Dissolved Solids</b>	<b>6900</b>	10	mg/l	"	22F0063	06/03/22	06/10/22	TDS by SM2540C	

SunStar Laboratories, Inc.



Jeff Lee, Project Manager

*The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.*



25712 Commercentre Drive  
 Lake Forest, California 92630  
 949.297.5020 Phone  
 949.297.5027 Fax

Northstar Environmental Remediation 26225 Enterprise Court Lake Forest CA, 92630	Project: Genesis Solar Groundwater Project Number: 196-004-06 Project Manager: Arlin Brewster	Reported: 06/30/22 11:37
--	---	-----------------------------

**TW-1**  
**T221596-01 (Water)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
---------	--------	-----------------	-------	----------	-------	----------	----------	--------	-------

**SunStar Laboratories, Inc.**

**Anions by EPA Method 300.0**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Fluoride	ND	0.500	mg/l	1	22F0066	06/03/22	06/07/22	EPA 300.0	
<b>Chloride</b>	<b>5010</b>	500	"	100	"	"	"	"	
<b>Sulfate as SO4</b>	<b>1720</b>	500	"	"	"	"	"	"	
<b>Nitrate as NO3</b>	<b>0.720</b>	0.500	"	1	"	"	06/04/22	"	
Nitrate as N	ND	0.200	"	"	"	"	"	"	

SunStar Laboratories, Inc.

*The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.*

Jeff Lee, Project Manager

Northstar Environmental Remediation  
26225 Enterprise Court  
Lake Forest CA, 92630

Project: Genesis Solar Groundwater  
Project Number: 196-004-06  
Project Manager: Arlin Brewster

**Reported:**  
06/30/22 11:37

**TW-1**

**T221596-01RE1 (Water)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
---------	--------	--------------------	-------	----------	-------	----------	----------	--------	-------

**SunStar Laboratories, Inc.**

**Metals by EPA 200 Series Methods**

Copper	ND	2.5	mg/l	500	22F0221	06/13/22	06/20/22	EPA 200.7	FILT
<b>Calcium</b>	<b>99</b>	50	"	"	"	"	"	"	FILT
Iron	ND	100	"	"	"	"	"	"	FILT
Magnesium	ND	50	"	"	"	"	"	"	FILT
Potassium	ND	250	"	"	"	"	"	"	FILT
<b>Sodium</b>	<b>3900</b>	250	"	"	"	"	"	"	FILT

SunStar Laboratories, Inc.



*The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.*

Jeff Lee, Project Manager

Northstar Environmental Remediation  
26225 Enterprise Court  
Lake Forest CA, 92630

Project: Genesis Solar Groundwater  
Project Number: 196-004-06  
Project Manager: Arlin Brewster

**Reported:**  
06/30/22 11:37

**OBS-1**  
**T221596-02 (Water)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
---------	--------	-----------------	-------	----------	-------	----------	----------	--------	-------

**SunStar Laboratories, Inc.**

**Metals by EPA 200 Series Methods**

Antimony	ND	50	ug/l	100	22F0058	06/03/22	06/07/22	200.8	FILT, R-07
Arsenic	ND	50	"	"	"	"	"	"	FILT, R-07
Barium	ND	50	"	"	"	"	"	"	FILT, R-07
Cadmium	ND	50	"	"	"	"	"	"	FILT, R-07
Chromium	ND	50	"	"	"	"	"	"	FILT, R-07
Cobalt	ND	50	"	"	"	"	"	"	FILT, R-07
Lead	ND	50	"	"	"	"	"	"	FILT, R-07
Nickel	ND	50	"	"	"	"	"	"	FILT, R-07
<b>Selenium</b>	<b>120</b>	50	"	"	"	"	"	"	FILT, R-07
Zinc	ND	50	"	"	"	"	"	"	FILT, R-07

**Cold Vapor Extraction EPA 7470/7471**

Mercury	ND	1.0	ug/l	1	22F0059	06/03/22	06/06/22	EPA 7470A Water	FILT
---------	----	-----	------	---	---------	----------	----------	--------------------	------

**Conventional Chemistry Parameters by APHA/EPA/ASTM Methods**

Oil & Grease	ND	5.00	mg/l	1	22F0069	06/03/22	06/14/22	EPA 1664B	
<b>Specific Conductance (EC)</b>	<b>24600</b>	10.0	umho/cm @25°C	"	22F0183	06/10/22	06/10/22	SM2510b mod.	
<b>pH</b>	<b>7.9</b>	0.10	pH Units	"	22F0064	06/03/22	06/06/22	SM 4500-H+B	O-04
<b>Total Dissolved Solids</b>	<b>14000</b>	10	mg/l	"	22F0063	06/03/22	06/10/22	TDS by SM2540C	

**Anions by EPA Method 300.0**

<b>Chloride</b>	<b>6520</b>	500	mg/l	100	22F0066	06/03/22	06/07/22	EPA 300.0	
<b>Sulfate as SO4</b>	<b>5890</b>	500	"	"	"	"	"	"	
<b>Nitrate as NO3</b>	<b>5.64</b>	0.500	"	1	"	"	06/04/22	"	
<b>Nitrate as N</b>	<b>1.27</b>	0.200	"	"	"	"	"	"	

SunStar Laboratories, Inc.



Jeff Lee, Project Manager

*The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.*

Northstar Environmental Remediation  
26225 Enterprise Court  
Lake Forest CA, 92630

Project: Genesis Solar Groundwater  
Project Number: 196-004-06  
Project Manager: Arlin Brewster

**Reported:**  
06/30/22 11:37

**OBS-1**  
**T221596-02RE1 (Water)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
---------	--------	--------------------	-------	----------	-------	----------	----------	--------	-------

**SunStar Laboratories, Inc.**

**Metals by EPA 200 Series Methods**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Copper	ND	2.5	mg/l	500	22F0221	06/13/22	06/20/22	EPA 200.7	FILT
<b>Calcium</b>	<b>300</b>	50	"	"	"	"	06/20/22	"	FILT
Iron	ND	100	"	"	"	"	"	"	FILT
<b>Magnesium</b>	<b>89</b>	50	"	"	"	"	"	"	FILT
Potassium	ND	250	"	"	"	"	"	"	FILT
<b>Sodium</b>	<b>6300</b>	250	"	"	"	"	"	"	FILT

SunStar Laboratories, Inc.



*The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.*

Jeff Lee, Project Manager

Northstar Environmental Remediation  
26225 Enterprise Court  
Lake Forest CA, 92630

Project: Genesis Solar Groundwater  
Project Number: 196-004-06  
Project Manager: Arlin Brewster

**Reported:**  
06/30/22 11:37

**TW-2**

**T221596-03 (Water)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
---------	--------	-----------------	-------	----------	-------	----------	----------	--------	-------

**SunStar Laboratories, Inc.**

**Metals by EPA 200 Series Methods**

Antimony	ND	50	ug/l	100	22F0058	06/03/22	06/07/22	200.8	FILT, R-07
Arsenic	ND	50	"	"	"	"	"	"	FILT, R-07
<b>Barium</b>	<b>53</b>	50	"	"	"	"	"	"	FILT, R-07
Cadmium	ND	50	"	"	"	"	"	"	FILT, R-07
Chromium	ND	50	"	"	"	"	"	"	FILT, R-07
Cobalt	ND	50	"	"	"	"	"	"	FILT, R-07
Lead	ND	50	"	"	"	"	"	"	FILT, R-07
Nickel	ND	50	"	"	"	"	"	"	FILT, R-07
Selenium	ND	50	"	"	"	"	"	"	FILT, R-07
Zinc	ND	50	"	"	"	"	"	"	FILT, R-07

**Cold Vapor Extraction EPA 7470/7471**

Mercury	ND	1.0	ug/l	1	22F0059	06/03/22	06/06/22	EPA 7470A Water	FILT
---------	----	-----	------	---	---------	----------	----------	--------------------	------

**Conventional Chemistry Parameters by APHA/EPA/ASTM Methods**

Oil & Grease	ND	5.00	mg/l	1	22F0069	06/03/22	06/14/22	EPA 1664B	
<b>Specific Conductance (EC)</b>	<b>5800</b>	10.0	umho/cm @25°C	"	22F0183	06/10/22	06/10/22	SM2510b mod.	
<b>pH</b>	<b>8.4</b>	0.10	pH Units	"	22F0064	06/03/22	06/06/22	SM 4500-H+B	O-04
<b>Total Dissolved Solids</b>	<b>2800</b>	10	mg/l	"	22F0063	06/03/22	06/10/22	TDS by SM2540C	

**Anions by EPA Method 300.0**

<b>Chloride</b>	<b>1730</b>	250	mg/l	50	22F0066	06/03/22	06/07/22	EPA 300.0	
<b>Sulfate as SO4</b>	<b>490</b>	100	"	20	"	"	"	"	
<b>Nitrate as NO3</b>	<b>0.702</b>	0.500	"	1	"	"	06/04/22	"	
Nitrate as N	ND	0.200	"	"	"	"	"	"	

SunStar Laboratories, Inc.



*The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.*

Jeff Lee, Project Manager



25712 Commercentre Drive  
 Lake Forest, California 92630  
 949.297.5020 Phone  
 949.297.5027 Fax

Northstar Environmental Remediation 26225 Enterprise Court Lake Forest CA, 92630	Project: Genesis Solar Groundwater Project Number: 196-004-06 Project Manager: Arlin Brewster	Reported: 06/30/22 11:37
--	---	-----------------------------

**TW-2**  
**T221596-03RE1 (Water)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
---------	--------	-----------------	-------	----------	-------	----------	----------	--------	-------

**SunStar Laboratories, Inc.**

**Metals by EPA 200 Series Methods**

Copper	ND	2.5	mg/l	500	22F0221	06/13/22	06/20/22	EPA 200.7	FILT
<b>Calcium</b>	<b>70</b>	50	"	"	"	"	06/20/22	"	FILT
Iron	ND	100	"	"	"	"	"	"	FILT
Magnesium	ND	50	"	"	"	"	"	"	FILT
Potassium	ND	250	"	"	"	"	"	"	FILT
<b>Sodium</b>	<b>1100</b>	250	"	"	"	"	"	"	FILT

SunStar Laboratories, Inc.

*The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.*

Jeff Lee, Project Manager



Northstar Environmental Remediation  
26225 Enterprise Court  
Lake Forest CA, 92630

Project: Genesis Solar Groundwater  
Project Number: 196-004-06  
Project Manager: Arlin Brewster

**Reported:**  
06/30/22 11:37

**PW-0**

**T221596-04 (Water)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
---------	--------	-----------------	-------	----------	-------	----------	----------	--------	-------

**SunStar Laboratories, Inc.**

**Metals by EPA 200 Series Methods**

Antimony	ND	50	ug/l	100	22F0058	06/03/22	06/07/22	200.8	FILT, R-07
<b>Arsenic</b>	<b>59</b>	50	"	"	"	"	"	"	FILT, R-07
<b>Barium</b>	<b>61</b>	50	"	"	"	"	"	"	FILT, R-07
Cadmium	ND	50	"	"	"	"	"	"	FILT, R-07
Chromium	ND	50	"	"	"	"	"	"	FILT, R-07
Cobalt	ND	50	"	"	"	"	"	"	FILT, R-07
Lead	ND	50	"	"	"	"	"	"	FILT, R-07
Nickel	ND	50	"	"	"	"	"	"	FILT, R-07
Selenium	ND	50	"	"	"	"	"	"	FILT, R-07
Zinc	ND	50	"	"	"	"	"	"	FILT, R-07

**Cold Vapor Extraction EPA 7470/7471**

Mercury	ND	1.0	ug/l	1	22F0059	06/03/22	06/06/22	EPA 7470A Water	FILT
---------	----	-----	------	---	---------	----------	----------	--------------------	------

**Conventional Chemistry Parameters by APHA/EPA/ASTM Methods**

Oil & Grease	ND	5.00	mg/l	1	22F0069	06/03/22	06/14/22	EPA 1664B	
<b>Specific Conductance (EC)</b>	<b>6380</b>	10.0	umho/cm @25°C	"	22F0183	06/10/22	06/10/22	SM2510b mod.	
<b>pH</b>	<b>8.2</b>	0.10	pH Units	"	22F0064	06/03/22	06/06/22	SM 4500-H+B	O-04
<b>Total Dissolved Solids</b>	<b>3200</b>	10	mg/l	"	22F0063	06/03/22	06/10/22	TDS by SM2540C	

**Anions by EPA Method 300.0**

<b>Fluoride</b>	<b>6.44</b>	0.500	mg/l	1	22F0066	06/03/22	06/07/22	EPA 300.0	
<b>Chloride</b>	<b>1860</b>	250	"	50	"	"	"	"	
<b>Sulfate as SO4</b>	<b>566</b>	250	"	"	"	"	"	"	
<b>Nitrate as NO3</b>	<b>0.668</b>	0.500	"	1	"	"	06/04/22	"	
Nitrate as N	ND	0.200	"	"	"	"	"	"	

SunStar Laboratories, Inc.



Jeff Lee, Project Manager

*The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.*

Northstar Environmental Remediation  
26225 Enterprise Court  
Lake Forest CA, 92630

Project: Genesis Solar Groundwater  
Project Number: 196-004-06  
Project Manager: Arlin Brewster

**Reported:**  
06/30/22 11:37

**PW-0**

**T221596-04RE1 (Water)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
---------	--------	-----------------	-------	----------	-------	----------	----------	--------	-------

**SunStar Laboratories, Inc.**

**Metals by EPA 200 Series Methods**

Copper	ND	2.5	mg/l	500	22F0221	06/13/22	06/20/22	EPA 200.7	FILT
<b>Calcium</b>	<b>100</b>	50	"	"	"	"	06/20/22	"	FILT
Iron	ND	100	"	"	"	"	"	"	FILT
Magnesium	ND	50	"	"	"	"	"	"	FILT
Potassium	ND	250	"	"	"	"	"	"	FILT
<b>Sodium</b>	<b>1400</b>	250	"	"	"	"	"	"	FILT

SunStar Laboratories, Inc.



*The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.*

Jeff Lee, Project Manager

Northstar Environmental Remediation  
26225 Enterprise Court  
Lake Forest CA, 92630

Project: Genesis Solar Groundwater  
Project Number: 196-004-06  
Project Manager: Arlin Brewster

**Reported:**  
06/30/22 11:37

**PW-2**

**T221596-05 (Water)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
---------	--------	-----------------	-------	----------	-------	----------	----------	--------	-------

**SunStar Laboratories, Inc.**

**Metals by EPA 200 Series Methods**

Antimony	ND	50	ug/l	100	22F0058	06/03/22	06/07/22	200.8	FILT, R-07
Arsenic	ND	50	"	"	"	"	"	"	FILT, R-07
Barium	ND	50	"	"	"	"	"	"	FILT, R-07
Cadmium	ND	50	"	"	"	"	"	"	FILT, R-07
Chromium	ND	50	"	"	"	"	"	"	FILT, R-07
Cobalt	ND	50	"	"	"	"	"	"	FILT, R-07
Lead	ND	50	"	"	"	"	"	"	FILT, R-07
Nickel	ND	50	"	"	"	"	"	"	FILT, R-07
Selenium	ND	50	"	"	"	"	"	"	FILT, R-07
Zinc	ND	50	"	"	"	"	"	"	FILT, R-07

**Cold Vapor Extraction EPA 7470/7471**

Mercury	ND	1.0	ug/l	1	22F0059	06/03/22	06/06/22	EPA 7470A Water	FILT
---------	----	-----	------	---	---------	----------	----------	--------------------	------

**Conventional Chemistry Parameters by APHA/EPA/ASTM Methods**

Oil & Grease	ND	5.00	mg/l	1	22F0069	06/03/22	06/14/22	EPA 1664B	
<b>Specific Conductance (EC)</b>	<b>3680</b>	10.0	umho/cm @25°C	"	22F0183	06/10/22	06/10/22	SM2510b mod.	
<b>pH</b>	<b>8.1</b>	0.10	pH Units	"	22F0064	06/03/22	06/06/22	SM 4500-H+B	O-04
<b>Total Dissolved Solids</b>	<b>2000</b>	10	mg/l	"	22F0063	06/03/22	06/10/22	TDS by SM2540C	

**Anions by EPA Method 300.0**

<b>Fluoride</b>	<b>6.91</b>	0.500	mg/l	1	22F0066	06/03/22	06/07/22	EPA 300.0	
<b>Chloride</b>	<b>944</b>	250	"	50	"	"	"	"	
<b>Sulfate as SO4</b>	<b>438</b>	250	"	"	"	"	"	"	
Nitrate as NO3	ND	0.500	"	1	"	"	06/04/22	"	
Nitrate as N	ND	0.200	"	"	"	"	"	"	

SunStar Laboratories, Inc.



Jeff Lee, Project Manager

*The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.*



25712 Commercentre Drive  
 Lake Forest, California 92630  
 949.297.5020 Phone  
 949.297.5027 Fax

Northstar Environmental Remediation 26225 Enterprise Court Lake Forest CA, 92630	Project: Genesis Solar Groundwater Project Number: 196-004-06 Project Manager: Arlin Brewster	Reported: 06/30/22 11:37
--	---	-----------------------------

**PW-2**  
**T221596-05RE1 (Water)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
---------	--------	-----------------	-------	----------	-------	----------	----------	--------	-------

**SunStar Laboratories, Inc.**

**Metals by EPA 200 Series Methods**

Copper	ND	2.5	mg/l	500	22F0221	06/13/22	06/20/22	EPA 200.7	FILT
Calcium	ND	50	"	"	"	"	"	"	FILT
Iron	ND	100	"	"	"	"	"	"	FILT
Potassium	ND	250	"	"	"	"	06/20/22	"	FILT
Magnesium	ND	50	"	"	"	"	06/20/22	"	FILT
<b>Sodium</b>	<b>630</b>	250	"	"	"	"	06/20/22	"	FILT

SunStar Laboratories, Inc.

*The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.*

Jeff Lee, Project Manager

Northstar Environmental Remediation  
26225 Enterprise Court  
Lake Forest CA, 92630

Project: Genesis Solar Groundwater  
Project Number: 196-004-06  
Project Manager: Arlin Brewster

**Reported:**  
06/30/22 11:37

**DM-1  
T221596-06 (Water)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
---------	--------	-----------------	-------	----------	-------	----------	----------	--------	-------

**SunStar Laboratories, Inc.**

**Metals by EPA 200 Series Methods**

Antimony	ND	50	ug/l	100	22F0058	06/03/22	06/07/22	200.8	FILT, R-07
Arsenic	ND	50	"	"	"	"	"	"	FILT, R-07
Barium	ND	50	"	"	"	"	"	"	FILT, R-07
Cadmium	ND	50	"	"	"	"	"	"	FILT, R-07
Chromium	ND	50	"	"	"	"	"	"	FILT, R-07
Cobalt	ND	50	"	"	"	"	"	"	FILT, R-07
Lead	ND	50	"	"	"	"	"	"	FILT, R-07
Nickel	ND	50	"	"	"	"	"	"	FILT, R-07
<b>Selenium</b>	<b>52</b>	50	"	"	"	"	"	"	FILT, R-07
Zinc	ND	50	"	"	"	"	"	"	FILT, R-07

**Cold Vapor Extraction EPA 7470/7471**

Mercury	ND	1.0	ug/l	1	22F0059	06/03/22	06/06/22	EPA 7470A Water	FILT
---------	----	-----	------	---	---------	----------	----------	--------------------	------

**Conventional Chemistry Parameters by APHA/EPA/ASTM Methods**

Oil & Grease	ND	5.00	mg/l	1	22F0069	06/03/22	06/14/22	EPA 1664B	
<b>Specific Conductance (EC)</b>	<b>17800</b>	10.0	umho/cm @25°C	"	22F0183	06/10/22	06/10/22	SM2510b mod.	
<b>pH</b>	<b>7.8</b>	0.10	pH Units	"	22F0064	06/03/22	06/06/22	SM 4500-H+B	
<b>Total Dissolved Solids</b>	<b>9300</b>	10	mg/l	"	22F0063	06/03/22	06/10/22	TDS by SM2540C	

**Anions by EPA Method 300.0**

<b>Chloride</b>	<b>5530</b>	500	mg/l	100	22F0066	06/03/22	06/07/22	EPA 300.0	
<b>Sulfate as SO4</b>	<b>2070</b>	250	"	50	"	"	"	"	
<b>Nitrate as NO3</b>	<b>8.70</b>	0.500	"	1	"	"	06/04/22	"	
<b>Nitrate as N</b>	<b>1.97</b>	0.200	"	"	"	"	"	"	

SunStar Laboratories, Inc.



*The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.*

Jeff Lee, Project Manager



25712 Commercentre Drive  
 Lake Forest, California 92630  
 949.297.5020 Phone  
 949.297.5027 Fax

Northstar Environmental Remediation 26225 Enterprise Court Lake Forest CA, 92630	Project: Genesis Solar Groundwater Project Number: 196-004-06 Project Manager: Arlin Brewster	Reported: 06/30/22 11:37
--	---	-----------------------------

**DM-1**  
**T221596-06RE1 (Water)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
---------	--------	-----------------	-------	----------	-------	----------	----------	--------	-------

**SunStar Laboratories, Inc.**

**Metals by EPA 200 Series Methods**

Copper	ND	2.5	mg/l	500	22F0221	06/13/22	06/20/22	EPA 200.7	FILT
<b>Calcium</b>	<b>240</b>	50	"	"	"	"	"	"	FILT
Iron	ND	100	"	"	"	"	"	"	FILT
Potassium	ND	250	"	"	"	"	06/20/22	"	FILT
<b>Magnesium</b>	<b>69</b>	50	"	"	"	"	06/20/22	"	FILT
<b>Sodium</b>	<b>4500</b>	250	"	"	"	"	06/20/22	"	FILT

SunStar Laboratories, Inc.

*The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.*

Jeff Lee, Project Manager

Northstar Environmental Remediation  
26225 Enterprise Court  
Lake Forest CA, 92630

Project: Genesis Solar Groundwater  
Project Number: 196-004-06  
Project Manager: Arlin Brewster

**Reported:**  
06/30/22 11:37

**DM-2  
T221596-07 (Water)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
---------	--------	-----------------	-------	----------	-------	----------	----------	--------	-------

**SunStar Laboratories, Inc.**

**Metals by EPA 200 Series Methods**

Antimony	ND	50	ug/l	100	22F0058	06/03/22	06/07/22	200.8	FILT, R-07
Arsenic	ND	50	"	"	"	"	"	"	FILT, R-07
Barium	ND	50	"	"	"	"	"	"	FILT, R-07
Cadmium	ND	50	"	"	"	"	"	"	FILT, R-07
Chromium	ND	50	"	"	"	"	"	"	FILT, R-07
Cobalt	ND	50	"	"	"	"	"	"	FILT, R-07
Lead	ND	50	"	"	"	"	"	"	FILT, R-07
Nickel	ND	50	"	"	"	"	"	"	FILT, R-07
<b>Selenium</b>	<b>53</b>	50	"	"	"	"	"	"	FILT, R-07
Zinc	ND	50	"	"	"	"	"	"	FILT, R-07

**Cold Vapor Extraction EPA 7470/7471**

Mercury	ND	1.0	ug/l	1	22F0059	06/03/22	06/06/22	EPA 7470A Water	FILT
---------	----	-----	------	---	---------	----------	----------	--------------------	------

**Conventional Chemistry Parameters by APHA/EPA/ASTM Methods**

Oil & Grease	ND	5.00	mg/l	1	22F0069	06/03/22	06/14/22	EPA 1664B	
<b>Specific Conductance (EC)</b>	<b>18200</b>	10.0	umho/cm @25°C	"	22F0183	06/10/22	06/10/22	SM2510b mod.	
<b>pH</b>	<b>7.7</b>	0.10	pH Units	"	22F0064	06/03/22	06/06/22	SM 4500-H+B	
<b>Total Dissolved Solids</b>	<b>9300</b>	10	mg/l	"	22F0063	06/03/22	06/10/22	TDS by SM2540C	

**Anions by EPA Method 300.0**

<b>Chloride</b>	<b>5860</b>	500	mg/l	100	22F0066	06/03/22	06/07/22	EPA 300.0	
<b>Sulfate as SO4</b>	<b>2160</b>	250	"	50	"	"	"	"	
<b>Nitrate as NO3</b>	<b>10.9</b>	0.500	"	1	"	"	06/04/22	"	
<b>Nitrate as N</b>	<b>2.47</b>	0.200	"	"	"	"	"	"	

SunStar Laboratories, Inc.



Jeff Lee, Project Manager

*The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.*

Northstar Environmental Remediation  
26225 Enterprise Court  
Lake Forest CA, 92630

Project: Genesis Solar Groundwater  
Project Number: 196-004-06  
Project Manager: Arlin Brewster

**Reported:**  
06/30/22 11:37

**DM-2**  
**T221596-07RE1 (Water)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
---------	--------	--------------------	-------	----------	-------	----------	----------	--------	-------

**SunStar Laboratories, Inc.**

**Metals by EPA 200 Series Methods**

Copper	ND	2.5	mg/l	500	22F0221	06/13/22	06/20/22	EPA 200.7	FILT
<b>Calcium</b>	<b>240</b>	50	"	"	"	"	"	"	FILT
Iron	ND	100	"	"	"	"	"	"	FILT
<b>Magnesium</b>	<b>67</b>	50	"	"	"	"	"	"	FILT
Potassium	ND	250	"	"	"	"	06/20/22	"	FILT
<b>Sodium</b>	<b>4200</b>	250	"	"	"	"	"	"	FILT

SunStar Laboratories, Inc.



*The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.*

Jeff Lee, Project Manager



Northstar Environmental Remediation  
26225 Enterprise Court  
Lake Forest CA, 92630

Project: Genesis Solar Groundwater  
Project Number: 196-004-06  
Project Manager: Arlin Brewster

Reported:  
06/30/22 11:37

**DM-3  
T221596-08 (Water)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
---------	--------	-----------------	-------	----------	-------	----------	----------	--------	-------

**SunStar Laboratories, Inc.**

**Metals by EPA 200 Series Methods**

Antimony	ND	50	ug/l	100	22F0058	06/03/22	06/07/22	200.8	FILT, R-07
Arsenic	ND	50	"	"	"	"	"	"	FILT, R-07
Barium	ND	50	"	"	"	"	"	"	R-07, FILT
Cadmium	ND	50	"	"	"	"	"	"	FILT, R-07
Chromium	ND	50	"	"	"	"	"	"	FILT, R-07
Cobalt	ND	50	"	"	"	"	"	"	FILT, R-07
Lead	ND	50	"	"	"	"	"	"	FILT, R-07
Nickel	ND	50	"	"	"	"	"	"	R-07, FILT
Selenium	55	50	"	"	"	"	"	"	R-07, FILT
Zinc	50	50	"	"	"	"	"	"	FILT, R-07

**Cold Vapor Extraction EPA 7470/7471**

Mercury	ND	1.0	ug/l	1	22F0059	06/03/22	06/06/22	EPA 7470A Water	FILT
---------	----	-----	------	---	---------	----------	----------	--------------------	------

**Conventional Chemistry Parameters by APHA/EPA/ASTM Methods**

Oil & Grease	ND	5.00	mg/l	1	22F0069	06/03/22	06/14/22	EPA 1664B	
Specific Conductance (EC)	17400	10.0	umho/cm @25°C	"	22F0183	06/10/22	06/10/22	SM2510b mod.	
pH	7.8	0.10	pH Units	"	22F0064	06/03/22	06/06/22	SM 4500-H+B	
Total Dissolved Solids	8500	10	mg/l	"	22F0063	06/03/22	06/10/22	TDS by SM2540C	

**Anions by EPA Method 300.0**

Chloride	5570	500	mg/l	100	22F0066	06/03/22	06/07/22	EPA 300.0	
Sulfate as SO4	2110	250	"	50	"	"	"	"	
Nitrate as NO3	2.82	0.500	"	1	"	"	06/04/22	"	
Nitrate as N	0.640	0.200	"	"	"	"	"	"	

SunStar Laboratories, Inc.



Jeff Lee, Project Manager

*The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.*

Northstar Environmental Remediation  
26225 Enterprise Court  
Lake Forest CA, 92630

Project: Genesis Solar Groundwater  
Project Number: 196-004-06  
Project Manager: Arlin Brewster

**Reported:**  
06/30/22 11:37

**DM-3**  
**T221596-08RE1 (Water)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
---------	--------	--------------------	-------	----------	-------	----------	----------	--------	-------

**SunStar Laboratories, Inc.**

**Metals by EPA 200 Series Methods**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Copper	ND	2.5	mg/l	500	22F0221	06/13/22	06/20/22	EPA 200.7	FILT
<b>Calcium</b>	<b>240</b>	50	"	"	"	"	"	"	FILT
Iron	ND	100	"	"	"	"	"	"	FILT
<b>Magnesium</b>	<b>59</b>	50	"	"	"	"	"	"	FILT
Potassium	ND	250	"	"	"	"	06/20/22	"	FILT
<b>Sodium</b>	<b>4500</b>	250	"	"	"	"	"	"	FILT

SunStar Laboratories, Inc.



*The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.*

Jeff Lee, Project Manager

Northstar Environmental Remediation  
26225 Enterprise Court  
Lake Forest CA, 92630

Project: Genesis Solar Groundwater  
Project Number: 196-004-06  
Project Manager: Arlin Brewster

**Reported:**  
06/30/22 11:37

**DUP**

**T221596-09 (Water)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
---------	--------	-----------------	-------	----------	-------	----------	----------	--------	-------

**SunStar Laboratories, Inc.**

**Metals by EPA 200 Series Methods**

Antimony	ND	50	ug/l	100	22F0058	06/03/22	06/07/22	200.8	FILT, R-07
Arsenic	ND	50	"	"	"	"	"	"	FILT, R-07
Barium	ND	50	"	"	"	"	"	"	FILT, R-07
Cadmium	ND	50	"	"	"	"	"	"	FILT, R-07
Chromium	ND	50	"	"	"	"	"	"	FILT, R-07
Cobalt	ND	50	"	"	"	"	"	"	FILT, R-07
Lead	ND	50	"	"	"	"	"	"	R-07, FILT
Nickel	ND	50	"	"	"	"	"	"	R-07, FILT
Selenium	ND	50	"	"	"	"	"	"	R-07, FILT
Zinc	ND	50	"	"	"	"	"	"	FILT, R-07

**Cold Vapor Extraction EPA 7470/7471**

Mercury	ND	1.0	ug/l	1	22F0059	06/03/22	06/06/22	EPA 7470A Water	FILT
---------	----	-----	------	---	---------	----------	----------	--------------------	------

**Conventional Chemistry Parameters by APHA/EPA/ASTM Methods**

Oil & Grease	ND	5.00	mg/l	1	22F0069	06/03/22	06/14/22	EPA 1664B	
Specific Conductance (EC)	3730	10.0	umho/cm @25°C	"	22F0183	06/10/22	06/10/22	SM2510b mod.	
pH	8.2	0.10	pH Units	"	22F0064	06/03/22	06/06/22	SM 4500-H+B	O-04
Total Dissolved Solids	4000	10	mg/l	"	22F0063	06/03/22	06/10/22	TDS by SM2540C	

**Anions by EPA Method 300.0**

Chloride	953	100	mg/l	20	22F0066	06/03/22	06/07/22	EPA 300.0	
Sulfate as SO4	444	100	"	"	"	"	"	"	
Nitrate as NO3	ND	0.500	"	1	"	"	06/04/22	"	I-02
Nitrate as N	ND	0.200	"	"	"	"	"	"	I-02

SunStar Laboratories, Inc.



Jeff Lee, Project Manager

*The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.*



25712 Commercentre Drive  
 Lake Forest, California 92630  
 949.297.5020 Phone  
 949.297.5027 Fax

Northstar Environmental Remediation 26225 Enterprise Court Lake Forest CA, 92630	Project: Genesis Solar Groundwater Project Number: 196-004-06 Project Manager: Arlin Brewster	Reported: 06/30/22 11:37
--	---	-----------------------------

**DUP**  
**T221596-09RE1 (Water)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
---------	--------	-----------------	-------	----------	-------	----------	----------	--------	-------

**SunStar Laboratories, Inc.**

**Metals by EPA 200 Series Methods**

Copper	ND	2.5	mg/l	500	22F0221	06/13/22	06/20/22	EPA 200.7	FILT
Calcium	ND	50	"	"	"	"	"	"	FILT
Iron	ND	100	"	"	"	"	"	"	FILT
Magnesium	ND	50	"	"	"	"	"	"	FILT
Potassium	ND	250	"	"	"	"	06/20/22	"	FILT
<b>Sodium</b>	<b>670</b>	250	"	"	"	"	"	"	FILT

SunStar Laboratories, Inc.

*The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.*

Jeff Lee, Project Manager

Northstar Environmental Remediation  
26225 Enterprise Court  
Lake Forest CA, 92630

Project: Genesis Solar Groundwater  
Project Number: 196-004-06  
Project Manager: Arlin Brewster

Reported:  
06/30/22 11:37

**Metals by EPA 200 Series Methods - Quality Control**  
**SunStar Laboratories, Inc.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
---------	--------	-----------------	-------	-------------	---------------	------	-------------	-----	-----------	-------

**Batch 22F0053 - EPA 3010A**

**Blank (22F0053-BLK1)**

Prepared: 06/03/22 Analyzed: 06/08/22

Cadmium	ND	0.005	mg/l							
Chromium	ND	0.005	"							
Copper	ND	0.005	"							
Lead	ND	0.005	"							
Molybdenum	ND	0.005	"							
Nickel	ND	0.005	"							
Silver	ND	0.030	"							
Zinc	ND	0.030	"							
Calcium	0.154	0.10	"							QB-01

**LCS (22F0053-BS1)**

Prepared: 06/03/22 Analyzed: 06/08/22

Cadmium	1.50	0.005	mg/l	1.50		100	85-115			
Chromium	1.49	0.005	"	1.50		99.4	85-115			
Copper	1.51	0.005	"	1.50		100	85-115			
Lead	1.49	0.005	"	1.50		99.4	85-115			
Molybdenum	1.47	0.005	"	1.50		98.3	85-115			
Nickel	1.49	0.005	"	1.50		99.1	85-115			
Zinc	1.49	0.030	"	1.50		99.4	85-115			
Calcium	2.07		"	1.50		138	65-135			
Iron	1.51	0.20	"	1.50		101	70-130			
Magnesium	1.48	0.10	"	1.50		98.4	65-135			
Potassium	1.54	0.50	"	1.50		102	65-135			
Sodium	2.19	0.50	"	1.50		146	65-135			

**Matrix Spike (22F0053-MS1)**

Source: T221581-02

Prepared: 06/03/22 Analyzed: 06/08/22

Cadmium	1.48	0.005	mg/l	1.50	ND	98.8	70-130			
Chromium	1.48	0.005	"	1.50	0.013	97.6	70-130			
Copper	1.50	0.005	"	1.50	0.002	100	70-130			
Lead	1.47	0.005	"	1.50	ND	97.8	70-130			
Molybdenum	1.46	0.005	"	1.50	0.004	96.9	70-130			
Nickel	1.46	0.005	"	1.50	0.002	97.3	70-130			
Zinc	1.55	0.030	"	1.50	0.051	99.7	70-130			
Calcium	2.20	0.10	"	1.50	0.776	95.1	65-135			
Iron	2.10	0.20	"	1.50	0.600	99.9	70-130			
Magnesium	2.14	0.10	"	1.50	0.742	93.1	65-135			
Potassium	1.57	0.50	"	1.50	ND	105	65-135			

SunStar Laboratories, Inc.



Jeff Lee, Project Manager

*The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.*

Northstar Environmental Remediation  
26225 Enterprise Court  
Lake Forest CA, 92630

Project: Genesis Solar Groundwater  
Project Number: 196-004-06  
Project Manager: Arlin Brewster

Reported:  
06/30/22 11:37

**Metals by EPA 200 Series Methods - Quality Control**

**SunStar Laboratories, Inc.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
---------	--------	-----------------	-------	-------------	---------------	------	-------------	-----	-----------	-------

**Batch 22F0053 - EPA 3010A**

**Matrix Spike (22F0053-MS1)**

Source: T221581-02

Prepared: 06/03/22 Analyzed: 06/08/22

Sodium	10.6	0.50	mg/l	1.50	ND	705	65-135			
--------	------	------	------	------	----	-----	--------	--	--	--

**Matrix Spike Dup (22F0053-MSD1)**

Source: T221581-02

Prepared: 06/03/22 Analyzed: 06/08/22

Cadmium	1.50	0.005	mg/l	1.50	ND	100	70-130	1.20	30	
Chromium	1.50	0.005	"	1.50	0.013	99.3	70-130	1.66	30	
Copper	1.52	0.005	"	1.50	0.002	101	70-130	1.23	30	
Lead	1.47	0.005	"	1.50	ND	98.2	70-130	0.450	30	
Molybdenum	1.48	0.005	"	1.50	0.004	98.1	70-130	1.26	30	
Nickel	1.48	0.005	"	1.50	0.002	98.9	70-130	1.58	30	
Zinc	1.57	0.030	"	1.50	0.051	101	70-130	1.20	30	
Calcium	2.21	0.10	"	1.50	0.776	95.6	65-135	0.363	30	
Iron	2.06	0.20	"	1.50	0.600	97.5	70-130	1.73	30	
Magnesium	2.19	0.10	"	1.50	0.742	96.5	65-135	2.40	30	
Potassium	1.46	0.50	"	1.50	ND	97.6	65-135	6.86	30	
Sodium	10.6	0.50	"	1.50	ND	709	65-135	0.566	30	

**Batch 22F0058 - EPA 3010A**

**Blank (22F0058-BLK1)**

Prepared: 06/03/22 Analyzed: 06/07/22

Antimony	ND	0.50	ug/l							
Arsenic	ND	0.50	"							
Barium	ND	0.50	"							
Beryllium	ND	0.50	"							
Cadmium	ND	0.50	"							
Chromium	ND	0.50	"							
Cobalt	ND	0.50	"							
Copper	ND	0.50	"							
Lead	ND	0.50	"							
Molybdenum	ND	0.50	"							
Mercury	ND	0.50	"							
Nickel	ND	0.50	"							
Selenium	ND	0.50	"							
Thallium	ND	0.50	"							
Vanadium	ND	0.50	"							
Zinc	ND	0.50	"							

SunStar Laboratories, Inc.



Jeff Lee, Project Manager

*The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.*

Northstar Environmental Remediation  
26225 Enterprise Court  
Lake Forest CA, 92630

Project: Genesis Solar Groundwater  
Project Number: 196-004-06  
Project Manager: Arlin Brewster

Reported:  
06/30/22 11:37

**Metals by EPA 200 Series Methods - Quality Control**

**SunStar Laboratories, Inc.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
---------	--------	-----------------	-------	-------------	---------------	------	-------------	-----	-----------	-------

**Batch 22F0058 - EPA 3010A**

**LCS (22F0058-BS1)**

Prepared: 06/03/22 Analyzed: 06/07/22

Arsenic	50.8	0.50	ug/l	50.0		102	80-120			
Barium	50.4	0.50	"	50.0		101	80-120			
Cadmium	48.4	0.50	"	50.0		96.9	80-120			
Chromium	47.8	0.50	"	50.0		95.6	80-120			
Lead	49.4	0.50	"	50.0		98.9	80-120			

**Matrix Spike (22F0058-MS1)**

Source: T221595-01

Prepared: 06/03/22 Analyzed: 06/07/22

Arsenic	898	50	ug/l	50.0	937	NR	75-125			QM-05, R-07
Barium	349	50	"	50.0	305	88.0	75-125			R-07
Cadmium	56.0	50	"	50.0	14.0	84.0	75-125			R-07
Chromium	54.0	50	"	50.0	1.00	106	75-125			R-07
Lead	51.0	50	"	50.0	ND	102	75-125			R-07

**Matrix Spike Dup (22F0058-MSD1)**

Source: T221595-01

Prepared: 06/03/22 Analyzed: 06/07/22

Arsenic	906	50	ug/l	50.0	937	NR	75-125	0.887	20	QM-05, R-07
Barium	350	50	"	50.0	305	90.0	75-125	0.286	20	R-07
Cadmium	57.0	50	"	50.0	14.0	86.0	75-125	1.77	20	R-07
Chromium	51.0	50	"	50.0	1.00	100	75-125	5.71	20	R-07
Lead	53.0	50	"	50.0	ND	106	75-125	3.85	20	R-07

**Batch 22F0221 - EPA 3010A**

**Blank (22F0221-BLK1)**

Prepared: 06/13/22 Analyzed: 06/20/22

Copper	ND	0.010	mg/l							
Calcium	ND	0.20	"							
Iron	ND	0.40	"							
Potassium	ND	1.0	"							
Magnesium	ND	0.20	"							
Sodium	ND	1.0	"							

SunStar Laboratories, Inc.



Jeff Lee, Project Manager

*The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.*

Northstar Environmental Remediation  
26225 Enterprise Court  
Lake Forest CA, 92630

Project: Genesis Solar Groundwater  
Project Number: 196-004-06  
Project Manager: Arlin Brewster

**Reported:**  
06/30/22 11:37

**Metals by EPA 200 Series Methods - Quality Control**

**SunStar Laboratories, Inc.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
---------	--------	-----------------	-------	-------------	---------------	------	-------------	-----	-----------	-------

**Batch 22F0221 - EPA 3010A**

**LCS (22F0221-BS1)**

Prepared: 06/13/22 Analyzed: 06/20/22

Copper	1.67	0.010	mg/l	1.50		112	85-115			
Potassium	1.65	1.0	"	1.50		110	65-135			
Sodium	1.34	1.0	"	1.50		89.3	65-135			

**Matrix Spike (22F0221-MS1)**

Source: T221596-01RE1

Prepared: 06/13/22 Analyzed: 06/20/22

Copper	2.82	5.0	mg/l	1.50	ND	188	70-130			QM-05
Potassium	ND	500	"	1.50	ND		65-135			QM-05
Sodium	7800	500	"	1.50	3920	NR	65-135			QM-05

**Matrix Spike Dup (22F0221-MSD1)**

Source: T221596-01RE1

Prepared: 06/13/22 Analyzed: 06/20/22

Copper	1.84	5.0	mg/l	1.50	ND	123	70-130	42.0	30	QM-05
Potassium	ND	500	"	1.50	ND		65-135		30	QM-05
Sodium	7850	500	"	1.50	3920	NR	65-135	0.562	30	QM-05

SunStar Laboratories, Inc.



The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Jeff Lee, Project Manager



Northstar Environmental Remediation  
26225 Enterprise Court  
Lake Forest CA, 92630

Project: Genesis Solar Groundwater  
Project Number: 196-004-06  
Project Manager: Arlin Brewster

**Reported:**  
06/30/22 11:37

**Cold Vapor Extraction EPA 7470/7471 - Quality Control**

**SunStar Laboratories, Inc.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
---------	--------	-----------------	-------	-------------	---------------	------	-------------	-----	-----------	-------

**Batch 22F0059 - EPA 7470A Water**

**Blank (22F0059-BLK1)**

Prepared: 06/03/22 Analyzed: 06/06/22

Mercury	ND	1.0	ug/l							
---------	----	-----	------	--	--	--	--	--	--	--

**LCS (22F0059-BS1)**

Prepared: 06/03/22 Analyzed: 06/06/22

Mercury	6.05	1.0	ug/l	7.00		86.4	80-120			
---------	------	-----	------	------	--	------	--------	--	--	--

**Matrix Spike (22F0059-MS1)**

Source: T221595-01

Prepared: 06/03/22 Analyzed: 06/06/22

Mercury	1.54	1.0	ug/l	7.00	ND	22.0	75-125			QM-05
---------	------	-----	------	------	----	------	--------	--	--	-------

**Matrix Spike Dup (22F0059-MSD1)**

Source: T221595-01

Prepared: 06/03/22 Analyzed: 06/06/22

Mercury	1.52	1.0	ug/l	7.00	ND	21.7	75-125	0.987	20	QM-05
---------	------	-----	------	------	----	------	--------	-------	----	-------

SunStar Laboratories, Inc.



*The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.*

Jeff Lee, Project Manager

Northstar Environmental Remediation 26225 Enterprise Court Lake Forest CA, 92630	Project: Genesis Solar Groundwater Project Number: 196-004-06 Project Manager: Arlin Brewster	Reported: 06/30/22 11:37
--	---	-----------------------------

**Conventional Chemistry Parameters by APHA/EPA/ASTM Methods - Quality Control**

**SunStar Laboratories, Inc.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
---------	--------	-----------------	-------	-------------	---------------	------	-------------	-----	-----------	-------

**Batch 22F0063 - General Preparation**

**Blank (22F0063-BLK1)** Prepared: 06/03/22 Analyzed: 06/10/22

Total Dissolved Solids	ND	10	mg/l							
------------------------	----	----	------	--	--	--	--	--	--	--

**LCS (22F0063-BS1)** Prepared: 06/03/22 Analyzed: 06/10/22

Total Dissolved Solids	426	10	mg/l	500		85.2	80-120			
------------------------	-----	----	------	-----	--	------	--------	--	--	--

**Duplicate (22F0063-DUP1)** Source: T221596-01 Prepared: 06/03/22 Analyzed: 06/10/22

Total Dissolved Solids	6220	10	mg/l		6860			9.79	20	
------------------------	------	----	------	--	------	--	--	------	----	--

**Batch 22F0064 - General Preparation**

**Duplicate (22F0064-DUP1)** Source: T221594-01 Prepared: 06/03/22 Analyzed: 06/06/22

pH	6.75	0.10	pH Units		6.79			0.591	20	
----	------	------	----------	--	------	--	--	-------	----	--

**Batch 22F0069 - General Preparation**

**Blank (22F0069-BLK1)** Prepared: 06/03/22 Analyzed: 06/14/22

Oil & Grease	ND	5.00	mg/l							
--------------	----	------	------	--	--	--	--	--	--	--

**LCS (22F0069-BS1)** Prepared: 06/03/22 Analyzed: 06/14/22

Oil & Grease	33.8	5.00	mg/l	39.2		86.2	78-114			
--------------	------	------	------	------	--	------	--------	--	--	--

**LCS Dup (22F0069-BSD1)** Prepared: 06/03/22 Analyzed: 06/14/22

Oil & Grease	32.1	5.00	mg/l	39.2		81.9	78-114	5.16	20	
--------------	------	------	------	------	--	------	--------	------	----	--

**Batch 22F0183 - General Preparation**

**Duplicate (22F0183-DUP1)** Source: T221596-01 Prepared & Analyzed: 06/10/22

Specific Conductance (EC)	15500	10.0	umho/cm @25°C		15500			0.0645	15	
---------------------------	-------	------	---------------	--	-------	--	--	--------	----	--

SunStar Laboratories, Inc.



Jeff Lee, Project Manager

*The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.*



25712 Commercentre Drive  
 Lake Forest, California 92630  
 949.297.5020 Phone  
 949.297.5027 Fax

Northstar Environmental Remediation 26225 Enterprise Court Lake Forest CA, 92630	Project: Genesis Solar Groundwater Project Number: 196-004-06 Project Manager: Arlin Brewster	Reported: 06/30/22 11:37
--	---	-----------------------------

**Anions by EPA Method 300.0 - Quality Control**

**SunStar Laboratories, Inc.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
---------	--------	-----------------	-------	-------------	---------------	------	-------------	-----	-----------	-------

**Batch 22F0066 - General Preparation**

**Blank (22F0066-BLK1)**

Prepared: 06/03/22 Analyzed: 06/07/22

Fluoride	ND	0.500	mg/l							
Chloride	ND	5.00	"							
Sulfate as SO4	ND	5.00	"							
Nitrate as NO3	ND	0.500	"							
Nitrate as N	ND	0.200	"							

**LCS (22F0066-BS1)**

Prepared: 06/03/22 Analyzed: 06/07/22

Fluoride	26.9	0.500	mg/l	25.0		108	75-125			
Chloride	25.3	5.00	"	25.0		101	75-125			
Sulfate as SO4	25.0	5.00	"	25.0		100	75-125			
Nitrate as NO3	25.7	0.500	"	25.0		103	75-125			

**Matrix Spike (22F0066-MS1)**

Source: T221596-01

Prepared: 06/03/22 Analyzed: 06/07/22

Fluoride	20.2	0.500	mg/l	25.0	ND	80.8	75-125			
Chloride	4710	500	"	25.0	5010	NR	75-125			QM-05
Sulfate as SO4	1640	500	"	25.0	1720	NR	75-125			QM-05
Nitrate as NO3	27.8	0.500	"	25.0	0.720	108	75-125			

**Matrix Spike Dup (22F0066-MSD1)**

Source: T221596-01

Prepared: 06/03/22 Analyzed: 06/07/22

Fluoride	19.6	0.500	mg/l	25.0	ND	78.6	75-125	2.81	20	
Chloride	4770	500	"	25.0	5010	NR	75-125	1.27	20	QM-05
Sulfate as SO4	1650	500	"	25.0	1720	NR	75-125	1.10	20	QM-05
Nitrate as NO3	26.7	0.500	"	25.0	0.720	104	75-125	3.82	20	

SunStar Laboratories, Inc.

*The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.*

Jeff Lee, Project Manager

Northstar Environmental Remediation  
26225 Enterprise Court  
Lake Forest CA, 92630

Project: Genesis Solar Groundwater  
Project Number: 196-004-06  
Project Manager: Arlin Brewster

**Reported:**  
06/30/22 11:37

### Notes and Definitions

- R-07 Reporting limit for this compound(s) has been raised to account for dilution necessary due to high levels of interfering compound(s) and/or matrix affect.
- QM-05 The spike recovery was outside acceptance limits for the MS and/or MSD due to possible matrix interference. The LCS was within acceptance criteria. The data is acceptable as no negative impact on data is expected.
- QB-01 The method blank contains analyte at a concentration above the MRL; however, concentration is less than 10% of the sample result, which is negligible according to method criteria.
- O-04 This sample was received and analyzed outside the EPA recommended holding time.
- I-02 This result was analyzed outside of the EPA recommended holding time.
- FILT The sample was filtered prior to analysis.
- DET Analyte DETECTED
- ND Analyte NOT DETECTED at or above the reporting limit
- NR Not Reported
- dry Sample results reported on a dry weight basis
- RPD Relative Percent Difference

SunStar Laboratories, Inc.



*The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.*

Jeff Lee, Project Manager

SunStar Laboratories, Inc.  
 25712 Commercentre Dr  
 Lake Forest, CA 92630  
 949-297-5020

### Chain of Custody Record

Client: Northstar Environmental Remediation  
 Address: 26225 Enterprise Court, Lake Forest, CA 92630  
 Phone: 949-274-1719  
 Project Manager: Arlin Brewster

Date: 06/03/22 Page: 1 of 1  
 Project Name: Genesis Solar Groundwater  
 Collector: Arlin Brewster Client Project #: 196-004-06  
 Batch #: T221596 EDF #: T10000006093

Sample ID	Date Sampled	Time	Sample Type	Container Type	200.7 - Dissolved Metals: Ca, Cu, Na, K, Fe, Mg (FIELD FILTERED)	200.8 - Dissolved Metals: Sb, As, Ba, Cd, Cr, Co, Pb, Ni, Se, Zn (F.P.)	300.0 - Chloride, Nitrate, Sulfate	1664 - Oil and Grease	7470A - Mercury	9040 - pH	SM2510B - Conductivity, Specific	SM2540C - Total Dis. Solids	8015M - Thermanol (Subcontract)	Deuterium, Oxygen-18 (Subcont)	300.0 - Fluoride	Laboratory ID #	Comments/Preservative	Total # of containers	Chain of Custody seals Y/N/NA Seals intact? Y/N/NA	Notes	
23a			W	Various	X	X	X	X	X	X	X	X	X	X							
TW-1 OBS-1	6/2/22	9:20	W	Various	X	X	X	X	X	X	X	X	X	X							
OBS-1 IW-1		9:05	W	Various	X	X	X	X	X	X	X	X	X	X							
TW-2		10:15	W	Various	X	X	X	X	X	X	X	X	X	X							
PW-0		11:00	W	Various	X	X	X	X	X	X	X	X	X	X							
PW-2		11:10	W	Various	X	X	X	X	X	X	X	X	X	X							
DM-1		20:00	W	Various	X	X	X	X	X	X	X	X	X	X							
DM-2		21:45	W	Various	X	X	X	X	X	X	X	X	X	X							
DM-3		23:25	W	Various	X	X	X	X	X	X	X	X	X	X							
DUP	N/A	N/A	W	Various	X	X	X	X	X	X	X	X	X	X							
Field Blank	N/A	N/A	W	Various																HOLD	
Trip Blank	N/A	N/A	W	Various																	HOLD
Relinquished by: (signature)	Date / Time	Received by: (signature)	Date / Time	Total # of containers																	
<i>[Signature]</i>	06/03/22 11:45	<i>[Signature]</i>	6:32:22	Chain of Custody seals Y/N/NA																	
Relinquished by: (signature)	Date / Time	Received by: (signature)	Date / Time	Seals intact? Y/N/NA																	
<i>[Signature]</i>		<i>[Signature]</i>		Received good condition/cold																	
Relinquished by: (signature)	Date / Time	Received by: (signature)	Date / Time	Turn around time: Standard **																	
<i>[Signature]</i>		<i>[Signature]</i>		Reporting limits must match previous reports																	

Sample disposal Instructions: Disposal @ \$2.00 each  
 Return to client \_\_\_\_\_ Pickup \_\_\_\_\_

## SAMPLE RECEIVING REVIEW SHEET

Batch/Work Order #: \_\_\_\_\_

Client Name: North Star Environmental Remediation Project: Genesis Solar Groundwater

Delivered by:  Client  SunStar Courier  GLS  FedEx  UPS

If Courier, Received by: \_\_\_\_\_ Date/Time Courier Received: \_\_\_\_\_

Lab Received by: Dave Date/Time Lab Received: 6-3-22 1145

Total number of coolers received: 4 Thermometer ID: SC-1 Calibration due: 8/24/22

Temperature:	Cooler #1	4.3	°C +/- the CF (+0.1 °C) =	4.4	°C corrected temperature
Temperature:	Cooler #2	4.3	°C +/- the CF (+0.1 °C) =	4.4	°C corrected temperature
Temperature:	Cooler #3	4.3	°C +/- the CF (+0.1 °C) =	4.4	°C corrected temperature
<b>Temperature criteria = ≤ 6°C (no frozen containers)</b>			Within criteria?		<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A
<b>If NO:</b>					
Samples received on ice?		<input type="checkbox"/> Yes		<input type="checkbox"/> No → Complete Non-Conformance Sheet	
If on ice, samples received same day collected?		<input type="checkbox"/> Yes → Acceptable		<input type="checkbox"/> No → Complete Non-Conformance Sheet	

Custody seals intact on cooler/sample  Yes  No\*  N/A

Sample containers intact  Yes  No\*

Sample labels match Chain of Custody IDs  Yes  No\*

Total number of containers received match COC  Yes  No\*

Proper containers received for analyses requested on COC  Yes  No\*

Proper preservative indicated on COC/containers for analyses requested  Yes  No\*  N/A

Complete shipment received in good condition with correct temperatures, containers, labels, volumes preservatives and within method specified holding times  Yes  No\*

\* Complete Non-Conformance Receiving Sheet if checked Cooler/Sample Review - Initials and date: DB 6-3-22

**Comments:**

---



---



---

Lab #: 830506 Job #: 51196 IS-101168 Co. Job#:  
Sample Name: T221596-01 Co. Lab#:  
Company: SunStar Laboratories, Inc  
API/Well:  
Container: 250ml Plastic Bottle  
Field/Site Name: T221596  
Location:  
Formation/Depth:  
Sampling Point:  
Date Sampled: 6/02/2022 9:20 Date Received: 6/07/2022 Date Reported: 6/14/2022

$\delta D$  of water ----- -63.6 ‰ relative to VSMOW

$\delta^{18}O$  of water ----- -7.75 ‰ relative to VSMOW

Tritium content of water ----- na

$\delta^{13}C$  of DIC ----- na

$^{14}C$  content of DIC ----- na

$\delta^{15}N$  of nitrate ----- na

$\delta^{18}O$  of nitrate ----- na

$\delta^{34}S$  of sulfate ----- na

$\delta^{18}O$  of sulfate ----- na

Vacuum Distilled? \* ----- No

Remarks:

nd = not detected. na = not analyzed.

\*Indicates if vacuum distillation was utilized for hydrogen and oxygen isotopic analysis of water

Lab #: 830507 Job #: 51196 IS-101168 Co. Job#:  
Sample Name: T221596-02 Co. Lab#:  
Company: SunStar Laboratories, Inc  
API/Well:  
Container: 250ml Plastic Bottle  
Field/Site Name: T221596  
Location:  
Formation/Depth:  
Sampling Point:  
Date Sampled: 6/02/2022 9:05 Date Received: 6/07/2022 Date Reported: 6/14/2022

$\delta D$  of water ----- -60.6 ‰ relative to VSMOW

$\delta^{18}O$  of water ----- -6.78 ‰ relative to VSMOW

Tritium content of water ----- na

$\delta^{13}C$  of DIC ----- na

$^{14}C$  content of DIC ----- na

$\delta^{15}N$  of nitrate ----- na

$\delta^{18}O$  of nitrate ----- na

$\delta^{34}S$  of sulfate ----- na

$\delta^{18}O$  of sulfate ----- na

Vacuum Distilled? \* ----- No

Remarks:

nd = not detected. na = not analyzed.

\*Indicates if vacuum distillation was utilized for hydrogen and oxygen isotopic analysis of water



Lab #: 830508 Job #: 51196 IS-101168 Co. Job#:  
Sample Name: T221596-03 Co. Lab#:  
Company: SunStar Laboratories, Inc  
API/Well:  
Container: 250ml Plastic Bottle  
Field/Site Name: T221596  
Location:  
Formation/Depth:  
Sampling Point:  
Date Sampled: 6/02/2022 10:15 Date Received: 6/07/2022 Date Reported: 6/14/2022

$\delta D$  of water ----- -76.5 ‰ relative to VSMOW

$\delta^{18}O$  of water ----- -10.11 ‰ relative to VSMOW

Tritium content of water ----- na

$\delta^{13}C$  of DIC ----- na

$^{14}C$  content of DIC ----- na

$\delta^{15}N$  of nitrate ----- na

$\delta^{18}O$  of nitrate ----- na

$\delta^{34}S$  of sulfate ----- na

$\delta^{18}O$  of sulfate ----- na

Vacuum Distilled? \* ----- No

Remarks:

nd = not detected. na = not analyzed.

\*Indicates if vacuum distillation was utilized for hydrogen and oxygen isotopic analysis of water

Lab #: 830509 Job #: 51196 IS-101168 Co. Job#:  
Sample Name: T221596-04 Co. Lab#:  
Company: SunStar Laboratories, Inc  
API/Well:  
Container: 250ml Plastic Bottle  
Field/Site Name: T221596  
Location:  
Formation/Depth:  
Sampling Point:  
Date Sampled: 6/02/2022 11:00 Date Received: 6/07/2022 Date Reported: 6/14/2022

$\delta$ D of water ----- -76.1 ‰ relative to VSMOW  
 $\delta$ <sup>18</sup>O of water ----- -10.04 ‰ relative to VSMOW  
Tritium content of water ----- na  
 $\delta$ <sup>13</sup>C of DIC ----- na  
<sup>14</sup>C content of DIC ----- na  
 $\delta$ <sup>15</sup>N of nitrate ----- na  
 $\delta$ <sup>18</sup>O of nitrate ----- na  
 $\delta$ <sup>34</sup>S of sulfate ----- na  
 $\delta$ <sup>18</sup>O of sulfate ----- na  
Vacuum Distilled? \* ----- No

Remarks:

nd = not detected. na = not analyzed.

\*Indicates if vacuum distillation was utilized for hydrogen and oxygen isotopic analysis of water

Lab #: 830510 Job #: 51196 IS-101168 Co. Job#:  
Sample Name: T221596-05 Co. Lab#:  
Company: SunStar Laboratories, Inc  
API/Well:  
Container: 250ml Plastic Bottle  
Field/Site Name: T221596  
Location:  
Formation/Depth:  
Sampling Point:  
Date Sampled: 6/02/2022 11:10 Date Received: 6/07/2022 Date Reported: 6/14/2022

$\delta$ D of water ----- -77.8 ‰ relative to VSMOW

$\delta$ <sup>18</sup>O of water ----- -10.30 ‰ relative to VSMOW

Tritium content of water ----- na

$\delta$ <sup>13</sup>C of DIC ----- na

<sup>14</sup>C content of DIC ----- na

$\delta$ <sup>15</sup>N of nitrate ----- na

$\delta$ <sup>18</sup>O of nitrate ----- na

$\delta$ <sup>34</sup>S of sulfate ----- na

$\delta$ <sup>18</sup>O of sulfate ----- na

Vacuum Distilled? \* ----- No

Remarks:

nd = not detected. na = not analyzed.

\*Indicates if vacuum distillation was utilized for hydrogen and oxygen isotopic analysis of water

Lab #: 830511 Job #: 51196 IS-101168 Co. Job#:  
Sample Name: T221596-06 Co. Lab#:  
Company: SunStar Laboratories, Inc  
API/Well:  
Container: 250ml Plastic Bottle  
Field/Site Name: T221596  
Location:  
Formation/Depth:  
Sampling Point:  
Date Sampled: 6/02/2022 20:00 Date Received: 6/07/2022 Date Reported: 6/14/2022

$\delta D$  of water ----- -70.2 ‰ relative to VSMOW

$\delta^{18}O$  of water ----- -8.62 ‰ relative to VSMOW

Tritium content of water ----- na

$\delta^{13}C$  of DIC ----- na

$^{14}C$  content of DIC ----- na

$\delta^{15}N$  of nitrate ----- na

$\delta^{18}O$  of nitrate ----- na

$\delta^{34}S$  of sulfate ----- na

$\delta^{18}O$  of sulfate ----- na

Vacuum Distilled? \* ----- No

Remarks:

nd = not detected. na = not analyzed.

\*Indicates if vacuum distillation was utilized for hydrogen and oxygen isotopic analysis of water

Lab #: 830512 Job #: 51196 IS-101168 Co. Job#:  
Sample Name: T221596-07 Co. Lab#:  
Company: SunStar Laboratories, Inc  
API/Well:  
Container: 250ml Plastic Bottle  
Field/Site Name: T221596  
Location:  
Formation/Depth:  
Sampling Point:  
Date Sampled: 6/02/2022 21:45 Date Received: 6/07/2022 Date Reported: 6/14/2022

$\delta D$  of water ----- -69.6 ‰ relative to VSMOW

$\delta^{18}O$  of water ----- -8.51 ‰ relative to VSMOW

Tritium content of water ----- na

$\delta^{13}C$  of DIC ----- na

$^{14}C$  content of DIC ----- na

$\delta^{15}N$  of nitrate ----- na

$\delta^{18}O$  of nitrate ----- na

$\delta^{34}S$  of sulfate ----- na

$\delta^{18}O$  of sulfate ----- na

Vacuum Distilled? \* ----- No

Remarks:

nd = not detected. na = not analyzed.

\*Indicates if vacuum distillation was utilized for hydrogen and oxygen isotopic analysis of water

Lab #: 830513 Job #: 51196 IS-101168 Co. Job#:  
Sample Name: T221596-08 Co. Lab#:  
Company: SunStar Laboratories, Inc  
API/Well:  
Container: 250ml Plastic Bottle  
Field/Site Name: T221596  
Location:  
Formation/Depth:  
Sampling Point:  
Date Sampled: 6/02/2022 23:25 Date Received: 6/07/2022 Date Reported: 6/14/2022

$\delta D$  of water ----- -70.5 ‰ relative to VSMOW

$\delta^{18}O$  of water ----- -8.71 ‰ relative to VSMOW

Tritium content of water ----- na

$\delta^{13}C$  of DIC ----- na

$^{14}C$  content of DIC ----- na

$\delta^{15}N$  of nitrate ----- na

$\delta^{18}O$  of nitrate ----- na

$\delta^{34}S$  of sulfate ----- na

$\delta^{18}O$  of sulfate ----- na

Vacuum Distilled? \* ----- No

Remarks:

nd = not detected. na = not analyzed.

\*Indicates if vacuum distillation was utilized for hydrogen and oxygen isotopic analysis of water

Lab #: 830514 Job #: 51196 IS-101168 Co. Job#:  
Sample Name: T221596-09 Co. Lab#:  
Company: SunStar Laboratories, Inc  
API/Well:  
Container: 250ml Plastic Bottle  
Field/Site Name: T221596  
Location:  
Formation/Depth:  
Sampling Point:  
Date Sampled: 6/02/2022 0:00 Date Received: 6/07/2022 Date Reported: 6/14/2022

$\delta$ D of water ----- -77.7 ‰ relative to VSMOW  
 $\delta$ <sup>18</sup>O of water ----- -10.27 ‰ relative to VSMOW  
Tritium content of water ----- na  
 $\delta$ <sup>13</sup>C of DIC ----- na  
<sup>14</sup>C content of DIC ----- na  
 $\delta$ <sup>15</sup>N of nitrate ----- na  
 $\delta$ <sup>18</sup>O of nitrate ----- na  
 $\delta$ <sup>34</sup>S of sulfate ----- na  
 $\delta$ <sup>18</sup>O of sulfate ----- na  
Vacuum Distilled? \* ----- No

Remarks:

nd = not detected. na = not analyzed.

\*Indicates if vacuum distillation was utilized for hydrogen and oxygen isotopic analysis of water

## ANALYTICAL REPORT

Eurofins Calscience  
2841 Dow Avenue, Suite 100  
Tustin, CA 92780  
Tel: (714)895-5494

Laboratory Job ID: 570-98589-1  
Client Project/Site: T221596

For:  
SunStar Laboratories Inc  
25712 Commercentre Drive  
Lake Forest, California 92630

Attn: Jeff Lee



Authorized for release by:  
6/17/2022 5:22:24 PM

Don Burley, Senior Project Manager  
(657)212-3033  
[Donald.Burley@et.eurofinsus.com](mailto:Donald.Burley@et.eurofinsus.com)

### LINKS

Review your project  
results through



Have a Question?



Visit us at:

[www.eurofinsus.com/Env](http://www.eurofinsus.com/Env)

The test results in this report meet all 2003 NELAC, 2009 TNI, and 2016 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.



# Table of Contents

Cover Page . . . . .	1
Table of Contents . . . . .	2
Definitions/Glossary . . . . .	3
Case Narrative . . . . .	4
Detection Summary . . . . .	5
Client Sample Results . . . . .	6
Surrogate Summary . . . . .	8
QC Sample Results . . . . .	9
QC Association Summary . . . . .	10
Lab Chronicle . . . . .	11
Certification Summary . . . . .	13
Method Summary . . . . .	14
Sample Summary . . . . .	15
Chain of Custody . . . . .	16
Receipt Checklists . . . . .	19



# Definitions/Glossary

Client: SunStar Laboratories Inc  
Project/Site: T221596

Job ID: 570-98589-1

## Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

# Case Narrative

Client: SunStar Laboratories Inc  
Project/Site: T221596

Job ID: 570-98589-1

---

**Job ID: 570-98589-1**

---

**Laboratory: Eurofins Calscience**

---

**Narrative**

**Job Narrative  
570-98589-1**

**Comments**

No additional comments.

**Receipt**

The samples were received on 6/6/2022 11:22 AM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 3.3° C.

**GC Semi VOA**

Method 8015B: The continuing calibration verification (CCV) associated with batch 570-242036 recovered above the upper control limit for Benzene, 1,1'-oxybis- and 1,1'-Biphenyl. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

**Organic Prep**

Method 3510C: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with preparation batch 570-240089. The laboratory control sample (LCS) was performed in duplicate (LCSD) to provide precision data for this batch.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.



# Detection Summary

Client: SunStar Laboratories Inc  
Project/Site: T221596

Job ID: 570-98589-1

**Client Sample ID: T221596-01**

**Lab Sample ID: 570-98589-1**

No Detections.

**Client Sample ID: T221596-02**

**Lab Sample ID: 570-98589-2**

No Detections.

**Client Sample ID: T221596-03**

**Lab Sample ID: 570-98589-3**

No Detections.

**Client Sample ID: T221596-04**

**Lab Sample ID: 570-98589-4**

No Detections.

**Client Sample ID: T221596-05**

**Lab Sample ID: 570-98589-5**

No Detections.

**Client Sample ID: T221596-06**

**Lab Sample ID: 570-98589-6**

No Detections.

**Client Sample ID: T221596-07**

**Lab Sample ID: 570-98589-7**

No Detections.

**Client Sample ID: T221596-08**

**Lab Sample ID: 570-98589-8**

No Detections.

**Client Sample ID: T221596-09**

**Lab Sample ID: 570-98589-9**

No Detections.

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14
- 15

This Detection Summary does not include radiochemical test results.

Eurofins Calscience

# Client Sample Results

Client: SunStar Laboratories Inc  
Project/Site: T221596

Job ID: 570-98589-1

## Method: 8015B - Diesel Range Organics (DRO) (GC)

**Client Sample ID: T221596-01**  
**Date Collected: 06/02/22 09:20**  
**Date Received: 06/06/22 11:22**

**Lab Sample ID: 570-98589-1**  
**Matrix: Water**

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene, 1,1'-oxybis-	ND		94	ug/L		06/08/22 21:42	06/16/22 20:59	1
1,1'-Biphenyl	ND		94	ug/L		06/08/22 21:42	06/16/22 20:59	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
<i>n</i> -Octacosane (Surr)	69		53 - 151			06/08/22 21:42	06/16/22 20:59	1

**Client Sample ID: T221596-02**  
**Date Collected: 06/02/22 09:05**  
**Date Received: 06/06/22 11:22**

**Lab Sample ID: 570-98589-2**  
**Matrix: Water**

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene, 1,1'-oxybis-	ND		94	ug/L		06/08/22 21:42	06/16/22 21:24	1
1,1'-Biphenyl	ND		94	ug/L		06/08/22 21:42	06/16/22 21:24	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
<i>n</i> -Octacosane (Surr)	74		53 - 151			06/08/22 21:42	06/16/22 21:24	1

**Client Sample ID: T221596-03**  
**Date Collected: 06/02/22 10:15**  
**Date Received: 06/06/22 11:22**

**Lab Sample ID: 570-98589-3**  
**Matrix: Water**

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene, 1,1'-oxybis-	ND		93	ug/L		06/08/22 21:42	06/16/22 21:49	1
1,1'-Biphenyl	ND		93	ug/L		06/08/22 21:42	06/16/22 21:49	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
<i>n</i> -Octacosane (Surr)	66		53 - 151			06/08/22 21:42	06/16/22 21:49	1

**Client Sample ID: T221596-04**  
**Date Collected: 06/02/22 11:00**  
**Date Received: 06/06/22 11:22**

**Lab Sample ID: 570-98589-4**  
**Matrix: Water**

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene, 1,1'-oxybis-	ND		94	ug/L		06/08/22 21:42	06/16/22 22:15	1
1,1'-Biphenyl	ND		94	ug/L		06/08/22 21:42	06/16/22 22:15	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
<i>n</i> -Octacosane (Surr)	75		53 - 151			06/08/22 21:42	06/16/22 22:15	1

**Client Sample ID: T221596-05**  
**Date Collected: 06/02/22 11:10**  
**Date Received: 06/06/22 11:22**

**Lab Sample ID: 570-98589-5**  
**Matrix: Water**

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene, 1,1'-oxybis-	ND		93	ug/L		06/08/22 21:42	06/16/22 22:40	1
1,1'-Biphenyl	ND		93	ug/L		06/08/22 21:42	06/16/22 22:40	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
<i>n</i> -Octacosane (Surr)	68		53 - 151			06/08/22 21:42	06/16/22 22:40	1

**Client Sample ID: T221596-06**  
**Date Collected: 06/02/22 20:00**  
**Date Received: 06/06/22 11:22**

**Lab Sample ID: 570-98589-6**  
**Matrix: Water**

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene, 1,1'-oxybis-	ND		95	ug/L		06/08/22 21:42	06/16/22 23:06	1
1,1'-Biphenyl	ND		95	ug/L		06/08/22 21:42	06/16/22 23:06	1

Eurofins Calscience

# Client Sample Results

Client: SunStar Laboratories Inc  
Project/Site: T221596

Job ID: 570-98589-1

## Method: 8015B - Diesel Range Organics (DRO) (GC) (Continued)

<u>Surrogate</u>	<u>%Recovery</u>	<u>Qualifier</u>	<u>Limits</u>	<u>Prepared</u>	<u>Analyzed</u>	<u>Dil Fac</u>
<i>n</i> -Octacosane (Surr)	61		53 - 151	06/08/22 21:42	06/16/22 23:06	1

**Client Sample ID: T221596-07**  
**Date Collected: 06/02/22 21:45**  
**Date Received: 06/06/22 11:22**

**Lab Sample ID: 570-98589-7**  
**Matrix: Water**

<u>Analyte</u>	<u>Result</u>	<u>Qualifier</u>	<u>RL</u>	<u>Unit</u>	<u>D</u>	<u>Prepared</u>	<u>Analyzed</u>	<u>Dil Fac</u>
Benzene, 1,1'-oxybis-	ND		93	ug/L		06/08/22 21:42	06/16/22 23:31	1
1,1'-Biphenyl	ND		93	ug/L		06/08/22 21:42	06/16/22 23:31	1

<u>Surrogate</u>	<u>%Recovery</u>	<u>Qualifier</u>	<u>Limits</u>	<u>Prepared</u>	<u>Analyzed</u>	<u>Dil Fac</u>
<i>n</i> -Octacosane (Surr)	55		53 - 151	06/08/22 21:42	06/16/22 23:31	1

**Client Sample ID: T221596-08**  
**Date Collected: 06/02/22 23:25**  
**Date Received: 06/06/22 11:22**

**Lab Sample ID: 570-98589-8**  
**Matrix: Water**

<u>Analyte</u>	<u>Result</u>	<u>Qualifier</u>	<u>RL</u>	<u>Unit</u>	<u>D</u>	<u>Prepared</u>	<u>Analyzed</u>	<u>Dil Fac</u>
Benzene, 1,1'-oxybis-	ND		90	ug/L		06/08/22 21:42	06/16/22 23:57	1
1,1'-Biphenyl	ND		90	ug/L		06/08/22 21:42	06/16/22 23:57	1

<u>Surrogate</u>	<u>%Recovery</u>	<u>Qualifier</u>	<u>Limits</u>	<u>Prepared</u>	<u>Analyzed</u>	<u>Dil Fac</u>
<i>n</i> -Octacosane (Surr)	55		53 - 151	06/08/22 21:42	06/16/22 23:57	1

**Client Sample ID: T221596-09**  
**Date Collected: 06/02/22 00:00**  
**Date Received: 06/06/22 11:22**

**Lab Sample ID: 570-98589-9**  
**Matrix: Water**

<u>Analyte</u>	<u>Result</u>	<u>Qualifier</u>	<u>RL</u>	<u>Unit</u>	<u>D</u>	<u>Prepared</u>	<u>Analyzed</u>	<u>Dil Fac</u>
Benzene, 1,1'-oxybis-	ND		92	ug/L		06/08/22 21:42	06/17/22 00:22	1
1,1'-Biphenyl	ND		92	ug/L		06/08/22 21:42	06/17/22 00:22	1

<u>Surrogate</u>	<u>%Recovery</u>	<u>Qualifier</u>	<u>Limits</u>	<u>Prepared</u>	<u>Analyzed</u>	<u>Dil Fac</u>
<i>n</i> -Octacosane (Surr)	61		53 - 151	06/08/22 21:42	06/17/22 00:22	1

# Surrogate Summary

Client: SunStar Laboratories Inc  
Project/Site: T221596

Job ID: 570-98589-1

**Method: 8015B - Diesel Range Organics (DRO) (GC)**

**Matrix: Water**

**Prep Type: Total/NA**

## Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	OTCSN1 (53-151)
570-98589-1	T221596-01	69
570-98589-2	T221596-02	74
570-98589-3	T221596-03	66
570-98589-4	T221596-04	75
570-98589-5	T221596-05	68
570-98589-6	T221596-06	61
570-98589-7	T221596-07	55
570-98589-8	T221596-08	55
570-98589-9	T221596-09	61
MB 570-240089/1-A	Method Blank	79

### Surrogate Legend

OTCSN = n-Octacosane (Surr)

# QC Sample Results

Client: SunStar Laboratories Inc  
 Project/Site: T221596

Job ID: 570-98589-1

## Method: 8015B - Diesel Range Organics (DRO) (GC)

**Lab Sample ID: MB 570-240089/1-A**  
**Matrix: Water**  
**Analysis Batch: 242036**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 240089**

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene, 1,1'-oxybis-	ND		100	ug/L		06/08/22 21:42	06/16/22 16:20	1
1,1'-Biphenyl	ND		100	ug/L		06/08/22 21:42	06/16/22 16:20	1
<b>MB MB</b>								
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
<i>n</i> -Octacosane (Surr)	79		53 - 151			06/08/22 21:42	06/16/22 16:20	1

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14
- 15



# QC Association Summary

Client: SunStar Laboratories Inc  
Project/Site: T221596

Job ID: 570-98589-1

## GC Semi VOA

### Prep Batch: 240089

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-98589-1	T221596-01	Total/NA	Water	3510C	
570-98589-2	T221596-02	Total/NA	Water	3510C	
570-98589-3	T221596-03	Total/NA	Water	3510C	
570-98589-4	T221596-04	Total/NA	Water	3510C	
570-98589-5	T221596-05	Total/NA	Water	3510C	
570-98589-6	T221596-06	Total/NA	Water	3510C	
570-98589-7	T221596-07	Total/NA	Water	3510C	
570-98589-8	T221596-08	Total/NA	Water	3510C	
570-98589-9	T221596-09	Total/NA	Water	3510C	
MB 570-240089/1-A	Method Blank	Total/NA	Water	3510C	

### Analysis Batch: 242036

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-98589-1	T221596-01	Total/NA	Water	8015B	240089
570-98589-2	T221596-02	Total/NA	Water	8015B	240089
570-98589-3	T221596-03	Total/NA	Water	8015B	240089
570-98589-4	T221596-04	Total/NA	Water	8015B	240089
570-98589-5	T221596-05	Total/NA	Water	8015B	240089
570-98589-6	T221596-06	Total/NA	Water	8015B	240089
570-98589-7	T221596-07	Total/NA	Water	8015B	240089
570-98589-8	T221596-08	Total/NA	Water	8015B	240089
570-98589-9	T221596-09	Total/NA	Water	8015B	240089
MB 570-240089/1-A	Method Blank	Total/NA	Water	8015B	240089

# Lab Chronicle

Client: SunStar Laboratories Inc  
Project/Site: T221596

Job ID: 570-98589-1

**Client Sample ID: T221596-01**

**Lab Sample ID: 570-98589-1**

Date Collected: 06/02/22 09:20

Matrix: Water

Date Received: 06/06/22 11:22

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			265.9 mL	2.5 mL	240089	06/08/22 21:42	UFLU	ECL 4
Total/NA	Analysis	8015B		1			242036	06/16/22 20:59	N5Y3	ECL 4
Instrument ID: GC70B										

**Client Sample ID: T221596-02**

**Lab Sample ID: 570-98589-2**

Date Collected: 06/02/22 09:05

Matrix: Water

Date Received: 06/06/22 11:22

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			266.9 mL	2.5 mL	240089	06/08/22 21:42	UFLU	ECL 4
Total/NA	Analysis	8015B		1			242036	06/16/22 21:24	N5Y3	ECL 4
Instrument ID: GC70B										

**Client Sample ID: T221596-03**

**Lab Sample ID: 570-98589-3**

Date Collected: 06/02/22 10:15

Matrix: Water

Date Received: 06/06/22 11:22

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			269.8 mL	2.5 mL	240089	06/08/22 21:42	UFLU	ECL 4
Total/NA	Analysis	8015B		1			242036	06/16/22 21:49	N5Y3	ECL 4
Instrument ID: GC70B										

**Client Sample ID: T221596-04**

**Lab Sample ID: 570-98589-4**

Date Collected: 06/02/22 11:00

Matrix: Water

Date Received: 06/06/22 11:22

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			265.5 mL	2.5 mL	240089	06/08/22 21:42	UFLU	ECL 4
Total/NA	Analysis	8015B		1			242036	06/16/22 22:15	N5Y3	ECL 4
Instrument ID: GC70B										

**Client Sample ID: T221596-05**

**Lab Sample ID: 570-98589-5**

Date Collected: 06/02/22 11:10

Matrix: Water

Date Received: 06/06/22 11:22

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			268 mL	2.5 mL	240089	06/08/22 21:42	UFLU	ECL 4
Total/NA	Analysis	8015B		1			242036	06/16/22 22:40	N5Y3	ECL 4
Instrument ID: GC70B										

# Lab Chronicle

Client: SunStar Laboratories Inc  
Project/Site: T221596

Job ID: 570-98589-1

**Client Sample ID: T221596-06**

**Lab Sample ID: 570-98589-6**

**Date Collected: 06/02/22 20:00**

**Matrix: Water**

**Date Received: 06/06/22 11:22**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			264.1 mL	2.5 mL	240089	06/08/22 21:42	UFLU	ECL 4
Total/NA	Analysis	8015B		1			242036	06/16/22 23:06	N5Y3	ECL 4
Instrument ID: GC70B										

**Client Sample ID: T221596-07**

**Lab Sample ID: 570-98589-7**

**Date Collected: 06/02/22 21:45**

**Matrix: Water**

**Date Received: 06/06/22 11:22**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			269.1 mL	2.5 mL	240089	06/08/22 21:42	UFLU	ECL 4
Total/NA	Analysis	8015B		1			242036	06/16/22 23:31	N5Y3	ECL 4
Instrument ID: GC70B										

**Client Sample ID: T221596-08**

**Lab Sample ID: 570-98589-8**

**Date Collected: 06/02/22 23:25**

**Matrix: Water**

**Date Received: 06/06/22 11:22**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			276.3 mL	2.5 mL	240089	06/08/22 21:42	UFLU	ECL 4
Total/NA	Analysis	8015B		1			242036	06/16/22 23:57	N5Y3	ECL 4
Instrument ID: GC70B										

**Client Sample ID: T221596-09**

**Lab Sample ID: 570-98589-9**

**Date Collected: 06/02/22 00:00**

**Matrix: Water**

**Date Received: 06/06/22 11:22**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			272.5 mL	2.5 mL	240089	06/08/22 21:42	UFLU	ECL 4
Total/NA	Analysis	8015B		1			242036	06/17/22 00:22	N5Y3	ECL 4
Instrument ID: GC70B										

**Laboratory References:**

ECL 4 = Eurofins Calscience Tustin, 2841 Dow Avenue, Tustin, CA 92780, TEL (714)895-5494

# Accreditation/Certification Summary

Client: SunStar Laboratories Inc  
Project/Site: T221596

Job ID: 570-98589-1

## Laboratory: Eurofins Calscience

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
California	State	2944	09-30-22
Oregon	NELAP	4175	01-31-23

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14
- 15

# Method Summary

Client: SunStar Laboratories Inc  
Project/Site: T221596

Job ID: 570-98589-1

Method	Method Description	Protocol	Laboratory
8015B	Diesel Range Organics (DRO) (GC)	SW846	ECL 4
3510C	Liquid-Liquid Extraction (Separatory Funnel)	SW846	ECL 4

**Protocol References:**

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

**Laboratory References:**

ECL 4 = Eurofins Calscience Tustin, 2841 Dow Avenue, Tustin, CA 92780, TEL (714)895-5494

1

2

3

4

5

6

7

8

9

10

11

12

13

14

15

# Sample Summary

Client: SunStar Laboratories Inc  
Project/Site: T221596

Job ID: 570-98589-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
570-98589-1	T221596-01	Water	06/02/22 09:20	06/06/22 11:22
570-98589-2	T221596-02	Water	06/02/22 09:05	06/06/22 11:22
570-98589-3	T221596-03	Water	06/02/22 10:15	06/06/22 11:22
570-98589-4	T221596-04	Water	06/02/22 11:00	06/06/22 11:22
570-98589-5	T221596-05	Water	06/02/22 11:10	06/06/22 11:22
570-98589-6	T221596-06	Water	06/02/22 20:00	06/06/22 11:22
570-98589-7	T221596-07	Water	06/02/22 21:45	06/06/22 11:22
570-98589-8	T221596-08	Water	06/02/22 23:25	06/06/22 11:22
570-98589-9	T221596-09	Water	06/02/22 00:00	06/06/22 11:22

1

2

3

4

5

6

7

8

9

10

11

12

13

14

15

SUBCONTRACT ORDER

SunStar Laboratories, Inc.

T221596

**SENDING LABORATORY:**

SunStar Laboratories, Inc.  
25712 Commercentre Drive  
Lake Forest, CA 92630  
Phone: (949) 297-5020  
Fax: (949) 297-5027  
Project Manager Jeff Lee

**RECEIVING LABORATORY:**

Eurofins Calscience (Tustin)  
2841 Dow Ave, Suite 100  
Tustin, CA 92780  
Phone (949) 261-1022  
Fax: N/A

Analysis	Due	Expires	Laboratory ID	Comments
<b>Sample ID: T221596-01</b>	<b>Water</b>	<b>Sampled:06/02/22 09:20</b>	[REDACTED]	
Misc Water Testing #1	06/17/22 00 00	11/29/22 09 20		8015M- Therminol
<i>Containers Supplied</i>				
<b>Sample ID: T221596-02</b>	<b>Water</b>	<b>Sampled:06/02/22 09:05</b>	[REDACTED]	
Misc Water Testing #1	06/17/22 00 00	11/29/22 09 05		8015M- Therminol
<i>Containers Supplied</i>				
<b>Sample ID: T221596-03</b>	<b>Water</b>	<b>Sampled:06/02/22 10:15</b>	[REDACTED]	
Misc Water Testing #1	06/17/22 00 00	11/29/22 10 15		8015M- Therminol
<i>Containers Supplied</i>				
<b>Sample ID: T221596-04</b>	<b>Water</b>	<b>Sampled:06/02/22 11:00</b>	[REDACTED]	
Misc Water Testing #1	06/17/22 00 00	11/29/22 11 00		8015M- Therminol
<i>Containers Supplied</i>				
<b>Sample ID: T221596-05</b>	<b>Water</b>	<b>Sampled:06/02/22 11:10</b>	[REDACTED]	
Misc Water Testing #1	06/17/22 00 00	11/29/22 11 10		8015M- Therminol
<i>Containers Supplied</i>				
<b>Sample ID: T221596-06</b>	<b>Water</b>	<b>Sampled:06/02/22 20:00</b>	[REDACTED]	
Misc Water Testing #1	06/17/22 00 00	11/29/22 20 00		8015M- Therminol
<i>Containers Supplied</i>				



Released By: [Signature] Date: 6-6-22 Received By: [Signature] Date: 6/6/22 11:22

Released By: \_\_\_\_\_ Date: \_\_\_\_\_ Received By: \_\_\_\_\_ Date: \_\_\_\_\_

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14
- 15

**SUBCONTRACT ORDER**  
**SunStar Laboratories, Inc.**  
**T221596**

Analysis	Due	Expires	Laboratory ID	Comments
<b>Sample ID: T221596-07</b>	<b>Water</b>	<b>Sampled:06/02/22 21:45</b>	[REDACTED]	
Misc Water Testing #1 <i>Containers Supplied</i>	06/17/22 00 00	11/29/22 21 45		8015M- Therminol
<b>Sample ID: T221596-08</b>	<b>Water</b>	<b>Sampled:06/02/22 23:25</b>	[REDACTED]	
Misc Water Testing #1 <i>Containers Supplied</i>	06/17/22 00 00	11/29/22 23 25		8015M- Therminol
<b>Sample ID: T221596-09</b>	<b>Water</b>	<b>Sampled:06/02/22 00:00</b>	[REDACTED]	
Misc Water Testing #1 <i>Containers Supplied.</i>	06/17/22 00 00	11/29/22 00 00		8015M- Therminol

Released By [Signature] Date 6-6-22 11:22 Received By [Signature] Date 6/6/22 11:22

Released By \_\_\_\_\_ Date \_\_\_\_\_ Received By \_\_\_\_\_ Date \_\_\_\_\_





SUBCONTRACT ORDER

SunStar Laboratories, Inc.

T221595

SENDING LABORATORY:

SunStar Laboratories, Inc.  
25712 Commercentre Drive  
Lake Forest, CA 92630  
Phone: (949) 297-5020  
Fax: (949) 297-5027  
Project Manager Jeff Lee

RECEIVING LABORATORY:

Eurofins Calscience (Tustin)  
2841 Dow Ave, Suite 100  
Tustin, CA 92780  
Phone : (949) 261-1022  
Fax: N/A

Analysis	Due	Expires	Laboratory ID	Comments
<b>Sample ID: T221595-01</b>	<b>Water</b>	<b>Sampled:06/02/22 12:00</b>		
Misc Water Testing #1	06/17/22 00 00	11/29/22 12 00		8015M- Therminol
<i>Containers Supplied.</i>				
<b>Sample ID: T221595-02</b>	<b>Water</b>	<b>Sampled:06/02/22 12:30</b>		
Misc Water Testing #1	06/17/22 00 00	11/29/22 12 30		8015M- Therminol
<i>Containers Supplied</i>				

Released By Smw... Date 6-16-22 11:22 Received By Olga Onelas Date 6/6/22 11:22

Released By \_\_\_\_\_ Date \_\_\_\_\_ Received By \_\_\_\_\_ Date \_\_\_\_\_

# Login Sample Receipt Checklist

Client: SunStar Laboratories Inc

Job Number: 570-98589-1

**Login Number: 98589**

**List Source: Eurofins Calscience**

**List Number: 1**

**Creator: Skinner, Alma D**

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	N/A	Not present
Sample custody seals, if present, are intact.	N/A	Not Present
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

SunStar Laboratories, Inc.  
 25712 Commercentre Dr  
 Lake Forest, CA 92630  
 949-297-5020

### Chain of Custody Record

Client: Northstar Environmental Remediation  
 Address: 26225 Enterprise Court, Lake Forest, CA 92630  
 Phone: 949-274-1719  
 Project Manager: Arlin Brewster

Date: 06/03/22 Page: 1 of 1  
 Project Name: Genesis Solar Groundwater  
 Collector: Arlin Brewster Client Project #: 196-004-06  
 Batch #: T221596 EDF #: T10000006093

Sample ID	Date Sampled	Time	Sample Type	Container Type	200.7 - Dissolved Metals: Ca, Cu, Na, K, Fe, Mg (FIELD FILTERED)	200.8 - Dissolved Metals: Sb, As, Ba, Cd, Cr, Co, Pb, Ni, Se, Zn (F.F.)	300.0 - Chloride, Nitrate, Sulfate	1664 - Oil and Grease	7470A - Mercury	9040 - pH	SM2510B - Conductivity, Specific	SM2540C - Total Dis. Solids	8015M - Thermanol (Subcontract)	Deuterium, Oxygen-18 (Subcont)	300.0 - Fluoride	Laboratory ID #	Comments/Preservative	Total # of containers	Chain of Custody seals Y/N/NA Seals intact? Y/N/NA	Notes
23a			-W-	Various	X	X	X	X	X	X	X	X	X	X						
TW-1 OBS-1	6/2/22	9:20	W	Various	X	X	X	X	X	X	X	X	X	X						
OBS-1 IW-1		9:05	W	Various	X	X	X	X	X	X	X	X	X	X						
TW-2		10:15	W	Various	X	X	X	X	X	X	X	X	X	X						
PW-0		11:00	W	Various	X	X	X	X	X	X	X	X	X	X						
PW-2		11:10	W	Various	X	X	X	X	X	X	X	X	X	X						
DM-1		20:00	W	Various	X	X	X	X	X	X	X	X	X	X						
DM-2		21:45	W	Various	X	X	X	X	X	X	X	X	X	X						
DM-3		23:25	W	Various	X	X	X	X	X	X	X	X	X	X						
DUP		N/A	W	Various	X	X	X	X	X	X	X	X	X	X						
Field Blank		N/A	W	Various																HOLD
Trip Blank		N/A	W	Various																HOLD
Relinquished by: (signature)	Date / Time	Date / Time	Received by: (signature)	Date / Time	Total # of containers										Notes					
<i>AMB</i>			<i>AMB</i>		1145										** Deuterium & Oxygen-18 subcontract has 10 day TAT					
Relinquished by: (signature)	Date / Time	Date / Time	Received by: (signature)	Date / Time	6:32:22										Reporting limits must match previous reports					
Relinquished by: (signature)	Date / Time	Date / Time	Received by: (signature)	Date / Time	1145										Received good condition/cold					

Sample disposal Instructions: Disposal @ \$2.00 each  
 Return to client \_\_\_\_\_ Pickup \_\_\_\_\_

Turn around time: Standard \*\*

AMB

AMB

## Jeff Lee

---

**From:** Arlin Brewster <Arlin.Brewster@NorthstarER.com>  
**Sent:** Wednesday, June 29, 2022 1:29 PM  
**To:** Jeff Lee  
**Subject:** Revised COC  
**Attachments:** Revised COC.pdf

**Follow Up Flag:** Follow up  
**Flag Status:** Flagged

Hello Jeff,

Attached is a revised COC for lab report T221596; can you please swap the sample IDs for OBS-1 and TW-1 as I have indicated? As I mentioned earlier, I realized afterwards that I accidentally swapped them in the field. I also need a revised EDF file.

Thank you,

**Arlin Brewster, PG**  
**Northstar Environmental Remediation**

26225 Enterprise Court  
Lake Forest, CA 92630  
Cell: (949) 274-1719  
WBE, DBE, SBE Certified, CA Lic #827022  
[www.northstarer.com](http://www.northstarer.com)

This email communication may contain CONFIDENTIAL INFORMATION WHICH ALSO MAY BE LEGALLY PRIVELEGED and is intended only for the use of the intended recipients identified above. If you are not the intended recipient of this communication, you are hereby notified that any unauthorized review, use, dissemination, distribution, downloading, or copying of this communication is strictly prohibited. If you are not the intended recipient and have received this communication in error, please immediately notify us by reply email, delete the communication and destroy all copies.

**WORK ORDER**

**T221596**

**Client: Northstar Environmental Remediation**  
**Project: Genesis Solar Groundwater**

**Project Manager: Jeff Lee**  
**Project Number: 196-004-06**

**Report To:**

Northstar Environmental Remediation  
 Arlin Brewster  
 26225 Enterprise Court  
 Lake Forest, CA 92630

Date Due: 06/17/22 00:00 (10 day TAT)

Received By: Dave Berner

Date Received: 06/03/22 11:45

Logged In By: Jeff Lee

Date Logged In: 06/03/22 15:01

Samples Received at: **4.4°C**

Custody Seals No Received On Ice Yes  
 Containers Intact Yes  
 COC/Labels Agree Yes  
 Preservation Confir Yes

Analysis	Due	TAT	Expires	Comments
<b>T221596-01 OBS-1 [Water] Sampled 06/02/22 09:20 (GMT-08:00) Pacific Time (US &amp;</b>				
1664	06/10/22 15:00	5	06/30/22 09:20	Oil & Grease
200.7	06/10/22 15:00	5	11/29/22 09:20	Ca,Cu,Na,K,Fe,Mg (Field Filtered)
200.8	06/10/22 15:00	5	11/29/22 09:20	Sb,As,Ba,Cd,Cr,Co,Pb,Ni,Se,Zn (Field Filtered)
300.0 - F, Cl, Br, SO4	06/10/22 15:00	5	06/30/22 09:20	Chloride,Sulfate only
300.0 - NO2, NO3, PO4	06/10/22 15:00	5	06/04/22 09:20	Nitrate
7470/71 Hg	06/10/22 15:00	5	08/31/22 09:20	
Conductivity	06/10/22 15:00	5	06/30/22 09:20	
pH water SM 4500-H+B	06/08/22 15:00	3	06/03/22 09:20	
TDS-160.1	06/10/22 15:00	5	06/09/22 09:20	

<b>T221596-02 TW-1 [Water] Sampled 06/02/22 09:05 (GMT-08:00) Pacific Time (US &amp;</b>				
1664	06/10/22 15:00	5	06/30/22 09:05	Oil & Grease
200.7	06/10/22 15:00	5	11/29/22 09:05	Ca,Cu,Na,K,Fe,Mg (Field Filtered)
200.8	06/10/22 15:00	5	11/29/22 09:05	Sb,As,Ba,Cd,Cr,Co,Pb,Ni,Se,Zn (Field Filtered)
300.0 - F, Cl, Br, SO4	06/10/22 15:00	5	06/30/22 09:05	Chloride,Sulfate only
300.0 - NO2, NO3, PO4	06/10/22 15:00	5	06/04/22 09:05	Nitrate
7470/71 Hg	06/10/22 15:00	5	08/31/22 09:05	
Conductivity	06/10/22 15:00	5	06/30/22 09:05	
pH water SM 4500-H+B	06/08/22 15:00	3	06/03/22 09:05	
TDS-160.1	06/10/22 15:00	5	06/09/22 09:05	

**WORK ORDER**

**T221596**

**Client: Northstar Environmental Remediation**  
**Project: Genesis Solar Groundwater**

**Project Manager: Jeff Lee**  
**Project Number: 196-004-06**

Analysis	Due	TAT	Expires	Comments
<b>T221596-03 TW-2 [Water] Sampled 06/02/22 10:15 (GMT-08:00) Pacific Time (US &amp;</b>				
1664	06/10/22 15:00	5	06/30/22 10:15	Oil & Grease
200.7	06/10/22 15:00	5	11/29/22 10:15	Ca,Cu,Na,K,Fe,Mg (Field Filtered)
200.8	06/10/22 15:00	5	11/29/22 10:15	Sb,As,Ba,Cd,Cr,Co,Pb,Ni,Se,Zn (Field Filtered)
300.0 - F, Cl, Br, SO4	06/10/22 15:00	5	06/30/22 10:15	Chloride,Sulfate only
300.0 - NO2, NO3, PO4	06/10/22 15:00	5	06/04/22 10:15	Nitrate
7470/71 Hg	06/10/22 15:00	5	08/31/22 10:15	
Conductivity	06/10/22 15:00	5	06/30/22 10:15	
pH water SM 4500-H+B	06/08/22 15:00	3	06/03/22 10:15	
TDS-160.1	06/10/22 15:00	5	06/09/22 10:15	

<b>T221596-04 PW-0 [Water] Sampled 06/02/22 11:00 (GMT-08:00) Pacific Time (US &amp;</b>				
1664	06/10/22 15:00	5	06/30/22 11:00	Oil & Grease
200.7	06/10/22 15:00	5	11/29/22 11:00	Ca,Cu,Na,K,Fe,Mg (Field Filtered)
200.8	06/10/22 15:00	5	11/29/22 11:00	Sb,As,Ba,Cd,Cr,Co,Pb,Ni,Se,Zn (Field Filtered)
300.0 - F, Cl, Br, SO4	06/10/22 15:00	5	06/30/22 11:00	Fluoride, Chloride,Sulfate only
300.0 - NO2, NO3, PO4	06/10/22 15:00	5	06/04/22 11:00	Nitrate
7470/71 Hg	06/10/22 15:00	5	08/31/22 11:00	
Conductivity	06/10/22 15:00	5	06/30/22 11:00	
pH water SM 4500-H+B	06/08/22 15:00	3	06/03/22 11:00	
TDS-160.1	06/10/22 15:00	5	06/09/22 11:00	

<b>T221596-05 PW-2 [Water] Sampled 06/02/22 11:10 (GMT-08:00) Pacific Time (US &amp;</b>				
1664	06/10/22 15:00	5	06/30/22 11:10	Oil & Grease
200.7	06/10/22 15:00	5	11/29/22 11:10	Ca,Cu,Na,K,Fe,Mg (Field Filtered)
200.8	06/10/22 15:00	5	11/29/22 11:10	Sb,As,Ba,Cd,Cr,Co,Pb,Ni,Se,Zn (Field Filtered)
300.0 - F, Cl, Br, SO4	06/10/22 15:00	5	06/30/22 11:10	Fluoride, Chloride,Sulfate only
300.0 - NO2, NO3, PO4	06/10/22 15:00	5	06/04/22 11:10	Nitrate
7470/71 Hg	06/10/22 15:00	5	08/31/22 11:10	
Conductivity	06/10/22 15:00	5	06/30/22 11:10	
pH water SM 4500-H+B	06/08/22 15:00	3	06/03/22 11:10	
TDS-160.1	06/10/22 15:00	5	06/09/22 11:10	

**WORK ORDER**

**T221596**

**Client: Northstar Environmental Remediation**  
**Project: Genesis Solar Groundwater**

**Project Manager: Jeff Lee**  
**Project Number: 196-004-06**

Analysis	Due	TAT	Expires	Comments
<b>T221596-06 DM-1 [Water] Sampled 06/02/22 20:00 (GMT-08:00) Pacific Time (US &amp;</b>				
1664	06/10/22 15:00	5	06/30/22 20:00	Oil & Grease
200.7	06/10/22 15:00	5	11/29/22 20:00	Ca,Cu,Na,K,Fe,Mg (Field Filtered)
200.8	06/10/22 15:00	5	11/29/22 20:00	Sb,As,Ba,Cd,Cr,Co,Pb,Ni,Se,Zn (Field Filtered)
300.0 - F, Cl, Br, SO4	06/10/22 15:00	5	06/30/22 20:00	Chloride,Sulfate only
300.0 - NO2, NO3, PO4	06/10/22 15:00	5	06/04/22 20:00	Nitrate
7470/71 Hg	06/10/22 15:00	5	08/31/22 20:00	
Conductivity	06/10/22 15:00	5	06/30/22 20:00	
pH water SM 4500-H+B	06/08/22 15:00	3	06/03/22 20:00	
TDS-160.1	06/10/22 15:00	5	06/09/22 20:00	
<b>T221596-07 DM-2 [Water] Sampled 06/02/22 21:45 (GMT-08:00) Pacific Time (US &amp;</b>				
1664	06/10/22 15:00	5	06/30/22 21:45	Oil & Grease
200.7	06/10/22 15:00	5	11/29/22 21:45	Ca,Cu,Na,K,Fe,Mg (Field Filtered)
200.8	06/10/22 15:00	5	11/29/22 21:45	Sb,As,Ba,Cd,Cr,Co,Pb,Ni,Se,Zn (Field Filtered)
300.0 - F, Cl, Br, SO4	06/10/22 15:00	5	06/30/22 21:45	Chloride,Sulfate only
300.0 - NO2, NO3, PO4	06/10/22 15:00	5	06/04/22 21:45	Nitrate
7470/71 Hg	06/10/22 15:00	5	08/31/22 21:45	
Conductivity	06/10/22 15:00	5	06/30/22 21:45	
pH water SM 4500-H+B	06/08/22 15:00	3	06/03/22 21:45	
TDS-160.1	06/10/22 15:00	5	06/09/22 21:45	
<b>T221596-08 DM-3 [Water] Sampled 06/02/22 23:25 (GMT-08:00) Pacific Time (US &amp;</b>				
1664	06/10/22 15:00	5	06/30/22 23:25	Oil & Grease
200.7	06/10/22 15:00	5	11/29/22 23:25	Ca,Cu,Na,K,Fe,Mg (Field Filtered)
200.8	06/10/22 15:00	5	11/29/22 23:25	Sb,As,Ba,Cd,Cr,Co,Pb,Ni,Se,Zn (Field Filtered)
300.0 - F, Cl, Br, SO4	06/10/22 15:00	5	06/30/22 23:25	Chloride,Sulfate only
300.0 - NO2, NO3, PO4	06/10/22 15:00	5	06/04/22 23:25	Nitrate
7470/71 Hg	06/10/22 15:00	5	08/31/22 23:25	
Conductivity	06/10/22 15:00	5	06/30/22 23:25	
pH water SM 4500-H+B	06/08/22 15:00	3	06/03/22 23:25	
TDS-160.1	06/10/22 15:00	5	06/09/22 23:25	

**WORK ORDER**

**T221596**

<b>Client: Northstar Environmental Remediation</b>	<b>Project Manager: Jeff Lee</b>
<b>Project: Genesis Solar Groundwater</b>	<b>Project Number: 196-004-06</b>

Analysis	Due	TAT	Expires	Comments
<b>T221596-09 DUP [Water] Sampled 06/02/22 00:00 (GMT-08:00) Pacific Time (US &amp;</b>				
1664	06/10/22 15:00	5	06/30/22 00:00	Oil & Grease
200.7	06/10/22 15:00	5	11/29/22 00:00	Ca,Cu,Na,K,Fe,Mg (Field Filtered)
200.8	06/10/22 15:00	5	11/29/22 00:00	Sb,As,Ba,Cd,Cr,Co,Pb,Ni,Se,Zn (Field Filtered)
300.0 - F, Cl, Br, SO4	06/10/22 15:00	5	06/30/22 00:00	Chloride,Sulfate only
300.0 - NO2, NO3, PO4	06/10/22 15:00	5	06/04/22 00:00	Nitrate
7470/71 Hg	06/10/22 15:00	5	08/31/22 00:00	
Conductivity	06/10/22 15:00	5	06/30/22 00:00	
pH water SM 4500-H+B	06/08/22 15:00	3	06/03/22 00:00	
TDS-160.1	06/10/22 15:00	5	06/09/22 00:00	

**T221596-10 FIELD BLANK [Water] Sampled 06/02/22 00:00 (GMT-08:00) Pacific Time (US & [NO ANALYSES]**

**T221596-11 TRIP BLANK [Water] Sampled 06/02/22 00:00 (GMT-08:00) Pacific Time (US & [NO ANALYSES]**

**Eurofins Calscience (Tustin)**

**T221596-01 OBS-1 [Water] Sampled 06/02/22 09:20 (GMT-08:00) Pacific Time (US &**

Misc Water Testing #1	06/17/22 00:00	10	11/29/22 09:20	8015M- Therminol
-----------------------	----------------	----	----------------	------------------

**T221596-02 TW-1 [Water] Sampled 06/02/22 09:05 (GMT-08:00) Pacific Time (US &**

Misc Water Testing #1	06/17/22 00:00	10	11/29/22 09:05	8015M- Therminol
-----------------------	----------------	----	----------------	------------------

**T221596-03 TW-2 [Water] Sampled 06/02/22 10:15 (GMT-08:00) Pacific Time (US &**

Misc Water Testing #1	06/17/22 00:00	10	11/29/22 10:15	8015M- Therminol
-----------------------	----------------	----	----------------	------------------

**T221596-04 PW-0 [Water] Sampled 06/02/22 11:00 (GMT-08:00) Pacific Time (US &**

Misc Water Testing #1	06/17/22 00:00	10	11/29/22 11:00	8015M- Therminol
-----------------------	----------------	----	----------------	------------------

**T221596-05 PW-2 [Water] Sampled 06/02/22 11:10 (GMT-08:00) Pacific Time (US &**

Misc Water Testing #1	06/17/22 00:00	10	11/29/22 11:10	8015M- Therminol
-----------------------	----------------	----	----------------	------------------



**WORK ORDER**

**T221596**

<b>Client: Northstar Environmental Remediation</b>	<b>Project Manager: Jeff Lee</b>
<b>Project: Genesis Solar Groundwater</b>	<b>Project Number: 196-004-06</b>

Analysis	Due	TAT	Expires	Comments
<b>Eurofins Calscience (Tustin)</b>				
<b>T221596-06 DM-1 [Water] Sampled 06/02/22 20:00 (GMT-08:00) Pacific Time (US &amp;</b>				
Misc Water Testing #1	06/17/22 00:00	10	11/29/22 20:00	8015M- Therminol
<b>T221596-07 DM-2 [Water] Sampled 06/02/22 21:45 (GMT-08:00) Pacific Time (US &amp;</b>				
Misc Water Testing #1	06/17/22 00:00	10	11/29/22 21:45	8015M- Therminol
<b>T221596-08 DM-3 [Water] Sampled 06/02/22 23:25 (GMT-08:00) Pacific Time (US &amp;</b>				
Misc Water Testing #1	06/17/22 00:00	10	11/29/22 23:25	8015M- Therminol
<b>T221596-09 DUP [Water] Sampled 06/02/22 00:00 (GMT-08:00) Pacific Time (US &amp;</b>				
Misc Water Testing #1	06/17/22 00:00	10	11/29/22 00:00	8015M- Therminol
<b>Isotech Laboratories, Inc.</b>				
<b>T221596-01 OBS-1 [Water] Sampled 06/02/22 09:20 (GMT-08:00) Pacific Time (US &amp;</b>				
Misc Water Testing #2	06/17/22 00:00	10	11/29/22 09:20	Deuterium,Oxygen-18
<b>T221596-02 TW-1 [Water] Sampled 06/02/22 09:05 (GMT-08:00) Pacific Time (US &amp;</b>				
Misc Water Testing #2	06/17/22 00:00	10	11/29/22 09:05	Deuterium,Oxygen-18
<b>T221596-03 TW-2 [Water] Sampled 06/02/22 10:15 (GMT-08:00) Pacific Time (US &amp;</b>				
Misc Water Testing #2	06/17/22 00:00	10	11/29/22 10:15	Deuterium,Oxygen-18
<b>T221596-04 PW-0 [Water] Sampled 06/02/22 11:00 (GMT-08:00) Pacific Time (US &amp;</b>				
Misc Water Testing #2	06/17/22 00:00	10	11/29/22 11:00	Deuterium,Oxygen-18
<b>T221596-05 PW-2 [Water] Sampled 06/02/22 11:10 (GMT-08:00) Pacific Time (US &amp;</b>				
Misc Water Testing #2	06/17/22 00:00	10	11/29/22 11:10	Deuterium,Oxygen-18
<b>T221596-06 DM-1 [Water] Sampled 06/02/22 20:00 (GMT-08:00) Pacific Time (US &amp;</b>				
Misc Water Testing #2	06/17/22 00:00	10	11/29/22 20:00	Deuterium,Oxygen-18

**WORK ORDER**

**T221596**

**Client: Northstar Environmental Remediation**  
**Project: Genesis Solar Groundwater**

**Project Manager: Jeff Lee**  
**Project Number: 196-004-06**

Analysis	Due	TAT	Expires	Comments
<b>Isotech Laboratories, Inc.</b>				
<b>T221596-07 DM-2 [Water] Sampled 06/02/22 21:45 (GMT-08:00) Pacific Time (US &amp;</b>				
Misc Water Testing #2	06/17/22 00:00	10	11/29/22 21:45	Deuterium,Oxygen-18
<b>T221596-08 DM-3 [Water] Sampled 06/02/22 23:25 (GMT-08:00) Pacific Time (US &amp;</b>				
Misc Water Testing #2	06/17/22 00:00	10	11/29/22 23:25	Deuterium,Oxygen-18
<b>T221596-09 DUP [Water] Sampled 06/02/22 00:00 (GMT-08:00) Pacific Time (US &amp;</b>				
Misc Water Testing #2	06/17/22 00:00	10	11/29/22 00:00	Deuterium,Oxygen-18