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# 2023 SECOND SEMIANNUAL AND ANNUAL GROUNDWATER QUALITY MONITORING REPORT

## Genesis Solar Energy Project

Riverside County, California

COC S&W-20

January 9, 2024

Prepared By:

Northstar Environmental Remediation

26225 Enterprise Court

Lake Forest, California 92630

## SIGNATURE PAGE

### 2023 SECOND SEMIANNUAL AND ANNUAL GROUNDWATER QUALITY MONITORING REPORT

#### GENESIS SOLAR ENERGY PROJECT

#### 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.

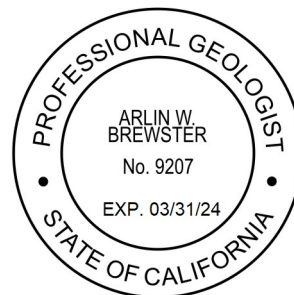
I further certify that this report has been reviewed by the appropriate authority at NextEra Energy Resources and is being submitted with their written consent.



Arlin W. Brewster

Professional Geologist 9207

January 9, 2024



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## 1.0 INTRODUCTION

Northstar Environmental Remediation (Northstar) has prepared this 2023 Second Semiannual and Annual Groundwater Quality Monitoring Report on behalf of Genesis Solar, LLC (Genesis). This report details groundwater quality monitoring performed in December 2023 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 consists 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 to 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 88.6°F (31.4°C). Average rainfall is reported to be approximately 3.08 inches (78.2 mm). These data were received from National Oceanic and Atmospheric Administration (NOAA) National Centers for Environmental Information 2006-2020 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 2023 extraction data, is approximately 126.0 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 87.20 feet bgs (300.20 feet amsl) in TW-1, located upgradient of the site, to 136.35 feet bgs (255.75 feet amsl) in Well 23a, 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 December 7, 2023. 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 were historically installed in OBS-1, TW-1, TW-2, PW-1, and PW-2 as part of COC Soil & Water-2. While COC S&W-2 was completed at the end of 2018, Northstar continued to collect transducer data from each well until the transducers naturally reached the end of serviceable life. The transducers recorded the feet of water above the sensor at 6-hour intervals. In addition, a Solinst Barologger was installed in Well OBS-1 above the water table to record changes in barometric pressure. Using Solinst software, the Levellogger data was calibrated to the manual groundwater elevation measurements and adjusted for changes in barometric pressure using the Barologger data. Data was used to assess seasonal and diurnal trends in the shallower Alluvium aquifer (OBS-1) and the deeper Bouse Formation aquifer (TW-1, TW-2, PW-1, and PW-2). The final transducer data was collected in June 2023.

### 3.3 Groundwater Sampling

Northstar collected groundwater samples from offsite monitoring wells 23a, TW-1, TW-2, and OBS-1 using disposable bailers. Field data sheets are included in **Appendix A**.

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 water quality field instrument equipped with a flow-through cell (YSI Pro, Horiba U-52, or equivalent). Staff calibrated the instrument 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. Where necessary, Northstar also collects additional sample volume in case sample bottles are damaged in transit (due to rough terrain).

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** – Recent concentrations are within the normal range.
- Chart 2: **Sulfate as SO<sub>4</sub>** – Recent concentrations are within the normal range.
- Chart 3: **Nitrate as NO<sub>3</sub>** – Appears in low concentrations mostly in shallow monitoring wells, including upgradient well OBS-1. Recent concentrations are within the normal range except for DM-2, which was reported lower than normal.
- Chart 4: **Calcium** – Recent concentrations generally decreased in all monitoring wells compared to the previous monitoring event and are within the normal range.
- 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** – Recent concentrations are within normal range.
- Chart 7: **Potassium** – Was not detected during this monitoring event due to higher reporting limits. The data has been inconsistent since the fourth quarter of 2017 and suggests irregular but significant influxes of potassium from an upgradient source.
- Chart 8: **Iron** – Was not detected during this monitoring event.
- Chart 9: **Magnesium** – Recent concentrations generally decreased compared to the previous monitoring event except for TW-1, which is above normal.
- Chart 10: **Antimony** – There have been no detections to date.
- Chart 11: **Arsenic** – Detected in production wells PW-0 and PW-2 during this event. Arsenic is normally detected in these wells and appears to be naturally occurring.
- Chart 12: **Barium** – Recent concentrations are within the normal range.
- Chart 13: **Cadmium** – There have been no detections to date.
- Chart 14: **Chromium (All Species)** – 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** – Only detected in upgradient shallow well OBS-1 during this event, at a concentration within the normal range for this well.
- Chart 20: **Zinc** – Detected only in deep downgradient wells TW-2 and 23a. There are no apparent trends. In general, zinc detections began in several wells in the fourth quarter of 2017 as a result of reduced laboratory detection limits.
- 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 increased in all monitoring wells during this event and are within normal range.
- Chart 23: **Specific Conductance** - Concentrations remain near baseline values for this event.
- Chart 24: **pH** – Values are within normal range for this reporting period. Overall, pH values have been very stable for all wells except for TW-1 and TW-2.

## 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. Not detected in any monitoring wells during this reporting period. 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 as delta notation in 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 2023 second semiannual monitoring event shows 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 is 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 M-K 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 are included in **Appendix C**. The analysis was run (where possible) for all analytes except pH, oil & grease, heat transfer fluid, and stable isotopes (deuterium and oxygen-18) for each well and trend direction is reported at the 95% confidence interval. The M-K analysis was not performed on analytes that were not detected during the reporting period. Additionally, analytes with insufficient data have not been statistically analyzed, but 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: An increasing trend was identified for total dissolved solids.
- TW-2: An increasing trend was identified for chloride and specific conductivity.
- OBS-1: An increasing trend was identified for calcium, barium, and total dissolved solids.
- Well 23a: An increasing trend was identified for sodium and total dissolved solids.
- DM-1: An increasing trend was identified for sodium, magnesium, and barium.
- DM-2: An increasing trend was identified for chloride, calcium, sodium, magnesium, barium, and specific conductivity.
- DM-3: An increasing trend was identified for chloride, sodium, and total dissolved solids.
- PW-0: An increasing trend was identified for sodium, arsenic, total dissolved solids, and specific conductivity.
- PW-1: There is not enough data available for this well to perform the Mann-Kendall analysis for any analytes.

- PW-2: An increasing trend was identified for sodium, arsenic, barium, and total dissolved solids.
- Additionally, new maximum concentration values were reported for zinc in TW-2, total dissolved solids in PW-0, and specific conductivity in PW-0.

#### 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, and nitrate as NO<sub>3</sub>, which has a 48-hour hold time).

No analytes were detected in the method blank sample.

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 and/or relative percent difference (RPD) was outside acceptable limits for the MS and/or MSD, but the batch was accepted based on acceptable LCS recovery data. This may have affected the results for **arsenic and copper**.
- The spike recovery was outside acceptable limits for the MS and/or MSD due to possible matrix interference. The LCS was within acceptable criteria and the data was accepted because the chemist determined that there should be no impact to the final results. This may have affected the results for **fluoride, chloride, and sulfate 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:

- Arsenic by EPA Method 200.8, which was reported at concentrations of 26 and 31 µg/L, respectively (16% difference).



## 5.0 ANNUAL SUMMARY

Groundwater analytical data for calendar year 2023 are generally consistent with historical analytical data. Well PW-2 was the only water production well consistently utilized during the calendar year, as PW-0 remains on standby and was turned on only intermittently for testing, maintenance, and sampling, and PW-1 is sealed indefinitely. The Mann-Kendall test for trends typically requires a minimum data set of between 4 to 10 values collected at regular intervals throughout the year to encompass seasonal changes. Currently, all wells but PW-1 have a data set large enough to perform the M-K test.

The following is a list of the analytes that have displayed increasing trends during the 2023 calendar year:

- Arsenic displayed an increasing trend in PW-0 and PW-2.
- Barium displayed an increasing trend in TW-1, TW-2, OBS-1, DM-1, DM-2, and PW-2.
- Calcium displayed an increasing trend in OBS-1 and DM-2.
- Chloride displayed an increasing trend in TW-2, DM-2, and DM-3.
- Magnesium displayed an increasing trend in TW-1, DM-1 and DM-2.
- Sodium displayed an increasing trend in TW-2, Well 23a, DM-1, DM-2, DM-3, PW-0, and PW-2.
- Specific Conductivity displayed an increasing trend in TW-2, DM-2, and PW-0.
- Sulfate as SO<sub>4</sub> displayed an increasing trend in DM-2 only.
- Total Dissolved Solids displayed an increasing trend in TW-1, OBS-1, Well 23a, DM-2, DM-3, PW-0, and PW-2.

The Mann-Kendall statistical analysis was performed on all possible constituents during the 2023 calendar year (except for pH, oil & grease, heat transfer fluid, and the stable isotopes deuterium and oxygen-18). As noted previously, constituents that were not detected during the reporting period or did not possess a sufficient number of data points were excluded from the analysis.

The stable isotope analysis returned results within the normal range through the entire 2023 calendar year.

## 6.0 CONCLUSIONS

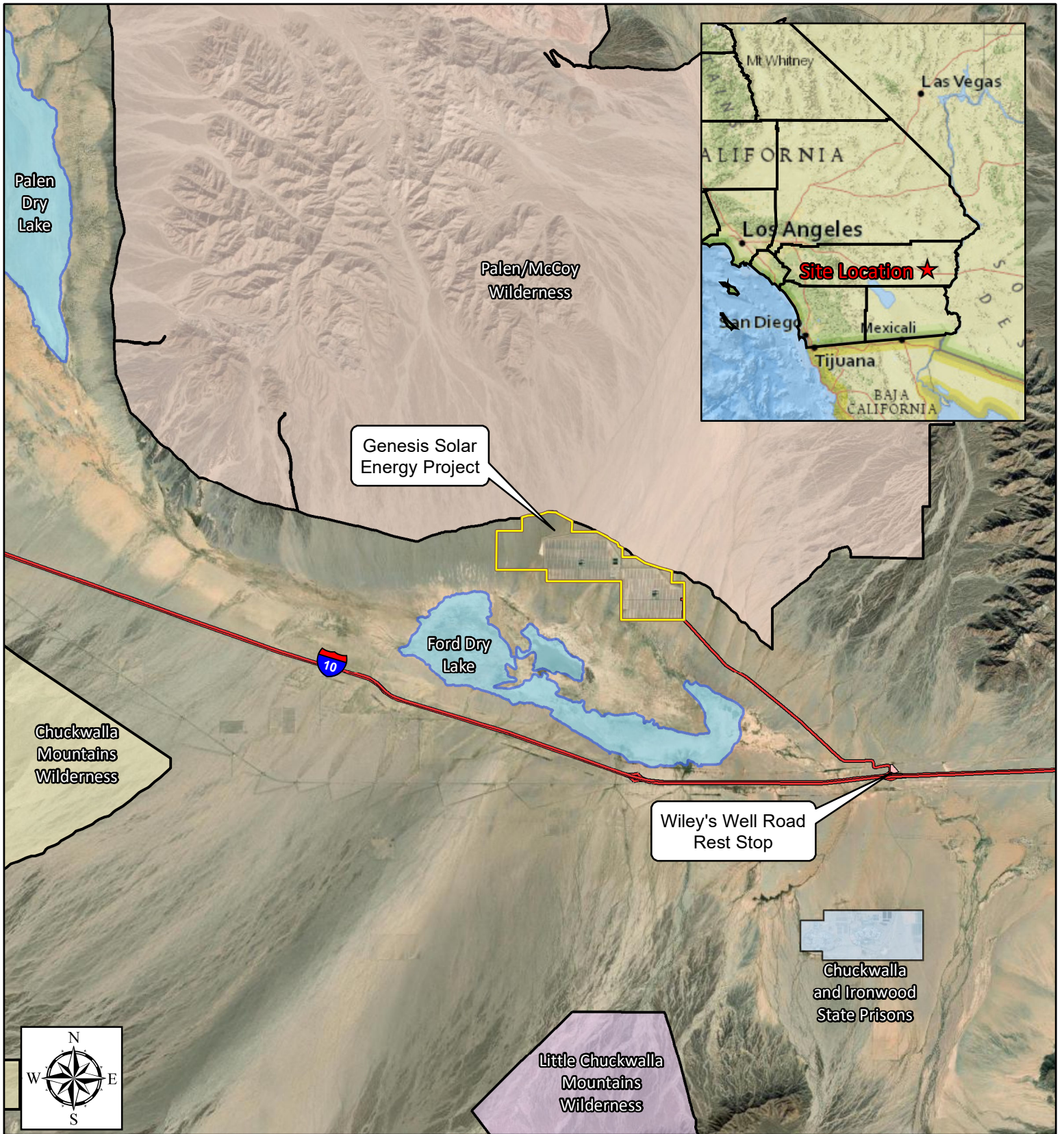
Based on the available data, it does not appear the GSEP has negatively impacted the groundwater quality in the Chuckwalla Basin or within a 10-mile radius of the GSEP facility to date. In general, all available groundwater quality data is stable and consistent with historical data. The inconsistent zinc concentrations observed in wells 23a and TW-2 may be related to extensive corrosion of the steel well casings. The corrosion in Well 23a, in particular, has been noted during previous monitoring events.

## 7.0 REFERENCES

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# 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

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



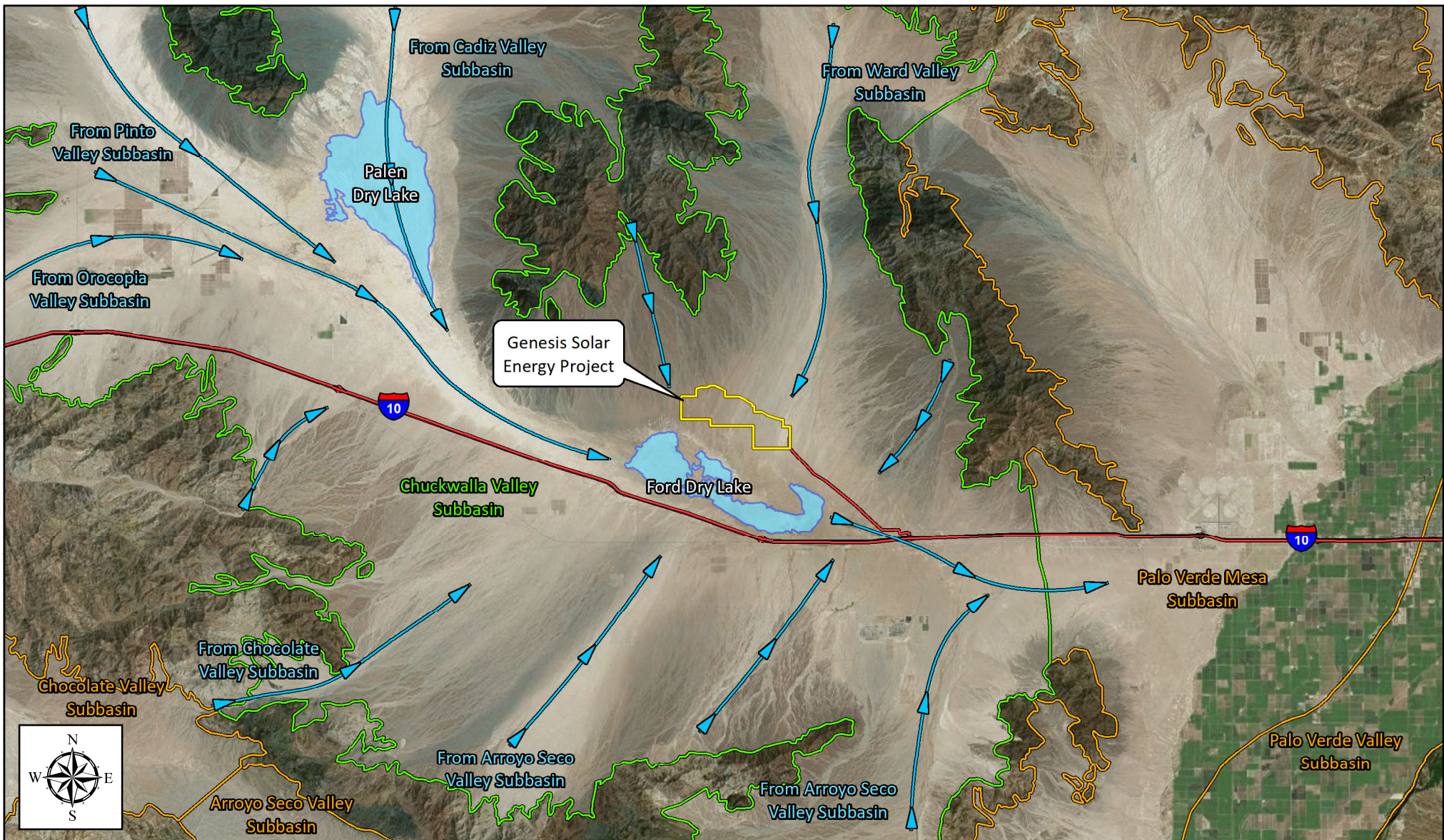
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Draw Date: 07/06/22






Drawn By: AWB

Checked By: AWB





**Legend**

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

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



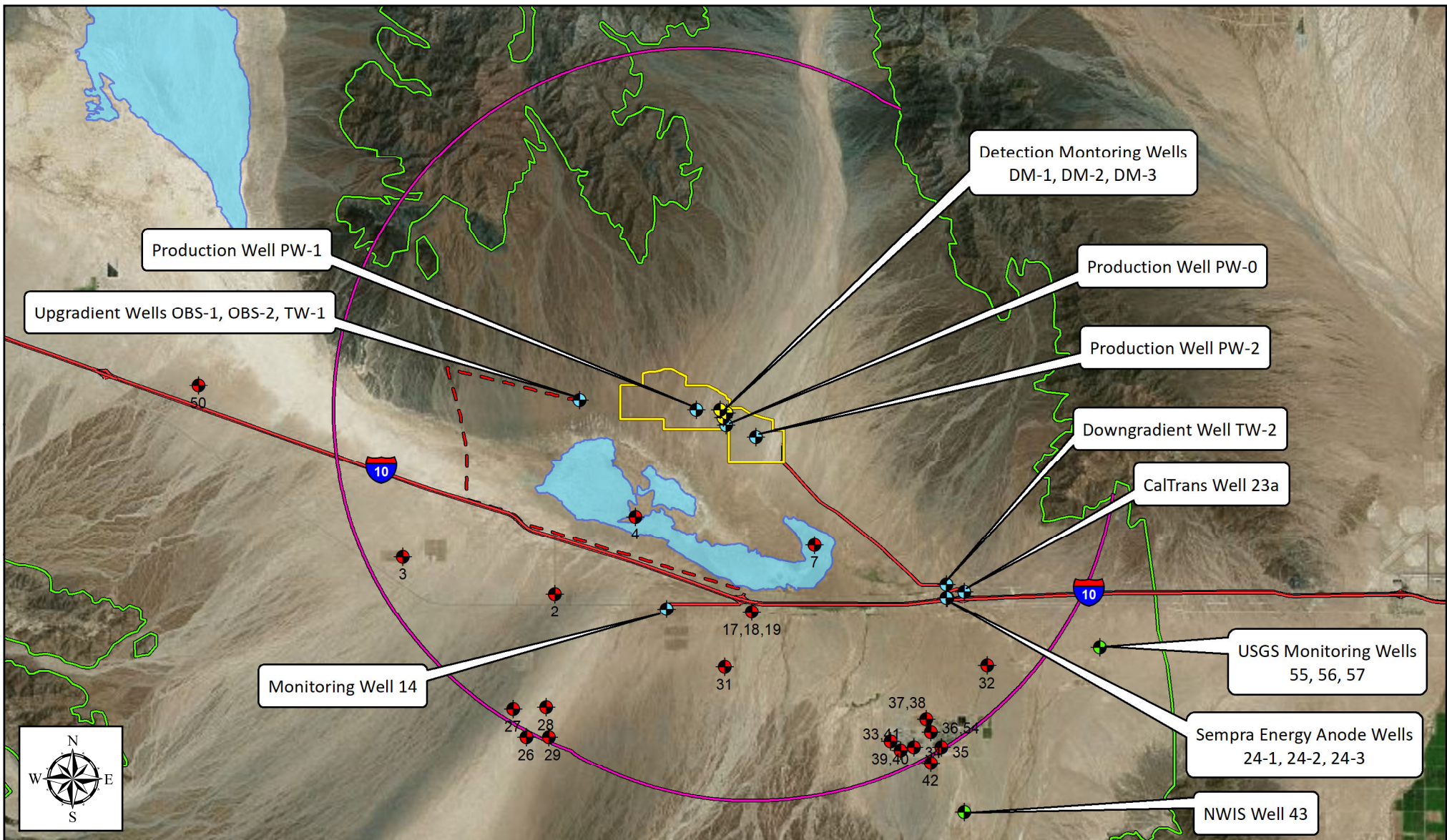
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Drawn By: AWB

Checked By: AWB





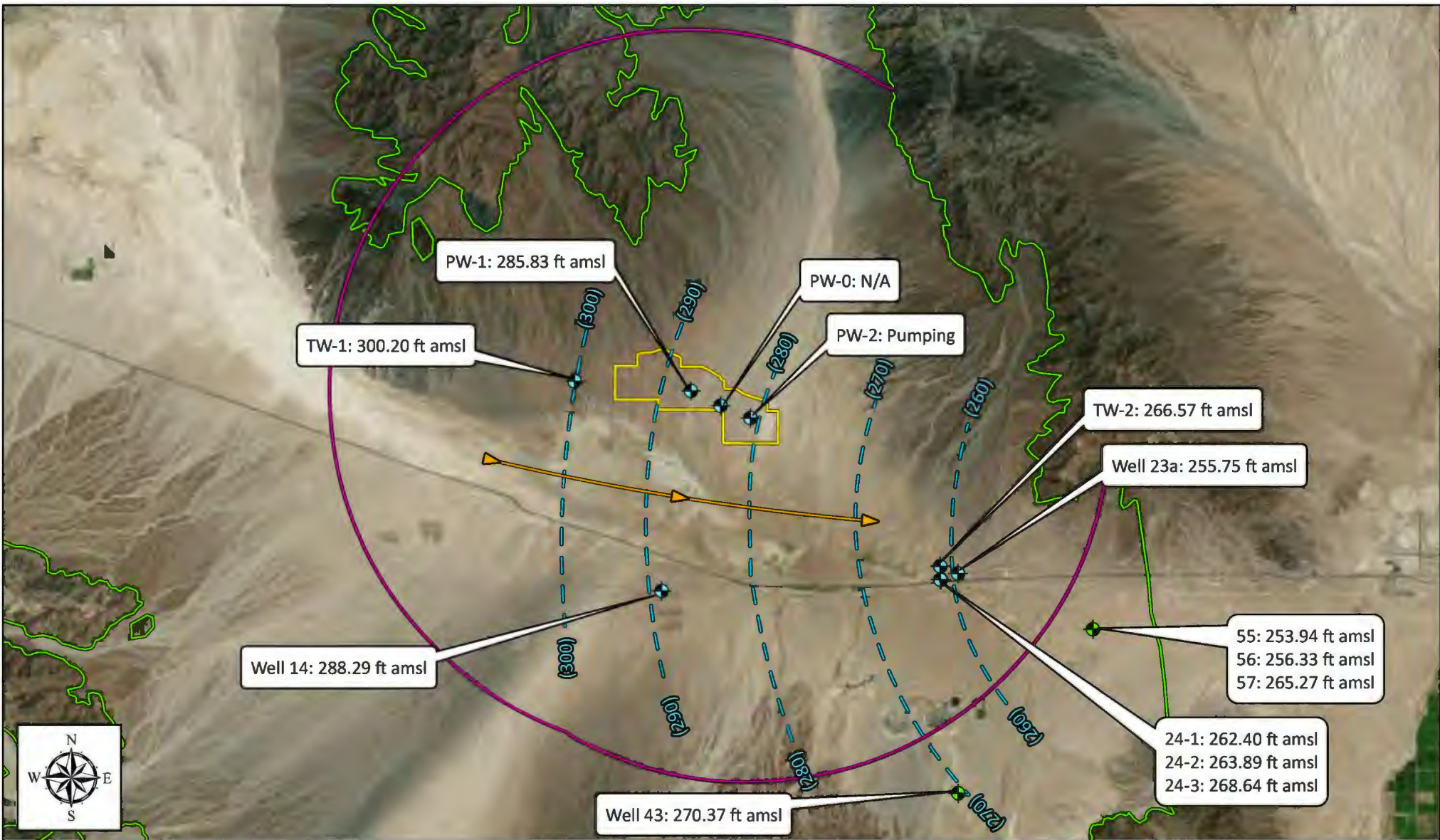
- Legend**
- GSEP Property Boundary
  - Chuckwalla Valley Groundwater Subbasin
  - 10 Mile Boundary
  - Dry Lakes
  - Paved Access Road
  - Unpaved Well Access Road
  - Active Monitoring Wells
  - Detection Monitoring Wells
  - Active NWIS Wells
  - Inactive NWIS Wells

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**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

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**FIGURE 4**  
**Bouse Formation Groundwater Elevation Contour Map - December 2023**



Scale: 1:240,000

Draw Date: 1/5/24

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	100-150	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	265-275	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	304-327	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	359-374	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	387-418	Bouse Formation
TW-1 <sup>1</sup>	--	Test Well 1	Genesis Solar, LLC	5/22/2009	Monitoring / Active	5	385.91	387.4	565	340-564	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	100-120	Alluvium
DM-2	--	Detection Monitoring Well 2	Genesis Solar, LLC	2/21/2012	Monitoring / Active	4	--	391.32	120	100-120	Alluvium
DM-3	--	Detection Monitoring Well 3	Genesis Solar, LLC	2/20/2012	Monitoring / Active	4	--	388.34	120	100-120	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)	890-940	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	235-435	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	235-435	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	250-290, 770-810	Alluvium/Bouse Formation
3	6S/18E-29	Siddall Well	Agra Energy Corp.	2/26/1982	Irrigation	20 to 8	498	--	957	560-940	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)	410-630, 750-770, 810-870	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)	420-460, 500-520, 540-580, 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	690-1190	Bouse Formation/ Fanglomerate
34	7S/20E-17L1	WP-4	CA Department of Corrections	9/8/1992	Public Water Supply	24	458.3	--	1,200	690-1190	Bouse Formation/ Fanglomerate
35	7S/20E-17K1	--	CA Department of Corrections	12/20/1989	--	30 to 16	456.48	--	1,200	690-1190	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	690-1190	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	750-1,050	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	690-1,200	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	738-1,100	Bouse Formation/ Fanglomerate
43	7S/20E-28C1	7S/20E-28F1/80	Jojoba Inc.	3/15/1982	Irrigation	10 to 8	505.6	--	830	510-600, 680-780	Bouse Formation
44	7S/20E-28C2	--	Jojoba Southwest	11/30/1989	Irrigation	16 to 12	505.3	--	1,100	700-1,100	Bouse Formation/ Fanglomerate
47	8S/20E-10N2	60	--	1984	--	4	621	--	872	500-580, 620-640, 710-850	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	973-993	Bouse Formation

**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
56	75/20E-1M2	CWV1#2	USGS	1/23/2012	Exploratory	2	415.4	--	505	485-505	Pinto Formation
57	75/20E-1M3	CWV1#3	USGS	1/23/2012	Exploratory	2	415.4	--	230	210-230	Alluvium
<b>ADDITIONAL WELLS IN THE CHUCKWALLA VALLEY GROUNDWATER BASIN WITHIN 10 MILES OF THE SITE FOR WHICH MONITORING DATA ARE NOT AVAILABLE</b>											
1	55/20E-16M1	McCoy Spring and DWR-17	--	--	Unused	--	889	--	--	--	--
5	65/19E-25P1	--	--	--	Unknown / Destroyed	10	360	--	85.7	--	Alluvium
6	65/19E-25R1	--	--	--	Unknown / Destroyed	10	360	--	61.9	--	Alluvium
7	65/19E-25	Boreholes 1A, 1B, 1C	USGS	1978	Exploratory Borehole / Abandoned	--	358	--	--	--	--
8	65/19E-26Z1	--	--	--	Unknown / Destroyed	--	--	--	--	--	--
10	65/19E-29E1	--	--	--	Destroyed/ Collapsed	6	377	--	Obstructed at 19.7	--	--
11	65/19E-30H1	--	--	--	Destroyed	6	370	--	28.7	--	Alluvium
12	65/19E-31Z1	--	--	--	Destroyed	--	--	--	--	--	--
13	65/19E-32	--	Jacado Agri Corp.	6/27/1982	Destroyed	22 to 18 to 12	392	--	732	307-327, 365-732	Bouse Formation
17	65/19E-33A1	Hopkins Well and DWR-33X1	--	1911	Destroyed	12 to 8	361	--	1,200 (obstructed at 267 feet)	1,175-1,200	Fanglomerate
18	65/19E-34	--	So Cal Gas	4/29/1989	Anode	1	368	--	400	200-400	Alluvium/Bouse Formation
19	65/19E-34	--	So Cal Gas	7/15/1981	Other	--	369	--	274	0-274	Alluvium/Bouse Formation
20	65/19E-36A1	--	--	--	Destroyed	10	365	--	64.8	--	Alluvium
21	65/20E-30Z1	Ford Well	--	--	Stock / Destroyed	10	--	--	--	--	--
25	65/20E-33	--	So Cal Gas	7/20/1981	Monitoring / Presumed Destroyed	1	397	--	278	0-278	Alluvium/Bouse Formation
30	75/18E-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	795-815, 995-1,015	Bouse Formation/ Fanglomerate
45	75/20E-28	--	Chuckwalla Jojoba inc Great American Securities	6/6/1989	Test Hole/Abandoned	--	505	--	825	--	--
46	75/20E-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-1	12/1/2022	Northstar	387.40	87.28	300.12	-0.63	Monitoring
TW-1	6/8/2023	Northstar	387.40	87.35	300.05	-0.70	Monitoring
TW-1	12/7/2023	Northstar	387.40	87.20	300.20	-0.55	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

**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
TW-2	6/2/2022	Northstar	393.47	126.75	266.72	0.34	Monitoring
TW-2	12/1/2022	Northstar	393.47	126.88	266.59	0.21	Monitoring
TW-2	6/8/2023	Northstar	393.47	126.48	266.99	0.61	Monitoring
TW-2	12/7/2023	Northstar	393.47	126.90	266.57	0.19	Monitoring
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-1	12/1/2022	Northstar	388.30	78.15	310.15	-0.48	Monitoring
OBS-1	6/8/2023	Northstar	388.30	78.15	310.15	-0.48	Monitoring
OBS-1	12/7/2023	Northstar	388.30	78.12	310.18	-0.45	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

**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-2-315 <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
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
14	12/1/2022	Northstar	388.14	99.95	288.19	1.03	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
14	6/8/2023	Northstar	388.14	99.90	288.24	1.08	Monitoring
14	12/7/2023	Northstar	388.14	99.85	288.29	1.13	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
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	6/2/2022	Northstar	392.10	NM <sup>7</sup>		N/A	Monitoring
23a	12/1/2022	Northstar	392.10	136.58	255.52	1.47	Monitoring
23a	6/8/2023	Northstar	392.10	136.18	255.92	1.87	Monitoring
23a	12/7/2023	Northstar	392.10	136.35	255.75	1.70	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
24-1	12/1/2022	Northstar	389.40	126.98	262.42	-0.27	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
24-1	6/8/2023	Northstar	389.40	127.13	262.27	-0.42	Monitoring
24-1	12/7/2023	Northstar	389.40	127.00	262.40	-0.29	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
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	6/2/2022	Northstar	388.86	125.02	263.84	-0.11	Monitoring
24-2	12/1/2022	Northstar	388.86	124.90	263.96	0.01	Monitoring
24-2	6/8/2023	Northstar	388.86	125.03	263.83	-0.12	Monitoring
24-2	12/7/2023	Northstar	388.86	124.97	263.89	-0.06	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
24-3	12/1/2022	Northstar	392.04	123.35	268.69	1.13	Monitoring
24-3	6/8/2023	Northstar	392.04	123.50	268.54	0.98	Monitoring
24-3	12/7/2023	Northstar	392.04	123.40	268.64	1.08	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

**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-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>9</sup>		N/A	Production/Monitoring
PW-0	6/13/2019	Northstar	385.64	NM <sup>9</sup>		N/A	Production/Monitoring
PW-0	12/5/2019	Northstar	385.64	NM <sup>9</sup>		N/A	Production/Monitoring
PW-0	6/4/2020	Northstar	385.64	NM <sup>9</sup>		N/A	Production/Monitoring
PW-0	12/3/2020	Northstar	385.64	NM <sup>9</sup>		N/A	Production/Monitoring
PW-0	6/4/2021	Northstar	385.64	NM <sup>9</sup>		N/A	Production/Monitoring
PW-0	12/2/2021	Northstar	385.64	NM <sup>9</sup>		N/A	Production/Monitoring
PW-0	6/2/2022	Northstar	385.64	NM <sup>9</sup>		N/A	Production/Monitoring
PW-0	12/1/2022	Northstar	385.64	NM <sup>9</sup>		N/A	Production/Monitoring
PW-0	6/8/2023	Northstar	385.64	NM <sup>9</sup>		N/A	Production/Monitoring
PW-0	12/7/2023	Northstar	385.64	NM <sup>9</sup>		N/A	Production/Monitoring
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-1	12/1/2022	Northstar	384.43	98.70	285.73	N/A	Production/Monitoring
PW-1	6/8/2023	Northstar	384.43	98.85	285.58	N/A	Production/Monitoring
PW-1	12/7/2023	Northstar	384.43	98.60	285.83	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



**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-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	Pumping		N/A	Production/Monitoring
PW-2	12/1/2022	Northstar	385.15	Pumping		N/A	Production/Monitoring
PW-2	6/8/2023	Northstar	385.15	Pumping		N/A	Production/Monitoring
PW-2	12/7/2023	Northstar	385.15	Pumping		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
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-1	12/1/2022	Northstar	391.49	107.40	284.09	-0.29	Monitoring
DM-1	6/8/2023	Northstar	391.49	107.49	284.00	-0.38	Monitoring
DM-1	12/7/2023	Northstar	391.49	107.41	284.08	-0.30	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

**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-2	6/2/2022	Northstar	391.32	107.65	283.67	-0.28	Monitoring
DM-2	12/1/2022	Northstar	391.32	107.72	283.60	-0.35	Monitoring
DM-2	6/8/2023	Northstar	391.32	107.82	283.50	-0.45	Monitoring
DM-2	12/7/2023	Northstar	391.32	107.74	283.58	-0.37	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
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
DM-3	12/1/2022	Northstar	388.34	104.50	283.84	-0.15	Monitoring
DM-3	6/8/2023	Northstar	388.34	104.68	283.66	-0.33	Monitoring
DM-3	12/7/2023	Northstar	388.34	104.52	283.82	-0.17	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

**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
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
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

**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	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
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

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43	3/24/2022	USGS-NWIS	505.6	235.28	270.32	N/A	Irrigation
43	6/21/2022	USGS-NWIS	505.6	235.16	270.44	N/A	Irrigation
43	12/15/2022	USGS-NWIS	505.6	235.05	270.55	N/A	Irrigation
43	2/27/2023	USGS-NWIS	505.6	234.72	270.88	N/A	Irrigation
43	5/23/2023	USGS-NWIS	505.6	234.88	270.72	N/A	Irrigation
43	8/29/2023	USGS-NWIS	505.6	234.85	270.75	N/A	Irrigation
43	12/21/2023	USGS-NWIS	505.6	235.23	270.37	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
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
55	6/21/2022	USGS-NWIS	415.4	161.62	253.78	N/A	Exploratory
55	12/15/2022	USGS-NWIS	415.4	161.19	254.21	N/A	Exploratory
55	2/28/2023	USGS-NWIS	415.4	160.93	254.47	N/A	Exploratory
55	5/23/2023	USGS-NWIS	415.4	161.21	254.19	N/A	Exploratory
55	12/21/2023	USGS-NWIS	415.4	161.46	253.94	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

**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
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
56	6/21/2022	USGS-NWIS	415.4	159.38	256.02	N/A	Exploratory
56	12/15/2022	USGS-NWIS	415.4	159.30	256.10	N/A	Exploratory
56	2/28/2023	USGS-NWIS	415.4	159.20	256.20	N/A	Exploratory
56	5/23/2023	USGS-NWIS	415.4	159.13	256.27	N/A	Exploratory
56	12/21/2023	USGS-NWIS	415.4	159.07	256.33	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
57	6/21/2022	USGS-NWIS	415.4	150.78	264.62	N/A	Exploratory
57	12/15/2022	USGS-NWIS	415.4	150.55	264.85	N/A	Exploratory
57	2/28/2023	USGS-NWIS	415.4	150.45	264.95	N/A	Exploratory
57	5/23/2023	USGS-NWIS	415.4	150.34	265.06	N/A	Exploratory
57	12/21/2023	USGS-NWIS	415.4	150.13	265.27	N/A	Exploratory

**Notes:**

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)	Temperature (°C)	pH	Conductivity (mS/cm)	Turbidity (NTU)	ORP (mV)	D.O. (mg/L)
23a	12/7/2023	N/A	Bailer	5,750	30.0	7.96	3.3	20.4	+120	6.80
OBS-1	12/7/2023	N/A	Bailer	5,750	27.2	7.33	24.3	7.3	+106	3.92
TW-1	12/7/2023	N/A	Bailer	5,750	27.7	6.25	15.9	140	-58	6.53
TW-2	12/7/2023	N/A	Bailer	5,750	30.3	7.92	6.2	123	+107	2.61
PW-0	12/7/2023	N/A	Production Pump	N/A <sup>2</sup>	38.2	7.34	6.8	10.1	-94	3.01
PW-1	12/7/2023	N/A	N/A	N/A <sup>1</sup>	--	--	--	--	--	--
PW-2	12/7/2023	N/A	Production Pump	N/A <sup>2</sup>	32.9	7.72	4.0	9.2	+72	7.15
DM-1	12/7/2023	180	Bladder Pump	3,600	25.0	7.47	18.0	34.8	+135	3.62
DM-2	12/7/2023	138	Bladder Pump	2,760	23.2	7.36	18.3	38.3	+143	2.00
DM-3	12/7/2023	143	Bladder Pump	2,860	26.5	7.34	17.5	4.8	+131	3.44

**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

Well ID	Date Sampled	Sampling Method	Chloride	Sulfate	Nitrate	Calcium	Copper	Sodium	Potassium	Iron	Magnesium	Antimony	Arsenic	Barium	Cadmium	Chromium	Cobalt	Lead	Manganese	Nickel	Selenium	Zinc	Mercury	Total Dissolved Solids	Specific Conductance	pH	Oil & Grease / HEM	HTF <sup>†</sup>	Deuterium	Oxygen-18	
			(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(mg/L)	(us/cm)	(standard Units)	(mg/L)	(% relative to VSMOW)	(% relative to VSMOW)	
			EPA Method 300.0			EPA Method 200.7						EPA Method 200.8												SM7470A	SM2540C	SM2510B	SM4500H	SM1664A	8015B	Isotope Geochemistry	
TW-1	6/5/2009	Low Flow	5,600	1,500	<0.25	160	<0.010	4,500	30	1.4	38	-	-	-	-	-	-	-	65	-	-	-	-	9,500	19,000	7.9	-	-	-	-	
TW-1	7/9/2009	Low Flow	5,300	1,400	-	-	<0.010	4,000	27	-	-	-	-	-	-	-	-	-	-	-	-	-	-	10,000	19,000	7.9	-	-	-	-	
TW-1	7/13/2009	Low Flow	6,400	1,800	-	-	<0.010	3,600	24	-	-	-	-	-	-	-	-	-	-	-	-	-	-	9,500	18,000	7.9	-	-	-	-	
TW-1	7/16/2009	Low Flow	4,700	1,200	<0.25	-	<0.010	3,600	25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	8,900	18,000	7.8	-	-	-	-	
TW-1	11/10/2010	Low Flow	6,200	1,600	<0.25	170	<0.010	4,000	23	1.7	35	-	-	-	-	-	-	-	79	-	-	-	-	11,000	18,000	8.0	-	-	-69.90	-8.61	
TW-1	11/10/2010	Low Flow	6,100	1,600	<0.25	170	<0.010	4,100	22	1.6	34	-	-	-	-	-	-	-	77	-	-	-	-	9,900	18,000	8.0	-	-	-69.30	-8.56	
TW-1	6/8/2011	Low Flow	5,100	1,600	<0.25	170	<0.010	3,300	24	5.1	30	-	-	-	-	-	-	-	73	-	-	-	-	10,000	20,000	8.0	-	-	-67.00	-8.24	
TW-1	12/13/2011	Low Flow	3,900	1,300	<1.1	82	<0.010	3,400	23	9.5	25	-	-	-	-	-	-	-	-	-	-	-	-	9,100	9,800	9.0	-	-	-63.70	-8.20	
TW-1	12/13/2011	Hydrasleeve	3,900	1,300	<1.1	75	0.0052	3,100	21	30	24	-	-	-	-	-	-	-	-	-	-	-	-	9,200	15,000	9.0	-	-	-64.20	-8.20	
TW-1	5/23/2012	Hydrasleeve	4,400	1,700	<2.2	81	<0.010	3,000	20	<0.040	21	-	-	-	-	-	-	-	-	-	-	-	-	8,800	17,000	9.2	-	-	-66.30	-8.20	
TW-1	10/23/2012	Hydrasleeve	4,100	1,700	<2.2	71	<0.010	3,100	19	<0.040	23	-	-	-	-	-	-	-	-	-	-	-	-	9,000	15,000	9.2	-	-	-66.00	-8.00	
TW-1	5/20/2014	Hydrasleeve	3,900	1,400	-	81	<0.010	3,000	20	0.29	12	<10	2.5 <sup>†</sup>	17	<5.0	<10	<5.0	<5.0	9.6	2.9 <sup>†</sup>	<10	<100	<0.20	8,900	15,000	9.7	<4.7	-	-63.74	-7.83	
TW-1	12/4/2014	Hydrasleeve	3,900	1,200	<2.2	86	<0.050	3,200	21	0.057 <sup>†</sup>	11	<10	3.8 <sup>†</sup>	17	<5.0	<10	<5.0	<5.0	8.6	4.4 <sup>†</sup>	<10	<100	<0.20	8,500	15,000	9.9	<4.7	<0.095	-65.20	-8.12	
TW-1	6/11/2015	Hydrasleeve	4,100	1,400	<2.2	73	<0.10	3,000	19	<0.40	8.5	<10	4.2 <sup>†</sup>	17	<5.0	<10	<5.0	<5.0	6.6	<10	<10	<100	<0.20	8,800	15,000	9.9	<4.7	<0.10	-62.50	-8.18	
TW-1	12/10/2015	Hydrasleeve	4,200	1,500	<5.5	82	<0.010	3,000	21	<0.040	7.6	4.3 <sup>†</sup>	4.2 <sup>†</sup>	22	<5.0	<10	<5.0	<5.0	5.2	3.4 <sup>†</sup>	2.8 <sup>†</sup>	<100	<0.20	9,400	16,000	9.9	1.7 <sup>†</sup>	<0.094	-63.40	-8.08	
TW-1	6/2/2016	Hydrasleeve	3,600	1,300	6.5	71	<0.10	3,000	17	51	11	<2.0	6.0	16	<1.0	<2.0	<1.0	<1.0	310	<2.0	1.0 <sup>†</sup>	11 <sup>†</sup>	<0.20	8,500	18,000	9.6	<4.8	<0.094	-63.67	-8.11	
TW-1	11/30/2016	Hydrasleeve	4,000	1,400	<5.5	72	<0.010	3,000	21	0.51	5.9	<10	3.1 <sup>†</sup>	13	<5.0	<10	<5.0	<5.0	8.4	<10	9.0 <sup>†</sup>	<100	<0.20	8,600	13,000	9.6	<4.7	<0.095	-64.00	-8.04	
TW-1	6/1/2017	Hydrasleeve	3,600	1,300	<5.5	79	<0.010	3,400	20	<1.0	6.1	<10	8.2	15	<5.0	<10	<5.0	<5.0	<5.0	4.0 <sup>†</sup>	92	<100	<0.20	8,700	12,000	9.7	<5.2	<0.095	-63.50	-7.97	
TW-1	12/5/2017	Hydrasleeve	3,510	1,130	<0.500	80	<0.025	1,000	33	0.43 <sup>†</sup>	6.4	<1.0	13	14	<1.0	<1.0	<1.0	2.5	-	<1.0	<1.0	<1.0	<0.50	7,800	13,900	10	<5.0	<0.10	-62.35	-8.38	
TW-1	6/1/2018	Bailer	4,130	1,390	<10	74	0.11 <sup>†</sup>	3,100	53	<10	5.0	<0.50	6.0	5.9	<0.50	<0.50	<0.50	<0.50	-	<0.50	<5.0	<5.0	<0.50	9,300	14,000	10	1.70 <sup>†</sup>	<0.12	-62.80	-7.93	
TW-1	12/4/2018	Bailer	6,910	2,400	<0.500	89	<0.5	4,800	35	<20	<10	<10	20	15	<10	<10	<10	<10	-	<10	<10	<10	<0.50	8,100	13,900	10	<5.0	<0.099	-63.50	-7.97	
TW-1	6/13/2019	Bailer	4,070	1,230	<0.500	75	<0.005	3,700	57	1.8	3.4	<10	<10	<10	<10	<10	<10	<10	-	<10	<10	-	<0.50	6,800	14,200	11	<5.0	<0.10	-63.60	-7.97	
TW-1	12/5/2019	Bailer	7,300	2,490	<0.500	77	0.007	5,100	24	0.025 <sup>†</sup>	6.0	<5.0	<5.0	12	<5.0	0.30 <sup>†</sup>	<5.0	<5.0	-	<5.0	<5.0	47	<0.50	7,900	14,100	9.7	<5.0	<0.11	-61.30	-7.64	
TW-1	6/5/2020	Bailer	4,190	1,370	<0.500	75	0.006	3,100	34	<0.20	8.8	<5.0	<5.0	17	<5.0	<5.0	<5.0	<5.0	-	<5.0	5.8	12	<0.50	8,900	14,500	9.8	<5.0	<0.10	-63.50	-7.96	
TW-1	12/3/2020	Bailer	4,750	1,710	0.657	89	<0.005	9,300	30	3.1	12	<5.0	<5.0	20	<5.0	<5.0	<5.0	<5.0	-	<5.0	<0.50	<0.50	<0.50	6,400	15,000	9.3	<5.0	<0.11	-63.80	-7.96	
TW-1	6/4/2021	Bailer	4,500	1,570	<0.500	58	<0.50	3,400	59	<20	<10	<10	<10	<10	<10	<10	<10	<10	-	<10	12	<10	<0.50	6,600	14,900	11	<5.0	<0.094	-62.40	-7.73	
TW-1	12/3/2021	Bailer	4,470	1,520	0.974	100	<0.50	3,900	<50	<20	18	<10	<10	13	<10	<10	<10	<10	-	<10	14	20	<1.0	9,100	15,300	9.4	<5.0	<0.097	-63.20	-7.76	
TW-1	6/2/2022	Bailer	5,010	1,720	0.72	99	<0.25	3,900	<250	<100	<50	<50	<50	<50	<50	<50	<50	<50	-	<50	52	<50	<1.0	6,900	15,500	10.0	<5.0	<0.094	-63.60	-7.75	
TW-1	12/1/2022	Bailer	4,930	1,650	0.950	65	<0.005	4,300	55	0.89	14	<25	<25	<25	<25	<25	<25	<25	-	<25	<25	<25	<1.0	9,000	15,900	9.4	<5.0	<0.097	-62.10	-7.63	
TW-1	6/8/2023	Bailer	4,530	1,700	<0.500	120	<0.50	3,700	<50	<20	32	<10	<10	11	<10	<10	<10	<10	-	<10	<10	<1.0	8,200	15,800	9.3	<5.0	<0.098	-63.20	-7.85		
TW-1	12/7/2023	Bailer	4,530	1,610	0.888	120	<0.50	3,600	<50	<20	38	<25	<25	<25	<25	<25	<25	<25	-	<25	<25	<25	<1.0	9,300	16,200	8.7	<5.0	<0.099	-63.00	-7.92	
TW-2	1/8/2010	Low Flow	1,500	460	<0.25	98	<0.010	860	18	<0.3	1.9	-	-	-	-	-	-	-	80	-	-	-	-	3,100	5,500	8.2	-	-	-	-	
TW-2	1/8/2010	Low Flow	1,400	500	<0.25	100	<0.010	1,000	18	0.5	3.8	-	-	-	-	-	-	-	5	-	-	-	-	3,000	5,500	8.0	-	-	-	-	
TW-2	1/21/2010	Low Flow	1,500	500	<0.25	120	<0.010	1,000	21	0.73	3.4	-	-	-	-	-	-	-	93	-	-	-	-	3,100	5,400	8.0	-	-	-	-	
TW-2	11/9/2010	Low Flow	1,500	520	<0.25	110	<0.010	1,000	19	2.9	4.2	-	-	-	-	-	-	-	140	-	-	-	-	3,300	5,800	8.4	-	-	-78.50	-10.13	
TW-2	6/7/2011	Low Flow	1,600	520	<0.25	120	<0.010	870	20	0.38	3.1	-	-	-	-	-	-	-	94	-	-	-	-	3,200	5,700	8.1	-	-	-79.50	-10.25	
TW-2	6/7/2011	Low Flow	1,500	510	<0.25	120	<0.010	880	20	0.42	3.1	-	-	-	-	-	-	-	95	-	-	-	-	3,100	5,500	8.0	-	-	-78.30	-10.14	
TW-2	12/14/2011	Hydrasleeve	1,500	460	<0.55	100	0.0076	1,100	23	24	4.1	-	-	-	-	-	-	-	-	-	-	-	-	3,400	4,100	8.3	-	-	-76.00	-10.20	
TW-2	5/24/2012	Hydrasleeve	1,400	500	<1.1	78	<0.010	1,000	19	<0.040	1.5	-	-	-	-	-	-	-	-	-	-	-	-	3,000	6,200	8.8	-	-	-77.80	-10.20	
TW-2	10/23/2012	Hydrasleeve	1,400	500	<1.1	96	<0.010	870	21	<0.040	3.1	-	-	-	-	-	-	-	-	-	-	-	-	3,500	5,500	8.6	-	-	-78.00	-10.10	
TW-2	5/20/2014	Hydrasleeve	1,600	430	-	64	<0.010	1,000	22	0.022 <sup>†</sup>	0.093	<2.0	2.9	30	<1.0	<2.0	<1.0	<1.0	4.1	0.91 <sup>†</sup>	<2.0	<20	<0.20	3,300	5,700	9.9	<4.7	-	-76.18	-10.17	
TW-2	12/4/2014	Hydrasleeve	1,500	420	<1.1	67	<0.020	1,000	21	0.041 <sup>†</sup>	0.11	<2.0	4.4	36	<1.0	<2.0	<1.0	<1.0	3.4	1.8 <sup>†</sup>	<2.0	2.9 <sup>†</sup>	<0.20	2,900	5,800	9.7	<4.7	<0.096	-77.20	-10.12	
TW-2	6/11/2015	Hydrasleeve	1,700	490	<0.55	69	<0.10	1,100	23	<0.40	<0.20	<2.0	5.8	35	<1.0	<2.0	<1.0	<1.0	2.8	0.68 <sup>†</sup>	<2.0	<20	<0.20	3,200	5,900	9.9	1.6 <sup>†</sup>	<0.10	-75.00	-10.16	
TW-2	12/10/2015																														



**TABLE 4  
SUMMARY OF LABORATORY ANALYTICAL RESULTS**

Genesis Solar Energy Project

Well ID	Date Sampled	Sampling Method	Chloride	Sulfate	Nitrate	Calcium	Copper	Sodium	Potassium	Iron	Magnesium	Antimony	Arsenic	Barium	Cadmium	Chromium	Cobalt	Lead	Manganese	Nickel	Selenium	Zinc	Mercury	Total Dissolved Solids	Specific Conductance	pH	Oil & Grease / HEM	HTF <sup>†</sup>	Deuterium	Oxygen-18
			(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(mg/L)	(us/cm)	(standard Units)	(mg/L)	(% relative to VSMOW)	(% relative to VSMOW)
			EPA Method 300.0			EPA Method 200.7						EPA Method 200.8											SM7470A	SM2540C	SM2510B	SM4500H	SM1664A	8015B	Isotope Geochemistry	
OBS-1	5/23/2012	Hydrasleeve	6,400	7,000	1.9	380	<0.010	7,200	33	<0.040	73	-	-	-	-	-	-	-	-	-	-	-	-	21,000	36,000	7.9	-	-	-62.80	-6.90
OBS-1	10/23/2012	Hydrasleeve	6,400	6,700	<2.2	400	<0.010	6,200	31	<0.040	89	-	-	-	-	-	-	-	-	-	-	-	-	21,000	36,000	7.3	-	-	-64.30	-6.80
OBS-1	5/20/2014	Hydrasleeve	6,300	5,700	-	330	<0.020	5,500	27	<0.040	77	<10	<5.0	13	<5.0	<10	<5.0	<5.0	4.9 <sup>j</sup>	4.7 <sup>j</sup>	58	<100	<0.20	17,000	30,000	7.9	<4.7	-	-59.93	-7.03
OBS-1	12/4/2014	Hydrasleeve	5,400	4,900	4.3 <sup>i</sup>	330	<0.050	6,100	27	<0.20	87	<10	2.8 <sup>j</sup>	13	<5.0	<10	<5.0	<5.0	2.5 <sup>j</sup>	6.8 <sup>j</sup>	59	18 <sup>i</sup>	<0.20	17,000	26,000	8.0	<4.7	<0.094	-62.20	-6.71
OBS-1	6/11/2015	Hydrasleeve	5,900	5,600	<5.5	310	<0.10	5,600	24	<0.40	81	<10	<5.0	13	<5.0	<10	<5.0	<5.0	5.5	3.9 <sup>j</sup>	60	13 <sup>i</sup>	<0.20	18,000	31,000	8.0	<4.7	<0.099	-60.20	-6.72
OBS-1	12/10/2015	Hydrasleeve	6,200	5,600	<5.5	330	<0.010	5,600	24	<0.040	81	<10	2.7 <sup>j</sup>	17	<5.0	<10	<5.0	<5.0	6.2	<10	72	<100	<0.20	18,000	30,000	7.9	<5.0	<0.094	-61.20	-6.87
OBS-1	6/2/2016	Hydrasleeve	5,500	4,800	7.3	290	<0.10	5,500	22	0.34 <sup>i</sup>	82	1.6 <sup>i</sup>	2.4	13	0.34 <sup>j</sup>	0.63 <sup>j</sup>	<1.0	<1.0	5.1	0.87 <sup>j</sup>	67	5.2 <sup>j</sup>	<0.20	18,000	30,000	8.0	<4.7	<0.096	-60.14	-6.75
OBS-1	11/30/2016	Hydrasleeve	6,100	5,800	<5.5	320	<0.010	5,400	28	<0.040	86	<20	<10	12	<10	<20	<10	<10	<10	<20	70	<200	<0.20	18,000	23,000	7.9	<4.7	<0.093	-61.30	-6.68
OBS-1	6/1/2017	Hydrasleeve	5,200	5,200	<11	330	<0.10	5,900	25	<1.0	87	<10	3.4 <sup>i</sup>	14	<5.0	<10	<5.0	<5.0	3.2 <sup>j</sup>	3.6 <sup>j</sup>	51	<100	<0.20	18,000	21,000	8.0	<5.1	<0.094	-60.70	-6.68
OBS-1	12/5/2017	Hydrasleeve	5,380	4,890	9.69	330	<0.025	2,200	46	<0.035	90	<5.0	<5.0	15	<5.0	<5.0	<5.0	<5.0	-	<5.0	94	<5.0	<0.50	18,000	23,200	7.9	6.21	<0.10	-59.01	-7.11
OBS-1	6/1/2018	Bailer	6,040	5,520	12.4	320	0.10 <sup>i</sup>	6,700	75	<10	87	<0.5	<5.0	7.8	<0.5	<0.5	<0.5	<0.5	-	<5.0	57	5.8	<0.50	16,000	23,600	8.0	<5.0	<0.11	-60.90	-6.84
OBS-1	12/4/2018	Bailer	7,680	7,130	5.52	480	<0.5	12,000	63	<20	140	<10	<10	14	<10	<10	<10	<10	-	<10	80	<10	<0.50	17,000	23,600	7.9	<5.0	<0.10	-61.40	-6.79
OBS-1	6/13/2019	Bailer	6,070	5,400	5.42	360	0.017	7,700	78	0.53	91	<10	<10	<10	<10	<10	<10	<10	-	<10	<10	-	<0.50	11,000	24,500	7.5	<5.0	<0.10	-60.70	-6.75
OBS-1	12/5/2019	Bailer	9,710	8,020	9.79	330	0.006	6,700	34	<0.20	93	<5.0	<5.0	15	<5.0	0.10 <sup>j</sup>	<5.0	<5.0	-	<5.0	60	48	<0.50	15,000	23,900	7.7	<5.0	<0.10	-59.50	-6.56
OBS-1	6/5/2020	Bailer	6,100	5,560	5.07	300	0.006	6,100	62	<0.20	75	<5.0	<5.0	14	<5.0	<5.0	<5.0	<5.0	-	<5.0	89	44	<0.50	16,000	24,500	8.1	<5.0	<0.097	-60.90	-6.78
OBS-1	12/3/2020	Bailer	6,560	6,200	5.41	320	0.005	3,200	51	1.2	68	<5.0	<5.0	18	<5.0	<5.0	<5.0	<5.0	-	<5.0	7.6	3.7	<0.50	18,000	24,000	7.9	<5.0	<0.11	-60.90	-6.80
OBS-1	6/4/2021	Bailer	6,340	5,760	5.18	290	<0.50	5,700	62	<20	80	<10	<10	16	<10	<10	<10	<10	-	<10	77	16	<0.50	13,000	24,500	7.8	<5.0	<0.090	-60.20	-6.79
OBS-1	12/3/2021	Bailer	6,160	5,520	5.55	300	<0.50	6,600	<50	<20	86	<10	10	15	<10	<10	<10	<10	-	<10	66	18	<1.0	11,000	24,500	7.9	<5.0	<0.100	-60.10	-6.77
OBS-1	6/2/2022	Bailer	6,520	5,890	5.64	300	<0.25	6,300	<250	<100	89	<50	<50	<50	<50	<50	<50	<50	-	<50	120	<50	<1.0	14,000	24,600	7.9	<5.0	<0.094	-60.60	-6.78
OBS-1	12/1/2022	Bailer	6,450	5,770	4.77	300	<0.005	6,700	40	0.23	89	<25	<25	<25	<25	<25	<25	<25	-	<25	74	<25	<1.0	16,000	24,600	7.9	6.20	<0.100	-61.20	-6.83
OBS-1	6/8/2023	Bailer	6,140	5,460	4.94	320	<0.50	6,100	<50	<20	95	<10	<10	14	<10	<10	<10	<10	-	<10	57	<10	<1.0	15,000	24,700	7.9	<5.0	<0.100	-61.30	-6.82
OBS-1	12/7/2023	Bailer	5,950	5,320	4.70	290	<0.50	6,100	<50	<20	92	<25	<25	<25	<25	<25	<25	<25	-	<25	56	<25	<1.0	18,000	25,600	7.8	<5.0	<0.100	-60.20	-6.79
OBS-2	6/17/2009	Grab	2,300	810	0.5	66	<0.010	1,500	12	0.46	14	-	-	-	-	-	-	-	29	-	-	-	-	5,000	8,800	7.8	-	-	-	-
Well 36	11/10/2010	Spigot	270	250	<0.25	13	<0.010	300	1.8	<0.30	0.76	-	-	-	-	-	-	-	<5	-	-	-	-	860	1,500	8.7	-	-	-77.20	-9.79
Well 36	6/8/2011	Spigot	240	250	<0.25	14	<0.010	270	2.2	<0.30	0.63	-	-	-	-	-	-	-	<5	-	-	-	-	840	1,500	8.7	-	-	-77.80	-9.78
Well 36	12/14/2011	Spigot	240	210	0.082	12	<0.010	290	2.3	0.034	0.65	-	-	-	-	-	-	-	-	-	-	-	-	870	1,300	8.6	-	-	-74.60	-9.80
Well 23a	11/11/2010	Hydrasleeve	620	470	<0.25	29	0.4	520	11	1.3	1.5	-	-	-	-	-	-	-	500	-	-	-	-	1,700	2,900	8.3	-	-	-76.00	-10.24
Well 23a	6/7/2011	Hydrasleeve	480	400	<0.25	26	0.012	440	9	1.9	<0.50	-	-	-	-	-	-	-	78	-	-	-	-	1,500	2,500	8.4	-	-	-77.70	-10.40
Well 23a	12/14/2011	Hydrasleeve	510	400	<0.22	24	0.016	550	11.0	3.8	0.47	-	-	-	-	-	-	-	-	-	-	-	-	1,600	2,400	8.2	-	-	-75.00	-10.30
Well 23a	5/24/2012	Hydrasleeve	410	410	<0.22	25	<0.010	420	11.0	0.071	0.29	-	-	-	-	-	-	-	-	-	-	-	-	1,500	2,500	8.3	-	-	-76.20	-10.40
Well 23a	10/23/2012	Hydrasleeve	440	440	<0.22	19	<0.010	420	8.7	0.059	3.0	-	-	-	-	-	-	-	-	-	-	-	-	1,400	2,400	8.3	-	-	-77.60	-10.40
Well 23a	5/20/2014	Hydrasleeve	570	490	-	24	<0.010	540	10	0.042	0.51	<10	<5.0	20	<5.0	<10	<5.0	<5.0	7.2	<10	<10	100 <sup>b</sup>	<0.20	1,600	2,800	8.1	<4.7	-	-74.05	-10.33
Well 23a	12/4/2014	Hydrasleeve	480	370	<0.22	24	<0.010	520	10	0.011 <sup>i</sup>	0.51	<10	<5.0	20	<5.0	<10	<5.0	<5.0	5.6	<10	<10	100	<0.20	1,500	2,900	8.2	<4.7	<0.095	-76.40	-10.31
Well 23a	12/10/2015	Hydrasleeve	520	430	<0.22	22	<0.010	490	9.2	0.015 <sup>j</sup>	0.60	<4.0	1.6 <sup>j</sup>	21	<2.0	<4.0	<2.0	<2.0	8.6	<4.0	1.9 <sup>j</sup>	96	<0.20	1,600	2,800	8.1	<5.1	<0.095	-74.30	-10.09
Well 23a	6/2/2016	Hydrasleeve	480	380	<0.11	20	<0.010	550	11	0.42	0.55	<2.0	1.2	16	<1.0	<2.0	<1.0	4.0	41	0.69 <sup>j</sup>	0.98 <sup>j</sup>	270	<0.20	1,600	3,100	8.4	<4.7	<0.094	-73.73	-10.25
Well 23a	11/30/2016	Hydrasleeve	490	430	<0.22	21	<0.010	490	10	<0.040	0.47	<10	<5.0	19	<5.0	<10	<5.0	<5.0	5.6	<10	5.0 <sup>j</sup>	74 <sup>i</sup>	<0.20	1,500	2,600	8.1	<4.7	<0.095	-76.40	-10.18
Well 23a	6/1/2017	Hydrasleeve	430	400	<0.22	23	<0.010	580	12	0.31	0.68	<10	<5.0	20	<5.0	<10	<5.0	3.2 <sup>j</sup>	45	<10	<10	340	<0.20	1,500	2,700	8.2	<5.1	<0.096	-75.30	-10.20
Well 23a	12/5/2017	Hydrasleeve	466	389	<0.50	19	<0.005	670	13	0.060 <sup>j</sup>	0.52	<0.50	1.2	17	<0.50	<0.50	<0.50	<0.50	-	<0.50	<0.50	76	<0.50	1,300	2,550	8.3	1.40 <sup>j</sup>	<0.10	-74.35	-10.47
Well 23a	6/1/2018	Bailer	491	415	<0.50	22	0.082 <sup>j</sup>	760	19	<10	<5	<0.50	<5.0	13	<0.50	<0.50	<0.50	<0.50	-	<0.50	<5.0	56	<0.50	1,300	2,640	8.4	<5.0	<0.11	-73.60	-10.12
Well 23a	6/14/2019	Bailer	473	405	<0.50	24	0.005	630	25	0.63	0.68	<10	<10	<10	<10	<10	<10	-	12	<10	-	<0.50	1,400	2,630	7.5	<5.0	<0.10	-74.80	-10.22	
Well 23a	12/5/2019	Bailer	667	492	<0.02	22	0.003 <sup>j</sup>	570	0.41	<0.20	0.50	<5.0	<5.0	20	<5.0	0.30 <sup>j</sup>	<5.0	<5.0	-	<5.0	1.4 <sup>j</sup>	480	<0.50	1,400	2,570	8.3	<5.0	<0.10	-75.50	-10.24
Well 23a	6/5/2020</																													

**TABLE 4  
SUMMARY OF LABORATORY ANALYTICAL RESULTS**

Genesis Solar Energy Project

Well ID	Date Sampled	Sampling Method	Chloride	Sulfate	Nitrate	Calcium	Copper	Sodium	Potassium	Iron	Magnesium	Antimony	Arsenic	Barium	Cadmium	Chromium	Cobalt	Lead	Manganese	Nickel	Selenium	Zinc	Mercury	Total Dissolved Solids	Specific Conductance	pH	Oil & Grease / HEM	HTF <sup>†</sup>	Deuterium	Oxygen-18
			(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(mg/L)	(us/cm)	(standard Units)	(mg/L)	(% relative to VSMOW)	(% relative to VSMOW)
			EPA Method 300.0					EPA Method 200.7					EPA Method 200.8										SM7470A	SM2540C	SM2510B	SM4500H	SM1664A	8015B	Isotope Geochemistry	
DM-1	6/14/2019	Low Flow	5,040	1,930	8.76	280	0.006	4,800	65	0.35	63	<10	<10	<10	<10	<10	<10	<10	-	<10	<10	-	<0.50	9,600	17,700	7.2	<5.0	<0.10	-70.40	-8.58
DM-1	12/5/2019	Low Flow	7,460	2,150 <sup>j</sup>	16.3	250	0.004 <sup>j</sup>	4,200	32	<0.20	67	<5.0	0.80 <sup>j</sup>	32	<5.0	2.1 <sup>j</sup>	<5.0	<5.0	-	<5.0	0.80 <sup>j</sup>	47	<0.50	11,000	17,600	7.7	<5.0	<0.10	-70.10	-8.55
DM-1	6/4/2020	Low Flow	5,500	2,090	8.04	220	0.007	4,300	24	<0.20	53	<5.0	<5.0	33	<5.0	<5.0	<5.0	<5.0	-	<5.0	13	16	<0.50	12,000	17,800	7.3	<5.0	<0.096	-70.30	-8.57
DM-1	12/3/2020	Low Flow	5,530	2,150	8.50	230	<0.005	9,500	35	<0.20	49	<5.0	<5.0	35	<5.0	<5.0	<5.0	<5.0	-	<5.0	0.87	<0.50	<0.50	12,000	18,000	7.9	<5.0	<0.11	-70.20	-8.57
DM-1	6/3/2021	Low Flow	5,520	2,050	8.28	220	<0.50	3,800	<50	<20	57	<10	<10	31	<10	<10	<10	<10	-	<10	17	<10	<0.50	8,100	17,800	7.7	<5.0	<0.095	-70.80	-8.62
DM-1	12/2/2021	Low Flow	5,360	1,930	8.59	230	<0.50	4,200	<50	<20	58	<10	<10	29	<10	<10	<10	<10	-	<10	16	<10	<1.0	14,000	17,800	7.8	<5.0	<0.099	-70.10	-8.58
DM-1	6/2/2022	Low Flow	5,530	2,070	8.70	240	<2.5	4,500	<250	<100	69	<50	<50	<50	<50	<50	<50	<50	-	<50	52	<50	<1.0	9,300	17,800	7.8	<5.0	<0.095	-70.20	-8.62
DM-1	12/1/2022	Low Flow	5,130	1,960	7.36	230	<0.005	4,500	58	<0.20	61	<25	<25	26	<25	<25	<25	<25	-	<25	<25	<25	<1.0	11,000	17,900	7.8	<5.0	<0.096	-70.20	-8.62
DM-1	6/8/2023	Low Flow	5,300	2,000	7.58	240	<0.50	4,100	<50	<20	65	<10	<10	29	<10	<10	<10	<10	-	<10	<10	<10	<1.0	10,000	18,000	7.8	<5.0	<0.097	-69.30	-8.53
DM-1	12/7/2023	Low Flow	5,290	1,830	7.18	230	<0.50	4,500	<50	<20	65	<25	<25	29	<25	<25	<25	<25	-	<25	<25	<25	<1.0	10,000	18,400	8.2	<5.0	<0.100	-69.80	-8.59
DM-2	5/24/2012	Low Flow	4,500	2,000	2.9	290	<0.10	3,500	25.0	<0.40	59	-	-	-	-	-	-	-	-	-	-	-	-	13,000	16,000	7.8	-	-	-71.70	-8.80
DM-2	10/23/2012	Low Flow	4,800	2,000	<1.1	470	<0.010	2,600	27.0	<0.040	54	-	-	-	-	-	-	-	110	-	-	-	-	9,900	16,000	7.7	-	-	-70.90	-8.90
DM-2	5/22/2014	Low Flow	5,100	2,000	-	320	<0.020	3,500	23	0.022 <sup>j</sup>	54	<10	4.7 <sup>j</sup>	97	<5.0	<10	<5.0	<5.0	59	4.1 <sup>j</sup>	3.3 <sup>j</sup>	<100	<0.20	11,000	18,000	7.8	<5.1	-	-69.95	-8.72
DM-2	12/4/2014	Low Flow	4,400	1,600	3.0	300	<0.050	3,100	20	0.082 <sup>j</sup>	55	<10	5.7	140	<5.0	<10	<5.0	<5.0	90	8.4 <sup>j</sup>	<10	<100	<0.20	9,900	17,000	7.9	<4.7	<0.095	-68.90	-8.42
DM-2	6/11/2015	Low Flow	4,500	2,000	3.8 <sup>j</sup>	290	<0.10	3,500	22	<0.40	55	<10	4.1 <sup>j</sup>	110	<5.0	2.9 <sup>j</sup>	<5.0	<5.0	40	4.9 <sup>j</sup>	<10	<100	<0.20	9,600	18,000	7.9	<4.7	<0.10	-68.20	-8.52
DM-2	12/10/2015	Low Flow	5,400	2,200	<5.5	290	<0.010	3,600	21	0.062	61	<10	5.9	85	<5.0	<10	<5.0	<5.0	88	<10	5.5 <sup>j</sup>	<100	<0.20	12,000	18,000	7.9	<5.0	<0.096	-69.40	-8.43
DM-2	6/2/2016	Low Flow	4,800	1,900	8.0	280	<0.10	3,800	20	0.27 <sup>j</sup>	60	0.51 <sup>j</sup>	4.7	62	<1.0	1.5 <sup>j</sup>	<1.0	<1.0	62	1.1 <sup>j</sup>	3.5	<20	<0.20	12,000	22,000	8.0	<4.9	<0.097	-69.53	-8.63
DM-2	11/30/2016	Low Flow	5,300	2,200	2.8 <sup>j</sup>	290	<0.010	4,200	28	<0.040	61	<20	5.9 <sup>j</sup>	56	<10	<20	<10	<10	40	<20	18 <sup>j</sup>	<200	<0.20	11,000	17,000	7.8	<4.7	<0.097	-70.20	-8.37
DM-2	6/1/2017	Low Flow	4,800	1,900	3.1 <sup>j</sup>	280	<0.10	4,100	21	<1.0	62	<10	4.4 <sup>j</sup>	52	<5.0	<10	<5.0	<5.0	17	5.2 <sup>j</sup>	5.6 <sup>j</sup>	<100	<0.20	12,000	16,000	7.9	<5.2	<0.097	-70.10	-8.51
DM-2	12/5/2017	Low Flow	4,930	1,960	13.4	250	<0.025	1,400	34	<1.0	62	<1.0	5.5	69	<2.5	3.7	<2.5	<2.5	-	<2.5	5.7	4.5	<0.50	11,000	17,200	7.8	<5.0	<0.10	-67.66	-8.63
DM-2	5/30/2018	Low Flow	6,000	2,280	17.5	300	0.11 <sup>j</sup>	4,800	68	<10	67	<5.0	5.1	51	<0.50	5.0	<0.50	<0.50	-	<0.50	6.3	<5.0	<0.50	9,900	17,000	7.9	<5.0	<0.11	-69.20	-8.39
DM-2	12/4/2018	Low Flow	5,290	1,770	11.4	240	<0.5	4,900	35	<20	60	<10	<10	57	<10	<10	<10	<10	-	<10	<10	28	<0.50	7,100	13,000	7.8	<5.0	<0.10	-72.30	-8.98
DM-2	6/14/2019	Low Flow	5,240	2,080	11.2	300	<0.005	5,100	68	<0.20	67	<10	<10	<10	<10	<10	<10	<10	-	<10	<10	-	<0.50	9,300	18,000	7.3	<5.0	<0.10	-70.10	-8.50
DM-2	12/5/2019	Low Flow	7,680	2,330 <sup>j</sup>	21.2	310	0.007	4,400	30	<0.20	65	<5.0	<5.0	50	<5.0	2.9 <sup>j</sup>	<5.0	<5.0	-	<5.0	3.2 <sup>j</sup>	76	<0.50	10,000	17,000	7.6	<5.0	<0.10	-70.00	-8.48
DM-2	6/4/2020	Low Flow	5,580	2,240	10.4	280	0.007	4,100	41	<0.20	55	<5.0	<5.0	46	<5.0	<5.0	<5.0	<5.0	-	<5.0	9.8	24	<0.50	11,000	18,100	7.4	<5.0	<0.096	-69.90	-8.47
DM-2	12/3/2020	Low Flow	5,730	2,340	9.46	250	<0.005	11,000	34	<0.20	51	<5.0	<5.0	49	<5.0	<5.0	<5.0	<5.0	-	<5.0	0.94	<0.50	<0.50	10,000	18,000	7.8	<5.0	<0.11	-70.10	-8.50
DM-2	6/3/2021	Low Flow	5,610	2,210	7.85	230	<0.50	3,800	<50	<20	58	<10	<10	45	<10	<10	<10	<10	-	<10	16	<10	<0.50	9,000	18,200	7.6	<5.0	<0.092	-69.90	-8.50
DM-2	12/2/2021	Low Flow	5,470	2,100	10.0	270	<0.50	4,500	<50	<20	63	<10	<10	44	<10	<10	<10	<10	-	<10	16	<10	<1.0	13,000	18,200	7.8	<5.0	<0.095	-69.50	-8.47
DM-2	6/2/2022	Low Flow	5,860	2,160	10.9	240	<2.5	4,200	<250	<100	67	<50	<50	<50	<50	<50	<50	<50	-	<50	53	<50	<1.0	9,300	18,200	7.7	<5.0	<0.093	-69.60	-8.51
DM-2	12/1/2022	Low Flow	5,450	2,180	9.45	250	<0.005	4,700	57	<0.20	65	<25	<25	37	<25	<25	<25	<25	-	<25	<25	<25	<1.0	10,000	18,300	7.8	<5.0	<0.098	-69.50	-8.49
DM-2	6/8/2023	Low Flow	5,470	2,190	9.73	300	<0.50	4,800	<50	<20	85	<10	<10	37	<10	<10	<10	<10	-	<10	<10	<10	<1.0	6,800	18,300	7.6	<5.0	<0.100	-70.00	-8.51
DM-2	12/7/2023	Low Flow	5,390	1,930	6.21	240	<0.50	4,300	<50	<20	66	<25	<25	40	<25	<25	<25	<25	-	<25	<25	<25	<1.0	11,000	18,900	7.9	<5.0	<0.100	-69.60	-8.49
DM-3	5/24/2012	Low Flow	4,600	2,000	<2.2	220	<0.10	3,500	20.0	<0.40	51	-	-	-	-	-	-	-	-	-	-	-	-	12,000	16,000	7.8	-	-	-71.40	-8.90
DM-3	10/23/2012	Low Flow	5,100	2,100	<2.2	210	<0.010	3,000	20.0	<0.040	52	-	-	-	-	-	-	-	<1.0	-	-	-	-	11,000	18,000	7.8	-	-	-72.60	-8.70
DM-3	5/22/2014	Low Flow	5,400	2,100	-	230	<0.010	3,600	21	<0.040	51	<10	13	18	<5.0	<10	<5.0	<5.0	<5.0	10	<10	<100	<0.20	11,000	19,000	7.7	<4.9	-	-68.86	-8.52
DM-3	12/5/2014	Low Flow	4,900	1,800	1.8 <sup>j</sup>	230	<0.050	3,600	20	<0.20	56	<10	16	18	<5.0	<10	<5.0	<5.0	<5.0	9.6 <sup>j</sup>	<10	<100	<0.20	11,000	18,000	7.8	<4.7	<0.099	-72.40	-8.82
DM-3	6/12/2015	Low Flow	4,400	1,900	<5.5	220	<0.10	3,600	18	<0.40	50	<10	14	17	<5.0	<10	<5.0	<5.0	<5.0	4.5 <sup>j</sup>	<10	<100	<0.20	9,800	18,000	7.8	<4.9	<0.10	-69.60	-8.90
DM-3	12/11/2015	Low Flow	5,100	2,200	<5.5	250	0.0057 <sup>j</sup>	3,500	19	<0.040	51	<10	17	21	<5.0	<10	<5.0	<5.0	<5.0	<10	3.1 <sup>j</sup>	<100	<0.20	11,000	18,000	7.8	<5.0	<0.094	-70.60	-8.73
DM-3	6/3/2016	Low Flow	4,700	1,900	7.1	220	<0.10	3,700	17	<0.40	53	<2.0	14	16	<1.0	0.66 <sup>j</sup>	<1.0	<1.0	0.64 <sup>j</sup>	0.88 <sup>j</sup>	1.0 <sup>j</sup>	5.1 <sup>j</sup>	<0.20	11,000	20,000	7.9	<4.7	<0.093	-69.29	-8.75
DM-3	12/2/2016	Low Flow	4,900	2,100	<5.5	240	0.0052 <sup>j</sup>	4,100	23	<0.040	56	<10	16	18	<5.0	<10	<5.0	<5.												

**TABLE 4  
SUMMARY OF LABORATORY ANALYTICAL RESULTS**

Genesis Solar Energy Project

Well ID	Date Sampled	Sampling Method	Chloride	Sulfate	Nitrate	Calcium	Copper	Sodium	Potassium	Iron	Magnesium	Antimony	Arsenic	Barium	Cadmium	Chromium (All Species)	Cobalt	Lead	Manganese	Nickel	Selenium	Zinc	Mercury	Total Dissolved Solids	Specific Conductance	pH	Oil & Grease / HEM	HTF <sup>†</sup>	Deuterium	Oxygen-18
			(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(mg/L)	(us/cm)	(standard Units)	(mg/L)	(% relative to VSMOW)	(% relative to VSMOW)
			EPA Method 300.0			EPA Method 200.7						EPA Method 200.8											SM7470A	SM2540C	SM2510B	SM4500H	SM1664A	8015B	Isotope Geochemistry	
PW-0	6/2/2022	Spigot	1,860	566	0.668	100	<2.5	1,400	<250	<100	<50	<50	59	61	<50	<50	<50	<50	-	<50	<50	<50	<1.0	3,200	6,380	8.2	<5.0	<0.094	-76.10	-10.04
PW-0	12/1/2022	Spigot	1,780	542	<0.500	110	<0.005	1,500	35	0.31	1.9	<25	53	48	<25	<25	<25	<25	-	<25	<25	130	<1.0	3,400	6,430	7.9	<5.0	<0.094	-76.00	-10.03
PW-0	6/8/2023	Spigot	1,780	541	<0.500	120	<0.50	1,300	<50	<20	<10	<10	56	56	<10	<10	<10	<10	-	<10	<10	<10	<1.0	3,400	6,430	8.2	<5.0	<0.099	-76.60	-10.09
PW-0	12/7/2023	Spigot	1,620	540	0.899	110	<0.50	1,400	<50	<20	<10	<25	50	58	<25	<25	<25	<25	-	<25	<25	<25	<1.0	3,800	6,640	8.1	<5.0	<0.100	-75.80	-10.03
PW-1	12/14/2011	Spigot	1,300	470	<0.55	100	<0.010	1,100	7	0.11	6.9	-	-	-	-	-	-	-	-	-	-	-	-	3,000	3,800	8.0	-	-	-78.10	-10.30
PW-1	5/23/2012	Spigot	1,100	510	<0.55	92	<0.010	850	8.2	<0.040	6.8	-	-	-	-	-	-	-	-	-	-	-	-	2,100	5,100	8.1	-	-	-79.60	-10.40
PW-1	10/23/2012	Spigot	1,300	540	<1.1	90	<0.010	850	8.2	0.018 <sup>1</sup>	7.5	-	-	-	-	-	-	-	-	-	-	-	-	3,200	5,000	8.0	-	-	-79.10	-10.20
PW-2	12/14/2011	Spigot	890	440	<0.22	63	0.0062	740	6.7	1.7	6.1	-	-	-	-	-	-	-	-	-	-	-	-	2,200	2,900	8.1	-	-	-77.70	-10.40
PW-2	5/23/2012	Spigot	810	450	<0.55	53	<0.010	700	5.5	<0.040	4.7	-	-	-	-	-	-	-	-	-	-	-	-	2,200	4,100	8.1	-	-	-79.60	-10.40
PW-2	10/23/2012	Spigot	880	530	<0.55	48	<0.010	560	5.0	<0.040	4.8	-	-	-	-	-	-	-	-	-	-	-	-	2,300	3,800	8.0	-	-	-80.00	-10.30
PW-2	5/20/2014	Spigot	570	290	-	50	<0.010	700	5.1	0.030 <sup>1</sup>	4.1	<10	27	39	<5.0	<10	<5.0	<5.0	19	<10	<10	<100	<0.20	2,100	3,800	8.2	1.5 <sup>1</sup>	-	-76.65	-10.08
PW-2	12/4/2014	Spigot	900	440	<0.55	52	<0.010	670	5.6	0.075	4.3	<10	28	40	<5.0	<10	<5.0	<5.0	22	<10	<10	<100	<0.20	2,100	3,900	8.1	<4.7	<0.095	-79.40	-10.44
PW-2	12/4/2014 <sup>1</sup>	Spigot	840	440	<0.55	52	<0.010	670	5.7	0.072	4.4	<10	28	38	<5.0	<10	<5.0	<5.0	23	2.7 <sup>1</sup>	<10	<100	<0.20	2,100	3,900	8.1	<4.8	<0.096	-80.20	-10.39
PW-2	6/11/2015	Spigot	800	420	<0.22	49	<0.10	710	5.6	0.12 <sup>1</sup>	4.0	<10	28	39	<5.0	<10	<5.0	<5.0	19	<10	<10	<100	<0.20	2,200	4,000	8.1	16	<0.10	-76.70	-10.41
PW-2	6/11/2015 <sup>1</sup>	Spigot	790	420	<0.22	49	<0.10	710	8.4	0.22 <sup>1</sup>	4.2	<10	28	38	<5.0	<10	<5.0	<5.0	18	<10	<10	<100	<0.20	2,200	4,000	8.1	<4.8	<0.10	-76.90	-10.55
PW-2	12/10/2015	Spigot	910	450	<0.22	59	<0.010	770	5.6	0.16	4.1	<4.0	30	43	<2.0	<4.0	<2.0	<2.0	23	<4.0	<4.0	<4.0	<0.20	2,100	3,800	8.1	<5.1	<0.098	-77.70	-10.28
PW-2	12/10/2015 <sup>1</sup>	Spigot	910	480	<0.55	53	<0.010	700	6.5	0.079	4.1	<4.0	29	41	<2.0	<4.0	<2.0	<2.0	25	<4.0	<4.0	<4.0	<0.20	2,200	3,800	8.1	4.1 <sup>1</sup>	<0.095	-77.20	-10.21
PW-2	6/2/2016	Spigot	830	390	0.46	51	<0.010	680	5.1	0.10	4.1	<2.0	26	43	<1.0	<2.0	<1.0	<1.0	20	<2.0	0.63 <sup>1</sup>	<20	<0.20	2,200	4,100	8.1	<4.8	<0.096	-77.30	-10.38
PW-2	6/2/2016 <sup>1</sup>	Spigot	820	380	0.37	51	<0.010	680	5.1	0.12	4.1	<2.0	26	42	<1.0	<2.0	<1.0	<1.0	21	0.87 <sup>1</sup>	<2.0	<20	<0.20	2,200	4,100	8.1	<4.8	<0.096	-77.46	-10.44
PW-2	11/30/2016	Spigot	750	410	<0.22	49	<0.010	650	5.4	0.049	4.3	<10	29	40	<5.0	<10	<5.0	<5.0	19	<10	3.4 <sup>1</sup>	<100	<0.20	2,100	3,600	8.0	<4.8	<0.095	-78.00	-10.21
PW-2	11/30/2016 <sup>1</sup>	Spigot	860	450	<0.22	49	<0.010	680	5.6	0.050	4.4	<10	29	39	<5.0	<10	<5.0	<5.0	18	<10	2.7 <sup>1</sup>	<100	<0.20	2,100	3,700	7.9	<4.7	<0.095	-78.50	-10.30
PW-2	6/1/2017	Spigot	800	440	<0.55	56	<0.010	750	5.6	0.085 <sup>1</sup>	4.5	<10	27	38	<5.0	<10	<5.0	<5.0	19	<10	6.7 <sup>1</sup>	<100	<0.20	2,100	3,500	8.1	1.7 <sup>1</sup>	<0.098	-77.70	-10.21
PW-2	6/1/2017 <sup>1</sup>	Spigot	820	430	<0.55	54	<0.010	740	5.5	0.084 <sup>1</sup>	4.5	<10	28	39	<5.0	<10	<5.0	<5.0	20	<10	<10	<100	<0.20	2,100	3,700	8.0	<5.4	<0.096	-77.90	-10.26
PW-2	12/5/2017	Spigot	812	415	<0.50	54	<0.025	270	7.9	0.076 <sup>1</sup>	4.8	<0.50	28	39	<0.50	<0.50	<0.50	<0.50	-	<0.50	0.51	4.5	<0.50	2,000	3,570	7.9	<5.0	<0.10	-76.11	-10.50
PW-2	12/5/2017 <sup>1</sup>	Spigot	739	375	<0.50	56	<0.025	410	8.1	0.11 <sup>1</sup>	5.1	<0.50	29	38	<0.50	<0.50	<0.50	<0.50	-	2.0	0.61	7.0	<0.50	2,000	3,590	8.1	2.11	<0.10	-75.80	-10.48
PW-2	6/1/2018	Spigot	865	449	<2.50	51	0.099 <sup>1</sup>	1000	9.8	<10	4.1 <sup>1</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>1</sup>	1100	10	<10	4.2 <sup>1</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>1</sup>	800	6.5	0.039 <sup>1</sup>	4.7	<5.0	25	43	<5.0	1.2 <sup>1</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>1</sup>	820	7.9	0.150 <sup>1</sup>	4.5	<5.0	26	42	<5.0	0.30 <sup>1</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

**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: 12/07/2023	Site: Genesis Solar Energy Project	Project No: 196-004-06
Project: Groundwater Monitoring Program		PM: AWB
Measurement Method/Device: Geotech Interface Probe		Technicians: AWB/RCD

Weather: Warm

Well No.	Date	TOC Reference Elevation (ft)	Depth to Water (ft)	Corrected Water Level Elevation (ft)	Comments
TW-1	12/7/2023	387.40	87.20	300.20	Levellogger 62100045
TW-2	12/7/2023	393.47	126.90	266.57	Manual Measurement
OBS-1	12/7/2023	388.30	78.12	310.18	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	12/7/2023	388.14	99.85	288.29	Manual Measurement
23a	12/7/2023	392.10	136.35	255.75	Manual Measurement
24-1	12/7/2023	389.40	127.00	262.40	Manual Measurement
24-2	12/7/2023	388.86	124.97	263.89	Manual Measurement
24-3	12/7/2023	392.04	123.40	268.64	Manual Measurement
PW-0	12/7/2023	385.64	N/A	N/A	Manual Measurement
PW-1	12/7/2023	384.43	98.60	285.83	Levellogger 62149233
PW-2	12/7/2023	385.15	N/A	N/A	Manual Measurement
DM-1	12/7/2023	391.49	107.41	284.08	Manual Measurement
DM-2	12/7/2023	391.32	107.74	283.58	Manual Measurement
DM-3	12/7/2023	388.34	104.52	283.82	Manual Measurement

Additional Notes:




## GROUNDWATER SAMPLING FIELD FORM

Date: 12/07/2023      Site: Genesis Solar Energy Project      Project No: 196-004-06

Project: Groundwater Quality Monitoring Program      Project Manager: AWB

Technicians: AWB, RCD      Weather: Warm

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	30.0	7.96	3.3	20.4	+120	6.80
Total Depth (ft btoc)	1,825						
Screen Interval (ft btoc)	1800 - 1825						
Depth to Water (ft btoc)	136.35						
Sample Date	12/7/2023						
Sample Time	13:35						

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

COMMENTS:

Well No.	OBS-1	Temp °C	pH	Conductivity (mS/cm)	Turbidity (NTUs)	ORP (mV)	DO (mg/L)
Casing Diameter (in.)	5.0	27.2	7.33	24.3	7.3	+106	3.92
Total Depth (ft btoc)	160						
Screen Interval (ft btoc)	100 - 150						
Depth to Water (ft btoc)	78.12						
Sample Date	12/7/2023						
Sample Time	12:30						

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	6.25	15.9	140	-58	6.53
Total Depth (ft btoc)	565						
Screen Interval (ft btoc)	340 - 564						
Depth to Water (ft btoc)	87.20						
Sample Date	12/7/2023						
Sample Time	12:00						

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	30.3	7.92	6.2	123	+107	2.61
Total Depth (ft btoc)	1,841						
Screen Interval (ft btoc)	Multiple						
Depth to Water (ft btoc)	126.90						
Sample Date	12/7/2023						
Sample Time	14:00						

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

COMMENTS:





## GROUNDWATER SAMPLING FIELD FORM

Date: 12/07/2023      Site: Genesis Solar Energy Project      Project No: 196-004-06

Project: Groundwater Quality Monitoring Program      Project Manager: AWB

Technicians: AWB/RCD      Weather: Warm

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	38.2	7.34	6.8	10.1	-94	3.01
Total Depth (ft btoc)	1,251						
Screen Interval (ft btoc)	Multiple						
Depth to Water (ft btoc)	N/A						
Sample Date	12/7/2023						
Sample Time	14:50						

**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)	98.60						
Sample Date	12/7/2023						
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.

Well No.	PW-2	Temp °C	pH	Conductivity (mS/cm)	Turbidity (NTUs)	ORP (mV)	DO (mg/L)
Casing Diameter (in.)	10.0	32.9	7.72	4.0	9.2	+72.0	7.15
Total Depth (ft btoc)	1,125						
Screen Interval (ft btoc)	Multiple						
Depth to Water (ft btoc)	N/A						
Sample Date	12/7/2023						
Sample Time	15:10						

**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: 12/07/2023	Site: Genesis Solar Energy Project	Project No: 196-004-06
Project: Groundwater Detection Monitoring Program		Project Manager: AWB
Technicians: AWB/RCD		Weather: Warm
Sampling Method: Low-flow sampling with submersible pump (EPA 2017 protocols) and flow-through cell		

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	17:40	107.41	24.3	7.42	18.0	35.5	+135	3.73
Total Depth (ft btoc)	120	17:45	107.41	24.7	7.46	18.0	35.2	+134	3.66
Screen Interval (ft btoc)	100 - 120	17:50	107.41	25.0	7.47	18.0	34.8	+135	3.62
Depth to Water (ft btoc)	107.41								
Depth of Inlet (ft btoc)	115.00								
Discharge Time (sec)	30								
Fill Time (sec)	20								
Cycles per Minute	1.2								
Volume per Cycle (mL)	150								
Pump Rate (mL/min)	180								
Volume Purged (mL)	4,500								
Sample Date	12/07/23								
Sample Time	17:55								

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

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	18:50	108.02	22.9	7.28	18.2	39.4	+147	2.08
Total Depth (ft btoc)	120	18:55	108.14	23.1	7.35	18.3	38.6	+142	2.03
Screen Interval (ft btoc)	100 - 120	19:00	108.30	23.2	7.36	18.3	38.3	+143	2.00
Depth to Water (ft btoc)	107.74								
Depth of Inlet (ft btoc)	115.00								
Discharge Time (sec)	28								
Fill Time (sec)	37								
Cycles per Minute	0.9								
Volume per Cycle (mL)	150								
Pump Rate (mL/min)	138								
Volume Purged (mL)	3,450								
Sample Date	12/07/23								
Sample Time	19:05								

**Purge Volume Calculation:** Total must exceed tubing volume (1,204 mL) plus drawdown volume (2,460 mL/foot) = **2,582 mL**

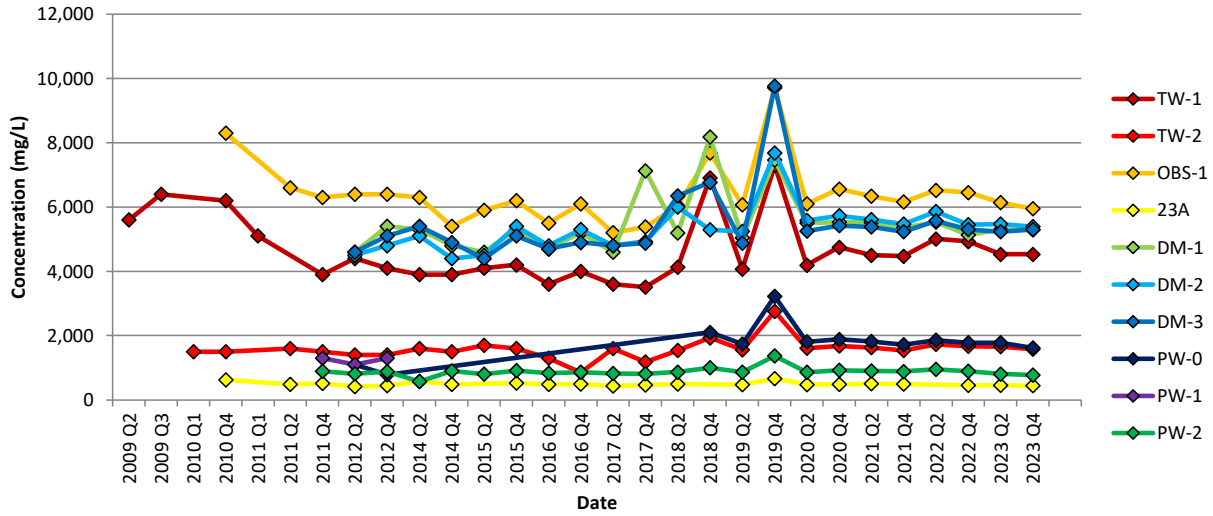
Well No.	DM-3	Time (5 Min Int)	Water Level (ft btoc)	Temp °C (3%)	pH (+/- 0.1)	Cond (mS/cm) (3%)	Turbidity (NTUs) (10%)	ORP (mV) (+/- 10)	DO (mg/L) (10%)
Casing Diameter (in.)	4.0	16:25	104.54	25.4	7.24	17.5	5.2	+137	3.49
Total Depth (ft btoc)	120	16:30	104.52	26.2	7.33	17.5	5.4	+134	3.48
Screen Interval (ft btoc)	100 - 120	16:35	104.52	26.5	7.34	17.5	4.8	+131	3.44
Depth to Water (ft btoc)	104.52								
Depth of Inlet (ft btoc)	115.00								
Discharge Time (sec)	28								
Fill Time (sec)	35								
Cycles per Minute	1.0								
Volume per Cycle (mL)	150								
Pump Rate (mL/min)	143								
Volume Purged (mL)	3,575								
Sample Date	12/07/23								
Sample Time	16:40								

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

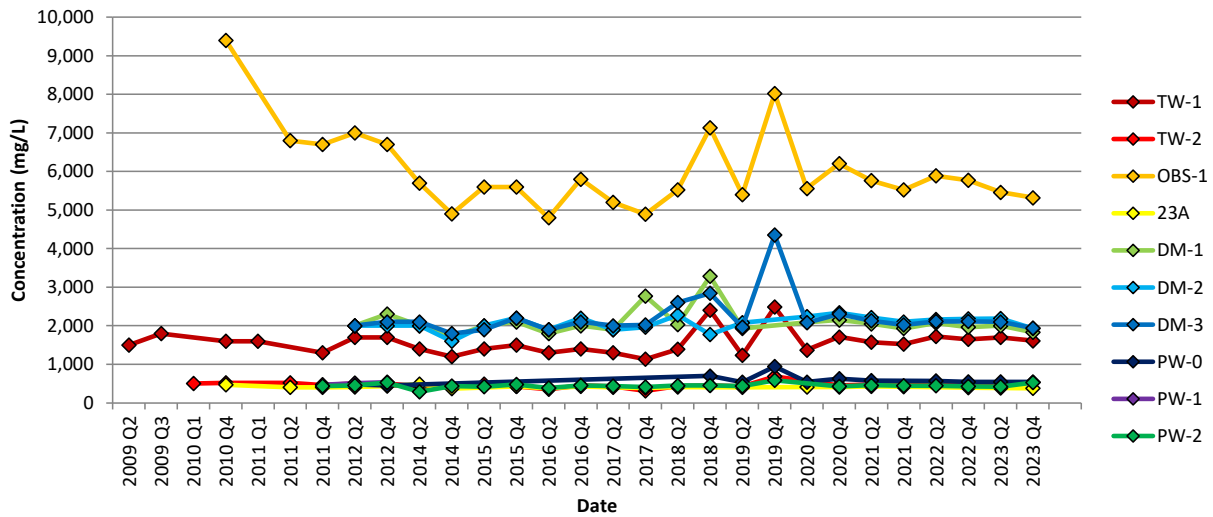
# **APPENDIX B**

**TIME SERIES CHARTS 1 - 29**

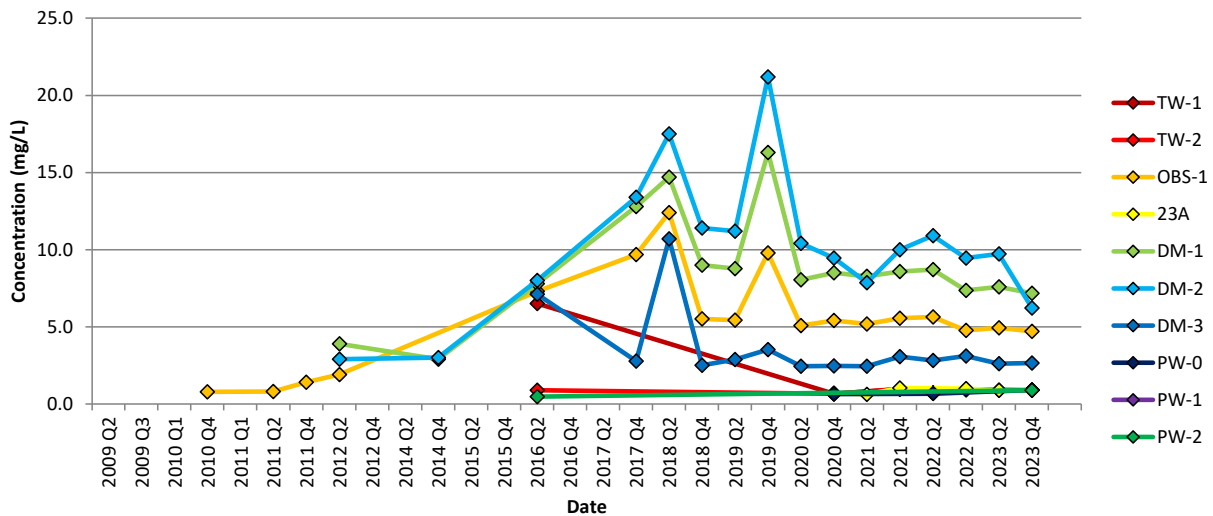
### Chart 1: Chloride



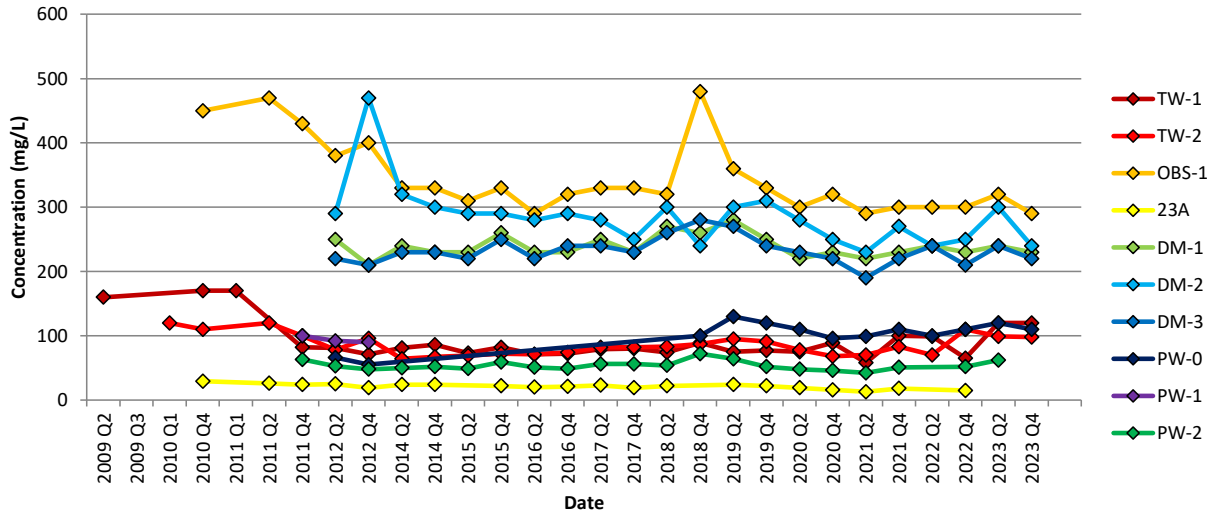
### Chart 2: Sulfate (SO<sub>4</sub>)



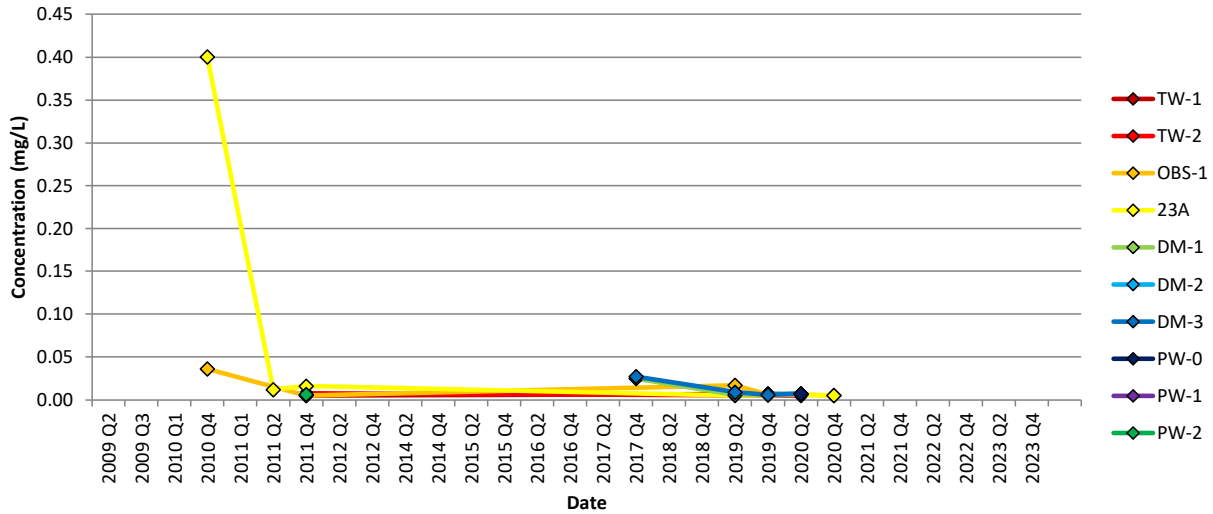
### Chart 3: Nitrate (NO<sub>3</sub>)



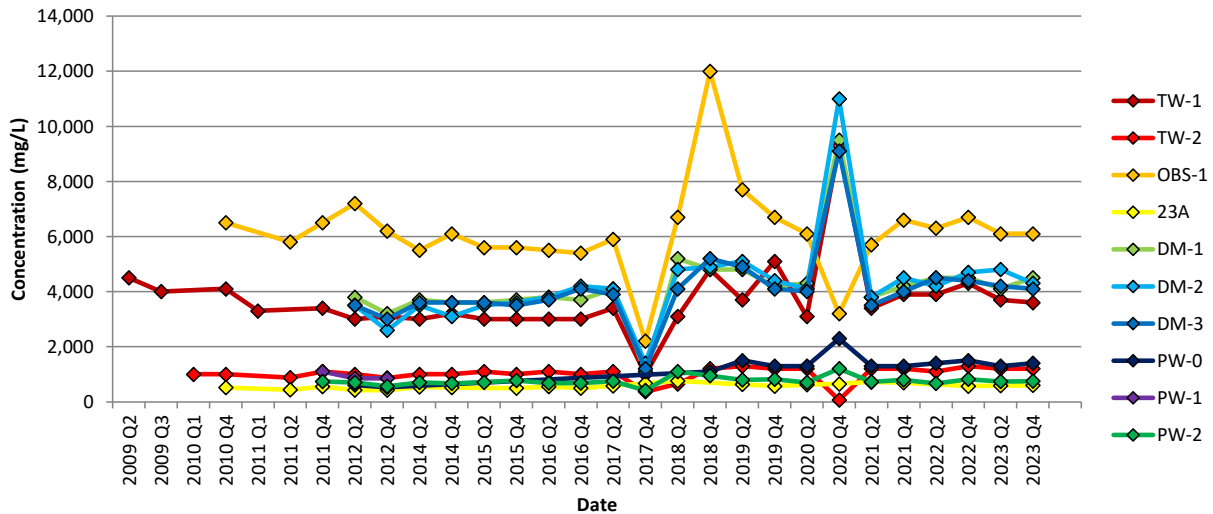
### Chart 4: Calcium



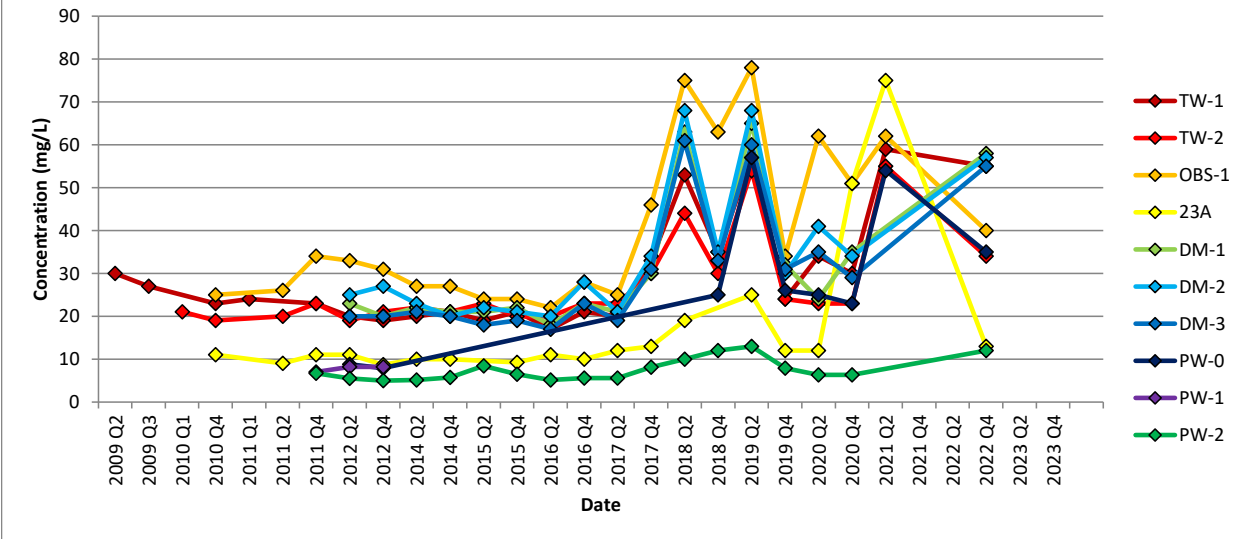
### Chart 5: Copper



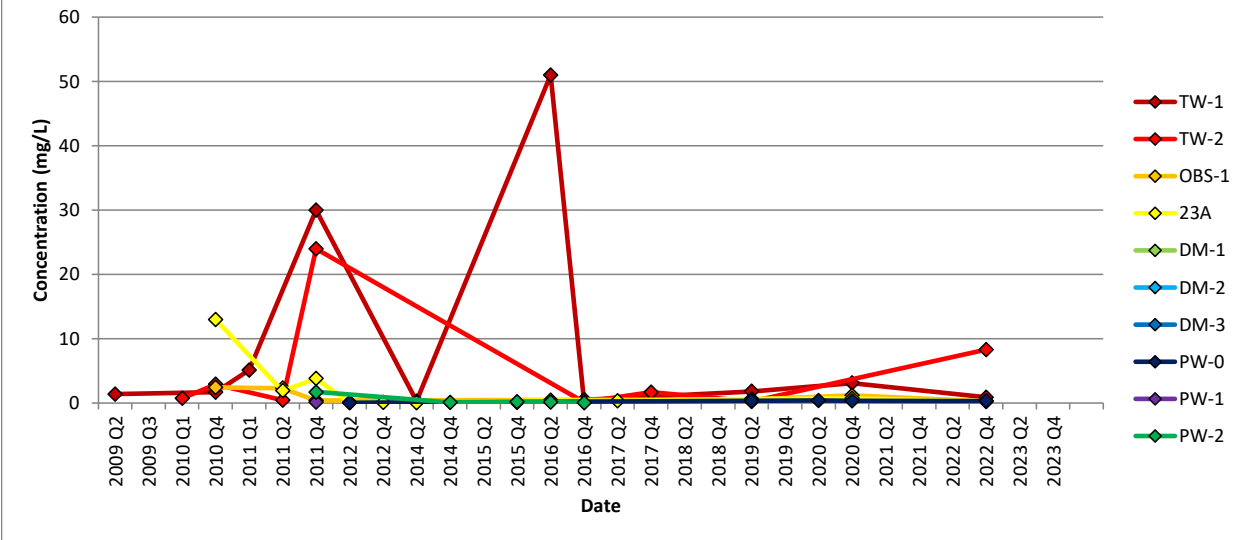
### Chart 6: Sodium



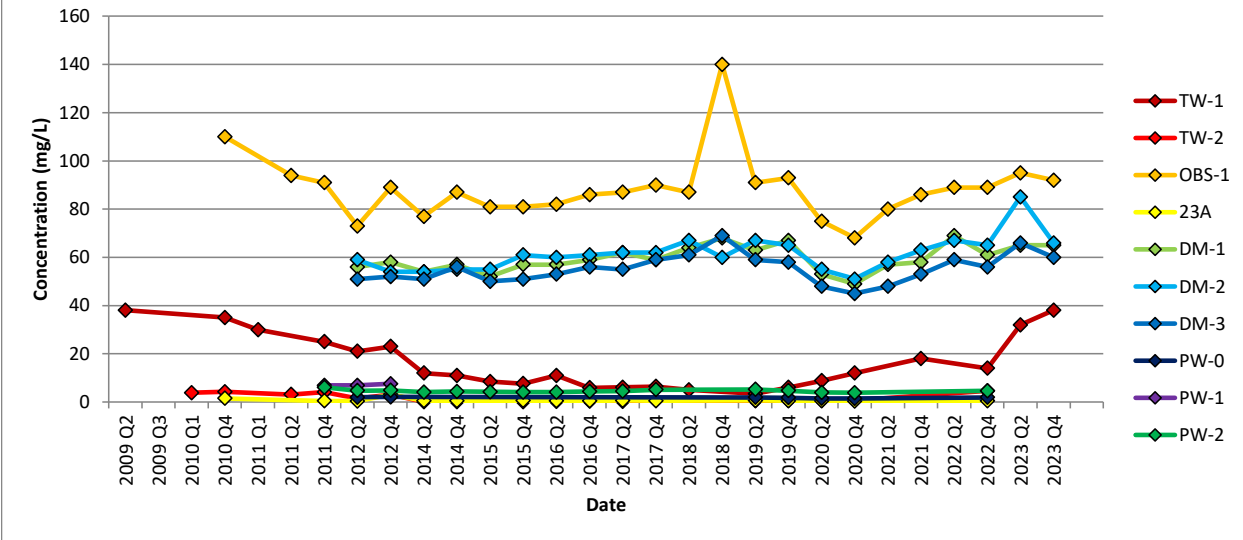
### Chart 7: Potassium



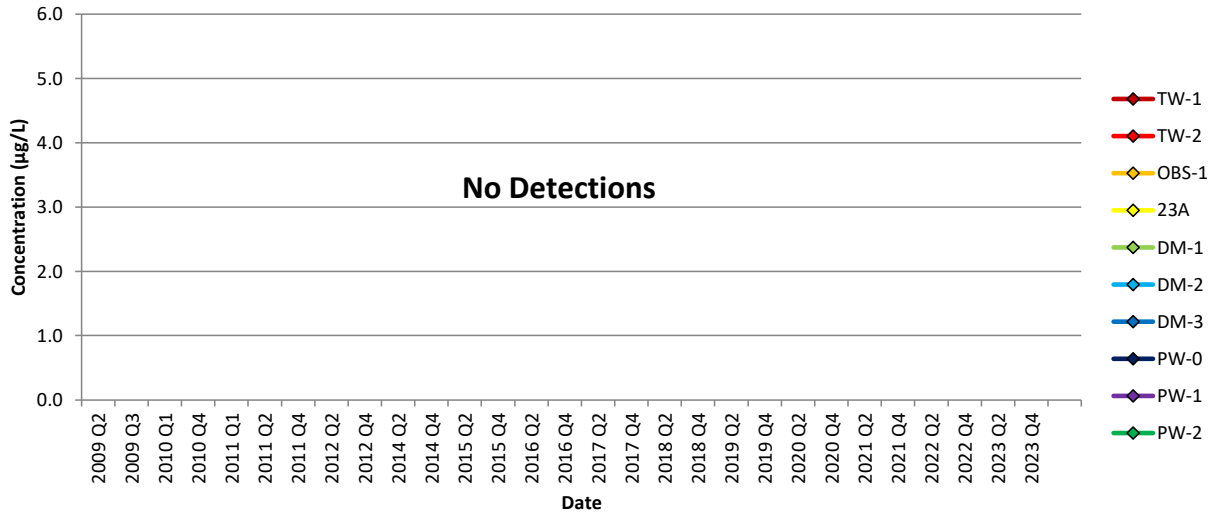
### Chart 8: Iron



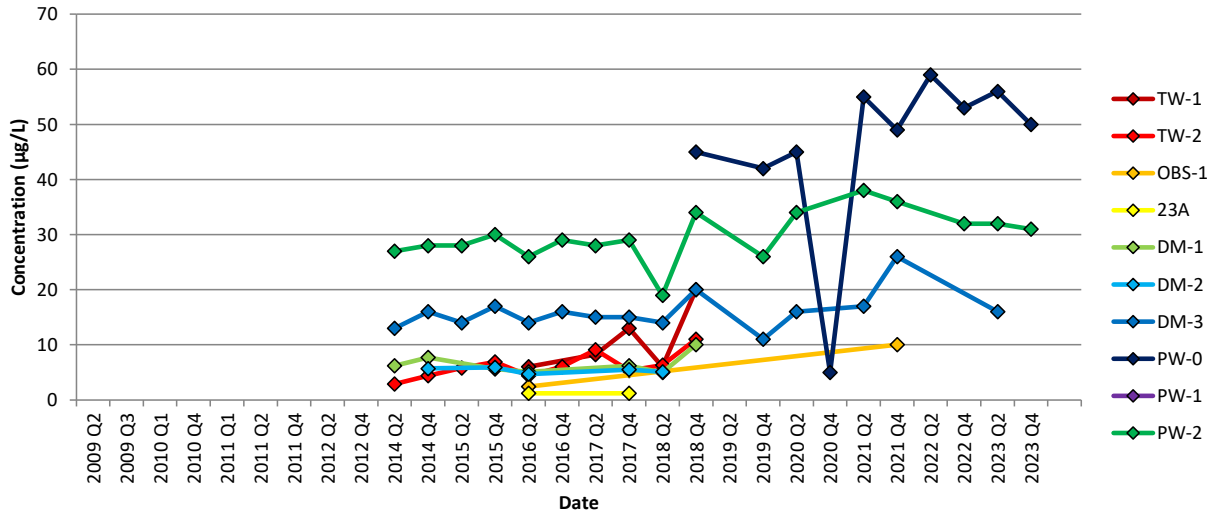
### Chart 9: Magnesium



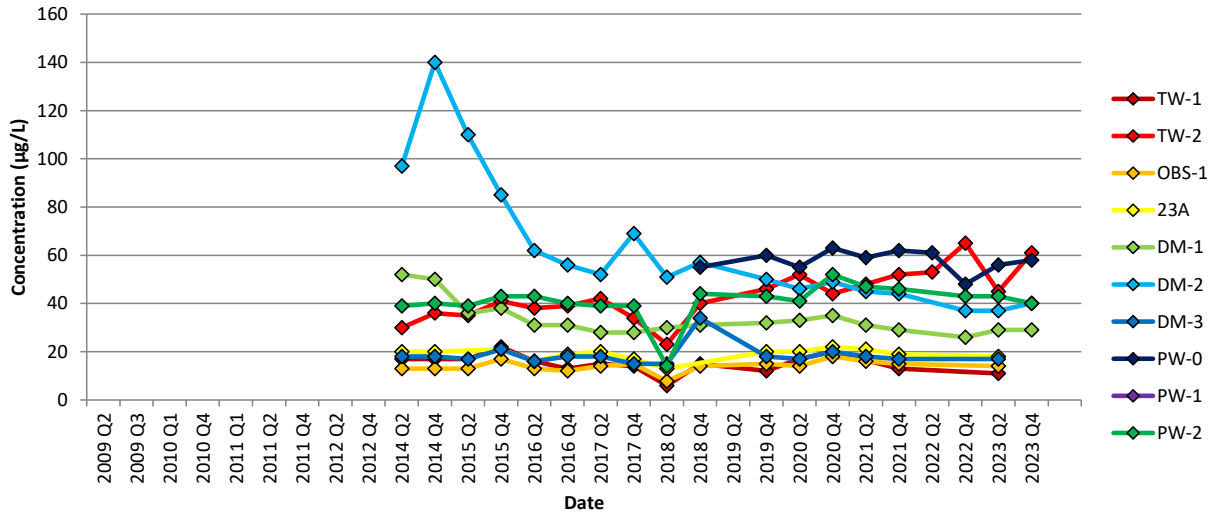
### Chart 10: Antimony



### Chart 11: Arsenic

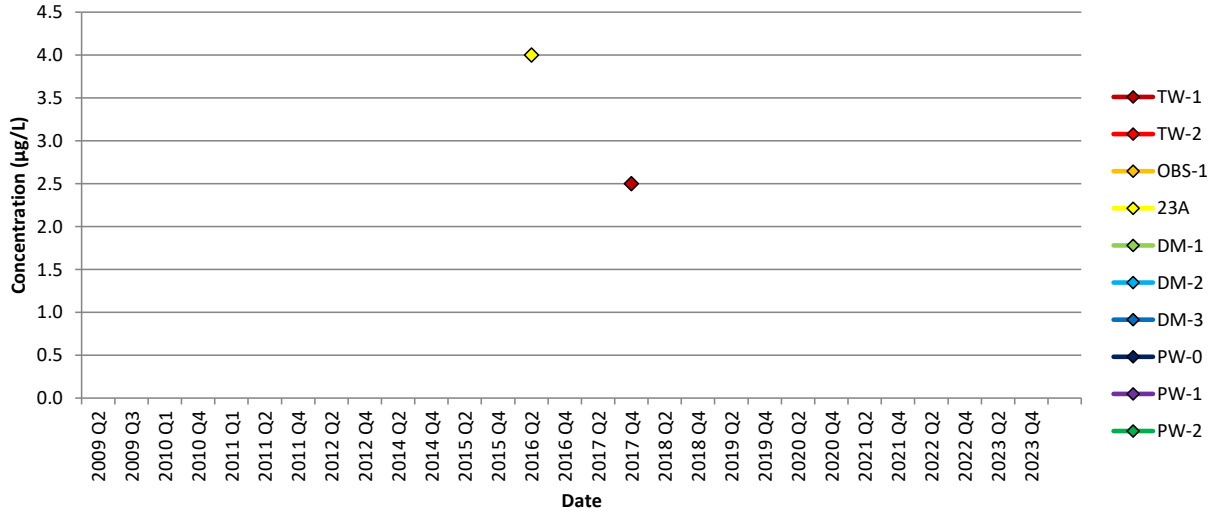


### Chart 12: Barium

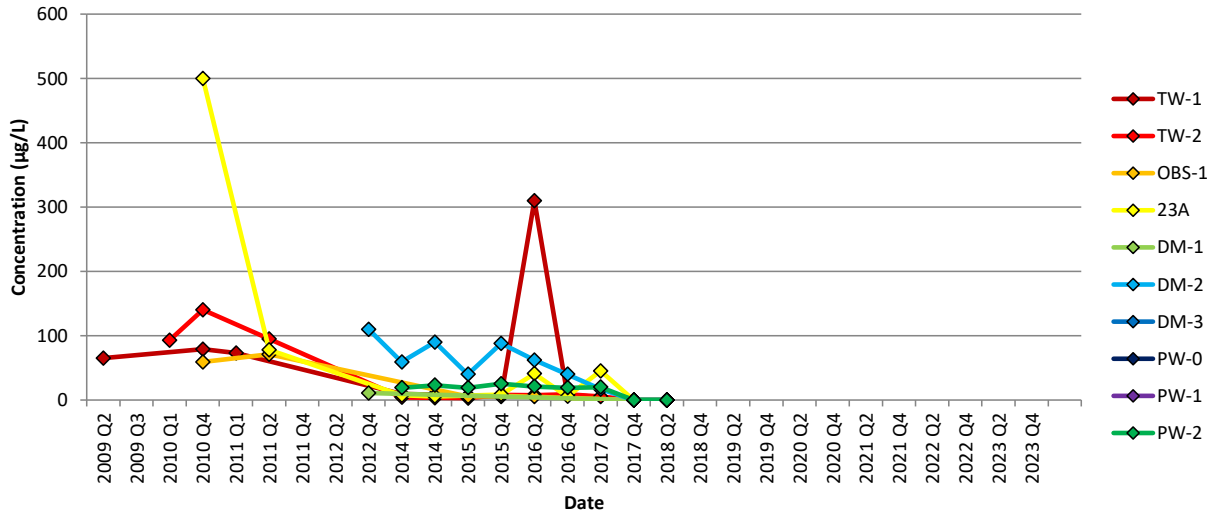




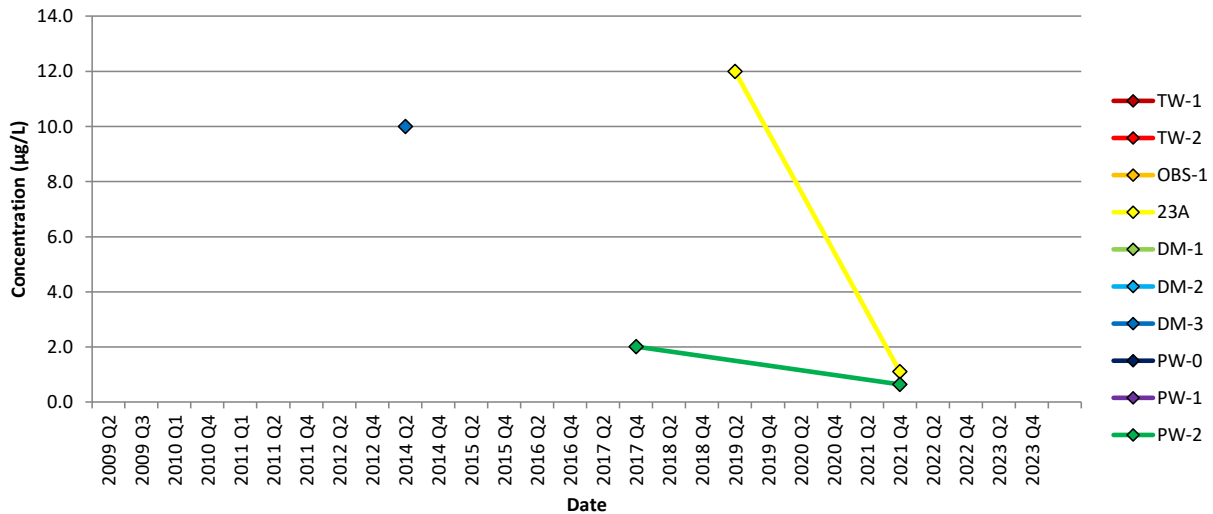
**Chart 16: Lead**



**Chart 17: Manganese**

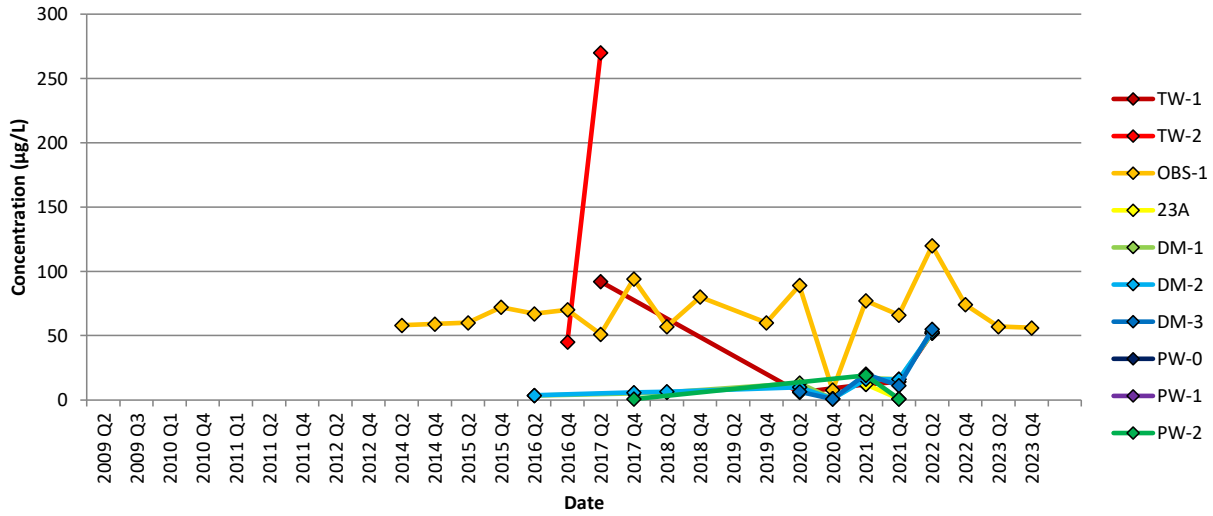


**Chart 18: Nickel**

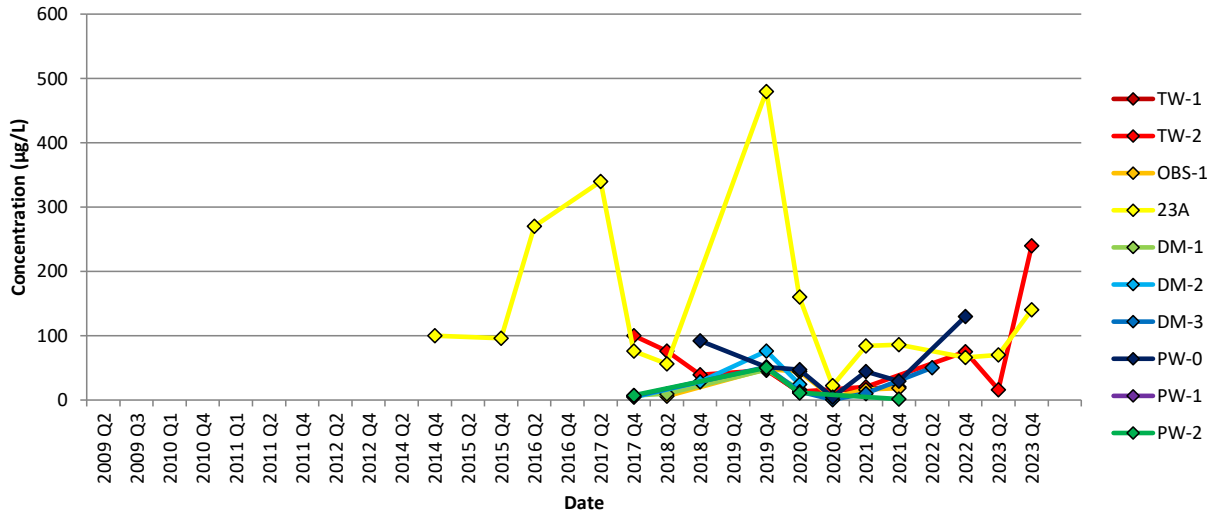




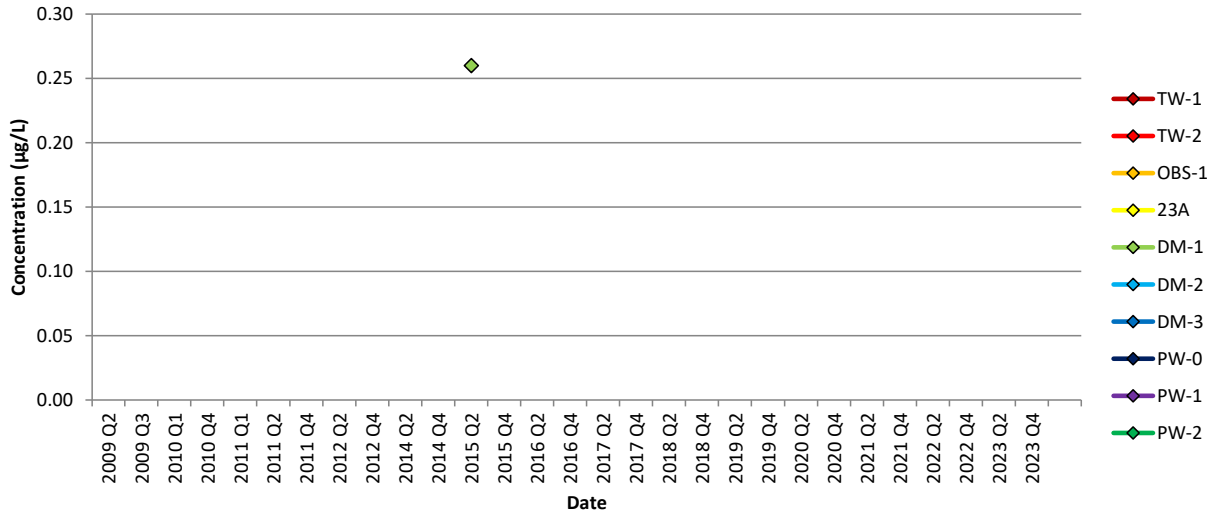
### Chart 19: Selenium



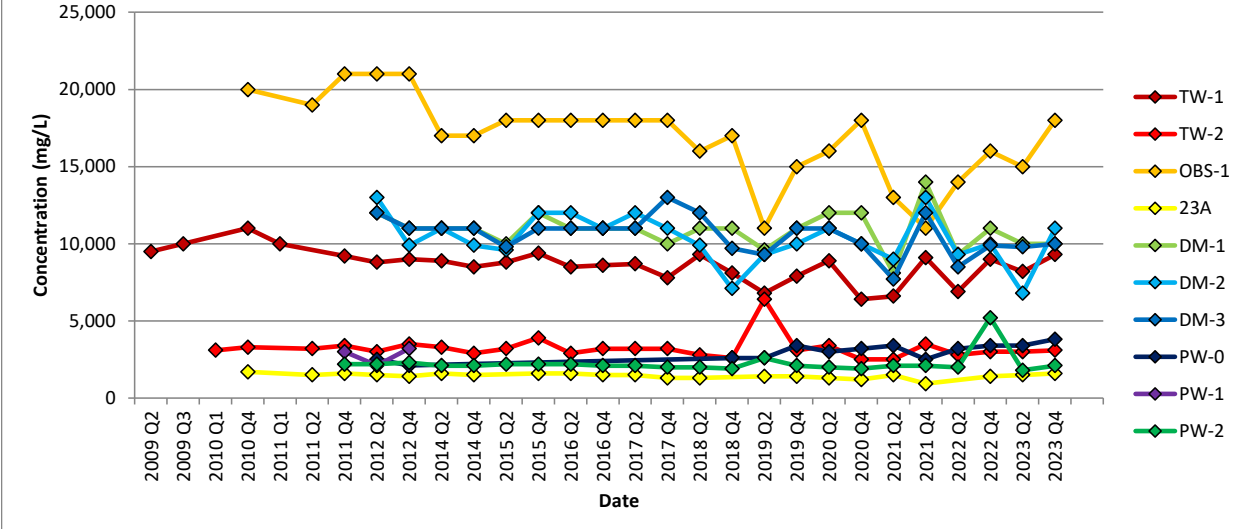
### Chart 20: Zinc



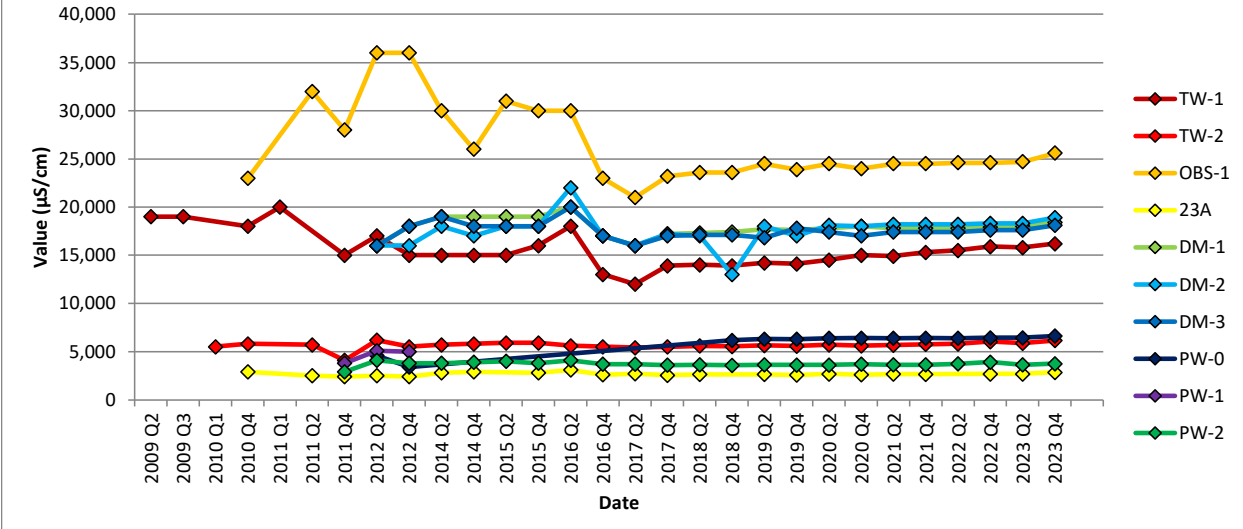
### Chart 21: Mercury



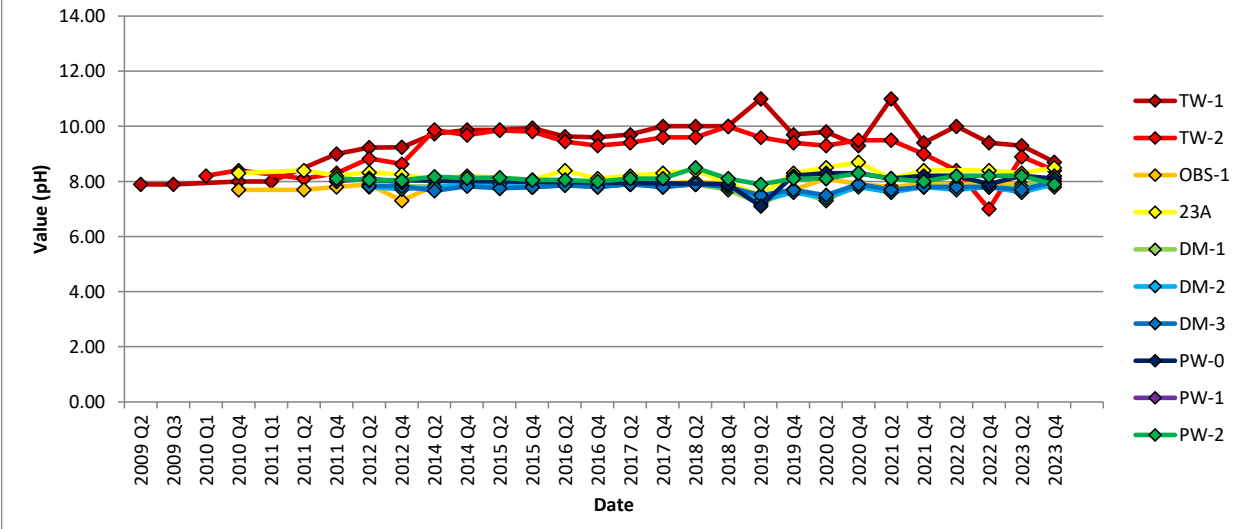
### Chart 22: Total Dissolved Solids



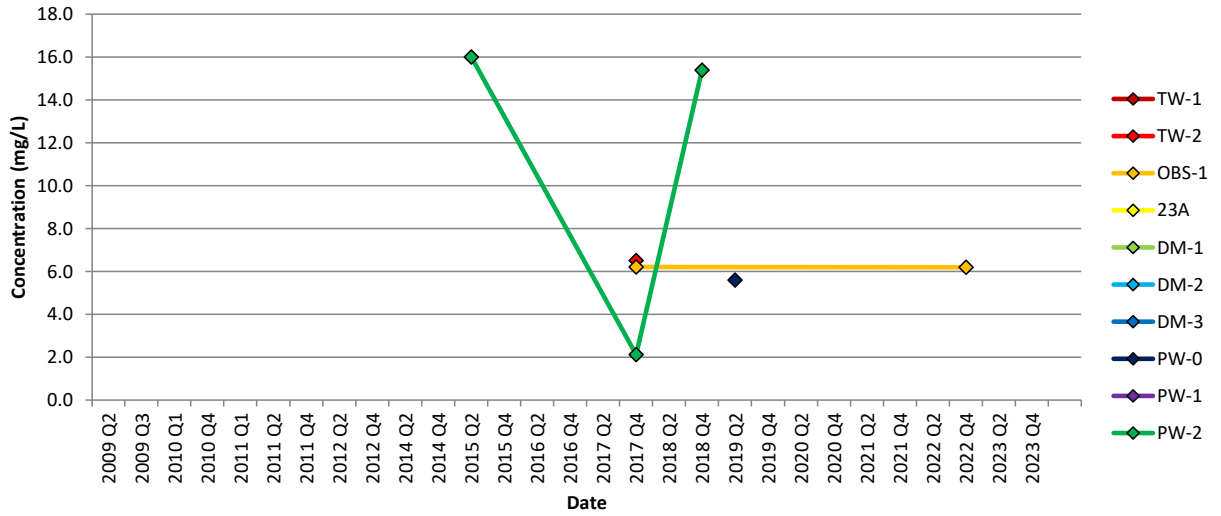
### Chart 23: Specific Conductance



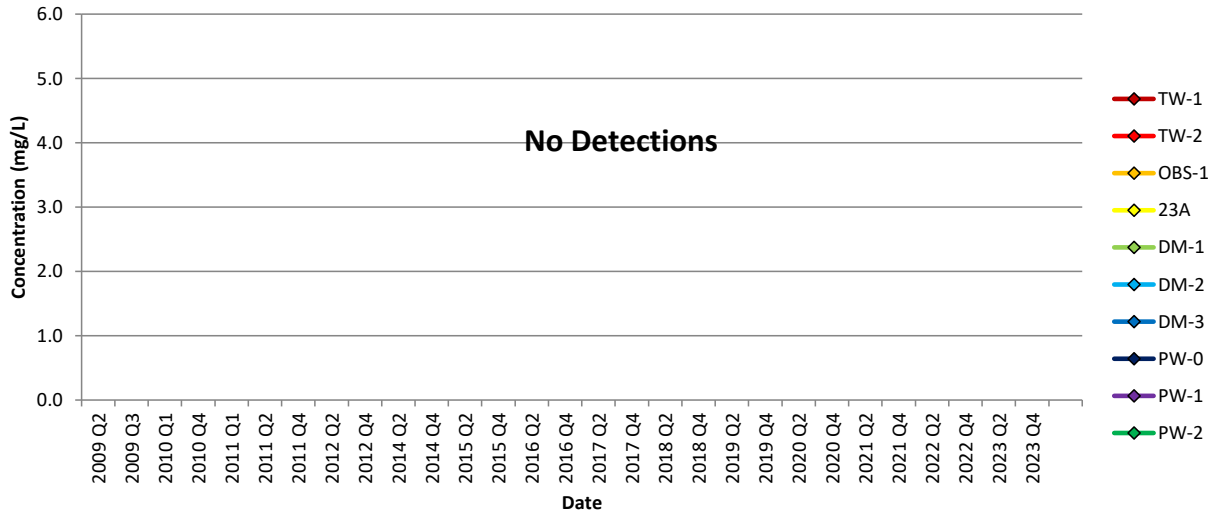
### Chart 24: pH



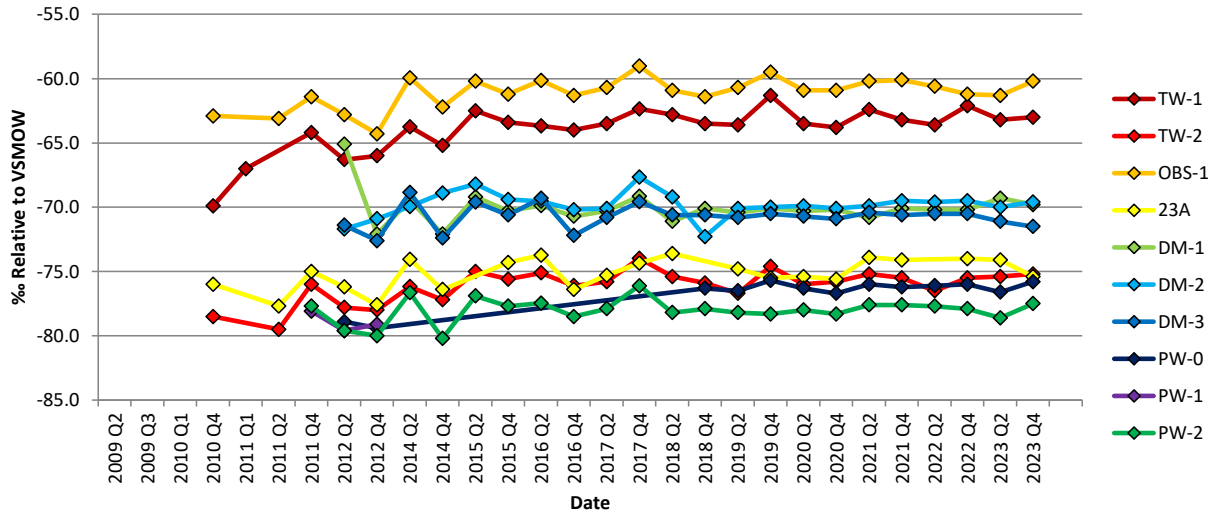
### Chart 25: Oil & Grease



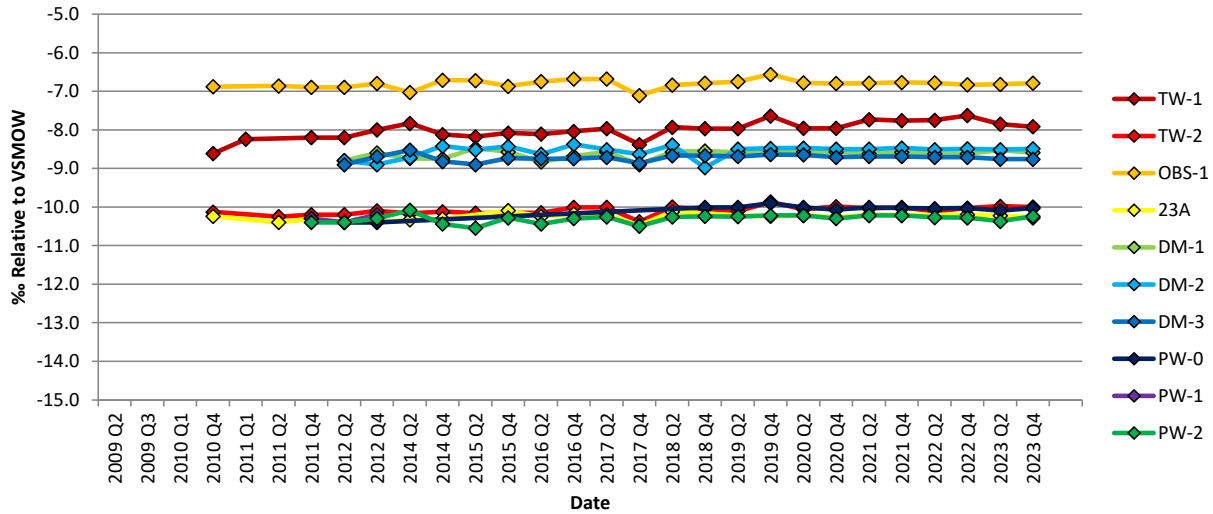
### Chart 26: Heat Transfer Fluid



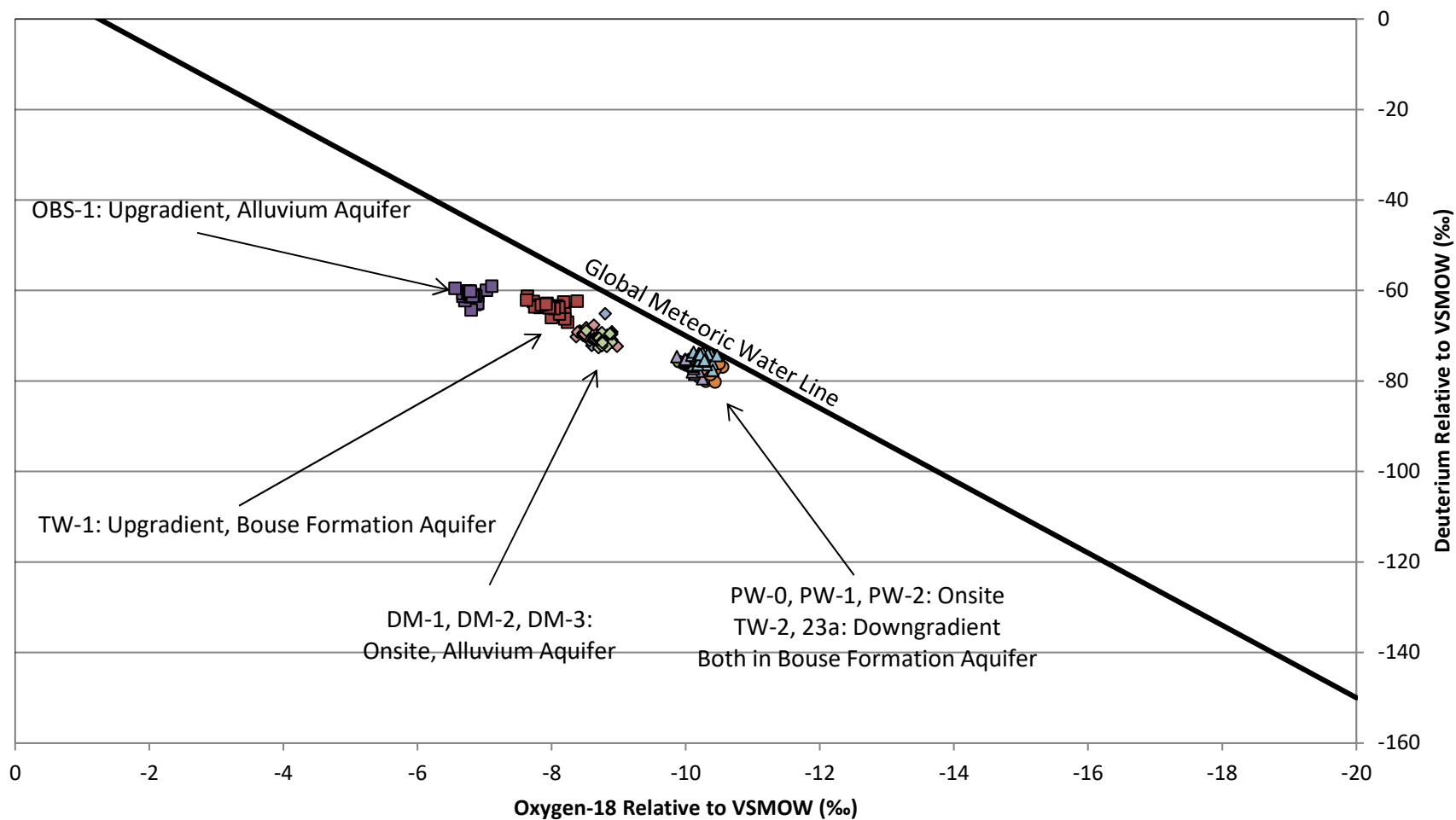
### Chart 27: Deuterium



### Chart 28: Oxygen-18



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



Global Meteoric Water Line
  TW-1
  OBS-1
  PW-0
  PW-1
  PW-2
  DM-1
  DM-2
  DM-3
  TW-2
  23a

# **APPENDIX C**

## **MANN-KENDALL TREND ANALYSIS**



**Appendix C**  
**2023 Second Semiannual Summary of Mann-Kendall Test for Trend**  
**Genesis Solar Energy Project, Blythe, CA**

Well ID	Analyte	Minimum	Maximum	Mean	Mann-Kendall at 95% Confidence Interval			
					Mann-Kendall Test Value (S)	Trend Direction	p-Value	Significant Trend?
TW-1	Chloride	3,510	7,300	4,660	25	Increasing	0.308	No
TW-1	Sulfate	1,130	2,490	1,563	30	Increasing	0.272	No
TW-1	Nitrate	0.657	6.5	1.78	-3	Decreasing	0.354	No
TW-1	Calcium	58	170	92	-20	Decreasing	0.337	No
TW-1	Copper	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	
TW-1	Sodium	1,000	9,300	3,700	52	Increasing	0.142	No
TW-1	Potassium	N/A <sup>1</sup>	N/A <sup>1</sup>	N/A <sup>1</sup>	N/A <sup>1</sup>	N/A <sup>1</sup>	N/A <sup>1</sup>	
TW-1	Iron	N/A <sup>1</sup>	N/A <sup>1</sup>	N/A <sup>1</sup>	N/A <sup>1</sup>	N/A <sup>1</sup>	N/A <sup>1</sup>	
TW-1	Magnesium	3.40	38	16	-62	Decreasing	0.053	No
TW-1	Antimony	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	
TW-1	Arsenic	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	
TW-1	Barium	N/A <sup>1</sup>	N/A <sup>1</sup>	N/A <sup>1</sup>	N/A <sup>1</sup>	N/A <sup>1</sup>	N/A <sup>1</sup>	
TW-1	Cadmium	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	
TW-1	Chromium	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	
TW-1	Cobalt	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	
TW-1	Lead	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	
TW-1	Manganese	N/A <sup>1</sup>	N/A <sup>1</sup>	N/A <sup>1</sup>	N/A <sup>1</sup>	N/A <sup>1</sup>	N/A <sup>1</sup>	
TW-1	Nickel	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	
TW-1	Selenium	N/A <sup>1</sup>	N/A <sup>1</sup>	N/A <sup>1</sup>	N/A <sup>1</sup>	N/A <sup>1</sup>	N/A <sup>1</sup>	
TW-1	Zinc	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	
TW-1	Mercury	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	
TW-1	TDS	6,400	11,000	8,637	-141	Decreasing	0.002	Yes
TW-1	Conductivity	12,000	20,000	15,563	-51	Decreasing	0.147	No
TW-2	Chloride	850	2,750	1,581	103	Increasing	0.012	Yes
TW-2	Sulfate	315	686	465	-34	Decreasing	0.205	No
TW-2	Nitrate	N/A <sup>1</sup>	N/A <sup>1</sup>	N/A <sup>1</sup>	N/A <sup>1</sup>	N/A <sup>1</sup>	N/A <sup>1</sup>	
TW-2	Calcium	64	120	86	-5	Decreasing	0.465	No
TW-2	Copper	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	
TW-2	Sodium	70	1,300	1,013	124	Increasing	0.003	Yes
TW-2	Potassium	N/A <sup>1</sup>	N/A <sup>1</sup>	N/A <sup>1</sup>	N/A <sup>1</sup>	N/A <sup>1</sup>	N/A <sup>1</sup>	
TW-2	Iron	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	
TW-2	Magnesium	N/A <sup>1</sup>	N/A <sup>1</sup>	N/A <sup>1</sup>	N/A <sup>1</sup>	N/A <sup>1</sup>	N/A <sup>1</sup>	
TW-2	Antimony	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	
TW-2	Arsenic	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	
TW-2	Barium	23	65	43	112	Increasing	0.000	Yes
TW-2	Cadmium	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	
TW-2	Chromium	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	
TW-2	Cobalt	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	
TW-2	Lead	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	
TW-2	Manganese	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	
TW-2	Nickel	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	
TW-2	Selenium	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	

**Appendix C**  
**2023 Second Semiannual Summary of Mann-Kendall Test for Trend**  
**Genesis Solar Energy Project, Blythe, CA**

Well ID	Analyte	Minimum	Maximum	Mean	Mann-Kendall at 95% Confidence Interval			
					Mann-Kendall Test Value (S)	Trend Direction	p-Value	Significant Trend?
TW-2	Zinc	13	240	69	-6	Decreasing	0.301	No
TW-2	Mercury	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	
TW-2	TDS	2,500	6,400	3,231	-69	Decreasing	0.066	No
TW-2	Conductivity	4,100	6,200	5,655	76	Increasing	0.049	Yes
OBS-1	Chloride	5,200	9,710	6,388	-21	Decreasing	0.320	No
OBS-1	Sulfate	4,800	9,400	6,026	-69	Decreasing	0.056	No
OBS-1	Nitrate	0.78	12.4	5.35	13	Increasing	0.325	No
OBS-1	Calcium	290	480	344	-156	Decreasing	0.000	Yes
OBS-1	Copper	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	
OBS-1	Sodium	2,200	12,000	616	8	Increasing	0.435	No
OBS-1	Potassium	N/A <sup>1</sup>	N/A <sup>1</sup>	N/A <sup>1</sup>	N/A <sup>1</sup>	N/A <sup>1</sup>	N/A <sup>1</sup>	
OBS-1	Iron	N/A <sup>1</sup>	N/A <sup>1</sup>	N/A <sup>1</sup>	N/A <sup>1</sup>	N/A <sup>1</sup>	N/A <sup>1</sup>	
OBS-1	Magnesium	68	140	89	19	Increasing	0.337	No
OBS-1	Antimony	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	
OBS-1	Arsenic	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	
OBS-1	Barium	7.8	18	14	39	Increasing	0.040	Yes
OBS-1	Cadmium	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	
OBS-1	Chromium	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	
OBS-1	Cobalt	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	
OBS-1	Lead	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	
OBS-1	Manganese	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	
OBS-1	Nickel	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	
OBS-1	Selenium	7.60	120	67	11	Increasing	0.363	No
OBS-1	Zinc	N/A <sup>1</sup>	N/A <sup>1</sup>	N/A <sup>1</sup>	N/A <sup>1</sup>	N/A <sup>1</sup>	N/A <sup>1</sup>	
OBS-1	Mercury	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	
OBS-1	TDS	11,000	21,000	16,960	-153	Decreasing	0.000	Yes
OBS-1	Conductivity	21,000	36,000	26,472	-33	Decreasing	0.226	No
Well 23a	Chloride	410	667	492	-36	Decreasing	0.161	No
Well 23a	Sulfate	370	490	412	-41	Decreasing	0.113	No
Well 23a	Nitrate	0.61	1.02	0.85	3	Increasing	0.354	No
Well 23a	Calcium	N/A <sup>1</sup>	N/A <sup>1</sup>	N/A <sup>1</sup>	N/A <sup>1</sup>	N/A <sup>1</sup>	N/A <sup>1</sup>	
Well 23a	Copper	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	
Well 23a	Sodium	420	760	572	116	Increasing	0.001	Yes
Well 23a	Potassium	N/A <sup>1</sup>	N/A <sup>1</sup>	N/A <sup>1</sup>	N/A <sup>1</sup>	N/A <sup>1</sup>	N/A <sup>1</sup>	
Well 23a	Iron	N/A <sup>1</sup>	N/A <sup>1</sup>	N/A <sup>1</sup>	N/A <sup>1</sup>	N/A <sup>1</sup>	N/A <sup>1</sup>	
Well 23a	Magnesium	N/A <sup>1</sup>	N/A <sup>1</sup>	N/A <sup>1</sup>	N/A <sup>1</sup>	N/A <sup>1</sup>	N/A <sup>1</sup>	
Well 23a	Antimony	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	
Well 23a	Arsenic	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	
Well 23a	Barium	13	22	19	-1	Decreasing	0.500	No
Well 23a	Cadmium	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	
Well 23a	Chromium	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	
Well 23a	Cobalt	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	

**Appendix C**  
**2023 Second Semiannual Summary of Mann-Kendall Test for Trend**  
**Genesis Solar Energy Project, Blythe, CA**

Well ID	Analyte	Minimum	Maximum	Mean	Mann-Kendall at 95% Confidence Interval			
					Mann-Kendall Test Value (S)	Trend Direction	p-Value	Significant Trend?
Well 23a	Lead	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	
Well 23a	Manganese	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	
Well 23a	Nickel	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	
Well 23a	Selenium	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	
Well 23a	Zinc	22	480	146	-19	Decreasing	0.162	No
Well 23a	Mercury	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	
Well 23a	TDS	930	1,700	1,447	-79	Decreasing	0.012	Yes
Well 23a	Conductivity	2,400	3,100	2,674	35	Increasing	0.168	No
DM-1	Chloride	4,600	8,180	5,485	50	Increasing	0.083	No
DM-1	Sulfate	1,700	3,280	2,090	-5	Decreasing	0.452	No
DM-1	Nitrate	2.90	16.3	8.77	-14	Decreasing	0.279	No
DM-1	Calcium	210	280	239	-9	Decreasing	0.407	No
DM-1	Copper	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	
DM-1	Sodium	1,100	9,500	4,214	100	Increasing	0.002	Yes
DM-1	Potassium	N/A <sup>1</sup>	N/A <sup>1</sup>	N/A <sup>1</sup>	N/A <sup>1</sup>	N/A <sup>1</sup>	N/A <sup>1</sup>	
DM-1	Iron	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	
DM-1	Magnesium	49	69	60	86	Increasing	0.008	Yes
DM-1	Antimony	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	
DM-1	Arsenic	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	
DM-1	Barium	26	52	33	-67	Decreasing	0.006	Yes
DM-1	Cadmium	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	
DM-1	Chromium	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	
DM-1	Cobalt	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	
DM-1	Lead	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	
DM-1	Manganese	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	
DM-1	Nickel	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	
DM-1	Selenium	N/A <sup>1</sup>	N/A <sup>1</sup>	N/A <sup>1</sup>	N/A <sup>1</sup>	N/A <sup>1</sup>	N/A <sup>1</sup>	
DM-1	Zinc	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	
DM-1	Mercury	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	
DM-1	TDS	8,100	14,000	10,864	-40	Decreasing	0.121	No
DM-1	Conductivity	16,000	20,000	17,895	29	Increasing	0.213	No
DM-2	Chloride	4,400	7,680	5,332	110	Increasing	0.001	Yes
DM-2	Sulfate	1,600	2,340	2,059	48	Increasing	0.077	No
DM-2	Nitrate	2.90	21.2	10.2	-10	Decreasing	0.343	No
DM-2	Calcium	230	470	285	-98	Decreasing	0.003	Yes
DM-2	Copper	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	
DM-2	Sodium	1,400	11,000	4,268	116	Increasing	0.001	Yes
DM-2	Potassium	N/A <sup>1</sup>	N/A <sup>1</sup>	N/A <sup>1</sup>	N/A <sup>1</sup>	N/A <sup>1</sup>	N/A <sup>1</sup>	
DM-2	Iron	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	
DM-2	Magnesium	51	85	61	106	Increasing	0.001	Yes
DM-2	Antimony	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	
DM-2	Arsenic	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	

**Appendix C**  
**2023 Second Semiannual Summary of Mann-Kendall Test for Trend**  
**Genesis Solar Energy Project, Blythe, CA**

Well ID	Analyte	Minimum	Maximum	Mean	Mann-Kendall at 95% Confidence Interval			
					Mann-Kendall Test Value (S)	Trend Direction	p-Value	Significant Trend?
DM-2	Barium	37	140	63	-130	Decreasing	0.000	Yes
DM-2	Cadmium	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	
DM-2	Chromium	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	
DM-2	Cobalt	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	
DM-2	Lead	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	
DM-2	Manganese	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	
DM-2	Nickel	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	
DM-2	Selenium	N/A <sup>1</sup>	N/A <sup>1</sup>	N/A <sup>1</sup>	N/A <sup>1</sup>	N/A <sup>1</sup>	N/A <sup>1</sup>	
DM-2	Zinc	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	
DM-2	Mercury	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	
DM-2	TDS	6,800	13,000	10,355	-50	Decreasing	0.081	No
DM-2	Conductivity	13,000	22,000	17,564	114	Increasing	0.001	Yes
DM-3	Chloride	4,400	9,760	5,419	74	Increasing	0.020	Yes
DM-3	Sulfate	1,800	4,350	2,212	39	Increasing	0.141	No
DM-3	Nitrate	2.44	10.7	3.65	-18	Decreasing	0.176	No
DM-3	Calcium	190	280	232	1	Increasing	0.500	No
DM-3	Copper	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	
DM-3	Sodium	1,200	9,100	4,082	102	Increasing	0.002	Yes
DM-3	Potassium	N/A <sup>1</sup>	N/A <sup>1</sup>	N/A <sup>1</sup>	N/A <sup>1</sup>	N/A <sup>1</sup>	N/A <sup>1</sup>	
DM-3	Iron	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	
DM-3	Magnesium	45	69	55	62	Increasing	0.042	Yes
DM-3	Antimony	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	
DM-3	Arsenic	N/A <sup>1</sup>	N/A <sup>1</sup>	N/A <sup>1</sup>	N/A <sup>1</sup>	N/A <sup>1</sup>	N/A <sup>1</sup>	
DM-3	Barium	N/A <sup>1</sup>	N/A <sup>1</sup>	N/A <sup>1</sup>	N/A <sup>1</sup>	N/A <sup>1</sup>	N/A <sup>1</sup>	
DM-3	Cadmium	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	
DM-3	Chromium	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	
DM-3	Cobalt	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	
DM-3	Lead	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	
DM-3	Manganese	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	
DM-3	Nickel	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	
DM-3	Selenium	N/A <sup>1</sup>	N/A <sup>1</sup>	N/A <sup>1</sup>	N/A <sup>1</sup>	N/A <sup>1</sup>	N/A <sup>1</sup>	
DM-3	Zinc	N/A <sup>1</sup>	N/A <sup>1</sup>	N/A <sup>1</sup>	N/A <sup>1</sup>	N/A <sup>1</sup>	N/A <sup>1</sup>	
DM-3	Mercury	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	
DM-3	TDS	7,700	13,000	10,577	-68	Decreasing	0.025	Yes
DM-3	Conductivity	16,000	20,000	17,532	5	Increasing	0.455	No
PW-0	Chloride	780	3,220	1,785	-3	Decreasing	0.451	No
PW-0	Sulfate	450	944	587	3	Increasing	0.445	No
PW-0	Nitrate	0.641	0.899	0.736	3	Increasing	0.148	No
PW-0	Calcium	55	130	102	22	Increasing	0.096	No
PW-0	Copper	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	
PW-0	Sodium	530	2,300	1,295	32	Increasing	0.025	Yes

**Appendix C**  
**2023 Second Semiannual Summary of Mann-Kendall Test for Trend**  
**Genesis Solar Energy Project, Blythe, CA**

Well ID	Analyte	Minimum	Maximum	Mean	Mann-Kendall at 95% Confidence Interval			
					Mann-Kendall Test Value (S)	Trend Direction	p-Value	Significant Trend?
PW-0	Potassium	N/A <sup>1</sup>	N/A <sup>1</sup>	N/A <sup>1</sup>	N/A <sup>1</sup>	N/A <sup>1</sup>	N/A <sup>1</sup>	
PW-0	Iron	N/A <sup>1</sup>	N/A <sup>1</sup>	N/A <sup>1</sup>	N/A <sup>1</sup>	N/A <sup>1</sup>	N/A <sup>1</sup>	
PW-0	Magnesium	N/A <sup>1</sup>	N/A <sup>1</sup>	N/A <sup>1</sup>	N/A <sup>1</sup>	N/A <sup>1</sup>	N/A <sup>1</sup>	
PW-0	Antimony	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	
PW-0	Arsenic	5.00	59	46	20	Increasing	0.044	Yes
PW-0	Barium	48	63	58	-2	Decreasing	0.464	No
PW-0	Cadmium	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	
PW-0	Chromium	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	
PW-0	Cobalt	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	
PW-0	Lead	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	
PW-0	Manganese	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	
PW-0	Nickel	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	
PW-0	Selenium	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	
PW-0	Zinc	N/A <sup>1</sup>	N/A <sup>1</sup>	N/A <sup>1</sup>	N/A <sup>1</sup>	N/A <sup>1</sup>	N/A <sup>1</sup>	
PW-0	Mercury	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	
PW-0	TDS	2,100	3,800	3,008	47	Increasing	0.002	Yes
PW-0	Conductivity	3,400	6,640	6,017	61	Increasing	0.000	Yes
PW-1	Chloride	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	
PW-1	Sulfate	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	
PW-1	Nitrate	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	
PW-1	Calcium	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	
PW-1	Copper	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	
PW-1	Sodium	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	
PW-1	Potassium	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	
PW-1	Iron	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	
PW-1	Magnesium	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	
PW-1	Antimony	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	
PW-1	Arsenic	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	
PW-1	Barium	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	
PW-1	Cadmium	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	
PW-1	Chromium	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	
PW-1	Cobalt	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	
PW-1	Lead	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	
PW-1	Manganese	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	
PW-1	Nickel	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	
PW-1	Selenium	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	
PW-1	Zinc	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	
PW-1	Mercury	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	
PW-1	TDS	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	
PW-1	Conductivity	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	

**Appendix C**  
**2023 Second Semiannual Summary of Mann-Kendall Test for Trend**  
**Genesis Solar Energy Project, Blythe, CA**

Well ID	Analyte	Minimum	Maximum	Mean	Mann-Kendall at 95% Confidence Interval			
					Mann-Kendall Test Value (S)	Trend Direction	p-Value	Significant Trend?
PW-2	Chloride	570	1,370	877	34	Increasing	0.192	No
PW-2	Sulfate	290	584	446	10	Increasing	0.400	No
PW-2	Nitrate	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	
PW-2	Calcium	N/A <sup>1</sup>	N/A <sup>1</sup>	N/A <sup>1</sup>	N/A <sup>1</sup>	N/A <sup>1</sup>	N/A <sup>1</sup>	
PW-2	Copper	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	
PW-2	Sodium	410	1,200	759	64	Increasing	0.048	Yes
PW-2	Potassium	N/A <sup>1</sup>	N/A <sup>1</sup>	N/A <sup>1</sup>	N/A <sup>1</sup>	N/A <sup>1</sup>	N/A <sup>1</sup>	
PW-2	Iron	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	
PW-2	Magnesium	N/A <sup>1</sup>	N/A <sup>1</sup>	N/A <sup>1</sup>	N/A <sup>1</sup>	N/A <sup>1</sup>	N/A <sup>1</sup>	
PW-2	Antimony	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	
PW-2	Arsenic	19	38	30	51	Increasing	0.019	Yes
PW-2	Barium	14	52	41	44	Increasing	0.048	Yes
PW-2	Cadmium	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	
PW-2	Chromium	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	
PW-2	Cobalt	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	
PW-2	Lead	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	
PW-2	Manganese	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	
PW-2	Nickel	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	
PW-2	Selenium	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	
PW-2	Zinc	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	
PW-2	Mercury	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	
PW-2	TDS	1,800	5,200	2,239	-80	Decreasing	0.016	Yes
PW-2	Conductivity	2,900	4,100	3,715	-37	Decreasing	0.169	No

**Notes:**

N/A<sup>1</sup> Not Applicable - No new data for the reporting period

N/A<sup>2</sup> Not Applicable - Not enough data to calculate trend

  New max/min value

# **APPENDIX D**

## **LABORATORY REPORTS**





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

28 December 2023

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 12/08/23 12:45. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

A handwritten signature in black ink, appearing to read 'Jeff Lee', is enclosed in a light gray rectangular box.

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:**  
 12/28/23 15:11

**ANALYTICAL REPORT FOR SAMPLES**

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
23a	T233670-01	Water	12/07/23 13:35	12/08/23 12:45
OBS-1	T233670-02	Water	12/07/23 12:30	12/08/23 12:45
TW-1	T233670-03	Water	12/07/23 12:00	12/08/23 12:45
TW-2	T233670-04	Water	12/07/23 14:00	12/08/23 12:45
PW-0	T233670-05	Water	12/07/23 14:50	12/08/23 12:45
PW-2	T233670-06	Water	12/07/23 15:10	12/08/23 12:45
DUP	T233670-07	Water	12/07/23 00:00	12/08/23 12:45

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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:  
12/28/23 15:11

**DETECTIONS SUMMARY**

**Sample ID:** 23a **Laboratory ID:** T233670-01

Analyte	Result	Reporting		Units	Method	Notes
		Limit				
Zinc	140	25		ug/l	200.8	FILT
Sodium	600	50		mg/l	EPA 200.7	FILT
pH	8.5	0.10		pH Units	SM 4500-H+B	O-09
Total Dissolved Solids	1600	10		mg/l	TDS by SM2540C	
Specific Conductance (EC)	2850	10.0		mho/cm @25°t	SM2510b mod.	
pH Temperature °C	22			pH Units	SM 4500-H+B	O-09
Chloride	442	100		mg/l	EPA 300.0	
Sulfate as SO4	380	100		mg/l	EPA 300.0	
Nitrate as NO3	0.896	0.500		mg/l	EPA 300.0	O-04
Nitrate as N	0.200	0.200		mg/l	EPA 300.0	O-04

**Sample ID:** OBS-1 **Laboratory ID:** T233670-02

Analyte	Result	Reporting		Units	Method	Notes
		Limit				
Selenium	56	25		ug/l	200.8	FILT
Calcium	290	50		mg/l	EPA 200.7	FILT
Magnesium	92	10		mg/l	EPA 200.7	FILT
Sodium	6100	50		mg/l	EPA 200.7	FILT
pH	7.8	0.10		pH Units	SM 4500-H+B	O-09
Total Dissolved Solids	18000	10		mg/l	TDS by SM2540C	
Specific Conductance (EC)	25600	10.0		mho/cm @25°t	SM2510b mod.	
pH Temperature °C	22			pH Units	SM 4500-H+B	O-09
Chloride	5950	1000		mg/l	EPA 300.0	
Sulfate as SO4	5320	1000		mg/l	EPA 300.0	
Nitrate as NO3	4.70	0.500		mg/l	EPA 300.0	O-04
Nitrate as N	1.06	0.200		mg/l	EPA 300.0	O-04

**Sample ID:** TW-1 **Laboratory ID:** T233670-03

Analyte	Result	Reporting		Units	Method	Notes
		Limit				
Calcium	120	50		mg/l	EPA 200.7	FILT

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Jeff Lee, Project Manager

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Northstar Environmental Remediation  
26225 Enterprise Court  
Lake Forest CA, 92630

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

**Reported:**  
12/28/23 15:11

**Sample ID:** TW-1

**Laboratory ID:** T233670-03

Analyte	Result	Reporting		Units	Method	Notes
		Limit				
Magnesium	38	10		mg/l	EPA 200.7	FILT
Sodium	3600	50		mg/l	EPA 200.7	FILT
pH	8.7	0.10		pH Units	SM 4500-H+B	O-09
Total Dissolved Solids	9300	10		mg/l	TDS by SM2540C	
pH Temperature °C	22			pH Units	SM 4500-H+B	O-09
Specific Conductance (EC)	16200	10.0		mho/cm @25°C	SM2510b mod.	
Chloride	4530	500		mg/l	EPA 300.0	
Sulfate as SO4	1610	500		mg/l	EPA 300.0	
Nitrate as NO3	0.888	0.500		mg/l	EPA 300.0	O-04
Nitrate as N	0.200	0.200		mg/l	EPA 300.0	O-04

**Sample ID:** TW-2

**Laboratory ID:** T233670-04

Analyte	Result	Reporting		Units	Method	Notes
		Limit				
Barium	61	25		ug/l	200.8	FILT
Zinc	240	25		ug/l	200.8	FILT
Calcium	98	50		mg/l	EPA 200.7	FILT
Sodium	1200	50		mg/l	EPA 200.7	FILT
pH	8.4	0.10		pH Units	SM 4500-H+B	O-09
Total Dissolved Solids	3100	10		mg/l	TDS by SM2540C	
pH Temperature °C	22			pH Units	SM 4500-H+B	O-09
Specific Conductance (EC)	6150	10.0		mho/cm @25°C	SM2510b mod.	
Chloride	1580	500		mg/l	EPA 300.0	
Sulfate as SO4	534	5.00		mg/l	EPA 300.0	AO-1

**Sample ID:** PW-0

**Laboratory ID:** T233670-05

Analyte	Result	Reporting		Units	Method	Notes
		Limit				
Arsenic	50	25		ug/l	200.8	FILT
Barium	58	25		ug/l	200.8	FILT
Calcium	110	50		mg/l	EPA 200.7	FILT
Sodium	1400	50		mg/l	EPA 200.7	FILT
Total Dissolved Solids	3800	10		mg/l	TDS by SM2540C	
pH	8.1	0.10		pH Units	SM 4500-H+B	O-09
pH Temperature °C	22			pH Units	SM 4500-H+B	O-09

SunStar Laboratories, Inc.



Jeff Lee, Project Manager

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Northstar Environmental Remediation  
26225 Enterprise Court  
Lake Forest CA, 92630

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

Reported:  
12/28/23 15:11

Sample ID: PW-0

Laboratory ID: T233670-05

Analyte	Result	Reporting		Units	Method	Notes
		Limit				
Specific Conductance (EC)	6640	10.0		mho/cm @25°C	SM2510b mod.	
Fluoride	5.01	0.500		mg/l	EPA 300.0	
Chloride	1620	500		mg/l	EPA 300.0	
Sulfate as SO4	540	500		mg/l	EPA 300.0	
Nitrate as NO3	0.899	0.500		mg/l	EPA 300.0	O-04
Nitrate as N	0.200	0.200		mg/l	EPA 300.0	O-04

Sample ID: PW-2

Laboratory ID: T233670-06

Analyte	Result	Reporting		Units	Method	Notes
		Limit				
Arsenic	31	25		ug/l	200.8	FILT
Barium	40	25		ug/l	200.8	FILT
Sodium	750	50		mg/l	EPA 200.7	FILT
pH	7.7	0.10		pH Units	SM 4500-H+B	O-09
Total Dissolved Solids	2100	10		mg/l	TDS by SM2540C	
Specific Conductance (EC)	3730	10.0		mho/cm @25°C	SM2510b mod.	
pH Temperature °C	22			pH Units	SM 4500-H+B	O-09
Fluoride	5.41	0.500		mg/l	EPA 300.0	
Chloride	769	500		mg/l	EPA 300.0	
Sulfate as SO4	526	5.00		mg/l	EPA 300.0	AO-1

Sample ID: DUP

Laboratory ID: T233670-07

Analyte	Result	Reporting		Units	Method	Notes
		Limit				
Arsenic	26	25		ug/l	200.8	FILT
Barium	40	25		ug/l	200.8	FILT
Sodium	740	50		mg/l	EPA 200.7	FILT
pH	7.9	0.10		pH Units	SM 4500-H+B	O-09
Total Dissolved Solids	2100	10		mg/l	TDS by SM2540C	
pH Temperature °C	22			pH Units	SM 4500-H+B	O-09
Specific Conductance (EC)	3740	10.0		mho/cm @25°C	SM2510b mod.	
Chloride	765	500		mg/l	EPA 300.0	
Sulfate as SO4	526	5.00		mg/l	EPA 300.0	AO-1
Nitrate as NO3	0.879	0.500		mg/l	EPA 300.0	O-04
Nitrate as N	0.200	0.200		mg/l	EPA 300.0	O-04

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Jeff Lee, Project Manager

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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:**  
12/28/23 15:11

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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:  
12/28/23 15:11

**23a**

**T233670-01 (Water)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**SunStar Laboratories, Inc.**

**Metals by EPA 200 Series Methods**

Copper	ND	0.50	mg/l	100	23L0201	12/11/23	12/15/23	EPA 200.7	FILT, R-01
Calcium	ND	50	"	"	"	"	12/15/23	"	FILT, R-01
Iron	ND	20	"	"	"	"	"	"	FILT, R-01
Magnesium	ND	10	"	"	"	"	"	"	FILT, R-01
Potassium	ND	50	"	"	"	"	"	"	FILT, R-01
<b>Sodium</b>	<b>600</b>	50	"	"	"	"	"	"	FILT
Antimony	ND	25	ug/l	50	23L0203	12/11/23	12/14/23	200.8	FILT, R-01
Arsenic	ND	25	"	"	"	"	"	"	FILT
Barium	ND	25	"	"	"	"	"	"	FILT, R-01
Cadmium	ND	25	"	"	"	"	"	"	FILT, R-01
Chromium	ND	25	"	"	"	"	"	"	FILT, R-01
Cobalt	ND	25	"	"	"	"	"	"	FILT, R-01
Lead	ND	25	"	"	"	"	"	"	FILT, R-01
Nickel	ND	25	"	"	"	"	"	"	FILT, R-01
Selenium	ND	25	"	"	"	"	"	"	FILT, R-01
<b>Zinc</b>	<b>140</b>	25	"	"	"	"	"	"	FILT

**Cold Vapor Extraction EPA 7470/7471**

Mercury	ND	1.0	ug/l	1	23L0186	12/11/23	12/14/23	EPA 7470A Water	
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**Conventional Chemistry Parameters by APHA/EPA/ASTM Methods**

Oil & Grease	ND	5.00	mg/l	1	23L0176	12/08/23	12/12/23	EPA 1664B	
<b>Specific Conductance (EC)</b>	<b>2850</b>	10.0	umho/cm @25°C	"	23L0170	12/08/23	12/13/23	SM2510b mod.	
<b>pH</b>	<b>8.5</b>	0.10	pH Units	"	23L0169	12/08/23	12/13/23	SM 4500-H+B	O-09
<b>pH Temperature °C</b>	<b>22</b>		"	"	"	"	"	"	O-09
<b>Total Dissolved Solids</b>	<b>1600</b>	10	mg/l	"	23L0171	12/08/23	12/15/23	TDS by SM2540C	

SunStar Laboratories, Inc.



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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: 12/28/23 15:11
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**23a**  
**T233670-01 (Water)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**SunStar Laboratories, Inc.**

**Anions by EPA Method 300.0**

Chloride	442	100	mg/l	20	23L0163	12/08/23	12/12/23	EPA 300.0	
Sulfate as SO4	380	100	"	"	"	"	"	"	
Nitrate as NO3	0.896	0.500	"	1	"	"	12/11/23	"	O-04
Nitrate as N	0.200	0.200	"	"	"	"	"	"	O-04

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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:**  
12/28/23 15:11

**OBS-1**  
**T233670-02 (Water)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**SunStar Laboratories, Inc.**

**Metals by EPA 200 Series Methods**

Copper	ND	0.50	mg/l	100	23L0201	12/11/23	12/15/23	EPA 200.7	FILT, R-01
<b>Calcium</b>	<b>290</b>	50	"	"	"	"	12/15/23	"	FILT
Iron	ND	20	"	"	"	"	"	"	FILT, R-01
<b>Magnesium</b>	<b>92</b>	10	"	"	"	"	"	"	FILT
Potassium	ND	50	"	"	"	"	"	"	FILT, R-01
<b>Sodium</b>	<b>6100</b>	50	"	"	"	"	"	"	FILT
Antimony	ND	25	ug/l	50	23L0203	12/11/23	12/14/23	200.8	FILT, R-01
Arsenic	ND	25	"	"	"	"	"	"	FILT, R-01
Barium	ND	25	"	"	"	"	"	"	FILT, R-01
Cadmium	ND	25	"	"	"	"	"	"	FILT, R-01
Chromium	ND	25	"	"	"	"	"	"	FILT, R-01
Cobalt	ND	25	"	"	"	"	"	"	FILT, R-01
Lead	ND	25	"	"	"	"	"	"	FILT, R-01
Nickel	ND	25	"	"	"	"	"	"	FILT, R-01
<b>Selenium</b>	<b>56</b>	25	"	"	"	"	"	"	FILT
Zinc	ND	25	"	"	"	"	"	"	FILT, R-01

**Cold Vapor Extraction EPA 7470/7471**

Mercury	ND	1.0	ug/l	1	23L0186	12/11/23	12/14/23	EPA 7470A Water	
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**Conventional Chemistry Parameters by APHA/EPA/ASTM Methods**

Oil & Grease	ND	5.00	mg/l	1	23L0176	12/08/23	12/12/23	EPA 1664B	
<b>Specific Conductance (EC)</b>	<b>25600</b>	10.0	umho/cm @25°C	"	23L0170	12/08/23	12/13/23	SM2510b mod.	
<b>pH</b>	<b>7.8</b>	0.10	pH Units	"	23L0169	12/08/23	12/13/23	SM 4500-H+B	O-09
<b>pH Temperature °C</b>	<b>22</b>		"	"	"	"	"	"	O-09
<b>Total Dissolved Solids</b>	<b>18000</b>	10	mg/l	"	23L0171	12/08/23	12/15/23	TDS by SM2540C	

SunStar Laboratories, Inc.



Jeff Lee, Project Manager

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 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: 12/28/23 15:11
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**OBS-1**  
**T233670-02 (Water)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**SunStar Laboratories, Inc.**

**Anions by EPA Method 300.0**

Chloride	5950	1000	mg/l	200	23L0163	12/08/23	12/12/23	EPA 300.0	
Sulfate as SO4	5320	1000	"	"	"	"	"	"	
Nitrate as NO3	4.70	0.500	"	1	"	"	12/12/23	"	O-04
Nitrate as N	1.06	0.200	"	"	"	"	"	"	O-04

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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:**  
12/28/23 15:11

**TW-1**

**T233670-03 (Water)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**SunStar Laboratories, Inc.**

**Metals by EPA 200 Series Methods**

Copper	ND	0.50	mg/l	100	23L0201	12/11/23	12/15/23	EPA 200.7	FILT, R-01
<b>Calcium</b>	<b>120</b>	50	"	"	"	"	12/15/23	"	FILT
Iron	ND	20	"	"	"	"	"	"	FILT, R-01
<b>Magnesium</b>	<b>38</b>	10	"	"	"	"	"	"	FILT
Potassium	ND	50	"	"	"	"	"	"	FILT, R-01
<b>Sodium</b>	<b>3600</b>	50	"	"	"	"	"	"	FILT
Antimony	ND	25	ug/l	50	23L0203	12/11/23	12/14/23	200.8	FILT, R-01
Arsenic	ND	25	"	"	"	"	"	"	FILT, R-01
Barium	ND	25	"	"	"	"	"	"	FILT, R-01
Cadmium	ND	25	"	"	"	"	"	"	FILT, R-01
Chromium	ND	25	"	"	"	"	"	"	FILT, R-01
Cobalt	ND	25	"	"	"	"	"	"	FILT, R-01
Lead	ND	25	"	"	"	"	"	"	FILT, R-01
Nickel	ND	25	"	"	"	"	"	"	FILT, R-01
Selenium	ND	25	"	"	"	"	"	"	FILT, R-01
Zinc	ND	25	"	"	"	"	"	"	FILT, R-01

**Cold Vapor Extraction EPA 7470/7471**

Mercury	ND	1.0	ug/l	1	23L0186	12/11/23	12/14/23	EPA 7470A Water	
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**Conventional Chemistry Parameters by APHA/EPA/ASTM Methods**

Oil & Grease	ND	5.00	mg/l	1	23L0176	12/08/23	12/12/23	EPA 1664B	
<b>Specific Conductance (EC)</b>	<b>16200</b>	10.0	umho/cm @25°C	"	23L0170	12/08/23	12/13/23	SM2510b mod.	
<b>pH</b>	<b>8.7</b>	0.10	pH Units	"	23L0169	12/08/23	12/13/23	SM 4500-H+B	O-09
<b>pH Temperature °C</b>	<b>22</b>		"	"	"	"	"	"	O-09
<b>Total Dissolved Solids</b>	<b>9300</b>	10	mg/l	"	23L0171	12/08/23	12/15/23	TDS by SM2540C	

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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:**  
12/28/23 15:11

**TW-1**

**T233670-03 (Water)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**SunStar Laboratories, Inc.**

**Anions by EPA Method 300.0**

Chloride	4530	500	mg/l	100	23L0163	12/08/23	12/12/23	EPA 300.0	
Sulfate as SO4	1610	500	"	"	"	"	"	"	
Nitrate as NO3	0.888	0.500	"	1	"	"	12/12/23	"	O-04
Nitrate as N	0.200	0.200	"	"	"	"	"	"	O-04

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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:**  
12/28/23 15:11

**TW-2**

**T233670-04 (Water)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**SunStar Laboratories, Inc.**

**Metals by EPA 200 Series Methods**

Copper	ND	0.50	mg/l	100	23L0201	12/11/23	12/15/23	EPA 200.7	FILT, R-01
<b>Calcium</b>	<b>98</b>	50	"	"	"	"	12/15/23	"	FILT
Iron	ND	20	"	"	"	"	"	"	FILT, R-01
Potassium	ND	50	"	"	"	"	"	"	FILT, R-01
Magnesium	ND	10	"	"	"	"	"	"	FILT, R-01
<b>Sodium</b>	<b>1200</b>	50	"	"	"	"	"	"	FILT
Antimony	ND	25	ug/l	50	23L0203	12/11/23	12/14/23	200.8	FILT, R-01
Arsenic	ND	25	"	"	"	"	"	"	FILT, R-01
<b>Barium</b>	<b>61</b>	25	"	"	"	"	"	"	FILT
Cadmium	ND	25	"	"	"	"	"	"	FILT, R-01
Chromium	ND	25	"	"	"	"	"	"	FILT, R-01
Cobalt	ND	25	"	"	"	"	"	"	FILT, R-01
Lead	ND	25	"	"	"	"	"	"	FILT, R-01
Nickel	ND	25	"	"	"	"	"	"	FILT, R-01
Selenium	ND	25	"	"	"	"	"	"	FILT, R-01
<b>Zinc</b>	<b>240</b>	25	"	"	"	"	"	"	FILT

**Cold Vapor Extraction EPA 7470/7471**

Mercury	ND	1.0	ug/l	1	23L0186	12/11/23	12/14/23	EPA 7470A Water	
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**Conventional Chemistry Parameters by APHA/EPA/ASTM Methods**

Oil & Grease	ND	5.00	mg/l	1	23L0176	12/08/23	12/12/23	EPA 1664B	
<b>Specific Conductance (EC)</b>	<b>6150</b>	10.0	umho/cm @25°C	"	23L0170	12/08/23	12/13/23	SM2510b mod.	
<b>pH</b>	<b>8.4</b>	0.10	pH Units	"	23L0169	12/08/23	12/13/23	SM 4500-H+B	O-09
<b>pH Temperature °C</b>	<b>22</b>		"	"	"	"	"	"	O-09
<b>Total Dissolved Solids</b>	<b>3100</b>	10	mg/l	"	23L0171	12/08/23	12/15/23	TDS by SM2540C	

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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	<b>Reported:</b> 12/28/23 15:11
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**TW-2**  
**T233670-04 (Water)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**SunStar Laboratories, Inc.**

**Anions by EPA Method 300.0**

Chloride	1580	500	mg/l	100	23L0163	12/08/23	12/12/23	EPA 300.0	
Sulfate as SO4	534	5.00	"	1	"	"	"	"	AO-1
Nitrate as NO3	ND	0.500	"	"	"	"	12/12/23	"	O-04
Nitrate as N	ND	0.200	"	"	"	"	"	"	O-04

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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:  
12/28/23 15:11

**PW-0**

**T233670-05 (Water)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**SunStar Laboratories, Inc.**

**Metals by EPA 200 Series Methods**

Copper	ND	0.50	mg/l	100	23L0201	12/11/23	12/15/23	EPA 200.7	FILT, R-01
<b>Calcium</b>	<b>110</b>	50	"	"	"	"	12/15/23	"	FILT
Iron	ND	20	"	"	"	"	"	"	FILT, R-01
Magnesium	ND	10	"	"	"	"	"	"	FILT, R-01
Potassium	ND	50	"	"	"	"	"	"	FILT, R-01
<b>Sodium</b>	<b>1400</b>	50	"	"	"	"	"	"	FILT
Antimony	ND	25	ug/l	50	23L0203	12/11/23	12/14/23	200.8	R-01, FILT
<b>Arsenic</b>	<b>50</b>	25	"	"	"	"	"	"	FILT
<b>Barium</b>	<b>58</b>	25	"	"	"	"	"	"	FILT
Cadmium	ND	25	"	"	"	"	"	"	R-01, FILT
Chromium	ND	25	"	"	"	"	"	"	R-01, FILT
Cobalt	ND	25	"	"	"	"	"	"	R-01, FILT
Lead	ND	25	"	"	"	"	"	"	R-01, FILT
Nickel	ND	25	"	"	"	"	"	"	R-01, FILT
Selenium	ND	25	"	"	"	"	"	"	R-01, FILT
Zinc	ND	25	"	"	"	"	"	"	FILT, R-01

**Cold Vapor Extraction EPA 7470/7471**

Mercury	ND	1.0	ug/l	1	23L0186	12/11/23	12/14/23	EPA 7470A Water	
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**Conventional Chemistry Parameters by APHA/EPA/ASTM Methods**

Oil & Grease	ND	5.00	mg/l	1	23L0176	12/08/23	12/12/23	EPA 1664B	
<b>Specific Conductance (EC)</b>	<b>6640</b>	10.0	umho/cm @25°C	"	23L0170	12/08/23	12/13/23	SM2510b mod.	
<b>pH</b>	<b>8.1</b>	0.10	pH Units	"	23L0169	12/08/23	12/13/23	SM 4500-H+B	O-09
<b>pH Temperature °C</b>	<b>22</b>		"	"	"	"	"	"	O-09
<b>Total Dissolved Solids</b>	<b>3800</b>	10	mg/l	"	23L0171	12/08/23	12/15/23	TDS by SM2540C	

SunStar Laboratories, Inc.



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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:**  
12/28/23 15:11

**PW-0**

**T233670-05 (Water)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**SunStar Laboratories, Inc.**

**Anions by EPA Method 300.0**

Fluoride	5.01	0.500	mg/l	1	23L0163	12/08/23	12/12/23	EPA 300.0	
Chloride	1620	500	"	100	"	"	"	"	
Sulfate as SO4	540	500	"	"	"	"	"	"	
Nitrate as NO3	0.899	0.500	"	1	"	"	12/12/23	"	O-04
Nitrate as N	0.200	0.200	"	"	"	"	"	"	O-04

SunStar Laboratories, Inc.



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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:**  
12/28/23 15:11

**PW-2**

**T233670-06 (Water)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**SunStar Laboratories, Inc.**

**Metals by EPA 200 Series Methods**

Copper	ND	0.50	mg/l	100	23L0201	12/11/23	12/15/23	EPA 200.7	FILT, R-01
Calcium	ND	50	"	"	"	"	"	"	FILT, R-01
Iron	ND	20	"	"	"	"	"	"	FILT, R-01
Potassium	ND	50	"	"	"	"	12/15/23	"	FILT, R-01
Magnesium	ND	10	"	"	"	"	12/15/23	"	FILT, R-01
<b>Sodium</b>	<b>750</b>	50	"	"	"	"	12/15/23	"	FILT
Antimony	ND	25	ug/l	50	23L0203	12/11/23	12/14/23	200.8	FILT, R-01
<b>Arsenic</b>	<b>31</b>	25	"	"	"	"	"	"	FILT
<b>Barium</b>	<b>40</b>	25	"	"	"	"	"	"	FILT
Cadmium	ND	25	"	"	"	"	"	"	FILT, R-01
Chromium	ND	25	"	"	"	"	"	"	FILT, R-01
Cobalt	ND	25	"	"	"	"	"	"	FILT, R-01
Lead	ND	25	"	"	"	"	"	"	FILT, R-01
Nickel	ND	25	"	"	"	"	"	"	FILT, R-01
Selenium	ND	25	"	"	"	"	"	"	FILT, R-01
Zinc	ND	25	"	"	"	"	"	"	FILT, R-01

**Cold Vapor Extraction EPA 7470/7471**

Mercury	ND	1.0	ug/l	1	23L0186	12/11/23	12/14/23	EPA 7470A Water	
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**Conventional Chemistry Parameters by APHA/EPA/ASTM Methods**

Oil & Grease	ND	5.00	mg/l	1	23L0176	12/08/23	12/12/23	EPA 1664B	
<b>Specific Conductance (EC)</b>	<b>3730</b>	10.0	umho/cm @25°C	"	23L0170	12/08/23	12/13/23	SM2510b mod.	
<b>pH</b>	<b>7.7</b>	0.10	pH Units	"	23L0169	12/08/23	12/13/23	SM 4500-H+B	O-09
<b>pH Temperature °C</b>	<b>22</b>		"	"	"	"	"	"	O-09
<b>Total Dissolved Solids</b>	<b>2100</b>	10	mg/l	"	23L0171	12/08/23	12/15/23	TDS by SM2540C	

SunStar Laboratories, Inc.



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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: 12/28/23 15:11
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**PW-2**  
**T233670-06 (Water)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**SunStar Laboratories, Inc.**

**Anions by EPA Method 300.0**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Fluoride	5.41	0.500	mg/l	1	23L0163	12/08/23	12/12/23	EPA 300.0	
Chloride	769	500	"	100	"	"	"	"	
Sulfate as SO4	526	5.00	"	1	"	"	"	"	AO-1
Nitrate as NO3	ND	0.500	"	"	"	"	12/12/23	"	O-04
Nitrate as N	ND	0.200	"	"	"	"	"	"	O-04

SunStar Laboratories, Inc.

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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:**  
12/28/23 15:11

**DUP**

**T233670-07 (Water)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**SunStar Laboratories, Inc.**

**Metals by EPA 200 Series Methods**

Copper	ND	0.50	mg/l	100	23L0201	12/11/23	12/15/23	EPA 200.7	R-01, FILT
Calcium	ND	50	"	"	"	"	"	"	R-01, FILT
Iron	ND	20	"	"	"	"	"	"	R-01, FILT
Magnesium	ND	10	"	"	"	"	"	"	R-01, FILT
Potassium	ND	50	"	"	"	"	"	"	R-01, FILT
<b>Sodium</b>	<b>740</b>	50	"	"	"	"	"	"	FILT
Antimony	ND	25	ug/l	50	23L0203	12/11/23	12/14/23	200.8	FILT, R-01
<b>Arsenic</b>	<b>26</b>	25	"	"	"	"	"	"	FILT
<b>Barium</b>	<b>40</b>	25	"	"	"	"	"	"	FILT
Cadmium	ND	25	"	"	"	"	"	"	FILT, R-01
Chromium	ND	25	"	"	"	"	"	"	FILT, R-01
Cobalt	ND	25	"	"	"	"	"	"	FILT, R-01
Lead	ND	25	"	"	"	"	"	"	R-01, FILT
Nickel	ND	25	"	"	"	"	"	"	R-01, FILT
Selenium	ND	25	"	"	"	"	"	"	R-01, FILT
Zinc	ND	25	"	"	"	"	"	"	FILT, R-01

**Cold Vapor Extraction EPA 7470/7471**

Mercury	ND	1.0	ug/l	1	23L0186	12/11/23	12/14/23	EPA 7470A Water	
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**Conventional Chemistry Parameters by APHA/EPA/ASTM Methods**

Oil & Grease	ND	5.00	mg/l	1	23L0176	12/08/23	12/12/23	EPA 1664B	
<b>Specific Conductance (EC)</b>	<b>3740</b>	10.0	umho/cm @25°C	"	23L0170	12/08/23	12/13/23	SM2510b mod.	
<b>pH</b>	<b>7.9</b>	0.10	pH Units	"	23L0169	12/08/23	12/13/23	SM 4500-H+B	O-09
<b>pH Temperature °C</b>	<b>22</b>		"	"	"	"	"	"	O-09
<b>Total Dissolved Solids</b>	<b>2100</b>	10	mg/l	"	23L0171	12/08/23	12/15/23	TDS by SM2540C	

SunStar Laboratories, Inc.



Jeff Lee, Project Manager

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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	<b>Reported:</b> 12/28/23 15:11
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**DUP**  
**T233670-07 (Water)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**SunStar Laboratories, Inc.**

**Anions by EPA Method 300.0**

Chloride	765	500	mg/l	100	23L0163	12/08/23	12/12/23	EPA 300.0	
Sulfate as SO4	526	5.00	"	1	"	"	"	"	AO-1
Nitrate as NO3	0.879	0.500	"	"	"	"	12/12/23	"	O-04
Nitrate as N	0.200	0.200	"	"	"	"	"	"	O-04

SunStar Laboratories, Inc.

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 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: 12/28/23 15:11
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**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
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**Batch 23L0201 - EPA 3010A**

Blank (23L0201-BLK1) <span style="float:right">Prepared: 12/11/23 Analyzed: 12/15/23</span>										
Copper	ND	0.005	mg/l							
Aluminum	ND	0.10	"							
Calcium	ND	0.50	"							
Iron	ND	0.20	"							
Magnesium	ND	0.10	"							
Potassium	ND	0.50	"							
Sodium	ND	0.50	"							

LCS (23L0201-BS1) <span style="float:right">Prepared: 12/11/23 Analyzed: 12/15/23</span>										
Copper	0.545	0.005	mg/l	0.500		109	85-115			

Matrix Spike (23L0201-MS1) <span style="float:right">Prepared: 12/11/23 Analyzed: 12/15/23</span>										
Source: T233668-01										
Copper	0.604	0.50	mg/l	0.500	ND	121	70-130			QM-07

Matrix Spike Dup (23L0201-MSD1) <span style="float:right">Prepared: 12/11/23 Analyzed: 12/15/23</span>										
Source: T233668-01										
Copper	0.475	0.50	mg/l	0.500	ND	95.1	70-130	23.7	30	QM-07, R-01

**Batch 23L0203 - EPA 3010A**

Blank (23L0203-BLK1) <span style="float:right">Prepared: 12/11/23 Analyzed: 12/14/23</span>										
Antimony	ND	0.50	ug/l							
Arsenic	ND	0.50	"							
Barium	ND	0.50	"							
Cadmium	ND	0.50	"							
Chromium	ND	0.50	"							
Cobalt	ND	0.50	"							
Lead	ND	0.50	"							
Nickel	ND	0.50	"							
Selenium	ND	0.50	"							
Zinc	ND	0.50	"							

SunStar Laboratories, Inc.

Jeff Lee, Project Manager

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Northstar Environmental Remediation  
26225 Enterprise Court  
Lake Forest CA, 92630

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

Reported:  
12/28/23 15:11

**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
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**Batch 23L0203 - EPA 3010A**

**LCS (23L0203-BS1)**

Prepared: 12/11/23 Analyzed: 12/14/23

Arsenic	24.6	0.50	ug/l	25.0		98.2	85-115			
Barium	24.0	0.50	"	25.0		96.0	85-115			
Cadmium	24.3	0.50	"	25.0		97.1	85-115			
Chromium	22.1	0.50	"	25.0		88.2	85-115			
Lead	24.1	0.50	"	25.0		96.6	85-115			

**Matrix Spike (23L0203-MS1)**

Source: T233668-01

Prepared: 12/11/23 Analyzed: 12/14/23

Arsenic	416	25	ug/l	25.0	415	4.00	70-130			QM-07
Barium	128	25	"	25.0	103	98.0	70-130			
Cadmium	28.0	25	"	25.0	5.50	90.0	70-130			
Chromium	32.0	25	"	25.0	7.00	100	70-130			
Lead	27.5	25	"	25.0	ND	110	70-130			

**Matrix Spike Dup (23L0203-MSD1)**

Source: T233668-01

Prepared: 12/11/23 Analyzed: 12/14/23

Arsenic	420	25	ug/l	25.0	415	18.0	70-130	0.838	20	QM-07
Barium	127	25	"	25.0	103	96.0	70-130	0.393	20	
Cadmium	27.0	25	"	25.0	5.50	86.0	70-130	3.64	20	
Chromium	33.0	25	"	25.0	7.00	104	70-130	3.08	20	
Lead	26.0	25	"	25.0	ND	104	70-130	5.61	20	

SunStar Laboratories, Inc.



Jeff Lee, Project Manager

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Northstar Environmental Remediation  
26225 Enterprise Court  
Lake Forest CA, 92630

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

**Reported:**  
12/28/23 15:11

**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
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**Batch 23L0186 - EPA 7470A Water**

**Blank (23L0186-BLK1)**

Prepared: 12/11/23 Analyzed: 12/14/23

Mercury	ND	1.0	ug/l							
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**LCS (23L0186-BS1)**

Prepared: 12/11/23 Analyzed: 12/14/23

Mercury	6.87	1.0	ug/l	7.50		91.6	80-120			
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**Matrix Spike (23L0186-MS1)**

Source: T233642-01

Prepared: 12/11/23 Analyzed: 12/14/23

Mercury	6.56	1.0	ug/l	7.50	0.199	84.8	80-120			
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**Matrix Spike Dup (23L0186-MSD1)**

Source: T233642-01

Prepared: 12/11/23 Analyzed: 12/14/23

Mercury	6.49	1.0	ug/l	7.50	0.199	83.9	80-120	1.05	20	
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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: 12/28/23 15:11
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**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
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**Batch 23L0169 - General Preparation**

<b>Duplicate (23L0169-DUP1)</b>		<b>Source: T233669-01</b>		Prepared: 12/08/23 Analyzed: 12/13/23						
pH	9.01	0.10	pH Units		8.16			9.90	10	

**Batch 23L0170 - General Preparation**

<b>Duplicate (23L0170-DUP1)</b>		<b>Source: T233668-01</b>		Prepared: 12/08/23 Analyzed: 12/13/23						
Specific Conductance (EC)	99900	10.0	umho/cm @25°C		100000			0.200	15	

**Batch 23L0171 - General Preparation**

<b>Blank (23L0171-BLK1)</b>				Prepared: 12/08/23 Analyzed: 12/15/23						
Total Dissolved Solids	ND	10	mg/l							

<b>LCS (23L0171-BS1)</b>				Prepared: 12/08/23 Analyzed: 12/15/23						
Total Dissolved Solids	470	10	mg/l	500		94.0	80-120			

<b>Duplicate (23L0171-DUP1)</b>		<b>Source: T233670-01</b>		Prepared: 12/08/23 Analyzed: 12/15/23						
Total Dissolved Solids	1670	10	mg/l		1630			2.12	20	

**Batch 23L0176 - General Preparation**

<b>Blank (23L0176-BLK1)</b>				Prepared: 12/08/23 Analyzed: 12/12/23						
Oil & Grease	ND	5.00	mg/l							

<b>LCS (23L0176-BS1)</b>				Prepared: 12/08/23 Analyzed: 12/12/23						
Oil & Grease	44.1	5.00	mg/l	53.1		83.1	78-114			

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: 12/28/23 15:11
--	---	-----------------------------

**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
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**Batch 23L0176 - General Preparation**

**LCS Dup (23L0176-BSD1)**

Prepared: 12/08/23 Analyzed: 12/12/23

Oil & Grease	43.0	5.00	mg/l	53.1		81.0	78-114	2.53	20	
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SunStar Laboratories, Inc.

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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: 12/28/23 15:11
--	---	-----------------------------

**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
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**Batch 23L0163 - General Preparation**

**Blank (23L0163-BLK1)**

Prepared: 12/08/23 Analyzed: 12/11/23

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 (23L0163-BS1)**

Prepared: 12/08/23 Analyzed: 12/11/23

Fluoride	27.6	0.500	mg/l	25.0		111	75-125			
Chloride	25.6	5.00	"	25.0		103	75-125			
Sulfate as SO4	25.9	5.00	"	25.0		104	75-125			
Nitrate as NO3	24.7	0.500	"	25.0		98.8	75-125			

**Matrix Spike (23L0163-MS1)**

Source: T233669-01

Prepared: 12/08/23 Analyzed: 12/12/23

Fluoride	7.96	0.500	mg/l	25.0	ND	31.8	75-125		20	QM-05
Chloride	5020	500	"	25.0	5290	NR	75-125		20	QM-05
Sulfate as SO4	1760	500	"	25.0	1830	NR	75-125		20	QM-05
Nitrate as NO3	30.7	0.500	"	25.0	7.18	94.1	75-125		20	

**Matrix Spike Dup (23L0163-MSD1)**

Source: T233669-01

Prepared: 12/08/23 Analyzed: 12/12/23

Fluoride	7.90	0.500	mg/l	25.0	ND	31.6	75-125	0.757	20	QM-05
Chloride	4880	500	"	25.0	5290	NR	75-125	2.91	20	QM-05
Sulfate as SO4	1710	500	"	25.0	1830	NR	75-125	2.79	20	QM-05
Nitrate as NO3	30.3	0.500	"	25.0	7.18	92.4	75-125	1.34	20	

SunStar Laboratories, Inc.

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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:**  
12/28/23 15:11

### Notes and Definitions

- R-01 The Reporting Limit has been raised to account for dilution necessary due to matrix interference.
- QM-07 The spike recovery and/or RPD was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS recovery.
- 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.
- O-09 The sample was analyzed outside the EPA recommended holding time of 24 hours.
- O-04 This sample was received and analyzed outside the EPA recommended holding time.
- FILT The sample was filtered prior to analysis.
- AO-1 Reporting straight run; reporting at higher dilution raises reporting limit, making the result J flagged
- 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.



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Jeff Lee, Project Manager

laboratories, Inc.  
 Commerce Centre Dr  
 West, CA 92630  
 926020

### Chain of Custody Record

Star Environmental Remediation \_\_\_\_\_  
 6225 Enterprise Court, Lake Forest, CA 92630 \_\_\_\_\_  
 927-274-1719 \_\_\_\_\_ Fax: \_\_\_\_\_  
 Manager: Arlin Brewster \_\_\_\_\_

Date: 12/7/2023 Page: 1 of \_\_\_\_\_  
 Project Name: Genesis Solar Groundwater \_\_\_\_\_  
 Collector: Arlin Brewster Client Project #: 196-004-06 \_\_\_\_\_  
 Batch #: T233670 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 - Therminol (Subcontract)	Deuterium, Oxygen-18 (Subcont.)	300.0 - Fluoride	Laboratory ID #	Comments/Preservation
23a	12/7/23	1335	W	Various	X	X	X	X	X	X	X	X	X	X			
BBS-1		1230	W	Various	X	X	X	X	X	X	X	X	X	X			
W-1		1200	W	Various	X	X	X	X	X	X	X	X	X	X			
W-2		1400	W	Various	X	X	X	X	X	X	X	X	X	X			
PW-0		1450	W	Various	X	X	X	X	X	X	X	X	X	X	X		
PW-2		1510	W	Various	X	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			
Blank	N/A	N/A	W	Various													HOLD
Blank	N/A	N/A	W	Various													HOLD

by: (signature) <i>Brewster</i>	Date / Time 12/8/23 @ 1245	Received by: (signature) <i>Paul...</i>	Date / Time 12/8/23 12:45	Total # of containers 51 Chain of Custody seals Y/N/NA Seals intact? Y/N/NA Received good condition/cold <b>Turn around time: Standard **</b>	Notes ** Deuterium & Oxygen subcontract has 10 Reporting limits must be consistent with previous reports
by: (signature)	Date / Time	Received by: (signature)	Date / Time		
by: (signature)	Date / Time	Received by: (signature)	Date / Time		

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



# SAMPLE RECEIVING REVIEW SHEET

Batch/Work Order #: T233670

Client Name: Northstar Environmental Remediation Project: Genesis Solar Groundwater

Delivered by:  Client  SunStar Courier  GLS  FedEx  Other

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

Lab Received by: Paul Date/Time Lab Received: 12-8-23 1245

Total number of coolers received: 1 Thermometer ID: SC-1 Calibration due: 11/17/2024

Temperature: Cooler #1	<u>1.0</u> °C +/- the CF (+ 0.1°C) = <u>1.1</u> °C corrected temperature
Temperature: Cooler #2	°C +/- the CF (+ 0.1°C) = _____ °C corrected temperature
Temperature: Cooler #3	°C +/- the CF (+ 0.1°C) = _____ °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 12-8-23

Comments: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_



# ANALYTICAL REPORT

## PREPARED FOR

Attn: Jeff Lee  
SunStar Laboratories Inc  
25712 Commercentre Drive  
Lake Forest, California 92630

Generated 12/22/2023 12:25:21 PM

## JOB DESCRIPTION

T233670

## JOB NUMBER

570-164076-1



# Eurofins Calscience

## Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Calscience Project Manager.

## Authorization



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Authorized for release by  
Sandy Tat, Project Manager I  
[Sandy.Tat@et.eurofinsus.com](mailto:Sandy.Tat@et.eurofinsus.com)  
(714)895-5494



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# Definitions/Glossary

Client: SunStar Laboratories Inc  
Project/Site: T233670

Job ID: 570-164076-1

## 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: T233670

Job ID: 570-164076-1

**Job ID: 570-164076-1**

**Eurofins Calscience**

## Job Narrative 570-164076-1

Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers are applied to indicate exceptions. Noncompliant quality control (QC) is further explained in narrative comments.

- Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD may be performed, unless otherwise specified in the method.
- Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.

Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

### Receipt

The samples were received on 12/11/2023 1:17 PM. 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 time was 5.5°C

### Diesel Range Organics

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: T233670

Job ID: 570-164076-1

**Client Sample ID: T233670-01**

**Lab Sample ID: 570-164076-1**

No Detections.

**Client Sample ID: T233670-02**

**Lab Sample ID: 570-164076-2**

No Detections.

**Client Sample ID: T233670-03**

**Lab Sample ID: 570-164076-3**

No Detections.

**Client Sample ID: T233670-04**

**Lab Sample ID: 570-164076-4**

No Detections.

**Client Sample ID: T233670-05**

**Lab Sample ID: 570-164076-5**

No Detections.

**Client Sample ID: T233670-06**

**Lab Sample ID: 570-164076-6**

No Detections.

**Client Sample ID: T233670-07**

**Lab Sample ID: 570-164076-7**

No Detections.

This Detection Summary does not include radiochemical test results.

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# Client Sample Results

Client: SunStar Laboratories Inc  
Project/Site: T233670

Job ID: 570-164076-1

## Method: SW846 8015B - Diesel Range Organics (DRO) (GC)

**Client Sample ID: T233670-01**  
**Date Collected: 12/07/23 13:35**  
**Date Received: 12/11/23 13:17**

**Lab Sample ID: 570-164076-1**  
**Matrix: Water**

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene, 1,1'-oxybis-	ND		99	ug/L		12/13/23 12:17	12/19/23 19:58	1
1,1'-Biphenyl	ND		99	ug/L		12/13/23 12:17	12/19/23 19:58	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
<i>n</i> -Octacosane (Surr)	87		53 - 151			12/13/23 12:17	12/19/23 19:58	1

**Client Sample ID: T233670-02**  
**Date Collected: 12/07/23 12:30**  
**Date Received: 12/11/23 13:17**

**Lab Sample ID: 570-164076-2**  
**Matrix: Water**

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene, 1,1'-oxybis-	ND		100	ug/L		12/13/23 12:17	12/20/23 18:20	1
1,1'-Biphenyl	ND		100	ug/L		12/13/23 12:17	12/20/23 18:20	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
<i>n</i> -Octacosane (Surr)	93		53 - 151			12/13/23 12:17	12/20/23 18:20	1

**Client Sample ID: T233670-03**  
**Date Collected: 12/07/23 12:00**  
**Date Received: 12/11/23 13:17**

**Lab Sample ID: 570-164076-3**  
**Matrix: Water**

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene, 1,1'-oxybis-	ND		99	ug/L		12/13/23 12:17	12/20/23 18:45	1
1,1'-Biphenyl	ND		99	ug/L		12/13/23 12:17	12/20/23 18:45	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
<i>n</i> -Octacosane (Surr)	87		53 - 151			12/13/23 12:17	12/20/23 18:45	1

**Client Sample ID: T233670-04**  
**Date Collected: 12/07/23 14:00**  
**Date Received: 12/11/23 13:17**

**Lab Sample ID: 570-164076-4**  
**Matrix: Water**

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene, 1,1'-oxybis-	ND		100	ug/L		12/13/23 12:17	12/20/23 19:19	1
1,1'-Biphenyl	ND		100	ug/L		12/13/23 12:17	12/20/23 19:19	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
<i>n</i> -Octacosane (Surr)	99		53 - 151			12/13/23 12:17	12/20/23 19:19	1

**Client Sample ID: T233670-05**  
**Date Collected: 12/07/23 14:50**  
**Date Received: 12/11/23 13:17**

**Lab Sample ID: 570-164076-5**  
**Matrix: Water**

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene, 1,1'-oxybis-	ND		100	ug/L		12/13/23 12:17	12/20/23 19:43	1
1,1'-Biphenyl	ND		100	ug/L		12/13/23 12:17	12/20/23 19:43	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
<i>n</i> -Octacosane (Surr)	85		53 - 151			12/13/23 12:17	12/20/23 19:43	1

**Client Sample ID: T233670-06**  
**Date Collected: 12/07/23 15:10**  
**Date Received: 12/11/23 13:17**

**Lab Sample ID: 570-164076-6**  
**Matrix: Water**

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene, 1,1'-oxybis-	ND		99	ug/L		12/13/23 12:17	12/20/23 20:08	1
1,1'-Biphenyl	ND		99	ug/L		12/13/23 12:17	12/20/23 20:08	1

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# Client Sample Results

Client: SunStar Laboratories Inc  
Project/Site: T233670

Job ID: 570-164076-1

## Method: SW846 8015B - Diesel Range Organics (DRO) (GC) (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
<i>n</i> -Octacosane (Surr)	97		53 - 151	12/13/23 12:17	12/20/23 20:08	1

**Client Sample ID: T233670-07**  
**Date Collected: 12/07/23 00:00**  
**Date Received: 12/11/23 13:17**

**Lab Sample ID: 570-164076-7**  
**Matrix: Water**

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene, 1,1'-oxybis-	ND		98	ug/L		12/13/23 12:17	12/20/23 20:33	1
1,1'-Biphenyl	ND		98	ug/L		12/13/23 12:17	12/20/23 20:33	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
<i>n</i> -Octacosane (Surr)	91		53 - 151	12/13/23 12:17	12/20/23 20:33	1



# Surrogate Summary

Client: SunStar Laboratories Inc  
Project/Site: T233670

Job ID: 570-164076-1

**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)
570-164076-1	T233670-01	87
570-164076-1 MS	T233670-01	103
570-164076-1 MSD	T233670-01	96
570-164076-2	T233670-02	93
570-164076-3	T233670-03	87
570-164076-4	T233670-04	99
570-164076-5	T233670-05	85
570-164076-6	T233670-06	97
570-164076-7	T233670-07	91
LCS 570-392271/2-A	Lab Control Sample	76
LCSD 570-392271/3-A	Lab Control Sample Dup	79
MB 570-392271/1-A	Method Blank	80

### Surrogate Legend

OTCSN = n-Octacosane (Surr)



# QC Sample Results

Client: SunStar Laboratories Inc  
Project/Site: T233670

Job ID: 570-164076-1

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

**Lab Sample ID: MB 570-392271/1-A**  
**Matrix: Water**  
**Analysis Batch: 394262**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 392271**

Analyte	MB	MB	RL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier						
Benzene, 1,1'-oxybis-	ND		100	ug/L		12/13/23 12:17	12/19/23 13:50	1
1,1'-Biphenyl	ND		100	ug/L		12/13/23 12:17	12/19/23 13:50	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
<i>n</i> -Octacosane (Surr)	80		53 - 151			12/13/23 12:17	12/19/23 13:50	1

**Lab Sample ID: LCS 570-392271/2-A**  
**Matrix: Water**  
**Analysis Batch: 394262**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 392271**

Analyte	Spike Added	LCS	LCS	Unit	D	%Rec	%Rec Limits
		Result	Qualifier				
Benzene, 1,1'-oxybis-	1000	1198		ug/L		120	57 - 120
1,1'-Biphenyl	1000	867.9		ug/L		87	45 - 120
Surrogate	%Recovery	Qualifier	Limits				
<i>n</i> -Octacosane (Surr)	76		53 - 151				

**Lab Sample ID: LCSD 570-392271/3-A**  
**Matrix: Water**  
**Analysis Batch: 394262**

**Client Sample ID: Lab Control Sample Dup**  
**Prep Type: Total/NA**  
**Prep Batch: 392271**

Analyte	Spike Added	LCSD	LCSD	Unit	D	%Rec	%Rec Limits	RPD	Limit
		Result	Qualifier					RPD	Limit
Benzene, 1,1'-oxybis-	1000	1204		ug/L		120	57 - 120	0	20
1,1'-Biphenyl	1000	872.4		ug/L		87	45 - 120	1	20
Surrogate	%Recovery	Qualifier	Limits						
<i>n</i> -Octacosane (Surr)	79		53 - 151						

**Lab Sample ID: 570-164076-1 MS**  
**Matrix: Water**  
**Analysis Batch: 394262**

**Client Sample ID: T233670-01**  
**Prep Type: Total/NA**  
**Prep Batch: 392271**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS	MS	Unit	D	%Rec	%Rec Limits
				Result	Qualifier				
Benzene, 1,1'-oxybis-	ND		1000	1085		ug/L		108	57 - 120
1,1'-Biphenyl	ND		1000	784.3		ug/L		78	45 - 120
Surrogate	%Recovery	Qualifier	Limits						
<i>n</i> -Octacosane (Surr)	103		53 - 151						

**Lab Sample ID: 570-164076-1 MSD**  
**Matrix: Water**  
**Analysis Batch: 394262**

**Client Sample ID: T233670-01**  
**Prep Type: Total/NA**  
**Prep Batch: 392271**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD	MSD	Unit	D	%Rec	%Rec Limits	RPD	Limit
				Result	Qualifier					RPD	Limit
Benzene, 1,1'-oxybis-	ND		994	1147		ug/L		115	57 - 120	6	20
1,1'-Biphenyl	ND		994	826.4		ug/L		83	45 - 120	5	20

Eurolins Calscience

# QC Sample Results

Client: SunStar Laboratories Inc  
Project/Site: T233670

Job ID: 570-164076-1

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

Lab Sample ID: 570-164076-1 MSD  
Matrix: Water  
Analysis Batch: 394262

Client Sample ID: T233670-01  
Prep Type: Total/NA  
Prep Batch: 392271

<u>Surrogate</u>	<u>MSD</u>	<u>MSD</u>	<u>Limits</u>
	<u>%Recovery</u>	<u>Qualifier</u>	
<i>n-Octacosane (Surr)</i>	96		53 - 151

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# QC Association Summary

Client: SunStar Laboratories Inc  
Project/Site: T233670

Job ID: 570-164076-1

## GC Semi VOA

### Prep Batch: 392271

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-164076-1	T233670-01	Total/NA	Water	3510C	
570-164076-2	T233670-02	Total/NA	Water	3510C	
570-164076-3	T233670-03	Total/NA	Water	3510C	
570-164076-4	T233670-04	Total/NA	Water	3510C	
570-164076-5	T233670-05	Total/NA	Water	3510C	
570-164076-6	T233670-06	Total/NA	Water	3510C	
570-164076-7	T233670-07	Total/NA	Water	3510C	
MB 570-392271/1-A	Method Blank	Total/NA	Water	3510C	
LCS 570-392271/2-A	Lab Control Sample	Total/NA	Water	3510C	
LCSD 570-392271/3-A	Lab Control Sample Dup	Total/NA	Water	3510C	
570-164076-1 MS	T233670-01	Total/NA	Water	3510C	
570-164076-1 MSD	T233670-01	Total/NA	Water	3510C	

### Analysis Batch: 394262

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-164076-1	T233670-01	Total/NA	Water	8015B	392271
MB 570-392271/1-A	Method Blank	Total/NA	Water	8015B	392271
LCS 570-392271/2-A	Lab Control Sample	Total/NA	Water	8015B	392271
LCSD 570-392271/3-A	Lab Control Sample Dup	Total/NA	Water	8015B	392271
570-164076-1 MS	T233670-01	Total/NA	Water	8015B	392271
570-164076-1 MSD	T233670-01	Total/NA	Water	8015B	392271

### Analysis Batch: 394852

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-164076-2	T233670-02	Total/NA	Water	8015B	392271
570-164076-3	T233670-03	Total/NA	Water	8015B	392271
570-164076-4	T233670-04	Total/NA	Water	8015B	392271
570-164076-5	T233670-05	Total/NA	Water	8015B	392271
570-164076-6	T233670-06	Total/NA	Water	8015B	392271
570-164076-7	T233670-07	Total/NA	Water	8015B	392271

# Lab Chronicle

Client: SunStar Laboratories Inc  
Project/Site: T233670

Job ID: 570-164076-1

**Client Sample ID: T233670-01**

**Lab Sample ID: 570-164076-1**

Date Collected: 12/07/23 13:35

Matrix: Water

Date Received: 12/11/23 13:17

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			251.9 mL	2.5 mL	392271	12/13/23 12:17	UFLU	EET CAL 4
Total/NA	Analysis	8015B		1	1 mL	1 mL	394262	12/19/23 19:58	SP9M	EET CAL 4

Instrument ID: GC70B

**Client Sample ID: T233670-02**

**Lab Sample ID: 570-164076-2**

Date Collected: 12/07/23 12:30

Matrix: Water

Date Received: 12/11/23 13:17

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			249.9 mL	2.5 mL	392271	12/13/23 12:17	UFLU	EET CAL 4
Total/NA	Analysis	8015B		1	1 mL	1 mL	394852	12/20/23 18:20	SP9M	EET CAL 4

Instrument ID: GC70B

**Client Sample ID: T233670-03**

**Lab Sample ID: 570-164076-3**

Date Collected: 12/07/23 12:00

Matrix: Water

Date Received: 12/11/23 13:17

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			251.5 mL	2.5 mL	392271	12/13/23 12:17	UFLU	EET CAL 4
Total/NA	Analysis	8015B		1	1 mL	1 mL	394852	12/20/23 18:45	SP9M	EET CAL 4

Instrument ID: GC70B

**Client Sample ID: T233670-04**

**Lab Sample ID: 570-164076-4**

Date Collected: 12/07/23 14:00

Matrix: Water

Date Received: 12/11/23 13:17

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			250.8 mL	2.5 mL	392271	12/13/23 12:17	UFLU	EET CAL 4
Total/NA	Analysis	8015B		1	1 mL	1 mL	394852	12/20/23 19:19	SP9M	EET CAL 4

Instrument ID: GC70B

**Client Sample ID: T233670-05**

**Lab Sample ID: 570-164076-5**

Date Collected: 12/07/23 14:50

Matrix: Water

Date Received: 12/11/23 13:17

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			250.6 mL	2.5 mL	392271	12/13/23 12:17	UFLU	EET CAL 4
Total/NA	Analysis	8015B		1	1 mL	1 mL	394852	12/20/23 19:43	SP9M	EET CAL 4

Instrument ID: GC70B

# Lab Chronicle

Client: SunStar Laboratories Inc  
Project/Site: T233670

Job ID: 570-164076-1

**Client Sample ID: T233670-06**

**Lab Sample ID: 570-164076-6**

**Date Collected: 12/07/23 15:10**

**Matrix: Water**

**Date Received: 12/11/23 13:17**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			253.6 mL	2.5 mL	392271	12/13/23 12:17	UFLU	EET CAL 4
Total/NA	Analysis	8015B		1	1 mL	1 mL	394852	12/20/23 20:08	SP9M	EET CAL 4

Instrument ID: GC70B

**Client Sample ID: T233670-07**

**Lab Sample ID: 570-164076-7**

**Date Collected: 12/07/23 00:00**

**Matrix: Water**

**Date Received: 12/11/23 13:17**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			255.6 mL	2.5 mL	392271	12/13/23 12:17	UFLU	EET CAL 4
Total/NA	Analysis	8015B		1	1 mL	1 mL	394852	12/20/23 20:33	SP9M	EET CAL 4

Instrument ID: GC70B

**Laboratory References:**

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



# Accreditation/Certification Summary

Client: SunStar Laboratories Inc  
Project/Site: T233670

Job ID: 570-164076-1

## Laboratory: Eurofins Calscience

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

Authority	Program	Identification Number	Expiration Date
Oregon	NELAP	4175	02-02-24

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# Method Summary

Client: SunStar Laboratories Inc  
Project/Site: T233670

Job ID: 570-164076-1

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

**Protocol References:**

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

**Laboratory References:**

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

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# Sample Summary

Client: SunStar Laboratories Inc  
Project/Site: T233670

Job ID: 570-164076-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
570-164076-1	T233670-01	Water	12/07/23 13:35	12/11/23 13:17
570-164076-2	T233670-02	Water	12/07/23 12:30	12/11/23 13:17
570-164076-3	T233670-03	Water	12/07/23 12:00	12/11/23 13:17
570-164076-4	T233670-04	Water	12/07/23 14:00	12/11/23 13:17
570-164076-5	T233670-05	Water	12/07/23 14:50	12/11/23 13:17
570-164076-6	T233670-06	Water	12/07/23 15:10	12/11/23 13:17
570-164076-7	T233670-07	Water	12/07/23 00:00	12/11/23 13:17

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SUBCONTRACT ORDER

Loc: 570  
164076

SunStar Laboratories, Inc.

T233670

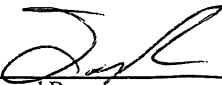
SENDING LABORATORY:

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: T233670-01</b>	Water	Sampled: 12/07/23 13:35	[REDACTED]	
Misc Water Testing #1	12/26/23 00:00	06/04/24 13:35		8015M- Therminol
<i>Containers Supplied:</i>				
<b>Sample ID: T233670-02</b>	Water	Sampled: 12/07/23 12:30	[REDACTED]	
Misc Water Testing #1	12/26/23 00:00	06/04/24 12:30		8015M- Therminol
<i>Containers Supplied:</i>				
<b>Sample ID: T233670-03</b>	Water	Sampled: 12/07/23 12:00	[REDACTED]	
Misc Water Testing #1	12/26/23 00:00	06/04/24 12:00		8015M- Therminol
<i>Containers Supplied:</i>				
<b>Sample ID: T233670-04</b>	Water	Sampled: 12/07/23 14:00	[REDACTED]	
Misc Water Testing #1	12/26/23 00:00	06/04/24 14:00		8015M- Therminol
<i>Containers Supplied:</i>				
<b>Sample ID: T233670-05</b>	Water	Sampled: 12/07/23 14:50	[REDACTED]	
Misc Water Testing #1	12/26/23 00:00	06/04/24 14:50		8015M- Therminol
<i>Containers Supplied:</i>				
<b>Sample ID: T233670-06</b>	Water	Sampled: 12/07/23 15:10	[REDACTED]	
Misc Water Testing #1	12/26/23 00:00	06/04/24 15:10		8015M- Therminol
<i>Containers Supplied:</i>				


12-11-23 13:17
AG EC
12-11-23 13:17  
 Released By \_\_\_\_\_ Date \_\_\_\_\_ Received By \_\_\_\_\_ Date \_\_\_\_\_

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

S.6/S.S. SC12



SUBCONTRACT ORDER

SunStar Laboratories, Inc.

T233670

Loc: 570

164076

Analysis	Due	Expires	Laboratory ID	Comments
Sample ID: T233670-07	Water	Sampled: 12/07/23 00:00	[REDACTED]	
Misc Water Testing #1	12/26/23 00:00	06/04/24 00:00		8015M- Therminol
Containers Supplied:				

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Released By [Signature] Date 12-11-23 13:17 Received By [Signature] Date 12-11-23 13:17

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

S.B / S.S SC12

# Login Sample Receipt Checklist

Client: SunStar Laboratories Inc

Job Number: 570-164076-1

**Login Number: 164076**

**List Number: 1**

**Creator: Vitente, Precy**

**List Source: Eurofins Calscience**

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
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?	N/A	
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.	True	
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	



Lab #: 902411 Job #: 57010 IS-101168 Co. Job#:  
Sample Name: T233670-01 Co. Lab#:  
Company: SunStar Laboratories, Inc  
API/Well:  
Container: 250ml Plastic Bottle  
Field/Site Name: T233670  
Location:  
Formation/Depth:  
Sampling Point:  
Date Sampled: 12/07/2023 13:35 Date Received: 12/12/2023 Date Reported: 12/27/2023

$\delta D$  of water ----- -75.4 ‰ relative to VSMOW

$\delta^{18}O$  of water ----- -10.28 ‰ 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 #: 902412 Job #: 57010 IS-101168 Co. Job#:  
Sample Name: T233670-02 Co. Lab#:  
Company: SunStar Laboratories, Inc  
API/Well:  
Container: 250ml Plastic Bottle  
Field/Site Name: T233670  
Location:  
Formation/Depth:  
Sampling Point:  
Date Sampled: 12/07/2023 12:30 Date Received: 12/12/2023 Date Reported: 12/27/2023

$\delta D$  of water ----- -60.2 ‰ relative to VSMOW

$\delta^{18}O$  of water ----- -6.79 ‰ 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 #: 902413 Job #: 57010 IS-101168 Co. Job#:  
Sample Name: T233670-03 Co. Lab#:  
Company: SunStar Laboratories, Inc  
API/Well:  
Container: 250ml Plastic Bottle  
Field/Site Name: T233670  
Location:  
Formation/Depth:  
Sampling Point:  
Date Sampled: 12/07/2023 12:00 Date Received: 12/12/2023 Date Reported: 12/27/2023

$\delta D$  of water ----- -63.0 ‰ relative to VSMOW

$\delta^{18}O$  of water ----- -7.92 ‰ 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 #: 902414 Job #: 57010 IS-101168 Co. Job#:   
Sample Name: T233670-04 Co. Lab#:   
Company: SunStar Laboratories, Inc   
API/Well:   
Container: 250ml Plastic Bottle   
Field/Site Name: T233670   
Location:   
Formation/Depth:   
Sampling Point:   
Date Sampled: 12/07/2023 14:00 Date Received: 12/12/2023 Date Reported: 12/27/2023

$\delta$ D of water ----- -75.2 ‰ relative to VSMOW

$\delta$ <sup>18</sup>O of water ----- -10.00 ‰ 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 #: 902415 Job #: 57010 IS-101168 Co. Job#:  
Sample Name: T233670-05 Co. Lab#:  
Company: SunStar Laboratories, Inc  
API/Well:  
Container: 250ml Plastic Bottle  
Field/Site Name: T233670  
Location:  
Formation/Depth:  
Sampling Point:  
Date Sampled: 12/07/2023 14:50 Date Received: 12/12/2023 Date Reported: 12/27/2023

$\delta D$  of water ----- -75.8 ‰ relative to VSMOW

$\delta^{18}O$  of water ----- -10.03 ‰ 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 #: 902416 Job #: 57010 IS-101168 Co. Job#:  
Sample Name: T233670-06 Co. Lab#:  
Company: SunStar Laboratories, Inc  
API/Well:  
Container: 250ml Plastic Bottle  
Field/Site Name: T233670  
Location:  
Formation/Depth:  
Sampling Point:  
Date Sampled: 12/07/2023 15:10 Date Received: 12/12/2023 Date Reported: 12/27/2023

$\delta D$  of water ----- -77.5 ‰ relative to VSMOW

$\delta^{18}O$  of water ----- -10.23 ‰ 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 #: 902417 Job #: 57010 IS-101168 Co. Job#:  
Sample Name: T233670-07 Co. Lab#:  
Company: SunStar Laboratories, Inc  
API/Well:  
Container: 250ml Plastic Bottle  
Field/Site Name: T233670  
Location:  
Formation/Depth:  
Sampling Point:  
Date Sampled: 12/07/2023 0:00 Date Received: 12/12/2023 Date Reported: 12/27/2023

$\delta$ D of water ----- -77.5 ‰ relative to VSMOW

$\delta^{18}$ O of water ----- -10.24 ‰ 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

**WORK ORDER**

**T233670**

**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: 12/27/23 00:00 (11 day TAT)

Received By: Paul Berner

Date Received: 12/08/23 12:45

Logged In By: Jeff Lee

Date Logged In: 12/08/23 16:26

Samples Received at: 1.1°C

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

Analysis	Due	TAT	Expires	Comments
<b>T233670-01 23a [Water] Sampled 12/07/23 13:35 (GMT-08:00) Pacific Time (US &amp;</b>				
1664	12/15/23 15:00	5	01/04/24 13:35	Oil & Grease
200.7	12/15/23 15:00	5	06/04/24 13:35	Ca,Cu,Na,K,Fe,Mg (Field Filtered)
200.8	12/15/23 15:00	5	06/04/24 13:35	Sb,As,Ba,Cd,Cr,Co,Pb,Ni,Se,Zn (Field Filtered)
300.0 - F, Cl, Br, SO4	12/15/23 15:00	5	01/04/24 13:35	Chloride,Sulfate only
300.0 - NO2, NO3, PO4	12/15/23 15:00	5	12/09/23 13:35	Nitrate
7470/71 Hg	12/15/23 15:00	5	03/06/24 13:35	
Conductivity	12/15/23 15:00	5	01/04/24 13:35	
pH water SM 4500-H+B	12/13/23 15:00	3	12/08/23 13:35	
TDS-160.1	12/15/23 15:00	5	12/14/23 13:35	

<b>T233670-02 OBS-1 [Water] Sampled 12/07/23 12:30 (GMT-08:00) Pacific Time (US &amp;</b>				
1664	12/15/23 15:00	5	01/04/24 12:30	Oil & Grease
200.7	12/15/23 15:00	5	06/04/24 12:30	Ca,Cu,Na,K,Fe,Mg (Field Filtered)
200.8	12/15/23 15:00	5	06/04/24 12:30	Sb,As,Ba,Cd,Cr,Co,Pb,Ni,Se,Zn (Field Filtered)
300.0 - F, Cl, Br, SO4	12/15/23 15:00	5	01/04/24 12:30	Chloride,Sulfate only
300.0 - NO2, NO3, PO4	12/15/23 15:00	5	12/09/23 12:30	Nitrate
7470/71 Hg	12/15/23 15:00	5	03/06/24 12:30	
Conductivity	12/15/23 15:00	5	01/04/24 12:30	
pH water SM 4500-H+B	12/13/23 15:00	3	12/08/23 12:30	
TDS-160.1	12/15/23 15:00	5	12/14/23 12:30	

**WORK ORDER**

**T233670**

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

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

Analysis	Due	TAT	Expires	Comments
<b>T233670-03 TW-1 [Water] Sampled 12/07/23 12:00 (GMT-08:00) Pacific Time (US &amp;</b>				
1664	12/15/23 15:00	5	01/04/24 12:00	Oil & Grease
200.7	12/15/23 15:00	5	06/04/24 12:00	Ca,Cu,Na,K,Fe,Mg (Field Filtered)
200.8	12/15/23 15:00	5	06/04/24 12:00	Sb,As,Ba,Cd,Cr,Co,Pb,Ni,Se,Zn (Field Filtered)
300.0 - F, Cl, Br, SO4	12/15/23 15:00	5	01/04/24 12:00	Chloride,Sulfate only
300.0 - NO2, NO3, PO4	12/15/23 15:00	5	12/09/23 12:00	Nitrate
7470/71 Hg	12/15/23 15:00	5	03/06/24 12:00	
Conductivity	12/15/23 15:00	5	01/04/24 12:00	
pH water SM 4500-H+B	12/13/23 15:00	3	12/08/23 12:00	
TDS-160.1	12/15/23 15:00	5	12/14/23 12:00	
<b>T233670-04 TW-2 [Water] Sampled 12/07/23 14:00 (GMT-08:00) Pacific Time (US &amp;</b>				
1664	12/15/23 15:00	5	01/04/24 14:00	Oil & Grease
200.7	12/15/23 15:00	5	06/04/24 14:00	Ca,Cu,Na,K,Fe,Mg (Field Filtered)
200.8	12/15/23 15:00	5	06/04/24 14:00	Sb,As,Ba,Cd,Cr,Co,Pb,Ni,Se,Zn (Field Filtered)
300.0 - F, Cl, Br, SO4	12/15/23 15:00	5	01/04/24 14:00	Chloride,Sulfate only
300.0 - NO2, NO3, PO4	12/15/23 15:00	5	12/09/23 14:00	Nitrate
7470/71 Hg	12/15/23 15:00	5	03/06/24 14:00	
Conductivity	12/15/23 15:00	5	01/04/24 14:00	
pH water SM 4500-H+B	12/13/23 15:00	3	12/08/23 14:00	
TDS-160.1	12/15/23 15:00	5	12/14/23 14:00	
<b>T233670-05 PW-0 [Water] Sampled 12/07/23 14:50 (GMT-08:00) Pacific Time (US &amp;</b>				
1664	12/15/23 15:00	5	01/04/24 14:50	Oil & Grease
200.7	12/15/23 15:00	5	06/04/24 14:50	Ca,Cu,Na,K,Fe,Mg (Field Filtered)
200.8	12/15/23 15:00	5	06/04/24 14:50	Sb,As,Ba,Cd,Cr,Co,Pb,Ni,Se,Zn (Field Filtered)
300.0 - F, Cl, Br, SO4	12/15/23 15:00	5	01/04/24 14:50	Chloride,Sulfate, and Fluoride only
300.0 - NO2, NO3, PO4	12/15/23 15:00	5	12/09/23 14:50	Nitrate
7470/71 Hg	12/15/23 15:00	5	03/06/24 14:50	
Conductivity	12/15/23 15:00	5	01/04/24 14:50	
pH water SM 4500-H+B	12/13/23 15:00	3	12/08/23 14:50	
TDS-160.1	12/15/23 15:00	5	12/14/23 14:50	

**WORK ORDER**

**T233670**

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

Analysis	Due	TAT	Expires	Comments
<b>T233670-06 PW-2 [Water] Sampled 12/07/23 15:10 (GMT-08:00) Pacific Time (US &amp;</b>				
1664	12/15/23 15:00	5	01/04/24 15:10	Oil & Grease
200.7	12/15/23 15:00	5	06/04/24 15:10	Ca,Cu,Na,K,Fe,Mg (Field Filtered)
200.8	12/15/23 15:00	5	06/04/24 15:10	Sb,As,Ba,Cd,Cr,Co,Pb,Ni,Se,Zn (Field Filtered)
300.0 - F, Cl, Br, SO4	12/15/23 15:00	5	01/04/24 15:10	Chloride,Sulfate, and Fluoride only
300.0 - NO2, NO3, PO4	12/15/23 15:00	5	12/09/23 15:10	Nitrate
7470/71 Hg	12/15/23 15:00	5	03/06/24 15:10	
Conductivity	12/15/23 15:00	5	01/04/24 15:10	
pH water SM 4500-H+B	12/13/23 15:00	3	12/08/23 15:10	
TDS-160.1	12/15/23 15:00	5	12/14/23 15:10	

<b>T233670-07 DUP [Water] Sampled 12/07/23 00:00 (GMT-08:00) Pacific Time (US &amp;</b>				
1664	12/15/23 15:00	5	01/04/24 00:00	Oil & Grease
200.7	12/15/23 15:00	5	06/04/24 00:00	Ca,Cu,Na,K,Fe,Mg (Field Filtered)
200.8	12/15/23 15:00	5	06/04/24 00:00	Sb,As,Ba,Cd,Cr,Co,Pb,Ni,Se,Zn (Field Filtered)
300.0 - F, Cl, Br, SO4	12/15/23 15:00	5	01/04/24 00:00	Chloride,Sulfate only
300.0 - NO2, NO3, PO4	12/15/23 15:00	5	12/09/23 00:00	Nitrate
7470/71 Hg	12/15/23 15:00	5	03/06/24 00:00	
Conductivity	12/15/23 15:00	5	01/04/24 00:00	
pH water SM 4500-H+B	12/13/23 15:00	3	12/08/23 00:00	
TDS-160.1	12/15/23 15:00	5	12/14/23 00:00	

**T233670-08 Field Blank [Water] Sampled 12/07/23 00:00 (GMT-08:00) Pacific Time (US & [NO ANALYSES]**

**T233670-09 Trip Blank [Water] Sampled 12/07/23 00:00 (GMT-08:00) Pacific Time (US & [NO ANALYSES]**

**Eurofins Calscience (Tustin)**

**T233670-01 23a [Water] Sampled 12/07/23 13:35 (GMT-08:00) Pacific Time (US &**

Misc Water Testing #1	12/26/23 00:00	10	06/04/24 13:35	8015M- Therminol
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**T233670-02 OBS-1 [Water] Sampled 12/07/23 12:30 (GMT-08:00) Pacific Time (US &**

Misc Water Testing #1	12/26/23 00:00	10	06/04/24 12:30	8015M- Therminol
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**WORK ORDER**

**T233670**

<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>T233670-03 TW-1 [Water] Sampled 12/07/23 12:00 (GMT-08:00) Pacific Time (US &amp;</b>				
Misc Water Testing #1	12/26/23 00:00	10	06/04/24 12:00	8015M- Therminol
<b>T233670-04 TW-2 [Water] Sampled 12/07/23 14:00 (GMT-08:00) Pacific Time (US &amp;</b>				
Misc Water Testing #1	12/26/23 00:00	10	06/04/24 14:00	8015M- Therminol
<b>T233670-05 PW-0 [Water] Sampled 12/07/23 14:50 (GMT-08:00) Pacific Time (US &amp;</b>				
Misc Water Testing #1	12/26/23 00:00	10	06/04/24 14:50	8015M- Therminol
<b>T233670-06 PW-2 [Water] Sampled 12/07/23 15:10 (GMT-08:00) Pacific Time (US &amp;</b>				
Misc Water Testing #1	12/26/23 00:00	10	06/04/24 15:10	8015M- Therminol
<b>T233670-07 DUP [Water] Sampled 12/07/23 00:00 (GMT-08:00) Pacific Time (US &amp;</b>				
Misc Water Testing #1	12/26/23 00:00	10	06/04/24 00:00	8015M- Therminol
<b>Isotech Laboratories, Inc.</b>				
<b>T233670-01 23a [Water] Sampled 12/07/23 13:35 (GMT-08:00) Pacific Time (US &amp;</b>				
Misc Water Testing #2	12/26/23 00:00	10	06/04/24 13:35	Deuterium,Oxygen-18
<b>T233670-02 OBS-1 [Water] Sampled 12/07/23 12:30 (GMT-08:00) Pacific Time (US &amp;</b>				
Misc Water Testing #2	12/26/23 00:00	10	06/04/24 12:30	Deuterium,Oxygen-18
<b>T233670-03 TW-1 [Water] Sampled 12/07/23 12:00 (GMT-08:00) Pacific Time (US &amp;</b>				
Misc Water Testing #2	12/26/23 00:00	10	06/04/24 12:00	Deuterium,Oxygen-18
<b>T233670-04 TW-2 [Water] Sampled 12/07/23 14:00 (GMT-08:00) Pacific Time (US &amp;</b>				
Misc Water Testing #2	12/26/23 00:00	10	06/04/24 14:00	Deuterium,Oxygen-18
<b>T233670-05 PW-0 [Water] Sampled 12/07/23 14:50 (GMT-08:00) Pacific Time (US &amp;</b>				
Misc Water Testing #2	12/26/23 00:00	10	06/04/24 14:50	Deuterium,Oxygen-18

**WORK ORDER**

**T233670**

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

Analysis	Due	TAT	Expires	Comments
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**Isotech Laboratories, Inc.**

**T233670-06 PW-2 [Water] Sampled 12/07/23 15:10 (GMT-08:00) Pacific Time (US &**

Misc Water Testing #2	12/26/23 00:00	10	06/04/24 15:10	Deuterium,Oxygen-18
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**T233670-07 DUP [Water] Sampled 12/07/23 00:00 (GMT-08:00) Pacific Time (US &**

Misc Water Testing #2	12/26/23 00:00	10	06/04/24 00:00	Deuterium,Oxygen-18
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25712 Commercentre Drive  
Lake Forest, California 92630  
949.297.5020 Phone  
949.297.5027 Fax

28 December 2023

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 12/08/23 12:45. 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:**  
12/28/23 12:04

**ANALYTICAL REPORT FOR SAMPLES**

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
DM-1	T233669-01	Water	12/07/23 17:55	12/08/23 12:45
DM-2	T233669-02	Water	12/07/23 19:05	12/08/23 12:45
DM-3	T233669-03	Water	12/07/23 16:40	12/08/23 12:45

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:  
12/28/23 12:04

**DETECTIONS SUMMARY**

Sample ID: DM-1

Laboratory ID: T233669-01

Analyte	Result	Reporting		Units	Method	Notes
		Limit				
Barium	29	25		ug/l	200.8	FILT
Calcium	230	50		mg/l	EPA 200.7	FILT
Magnesium	65	10		mg/l	EPA 200.7	FILT
Sodium	4500	50		mg/l	EPA 200.7	FILT
Total Dissolved Solids	10000	10		mg/l	TDS by SM2540C	
pH	8.2	0.10		pH Units	SM 4500-H+B	
pH Temperature °C	22			pH Units	SM 4500-H+B	
Specific Conductance (EC)	18400	10.0		mho/cm @25°t	SM2510b mod.	
Chloride	5290	500		mg/l	EPA 300.0	
Sulfate as SO4	1830	500		mg/l	EPA 300.0	
Nitrate as NO3	7.18	0.500		mg/l	EPA 300.0	O-04
Nitrate as N	1.62	0.200		mg/l	EPA 300.0	O-04

Sample ID: DM-2

Laboratory ID: T233669-02

Analyte	Result	Reporting		Units	Method	Notes
		Limit				
Barium	40	25		ug/l	200.8	FILT
Calcium	240	50		mg/l	EPA 200.7	FILT
Magnesium	66	10		mg/l	EPA 200.7	FILT
Sodium	4300	50		mg/l	EPA 200.7	FILT
Total Dissolved Solids	11000	10		mg/l	TDS by SM2540C	
pH	7.9	0.10		pH Units	SM 4500-H+B	
pH Temperature °C	22			pH Units	SM 4500-H+B	
Specific Conductance (EC)	18900	10.0		mho/cm @25°t	SM2510b mod.	
Chloride	5390	500		mg/l	EPA 300.0	
Sulfate as SO4	1930	500		mg/l	EPA 300.0	
Nitrate as NO3	6.21	0.500		mg/l	EPA 300.0	O-04
Nitrate as N	1.40	0.200		mg/l	EPA 300.0	O-04

SunStar Laboratories, Inc.



Jeff Lee, Project Manager

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Northstar Environmental Remediation  
26225 Enterprise Court  
Lake Forest CA, 92630

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

**Reported:**  
12/28/23 12:04

**Sample ID:** DM-3

**Laboratory ID:** T233669-03

Analyte	Result	Reporting		Units	Method	Notes
		Limit				
Calcium	220	50		mg/l	EPA 200.7	FILT
Magnesium	60	10		mg/l	EPA 200.7	FILT
Sodium	4100	50		mg/l	EPA 200.7	FILT
pH	8.0	0.10		pH Units	SM 4500-H+B	O-09
Total Dissolved Solids	10000	10		mg/l	TDS by SM2540C	
pH Temperature °C	21			pH Units	SM 4500-H+B	O-09
Specific Conductance (EC)	18100	10.0		mho/cm @25°t	SM2510b mod.	
Chloride	5300	500		mg/l	EPA 300.0	
Sulfate as SO4	1940	500		mg/l	EPA 300.0	
Nitrate as NO3	2.65	0.500		mg/l	EPA 300.0	O-04
Nitrate as N	0.600	0.200		mg/l	EPA 300.0	O-04

SunStar Laboratories, Inc.



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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:  
12/28/23 12:04

**DM-1  
T233669-01 (Water)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**SunStar Laboratories, Inc.**

**Metals by EPA 200 Series Methods**

Copper	ND	0.50	mg/l	100	23L0201	12/11/23	12/15/23	EPA 200.7	FILT, R-01
<b>Calcium</b>	<b>230</b>	50	"	"	"	"	"	"	FILT
Iron	ND	20	"	"	"	"	"	"	FILT, R-01
<b>Magnesium</b>	<b>65</b>	10	"	"	"	"	"	"	FILT
Potassium	ND	50	"	"	"	"	"	"	FILT, R-01
<b>Sodium</b>	<b>4500</b>	50	"	"	"	"	"	"	FILT
Antimony	ND	25	ug/l	50	23L0203	12/11/23	12/14/23	200.8	FILT, R-01
Arsenic	ND	25	"	"	"	"	"	"	FILT, R-01
<b>Barium</b>	<b>29</b>	25	"	"	"	"	"	"	FILT
Cadmium	ND	25	"	"	"	"	"	"	FILT, R-01
Chromium	ND	25	"	"	"	"	"	"	FILT, R-01
Cobalt	ND	25	"	"	"	"	"	"	FILT, R-01
Lead	ND	25	"	"	"	"	"	"	FILT, R-01
Nickel	ND	25	"	"	"	"	"	"	FILT, R-01
Selenium	ND	25	"	"	"	"	"	"	FILT, R-01
Zinc	ND	25	"	"	"	"	"	"	FILT, R-01

**Cold Vapor Extraction EPA 7470/7471**

Mercury	ND	1.0	ug/l	1	23L0186	12/11/23	12/14/23	EPA 7470A Water	
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**Conventional Chemistry Parameters by APHA/EPA/ASTM Methods**

Oil & Grease	ND	5.00	mg/l	1	23L0176	12/08/23	12/12/23	EPA 1664B	
<b>Specific Conductance (EC)</b>	<b>18400</b>	10.0	umho/cm @25°C	"	23L0170	12/08/23	12/13/23	SM2510b mod.	
<b>pH</b>	<b>8.2</b>	0.10	pH Units	"	23L0169	12/08/23	12/13/23	SM 4500-H+B	
<b>pH Temperature °C</b>	<b>22</b>		"	"	"	"	"	"	
<b>Total Dissolved Solids</b>	<b>10000</b>	10	mg/l	"	23L0089	12/11/23	12/13/23	TDS by SM2540C	

SunStar Laboratories, Inc.



Jeff Lee, Project Manager

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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: 12/28/23 12:04
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**DM-1**  
**T233669-01 (Water)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**SunStar Laboratories, Inc.**

**Anions by EPA Method 300.0**

Chloride	5290	500	mg/l	100	23L0163	12/08/23	12/12/23	EPA 300.0	
Sulfate as SO4	1830	500	"	"	"	"	"	"	
Nitrate as NO3	7.18	0.500	"	1	"	"	12/11/23	"	O-04
Nitrate as N	1.62	0.200	"	"	"	"	"	"	O-04

SunStar Laboratories, Inc.

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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:**  
12/28/23 12:04

**DM-2  
T233669-02 (Water)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**SunStar Laboratories, Inc.**

**Metals by EPA 200 Series Methods**

Copper	ND	0.50	mg/l	100	23L0201	12/11/23	12/15/23	EPA 200.7	FILT, R-01
<b>Calcium</b>	<b>240</b>	50	"	"	"	"	"	"	FILT
Iron	ND	20	"	"	"	"	"	"	FILT, R-01
<b>Magnesium</b>	<b>66</b>	10	"	"	"	"	"	"	FILT
Potassium	ND	50	"	"	"	"	"	"	FILT, R-01
<b>Sodium</b>	<b>4300</b>	50	"	"	"	"	"	"	FILT
Antimony	ND	25	ug/l	50	23L0203	12/11/23	12/14/23	200.8	FILT, R-01
Arsenic	ND	25	"	"	"	"	"	"	FILT, R-01
<b>Barium</b>	<b>40</b>	25	"	"	"	"	"	"	FILT
Cadmium	ND	25	"	"	"	"	"	"	FILT, R-01
Chromium	ND	25	"	"	"	"	"	"	FILT, R-01
Cobalt	ND	25	"	"	"	"	"	"	FILT, R-01
Lead	ND	25	"	"	"	"	"	"	FILT, R-01
Nickel	ND	25	"	"	"	"	"	"	FILT, R-01
Selenium	ND	25	"	"	"	"	"	"	FILT, R-01
Zinc	ND	25	"	"	"	"	"	"	FILT, R-01

**Cold Vapor Extraction EPA 7470/7471**

Mercury	ND	1.0	ug/l	1	23L0186	12/11/23	12/14/23	EPA 7470A Water	
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**Conventional Chemistry Parameters by APHA/EPA/ASTM Methods**

Oil & Grease	ND	5.00	mg/l	1	23L0176	12/08/23	12/12/23	EPA 1664B	
<b>Specific Conductance (EC)</b>	<b>18900</b>	10.0	umho/cm @25°C	"	23L0170	12/08/23	12/13/23	SM2510b mod.	
<b>pH</b>	<b>7.9</b>	0.10	pH Units	"	23L0169	12/08/23	12/13/23	SM 4500-H+B	
<b>pH Temperature °C</b>	<b>22</b>		"	"	"	"	"	"	
<b>Total Dissolved Solids</b>	<b>11000</b>	10	mg/l	"	23L0089	12/11/23	12/13/23	TDS by SM2540C	

SunStar Laboratories, Inc.



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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:**  
12/28/23 12:04

**DM-2**

**T233669-02 (Water)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**SunStar Laboratories, Inc.**

**Anions by EPA Method 300.0**

Chloride	5390	500	mg/l	100	23L0163	12/08/23	12/12/23	EPA 300.0	
Sulfate as SO4	1930	500	"	"	"	"	"	"	
Nitrate as NO3	6.21	0.500	"	1	"	"	12/11/23	"	O-04
Nitrate as N	1.40	0.200	"	"	"	"	"	"	O-04

SunStar Laboratories, Inc.



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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:  
12/28/23 12:04

**DM-3  
T233669-03 (Water)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**SunStar Laboratories, Inc.**

**Metals by EPA 200 Series Methods**

Copper	ND	0.50	mg/l	100	23L0201	12/11/23	12/15/23	EPA 200.7	FILT, R-01
<b>Calcium</b>	<b>220</b>	50	"	"	"	"	"	"	FILT
Iron	ND	20	"	"	"	"	"	"	FILT, R-01
Potassium	ND	50	"	"	"	"	"	"	FILT, R-01
<b>Magnesium</b>	<b>60</b>	10	"	"	"	"	"	"	FILT
<b>Sodium</b>	<b>4100</b>	50	"	"	"	"	"	"	FILT
Antimony	ND	25	ug/l	50	23L0203	12/11/23	12/14/23	200.8	FILT, R-01
Arsenic	ND	25	"	"	"	"	"	"	FILT, R-01
Barium	ND	25	"	"	"	"	"	"	FILT, R-01
Cadmium	ND	25	"	"	"	"	"	"	FILT, R-01
Chromium	ND	25	"	"	"	"	"	"	FILT, R-01
Cobalt	ND	25	"	"	"	"	"	"	FILT, R-01
Lead	ND	25	"	"	"	"	"	"	FILT, R-01
Nickel	ND	25	"	"	"	"	"	"	FILT, R-01
Selenium	ND	25	"	"	"	"	"	"	FILT, R-01
Zinc	ND	25	"	"	"	"	"	"	FILT, R-01

**Cold Vapor Extraction EPA 7470/7471**

Mercury	ND	1.0	ug/l	1	23L0186	12/11/23	12/14/23	EPA 7470A Water	
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**Conventional Chemistry Parameters by APHA/EPA/ASTM Methods**

Oil & Grease	ND	5.00	mg/l	1	23L0176	12/08/23	12/12/23	EPA 1664B	
<b>Specific Conductance (EC)</b>	<b>18100</b>	10.0	umho/cm @25°C	"	23L0170	12/08/23	12/13/23	SM2510b mod.	
<b>pH</b>	<b>8.0</b>	0.10	pH Units	"	23L0169	12/08/23	12/13/23	SM 4500-H+B	O-09
<b>pH Temperature °C</b>	<b>21</b>		"	"	"	"	"	"	O-09
<b>Total Dissolved Solids</b>	<b>10000</b>	10	mg/l	"	23L0089	12/11/23	12/13/23	TDS by SM2540C	

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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: 12/28/23 12:04
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**DM-3**  
**T233669-03 (Water)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**SunStar Laboratories, Inc.**

**Anions by EPA Method 300.0**

Chloride	5300	500	mg/l	100	23L0163	12/08/23	12/12/23	EPA 300.0	
Sulfate as SO4	1940	500	"	"	"	"	"	"	
Nitrate as NO3	2.65	0.500	"	1	"	"	12/11/23	"	O-04
Nitrate as N	0.600	0.200	"	"	"	"	"	"	O-04

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Jeff Lee, Project Manager



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 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: 12/28/23 12:04
--	---	-----------------------------

**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
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**Batch 23L0201 - EPA 3010A**

Blank (23L0201-BLK1) <span style="float:right">Prepared: 12/11/23 Analyzed: 12/15/23</span>										
Copper	ND	0.005	mg/l							
Aluminum	ND	0.10	"							
Calcium	ND	0.50	"							
Iron	ND	0.20	"							
Magnesium	ND	0.10	"							
Potassium	ND	0.50	"							
Sodium	ND	0.50	"							

LCS (23L0201-BS1) <span style="float:right">Prepared: 12/11/23 Analyzed: 12/15/23</span>										
Copper	0.545	0.005	mg/l	0.500		109	85-115			

Matrix Spike (23L0201-MS1) <span style="float:right">Prepared: 12/11/23 Analyzed: 12/15/23</span>										
Copper	0.604	0.50	mg/l	0.500	ND	121	70-130			QM-07

Matrix Spike Dup (23L0201-MSD1) <span style="float:right">Prepared: 12/11/23 Analyzed: 12/15/23</span>										
Copper	0.475	0.50	mg/l	0.500	ND	95.1	70-130	23.7	30	QM-07, R-01

**Batch 23L0203 - EPA 3010A**

Blank (23L0203-BLK1) <span style="float:right">Prepared: 12/11/23 Analyzed: 12/14/23</span>										
Antimony	ND	0.50	ug/l							
Arsenic	ND	0.50	"							
Barium	ND	0.50	"							
Cadmium	ND	0.50	"							
Chromium	ND	0.50	"							
Cobalt	ND	0.50	"							
Lead	ND	0.50	"							
Nickel	ND	0.50	"							
Selenium	ND	0.50	"							
Zinc	ND	0.50	"							

SunStar Laboratories, Inc.

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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:  
12/28/23 12:04

**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
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**Batch 23L0203 - EPA 3010A**

**LCS (23L0203-BS1)**

Prepared: 12/11/23 Analyzed: 12/14/23

Arsenic	24.6	0.50	ug/l	25.0		98.2	85-115			
Barium	24.0	0.50	"	25.0		96.0	85-115			
Cadmium	24.3	0.50	"	25.0		97.1	85-115			
Chromium	22.1	0.50	"	25.0		88.2	85-115			
Lead	24.1	0.50	"	25.0		96.6	85-115			

**Matrix Spike (23L0203-MS1)**

Source: T233668-01

Prepared: 12/11/23 Analyzed: 12/14/23

Arsenic	416	25	ug/l	25.0	415	4.00	70-130			QM-07
Barium	128	25	"	25.0	103	98.0	70-130			
Cadmium	28.0	25	"	25.0	5.50	90.0	70-130			
Chromium	32.0	25	"	25.0	7.00	100	70-130			
Lead	27.5	25	"	25.0	ND	110	70-130			

**Matrix Spike Dup (23L0203-MSD1)**

Source: T233668-01

Prepared: 12/11/23 Analyzed: 12/14/23

Arsenic	420	25	ug/l	25.0	415	18.0	70-130	0.838	20	QM-07
Barium	127	25	"	25.0	103	96.0	70-130	0.393	20	
Cadmium	27.0	25	"	25.0	5.50	86.0	70-130	3.64	20	
Chromium	33.0	25	"	25.0	7.00	104	70-130	3.08	20	
Lead	26.0	25	"	25.0	ND	104	70-130	5.61	20	

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Northstar Environmental Remediation  
26225 Enterprise Court  
Lake Forest CA, 92630

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

**Reported:**  
12/28/23 12:04

**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
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**Batch 23L0186 - EPA 7470A Water**

**Blank (23L0186-BLK1)**

Prepared: 12/11/23 Analyzed: 12/14/23

Mercury	ND	1.0	ug/l							
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**LCS (23L0186-BS1)**

Prepared: 12/11/23 Analyzed: 12/14/23

Mercury	6.87	1.0	ug/l	7.50		91.6	80-120			
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**Matrix Spike (23L0186-MS1)**

Source: T233642-01

Prepared: 12/11/23 Analyzed: 12/14/23

Mercury	6.56	1.0	ug/l	7.50	0.199	84.8	80-120			
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**Matrix Spike Dup (23L0186-MSD1)**

Source: T233642-01

Prepared: 12/11/23 Analyzed: 12/14/23

Mercury	6.49	1.0	ug/l	7.50	0.199	83.9	80-120	1.05	20	
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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: 12/28/23 12:04
--	---	-----------------------------

**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
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**Batch 23L0089 - General Preparation**

**Blank (23L0089-BLK1)** Prepared: 12/06/23 Analyzed: 12/13/23

Total Dissolved Solids	ND	10	mg/l							
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**LCS (23L0089-BS1)** Prepared: 12/06/23 Analyzed: 12/13/23

Total Dissolved Solids	505	10	mg/l	500		101	80-120			
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**Duplicate (23L0089-DUP1)** Source: T233620-02 Prepared: 12/06/23 Analyzed: 12/13/23

Total Dissolved Solids	1230	10	mg/l		1240			0.647	20	
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**Batch 23L0169 - General Preparation**

**Duplicate (23L0169-DUP1)** Source: T233669-01 Prepared: 12/08/23 Analyzed: 12/13/23

pH	9.01	0.10	pH Units		8.16			9.90	10	
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pH Temperature °C	21.9		"		21.6			1.38	200	
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**Batch 23L0170 - General Preparation**

**Duplicate (23L0170-DUP1)** Source: T233668-01 Prepared: 12/08/23 Analyzed: 12/13/23

Specific Conductance (EC)	99900	10.0	umho/cm @25°C		100000			0.200	15	
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**Batch 23L0176 - General Preparation**

**Blank (23L0176-BLK1)** Prepared: 12/08/23 Analyzed: 12/12/23

Oil & Grease	ND	5.00	mg/l							
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**LCS (23L0176-BS1)** Prepared: 12/08/23 Analyzed: 12/12/23

Oil & Grease	44.1	5.00	mg/l	53.1		83.1	78-114			
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SunStar Laboratories, Inc.



Jeff Lee, Project Manager

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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: 12/28/23 12:04
--	---	-----------------------------

**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
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**Batch 23L0176 - General Preparation**

**LCS Dup (23L0176-BSD1)**

Prepared: 12/08/23 Analyzed: 12/12/23

Oil & Grease	43.0	5.00	mg/l	53.1		81.0	78-114	2.53	20	
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 949.297.5020 Phone  
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Northstar Environmental Remediation 26225 Enterprise Court Lake Forest CA, 92630	Project: Genesis Solar Groundwater Project Number: 196-004-06 Project Manager: Arlin Brewster	Reported: 12/28/23 12:04
--	---	-----------------------------

**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
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**Batch 23L0163 - General Preparation**

**Blank (23L0163-BLK1)**

Prepared: 12/08/23 Analyzed: 12/11/23

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 (23L0163-BS1)**

Prepared: 12/08/23 Analyzed: 12/11/23

Fluoride	27.6	0.500	mg/l	25.0		111	75-125			
Chloride	25.6	5.00	"	25.0		103	75-125			
Sulfate as SO4	25.9	5.00	"	25.0		104	75-125			
Nitrate as NO3	24.7	0.500	"	25.0		98.8	75-125			

**Matrix Spike (23L0163-MS1)**

Source: T233669-01

Prepared: 12/08/23 Analyzed: 12/12/23

Fluoride	7.96	0.500	mg/l	25.0	ND	31.8	75-125			QM-05
Chloride	5020	500	"	25.0	5290	NR	75-125			QM-05
Sulfate as SO4	1760	500	"	25.0	1830	NR	75-125			QM-05
Nitrate as NO3	30.7	0.500	"	25.0	7.18	94.1	75-125			

**Matrix Spike Dup (23L0163-MSD1)**

Source: T233669-01

Prepared: 12/08/23 Analyzed: 12/12/23

Fluoride	7.90	0.500	mg/l	25.0	ND	31.6	75-125	0.757	20	QM-05
Chloride	4880	500	"	25.0	5290	NR	75-125	2.91	20	QM-05
Sulfate as SO4	1710	500	"	25.0	1830	NR	75-125	2.79	20	QM-05
Nitrate as NO3	30.3	0.500	"	25.0	7.18	92.4	75-125	1.34	20	

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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:**  
12/28/23 12:04

### Notes and Definitions

- R-01 The Reporting Limit has been raised to account for dilution necessary due to matrix interference.
- QM-07 The spike recovery and/or RPD was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS recovery.
- 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.
- O-09 The sample was analyzed outside the EPA recommended holding time of 24 hours.
- O-04 This sample was received and analyzed outside 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.

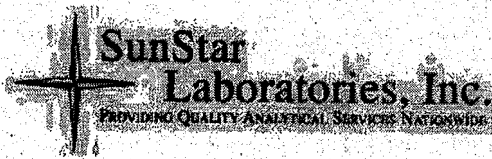


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Jeff Lee, Project Manager







# SAMPLE RECEIVING REVIEW SHEET

Batch/Work Order #: T233669  
Client Name: Northstar Environmental Remediation Project: Genesis Solar Groundwater

Delivered by:  Client  SunStar Courier  GLS  FedEx  Other

If Courier, Received by: \_\_\_\_\_ Date/Time Courier Received: \_\_\_\_\_  
Lab Received by: Paul Date/Time Lab Received: 12.8.23 1245

Total number of coolers received: 1 Thermometer ID: SC-1 Calibration due: 11/17/2024

Temperature: Cooler #1	<u>1.0</u> °C +/- the CF (+ 0.1°C) = <u>1.1</u> °C corrected temperature
Temperature: Cooler #2	°C +/- the CF (+ 0.1°C) = _____ °C corrected temperature
Temperature: Cooler #3	°C +/- the CF (+ 0.1°C) = _____ °C corrected temperature
Temperature criteria = ≤ 6°C (no frozen containers)	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 12.8.23

Comments:  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

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# ANALYTICAL REPORT

## PREPARED FOR

Attn: Jeff Lee  
SunStar Laboratories Inc  
25712 Commercentre Drive  
Lake Forest, California 92630

Generated 12/22/2023 11:29:35 AM

## JOB DESCRIPTION

T233669

## JOB NUMBER

570-164075-1

# Eurofins Calscience

## Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Calscience Project Manager.

## Authorization



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12/22/2023 11:29:35 AM

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Authorized for release by  
Sandy Tat, Project Manager I  
[Sandy.Tat@et.eurofinsus.com](mailto:Sandy.Tat@et.eurofinsus.com)  
(714)895-5494

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# Definitions/Glossary

Client: SunStar Laboratories Inc  
Project/Site: T233669

Job ID: 570-164075-1

## 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: T233669

Job ID: 570-164075-1

**Job ID: 570-164075-1**

**Eurofins Calscience**

## Job Narrative 570-164075-1

Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers are applied to indicate exceptions. Noncompliant quality control (QC) is further explained in narrative comments.

- Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD may be performed, unless otherwise specified in the method.
- Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.

Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

### Receipt

The samples were received on 12/11/2023 1:17 PM. 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 time was 5.5°C

### Diesel Range Organics

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

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# Detection Summary

Client: SunStar Laboratories Inc  
Project/Site: T233669

Job ID: 570-164075-1

**Client Sample ID: T233669-01**

**Lab Sample ID: 570-164075-1**

No Detections.

**Client Sample ID: T233669-02**

**Lab Sample ID: 570-164075-2**

No Detections.

**Client Sample ID: T233669-03**

**Lab Sample ID: 570-164075-3**

No Detections.

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This Detection Summary does not include radiochemical test results.

Eurofins Calscience



# Client Sample Results

Client: SunStar Laboratories Inc  
Project/Site: T233669

Job ID: 570-164075-1

## Method: SW846 8015B - Diesel Range Organics (DRO) (GC)

**Client Sample ID: T233669-01**  
**Date Collected: 12/07/23 17:55**  
**Date Received: 12/11/23 13:17**

**Lab Sample ID: 570-164075-1**  
**Matrix: Water**

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene, 1,1'-oxybis-	ND		100	ug/L		12/13/23 12:17	12/20/23 17:06	1
1,1'-Biphenyl	ND		100	ug/L		12/13/23 12:17	12/20/23 17:06	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
<i>n</i> -Octacosane (Surr)	92		53 - 151			12/13/23 12:17	12/20/23 17:06	1

**Client Sample ID: T233669-02**  
**Date Collected: 12/07/23 19:05**  
**Date Received: 12/11/23 13:17**

**Lab Sample ID: 570-164075-2**  
**Matrix: Water**

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene, 1,1'-oxybis-	ND		100	ug/L		12/13/23 12:17	12/20/23 17:31	1
1,1'-Biphenyl	ND		100	ug/L		12/13/23 12:17	12/20/23 17:31	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
<i>n</i> -Octacosane (Surr)	88		53 - 151			12/13/23 12:17	12/20/23 17:31	1

**Client Sample ID: T233669-03**  
**Date Collected: 12/07/23 16:40**  
**Date Received: 12/11/23 13:17**

**Lab Sample ID: 570-164075-3**  
**Matrix: Water**

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene, 1,1'-oxybis-	ND		99	ug/L		12/13/23 12:17	12/20/23 17:55	1
1,1'-Biphenyl	ND		99	ug/L		12/13/23 12:17	12/20/23 17:55	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
<i>n</i> -Octacosane (Surr)	84		53 - 151			12/13/23 12:17	12/20/23 17:55	1

# Surrogate Summary

Client: SunStar Laboratories Inc  
Project/Site: T233669

Job ID: 570-164075-1

**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)
570-164075-1	T233669-01	92
570-164075-2	T233669-02	88
570-164075-3	T233669-03	84
LCS 570-392271/2-A	Lab Control Sample	76
LCSD 570-392271/3-A	Lab Control Sample Dup	79
MB 570-392271/1-A	Method Blank	80

### Surrogate Legend

OTCSN = n-Octacosane (Surr)

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# QC Sample Results

Client: SunStar Laboratories Inc  
Project/Site: T233669

Job ID: 570-164075-1

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

**Lab Sample ID: MB 570-392271/1-A**  
**Matrix: Water**  
**Analysis Batch: 394262**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 392271**

Analyte	MB	MB	RL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier						
Benzene, 1,1'-oxybis-	ND		100	ug/L		12/13/23 12:17	12/19/23 13:50	1
1,1'-Biphenyl	ND		100	ug/L		12/13/23 12:17	12/19/23 13:50	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
<i>n</i> -Octacosane (Surr)	80		53 - 151			12/13/23 12:17	12/19/23 13:50	1

**Lab Sample ID: LCS 570-392271/2-A**  
**Matrix: Water**  
**Analysis Batch: 394262**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 392271**

Analyte	Spike Added	LCS	LCS	Unit	D	%Rec	%Rec Limits
		Result	Qualifier				
Benzene, 1,1'-oxybis-	1000	1198		ug/L		120	57 - 120
1,1'-Biphenyl	1000	867.9		ug/L		87	45 - 120
Surrogate	%Recovery	Qualifier	Limits				
<i>n</i> -Octacosane (Surr)	76		53 - 151				

**Lab Sample ID: LCSD 570-392271/3-A**  
**Matrix: Water**  
**Analysis Batch: 394262**

**Client Sample ID: Lab Control Sample Dup**  
**Prep Type: Total/NA**  
**Prep Batch: 392271**

Analyte	Spike Added	LCSD	LCSD	Unit	D	%Rec	%Rec Limits	RPD	
		Result	Qualifier					RPD	Limit
Benzene, 1,1'-oxybis-	1000	1204		ug/L		120	57 - 120	0	20
1,1'-Biphenyl	1000	872.4		ug/L		87	45 - 120	1	20
Surrogate	%Recovery	Qualifier	Limits						
<i>n</i> -Octacosane (Surr)	79		53 - 151						

# QC Association Summary

Client: SunStar Laboratories Inc  
Project/Site: T233669

Job ID: 570-164075-1

## GC Semi VOA

### Prep Batch: 392271

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-164075-1	T233669-01	Total/NA	Water	3510C	
570-164075-2	T233669-02	Total/NA	Water	3510C	
570-164075-3	T233669-03	Total/NA	Water	3510C	
MB 570-392271/1-A	Method Blank	Total/NA	Water	3510C	
LCS 570-392271/2-A	Lab Control Sample	Total/NA	Water	3510C	
LCSD 570-392271/3-A	Lab Control Sample Dup	Total/NA	Water	3510C	

### Analysis Batch: 394262

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 570-392271/1-A	Method Blank	Total/NA	Water	8015B	392271
LCS 570-392271/2-A	Lab Control Sample	Total/NA	Water	8015B	392271
LCSD 570-392271/3-A	Lab Control Sample Dup	Total/NA	Water	8015B	392271

### Analysis Batch: 394852

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-164075-1	T233669-01	Total/NA	Water	8015B	392271
570-164075-2	T233669-02	Total/NA	Water	8015B	392271
570-164075-3	T233669-03	Total/NA	Water	8015B	392271

# Lab Chronicle

Client: SunStar Laboratories Inc  
Project/Site: T233669

Job ID: 570-164075-1

**Client Sample ID: T233669-01**

**Lab Sample ID: 570-164075-1**

**Date Collected: 12/07/23 17:55**

**Matrix: Water**

**Date Received: 12/11/23 13:17**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			247.6 mL	2.5 mL	392271	12/13/23 12:17	UFLU	EET CAL 4
Total/NA	Analysis	8015B		1	1 mL	1 mL	394852	12/20/23 17:06	SP9M	EET CAL 4

Instrument ID: GC70B

**Client Sample ID: T233669-02**

**Lab Sample ID: 570-164075-2**

**Date Collected: 12/07/23 19:05**

**Matrix: Water**

**Date Received: 12/11/23 13:17**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			250.1 mL	2.5 mL	392271	12/13/23 12:17	UFLU	EET CAL 4
Total/NA	Analysis	8015B		1	1 mL	1 mL	394852	12/20/23 17:31	SP9M	EET CAL 4

Instrument ID: GC70B

**Client Sample ID: T233669-03**

**Lab Sample ID: 570-164075-3**

**Date Collected: 12/07/23 16:40**

**Matrix: Water**

**Date Received: 12/11/23 13:17**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			253.8 mL	2.5 mL	392271	12/13/23 12:17	UFLU	EET CAL 4
Total/NA	Analysis	8015B		1	1 mL	1 mL	394852	12/20/23 17:55	SP9M	EET CAL 4

Instrument ID: GC70B

**Laboratory References:**

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

# Accreditation/Certification Summary

Client: SunStar Laboratories Inc  
Project/Site: T233669

Job ID: 570-164075-1

## Laboratory: Eurofins Calscience

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

<u>Authority</u>	<u>Program</u>	<u>Identification Number</u>	<u>Expiration Date</u>
Oregon	NELAP	4175	02-02-24

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# Method Summary

Client: SunStar Laboratories Inc  
Project/Site: T233669

Job ID: 570-164075-1

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

**Protocol References:**

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

**Laboratory References:**

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

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# Sample Summary

Client: SunStar Laboratories Inc  
Project/Site: T233669

Job ID: 570-164075-1

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<u>Lab Sample ID</u>	<u>Client Sample ID</u>	<u>Matrix</u>	<u>Collected</u>	<u>Received</u>
570-164075-1	T233669-01	Water	12/07/23 17:55	12/11/23 13:17
570-164075-2	T233669-02	Water	12/07/23 19:05	12/11/23 13:17
570-164075-3	T233669-03	Water	12/07/23 16:40	12/11/23 13:17

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SUBCONTRACT ORDER

SunStar Laboratories, Inc.

T233669

Loc: 570

164075

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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: T233669-01</b>	<b>Water</b>	<b>Sampled: 12/07/23 17:55</b>	[REDACTED]	
Misc Water Testing #1	12/26/23 00:00	06/04/24 17:55		8015M- Therminol
<i>Containers Supplied:</i>				
<b>Sample ID: T233669-02</b>	<b>Water</b>	<b>Sampled: 12/07/23 19:05</b>	[REDACTED]	
Misc Water Testing #1	12/26/23 00:00	06/04/24 19:05		8015M- Therminol
<i>Containers Supplied:</i>				
<b>Sample ID: T233669-03</b>	<b>Water</b>	<b>Sampled: 12/07/23 16:40</b>	[REDACTED]	
Misc Water Testing #1	12/26/23 00:00	06/04/24 16:40		8015M- Therminol
<i>Containers Supplied:</i>				



570-164075 Chain of Custody

Released By: [Signature] Date: 12-11-23 13:17 Received By: [Signature] Date: 12-11-23 13:17  
 EC

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

S.B/S.S SC12

## Login Sample Receipt Checklist

Client: SunStar Laboratories Inc

Job Number: 570-164075-1

**Login Number: 164075**

**List Number: 1**

**Creator: Vitente, Precy**

**List Source: Eurofins Calscience**

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
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?	N/A	
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.	True	
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	

Lab #: 902419 Job #: 57012 IS-101168 Co. Job#:  
Sample Name: T233669-01 Co. Lab#:  
Company: SunStar Laboratories, Inc  
API/Well:  
Container: 250ml Plastic Bottle  
Field/Site Name: T233669  
Location:  
Formation/Depth:  
Sampling Point:  
Date Sampled: 12/07/2023 17:55 Date Received: 12/12/2023 Date Reported: 12/27/2023

$\delta$ D of water ----- -69.8 ‰ relative to VSMOW

$\delta^{18}$ O of water ----- -8.59 ‰ 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 #: 902420 Job #: 57012 IS-101168 Co. Job#:  
Sample Name: T233669-02 Co. Lab#:  
Company: SunStar Laboratories, Inc  
API/Well:  
Container: 250ml Plastic Bottle  
Field/Site Name: T233669  
Location:  
Formation/Depth:  
Sampling Point:  
Date Sampled: 12/07/2023 19:05 Date Received: 12/12/2023 Date Reported: 12/27/2023

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

$\delta^{18}O$  of water ----- -8.49 ‰ 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 #: 902421 Job #: 57012 IS-101168 Co. Job#:  
Sample Name: T233669-03 Co. Lab#:  
Company: SunStar Laboratories, Inc  
API/Well:  
Container: 250ml Plastic Bottle  
Field/Site Name: T233669  
Location:  
Formation/Depth:  
Sampling Point:  
Date Sampled: 12/07/2023 16:40 Date Received: 12/12/2023 Date Reported: 12/27/2023

$\delta D$  of water ----- -71.5 ‰ relative to VSMOW

$\delta^{18}O$  of water ----- -8.76 ‰ 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

**WORK ORDER**

**T233669**

**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: 12/27/23 00:00 (11 day TAT)

Received By: Paul Berner

Date Received: 12/08/23 12:45

Logged In By: Jeff Lee

Date Logged In: 12/08/23 15:53

Samples Received at: 1.1°C

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

Analysis	Due	TAT	Expires	Comments
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**T233669-01 DM-1 [Water] Sampled 12/07/23 17:55 (GMT-08:00) Pacific Time (US &**

1664	12/15/23 15:00	5	01/04/24 17:55	Oil & Grease
200.7	12/15/23 15:00	5	06/04/24 17:55	Ca,Cu,Na,K,Fe,Mg (Field Filtered)
200.8	12/15/23 15:00	5	06/04/24 17:55	Sb,As,Ba,Cd,Cr,Co,Pb,Ni,Se,Zn (Field Filtered)
300.0 - F, Cl, Br, SO4	12/15/23 15:00	5	01/04/24 17:55	Chloride,Sulfate only
300.0 - NO2, NO3, PO4	12/15/23 15:00	5	12/09/23 17:55	Nitrate
7470/71 Hg	12/15/23 15:00	5	03/06/24 17:55	
Conductivity	12/15/23 15:00	5	01/04/24 17:55	
pH water SM 4500-H+B	12/13/23 15:00	3	12/08/23 17:55	
TDS-160.1	12/15/23 15:00	5	12/14/23 17:55	

**T233669-02 DM-2 [Water] Sampled 12/07/23 19:05 (GMT-08:00) Pacific Time (US &**

1664	12/15/23 15:00	5	01/04/24 19:05	Oil & Grease
200.7	12/15/23 15:00	5	06/04/24 19:05	Ca,Cu,Na,K,Fe,Mg (Field Filtered)
200.8	12/15/23 15:00	5	06/04/24 19:05	Sb,As,Ba,Cd,Cr,Co,Pb,Ni,Se,Zn (Field Filtered)
300.0 - F, Cl, Br, SO4	12/15/23 15:00	5	01/04/24 19:05	Chloride,Sulfate only
300.0 - NO2, NO3, PO4	12/15/23 15:00	5	12/09/23 19:05	Nitrate
7470/71 Hg	12/15/23 15:00	5	03/06/24 19:05	
Conductivity	12/15/23 15:00	5	01/04/24 19:05	
pH water SM 4500-H+B	12/13/23 15:00	3	12/08/23 19:05	
TDS-160.1	12/15/23 15:00	5	12/14/23 19:05	

**WORK ORDER**

**T233669**

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

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

Analysis	Due	TAT	Expires	Comments
<b>T233669-03 DM-3 [Water] Sampled 12/07/23 16:40 (GMT-08:00) Pacific Time (US &amp;</b>				
1664	12/15/23 15:00	5	01/04/24 16:40	Oil & Grease
200.7	12/15/23 15:00	5	06/04/24 16:40	Ca,Cu,Na,K,Fe,Mg (Field Filtered)
200.8	12/15/23 15:00	5	06/04/24 16:40	Sb,As,Ba,Cd,Cr,Co,Pb,Ni,Se,Zn (Field Filtered)
300.0 - F, Cl, Br, SO4	12/15/23 15:00	5	01/04/24 16:40	Chloride,Sulfate only
300.0 - NO2, NO3, PO4	12/15/23 15:00	5	12/09/23 16:40	Nitrate
7470/71 Hg	12/15/23 15:00	5	03/06/24 16:40	
Conductivity	12/15/23 15:00	5	01/04/24 16:40	
pH water SM 4500-H+B	12/13/23 15:00	3	12/08/23 16:40	
TDS-160.1	12/15/23 15:00	5	12/14/23 16:40	

**Eurofins Calscience (Tustin)**

**T233669-01 DM-1 [Water] Sampled 12/07/23 17:55 (GMT-08:00) Pacific Time (US &**

Misc Water Testing #1 12/26/23 00:00 10 06/04/24 17:55 8015M- Therminol

**T233669-02 DM-2 [Water] Sampled 12/07/23 19:05 (GMT-08:00) Pacific Time (US &**

Misc Water Testing #1 12/26/23 00:00 10 06/04/24 19:05 8015M- Therminol

**T233669-03 DM-3 [Water] Sampled 12/07/23 16:40 (GMT-08:00) Pacific Time (US &**

Misc Water Testing #1 12/26/23 00:00 10 06/04/24 16:40 8015M- Therminol

**Isotech Laboratories, Inc.**

**T233669-01 DM-1 [Water] Sampled 12/07/23 17:55 (GMT-08:00) Pacific Time (US &**

Misc Water Testing #2 12/26/23 00:00 10 06/04/24 17:55 Deuterium,Oxygen-18

**T233669-02 DM-2 [Water] Sampled 12/07/23 19:05 (GMT-08:00) Pacific Time (US &**

Misc Water Testing #2 12/26/23 00:00 10 06/04/24 19:05 Deuterium,Oxygen-18

**T233669-03 DM-3 [Water] Sampled 12/07/23 16:40 (GMT-08:00) Pacific Time (US &**

Misc Water Testing #2 12/26/23 00:00 10 06/04/24 16:40 Deuterium,Oxygen-18