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# 2019 FIRST SEMIANNUAL GROUNDWATER QUALITY MONITORING REPORT

## Genesis Solar Energy Project

Riverside County, California

COC S&W-20

June 27, 2019

Prepared By:

Northstar Environmental Remediation

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Lake Forest, California 92630

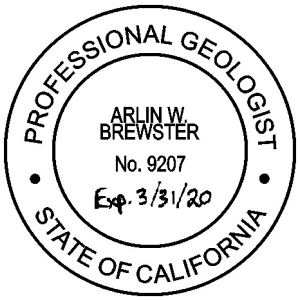
# SIGNATURE PAGE

## 2019 FIRST SEMIANNUAL GROUNDWATER QUALITY MONITORING REPORT

## RIVERSIDE COUNTY, CALIFORNIA

**PROFESSIONAL STATEMENT**

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

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Arlin W. Brewster

Professional Geologist 9207

June 27, 2019

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# 1.0 INTRODUCTION

Northstar Environmental Remediation (Northstar) has prepared this 2019 First Semiannual Groundwater Quality Monitoring Report on behalf of Genesis Solar, LLC (Genesis). This report details groundwater quality monitoring performed in June 2019 at the Genesis Solar Energy Project (GSEP). The GSEP lies roughly 25 miles west of the city of Blythe, California in eastern Riverside County on lands managed by the Bureau of Land Management (BLM) (**Figure 1**). The GSEP consist of two independent concentrated solar electric generating facilities with a nominal net electric output of 125 megawatts (MW) each (a total net electrical output of 250 MW).

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

## 1.1 Background

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

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

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

## 1.2 Geographic Setting

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

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

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

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

## 1.3 Hydrogeologic Setting

The GSEP lies within the Chuckwalla Valley Groundwater Basin (Chuckwalla Basin) which has a surface area of approximately 940 $mi^2$ (2,435 $km^2$) 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 2018 extraction data, is approximately 114 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 86.70 feet bgs (300.70 feet amsl) in TW-1, located upgradient of the site, to 136.60 feet bgs (255.50 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 most recent year.

## 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 groundwater quality monitoring at the GSEP on June 13 and 14, 2019. 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**. Hydrographs are included in the *Groundwater Level Monitoring Report* produced by Northstar.

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

## 3.3 Groundwater Sampling

Northstar collected groundwater samples from offsite monitoring wells 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 collected samples from these wells using the low-flow purging method in accordance with the guidelines established in the EPA document *Low-Flow (Minimal Drawdown) Groundwater Sampling Procedures* (Puls and Barcelona, 1996). Field data sheets are included in **Appendix A**.

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

Field staff measured groundwater parameters with a Horiba U-52 field instrument equipped with a flow-through cell (Horiba). Staff calibrated the Horiba at the beginning of each day and decontaminated the instrument prior to use and between wells. Measurements of field parameters (pH, electrical conductivity (EC), temperature, turbidity, and oxidation-reduction potential (ORP)) were taken periodically 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). 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. 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 TestAmerica Laboratories, Inc. (TestAmerica) of Irvine, California. They also subcontract the oxygen-18 and deuterium stable isotope analyses to Isotech Laboratories, Inc. of Champaign, Illinois. All laboratories are state and federally certified and analyze the samples by the following methods, as detailed in the Final Decision, WDR, and MRP documents:

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

## 3.7 Sample Handling

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

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

## 3.8 Quality Assurance / Quality Control

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

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

A set of quality control blank samples (including a field and trip blank) was 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 work day and is intended to screen out constituents in ambient air. The trip blank bottle set is prepared at the laboratory and is sealed throughout the groundwater sampling event. It is stored inside the sample coolers and is intended to screen out constituents in the coolers. The quality control blank samples are only analyzed if there is anomalous data present for the groundwater sampling results.

# 4.0 RESULTS OF LABORATORY ANALYSES

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

## 4.1 General Inorganic Chemical Analysis

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

- Chart 1: **Chloride** – Concentrations have decreased compared to the previous monitoring event and are now consistent with historical results.
- Chart 2: **Sulfate** – Concentrations are generally the same or lower than baseline results.
- Chart 3: **Nitrate** – Appears in low concentrations mostly in shallow monitoring wells, including upgradient OBS-1. Concentrations are consistent with the previous monitoring event.
- Chart 4: **Calcium** - Concentrations are generally the same or lower than baseline results.
- Chart 5: **Copper** – Occurs in only a few wells at low concentrations. There are no apparent trends.
- Chart 6: **Sodium** – Concentrations are generally the same or lower than baseline results. A significant decrease in sodium was observed in the fourth quarter of 2017 in all wells but 23a which correlated to a very large precipitation event. Results returned to normal by the following event.
- Chart 7: **Potassium** – Concentrations were consistent until the second quarter of 2017, after which concentrations appeared to be fluctuating in all wells.
- Chart 8: **Iron** – Occurs above the detection limits sporadically; no trends are apparent.
- Chart 9: **Magnesium** - Concentrations are generally the same or lower than baseline results.
- Chart 10: **Antimony** – There have been no detections to date.
- Chart 11: **Arsenic** – Appeared in all regularly monitored wells between the second quarter of 2014 and the fourth quarter of 2018, but was not detected during this reporting period.
- Chart 12: **Barium** - Appeared in all regularly monitored wells between the second quarter of 2014 and the fourth quarter of 2018, but was not detected during this reporting period.
- Chart 13: **Cadmium** – There have been no detections to date.
- Chart 14: **Chromium** (Total) – There have only been three detections to date – one in DM-1 (fourth quarter 2017) and two in DM-2 (fourth quarter 2017 and second quarter 2018).
- 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).
- Chart 18: **Nickel** – There have only been three detections to date at very low concentrations – one in DM-3 (second quarter 2014), PW-2 (fourth quarter 2017), and 23a (second quarter 2019).
- Chart 19: **Selenium** – Occurs sporadically in several wells but has appeared more consistently in shallow upgradient well OBS-1. There are no apparent trends.

- Chart 20: **Zinc** – Occurs only in well 23a from fourth quarter 2014, but in several other wells since fourth quarter 2017, a result of lower detection limits.
- Chart 21: **Mercury** – Has occurred only once at a very low concentration in well DM-1 (second quarter 2015).
- Chart 22: **Total Dissolved Solids** – Relatively stable with some fluctuation in upgradient wells OBS-1 and TW-1.
- Chart 23: **Specific Conductance** - Relatively stable with some fluctuation in upgradient shallow well OBS-1.
- Chart 24: **pH** – Relatively stable. These results are produced outside the 15-minute sample hold time.

## 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. There are no apparent trends.
- Chart 26: **Heat Transfer Fluid** – There have been no detections to date.

## 4.3 Stable Isotope Analysis

Oxygen-18 and deuterium are naturally occurring stable isotopes of oxygen and hydrogen that occur at varying concentrations in all water. Concentrations of these heavier isotopes varies in precipitation depending on latitude, elevation and climate (Froehlich and Yurtsever, 1995; Izbicki, Martin and Michel, 1995; Kendall and Coplen, 2001). Precipitation falling at higher elevations, higher latitudes, or cooler climates tend to be depleted in these heavier isotopes. The isotope depletion relative to Vienna Standard Mean Ocean Water (VSMOW) is expressed in delta notation as parts per thousand (‰). The ratio of oxygen-18 to deuterium has been well established around the world as falling on a straight line called the Global Meteoric Water Line (GMWL). This relationship between oxygen-18 and deuterium is useful for determining the source and history of a water sample. Departures from the GMWL can occur due to evaporation, which tends to leave the remaining water enriched in heavier isotopes (less depleted), 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 that occurs locally).
- Both aquifers are more depleted downgradient, indicating they are closer to the source of precipitation or groundwater recharge upgradient.

- 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 2019 first semiannual monitoring event show results that are consistent with historical data.

## 4.4 Statistical Analysis

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

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

- TW-1: No increasing trends identified.
- TW-2: No increasing trends identified.
- OBS-1: No increasing trends identified.
- 23a: No increasing trends identified.
- DM-1: No increasing trends identified.
- DM-2: No increasing trends identified.
- DM-3: An increasing trend was identified only for calcium.
- PW-2: No increasing trends identified.

## 4.5 Quality Assurance/Quality Control

As documented in the attached laboratory reports (**Appendix D**), groundwater samples collected from network wells during the reporting period were received by the laboratory in good condition, within the temperature limits required, and analyzed within the required holding times using the specified methods (with the exception of pH, which has a 15-minute hold time, and nitrates, because the anion laboratory was not in operation when the samples arrived).

None of the analytes were detected in the laboratory method blank samples except for zinc in batch 9061734 (which included all samples). Due to the fact that zinc was detected in all samples at a very consistent concentration ranging from 150 to 180 µg/l, but is not normally detected above the reporting limit for all samples, these results have been omitted from the summary in **Table 4** because they are highly suspect.

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 MS did not pass for arsenic, barium, cadmium, chromium, and lead for batch 9061734 (which included all samples) due to matrix interference; but the LCS was within acceptable criteria.
- The MS and MSD did not pass for chloride and sulfate for batch 9061717 (which included all samples) due to matrix interference; but the LCS was within acceptable criteria.

## 5.0 ANNUAL SUMMARY

The 2019 annual summary will be included in the 2019 Second Semiannual and Annual Groundwater Quality Monitoring Report, which will be produced by Northstar by January 15, 2020.

## 6.0 CONCLUSIONS

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

## 7.0 REFERENCES


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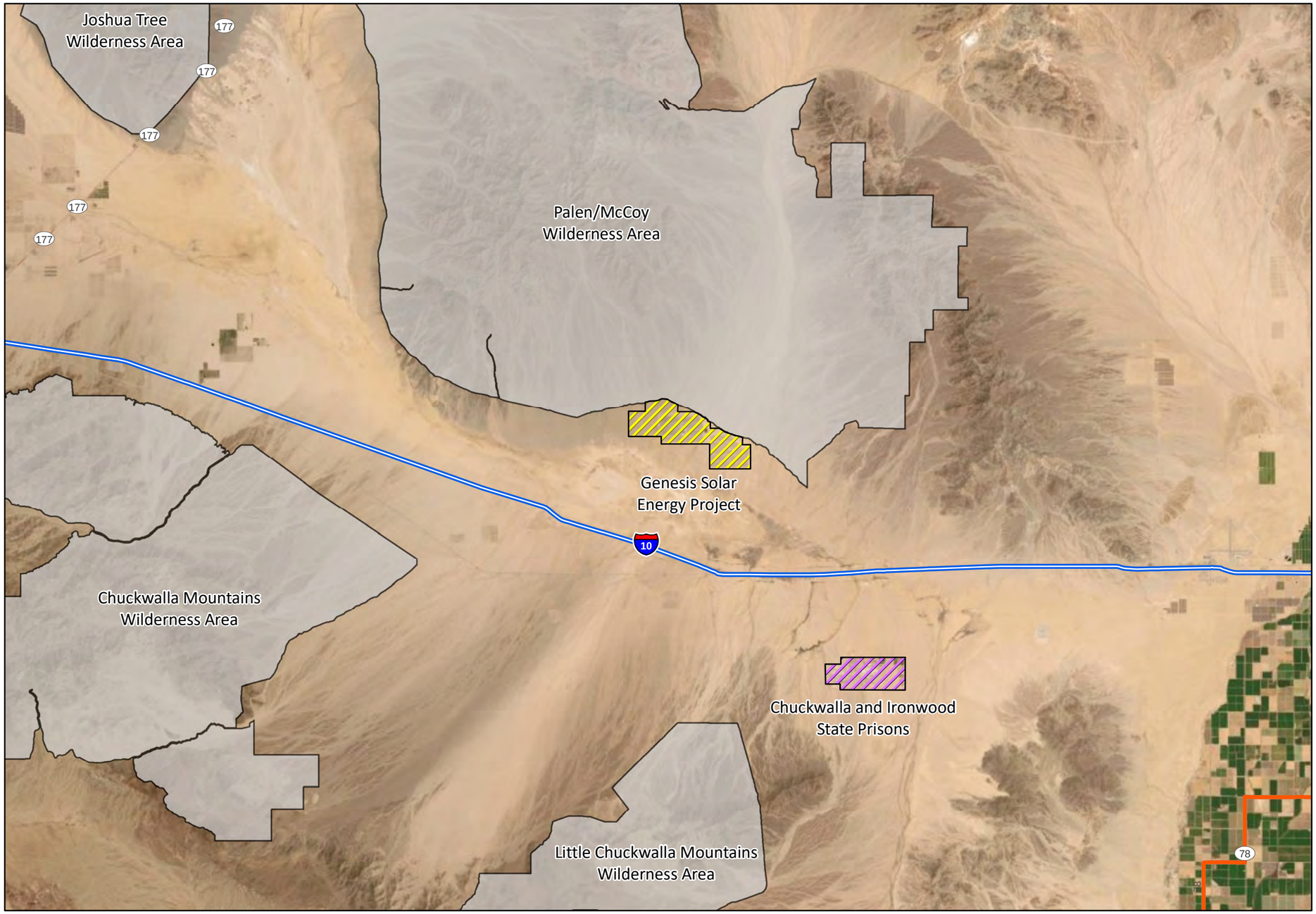
# FIGURES





GSEP Footprint
Prisons
Wilderness Area

0 1.25 2.5 5 7.5 10
Miles

N
W E
S

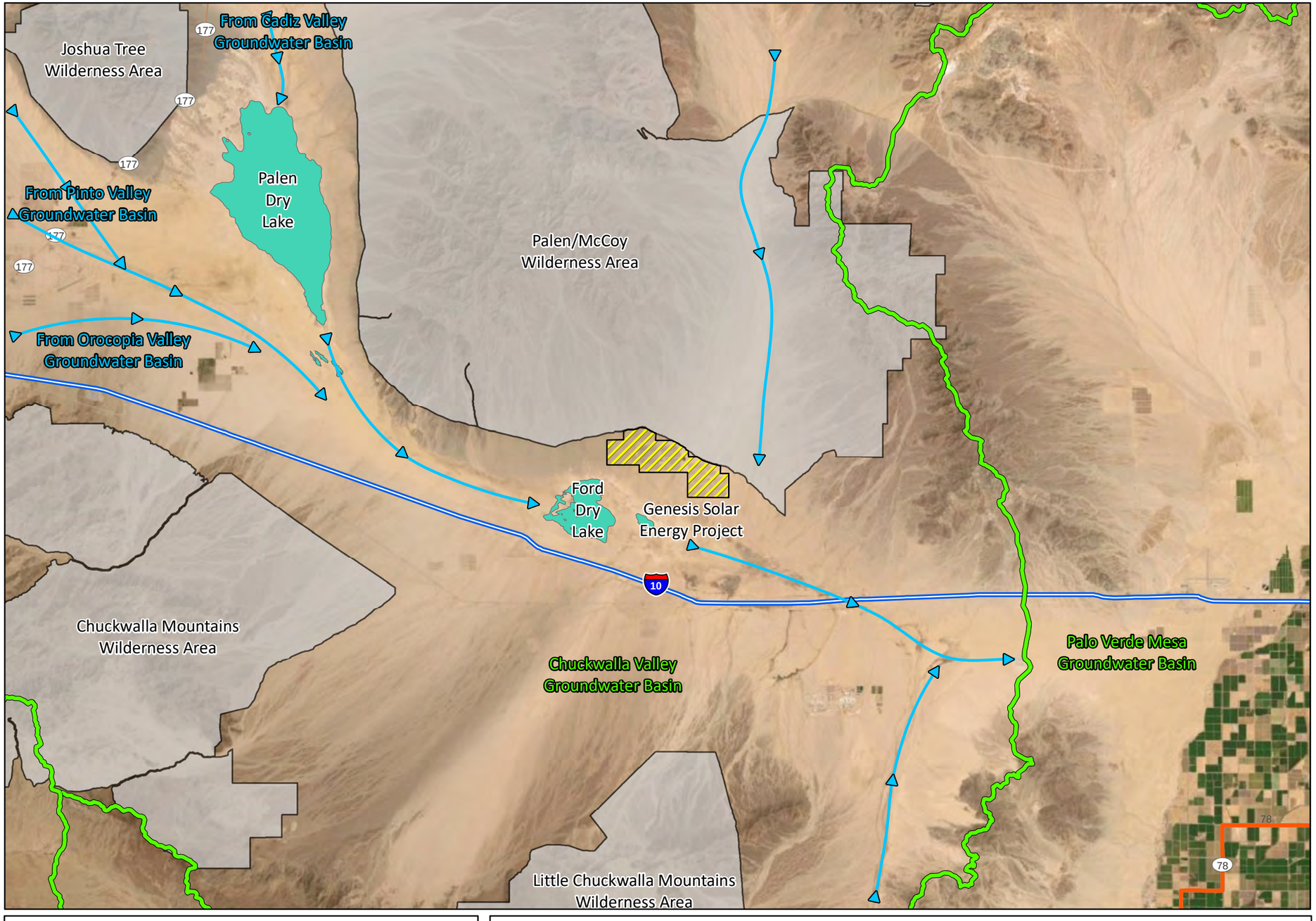
NORTHSTAR
ENVIRONMENTAL REMEDIATION

Northstar Environmental
Remediation
26225 Enterprise Court
Lake Forest, California 92630
(949) 580-2800

Project Number:
196-004-06

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

Figure 1
Site Vicinity Map





GSEP Footprint
Watershed Boundary
Lake
Wilderness Area
Water Flow Direction

0 1.25 2.5 5 7.5 10 Miles

N
W E
S

NORTHSTAR
ENVIRONMENTAL REMEDIATION

Northstar Environmental
Remediation
26225 Enterprise Court
Lake Forest, California 92630
(949) 580-2800

Project Number:
196-004-06

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

Figure 2
Hydrogeologic Setting

Evaporation Pond
Monitoring Wells
DM-1, DM-2, DM-3

Extraction
Well
PW-1

Upgradient Wells
OBS-1, OBS-2, TW-1

Remote Well
Access Road

Extraction
Well PW-0

Extraction Well PW-2

Ford
Dry
Lake

Facility Access
Road

Downgradient
Test Well
TW-2

CalTrans
Well 23a

SoCal Gas
Anode Wells
24-1, 24-2, 24-3

Agricultural
Well 14

T05S R18E
T05S R19E
T05S R20E
T06S R18E
T06S R19E
T06S R20E
T07S R18E
T07S R19E
T07S R20E

10


GSEP Footprint
Active Monitoring Wells
Lake
Wilderness Area
Access Road

0 0.5 1 2 3 4 Miles

N
W E
S

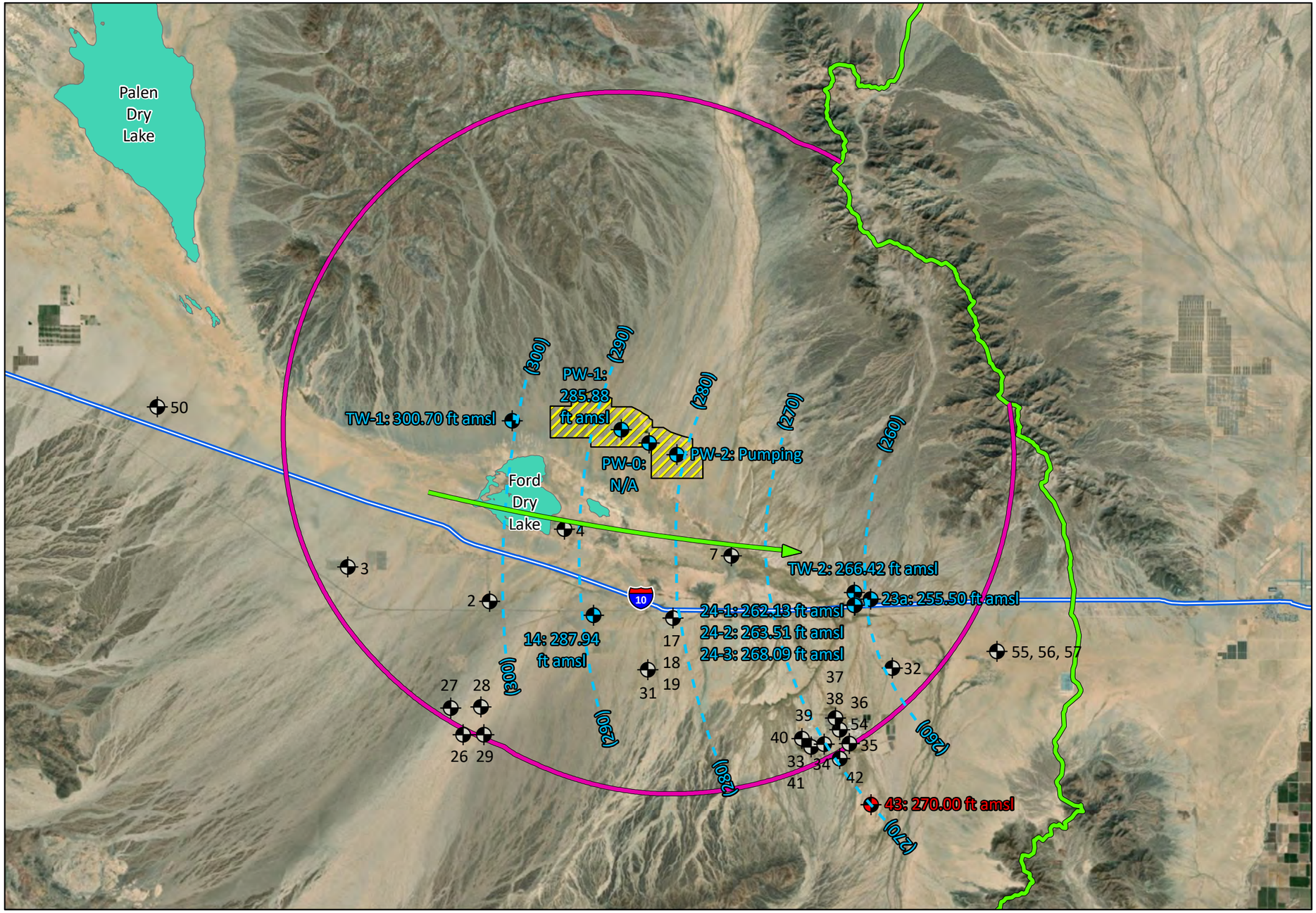
NORTHSTAR
ENVIRONMENTAL REMEDIATION

Northstar Environmental
Remediation
26225 Enterprise Court
Lake Forest, California 92630
(949) 580-2800

Project Number:
196-004-06

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

Figure 3
Groundwater Monitoring Area
and Well Locations





Active Monitoring Wells
NWIS Active Wells
NWIS Inactive Wells
Groundwater Elevation Contour
Groundwater Gradient Direction
10 Mile Boundary
Watershed Boundary
GSEP Footprint

0 1 2 4 6 8 Miles

N
W E
S

NORTHSTAR
ENVIRONMENTAL REMEDIATION

Northstar Environmental Remediation
26225 Enterprise Court
Lake Forest, California 92630
(949) 580-2800

Project Number:
196-004-06

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

Figure 4
Bouse Formation Groundwater Elevation Contour Map

# 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 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **WELLS INCLUDED IN THE GROUNDWATER MONITORING PROGRAM** | | | | | | | | | | | |
| OBS-1 [1] | -- | Shallow Observation Well 1 | Genesis Solar, LLC | 5/9/2009 | Monitoring / Active | 5 | 385.857 | 388.3 | 160 | 100 to 150 | Alluvium |
| OBS-2-270 [1,2] | -- | Nested Observation Well 2 | Genesis Solar, LLC | 7/2/2009 | Buried Transducer / Active | -- | 385.617 | 388.14 | 270 | 265 to 275 | Bouse Formation |
| OBS-2-315 [1,2] | -- | Nested Observation Well 2 | Genesis Solar, LLC | 7/2/2009 | Buried Transducer / Active | -- | 385.617 | 388.14 | 315 | 304 to 327 | Bouse Formation |
| OBS-2-370 [1,2] | -- | Nested Observation Well 2 | Genesis Solar, LLC | 7/2/2009 | Buried Transducer / Active | -- | 385.617 | 388.14 | 370 | 359 to 374 | Bouse Formation |
| OBS-2-400 [1,2] | -- | Nested Observation Well 2 | Genesis Solar, LLC | 7/2/2009 | Buried Transducer / Active | -- | 385.617 | 388.14 | 400 | 387 to 418 | Bouse Formation |
| TW-1 [1] | -- | Test Well 1 | Genesis Solar, LLC | 5/22/2009 | Monitoring / Active | 5 | 385.91 | 387.4 | 565 | 340 to 564 | Bouse Formation |
| TW-2 [1] | -- | Test Well 2 | Genesis Solar, LLC | 12/9/2009 | Monitoring and Dust Control / Active | 5 | 390.003 | 393.47 | 1,841 | 793-873, 1042-1123, 1439-1601, 1739-1820 | Bouse Formation / Fanglomerate |
| PW-0 | -- | Production Well 0 | Genesis Solar, LLC | 7/9/2011 | Production Well | 10 | -- | -- | 1,251 | 882-1002, 1226-1251 | Bouse Formation / Fanglomerate |
| PW-1 | -- | Production Well 1 | Genesis Solar, LLC | 8/14/2011 | Production Well | 10 | -- | -- | 1,360 | 930-950, 990-1000, 1040-1100, 1120-1140, 1160-1200, 1260-1360 | Bouse Formation / Fanglomerate |
| PW-2 | -- | Production Well 2 | Genesis Solar, LLC | 9/15/2011 | Production Well | 10 | -- | -- | 1,125 | 770-930, 980-1120 | Bouse Formation |
| DM-1 | -- | Detection Monitoring Well 1 | Genesis Solar, LLC | 2/22/2012 | Monitoring / Active | 4 | -- | 391.49 | 120 | 100 to 120 | Alluvium |
| DM-2 | -- | Detection Monitoring Well 2 | Genesis Solar, LLC | 2/21/2012 | Monitoring / Active | 4 | -- | 391.32 | 120 | 100 to 120 | Alluvium |
| DM-3 | -- | Detection Monitoring Well 3 | Genesis Solar, LLC | 2/20/2012 | Monitoring / Active | 4 | -- | 388.34 | 120 | 100 to 120 | Alluvium |
| 14 [1,3] | 6S/19E-32 | -- | Lorne Froats (AZCA Drilling) | 5/1/1991 | Domestic/ Irrigation/ Dust Control | 12 to 10 | 393.548 | 388.14 | 982 (obstructed at 450) | 890 to 940 | Fanglomerate |
| 23a [1,4] | 6S/20E-33C1 | CalTrans Well @ WWRS | CalTrans | Unknown | Water Supply / Inactive | 8 | 397.28 | 392.1 | 1,825 | 1800-1825 | Fanglomerate |
| 24-1 [1,5] | 6S/20E-33 | SCG Anode Well | So Cal Gas | 4/29/1989 | Anode / Inactive | 2 | 389.3 | 389.4 | 435 | 235 to 435 | Alluvium/Bouse Formation |
| 24-2 [5] | 6S/20E-33 | SCG Anode Well | So Cal Gas | Unknown | Anode / Inactive | 1 | 389.09 | 388.86 | Obstructed at 373 feet | 235 to 435 | Alluvium/Bouse Formation |
| 24-3 [5] | 6S/20E-33 | SCG Anode Well | So Cal Gas | Unknown | Anode / Inactive | 1 | 388.2 | 392.04 | Unknown | -- | Alluvium/Bouse Formation |
| **ADDITIONAL WELLS IN THE CHUCKWALLA VALLEY GROUNDWATER BASIN WITHIN 10 MILES OF THE SITE FOR WHICH MONITORING DATA IS AVAILABLE** | | | | | | | | | | | |
| 2 | 6S/18E-36E1 | - - | CA Jojoba Research and Development | 12/18/1981 | Irrigation | 10 to 6 | 424 | -- | 940 | 250 to 290 770 to 810 | Alluvium/Bouse Formation |
| 3 | 6S/18E-29 | Siddall Well | Agra Energy Corp. | 2/26/1982 | Irrigation | 20 to 8 | 498 | -- | 957 | 560 to 940 | Bouse Formation |
| 4 | 6S/19E-19J1 | -- | -- | -- | Unused | 12 | 354 | -- | -- | -- | -- |
| 9 | 6S/19E-28R1 | -- | -- | -- | Unused | -- | 354 | -- | -- | -- | -- |
| 15 | 6S/19E-32K1 | -- | | -- | -- | 12.5 | 390.2 | -- | Obstructed at 526 feet | -- | Bouse Formation |
| 16 | 6S/19E-32K2 | -- | | -- | -- | 10.5 | 390 | -- | Obstructed at 297 feet | -- | Bouse Formation |
| 22 | 6S/20E-33L1 | -- | -- | -- | Unknown / Destroyed | -- | -- | -- | -- | -- | Bouse Formation |
| 23 | 6S/20E-33C1 | -- | -- | -- | Unknown / Destroyed | 10 | 392 | -- | 400 | -- | -- |
| 26 | 7S/18E-14F1 | -- | U.S. AgriResearch and Development | 12/26/1982 | Irrigation | 16 to 10 | 562.58 | -- | 1,000 (obstructed at 952 feet) | 410 to 630 750 to 770 810 to 870 | Alluvium/Bouse Formation |
| 27 | 7S/18E-11N1 | -- | -- | -- | Unused | 16 | 555 | -- | 486.4 | -- | Bouse Formation |
| 28 | 7S/18E-11R1 | -- | -- | -- | Unused | 16 | 520 | -- | 779.4 | -- | Bouse Formation |
| 29 | 7S/18E-14H1 | -- | U.S. AgriResearch and Development | 1/16/1983 | Irrigation | 10 | 545.91 | -- | 985 (obstructed at 950 feet) | 420 to 460, 500 to 520, 540 to 580, 620-820, 840-990 | Bouse Formation |
| 31 | 7S/19E-4R1 | Teaque Well | -- | -- | Unused | 12 | 423.89 | -- | 242.2 | -- | Alluvium |
| 32 | 7S/20E-4R1 | Vada McBride | -- | -- | Unused | 16 | 418 | -- | 315.7 | -- | Bouse Formation |
| 33 | 7S/20E-16M1 | -- | CA Department of Corrections | -- | -- | 30 to 16 | 456.02 | -- | 1,200 | 690 to 1190 | Bouse Formation/ Fanglomerate |
| 34 | 7S/20E-17L1 | WP-4 | CA Department of Corrections | 9/8/1992 | Public Water Supply | 24 | 458.3 | -- | 1,200 | 690 to 1190 | Bouse Formation/ Fanglomerate |
| 35 | 7S/20E-17K1 | -- | CA Department of Corrections | 12/20/1989 | -- | 30 to 16 | 456.48 | -- | 1,200 | 690 to 1190 | Bouse Formation/ Fanglomerate |
| 36 [6] | 7S/20E-17G1 | -- | CA Department of Corrections | 12/30/1987 | Industrial | 30 to 16 to 10 | 443.5 | -- | 1,200 | 690 to 1190 | Bouse Formation/ Fanglomerate |
| 37 [6] | 7S/20E-17C1 | 78, North Well | CA Department of Corrections | 7/28/1981 | Irrigation | 14-10 | 433.09 | -- | 1,050 | 750 to 1,050 | Bouse Formation/ Fanglomerate |
| 39 | 7S/20E-18H1 | -- | CA Department of Corrections | -- | -- | -- | 442.9 | -- | 1,139 | -- | Bouse Formation/ Fanglomerate |
| 40 | 7S/20E-18K1 | WP-6 | CA Department of Corrections | 11/4/1992 | Public Water Supply | 15 to 10 | 449.4 | -- | 1,200 | 690 to 1,200 | Bouse Formation/ Fanglomerate |
| 41 | 7S/20E-18R1 | WP-5 | CA Department of Corrections | 10/24/1992 | Public Water Supply | 13.5 to 10 | 453.6 | -- | 1,160 | -- | Fanglomerate |
| 42 | 7S/20E-20B1 | 79 / Observation Well 3 | -- | 6/4/1905 | Irrigation | 16 to 12 | 470 | -- | 1,100 | 738 to 1,100 | Bouse Formation/ Fanglomerate |
| 43 | 7S/20E-28C1 | 7S/20E-28F1/80 | Jojoba Inc. | 3/15/1982 | Irrigation | 10 to 8 | 505.6 | -- | 830 | 510 to 600 and 680 to 780 | Bouse Formation |
| 44 | 7S/20E-28C2 | -- | Jojoba Southwest | 11/30/1989 | Irrigation | 16 to 12 | 505.3 | -- | 1,100 | 700 to 1,100 | Bouse Formation/ Fanglomerate |
| 47 | 8S/20E-10N2 | 60 | -- | 1984 | -- | 4 | 621 | -- | 872 | 500 to 580, 620 to 640, 710 to 850 | Bouse Formation |
| 50 | 6S/17E-3M1 | -- | -- | -- | -- | -- | 566 | -- | 818 | -- | Bouse Formation |
| 54 | 8S/20E-28N1 | -- | -- | -- | -- | -- | 654.5 | -- | 500 | -- | Bouse Formation |
| 55 | 7S/20E-1M1 | CWV1#1 | USGS | 1/23/2012 | Exploratory | 2 | 415.4 | -- | 993 | 973 to 993 | Bouse Formation |
| 56 | 7S/20E-1M2 | CWV1#2 | USGS | 1/23/2012 | Exploratory | 2 | 415.4 | -- | 505 | 485 to 505 | Pinto Formation |
| 57 | 7S/20E-1M3 | CWV1#3 | USGS | 1/23/2012 | Exploratory | 2 | 415.4 | -- | 230 | 210 to 230 | Alluvium |

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

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

**Notes:**
-- = information not available or unknown
amsl = above mean sea level
bgs = below ground surface
1. Wells were surveyed on February 8 & 9, 2011. Ground surface elevation survey measurement taken at top of concrete pad.
2. Nested pressure transducer buried in place.
3. Well is obstructed at 450 feet and therefore not suitable for groundwater quality monitoring. Used for groundwater level monitoring only.
4. Well completion and screened interval determined by video log performed on 11/09/2010
5. Anode well completed with Coke Breeze and not considered to be suitable for water quality sampling and used for groundwater level monitoring program only.
6. No access port for groundwater level monitoring; used for groundwater quality monitoring only.

**TABLE 2**

**GROUNDWATER LEVEL MEASUREMENTS**

**Genesis Solar Energy Project, Riverside County, California**

| Well ID | Date | Source | Top of Casing Elevation (feet amsl) [1] | Depth to Water (feet below TOC) | Groundwater Elevation (feet amsl) | Difference from Baseline (feet) | Comments / Use |
|---|---|---|---|---|---|---|---|
| **WELLS INCLUDED IN THE GROUNDWATER LEVEL MONITORING PROGRAM** | | | | | | | |
| 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-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 |
| | | | | | | | |
| 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 |

**TABLE 2**

**GROUNDWATER LEVEL MEASUREMENTS**

**Genesis Solar Energy Project, Riverside County, California**

| Well ID | Date | Source | Top of Casing Elevation (feet amsl) [1] | Depth to Water (feet below TOC) | Groundwater Elevation (feet amsl) | Difference from Baseline (feet) | Comments / Use |
|---|---|---|---|---|---|---|---|
| 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-2-270 [6] | 7/9/2009 | WorleyParsons | 388.14 | 78.75 | 309.39 | N/A | Monitoring |
| OBS-2-270 [6] | 11/10/2010 | WorleyParsons | 388.14 | 80.56 | 307.58 | 0.00 | Baseline |
| OBS-2-270 [6] | 2/8/2011 | WorleyParsons | 388.14 | 80.61 | 307.53 | -0.05 | Monitoring |
| OBS-2-270 [6] | 2/8/2011 | WorleyParsons | 388.14 | 80.68 | 307.46 | -0.12 | Monitoring |
| OBS-2-270 [6] | 9/25/2011 | WorleyParsons | 388.14 | 80.77 | 307.37 | -0.21 | Monitoring |
| OBS-2-270 [6] | 12/14/2011 | WorleyParsons | 388.14 | NM [2] | | N/A | Monitoring |
| OBS-2-270 [6] | 2/21/2012 | WorleyParsons | 388.14 | 80.47 | 307.67 | 0.09 | Monitoring |
| OBS-2-270 [6] | 5/25/2012 | WorleyParsons | 388.14 | 81.28 | 306.86 | -0.72 | Monitoring |
| OBS-2-270 [6] | 7/26/2012 | WorleyParsons | 388.14 | 81.00 | 307.14 | -0.44 | Monitoring |
| OBS-2-270 [6] | 10/23/2012 | WorleyParsons | 388.14 | 81.01 | 307.13 | -0.45 | Monitoring |
| OBS-2-270 [6] | 3/29/2013 | WorleyParsons | 388.14 | 80.99 | 307.15 | -0.43 | Monitoring |
| OBS-2-270 [6] | 6/20/2013 | WorleyParsons | 388.14 | NM [2] | | N/A | Monitoring |
| OBS-2-270 [6] | 8/13/2013 | WorleyParsons | 388.14 | NM [2] | | N/A | Monitoring |
| OBS-2-270 [6] | 11/12/2013 | WorleyParsons | 388.14 | 81.24 | 306.90 | -0.68 | Monitoring |
| OBS-2-270 [6] | 2/26/2014 | WorleyParsons | 388.14 | 81.48 | 306.66 | -0.92 | Monitoring |
| | | | | | | | |
| OBS-2-315 [6] | 7/9/2009 | WorleyParsons | 388.14 | 80.89 | 307.25 | N/A | Monitoring |
| OBS-2-315 [6] | 11/10/2010 | WorleyParsons | 388.14 | 82.51 | 305.63 | 0.00 | Baseline |
| OBS-2-315 [6] | 2/8/2011 | WorleyParsons | 388.14 | 82.61 | 305.53 | -0.10 | Monitoring |
| OBS-2-315 [6] | 2/8/2011 | WorleyParsons | 388.14 | 82.83 | 305.31 | -0.32 | Monitoring |
| OBS-2-315 [6] | 9/25/2011 | WorleyParsons | 388.14 | 83.03 | 305.11 | -0.52 | Monitoring |
| OBS-2-315 [6] | 12/14/2011 | WorleyParsons | 388.14 | NM [2] | | N/A | Monitoring |
| OBS-2-315 [6] | 2/21/2012 | WorleyParsons | 388.14 | 82.81 | 305.33 | -0.30 | Monitoring |
| OBS-2-315 [6] | 5/25/2012 | WorleyParsons | 388.14 | NM [2] | | N/A | Monitoring |
| OBS-2-315 [6] | 7/26/2012 | WorleyParsons | 388.14 | 83.38 | 304.76 | -0.87 | Monitoring |
| OBS-2-315 [6] | 10/23/2012 | WorleyParsons | 388.14 | 83.43 | 304.71 | -0.92 | Monitoring |
| OBS-2-315 [6] | 3/29/2013 | WorleyParsons | 388.14 | 83.45 | 304.69 | -0.94 | Monitoring |
| OBS-2-315 [6] | 6/20/2013 | WorleyParsons | 388.14 | NM [2] | | N/A | Monitoring |
| OBS-2-315 [6] | 8/13/2013 | WorleyParsons | 388.14 | NM [2] | | N/A | Monitoring |
| OBS-2-315 [6] | 11/12/2013 | WorleyParsons | 388.14 | 83.74 | 304.40 | -1.23 | Monitoring |
| OBS-2-315 [6] | 2/26/2014 | WorleyParsons | 388.14 | 83.96 | 304.18 | -1.45 | Monitoring |
| | | | | | | | |
| OBS-2-370 [6] | 7/9/2009 | WorleyParsons | 388.14 | 82.46 | 305.68 | N/A | Monitoring |
| OBS-2-370 [6] | 11/10/2010 | WorleyParsons | 388.14 | 84.60 | 303.54 | 0.00 | Baseline |
| OBS-2-370 [6] | 2/8/2011 | WorleyParsons | 388.14 | 85.01 | 303.13 | -0.41 | Monitoring |
| OBS-2-370 [6] | 9/25/2011 | WorleyParsons | 388.14 | 85.24 | 302.90 | -0.64 | Monitoring |
| OBS-2-370 [6] | 12/14/2011 | WorleyParsons | 388.14 | NM [2] | | N/A | Monitoring |
| OBS-2-370 [6] | 2/21/2012 | WorleyParsons | 388.14 | 85.05 | 303.09 | -0.45 | Monitoring |
| OBS-2-370 [6] | 5/25/2012 | WorleyParsons | 388.14 | 85.84 | 302.30 | -1.24 | Monitoring |
| OBS-2-370 [6] | 7/26/2012 | WorleyParsons | 388.14 | 85.64 | 302.50 | -1.04 | Monitoring |
| OBS-2-370 [6] | 10/23/2012 | WorleyParsons | 388.14 | 85.70 | 302.44 | -1.10 | Monitoring |
| OBS-2-370 [6] | 3/29/2013 | WorleyParsons | 388.14 | 85.75 | 302.39 | -1.15 | Monitoring |
| OBS-2-370 [6] | 6/20/2013 | WorleyParsons | 388.14 | NM [2] | | N/A | Monitoring |
| OBS-2-370 [6] | 8/13/2013 | WorleyParsons | 388.14 | NM [2] | | N/A | Monitoring |
| OBS-2-370 [6] | 11/12/2013 | WorleyParsons | 388.14 | 86.05 | 302.09 | -1.45 | Monitoring |
| OBS-2-370 [6] | 2/26/2014 | WorleyParsons | 388.14 | 86.27 | 301.87 | -1.67 | Monitoring |
| | | | | | | | |
| OBS-2-400 [6] | 7/9/2009 | WorleyParsons | 388.14 | 86.26 | 301.88 | N/A | Monitoring |
| OBS-2-400 [6] | 11/10/2010 | WorleyParsons | 388.14 | 87.34 | 300.80 | 0.00 | Baseline |
| OBS-2-400 [6] | 2/8/2011 | WorleyParsons | 388.14 | 87.41 | 300.73 | -0.07 | Monitoring |
| OBS-2-400 [6] | 2/8/2011 | WorleyParsons | 388.14 | 87.57 | 300.57 | -0.23 | Monitoring |

**TABLE 2**

**GROUNDWATER LEVEL MEASUREMENTS**

**Genesis Solar Energy Project, Riverside County, California**

| Well ID | Date | Source | Top of Casing Elevation (feet amsl) [1] | Depth to Water (feet below TOC) | Groundwater Elevation (feet amsl) | Difference from Baseline (feet) | Comments / Use |
|---|---|---|---|---|---|---|---|
| OBS-2-400 [6] | 9/25/2011 | WorleyParsons | 388.14 | 87.73 | 300.41 | -0.39 | Monitoring |
| OBS-2-400 [6] | 12/14/2011 | WorleyParsons | 388.14 | NM[2] | | N/A | Monitoring |
| OBS-2-400 [6] | 2/21/2012 | WorleyParsons | 388.14 | 87.47 | 300.67 | -0.13 | Monitoring |
| OBS-2-400 [6] | 5/25/2012 | WorleyParsons | 388.14 | 88.20 | 299.94 | -0.86 | Monitoring |
| OBS-2-400 [6] | 7/26/2012 | WorleyParsons | 388.14 | 87.96 | 300.18 | -0.62 | Monitoring |
| OBS-2-400 [6] | 10/23/2012 | WorleyParsons | 388.14 | 87.97 | 300.17 | -0.63 | Monitoring |
| OBS-2-400 [6] | 3/29/2013 | WorleyParsons | 388.14 | 88.20 | 299.94 | -0.86 | Monitoring |
| OBS-2-400 [6] | 6/20/2013 | WorleyParsons | 388.14 | NM[2] | | N/A | Monitoring |
| OBS-2-400 [6] | 8/13/2013 | WorleyParsons | 388.14 | NM[2] | | N/A | Monitoring |
| OBS-2-400 [6] | 11/12/2013 | WorleyParsons | 388.14 | 88.12 | 300.02 | -0.78 | Monitoring |
| OBS-2-400 [6] | 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[4] | | 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 [8] | 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 |
| | | | | | | | |
| 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[7] | | N/A | Monitoring |
| 23a | 6/11/2015 | Northstar | 392.10 | NM[7] | | 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[7] | | N/A | Monitoring |
| 23a | 6/14/2019 | Northstar | 392.10 | 136.60 | 255.50 | 1.45 | 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 |

**TABLE 2**

**GROUNDWATER LEVEL MEASUREMENTS**

**Genesis Solar Energy Project, Riverside County, California**

| Well ID | Date | Source | Top of Casing Elevation (feet amsl) [1] | Depth to Water (feet below TOC) | Groundwater Elevation (feet amsl) | Difference from Baseline (feet) | Comments / Use |
|---|---|---|---|---|---|---|---|
| 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 |
| | | | | | | | |
| 24-2 | 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 |
| | | | | | | | |
| 24-3 | 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 |
| | | | | | | | |
| PW-0 | 12/14/2011 | WorleyParsons | 385.64 | NM [3] | | N/A | Production/Monitoring |
| PW-0 | 2/23/2012 | WorleyParsons | 385.64 | NM [3] | | N/A | Production/Monitoring |
| PW-0 | 5/23/2012 | WorleyParsons | 385.64 | NM [3] | | N/A | Production/Monitoring |
| PW-0 | 7/26/2012 | WorleyParsons | 385.64 | NM [3] | | 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 |

**TABLE 2**

**GROUNDWATER LEVEL MEASUREMENTS**

**Genesis Solar Energy Project, Riverside County, California**

| Well ID | Date | Source | Top of Casing Elevation (feet amsl) [1] | Depth to Water (feet below TOC) | Groundwater Elevation (feet amsl) | Difference from Baseline (feet) | Comments / Use |
|---|---|---|---|---|---|---|---|
| PW-0 | 12/10/2015 | Northstar | 385.64 | 99.55 | 286.09 | N/A | Production/Monitoring |
| PW-0 | 6/3/2016 | Northstar | 385.64 | 99.78 | 285.86 | N/A | Production/Monitoring |
| PW-0 | 11/30/2016 | Northstar | 385.64 | 99.50 | 286.14 | N/A | Production/Monitoring |
| PW-0 | 6/1/2017 | Northstar | 385.64 | 99.32 | 286.32 | N/A | Production/Monitoring |
| PW-0 | 12/5/2017 | Northstar | 385.64 | 98.00 | 287.64 | N/A | Production/Monitoring |
| PW-0 | 5/30/2018 | Northstar | 385.64 | 99.27 | 286.37 | N/A | Production/Monitoring |
| PW-0 | 12/4/2018 | Northstar | 385.64 | NM[9] | | N/A | Production/Monitoring |
| PW-0 | 6/13/2019 | Northstar | 385.64 | NM[9] | | 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[5] | | N/A | Production/Monitoring |
| PW-1 | 8/8/2014 | Northstar | 384.43 | NM[5] | | N/A | Production/Monitoring |
| PW-1 | 12/4/2014 | Northstar | 384.43 | NM[5] | | N/A | Production/Monitoring |
| PW-1 | 3/26/2015 | Northstar | 384.43 | NM[5] | | N/A | Production/Monitoring |
| PW-1 | 6/11/2015 | Northstar | 384.43 | NM[5] | | N/A | Production/Monitoring |
| PW-1 | 12/10/2015 | Northstar | 384.43 | NM[5] | | N/A | Production/Monitoring |
| PW-1 | 6/2/2016 | Northstar | 384.43 | NM[5] | | N/A | Production/Monitoring |
| PW-1 | 11/30/2016 | Northstar | 384.43 | NM[5] | | 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-2 | 12/14/2011 | WorleyParsons | 385.15 | Pumping | | N/A | Production/Monitoring |
| PW-2 | 2/23/2012 | WorleyParsons | 385.15 | Pumping | | N/A | Production/Monitoring |
| PW-2 | 5/23/2012 | WorleyParsons | 385.15 | Pumping | | N/A | Production/Monitoring |
| PW-2 | 7/26/2012 | WorleyParsons | 385.15 | 101.30 | 283.85 | N/A | Production/Monitoring |
| PW-2 | 10/23/2012 | WorleyParsons | 385.15 | Pumping | | N/A | Production/Monitoring |
| PW-2 | 3/28/2013 | WorleyParsons | 385.15 | Pumping | | N/A | Production/Monitoring |
| PW-2 | 6/19/2013 | WorleyParsons | 385.15 | Pumping | | N/A | Production/Monitoring |
| PW-2 | 8/13/2013 | WorleyParsons | 385.15 | 101.75 | 283.40 | N/A | Production/Monitoring |
| PW-2 | 11/12/2013 | WorleyParsons | 385.15 | 102.69 | 282.46 | N/A | Production/Monitoring |
| PW-2 | 2/26/2014 | WorleyParsons | 385.15 | 100.52 | 284.63 | N/A | Production/Monitoring |
| PW-2 | 5/20/2014 | Northstar | 385.15 | Pumping | | N/A | Production/Monitoring |
| PW-2 | 8/8/2014 | Northstar | 385.15 | Pumping | | N/A | Production/Monitoring |
| PW-2 | 12/4/2014 | Northstar | 385.15 | Pumping | | N/A | Production/Monitoring |
| PW-2 | 3/26/2015 | Northstar | 385.15 | Pumping | | N/A | Production/Monitoring |
| PW-2 | 6/11/2015 | Northstar | 385.15 | Pumping | | N/A | Production/Monitoring |
| PW-2 | 12/10/2015 | Northstar | 385.15 | Pumping | | N/A | Production/Monitoring |
| PW-2 | 6/2/2016 | Northstar | 385.15 | Pumping | | N/A | Production/Monitoring |
| PW-2 | 11/30/2016 | Northstar | 385.15 | Pumping | | N/A | Production/Monitoring |
| PW-2 | 6/1/2017 | Northstar | 385.15 | Pumping | | N/A | Production/Monitoring |
| PW-2 | 12/5/2017 | Northstar | 385.15 | Pumping | | N/A | Production/Monitoring |
| PW-2 | 5/30/2018 | Northstar | 385.15 | 105.69 | 279.46 | N/A | Production/Monitoring |
| PW-2 | 12/4/2018 | Northstar | 385.15 | NM[9] | | N/A | Production/Monitoring |
| PW-2 | 6/13/2019 | Northstar | 385.15 | NM[9] | | 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 |

**TABLE 2**

**GROUNDWATER LEVEL MEASUREMENTS**

**Genesis Solar Energy Project, Riverside County, California**

| Well ID | Date | Source | Top of Casing Elevation (feet amsl) [1] | Depth to Water (feet below TOC) | Groundwater Elevation (feet amsl) | Difference from Baseline (feet) | Comments / Use |
|---|---|---|---|---|---|---|---|
| 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-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-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 |
| | | | | | | | |
| **ADDITIONAL WELLS IN THE CHUCKWALLA VALLEY GROUNDWATER BASIN WITHIN 10 MILES OF THE SITE FOR WHICH GROUNDWATER LEVEL DATA IS AVAILABLE** | | | | | | | |
| 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 |

**TABLE 2**

**GROUNDWATER LEVEL MEASUREMENTS**

**Genesis Solar Energy Project, Riverside County, California**

| Well ID | Date | Source | Top of Casing Elevation (feet amsl) [1] | Depth to Water (feet below TOC) | Groundwater Elevation (feet amsl) | Difference from Baseline (feet) | Comments / Use |
|---|---|---|---|---|---|---|---|
| 27 | 6/19/1961 | DWR, 1963 | 555 | 258.83 | 296.17 | N/A | Unused |
| 28 | 6/19/1961 | DWR, 1963 | 520 | 21.65 | 498.35 | N/A | Unused |
| 29 | 1/16/1983 | USGS-NWIS | 545.9 | 270.00 | 275.90 | N/A | Irrigation |
| 29 | 2/13/1992 | USGS-NWIS | 545.9 | 257.61 | 288.29 | N/A | Irrigation |
| 29 | 3/15/2000 | USGS-NWIS | 545.9 | 257.22 | 288.68 | N/A | Irrigation |
| 29 | 9/23/2009 | WorleyParsons | 545.9 | 250.00 | 295.90 | N/A | Irrigation |
| 29 | 4/28/2011 | USGS-NWIS | 545.9 | 257.83 | 288.07 | N/A | Irrigation |
| 31 | 9/16/1990 | USGS-NWIS | 423.9 | 144.25 | 279.65 | N/A | Unused |
| 31 | 3/29/2000 | USGS-NWIS | 423.9 | 144.41 | 279.49 | N/A | Unused |
| 32 | 6/12/1961 | USGS-NWIS | 418 | 151.83 | 266.17 | N/A | Unused |
| 32 | 10/10/1961 | USGS-NWIS | 418 | 151.09 | 266.91 | N/A | Unused |
| 32 | 11/8/1961 | USGS-NWIS | 418 | 151.03 | 266.97 | N/A | Unused |
| 32 | 1/10/1962 | USGS-NWIS | 418 | 151.04 | 266.96 | N/A | Unused |
| 32 | 3/8/1962 | USGS-NWIS | 418 | 150.89 | 267.11 | N/A | Unused |
| 32 | 4/9/1962 | USGS-NWIS | 418 | 150.73 | 267.27 | N/A | Unused |
| 32 | 5/7/1962 | USGS-NWIS | 418 | 150.83 | 267.17 | N/A | Unused |
| 32 | 10/31/1962 | USGS-NWIS | 418 | 150.90 | 267.10 | N/A | Unused |
| 32 | 3/13/1963 | USGS-NWIS | 418 | 150.84 | 267.16 | N/A | Unused |
| 32 | 10/31/1963 | USGS-NWIS | 418 | 150.91 | 267.09 | N/A | Unused |
| 32 | 3/19/1964 | USGS-NWIS | 418 | 150.77 | 267.23 | N/A | Unused |
| 32 | 11/25/1964 | USGS-NWIS | 418 | 151.13 | 266.87 | N/A | Unused |
| 32 | 3/18/1965 | USGS-NWIS | 418 | 151.21 | 266.79 | N/A | Unused |
| 32 | 11/18/1965 | USGS-NWIS | 418 | 151.40 | 266.60 | N/A | Unused |
| 32 | 3/2/1966 | USGS-NWIS | 418 | 150.66 | 267.34 | N/A | Unused |
| 32 | 10/27/1966 | USGS-NWIS | 418 | 150.89 | 267.11 | N/A | Unused |
| 32 | 3/16/1967 | USGS-NWIS | 418 | 150.92 | 267.08 | N/A | Unused |
| 32 | 10/25/1967 | USGS-NWIS | 418 | 150.86 | 267.14 | N/A | Unused |
| 32 | 10/23/1969 | USGS-NWIS | 418 | 150.89 | 267.11 | N/A | Unused |
| 32 | 4/30/1970 | USGS-NWIS | 418 | 150.95 | 267.05 | N/A | Unused |
| 33 | 1987 | USGS-NWIS | 457.5 | 202.25 | 255.25 | N/A | Unknown |
| 33 | 9/17/1990 | USGS-NWIS | 457.5 | 205.62 | 251.88 | N/A | Unknown |
| 33 | 2/10/1992 | USGS-NWIS | 457.5 | 206.70 | 250.80 | N/A | Unknown |
| 33 | 2/11/1992 | USGS-NWIS | 457.5 | 206.27 | 251.23 | N/A | Unknown |
| 34 | 10/8/1992 | USGS-NWIS | 458.3 | 213.00 | 245.30 | N/A | Public Water Supply |
| 35 | 12/1987 | USGS-NWIS | 456.5 | 205.00 | 251.50 | N/A | Unknown |
| 35 | 2/10/1992 | USGS-NWIS | 456.5 | 200.50 | 256.00 | N/A | Unknown |
| 35 | 2/11/1992 | USGS-NWIS | 456.5 | 199.07 | 257.43 | N/A | Unknown |
| 35 | 2/11/1992 | USGS-NWIS | 456.5 | 199.60 | 256.90 | N/A | Unknown |
| 36 | 12/1987 | USGS-NWIS | 443.5 | 203.00 | 240.50 | N/A | Public Water Supply |
| 36 | 9/17/1990 | USGS-NWIS | 443.5 | 189.05 | 254.45 | N/A | Public Water Supply |
| 36 | 2/10/1992 | USGS-NWIS | 443.5 | 187.70 | 255.80 | N/A | Public Water Supply |
| 36 | 2/10/1992 | USGS-NWIS | 443.5 | 186.20 | 257.30 | N/A | Public Water Supply |
| 36 | 3/16/2000 | USGS-NWIS | 443.5 | 199.24 | 244.26 | N/A | Public Water Supply |
| 37 | 7/1/1981 | Kennedy/Jenks/Chilton | 433.09 | 163.00 | 270.09 | N/A | Irrigation (abandoned) |
| 37 | 2/11/1992 | USGS-NWIS | 433.09 | 174.47 | 258.62 | N/A | Irrigation (abandoned) |
| 39 | 4/5/1961 | USGS-NWIS | 442.9 | 168.37 | 274.53 | N/A | Irrigation |
| 39 | 4/30/1970 | USGS-NWIS | 442.9 | 171.81 | 271.09 | N/A | Irrigation |
| 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 |

**TABLE 2**

**GROUNDWATER LEVEL MEASUREMENTS**

**Genesis Solar Energy Project, Riverside County, California**

| Well ID | Date | Source | Top of Casing Elevation (feet amsl) [1] | Depth to Water (feet below TOC) | Groundwater Elevation (feet amsl) | Difference from Baseline (feet) | Comments / Use |
|---|---|---|---|---|---|---|---|
| 43 | 10/2/2002 | USGS-NWIS | 505.6 | 236.04 | 269.56 | N/A | Irrigation |
| 43 | 10/2/2002 | USGS-NWIS | 505.6 | 236.16 | 269.44 | N/A | Irrigation |
| 43 | 6/3/2003 | USGS-NWIS | 505.6 | 235.59 | 270.01 | N/A | Irrigation |
| 43 | 6/3/2003 | USGS-NWIS | 505.6 | 235.61 | 269.99 | N/A | Irrigation |
| 43 | 11/5/2003 | USGS-NWIS | 505.6 | 236.46 | 269.14 | N/A | Irrigation |
| 43 | 11/5/2003 | USGS-NWIS | 505.6 | 236.45 | 269.15 | N/A | Irrigation |
| 43 | 3/2/2004 | USGS-NWIS | 505.6 | 235.65 | 269.95 | N/A | Irrigation |
| 43 | 3/2/2004 | USGS-NWIS | 505.6 | 235.63 | 269.97 | N/A | Irrigation |
| 43 | 8/4/2004 | USGS-NWIS | 505.6 | 235.85 | 269.75 | N/A | Irrigation |
| 43 | 12/8/2004 | USGS-NWIS | 505.6 | 235.78 | 269.82 | N/A | Irrigation |
| 43 | 4/15/2005 | USGS-NWIS | 505.6 | 235.28 | 270.32 | N/A | Irrigation |
| 43 | 8/31/2005 | USGS-NWIS | 505.6 | 235.89 | 269.71 | N/A | Irrigation |
| 43 | 8/31/2005 | USGS-NWIS | 505.6 | 235.84 | 269.76 | N/A | Irrigation |
| 43 | 2/14/2006 | USGS-NWIS | 505.6 | 235.78 | 269.82 | N/A | Irrigation |
| 43 | 2/14/2006 | USGS-NWIS | 505.6 | 235.79 | 269.81 | N/A | Irrigation |
| 43 | 5/5/2006 | USGS-NWIS | 505.6 | 236.38 | 269.22 | N/A | Irrigation |
| 43 | 5/5/2006 | USGS-NWIS | 505.6 | 236.39 | 269.21 | N/A | Irrigation |
| 43 | 8/10/2006 | USGS-NWIS | 505.6 | 236.66 | 268.94 | N/A | Irrigation |
| 43 | 8/10/2006 | USGS-NWIS | 505.6 | 236.66 | 268.94 | N/A | Irrigation |
| 43 | 12/8/2006 | USGS-NWIS | 505.6 | 236.57 | 269.03 | N/A | Irrigation |
| 43 | 12/8/2006 | USGS-NWIS | 505.6 | 236.57 | 269.03 | N/A | Irrigation |
| 43 | 2/7/2007 | USGS-NWIS | 505.6 | 236.16 | 269.44 | N/A | Irrigation |
| 43 | 2/7/2007 | USGS-NWIS | 505.6 | 236.16 | 269.44 | N/A | Irrigation |
| 43 | 5/17/2007 | USGS-NWIS | 505.6 | 236.55 | 269.05 | N/A | Irrigation |
| 43 | 5/17/2007 | USGS-NWIS | 505.6 | 236.56 | 269.04 | N/A | Irrigation |
| 43 | 9/5/2007 | USGS-NWIS | 505.6 | 236.91 | 268.69 | N/A | Irrigation |
| 43 | 9/5/2007 | USGS-NWIS | 505.6 | 236.91 | 268.69 | N/A | Irrigation |
| 43 | 9/5/2007 | USGS-NWIS | 505.6 | 236.91 | 268.69 | N/A | Irrigation |
| 43 | 12/13/2007 | USGS-NWIS | 505.6 | 236.55 | 269.05 | N/A | Irrigation |
| 43 | 12/13/2007 | USGS-NWIS | 505.6 | 236.54 | 269.06 | N/A | Irrigation |
| 43 | 3/19/2008 | USGS-NWIS | 505.6 | 235.65 | 269.95 | N/A | Irrigation |
| 43 | 3/19/2008 | USGS-NWIS | 505.6 | 235.64 | 269.96 | N/A | Irrigation |
| 43 | 3/19/2008 | USGS-NWIS | 505.6 | 235.67 | 269.93 | N/A | Irrigation |
| 43 | 6/25/2008 | USGS-NWIS | 505.6 | 235.62 | 269.98 | N/A | Irrigation |
| 43 | 6/25/2008 | USGS-NWIS | 505.6 | 235.60 | 270.00 | N/A | Irrigation |
| 43 | 9/24/2008 | USGS-NWIS | 505.6 | 235.73 | 269.87 | N/A | Irrigation |
| 43 | 9/24/2008 | USGS-NWIS | 505.6 | 235.73 | 269.87 | N/A | Irrigation |
| 43 | 9/24/2008 | USGS-NWIS | 505.6 | 235.72 | 269.88 | N/A | Irrigation |
| 43 | 1/14/2009 | USGS-NWIS | 505.6 | 235.25 | 270.35 | N/A | Irrigation |
| 43 | 1/14/2009 | USGS-NWIS | 505.6 | 235.26 | 270.34 | N/A | Irrigation |
| 43 | 4/16/2009 | USGS-NWIS | 505.6 | 235.28 | 270.32 | N/A | Irrigation |
| 43 | 4/16/2009 | USGS-NWIS | 505.6 | 235.29 | 270.31 | N/A | Irrigation |
| 43 | 7/30/2009 | USGS-NWIS | 505.6 | 235.80 | 269.80 | N/A | Irrigation |
| 43 | 7/30/2009 | USGS-NWIS | 505.6 | 235.79 | 269.81 | N/A | Irrigation |
| 43 | 10/29/2009 | USGS-NWIS | 505.6 | 235.61 | 269.99 | N/A | Irrigation |
| 43 | 10/29/2009 | USGS-NWIS | 505.6 | 235.60 | 270.00 | N/A | Irrigation |
| 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 |

**TABLE 2**

**GROUNDWATER LEVEL MEASUREMENTS**

**Genesis Solar Energy Project, Riverside County, California**

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

**Notes:**

amsl = above mean sea level

TOC = top of casi

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

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

| Well ID | Date | Groundwater Purging | | | Field Parameters | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | Rate of Groundwater Discharge (mL/min) | Purging Method | Total Volume Purged (mL) | pH | Conductivity (mS/cm) | Turbidity (NTU) | D.O. (mg/L) | Temperature (°C) | ORP (mV) |
| 23a | 6/14/2019 | N/A | Bailer | 5,750 | 9.10 | 2.90 | 16.9 | 6.51 | 29.81 | +99 |
| OBS-1 | 6/13/2019 | N/A | Bailer | 5,750 | 9.41 | 24.5 | 7.8 | 2.79 | 29.90 | -12 |
| TW-1 | 6/13/2019 | N/A | Bailer | 5,750 | 11.14 | 14.9 | 46.9 | 2.42 | 29.69 | -234 |
| TW-2 | 6/14/2019 | N/A | Bailer | 5,750 | 9.89 | 5.61 | 53.9 | 4.45 | 28.61 | -180 |
| PW-0 | 6/13/2019 | N/A | Production Pump | N/A[2] | 8.02 | 6.61 | 0.0 | 7.70 | 34.64 | -67 |
| PW-1 | 6/13/2019 | N/A | N/A | N/A[1] | -- | -- | -- | -- | -- | -- |
| PW-2 | 6/13/2019 | N/A | Production Pump | N/A[2] | 7.94 | 4.07 | 0.5 | 1.41 | 43.20 | +33 |
| DM-1 | 6/14/2019 | 188 | Bladder Pump | 6,254 | 8.14 | 17.8 | 98.0 | 6.65 | 26.71 | +68 |
| DM-2 | 6/14/2019 | 112 | Bladder Pump | 5,646 | 8.05 | 18.2 | 79.5 | 0.60 | 28.58 | +60 |
| DM-3 | 6/14/2019 | 121 | Bladder Pump | 5,718 | 8.10 | 17.4 | 3.0 | 2.65 | 33.69 | +90 |

**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
$^{o}$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 (mg/L) | Sulfate (SO4) (mg/L) | Nitrate (NO3)-N (mg/L) | Calcium (mg/L) | Copper (mg/L) | Sodium (mg/L) | Potassium (mg/L) | Iron (mg/L) | Magnesium (mg/L) | Antimony (ug/L) | Arsenic (ug/L) | Barium (ug/L) | Cadmium (ug/L) | Chromium (Total) (ug/L) | Cobalt (ug/L) | Lead (ug/L) | Manganese (ug/L) | Nickel (ug/L) | Selenium (ug/L) | Zinc (ug/L) | Mercury (ug/L) | Total Dissolved Solids (mg/L) | Specific Conductance (us/cm) | pH (std. Units) | Oil & Grease / HEM (mg/L) | HTF† (mg/L) | Deuterium (‰ relative to VSMOW) | Oxygen-18 (‰ 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 | -8.2 |
| 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 | -8.2 |
| 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 | -8.2 |
| 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 | -8.0 |
| TW-1 | 5/20/2014 | Hydrasleeve | 3,900 | 1,400 | - | 81 | <0.010 | 3,000 | 20 | 0.29 | 12 | <10 | 2.5[J] | 17 | <5.0 | <10 | <5.0 | <5.0 | 9.6 | 2.9[J] | <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[J] | 11 | <10 | 3.8[J] | 17 | <5.0 | <10 | <5.0 | <5.0 | 8.6 | 4.4[J] | <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[J] | 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[J] | 4.2[J] | 22 | <5.0 | <10 | <5.0 | <5.0 | 5.2 | 3.4[J] | 2.8[J] | <100 | <0.20 | 9,400 | 16,000 | 9.9 | 1.7[J] | <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[J] | 11[J] | <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[J] | 13 | <5.0 | <10 | <5.0 | <5.0 | 8.4 | <10 | 9.0[J] | <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[J] | 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[J] | 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[J] | 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[J] | <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-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 | -10.2 |
| 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 | -10.2 |
| 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 | -10.1 |
| TW-2 | 5/20/2014 | Hydrasleeve | 1,600 | 430 | - | 64 | <0.010 | 1,000 | 22 | 0.022[J] | 0.093 | <2.0 | 2.9 | 30 | <1.0 | <2.0 | <1.0 | <1.0 | 4.1 | 0.91[J] | <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[J] | 0.11 | <2.0 | 4.4 | 36 | <1.0 | <2.0 | <1.0 | <1.0 | 3.4 | 1.8[J] | <2.0 | 2.9[J] | <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[J] | <2.0 | <20 | <0.20 | 3,200 | 5,900 | 9.9 | 1.6[J] | <0.10 | -75.00 | -10.16 |
| TW-2 | 12/10/2015 | Hydrasleeve | 1,600 | 430 | <1.1 | 72 | <0.010 | 1,000 | 20 | 0.030[J] | 0.13 | <10 | 6.9 | 41 | <5.0 | <10 | <5.0 | <5.0 | 7.8 | <10 | 4.0[J] | <100 | <0.20 | 3,900 | 5,900 | 9.8 | <5.0 | <0.095 | -75.60 | -10.15 |
| TW-2 | 6/2/2016 | Hydrasleeve | 1,300 | 350 | 0.88 | 71 | <0.10 | 1,100 | 20 | <0.40 | 0.22 | <2.0 | 4.4 | 38 | <1.0 | <2.0 | <1.0 | <1.0 | 7.6 | <2.0 | 1.9[J] | <20 | <0.20 | 2,900 | 5,600 | 9.5 | <4.7 | <0.095 | -75.11 | -10.15 |
| TW-2 | 11/30/2016 | Hydrasleeve | 850 | 450 | <0.55 | 74 | <0.010 | 1,000 | 23 | 0.12 | 0.39 | <10 | 6.0 | 39 | <5.0 | <10 | <5.0 | <5.0 | 8.7 | <10 | 45 | <100 | <0.20 | 3,200 | 5,500 | 9.3 | <4.7 | <0.097 | -76.10 | -10.01 |
| TW-2 | 6/1/2017 | Hydrasleeve | 1,600 | 430 | <1.1 | 82 | <0.050 | 1,100 | 23 | <0.50 | 0.28 | <10 | 9.1 | 42 | <5.0 | <10 | <5.0 | <5.0 | 5.5 | <10 | 270 | <100 | <0.20 | 3,200 | 5,400 | 9.4 | <5.4 | <0.096 | -75.80 | -10.01 |
| TW-2 | 12/5/2017 | Hydrasleeve | 1,180 | 315 | <0.50 | 82 | <0.025 | 370 | 30 | 1.7 | <0.50 | <0.50 | 5.3 | 34 | <0.50 | <0.50 | <0.50 | <1.0 | - | <0.50 | <0.50 | 100 | <0.50 | 3,200 | 5,490 | 9.6 | 6.5 | <0.10 | -73.97 | -10.38 |
| TW-2 | 6/1/2018 | Bailer | 1,540 | 439 | <5.0 | 83 | 0.089[J] | 650 | 44 | 5.4[J] | <5.0 | <0.50 | 6.3 | 23 | <0.50 | <0.50 | <0.50 | <0.50 | - | <5.0 | <5.0 | 76 | <0.50 | 2,800 | 5,590 | 9.6 | <5.0 | <0.11 | -75.40 | -10.00 |
| TW-2 | 12/4/2018 | Bailer | 1,930 | 454 | <0.500 | 87 | <0.5 | 1,200 | 30 | <20 | <10 | <10 | 11 | 40 | <10 | <10 | <10 | <10 | - | <10 | <10 | 39 | <0.50 | 2,600 | 5,540 | 10 | <5.0 | <0.10 | -75.90 | -10.05 |
| TW-2 | 6/14/2019 | Bailer | 1,560 | 430 | <0.500 | 95 | <0.005 | 1,300 | 54 | 0.23 | 0.42 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | - | <10 | <10 | - | <0.50 | 6,400 | 5,640 | 10 | <5.0 | <0.10 | -76.70 | -10.11 |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| OBS-1 | 11/10/2010 | Low Flow | 8,300 | 9,400 | 0.78 | 450 | 0.036 | 6,500 | 25 | 2.4 | 110 | - | - | - | - | - | - | - | 59 | - | - | - | - | 20,000 | 23,000 | 7.7 | - | - | -62.90 | -6.88 |
| OBS-1 | 6/8/2011 | Low Flow | 6,600 | 6,800 | 0.81 | 460 | <0.010 | 5,800 | 26 | 2.3 | 94 | - | - | - | - | - | - | - | 60 | - | - | - | - | 19,000 | 32,000 | 7.7 | - | - | -63.10 | -6.82 |
| OBS-1 | 6/8/2011 | Low Flow | 6,600 | 6,800 | 0.64 | 470 | <0.010 | 5,800 | 25 | 2.3 | 91 | - | - | - | - | - | - | - | 71 | - | - | - | - | 19,000 | 31,000 | 7.7 | - | - | -62.70 | -6.86 |
| OBS-1 | 12/13/2011 | Low Flow | 6,300 | 6,700 | 1.4 | 430 | 0.0051 | 6,500 | 34 | 0.4 | 91 | - | - | - | - | - | - | - | - | - | - | - | - | 21,000 | 27,000 | 7.8 | - | - | -60.90 | -6.80 |
| OBS-1 | 12/13/2011 | Hydrasleeve | 6,200 | 6,500 | 1.4 | 400 | 0.0045 | 6,300 | 32 | 0.35 | 87 | - | - | - | - | - | - | - | - | - | - | - | - | 20,000 | 28,000 | 7.8 | - | - | -61.40 | -6.90 |
| 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[J] | 4.7[J] | 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[J] | 330 | <0.050 | 6,100 | 27 | <0.20 | 87 | <10 | 2.8[J] | 13 | <5.0 | <10 | <5.0 | <5.0 | 2.5[J] | 6.8[J] | 59 | 18[J] | <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[J] | 60 | 13[J] | <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[J] | 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[J] | 82 | 1.6[J] | 2.4 | 13 | 0.34[J] | 0.63[J] | <1.0 | <1.0 | 5.1 | 0.87[J] | 67 | 5.2[J] | <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[J] | 14 | <5.0 | <10 | <5.0 | <5.0 | 3.2[J] | 3.6[J] | 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[J] | 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-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 | -9.8 |
| Well 23a | 11/11/2010 | Hydrasleeve | 620 | 470 | <0.25 | 29 | 0.4 | 520 | 11 | 13 | 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 |

**TABLE 4**
**SUMMARY OF LABORATORY ANALYTICAL RESULTS**
**Genesis Solar Energy Project**

| | | Sampling | Chloride (mg/L) | Sulfate (SO4) (mg/L) | Nitrate (NO3)-N (mg/L) | Calcium (mg/L) | Copper (mg/L) | Sodium (mg/L) | Potassium (mg/L) | Iron (mg/L) | Magnesium (mg/L) | Antimony (ug/L) | Arsenic (ug/L) | Barium (ug/L) | Cadmium (ug/L) | Chromium (Total) (ug/L) | Cobalt (ug/L) | Lead (ug/L) | Manganese (ug/L) | Nickel (ug/L) | Selenium (ug/L) | Zinc (ug/L) | Mercury (ug/L) | Total Dissolved Solids (mg/L) | Specific Conductance (us/cm) | pH (std. Units) | Oil & Grease / HEM (mg/L) | HTF[†] (mg/L) | Deuterium (‰ relative to VSMOW) | Oxygen-18 (‰ relative to VSMOW) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 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[B] | <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[J] | 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[J] | 0.60 | <4.0 | 1.6[J] | 21 | <2.0 | <4.0 | <2.0 | <2.0 | 8.6 | <4.0 | 1.9[J] | 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[J] | 0.98[J] | 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[J] | 74[J] | <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[J] | 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[J] | 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[J] | <0.10 | -74.35 | -10.47 |
| Well 23a | 6/1/2018 | Bailer | 491 | 415 | <0.50 | 22 | 0.082[J] | 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 | <10 | - | 12 | <10 | - | <0.50 | 1,400 | 2,630 | 7.5 | <5.0 | <0.10 | -74.80 | -10.22 |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| DM-1 | 5/24/2012 | Low Flow | 4,600 | 2,000 | 3.9 | 250 | <0.10 | 3,800 | 23.0 | <0.40 | 56 | - | - | - | - | - | - | - | - | - | - | - | - | 12,000 | 16,000 | 7.8 | - | - | -65.10 | -8.8 |
| DM-1 | 10/24/2012 | Low Flow | 5,400 | 2,300 | <1.1 | 210 | <0.010 | 3,200 | 20.0 | <0.040 | 58 | - | - | - | - | - | - | - | 11 | - | - | - | - | 11,000 | 18,000 | 7.8 | - | - | -72.10 | -8.6 |
| DM-1 | 5/22/2014 | Low Flow | 5,300 | 2,000 | - | 240 | <0.010 | 3,700 | 22 | <0.040 | 54 | <10 | 6.2 | 52 | <5.0 | <10 | <5.0 | <5.0 | 2.5[J] | 4.6[J] | 3.0[J] | <100 | <0.20 | 11,000 | 19,000 | 7.8 | <5.0 | - | -68.50 | -8.51 |
| DM-1 | 5/22/2014 [1] | Low Flow | 5,200 | 2,000 | - | 230 | <0.010 | 3,600 | 22 | <0.040 | 53 | <10 | 5.6 | 50 | <5.0 | <10 | <5.0 | <5.0 | <5.0 | 3.9[J] | 3.1[J] | <100 | <0.20 | 11,000 | 19,000 | 7.7 | <5.3 | - | -69.47 | -8.74 |
| DM-1 | 12/4/2014 | Low Flow | 4,800 | 1,700 | 2.9 | 230 | <0.050 | 3,600 | 21 | <0.20 | 57 | <10 | 7.7 | 50 | <5.0 | <10 | <5.0 | <5.0 | <5.0 | 9.2[J] | <10 | 25[J] | 0.15[J] | 11,000 | 19,000 | 7.9 | <4.7 | <0.094 | -72.10 | -8.75 |
| DM-1 | 6/11/2015 | Low Flow | 4,600 | 2,000 | 3.7[J] | 230 | <0.10 | 3,600 | 21 | <0.40 | 52 | <10 | 3.8[J] | 36 | <5.0 | 2.9[J] | <5.0 | <5.0 | 3.6[J] | 6.3[J] | 3.6[J] | <100 | 0.26 | 10,000 | 19,000 | 7.8 | <4.7 | <0.10 | -69.20 | -8.47 |
| DM-1 | 12/10/2015 | Low Flow | 5,300 | 2,100 | 4.9[J] | 260 | <0.010 | 3,700 | 22 | <0.040 | 57 | <10 | 5.6 | 38 | <5.0 | <10 | <5.0 | <5.0 | <5.0 | <10 | 5.2[J] | <100 | <0.20 | 12,000 | 19,000 | 7.8 | <5.0 | <0.094 | -70.30 | -8.57 |
| DM-1 | 6/2/2016 | Low Flow | 4,700 | 1,800 | 7.8 | 230 | <0.10 | 3,800 | 18 | <0.40 | 57 | <2.0 | 5.1 | 31 | <1.0 | 1.9[J] | <1.0 | <1.0 | 0.99[J] | 1.1[J] | 3.3 | 2.5[J] | <0.20 | 11,000 | 20,000 | 7.9 | <4.7 | <0.094 | -69.87 | -8.83 |
| DM-1 | 11/30/2016 | Low Flow | 5,200 | 2,000 | <5.5 | 230 | <0.010 | 3,700 | 23 | <0.040 | 59 | <20 | 6.7[J] | 31 | <10 | <20 | <10 | <10 | <10 | <10 | 13[J] | <200 | <0.20 | 11,000 | 17,000 | 7.8 | <4.7 | <0.093 | -70.70 | -8.68 |
| DM-1 | 6/1/2017 | Low Flow | 4,600 | 1,900 | 4.2[J] | 250 | <0.10 | 4,100 | 21 | <1.0 | 62 | <10 | 4.8[J] | 28 | <5.0 | 5.9[J] | <5.0 | <5.0 | <5.0 | 7.6[J] | 6.9[J] | <100 | <0.20 | 11,000 | 16,000 | 7.9 | <5.1 | <0.094 | -70.30 | -8.57 |
| DM-1 | 12/5/2017 | Low Flow | 7,130 | 2,770 | 12.8 | 230 | 0.025 | 1,100 | 30 | <1.0 | 59 | <1.0 | 6.2 | 28 | <2.5 | 3.1 | <2.5 | <2.5 | - | <2.5 | 5.1 | 6.6 | <0.50 | 10,000 | 17,200 | 7.8 | <5.0 | <0.10 | -69.14 | -8.90 |
| DM-1 | 5/30/2018 | Low Flow | 5,190 | 2,030 | 14.7 | 270 | 0.096[J] | 5,200 | 63 | 0.78[J] | 64 | <0.50 | 5.0 | 30 | <0.50 | <5.0 | <0.50 | <5.0 | - | <5.0 | 5.9 | 9.5 | <0.50 | 11,000 | 17,300 | 7.9 | <5.0 | <0.10 | -71.10 | -8.57 |
| DM-1 | 12/4/2018 | Low Flow | 8,180 | 3,280 | 9.00 | 260 | <0.5 | 4,800 | 33 | <20 | 68 | <10 | 10 | 31 | <10 | <10 | <10 | <10 | - | <10 | <10 | <10 | <0.50 | 11,000 | 17,400 | 7.7 | <5.0 | <0.10 | -70.10 | -8.55 |
| 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-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 | -8.8 |
| 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 | -8.9 |
| DM-2 | 5/22/2014 | Low Flow | 5,100 | 2,000 | - | 320 | <0.020 | 3,500 | 23 | 0.022[J] | 54 | <10 | 4.7[J] | 97 | <5.0 | <10 | <5.0 | <5.0 | 59 | 4.1[J] | 3.3[J] | <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[J] | 55 | <10 | 5.7 | 140 | <5.0 | <10 | <5.0 | <5.0 | 90 | 8.4[J] | <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[J] | 290 | <0.10 | 3,500 | 22 | <0.40 | 55 | <10 | 4.1[J] | 110 | <5.0 | 2.9[J] | <5.0 | <5.0 | 40 | 4.9[J] | <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[J] | <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[J] | 60 | 0.51[J] | 4.7 | 62 | <1.0 | 1.5[J] | <1.0 | <1.0 | 62 | 1.1[J] | 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[J] | 290 | <0.010 | 4,200 | 28 | <0.040 | 61 | <20 | 5.9[J] | 56 | <10 | <20 | <10 | <10 | 40 | <20 | 18[J] | <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[J] | 280 | <0.10 | 4,100 | 21 | <1.0 | 62 | <10 | 4.4[J] | 52 | <5.0 | <10 | <5.0 | <5.0 | 17 | 5.2[J] | 5.6[J] | <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[J] | 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-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 | -8.9 |
| 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 | -8.7 |
| 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[J] | 230 | <0.050 | 3,600 | 20 | <0.20 | 56 | <10 | 16 | 18 | <5.0 | <10 | <5.0 | <5.0 | <5.0 | 9.6[J] | <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[J] | <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[J] | 3,500 | 19 | <0.040 | 51 | <10 | 17 | 21 | <5.0 | <10 | <5.0 | <5.0 | <5.0 | <10 | 3.1[J] | <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[J] | <1.0 | <1.0 | 0.64[J] | 0.88[J] | 1.0[J] | 5.1[J] | <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[J] | 4,100 | 23 | <0.040 | 56 | <10 | 16 | 18 | <5.0 | <10 | <5.0 | <5.0 | <5.0 | <10 | 5.6[J] | <100 | <0.20 | 11,000 | 17,000 | 7.8 | <4.8 | <0.097 | -72.20 | -8.75 |
| DM-3 | 6/1/2017 | Low Flow | 4,800 | 2,000 | <5.5 | 240 | <0.10 | 3,900 | 19 | <1.0 | 55 | <10 | 15 | 18 | <5.0 | <10 | <5.0 | <5.0 | <5.0 | 3.9[J] | 2.7[J] | <100 | <0.20 | 11,000 | 16,000 | 7.9 | <5.1 | <0.095 | -70.80 | -8.71 |
| DM-3 | 12/5/2017 | Low Flow | 4,880 | 2,020 | 2.77 | 230 | 0.027 | 1,200 | 31 | 0.073[J] | 59 | <2.5 | 15 | 15 | <2.5 | <2.5 | <2.5 | <2.5 | - | <2.5 | <2.5 | 5.6 | <0.50 | 13,000 | 17,000 | 7.8 | <5.0 | <0.10 | -69.57 | -8.87 |
| DM-3 | 5/30/2018 | Low Flow | 6,350 | 2,600 | 10.7 | 260 | 0.11[J] | 4,100 | 61 | <10 | 61 | <0.50 | 14 | 15 | <0.50 | <5.0 | <0.50 | <0.50 | - | <0.50 | <5.0 | <5.0 | <0.50 | 12,000 | 17,100 | 7.9 | <5.0 | <0.11 | -70.60 | -8.67 |
| DM-3 | 12/4/2018 | Low Flow | 6,770 | 2,840 | 2.50 | 280 | <0.5 | 5,200 | 33 | <20 | 69 | <10 | 20 | 34 | <10 | <10 | <10 | <10 | - | <10 | <10 | <10 | <0.50 | 9,700 | 17,100 | 7.8 | <5.0 | <0.10 | -70.60 | -8.67 |
| DM-3 | 6/14/2019 | Low Flow | 4,880 | 1,960 | 2.87 | 270 | 0.009 | 4,900 | 60 | <0.20 | 59 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | - | <10 | <10 | - | <0.50 | 9,300 | 16,800 | 7.5 | <5.0 | <0.10 | -70.80 | -8.69 |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| PW-0 | 5/23/2012 | Spigot | 1,100 | 480 | <0.55 | 66 | <0.010 | 610 | 8.8 | 0.015 | 2.0 | - | - | - | - | - | - | - | - | - | - | - | - | 2,500 | 4,600 | 8.0 | - | - | -78.90 | -10.40 |
| PW-0 | 10/23/2012 | Spigot | 780 | 450 | <0.55 | 55 | <0.010 | 530 | 7.9 | 0.015[J] | 2.1 | - | - | - | - | - | - | - | - | - | - | - | - | 2,100 | 3,400 | 8.0 | - | - | -79.40 | -10.40 |
| PW-0 | 12/4/2018 | Spigot | 2,100 | 698 | <0.500 | 100 | <0.5 | 1,100 | 25 | <20 | <10 | <10 | 45 | 55 | <10 | <10 | <10 | <10 | - | <10 | <10 | 92 | <0.50 | 2,600 | 6,170 | 7.9 | <5.0 | <0.10 | -76.30 | -10.01 |
| PW-0 | 6/13/2019 | Spigot | 1,740 | 535 | <0.500 | 130 | <0.005 | 1,500 | 57 | 0.33 | 1.9 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | - | <10 | <10 | - | <0.50 | 2,600 | 6,300 | 7.1 | 5.60 | <0.10 | -76.50 | -10.01 |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 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 | -10.3 |
| 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[J] | 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 | -10.4 |
| 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[J] | 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[J] | - | -76.65 | -10.08 |

**TABLE 4**
**SUMMARY OF LABORATORY ANALYTICAL RESULTS**
**Genesis Solar Energy Project**

| | | Sampling | Chloride (mg/L) | Sulfate (SO4) (mg/L) | Nitrate (NO3)-N (mg/L) | Calcium (mg/L) | Copper (mg/L) | Sodium (mg/L) | Potassium (mg/L) | Iron (mg/L) | Magnesium (mg/L) | Antimony (ug/L) | Arsenic (ug/L) | Barium (ug/L) | Cadmium (ug/L) | Chromium (Total) (ug/L) | Cobalt (ug/L) | Lead (ug/L) | Manganese (ug/L) | Nickel (ug/L) | Selenium (ug/L) | Zinc (ug/L) | Mercury (ug/L) | Total Dissolved Solids (mg/L) | Specific Conductance (us/cm) | pH (std. Units) | Oil & Grease / HEM (mg/L) | HTF† (mg/L) | Deuterium (‰ relative to VSMOW) | Oxygen-18 (‰ relative to VSMOW) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 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 [1] | 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[J] | <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[J] | 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 [1] | Spigot | 790 | 420 | <0.22 | 49 | <0.10 | 710 | 8.4 | 0.22[J] | 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 | <40 | <0.20 | 2,100 | 3,800 | 8.1 | <5.1 | <0.098 | -77.70 | -10.28 |
| PW-2 | 12/10/2015 [1] | 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 | <40 | <0.20 | 2,200 | 3,800 | 8.1 | 4.1[J] | <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[J] | <20 | <0.20 | 2,200 | 4,100 | 8.1 | <4.8 | <0.096 | -77.30 | -10.38 |
| PW-2 | 6/2/2016 [1] | 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[J] | <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[J] | <100 | <0.20 | 2,100 | 3,600 | 8.0 | <4.8 | <0.095 | -78.00 | -10.21 |
| PW-2 | 11/30/2016 [1] | 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[J] | <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[J] | 4.5 | <10 | 27 | 38 | <5.0 | <10 | <5.0 | <5.0 | 19 | <10 | 6.7[J] | <100 | <0.20 | 2,100 | 3,500 | 8.1 | 1.7[J] | <0.098 | -77.70 | -10.21 |
| PW-2 | 6/1/2017 [1] | Spigot | 820 | 430 | <0.55 | 54 | <0.010 | 740 | 5.5 | 0.084[J] | 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[J] | 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 [1] | Spigot | 739 | 375 | <0.50 | 56 | <0.025 | 410 | 8.1 | 0.11[J] | 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[J] | 1000 | 9.8 | <10 | 4.1[J] | <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 [1] | Spigot | 857 | 445 | <2.50 | 54 | 0.11[J] | 1100 | 10 | <10 | 4.2[J] | <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 | <10 | <0.50 | 1,900 | 3,580 | 8.1 | <5.00 | <0.11 | -77.90 | -10.24 |
| PW-2 | 12/4/2018 [1] | Spigot | 998 | 454 | <0.500 | 72 | <0.5 | 950 | 12 | <20 | <10 | <10 | 33 | 44 | <10 | <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 [1] | 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 |

NOTES:
mg/L = milligrams per liter
ug/L = micrograms per liter
uS/cm = microsiemens per centimeter
‰ = parts per thousand
VSMOW = Vienna Standard Mean Ocean Water
< = not detected at or above the indicated reporting limit
- = information is unknown / not applicable / not analyzed
B - Compound was detected in the laboratory equipment blank.
J - Result is less than the reporting limit but greater than or equal to the method detection limit, thus the concentration is an approximate value.
† - Heat Transfer Fluid (HTF) is characterized by the analytes 1,1'-oxybis-benzene and 1,1'-biphenyl.
1 - Duplicate sample

**TABLE 5**

**AVAILABLE HISTORICAL ANALYTICAL DATA FOR ADDITIONAL WELLS IN CHUCKWALLA VALLEY GROUNDWATER BASIN WITHIN 10 MILES OF THE SITE**

**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 |
| | 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 |
| | 7/29/2009 | WorleyParsons | -- | -- | 3,400 | -- | -- | -- | -- | -- | -- | -- | 6,600 |
| 15 | 9/16/2009 | WorleyParsons | 200.0 | -- | -- | -- | -- | -- | -- | -- | -- | -- | 19,000 |
| | | | 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 |
| | 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, 1986 | 275 to 815 | -- | 519 | -- | -- | -- | -- | -- | -- | -- | 1,313 |
| | | | 835 to 1,015 | -- | 267 | -- | -- | -- | -- | -- | -- | -- | 719 |
| 39 | 1/1986 (TDS) | CH2M Hill and Boyle Engineering, 1995/DWR, 1963 | 853 to 1,083 | -- | 216 | -- | -- | -- | -- | -- | -- | -- | 786 |
| | 6/12/1961 (Chloride) | | | | | | | | | | | | |
| 42 | 5/1/1988 (TDS) | CH2M Hill and Boyle Engineering, 1995/Woodward-Clyde | 738 to 1,100 | -- | 199 | -- | -- | -- | -- | -- | -- | -- | 765 |
| | 8/24/83 (Chloride) | | | | | | | | | | | | |
| 43 | Jan-86 | Kennedy/Jenks/Chilton, 1986 | 510 to 780 | -- | 460 | -- | -- | -- | -- | -- | -- | -- | 1,150 |
| 47 | Jan-86 | Kennedy/Jenks/Chilton, 1986 | 500 to 850 | -- | 520 | -- | -- | -- | -- | -- | -- | -- | 1,350 |
| | 1/4/1984 | Woodward-Clyde Consultants, 1986 | 490 | -- | 550 | -- | -- | -- | -- | -- | -- | -- | 2,090 |
| | 1/5/1984 | | 590 | -- | 586 | -- | -- | -- | -- | -- | -- | -- | 1,740 |
| | 2/7/1984 | | 850 | -- | 570 | -- | -- | -- | -- | -- | -- | -- | 1,380 |
| 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:**

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.

CH2M Hill and Boyle Engineering, 1995. Technical Memorandum, Water Treatment Plant Evaluation -Phase I. Dated March 30 .

Woodward-Clyde Consultants, 1986. Final Report, Groundwater Quality Investigation, Wiley Well Area. Dated March 13.

Engineering Science, 1990. Water and Wastewater Facilities Engineering Study, California State Prison -Chuckwalla Valley. Dated September.

# APPENDIX A

## FIELD DATA SHEETS

# GROUNDWATER LEVEL MEASUREMENT FORM

| | | |
|---|---|---|
| Event: 2019 First Semiannual | Site: Genesis Solar Energy Project | Project No: 196-004-06 |
| Project: Groundwater Level Monitoring Program | | PM: AWB |
| Measurement Method/Device: Solinst Interface Probe | | Technicians: AWB/RCD |
| Weather: Hot, clear | | |

| Well No. | Date | TOC Reference Elevation (ft) | Depth to Water (ft) | Corrected Water Level Elevation (ft) | Comments |
|---|---|---|---|---|---|
| TW-1 | 6/13/2019 | 387.40 | 86.70 | 300.70 | Solinst Levelogger Transducer |
| TW-2 | 6/14/2019 | 393.47 | 127.05 | 266.42 | Manual Measurement |
| OBS-1 | 6/13/2019 | 388.30 | 78.12 | 310.18 | Solinst Levelogger Transducer |
| OBS-2-270 | 6/13/2019 | 388.14 | N/A | N/A | Buried Transducer Cable |
| OBS-2-315 | 6/13/2019 | 388.14 | N/A | N/A | Buried Transducer Cable |
| OBS-2-370 | 6/13/2019 | 388.14 | N/A | N/A | Buried Transducer Cable |
| OBS-2-400 | 6/13/2019 | 388.14 | N/A | N/A | Buried Transducer Cable |
| 14 | 6/13/2019 | 388.14 | 100.20 | 287.94 | Manual Measurement |
| 23a | 6/14/2019 | 392.10 | 136.60 | 255.50 | Manual Measurement |
| 24-1 | 6/13/2019 | 389.40 | 127.27 | 262.13 | Manual Measurement |
| 24-2 | 6/13/2019 | 388.86 | 125.35 | 263.51 | Manual Measurement |
| 24-3 | 6/13/2019 | 392.04 | 123.95 | 268.09 | Manual Measurement |
| PW-0 | 6/13/2019 | 385.64 | N/A | N/A | Manual Measurement |
| PW-1 | 6/13/2019 | 384.43 | 98.55 | 285.88 | Manual Measurement |
| PW-2 | 6/13/2019 | 385.15 | N/A | N/A | Manual Measurement |
| DM-1 | 6/14/2019 | 391.49 | 107.18 | 284.31 | Manual Measurement |
| DM-2 | 6/14/2019 | 391.32 | 107.55 | 283.77 | Manual Measurement |
| DM-3 | 6/14/2019 | 388.34 | 104.38 | 283.96 | Manual Measurement |

Additional Notes:

# GROUNDWATER SAMPLING FIELD FORM

| | | |
|---|---|---|
| Event: 2019 1st Semiannual | Site: Genesis Solar Energy Project | Project No: 196-004-06 |
| Project: Groundwater Quality Monitoring Program | | Project Manager: AWB |
| Technicians: RCD/AWB | | Weather: Hot, clear |
| 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 | 29.81 | 9.10 | 2.90 | 16.9 | +99 | 6.51 |
| Total Depth (ft btoc) | 1,825 | | | | | | |
| Screened Interval (ft btoc) | 1800 - 1825 | | | | | | |
| Depth to Water (ft btoc) | 136.60 | | | | | | |
| Sample Date | 6/14/2019 | | | | | | |
| Sample Time | 5:00 | | | | | | |

**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 | 29.90 | 9.41 | 24.5 | 7.8 | -12 | 2.79 |
| Total Depth (ft btoc) | 160 | | | | | | |
| Screened Interval (ft btoc) | 100 - 150 | | | | | | |
| Depth to Water (ft btoc) | 78.12 | | | | | | |
| Sample Date | 6/13/2019 | | | | | | |
| Sample Time | 13:00 | | | | | | |

**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 | 29.69 | 11.14 | 14.9 | 46.9 | -234 | 2.42 |
| Total Depth (ft btoc) | 565 | | | | | | |
| Screened Interval (ft btoc) | 340 - 564 | | | | | | |
| Depth to Water (ft btoc) | 86.70 | | | | | | |
| Sample Date | 6/13/2019 | | | | | | |
| Sample Time | 12:25 | | | | | | |

**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 | 28.61 | 9.89 | 5.61 | 53.9 | -180 | 4.45 |
| Total Depth (ft btoc) | 1,841 | | | | | | |
| Screened Interval (ft btoc) | Multiple | | | | | | |
| Depth to Water (ft btoc) | 127.05 | | | | | | |
| Sample Date | 6/14/2019 | | | | | | |
| Sample Time | 5:45 | | | | | | |

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

# GROUNDWATER SAMPLING FIELD FORM

| | | |
|---|---|---|
| Event: 2018 2nd Semiannual | Site: Genesis Solar Energy Project | Project No: 196-004-06 |
| Project: Groundwater Quality Monitoring Program | | Project Manager: AWB |
| Technicians: RCD/AWB | | Weather: Cool, clear |
| 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 | 34.64 | 8.02 | 6.61 | 0 | -67 | 7.70 |
| Total Depth (ft btoc) | 1,251 | | | | | | |
| Screened Interval (ft btoc) | Multiple | | | | | | |
| Depth to Water (ft btoc) | N/A | | | | | | |
| Sample Date | 6/13/2019 | | | | | | |
| Sample Time | 6:56 | | | | | | |

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

**COMMENTS:** Water level not obtained - gauge port obstructed

| 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 | | | | | | |
| Screened Interval (ft btoc) | Multiple | | | | | | |
| Depth to Water (ft btoc) | 98.55 | | | | | | |
| Sample Date | 6/13/2019 | | | | | | |
| 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 No. | PW-2 | Temp °C | pH | Conductivity (mS/cm) | Turbidity (NTUs) | ORP (mV) | DO (mg/L) |
|---|---|---|---|---|---|---|---|
| Casing Diameter (in.) | 10.0 | 43.2 | 7.94 | 4.07 | 0.5 | +33 | 1.41 |
| Total Depth (ft btoc) | 1,125 | | | | | | |
| Screened Interval (ft btoc) | Multiple | | | | | | |
| Depth to Water (ft btoc) | N/A | | | | | | |
| Sample Date | 6/13/2019 | | | | | | |
| Sample Time | 7:15 | | | | | | |

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

**COMMENTS:** Collected duplicate sample; water level not obtained - gauge port obstructed

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

**General Well Location:**

**COMMENTS:**

# GROUNDWATER SAMPLING FIELD FORM

| | | |
|---|---|---|
| Event: 2019 1st Semiannual | Site: Genesis Solar Energy Project | Project No: 196-004-06 |
| Project: Groundwater Quality Monitoring Program | | Project Manager: AWB |
| Technicians: RCD/AWB | | Weather: Hot, clear |

Sampling Method: Geotech Submersible Bladder Pump - Low Flow Purge (< 250 mL/minute); Flow-Through Cell;

Parameters Stable Once Within 10%

| Well No. | DM-1 | Time | Water Level (ft btoc) | Temp °C | pH | Conductivity (mS/cm) | Turbidity (NTUs) | ORP (mV) | DO (mg/L) |
|---|---|---|---|---|---|---|---|---|---|
| Casing Diameter (in.) | 4.0 | 6:48 | 107.20 | 26.61 | 8.18 | 17.8 | 102 | +65 | 6.74 |
| Total Depth (ft btoc) | 120 | 6:50 | 107.20 | 26.67 | 8.16 | 17.8 | 100 | +67 | 6.70 |
| Screened Interval (ft btoc) | 100 - 120 | 6:52 | 107.20 | 26.71 | 8.14 | 17.8 | 98 | +68 | 6.65 |
| Depth to Water (ft btoc) | 107.18 | | | | | | | | |
| Depth of Inlet (ft btoc) | 115.00 | | | | | | | | |
| Discharge Time (sec) | 25 | | | | | | | | |
| Fill Time (sec) | 15 | | | | | | | | |
| Cycles per Minute | 1.5 | | | | | | | | |
| Volume per Cycle (mL) | 125 | | | | | | | | |
| Pump Rate (mL/min) | 188 | | | | | | | | |
| Sample Date | 6/14/2019 | | | | | | | | |
| Sample Time | 6:52 | | | | | | | | |

**General Well Location:** West side of settlement ponds

**COMMENTS:**

| Well No. | DM-2 | Time | Water Level (ft btoc) | Temp °C | pH | Conductivity (mS/cm) | Turbidity (NTUs) | ORP (mV) | DO (mg/L) |
|---|---|---|---|---|---|---|---|---|---|
| Casing Diameter (in.) | 4.0 | 7:58 | 107.78 | 28.49 | 8.07 | 18.2 | 80.6 | +61 | 0.63 |
| Total Depth (ft btoc) | 120 | 8:00 | 107.78 | 28.54 | 8.06 | 18.2 | 79.6 | +59 | 0.60 |
| Screened Interval (ft btoc) | 100 - 120 | 8:02 | 107.78 | 28.58 | 8.05 | 18.2 | 79.5 | +60 | 0.60 |
| Depth to Water (ft btoc) | 107.55 | | | | | | | | |
| Depth of Inlet (ft btoc) | 115.00 | | | | | | | | |
| Discharge Time (sec) | 27 | | | | | | | | |
| Fill Time (sec) | 40 | | | | | | | | |
| Cycles per Minute | 0.9 | | | | | | | | |
| Volume per Cycle (mL) | 125 | | | | | | | | |
| Pump Rate (mL/min) | 112 | | | | | | | | |
| Sample Date | 6/14/2019 | | | | | | | | |
| Sample Time | 8:02 | | | | | | | | |

**General Well Location:** East side of settlement ponds

**COMMENTS:**

| Well No. | DM-3 | Time | Water Level (ft btoc) | Temp °C | pH | Conductivity (mS/cm) | Turbidity (NTUs) | ORP (mV) | DO (mg/L) |
|---|---|---|---|---|---|---|---|---|---|
| Casing Diameter (in.) | 4.0 | 9:13 | 104.40 | 33.75 | 8.06 | 17.6 | 3.1 | +85 | 2.52 |
| Total Depth (ft btoc) | 120 | 9:15 | 104.40 | 33.70 | 8.08 | 17.5 | 3.1 | +87 | 2.61 |
| Screened Interval (ft btoc) | 100 - 120 | 9:17 | 104.40 | 33.69 | 8.10 | 17.4 | 3.0 | +90 | 2.65 |
| Depth to Water (ft btoc) | 104.38 | | | | | | | | |
| Depth of Inlet (ft btoc) | 115.00 | | | | | | | | |
| Discharge Time (sec) | 27 | | | | | | | | |
| Fill Time (sec) | 35 | | | | | | | | |
| Cycles per Minute | 0.97 | | | | | | | | |
| Volume per Cycle (mL) | 125 | | | | | | | | |
| Pump Rate (mL/min) | 121 | | | | | | | | |
| Sample Date | 6/14/2019 | | | | | | | | |
| Sample Time | 9:17 | | | | | | | | |

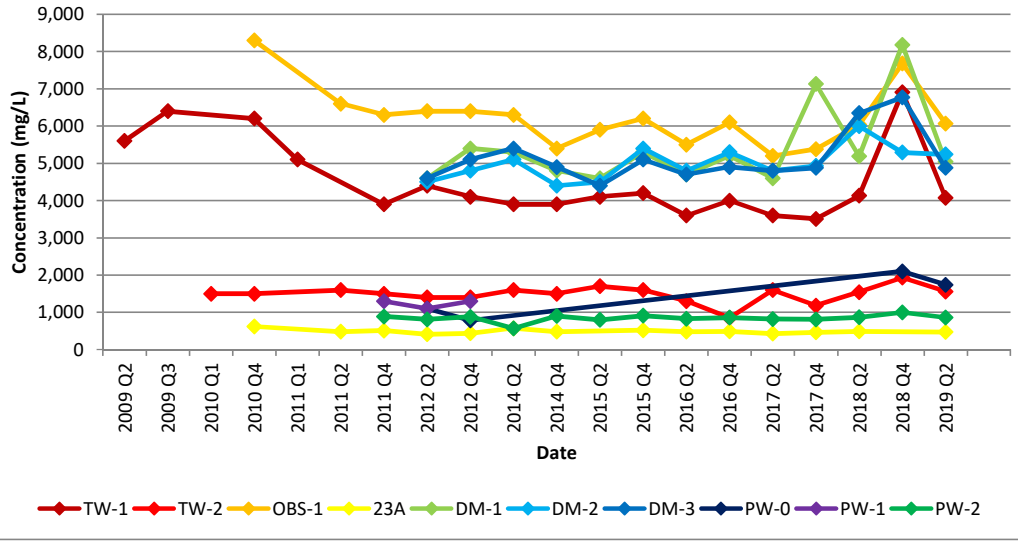
**General Well Location:** South side of settlement ponds

**COMMENTS:**

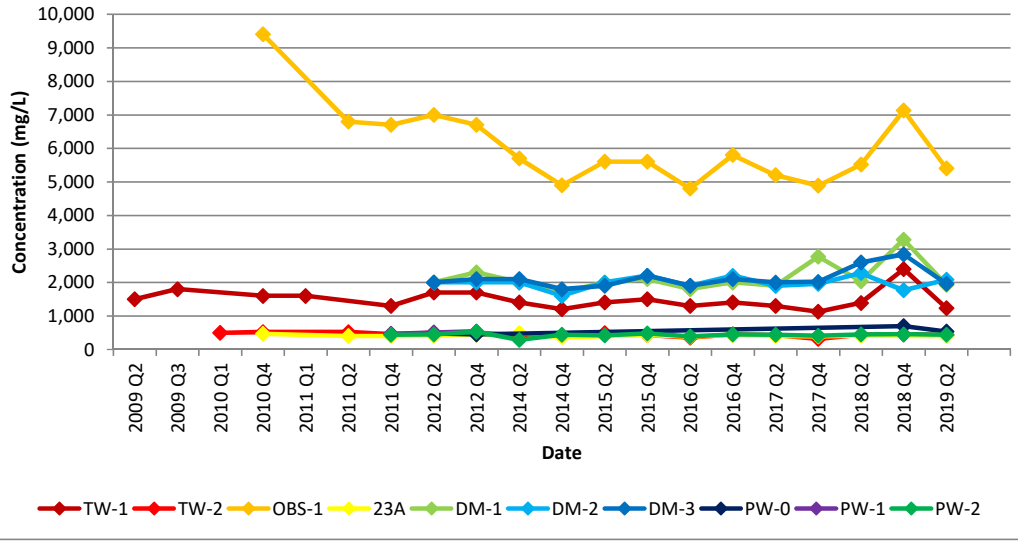
# APPENDIX B

## CHARTS 1 - 29

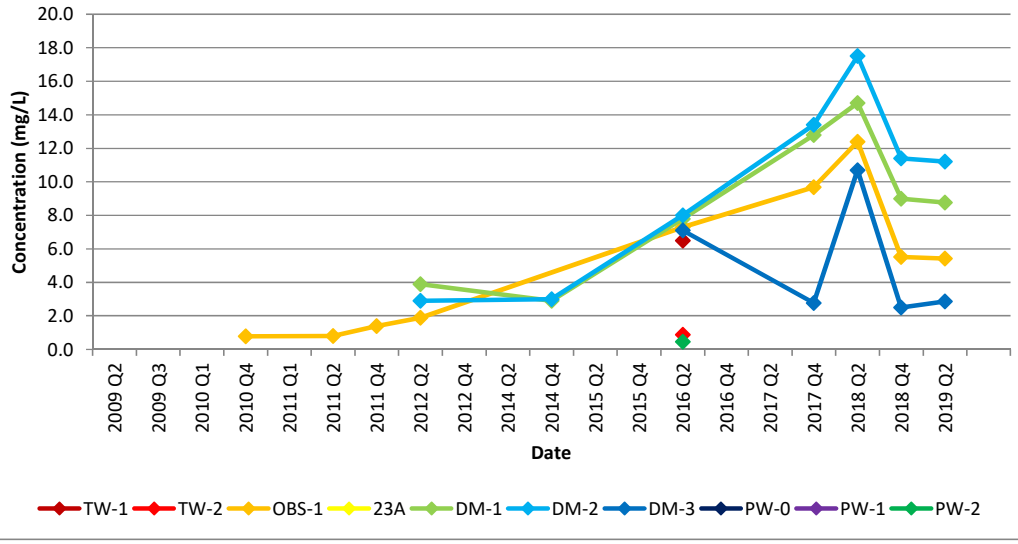
## Chart 1: Chloride



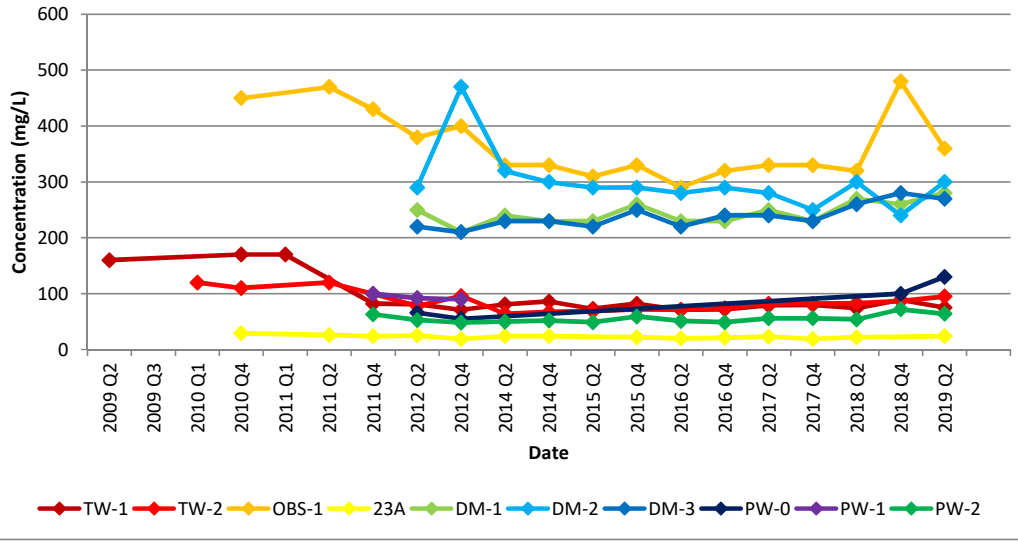

## Chart 2: Sulfate ($SO_4$)



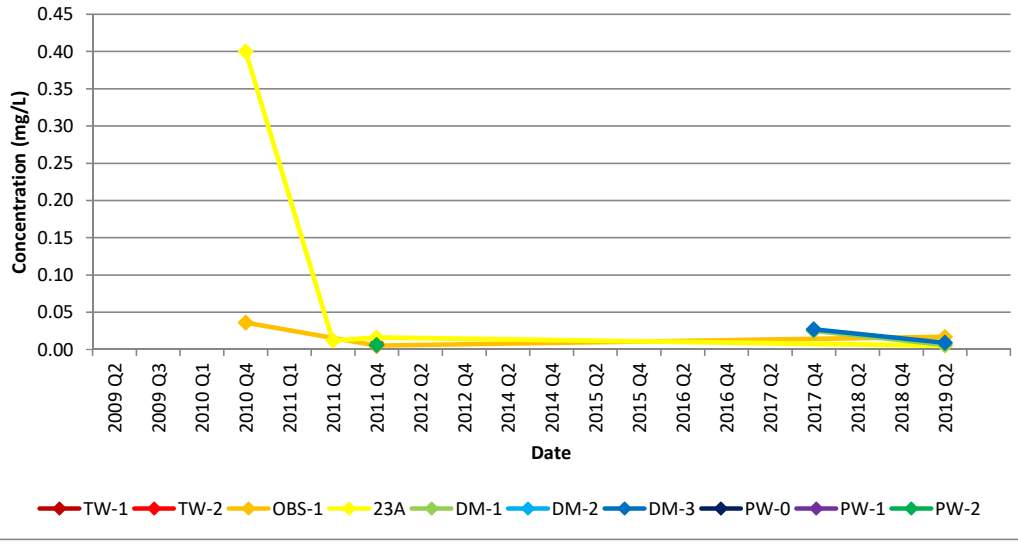

## Chart 3: Nitrate ($NO_3$)



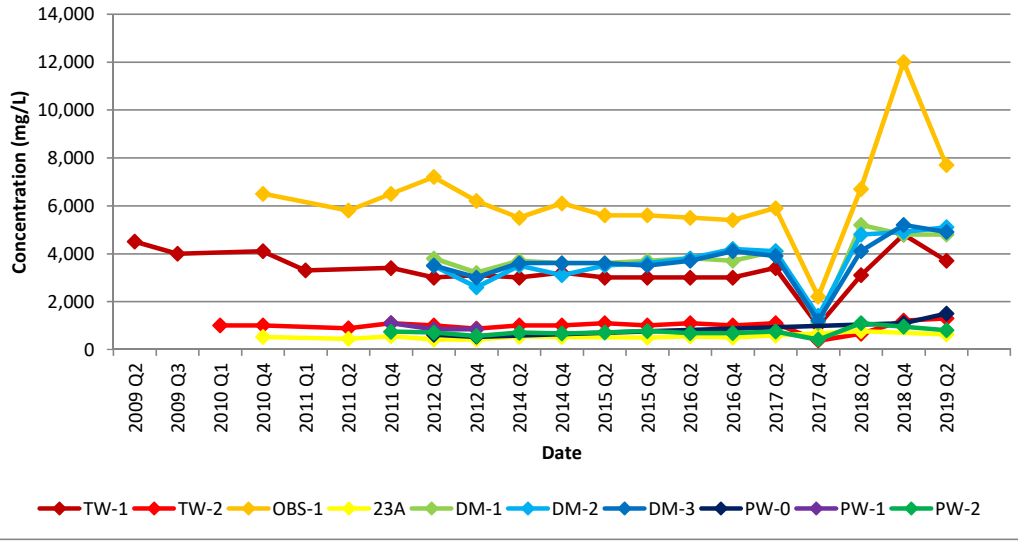
## Chart 4: Calcium



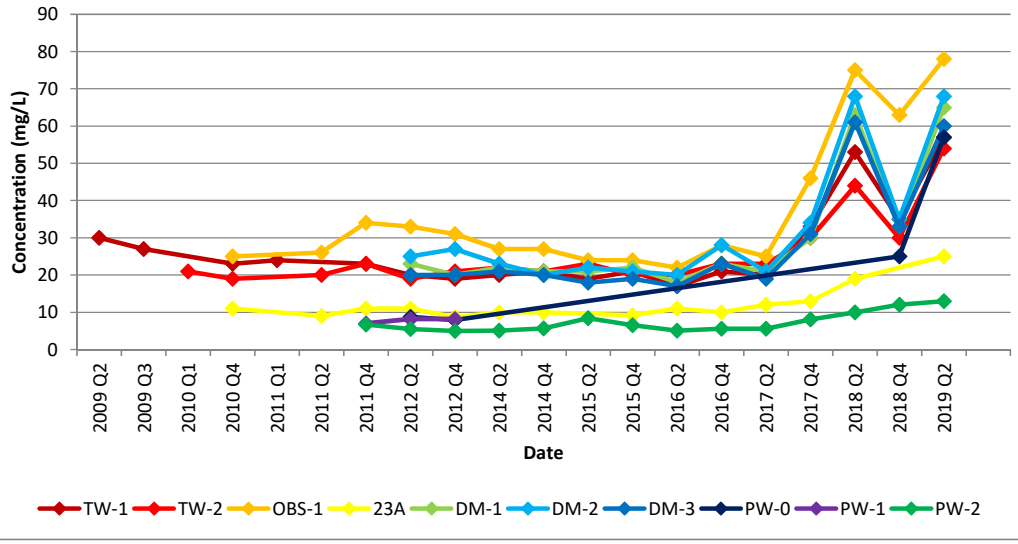

## Chart 5: Copper



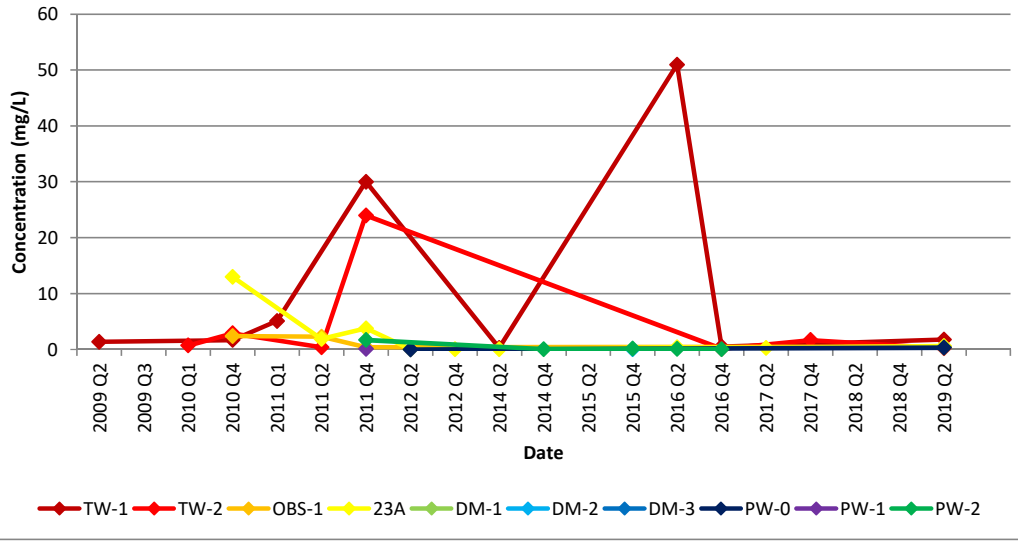

## Chart 6: Sodium



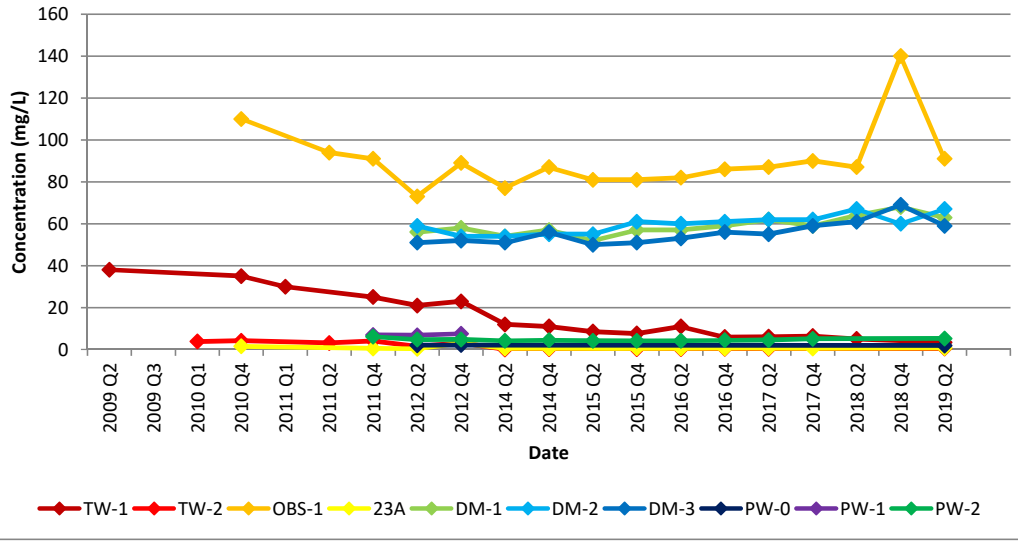
## Chart 7: Potassium



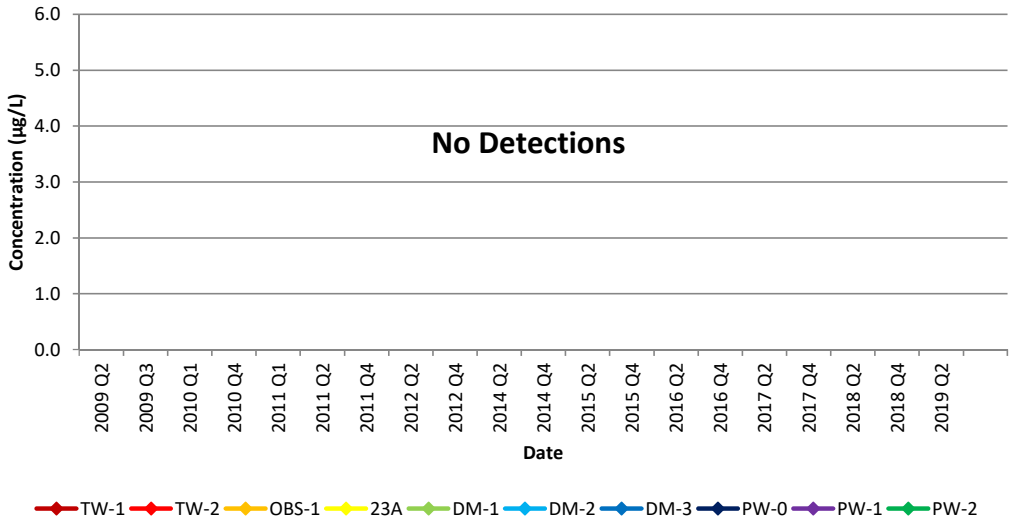

## Chart 8: Iron



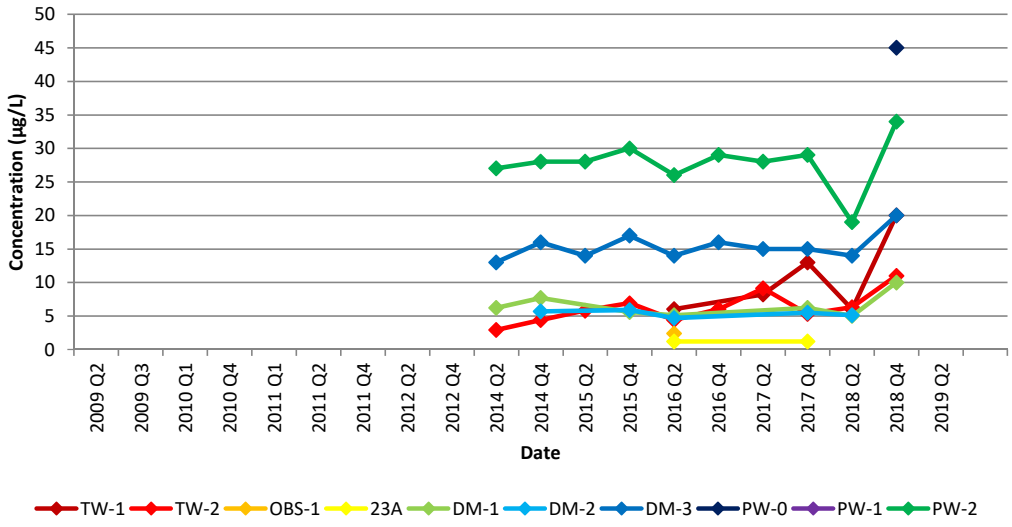

## Chart 9: Magnesium



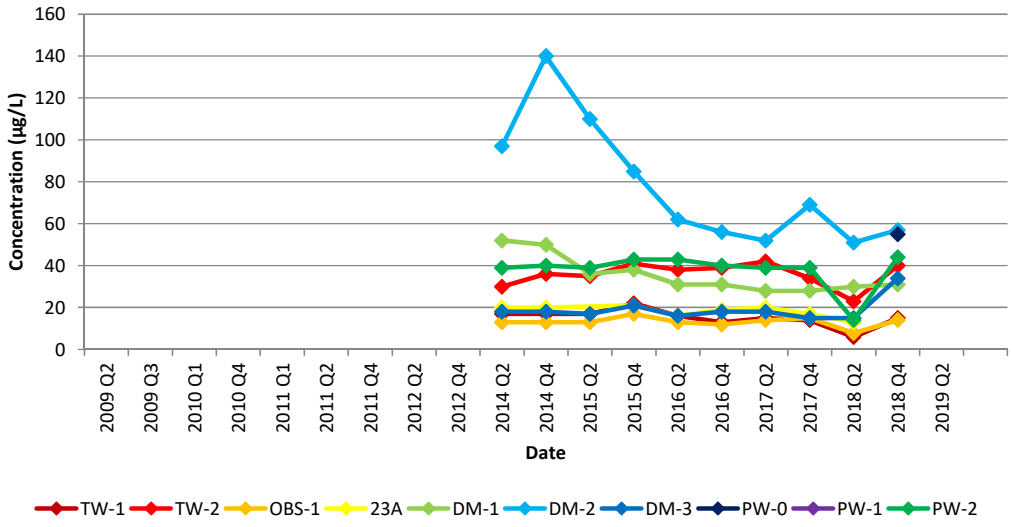
## Chart 10: Antimony




## Chart 11: Arsenic




## Chart 12: Barium



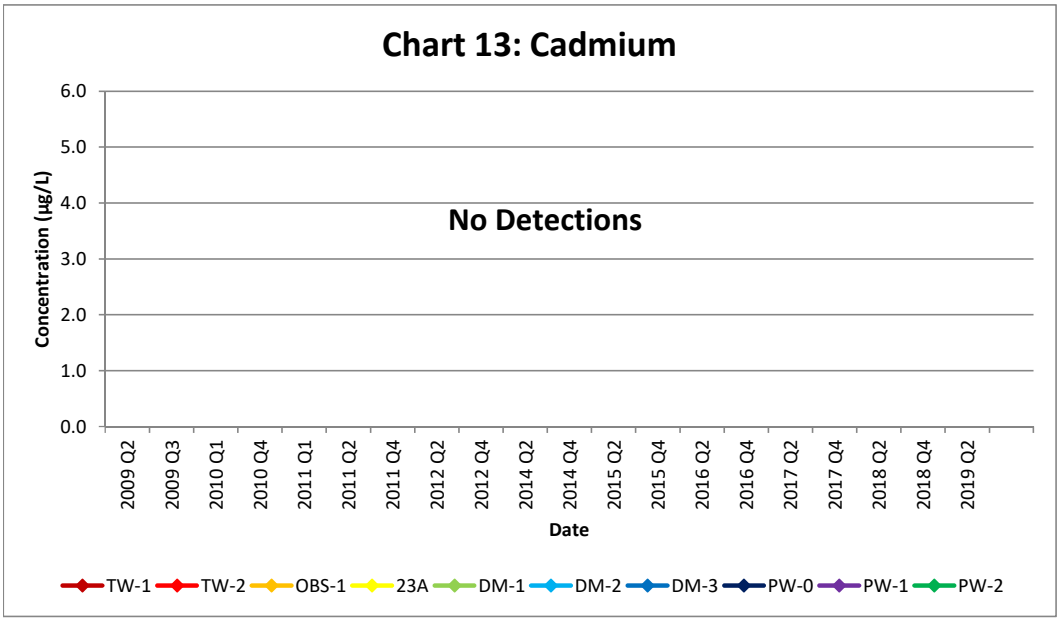


Chart 13: Cadmium
Concentration (µg/L)
6.0
5.0
4.0
3.0
2.0
1.0
0.0
No Detections
2009 Q2
2009 Q3
2010 Q1
2010 Q4
2011 Q1
2011 Q2
2011 Q4
2012 Q2
2012 Q4
2014 Q2
2014 Q4
2015 Q2
2015 Q4
2016 Q2
2016 Q4
2017 Q2
2017 Q4
2018 Q2
2018 Q4
2019 Q2
Date
TW-1
TW-2
OBS-1
23A
DM-1
DM-2
DM-3
PW-0
PW-1
PW-2

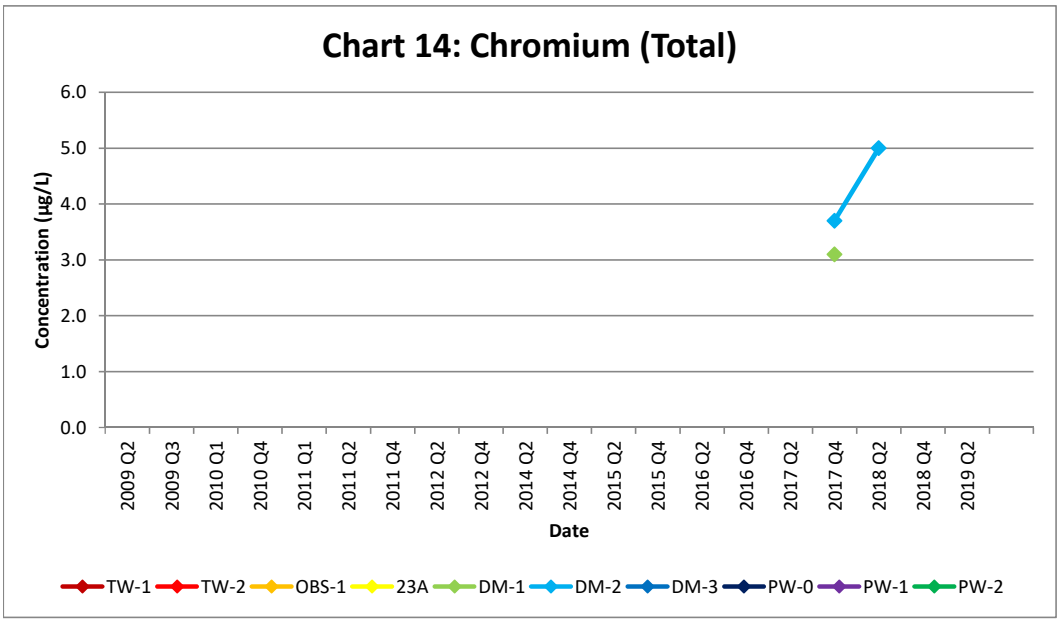


Chart 14: Chromium (Total)
Concentration (µg/L)
6.0
5.0
4.0
3.0
2.0
1.0
0.0
2009 Q2
2009 Q3
2010 Q1
2010 Q4
2011 Q1
2011 Q2
2011 Q4
2012 Q2
2012 Q4
2014 Q2
2014 Q4
2015 Q2
2015 Q4
2016 Q2
2016 Q4
2017 Q2
2017 Q4
2018 Q2
2018 Q4
2019 Q2
Date
TW-1
TW-2
OBS-1
23A
DM-1
DM-2
DM-3
PW-0
PW-1
PW-2

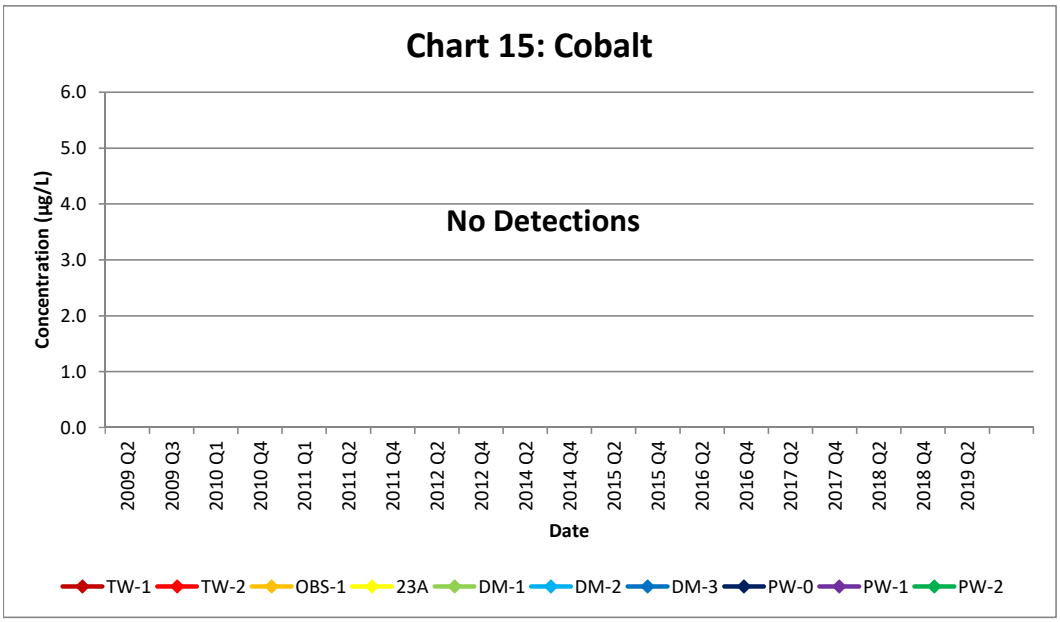
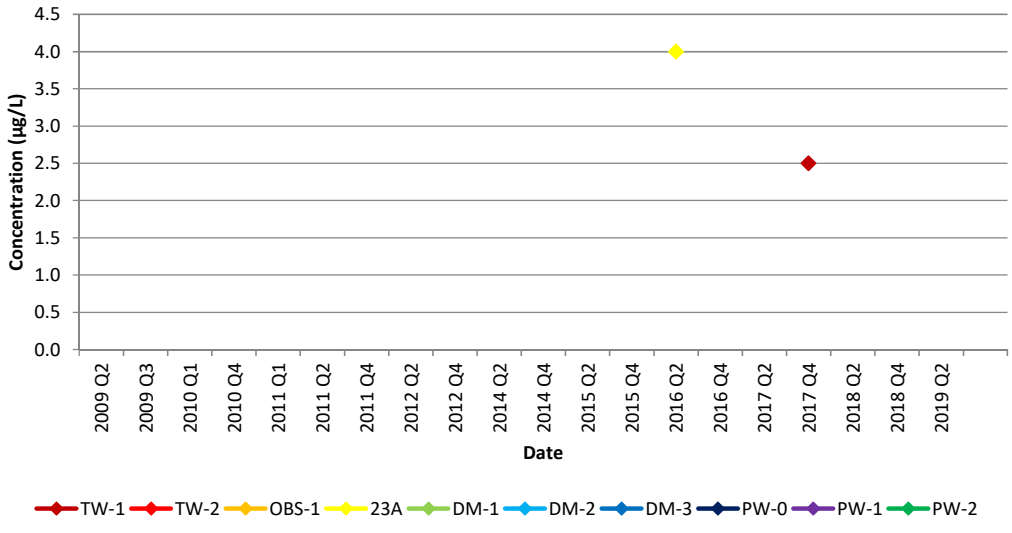
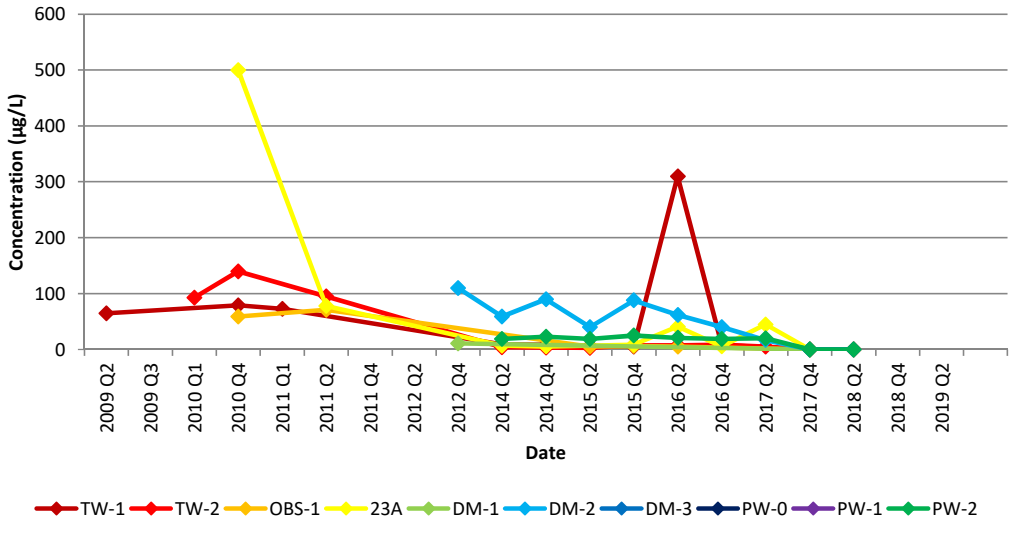


Chart 15: Cobalt
Concentration (µg/L)
6.0
5.0
4.0
3.0
2.0
1.0
0.0
No Detections
2009 Q2
2009 Q3
2010 Q1
2010 Q4
2011 Q1
2011 Q2
2011 Q4
2012 Q2
2012 Q4
2014 Q2
2014 Q4
2015 Q2
2015 Q4
2016 Q2
2016 Q4
2017 Q2
2017 Q4
2018 Q2
2018 Q4
2019 Q2
Date
TW-1
TW-2
OBS-1
23A
DM-1
DM-2
DM-3
PW-0
PW-1
PW-2

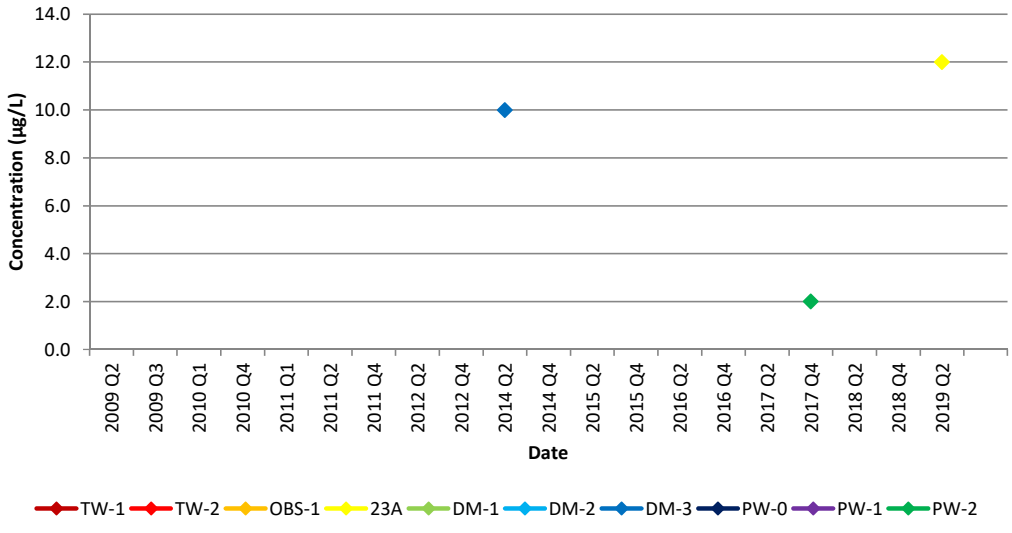
## Chart 16: Lead



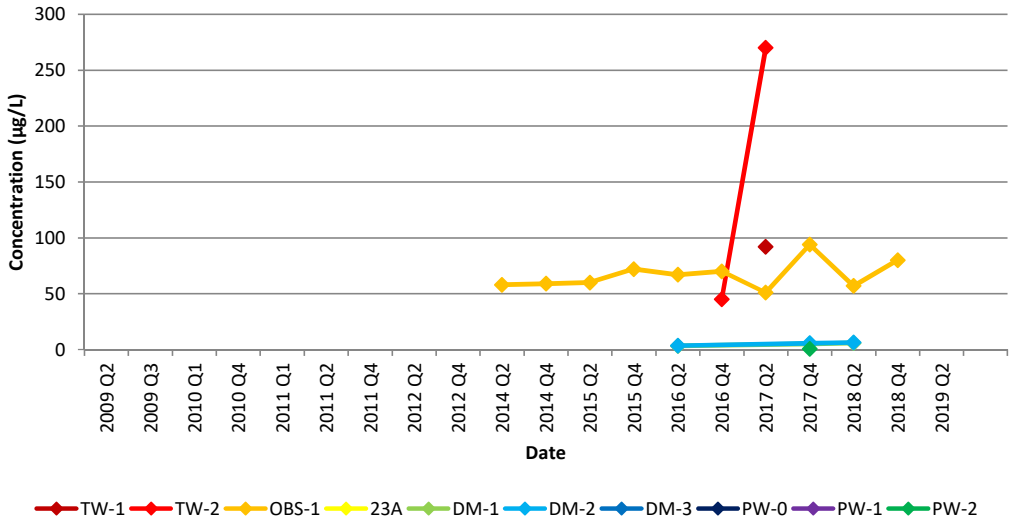

## Chart 17: Manganese



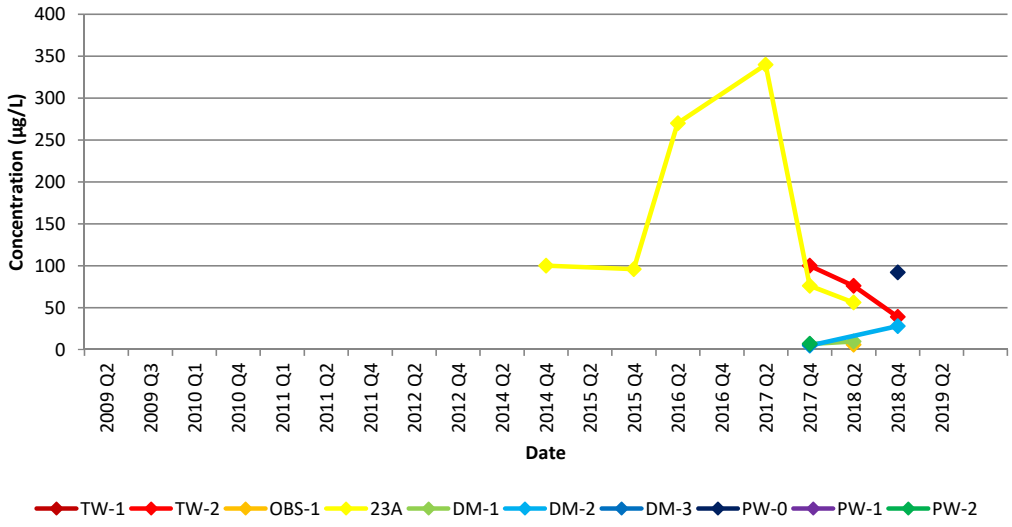

## Chart 18: Nickel



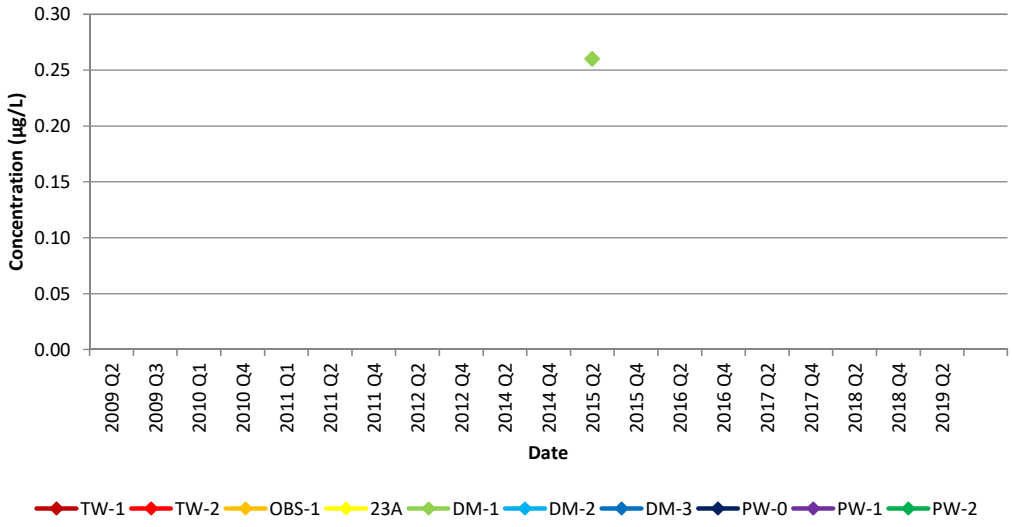
## Chart 19: Selenium



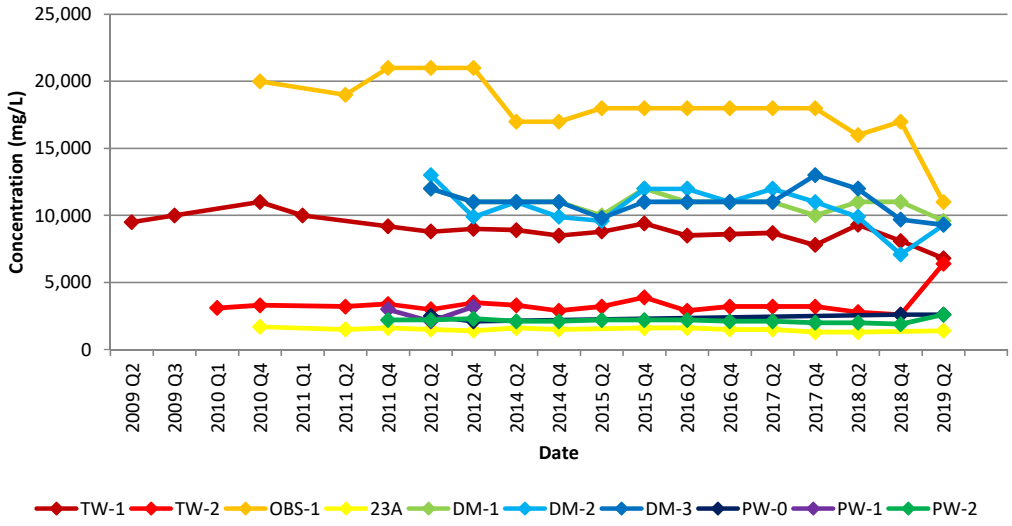

## Chart 20: Zinc



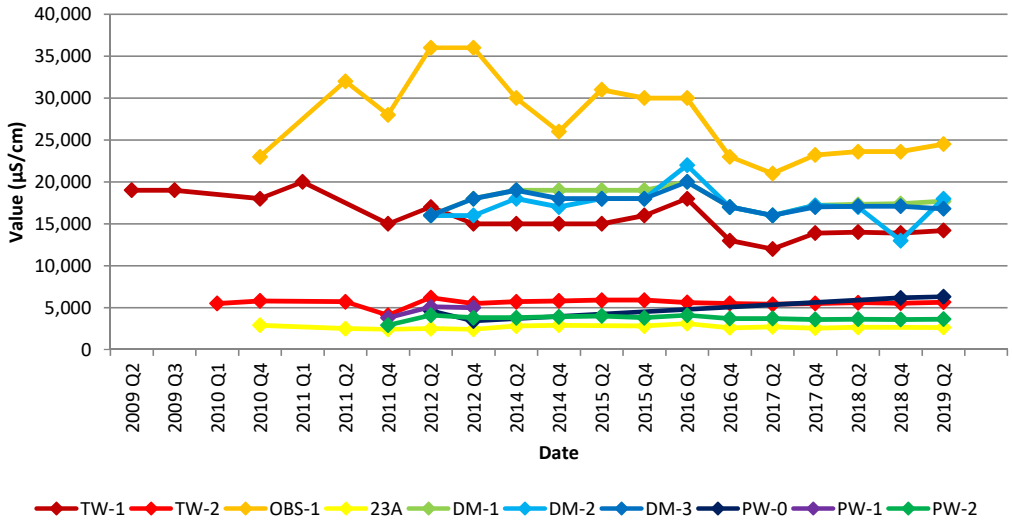

## Chart 21: Mercury



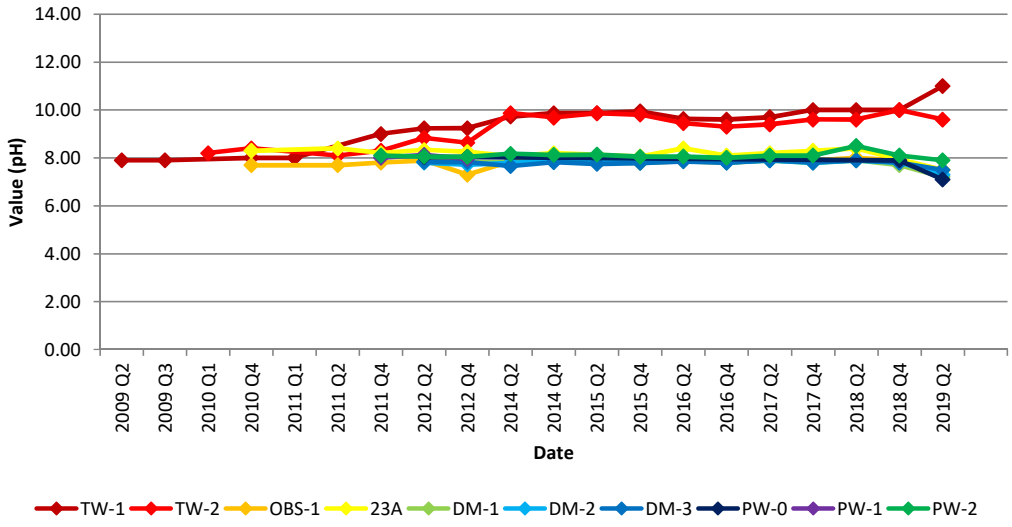
## Chart 22: Total Dissolved Solids




## Chart 23: Specific Conductance




## Chart 24: pH



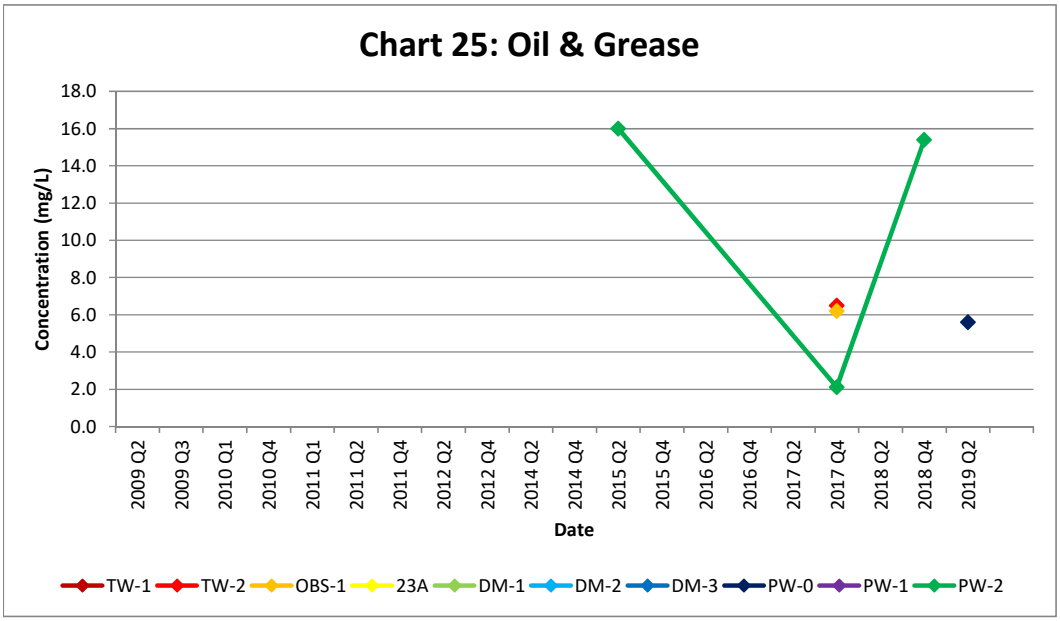


Chart 25: Oil & Grease
Concentration (mg/L)
18.0
16.0
14.0
12.0
10.0
8.0
6.0
4.0
2.0
0.0
2009 Q2
2009 Q3
2010 Q1
2010 Q4
2011 Q1
2011 Q2
2011 Q4
2012 Q2
2012 Q4
2014 Q2
2014 Q4
2015 Q2
2015 Q4
2016 Q2
2016 Q4
2017 Q2
2017 Q4
2018 Q2
2018 Q4
2019 Q2
Date
TW-1
TW-2
OBS-1
23A
DM-1
DM-2
DM-3
PW-0
PW-1
PW-2

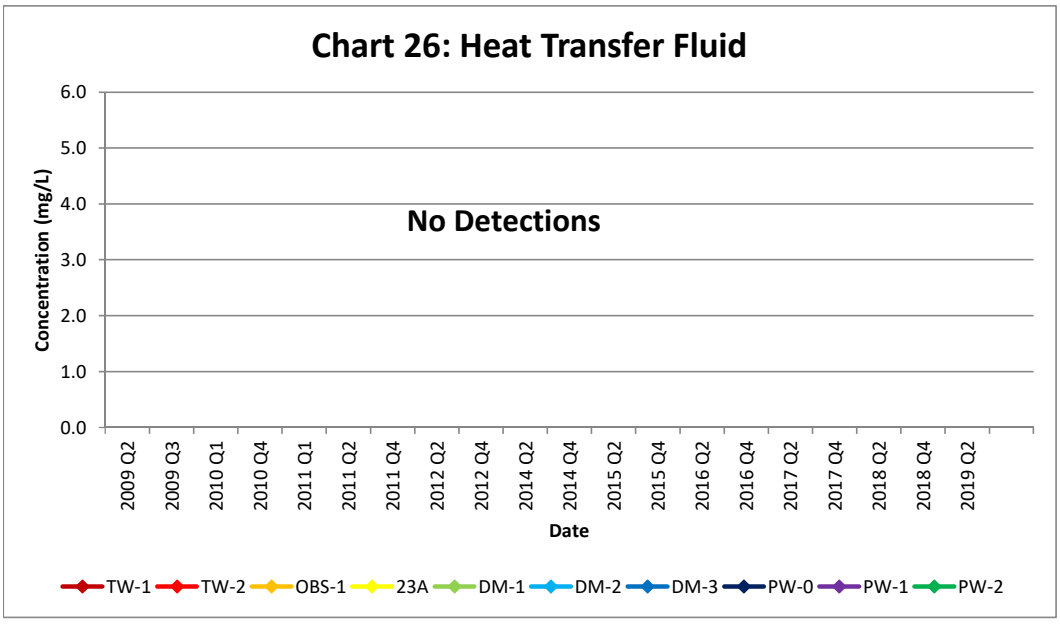


Chart 26: Heat Transfer Fluid
Concentration (mg/L)
6.0
5.0
4.0
3.0
2.0
1.0
0.0
No Detections
2009 Q2
2009 Q3
2010 Q1
2010 Q4
2011 Q1
2011 Q2
2011 Q4
2012 Q2
2012 Q4
2014 Q2
2014 Q4
2015 Q2
2015 Q4
2016 Q2
2016 Q4
2017 Q2
2017 Q4
2018 Q2
2018 Q4
2019 Q2
Date
TW-1
TW-2
OBS-1
23A
DM-1
DM-2
DM-3
PW-0
PW-1
PW-2

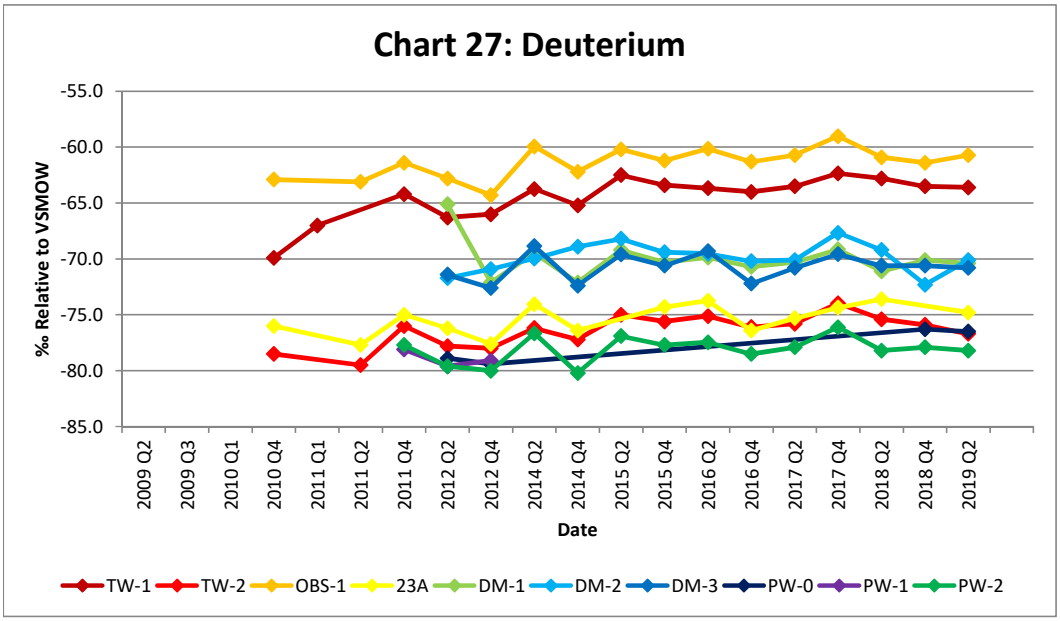


Chart 27: Deuterium
-55.0
-60.0
-65.0
-70.0
-75.0
-80.0
-85.0
‰ Relative to VSMOW
2009 Q2
2009 Q3
2010 Q1
2010 Q4
2011 Q1
2011 Q2
2011 Q4
2012 Q2
2012 Q4
2014 Q2
2014 Q4
2015 Q2
2015 Q4
2016 Q2
2016 Q4
2017 Q2
2017 Q4
2018 Q2
2018 Q4
2019 Q2
Date
TW-1
TW-2
OBS-1
23A
DM-1
DM-2
DM-3
PW-0
PW-1
PW-2

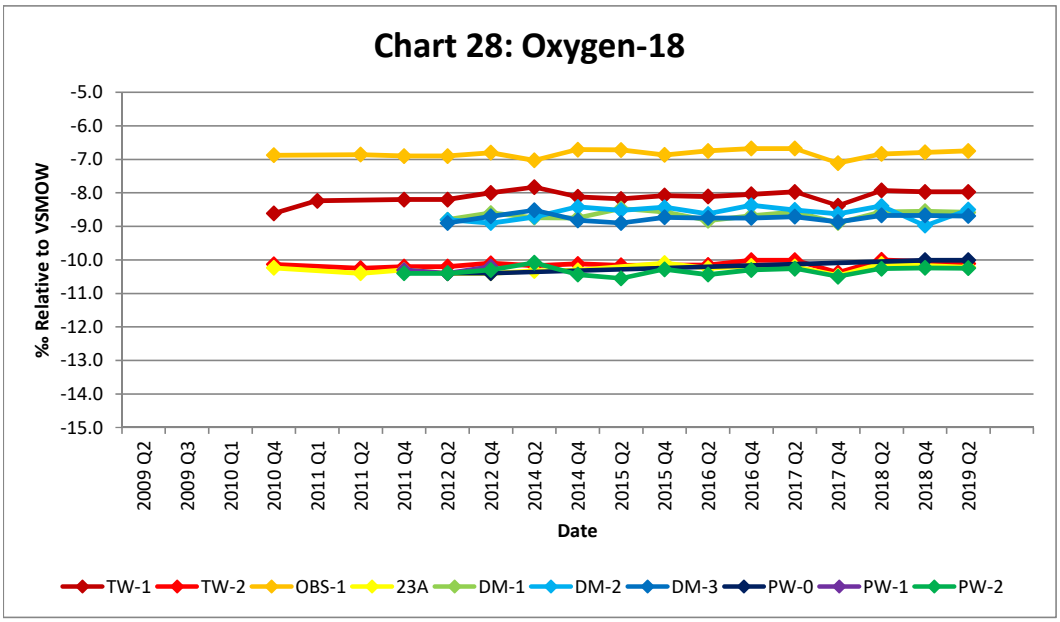
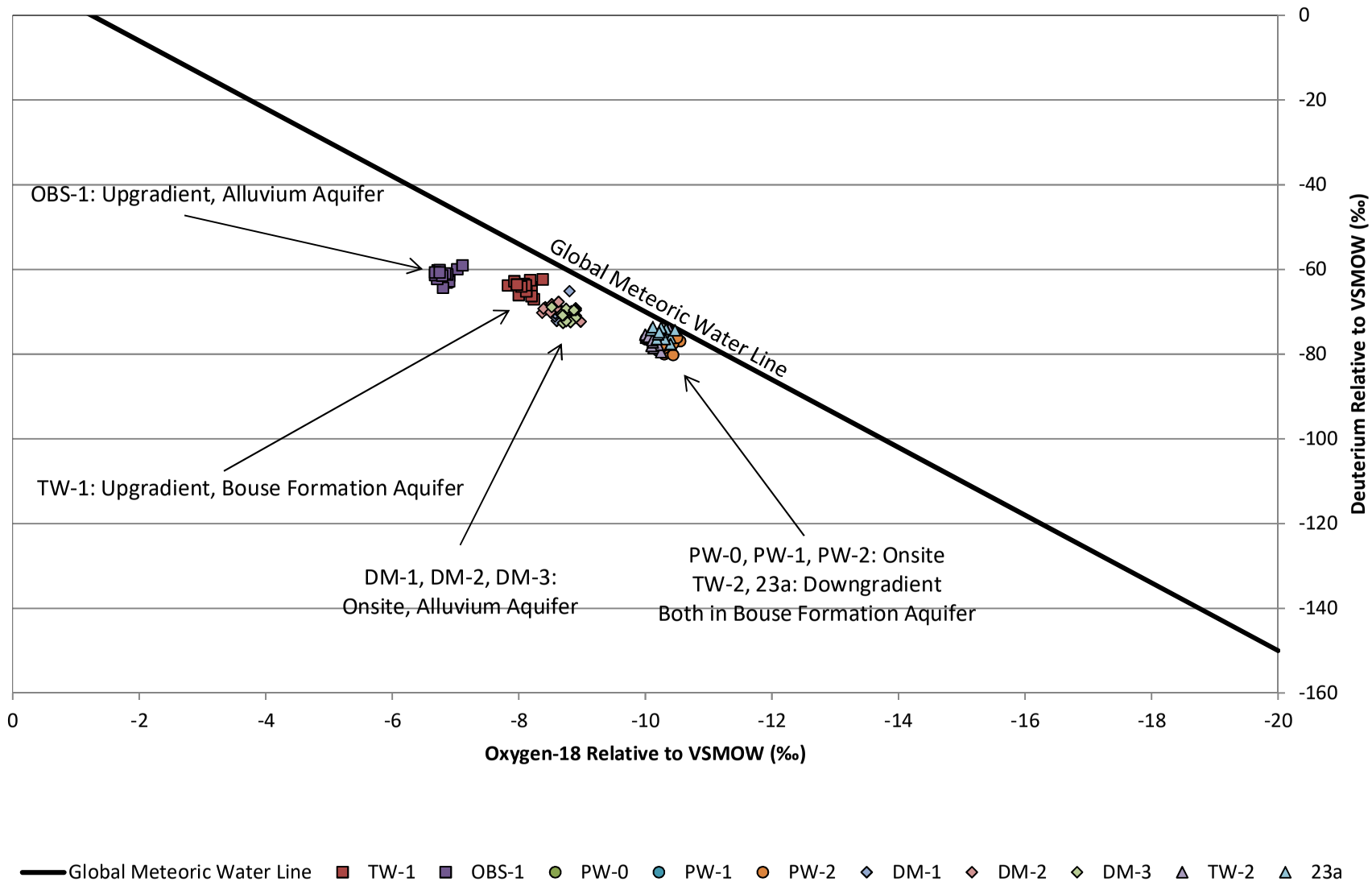


Chart 28: Oxygen-18
-5.0
-6.0
-7.0
-8.0
-9.0
-10.0
-11.0
-12.0
-13.0
-14.0
-15.0
‰ Relative to VSMOW
2009 Q2
2009 Q3
2010 Q1
2010 Q4
2011 Q1
2011 Q2
2011 Q4
2012 Q2
2012 Q4
2014 Q2
2014 Q4
2015 Q2
2015 Q4
2016 Q2
2016 Q4
2017 Q2
2017 Q4
2018 Q2
2018 Q4
2019 Q2
Date
TW-1
TW-2
OBS-1
23A
DM-1
DM-2
DM-3
PW-0
PW-1
PW-2

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



# APPENDIX C

## MANN-KENDALL TREND ANALYSIS

**Appendix C**
**2019 First Semiannual Summary of Mann-Kendall Test for Trend**
**Genesis Solar Energy Project, Blythe, CA**

| Well ID | Constituent | Minimum | Maximum | Mean | Kendall Tau Value | 2-Sided p-Value | Trend Direction at 95% Confidence Interval |
|---|---|---|---|---|---|---|---|
| TW-1 | Arsenic | N/A | N/A | N/A | N/A | N/A | No New Data |
| | Barium | N/A | N/A | N/A | N/A | N/A | No New Data |
| | Calcium | 71 | 170 | 94 | -0.328 | 0.075515 | No Statistical Trend |
| | Chloride | 3,510 | 6,910 | 4,576 | -0.411 | 0.013393 | Decreasing Trend |
| | Selenium | N/A | N/A | N/A | N/A | N/A | No New Data |
| | Specific Conductivity | 12,000 | 20,000 | 15,950 | -0.62 | 0.00025792 | Decreasing Trend |
| | Sulfate | 1,130 | 2,400 | 1,473 | -0.234 | 0.16928 | No Statistical Trend |
| | Total Dissolved Solids | 6,800 | 10,000 | 8,910 | -0.592 | 0.00034584 | Decreasing Trend |
| TW-2 | Arsenic | N/A | N/A | N/A | N/A | N/A | No New Data |
| | Barium | N/A | N/A | N/A | N/A | N/A | No New Data |
| | Calcium | 64 | 120 | 87 | -0.158 | 0.38263 | No Statistical Trend |
| | Chloride | 850 | 1,930 | 1,487 | 0.069 | 0.72820 | No Statistical Trend |
| | Selenium | N/A | N/A | N/A | N/A | N/A | No New Data |
| | Specific Conductivity | 4,100 | 6,200 | 5,570 | -0.027 | 0.90903 | No Statistical Trend |
| | Sulfate | 315 | 520 | 452 | -0.506 | 0.00508 | No Statistical Trend |
| | Total Dissolved Solids | 2,600 | 6,400 | 3,344 | -0.082 | 0.67254 | No Statistical Trend |
| OBS-1 | Arsenic | N/A | N/A | N/A | N/A | N/A | No New Data |
| | Barium | N/A | N/A | N/A | N/A | N/A | No New Data |
| | Calcium | 290 | 480 | 366 | -0.324 | 0.09881 | No Statistical Trend |
| | Chloride | 5,200 | 8,300 | 6,236 | -0.420 | 0.02706 | Decreasing Trend |
| | Selenium | N/A | N/A | N/A | N/A | N/A | No New Data |
| | Specific Conductivity | 21,000 | 36,000 | 27,556 | -0.325 | 0.09350 | No Statistical Trend |
| | Sulfate | 4,800 | 9,400 | 6,071 | -0.437 | 0.02140 | Decreasing Trend |
| | Total Dissolved Solids | 11,000 | 21,000 | 18,000 | -0.560 | 0.00504 | Decreasing Trend |
| 23a | Arsenic | N/A | N/A | N/A | N/A | N/A | No New Data |
| | Barium | N/A | N/A | N/A | N/A | N/A | No New Data |
| | Calcium | 19 | 29 | 23 | -0.449 | 0.03448 | Decreasing Trend |
| | Chloride | 410 | 620 | 490 | -0.179 | 0.40896 | No Statistical Trend |
| | Selenium | N/A | N/A | N/A | N/A | N/A | No New Data |
| | Specific Conductivity | 2,400 | 3,100 | 2,673 | 0.079 | 0.74106 | No Statistical Trend |
| | Sulfate | 370 | 490 | 416 | -0.146 | 0.50824 | No Statistical Trend |
| | Total Dissolved Solids | 1,300 | 1,700 | 1,500 | -0.479 | 0.02992 | Decreasing Trend |
| DM-1 | Arsenic | N/A | N/A | N/A | N/A | N/A | No New Data |
| | Barium | N/A | N/A | N/A | N/A | N/A | No New Data |
| | Calcium | 210 | 280 | 244 | 0.418 | 0.06664 | No Statistical Trend |
| | Chloride | 4,600 | 8,180 | 5,388 | 0.132 | 0.57964 | No Statistical Trend |
| | Selenium | N/A | N/A | N/A | N/A | N/A | No New Data |
| | Specific Conductivity | 16,000 | 20,000 | 17,892 | -0.040 | 0.90110 | No Statistical Trend |
| | Sulfate | 1,700 | 3,280 | 2,139 | 0.133 | 0.57674 | No Statistical Trend |
| | Total Dissolved Solids | 9,600 | 12,000 | 10,892 | -0.425 | 0.07809 | No Statistical Trend |
| DM-2 | Arsenic | N/A | N/A | N/A | N/A | N/A | No New Data |
| | Barium | N/A | N/A | N/A | N/A | N/A | No New Data |
| | Calcium | 240 | 470 | 300 | -0.412 | 0.06955 | No Statistical Trend |
| | Chloride | 4,400 | 6,000 | 5,005 | 0.421 | 0.05640 | No Statistical Trend |
| | Selenium | N/A | N/A | N/A | N/A | N/A | No New Data |
| | Specific Conductivity | 13,000 | 22,000 | 17,169 | 0.028 | 0.94984 | No Statistical Trend |
| | Sulfate | 1,600 | 2,280 | 1,992 | 0.054 | 0.85184 | No Statistical Trend |
| | Total Dissolved Solids | 7,100 | 13,000 | 10,952 | -0.341 | 0.13488 | No Statistical Trend |
| DM-3 | Arsenic | N/A | N/A | N/A | N/A | N/A | No New Data |
| | Barium | N/A | N/A | N/A | N/A | N/A | No New Data |
| | Calcium | 210 | 280 | 238 | 0.632 | 0.00436 | Increasing Trend |
| | Chloride | 4,400 | 6,770 | 5,137 | 0.170 | 0.46159 | No Statistical Trend |
| | Selenium | N/A | N/A | N/A | N/A | N/A | No New Data |
| | Specific Conductivity | 16,000 | 20,000 | 17,538 | -0.259 | 0.26152 | No Statistical Trend |
| | Sulfate | 1,800 | 2,840 | 2,117 | 0.225 | 0.32384 | No Statistical Trend |
| | Total Dissolved Solids | 9,300 | 13,000 | 10,985 | -0.212 | 0.38436 | No Statistical Trend |
| PW-0 | Arsenic | N/A | N/A | N/A | N/A | N/A | Not Enough Data |
| | Barium | N/A | N/A | N/A | N/A | N/A | Not Enough Data |
| | Calcium | N/A | N/A | N/A | N/A | N/A | Not Enough Data |
| | Chloride | N/A | N/A | N/A | N/A | N/A | Not Enough Data |
| | Selenium | N/A | N/A | N/A | N/A | N/A | Not Enough Data |
| | Specific Conductivity | N/A | N/A | N/A | N/A | N/A | Not Enough Data |
| | Sulfate | N/A | N/A | N/A | N/A | N/A | Not Enough Data |
| | Total Dissolved Solids | N/A | N/A | N/A | N/A | N/A | Not Enough Data |
| PW-1 | Arsenic | N/A | N/A | N/A | N/A | N/A | Not Enough Data |
| | Barium | N/A | N/A | N/A | N/A | N/A | Not Enough Data |
| | Calcium | N/A | N/A | N/A | N/A | N/A | Not Enough Data |
| | Chloride | N/A | N/A | N/A | N/A | N/A | Not Enough Data |
| | Selenium | N/A | N/A | N/A | N/A | N/A | Not Enough Data |
| | Specific Conductivity | N/A | N/A | N/A | N/A | N/A | Not Enough Data |
| | Sulfate | N/A | N/A | N/A | N/A | N/A | Not Enough Data |
| | Total Dissolved Solids | N/A | N/A | N/A | N/A | N/A | Not Enough Data |
| PW-2 | Arsenic | N/A | N/A | N/A | N/A | N/A | No New Data |
| | Barium | N/A | N/A | N/A | N/A | N/A | No New Data |
| | Calcium | 48 | 72 | 55 | 0.362 | 0.08659 | No Statistical Trend |
| | Chloride | 570 | 998 | 831 | 0.066 | 0.78398 | No Statistical Trend |
| | Selenium | N/A | N/A | N/A | N/A | N/A | No New Data |
| | Specific Conductivity | 2,900 | 4,100 | 3,706 | -0.249 | 0.24624 | No Statistical Trend |
| | Sulfate | 290 | 530 | 428 | -0.011 | 1.00000 | No Statistical Trend |
| | Total Dissolved Solids | 1,900 | 2,300 | 2,129 | -0.429 | 0.05207 | No Statistical Trend |

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

# APPENDIX D

## LABORATORY REPORTS

SunStar Laboratories, Inc.
PROVIDING QUALITY ANALYTICAL SERVICES NATIONWIDE

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

27 June 2019

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

RE: Genesis Solar Groundwater

Enclosed are the results of analyses for samples received by the laboratory on 06/14/19 15:05. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Jeff Lee
Project Manager

SunStar Laboratories, Inc.
PROVIDING QUALITY ANALYTICAL SERVICES NATIONWIDE

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

| | | |
|---|---|---|
| Northstar Environmental Remediation | Project: Genesis Solar Groundwater | |
| 26225 Enterprise Court | Project Number: 196-004-06 | **Reported:** |
| Lake Forest CA, 92630 | Project Manager: Arlin Brewster | 06/27/19 15:10 |

## ANALYTICAL REPORT FOR SAMPLES

| Sample ID | Laboratory ID | Matrix | Date Sampled | Date Received |
|---|---|---|---|---|
| 23a | T191966-01 | Water | 06/14/19 05:00 | 06/14/19 15:05 |
| OBS-1 | T191966-02 | Water | 06/13/19 13:00 | 06/14/19 15:05 |
| TW-1 | T191966-03 | Water | 06/13/19 12:25 | 06/14/19 15:05 |
| TW-2 | T191966-04 | Water | 06/14/19 05:45 | 06/14/19 15:05 |
| PW-0 | T191966-05 | Water | 06/13/19 06:56 | 06/14/19 15:05 |
| PW-2 | T191966-06 | Water | 06/13/19 07:15 | 06/14/19 15:05 |
| DM-1 | T191966-07 | Water | 06/14/19 06:52 | 06/14/19 15:05 |
| DM-2 | T191966-08 | Water | 06/14/19 08:02 | 06/14/19 15:05 |
| DM-3 | T191966-09 | Water | 06/14/19 09:17 | 06/14/19 15:05 |
| DUP | T191966-10 | Water | 06/14/19 00:00 | 06/14/19 15:05 |

Metal samples were field filtered by client and is indicated in the CoC. All metals analytes are reported as dissolved metals. JL 6/17/19.
Sample were received on Friday 3pm. Laboratory did not anticipate short hold samples arriving so Anion analyst left the lab early. The Nitrate analysis will be analyzed out of hold time on Monday. Client has been informed of the situation on 6/17/19 and has instructed the lab to continue the analysis. JL 6/17/19.

SunStar Laboratories, Inc.

Jeff Lee, Project Manager

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

SunStar Laboratories, Inc.
PROVIDING QUALITY ANALYTICAL SERVICES NATIONWIDE

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

| | | |
|---|---|---|
| Northstar Environmental Remediation | Project: Genesis Solar Groundwater | |
| 26225 Enterprise Court | Project Number: 196-004-06 | **Reported:** |
| Lake Forest CA, 92630 | Project Manager: Arlin Brewster | 06/27/19 15:10 |

## DETECTIONS SUMMARY

**Sample ID:** 23a **Laboratory ID:** T191966-01

| Analyte | Result | Reporting Limit | Units | Method | Notes |
|---|---|---|---|---|---|
| Copper | **0.005** | 0.005 | mg/l | EPA 200.7 | FILT |
| Nickel | **12** | 10 | ug/l | 200.8 | FILT |
| Zinc | **180** | 10 | ug/l | 200.8 | FILT |
| Calcium | **24** | 0.10 | mg/l | EPA 200.7 | FILT |
| Iron | **0.63** | 0.20 | mg/l | EPA 200.7 | FILT |
| Potassium | **25** | 0.10 | mg/l | EPA 200.7 | FILT |
| Magnesium | **0.68** | 0.10 | mg/l | EPA 200.7 | FILT |
| Sodium | **630** | 10 | mg/l | EPA 200.7 | FILT |
| pH | **7.5** | 0.10 | pH Units | SM4500 | O-04 |
| Total Dissolved Solids | **1400** | 55 | mg/l | TDS by SM2540C | |
| Specific Conductance (EC) | **2630** | 10.0 | umhos/cm | SM2510b mod. | |
| Chloride | **473** | 5.00 | mg/l | EPA 300.0 | |
| Sulfate as SO4 | **405** | 5.00 | mg/l | EPA 300.0 | |

**Sample ID:** OBS-1 **Laboratory ID:** T191966-02

| Analyte | Result | Reporting Limit | Units | Method | Notes |
|---|---|---|---|---|---|
| Copper | **0.017** | 0.005 | mg/l | EPA 200.7 | FILT |
| Zinc | **160** | 10 | ug/l | 200.8 | FILT |
| Calcium | **360** | 0.10 | mg/l | EPA 200.7 | FILT |
| Iron | **0.53** | 0.20 | mg/l | EPA 200.7 | FILT |
| Potassium | **78** | 0.10 | mg/l | EPA 200.7 | FILT |
| Magnesium | **91** | 0.10 | mg/l | EPA 200.7 | FILT |
| Sodium | **7700** | 10 | mg/l | EPA 200.7 | FILT |
| Total Dissolved Solids | **11000** | 55 | mg/l | TDS by SM2540C | |
| pH | **7.5** | 0.10 | pH Units | SM4500 | O-04 |
| Specific Conductance (EC) | **24500** | 10.0 | umhos/cm | SM2510b mod. | |
| Chloride | **6070** | 250 | mg/l | EPA 300.0 | |
| Sulfate as SO4 | **5400** | 250 | mg/l | EPA 300.0 | |
| Nitrate as NO3 | **5.42** | 0.500 | mg/l | EPA 300.0 | O-07 |

SunStar Laboratories, Inc.

Jeff Lee, Project Manager

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

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| | | |
|---|---|---|
| Northstar Environmental Remediation | Project: Genesis Solar Groundwater | |
| 26225 Enterprise Court | Project Number: 196-004-06 | **Reported:** |
| Lake Forest CA, 92630 | Project Manager: Arlin Brewster | 06/27/19 15:10 |

**Sample ID:** TW-1 **Laboratory ID:** T191966-03

| Analyte | Result | Reporting Limit | Units | Method | Notes |
|---|---|---|---|---|---|
| Zinc | **150** | 10 | ug/l | 200.8 | FILT |
| Calcium | **75** | 0.10 | mg/l | EPA 200.7 | FILT |
| Iron | **1.8** | 0.20 | mg/l | EPA 200.7 | FILT |
| Magnesium | **3.4** | 0.10 | mg/l | EPA 200.7 | FILT |
| Potassium | **57** | 0.10 | mg/l | EPA 200.7 | FILT |
| Sodium | **3700** | 10 | mg/l | EPA 200.7 | FILT |
| Total Dissolved Solids | **6800** | 55 | mg/l | TDS by SM2540C | |
| pH | **11** | 0.10 | pH Units | SM4500 | O-04 |
| Specific Conductance (EC) | **14200** | 10.0 | umhos/cm | SM2510b mod. | |
| Chloride | **4070** | 250 | mg/l | EPA 300.0 | |
| Sulfate as SO4 | **1230** | 250 | mg/l | EPA 300.0 | |

**Sample ID:** TW-2 **Laboratory ID:** T191966-04

| Analyte | Result | Reporting Limit | Units | Method | Notes |
|---|---|---|---|---|---|
| Zinc | **150** | 10 | ug/l | 200.8 | FILT |
| Calcium | **95** | 0.10 | mg/l | EPA 200.7 | FILT |
| Iron | **0.23** | 0.20 | mg/l | EPA 200.7 | FILT |
| Potassium | **54** | 0.10 | mg/l | EPA 200.7 | FILT |
| Magnesium | **0.42** | 0.10 | mg/l | EPA 200.7 | FILT |
| Sodium | **1300** | 10 | mg/l | EPA 200.7 | FILT |
| pH | **9.6** | 0.10 | pH Units | SM4500 | O-04 |
| Total Dissolved Solids | **6400** | 55 | mg/l | TDS by SM2540C | |
| Specific Conductance (EC) | **5640** | 10.0 | umhos/cm | SM2510b mod. | |
| Chloride | **1560** | 50.0 | mg/l | EPA 300.0 | |
| Sulfate as SO4 | **430** | 5.00 | mg/l | EPA 300.0 | |

**Sample ID:** PW-0 **Laboratory ID:** T191966-05

| Analyte | Result | Reporting Limit | Units | Method | Notes |
|---|---|---|---|---|---|
| Zinc | **160** | 10 | ug/l | 200.8 | FILT |
| Calcium | **130** | 0.10 | mg/l | EPA 200.7 | FILT |
| Iron | **0.33** | 0.20 | mg/l | EPA 200.7 | FILT |
| Magnesium | **1.9** | 0.10 | mg/l | EPA 200.7 | FILT |
| Potassium | **57** | 0.10 | mg/l | EPA 200.7 | FILT |

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Jeff Lee, Project Manager

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|---|---|---|
| Northstar Environmental Remediation | Project: Genesis Solar Groundwater | |
| 26225 Enterprise Court | Project Number: 196-004-06 | **Reported:** |
| Lake Forest CA, 92630 | Project Manager: Arlin Brewster | 06/27/19 15:10 |

**Sample ID:** PW-0 **Laboratory ID:** T191966-05

| Analyte | Result | Reporting Limit | Units | Method | Notes |
|---|---|---|---|---|---|
| Sodium | **1500** | 10 | mg/l | EPA 200.7 | FILT |
| Oil & Grease | **5.60** | 5.00 | mg/l | EPA 1664B | |
| Total Dissolved Solids | **2600** | 55 | mg/l | TDS by SM2540C | |
| pH | **7.1** | 0.10 | pH Units | SM4500 | O-04 |
| Specific Conductance (EC) | **6300** | 10.0 | umhos/cm | SM2510b mod. | |
| Fluoride | **5.82** | 0.500 | mg/l | EPA 300.0 | |
| Chloride | **1740** | 50.0 | mg/l | EPA 300.0 | |
| Sulfate as SO4 | **535** | 5.00 | mg/l | EPA 300.0 | |

**Sample ID:** PW-2 **Laboratory ID:** T191966-06

| Analyte | Result | Reporting Limit | Units | Method | Notes |
|---|---|---|---|---|---|
| Zinc | **160** | 10 | ug/l | 200.8 | FILT |
| Calcium | **62** | 0.10 | mg/l | EPA 200.7 | FILT |
| Magnesium | **5.0** | 0.10 | mg/l | EPA 200.7 | FILT |
| Potassium | **13** | 0.10 | mg/l | EPA 200.7 | FILT |
| Sodium | **780** | 10 | mg/l | EPA 200.7 | FILT |
| Total Dissolved Solids | **2300** | 55 | mg/l | TDS by SM2540C | |
| pH | **7.4** | 0.10 | pH Units | SM4500 | O-04 |
| Specific Conductance (EC) | **3600** | 10.0 | umhos/cm | SM2510b mod. | |
| Fluoride | **6.34** | 0.500 | mg/l | EPA 300.0 | |
| Chloride | **860** | 100 | mg/l | EPA 300.0 | |
| Sulfate as SO4 | **431** | 5.00 | mg/l | EPA 300.0 | |

**Sample ID:** DM-1 **Laboratory ID:** T191966-07

| Analyte | Result | Reporting Limit | Units | Method | Notes |
|---|---|---|---|---|---|
| Copper | **0.006** | 0.005 | mg/l | EPA 200.7 | FILT |
| Zinc | **150** | 10 | ug/l | 200.8 | FILT |
| Calcium | **280** | 0.10 | mg/l | EPA 200.7 | FILT |
| Iron | **0.35** | 0.20 | mg/l | EPA 200.7 | FILT |
| Potassium | **65** | 0.10 | mg/l | EPA 200.7 | FILT |
| Magnesium | **63** | 0.10 | mg/l | EPA 200.7 | FILT |
| Sodium | **4800** | 10 | mg/l | EPA 200.7 | FILT |
| pH | **7.2** | 0.10 | pH Units | SM4500 | O-04 |

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|---|---|---|
| Northstar Environmental Remediation | Project: Genesis Solar Groundwater | |
| 26225 Enterprise Court | Project Number: 196-004-06 | **Reported:** |
| Lake Forest CA, 92630 | Project Manager: Arlin Brewster | 06/27/19 15:10 |

**Sample ID:** DM-1 **Laboratory ID:** T191966-07

| Analyte | Result | Reporting Limit | Units | Method | Notes |
|---|---|---|---|---|---|
| Total Dissolved Solids | **9600** | 55 | mg/l | TDS by SM2540C | |
| Specific Conductance (EC) | **17700** | 10.0 | umhos/cm | SM2510b mod. | |
| Chloride | **5040** | 100 | mg/l | EPA 300.0 | |
| Sulfate as SO4 | **1930** | 100 | mg/l | EPA 300.0 | |
| Nitrate as NO3 | **8.76** | 0.500 | mg/l | EPA 300.0 | O-07 |

**Sample ID:** DM-2 **Laboratory ID:** T191966-08

| Analyte | Result | Reporting Limit | Units | Method | Notes |
|---|---|---|---|---|---|
| Zinc | **160** | 10 | ug/l | 200.8 | FILT |
| Calcium | **300** | 0.10 | mg/l | EPA 200.7 | FILT |
| Potassium | **68** | 0.10 | mg/l | EPA 200.7 | FILT |
| Magnesium | **67** | 0.10 | mg/l | EPA 200.7 | FILT |
| Sodium | **5100** | 10 | mg/l | EPA 200.7 | FILT |
| Total Dissolved Solids | **9300** | 55 | mg/l | TDS by SM2540C | |
| pH | **7.3** | 0.10 | pH Units | SM4500 | O-04 |
| Specific Conductance (EC) | **18000** | 10.0 | umhos/cm | SM2510b mod. | |
| Chloride | **5240** | 100 | mg/l | EPA 300.0 | |
| Sulfate as SO4 | **2080** | 100 | mg/l | EPA 300.0 | |
| Nitrate as NO3 | **11.2** | 0.500 | mg/l | EPA 300.0 | O-07 |

**Sample ID:** DM-3 **Laboratory ID:** T191966-09

| Analyte | Result | Reporting Limit | Units | Method | Notes |
|---|---|---|---|---|---|
| Copper | **0.009** | 0.005 | mg/l | EPA 200.7 | FILT |
| Zinc | **150** | 10 | ug/l | 200.8 | FILT |
| Calcium | **270** | 0.10 | mg/l | EPA 200.7 | FILT |
| Potassium | **60** | 0.10 | mg/l | EPA 200.7 | FILT |
| Magnesium | **59** | 0.10 | mg/l | EPA 200.7 | FILT |
| Sodium | **4900** | 10 | mg/l | EPA 200.7 | FILT |
| pH | **7.5** | 0.10 | pH Units | SM4500 | O-04 |
| Total Dissolved Solids | **9300** | 55 | mg/l | TDS by SM2540C | |
| Specific Conductance (EC) | **16800** | 10.0 | umhos/cm | SM2510b mod. | |
| Chloride | **4880** | 100 | mg/l | EPA 300.0 | |
| Sulfate as SO4 | **1960** | 100 | mg/l | EPA 300.0 | |

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| 26225 Enterprise Court | Project Number: 196-004-06 | **Reported:** |
| Lake Forest CA, 92630 | Project Manager: Arlin Brewster | 06/27/19 15:10 |

**Sample ID:** DM-3 **Laboratory ID:** T191966-09

| Analyte | Result | Reporting Limit | Units | Method | Notes |
|---|---|---|---|---|---|
| Nitrate as NO3 | **2.87** | 0.500 | mg/l | EPA 300.0 | O-07 |

**Sample ID:** DUP **Laboratory ID:** T191966-10

| Analyte | Result | Reporting Limit | Units | Method | Notes |
|---|---|---|---|---|---|
| Zinc | **150** | 10 | ug/l | 200.8 | FILT |
| Calcium | **64** | 0.10 | mg/l | EPA 200.7 | FILT |
| Potassium | **13** | 0.10 | mg/l | EPA 200.7 | FILT |
| Magnesium | **5.2** | 0.10 | mg/l | EPA 200.7 | FILT |
| Sodium | **800** | 10 | mg/l | EPA 200.7 | FILT |
| pH | **7.9** | 0.10 | pH Units | SM4500 | O-04 |
| Total Dissolved Solids | **2600** | 55 | mg/l | TDS by SM2540C | |
| Specific Conductance (EC) | **3630** | 10.0 | umhos/cm | SM2510b mod. | |
| Chloride | **820** | 100 | mg/l | EPA 300.0 | |
| Sulfate as SO4 | **436** | 5.00 | mg/l | EPA 300.0 | |

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| 26225 Enterprise Court | Project Number: 196-004-06 | **Reported:** |
| Lake Forest CA, 92630 | Project Manager: Arlin Brewster | 06/27/19 15:10 |

## 23a

## T191966-01 (Water)

### SunStar Laboratories, Inc.

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|---|---|---|---|---|---|---|---|---|---|
| **Metals by EPA 200 Series Methods** | | | | | | | | | |
| **Copper** | **0.005** | 0.005 | mg/l | 1 | 9061735 | 06/17/19 | 06/18/19 | EPA 200.7 | FILT |
| **Calcium** | **24** | 0.10 | " | " | " | " | " | " | FILT |
| **Iron** | **0.63** | 0.20 | " | " | " | " | " | " | FILT |
| **Magnesium** | **0.68** | 0.10 | " | " | " | " | " | " | FILT |
| **Potassium** | **25** | 0.10 | " | " | " | " | " | " | FILT |
| **Sodium** | **630** | 10 | " | 100 | " | " | " | " | FILT |
| Antimony | ND | 10 | ug/l | 20 | 9061734 | 06/17/19 | 06/26/19 | 200.8 | FILT, R-07 |
| Arsenic | ND | 10 | " | " | " | " | " | " | FILT, R-07 |
| Barium | ND | 10 | " | " | " | " | " | " | FILT, R-07 |
| Cadmium | ND | 10 | " | " | " | " | " | " | FILT, R-07 |
| Chromium | ND | 10 | " | " | " | " | " | " | FILT, R-07 |
| Cobalt | ND | 10 | " | " | " | " | " | " | FILT, R-07 |
| Lead | ND | 10 | " | " | " | " | " | " | FILT, R-07 |
| **Nickel** | **12** | 10 | " | " | " | " | " | " | FILT |
| Selenium | ND | 10 | " | " | " | " | " | " | FILT, R-07 |
| **Zinc** | **180** | 10 | " | " | " | " | " | " | FILT |
| **Cold Vapor Extraction EPA 7470/7471** | | | | | | | | | |
| Mercury | ND | 0.50 | ug/l | 1 | 9061732 | 06/24/19 | 06/24/19 | EPA 7470A Water | FILT |
| **Conventional Chemistry Parameters by APHA/EPA/ASTM Methods** | | | | | | | | | |
| Oil & Grease | ND | 5.00 | mg/l | 1 | 9061911 | 06/19/19 | 06/21/19 | EPA 1664B | |
| **Specific Conductance (EC)** | **2630** | 10.0 | umhos/cm | " | 9061715 | 06/17/19 | 06/17/19 | SM2510b mod. | |
| **pH** | **7.5** | 0.10 | pH Units | " | 9061716 | 06/17/19 | 06/17/19 | SM4500 | O-04 |
| **Total Dissolved Solids** | **1400** | 55 | mg/l | " | 9061733 | 06/17/19 | 06/18/19 | TDS by SM2540C | |

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|---|---|---|
| Northstar Environmental Remediation | Project: Genesis Solar Groundwater | |
| 26225 Enterprise Court | Project Number: 196-004-06 | **Reported:** |
| Lake Forest CA, 92630 | Project Manager: Arlin Brewster | 06/27/19 15:10 |

**23a**

**T191966-01 (Water)**

**SunStar Laboratories, Inc.**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|---|---|---|---|---|---|---|---|---|---|
| **Anions by EPA Method 300.0** | | | | | | | | | |
| **Chloride** | **473** | 5.00 | mg/l | 1 | 9061717 | 06/17/19 | 06/17/19 | EPA 300.0 | |
| **Sulfate as SO4** | **405** | 5.00 | " | " | " | " | " | " | |
| Nitrate as NO3 | ND | 0.500 | " | " | " | " | " | " | O-07 |

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|---|---|---|
| Northstar Environmental Remediation | Project: Genesis Solar Groundwater | |
| 26225 Enterprise Court | Project Number: 196-004-06 | **Reported:** |
| Lake Forest CA, 92630 | Project Manager: Arlin Brewster | 06/27/19 15:10 |

## OBS-1

### T191966-02 (Water)

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|---|---|---|---|---|---|---|---|---|---|
| **SunStar Laboratories, Inc.** | | | | | | | | | |
| **Metals by EPA 200 Series Methods** | | | | | | | | | |
| **Copper** | **0.017** | 0.005 | mg/l | 1 | 9061735 | 06/17/19 | 06/18/19 | EPA 200.7 | FILT |
| **Calcium** | **360** | 0.10 | " | " | " | " | 06/18/19 | " | FILT |
| **Iron** | **0.53** | 0.20 | " | " | " | " | " | " | FILT |
| **Magnesium** | **91** | 0.10 | " | " | " | " | " | " | FILT |
| **Potassium** | **78** | 0.10 | " | " | " | " | 06/18/19 | " | FILT |
| **Sodium** | **7700** | 10 | " | 100 | " | " | " | " | FILT |
| Antimony | ND | 10 | ug/l | 20 | 9061734 | 06/17/19 | 06/26/19 | 200.8 | FILT, R-07 |
| Arsenic | ND | 10 | " | " | " | " | " | " | FILT, R-07 |
| Barium | ND | 10 | " | " | " | " | " | " | FILT, R-07 |
| Cadmium | ND | 10 | " | " | " | " | " | " | FILT, R-07 |
| Chromium | ND | 10 | " | " | " | " | " | " | FILT, R-07 |
| Cobalt | ND | 10 | " | " | " | " | " | " | FILT, R-07 |
| Lead | ND | 10 | " | " | " | " | " | " | FILT, R-07 |
| Nickel | ND | 10 | " | " | " | " | " | " | FILT, R-07 |
| Selenium | ND | 10 | " | " | " | " | " | " | FILT, R-07 |
| **Zinc** | **160** | 10 | " | " | " | " | " | " | FILT |
| **Cold Vapor Extraction EPA 7470/7471** | | | | | | | | | |
| Mercury | ND | 0.50 | ug/l | 1 | 9061732 | 06/24/19 | 06/24/19 | EPA 7470A Water | FILT |
| **Conventional Chemistry Parameters by APHA/EPA/ASTM Methods** | | | | | | | | | |
| Oil & Grease | ND | 5.00 | mg/l | 1 | 9061911 | 06/19/19 | 06/21/19 | EPA 1664B | |
| **Specific Conductance (EC)** | **24500** | 10.0 | umhos/cm | " | 9061715 | 06/17/19 | 06/17/19 | SM2510b mod. | |
| **pH** | **7.5** | 0.10 | pH Units | " | 9061716 | 06/17/19 | 06/17/19 | SM4500 | O-04 |
| **Total Dissolved Solids** | **11000** | 55 | mg/l | " | 9061733 | 06/17/19 | 06/18/19 | TDS by SM2540C | |

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| Northstar Environmental Remediation | Project: Genesis Solar Groundwater | |
| 26225 Enterprise Court | Project Number: 196-004-06 | **Reported:** |
| Lake Forest CA, 92630 | Project Manager: Arlin Brewster | 06/27/19 15:10 |

## OBS-1

### T191966-02 (Water)

### SunStar Laboratories, Inc.

**Anions by EPA Method 300.0**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|---|---|---|---|---|---|---|---|---|---|
| **Chloride** | **6070** | 250 | mg/l | 50 | 9061717 | 06/17/19 | 06/17/19 | EPA 300.0 | |
| **Sulfate as SO4** | **5400** | 250 | " | " | " | " | " | " | |
| **Nitrate as NO3** | **5.42** | 0.500 | " | 1 | " | " | 06/17/19 | " | O-07 |

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| Northstar Environmental Remediation | Project: Genesis Solar Groundwater | |
| 26225 Enterprise Court | Project Number: 196-004-06 | **Reported:** |
| Lake Forest CA, 92630 | Project Manager: Arlin Brewster | 06/27/19 15:10 |

## TW-1

### T191966-03 (Water)

**SunStar Laboratories, Inc.**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|---|---|---|---|---|---|---|---|---|---|
| **Metals by EPA 200 Series Methods** | | | | | | | | | |
| Copper | ND | 0.005 | mg/l | 1 | 9061735 | 06/17/19 | 06/18/19 | EPA 200.7 | FILT |
| **Calcium** | **75** | 0.10 | " | " | " | " | " | " | FILT |
| **Iron** | **1.8** | 0.20 | " | " | " | " | " | " | FILT |
| **Magnesium** | **3.4** | 0.10 | " | " | " | " | " | " | FILT |
| **Potassium** | **57** | 0.10 | " | " | " | " | " | " | FILT |
| **Sodium** | **3700** | 10 | " | 100 | " | " | " | " | FILT |
| Antimony | ND | 10 | ug/l | 20 | 9061734 | 06/17/19 | 06/26/19 | 200.8 | FILT, R-07 |
| Arsenic | ND | 10 | " | " | " | " | " | " | FILT, R-07 |
| Barium | ND | 10 | " | " | " | " | " | " | FILT, R-07 |
| Cadmium | ND | 10 | " | " | " | " | " | " | FILT, R-07 |
| Chromium | ND | 10 | " | " | " | " | " | " | FILT, R-07 |
| Cobalt | ND | 10 | " | " | " | " | " | " | FILT, R-07 |
| Lead | ND | 10 | " | " | " | " | " | " | FILT, R-07 |
| Nickel | ND | 10 | " | " | " | " | " | " | FILT, R-07 |
| Selenium | ND | 10 | " | " | " | " | " | " | FILT, R-07 |
| **Zinc** | **150** | 10 | " | " | " | " | " | " | FILT |
| **Cold Vapor Extraction EPA 7470/7471** | | | | | | | | | |
| Mercury | ND | 0.50 | ug/l | 1 | 9061732 | 06/24/19 | 06/24/19 | EPA 7470A Water | FILT |
| **Conventional Chemistry Parameters by APHA/EPA/ASTM Methods** | | | | | | | | | |
| Oil & Grease | ND | 5.00 | mg/l | 1 | 9061911 | 06/19/19 | 06/21/19 | EPA 1664B | |
| **Specific Conductance (EC)** | **14200** | 10.0 | umhos/cm | " | 9061715 | 06/17/19 | 06/17/19 | SM2510b mod. | |
| **pH** | **11** | 0.10 | pH Units | " | 9061716 | 06/17/19 | 06/17/19 | SM4500 | O-04 |
| **Total Dissolved Solids** | **6800** | 55 | mg/l | " | 9061733 | 06/17/19 | 06/18/19 | TDS by SM2540C | |

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| 26225 Enterprise Court | Project Number: 196-004-06 | **Reported:** |
| Lake Forest CA, 92630 | Project Manager: Arlin Brewster | 06/27/19 15:10 |

## TW-1

### T191966-03 (Water)

**SunStar Laboratories, Inc.**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|---|---|---|---|---|---|---|---|---|---|
| **Anions by EPA Method 300.0** | | | | | | | | | |
| **Chloride** | **4070** | 250 | mg/l | 50 | 9061717 | 06/17/19 | 06/18/19 | EPA 300.0 | |
| **Sulfate as SO4** | **1230** | 250 | " | " | " | " | " | " | |
| Nitrate as NO3 | ND | 0.500 | " | 1 | " | " | 06/17/19 | " | O-07 |

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| | | |
|---|---|---|
| Northstar Environmental Remediation | Project: Genesis Solar Groundwater | |
| 26225 Enterprise Court | Project Number: 196-004-06 | **Reported:** |
| Lake Forest CA, 92630 | Project Manager: Arlin Brewster | 06/27/19 15:10 |

## TW-2

### T191966-04 (Water)

**SunStar Laboratories, Inc.**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|---|---|---|---|---|---|---|---|---|---|
| **Metals by EPA 200 Series Methods** | | | | | | | | | |
| Copper | ND | 0.005 | mg/l | 1 | 9061735 | 06/17/19 | 06/18/19 | EPA 200.7 | FILT |
| **Calcium** | **95** | 0.10 | " | " | " | " | " | " | FILT |
| **Iron** | **0.23** | 0.20 | " | " | " | " | " | " | FILT |
| **Magnesium** | **0.42** | 0.10 | " | " | " | " | " | " | FILT |
| **Potassium** | **54** | 0.10 | " | " | " | " | " | " | FILT |
| **Sodium** | **1300** | 10 | " | 100 | " | " | " | " | FILT |
| Antimony | ND | 10 | ug/l | 20 | 9061734 | 06/17/19 | 06/26/19 | 200.8 | FILT, R-07 |
| Arsenic | ND | 10 | " | " | " | " | " | " | FILT, R-07 |
| Barium | ND | 10 | " | " | " | " | " | " | FILT, R-07 |
| Cadmium | ND | 10 | " | " | " | " | " | " | FILT, R-07 |
| Chromium | ND | 10 | " | " | " | " | " | " | FILT, R-07 |
| Cobalt | ND | 10 | " | " | " | " | " | " | FILT, R-07 |
| Lead | ND | 10 | " | " | " | " | " | " | FILT, R-07 |
| Nickel | ND | 10 | " | " | " | " | " | " | FILT, R-07 |
| Selenium | ND | 10 | " | " | " | " | " | " | FILT, R-07 |
| **Zinc** | **150** | 10 | " | " | " | " | " | " | FILT |
| **Cold Vapor Extraction EPA 7470/7471** | | | | | | | | | |
| Mercury | ND | 0.50 | ug/l | 1 | 9061732 | 06/24/19 | 06/24/19 | EPA 7470A Water | FILT |
| **Conventional Chemistry Parameters by APHA/EPA/ASTM Methods** | | | | | | | | | |
| Oil & Grease | ND | 5.00 | mg/l | 1 | 9061911 | 06/19/19 | 06/21/19 | EPA 1664B | |
| **Specific Conductance (EC)** | **5640** | 10.0 | umhos/cm | " | 9061715 | 06/17/19 | 06/17/19 | SM2510b mod. | |
| **pH** | **9.6** | 0.10 | pH Units | " | 9061716 | 06/17/19 | 06/17/19 | SM4500 | O-04 |
| **Total Dissolved Solids** | **6400** | 55 | mg/l | " | 9061733 | 06/17/19 | 06/18/19 | TDS by SM2540C | |

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Jeff Lee, Project Manager

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|---|---|---|
| Northstar Environmental Remediation | Project: Genesis Solar Groundwater | |
| 26225 Enterprise Court | Project Number: 196-004-06 | **Reported:** |
| Lake Forest CA, 92630 | Project Manager: Arlin Brewster | 06/27/19 15:10 |

## TW-2

### T191966-04 (Water)

**SunStar Laboratories, Inc.**

**Anions by EPA Method 300.0**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|---|---|---|---|---|---|---|---|---|---|
| **Chloride** | **1560** | 50.0 | mg/l | 10 | 9061717 | 06/17/19 | 06/18/19 | EPA 300.0 | |
| **Sulfate as SO4** | **430** | 5.00 | " | 1 | " | " | 06/17/19 | " | |
| Nitrate as NO3 | ND | 0.500 | " | " | " | " | " | " | O-07 |

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|---|---|---|
| Northstar Environmental Remediation | Project: Genesis Solar Groundwater | |
| 26225 Enterprise Court | Project Number: 196-004-06 | **Reported:** |
| Lake Forest CA, 92630 | Project Manager: Arlin Brewster | 06/27/19 15:10 |

## PW-0

### T191966-05 (Water)

### SunStar Laboratories, Inc.

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|---|---|---|---|---|---|---|---|---|---|
| **Metals by EPA 200 Series Methods** | | | | | | | | | |
| Copper | ND | 0.005 | mg/l | 1 | 9061735 | 06/17/19 | 06/18/19 | EPA 200.7 | FILT |
| **Calcium** | **130** | 0.10 | " | " | " | " | " | " | FILT |
| **Iron** | **0.33** | 0.20 | " | " | " | " | " | " | FILT |
| **Magnesium** | **1.9** | 0.10 | " | " | " | " | " | " | FILT |
| **Potassium** | **57** | 0.10 | " | " | " | " | " | " | FILT |
| **Sodium** | **1500** | 10 | " | 100 | " | " | " | " | FILT |
| Antimony | ND | 10 | ug/l | 20 | 9061734 | 06/17/19 | 06/26/19 | 200.8 | FILT, R-07 |
| Arsenic | ND | 10 | " | " | " | " | " | " | FILT, R-07 |
| Barium | ND | 10 | " | " | " | " | " | " | FILT, R-07 |
| Cadmium | ND | 10 | " | " | " | " | " | " | FILT, R-07 |
| Chromium | ND | 10 | " | " | " | " | " | " | FILT, R-07 |
| Cobalt | ND | 10 | " | " | " | " | " | " | FILT, R-07 |
| Lead | ND | 10 | " | " | " | " | " | " | FILT, R-07 |
| Nickel | ND | 10 | " | " | " | " | " | " | FILT, R-07 |
| Selenium | ND | 10 | " | " | " | " | " | " | FILT, R-07 |
| **Zinc** | **160** | 10 | " | " | " | " | " | " | FILT |
| **Cold Vapor Extraction EPA 7470/7471** | | | | | | | | | |
| Mercury | ND | 0.50 | ug/l | 1 | 9061732 | 06/24/19 | 06/24/19 | EPA 7470A Water | FILT |
| **Conventional Chemistry Parameters by APHA/EPA/ASTM Methods** | | | | | | | | | |
| **Oil & Grease** | **5.60** | 5.00 | mg/l | 1 | 9061911 | 06/19/19 | 06/21/19 | EPA 1664B | |
| **Specific Conductance (EC)** | **6300** | 10.0 | umhos/cm | " | 9061715 | 06/17/19 | 06/17/19 | SM2510b mod. | |
| **pH** | **7.1** | 0.10 | pH Units | " | 9061716 | 06/17/19 | 06/17/19 | SM4500 | O-04 |
| **Total Dissolved Solids** | **2600** | 55 | mg/l | " | 9061733 | 06/17/19 | 06/18/19 | TDS by SM2540C | |

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|---|---|---|
| Northstar Environmental Remediation | Project: Genesis Solar Groundwater | |
| 26225 Enterprise Court | Project Number: 196-004-06 | **Reported:** |
| Lake Forest CA, 92630 | Project Manager: Arlin Brewster | 06/27/19 15:10 |

## PW-0

**T191966-05 (Water)**

**SunStar Laboratories, Inc.**

**Anions by EPA Method 300.0**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|---|---|---|---|---|---|---|---|---|---|
| **Fluoride** | **5.82** | 0.500 | mg/l | 1 | 9061717 | 06/17/19 | 06/17/19 | EPA 300.0 | |
| **Chloride** | **1740** | 50.0 | " | 10 | " | " | 06/18/19 | " | |
| **Sulfate as SO4** | **535** | 5.00 | " | 1 | " | " | 06/17/19 | " | |
| Nitrate as NO3 | ND | 0.500 | " | " | " | " | " | " | O-07 |

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|---|---|---|
| Northstar Environmental Remediation | Project: Genesis Solar Groundwater | |
| 26225 Enterprise Court | Project Number: 196-004-06 | **Reported:** |
| Lake Forest CA, 92630 | Project Manager: Arlin Brewster | 06/27/19 15:10 |

## PW-2

## T191966-06 (Water)

**SunStar Laboratories, Inc.**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|---|---|---|---|---|---|---|---|---|---|
| **Metals by EPA 200 Series Methods** | | | | | | | | | |
| Copper | ND | 0.005 | mg/l | 1 | 9061735 | 06/17/19 | 06/18/19 | EPA 200.7 | FILT |
| **Calcium** | **62** | 0.10 | " | " | " | " | 06/18/19 | " | FILT |
| Iron | ND | 0.20 | " | " | " | " | 06/18/19 | " | FILT |
| **Magnesium** | **5.0** | 0.10 | " | " | " | " | " | " | FILT |
| **Potassium** | **13** | 0.10 | " | " | " | " | " | " | FILT |
| **Sodium** | **780** | 10 | " | 100 | " | " | " | " | FILT |
| Antimony | ND | 10 | ug/l | 20 | 9061734 | 06/17/19 | 06/26/19 | 200.8 | FILT, R-07 |
| Arsenic | ND | 10 | " | " | " | " | " | " | FILT, R-07 |
| Barium | ND | 10 | " | " | " | " | " | " | FILT, R-07 |
| Cadmium | ND | 10 | " | " | " | " | " | " | FILT, R-07 |
| Chromium | ND | 10 | " | " | " | " | " | " | FILT, R-07 |
| Cobalt | ND | 10 | " | " | " | " | " | " | FILT, R-07 |
| Lead | ND | 10 | " | " | " | " | " | " | FILT, R-07 |
| Nickel | ND | 10 | " | " | " | " | " | " | FILT, R-07 |
| Selenium | ND | 10 | " | " | " | " | " | " | FILT, R-07 |
| **Zinc** | **160** | 10 | " | " | " | " | " | " | FILT |
| **Cold Vapor Extraction EPA 7470/7471** | | | | | | | | | |
| Mercury | ND | 0.50 | ug/l | 1 | 9061732 | 06/24/19 | 06/24/19 | EPA 7470A Water | FILT |
| **Conventional Chemistry Parameters by APHA/EPA/ASTM Methods** | | | | | | | | | |
| Oil & Grease | ND | 5.00 | mg/l | 1 | 9061911 | 06/19/19 | 06/21/19 | EPA 1664B | |
| **Specific Conductance (EC)** | **3600** | 10.0 | umhos/cm | " | 9061715 | 06/17/19 | 06/17/19 | SM2510b mod. | |
| **pH** | **7.4** | 0.10 | pH Units | " | 9061716 | 06/17/19 | 06/17/19 | SM4500 | O-04 |
| **Total Dissolved Solids** | **2300** | 55 | mg/l | " | 9061733 | 06/17/19 | 06/18/19 | TDS by SM2540C | |

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|---|---|---|
| Northstar Environmental Remediation | Project: Genesis Solar Groundwater | |
| 26225 Enterprise Court | Project Number: 196-004-06 | **Reported:** |
| Lake Forest CA, 92630 | Project Manager: Arlin Brewster | 06/27/19 15:10 |

## PW-2

## T191966-06 (Water)

### SunStar Laboratories, Inc.

**Anions by EPA Method 300.0**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|---|---|---|---|---|---|---|---|---|---|
| **Fluoride** | **6.34** | 0.500 | mg/l | 1 | 9061717 | 06/17/19 | 06/17/19 | EPA 300.0 | |
| **Chloride** | **860** | 100 | " | 20 | " | " | 06/18/19 | " | |
| **Sulfate as SO4** | **431** | 5.00 | " | 1 | " | " | 06/17/19 | " | |
| Nitrate as NO3 | ND | 0.500 | " | " | " | " | " | " | O-07 |

SunStar Laboratories, Inc.

Jeff Lee, Project Manager

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|---|---|---|
| Northstar Environmental Remediation | Project: Genesis Solar Groundwater | |
| 26225 Enterprise Court | Project Number: 196-004-06 | **Reported:** |
| Lake Forest CA, 92630 | Project Manager: Arlin Brewster | 06/27/19 15:10 |

## DM-1

### T191966-07 (Water)

### SunStar Laboratories, Inc.

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|---|---|---|---|---|---|---|---|---|---|
| **Metals by EPA 200 Series Methods** | | | | | | | | | |
| **Copper** | **0.006** | 0.005 | mg/l | 1 | 9061735 | 06/17/19 | 06/18/19 | EPA 200.7 | FILT |
| **Calcium** | **280** | 0.10 | " | " | " | " | 06/18/19 | " | FILT |
| **Iron** | **0.35** | 0.20 | " | " | " | " | 06/18/19 | " | FILT |
| **Potassium** | **65** | 0.10 | " | " | " | " | " | " | FILT |
| **Magnesium** | **63** | 0.10 | " | " | " | " | 06/18/19 | " | FILT |
| **Sodium** | **4800** | 10 | " | 100 | " | " | 06/18/19 | " | FILT |
| Antimony | ND | 10 | ug/l | 20 | 9061734 | 06/17/19 | 06/26/19 | 200.8 | FILT, R-07 |
| Arsenic | ND | 10 | " | " | " | " | " | " | FILT, R-07 |
| Barium | ND | 10 | " | " | " | " | " | " | FILT, R-07 |
| Cadmium | ND | 10 | " | " | " | " | " | " | FILT, R-07 |
| Chromium | ND | 10 | " | " | " | " | " | " | FILT, R-07 |
| Cobalt | ND | 10 | " | " | " | " | " | " | FILT, R-07 |
| Lead | ND | 10 | " | " | " | " | " | " | FILT, R-07 |
| Nickel | ND | 10 | " | " | " | " | " | " | FILT, R-07 |
| Selenium | ND | 10 | " | " | " | " | " | " | FILT, R-07 |
| **Zinc** | **150** | 10 | " | " | " | " | " | " | FILT |
| **Cold Vapor Extraction EPA 7470/7471** | | | | | | | | | |
| Mercury | ND | 0.50 | ug/l | 1 | 9061732 | 06/24/19 | 06/24/19 | EPA 7470A Water | FILT |
| **Conventional Chemistry Parameters by APHA/EPA/ASTM Methods** | | | | | | | | | |
| Oil & Grease | ND | 5.00 | mg/l | 1 | 9061911 | 06/19/19 | 06/21/19 | EPA 1664B | |
| **Specific Conductance (EC)** | **17700** | 10.0 | umhos/cm | " | 9061715 | 06/17/19 | 06/17/19 | SM2510b mod. | |
| **pH** | **7.2** | 0.10 | pH Units | " | 9061716 | 06/17/19 | 06/17/19 | SM4500 | O-04 |
| **Total Dissolved Solids** | **9600** | 55 | mg/l | " | 9061733 | 06/17/19 | 06/18/19 | TDS by SM2540C | |

SunStar Laboratories, Inc.

Jeff Lee, Project Manager

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|---|---|---|
| Northstar Environmental Remediation | Project: Genesis Solar Groundwater | |
| 26225 Enterprise Court | Project Number: 196-004-06 | **Reported:** |
| Lake Forest CA, 92630 | Project Manager: Arlin Brewster | 06/27/19 15:10 |

## DM-1

### T191966-07 (Water)

### SunStar Laboratories, Inc.

**Anions by EPA Method 300.0**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|---|---|---|---|---|---|---|---|---|---|
| **Chloride** | **5040** | 100 | mg/l | 20 | 9061717 | 06/17/19 | 06/18/19 | EPA 300.0 | |
| **Sulfate as SO4** | **1930** | 100 | " | " | " | " | " | " | |
| **Nitrate as NO3** | **8.76** | 0.500 | " | 1 | " | " | 06/17/19 | " | O-07 |

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Jeff Lee, Project Manager

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|---|---|---|
| Northstar Environmental Remediation | Project: Genesis Solar Groundwater | |
| 26225 Enterprise Court | Project Number: 196-004-06 | **Reported:** |
| Lake Forest CA, 92630 | Project Manager: Arlin Brewster | 06/27/19 15:10 |

## DM-2

### T191966-08 (Water)

**SunStar Laboratories, Inc.**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|---|---|---|---|---|---|---|---|---|---|
| **Metals by EPA 200 Series Methods** | | | | | | | | | |
| Copper | ND | 0.005 | mg/l | 1 | 9061735 | 06/17/19 | 06/18/19 | EPA 200.7 | FILT |
| **Calcium** | **300** | 0.10 | " | " | " | " | 06/18/19 | " | FILT |
| Iron | ND | 0.20 | " | " | " | " | 06/18/19 | " | FILT |
| **Magnesium** | **67** | 0.10 | " | " | " | " | 06/18/19 | " | FILT |
| **Potassium** | **68** | 0.10 | " | " | " | " | 06/18/19 | " | FILT |
| **Sodium** | **5100** | 10 | " | 100 | " | " | " | " | FILT |
| Antimony | ND | 10 | ug/l | 20 | 9061734 | 06/17/19 | 06/26/19 | 200.8 | FILT, R-07 |
| Arsenic | ND | 10 | " | " | " | " | " | " | FILT, R-07 |
| Barium | ND | 10 | " | " | " | " | " | " | FILT, R-07 |
| Cadmium | ND | 10 | " | " | " | " | " | " | FILT, R-07 |
| Chromium | ND | 10 | " | " | " | " | " | " | FILT, R-07 |
| Cobalt | ND | 10 | " | " | " | " | " | " | FILT, R-07 |
| Lead | ND | 10 | " | " | " | " | " | " | FILT, R-07 |
| Nickel | ND | 10 | " | " | " | " | " | " | FILT, R-07 |
| Selenium | ND | 10 | " | " | " | " | " | " | FILT, R-07 |
| **Zinc** | **160** | 10 | " | " | " | " | " | " | FILT |
| **Cold Vapor Extraction EPA 7470/7471** | | | | | | | | | |
| Mercury | ND | 0.50 | ug/l | 1 | 9061732 | 06/24/19 | 06/24/19 | EPA 7470A Water | FILT |
| **Conventional Chemistry Parameters by APHA/EPA/ASTM Methods** | | | | | | | | | |
| Oil & Grease | ND | 5.00 | mg/l | 1 | 9061911 | 06/19/19 | 06/21/19 | EPA 1664B | |
| **Specific Conductance (EC)** | **18000** | 10.0 | umhos/cm | " | 9061715 | 06/17/19 | 06/17/19 | SM2510b mod. | |
| **pH** | **7.3** | 0.10 | pH Units | " | 9061716 | 06/17/19 | 06/17/19 | SM4500 | O-04 |
| **Total Dissolved Solids** | **9300** | 55 | mg/l | " | 9061733 | 06/17/19 | 06/18/19 | TDS by SM2540C | |

SunStar Laboratories, Inc.

Jeff Lee, Project Manager

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|---|---|---|
| Northstar Environmental Remediation | Project: Genesis Solar Groundwater | |
| 26225 Enterprise Court | Project Number: 196-004-06 | **Reported:** |
| Lake Forest CA, 92630 | Project Manager: Arlin Brewster | 06/27/19 15:10 |

## DM-2

## T191966-08 (Water)

**SunStar Laboratories, Inc.**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|---|---|---|---|---|---|---|---|---|---|
| **Anions by EPA Method 300.0** | | | | | | | | | |
| **Chloride** | **5240** | 100 | mg/l | 20 | 9061717 | 06/17/19 | 06/18/19 | EPA 300.0 | |
| **Sulfate as SO4** | **2080** | 100 | " | " | " | " | " | " | |
| **Nitrate as NO3** | **11.2** | 0.500 | " | 1 | " | " | 06/17/19 | " | O-07 |

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| | | |
|---|---|---|
| Northstar Environmental Remediation | Project: Genesis Solar Groundwater | |
| 26225 Enterprise Court | Project Number: 196-004-06 | **Reported:** |
| Lake Forest CA, 92630 | Project Manager: Arlin Brewster | 06/27/19 15:10 |

## DM-3

### T191966-09 (Water)

### SunStar Laboratories, Inc.

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|---|---|---|---|---|---|---|---|---|---|
| **Metals by EPA 200 Series Methods** | | | | | | | | | |
| **Copper** | **0.009** | 0.005 | mg/l | 1 | 9061735 | 06/17/19 | 06/18/19 | EPA 200.7 | FILT |
| **Calcium** | **270** | 0.10 | " | " | " | " | 06/18/19 | " | FILT |
| Iron | ND | 0.20 | " | " | " | " | " | " | FILT |
| **Magnesium** | **59** | 0.10 | " | " | " | " | " | " | FILT |
| **Potassium** | **60** | 0.10 | " | " | " | " | 06/18/19 | " | FILT |
| **Sodium** | **4900** | 10 | " | 100 | " | " | " | " | FILT |
| Antimony | ND | 10 | ug/l | 20 | 9061734 | 06/17/19 | 06/26/19 | 200.8 | FILT, R-07 |
| Arsenic | ND | 10 | " | " | " | " | " | " | FILT, R-07 |
| Barium | ND | 10 | " | " | " | " | " | " | FILT, R-07 |
| Cadmium | ND | 10 | " | " | " | " | " | " | FILT, R-07 |
| Chromium | ND | 10 | " | " | " | " | " | " | FILT, R-07 |
| Cobalt | ND | 10 | " | " | " | " | " | " | FILT, R-07 |
| Lead | ND | 10 | " | " | " | " | " | " | FILT, R-07 |
| Nickel | ND | 10 | " | " | " | " | " | " | FILT, R-07 |
| Selenium | ND | 10 | " | " | " | " | " | " | FILT, R-07 |
| **Zinc** | **150** | 10 | " | " | " | " | " | " | FILT |
| **Cold Vapor Extraction EPA 7470/7471** | | | | | | | | | |
| Mercury | ND | 0.50 | ug/l | 1 | 9061732 | 06/24/19 | 06/24/19 | EPA 7470A Water | FILT |
| **Conventional Chemistry Parameters by APHA/EPA/ASTM Methods** | | | | | | | | | |
| Oil & Grease | ND | 5.00 | mg/l | 1 | 9061911 | 06/19/19 | 06/21/19 | EPA 1664B | |
| **Specific Conductance (EC)** | **16800** | 10.0 | umhos/cm | " | 9061715 | 06/17/19 | 06/17/19 | SM2510b mod. | |
| **pH** | **7.5** | 0.10 | pH Units | " | 9061716 | 06/17/19 | 06/17/19 | SM4500 | O-04 |
| **Total Dissolved Solids** | **9300** | 55 | mg/l | " | 9061733 | 06/17/19 | 06/18/19 | TDS by SM2540C | |

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| Northstar Environmental Remediation | Project: Genesis Solar Groundwater | |
| 26225 Enterprise Court | Project Number: 196-004-06 | **Reported:** |
| Lake Forest CA, 92630 | Project Manager: Arlin Brewster | 06/27/19 15:10 |

## DM-3

### T191966-09 (Water)

**SunStar Laboratories, Inc.**

**Anions by EPA Method 300.0**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|---|---|---|---|---|---|---|---|---|---|
| **Chloride** | **4880** | 100 | mg/l | 20 | 9061717 | 06/17/19 | 06/18/19 | EPA 300.0 | |
| **Sulfate as SO4** | **1960** | 100 | " | " | " | " | " | " | |
| **Nitrate as NO3** | **2.87** | 0.500 | " | 1 | " | " | 06/17/19 | " | O-07 |

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| Northstar Environmental Remediation | Project: Genesis Solar Groundwater | |
| 26225 Enterprise Court | Project Number: 196-004-06 | **Reported:** |
| Lake Forest CA, 92630 | Project Manager: Arlin Brewster | 06/27/19 15:10 |

## DUP

### T191966-10 (Water)

**SunStar Laboratories, Inc.**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|---|---|---|---|---|---|---|---|---|---|
| **Metals by EPA 200 Series Methods** | | | | | | | | | |
| Copper | ND | 0.005 | mg/l | 1 | 9061735 | 06/17/19 | 06/18/19 | EPA 200.7 | FILT |
| **Calcium** | **64** | 0.10 | " | " | " | " | 06/18/19 | " | FILT |
| Iron | ND | 0.20 | " | " | " | " | " | " | FILT |
| **Magnesium** | **5.2** | 0.10 | " | " | " | " | " | " | FILT |
| **Potassium** | **13** | 0.10 | " | " | " | " | 06/18/19 | " | FILT |
| **Sodium** | **800** | 10 | " | 100 | " | " | " | " | FILT |
| Antimony | ND | 10 | ug/l | 20 | 9061734 | 06/17/19 | 06/26/19 | 200.8 | FILT, R-07 |
| Arsenic | ND | 10 | " | " | " | " | " | " | FILT, R-07 |
| Barium | ND | 10 | " | " | " | " | " | " | FILT, R-07 |
| Cadmium | ND | 10 | " | " | " | " | " | " | FILT, R-07 |
| Chromium | ND | 10 | " | " | " | " | " | " | FILT, R-07 |
| Cobalt | ND | 10 | " | " | " | " | " | " | FILT, R-07 |
| Lead | ND | 10 | " | " | " | " | " | " | FILT, R-07 |
| Nickel | ND | 10 | " | " | " | " | " | " | FILT, R-07 |
| Selenium | ND | 10 | " | " | " | " | " | " | FILT, R-07 |
| **Zinc** | **150** | 10 | " | " | " | " | " | " | FILT |
| **Cold Vapor Extraction EPA 7470/7471** | | | | | | | | | |
| Mercury | ND | 0.50 | ug/l | 1 | 9061732 | 06/24/19 | 06/24/19 | EPA 7470A Water | FILT |
| **Conventional Chemistry Parameters by APHA/EPA/ASTM Methods** | | | | | | | | | |
| Oil & Grease | ND | 5.00 | mg/l | 1 | 9061911 | 06/19/19 | 06/21/19 | EPA 1664B | |
| **Specific Conductance (EC)** | **3630** | 10.0 | umhos/cm | " | 9061715 | 06/17/19 | 06/17/19 | SM2510b mod. | |
| **pH** | **7.9** | 0.10 | pH Units | " | 9061716 | 06/17/19 | 06/17/19 | SM4500 | O-04 |
| **Total Dissolved Solids** | **2600** | 55 | mg/l | " | 9061733 | 06/17/19 | 06/18/19 | TDS by SM2540C | |

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| 26225 Enterprise Court | Project Number: 196-004-06 | **Reported:** |
| Lake Forest CA, 92630 | Project Manager: Arlin Brewster | 06/27/19 15:10 |

## DUP

### T191966-10 (Water)

### SunStar Laboratories, Inc.

**Anions by EPA Method 300.0**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|---|---|---|---|---|---|---|---|---|---|
| **Chloride** | **820** | 100 | mg/l | 20 | 9061717 | 06/17/19 | 06/18/19 | EPA 300.0 | |
| **Sulfate as SO4** | **436** | 5.00 | " | 1 | " | " | 06/17/19 | " | |
| Nitrate as NO3 | ND | 0.500 | " | " | " | " | " | " | O-07 |

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| 26225 Enterprise Court | Project Number: 196-004-06 | **Reported:** |
| Lake Forest CA, 92630 | Project Manager: Arlin Brewster | 06/27/19 15:10 |

## Metals by EPA 200 Series Methods - Quality Control

## SunStar Laboratories, Inc.

| Analyte | Result | Reporting Limit | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| **Batch 9061734 - EPA 3010A** | | | | | | | | | | |
| **Blank (9061734-BLK1)** | | | | Prepared: 06/17/19 Analyzed: 06/26/19 | | | | | | |
| 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 | 7.37 | 0.50 | " | | | | | | | QB-01 |
| **LCS (9061734-BS1)** | | | | Prepared: 06/17/19 Analyzed: 06/26/19 | | | | | | |
| Arsenic | 50.2 | 10 | ug/l | 50.0 | | 100 | 80-120 | | | |
| Barium | 53.0 | 10 | " | 50.0 | | 106 | 80-120 | | | |
| Cadmium | 49.6 | 10 | " | 50.0 | | 99.2 | 80-120 | | | |
| Chromium | 51.2 | 10 | " | 50.0 | | 102 | 80-120 | | | |
| Lead | 49.2 | 10 | " | 50.0 | | 98.4 | 80-120 | | | |
| **LCS Dup (9061734-BSD1)** | | | | Prepared: 06/17/19 Analyzed: 06/26/19 | | | | | | |
| Arsenic | 44.6 | 10 | ug/l | 50.0 | | 89.2 | 80-120 | 11.8 | 20 | |
| Barium | 51.8 | 10 | " | 50.0 | | 104 | 80-120 | 2.29 | 20 | |
| Cadmium | 48.6 | 10 | " | 50.0 | | 97.2 | 80-120 | 2.04 | 20 | |
| Chromium | 48.8 | 10 | " | 50.0 | | 97.6 | 80-120 | 4.80 | 20 | |
| Lead | 47.4 | 10 | " | 50.0 | | 94.8 | 80-120 | 3.73 | 20 | |
| **Matrix Spike (9061734-MS1)** | **Source: T191966-01** | | | Prepared: 06/17/19 Analyzed: 06/26/19 | | | | | | |
| Arsenic | 1.30 | 10 | ug/l | 50.0 | ND | 2.60 | 75-125 | | | QM-05 |
| Barium | 7.94 | 10 | " | 50.0 | 6.00 | 3.88 | 75-125 | | | QM-05 |
| Cadmium | 1.70 | 10 | " | 50.0 | ND | 3.40 | 75-125 | | | QM-05 |
| Chromium | 3.74 | 10 | " | 50.0 | 3.60 | 0.280 | 75-125 | | | QM-05 |
| Lead | 1.12 | 10 | " | 50.0 | ND | 2.24 | 75-125 | | | QM-05 |

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| 26225 Enterprise Court | Project Number: 196-004-06 | **Reported:** |
| Lake Forest CA, 92630 | Project Manager: Arlin Brewster | 06/27/19 15:10 |

## Metals by EPA 200 Series Methods - Quality Control

## SunStar Laboratories, Inc.

| Analyte | Result | Reporting Limit | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| **Batch 9061735 - EPA 3010A** | | | | | | | | | | |
| **Blank (9061735-BLK1)** | | | | Prepared: 06/17/19 Analyzed: 06/18/19 | | | | | | |
| Antimony | ND | 0.005 | mg/l | | | | | | | |
| Arsenic | ND | 0.005 | " | | | | | | | |
| Barium | ND | 0.005 | " | | | | | | | |
| Beryllium | ND | 0.005 | " | | | | | | | |
| Cadmium | ND | 0.005 | " | | | | | | | |
| Chromium | ND | 0.005 | " | | | | | | | |
| Cobalt | ND | 0.005 | " | | | | | | | |
| Copper | ND | 0.005 | " | | | | | | | |
| Lead | ND | 0.005 | " | | | | | | | |
| Molybdenum | ND | 0.005 | " | | | | | | | |
| Nickel | ND | 0.005 | " | | | | | | | |
| Silver | ND | 0.030 | " | | | | | | | |
| Selenium | ND | 0.030 | " | | | | | | | |
| Thallium | ND | 0.030 | " | | | | | | | |
| Vanadium | ND | 0.030 | " | | | | | | | |
| Zinc | ND | 0.030 | " | | | | | | | |
| Aluminum | ND | 0.10 | " | | | | | | | |
| Calcium | ND | 0.10 | " | | | | | | | |
| Iron | ND | 0.20 | " | | | | | | | |
| Manganese | ND | 0.10 | " | | | | | | | |
| Potassium | ND | 0.10 | " | | | | | | | |
| Magnesium | ND | 0.10 | " | | | | | | | |
| Sodium | ND | 0.10 | " | | | | | | | |
| Boron | ND | 0.005 | " | | | | | | | |
| **LCS (9061735-BS1)** | | | | Prepared: 06/17/19 Analyzed: 06/25/19 | | | | | | |
| Arsenic | 2.01 | 0.005 | mg/l | 2.00 | | 100 | 85-115 | | | |
| Barium | 2.04 | 0.005 | " | 2.00 | | 102 | 85-115 | | | |
| Cadmium | 2.03 | 0.005 | " | 2.00 | | 101 | 85-115 | | | |
| Chromium | 2.04 | 0.005 | " | 2.00 | | 102 | 85-115 | | | |
| Cobalt | 2.01 | 0.005 | " | 2.00 | | 100 | 85-115 | | | |
| Copper | 2.02 | 0.005 | " | 2.00 | | 101 | 85-115 | | | |
| Lead | 2.04 | 0.005 | " | 2.00 | | 102 | 85-115 | | | |
| Molybdenum | 2.00 | 0.005 | " | 2.00 | | 99.8 | 85-115 | | | |
| Nickel | 2.03 | 0.005 | " | 2.00 | | 102 | 85-115 | | | |
| Selenium | 2.01 | 0.030 | " | 2.00 | | 101 | 85-115 | | | |

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| Northstar Environmental Remediation | Project: Genesis Solar Groundwater | |
| 26225 Enterprise Court | Project Number: 196-004-06 | **Reported:** |
| Lake Forest CA, 92630 | Project Manager: Arlin Brewster | 06/27/19 15:10 |

## Metals by EPA 200 Series Methods - Quality Control

## SunStar Laboratories, Inc.

| Analyte | Result | Reporting Limit | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| **Batch 9061735 - EPA 3010A** | | | | | | | | | | |
| **LCS (9061735-BS1)** | | | | Prepared: 06/17/19 Analyzed: 06/25/19 | | | | | | |
| Thallium | 2.07 | 0.030 | mg/l | 2.00 | | 104 | 85-115 | | | |
| Vanadium | 2.03 | 0.030 | " | 2.00 | | 101 | 85-115 | | | |
| Zinc | 2.02 | 0.030 | " | 2.00 | | 101 | 85-115 | | | |
| **Matrix Spike (9061735-MS1)** | | **Source: T191966-01** | | Prepared: 06/17/19 Analyzed: 06/18/19 | | | | | | |
| Arsenic | 0.575 | 0.005 | mg/l | 0.500 | ND | 115 | 70-130 | | | |
| Barium | 0.573 | 0.005 | " | 0.500 | 0.024 | 110 | 70-130 | | | |
| Cadmium | 0.573 | 0.005 | " | 0.500 | ND | 115 | 70-130 | | | |
| Chromium | 0.548 | 0.005 | " | 0.500 | 0.0004 | 110 | 70-130 | | | |
| Cobalt | 0.540 | 0.005 | " | 0.500 | 0.0003 | 108 | 70-130 | | | |
| Copper | 0.555 | 0.005 | " | 0.500 | 0.005 | 110 | 70-130 | | | |
| Lead | 0.531 | 0.005 | " | 0.500 | 0.002 | 106 | 70-130 | | | |
| Molybdenum | 0.609 | 0.005 | " | 0.500 | 0.063 | 109 | 70-130 | | | |
| Nickel | 0.538 | 0.005 | " | 0.500 | ND | 108 | 70-130 | | | |
| Selenium | 0.550 | 0.030 | " | 0.500 | 0.005 | 109 | 70-130 | | | |
| Thallium | 0.498 | 0.030 | " | 0.500 | ND | 99.7 | 70-130 | | | |
| Vanadium | 0.576 | 0.030 | " | 0.500 | 0.002 | 115 | 70-130 | | | |
| Zinc | 1.07 | 0.030 | " | 0.500 | 0.473 | 119 | 70-130 | | | |
| **Matrix Spike Dup (9061735-MSD1)** | | **Source: T191966-01** | | Prepared: 06/17/19 Analyzed: 06/18/19 | | | | | | |
| Arsenic | 0.580 | 0.005 | mg/l | 0.500 | ND | 116 | 70-130 | 0.898 | 30 | |
| Barium | 0.585 | 0.005 | " | 0.500 | 0.024 | 112 | 70-130 | 2.00 | 30 | |
| Cadmium | 0.585 | 0.005 | " | 0.500 | ND | 117 | 70-130 | 2.04 | 30 | |
| Chromium | 0.560 | 0.005 | " | 0.500 | 0.0004 | 112 | 70-130 | 2.12 | 30 | |
| Cobalt | 0.547 | 0.005 | " | 0.500 | 0.0003 | 109 | 70-130 | 1.34 | 30 | |
| Copper | 0.566 | 0.005 | " | 0.500 | 0.005 | 112 | 70-130 | 1.91 | 30 | |
| Lead | 0.539 | 0.005 | " | 0.500 | 0.002 | 107 | 70-130 | 1.55 | 30 | |
| Molybdenum | 0.620 | 0.005 | " | 0.500 | 0.063 | 111 | 70-130 | 1.82 | 30 | |
| Nickel | 0.546 | 0.005 | " | 0.500 | ND | 109 | 70-130 | 1.58 | 30 | |
| Selenium | 0.568 | 0.030 | " | 0.500 | 0.005 | 112 | 70-130 | 3.29 | 30 | |
| Thallium | 0.504 | 0.030 | " | 0.500 | ND | 101 | 70-130 | 1.05 | 30 | |
| Vanadium | 0.590 | 0.030 | " | 0.500 | 0.002 | 117 | 70-130 | 2.47 | 30 | |
| Zinc | 1.08 | 0.030 | " | 0.500 | 0.473 | 121 | 70-130 | 1.12 | 30 | |

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| 26225 Enterprise Court | Project Number: 196-004-06 | **Reported:** |
| Lake Forest CA, 92630 | Project Manager: Arlin Brewster | 06/27/19 15:10 |

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

## SunStar Laboratories, Inc.

| Analyte | Result | Reporting Limit | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| **Batch 9061732 - EPA 7470A Water** | | | | | | | | | | |
| **Blank (9061732-BLK1)** | | | | Prepared & Analyzed: 06/24/19 | | | | | | |
| Mercury | ND | 0.50 | ug/l | | | | | | | |
| **LCS (9061732-BS1)** | | | | Prepared & Analyzed: 06/24/19 | | | | | | |
| Mercury | 4.73 | 0.50 | ug/l | 5.00 | | 94.6 | 80-120 | | | |
| **Matrix Spike (9061732-MS1)** | **Source: T191966-02** | | | Prepared & Analyzed: 06/24/19 | | | | | | |
| Mercury | 4.52 | 0.50 | ug/l | 5.00 | 0.0708 | 88.9 | 75-125 | | | |
| **Matrix Spike Dup (9061732-MSD1)** | **Source: T191966-02** | | | Prepared & Analyzed: 06/24/19 | | | | | | |
| Mercury | 4.51 | 0.50 | ug/l | 5.00 | 0.0708 | 88.8 | 75-125 | 0.0620 | 20 | |

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| Northstar Environmental Remediation | Project: Genesis Solar Groundwater | |
| 26225 Enterprise Court | Project Number: 196-004-06 | **Reported:** |
| Lake Forest CA, 92630 | Project Manager: Arlin Brewster | 06/27/19 15:10 |

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

## SunStar Laboratories, Inc.

| Analyte | Result | Reporting Limit | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| **Batch 9061715 - General Preparation** | | | | | | | | | | |
| **Duplicate (9061715-DUP1)** | | **Source: T191966-01** | | Prepared & Analyzed: 06/17/19 | | | | | | |
| Specific Conductance (EC) | 2650 | 10.0 | umhos/cm | | 2630 | | | 0.758 | 15 | |
| **Batch 9061716 - General Preparation** | | | | | | | | | | |
| **Duplicate (9061716-DUP1)** | | **Source: T191966-01** | | Prepared & Analyzed: 06/17/19 | | | | | | |
| pH | 7.51 | 0.10 | pH Units | | 7.52 | | | 0.133 | 20 | O-04 |
| **Batch 9061733 - General Preparation** | | | | | | | | | | |
| **Blank (9061733-BLK1)** | | | | Prepared: 06/17/19 Analyzed: 06/18/19 | | | | | | |
| Total Dissolved Solids | ND | 55 | mg/l | | | | | | | |
| **LCS (9061733-BS1)** | | | | Prepared: 06/17/19 Analyzed: 06/18/19 | | | | | | |
| Total Dissolved Solids | 484 | 55 | mg/l | 500 | | 96.8 | 80-120 | | | |
| **Duplicate (9061733-DUP1)** | | **Source: T192008-05** | | Prepared: 06/17/19 Analyzed: 06/18/19 | | | | | | |
| Total Dissolved Solids | 1430 | 55 | mg/l | | 1430 | | | 0.559 | 20 | |
| **Batch 9061911 - General Preparation** | | | | | | | | | | |
| **Blank (9061911-BLK1)** | | | | Prepared: 06/19/19 Analyzed: 06/21/19 | | | | | | |
| Oil & Grease | ND | 5.00 | mg/l | | | | | | | |
| **LCS (9061911-BS1)** | | | | Prepared: 06/19/19 Analyzed: 06/21/19 | | | | | | |
| Oil & Grease | 35.5 | 5.00 | mg/l | 40.0 | | 88.8 | 83-101 | | | |

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| 26225 Enterprise Court | Project Number: 196-004-06 | **Reported:** |
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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 |
|---|---|---|---|---|---|---|---|---|---|---|
| **Batch 9061911 - General Preparation** | | | | | | | | | | |
| **LCS Dup (9061911-BSD1)** | | | | Prepared: 06/19/19 Analyzed: 06/21/19 | | | | | | |
| Oil & Grease | 35.1 | 5.00 | mg/l | 40.0 | | 87.8 | 83-101 | 1.13 | 11 | |

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| 26225 Enterprise Court | Project Number: 196-004-06 | **Reported:** |
| Lake Forest CA, 92630 | Project Manager: Arlin Brewster | 06/27/19 15:10 |

## Anions by EPA Method 300.0 - Quality Control

## SunStar Laboratories, Inc.

| Analyte | Result | Reporting Limit | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| **Batch 9061717 - General Preparation** | | | | | | | | | | |
| **Blank (9061717-BLK1)** | | | | Prepared & Analyzed: 06/17/19 | | | | | | |
| Fluoride | ND | 0.500 | mg/l | | | | | | | |
| Chloride | ND | 5.00 | " | | | | | | | |
| Nitrite as NO2 | ND | 0.500 | " | | | | | | | |
| Sulfate as SO4 | ND | 5.00 | " | | | | | | | |
| Bromide | ND | 1.25 | " | | | | | | | |
| Nitrate as NO3 | ND | 0.500 | " | | | | | | | |
| Phosphate, Total as Orthophosphate | ND | 0.500 | " | | | | | | | |
| **LCS (9061717-BS1)** | | | | Prepared & Analyzed: 06/17/19 | | | | | | |
| Fluoride | 24.7 | 0.500 | mg/l | 25.0 | | 98.9 | 75-125 | | | |
| Chloride | 24.6 | 5.00 | " | 25.0 | | 98.5 | 75-125 | | | |
| Sulfate as SO4 | 22.8 | 5.00 | " | 25.0 | | 91.3 | 75-125 | | | |
| Nitrate as NO3 | 25.1 | 0.500 | " | 25.0 | | 100 | 75-125 | | | |
| **Matrix Spike (9061717-MS1)** | | **Source: T191965-01** | | Prepared & Analyzed: 06/17/19 | | | | | | |
| Fluoride | 27.3 | 0.500 | mg/l | 25.0 | ND | 109 | 75-125 | | | |
| Chloride | 2850 | 100 | " | 25.0 | 2790 | 231 | 75-125 | | | QM-05 |
| Sulfate as SO4 | 158 | 5.00 | " | 25.0 | 142 | 65.2 | 75-125 | | | QM-05 |
| Nitrate as NO3 | 24.4 | 0.500 | " | 25.0 | ND | 97.4 | 75-125 | | | |
| **Matrix Spike Dup (9061717-MSD1)** | | **Source: T191965-01** | | Prepared & Analyzed: 06/17/19 | | | | | | |
| Fluoride | 27.7 | 0.500 | mg/l | 25.0 | ND | 111 | 75-125 | 1.28 | 20 | |
| Chloride | 2730 | 100 | " | 25.0 | 2790 | NR | 75-125 | 4.34 | 20 | QM-05 |
| Sulfate as SO4 | 159 | 5.00 | " | 25.0 | 142 | 69.6 | 75-125 | 0.688 | 20 | QM-05 |
| Nitrate as NO3 | 24.7 | 0.500 | " | 25.0 | ND | 98.8 | 75-125 | 1.38 | 20 | |

SunStar Laboratories, Inc.

Jeff Lee, Project Manager

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

SunStar Laboratories, Inc.
PROVIDING QUALITY ANALYTICAL SERVICES NATIONWIDE

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

| | | |
|---|---|---|
| Northstar Environmental Remediation | Project: Genesis Solar Groundwater | |
| 26225 Enterprise Court | Project Number: 196-004-06 | **Reported:** |
| Lake Forest CA, 92630 | Project Manager: Arlin Brewster | 06/27/19 15:10 |

## Notes and Definitions

| | |
|---|---|
| R-07 | Reporting limit for this compound(s) has been raised to account for dilution necessary due to high levels of interfering compound(s) and/or matrix affect. |
| QM-05 | The spike recovery was outside acceptance limits for the MS and/or MSD due to possible matrix interference. The LCS was within acceptance criteria. The data is acceptable as no negative impact on data is expected. |
| QB-01 | The method blank contains analyte at a concentration above the MRL; however, concentration is less than 10% of the sample result, which is negligible according to method criteria. |
| O-07 | The sample was analyzed outside the EPA recommended holding time of 48 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.

Jeff Lee, Project Manager

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

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

# Chain of Custody Record

Client: Northstar Environmental Remediation

Address: 26225 Enterprise Court, Lake Forest, CA 92630

Phone: 949-274-1719 Fax:

Project Manager: Arlin Brewster

Date: 6/14/19 Page: 1 of 1

Project Name: Genesis Solar Groundwater

Collector: Arlin Brewster Client Project #: 196-004-06

Batch #: 191966 EDF #: T10000006093

| Sample ID | Date Sampled | Time | Sample Type | Container Type | 200.7 - Metals: Ca, Cu, Na, K, Fe, Mg (FIELD FILTERED) | 200.8 - 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/Preservative | Total # of containers |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 23a | 6/14/19 | 0500 | W | Various | X | X | X | X | X | X | X | X | X | X | | 01 | | 6 |
| OBS-1 | 6/13/19 | 1300 | W | Various | X | X | X | X | X | X | X | X | X | X | | 02 | | 6 |
| TW-1 | 6/13/19 | 1225 | W | Various | X | X | X | X | X | X | X | X | X | X | | 03 | | 6 |
| TW-2 | 6/14/19 | 0545 | W | Various | X | X | X | X | X | X | X | X | X | X | | 04 | | 6 |
| PW-0 | 6/13/19 | 0656 | W | Various | X | X | X | X | X | X | X | X | X | X | X | 05 | | 6 |
| PW-2 | 6/13/19 | 0715 | W | Various | X | X | X | X | X | X | X | X | X | X | X | 06 | | 6 |
| DM-1 | 6/14/19 | 0652 | W | Various | X | X | X | X | X | X | X | X | X | X | | 07 | | 6 |
| DM-2 | 6/14/19 | 0802 | W | Various | X | X | X | X | X | X | X | X | X | X | | 08 | | 6 |
| DM-3 | 6/14/19 | 0917 | W | Various | X | X | X | X | X | X | X | X | X | X | | 09 | | 6 |
| DUP | N/A | N/A | W | Various | X | X | X | X | X | X | X | X | X | X | | 10 | | 6 |
| Field Blank | N/A | N/A | W | Various | | | | | | | | | | | | 11 | HOLD | 4 |
| Trip Blank | N/A | N/A | W | Various | | | | | | | | | | | | 12 | HOLD | 6 |
| | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | |

| Relinquished by: (signature) | Date / Time | Received by: (signature) | Date / Time |
|---|---|---|---|
| | 6/14/19@1500 | | 6/14/19 15:05 |
| Relinquished by: (signature) | Date / Time | Received by: (signature) | Date / Time |
| Relinquished by: (signature) | Date / Time | Received by: (signature) | Date / Time |

Total # of containers: 70

Chain of Custody seals Y/N/(NA)

Seals intact? Y/N/(NA)

Received good condition/cold: 2.2 / 2.1 / 2.6

**Turn around time: Standard ****

Notes

** Deuterium & Oxygen-18 subcontract has 10 day TAT

Reporting limits must match previous reports

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

SunStar Laboratories — Celebrating 20 Years!

# SAMPLE RECEIVING REVIEW SHEET

Batch/Work Order #: T19166

Client Name: Northstar Env. Project: Genesis Solar Groundwater

Delivered by: ☒ Client ☐ SunStar Courier ☐ GSO ☐ FedEx ☐ Other

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

Lab Received by: Sunny Date/Time Lab Received: 6/14/19 / 15:05

Total number of coolers received: 3

| | | | | |
|---|---|---|---|---|
| Temperature: | Cooler #1 1.0 | °C +/- the CF ( 1.2°C) | = 2.2 | °C corrected temperature |
| Temperature: | Cooler #2 0.9 | °C +/- the CF ( 1.2°C) | = 2.1 | °C corrected temperature |
| Temperature: | Cooler #3 1.4 | °C +/- the CF ( 1.2°C) | = 2.6 | °C corrected temperature |

**Temperature criteria = ≤ 6°C (no frozen containers)** Within criteria? ☒ **Yes** ☐ **No**

**If NO:**

Samples received on ice? ☐ Yes ☐ **No → Complete Non-Conformance Sheet**

If on ice, samples received same day collected? ☐ Yes → Acceptable ☐ **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

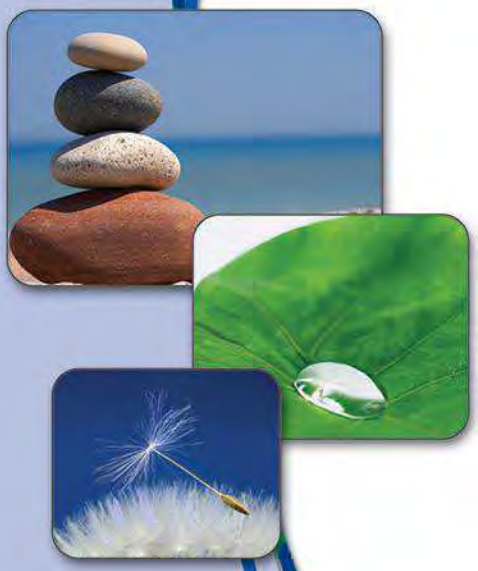
Cooler/Sample Review - Initials and date: SL 6/14/19 6:15:19

**Comments:**



(949) 297-5020 ■ www.sunstarlabs.com ■ 25712 Commercentre Drive ■ Lake Forest, CA 92630

eurofins | Environment Testing TestAmerica



# ANALYTICAL REPORT

Eurofins TestAmerica, Irvine
17461 Derian Ave
Suite 100
Irvine, CA 92614-5817
Tel: (949)261-1022

Laboratory Job ID: 440-243978-1
Client Project/Site: T191966

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

Attn: Jeff Lee

*Authorized for release by:*
*6/22/2019 9:27:51 AM*

Danielle Roberts, Senior Project Manager
(949)260-3249
danielle.roberts@testamericainc.com

# Table of Contents

# Sample Summary

Client: SunStar Laboratories Inc
Project/Site: T191966

Job ID: 440-243978-1

| Lab Sample ID | Client Sample ID | Matrix | Collected | Received | Asset ID |
|---|---|---|---|---|---|
| 440-243978-1 | T191966-01 | Water | 06/14/19 05:00 | 06/17/19 17:40 | |
| 440-243978-2 | T191966-02 | Water | 06/13/19 13:00 | 06/17/19 17:40 | |
| 440-243978-3 | T191966-03 | Water | 06/13/19 12:25 | 06/17/19 17:40 | |
| 440-243978-4 | T191966-04 | Water | 06/14/19 05:45 | 06/17/19 17:40 | |
| 440-243978-5 | T191966-05 | Water | 06/13/19 06:56 | 06/17/19 17:40 | |
| 440-243978-6 | T191966-06 | Water | 06/13/19 07:15 | 06/17/19 17:40 | |
| 440-243978-7 | T191966-07 | Water | 06/14/19 06:52 | 06/17/19 17:40 | |
| 440-243978-8 | T191966-08 | Water | 06/14/19 08:02 | 06/17/19 17:40 | |
| 440-243978-9 | T191966-09 | Water | 06/14/19 09:17 | 06/17/19 17:40 | |
| 440-243978-10 | T191966-10 | Water | 06/14/19 00:01 | 06/17/19 17:40 | |

# Case Narrative

Client: SunStar Laboratories Inc
Project/Site: T191966

Job ID: 440-243978-1

## Job ID: 440-243978-1

### Laboratory: Eurofins TestAmerica, Irvine

**Narrative**

**Job Narrative**
**440-243978-1**

**Comments**
No additional comments.

**Receipt**
The samples were received on 6/17/2019 5:40 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 2.9º C.

**GC Semi VOA**
Method(s) 8015B: Insufficient 8015-DRO sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with batch preparation batch 440-553233 and analytical batch 440-553518. The laboratory control sample (LCS) was performed in duplicate to provide precision data for this batch.

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

**Organic Prep**
Method(s) 3510C: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with preparation batch 440-553233 and 440-553233. Method 8015

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: T191966

Job ID: 440-243978-1

## Client Sample ID: T191966-01 — Lab Sample ID: 440-243978-1

No Detections.

## Client Sample ID: T191966-02 — Lab Sample ID: 440-243978-2

No Detections.

## Client Sample ID: T191966-03 — Lab Sample ID: 440-243978-3

No Detections.

## Client Sample ID: T191966-04 — Lab Sample ID: 440-243978-4

No Detections.

## Client Sample ID: T191966-05 — Lab Sample ID: 440-243978-5

No Detections.

## Client Sample ID: T191966-06 — Lab Sample ID: 440-243978-6

No Detections.

## Client Sample ID: T191966-07 — Lab Sample ID: 440-243978-7

No Detections.

## Client Sample ID: T191966-08 — Lab Sample ID: 440-243978-8

No Detections.

## Client Sample ID: T191966-09 — Lab Sample ID: 440-243978-9

No Detections.

## Client Sample ID: T191966-10 — Lab Sample ID: 440-243978-10

No Detections.

This Detection Summary does not include radiochemical test results.

## Client Sample ID: T191966-01
**Lab Sample ID: 440-243978-1**
**Date Collected: 06/14/19 05:00**
**Matrix: Water**
**Date Received: 06/17/19 17:40**

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

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Benzene, 1,1'-oxybis- | ND | | 0.10 | 0.021 | mg/L | | 06/18/19 06:13 | 06/19/19 11:46 | 1 |
| 1,1'-Biphenyl | ND | | 0.10 | 0.021 | mg/L | | 06/18/19 06:13 | 06/19/19 11:46 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *n-Octacosane* | *64* | | *45 - 120* | *06/18/19 06:13* | *06/19/19 11:46* | *1* |

## Client Sample ID: T191966-02
**Lab Sample ID: 440-243978-2**
**Date Collected: 06/13/19 13:00**
**Matrix: Water**
**Date Received: 06/17/19 17:40**

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

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Benzene, 1,1'-oxybis- | ND | | 0.10 | 0.020 | mg/L | | 06/18/19 06:13 | 06/19/19 12:07 | 1 |
| 1,1'-Biphenyl | ND | | 0.10 | 0.020 | mg/L | | 06/18/19 06:13 | 06/19/19 12:07 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *n-Octacosane* | *65* | | *45 - 120* | *06/18/19 06:13* | *06/19/19 12:07* | *1* |

## Client Sample ID: T191966-03
**Lab Sample ID: 440-243978-3**
**Date Collected: 06/13/19 12:25**
**Matrix: Water**
**Date Received: 06/17/19 17:40**

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

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Benzene, 1,1'-oxybis- | ND | | 0.10 | 0.020 | mg/L | | 06/18/19 06:13 | 06/19/19 12:27 | 1 |
| 1,1'-Biphenyl | ND | | 0.10 | 0.020 | mg/L | | 06/18/19 06:13 | 06/19/19 12:27 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *n-Octacosane* | *72* | | *45 - 120* | *06/18/19 06:13* | *06/19/19 12:27* | *1* |

## Client Sample ID: T191966-04
**Lab Sample ID: 440-243978-4**
**Date Collected: 06/14/19 05:45**
**Matrix: Water**
**Date Received: 06/17/19 17:40**

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

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Benzene, 1,1'-oxybis- | ND | | 0.10 | 0.021 | mg/L | | 06/18/19 06:13 | 06/19/19 12:48 | 1 |
| 1,1'-Biphenyl | ND | | 0.10 | 0.021 | mg/L | | 06/18/19 06:13 | 06/19/19 12:48 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *n-Octacosane* | *67* | | *45 - 120* | *06/18/19 06:13* | *06/19/19 12:48* | *1* |

## Client Sample ID: T191966-05
**Lab Sample ID: 440-243978-5**
**Date Collected: 06/13/19 06:56**
**Matrix: Water**
**Date Received: 06/17/19 17:40**

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

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Benzene, 1,1'-oxybis- | ND | | 0.10 | 0.021 | mg/L | | 06/18/19 06:13 | 06/19/19 13:09 | 1 |
| 1,1'-Biphenyl | ND | | 0.10 | 0.021 | mg/L | | 06/18/19 06:13 | 06/19/19 13:09 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *n-Octacosane* | *69* | | *45 - 120* | *06/18/19 06:13* | *06/19/19 13:09* | *1* |

## Client Sample ID: T191966-06

**Lab Sample ID: 440-243978-6**

**Date Collected: 06/13/19 07:15**

**Matrix: Water**

**Date Received: 06/17/19 17:40**

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

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Benzene, 1,1'-oxybis- | ND | | 0.11 | 0.021 | mg/L | | 06/18/19 06:13 | 06/19/19 13:30 | 1 |
| 1,1'-Biphenyl | ND | | 0.11 | 0.021 | mg/L | | 06/18/19 06:13 | 06/19/19 13:30 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *n-Octacosane* | *72* | | *45 - 120* | *06/18/19 06:13* | *06/19/19 13:30* | *1* |

## Client Sample ID: T191966-07

**Lab Sample ID: 440-243978-7**

**Date Collected: 06/14/19 06:52**

**Matrix: Water**

**Date Received: 06/17/19 17:40**

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

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Benzene, 1,1'-oxybis- | ND | | 0.10 | 0.020 | mg/L | | 06/18/19 06:13 | 06/19/19 13:51 | 1 |
| 1,1'-Biphenyl | ND | | 0.10 | 0.020 | mg/L | | 06/18/19 06:13 | 06/19/19 13:51 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *n-Octacosane* | *71* | | *45 - 120* | *06/18/19 06:13* | *06/19/19 13:51* | *1* |

## Client Sample ID: T191966-08

**Lab Sample ID: 440-243978-8**

**Date Collected: 06/14/19 08:02**

**Matrix: Water**

**Date Received: 06/17/19 17:40**

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

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Benzene, 1,1'-oxybis- | ND | | 0.10 | 0.020 | mg/L | | 06/18/19 06:13 | 06/19/19 14:12 | 1 |
| 1,1'-Biphenyl | ND | | 0.10 | 0.020 | mg/L | | 06/18/19 06:13 | 06/19/19 14:12 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *n-Octacosane* | *74* | | *45 - 120* | *06/18/19 06:13* | *06/19/19 14:12* | *1* |

## Client Sample ID: T191966-09

**Lab Sample ID: 440-243978-9**

**Date Collected: 06/14/19 09:17**

**Matrix: Water**

**Date Received: 06/17/19 17:40**

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

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Benzene, 1,1'-oxybis- | ND | | 0.10 | 0.020 | mg/L | | 06/18/19 06:18 | 06/19/19 14:32 | 1 |
| 1,1'-Biphenyl | ND | | 0.10 | 0.020 | mg/L | | 06/18/19 06:18 | 06/19/19 14:32 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *n-Octacosane* | *73* | | *45 - 120* | *06/18/19 06:18* | *06/19/19 14:32* | *1* |

## Client Sample ID: T191966-10

**Lab Sample ID: 440-243978-10**

**Date Collected: 06/14/19 00:01**

**Matrix: Water**

**Date Received: 06/17/19 17:40**

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

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Benzene, 1,1'-oxybis- | ND | | 0.11 | 0.022 | mg/L | | 06/18/19 06:18 | 06/19/19 14:53 | 1 |
| 1,1'-Biphenyl | ND | | 0.11 | 0.022 | mg/L | | 06/18/19 06:18 | 06/19/19 14:53 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *n-Octacosane* | *71* | | *45 - 120* | *06/18/19 06:18* | *06/19/19 14:53* | *1* |

# Surrogate Summary

Client: SunStar Laboratories Inc
Project/Site: T191966

Job ID: 440-243978-1

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

**Matrix: Water**

**Prep Type: Total/NA**

| | | Percent Surrogate Recovery (Acceptance Limits) |
|---|---|---|
| Lab Sample ID | Client Sample ID | OTCN1 (45-120) |
| 440-243978-1 | T191966-01 | 64 |
| 440-243978-2 | T191966-02 | 65 |
| 440-243978-3 | T191966-03 | 72 |
| 440-243978-4 | T191966-04 | 67 |
| 440-243978-5 | T191966-05 | 69 |
| 440-243978-6 | T191966-06 | 72 |
| 440-243978-7 | T191966-07 | 71 |
| 440-243978-8 | T191966-08 | 74 |
| 440-243978-9 | T191966-09 | 73 |
| 440-243978-10 | T191966-10 | 71 |
| LCS 440-553233/4-A | Lab Control Sample | 73 |
| LCSD 440-553233/5-A | Lab Control Sample Dup | 69 |
| MB 440-553233/1-A | Method Blank | 66 |

**Surrogate Legend**

OTCN = n-Octacosane

# Method Summary

Client: SunStar Laboratories Inc
Project/Site: T191966

Job ID: 440-243978-1

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

**Protocol References:**

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

**Laboratory References:**

TAL IRV = Eurofins TestAmerica, Irvine, 17461 Derian Ave, Suite 100, Irvine, CA 92614-5817, TEL (949)261-1022

# Lab Chronicle

Client: SunStar Laboratories Inc
Project/Site: T191966

Job ID: 440-243978-1

## Client Sample ID: T191966-01
**Date Collected: 06/14/19 05:00**
**Date Received: 06/17/19 17:40**

## Lab Sample ID: 440-243978-1
**Matrix: Water**

| Prep Type | Batch Type | Batch Method | Run | Dil Factor | Initial Amount | Final Amount | Batch Number | Prepared or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|---|---|
| Total/NA | Prep | 3510C | | | 970 mL | 1 mL | 553233 | 06/18/19 06:13 | L1H | TAL IRV |
| Total/NA | Analysis | 8015B | | 1 | | | 553518 | 06/19/19 11:46 | LMB | TAL IRV |

## Client Sample ID: T191966-02
**Date Collected: 06/13/19 13:00**
**Date Received: 06/17/19 17:40**

## Lab Sample ID: 440-243978-2
**Matrix: Water**

| Prep Type | Batch Type | Batch Method | Run | Dil Factor | Initial Amount | Final Amount | Batch Number | Prepared or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|---|---|
| Total/NA | Prep | 3510C | | | 985 mL | 1 mL | 553233 | 06/18/19 06:13 | L1H | TAL IRV |
| Total/NA | Analysis | 8015B | | 1 | | | 553518 | 06/19/19 12:07 | LMB | TAL IRV |

## Client Sample ID: T191966-03
**Date Collected: 06/13/19 12:25**
**Date Received: 06/17/19 17:40**

## Lab Sample ID: 440-243978-3
**Matrix: Water**

| Prep Type | Batch Type | Batch Method | Run | Dil Factor | Initial Amount | Final Amount | Batch Number | Prepared or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|---|---|
| Total/NA | Prep | 3510C | | | 1000 mL | 1 mL | 553233 | 06/18/19 06:13 | L1H | TAL IRV |
| Total/NA | Analysis | 8015B | | 1 | | | 553518 | 06/19/19 12:27 | LMB | TAL IRV |

## Client Sample ID: T191966-04
**Date Collected: 06/14/19 05:45**
**Date Received: 06/17/19 17:40**

## Lab Sample ID: 440-243978-4
**Matrix: Water**

| Prep Type | Batch Type | Batch Method | Run | Dil Factor | Initial Amount | Final Amount | Batch Number | Prepared or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|---|---|
| Total/NA | Prep | 3510C | | | 975 mL | 1 mL | 553233 | 06/18/19 06:13 | L1H | TAL IRV |
| Total/NA | Analysis | 8015B | | 1 | | | 553518 | 06/19/19 12:48 | LMB | TAL IRV |

## Client Sample ID: T191966-05
**Date Collected: 06/13/19 06:56**
**Date Received: 06/17/19 17:40**

## Lab Sample ID: 440-243978-5
**Matrix: Water**

| Prep Type | Batch Type | Batch Method | Run | Dil Factor | Initial Amount | Final Amount | Batch Number | Prepared or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|---|---|
| Total/NA | Prep | 3510C | | | 975 mL | 1 mL | 553233 | 06/18/19 06:13 | L1H | TAL IRV |
| Total/NA | Analysis | 8015B | | 1 | | | 553518 | 06/19/19 13:09 | LMB | TAL IRV |

## Client Sample ID: T191966-06
**Date Collected: 06/13/19 07:15**
**Date Received: 06/17/19 17:40**

## Lab Sample ID: 440-243978-6
**Matrix: Water**

| Prep Type | Batch Type | Batch Method | Run | Dil Factor | Initial Amount | Final Amount | Batch Number | Prepared or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|---|---|
| Total/NA | Prep | 3510C | | | 945 mL | 1 mL | 553233 | 06/18/19 06:13 | L1H | TAL IRV |
| Total/NA | Analysis | 8015B | | 1 | | | 553518 | 06/19/19 13:30 | LMB | TAL IRV |

# Lab Chronicle

Client: SunStar Laboratories Inc
Project/Site: T191966

Job ID: 440-243978-1

## Client Sample ID: T191966-07
**Date Collected: 06/14/19 06:52**
**Date Received: 06/17/19 17:40**

## Lab Sample ID: 440-243978-7
**Matrix: Water**

| Prep Type | Batch Type | Batch Method | Run | Dil Factor | Initial Amount | Final Amount | Batch Number | Prepared or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|---|---|
| Total/NA | Prep | 3510C | | | 985 mL | 1 mL | 553233 | 06/18/19 06:13 | L1H | TAL IRV |
| Total/NA | Analysis | 8015B | | 1 | | | 553518 | 06/19/19 13:51 | LMB | TAL IRV |

## Client Sample ID: T191966-08
**Date Collected: 06/14/19 08:02**
**Date Received: 06/17/19 17:40**

## Lab Sample ID: 440-243978-8
**Matrix: Water**

| Prep Type | Batch Type | Batch Method | Run | Dil Factor | Initial Amount | Final Amount | Batch Number | Prepared or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|---|---|
| Total/NA | Prep | 3510C | | | 985 mL | 1 mL | 553233 | 06/18/19 06:13 | L1H | TAL IRV |
| Total/NA | Analysis | 8015B | | 1 | | | 553518 | 06/19/19 14:12 | LMB | TAL IRV |

## Client Sample ID: T191966-09
**Date Collected: 06/14/19 09:17**
**Date Received: 06/17/19 17:40**

## Lab Sample ID: 440-243978-9
**Matrix: Water**

| Prep Type | Batch Type | Batch Method | Run | Dil Factor | Initial Amount | Final Amount | Batch Number | Prepared or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|---|---|
| Total/NA | Prep | 3510C | | | 1005 mL | 1 mL | 553233 | 06/18/19 06:18 | L1H | TAL IRV |
| Total/NA | Analysis | 8015B | | 1 | | | 553518 | 06/19/19 14:32 | LMB | TAL IRV |

## Client Sample ID: T191966-10
**Date Collected: 06/14/19 00:01**
**Date Received: 06/17/19 17:40**

## Lab Sample ID: 440-243978-10
**Matrix: Water**

| Prep Type | Batch Type | Batch Method | Run | Dil Factor | Initial Amount | Final Amount | Batch Number | Prepared or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|---|---|
| Total/NA | Prep | 3510C | | | 905 mL | 1 mL | 553233 | 06/18/19 06:18 | L1H | TAL IRV |
| Total/NA | Analysis | 8015B | | 1 | | | 553518 | 06/19/19 14:53 | LMB | TAL IRV |

**Laboratory References:**

TAL IRV = Eurofins TestAmerica, Irvine, 17461 Derian Ave, Suite 100, Irvine, CA 92614-5817, TEL (949)261-1022

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

**Lab Sample ID: MB 440-553233/1-A**
**Matrix: Water**
**Analysis Batch: 553518**

**Client Sample ID: Method Blank**
**Prep Type: Total/NA**
**Prep Batch: 553233**

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Benzene, 1,1'-oxybis- | ND | | 0.10 | 0.020 | mg/L | | 06/18/19 06:13 | 06/19/19 10:23 | 1 |
| 1,1'-Biphenyl | ND | | 0.10 | 0.020 | mg/L | | 06/18/19 06:13 | 06/19/19 10:23 | 1 |

| *Surrogate* | *MB %Recovery* | *MB Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *n-Octacosane* | *66* | | *45 - 120* | *06/18/19 06:13* | *06/19/19 10:23* | *1* |

**Lab Sample ID: LCS 440-553233/4-A**
**Matrix: Water**
**Analysis Batch: 553518**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**
**Prep Batch: 553233**

| Analyte | | | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Benzene, 1,1'-oxybis- | | | 0.100 | 0.0698 | J | mg/L | | 70 | 50 - 115 | | |
| 1,1'-Biphenyl | | | 0.100 | 0.0604 | J | mg/L | | 60 | 50 - 115 | | |

| *Surrogate* | *LCS %Recovery* | *LCS Qualifier* | *Limits* |
|---|---|---|---|
| *n-Octacosane* | *73* | | *45 - 120* |

**Lab Sample ID: LCSD 440-553233/5-A**
**Matrix: Water**
**Analysis Batch: 553518**

**Client Sample ID: Lab Control Sample Dup**
**Prep Type: Total/NA**
**Prep Batch: 553233**

| Analyte | | | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Benzene, 1,1'-oxybis- | | | 0.100 | 0.0683 | J | mg/L | | 68 | 50 - 115 | 2 | 30 |
| 1,1'-Biphenyl | | | 0.100 | 0.0589 | J | mg/L | | 59 | 50 - 115 | 3 | 30 |

| *Surrogate* | *LCSD %Recovery* | *LCSD Qualifier* | *Limits* |
|---|---|---|---|
| *n-Octacosane* | *69* | | *45 - 120* |

Client: SunStar Laboratories Inc
Project/Site: T191966

Job ID: 440-243978-1

## GC Semi VOA

### Prep Batch: 553233

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 440-243978-1 | T191966-01 | Total/NA | Water | 3510C | |
| 440-243978-2 | T191966-02 | Total/NA | Water | 3510C | |
| 440-243978-3 | T191966-03 | Total/NA | Water | 3510C | |
| 440-243978-4 | T191966-04 | Total/NA | Water | 3510C | |
| 440-243978-5 | T191966-05 | Total/NA | Water | 3510C | |
| 440-243978-6 | T191966-06 | Total/NA | Water | 3510C | |
| 440-243978-7 | T191966-07 | Total/NA | Water | 3510C | |
| 440-243978-8 | T191966-08 | Total/NA | Water | 3510C | |
| 440-243978-9 | T191966-09 | Total/NA | Water | 3510C | |
| 440-243978-10 | T191966-10 | Total/NA | Water | 3510C | |
| MB 440-553233/1-A | Method Blank | Total/NA | Water | 3510C | |
| LCS 440-553233/4-A | Lab Control Sample | Total/NA | Water | 3510C | |
| LCSD 440-553233/5-A | Lab Control Sample Dup | Total/NA | Water | 3510C | |

### Analysis Batch: 553518

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 440-243978-1 | T191966-01 | Total/NA | Water | 8015B | 553233 |
| 440-243978-2 | T191966-02 | Total/NA | Water | 8015B | 553233 |
| 440-243978-3 | T191966-03 | Total/NA | Water | 8015B | 553233 |
| 440-243978-4 | T191966-04 | Total/NA | Water | 8015B | 553233 |
| 440-243978-5 | T191966-05 | Total/NA | Water | 8015B | 553233 |
| 440-243978-6 | T191966-06 | Total/NA | Water | 8015B | 553233 |
| 440-243978-7 | T191966-07 | Total/NA | Water | 8015B | 553233 |
| 440-243978-8 | T191966-08 | Total/NA | Water | 8015B | 553233 |
| 440-243978-9 | T191966-09 | Total/NA | Water | 8015B | 553233 |
| 440-243978-10 | T191966-10 | Total/NA | Water | 8015B | 553233 |
| MB 440-553233/1-A | Method Blank | Total/NA | Water | 8015B | 553233 |
| LCS 440-553233/4-A | Lab Control Sample | Total/NA | Water | 8015B | 553233 |
| LCSD 440-553233/5-A | Lab Control Sample Dup | Total/NA | Water | 8015B | 553233 |

# Definitions/Glossary

Client: SunStar Laboratories Inc
Project/Site: T191966

Job ID: 440-243978-1

## Qualifiers

### GC Semi VOA

| Qualifier | Qualifier Description |
|---|---|
| J | Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value. |

## Glossary

| Abbreviation | These commonly used abbreviations may or may not be present in this report. |
|---|---|
| ¤ | Listed under the "D" column to designate that the result is reported on a dry weight basis |
| %R | Percent Recovery |
| CFL | Contains Free Liquid |
| 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) |
| MDA | Minimum Detectable Activity (Radiochemistry) |
| MDC | Minimum Detectable Concentration (Radiochemistry) |
| MDL | Method Detection Limit |
| ML | Minimum Level (Dioxin) |
| NC | Not Calculated |
| ND | Not Detected at the reporting limit (or MDL or EDL if shown) |
| PQL | Practical Quantitation Limit |
| 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) |

# Accreditation/Certification Summary

Client: SunStar Laboratories Inc
Project/Site: T191966

Job ID: 440-243978-1

## Laboratory: Eurofins TestAmerica, Irvine

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

| Authority | Program | EPA Region | Identification Number | Expiration Date |
|---|---|---|---|---|
| California | State Program | 9 | CA ELAP 2706 | 06-30-19 * |

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

| Analysis Method | Prep Method | Matrix | Analyte |
|---|---|---|---|
| 8015B | 3510C | Water | 1,1'-Biphenyl |
| 8015B | 3510C | Water | Benzene, 1,1'-oxybis- |

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

**SUBCONTRACT ORDER**

**SunStar Laboratories, Inc.**

**T191966**

**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:**

TestAmerica (Irvine) Laboratories
17461 Derian Ave, #100
Irvine, CA 92614
Phone :(949) 261-1022
Fax: N/A

| Analysis | Due | Expires | Laboratory ID | Comments |
|---|---|---|---|---|
| **Sample ID: T191966-01** | **Water** | **Sampled:06/14/19 05:00** | | |
| Misc Water Testing #1 | 06/21/19 15:00 | 12/11/19 05:00 | | 8015M- Therminol |
| *Containers Supplied:* | | | | |
| **Sample ID: T191966-02** | **Water** | **Sampled:06/13/19 13:00** | | |
| Misc Water Testing #1 | 06/21/19 15:00 | 12/10/19 13:00 | | 8015M- Therminol |
| *Containers Supplied:* | | | | |
| **Sample ID: T191966-03** | **Water** | **Sampled:06/13/19 12:25** | | |
| Misc Water Testing #1 | 06/21/19 15:00 | 12/10/19 12:25 | | 8015M- Therminol |
| *Containers Supplied:* | | | | |
| **Sample ID: T191966-04** | **Water** | **Sampled:06/14/19 05:45** | | |
| Misc Water Testing #1 | 06/21/19 15:00 | 12/11/19 05:45 | | 8015M- Therminol |
| *Containers Supplied:* | | | | |
| **Sample ID: T191966-05** | **Water** | **Sampled:06/13/19 06:56** | | |
| Misc Water Testing #1 | 06/21/19 15:00 | 12/10/19 06:56 | | 8015M- Therminol |
| *Containers Supplied:* | | | | |
| **Sample ID: T191966-06** | **Water** | **Sampled:06/13/19 07:15** | | |
| Misc Water Testing #1 | 06/21/19 15:00 | 12/10/19 07:15 | | 8015M- Therminol |
| *Containers Supplied:* | | | | |


6/17/19
AK

Paul Burns 6-17-19 17:40
Released By Date Received By Date

Released By Date Received By Date

Olga Andres 6/17/19 1740

2.7/2.9 IR-88

**SUBCONTRACT ORDER**

**SunStar Laboratories, Inc.**

**T191966**

| Analysis | Due | Expires | Laboratory ID | Comments |
|---|---|---|---|---|
| **Sample ID: T191966-07** | **Water** | **Sampled:06/14/19 06:52** | | |
| Misc Water Testing #1 | 06/21/19 15:00 | 12/11/19 06:52 | | 8015M- Therminol |
| *Containers Supplied:* | | | | |
| **Sample ID: T191966-08** | **Water** | **Sampled:06/14/19 08:02** | | |
| Misc Water Testing #1 | 06/21/19 15:00 | 12/11/19 08:02 | | 8015M- Therminol |
| *Containers Supplied:* | | | | |
| **Sample ID: T191966-09** | **Water** | **Sampled:06/14/19 09:17** | | |
| Misc Water Testing #1 | 06/21/19 15:00 | 12/11/19 09:17 | | 8015M- Therminol |
| *Containers Supplied:* | | | | |
| **Sample ID: T191966-10** | **Water** | **Sampled:06/14/19 00:00** | | |
| Misc Water Testing #1 | 06/21/19 15:00 | 12/11/19 00:00 | | 8015M- Therminol |
| *Containers Supplied:* | | | | |

6/17/19
AK

Paul Dumas 6-17-19 17:40

Released By Date Received By Date

Released By Date Received By Olga Omelas 6/17/19 1740 Date

# Login Sample Receipt Checklist

Client: SunStar Laboratories Inc

Job Number: 440-243978-1

**Login Number: 243978**
**List Number: 1**
**Creator: Escalante, Maria I**

**List Source: Eurofins TestAmerica, Irvine**

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

ISOTECH
ISOTECH LABORATORIES INC

# ANALYSIS REPORT

| | | | | | |
|---|---|---|---|---|---|
| Lab #: | 723695 | Job #: | 41929 | IS-101168 | Co. Job#: |
| Sample Name: | T191966-01 | | | | Co. Lab#: |
| Company: | SunStar Laboratories, Inc | | | | |
| API/Well: | | | | | |
| Container: | 250ml Plastic Bottle | | | | |
| Field/Site Name: | T191966 | | | | |
| Location: | | | | | |
| Formation/Depth: | | | | | |
| Sampling Point: | | | | | |
| Date Sampled: | 6/14/2019 5:00 | Date Received: | 6/18/2019 | Date Reported: | 6/27/2019 |

| | | |
|---|---|---|
| $\delta D$ of water | ---------- | -74.8 ‰ relative to VSMOW |
| $\delta^{18}O$ of water | ---------- | -10.22 ‰ 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

ISOTECH
ISOTECH LABORATORIES INC

# ANALYSIS REPORT

| | | | | | |
|---|---|---|---|---|---|
| Lab #: | 723696 | Job #: | 41929 | IS-101168 | Co. Job#: |
| Sample Name: | T191966-02 | | | | Co. Lab#: |
| Company: | SunStar Laboratories, Inc | | | | |
| API/Well: | | | | | |
| Container: | 250ml Plastic Bottle | | | | |
| Field/Site Name: | T191966 | | | | |
| Location: | | | | | |
| Formation/Depth: | | | | | |
| Sampling Point: | | | | | |
| Date Sampled: | 6/13/2019 13:00 | Date Received: | 6/18/2019 | Date Reported: | 6/27/2019 |

| | | |
|---|---|---|
| δD of water | ---------- | -60.7 ‰ relative to VSMOW |
| $\delta^{18}O$ of water | ---------- | -6.75 ‰ relative to VSMOW |
| Tritium content of water | ---------- | na |
| $\delta^{13}C$ of DIC | ---------- | na |
| $^{14}C$ content of DIC | ---------- | na |
| $\delta^{15}N$ of nitrate | ---------- | na |
| $\delta^{18}O$ of nitrate | ---------- | na |
| $\delta^{34}S$ of sulfate | ---------- | na |
| $\delta^{18}O$ of sulfate | ---------- | na |
| Vacuum Distilled? * | ---------- | No |

Remarks:

nd = not detected. na = not analyzed.
*Indicates if vacuum distillation was utilized for hydrogen and oxygen isotopic analysis of water

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ISOTECH LABORATORIES INC

# ANALYSIS REPORT

| | | | | | |
|---|---|---|---|---|---|
| Lab #: | 723697 | Job #: | 41929 | IS-101168 | Co. Job#: |
| Sample Name: | T191966-03 | | | | Co. Lab#: |
| Company: | SunStar Laboratories, Inc | | | | |
| API/Well: | | | | | |
| Container: | 250ml Plastic Bottle | | | | |
| Field/Site Name: | T191966 | | | | |
| Location: | | | | | |
| Formation/Depth: | | | | | |
| Sampling Point: | | | | | |
| Date Sampled: | 6/13/2019 12:25 | Date Received: | 6/18/2019 | Date Reported: | 6/27/2019 |

| | | |
|---|---|---|
| $\delta D$ of water | ---------- | -63.6 ‰ relative to VSMOW |
| $\delta^{18}O$ of water | ---------- | -7.97 ‰ 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

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# ANALYSIS REPORT

| | | | | | |
|---|---|---|---|---|---|
| Lab #: | 723698 | Job #: | 41929 | IS-101168 | Co. Job#: |
| Sample Name: | T191966-04 | | | | Co. Lab#: |
| Company: | SunStar Laboratories, Inc | | | | |
| API/Well: | | | | | |
| Container: | 250ml Plastic Bottle | | | | |
| Field/Site Name: | T191966 | | | | |
| Location: | | | | | |
| Formation/Depth: | | | | | |
| Sampling Point: | | | | | |
| Date Sampled: | 6/14/2019 5:45 | Date Received: | 6/18/2019 | Date Reported: | 6/27/2019 |

| | | |
|---|---|---|
| δD of water | ---------- | -76.7 ‰ relative to VSMOW |
| $\delta^{18}O$ of water | ---------- | -10.11 ‰ relative to VSMOW |
| Tritium content of water | ---------- | na |
| $\delta^{13}C$ of DIC | ---------- | na |
| $^{14}C$ content of DIC | ---------- | na |
| $\delta^{15}N$ of nitrate | ---------- | na |
| $\delta^{18}O$ of nitrate | ---------- | na |
| $\delta^{34}S$ of sulfate | ---------- | na |
| $\delta^{18}O$ of sulfate | ---------- | na |
| Vacuum Distilled? * | ---------- | No |

Remarks:

nd = not detected. na = not analyzed.
*Indicates if vacuum distillation was utilized for hydrogen and oxygen isotopic analysis of water

ISOTECH
ISOTECH LABORATORIES INC

# ANALYSIS REPORT

| | | | | | |
|---|---|---|---|---|---|
| Lab #: | 723699 | Job #: | 41929 | IS-101168 | Co. Job#: |
| Sample Name: | T191966-05 | | | | Co. Lab#: |
| Company: | SunStar Laboratories, Inc | | | | |
| API/Well: | | | | | |
| Container: | 250ml Plastic Bottle | | | | |
| Field/Site Name: | T191966 | | | | |
| Location: | | | | | |
| Formation/Depth: | | | | | |
| Sampling Point: | | | | | |
| Date Sampled: | 6/13/2019 6:56 | Date Received: | 6/18/2019 | Date Reported: | 6/27/2019 |

| | | |
|---|---|---|
| δD of water | ---------- | -76.5 ‰ relative to VSMOW |
| $\delta^{18}O$ of water | ---------- | -10.01 ‰ 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

ISOTECH
ISOTECH LABORATORIES INC

# ANALYSIS REPORT

| | | | | | |
|---|---|---|---|---|---|
| Lab #: | 723700 | Job #: | 41929 | IS-101168 | Co. Job#: |
| Sample Name: | T191966-06 | | | | Co. Lab#: |
| Company: | SunStar Laboratories, Inc | | | | |
| API/Well: | | | | | |
| Container: | 250ml Plastic Bottle | | | | |
| Field/Site Name: | T191966 | | | | |
| Location: | | | | | |
| Formation/Depth: | | | | | |
| Sampling Point: | | | | | |
| Date Sampled: | 6/13/2019 7:15 | Date Received: | 6/18/2019 | Date Reported: | 6/27/2019 |

| | | |
|---|---|---|
| δD of water | ---------- | -78.2 ‰ relative to VSMOW |
| $\delta^{18}O$ of water | ---------- | -10.26 ‰ 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

ISOTECH
ISOTECH LABORATORIES INC

# ANALYSIS REPORT

| | | | | | |
|---|---|---|---|---|---|
| Lab #: | 723701 | Job #: | 41929 | IS-101168 | Co. Job#: |
| Sample Name: | T191966-07 | | | | Co. Lab#: |
| Company: | SunStar Laboratories, Inc | | | | |
| API/Well: | | | | | |
| Container: | 250ml Plastic Bottle | | | | |
| Field/Site Name: | T191966 | | | | |
| Location: | | | | | |
| Formation/Depth: | | | | | |
| Sampling Point: | | | | | |
| Date Sampled: | 6/14/2019 6:52 | Date Received: | 6/18/2019 | Date Reported: | 6/27/2019 |

| | | |
|---|---|---|
| δD of water | ---------- | -70.4 ‰ relative to VSMOW |
| $\delta^{18}O$ of water | ---------- | -8.58 ‰ 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

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ISOTECH LABORATORIES INC

# ANALYSIS REPORT

| | | | | | |
|---|---|---|---|---|---|
| Lab #: | 723702 | Job #: | 41929 | IS-101168 | Co. Job#: |
| Sample Name: | T191966-08 | | | | Co. Lab#: |
| Company: | SunStar Laboratories, Inc | | | | |
| API/Well: | | | | | |
| Container: | 250ml Plastic Bottle | | | | |
| Field/Site Name: | T191966 | | | | |
| Location: | | | | | |
| Formation/Depth: | | | | | |
| Sampling Point: | | | | | |
| Date Sampled: | 6/14/2019 8:02 | Date Received: | 6/18/2019 | Date Reported: | 6/27/2019 |

| | | |
|---|---|---|
| δD of water | ---------- | -70.1 ‰ relative to VSMOW |
| $\delta^{18}O$ of water | ---------- | -8.50 ‰ 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

ISOTECH
ISOTECH LABORATORIES INC

# ANALYSIS REPORT

| | | | | | |
|---|---|---|---|---|---|
| Lab #: | 723703 | Job #: | 41929 | IS-101168 | Co. Job#: |
| Sample Name: | T191966-09 | | | | Co. Lab#: |
| Company: | SunStar Laboratories, Inc | | | | |
| API/Well: | | | | | |
| Container: | 250ml Plastic Bottle | | | | |
| Field/Site Name: | T191966 | | | | |
| Location: | | | | | |
| Formation/Depth: | | | | | |
| Sampling Point: | | | | | |
| Date Sampled: | 6/14/2019 9:17 | Date Received: | 6/18/2019 | Date Reported: | 6/27/2019 |

| | | |
|---|---|---|
| δD of water | ---------- | -70.8 ‰ relative to VSMOW |
| $\delta^{18}O$ of water | ---------- | -8.69 ‰ 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

ISOTECH
ISOTECH LABORATORIES INC

# ANALYSIS REPORT

| | | | | | |
|---|---|---|---|---|---|
| Lab #: | 723704 | Job #: | 41929 | IS-101168 | Co. Job#: |
| Sample Name: | T191966-10 | | | | Co. Lab#: |
| Company: | SunStar Laboratories, Inc | | | | |
| API/Well: | | | | | |
| Container: | 250ml Plastic Bottle | | | | |
| Field/Site Name: | T191966 | | | | |
| Location: | | | | | |
| Formation/Depth: | | | | | |
| Sampling Point: | | | | | |
| Date Sampled: | 6/14/2019 0:00 | Date Received: | 6/18/2019 | Date Reported: | 6/27/2019 |

| | | |
|---|---|---|
| δD of water | ---------- | -78.2 ‰ relative to VSMOW |
| $\delta^{18}O$ of water | ---------- | -10.25 ‰ 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

SunStar Laboratories, Inc.
PROVIDING QUALITY ANALYTICAL SERVICES NATIONWIDE

**WORK ORDER**

**T191966**

| | | | |
|---|---|---|---|
| **Client:** | **Northstar Environmental Remediation** | **Project Manager:** | **Jeff Lee** |
| **Project:** | **Genesis Solar Groundwater** | **Project Number:** | **196-004-06** |

**Report To:**
Northstar Environmental Remediation
Arlin Brewster
26225 Enterprise Court
Lake Forest, CA 92630

| | | | |
|---|---|---|---|
| Date Due: | 06/21/19 17:00 (5 day TAT) | | |
| Received By: | Sunny Lounethone | Date Received: | 06/14/19 15:05 |
| Logged In By: | Sunny Lounethone | Date Logged In: | 06/15/19 08:10 |

| | | | |
|---|---|---|---|
| Samples Received at: | **2.2°C** | | |
| Custody Seals | No | Received On Ice | Yes |
| Containers Intact | Yes | | |
| COC/Labels Agree | Yes | | |
| Preservation Confirm | Yes | | |

| Analysis | Due | TAT | Expires | Comments |
|---|---|---|---|---|
| **T191966-01 23a [Water] Sampled 06/14/19 05:00 (GMT-08:00) Pacific Time (US &** | | | | |
| 1664 | 06/21/19 15:00 | 5 | 07/12/19 05:00 | Oil & Grease |
| 200.7 | 06/21/19 15:00 | 5 | 12/11/19 05:00 | Ca,Cu,Na,K,Fe,Mg (Field Filtered, Report as Dissolved) |
| 200.8 | 06/21/19 15:00 | 5 | 12/11/19 05:00 | Sb,As,Ba,Cd,Cr,Co,Pb,Ni,Se,Zn (Field Filtered, Report as Dissolved) |
| 300.0 - F, Cl, Br, SO4 | 06/21/19 15:00 | 5 | 07/12/19 05:00 | Chloride,Sulfate only |
| 300.0 - NO2, NO3, PO4 | 06/21/19 15:00 | 5 | 06/16/19 05:00 | Nitrate only |
| 7470/71 Hg | 06/21/19 15:00 | 5 | 09/12/19 05:00 | |
| Conductivity | 06/21/19 15:00 | 5 | 07/12/19 05:00 | |
| pH water 9040 | 06/21/19 15:00 | 5 | 06/15/19 05:00 | |
| TDS-160.1 | 06/21/19 15:00 | 5 | 06/21/19 05:00 | |
| **T191966-02 OBS-1 [Water] Sampled 06/13/19 13:00 (GMT-08:00) Pacific Time (US &** | | | | |
| 1664 | 06/21/19 15:00 | 5 | 07/11/19 13:00 | Oil & Grease |
| 200.7 | 06/21/19 15:00 | 5 | 12/10/19 13:00 | Ca,Cu,Na,K,Fe,Mg (Field Filtered, Report as Dissolved) |
| 200.8 | 06/21/19 15:00 | 5 | 12/10/19 13:00 | Sb,As,Ba,Cd,Cr,Co,Pb,Ni,Se,Zn (Field Filtered, Report as Dissolved) |
| 300.0 - F, Cl, Br, SO4 | 06/21/19 15:00 | 5 | 07/11/19 13:00 | Chloride,Sulfate only |
| 300.0 - NO2, NO3, PO4 | 06/21/19 15:00 | 5 | 06/15/19 13:00 | Nitrate only |
| 7470/71 Hg | 06/21/19 15:00 | 5 | 09/11/19 13:00 | |
| Conductivity | 06/21/19 15:00 | 5 | 07/11/19 13:00 | |
| pH water 9040 | 06/21/19 15:00 | 5 | 06/14/19 13:00 | |
| TDS-160.1 | 06/21/19 15:00 | 5 | 06/20/19 13:00 | |

SunStar Laboratories, Inc.
PROVIDING QUALITY ANALYTICAL SERVICES NATIONWIDE

**WORK ORDER**

**T191966**

**Client:** Northstar Environmental Remediation
**Project:** Genesis Solar Groundwater
**Project Manager:** Jeff Lee
**Project Number:** 196-004-06

| Analysis | Due | TAT | Expires | Comments |
|---|---|---|---|---|
| **T191966-03 TW-1 [Water] Sampled 06/13/19 12:25 (GMT-08:00) Pacific Time (US &** | | | | |
| 1664 | 06/21/19 15:00 | 5 | 07/11/19 12:25 | Oil & Grease |
| 200.7 | 06/21/19 15:00 | 5 | 12/10/19 12:25 | Ca,Cu,Na,K,Fe,Mg (Field Filtered, Report as Dissolved) |
| 200.8 | 06/21/19 15:00 | 5 | 12/10/19 12:25 | Sb,As,Ba,Cd,Cr,Co,Pb,Ni,Se,Zn (Field Filtered, Report as Dissolved) |
| 300.0 - F, Cl, Br, SO4 | 06/21/19 15:00 | 5 | 07/11/19 12:25 | Chloride,Sulfate only |
| 300.0 - NO2, NO3, PO4 | 06/21/19 15:00 | 5 | 06/15/19 12:25 | Nitrate only |
| 7470/71 Hg | 06/21/19 15:00 | 5 | 09/11/19 12:25 | |
| Conductivity | 06/21/19 15:00 | 5 | 07/11/19 12:25 | |
| pH water 9040 | 06/21/19 15:00 | 5 | 06/14/19 12:25 | |
| TDS-160.1 | 06/21/19 15:00 | 5 | 06/20/19 12:25 | |
| **T191966-04 TW-2 [Water] Sampled 06/14/19 05:45 (GMT-08:00) Pacific Time (US &** | | | | |
| 1664 | 06/21/19 15:00 | 5 | 07/12/19 05:45 | Oil & Grease |
| 200.7 | 06/21/19 15:00 | 5 | 12/11/19 05:45 | Ca,Cu,Na,K,Fe,Mg (Field Filtered, Report as Dissolved) |
| 200.8 | 06/21/19 15:00 | 5 | 12/11/19 05:45 | Sb,As,Ba,Cd,Cr,Co,Pb,Ni,Se,Zn (Field Filtered, Report as Dissolved) |
| 300.0 - F, Cl, Br, SO4 | 06/21/19 15:00 | 5 | 07/12/19 05:45 | Chloride,Sulfate only |
| 300.0 - NO2, NO3, PO4 | 06/21/19 15:00 | 5 | 06/16/19 05:45 | Nitrate only |
| 7470/71 Hg | 06/21/19 15:00 | 5 | 09/12/19 05:45 | |
| Conductivity | 06/21/19 15:00 | 5 | 07/12/19 05:45 | |
| pH water 9040 | 06/21/19 15:00 | 5 | 06/15/19 05:45 | |
| TDS-160.1 | 06/21/19 15:00 | 5 | 06/21/19 05:45 | |
| **T191966-05 PW-0 [Water] Sampled 06/13/19 06:56 (GMT-08:00) Pacific Time (US &** | | | | |
| 1664 | 06/21/19 15:00 | 5 | 07/11/19 06:56 | Oil & Grease |
| 200.7 | 06/21/19 15:00 | 5 | 12/10/19 06:56 | Ca, Cu, Na, K, Fe, Mg (Field Filtered, Report as Dissolved) |
| 200.8 | 06/21/19 15:00 | 5 | 12/10/19 06:56 | Sb, As, Ba, Cd, Cr, Co, Pb, Ni, Se, Zn (Field Filtered, Report as Dissolved) |
| 300.0 - F, Cl, Br, SO4 | 06/21/19 15:00 | 5 | 07/11/19 06:56 | Fluoride, Chloride, Sulfate only |
| 300.0 - NO2, NO3, PO4 | 06/21/19 15:00 | 5 | 06/15/19 06:56 | Nitrate only |
| 7470/71 Hg | 06/21/19 15:00 | 5 | 09/11/19 06:56 | |
| Conductivity | 06/21/19 15:00 | 5 | 07/11/19 06:56 | |
| pH water 9040 | 06/21/19 15:00 | 5 | 06/14/19 06:56 | |
| TDS-160.1 | 06/21/19 15:00 | 5 | 06/20/19 06:56 | |

SunStar Laboratories, Inc.
PROVIDING QUALITY ANALYTICAL SERVICES NATIONWIDE

**WORK ORDER**

**T191966**

**Client:** Northstar Environmental Remediation
**Project:** Genesis Solar Groundwater
**Project Manager:** Jeff Lee
**Project Number:** 196-004-06

| Analysis | Due | TAT | Expires | Comments |
|---|---|---|---|---|
| **T191966-06 PW-2 [Water] Sampled 06/13/19 07:15 (GMT-08:00) Pacific Time (US &** | | | | |
| 1664 | 06/21/19 15:00 | 5 | 07/11/19 07:15 | Oil & Grease |
| 200.7 | 06/21/19 15:00 | 5 | 12/10/19 07:15 | Ca, Cu, Na, K, Fe, Mg (Field Filtered, Report as Dissolved) |
| 200.8 | 06/21/19 15:00 | 5 | 12/10/19 07:15 | Sb, As, Ba, Cd, Cr, Co, Pb, Ni, Se, Zn (Field Filtered, Report as Dissolved) |
| 300.0 - F, Cl, Br, SO4 | 06/21/19 15:00 | 5 | 07/11/19 07:15 | Fluoride, Chloride, Sulfate only |
| 300.0 - NO2, NO3, PO4 | 06/21/19 15:00 | 5 | 06/15/19 07:15 | Nitrate only |
| 7470/71 Hg | 06/21/19 15:00 | 5 | 09/11/19 07:15 | |
| Conductivity | 06/21/19 15:00 | 5 | 07/11/19 07:15 | |
| pH water 9040 | 06/21/19 15:00 | 5 | 06/14/19 07:15 | |
| TDS-160.1 | 06/21/19 15:00 | 5 | 06/20/19 07:15 | |
| **T191966-07 DM-1 [Water] Sampled 06/14/19 06:52 (GMT-08:00) Pacific Time (US &** | | | | |
| 1664 | 06/21/19 15:00 | 5 | 07/12/19 06:52 | Oil & Grease |
| 200.7 | 06/21/19 15:00 | 5 | 12/11/19 06:52 | Ca,Cu,Na,K,Fe,Mg (Field Filtered, Report as Dissolved) |
| 200.8 | 06/21/19 15:00 | 5 | 12/11/19 06:52 | Sb,As,Ba,Cd,Cr,Co,Pb,Ni,Se,Zn (Field Filtered, Report as Dissolved) |
| 300.0 - F, Cl, Br, SO4 | 06/21/19 15:00 | 5 | 07/12/19 06:52 | Chloride,Sulfate only |
| 300.0 - NO2, NO3, PO4 | 06/21/19 15:00 | 5 | 06/16/19 06:52 | Nitrate only |
| 7470/71 Hg | 06/21/19 15:00 | 5 | 09/12/19 06:52 | |
| Conductivity | 06/21/19 15:00 | 5 | 07/12/19 06:52 | |
| pH water 9040 | 06/21/19 15:00 | 5 | 06/15/19 06:52 | |
| TDS-160.1 | 06/21/19 15:00 | 5 | 06/21/19 06:52 | |
| **T191966-08 DM-2 [Water] Sampled 06/14/19 08:02 (GMT-08:00) Pacific Time (US &** | | | | |
| 1664 | 06/21/19 15:00 | 5 | 07/12/19 08:02 | Oil & Grease |
| 200.7 | 06/21/19 15:00 | 5 | 12/11/19 08:02 | Ca,Cu,Na,K,Fe,Mg (Field Filtered, Report as Dissolved) |
| 200.8 | 06/21/19 15:00 | 5 | 12/11/19 08:02 | Sb,As,Ba,Cd,Cr,Co,Pb,Ni,Se,Zn (Field Filtered, Report as Dissolved) |
| 300.0 - F, Cl, Br, SO4 | 06/21/19 15:00 | 5 | 07/12/19 08:02 | Chloride,Sulfate only |
| 300.0 - NO2, NO3, PO4 | 06/21/19 15:00 | 5 | 06/16/19 08:02 | Nitrate only |
| 7470/71 Hg | 06/21/19 15:00 | 5 | 09/12/19 08:02 | |
| Conductivity | 06/21/19 15:00 | 5 | 07/12/19 08:02 | |
| pH water 9040 | 06/21/19 15:00 | 5 | 06/15/19 08:02 | |
| TDS-160.1 | 06/21/19 15:00 | 5 | 06/21/19 08:02 | |

SunStar Laboratories, Inc.
Providing Quality Analytical Services Nationwide

**WORK ORDER**

**T191966**

**Client:** Northstar Environmental Remediation
**Project:** Genesis Solar Groundwater
**Project Manager:** Jeff Lee
**Project Number:** 196-004-06

| Analysis | Due | TAT | Expires | Comments |
|---|---|---|---|---|
| **T191966-09 DM-3 [Water] Sampled 06/14/19 09:17 (GMT-08:00) Pacific Time (US &** | | | | |
| 1664 | 06/21/19 15:00 | 5 | 07/12/19 09:17 | Oil & Grease |
| 200.7 | 06/21/19 15:00 | 5 | 12/11/19 09:17 | Ca,Cu,Na,K,Fe,Mg (Field Filtered, Report as Dissolved) |
| 200.8 | 06/21/19 15:00 | 5 | 12/11/19 09:17 | Sb,As,Ba,Cd,Cr,Co,Pb,Ni,Se,Zn (Field Filtered, Report as Dissolved) |
| 300.0 - F, Cl, Br, SO4 | 06/21/19 15:00 | 5 | 07/12/19 09:17 | Chloride,Sulfate only |
| 300.0 - NO2, NO3, PO4 | 06/21/19 15:00 | 5 | 06/16/19 09:17 | Nitrate only |
| 7470/71 Hg | 06/21/19 15:00 | 5 | 09/12/19 09:17 | |
| Conductivity | 06/21/19 15:00 | 5 | 07/12/19 09:17 | |
| pH water 9040 | 06/21/19 15:00 | 5 | 06/15/19 09:17 | |
| TDS-160.1 | 06/21/19 15:00 | 5 | 06/21/19 09:17 | |
| **T191966-10 DUP [Water] Sampled 06/14/19 00:00 (GMT-08:00) Pacific Time (US &** | | | | |
| 1664 | 06/21/19 15:00 | 5 | 07/12/19 00:00 | Oil & Grease |
| 200.7 | 06/21/19 15:00 | 5 | 12/11/19 00:00 | Ca,Cu,Na,K,Fe,Mg (Field Filtered, Report as Dissolved) |
| 200.8 | 06/21/19 15:00 | 5 | 12/11/19 00:00 | Sb,As,Ba,Cd,Cr,Co,Pb,Ni,Se,Zn (Field Filtered, Report as Dissolved) |
| 300.0 - F, Cl, Br, SO4 | 06/21/19 15:00 | 5 | 07/12/19 00:00 | Chloride,Sulfate only |
| 300.0 - NO2, NO3, PO4 | 06/21/19 15:00 | 5 | 06/16/19 00:00 | Nitrate only |
| 7470/71 Hg | 06/21/19 15:00 | 5 | 09/12/19 00:00 | |
| Conductivity | 06/21/19 15:00 | 5 | 07/12/19 00:00 | |
| pH water 9040 | 06/21/19 15:00 | 5 | 06/15/19 00:00 | |
| TDS-160.1 | 06/21/19 15:00 | 5 | 06/21/19 00:00 | |
| **T191966-11 FIELD BLANK [Water] Sampled 06/14/19 00:00 (GMT-08:00) Pacific Time (US &** | | | | |
| [NO ANALYSES] | | | | |
| **T191966-12 TRIP BLANK [Water] Sampled 06/14/19 00:00 (GMT-08:00) Pacific Time (US &** | | | | |
| [NO ANALYSES] | | | | |

**Isotech Laboratories, Inc.**

| Analysis | Due | TAT | Expires | Comments |
|---|---|---|---|---|
| **T191966-01 23a [Water] Sampled 06/14/19 05:00 (GMT-08:00) Pacific Time (US &** | | | | |
| Misc Water Testing #2 | 06/21/19 15:00 | 10 | 12/11/19 05:00 | Deuterium,Oxygen-18 |

SunStar Laboratories, Inc.
PROVIDING QUALITY ANALYTICAL SERVICES NATIONWIDE

**WORK ORDER**

**T191966**

**Client:** Northstar Environmental Remediation
**Project:** Genesis Solar Groundwater
**Project Manager:** Jeff Lee
**Project Number:** 196-004-06

| Analysis | Due | TAT | Expires | Comments |
|---|---|---|---|---|
| **Isotech Laboratories, Inc.** | | | | |
| **T191966-02 OBS-1 [Water] Sampled 06/13/19 13:00 (GMT-08:00) Pacific Time (US &** | | | | |
| Misc Water Testing #2 | 06/21/19 15:00 | 10 | 12/10/19 13:00 | Deuterium,Oxygen-18 |
| **T191966-03 TW-1 [Water] Sampled 06/13/19 12:25 (GMT-08:00) Pacific Time (US &** | | | | |
| Misc Water Testing #2 | 06/21/19 15:00 | 10 | 12/10/19 12:25 | Deuterium,Oxygen-18 |
| **T191966-04 TW-2 [Water] Sampled 06/14/19 05:45 (GMT-08:00) Pacific Time (US &** | | | | |
| Misc Water Testing #2 | 06/21/19 15:00 | 10 | 12/11/19 05:45 | Deuterium,Oxygen-18 |
| **T191966-05 PW-0 [Water] Sampled 06/13/19 06:56 (GMT-08:00) Pacific Time (US &** | | | | |
| Misc Water Testing #2 | 06/21/19 15:00 | 10 | 12/10/19 06:56 | Deuterium, Oxygen-18 |
| **T191966-06 PW-2 [Water] Sampled 06/13/19 07:15 (GMT-08:00) Pacific Time (US &** | | | | |
| Misc Water Testing #2 | 06/21/19 15:00 | 10 | 12/10/19 07:15 | Deuterium, Oxygen-18 |
| **T191966-07 DM-1 [Water] Sampled 06/14/19 06:52 (GMT-08:00) Pacific Time (US &** | | | | |
| Misc Water Testing #2 | 06/21/19 15:00 | 10 | 12/11/19 06:52 | Deuterium,Oxygen-18 |
| **T191966-08 DM-2 [Water] Sampled 06/14/19 08:02 (GMT-08:00) Pacific Time (US &** | | | | |
| Misc Water Testing #2 | 06/21/19 15:00 | 10 | 12/11/19 08:02 | Deuterium,Oxygen-18 |
| **T191966-09 DM-3 [Water] Sampled 06/14/19 09:17 (GMT-08:00) Pacific Time (US &** | | | | |
| Misc Water Testing #2 | 06/21/19 15:00 | 10 | 12/11/19 09:17 | Deuterium,Oxygen-18 |
| **T191966-10 DUP [Water] Sampled 06/14/19 00:00 (GMT-08:00) Pacific Time (US &** | | | | |
| Misc Water Testing #2 | 06/21/19 15:00 | 10 | 12/11/19 00:00 | Deuterium,Oxygen-18 |
| **TestAmerica (Irvine) Laboratories** | | | | |
| **T191966-01 23a [Water] Sampled 06/14/19 05:00 (GMT-08:00) Pacific Time (US &** | | | | |
| Misc Water Testing #1 | 06/21/19 15:00 | 10 | 12/11/19 05:00 | 8015M- Therminol |

SunStar Laboratories, Inc.
PROVIDING QUALITY ANALYTICAL SERVICES NATIONWIDE

**WORK ORDER**

**T191966**

**Client:** Northstar Environmental Remediation
**Project:** Genesis Solar Groundwater
**Project Manager:** Jeff Lee
**Project Number:** 196-004-06

| Analysis | Due | TAT | Expires | Comments |
|---|---|---|---|---|
| **TestAmerica (Irvine) Laboratories** | | | | |
| **T191966-02 OBS-1 [Water] Sampled 06/13/19 13:00 (GMT-08:00) Pacific Time (US &** | | | | |
| Misc Water Testing #1 | 06/21/19 15:00 | 10 | 12/10/19 13:00 | 8015M- Therminol |
| **T191966-03 TW-1 [Water] Sampled 06/13/19 12:25 (GMT-08:00) Pacific Time (US &** | | | | |
| Misc Water Testing #1 | 06/21/19 15:00 | 10 | 12/10/19 12:25 | 8015M- Therminol |
| **T191966-04 TW-2 [Water] Sampled 06/14/19 05:45 (GMT-08:00) Pacific Time (US &** | | | | |
| Misc Water Testing #1 | 06/21/19 15:00 | 10 | 12/11/19 05:45 | 8015M- Therminol |
| **T191966-05 PW-0 [Water] Sampled 06/13/19 06:56 (GMT-08:00) Pacific Time (US &** | | | | |
| Misc Water Testing #1 | 06/21/19 15:00 | 10 | 12/10/19 06:56 | 8015M- Therminol |
| **T191966-06 PW-2 [Water] Sampled 06/13/19 07:15 (GMT-08:00) Pacific Time (US &** | | | | |
| Misc Water Testing #1 | 06/21/19 15:00 | 10 | 12/10/19 07:15 | 8015M- Therminol |
| **T191966-07 DM-1 [Water] Sampled 06/14/19 06:52 (GMT-08:00) Pacific Time (US &** | | | | |
| Misc Water Testing #1 | 06/21/19 15:00 | 10 | 12/11/19 06:52 | 8015M- Therminol |
| **T191966-08 DM-2 [Water] Sampled 06/14/19 08:02 (GMT-08:00) Pacific Time (US &** | | | | |
| Misc Water Testing #1 | 06/21/19 15:00 | 10 | 12/11/19 08:02 | 8015M- Therminol |
| **T191966-09 DM-3 [Water] Sampled 06/14/19 09:17 (GMT-08:00) Pacific Time (US &** | | | | |
| Misc Water Testing #1 | 06/21/19 15:00 | 10 | 12/11/19 09:17 | 8015M- Therminol |
| **T191966-10 DUP [Water] Sampled 06/14/19 00:00 (GMT-08:00) Pacific Time (US &** | | | | |
| Misc Water Testing #1 | 06/21/19 15:00 | 10 | 12/11/19 00:00 | 8015M- Therminol |

Reviewed By

Date