
2021 Monitoring Report

American Jewish University, Brandeis-Bardin Campus
1101 Peppertree Lane
Brandeis, California

Issued: 24 August 2021

Prepared for: American Jewish University – Brandeis-Bardin Campus
1101 Peppertree Lane
Brandeis, CA 93064



GSI Environmental Inc.

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24 August 2021

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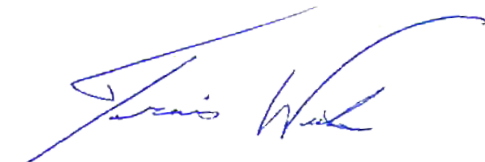
**RE: 2021 Monitoring Report
American Jewish University, Brandeis-Bardin Campus
1101 Peppertree Lane
Brandeis, California**

Dear Mr. Breitfeld:

GSI Environmental Inc. (GSI) is submitting the enclosed 2021 Monitoring Report to document sampling activities conducted at the American Jewish University, Brandeis-Bardin Campus in Brandeis, California (the Site). The objectives of the work were to continue analyzing whether potential chemical and radiological impacts exist from the nearby Santa Susana Field Laboratory at selected areas at the Site and monitor upgradient locations near the Northern Buffer Zone (NBZ), which separates the Site from the Santa Susana Field Laboratory (SSFL).

Please contact the undersigned should you have any questions regarding the enclosed document.

Sincerely,
GSI Environmental Inc.



Travis Wicks, PG
Project Geologist



Susan Gallardo, PE
Principal Engineer

Enclosure: 2021 Monitoring Report



2021 MONITORING REPORT
**AMERICAN JEWISH UNIVERSITY, BRANDEIS-
BARDIN CAMPUS**
1101 PEPPERTREE LANE
BRANDEIS, CALIFORNIA

Prepared for:

American Jewish University, Brandeis-Bardin Campus
1101 Peppertree Lane
Brandeis, CA 93064

Prepared by:


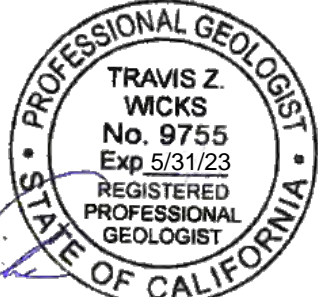
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GSI Job No. 5182
Issued: 24 August 2021

24 August 2021
Job No. 5182

This 2021 Monitoring Report was prepared by the staff of GSI Environmental Inc., under the supervision of the individuals whose signatures appear hereon.

The findings, recommendations, specifications, or professional opinions were prepared in accordance with generally accepted professional engineering and geologic practice. No warranty is expressed or implied.



Travis Wicks, PG #9755





Susan Gallardo, PE #C038154

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1.0 INTRODUCTION

GSI Environmental Inc. (GSI) has prepared this report to document the surface soil, sediment, spring water, and fruit sampling conducted on behalf of the American Jewish University (AJU) at the Brandeis-Bardin Campus of AJU located at 1101 Peppertree Lane in Brandeis, California (the Site, Figures 1 and 2). The purpose of the sampling was to monitor Site media for potential chemical and radiological impacts from the nearby Santa Susana Field Laboratory (SSFL).

The Site consists of the 2,878-acre Brandeis-Bardin campus of AJU situated along the northern edge of the Simi Hills in Brandeis, California. The Site is accessed through the main valley that runs northwest-southeast from the northern portion of the Site. Most development and activities occur within the Main Campus Area, a relatively small portion of the Site that is situated along the floor of this main valley that is approximately 1 to 2 miles north of the Site's southern border (see Figures 2 and 3). The majority of the Site, including the land between the Main Campus Area and the southern border, is undeveloped hillsides and drainages.

The Site is located to the north of the SSFL, a former nuclear and rocket science research and testing facility currently co-owned by the Department of Energy, Boeing, and the National Aeronautics and Space Administration (NASA). The SSFL has been the subject of multiple environmental investigations and remedial actions related to chemical impacts to surface and subsurface environmental media. Because the Site is located hydrologically downgradient from the SSFL, multiple investigations of the Brandeis-Bardin campus have been conducted for potential runoff of chemicals of concern (COCs) onto the Site. In addition, periodic sampling of various media at the Site has been conducted since 1991. Analytical results from this sampling have not indicated significant, if any, migration of COCs or other impacts to the Site from the SSFL operations (DTSC 2017).

GSI was retained in 2019 to continue monitoring the Brandeis-Bardin campus for potential migration of COCs from the SSFL. GSI conducted the first sampling events of soils, sediments, water, and fruit from across the campus that same year and again in 2020. No evidence of chemical impacts from the SSFL were detected from either of these two events (GSI, 2019 and 2020). The following sections describe the third of GSI's monitoring events, conducted in 2021, involving the collection and analysis of samples from the following sources to evaluate potential migration of COCs from the SSFL:

- Soil from high-use areas within the Main Campus Area;
- Soil and sediment from campsite areas outside the Main Campus Area;
- Sediment from upgradient drainage channels near the Site's southern border;
- Water from springs located near the Site's southern border; and
- Fruit (lemon) grown on trees within the Main Campus Area. Fruit on other types of trees were not present at the time of sampling.

For the purpose of this program, sediment is defined as the loose material from the bottom of drainages that has been recently transported to its current location by surface water. Soil is defined as material from outside of drainages.

2.0 SAMPLING PLAN AND FIELD METHODS

Sampling locations included in this monitoring program fall into three categories:

- Areas of high use by campus guests;
- Drainages abutting the NBZ at the southern edge of the Site; and
- Fruit-bearing trees.

Analytical results from the three types of samples were used to provide an assessment of current and future potential exposure experienced by guests to the campus.

A sampling and analysis summary for the 2021 monitoring event is available in Table 1.

2.1 High-Use Areas

At least one soil or sediment sample was collected on 25 to 27 May 2021 from each of the following high-use areas, which are shown on Figures 2, 3, and 4:

- Terry Field
- Kids' Cabins
- Gan Field
- CIT Cabins
- Alpine Tower
- Hidden Valley Camp

All soil samples collected in the high-use areas were analyzed for the following:

- Title 22 Metals by United States Environmental Protection Agency (USEPA) Methods 6010 and 7471
- Perchlorate by USEPA Method 314.0
- Tritium by USEPA Method 906.0
- Strontium-90 by USEPA Method 905.0
- Cesium-137 by DOE HASL 300, 4.5.2.3/Ga-01-R

Samples for metals and perchlorate analysis were submitted to Eurofins TestAmerica of West Sacramento, California (Eurofins), while samples for radionuclide analysis were submitted to GEL Laboratories of Charleston, South Carolina (GEL). Both laboratories are California Environmental Laboratory Accreditation Program-certified analytical laboratories. Analytical results for radionuclides are reported on a dry-weight basis.

2.2 Drainage Area Sampling

Drainage area sample locations are generally the same as those from GSI's 2019 and 2020 investigations, except as described below, and are shown on Figures 2 and 5 through 10. Samples were collected on 25 and 26 May 2021. One sediment sample also was collected from the drainage channel near Old Well Camp during the May 2021 monitoring event. The Old Well Camp drainage is identified as a background reference location, as its runoff does not originate

from the SSFL (Tetra Tech, 2016). Sediment samples collected from this location are intended to confirm relative background conditions at the Site.

One sediment sample was collected from the bottom of each drainage channel along with a water sample where water was present. Water was also sampled during the May monitoring event directly from springs, where present. Due to drought conditions, surface water was not present in most drainages, and water samples were collected only from the following locations:

- OS8-W (see Figure 9)
- OS357-W (the combined outflow of springs OS3, OS5, and OS7; see Figure 5)

All soil, sediment, and water samples were analyzed for the following:

- Title 22 Metals¹ (metals) by United States Environmental Protection Agency (USEPA) Methods 6010 and 7471
- Perchlorate by USEPA Method 314.0
- Tritium by USEPA Method 906.0
- Strontium-90 by USEPA Method 905.0
- Cesium-137 by DOE HASL 300, 4.5.2.3/Ga-01-R (soil and sediment)
- Cesium-137 by USEPA Method 901.1 (water)

All water samples were also analyzed for volatile organic compounds (VOCs) by USEPA Method 8260.

The sediment sample collected from location OS1-SED-1 was additionally analyzed for N-Nitrosodimethylamine (NDMA) by TestAmerica method GCMSMS_NDMA. This analysis was conducted because NDMA was detected above screening levels in the third quarter 2020 groundwater sample collected from an upstream well (National Aeronautics and Space Administration, 2021).

Samples were submitted to Eurofins for analysis of metals, perchlorate, NDMA, and VOCs while samples were submitted to GEL for radionuclide analysis. Analytical results for radionuclides are reported on a dry-weight basis.

2.3 Fruit Sampling

Consistent with the 2020 sampling event, it was planned that fruit-bearing trees in a small fruit orchard and avocado grove, both located in the Main Campus Area (see Figure 3, 11, and 12), would be sampled in 2021. However, because most trees were not bearing fruit at the time of sampling, only the lemons were sampled. Lemons purchased from a nearby grocery store serve as a point of comparison, with California-grown lemons being preferentially selected from the store, if available.

This sample and the store-bought equivalent were analyzed for the following:

¹ California Code of Regulations (CCR), Title 22, Division 4.5, Chapter 11, Article 3, Section 66261.24.

- Title 22 Metals² (metals) by United States Environmental Protection Agency (USEPA) Methods 6010 and 7471
- Perchlorate by USEPA Method 6850
- Tritium by USEPA Method 906.0
- Strontium-90 by USEPA Method 905.0
- Cesium-137 by DOE HASL 300, 4.5.2.3/Ga-01-R

Ripe lemons were preferentially sampled from the AJU trees, though not all fruits were ripe at the time of sampling. All samples were submitted to GEL.

2.4 Sampling Methods

Soil and sediment samples were collected as grab samples from the top 6 inches of material using a decontaminated metal garden trowel. Leaf litter and other organics on top of the sampling location were excluded from the sample as much as possible. Samples to be analyzed for metals and perchlorate were collected into new, unused glass jars. Additional soil and sediment sample volume was collected into a 500-milliliter plastic jar or food-grade resealable plastic bag for analysis of radionuclides. Between samples, the sampling trowel was decontaminated using a solution of Liquinox and water, followed by rinsing with distilled water. All samples were stored in an ice-chilled cooler before transfer to the analytical laboratory, following standard chain-of-custody procedures.

Surface and spring water samples were collected directly from water in the drainages into laboratory-provided bottles and VOA jars. Sample water was transferred into bottles and jars containing preservative via a clean, unpreserved bottle. All samples were stored in an ice-chilled cooler prior to transfer to the analytical laboratory, following standard chain-of-custody procedures.

The AJU and grocery store lemon samples consisted of 16 and 9 individual fruits, respectively, collected from the same tree or purchased from the grocery store. Fruits were wiped with a clean, unused paper towel moistened with potable water before placement into a food-grade resealable plastic bag. All samples, including store-bought equivalents, were stored in an ice-chilled cooler prior to transfer to the analytical laboratory, following standard chain-of-custody procedures. Fruits were processed by the laboratory before analysis such that only the commonly consumed portions of each fruit were included. For the lemon samples, only the fruit flesh was included.

3.0 RESULTS

Laboratory analytical results for each sample area are presented below and are also summarized in Tables 2 through 7. Laboratory reports are included in Appendices A through C.

3.1 Data Validation

Analytical results were reviewed in accordance with the following documents:

² California Code of Regulations (CCR), Title 22, Division 4.5, Chapter 11, Article 3, Section 66261.24.

- 2017 National Functional Guidelines for Inorganic Superfund Methods Data Review published by the USEPA.
- 2004 Multi-Agency Radiological Laboratory Analytical Protocols Manual published by the USEPA et al.

Results between the reporting limit and detection limit for a compound were flagged with a “J”. Other flags were assigned as follows:

- Title 22 metals were reported to the method detection limit for all water samples to meet screening levels for certain analytes. Beryllium, chromium, copper, lead, and silver were detected at least once between the reporting limit and the method detection limit. Each detection in this range was flagged with a “J”.
- Silver was detected in the laboratory method blank for water samples. As such, all detections of silver in water samples within 10x the detection in the blank are flagged with a “J”.
- Zinc was detected in the laboratory method blank for fruit samples. As such, all detections of zinc in fruit samples within 10x the detection in the blank are flagged with a “J”.
- Tritium was recovered in the matrix spike for fruit samples slightly below quality control limits. Results for tritium in fruit, which were all below the minimum detectable concentration, are flagged with a “UJ”.

All sample results are considered usable, and data quality is judged to be adequate for the intended purpose.

3.2 Screening Levels

Analytical results are evaluated by comparison to health-based screening levels and, when available, background values of compounds observed at the SSFL. Screening levels for each medium are described in the following sections.

3.2.1 Soil and Sediment Screening Levels

Risk-based levels for metals and perchlorate in soil/sediment were drawn from Regional Screening Levels (RSLs) for soil under residential land use as endorsed or modified by the Department of Toxic Substances Control of the California Environmental Protection Agency (DTSC, 2020). For analytes not evaluated by the DTSC, screening levels were derived from USEPA RSLs published in 2021 (USEPA, 2021). Background values for metals are drawn from those published by the DTSC for the SSFL (DTSC, 2013). Notably, naturally occurring background concentrations of certain metals exceed risk-based screening levels.

Health risk-based screening levels for radionuclides were generated using the Preliminary Remediation Goal (PRG) calculator for radionuclides published by the USEPA (2019), as described in the 2019 Monitoring Report (GSI, 2019). Default parameters for residential land-use were assumed for all input variables to provide a conservative risk threshold; for example, the parameters selected for exposure duration (26 years) and frequency (350 days per year) significantly exceed those of a typical camper, employee or other user of the Site. Exposure pathways were assumed to include incidental ingestion, dermal contact, external exposure and inhalation of resuspended soil. Because the Site is primarily used recreationally, the growth of

produce for consumption was excluded from these calculations with respect to the soil and sediment screening levels but was included for purposes of calculating the PRG with respect to the fruit samples, as described in Section 3.2.3. Input values and further details regarding this calculation are included in the 2019 Monitoring Report (GSI, 2019).

Background levels for radionuclides were drawn from values published by HydroGeoLogic, Inc. in 2012 for the SSFL and generated from background sample datasets from McLaren/Hart Environmental Engineering Corporation (McLaren/Hart) in 1993 and 1995, and Ogden Environmental and Energy Services Co., Inc. (Ogden), in 1998. Background values generated for this monitoring program are the mean plus twice the standard deviation as calculated using the Kaplan Meier Method in ProUCL 5.1 (USEPA, 2015). The same method was previously employed by Tetra Tech to generate background radionuclide concentrations (Tetra Tech, 2016).^{3,4} Documentation regarding background values is included in the 2019 Monitoring Report (GSI 2019).

Additionally, because the Old Well Camp drainage does not drain any portion of the SSFL site, sediment samples from this location are used as an indication of background conditions in sediment.

3.2.2 Spring Water Screening Levels

Detected concentrations of Title 22 metals and perchlorate in spring water were compared to the following drinking water screening levels in descending order of preference:

- California maximum contaminant levels (MCLs), as established in Title 22 of the California Code of Regulations (CCR) § 64431.
- Residential tap water screening levels as endorsed or modified by the DTSC (2020).
- Regional screening levels (RSLs) for residential tap water, as published by the USEPA (2021).

Comparison to these drinking water screening levels is a conservative approach because drinking water at the Site is municipally sourced.

Metals in spring water also were compared to background groundwater concentrations generated for the SSFL (MWH Americas Inc., 2014). Background concentrations generated for SSFL were established to represent unimpacted, naturally occurring conditions in the vicinity of SSFL. Data from hundreds of samples were used to statistically evaluate background concentrations. Detections of metals in groundwater samples ranged over several orders of magnitude due to factors that included the variability and complexity of the regional geology. However, metals values used in the selection of SSFL groundwater comparison concentrations did not encompass the full range of results that could be considered background concentrations and may, therefore, represent values that are appreciably lower than localized, naturally occurring conditions. As such, the derived SSFL comparison concentrations provide

³ Available through AJU at https://www.aju.edu/sites/default/files/docs/Tetra_Tech-Technical_Report_April_2016r.pdf

⁴ As a conservative measure, only the higher concentration from duplicate samples was included in the calculation. Additionally, the most recent data was used from locations where multiple samples previously were collected.

conservative threshold values, and results above these comparison concentrations do not necessarily indicate impacts to groundwater quality (MWH, 2014).

Radionuclide results in spring water were compared to MCLs as established in Title 22 CCR §64443, as well as groundwater comparison concentrations for the SFFL based on MCLs or effective dose equivalents of 4 millirems per year (Stantec Consulting Services, 2019).

3.2.3 Fruit Screening Levels

Detected concentrations of Title 22 metals and perchlorate were compared to health risk-based PRGs developed for cancer (where applicable) and non-cancer endpoints using literature-based consumption rates and standard exposure factors for a residential receptor, which assume a 26-year exposure duration (20 years as an adult and 6 years as a child). Exposure frequency (i.e., the number of days per year that fruit is consumed) was derived for each type of fruit based on its local growing season. For citrus, exposure frequency was assumed to be 350 days per year, as citrus trees generally produce fruit year-round in Ventura County.⁵

In California, the potential for adverse health effects from exposure to lead at residential sites is evaluated by calculating the blood lead level of a child. Blood lead levels are calculated using DTSC's LeadSpread8, which accounts for soil-based exposures at a site, as well as background lead exposure from other sources.⁶ Because LeadSpread8 does not include equations that calculate the contribution of homegrown produce to blood lead levels, blood lead levels for residents at the Site are estimated by (1) using the maximum measured soil lead concentration at the Site to account for background blood lead levels from incidental ingestion, inhalation, and dermal exposure to Site soils; (2) calculating the additional quantity of lead that would be ingested due to the consumption of homegrown produce; then (3) adding the two together to derive an estimate of daily lead exposure.

Lead was not detected in the lemon sample collected during the 2021 program. Therefore, background daily lead exposure levels are as presented in the 2020 monitoring report (GSI, 2020).

The PRGs for the radionuclides were calculated using the USEPA PRG Calculator for radionuclides. Inputs and details regarding the method for calculating these screening levels are included in Appendix A of the 2020 Monitoring Report (GSI, 2020).

3.3 High-Use Area Sample Results

This section summarizes analytical results for soil samples collected in areas of high guest activity.

3.3.1 Metals and Perchlorate Results

Analytical results for metals and perchlorate in soil samples are tabulated on Table 2, and the laboratory data report is included in Appendix A. All compounds were (a) not detected above laboratory reporting limits, (b) detected at concentrations below the risk-based screening levels, or (c) detected above risk-based screening levels, but below regional background levels. These

⁵ http://ceventura.ucdavis.edu/Com_Ag/Subtropical/Fruit_and_Nut_Varieties/

⁶ <https://dtsc.ca.gov/leadspread-8/>

results appear consistent with natural conditions and do not indicate migration of contaminants from the SSFL or other anthropogenic sources.

3.3.2 Radionuclide Results

Analytical results for radionuclides are tabulated on Table 3, and laboratory data report is included in Appendix A. In each of the samples, radionuclides were either not detected above their respective minimal detectable concentrations or were lower than published background levels and PRGs. These results appear consistent with natural conditions and do not indicate migration from the SSFL or other anthropogenic sources.

3.4 Upgradient Drainage Areas Sample Results

This section summarizes analytical results for the sediment and spring water samples collected from upgradient drainages near the southern boundary of the property, which is adjacent to the NBZ.

3.4.1 Metals, Perchlorate, NDMA, and VOC Results

Analytical results for metals, perchlorate, and NDMA in sediment samples are tabulated on Table 2. Laboratory data reports are included in Appendix A. In sediment, all analyzed compounds were either (a) not detected above their respective reporting limits, (b) detected at concentrations below the risk-based screening level, or (c) detected above the risk-based screening level, but below regional background levels. These results are consistent with natural conditions and do not indicate migration from the SSFL or other anthropogenic sources.

Analytical results for metals, perchlorate, and VOCs in spring and surface water samples are tabulated on Table 4. Laboratory data reports are included in Appendix B. Antimony, arsenic, cadmium, mercury, selenium, and thallium were not detected above the detection limit in any sample. Barium, beryllium, chromium, copper, lead, silver, vanadium, and zinc were detected in one or more water samples at concentrations well below their respective MCLs, where published, or, where not published, below tap water screening levels published by the DTSC (2020) and USEPA (2021).

Silver and vanadium were also detected in the water sample from location OS8-W at concentrations that slightly exceed SSFL groundwater comparison concentrations but are lower than their respective tap water screening levels. Silver was detected at a concentration of 0.0016 milligrams per liter (mg/L); the SSFL groundwater comparison concentration is 0.00017 mg/L, and the USEPA tap water screening level is 0.094 mg/L. However, this detection is likely biased high and not indicative of Site conditions because silver was also detected in the laboratory blank. Vanadium was detected at a concentration of 0.010 mg/L; the SSFL groundwater comparison concentration is 0.0026 mg/L, and the USEPA tap water screening level is 0.086 mg/L. However, the range of background vanadium concentrations is 0.00011 mg/L to 0.0378 mg/L (total of 168 samples in the data set; MWH Americas Inc., 2014). Because the vanadium concentration detected during the 2021 monitoring event is well within the background range, the results do not indicate an impact from SSFL or other anthropogenic sources.

No perchlorate or VOCs were detected in the spring and surface water samples.

Overall, the analytical results for metals, perchlorate, and VOCs for spring and surface water samples appear consistent with natural conditions and do not indicate migration from the SSFL or other anthropogenic sources.

3.4.2 Radionuclide Results

Analytical results for radionuclides are tabulated on Tables 3 and 5, and laboratory data reports are included in Appendices A and B. In sediment, no radionuclides were detected above their respective background levels or PRGs. In spring water, no radionuclides were detected above their respective minimum detectable concentrations. These results appear consistent with natural conditions and do not indicate migration from the SSFL or other anthropogenic sources.

3.5 Fruit Sample Results

Analytical results for metals and perchlorate in the lemon sample are tabulated on Table 6, and results for radionuclides are on Table 7. Laboratory data reports are included in Appendix C.

Arsenic, beryllium, cadmium, chromium, cobalt, copper, lead, mercury, molybdenum, nickel, selenium, silver, thallium, vanadium, and perchlorate were not detected in the sample from the lemon grown on-Site (Table 6).⁷ Concentrations of all other tested metals were well below their respective fruit-specific PRGs.

Radionuclides were not detected in fruit samples above their respective minimal detectable concentrations, and minimum detectable concentrations for each radionuclide were below their respective PRGs.

Both individually and collectively, the analytical results for metals, perchlorate, and radionuclides for fruit samples appear consistent with natural conditions and do not indicate the presence of on-Site chemical impacts from the SSFL or other anthropogenic sources.

4.0 CONCLUSIONS

Results from the 2021 sampling event are consistent with analytical testing of media that has occurred at the Brandeis-Bardin campus since 1991. Samples taken in high-use areas, in drainage channels located at the border between the campus and the Northern Buffer Zone, and from fruit grown on Site appear consistent with natural conditions and do not indicate impacts from the SSFL or other anthropogenic sources.

⁷ The derived screening level (PRG) for arsenic in produce is lower than the analytical detection limit. The detection limit, however, is adequate to identify potential impacts to fruit from the SSFL or other anthropogenic sources by accounting for (a) background concentrations of arsenic in soil, and (b) the expected arsenic level in fruit based on soil nutrient uptake rates.

5.0 REFERENCES

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USEPA, 2021, Regional Screening Levels, May.

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Table 6	Fruit Analytical Results – Metals and Perchlorate
Table 7	Fruit Analytical Results - Radionuclides

TABLE 1
SAMPLING AND ANALYSIS SUMMARY
 AJU Brandeis-Bardin Campus
 Brandeis, CA



Sampling Location	Campus Area	Sample Type	Analyses ¹					
			Metals ²	Perchlorate ²	VOCs ²	Strontium-90 ³	Tritium ³	Cesium-137 ³
			6010B and 7471A	314.0	8260	905	906.0	901.1 (water), DOE HASL 300, 4.5.2.3/Ga-01-R (soil and sediment)
High Use Area Samples								
HV-1	Hidden Valley Camp	Soil	X	X	-	X	X	X
HV-2		Soil	X	X	-	X	X	X
HV-SED-1		Sediment	X	X	-	X	X	X
TF-1	Terry Field	Soil	X	X	-	X	X	X
KC-1	Kids' Cabins	Soil	X	X	-	X	X	X
GF-1	Gan Field	Soil	X	X	-	X	X	X
CIT-1	CIT Cabins	Soil	X	X	-	X	X	X
AT-1	Alpine Tower	Soil	X	X	-	X	X	X
Drainage Samples								
OS1-W	Downstream from OS1 and SSFL	Water	Not Sampled ⁴					
OS1-SED-1		Sediment	X	X	-	X	X	X
OS3-W	Spring OS3	Water	Not Sampled ⁵					
OS357-W	Springs OS3, 5, and 7	Water	X	X	X	X	X	X
BP-SED-1	Downstream from the burn pit portion of the SSFL	Sediment	X	X	-	X	X	X
RRMDF-SED-1	Downstream from the reactor and RMDF portions of the SSFL	Sediment	X	X	-	X	X	X
SRE-SED-2	Downstream from the sodium reactor portion of the SSFL	Sediment	X	X	-	X	X	X
SRE-W		Water	Not Sampled - No Water Present					
OS8-SED-1	Downstream of Spring OS8	Sediment	X	X	-	X	X	X
OS8-W		Water	X	X	X	X	X	X
OW-SED-1	Old Well Camp area	Sediment	X	X	-	X	X	X
Fruit Samples								
AV-1	Avocado Grove	Avocado	Not Sampled - No Fruit Present					
A-1	Fruit Orchard	Apple	Not Sampled - No Fruit Present					
G-1		Grapefruit	Not Sampled - No Fruit Present					
L-1		Lemon	X	X	-	X	X	X
O-1		Orange	Not Sampled - No Fruit Present					
AV-2		Grocery Store	Avocado	Not Sampled - No Corresponding On-Site Sample				
A-2	Apple		Not Sampled - No Corresponding On-Site Sample					
G-2	Grapefruit		Not Sampled - No Corresponding On-Site Sample					
L-2	Lemon		X	X	-	X	X	X
O-1	Orange		Not Sampled - No Corresponding On-Site Sample					

Notes:

1. Methods shown are U.S. Environmental Protection Agency methods, except as noted.
2. Samples analyzed by Eurofins Calscience of Irvine, except for fruit samples, which will be analyzed by GEL Laboratories of Charleston, SC.
3. Samples analyzed by GEL Laboratories of Charleston, SC.
4. Spring OS1 was found to be the same as artesian monitoring wells RD-68A and 68B, which are monitored regularly by NASA. As such, no water sample was collected from the wellhead during the May 2021 sampling event. Instead, the immediate vicinity and downstream area of the well was checked for ponded water from the well.
5. A sample was collected from a point (OS357-W) downstream of springs OS3, OS5, and OS7 rather than collect a sample from a single spring.

Abbreviations:

X = analysis performed on sample indicated
 - = analysis not performed on sample indicated
 CIT = counselor-in-training

SSFL = Santa Susana Field Laboratory
bold = new sample

TABLE 2
SOIL AND SEDIMENT ANALYTICAL RESULTS - METALS AND PERCHLORATE
AJU Brandeis-Bardin Campus
Brandeis, CA

Abbreviations:

Bold = analyte detected above the laboratory reporting limit < = analyte was not detected above the reporting limit shown
mg/kg = milligrams per kilogram NDMA = N-Nitrosodimethylamine
UJ = The analyte was analyzed for, but not detected. The reported quantitation limit is approximate and may be inaccurate or imprecise.
J = Analyte was detected below the reporting limit and above the detection limit. Value is estimated.
B = Constituent was found in the method blank above the reporting limit.

References:

Department of Toxic Substances Control (DTSC), 2013, Chemical Look-Up Table Technical Memorandum, Santa Susana Field Laboratory, Ventura County, California, June 11.
DTSC, 2020, Human and Ecological Risk Office (HERO) Human Health Risk Assessment Note Number 3, June.
U. S. Environmental Protection Agency (USEPA), 2021, Regional Screening Levels, May.

TABLE 3
SOIL AND SEDIMENT ANALYTICAL RESULTS - RADIONUCLIDES
 AJU Brandeis-Bardin Campus
 Brandeis, CA



Sample Location	Sample Name	Matrix	Date Collected	Tritium ¹	Strontium-90 ²	Cesium-137 ³
				pCi/g		
Main Campus Sampling Locations						
HV-1	HV-1-190422	Soil	4/22/2019	<0.359	<0.273	<0.187
	HV-1-200603		6/3/2020	<2.14	<0.0987	<0.0557
	HV-1-210526		5/26/2021	<2.23	<0.082	<0.0465
HV-2	HV-2-190422	Soil	4/22/2019	<0.362	<0.242	<0.125
	HV-2-200603		6/3/2020	<2.22	<0.0978	<0.0409
	HV-2-210526		5/26/2021	<2.22	<0.0912	<0.0560
HV-SED-1	HV-SED-1-190422	Sediment	4/22/2019	<0.363	<0.284	<0.161
	HV-SED-1-200603		6/3/2020	<2.09	<0.0929	<0.0618
	HV-SED-1-210526		5/26/2021	<2.08	<0.0825	<0.0604
TF-1	TF-1-190422	Soil	4/22/2019	<0.355	<0.495	<0.158
	TF-1-200603		6/3/2020	<2.23	<0.0954	<0.0551
	TF-1-210526		5/26/2021	<2.17	<0.0991	<0.0479
KC-1	KC-1-190422	Soil	4/22/2019	<0.332	<0.266	<0.192
	KC-1-200603		6/3/2020	<2.15	<0.0981	<0.0458
	KC-1-210527		5/27/2021	<2.12	<0.0849	<0.0564
GF-1	GF-1-190422	Soil	4/22/2019	<0.393	<0.281	<0.165
	GF-1-200603		6/3/2020	<2.08	<0.0981	0.0662
	GF-1-210527		5/27/2021	<2.26	<0.0976	<0.0521
CIT-1	CIT-1-190422	Soil	4/22/2019	<0.348	<0.246	<0.162
	CIT-1-200602		6/2/2020	<2.21	<0.0951	0.0789
	CIT-1-210525		5/25/2021	<2.03	<0.0821	0.0900
AT-1	AT-1-190422	Soil	4/22/2019	<0.356	<0.267	<0.207
	AT-1-200603		6/3/2020	<2.30	<0.0920	<0.0627
	AT-1-210527		5/27/2021	<1.93	<0.0837	<0.0609
Drainage Sampling Locations						
BP-SED-1	BP-SED-1-190613	Sediment	6/13/2019	<0.061	0.32	0.0550
	BP-SED-1-190829		8/29/2019	–	<0.0506	–
	BP-SED-1-200602		6/2/2020	<3.14	<0.0994	0.110
	BP-SED-1-210525		5/25/2021	<2.98	<0.0947	0.0985
BP-SED-1A	BP-SED-1A-190829	Sediment	8/29/2019	–	<0.0968	–
BP-SED-1B	BP-SED-1B-190829		8/29/2019	–	<0.0474	–
BP-SED-1C	BP-SED-1C-190829		8/29/2019	–	<0.0976	–
RRMDF-SED-1	RRMDF-SED-1-190613	Sediment	6/13/2019	<0.068	0.48	0.111
	RRMDF-SED-1-190829		8/29/2019	–	<0.0667	–
	RRMDF-SED-1-200602		6/2/2020	<3.45	<0.0948	0.198
	RRMDF-SED-1-21025		5/25/2021	<2.23	<0.0802	0.0795
RRMDF-SED-1A	RRMDF-SED-1A-190829	Sediment	8/29/2019	–	<0.0984	–
RRMDF-SED-1B	RRMDF-SED-1B-190829		8/29/2019	–	<0.0661	–
RRMDF-SED-1C	RRMDF-SED-1C-190829		8/29/2019	–	<0.0582	–
SRE-SED-1	SRE-SED-1-190613	Sediment	6/13/2019	<0.066	0.232	<0.037
	SRE-SED-1-190829		8/29/2019	–	<0.0982	–
SRE-SED-1A	SRE-SED-1A-190829	Sediment	8/29/2019	–	<0.053	–
SRE-SED-1B	SRE-SED-1B-190829		8/29/2019	–	<0.0977	–
SRE-SED-1C	SRE-SED-1C-190829		8/29/2019	–	<0.0435	–
			8/29/2019	–	<0.0443	–
SRE-SED-2	SRE-SED-2-190829	Sediment	8/29/2019	–	<0.0443	–
	SRE-SED-2-200603		6/3/2020	<3.11	<0.0931	0.0567
	SRE-SED-2-210526		5/26/2021	<2.15	<0.0822	0.0729
OS1-SED-1-200603	051-SED-1-200603	Sediment	6/3/2020	<3.13	<0.0637	<0.0528
	OS1-SED-1-210526		5/26/2021	<2.04	<0.0812	0.0669

TABLE 3
SOIL AND SEDIMENT ANALYTICAL RESULTS - RADIONUCLIDES
 AJU Brandeis-Bardin Campus
 Brandeis, CA



Sample Location	Sample Name	Matrix	Date Collected	Tritium ¹	Strontium-90 ²	Cesium-137 ³
				pCi/g		
OS8-SED-1	OS8-SED-1-190613	Sediment	6/13/2019	<0.161	0.36	0.0360
	OS8-SED-1-190830		8/30/2019	–	<0.0644	–
	OS8-SED-1-200603		6/3/2020	<3.21	<0.0962	<0.0989
	OS8-SED-1-210526		5/26/2021	<2.11	<0.0792	0.109
OS8-SED-1A	OS8-SED-1A-190830	Sediment	8/30/2019	–	<0.0821	–
OS8-SED-1B	OS8-SED-1B-190830		8/30/2019	–	<0.0991	–
OS8-SED-1C	OS8-SED-1C-190830		8/30/2019	–	<0.0462	–
OW-SED-1	OW-SED-1-190613	Sediment	6/13/2019	<0.101	<0.128	0.0310
	OW-SED-1-200603		6/3/2020	<3.28	<0.0989	0.0720
	OW-SED-1-210526		5/26/2021	<2.22	<0.0925	0.147
Background Levels						
McLaren/Hart (1993; 1995) ⁴				None	0.130	0.275
Ogden Environmental and Energy Services Co., Inc. (1998) ⁴				0.226	None	0.167
HydroGeoLogic, Inc. (2012) ⁵				7.38	0.075	0.193
Health-Based Screening Criteria						
Preliminary Remediation Goals ⁶				0.237	13.4	25.3

Notes:

1. Samples analyzed for tritium using U.S. Environmental Protection Agency (USEPA) Method 906.0 or equivalent.
2. Samples analyzed for strontium-90 using USEPA Method 905.0 or equivalent.
3. Samples analyzed for cesium-137 using USEPA Method 901.1 or equivalent (analytical method for June 2020 samples cited as DOE HASL 300, 4.5.2.3/Ga-01-R).
4. Background values were calculated as the mean plus twice the standard deviation of the data in the reports shown. Process further described in Section 3.2.1.
5. Background values are drawn from the look-up tables published by HydroGeoLogic, Inc. (2012) and approved by the USEPA.
6. Preliminary remediation goals were generated using the 2019 USEPA calculator. Further details regarding methodology are available in the 2019 Monitoring Report dated 25 November 2019 by GSI Environmental Inc.
7. Results reported on a dry weight basis.

Abbreviations:

- Bold** = analyte detected above the laboratory reporting limit
- pCi/g = picocuries per gram
- < = Analyte was not detected above the minimal detectable concentration (MDC) shown.
- = Sample not analyzed for analyte indicated.

References:

HydroGeoLogic, Inc., 2012, Final Technical Memorandum, Look-Up Table Recommendations, Santa Susana Field Laboratory, Area IV Radiological Study, 27 November.

McLaren/Hart Environmental Engineering Corporation, 1993, Multi-Media Sampling Report for the Brandeis-Bardin Institute and the Santa Monica Mountains Conservancy, Volume I, 10 March.

McLaren/Hart Environmental Engineering Corporation, 1995, Additional Soil and Water Sampling, The Brandeis-Bardin Institute and Santa Monica Mountains Conservancy, 19 January.

Ogden Environmental and Energy Services Co., Inc., 1998, Bell Canyon Area, Soil Sampling Report, Ventura County, California, Volume I, October.

U.S. Environmental Protection Agency (USEPA), 2019, Preliminary Remediation Goals for Radionuclides (PRG), January.

TABLE 4
SPRING AND SURFACE WATER ANALYTICAL RESULTS - METALS AND PERCHLORATE
 AJU Brandeis-Bardin Campus
 Brandeis, CA



Sample Location Name	Sample Name	Date Collected	Title 22 Metals ¹																	Per-chlorate ³	VOCs ⁴	
			Antimony	Arsenic	Barium	Beryllium	Cadmium	Chromium	Cobalt	Copper	Lead	Mercury ²	Molybdenum	Nickel	Selenium	Silver	Thallium	Vanadium	Zinc		Naphthalene	Other VOCs
			mg/L																		µg/L	
Spring/Seep Samples																						
OS8-W	OS8-W-200603	6/3/2020	<0.010	<0.010	0.046	<0.0020	<0.0050	<0.0050	<0.010	<0.010	<0.0050	<0.00020	<0.020	<0.010	<0.010	<0.010	<0.010	<0.010	<0.020	<0.004	3.0 J	None
	OS8-W-210526 ⁵	5/26/2021	<0.0098	<0.012	0.11	<0.00030	<0.00050	0.0027 J	<0.0030	0.0042 J	0.0028 J	<0.00010	<0.0027	<0.0024	<0.013	0.0016 J	<0.0090	0.010	0.027	<0.002	<0.48	None
OS3-W	OS3-W-190613	6/13/2019	<0.010	<0.010	0.039	<0.0020	<0.0050	<0.0050	<0.010	0.0083 J	<0.0050	<0.00020	<0.020	0.0055 J	<0.010	<0.010	<0.010	<0.010	<0.020	<0.004	NA	NA
	OS3-W-200602	6/2/2020	<0.010	<0.010	0.038	<0.0020	<0.0050	<0.0050	<0.010	<0.010	<0.0050	<0.00020	<0.020	<0.010	<0.010	<0.010	<0.010	<0.010	<0.020	<0.004	<1.0	None
OS357-W	OS357-W-200602	6/2/2020	<0.010	<0.010	0.034	<0.0020	<0.0050	<0.0050	<0.010	<0.010	<0.0050	<0.00020	<0.020	<0.010	<0.010	<0.010	<0.010	<0.010	0.048	<0.004	<1.0	None
	OS357-W-210525 ⁵	5/25/2021	<0.0098	<0.012	0.039	0.00055 J	<0.00050	<0.0012	<0.0030	<0.0021	<0.0025	<0.00010	<0.0027	<0.0024	<0.013	<0.00084	<0.0090	<0.0019	<0.0030	<0.002	<0.48	None
OS1-W	OS3-W-190613	6/13/2019	<0.010	<0.010	0.039	<0.0020	<0.0050	<0.0050	<0.010	0.0083 J	<0.0050	<0.00020	<0.020	0.0055 J	<0.010	<0.010	<0.010	<0.010	<0.020	<0.004	NA	NA
Surface Water/Runoff Samples																						
SRE-W	SRE-W-200603	6/3/2020	<0.010	<0.010	0.13	<0.0020	<0.0050	0.015	<0.010	0.019	0.012	<0.00020	<0.020	<0.010	<0.010	<0.010	<0.010	0.031	0.086	<0.004	<1.0	None
Screening Criteria																						
Drinking Water Screening Level ⁶			0.006	0.010	1.0	0.004	0.005	0.05	0.006	1.3	0.015	0.002	0.1	0.1	0.05	0.094	0.002	0.086	6.0	0.006	0.12	Various
SSFL Groundwater Comparison Concentrations ⁷			0.0025	0.0077	0.15	0.00014	0.0002	0.014	0.0019	0.0047	0.011	0.000063	0.0022	0.017	0.0016	0.00017	0.00013	0.0026	6.3	None	None	Various

Notes:

1. Samples analyzed for total metals using U.S. Environmental Protection Agency (USEPA) Method 6010B unless otherwise indicated.
2. Samples analyzed for total mercury using USEPA Method 7471A.
3. Samples analyzed for total perchlorate using USEPA Method 314.0.
4. Samples analyzed for VOCs using USEPA Method 8260.
5. Results reported to the method detection limit.
6. Drinking water screening levels were drawn from the following sources in descending order of preference:
 - California maximum contaminant levels (MCLs), as established in Title 22 of the California Code of Regulations (CCR) § 64431.
 - Residential tap water screening levels as endorsed or modified by the DTSC (2020).
 - Regional screening levels (RSLs) for residential tap water, as published by the USEPA (2021).
7. Background concentrations in groundwater determined for the Santa Susana Field Lab (SSFL; MWH Americas, Inc., 2014).

Abbreviations:

Bold = analyte detected above the laboratory reporting limit
 mg/L = milligrams per liter
 µg/L = nanograms per liter
 J = Reported value is estimated.
 B = constituent was detected in the laboratory blank above the detection limit.
 NA = not analyzed

< = analyte was not detected above the reporting limit or method detection limit shown
 VOCs = volatile organic compounds
 MCL = maximum contaminant level
 RSL = regional screening level

References:

- DTSC, 2020, Human and Ecological Risk Office (HERO) Human Health Risk Assessment Note Number 3, June.
 MWH Americas, Inc., 2014, Final Standardized Risk Assessment Methodology Revision 2 Addendum, Santa Susana Field Laboratory, Ventura County, California, August.
 U. S. Environmental Protection Agency (USEPA), 2021, Regional Screening Levels, May.

TABLE 5
SPRING AND SURFACE WATER ANALYTICAL RESULTS -
RADIONUCLIDES
 AJU Brandeis-Bardin Campus
 Brandeis, CA



Sample Location Name	Sample Name	Date Collected	Tritium ¹	Strontium-90 ²	Cesium-137 ³
			<i>pCi/L</i>		
OS1-W	OS1-W-190613	6/13/2019	<310	<0.66	<7.1
OS3-W	OS3-W-190613	6/13/2019	<310	<0.65	<5.1
	OS3-W-200602	6/2/2020	<368	<1.28	<8.15
OS357-W	OS357-W-200602	6/2/2020	<362	<1.32	<6.86
	OS357-W-210525	5/25/2021	<401	<0.976	<8.58
OS8-W	OS8-W-200603	6/3/2020	<360	<1.37	<8.20
	OS8-W-210526	5/26/2021	<410	<1.17	<5.69
SRE-W	SRE-W-200603	6/3/2020	<360	<1.54	<6.76
Screening Criteria					
Maximum Contaminant Level ⁴			20,000	8.0	None
SSFL Groundwater Comparison Concentrations ⁵			20,000	8.0	200

Notes:

1. Samples analyzed for total tritium using U.S. Environmental Protection Agency (USEPA) Method 906.0 or equivalent.
2. Samples analyzed for total strontium-90 using USEPA Method 905.0 or equivalent.
3. Samples analyzed for total cesium-137 using USEPA Method 901.1 or equivalent.
4. California maximum contaminant levels as established in Title 22 of the California Code of Regulations.
5. Concentrations are based on the maximum contaminant level or are based on the effective dose equivalent of 4 millirems per year (see Stantec, 2019).

Abbreviations:

- pCi/L = picocuries per liter
- < = Analyte was not detected above the reporting limit shown. For radionuclides, the minimum detectable concentration is displayed.

References:

Stantec Consulting Services, 2019, Boeing Report on Annual Groundwater Monitoring, 2018, Santa Susana Field Laboratory, Ventura County, California, Stantec PN: 185865105, 22 February.

TABLE 6
FRUIT ANALYTICAL RESULTS - METALS AND PERCHLORATE
 AJU Brandeis-Bardin Campus
 Brandeis, CA



Sample Location Name	Sample Name	Matrix	Date Collected	Antimony		Arsenic		Barium		Beryllium		Cadmium		Chromium		Cobalt		Copper		Lead		Mercury ²	
				PRG ⁴	Conc.	PRG	Conc.	PRG	Conc.	PRG	Conc.	PRG	Conc.	PRG	Conc.	PRG	Conc.	PRG	Conc.	PRG	Conc.	PRG	Conc.
µg/kg																							
On-Site Samples																							
AV-1	AV-1-200604	Avocado	6/4/2020	11,000	1,450	0.77	<475	540,000	214	540	<95.1	2,700	<95.1	4,100,000	<143	810	<143	110,000	4,500	Note 5	<314	430	<6.81
A-1	A-1-200604	Apple	6/4/2020	15,000	<330	1.10	<500	740,000	225	740	<100	3,700	<100	5,600,000	<150	1,100	<150	150,000	563	Note 5	397	590	<7.73
G-1	G-1-200604	Grapefruit	6/4/2020	890	343	0.06	<453	45,000	602	44.5	<90.6	220	<90.6	330,000	<136	66.8	<136	8,900	435	Note 5	<299	35.6	<7.20
O-1	O-1-200604	Orange	6/4/2020	890	<303	0.06	<459	45,000	883	44.5	<91.7	220	<91.7	330,000	<138	66.8	<138	8,900	454	Note 5	<303	35.6	<7.08
L-1	L-1-200604	Lemon	6/4/2020	890	<304	0.06	<461	45,000	437	44.5	<92.3	220	<92.3	330,000	<138	66.8	<138	8,900	367	Note 5	<304	35.6	<7.67
	L-1-210527	Lemon	5/27/2021	890	496 J	0.06	<455	45,000	423 J	44.5	<91.1	220	<91.1	330,000	<137	66.8	<137	8,900	<273	Note 5	<301	35.6	<7.64
Off-Site Reference Samples																							
AV-2	AV-2-200604	Avocado	6/4/2020	11,000	<315	0.77	<477	540,000	<95.4	540	<95.4	2,700	<95.4	4,100,000	<143	810	<143	110,000	3,240	Note 5	446	430	<7.50
A-2	A-2-200604	Apple	6/4/2020	15,000	460	1.10	<480	740,000	343	740	<96.0	3,700	<96.0	5,600,000	<144	1,100	<144	150,000	426	Note 5	<317	590	<7.31
G-2	G-2-200604	Grapefruit	6/4/2020	890	516	0.06	<481	45,000	149	44.5	<96.2	220	<96.2	330,000	<144	66.8	<144	8,900	3,360	Note 5	431	35.6	<7.50
O-2	O-2-200604	Orange	6/4/2020	890	<307	0.06	<466	45,000	313	44.5	<93.1	220	<93.1	330,000	<140	66.8	<140	8,900	636	Note 5	<307	35.6	<8.01
L-2	L-2-200604	Lemon	6/4/2020	890	<326	0.06	<494	45,000	<98.8	44.5	<98.8	220	<98.8	330,000	<148	66.8	<148	8,900	340	Note 5	<326	35.6	<7.53
	L-2-210527	Lemon	5/27/2021	890	<321	0.06	<486	45,000	134 J	44.5	<97.3	220	<97.3	330,000	<146	66.8	<146	8,900	321 J	Note 5	<321	35.6	<7.05

TABLE 6
FRUIT ANALYTICAL RESULTS - METALS AND PERCHLORATE
 AJU Brandeis-Bardin Campus
 Brandeis, CA



Sample Location Name	Sample Name	Matrix	Date Collected	Molybdenum		Nickel		Selenium		Silver		Thallium		Vanadium		Zinc		Perchlorate	
				PRG	Conc.	PRG	Conc.	PRG	Conc.	PRG	Conc.	PRG	Conc.	PRG	Conc.	PRG	Conc.	PRG	Conc.
On-Site Samples																			
AV-1	AV-1-200604	Avocado	6/4/2020	14,000	<190	30,000	<143	14,000	<475	14,000	<95.1	27.0	<475	14,000	<95.1	810,000	5610	1,900	<0.437
A-1	A-1-200604	Apple	6/4/2020	19,000	<200	41,000	<150	19,000	<500	19,000	<100	37.0	<500	19,000	<100	1,100,000	1,480 J	2,600	<0.455
G-1	G-1-200604	Grapefruit	6/4/2020	1,100	<181	2,400	<136	1,100	<453	1,100	<90.6	2.23	<453	1,100	<90.6	67,000	2,400	160	<4.05
O-1	O-1-200604	Orange	6/4/2020	1,100	<183	2,400	315 J	1,100	<459	1,100	<91.7	2.23	<459	1,100	<91.7	67,000	3,230	160	<10.2
L-1	L-1-200604	Lemon	6/4/2020	1,100	<185	2,400	<138	1,100	<461	1,100	<92.3	2.23	<461	1,100	<92.3	67,000	3,450	160	<10.6
	L-1-210527	Lemon	5/27/2021	1,100	<182	2,400	<137	1,100	<455	1,100	<91.1	2.23	<455	1,100	<91.1	67,000	5,770 J	160	<0.403
Off-Site Reference Samples																			
AV-2	AV-2-200604	Avocado	6/4/2020	14,000	<191	30,000	245 J	14,000	<477	14,000	<95.4	27.0	<477	14,000	<95.4	810,000	4,970	1,900	<0.840
A-2	A-2-200604	Apple	6/4/2020	19,000	<192	11,000	151 J	19,000	<480	19,000	<96.0	37.0	<480	19,000	<96.0	1,100,000	2,270	2,600	<0.459
G-2	G-2-200604	Grapefruit	6/4/2020	1,100	<192	2,450	<144	1,100	<481	1,100	<96.2	2.23	<481	1,100	<96.2	67,000	4,370	160	<4.29
O-2	O-2-200604	Orange	6/4/2020	1,100	<186	2,450	143 J	1,100	<466	1,100	<93.1	2.23	<466	1,100	<93.1	67,000	4,050	160	<10.7
L-2	L-2-200604	Lemon	6/4/2020	1,100	<198	2,450	<148	1,100	<494	1,100	<98.8	2.23	<494	1,100	<98.8	67,000	1,700 J	160	<10.0
	L-2-210527	Lemon	5/27/2021	1,100	<195	2,450	<146	1,100	<486	1,100	<97.3	2.23	<486	1,100	<97.3	67,000	5,240 J	160	<0.426

Notes:

1. Samples analyzed for metals using U.S. Environmental Protection Agency (USEPA) Method 6010 unless otherwise indicated.
2. Samples analyzed for mercury using USEPA Method 7471A.
3. Samples collected in June 2020 were analyzed for perchlorate using SW846 6850 Modified (USEPA Method 6850).
4. Preliminary remediation goals assuming a residential exposure scenario for each produce type were calculated using the 2019 USEPA calculator and assume the exposure frequencies below based on the average length of the fruit-producing season in Ventura County for each type of fruit:
 Avocado = 129 days per year
 Apples = 92 days per year
 Grapefruits, Oranges, and Lemons = 350 days per year
5. Adverse health effects from exposure to lead at residential sites is evaluated by calculating the blood lead level of a child. The evaluation in 2020 was conducted using the DTSC's LeadSpread8. For more information, see Appendix A of the 2020 monitoring report (GSI, 2020). The results indicated that the presence of lead at the Site, when detected, does not result in adverse health effects for a residential exposure. No additional lead was detected in the lemon sample collected in 2021, so the conclusion has not changed from 2020.

Abbreviations:

- Bold** = analyte detected above the laboratory reporting limit
- < = analyte was not detected above the detection limit shown
- µg/kg = micrograms per kilogram
- = not applicable
- J = Value is estimated.

References:

- Department of Toxic Substances Control (DTSC), 2013, Chemical Look-Up Table Technical Memorandum, Santa Susana Field Laboratory, Ventura County, California, June 11.
- GSI Environmental, Inc. (GSI), 2020, 2020 Monitoring Report, American Jewish University, Brandeis-Bardin Campus, 1101 Peppertree lane, Brandeis, California, 5 August.

TABLE 7
FRUIT ANALYTICAL RESULTS - RADIONUCLIDES
 AJU Brandeis-Bardin Campus
 Brandeis, CA



Sample Location Name	Sample Name	Sample Type	Date Collected	Tritium ¹		Strontium-90 ²		Cesium-137 ³	
				PRG ⁴	Concentration	PRG ⁴	Concentration	PRG ⁴	Concentration
				pCi/g ⁵					
On-Site Samples									
AV-1	AV-1-190830	Avocado	8/30/2019	7.76	–	3.21	<0.227	16.8	–
	AV-1-200604		6/4/2020		<3.28		<0.237		<0.0288
A-1	A-1-190830	Apple	8/30/2019	9.5	–	3.9	<0.187	20.5	–
	A-1-200604		6/4/2020		<4.90		<0.0447		<0.0115
G-1	G-1-190830	Grapefruit	8/30/2019	2.04	–	0.843	<0.212	4.41	–
	G-1-200604		6/4/2020		<4.78		<0.0714		<0.0134
O-1	O-1-200604	Orange	6/4/2020	2.04	<4.98	0.843	<0.0488	4.41	<0.0113
L-1	L-1-190830	Lemon	8/30/2019	2.04	–	0.843	<0.117	4.41	–
	L-1-200604		6/4/2020		<4.57		<0.0419		<0.00739
	L-1-210527		5/27/2021		<1.13 UJ		<0.119		<0.0120
Off-Site Reference Samples									
AV-2	AV-2-190830	Avocado	8/30/2019	7.76	–	3.21	<0.225	16.8	–
	AV-2-200604		6/4/2020		<4.64		<0.140		<0.0145
A-2	A-2-190830	Apple	8/30/2019	9.5	–	3.9	<0.151	20.5	–
	A-2-200604		6/4/2020		<3.28		<0.0634		<0.0123
G-2	G-2-190830	Grapefruit	8/30/2019	2.04	–	0.843	<0.150	4.41	–
	G-2-200604		6/4/2020		<3.38		<0.0425		<0.00968
O-2	O-2-200604	Orange	6/4/2020	2.04	<4.63	0.843	<0.0467	4.41	<0.0308
L-2	L-2-190830	Lemon	8/30/2019	2.04	–	0.843	<0.126	4.41	–
	L-2-1200604		6/4/2020		<3.25		<0.0440		<0.0114
	L-2-210527		5/27/2021		<0.960 UJ		<0.0332		<0.0119

Notes:

1. Samples analyzed for tritium using U.S. Environmental Protection Agency (USEPA) Method 906.0 or equivalent.
2. Samples analyzed for strontium-90 using USEPA Method 905.0 or equivalent.
3. Samples analyzed for cesium-137 using DOE HASL 300 GA-01-R.
4. Preliminary remediation goals assuming a residential exposure scenario for each produce type were calculated using the 2019 USEPA calculator.

TABLE 7
FRUIT ANALYTICAL RESULTS - RADIONUCLIDES
AJU Brandeis-Bardin Campus
Brandeis, CA



5. Where an analyte is reported by the laboratory at an estimated concentration that is less than the minimal detectable concentration (MDC), the result is shown as less than the MDC.

Abbreviations:

pCi/g = picocuries per gram

PRG = preliminary remediation goal

< = analyte was not detected above the minimal detectable concentration (MDC) shown

– = not analyzed

UJ = The analyte was analyzed for, but not detected. The reported quantitation limit is approximate and may be inaccurate or imprecise.

References:

U.S. Environmental Protection Agency (USEPA), 2019, Preliminary Remediation Goals for Radionuclides (PRG), January.

2021 Monitoring Report

American Jewish University, Brandeis-Bardin Campus
1101 Peppertree Lane
Brandeis, California

Figures

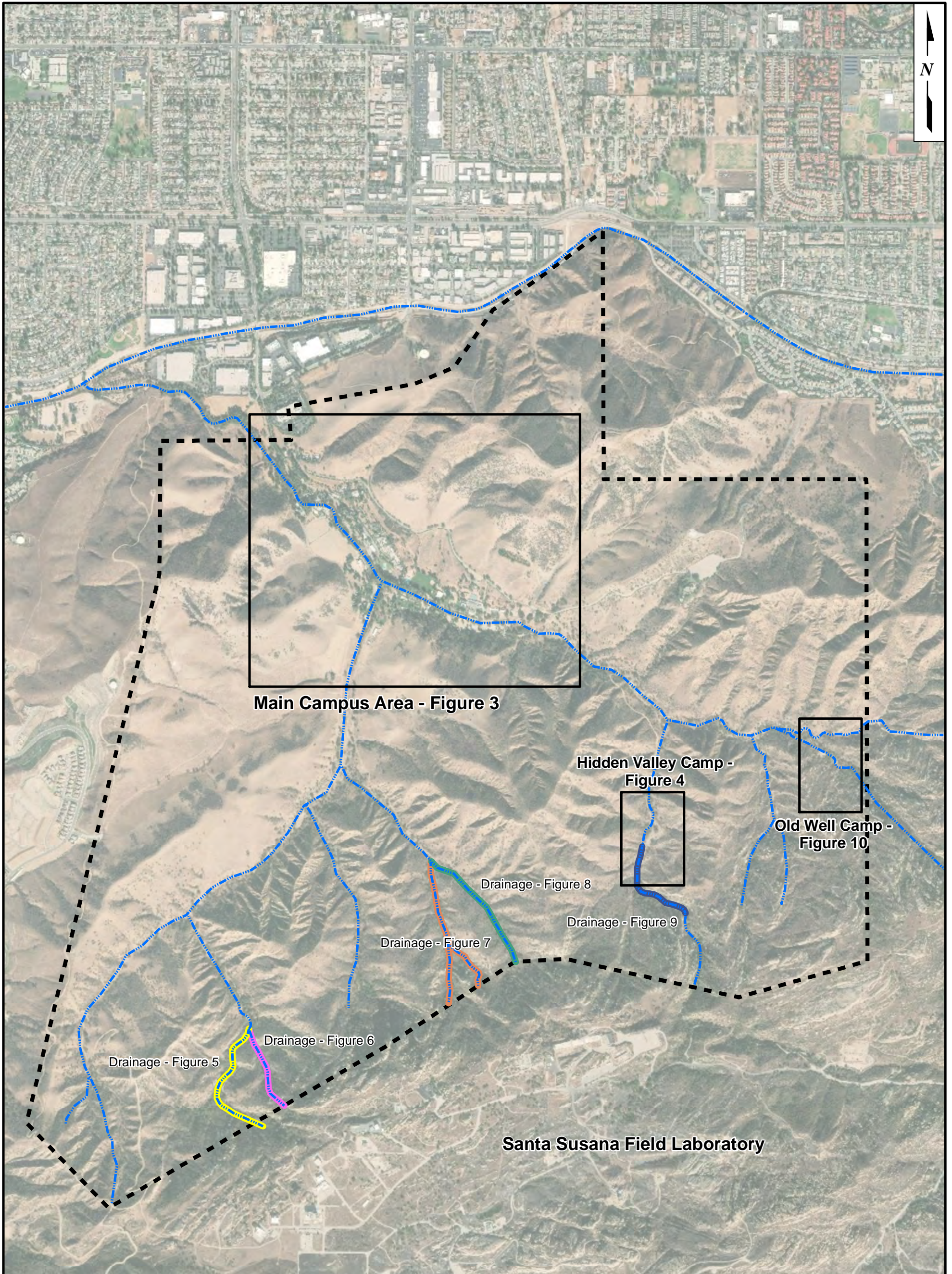
Figure 1	Site Location Map
Figure 2	Site Map and Features
Figure 3	Main Campus Area Map and Sampling Locations
Figure 4	Hidden Valley Camp Sampling Locations
Figure 5	Sampling Locations OS3-W, OS357-W and BP-SED-1
Figure 6	Sampling Location RRMDf-SED-1
Figure 7	Sampling Locations SRE-SED-1, SRE-SED-2 and SRE-W
Figure 8	Sampling Locations OS1-W and OS1-SED-1
Figure 9	Sampling Locations OS8-SED-1 and OS-8-W
Figure 10	Sampling Location OW-SED-1
Figure 11	Fruit Orchard Sampling Locations



GSI Job No.	5182	Drawn by:	AV
Issued:	23-May-2019	Chk'd by:	TZW
Revised:		Apr'd by:	SMG
Map ID:	AJU_SiteLocMap	FIGURE 1	



SITE LOCATION MAP

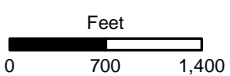
American Jewish University, Brandeis-Bardin Campus
1101 Peppertree Lane, Brandeis, California



Note:
 Imagery downloaded from Esri ArcGIS Online, 2017.

LEGEND

-  Approximate Site Boundary
-  Intermittent Stream



GSI Job No.	5182	Map ID:	AJU_SiteMapDrainages
Issued:	20-Nov-2019	Drawn By:	AV
		Chk'd By:	TZW
		Apr'd By:	SMG

SITE MAP AND FEATURES

American Jewish University, Brandeis-Bardin Campus
 1101 Peppertree Lane, Brandeis, California

FIGURE 2



LEGEND

- Soil Sampling Location
- Approximate Site Boundary
- Site Feature
- Intermittent Stream

Note
 Imagery downloaded from Esri ArcGIS Online, 2017.

Scale (Feet)
 0 200 400

Projected Coordinate System
 Datum: NAD 1983
 State Plane California Zone V
 Units: Feet

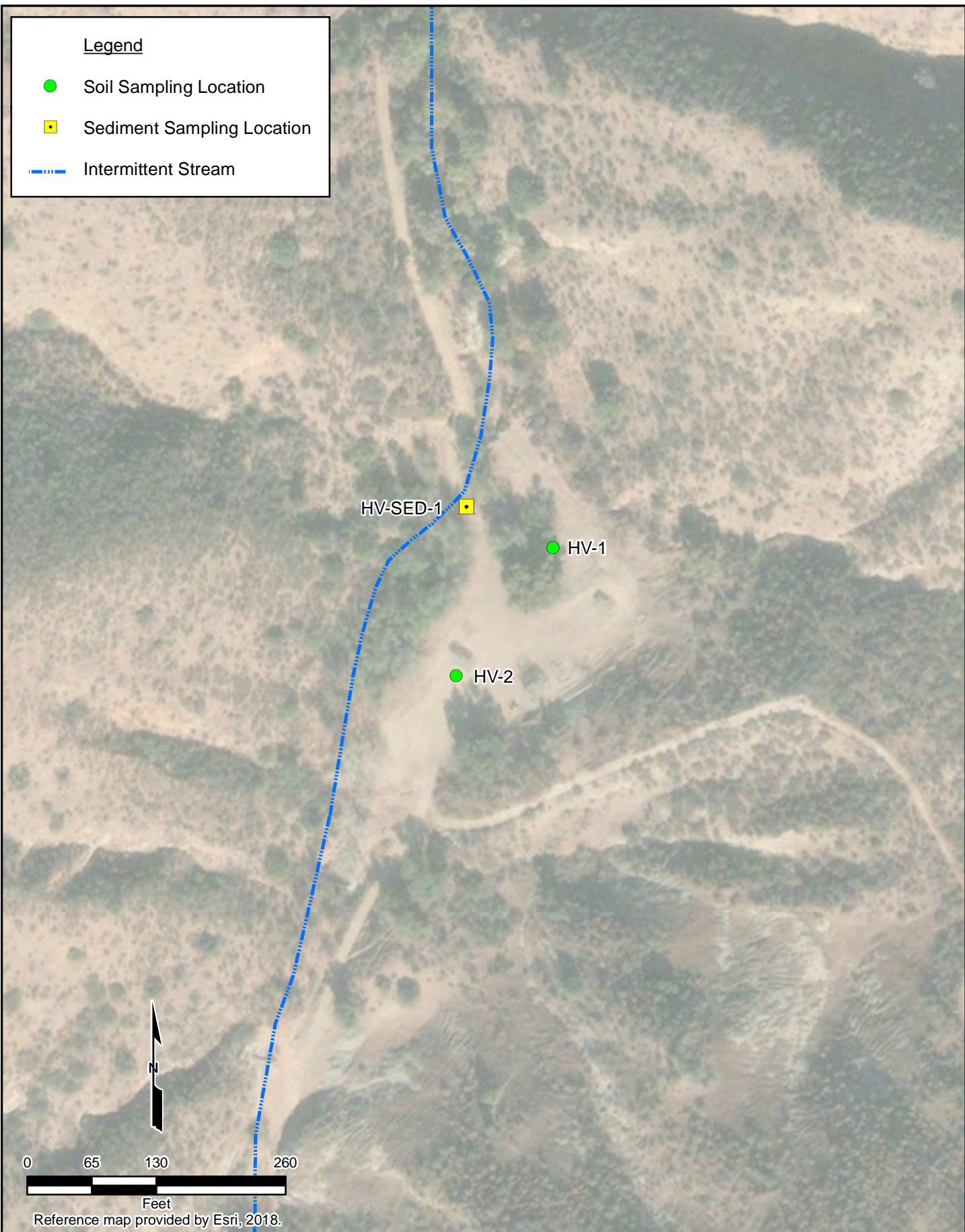



**MAIN CAMPUS AREA MAP
 AND SAMPLING LOCATIONS**

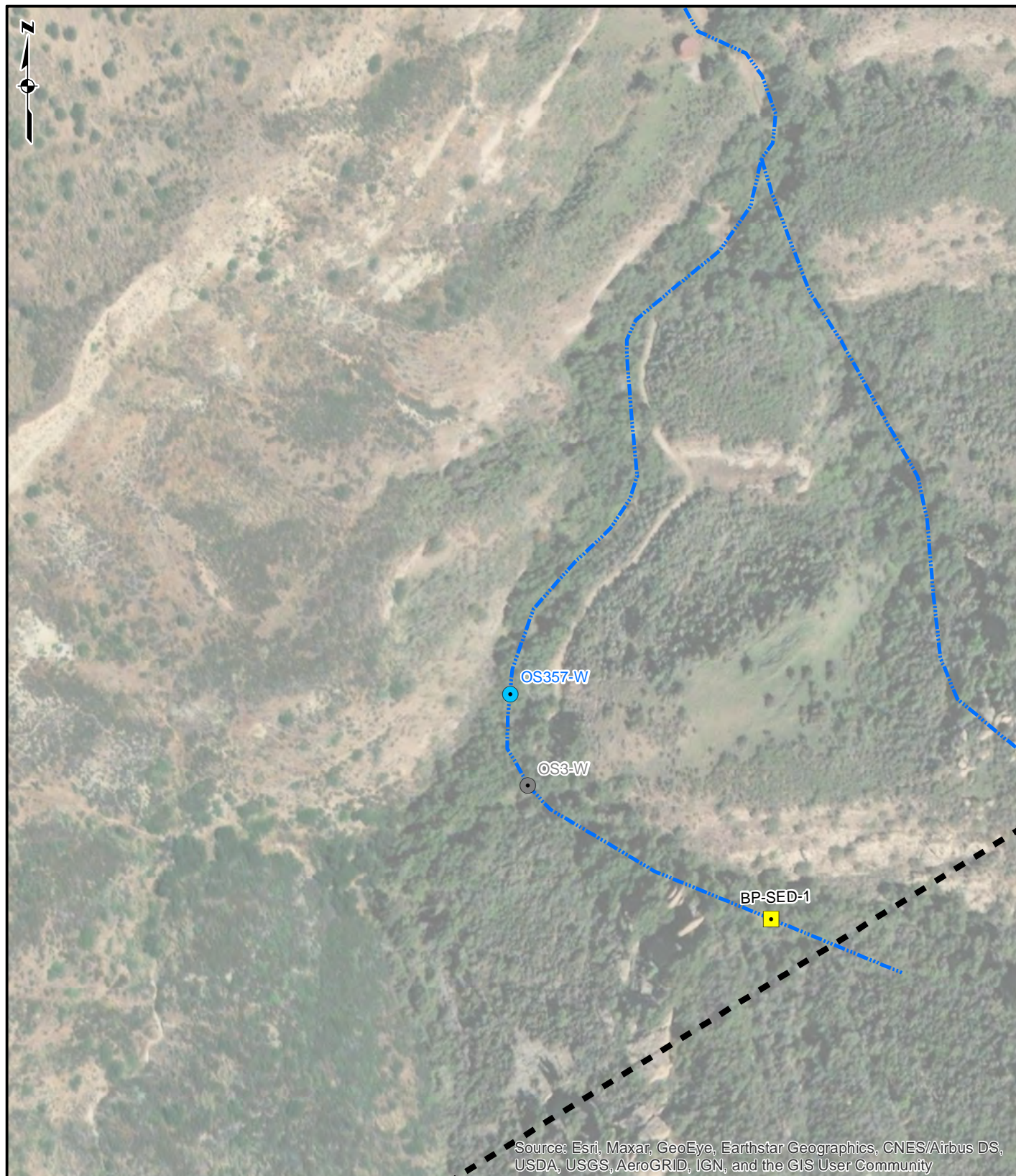
American Jewish University, Brandeis-Bardin Campus
 1101 Peppertree Lane, Brandeis, California

GSI Job No.	5182	Drawn By:	AV
Issued:	20-Sep-2019	Chk'd By:	TZW
Map ID:	AJU_MainCampusLand	Appv'd By:	SMG

FIGURE 3



	GSI Job No. 5182	Drawn by: AV	<p>HIDDEN VALLEY CAMP SAMPLING LOCATIONS</p> <p>American Jewish University, Brandeis-Bardin Campus 1101 Peppertree Lane, Brandeis, California</p> <p>FIGURE 4</p>
	Issued: 20-Sep-2019	Chk'd by: TZW	
	Revised:	Aprv'd by: SMG	
	Map ID: AJU_HVC_8x11		



BP-SED-1



OS357-W



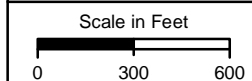
OS3-W

LEGEND

- Sediment Sampling Location
- Intermittent Stream
- Water Sampling Location
- Approximate Site Boundary
- Water Sampling Location - Not Sampled in 2021

**SAMPLING LOCATIONS
OS3-W, OS357-W AND BP-SED-1**

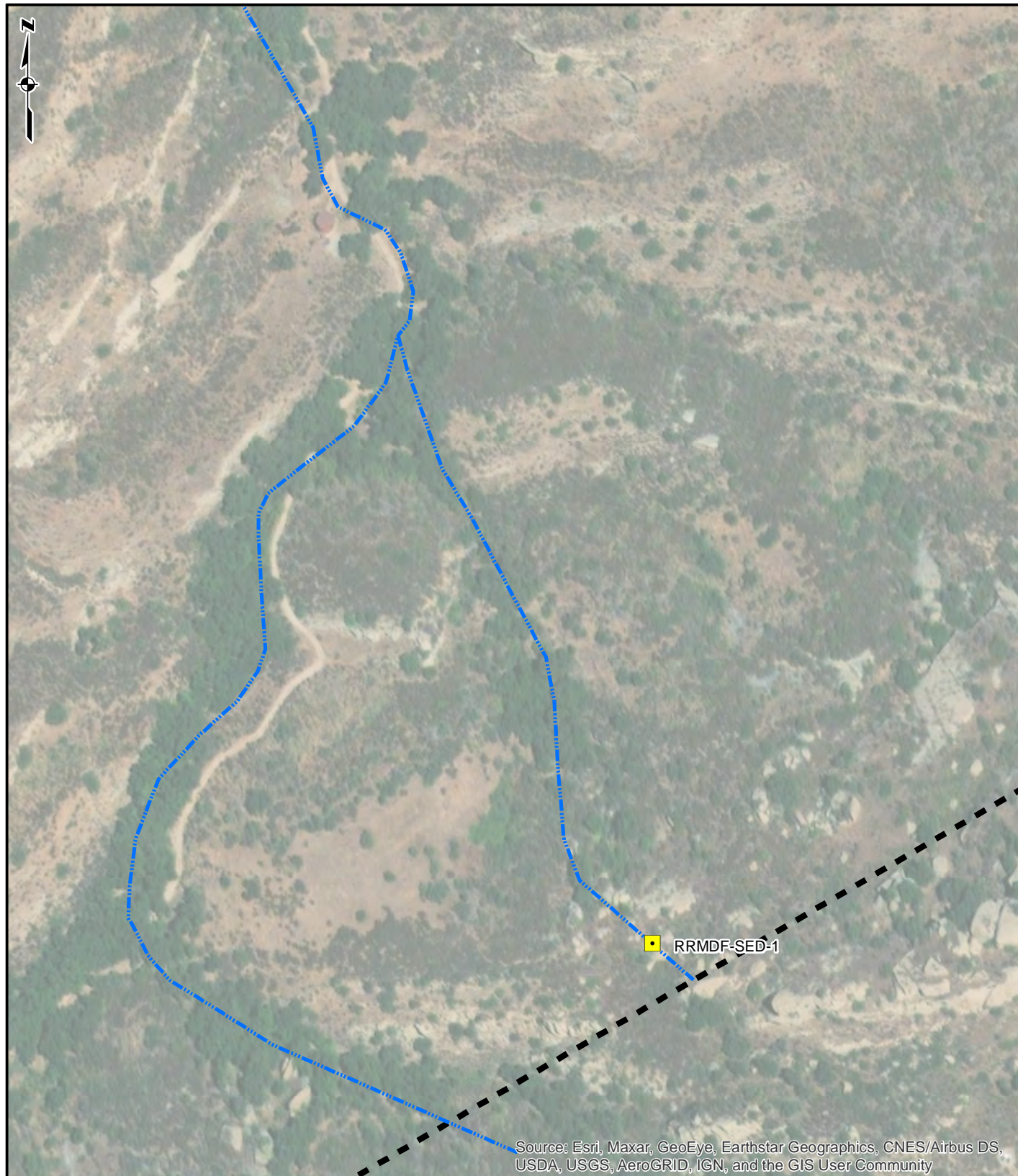
American Jewish University, Brandeis-Bardin Campus
1101 Peppertree Lane, Brandeis, California



State Plane
California Zone V
Datum: NAD 83

GSI Job No.	5182	Drawn By:	AV
Issued:	August 2021	Chk'd By:	TZW
Map ID:	AJU_BurnPit_0721	Appv'd By:	SMG

FIGURE 5



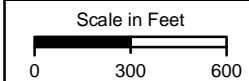
RRMDF-SED-1

LEGEND

- Sediment Sampling Location
- Approximate Site Boundary
- Intermittent Stream

SAMPLING LOCATION RRMDF-SED-1

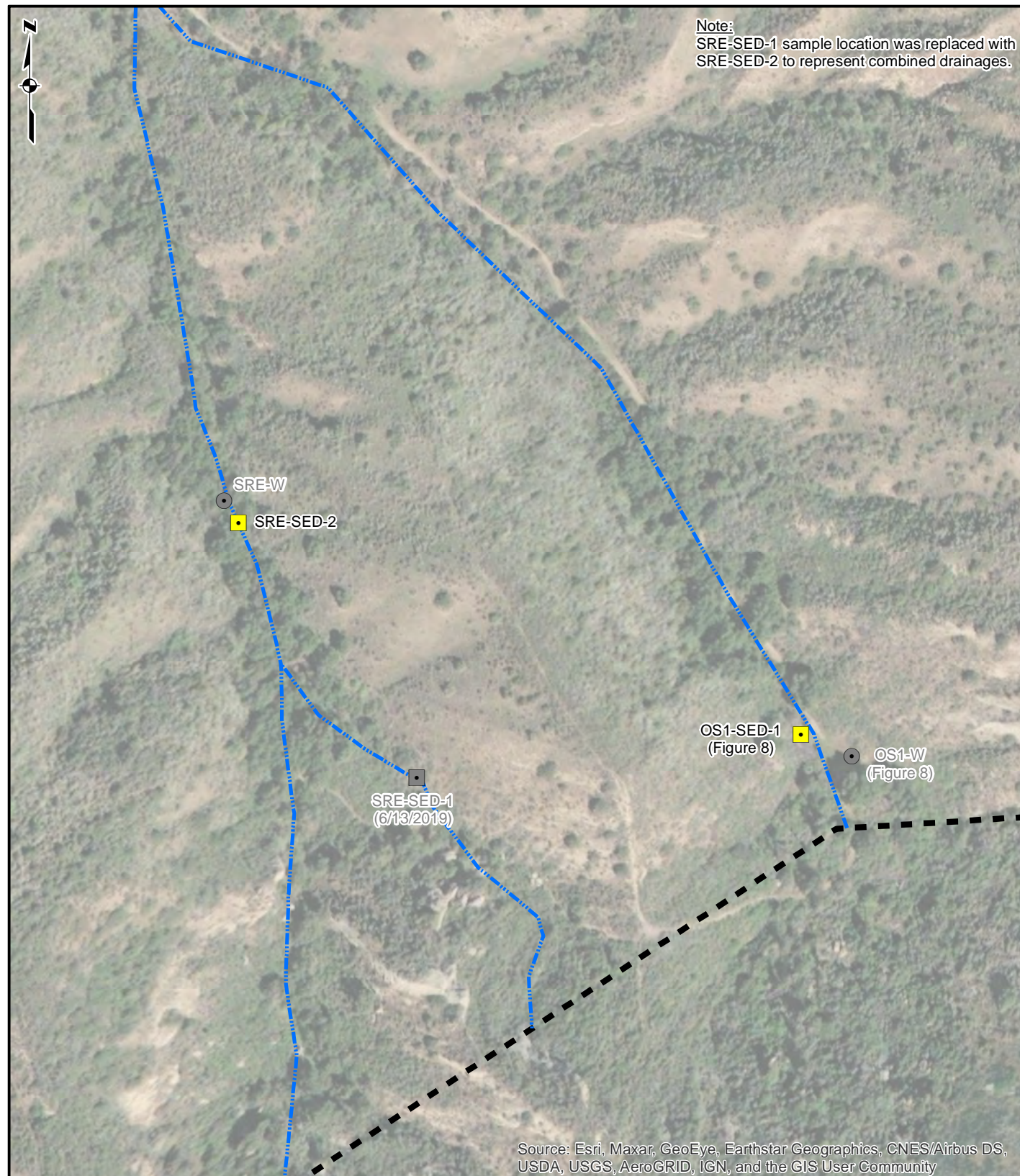
American Jewish University, Brandeis-Bardin Campus
1101 Peppertree Lane, Brandeis, California



State Plane
California Zone V
Datum: NAD 83

GSI Job No.	5182	Drawn By:	AV
Issued:	August 2021	Chk'd By:	TZW
Map ID:	AJU_ReactorRMDF_0620	Appv'd By:	TZW

FIGURE 6

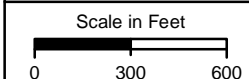


LEGEND

- Water Sampling Location - Not Sampled in 2021
- Sediment Sampling Location
- Sediment Sampling Location - Not Sampled in 2021
- Intermittent Stream
- Approximate Site Boundary

**SAMPLING LOCATIONS
SRE-SED-1, SRE-SED-2 AND SRE-W**

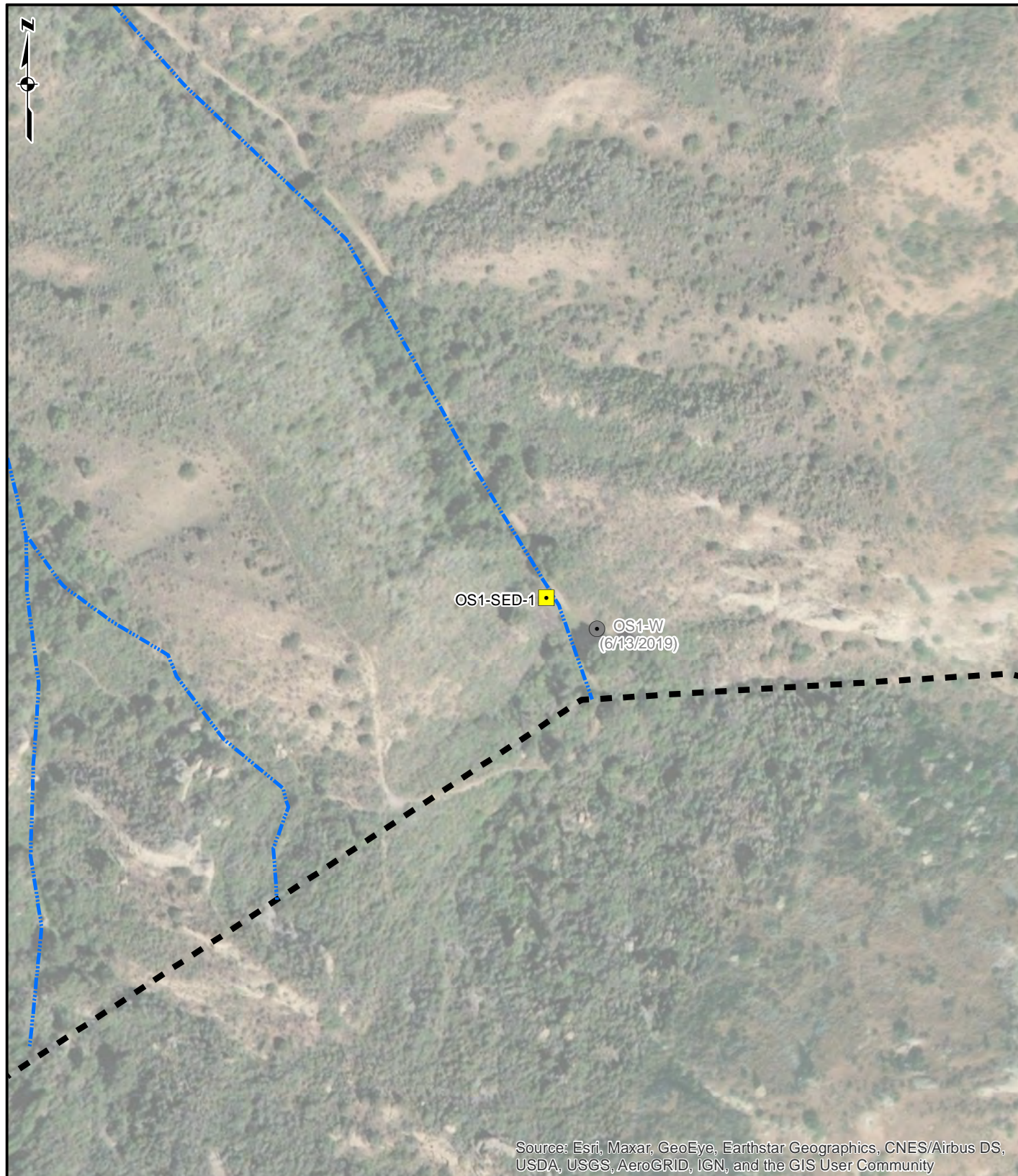
American Jewish University, Brandeis-Bardin Campus
1101 Peppertree Lane, Brandeis, California



State Plane
California Zone V
Datum: NAD 83

GSI Job No.	5182	Drawn By:	AV
Issued:	2-Jul-2021	Chk'd By:	TZW
Map ID:	AJU_SRER_0721	Appv'd By:	TZW

FIGURE 7



Note that Spring OS1 was found to be the same as artesian monitoring wells RD-68A and 68B, which are monitored regularly by NASA. As such, no sample was collected during the May 2021 monitoring event.

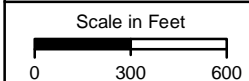


LEGEND

- Water Sampling Location - Not Sampled in 2021
- Sediment Sampling Location
- Intermittent Stream
- Approximate Site Boundary

**SAMPLING LOCATIONS
OS1-W AND OS1-SED-1**

American Jewish University, Brandeis-Bardin Campus
1101 Peppertree Lane, Brandeis, California



State Plane
California Zone V
Datum: NAD 83

GSI Job No.	5182	Drawn By:	AV
Issued:	2-Jul-2021	Chk'd By:	TZW
Map ID:	AJU_OS1_0721	Appv'd By:	TZW

FIGURE 8

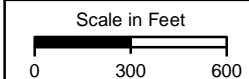


LEGEND

- Water Sampling Location
- Sediment Sampling Location
- - - - - Intermittent Stream
- Approximate Site Boundary

**SAMPLING LOCATIONS
OS8-SED-1 AND OS8-W**

American Jewish University, Brandeis-Bardin Campus
1101 Peppertree Lane, Brandeis, California



State Plane
California Zone V
Datum: NAD 83

GSI Job No.	5182	Drawn By:	AV
Issued:	2-Jul-2021	Chk'd By:	TZW
Map ID:	AJU_OS8_0620	Appv'd By:	TZW

FIGURE 9

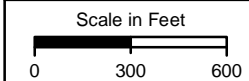


LEGEND

- Sediment Sampling Location
- Approximate Site Boundary
- Intermittent Stream

SAMPLING LOCATION OW-SED-1

American Jewish University, Brandeis-Bardin Campus
1101 Peppertree Lane, Brandeis, California






State Plane
California Zone V
Datum: NAD 83

GSI Job No.	5182	Drawn By:	AV
Issued:	August 2021	Chk'd By:	TZW
Map ID:	AJU_OWC_0621	Appv'd By:	SMG

FIGURE 10

Legend

-  Fruit Sampling Location
-  Fruit Sampling Location - Not Sampled in 2021
-  Intermittent Stream



Notes:
 1. For general location on the campus, see Figure 3.
 2. Aerial Image downloaded from Google Earth Pro, January 2019.



GSI Job No.	5182	Drawn by:	AV
Issued:	2-Jul-2021	Chk'd by:	TZW
Revised:		Aprv'd by:	SMG
Map ID:	AJU_FruitOrchard_0721	FIGURE 11	

FRUIT ORCHARD SAMPLING LOCATIONS

American Jewish University, Brandeis-Bardin Campus
 1101 Peppertree Lane, Brandeis, California

2021 Monitoring Report

American Jewish University, Brandeis-Bardin Campus
1101 Peppertree Lane
Brandeis, California

Appendices

- Appendix A. Analytical Laboratory Reports – Soil and Sediment Samples
- Appendix B. Analytical Laboratory Reports – Water Samples
- Appendix C. Analytical Laboratory Reports – Fruit Samples

2021 Monitoring Report

American Jewish University, Brandeis-Bardin Campus
1101 Peppertree Lane
Brandeis, California

Appendix A

Analytical Laboratory Reports – Soil and Sediment Samples


ANALYTICAL REPORT

Eurofins TestAmerica, Sacramento
880 Riverside Parkway
West Sacramento, CA 95605
Tel: (916)373-5600

Laboratory Job ID: 320-74350-1
Client Project/Site: AJU-BB

For:
GSI Environmental, Inc
155 Grand Avenue
Suite 704
Oakland, California 94612

Attn: Susan Gallardo



Authorized for release by:
6/7/2021 2:12:49 PM

Afsaneh Salimpour, Senior Project Manager
(925)484-1919
Afsaneh.Salimpour@Eurofinset.com

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

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

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



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Definitions/Glossary

Client: GSI Environmental, Inc
Project/Site: AJU-BB

Job ID: 320-74350-1

Glossary

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

Case Narrative

Client: GSI Environmental, Inc
Project/Site: AJU-BB

Job ID: 320-74350-1

Job ID: 320-74350-1

Laboratory: Eurofins TestAmerica, Sacramento

Narrative

**Job Narrative
320-74350-1**

Comments

No additional comments.

Receipt

The samples were received on 5/28/2021 9:20 AM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperatures of the 2 coolers at receipt time were 3.5° C and 4.6° C.

GC/MS Semi VOA

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

Metals

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

General Chemistry

Method 314.0: The following samples in analytical batch 320-494739 were diluted due to the nature of the sample matrix: CIT-1-210525 (320-74350-3), SRE-SED-2-210526 (320-74350-4) and OS1-SED-1-210526 (320-74350-5). The samples were difficult to filter after being centrifuged. In order to protect the instrument, the samples were diluted. Elevated reporting limits (RLs) are provided.

Method 314.0: The following samples in analytical batch 320-495092 were diluted due to the nature of the sample matrix: HV-2-210526 (320-74350-7), TF-1-210526 (320-74350-11), GF-1-210527 (320-74350-13) and AT-1-210527 (320-74350-14). Samples were difficult to filter after being centrifuged. In order to protect instrumentation, the samples were diluted. Elevated reporting limits (RLs) are provided.

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

Organic Prep

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

Detection Summary

Client: GSI Environmental, Inc
Project/Site: AJU-BB

Job ID: 320-74350-1

Client Sample ID: RRMDf-SED-1-210525

Lab Sample ID: 320-74350-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	3.4		2.0		mg/Kg	1		6010B	Total/NA
Barium	71		0.99		mg/Kg	1		6010B	Total/NA
Beryllium	0.97		0.20		mg/Kg	1		6010B	Total/NA
Cadmium	0.21		0.20		mg/Kg	1		6010B	Total/NA
Cobalt	4.1		0.50		mg/Kg	1		6010B	Total/NA
Chromium	12		0.50		mg/Kg	1		6010B	Total/NA
Copper	7.1		1.5		mg/Kg	1		6010B	Total/NA
Nickel	7.7		0.99		mg/Kg	1		6010B	Total/NA
Lead	8.3		0.99		mg/Kg	1		6010B	Total/NA
Antimony	20		2.0		mg/Kg	1		6010B	Total/NA
Vanadium	23		0.50		mg/Kg	1		6010B	Total/NA
Zinc	49		2.0		mg/Kg	1		6010B	Total/NA

Client Sample ID: BP-SED-1-210525

Lab Sample ID: 320-74350-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	12		2.0		mg/Kg	1		6010B	Total/NA
Barium	51		1.0		mg/Kg	1		6010B	Total/NA
Beryllium	0.89		0.20		mg/Kg	1		6010B	Total/NA
Cobalt	3.8		0.50		mg/Kg	1		6010B	Total/NA
Chromium	11		0.50		mg/Kg	1		6010B	Total/NA
Copper	6.4		1.5		mg/Kg	1		6010B	Total/NA
Nickel	7.6		1.0		mg/Kg	1		6010B	Total/NA
Lead	9.3		1.0		mg/Kg	1		6010B	Total/NA
Antimony	21		2.0		mg/Kg	1		6010B	Total/NA
Vanadium	22		0.50		mg/Kg	1		6010B	Total/NA
Zinc	45		2.0		mg/Kg	1		6010B	Total/NA

Client Sample ID: CIT-1-210525

Lab Sample ID: 320-74350-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	2.7		2.0		mg/Kg	1		6010B	Total/NA
Barium	44		0.98		mg/Kg	1		6010B	Total/NA
Beryllium	0.63		0.20		mg/Kg	1		6010B	Total/NA
Cobalt	3.9		0.49		mg/Kg	1		6010B	Total/NA
Chromium	12		0.49		mg/Kg	1		6010B	Total/NA
Copper	8.9		1.5		mg/Kg	1		6010B	Total/NA
Nickel	7.4		0.98		mg/Kg	1		6010B	Total/NA
Lead	8.7		0.98		mg/Kg	1		6010B	Total/NA
Antimony	12		2.0		mg/Kg	1		6010B	Total/NA
Vanadium	21		0.49		mg/Kg	1		6010B	Total/NA
Zinc	52		2.0		mg/Kg	1		6010B	Total/NA

Client Sample ID: SRE-SED-2-210526

Lab Sample ID: 320-74350-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	2.3		2.0		mg/Kg	1		6010B	Total/NA
Barium	47		0.98		mg/Kg	1		6010B	Total/NA
Beryllium	0.82		0.20		mg/Kg	1		6010B	Total/NA
Cobalt	3.5		0.49		mg/Kg	1		6010B	Total/NA
Chromium	8.8		0.49		mg/Kg	1		6010B	Total/NA
Copper	8.8		1.5		mg/Kg	1		6010B	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Sacramento

Detection Summary

Client: GSI Environmental, Inc
Project/Site: AJU-BB

Job ID: 320-74350-1

Client Sample ID: SRE-SED-2-210526 (Continued)

Lab Sample ID: 320-74350-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Nickel	5.6		0.98		mg/Kg	1		6010B	Total/NA
Lead	7.4		0.98		mg/Kg	1		6010B	Total/NA
Antimony	17		2.0		mg/Kg	1		6010B	Total/NA
Vanadium	19		0.49		mg/Kg	1		6010B	Total/NA
Zinc	43		2.0		mg/Kg	1		6010B	Total/NA

Client Sample ID: OS1-SED-1-210526

Lab Sample ID: 320-74350-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Silver	1.0		0.49		mg/Kg	1		6010B	Total/NA
Arsenic	3.0		1.9		mg/Kg	1		6010B	Total/NA
Barium	61		0.97		mg/Kg	1		6010B	Total/NA
Beryllium	0.98		0.19		mg/Kg	1		6010B	Total/NA
Cobalt	4.5		0.49		mg/Kg	1		6010B	Total/NA
Chromium	13		0.49		mg/Kg	1		6010B	Total/NA
Copper	7.3		1.5		mg/Kg	1		6010B	Total/NA
Nickel	7.9		0.97		mg/Kg	1		6010B	Total/NA
Lead	8.6		0.97		mg/Kg	1		6010B	Total/NA
Antimony	22		1.9		mg/Kg	1		6010B	Total/NA
Vanadium	25		0.49		mg/Kg	1		6010B	Total/NA
Zinc	54		1.9		mg/Kg	1		6010B	Total/NA
Mercury	0.11		0.041		mg/Kg	1		7471A	Total/NA

Client Sample ID: HV-1-210526

Lab Sample ID: 320-74350-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	5.0		2.0		mg/Kg	1		6010B	Total/NA
Barium	66		0.98		mg/Kg	1		6010B	Total/NA
Beryllium	0.86		0.20		mg/Kg	1		6010B	Total/NA
Cobalt	3.6		0.49		mg/Kg	1		6010B	Total/NA
Chromium	12		0.49		mg/Kg	1		6010B	Total/NA
Copper	6.6		1.5		mg/Kg	1		6010B	Total/NA
Nickel	6.4		0.98		mg/Kg	1		6010B	Total/NA
Lead	4.5		0.98		mg/Kg	1		6010B	Total/NA
Antimony	19		2.0		mg/Kg	1		6010B	Total/NA
Vanadium	20		0.49		mg/Kg	1		6010B	Total/NA
Zinc	46		2.0		mg/Kg	1		6010B	Total/NA

Client Sample ID: HV-2-210526

Lab Sample ID: 320-74350-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Silver	1.4		0.49		mg/Kg	1		6010B	Total/NA
Arsenic	4.5		2.0		mg/Kg	1		6010B	Total/NA
Barium	58		0.98		mg/Kg	1		6010B	Total/NA
Beryllium	0.90		0.20		mg/Kg	1		6010B	Total/NA
Cadmium	0.20		0.20		mg/Kg	1		6010B	Total/NA
Cobalt	4.2		0.49		mg/Kg	1		6010B	Total/NA
Chromium	15		0.49		mg/Kg	1		6010B	Total/NA
Copper	10		1.5		mg/Kg	1		6010B	Total/NA
Nickel	9.2		0.98		mg/Kg	1		6010B	Total/NA
Lead	14		0.98		mg/Kg	1		6010B	Total/NA
Antimony	21		2.0		mg/Kg	1		6010B	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Sacramento

Detection Summary

Client: GSI Environmental, Inc
Project/Site: AJU-BB

Job ID: 320-74350-1

Client Sample ID: HV-2-210526 (Continued)

Lab Sample ID: 320-74350-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Vanadium	23		0.49		mg/Kg	1		6010B	Total/NA
Zinc	50		2.0		mg/Kg	1		6010B	Total/NA

Client Sample ID: HV-SED-1-210526

Lab Sample ID: 320-74350-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	3.9		2.0		mg/Kg	1		6010B	Total/NA
Barium	47		1.0		mg/Kg	1		6010B	Total/NA
Beryllium	0.75		0.20		mg/Kg	1		6010B	Total/NA
Cobalt	3.2		0.50		mg/Kg	1		6010B	Total/NA
Chromium	11		0.50		mg/Kg	1		6010B	Total/NA
Copper	7.1		1.5		mg/Kg	1		6010B	Total/NA
Nickel	6.7		1.0		mg/Kg	1		6010B	Total/NA
Lead	8.9		1.0		mg/Kg	1		6010B	Total/NA
Antimony	17		2.0		mg/Kg	1		6010B	Total/NA
Vanadium	19		0.50		mg/Kg	1		6010B	Total/NA
Zinc	43		2.0		mg/Kg	1		6010B	Total/NA

Client Sample ID: OS8-SED-1-210526

Lab Sample ID: 320-74350-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	2.1		1.9		mg/Kg	1		6010B	Total/NA
Barium	30		0.95		mg/Kg	1		6010B	Total/NA
Beryllium	0.48		0.19		mg/Kg	1		6010B	Total/NA
Cobalt	2.0		0.48		mg/Kg	1		6010B	Total/NA
Chromium	6.8		0.48		mg/Kg	1		6010B	Total/NA
Copper	4.3		1.4		mg/Kg	1		6010B	Total/NA
Nickel	4.4		0.95		mg/Kg	1		6010B	Total/NA
Lead	5.3		0.95		mg/Kg	1		6010B	Total/NA
Antimony	11		1.9		mg/Kg	1		6010B	Total/NA
Vanadium	13		0.48		mg/Kg	1		6010B	Total/NA
Zinc	24		1.9		mg/Kg	1		6010B	Total/NA

Client Sample ID: OW-SED-1-210526

Lab Sample ID: 320-74350-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	4.9		1.9		mg/Kg	1		6010B	Total/NA
Barium	56		0.97		mg/Kg	1		6010B	Total/NA
Beryllium	0.76		0.19		mg/Kg	1		6010B	Total/NA
Cobalt	3.4		0.49		mg/Kg	1		6010B	Total/NA
Chromium	9.9		0.49		mg/Kg	1		6010B	Total/NA
Copper	5.6		1.5		mg/Kg	1		6010B	Total/NA
Nickel	6.3		0.97		mg/Kg	1		6010B	Total/NA
Lead	7.1		0.97		mg/Kg	1		6010B	Total/NA
Antimony	18		1.9		mg/Kg	1		6010B	Total/NA
Vanadium	21		0.49		mg/Kg	1		6010B	Total/NA
Zinc	36		1.9		mg/Kg	1		6010B	Total/NA

Client Sample ID: TF-1-210526

Lab Sample ID: 320-74350-11

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	5.6		2.0		mg/Kg	1		6010B	Total/NA
Barium	84		0.99		mg/Kg	1		6010B	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Sacramento

Detection Summary

Client: GSI Environmental, Inc
Project/Site: AJU-BB

Job ID: 320-74350-1

Client Sample ID: TF-1-210526 (Continued)

Lab Sample ID: 320-74350-11

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Beryllium	1.0		0.20		mg/Kg	1		6010B	Total/NA
Cadmium	0.20		0.20		mg/Kg	1		6010B	Total/NA
Cobalt	7.6		0.50		mg/Kg	1		6010B	Total/NA
Chromium	20		0.50		mg/Kg	1		6010B	Total/NA
Copper	21		1.5		mg/Kg	1		6010B	Total/NA
Nickel	13		0.99		mg/Kg	1		6010B	Total/NA
Lead	11		0.99		mg/Kg	1		6010B	Total/NA
Antimony	17		2.0		mg/Kg	1		6010B	Total/NA
Vanadium	39		0.50		mg/Kg	1		6010B	Total/NA
Zinc	55		2.0		mg/Kg	1		6010B	Total/NA

Client Sample ID: KC-1-210527

Lab Sample ID: 320-74350-12

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	4.4		2.0		mg/Kg	1		6010B	Total/NA
Barium	49		0.98		mg/Kg	1		6010B	Total/NA
Beryllium	0.75		0.20		mg/Kg	1		6010B	Total/NA
Cobalt	4.5		0.49		mg/Kg	1		6010B	Total/NA
Chromium	14		0.49		mg/Kg	1		6010B	Total/NA
Copper	8.2		1.5		mg/Kg	1		6010B	Total/NA
Nickel	8.3		0.98		mg/Kg	1		6010B	Total/NA
Lead	9.6		0.98		mg/Kg	1		6010B	Total/NA
Antimony	13		2.0		mg/Kg	1		6010B	Total/NA
Vanadium	27		0.49		mg/Kg	1		6010B	Total/NA
Zinc	49		2.0		mg/Kg	1		6010B	Total/NA

Client Sample ID: GF-1-210527

Lab Sample ID: 320-74350-13

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	2.9		2.0		mg/Kg	1		6010B	Total/NA
Barium	41		1.0		mg/Kg	1		6010B	Total/NA
Beryllium	0.62		0.20		mg/Kg	1		6010B	Total/NA
Cadmium	0.21		0.20		mg/Kg	1		6010B	Total/NA
Cobalt	3.7		0.50		mg/Kg	1		6010B	Total/NA
Chromium	10		0.50		mg/Kg	1		6010B	Total/NA
Copper	7.3		1.5		mg/Kg	1		6010B	Total/NA
Nickel	6.7		1.0		mg/Kg	1		6010B	Total/NA
Lead	5.7		1.0		mg/Kg	1		6010B	Total/NA
Antimony	12		2.0		mg/Kg	1		6010B	Total/NA
Vanadium	22		0.50		mg/Kg	1		6010B	Total/NA
Zinc	60		2.0		mg/Kg	1		6010B	Total/NA

Client Sample ID: AT-1-210527

Lab Sample ID: 320-74350-14

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	4.4		1.9		mg/Kg	1		6010B	Total/NA
Barium	65		0.96		mg/Kg	1		6010B	Total/NA
Beryllium	0.81		0.19		mg/Kg	1		6010B	Total/NA
Cadmium	0.24		0.19		mg/Kg	1		6010B	Total/NA
Cobalt	5.0		0.48		mg/Kg	1		6010B	Total/NA
Chromium	17		0.48		mg/Kg	1		6010B	Total/NA
Copper	12		1.4		mg/Kg	1		6010B	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Sacramento

Detection Summary

Client: GSI Environmental, Inc
Project/Site: AJU-BB

Job ID: 320-74350-1

Client Sample ID: AT-1-210527 (Continued)

Lab Sample ID: 320-74350-14

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Nickel	9.4		0.96		mg/Kg	1		6010B	Total/NA
Lead	8.1		0.96		mg/Kg	1		6010B	Total/NA
Antimony	14		1.9		mg/Kg	1		6010B	Total/NA
Vanadium	28		0.48		mg/Kg	1		6010B	Total/NA
Zinc	43		1.9		mg/Kg	1		6010B	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Sacramento

Client Sample Results

Client: GSI Environmental, Inc
Project/Site: AJU-BB

Job ID: 320-74350-1

Client Sample ID: RR MDF-SED-1-210525

Lab Sample ID: 320-74350-1

Date Collected: 05/25/21 10:15

Matrix: Solid

Date Received: 05/28/21 09:20

Method: 314.0 - Perchlorate (IC) - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perchlorate	ND		39		ug/Kg			06/02/21 13:25	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	ND		0.50		mg/Kg		06/01/21 13:18	06/02/21 17:23	1
Arsenic	3.4		2.0		mg/Kg		06/01/21 13:18	06/02/21 17:23	1
Barium	71		0.99		mg/Kg		06/01/21 13:18	06/02/21 17:23	1
Beryllium	0.97		0.20		mg/Kg		06/01/21 13:18	06/02/21 17:23	1
Cadmium	0.21		0.20		mg/Kg		06/01/21 13:18	06/02/21 17:23	1
Cobalt	4.1		0.50		mg/Kg		06/01/21 13:18	06/02/21 17:23	1
Chromium	12		0.50		mg/Kg		06/01/21 13:18	06/02/21 17:23	1
Copper	7.1		1.5		mg/Kg		06/01/21 13:18	06/02/21 17:23	1
Molybdenum	ND		2.0		mg/Kg		06/01/21 13:18	06/02/21 17:23	1
Nickel	7.7		0.99		mg/Kg		06/01/21 13:18	06/02/21 17:23	1
Lead	8.3		0.99		mg/Kg		06/01/21 13:18	06/02/21 17:23	1
Selenium	ND		2.0		mg/Kg		06/01/21 13:18	06/02/21 17:23	1
Antimony	20		2.0		mg/Kg		06/01/21 13:18	06/02/21 17:23	1
Thallium	ND		2.0		mg/Kg		06/01/21 13:18	06/02/21 17:23	1
Vanadium	23		0.50		mg/Kg		06/01/21 13:18	06/02/21 17:23	1
Zinc	49		2.0		mg/Kg		06/01/21 13:18	06/02/21 17:23	1

Method: 7471A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.040		mg/Kg		06/03/21 10:00	06/03/21 14:44	1

Client Sample Results

Client: GSI Environmental, Inc
Project/Site: AJU-BB

Job ID: 320-74350-1

Client Sample ID: BP-SED-1-210525

Lab Sample ID: 320-74350-2

Date Collected: 05/25/21 11:30

Matrix: Solid

Date Received: 05/28/21 09:20

Method: 314.0 - Perchlorate (IC) - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perchlorate	ND		39		ug/Kg			06/02/21 14:31	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	ND		0.50		mg/Kg		06/01/21 13:18	06/02/21 17:27	1
Arsenic	12		2.0		mg/Kg		06/01/21 13:18	06/02/21 17:27	1
Barium	51		1.0		mg/Kg		06/01/21 13:18	06/02/21 17:27	1
Beryllium	0.89		0.20		mg/Kg		06/01/21 13:18	06/02/21 17:27	1
Cadmium	ND		0.20		mg/Kg		06/01/21 13:18	06/02/21 17:27	1
Cobalt	3.8		0.50		mg/Kg		06/01/21 13:18	06/02/21 17:27	1
Chromium	11		0.50		mg/Kg		06/01/21 13:18	06/02/21 17:27	1
Copper	6.4		1.5		mg/Kg		06/01/21 13:18	06/02/21 17:27	1
Molybdenum	ND		2.0		mg/Kg		06/01/21 13:18	06/02/21 17:27	1
Nickel	7.6		1.0		mg/Kg		06/01/21 13:18	06/02/21 17:27	1
Lead	9.3		1.0		mg/Kg		06/01/21 13:18	06/02/21 17:27	1
Selenium	ND		2.0		mg/Kg		06/01/21 13:18	06/02/21 17:27	1
Antimony	21		2.0		mg/Kg		06/01/21 13:18	06/02/21 17:27	1
Thallium	ND		2.0		mg/Kg		06/01/21 13:18	06/02/21 17:27	1
Vanadium	22		0.50		mg/Kg		06/01/21 13:18	06/02/21 17:27	1
Zinc	45		2.0		mg/Kg		06/01/21 13:18	06/02/21 17:27	1

Method: 7471A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.038		mg/Kg		06/03/21 10:00	06/03/21 14:46	1

Client Sample Results

Client: GSI Environmental, Inc
Project/Site: AJU-BB

Job ID: 320-74350-1

Client Sample ID: CIT-1-210525

Lab Sample ID: 320-74350-3

Date Collected: 05/25/21 14:30

Matrix: Solid

Date Received: 05/28/21 09:20

Method: 314.0 - Perchlorate (IC) - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perchlorate	ND		200		ug/Kg			06/02/21 14:54	5

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	ND		0.49		mg/Kg		06/01/21 13:18	06/02/21 17:31	1
Arsenic	2.7		2.0		mg/Kg		06/01/21 13:18	06/02/21 17:31	1
Barium	44		0.98		mg/Kg		06/01/21 13:18	06/02/21 17:31	1
Beryllium	0.63		0.20		mg/Kg		06/01/21 13:18	06/02/21 17:31	1
Cadmium	ND		0.20		mg/Kg		06/01/21 13:18	06/02/21 17:31	1
Cobalt	3.9		0.49		mg/Kg		06/01/21 13:18	06/02/21 17:31	1
Chromium	12		0.49		mg/Kg		06/01/21 13:18	06/02/21 17:31	1
Copper	8.9		1.5		mg/Kg		06/01/21 13:18	06/02/21 17:31	1
Molybdenum	ND		2.0		mg/Kg		06/01/21 13:18	06/02/21 17:31	1
Nickel	7.4		0.98		mg/Kg		06/01/21 13:18	06/02/21 17:31	1
Lead	8.7		0.98		mg/Kg		06/01/21 13:18	06/02/21 17:31	1
Selenium	ND		2.0		mg/Kg		06/01/21 13:18	06/02/21 17:31	1
Antimony	12		2.0		mg/Kg		06/01/21 13:18	06/02/21 17:31	1
Thallium	ND		2.0		mg/Kg		06/01/21 13:18	06/02/21 17:31	1
Vanadium	21		0.49		mg/Kg		06/01/21 13:18	06/02/21 17:31	1
Zinc	52		2.0		mg/Kg		06/01/21 13:18	06/02/21 17:31	1

Method: 7471A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.039		mg/Kg		06/03/21 10:00	06/03/21 14:48	1

Client Sample Results

Client: GSI Environmental, Inc
Project/Site: AJU-BB

Job ID: 320-74350-1

Client Sample ID: SRE-SED-2-210526

Lab Sample ID: 320-74350-4

Date Collected: 05/26/21 09:00

Matrix: Solid

Date Received: 05/28/21 09:20

Method: 314.0 - Perchlorate (IC) - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perchlorate	ND		200		ug/Kg			06/02/21 15:16	5

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	ND		0.49		mg/Kg		06/01/21 13:18	06/02/21 17:35	1
Arsenic	2.3		2.0		mg/Kg		06/01/21 13:18	06/02/21 17:35	1
Barium	47		0.98		mg/Kg		06/01/21 13:18	06/02/21 17:35	1
Beryllium	0.82		0.20		mg/Kg		06/01/21 13:18	06/02/21 17:35	1
Cadmium	ND		0.20		mg/Kg		06/01/21 13:18	06/02/21 17:35	1
Cobalt	3.5		0.49		mg/Kg		06/01/21 13:18	06/02/21 17:35	1
Chromium	8.8		0.49		mg/Kg		06/01/21 13:18	06/02/21 17:35	1
Copper	8.8		1.5		mg/Kg		06/01/21 13:18	06/02/21 17:35	1
Molybdenum	ND		2.0		mg/Kg		06/01/21 13:18	06/02/21 17:35	1
Nickel	5.6		0.98		mg/Kg		06/01/21 13:18	06/02/21 17:35	1
Lead	7.4		0.98		mg/Kg		06/01/21 13:18	06/02/21 17:35	1
Selenium	ND		2.0		mg/Kg		06/01/21 13:18	06/02/21 17:35	1
Antimony	17		2.0		mg/Kg		06/01/21 13:18	06/02/21 17:35	1
Thallium	ND		2.0		mg/Kg		06/01/21 13:18	06/02/21 17:35	1
Vanadium	19		0.49		mg/Kg		06/01/21 13:18	06/02/21 17:35	1
Zinc	43		2.0		mg/Kg		06/01/21 13:18	06/02/21 17:35	1

Method: 7471A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.043		mg/Kg		06/03/21 10:00	06/03/21 14:49	1

Client Sample Results

Client: GSI Environmental, Inc
Project/Site: AJU-BB

Job ID: 320-74350-1

Client Sample ID: OS1-SED-1-210526

Lab Sample ID: 320-74350-5

Date Collected: 05/26/21 10:10

Matrix: Solid

Date Received: 05/28/21 09:20

Method: GCMSMS_NDMA - Nitrosamines by Isotope Dilution and GC/CI/MS/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
N-Nitrosodimethylamine	ND		0.49		ug/Kg		06/01/21 11:49	06/03/21 13:47	1
Isotope Dilution		%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
N-Nitrosodimethylamine-d6		76		50 - 150			06/01/21 11:49	06/03/21 13:47	1

Method: 314.0 - Perchlorate (IC) - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perchlorate	ND		200		ug/Kg			06/02/21 15:38	5

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	1.0		0.49		mg/Kg		06/01/21 13:18	06/02/21 17:39	1
Arsenic	3.0		1.9		mg/Kg		06/01/21 13:18	06/02/21 17:39	1
Barium	61		0.97		mg/Kg		06/01/21 13:18	06/02/21 17:39	1
Beryllium	0.98		0.19		mg/Kg		06/01/21 13:18	06/02/21 17:39	1
Cadmium	ND		0.19		mg/Kg		06/01/21 13:18	06/02/21 17:39	1
Cobalt	4.5		0.49		mg/Kg		06/01/21 13:18	06/02/21 17:39	1
Chromium	13		0.49		mg/Kg		06/01/21 13:18	06/02/21 17:39	1
Copper	7.3		1.5		mg/Kg		06/01/21 13:18	06/02/21 17:39	1
Molybdenum	ND		1.9		mg/Kg		06/01/21 13:18	06/02/21 17:39	1
Nickel	7.9		0.97		mg/Kg		06/01/21 13:18	06/02/21 17:39	1
Lead	8.6		0.97		mg/Kg		06/01/21 13:18	06/02/21 17:39	1
Selenium	ND		1.9		mg/Kg		06/01/21 13:18	06/02/21 17:39	1
Antimony	22		1.9		mg/Kg		06/01/21 13:18	06/02/21 17:39	1
Thallium	ND		1.9		mg/Kg		06/01/21 13:18	06/02/21 17:39	1
Vanadium	25		0.49		mg/Kg		06/01/21 13:18	06/02/21 17:39	1
Zinc	54		1.9		mg/Kg		06/01/21 13:18	06/02/21 17:39	1

Method: 7471A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.11		0.041		mg/Kg		06/03/21 10:00	06/03/21 14:51	1

Client Sample Results

Client: GSI Environmental, Inc
Project/Site: AJU-BB

Job ID: 320-74350-1

Client Sample ID: HV-1-210526

Lab Sample ID: 320-74350-6

Date Collected: 05/26/21 11:30

Matrix: Solid

Date Received: 05/28/21 09:20

Method: 314.0 - Perchlorate (IC) - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perchlorate	ND		40		ug/Kg			06/03/21 14:41	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	ND		0.49		mg/Kg		06/01/21 13:18	06/02/21 17:42	1
Arsenic	5.0		2.0		mg/Kg		06/01/21 13:18	06/02/21 17:42	1
Barium	66		0.98		mg/Kg		06/01/21 13:18	06/02/21 17:42	1
Beryllium	0.86		0.20		mg/Kg		06/01/21 13:18	06/02/21 17:42	1
Cadmium	ND		0.20		mg/Kg		06/01/21 13:18	06/02/21 17:42	1
Cobalt	3.6		0.49		mg/Kg		06/01/21 13:18	06/02/21 17:42	1
Chromium	12		0.49		mg/Kg		06/01/21 13:18	06/02/21 17:42	1
Copper	6.6		1.5		mg/Kg		06/01/21 13:18	06/02/21 17:42	1
Molybdenum	ND		2.0		mg/Kg		06/01/21 13:18	06/02/21 17:42	1
Nickel	6.4		0.98		mg/Kg		06/01/21 13:18	06/02/21 17:42	1
Lead	4.5		0.98		mg/Kg		06/01/21 13:18	06/02/21 17:42	1
Selenium	ND		2.0		mg/Kg		06/01/21 13:18	06/02/21 17:42	1
Antimony	19		2.0		mg/Kg		06/01/21 13:18	06/02/21 17:42	1
Thallium	ND		2.0		mg/Kg		06/01/21 13:18	06/02/21 17:42	1
Vanadium	20		0.49		mg/Kg		06/01/21 13:18	06/02/21 17:42	1
Zinc	46		2.0		mg/Kg		06/01/21 13:18	06/02/21 17:42	1

Method: 7471A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.039		mg/Kg		06/03/21 10:00	06/03/21 14:53	1

Client Sample Results

Client: GSI Environmental, Inc
Project/Site: AJU-BB

Job ID: 320-74350-1

Client Sample ID: HV-2-210526

Lab Sample ID: 320-74350-7

Date Collected: 05/26/21 11:40

Matrix: Solid

Date Received: 05/28/21 09:20

Method: 314.0 - Perchlorate (IC) - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perchlorate	ND		200		ug/Kg			06/03/21 15:03	5

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	1.4		0.49		mg/Kg		06/01/21 13:18	06/02/21 17:46	1
Arsenic	4.5		2.0		mg/Kg		06/01/21 13:18	06/02/21 17:46	1
Barium	58		0.98		mg/Kg		06/01/21 13:18	06/02/21 17:46	1
Beryllium	0.90		0.20		mg/Kg		06/01/21 13:18	06/02/21 17:46	1
Cadmium	0.20		0.20		mg/Kg		06/01/21 13:18	06/02/21 17:46	1
Cobalt	4.2		0.49		mg/Kg		06/01/21 13:18	06/02/21 17:46	1
Chromium	15		0.49		mg/Kg		06/01/21 13:18	06/02/21 17:46	1
Copper	10		1.5		mg/Kg		06/01/21 13:18	06/02/21 17:46	1
Molybdenum	ND		2.0		mg/Kg		06/01/21 13:18	06/02/21 17:46	1
Nickel	9.2		0.98		mg/Kg		06/01/21 13:18	06/02/21 17:46	1
Lead	14		0.98		mg/Kg		06/01/21 13:18	06/02/21 17:46	1
Selenium	ND		2.0		mg/Kg		06/01/21 13:18	06/02/21 17:46	1
Antimony	21		2.0		mg/Kg		06/01/21 13:18	06/02/21 17:46	1
Thallium	ND		2.0		mg/Kg		06/01/21 13:18	06/02/21 17:46	1
Vanadium	23		0.49		mg/Kg		06/01/21 13:18	06/02/21 17:46	1
Zinc	50		2.0		mg/Kg		06/01/21 13:18	06/02/21 17:46	1

Method: 7471A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.039		mg/Kg		06/03/21 10:00	06/03/21 14:55	1

Client Sample Results

Client: GSI Environmental, Inc
Project/Site: AJU-BB

Job ID: 320-74350-1

Client Sample ID: HV-SED-1-210526

Lab Sample ID: 320-74350-8

Date Collected: 05/26/21 11:55

Matrix: Solid

Date Received: 05/28/21 09:20

Method: 314.0 - Perchlorate (IC) - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perchlorate	ND		39		ug/Kg			06/03/21 15:26	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	ND		0.50		mg/Kg		06/01/21 13:18	06/02/21 17:50	1
Arsenic	3.9		2.0		mg/Kg		06/01/21 13:18	06/02/21 17:50	1
Barium	47		1.0		mg/Kg		06/01/21 13:18	06/02/21 17:50	1
Beryllium	0.75		0.20		mg/Kg		06/01/21 13:18	06/02/21 17:50	1
Cadmium	ND		0.20		mg/Kg		06/01/21 13:18	06/02/21 17:50	1
Cobalt	3.2		0.50		mg/Kg		06/01/21 13:18	06/02/21 17:50	1
Chromium	11		0.50		mg/Kg		06/01/21 13:18	06/02/21 17:50	1
Copper	7.1		1.5		mg/Kg		06/01/21 13:18	06/02/21 17:50	1
Molybdenum	ND		2.0		mg/Kg		06/01/21 13:18	06/02/21 17:50	1
Nickel	6.7		1.0		mg/Kg		06/01/21 13:18	06/02/21 17:50	1
Lead	8.9		1.0		mg/Kg		06/01/21 13:18	06/02/21 17:50	1
Selenium	ND		2.0		mg/Kg		06/01/21 13:18	06/02/21 17:50	1
Antimony	17		2.0		mg/Kg		06/01/21 13:18	06/02/21 17:50	1
Thallium	ND		2.0		mg/Kg		06/01/21 13:18	06/02/21 17:50	1
Vanadium	19		0.50		mg/Kg		06/01/21 13:18	06/02/21 17:50	1
Zinc	43		2.0		mg/Kg		06/01/21 13:18	06/02/21 17:50	1

Method: 7471A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.039		mg/Kg		06/03/21 10:00	06/03/21 14:56	1

Client Sample Results

Client: GSI Environmental, Inc
Project/Site: AJU-BB

Job ID: 320-74350-1

Client Sample ID: OS8-SED-1-210526

Lab Sample ID: 320-74350-9

Date Collected: 05/26/21 12:40

Matrix: Solid

Date Received: 05/28/21 09:20

Method: 314.0 - Perchlorate (IC) - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perchlorate	ND		39		ug/Kg			06/03/21 15:48	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	ND		0.48		mg/Kg		06/01/21 13:18	06/02/21 18:01	1
Arsenic	2.1		1.9		mg/Kg		06/01/21 13:18	06/02/21 18:01	1
Barium	30		0.95		mg/Kg		06/01/21 13:18	06/02/21 18:01	1
Beryllium	0.48		0.19		mg/Kg		06/01/21 13:18	06/02/21 18:01	1
Cadmium	ND		0.19		mg/Kg		06/01/21 13:18	06/02/21 18:01	1
Cobalt	2.0		0.48		mg/Kg		06/01/21 13:18	06/02/21 18:01	1
Chromium	6.8		0.48		mg/Kg		06/01/21 13:18	06/02/21 18:01	1
Copper	4.3		1.4		mg/Kg		06/01/21 13:18	06/02/21 18:01	1
Molybdenum	ND		1.9		mg/Kg		06/01/21 13:18	06/02/21 18:01	1
Nickel	4.4		0.95		mg/Kg		06/01/21 13:18	06/02/21 18:01	1
Lead	5.3		0.95		mg/Kg		06/01/21 13:18	06/02/21 18:01	1
Selenium	ND		1.9		mg/Kg		06/01/21 13:18	06/02/21 18:01	1
Antimony	11		1.9		mg/Kg		06/01/21 13:18	06/02/21 18:01	1
Thallium	ND		1.9		mg/Kg		06/01/21 13:18	06/02/21 18:01	1
Vanadium	13		0.48		mg/Kg		06/01/21 13:18	06/02/21 18:01	1
Zinc	24		1.9		mg/Kg		06/01/21 13:18	06/02/21 18:01	1

Method: 7471A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.038		mg/Kg		06/03/21 10:00	06/03/21 14:58	1

Client Sample Results

Client: GSI Environmental, Inc
Project/Site: AJU-BB

Job ID: 320-74350-1

Client Sample ID: OW-SED-1-210526

Lab Sample ID: 320-74350-10

Date Collected: 05/26/21 13:45

Matrix: Solid

Date Received: 05/28/21 09:20

Method: 314.0 - Perchlorate (IC) - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perchlorate	ND		40		ug/Kg			06/03/21 16:54	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	ND		0.49		mg/Kg		06/01/21 13:18	06/02/21 18:05	1
Arsenic	4.9		1.9		mg/Kg		06/01/21 13:18	06/02/21 18:05	1
Barium	56		0.97		mg/Kg		06/01/21 13:18	06/02/21 18:05	1
Beryllium	0.76		0.19		mg/Kg		06/01/21 13:18	06/02/21 18:05	1
Cadmium	ND		0.19		mg/Kg		06/01/21 13:18	06/02/21 18:05	1
Cobalt	3.4		0.49		mg/Kg		06/01/21 13:18	06/02/21 18:05	1
Chromium	9.9		0.49		mg/Kg		06/01/21 13:18	06/02/21 18:05	1
Copper	5.6		1.5		mg/Kg		06/01/21 13:18	06/02/21 18:05	1
Molybdenum	ND		1.9		mg/Kg		06/01/21 13:18	06/02/21 18:05	1
Nickel	6.3		0.97		mg/Kg		06/01/21 13:18	06/02/21 18:05	1
Lead	7.1		0.97		mg/Kg		06/01/21 13:18	06/02/21 18:05	1
Selenium	ND		1.9		mg/Kg		06/01/21 13:18	06/02/21 18:05	1
Antimony	18		1.9		mg/Kg		06/01/21 13:18	06/02/21 18:05	1
Thallium	ND		1.9		mg/Kg		06/01/21 13:18	06/02/21 18:05	1
Vanadium	21		0.49		mg/Kg		06/01/21 13:18	06/02/21 18:05	1
Zinc	36		1.9		mg/Kg		06/01/21 13:18	06/02/21 18:05	1

Method: 7471A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.038		mg/Kg		06/03/21 10:00	06/03/21 15:03	1

Client Sample Results

Client: GSI Environmental, Inc
Project/Site: AJU-BB

Job ID: 320-74350-1

Client Sample ID: TF-1-210526

Lab Sample ID: 320-74350-11

Date Collected: 05/26/21 14:40

Matrix: Solid

Date Received: 05/28/21 09:20

Method: 314.0 - Perchlorate (IC) - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perchlorate	ND		200		ug/Kg			06/03/21 17:17	5

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	ND		0.50		mg/Kg		06/01/21 13:18	06/02/21 18:09	1
Arsenic	5.6		2.0		mg/Kg		06/01/21 13:18	06/02/21 18:09	1
Barium	84		0.99		mg/Kg		06/01/21 13:18	06/02/21 18:09	1
Beryllium	1.0		0.20		mg/Kg		06/01/21 13:18	06/02/21 18:09	1
Cadmium	0.20		0.20		mg/Kg		06/01/21 13:18	06/02/21 18:09	1
Cobalt	7.6		0.50		mg/Kg		06/01/21 13:18	06/02/21 18:09	1
Chromium	20		0.50		mg/Kg		06/01/21 13:18	06/02/21 18:09	1
Copper	21		1.5		mg/Kg		06/01/21 13:18	06/02/21 18:09	1
Molybdenum	ND		2.0		mg/Kg		06/01/21 13:18	06/02/21 18:09	1
Nickel	13		0.99		mg/Kg		06/01/21 13:18	06/02/21 18:09	1
Lead	11		0.99		mg/Kg		06/01/21 13:18	06/02/21 18:09	1
Selenium	ND		2.0		mg/Kg		06/01/21 13:18	06/02/21 18:09	1
Antimony	17		2.0		mg/Kg		06/01/21 13:18	06/02/21 18:09	1
Thallium	ND		2.0		mg/Kg		06/01/21 13:18	06/02/21 18:09	1
Vanadium	39		0.50		mg/Kg		06/01/21 13:18	06/02/21 18:09	1
Zinc	55		2.0		mg/Kg		06/01/21 13:18	06/02/21 18:09	1

Method: 7471A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.039		mg/Kg		06/03/21 10:00	06/03/21 15:05	1

Client Sample Results

Client: GSI Environmental, Inc
Project/Site: AJU-BB

Job ID: 320-74350-1

Client Sample ID: KC-1-210527

Lab Sample ID: 320-74350-12

Date Collected: 05/27/21 08:00

Matrix: Solid

Date Received: 05/28/21 09:20

Method: 314.0 - Perchlorate (IC) - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perchlorate	ND		39		ug/Kg			06/03/21 17:39	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	ND		0.49		mg/Kg		06/01/21 13:18	06/02/21 18:13	1
Arsenic	4.4		2.0		mg/Kg		06/01/21 13:18	06/02/21 18:13	1
Barium	49		0.98		mg/Kg		06/01/21 13:18	06/02/21 18:13	1
Beryllium	0.75		0.20		mg/Kg		06/01/21 13:18	06/02/21 18:13	1
Cadmium	ND		0.20		mg/Kg		06/01/21 13:18	06/02/21 18:13	1
Cobalt	4.5		0.49		mg/Kg		06/01/21 13:18	06/02/21 18:13	1
Chromium	14		0.49		mg/Kg		06/01/21 13:18	06/02/21 18:13	1
Copper	8.2		1.5		mg/Kg		06/01/21 13:18	06/02/21 18:13	1
Molybdenum	ND		2.0		mg/Kg		06/01/21 13:18	06/02/21 18:13	1
Nickel	8.3		0.98		mg/Kg		06/01/21 13:18	06/02/21 18:13	1
Lead	9.6		0.98		mg/Kg		06/01/21 13:18	06/02/21 18:13	1
Selenium	ND		2.0		mg/Kg		06/01/21 13:18	06/02/21 18:13	1
Antimony	13		2.0		mg/Kg		06/01/21 13:18	06/02/21 18:13	1
Thallium	ND		2.0		mg/Kg		06/01/21 13:18	06/02/21 18:13	1
Vanadium	27		0.49		mg/Kg		06/01/21 13:18	06/02/21 18:13	1
Zinc	49		2.0		mg/Kg		06/01/21 13:18	06/02/21 18:13	1

Method: 7471A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.039		mg/Kg		06/03/21 10:00	06/03/21 15:07	1

Client Sample Results

Client: GSI Environmental, Inc
Project/Site: AJU-BB

Job ID: 320-74350-1

Client Sample ID: GF-1-210527

Lab Sample ID: 320-74350-13

Date Collected: 05/27/21 08:20

Matrix: Solid

Date Received: 05/28/21 09:20

Method: 314.0 - Perchlorate (IC) - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perchlorate	ND		200		ug/Kg			06/03/21 18:01	5

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	ND		0.50		mg/Kg		06/01/21 13:18	06/02/21 18:16	1
Arsenic	2.9		2.0		mg/Kg		06/01/21 13:18	06/02/21 18:16	1
Barium	41		1.0		mg/Kg		06/01/21 13:18	06/02/21 18:16	1
Beryllium	0.62		0.20		mg/Kg		06/01/21 13:18	06/02/21 18:16	1
Cadmium	0.21		0.20		mg/Kg		06/01/21 13:18	06/02/21 18:16	1
Cobalt	3.7		0.50		mg/Kg		06/01/21 13:18	06/02/21 18:16	1
Chromium	10		0.50		mg/Kg		06/01/21 13:18	06/02/21 18:16	1
Copper	7.3		1.5		mg/Kg		06/01/21 13:18	06/02/21 18:16	1
Molybdenum	ND		2.0		mg/Kg		06/01/21 13:18	06/02/21 18:16	1
Nickel	6.7		1.0		mg/Kg		06/01/21 13:18	06/02/21 18:16	1
Lead	5.7		1.0		mg/Kg		06/01/21 13:18	06/02/21 18:16	1
Selenium	ND		2.0		mg/Kg		06/01/21 13:18	06/02/21 18:16	1
Antimony	12		2.0		mg/Kg		06/01/21 13:18	06/02/21 18:16	1
Thallium	ND		2.0		mg/Kg		06/01/21 13:18	06/02/21 18:16	1
Vanadium	22		0.50		mg/Kg		06/01/21 13:18	06/02/21 18:16	1
Zinc	60		2.0		mg/Kg		06/01/21 13:18	06/02/21 18:16	1

Method: 7471A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.038		mg/Kg		06/03/21 10:00	06/03/21 15:08	1

Client Sample Results

Client: GSI Environmental, Inc
Project/Site: AJU-BB

Job ID: 320-74350-1

Client Sample ID: AT-1-210527

Lab Sample ID: 320-74350-14

Date Collected: 05/27/21 08:45

Matrix: Solid

Date Received: 05/28/21 09:20

Method: 314.0 - Perchlorate (IC) - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perchlorate	ND		400		ug/Kg			06/03/21 18:23	10

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	ND		0.48		mg/Kg		06/01/21 13:18	06/02/21 18:20	1
Arsenic	4.4		1.9		mg/Kg		06/01/21 13:18	06/02/21 18:20	1
Barium	65		0.96		mg/Kg		06/01/21 13:18	06/02/21 18:20	1
Beryllium	0.81		0.19		mg/Kg		06/01/21 13:18	06/02/21 18:20	1
Cadmium	0.24		0.19		mg/Kg		06/01/21 13:18	06/02/21 18:20	1
Cobalt	5.0		0.48		mg/Kg		06/01/21 13:18	06/02/21 18:20	1
Chromium	17		0.48		mg/Kg		06/01/21 13:18	06/02/21 18:20	1
Copper	12		1.4		mg/Kg		06/01/21 13:18	06/02/21 18:20	1
Molybdenum	ND		1.9		mg/Kg		06/01/21 13:18	06/02/21 18:20	1
Nickel	9.4		0.96		mg/Kg		06/01/21 13:18	06/02/21 18:20	1
Lead	8.1		0.96		mg/Kg		06/01/21 13:18	06/02/21 18:20	1
Selenium	ND		1.9		mg/Kg		06/01/21 13:18	06/02/21 18:20	1
Antimony	14		1.9		mg/Kg		06/01/21 13:18	06/02/21 18:20	1
Thallium	ND		1.9		mg/Kg		06/01/21 13:18	06/02/21 18:20	1
Vanadium	28		0.48		mg/Kg		06/01/21 13:18	06/02/21 18:20	1
Zinc	43		1.9		mg/Kg		06/01/21 13:18	06/02/21 18:20	1

Method: 7471A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.038		mg/Kg		06/03/21 10:00	06/03/21 15:10	1

Isotope Dilution Summary

Client: GSI Environmental, Inc
Project/Site: AJU-BB

Job ID: 320-74350-1

Method: GCMSMS_NDMA - Nitrosamines by Isotope Dilution and GC/CI/MS/MS

Matrix: Solid

Prep Type: Total/NA

Percent Isotope Dilution Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	DMA (50-150)
320-74350-5	OS1-SED-1-210526	76
320-74350-5 MS	OS1-SED-1-210526	72
320-74350-5 MSD	OS1-SED-1-210526	73
LCS 320-494368/2-A	Lab Control Sample	76
MB 320-494368/1-A	Method Blank	76

Surrogate Legend

DMA = N-Nitrosodimethylamine-d6

QC Sample Results

Client: GSI Environmental, Inc
Project/Site: AJU-BB

Job ID: 320-74350-1

Method: GCMSMS_NDMA - Nitrosamines by Isotope Dilution and GC/CI/MS/MS

Lab Sample ID: MB 320-494368/1-A
Matrix: Solid
Analysis Batch: 495135

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 494368

Analyte	MB MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
N-Nitrosodimethylamine	ND		0.50		ug/Kg		06/01/21 11:49	06/03/21 13:03	1
Isotope Dilution		MB MB	Limits			Prepared	Analyzed	Dil Fac	
N-Nitrosodimethylamine-d6		76	50 - 150			06/01/21 11:49	06/03/21 13:03	1	

Lab Sample ID: LCS 320-494368/2-A
Matrix: Solid
Analysis Batch: 495135

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 494368

Analyte	Spike Added	LCS LCS		Unit	D	%Rec	%Rec. Limits
		Result	Qualifier				
N-Nitrosodimethylamine	2.00	2.04		ug/Kg		102	70 - 130
Isotope Dilution		LCS LCS	Limits				
N-Nitrosodimethylamine-d6		76	50 - 150				

Lab Sample ID: 320-74350-5 MS
Matrix: Solid
Analysis Batch: 495135

Client Sample ID: OS1-SED-1-210526
Prep Type: Total/NA
Prep Batch: 494368

Analyte	Sample Result	Sample Qualifier	Spike Added	MS MS		Unit	D	%Rec	%Rec. Limits
				Result	Qualifier				
N-Nitrosodimethylamine	ND		1.99	2.04		ug/Kg		103	70 - 130
Isotope Dilution		MS MS	Limits						
N-Nitrosodimethylamine-d6		72	50 - 150						

Lab Sample ID: 320-74350-5 MSD
Matrix: Solid
Analysis Batch: 495135

Client Sample ID: OS1-SED-1-210526
Prep Type: Total/NA
Prep Batch: 494368

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD MSD		Unit	D	%Rec	%Rec. Limits	RPD	Limit
				Result	Qualifier						
N-Nitrosodimethylamine	ND		1.99	2.13		ug/Kg		107	70 - 130	4	35
Isotope Dilution		MSD MSD	Limits								
N-Nitrosodimethylamine-d6		73	50 - 150								

Method: 314.0 - Perchlorate (IC)

Lab Sample ID: MRL 320-494739/4
Matrix: Solid
Analysis Batch: 494739

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	MRL MRL		Unit	D	%Rec	%Rec. Limits
		Result	Qualifier				
Perchlorate	3.99	ND		ug/L		96	75 - 125

Lab Sample ID: MRL 320-495092/4
Matrix: Solid
Analysis Batch: 495092

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	MRL MRL		Unit	D	%Rec	%Rec. Limits
		Result	Qualifier				
Perchlorate	3.99	ND		ug/L		92	75 - 125

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QC Sample Results

Client: GSI Environmental, Inc
Project/Site: AJU-BB

Job ID: 320-74350-1

Method: 314.0 - Perchlorate (IC)

Lab Sample ID: MB 320-494499/1-A
Matrix: Solid
Analysis Batch: 494739

Client Sample ID: Method Blank
Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perchlorate	ND		40		ug/Kg			06/02/21 12:18	1

Lab Sample ID: LCS 320-494499/2-A
Matrix: Solid
Analysis Batch: 494739

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Perchlorate	499	454		ug/Kg		91	75 - 125

Lab Sample ID: 320-74350-1 MS
Matrix: Solid
Analysis Batch: 494739

Client Sample ID: RRMDf-SED-1-210525
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Perchlorate	ND		496	479		ug/Kg		97	75 - 125

Lab Sample ID: 320-74350-1 MSD
Matrix: Solid
Analysis Batch: 494739

Client Sample ID: RRMDf-SED-1-210525
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit
Perchlorate	ND		498	476		ug/Kg		96	75 - 125	1	20

Method: 6010B - Metals (ICP)

Lab Sample ID: MB 320-494387/1-A
Matrix: Solid
Analysis Batch: 495010

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 494387

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	ND		0.50		mg/Kg		06/01/21 13:18	06/02/21 16:31	1
Arsenic	ND		2.0		mg/Kg		06/01/21 13:18	06/02/21 16:31	1
Barium	ND		1.0		mg/Kg		06/01/21 13:18	06/02/21 16:31	1
Beryllium	ND		0.20		mg/Kg		06/01/21 13:18	06/02/21 16:31	1
Cadmium	ND		0.20		mg/Kg		06/01/21 13:18	06/02/21 16:31	1
Cobalt	ND		0.50		mg/Kg		06/01/21 13:18	06/02/21 16:31	1
Chromium	ND		0.50		mg/Kg		06/01/21 13:18	06/02/21 16:31	1
Copper	ND		1.5		mg/Kg		06/01/21 13:18	06/02/21 16:31	1
Molybdenum	ND		2.0		mg/Kg		06/01/21 13:18	06/02/21 16:31	1
Nickel	ND		1.0		mg/Kg		06/01/21 13:18	06/02/21 16:31	1
Lead	ND		1.0		mg/Kg		06/01/21 13:18	06/02/21 16:31	1
Selenium	ND		2.0		mg/Kg		06/01/21 13:18	06/02/21 16:31	1
Antimony	ND		2.0		mg/Kg		06/01/21 13:18	06/02/21 16:31	1
Thallium	ND		2.0		mg/Kg		06/01/21 13:18	06/02/21 16:31	1
Vanadium	ND		0.50		mg/Kg		06/01/21 13:18	06/02/21 16:31	1
Zinc	ND		2.0		mg/Kg		06/01/21 13:18	06/02/21 16:31	1

QC Sample Results

Client: GSI Environmental, Inc
Project/Site: AJU-BB

Job ID: 320-74350-1

Method: 6010B - Metals (ICP) (Continued)

Lab Sample ID: LCS 320-494387/2-A
Matrix: Solid
Analysis Batch: 495010

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 494387

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Silver	5.05	4.72		mg/Kg		93	80 - 120
Arsenic	50.0	45.0		mg/Kg		90	80 - 120
Barium	50.0	47.2		mg/Kg		94	80 - 120
Beryllium	25.0	24.0		mg/Kg		96	80 - 120
Cadmium	25.0	23.9		mg/Kg		95	80 - 120
Cobalt	25.0	24.0		mg/Kg		96	80 - 120
Chromium	25.0	23.9		mg/Kg		96	80 - 120
Copper	25.0	23.6		mg/Kg		94	80 - 120
Molybdenum	25.0	23.5		mg/Kg		94	80 - 120
Nickel	25.0	23.4		mg/Kg		94	80 - 120
Lead	25.0	23.2		mg/Kg		93	80 - 120
Selenium	50.0	45.5		mg/Kg		91	80 - 120
Antimony	49.5	44.2		mg/Kg		89	80 - 120
Thallium	50.0	48.2		mg/Kg		96	80 - 120
Vanadium	25.0	23.6		mg/Kg		94	80 - 120
Zinc	50.0	47.3		mg/Kg		95	80 - 120

Method: 7471A - Mercury (CVAA)

Lab Sample ID: MB 320-495048/11-A
Matrix: Solid
Analysis Batch: 495436

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 495048

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.040		mg/Kg		06/03/21 10:00	06/03/21 14:21	1

Lab Sample ID: LCS 320-495048/12-A
Matrix: Solid
Analysis Batch: 495436

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 495048

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Mercury	0.167	0.174		mg/Kg		104	86 - 114

Lab Sample ID: LCSD 320-495048/13-A
Matrix: Solid
Analysis Batch: 495436

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 495048

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	Limits	RPD	RPD Limit
Mercury	0.167	0.169		mg/Kg		101	86 - 114	3	17

QC Association Summary

Client: GSI Environmental, Inc
Project/Site: AJU-BB

Job ID: 320-74350-1

GC/MS Semi VOA

Prep Batch: 494368

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
320-74350-5	OS1-SED-1-210526	Total/NA	Solid	3550B	
MB 320-494368/1-A	Method Blank	Total/NA	Solid	3550B	
LCS 320-494368/2-A	Lab Control Sample	Total/NA	Solid	3550B	
320-74350-5 MS	OS1-SED-1-210526	Total/NA	Solid	3550B	
320-74350-5 MSD	OS1-SED-1-210526	Total/NA	Solid	3550B	

Analysis Batch: 495135

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
320-74350-5	OS1-SED-1-210526	Total/NA	Solid	GCMSMS_NDM A	494368
MB 320-494368/1-A	Method Blank	Total/NA	Solid	GCMSMS_NDM A	494368
LCS 320-494368/2-A	Lab Control Sample	Total/NA	Solid	GCMSMS_NDM A	494368
320-74350-5 MS	OS1-SED-1-210526	Total/NA	Solid	GCMSMS_NDM A	494368
320-74350-5 MSD	OS1-SED-1-210526	Total/NA	Solid	GCMSMS_NDM A	494368

HPLC/IC

Leach Batch: 494499

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
320-74350-1	RRMDF-SED-1-210525	Soluble	Solid	DI Leach	
320-74350-2	BP-SED-1-210525	Soluble	Solid	DI Leach	
320-74350-3	CIT-1-210525	Soluble	Solid	DI Leach	
320-74350-4	SRE-SED-2-210526	Soluble	Solid	DI Leach	
320-74350-5	OS1-SED-1-210526	Soluble	Solid	DI Leach	
320-74350-6	HV-1-210526	Soluble	Solid	DI Leach	
320-74350-7	HV-2-210526	Soluble	Solid	DI Leach	
320-74350-8	HV-SED-1-210526	Soluble	Solid	DI Leach	
320-74350-9	OS8-SED-1-210526	Soluble	Solid	DI Leach	
320-74350-10	OW-SED-1-210526	Soluble	Solid	DI Leach	
320-74350-11	TF-1-210526	Soluble	Solid	DI Leach	
320-74350-12	KC-1-210527	Soluble	Solid	DI Leach	
320-74350-13	GF-1-210527	Soluble	Solid	DI Leach	
320-74350-14	AT-1-210527	Soluble	Solid	DI Leach	
MB 320-494499/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 320-494499/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
320-74350-1 MS	RRMDF-SED-1-210525	Soluble	Solid	DI Leach	
320-74350-1 MSD	RRMDF-SED-1-210525	Soluble	Solid	DI Leach	

Analysis Batch: 494739

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
320-74350-1	RRMDF-SED-1-210525	Soluble	Solid	314.0	494499
320-74350-2	BP-SED-1-210525	Soluble	Solid	314.0	494499
320-74350-3	CIT-1-210525	Soluble	Solid	314.0	494499
320-74350-4	SRE-SED-2-210526	Soluble	Solid	314.0	494499
320-74350-5	OS1-SED-1-210526	Soluble	Solid	314.0	494499
MB 320-494499/1-A	Method Blank	Soluble	Solid	314.0	494499
LCS 320-494499/2-A	Lab Control Sample	Soluble	Solid	314.0	494499
MRL 320-494739/4	Lab Control Sample	Total/NA	Solid	314.0	
320-74350-1 MS	RRMDF-SED-1-210525	Soluble	Solid	314.0	494499

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QC Association Summary

Client: GSI Environmental, Inc
Project/Site: AJU-BB

Job ID: 320-74350-1

HPLC/IC (Continued)

Analysis Batch: 494739 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
320-74350-1 MSD	RRMDF-SED-1-210525	Soluble	Solid	314.0	494499

Analysis Batch: 495092

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
320-74350-6	HV-1-210526	Soluble	Solid	314.0	494499
320-74350-7	HV-2-210526	Soluble	Solid	314.0	494499
320-74350-8	HV-SED-1-210526	Soluble	Solid	314.0	494499
320-74350-9	OS8-SED-1-210526	Soluble	Solid	314.0	494499
320-74350-10	OW-SED-1-210526	Soluble	Solid	314.0	494499
320-74350-11	TF-1-210526	Soluble	Solid	314.0	494499
320-74350-12	KC-1-210527	Soluble	Solid	314.0	494499
320-74350-13	GF-1-210527	Soluble	Solid	314.0	494499
320-74350-14	AT-1-210527	Soluble	Solid	314.0	494499
MRL 320-495092/4	Lab Control Sample	Total/NA	Solid	314.0	

Metals

Prep Batch: 494387

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
320-74350-1	RRMDF-SED-1-210525	Total/NA	Solid	3050B	
320-74350-2	BP-SED-1-210525	Total/NA	Solid	3050B	
320-74350-3	CIT-1-210525	Total/NA	Solid	3050B	
320-74350-4	SRE-SED-2-210526	Total/NA	Solid	3050B	
320-74350-5	OS1-SED-1-210526	Total/NA	Solid	3050B	
320-74350-6	HV-1-210526	Total/NA	Solid	3050B	
320-74350-7	HV-2-210526	Total/NA	Solid	3050B	
320-74350-8	HV-SED-1-210526	Total/NA	Solid	3050B	
320-74350-9	OS8-SED-1-210526	Total/NA	Solid	3050B	
320-74350-10	OW-SED-1-210526	Total/NA	Solid	3050B	
320-74350-11	TF-1-210526	Total/NA	Solid	3050B	
320-74350-12	KC-1-210527	Total/NA	Solid	3050B	
320-74350-13	GF-1-210527	Total/NA	Solid	3050B	
320-74350-14	AT-1-210527	Total/NA	Solid	3050B	
MB 320-494387/1-A	Method Blank	Total/NA	Solid	3050B	
LCS 320-494387/2-A	Lab Control Sample	Total/NA	Solid	3050B	

Analysis Batch: 495010

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
320-74350-1	RRMDF-SED-1-210525	Total/NA	Solid	6010B	494387
320-74350-2	BP-SED-1-210525	Total/NA	Solid	6010B	494387
320-74350-3	CIT-1-210525	Total/NA	Solid	6010B	494387
320-74350-4	SRE-SED-2-210526	Total/NA	Solid	6010B	494387
320-74350-5	OS1-SED-1-210526	Total/NA	Solid	6010B	494387
320-74350-6	HV-1-210526	Total/NA	Solid	6010B	494387
320-74350-7	HV-2-210526	Total/NA	Solid	6010B	494387
320-74350-8	HV-SED-1-210526	Total/NA	Solid	6010B	494387
320-74350-9	OS8-SED-1-210526	Total/NA	Solid	6010B	494387
320-74350-10	OW-SED-1-210526	Total/NA	Solid	6010B	494387
320-74350-11	TF-1-210526	Total/NA	Solid	6010B	494387
320-74350-12	KC-1-210527	Total/NA	Solid	6010B	494387
320-74350-13	GF-1-210527	Total/NA	Solid	6010B	494387

Eurofins TestAmerica, Sacramento

QC Association Summary

Client: GSI Environmental, Inc
Project/Site: AJU-BB

Job ID: 320-74350-1

Metals (Continued)

Analysis Batch: 495010 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
320-74350-14	AT-1-210527	Total/NA	Solid	6010B	494387
MB 320-494387/1-A	Method Blank	Total/NA	Solid	6010B	494387
LCS 320-494387/2-A	Lab Control Sample	Total/NA	Solid	6010B	494387

Prep Batch: 495048

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
320-74350-1	RRMDF-SED-1-210525	Total/NA	Solid	7471A	
320-74350-2	BP-SED-1-210525	Total/NA	Solid	7471A	
320-74350-3	CIT-1-210525	Total/NA	Solid	7471A	
320-74350-4	SRE-SED-2-210526	Total/NA	Solid	7471A	
320-74350-5	OS1-SED-1-210526	Total/NA	Solid	7471A	
320-74350-6	HV-1-210526	Total/NA	Solid	7471A	
320-74350-7	HV-2-210526	Total/NA	Solid	7471A	
320-74350-8	HV-SED-1-210526	Total/NA	Solid	7471A	
320-74350-9	OS8-SED-1-210526	Total/NA	Solid	7471A	
320-74350-10	OW-SED-1-210526	Total/NA	Solid	7471A	
320-74350-11	TF-1-210526	Total/NA	Solid	7471A	
320-74350-12	KC-1-210527	Total/NA	Solid	7471A	
320-74350-13	GF-1-210527	Total/NA	Solid	7471A	
320-74350-14	AT-1-210527	Total/NA	Solid	7471A	
MB 320-495048/11-A	Method Blank	Total/NA	Solid	7471A	
LCS 320-495048/12-A	Lab Control Sample	Total/NA	Solid	7471A	
LCSD 320-495048/13-A	Lab Control Sample Dup	Total/NA	Solid	7471A	

Analysis Batch: 495436

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
320-74350-1	RRMDF-SED-1-210525	Total/NA	Solid	7471A	495048
320-74350-2	BP-SED-1-210525	Total/NA	Solid	7471A	495048
320-74350-3	CIT-1-210525	Total/NA	Solid	7471A	495048
320-74350-4	SRE-SED-2-210526	Total/NA	Solid	7471A	495048
320-74350-5	OS1-SED-1-210526	Total/NA	Solid	7471A	495048
320-74350-6	HV-1-210526	Total/NA	Solid	7471A	495048
320-74350-7	HV-2-210526	Total/NA	Solid	7471A	495048
320-74350-8	HV-SED-1-210526	Total/NA	Solid	7471A	495048
320-74350-9	OS8-SED-1-210526	Total/NA	Solid	7471A	495048
320-74350-10	OW-SED-1-210526	Total/NA	Solid	7471A	495048
320-74350-11	TF-1-210526	Total/NA	Solid	7471A	495048
320-74350-12	KC-1-210527	Total/NA	Solid	7471A	495048
320-74350-13	GF-1-210527	Total/NA	Solid	7471A	495048
320-74350-14	AT-1-210527	Total/NA	Solid	7471A	495048
MB 320-495048/11-A	Method Blank	Total/NA	Solid	7471A	495048
LCS 320-495048/12-A	Lab Control Sample	Total/NA	Solid	7471A	495048
LCSD 320-495048/13-A	Lab Control Sample Dup	Total/NA	Solid	7471A	495048

Lab Chronicle

Client: GSI Environmental, Inc
Project/Site: AJU-BB

Job ID: 320-74350-1

Client Sample ID: RRMDf-SED-1-210525

Lab Sample ID: 320-74350-1

Date Collected: 05/25/21 10:15

Matrix: Solid

Date Received: 05/28/21 09:20

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			5.09 g	50 mL	494499	06/01/21 14:21	TCS	TAL SAC
Soluble	Analysis	314.0		1			494739	06/02/21 13:25	TCS	TAL SAC
Total/NA	Prep	3050B			1.01 g	100 mL	494387	06/01/21 13:18	JP	TAL SAC
Total/NA	Analysis	6010B		1			495010	06/02/21 17:23	GSH	TAL SAC
Total/NA	Prep	7471A			0.60 g	50 mL	495048	06/03/21 10:00	IM	TAL SAC
Total/NA	Analysis	7471A		1			495436	06/03/21 14:44	IM	TAL SAC

Client Sample ID: BP-SED-1-210525

Lab Sample ID: 320-74350-2

Date Collected: 05/25/21 11:30

Matrix: Solid

Date Received: 05/28/21 09:20

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			5.11 g	50 mL	494499	06/01/21 14:21	TCS	TAL SAC
Soluble	Analysis	314.0		1			494739	06/02/21 14:31	TCS	TAL SAC
Total/NA	Prep	3050B			1.00 g	100 mL	494387	06/01/21 13:18	JP	TAL SAC
Total/NA	Analysis	6010B		1			495010	06/02/21 17:27	GSH	TAL SAC
Total/NA	Prep	7471A			0.64 g	50 mL	495048	06/03/21 10:00	IM	TAL SAC
Total/NA	Analysis	7471A		1			495436	06/03/21 14:46	IM	TAL SAC

Client Sample ID: CIT-1-210525

Lab Sample ID: 320-74350-3

Date Collected: 05/25/21 14:30

Matrix: Solid

Date Received: 05/28/21 09:20

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			5.10 g	50 mL	494499	06/01/21 14:21	TCS	TAL SAC
Soluble	Analysis	314.0		5			494739	06/02/21 14:54	TCS	TAL SAC
Total/NA	Prep	3050B			1.02 g	100 mL	494387	06/01/21 13:18	JP	TAL SAC
Total/NA	Analysis	6010B		1			495010	06/02/21 17:31	GSH	TAL SAC
Total/NA	Prep	7471A			0.62 g	50 mL	495048	06/03/21 10:00	IM	TAL SAC
Total/NA	Analysis	7471A		1			495436	06/03/21 14:48	IM	TAL SAC

Client Sample ID: SRE-SED-2-210526

Lab Sample ID: 320-74350-4

Date Collected: 05/26/21 09:00

Matrix: Solid

Date Received: 05/28/21 09:20

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			5.04 g	50 mL	494499	06/01/21 14:21	TCS	TAL SAC
Soluble	Analysis	314.0		5			494739	06/02/21 15:16	TCS	TAL SAC
Total/NA	Prep	3050B			1.02 g	100 mL	494387	06/01/21 13:18	JP	TAL SAC
Total/NA	Analysis	6010B		1			495010	06/02/21 17:35	GSH	TAL SAC
Total/NA	Prep	7471A			0.56 g	50 mL	495048	06/03/21 10:00	IM	TAL SAC
Total/NA	Analysis	7471A		1			495436	06/03/21 14:49	IM	TAL SAC

Lab Chronicle

Client: GSI Environmental, Inc
Project/Site: AJU-BB

Job ID: 320-74350-1

Client Sample ID: OS1-SED-1-210526

Lab Sample ID: 320-74350-5

Date Collected: 05/26/21 10:10

Matrix: Solid

Date Received: 05/28/21 09:20

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3550B			10.26 g	0.5 mL	494368	06/01/21 11:49	TL	TAL SAC
Total/NA	Analysis	GCMSMS_NDMA		1			495135	06/03/21 13:47	Y1S	TAL SAC
Soluble	Leach	DI Leach			5.01 g	50 mL	494499	06/01/21 14:21	TCS	TAL SAC
Soluble	Analysis	314.0		5			494739	06/02/21 15:38	TCS	TAL SAC
Total/NA	Prep	3050B			1.03 g	100 mL	494387	06/01/21 13:18	JP	TAL SAC
Total/NA	Analysis	6010B		1			495010	06/02/21 17:39	GSH	TAL SAC
Total/NA	Prep	7471A			0.58 g	50 mL	495048	06/03/21 10:00	IM	TAL SAC
Total/NA	Analysis	7471A		1			495436	06/03/21 14:51	IM	TAL SAC

Client Sample ID: HV-1-210526

Lab Sample ID: 320-74350-6

Date Collected: 05/26/21 11:30

Matrix: Solid

Date Received: 05/28/21 09:20

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			5.04 g	50 mL	494499	06/01/21 14:21	TCS	TAL SAC
Soluble	Analysis	314.0		1			495092	06/03/21 14:41	TCS	TAL SAC
Total/NA	Prep	3050B			1.02 g	100 mL	494387	06/01/21 13:18	JP	TAL SAC
Total/NA	Analysis	6010B		1			495010	06/02/21 17:42	GSH	TAL SAC
Total/NA	Prep	7471A			0.62 g	50 mL	495048	06/03/21 10:00	IM	TAL SAC
Total/NA	Analysis	7471A		1			495436	06/03/21 14:53	IM	TAL SAC

Client Sample ID: HV-2-210526

Lab Sample ID: 320-74350-7

Date Collected: 05/26/21 11:40

Matrix: Solid

Date Received: 05/28/21 09:20

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			5.05 g	50 mL	494499	06/01/21 14:21	TCS	TAL SAC
Soluble	Analysis	314.0		5			495092	06/03/21 15:03	TCS	TAL SAC
Total/NA	Prep	3050B			1.02 g	100 mL	494387	06/01/21 13:18	JP	TAL SAC
Total/NA	Analysis	6010B		1			495010	06/02/21 17:46	GSH	TAL SAC
Total/NA	Prep	7471A			0.62 g	50 mL	495048	06/03/21 10:00	IM	TAL SAC
Total/NA	Analysis	7471A		1			495436	06/03/21 14:55	IM	TAL SAC

Client Sample ID: HV-SED-1-210526

Lab Sample ID: 320-74350-8

Date Collected: 05/26/21 11:55

Matrix: Solid

Date Received: 05/28/21 09:20

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			5.07 g	50 mL	494499	06/01/21 14:21	TCS	TAL SAC
Soluble	Analysis	314.0		1			495092	06/03/21 15:26	TCS	TAL SAC
Total/NA	Prep	3050B			1.00 g	100 mL	494387	06/01/21 13:18	JP	TAL SAC
Total/NA	Analysis	6010B		1			495010	06/02/21 17:50	GSH	TAL SAC
Total/NA	Prep	7471A			0.61 g	50 mL	495048	06/03/21 10:00	IM	TAL SAC
Total/NA	Analysis	7471A		1			495436	06/03/21 14:56	IM	TAL SAC

Lab Chronicle

Client: GSI Environmental, Inc
Project/Site: AJU-BB

Job ID: 320-74350-1

Client Sample ID: OS8-SED-1-210526

Lab Sample ID: 320-74350-9

Date Collected: 05/26/21 12:40

Matrix: Solid

Date Received: 05/28/21 09:20

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			5.08 g	50 mL	494499	06/01/21 14:21	TCS	TAL SAC
Soluble	Analysis	314.0		1			495092	06/03/21 15:48	TCS	TAL SAC
Total/NA	Prep	3050B			1.05 g	100 mL	494387	06/01/21 13:18	JP	TAL SAC
Total/NA	Analysis	6010B		1			495010	06/02/21 18:01	GSH	TAL SAC
Total/NA	Prep	7471A			0.64 g	50 mL	495048	06/03/21 10:00	IM	TAL SAC
Total/NA	Analysis	7471A		1			495436	06/03/21 14:58	IM	TAL SAC

Client Sample ID: OW-SED-1-210526

Lab Sample ID: 320-74350-10

Date Collected: 05/26/21 13:45

Matrix: Solid

Date Received: 05/28/21 09:20

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			5.05 g	50 mL	494499	06/01/21 14:21	TCS	TAL SAC
Soluble	Analysis	314.0		1			495092	06/03/21 16:54	TCS	TAL SAC
Total/NA	Prep	3050B			1.03 g	100 mL	494387	06/01/21 13:18	JP	TAL SAC
Total/NA	Analysis	6010B		1			495010	06/02/21 18:05	GSH	TAL SAC
Total/NA	Prep	7471A			0.64 g	50 mL	495048	06/03/21 10:00	IM	TAL SAC
Total/NA	Analysis	7471A		1			495436	06/03/21 15:03	IM	TAL SAC

Client Sample ID: TF-1-210526

Lab Sample ID: 320-74350-11

Date Collected: 05/26/21 14:40

Matrix: Solid

Date Received: 05/28/21 09:20

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			5.05 g	50 mL	494499	06/01/21 14:21	TCS	TAL SAC
Soluble	Analysis	314.0		5			495092	06/03/21 17:17	TCS	TAL SAC
Total/NA	Prep	3050B			1.01 g	100 mL	494387	06/01/21 13:18	JP	TAL SAC
Total/NA	Analysis	6010B		1			495010	06/02/21 18:09	GSH	TAL SAC
Total/NA	Prep	7471A			0.61 g	50 mL	495048	06/03/21 10:00	IM	TAL SAC
Total/NA	Analysis	7471A		1			495436	06/03/21 15:05	IM	TAL SAC

Client Sample ID: KC-1-210527

Lab Sample ID: 320-74350-12

Date Collected: 05/27/21 08:00

Matrix: Solid

Date Received: 05/28/21 09:20

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			5.09 g	50 mL	494499	06/01/21 14:21	TCS	TAL SAC
Soluble	Analysis	314.0		1			495092	06/03/21 17:39	TCS	TAL SAC
Total/NA	Prep	3050B			1.02 g	100 mL	494387	06/01/21 13:18	JP	TAL SAC
Total/NA	Analysis	6010B		1			495010	06/02/21 18:13	GSH	TAL SAC
Total/NA	Prep	7471A			0.62 g	50 mL	495048	06/03/21 10:00	IM	TAL SAC
Total/NA	Analysis	7471A		1			495436	06/03/21 15:07	IM	TAL SAC

Lab Chronicle

Client: GSI Environmental, Inc
Project/Site: AJU-BB

Job ID: 320-74350-1

Client Sample ID: GF-1-210527

Lab Sample ID: 320-74350-13

Date Collected: 05/27/21 08:20

Matrix: Solid

Date Received: 05/28/21 09:20

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			5.09 g	50 mL	494499	06/01/21 14:21	TCS	TAL SAC
Soluble	Analysis	314.0		5			495092	06/03/21 18:01	TCS	TAL SAC
Total/NA	Prep	3050B			1.00 g	100 mL	494387	06/01/21 13:18	JP	TAL SAC
Total/NA	Analysis	6010B		1			495010	06/02/21 18:16	GSH	TAL SAC
Total/NA	Prep	7471A			0.64 g	50 mL	495048	06/03/21 10:00	IM	TAL SAC
Total/NA	Analysis	7471A		1			495436	06/03/21 15:08	IM	TAL SAC

Client Sample ID: AT-1-210527

Lab Sample ID: 320-74350-14

Date Collected: 05/27/21 08:45

Matrix: Solid

Date Received: 05/28/21 09:20

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			5.06 g	50 mL	494499	06/01/21 14:21	TCS	TAL SAC
Soluble	Analysis	314.0		10			495092	06/03/21 18:23	TCS	TAL SAC
Total/NA	Prep	3050B			1.04 g	100 mL	494387	06/01/21 13:18	JP	TAL SAC
Total/NA	Analysis	6010B		1			495010	06/02/21 18:20	GSH	TAL SAC
Total/NA	Prep	7471A			0.63 g	50 mL	495048	06/03/21 10:00	IM	TAL SAC
Total/NA	Analysis	7471A		1			495436	06/03/21 15:10	IM	TAL SAC

Laboratory References:

TAL SAC = Eurofins TestAmerica, Sacramento, 880 Riverside Parkway, West Sacramento, CA 95605, TEL (916)373-5600

Accreditation/Certification Summary

Client: GSI Environmental, Inc
Project/Site: AJU-BB

Job ID: 320-74350-1

Laboratory: Eurofins TestAmerica, Sacramento

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

Authority	Program	Identification Number	Expiration Date
California	State	2897	01-31-22

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
314.0		Solid	Perchlorate
GCMSMS_NDMA	3550B	Solid	N-Nitrosodimethylamine



Method Summary

Client: GSI Environmental, Inc
Project/Site: AJU-BB

Job ID: 320-74350-1

Method	Method Description	Protocol	Laboratory
GCMSMS_NDMA	Nitrosamines by Isotope Dilution and GC/CI/MS/MS	TestAmerica SOP	TAL SAC
314.0	Perchlorate (IC)	EPA	TAL SAC
6010B	Metals (ICP)	SW846	TAL SAC
7471A	Mercury (CVAA)	SW846	TAL SAC
3050B	Preparation, Metals	SW846	TAL SAC
3550B	Ultrasonic Extraction	SW846	TAL SAC
7471A	Preparation, Mercury	SW846	TAL SAC
DI Leach	Deionized Water Leaching Procedure	ASTM	TAL SAC

Protocol References:

ASTM = ASTM International

EPA = US Environmental Protection Agency

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

TestAmerica SOP = TestAmerica, Inc., Standard Operating Procedure

Laboratory References:

TAL SAC = Eurofins TestAmerica, Sacramento, 880 Riverside Parkway, West Sacramento, CA 95605, TEL (916)373-5600

Sample Summary

Client: GSI Environmental, Inc
Project/Site: AJU-BB

Job ID: 320-74350-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
320-74350-1	RRMDF-SED-1-210525	Solid	05/25/21 10:15	05/28/21 09:20	
320-74350-2	BP-SED-1-210525	Solid	05/25/21 11:30	05/28/21 09:20	
320-74350-3	CIT-1-210525	Solid	05/25/21 14:30	05/28/21 09:20	
320-74350-4	SRE-SED-2-210526	Solid	05/26/21 09:00	05/28/21 09:20	
320-74350-5	OS1-SED-1-210526	Solid	05/26/21 10:10	05/28/21 09:20	
320-74350-6	HV-1-210526	Solid	05/26/21 11:30	05/28/21 09:20	
320-74350-7	HV-2-210526	Solid	05/26/21 11:40	05/28/21 09:20	
320-74350-8	HV-SED-1-210526	Solid	05/26/21 11:55	05/28/21 09:20	
320-74350-9	OS8-SED-1-210526	Solid	05/26/21 12:40	05/28/21 09:20	
320-74350-10	OW-SED-1-210526	Solid	05/26/21 13:45	05/28/21 09:20	
320-74350-11	TF-1-210526	Solid	05/26/21 14:40	05/28/21 09:20	
320-74350-12	KC-1-210527	Solid	05/27/21 08:00	05/28/21 09:20	
320-74350-13	GF-1-210527	Solid	05/27/21 08:20	05/28/21 09:20	
320-74350-14	AT-1-210527	Solid	05/27/21 08:45	05/28/21 09:20	

FROM: GSI Environmental Inc. 155 Grand Ave. Suite 704 Oakland, CA 94612 (510) 463-8484		PROJECT NAME: AJU-BB		PROJECT NO.: 5182							
TEL: (510) 463-8484		PROJECT CONTACT: Susan Gallardo		LAB CONTACT: Afsaneh Salimpour (Pleasanton)							
E-MAIL: smgallardo@gsi-net.com; tzwick@gsi-net.com		GLOBAL ID: ..		SAMPLER(S): (PRINT) JCV/CWB							
LABORATORY: Eurofins Calscience		REQUESTED ANALYSES Please check box or fill in blank as needed.									
TURNAROUND TIME: <input type="checkbox"/> 24 HR <input type="checkbox"/> 48 HR <input checked="" type="checkbox"/> STANDARD											
SPECIAL INSTRUCTIONS: NDMA RL of 0.002 mg/kg											
LAB USE ONLY	SAMPLE ID	SAMPLING		MATRIX	NO. OF CONT.	Unpreserved	Preserved	Field Filtered	Title Z Metals (6010/7470)	Perchlorate (314.0)	NDMA
		DATE	TIME								
1	RRMDF-SED-1-210525	5/25/21	1015	S	2	X			X	X	
2	BP-SED-1-210525	5/25/21	1130	S	2	X			X	X	
3	CIT-1-210525	5/25/21	1430	S	2	X			X	X	
4	SPE-SED-2-210526	5/26/21	0900	S	2	X			X	X	
5	OS1-SED-1-210526	5/26/21	1010	S	3	X			X	X	
6	HV-1-210526	5/26/21	1130	S	2	X			X	X	
7	HV-2-210526	5/26/21	1140	S	2	X			X	X	
8	HV-SED-1-210526	5/26/21	1155	S	2	X			X	X	
9	OSB-SED-1-210526	5/26/21	1240	S	2	X			X	X	
10	OW-SED-1-210526	5/26/21	1345	S	2	X			X	X	
11	TF-1-210526	5/26/21	1440	S	2	X			X	X	
12	KC-1-210527	5/27/21	0900	S	2	X			X	X	
13	GF-1-210527	5/27/21	0820	S	2	X			X	X	
14	AT-1-210527	5/27/21	0845	S	2	X			X	X	
Reinquired by: (Signature) <i>[Signature]</i>		Received by: (Signature) <i>[Signature]</i>		Date: 5-27-20 21		Time: 13:51					
Reinquired by: (Signature) <i>[Signature]</i>		Received by: (Signature) <i>[Signature]</i>		Date: 5/27/21		Time: 1600					
Reinquired by: (Signature) <i>[Signature]</i>		Received by: (Signature) <i>[Signature]</i>		Date: <i>[Signature]</i>		Time: <i>[Signature]</i>					



3.1 / 3.5 3.3 / 3.7 5 C5

3.5' 44.6'

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- 15

Login Sample Receipt Checklist

Client: GSI Environmental, Inc

Job Number: 320-74350-1

Login Number: 74350

List Source: Eurofins TestAmerica, Sacramento

List Number: 1

Creator: Anderson, Marina M

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	
Sample custody seals, if present, are intact.	N/A	
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	



July 23, 2021

Travis Wicks
GSI Environmental Inc.
155 Grand Ave
Suite 704
Oakland, California 94612

Re: Near SSFL
Work Order: 545806

Dear Travis Wicks:

GEL Laboratories, LLC (GEL) appreciates the opportunity to provide the enclosed analytical results for the sample(s) we received on May 28, 2021. This original data report has been prepared and reviewed in accordance with GEL's standard operating procedures.

Test results for NELAP or ISO 17025 accredited tests are verified to meet the requirements of those standards, with any exceptions noted. The results reported relate only to the items tested and to the sample as received by the laboratory. These results may not be reproduced except as full reports without approval by the laboratory. Copies of GEL's accreditations and certifications can be found on our website at www.gel.com.

Our policy is to provide high quality, personalized analytical services to enable you to meet your analytical needs on time every time. We trust that you will find everything in order and to your satisfaction. If you have any questions, please do not hesitate to call me at (843) 556-8171, ext. 4487.

Sincerely,



Brielle Luthman
Project Manager

Purchase Order: 5182
Enclosures

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 – (843) 556-8171 – www.gel.com

Certificate of Analysis Report for

GSIE002 GSI Environmental Inc.

Client SDG: 545806 GEL Work Order: 545806

The Qualifiers in this report are defined as follows:

- * A quality control analyte recovery is outside of specified acceptance criteria
- ** Analyte is a Tracer compound
- ** Analyte is a surrogate compound
- U Analyte was analyzed for, but not detected above the MDL, MDA, MDC or LOD.
- UI Gamma Spectroscopy—Uncertain identification

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the Certificate of Analysis.

The designation ND, if present, appears in the result column when the analyte concentration is not detected above the limit as defined in the 'U' qualifier above.

This data report has been prepared and reviewed in accordance with GEL Laboratories LLC standard operating procedures. Please direct any questions to your Project Manager, Brielle Luthman.

Reviewed by _____

B. Luthman

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Company : GSI Environmental Inc.
 Address : 155 Grand Ave
 Suite 704
 Oakland, California 94612
 Contact: Travis Wicks
 Project: Near SSFL

Report Date: July 23, 2021

Client Sample ID: RR MDF-SED-1-21025
 Sample ID: 545806001
 Matrix: Soil
 Collect Date: 25-MAY-21
 Receive Date: 28-MAY-21
 Collector: Client
 Moisture: 1.27%

Project: GSIE00119
 Client ID: GSIE002

Parameter	Qualifier	Result	Uncertainty	MDC	TPU	RL	Units	PF	DF	Analyst	Date	Time	Batch	Mtd.
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Rad Gamma Spec Analysis

Gammascpec, Gamma, Solid (Standard List) "Dry Weight Corrected"

Cesium-137		0.0795	+/-0.0465	0.0518	+/-0.0470	0.100	pCi/g			RXF2	06/02/21	1109	2133406	1
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Rad Gas Flow Proportional Counting

GFPC, Sr90, Solid "Dry Weight Corrected"

Strontium-90	U	0.0552	+/-0.0499	0.0802	+/-0.0509	0.100	pCi/g			LXB3	06/09/21	0547	2133470	2
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Rad Liquid Scintillation Analysis

LSC, Tritium Distillation, Soil "As Received"

Tritium	U	-0.415	+/-1.23	2.23	+/-1.23	0.200	pCi/g			KXA1	06/16/21	1832	2138793	3
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The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	LYT1	06/01/21	1039	2133223

The following Analytical Methods were performed

Method	Description
1	DOE HASL 300, 4.5.2.3/Ga-01-R
2	EPA 905.0 Modified/DOE RP501 Rev. 1 Modified
3	EPA 906.0 Modified

Surrogate/Tracer Recovery	Test	Batch ID	Recovery%	Acceptable Limits
Strontium Carrier	GFPC, Sr90, Solid "Dry Weight Corrected"	2133470	71.9	(25%-125%)

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Company : GSI Environmental Inc.
Address : 155 Grand Ave
Suite 704
Oakland, California 94612

Report Date: July 23, 2021

Contact: Travis Wicks
Project: Near SSFL

Client Sample ID: RRMDF-SED-1-21025
Sample ID: 545806001

Project: GSIE00119
Client ID: GSIE002

Parameter	Qualifier	Result	Uncertainty	MDC	TPU	RL	Units	PF	DF	Analyst	Date	Time	Batch	Mtd.
Surrogate/Tracer	Recovery	Test						Batch ID	Recovery%	Acceptable Limits				

Notes:

The MDC is a sample specific MDC.

TPU and Counting Uncertainty are calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

DF: Dilution Factor

DL: Detection Limit

Lc/LC: Critical Level

MDA: Minimum Detectable Activity

MDC: Minimum Detectable Concentration

Mtd.: Method

PF: Prep Factor

RL: Reporting Limit

TPU: Total Propagated Uncertainty

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Company : GSI Environmental Inc.
 Address : 155 Grand Ave
 Suite 704
 Oakland, California 94612

Report Date: July 23, 2021

Contact: Travis Wicks

Project: Near SSFL

Client Sample ID: BP-SED-1-210525

Project: GSIE00119

Sample ID: 545806002

Client ID: GSIE002

Matrix: Soil

Collect Date: 25-MAY-21

Receive Date: 28-MAY-21

Collector: Client

Moisture: 1.91%

Parameter	Qualifier	Result	Uncertainty	MDC	TPU	RL	Units	PF	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis														
<i>Gammasec, Gamma, Solid (Standard List) "Dry Weight Corrected"</i>														
Cesium-137		0.0985	+/-0.0584	0.0553	+/-0.0589	0.100	pCi/g			RXF2	07/12/21	1151	2133406	1
Rad Gas Flow Proportional Counting														
<i>GFPC, Sr90, Solid "Dry Weight Corrected"</i>														
Strontium-90	U	0.0323	+/-0.0548	0.0947	+/-0.0551	0.100	pCi/g			LXB3	06/09/21	1219	2133470	2
Rad Liquid Scintillation Analysis														
<i>LSC, Tritium Distillation, Soil "As Received"</i>														
Tritium	U	-1.58	+/-1.58	2.98	+/-1.58	0.200	pCi/g			KXA1	06/16/21	1909	2138793	3

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	LYT1	06/01/21	1039	2133223

The following Analytical Methods were performed

Method	Description
1	DOE HASL 300, 4.5.2.3/Ga-01-R
2	EPA 905.0 Modified/DOE RP501 Rev. 1 Modified
3	EPA 906.0 Modified

Surrogate/Tracer Recovery	Test	Batch ID	Recovery%	Acceptable Limits
Strontium Carrier	GFPC, Sr90, Solid "Dry Weight Corrected"	2133470	67.4	(25%-125%)

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Company : GSI Environmental Inc.
Address : 155 Grand Ave
Suite 704
Oakland, California 94612
Contact: Travis Wicks
Project: Near SSFL
Client Sample ID: BP-SED-1-210525
Sample ID: 545806002

Report Date: July 23, 2021

Project: GSIE00119
Client ID: GSIE002

Parameter	Qualifier	Result	Uncertainty	MDC	TPU	RL	Units	PF	DF	Analyst	Date	Time	Batch	Mtd.
Surrogate/Tracer Recovery	Test							Batch ID	Recovery%	Acceptable Limits				

Notes:

The MDC is a sample specific MDC.
TPU and Counting Uncertainty are calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

DF: Dilution Factor	Mtd.: Method
DL: Detection Limit	PF: Prep Factor
Lc/LC: Critical Level	RL: Reporting Limit
MDA: Minimum Detectable Activity	TPU: Total Propagated Uncertainty
MDC: Minimum Detectable Concentration	

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Certificate of Analysis

Company : GSI Environmental Inc.
 Address : 155 Grand Ave
 Suite 704
 Oakland, California 94612

Report Date: July 23, 2021

Contact: Travis Wicks

Project: Near SSFL

Client Sample ID: CIT-1-210525

Project: GSIE00119

Sample ID: 545806003

Client ID: GSIE002

Matrix: Soil

Collect Date: 25-MAY-21

Receive Date: 28-MAY-21

Collector: Client

Moisture: .895%

Parameter	Qualifier	Result	Uncertainty	MDC	TPU	RL	Units	PF	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis														
<i>Gammasec, Gamma, Solid (Standard List) "Dry Weight Corrected"</i>														
Cesium-137		0.0900	+/-0.0762	0.0520	+/-0.0766	0.100	pCi/g			RXF2	06/02/21	1110	2133406	1
Rad Gas Flow Proportional Counting														
<i>GFPC, Sr90, Solid "Dry Weight Corrected"</i>														
Strontium-90	U	0.0147	+/-0.0449	0.0821	+/-0.0450	0.100	pCi/g			LXB3	06/09/21	0547	2133470	2
Rad Liquid Scintillation Analysis														
<i>LSC, Tritium Distillation, Soil "As Received"</i>														
Tritium	U	0.728	+/-1.19	2.03	+/-1.20	0.200	pCi/g			KXA1	06/16/21	1946	2138793	3

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	LYT1	06/01/21	1039	2133223

The following Analytical Methods were performed

Method	Description
1	DOE HASL 300, 4.5.2.3/Ga-01-R
2	EPA 905.0 Modified/DOE RP501 Rev. 1 Modified
3	EPA 906.0 Modified

Surrogate/Tracer Recovery	Test	Batch ID	Recovery%	Acceptable Limits
Strontium Carrier	GFPC, Sr90, Solid "Dry Weight Corrected"	2133470	78.7	(25%-125%)

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Certificate of Analysis

Company : GSI Environmental Inc.
Address : 155 Grand Ave
Suite 704
Oakland, California 94612

Report Date: July 23, 2021

Contact: Travis Wicks

Project: Near SSFL

Client Sample ID: CIT-1-210525

Project: GSIE00119

Sample ID: 545806003

Client ID: GSIE002

Parameter	Qualifier	Result	Uncertainty	MDC	TPU	RL	Units	PF	DF	Analyst	Date	Time	Batch	Mtd.
Surrogate/Tracer	Recovery	Test						Batch ID	Recovery%	Acceptable Limits				

Notes:

The MDC is a sample specific MDC.

TPU and Counting Uncertainty are calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

DF: Dilution Factor

Mtd.: Method

DL: Detection Limit

PF: Prep Factor

Lc/LC: Critical Level

RL: Reporting Limit

MDA: Minimum Detectable Activity

TPU: Total Propagated Uncertainty

MDC: Minimum Detectable Concentration

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Certificate of Analysis

Company : GSI Environmental Inc.
 Address : 155 Grand Ave
 Suite 704
 Oakland, California 94612

Report Date: July 23, 2021

Contact: Travis Wicks

Project: Near SSFL

Client Sample ID: SRE-SED-2-210526

Project: GSIE00119

Sample ID: 545806004

Client ID: GSIE002

Matrix: Soil

Collect Date: 26-MAY-21

Receive Date: 28-MAY-21

Collector: Client

Moisture: 32.3%

Parameter	Qualifier	Result	Uncertainty	MDC	TPU	RL	Units	PF	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis														
<i>Gammasec, Gamma, Solid (Standard List) "Dry Weight Corrected"</i>														
Cesium-137		0.0729	+/-0.0311	0.0465	+/-0.0316	0.100	pCi/g			RXF2	06/02/21	1111	2133406	1
Rad Gas Flow Proportional Counting														
<i>GFPC, Sr90, Solid "Dry Weight Corrected"</i>														
Strontium-90	U	0.0291	+/-0.0473	0.0822	+/-0.0476	0.100	pCi/g			LXB3	06/09/21	1024	2133470	2
Rad Liquid Scintillation Analysis														
<i>LSC, Tritium Distillation, Soil "As Received"</i>														
Tritium	U	-0.00170	+/-1.21	2.15	+/-1.21	0.200	pCi/g			KXA1	06/16/21	2022	2138793	3

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	LYT1	06/01/21	1039	2133223

The following Analytical Methods were performed

Method	Description
1	DOE HASL 300, 4.5.2.3/Ga-01-R
2	EPA 905.0 Modified/DOE RP501 Rev. 1 Modified
3	EPA 906.0 Modified

Surrogate/Tracer Recovery	Test	Batch ID	Recovery%	Acceptable Limits
Strontium Carrier	GFPC, Sr90, Solid "Dry Weight Corrected"	2133470	83.1	(25%-125%)

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Certificate of Analysis

Company : GSI Environmental Inc.
Address : 155 Grand Ave
Suite 704
Oakland, California 94612

Report Date: July 23, 2021

Contact: Travis Wicks

Project: Near SSFL

Client Sample ID: SRE-SED-2-210526

Project: GSIE00119

Sample ID: 545806004

Client ID: GSIE002

Parameter	Qualifier	Result	Uncertainty	MDC	TPU	RL	Units	PF	DF	Analyst	Date	Time	Batch	Mtd.
Surrogate/Tracer Recovery	Test							Batch ID	Recovery%	Acceptable Limits				

Notes:

The MDC is a sample specific MDC.

TPU and Counting Uncertainty are calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

DF: Dilution Factor

Mtd.: Method

DL: Detection Limit

PF: Prep Factor

Lc/LC: Critical Level

RL: Reporting Limit

MDA: Minimum Detectable Activity

TPU: Total Propagated Uncertainty

MDC: Minimum Detectable Concentration

GEL LABORATORIES LLC

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Certificate of Analysis

Company : GSI Environmental Inc.
 Address : 155 Grand Ave
 Suite 704
 Oakland, California 94612

Report Date: July 23, 2021

Contact: Travis Wicks

Project: Near SSFL

Client Sample ID: OS1-SED-1-210526

Project: GSIE00119

Sample ID: 545806005

Client ID: GSIE002

Matrix: Soil

Collect Date: 26-MAY-21

Receive Date: 28-MAY-21

Collector: Client

Moisture: 5.72%

Parameter	Qualifier	Result	Uncertainty	MDC	TPU	RL	Units	PF	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis														
<i>Gammasec, Gamma, Solid (Standard List) "Dry Weight Corrected"</i>														
Cesium-137		0.0669	+/-0.0579	0.0461	+/-0.0582	0.100	pCi/g			RXF2	06/02/21	1111	2133406	1
Rad Gas Flow Proportional Counting														
<i>GFPC, Sr90, Solid "Dry Weight Corrected"</i>														
Strontium-90	U	0.0678	+/-0.0521	0.0812	+/-0.0535	0.100	pCi/g			LXB3	06/09/21	0547	2133470	2
Rad Liquid Scintillation Analysis														
<i>LSC, Tritium Distillation, Soil "As Received"</i>														
Tritium	U	-0.0847	+/-1.15	2.04	+/-1.15	0.200	pCi/g			KXA1	06/16/21	2059	2138793	3

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	LYT1	06/01/21	1039	2133223

The following Analytical Methods were performed

Method	Description
1	DOE HASL 300, 4.5.2.3/Ga-01-R
2	EPA 905.0 Modified/DOE RP501 Rev. 1 Modified
3	EPA 906.0 Modified

Surrogate/Tracer Recovery	Test	Batch ID	Recovery%	Acceptable Limits
Strontium Carrier	GFPC, Sr90, Solid "Dry Weight Corrected"	2133470	71.9	(25%-125%)

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2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Company : GSI Environmental Inc.
Address : 155 Grand Ave
Suite 704
Oakland, California 94612

Report Date: July 23, 2021

Contact: Travis Wicks

Project: Near SSFL

Client Sample ID: OS1-SED-1-210526

Project: GSIE00119

Sample ID: 545806005

Client ID: GSIE002

Parameter	Qualifier	Result	Uncertainty	MDC	TPU	RL	Units	PF	DF	Analyst	Date	Time	Batch	Mtd.
Surrogate/Tracer Recovery	Test							Batch ID	Recovery%	Acceptable Limits				

Notes:

The MDC is a sample specific MDC.

TPU and Counting Uncertainty are calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

DF: Dilution Factor

Mtd.: Method

DL: Detection Limit

PF: Prep Factor

Lc/LC: Critical Level

RL: Reporting Limit

MDA: Minimum Detectable Activity

TPU: Total Propagated Uncertainty

MDC: Minimum Detectable Concentration

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Company : GSI Environmental Inc.
 Address : 155 Grand Ave
 Suite 704
 Oakland, California 94612

Report Date: July 23, 2021

Contact: Travis Wicks

Project: Near SSFL

Client Sample ID: HV-1-210526

Project: GSIE00119

Sample ID: 545806006

Client ID: GSIE002

Matrix: Soil

Collect Date: 26-MAY-21

Receive Date: 28-MAY-21

Collector: Client

Moisture: 1.41%

Parameter	Qualifier	Result	Uncertainty	MDC	TPU	RL	Units	PF	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis														
<i>Gammasec, Gamma, Solid (Standard List) "Dry Weight Corrected"</i>														
Cesium-137	U	0.00932	+/-0.0243	0.0465	+/-0.0247	0.100	pCi/g			RXF2	06/02/21	1112	2133406	1
Rad Gas Flow Proportional Counting														
<i>GFPC, Sr90, Solid "Dry Weight Corrected"</i>														
Strontium-90	U	0.0711	+/-0.0594	0.0962	+/-0.0608	0.100	pCi/g			LXB3	06/09/21	0554	2133470	2
Rad Liquid Scintillation Analysis														
<i>LSC, Tritium Distillation, Soil "As Received"</i>														
Tritium	U	0.0449	+/-1.21	2.14	+/-1.21	0.200	pCi/g			KXA1	06/16/21	2136	2138793	3

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	LYT1	06/01/21	1039	2133223

The following Analytical Methods were performed

Method	Description
1	DOE HASL 300, 4.5.2.3/Ga-01-R
2	EPA 905.0 Modified/DOE RP501 Rev. 1 Modified
3	EPA 906.0 Modified

Surrogate/Tracer Recovery	Test	Batch ID	Recovery%	Acceptable Limits
Strontium Carrier	GFPC, Sr90, Solid "Dry Weight Corrected"	2133470	89.9	(25%-125%)

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Company : GSI Environmental Inc.
Address : 155 Grand Ave
Suite 704
Oakland, California 94612

Report Date: July 23, 2021

Contact: Travis Wicks
Project: Near SSFL

Client Sample ID: HV-1-210526
Sample ID: 545806006

Project: GSIE00119
Client ID: GSIE002

Parameter	Qualifier	Result	Uncertainty	MDC	TPU	RL	Units	PF	DF	Analyst	Date	Time	Batch	Mtd.
Surrogate/Tracer	Recovery	Test						Batch ID	Recovery%	Acceptable Limits				

Notes:

The MDC is a sample specific MDC.

TPU and Counting Uncertainty are calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

DF: Dilution Factor

DL: Detection Limit

Lc/LC: Critical Level

MDA: Minimum Detectable Activity

MDC: Minimum Detectable Concentration

Mtd.: Method

PF: Prep Factor

RL: Reporting Limit

TPU: Total Propagated Uncertainty

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Company : GSI Environmental Inc.
 Address : 155 Grand Ave
 Suite 704
 Oakland, California 94612

Contact: Travis Wicks
 Project: Near SSFL

Report Date: July 23, 2021

Client Sample ID: HV-2-210526
 Sample ID: 545806007
 Matrix: Soil
 Collect Date: 26-MAY-21
 Receive Date: 28-MAY-21
 Collector: Client
 Moisture: .615%

Project: GSIE00119
 Client ID: GSIE002

Parameter	Qualifier	Result	Uncertainty	MDC	TPU	RL	Units	PF	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis														
<i>Gammasec, Gamma, Solid (Standard List) "Dry Weight Corrected"</i>														
Cesium-137	U	0.0311	+/-0.0278	0.0560	+/-0.0313	0.100	pCi/g			RXF2	06/02/21	1112	2133406	1
Rad Gas Flow Proportional Counting														
<i>GFPC, Sr90, Solid "Dry Weight Corrected"</i>														
Strontium-90	U	0.00227	+/-0.0470	0.0912	+/-0.0470	0.100	pCi/g			LXB3	06/09/21	0554	2133470	2
Rad Liquid Scintillation Analysis														
<i>LSC, Tritium Distillation, Soil "As Received"</i>														
Tritium	U	-0.213	+/-1.24	2.22	+/-1.24	0.200	pCi/g			KXA1	06/16/21	2212	2138793	3

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	LYT1	06/01/21	1039	2133223

The following Analytical Methods were performed

Method	Description
1	DOE HASL 300, 4.5.2.3/Ga-01-R
2	EPA 905.0 Modified/DOE RP501 Rev. 1 Modified
3	EPA 906.0 Modified

Surrogate/Tracer Recovery	Test	Batch ID	Recovery%	Acceptable Limits
Strontium Carrier	GFPC, Sr90, Solid "Dry Weight Corrected"	2133470	65.2	(25%-125%)

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Certificate of Analysis

Company : GSI Environmental Inc.
Address : 155 Grand Ave
Suite 704
Oakland, California 94612

Report Date: July 23, 2021

Contact: Travis Wicks
Project: Near SSFL

Client Sample ID: HV-2-210526
Sample ID: 545806007

Project: GSIE00119
Client ID: GSIE002

Parameter	Qualifier	Result	Uncertainty	MDC	TPU	RL	Units	PF	DF	Analyst	Date	Time	Batch	Mtd.
Surrogate/Tracer	Recovery	Test						Batch ID	Recovery%	Acceptable Limits				

Notes:

The MDC is a sample specific MDC.

TPU and Counting Uncertainty are calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

DF: Dilution Factor

DL: Detection Limit

Lc/LC: Critical Level

MDA: Minimum Detectable Activity

MDC: Minimum Detectable Concentration

Mtd.: Method

PF: Prep Factor

RL: Reporting Limit

TPU: Total Propagated Uncertainty

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Certificate of Analysis

Company : GSI Environmental Inc.
 Address : 155 Grand Ave
 Suite 704
 Oakland, California 94612

Contact: Travis Wicks
 Project: Near SSFL

Report Date: July 23, 2021

Client Sample ID: HV-SED-1-210526
 Sample ID: 545806008
 Matrix: Soil
 Collect Date: 26-MAY-21
 Receive Date: 28-MAY-21
 Collector: Client
 Moisture: 1.62%

Project: GSIE00119
 Client ID: GSIE002

Parameter	Qualifier	Result	Uncertainty	MDC	TPU	RL	Units	PF	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis														
<i>Gammasec, Gamma, Solid (Standard List) "Dry Weight Corrected"</i>														
Cesium-137	UI	0.000	+/-0.0753	0.0604	+/-0.0755	0.100	pCi/g			RXF2	06/02/21	1113	2133406	1
Rad Gas Flow Proportional Counting														
<i>GFPC, Sr90, Solid "Dry Weight Corrected"</i>														
Strontium-90	U	0.0363	+/-0.0483	0.0825	+/-0.0487	0.100	pCi/g			LXB3	06/09/21	0554	2133470	2
Rad Liquid Scintillation Analysis														
<i>LSC, Tritium Distillation, Soil "As Received"</i>														
Tritium	U	0.311	+/-1.19	2.08	+/-1.19	0.200	pCi/g			KXA1	06/16/21	2249	2138793	3

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	LYT1	06/01/21	1039	2133223

The following Analytical Methods were performed

Method	Description
1	DOE HASL 300, 4.5.2.3/Ga-01-R
2	EPA 905.0 Modified/DOE RP501 Rev. 1 Modified
3	EPA 906.0 Modified

Surrogate/Tracer Recovery	Test	Batch ID	Recovery%	Acceptable Limits
Strontium Carrier	GFPC, Sr90, Solid "Dry Weight Corrected"	2133470	87.6	(25%-125%)

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Certificate of Analysis

Company : GSI Environmental Inc.
Address : 155 Grand Ave
Suite 704
Oakland, California 94612
Contact: Travis Wicks
Project: Near SSFL
Client Sample ID: HV-SED-1-210526
Sample ID: 545806008

Report Date: July 23, 2021

Project: GSIE00119
Client ID: GSIE002

Parameter	Qualifier	Result	Uncertainty	MDC	TPU	RL	Units	PF	DF	Analyst	Date	Time	Batch	Mtd.
Surrogate/Tracer Recovery	Test							Batch ID	Recovery%	Acceptable Limits				

Notes:

The MDC is a sample specific MDC.
TPU and Counting Uncertainty are calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

DF: Dilution Factor	Mtd.: Method
DL: Detection Limit	PF: Prep Factor
Lc/LC: Critical Level	RL: Reporting Limit
MDA: Minimum Detectable Activity	TPU: Total Propagated Uncertainty
MDC: Minimum Detectable Concentration	

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Certificate of Analysis

Company : GSI Environmental Inc.
 Address : 155 Grand Ave
 Suite 704
 Oakland, California 94612

Report Date: July 23, 2021

Contact: Travis Wicks

Project: Near SSFL

Client Sample ID: OS8-SED-1-210526

Project: GSIE00119

Sample ID: 545806009

Client ID: GSIE002

Matrix: Soil

Collect Date: 26-MAY-21

Receive Date: 28-MAY-21

Collector: Client

Moisture: 45.3%

Parameter	Qualifier	Result	Uncertainty	MDC	TPU	RL	Units	PF	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis														
<i>Gammasec, Gamma, Solid (Standard List) "Dry Weight Corrected"</i>														
Cesium-137		0.109	+/-0.0588	0.0615	+/-0.0595	0.100	pCi/g			RXF2	06/02/21	1113	2133406	1
Rad Gas Flow Proportional Counting														
<i>GFPC, Sr90, Solid "Dry Weight Corrected"</i>														
Strontium-90	U	-0.00431	+/-0.0411	0.0792	+/-0.0411	0.100	pCi/g			LXB3	06/09/21	0554	2133470	2
Rad Liquid Scintillation Analysis														
<i>LSC, Tritium Distillation, Soil "As Received"</i>														
Tritium	U	0.0818	+/-1.19	2.11	+/-1.19	0.200	pCi/g			KXA1	06/16/21	2326	2138793	3

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	LYT1	06/01/21	1039	2133223

The following Analytical Methods were performed

Method	Description
1	DOE HASL 300, 4.5.2.3/Ga-01-R
2	EPA 905.0 Modified/DOE RP501 Rev. 1 Modified
3	EPA 906.0 Modified

Surrogate/Tracer Recovery	Test	Batch ID	Recovery%	Acceptable Limits
Strontium Carrier	GFPC, Sr90, Solid "Dry Weight Corrected"	2133470	87.6	(25%-125%)

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Certificate of Analysis

Company : GSI Environmental Inc.
Address : 155 Grand Ave
Suite 704
Oakland, California 94612

Report Date: July 23, 2021

Contact: Travis Wicks

Project: Near SSFL

Client Sample ID: OS8-SED-1-210526

Project: GSIE00119

Sample ID: 545806009

Client ID: GSIE002

Parameter	Qualifier	Result	Uncertainty	MDC	TPU	RL	Units	PF	DF	Analyst	Date	Time	Batch	Mtd.
Surrogate/Tracer Recovery	Test							Batch ID	Recovery%	Acceptable Limits				

Notes:

The MDC is a sample specific MDC.

TPU and Counting Uncertainty are calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

DF: Dilution Factor

Mtd.: Method

DL: Detection Limit

PF: Prep Factor

Lc/LC: Critical Level

RL: Reporting Limit

MDA: Minimum Detectable Activity

TPU: Total Propagated Uncertainty

MDC: Minimum Detectable Concentration

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Certificate of Analysis

Company : GSI Environmental Inc.
 Address : 155 Grand Ave
 Suite 704
 Oakland, California 94612

Report Date: July 23, 2021

Contact: Travis Wicks

Project: Near SSFL

Client Sample ID: OW-SED-1-210526

Project: GSIE00119

Sample ID: 545806010

Client ID: GSIE002

Matrix: Soil

Collect Date: 26-MAY-21

Receive Date: 28-MAY-21

Collector: Client

Moisture: 18.6%

Parameter	Qualifier	Result	Uncertainty	MDC	TPU	RL	Units	PF	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis														
<i>Gammasec, Gamma, Solid (Standard List) "Dry Weight Corrected"</i>														
Cesium-137		0.147	+/-0.0470	0.0484	+/-0.0493	0.100	pCi/g			RXF2	06/02/21	1114	2133406	1
Rad Gas Flow Proportional Counting														
<i>GFPC, Sr90, Solid "Dry Weight Corrected"</i>														
Strontium-90	U	-0.0469	+/-0.0457	0.0925	+/-0.0457	0.100	pCi/g			LXB3	06/09/21	0555	2133470	2
Rad Liquid Scintillation Analysis														
<i>LSC, Tritium Distillation, Soil "As Received"</i>														
Tritium	U	0.0325	+/-1.25	2.22	+/-1.25	0.200	pCi/g			KXA1	06/17/21	0003	2138793	3

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	LYT1	06/01/21	1039	2133223

The following Analytical Methods were performed

Method	Description
1	DOE HASL 300, 4.5.2.3/Ga-01-R
2	EPA 905.0 Modified/DOE RP501 Rev. 1 Modified
3	EPA 906.0 Modified

Surrogate/Tracer Recovery	Test	Batch ID	Recovery%	Acceptable Limits
Strontium Carrier	GFPC, Sr90, Solid "Dry Weight Corrected"	2133470	89.9	(25%-125%)

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Certificate of Analysis

Company : GSI Environmental Inc.
Address : 155 Grand Ave
Suite 704
Oakland, California 94612

Report Date: July 23, 2021

Contact: Travis Wicks

Project: Near SSFL

Client Sample ID: OW-SED-1-210526

Project: GSIE00119

Sample ID: 545806010

Client ID: GSIE002

Parameter	Qualifier	Result	Uncertainty	MDC	TPU	RL	Units	PF	DF	Analyst	Date	Time	Batch	Mtd.
Surrogate/Tracer Recovery	Test							Batch ID	Recovery%	Acceptable Limits				

Notes:

The MDC is a sample specific MDC.

TPU and Counting Uncertainty are calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

DF: Dilution Factor

Mtd.: Method

DL: Detection Limit

PF: Prep Factor

Lc/LC: Critical Level

RL: Reporting Limit

MDA: Minimum Detectable Activity

TPU: Total Propagated Uncertainty

MDC: Minimum Detectable Concentration

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Certificate of Analysis

Company : GSI Environmental Inc.
Address : 155 Grand Ave
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Oakland, California 94612
Contact: Travis Wicks
Project: Near SSFL

Report Date: July 23, 2021

Client Sample ID: TF-1-210526
Sample ID: 545806011
Matrix: Soil
Collect Date: 26-MAY-21
Receive Date: 28-MAY-21
Collector: Client
Moisture: 4.79%

Project: GSIE00119
Client ID: GSIE002

Parameter	Qualifier	Result	Uncertainty	MDC	TPU	RL	Units	PF	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis														
<i>Gammascpec, Gamma, Solid (Standard List) "Dry Weight Corrected"</i>														
Cesium-137	U	0.0372	+/-0.0224	0.0479	+/-0.0282	0.100	pCi/g			RXF2	06/02/21	1114	2133406	1
Rad Gas Flow Proportional Counting														
<i>GFPC, Sr90, Solid "Dry Weight Corrected"</i>														
Strontium-90	U	0.0530	+/-0.0593	0.0991	+/-0.0600	0.100	pCi/g			LXB3	06/09/21	1024	2133470	2
Rad Liquid Scintillation Analysis														
<i>LSC, Tritium Distillation, Soil "As Received"</i>														
Tritium	U	-0.157	+/-1.21	2.17	+/-1.21	0.200	pCi/g			KXA1	06/17/21	0039	2138793	3

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	LYT1	06/01/21	1039	2133223

The following Analytical Methods were performed

Method	Description
1	DOE HASL 300, 4.5.2.3/Ga-01-R
2	EPA 905.0 Modified/DOE RP501 Rev. 1 Modified
3	EPA 906.0 Modified

Surrogate/Tracer Recovery	Test	Batch ID	Recovery%	Acceptable Limits
Strontium Carrier	GFPC, Sr90, Solid "Dry Weight Corrected"	2133470	65.2	(25%-125%)

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Certificate of Analysis

Company : GSI Environmental Inc.
Address : 155 Grand Ave
Suite 704
Oakland, California 94612

Report Date: July 23, 2021

Contact: Travis Wicks
Project: Near SSFL

Client Sample ID: TF-1-210526
Sample ID: 545806011

Project: GSIE00119
Client ID: GSIE002

Parameter	Qualifier	Result	Uncertainty	MDC	TPU	RL	Units	PF	DF	Analyst	Date	Time	Batch	Mtd.
Surrogate/Tracer Recovery	Test							Batch ID	Recovery%	Acceptable Limits				

Notes:

The MDC is a sample specific MDC.

TPU and Counting Uncertainty are calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

DF: Dilution Factor

DL: Detection Limit

Lc/LC: Critical Level

MDA: Minimum Detectable Activity

MDC: Minimum Detectable Concentration

Mtd.: Method

PF: Prep Factor

RL: Reporting Limit

TPU: Total Propagated Uncertainty

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Certificate of Analysis

Company : GSI Environmental Inc.
Address : 155 Grand Ave
Suite 704
Oakland, California 94612

Report Date: July 23, 2021

Contact: Travis Wicks
Project: Near SSFL

Client Sample ID: KC-1-210527
Sample ID: 545806012
Matrix: Soil
Collect Date: 27-MAY-21
Receive Date: 28-MAY-21
Collector: Client
Moisture: 1.37%

Project: GSIE00119
Client ID: GSIE002

Parameter	Qualifier	Result	Uncertainty	MDC	TPU	RL	Units	PF	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis														
<i>Gammasec, Gamma, Solid (Standard List) "Dry Weight Corrected"</i>														
Cesium-137	UI	0.000	+/-0.0277	0.0564	+/-0.0423	0.100	pCi/g			RXF2	06/02/21	1144	2133406	1
Rad Gas Flow Proportional Counting														
<i>GFPC, Sr90, Solid "Dry Weight Corrected"</i>														
Strontium-90	U	0.0117	+/-0.0453	0.0849	+/-0.0453	0.100	pCi/g			LXB3	06/09/21	0559	2133470	2
Rad Liquid Scintillation Analysis														
<i>LSC, Tritium Distillation, Soil "As Received"</i>														
Tritium	U	0.514	+/-1.23	2.12	+/-1.23	0.200	pCi/g			KXA1	06/17/21	0116	2138793	3

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	LYT1	06/01/21	1039	2133223

The following Analytical Methods were performed

Method	Description
1	DOE HASL 300, 4.5.2.3/Ga-01-R
2	EPA 905.0 Modified/DOE RP501 Rev. 1 Modified
3	EPA 906.0 Modified

Surrogate/Tracer Recovery	Test	Batch ID	Recovery%	Acceptable Limits
Strontium Carrier	GFPC, Sr90, Solid "Dry Weight Corrected"	2133470	65.2	(25%-125%)

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Certificate of Analysis

Company : GSI Environmental Inc.
Address : 155 Grand Ave
Suite 704
Oakland, California 94612

Report Date: July 23, 2021

Contact: Travis Wicks
Project: Near SSFL

Client Sample ID: KC-1-210527
Sample ID: 545806012

Project: GSIE00119
Client ID: GSIE002

Parameter	Qualifier	Result	Uncertainty	MDC	TPU	RL	Units	PF	DF	Analyst	Date	Time	Batch	Mtd.
Surrogate/Tracer	Recovery	Test						Batch ID	Recovery%	Acceptable Limits				

Notes:

The MDC is a sample specific MDC.

TPU and Counting Uncertainty are calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

DF: Dilution Factor

DL: Detection Limit

Lc/LC: Critical Level

MDA: Minimum Detectable Activity

MDC: Minimum Detectable Concentration

Mtd.: Method

PF: Prep Factor

RL: Reporting Limit

TPU: Total Propagated Uncertainty

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Certificate of Analysis

Company : GSI Environmental Inc.
 Address : 155 Grand Ave
 Suite 704
 Oakland, California 94612

Report Date: July 23, 2021

Contact: Travis Wicks

Project: Near SSFL

Client Sample ID: GF-1-210527

Project: GSIE00119

Sample ID: 545806013

Client ID: GSIE002

Matrix: Soil

Collect Date: 27-MAY-21

Receive Date: 28-MAY-21

Collector: Client

Moisture: 19.7%

Parameter	Qualifier	Result	Uncertainty	MDC	TPU	RL	Units	PF	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis														
<i>Gammasec, Gamma, Solid (Standard List) "Dry Weight Corrected"</i>														
Cesium-137	U	0.0516	+/-0.0322	0.0521	+/-0.0325	0.100	pCi/g			RXF2	06/02/21	1306	2133406	1
Rad Gas Flow Proportional Counting														
<i>GFPC, Sr90, Solid "Dry Weight Corrected"</i>														
Strontium-90	U	-0.0469	+/-0.0474	0.0976	+/-0.0474	0.100	pCi/g			LXB3	06/09/21	0600	2133470	2
Rad Liquid Scintillation Analysis														
<i>LSC, Tritium Distillation, Soil "As Received"</i>														
Tritium	U	0.353	+/-1.29	2.26	+/-1.30	0.200	pCi/g			KXA1	06/17/21	0153	2138793	3

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	LYT1	06/01/21	1039	2133223

The following Analytical Methods were performed

Method	Description
1	DOE HASL 300, 4.5.2.3/Ga-01-R
2	EPA 905.0 Modified/DOE RP501 Rev. 1 Modified
3	EPA 906.0 Modified

Surrogate/Tracer Recovery	Test	Batch ID	Recovery%	Acceptable Limits
Strontium Carrier	GFPC, Sr90, Solid "Dry Weight Corrected"	2133470	69.7	(25%-125%)

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Certificate of Analysis

Company : GSI Environmental Inc.
Address : 155 Grand Ave
Suite 704
Oakland, California 94612

Report Date: July 23, 2021

Contact: Travis Wicks

Project: Near SSFL

Client Sample ID: GF-1-210527

Sample ID: 545806013

Project: GSIE00119

Client ID: GSIE002

Parameter	Qualifier	Result	Uncertainty	MDC	TPU	RL	Units	PF	DF	Analyst	Date	Time	Batch	Mtd.
Surrogate/Tracer	Recovery	Test						Batch ID	Recovery%	Acceptable Limits				

Notes:

The MDC is a sample specific MDC.

TPU and Counting Uncertainty are calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

DF: Dilution Factor

DL: Detection Limit

Lc/LC: Critical Level

MDA: Minimum Detectable Activity

MDC: Minimum Detectable Concentration

Mtd.: Method

PF: Prep Factor

RL: Reporting Limit

TPU: Total Propagated Uncertainty

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Certificate of Analysis

Company : GSI Environmental Inc.
 Address : 155 Grand Ave
 Suite 704
 Oakland, California 94612

Contact: Travis Wicks
 Project: Near SSFL

Report Date: July 23, 2021

Client Sample ID: AT-1-210527
 Sample ID: 545806014
 Matrix: Soil
 Collect Date: 27-MAY-21
 Receive Date: 28-MAY-21
 Collector: Client
 Moisture: 7.46%

Project: GSIE00119
 Client ID: GSIE002

Parameter	Qualifier	Result	Uncertainty	MDC	TPU	RL	Units	PF	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis														
<i>Gammasec, Gamma, Solid (Standard List) "Dry Weight Corrected"</i>														
Cesium-137	UI	0.000	+/-0.0559	0.0609	+/-0.0562	0.100	pCi/g			RXF2	06/02/21	1245	2133406	1
Rad Gas Flow Proportional Counting														
<i>GFPC, Sr90, Solid "Dry Weight Corrected"</i>														
Strontium-90	U	0.0329	+/-0.0485	0.0837	+/-0.0488	0.100	pCi/g			LXB3	06/09/21	1024	2133470	2
Rad Liquid Scintillation Analysis														
<i>LSC, Tritium Distillation, Soil "As Received"</i>														
Tritium	U	-0.195	+/-1.08	1.93	+/-1.08	0.200	pCi/g			KXA1	06/17/21	0230	2138793	3

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	LYT1	06/01/21	1039	2133223

The following Analytical Methods were performed

Method	Description
1	DOE HASL 300, 4.5.2.3/Ga-01-R
2	EPA 905.0 Modified/DOE RP501 Rev. 1 Modified
3	EPA 906.0 Modified

Surrogate/Tracer Recovery	Test	Batch ID	Recovery%	Acceptable Limits
Strontium Carrier	GFPC, Sr90, Solid "Dry Weight Corrected"	2133470	80.9	(25%-125%)

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Certificate of Analysis

Company : GSI Environmental Inc.
Address : 155 Grand Ave
Suite 704
Oakland, California 94612

Report Date: July 23, 2021

Contact: Travis Wicks
Project: Near SSFL

Client Sample ID: AT-1-210527
Sample ID: 545806014

Project: GSIE00119
Client ID: GSIE002

Parameter	Qualifier	Result	Uncertainty	MDC	TPU	RL	Units	PF	DF	Analyst	Date	Time	Batch	Mtd.
Surrogate/Tracer	Recovery	Test						Batch ID	Recovery%	Acceptable Limits				

Notes:

The MDC is a sample specific MDC.

TPU and Counting Uncertainty are calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

DF: Dilution Factor

DL: Detection Limit

Lc/LC: Critical Level

MDA: Minimum Detectable Activity

MDC: Minimum Detectable Concentration

Mtd.: Method

PF: Prep Factor

RL: Reporting Limit

TPU: Total Propagated Uncertainty

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QC Summary

Report Date: July 23, 2021
Page 1 of 3

Client : GSI Environmental Inc.
155 Grand Ave
Suite 704
Oakland, California

Contact: Travis Wicks

Workorder: 545806

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Rad Gamma Spec											
Batch	2133406										
QC1204832782	545806001 DUP										
Cesium-137		0.0795	UI	0.000	pCi/g	52.2		(0% - 100%)	RXF2	06/02/21	13:14
	Uncert:	+/-0.0465		+/-0.0646							
	TPU:	+/-0.0470		+/-0.0648							
QC1204832783	LCS										
Americium-241	485			560	pCi/g		115	(75%-125%)	RXF2	06/02/21	13:08
	Uncert:			+/-12.9							
	TPU:			+/-62.1							
Cobalt-60	86.9			85.0	pCi/g		97.8	(75%-125%)			
	Uncert:			+/-2.62							
	TPU:			+/-8.96							
Cesium-137	161			156	pCi/g		97.2	(75%-125%)			
	Uncert:			+/-2.91							
	TPU:			+/-13.0							
QC1204832781	MB										
Cesium-137			U	0.0121	pCi/g				RXF2	06/02/21	13:11
	Uncert:			+/-0.0236							
	TPU:			+/-0.0236							
Rad Gas Flow											
Batch	2133470										
QC1204832926	545806005 DUP										
Strontium-90	U	0.0678	U	-0.00341	pCi/g	0			N/A LXB3	06/09/21	06:03
	Uncert:	+/-0.0521		+/-0.0483							
	TPU:	+/-0.0535		+/-0.0484							
QC1204832927	LCS										
Strontium-90	3.94			3.31	pCi/g		83.9	(75%-125%)	LXB3	06/09/21	06:04
	Uncert:			+/-0.237							
	TPU:			+/-0.636							
QC1204832925	MB										
Strontium-90			U	0.00758	pCi/g				LXB3	06/09/21	06:03
	Uncert:			+/-0.0451							
	TPU:			+/-0.0451							
Rad Liquid Scintillation											
Batch	2138793										
QC1204842525	545806001 DUP										
Tritium	U	-0.415	U	0.188	pCi/g	0			N/A KXA1	06/17/21	03:06
	Uncert:	+/-1.23		+/-1.19							
	TPU:	+/-1.23		+/-1.19							
QC1204842527	LCS										
Tritium	30.9			29.9	pCi/g		96.7	(75%-125%)	KXA1	06/16/21	09:15
	Uncert:			+/-3.42							

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

QC Summary

Workorder: 545806

Page 2 of 3

Parmname	NOM	Sample Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Rad Liquid Scintillation										
Batch	2138793									
TPU: +/-7.59										
QC1204842524	MB									
Tritium		U	-0.159	pCi/g				KXA1	06/16/2108:26	
Uncert: +/-1.62										
TPU: +/-1.62										
QC1204842526	545806001	MS								
Tritium	55.4	U	-0.415	49.6	pCi/g	89.6	(75%-125%)	KXA1	06/16/2108:59	
Uncert: +/-1.23 +/-5.99										
TPU: +/-1.23 +/-12.8										

Notes:

TPU and Counting Uncertainty are calculated at the 95% confidence level (1.96-sigma).

The Qualifiers in this report are defined as follows:

- ** Analyte is a Tracer compound
- < Result is less than value reported
- > Result is greater than value reported
- BD Results are either below the MDC or tracer recovery is low
- FA Failed analysis.
- H Analytical holding time was exceeded
- J See case narrative for an explanation
- J Value is estimated
- K Analyte present. Reported value may be biased high. Actual value is expected to be lower.
- L Analyte present. Reported value may be biased low. Actual value is expected to be higher.
- M M if above MDC and less than LLD
- M REMP Result > MDC/CL and < RDL
- N/A RPD or %Recovery limits do not apply.
- N1 See case narrative
- ND Analyte concentration is not detected above the detection limit
- NJ Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
- Q One or more quality control criteria have not been met. Refer to the applicable narrative or DER.
- R Sample results are rejected
- U Analyte was analyzed for, but not detected above the MDL, MDA, MDC or LOD.
- UI Gamma Spectroscopy--Uncertain identification
- UJ Gamma Spectroscopy--Uncertain identification
- UL Not considered detected. The associated number is the reported concentration, which may be inaccurate due to a low bias.
- X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
- Y Other specific qualifiers were required to properly define the results. Consult case narrative.
- ^ RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
- h Preparation or preservation holding time was exceeded

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QC Summary

Workorder: 545806

Page 3 of 3

Parmname	NOM	Sample Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
----------	-----	-------------	----	-------	------	------	-------	-------	------	------

N/A indicates that spike recovery limits do not apply when sample concentration exceeds spike conc. by a factor of 4 or more or %RPD not applicable.

** Indicates analyte is a surrogate/tracer compound.

^ The Relative Percent Difference (RPD) obtained from the sample duplicate (DUP) is evaluated against the acceptance criteria when the sample is greater than five times (5X) the contract required detection limit (RL). In cases where either the sample or duplicate value is less than 5X the RL, a control limit of +/- the RL is used to evaluate the DUP result.

For PS, PSD, and SDILT results, the values listed are the measured amounts, not final concentrations.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the QC Summary.

545806

<p>FROM: GSI Environmental Inc. 155 Grand Ave, Suite 704 Oakland, CA 94612 (510) 463-8484 TEL: (510) 463-8484 E-MAIL: smgallardo@gsi-net.com; tzwick@gsi-net.com LABORATORY: GEL Laboratories</p>	<p>PROJECT NAME: AJU-BB PROJECT CONTACT: Susan Gallardo GLOBAL ID: -</p>	<p>PROJECT NO.: 5182 LAB CONTACT: Brielle Luthman SAMPLER(S): (PRINT) JLV/CJB</p>																																																																																																																																												
<p>REQUESTED ANALYSES Please check box or fill in blank as needed.</p>																																																																																																																																														
<p>TURNAROUND TIME: <input type="checkbox"/> SAME DAY <input type="checkbox"/> 24 HR <input type="checkbox"/> 48 HR <input type="checkbox"/> 72 HR <input type="checkbox"/> 5 DAYS <input checked="" type="checkbox"/> STANDARD</p> <p>SPECIAL INSTRUCTIONS: - Sr-90 MDC of 0.1 pCi/g - H-3 MDC of 0.2 pCi/g - Cs-137 MDC of 0.1 pCi/g</p>	<p>UNPRESERVED <input type="checkbox"/> PRESERVED <input type="checkbox"/> FIELD FILTERED <input type="checkbox"/></p>	<table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th rowspan="2">LAB USE ONLY</th> <th rowspan="2">SAMPLE ID</th> <th colspan="2">SAMPLING</th> <th rowspan="2">MATRIX</th> <th rowspan="2">NO. OF CONT.</th> <th colspan="3">ANALYSES</th> </tr> <tr> <th>DATE</th> <th>TIME</th> <th>Sr-90 (905.0)</th> <th>Cs-137 (901.1)</th> <th>H-3 (906)</th> </tr> </thead> <tbody> <tr> <td></td> <td>RRMDF-SED-1-210525</td> <td>5/25/21</td> <td>1015</td> <td>S</td> <td>4</td> <td>X</td> <td>X</td> <td>X</td> </tr> <tr> <td></td> <td>BP-SED-1-210525</td> <td>↓</td> <td>1130</td> <td> </td> <td>1</td> <td>X</td> <td>X</td> <td>X</td> </tr> <tr> <td></td> <td>CET-1-210525</td> <td>↓</td> <td>1430</td> <td> </td> <td>1</td> <td>X</td> <td>X</td> <td>X</td> </tr> <tr> <td></td> <td>SRE-SED-2-210526</td> <td>5/26/21</td> <td>0900</td> <td> </td> <td>1</td> <td>X</td> <td>X</td> <td>X</td> </tr> <tr> <td></td> <td>OS1-SED-1-210526</td> <td>↓</td> <td>1010</td> <td> </td> <td>1</td> <td>X</td> <td>X</td> <td>X</td> </tr> <tr> <td></td> <td>HV-1-210526</td> <td>↓</td> <td>1130</td> <td> </td> <td>1</td> <td>X</td> <td>X</td> <td>X</td> </tr> <tr> <td></td> <td>HV-2-210526</td> <td>↓</td> <td>1140</td> <td> </td> <td>1</td> <td>X</td> <td>X</td> <td>X</td> </tr> <tr> <td></td> <td>HV-SED-1-210526</td> <td>↓</td> <td>1155</td> <td> </td> <td>1</td> <td>X</td> <td>X</td> <td>X</td> </tr> <tr> <td></td> <td>OS8-SED-4-210526</td> <td>↓</td> <td>1240</td> <td> </td> <td>1</td> <td>X</td> <td>X</td> <td>X</td> </tr> <tr> <td></td> <td>OW-SED-1-210526</td> <td>↓</td> <td>1345</td> <td> </td> <td>1</td> <td>X</td> <td>X</td> <td>X</td> </tr> <tr> <td></td> <td>TF-1-210526</td> <td>↓</td> <td>1440</td> <td> </td> <td>1</td> <td>X</td> <td>X</td> <td>X</td> </tr> <tr> <td></td> <td>KL-1-210527</td> <td>5/27/21</td> <td>0800</td> <td> </td> <td>1</td> <td>X</td> <td>X</td> <td>X</td> </tr> <tr> <td></td> <td>GF-1-210527</td> <td>↓</td> <td>0820</td> <td> </td> <td>1</td> <td>X</td> <td>X</td> <td>X</td> </tr> <tr> <td></td> <td>AT-1-210527</td> <td>↓</td> <td>0845</td> <td> </td> <td>1</td> <td>X</td> <td>X</td> <td>X</td> </tr> </tbody> </table>	LAB USE ONLY	SAMPLE ID	SAMPLING		MATRIX	NO. OF CONT.	ANALYSES			DATE	TIME	Sr-90 (905.0)	Cs-137 (901.1)	H-3 (906)		RRMDF-SED-1-210525	5/25/21	1015	S	4	X	X	X		BP-SED-1-210525	↓	1130		1	X	X	X		CET-1-210525	↓	1430		1	X	X	X		SRE-SED-2-210526	5/26/21	0900		1	X	X	X		OS1-SED-1-210526	↓	1010		1	X	X	X		HV-1-210526	↓	1130		1	X	X	X		HV-2-210526	↓	1140		1	X	X	X		HV-SED-1-210526	↓	1155		1	X	X	X		OS8-SED-4-210526	↓	1240		1	X	X	X		OW-SED-1-210526	↓	1345		1	X	X	X		TF-1-210526	↓	1440		1	X	X	X		KL-1-210527	5/27/21	0800		1	X	X	X		GF-1-210527	↓	0820		1	X	X	X		AT-1-210527	↓	0845		1	X	X	X
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<p>Relinquished by: (Signature) <i>[Signature]</i> Date: 5/27/21 Time: 1200</p> <p>Relinquished by: (Signature) <i>[Signature]</i> Date: 5/28/21 Time: 1000</p> <p>Relinquished by: (Signature) <i>[Signature]</i> Date: Date: Time:</p>																																																																																																																																														

SAMPLE RECEIPT & REVIEW FORM

DS 6/1/21

Client: <u>GSEI GSIE</u>		SDG/AR/COC/Work Order: <u>545806</u> <u>545806</u>	
Received By: <u>MLS</u>		Date Received: <u>5-28-21</u> <u>MB 6/1/21</u>	
Carrier and Tracking Number		Circle Applicable: <input checked="" type="checkbox"/> FedEx Express <input type="checkbox"/> FedEx Ground <input type="checkbox"/> UPS <input type="checkbox"/> Field Services <input type="checkbox"/> Courier <input type="checkbox"/> Other <u>7876 6573 5410-6c</u> <u>7876 6573 5421-20c</u>	
Suspected Hazard Information		Yes	No
*If Net Counts > 100cpm on samples not marked "radioactive", contact the Radiation Safety Group for further investigation.			
A) Shipped as a DOT Hazardous?		/	Hazard Class Shipped: _____ UN#: _____ If UN2910, Is the Radioactive Shipment Survey Compliant? Yes ___ No ___
B) Did the client designate the samples are to be received as radioactive?		/	COC notation or radioactive stickers on containers equal client designation.
C) Did the RSO classify the samples as radioactive?		/	Maximum Net Counts Observed* (Observed Counts - Area Background Counts): <u>0</u> <u>CPM</u> mR/Hr Classified as: Rad 1 Rad 2 Rad 3
D) Did the client designate samples are hazardous?		/	COC notation or hazard labels on containers equal client designation.
E) Did the RSO identify possible hazards?		/	If D or E is yes, select Hazards below. PCB's Flammable Foreign Soil RCRA Asbestos Beryllium Other: _____
Sample Receipt Criteria		Yes	NA
		No	Comments/Qualifiers (Required for Non-Conforming Items)
1	Shipping containers received intact and sealed?	/	Circle Applicable: Seals broken Damaged container Leaking container Other (describe)
2	Chain of custody documents included with shipment?	/	Circle Applicable: Client contacted and provided COC COC created upon receipt
3	Samples requiring cold preservation within (0 ≤ 6 deg. C)?*	/	Preservation Method: <u>Wet Ice</u> <u>Ice Packs</u> <u>Dry ice</u> <u>None</u> Other: _____ *all temperatures are recorded in Celsius TEMP: _____
4	Daily check performed and passed on IR temperature gun?	/	Temperature Device Serial #: <u>IR3-21</u> Secondary Temperature Device Serial # (If Applicable): _____
5	Sample containers intact and sealed?	/	Circle Applicable: Seals broken Damaged container Leaking container Other (describe)
6	Samples requiring chemical preservation at proper pH?	/	Sample ID's and Containers Affected: If Preservation added, Lot#: _____
7	Do any samples require Volatile Analysis?	/	If Yes, are Encores or Soil Kits present for solids? Yes ___ No ___ NA ___ (If yes, take to VOA Freezer) Do liquid VOA vials contain acid preservation? Yes ___ No ___ NA ___ (If unknown, select No) Are liquid VOA vials free of headspace? Yes ___ No ___ NA ___ Sample ID's and containers affected: _____
8	Samples received within holding time?	/	ID's and tests affected:
9	Sample ID's on COC match ID's on bottles?	/	ID's and containers affected:
10	Date & time on COC match date & time on bottles?	/	Circle Applicable: No dates on containers No times on containers COC missing info Other (describe)
11	Number of containers received match number indicated on COC?	/	Circle Applicable: No container count on COC Other (describe) <u>Missing 1 cooler</u>
12	Are sample containers identifiable as GEL provided by use of GEL labels?	/	
13	COC form is properly signed in relinquished/received sections?	/	Circle Applicable: Not relinquished Other (describe)
Comments (Use Continuation Form if needed):			

PM (or PMA) review: Initials DS Date 6/1/21 Page 1 of 1

List of current GEL Certifications as of 23 July 2021

State	Certification
Alabama	42200
Alaska	17-018
Alaska Drinking Water	SC00012
Arkansas	88-0651
CLIA	42D0904046
California	2940
Colorado	SC00012
Connecticut	PH-0169
DoD ELAP/ ISO17025 A2LA	2567.01
Florida NELAP	E87156
Foreign Soils Permit	P330-15-00283, P330-15-00253
Georgia	SC00012
Georgia SDWA	967
Hawaii	SC00012
Idaho	SC00012
Illinois NELAP	200029
Indiana	C-SC-01
Kansas NELAP	E-10332
Kentucky SDWA	90129
Kentucky Wastewater	90129
Louisiana Drinking Water	LA024
Louisiana NELAP	03046 (AI33904)
Maine	2019020
Maryland	270
Massachusetts	M-SC012
Massachusetts PFAS Approv	Letter
Michigan	9976
Mississippi	SC00012
Nebraska	NE-OS-26-13
Nevada	SC000122021-1
New Hampshire NELAP	2054
New Jersey NELAP	SC002
New Mexico	SC00012
New York NELAP	11501
North Carolina	233
North Carolina SDWA	45709
North Dakota	R-158
Oklahoma	2019-165
Pennsylvania NELAP	68-00485
Puerto Rico	SC00012
S. Carolina Radiochem	10120002
Sanitation Districts of L	9255651
South Carolina Chemistry	10120001
Tennessee	TN 02934
Texas NELAP	T104704235-21-19
Utah NELAP	SC000122021-35
Vermont	VT87156
Virginia NELAP	460202
Washington	C780

**Radiochemistry
Technical Case Narrative
GSI Environmental Inc.
SDG #: 545806**

Product: Dry Weight

Preparation Method: Dry Soil Prep

Preparation Procedure: GL-RAD-A-021 REV# 24

Preparation Batch: 2133223

The following samples were analyzed using the above methods and analytical procedure(s).

<u>GEL Sample ID#</u>	<u>Client Sample Identification</u>
545806001	RRMDF-SED-1-21025
545806002	BP-SED-1-210525
545806003	CIT-1-210525
545806004	SRE-SED-2-210526
545806005	OS1-SED-1-210526
545806006	HV-1-210526
545806007	HV-2-210526
545806008	HV-SED-1-210526
545806009	OS8-SED-1-210526
545806010	OW-SED-1-210526
545806011	TF-1-210526
545806012	KC-1-210527
545806013	GF-1-210527
545806014	AT-1-210527

The samples in this SDG were analyzed on an "as received" basis.

Data Summary:

There are no exceptions, anomalies or deviations from the specified methods. All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable.

Product: Gammascpec, Gamma, Solid (Standard List)

Analytical Method: DOE HASL 300, 4.5.2.3/Ga-01-R

Analytical Procedure: GL-RAD-A-013 REV# 27

Analytical Batch: 2133406

Preparation Method: Dry Soil Prep

Preparation Procedure: GL-RAD-A-021 REV# 24

Preparation Batch: 2133223

The following samples were analyzed using the above methods and analytical procedure(s).

<u>GEL Sample ID#</u>	<u>Client Sample Identification</u>
------------------------------	--

545806001	RRMDF-SED-1-21025
545806002	BP-SED-1-210525
545806003	CIT-1-210525
545806004	SRE-SED-2-210526
545806005	OS1-SED-1-210526
545806006	HV-1-210526
545806007	HV-2-210526
545806008	HV-SED-1-210526
545806009	OS8-SED-1-210526
545806010	OW-SED-1-210526
545806011	TF-1-210526
545806012	KC-1-210527
545806013	GF-1-210527
545806014	AT-1-210527
1204832781	Method Blank (MB)
1204832782	545806001(RRMDF-SED-1-21025) Sample Duplicate (DUP)
1204832783	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on a "dry weight" basis.

Data Summary:

All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable, with the following exceptions.

Technical Information

Recounts

Sample 545806002 (BP-SED-1-210525) was recounted to verify sample results. Recount is reported.

Qualifier Information

Qualifier	Reason	Analyte	Sample	Client Sample
UI	Results are considered a false positive due to high counting uncertainty.	Cesium-137	545806008	HV-SED-1-210526
			545806014	AT-1-210527
			1204832782	RRMDF-SED-1-21025(545806001DUP)
UI	Results are considered a false positive due to low abundance.		545806012	KC-1-210527

Product: GFPC, Sr90, Solid

Analytical Method: EPA 905.0 Modified/DOE RP501 Rev. 1 Modified

Analytical Procedure: GL-RAD-A-004 REV# 21

Analytical Batch: 2133470

Preparation Method: Dry Soil Prep

Preparation Procedure: GL-RAD-A-021 REV# 24

Preparation Batch: 2133223

The following samples were analyzed using the above methods and analytical procedure(s).

<u>GEL Sample ID#</u>	<u>Client Sample Identification</u>
545806001	RRMDF-SED-1-21025
545806002	BP-SED-1-210525
545806003	CIT-1-210525
545806004	SRE-SED-2-210526
545806005	OS1-SED-1-210526
545806006	HV-1-210526
545806007	HV-2-210526
545806008	HV-SED-1-210526
545806009	OS8-SED-1-210526
545806010	OW-SED-1-210526
545806011	TF-1-210526
545806012	KC-1-210527
545806013	GF-1-210527
545806014	AT-1-210527
1204832925	Method Blank (MB)
1204832926	545806005(OS1-SED-1-210526) Sample Duplicate (DUP)
1204832927	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on a "dry weight" basis.

Data Summary:

All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable, with the following exceptions.

Technical Information

Recounts

Sample 545806002 (BP-SED-1-210525) was recounted due to high MDC. The recount is reported. Sample 545806004 (SRE-SED-2-210526) was recounted due to results more negative than the three sigma TPU. The second count is reported. Samples 545806011 (TF-1-210526) and 545806014 (AT-1-210527) were recounted due to a suspected false positive. The recounts are reported.

Product: LSC, Tritium Distillation, Soil

Analytical Method: EPA 906.0 Modified

Analytical Procedure: GL-RAD-A-002 REV# 23

Analytical Batch: 2138793

The following samples were analyzed using the above methods and analytical procedure(s).

<u>GEL Sample ID#</u>	<u>Client Sample Identification</u>
545806001	RRMDF-SED-1-21025
545806002	BP-SED-1-210525
545806003	CIT-1-210525
545806004	SRE-SED-2-210526
545806005	OS1-SED-1-210526
545806006	HV-1-210526
545806007	HV-2-210526
545806008	HV-SED-1-210526
545806009	OS8-SED-1-210526
545806010	OW-SED-1-210526
545806011	TF-1-210526
545806012	KC-1-210527
545806013	GF-1-210527
545806014	AT-1-210527
1204842524	Method Blank (MB)
1204842525	545806001(RRMDF-SED-1-21025) Sample Duplicate (DUP)
1204842526	545806001(RRMDF-SED-1-21025) Matrix Spike (MS)
1204842527	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on an "as received" basis.

Data Summary:

All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable, with the following exceptions.

Technical Information

Recounts

Samples 1204842525 (RRMDF-SED-1-21025DUP), 545806001 (RRMDF-SED-1-21025), 545806002 (BP-SED-1-210525), 545806003 (CIT-1-210525), 545806004 (SRE-SED-2-210526), 545806005 (OS1-SED-1-210526), 545806006 (HV-1-210526), 545806007 (HV-2-210526), 545806008 (HV-SED-1-210526), 545806009 (OS8-SED-1-210526), 545806010 (OW-SED-1-210526), 545806011 (TF-1-210526), 545806012 (KC-1-210527), 545806013 (GF-1-210527) and 545806014 (AT-1-210527) were recounted due to high MDCs. The recounts are reported.

Miscellaneous Information

Additional Comments

The matrix spike, 1204842526 (RRMDF-SED-1-21025MS), aliquot was reduced to conserve sample volume.

Certification Statement

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

2021 Monitoring Report

American Jewish University, Brandeis-Bardin Campus
1101 Peppertree Lane
Brandeis, California

Appendix B

Analytical Laboratory Reports – Water Samples

ANALYTICAL REPORT

Eurofins TestAmerica, Sacramento
880 Riverside Parkway
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Laboratory Job ID: 320-74353-1
Client Project/Site: AJU-BB

For:
GSI Environmental, Inc
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Attn: Susan Gallardo



Authorized for release by:
6/8/2021 1:07:38 PM

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

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



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Definitions/Glossary

Client: GSI Environmental, Inc
Project/Site: AJU-BB

Job ID: 320-74353-1

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
*+	LCS and/or LCSD is outside acceptance limits, high biased.

HPLC/IC

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.

Metals

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

Case Narrative

Client: GSI Environmental, Inc
Project/Site: AJU-BB

Job ID: 320-74353-1

Job ID: 320-74353-1

Laboratory: Eurofins TestAmerica, Sacramento

Narrative

Job Narrative 320-74353-1

Comments

No additional comments.

Receipt

The samples were received on 5/28/2021 9:20 AM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperatures of the 2 coolers at receipt time were 3.5° C and 4.6° C.

Receipt Exceptions

TB containers had no IDs, time and date on them. But the plastic bag in which they came did have ID, time and date that match that of COC for sample 4 (TB).

TB-210527 (320-74353-4)

GC/MS VOA

Method 8260B: The laboratory control sample (LCS) for analytical batch 320-495507 recovered outside control limits for the following analytes: 1,2-Dibromo-3-Chloropropane and Bromoform. These analytes were biased high in the LCS and were not detected in the associated samples; therefore, the data have been reported.

Method 8260B: Internal standard (ISTD) response for Dioxane-d8 for the following samples were outside acceptance criteria: OS8-W-210526 (320-74353-3), (CCV 320-495507/2) and (MB 320-495507/7). This ISTD does not correspond to any of the requested target compounds; therefore, the data have been reported.

Method 8260B: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with analytical batch 320-495507.

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

Metals

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

General Chemistry

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

Detection Summary

Client: GSI Environmental, Inc
Project/Site: AJU-BB

Job ID: 320-74353-1

Client Sample ID: OS357-W-210525

Lab Sample ID: 320-74353-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	0.039		0.0050	0.0025	mg/L	1		6010B	Total/NA
Beryllium	0.00055	J	0.0020	0.00030	mg/L	1		6010B	Total/NA

Client Sample ID: OS8-W-210526

Lab Sample ID: 320-74353-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Silver	0.0016	J B	0.0050	0.00084	mg/L	1		6010B	Total/NA
Barium	0.11		0.0050	0.0025	mg/L	1		6010B	Total/NA
Chromium	0.0027	J	0.0080	0.0012	mg/L	1		6010B	Total/NA
Copper	0.0042	J	0.010	0.0021	mg/L	1		6010B	Total/NA
Lead	0.0028	J	0.0050	0.0025	mg/L	1		6010B	Total/NA
Vanadium	0.010		0.0050	0.0019	mg/L	1		6010B	Total/NA
Zinc	0.027		0.010	0.0030	mg/L	1		6010B	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Sacramento

Client Sample Results

Client: GSI Environmental, Inc
Project/Site: AJU-BB

Job ID: 320-74353-1

Client Sample ID: OS357-W-210525

Lab Sample ID: 320-74353-1

Date Collected: 05/25/21 13:00

Matrix: Water

Date Received: 05/28/21 09:20

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,3-Trichloropropane	ND		1.0	0.13	ug/L			06/04/21 16:24	1
1,1,1,2-Tetrachloroethane	ND		0.50	0.10	ug/L			06/04/21 16:24	1
1,1,1-Trichloroethane	ND		0.50	0.10	ug/L			06/04/21 16:24	1
1,1,2,2-Tetrachloroethane	ND		0.50	0.11	ug/L			06/04/21 16:24	1
1,1,2-Trichloroethane	ND		0.50	0.12	ug/L			06/04/21 16:24	1
1,1-Dichloroethane	ND		0.50	0.10	ug/L			06/04/21 16:24	1
1,1-Dichloroethene	ND		0.50	0.13	ug/L			06/04/21 16:24	1
1,1-Dichloropropene	ND		0.50	0.12	ug/L			06/04/21 16:24	1
1,2,3-Trichlorobenzene	ND		1.0	0.40	ug/L			06/04/21 16:24	1
1,2,4-Trichlorobenzene	ND		1.0	0.25	ug/L			06/04/21 16:24	1
1,2,4-Trimethylbenzene	ND		1.0	0.32	ug/L			06/04/21 16:24	1
1,2-Dibromo-3-Chloropropane	ND	*+	1.0	0.20	ug/L			06/04/21 16:24	1
1,2-Dichlorobenzene	ND		0.50	0.097	ug/L			06/04/21 16:24	1
1,2-Dichloroethane	ND		0.50	0.14	ug/L			06/04/21 16:24	1
1,2-Dichloropropane	ND		0.50	0.15	ug/L			06/04/21 16:24	1
1,3,5-Trimethylbenzene	ND		0.50	0.16	ug/L			06/04/21 16:24	1
1,3-Dichlorobenzene	ND		0.50	0.086	ug/L			06/04/21 16:24	1
1,3-Dichloropropane	ND		1.0	0.10	ug/L			06/04/21 16:24	1
1,4-Dichlorobenzene	ND		0.50	0.083	ug/L			06/04/21 16:24	1
2,2-Dichloropropane	ND		1.0	0.46	ug/L			06/04/21 16:24	1
2-Chlorotoluene	ND		0.50	0.11	ug/L			06/04/21 16:24	1
4-Chlorotoluene	ND		0.50	0.10	ug/L			06/04/21 16:24	1
p-Isopropyltoluene	ND		1.0	0.15	ug/L			06/04/21 16:24	1
Benzene	ND		0.50	0.080	ug/L			06/04/21 16:24	1
Bromobenzene	ND		1.0	0.091	ug/L			06/04/21 16:24	1
Bromoform	ND	*+	1.0	0.19	ug/L			06/04/21 16:24	1
Bromomethane	ND		1.0	0.21	ug/L			06/04/21 16:24	1
Carbon tetrachloride	ND		0.50	0.12	ug/L			06/04/21 16:24	1
Chlorobenzene	ND		0.50	0.070	ug/L			06/04/21 16:24	1
Bromochloromethane	ND		1.0	0.18	ug/L			06/04/21 16:24	1
Chloroethane	ND		1.0	0.24	ug/L			06/04/21 16:24	1
Chloroform	ND		1.0	0.12	ug/L			06/04/21 16:24	1
Chloromethane	ND		1.0	0.26	ug/L			06/04/21 16:24	1
cis-1,2-Dichloroethene	ND		0.50	0.18	ug/L			06/04/21 16:24	1
cis-1,3-Dichloropropene	ND		0.50	0.15	ug/L			06/04/21 16:24	1
Dibromochloromethane	ND		0.50	0.16	ug/L			06/04/21 16:24	1
Dibromomethane	ND		0.50	0.17	ug/L			06/04/21 16:24	1
Bromodichloromethane	ND		0.50	0.14	ug/L			06/04/21 16:24	1
Dichlorodifluoromethane	ND		1.0	0.32	ug/L			06/04/21 16:24	1
Ethylbenzene	ND		0.50	0.084	ug/L			06/04/21 16:24	1
Hexachlorobutadiene	ND		1.0	0.23	ug/L			06/04/21 16:24	1
Isopropylbenzene	ND		0.50	0.11	ug/L			06/04/21 16:24	1
m,p-Xylene	ND		0.50	0.27	ug/L			06/04/21 16:24	1
Methylene Chloride	ND		1.0	0.16	ug/L			06/04/21 16:24	1
Naphthalene	ND		1.0	0.48	ug/L			06/04/21 16:24	1
n-Butylbenzene	ND		1.0	0.18	ug/L			06/04/21 16:24	1
N-Propylbenzene	ND		1.0	0.11	ug/L			06/04/21 16:24	1
o-Xylene	ND		0.50	0.14	ug/L			06/04/21 16:24	1
sec-Butylbenzene	ND		1.0	0.14	ug/L			06/04/21 16:24	1

Eurofins TestAmerica, Sacramento

Client Sample Results

Client: GSI Environmental, Inc
Project/Site: AJU-BB

Job ID: 320-74353-1

Client Sample ID: OS357-W-210525

Lab Sample ID: 320-74353-1

Date Collected: 05/25/21 13:00

Matrix: Water

Date Received: 05/28/21 09:20

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Styrene	ND		0.50	0.13	ug/L			06/04/21 16:24	1
tert-Butylbenzene	ND		1.0	0.13	ug/L			06/04/21 16:24	1
Tetrachloroethene	ND		0.50	0.10	ug/L			06/04/21 16:24	1
Toluene	ND		0.50	0.095	ug/L			06/04/21 16:24	1
trans-1,2-Dichloroethene	ND		0.50	0.11	ug/L			06/04/21 16:24	1
trans-1,3-Dichloropropene	ND		0.50	0.16	ug/L			06/04/21 16:24	1
Trichloroethene	ND		0.50	0.10	ug/L			06/04/21 16:24	1
Trichlorofluoromethane	ND		1.0	0.13	ug/L			06/04/21 16:24	1
Vinyl chloride	ND		0.50	0.18	ug/L			06/04/21 16:24	1
1,2-Dibromoethane (EDB)	ND		0.50	0.12	ug/L			06/04/21 16:24	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	104		78 - 120					06/04/21 16:24	1
4-Bromofluorobenzene (Surr)	104		74 - 120					06/04/21 16:24	1
Dibromofluoromethane (Surr)	106		80 - 123					06/04/21 16:24	1

Method: 314.0 - Perchlorate (IC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perchlorate	ND		4.0	2.0	ug/L			06/03/21 13:12	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	ND		0.0050	0.00084	mg/L		06/01/21 13:47	06/02/21 17:07	1
Arsenic	ND		0.020	0.012	mg/L		06/01/21 13:47	06/02/21 17:07	1
Barium	0.039		0.0050	0.0025	mg/L		06/01/21 13:47	06/02/21 17:07	1
Beryllium	0.00055	J	0.0020	0.00030	mg/L		06/01/21 13:47	06/02/21 17:07	1
Cadmium	ND		0.0020	0.00050	mg/L		06/01/21 13:47	06/02/21 17:07	1
Cobalt	ND		0.0050	0.0030	mg/L		06/01/21 13:47	06/02/21 17:07	1
Chromium	ND		0.0080	0.0012	mg/L		06/01/21 13:47	06/02/21 17:07	1
Copper	ND		0.010	0.0021	mg/L		06/01/21 13:47	06/02/21 17:07	1
Molybdenum	ND		0.020	0.0027	mg/L		06/01/21 13:47	06/02/21 17:07	1
Nickel	ND		0.0050	0.0024	mg/L		06/01/21 13:47	06/02/21 17:07	1
Lead	ND		0.0050	0.0025	mg/L		06/01/21 13:47	06/02/21 17:07	1
Selenium	ND		0.020	0.013	mg/L		06/01/21 13:47	06/02/21 17:07	1
Antimony	ND		0.020	0.0098	mg/L		06/01/21 13:47	06/02/21 17:07	1
Thallium	ND		0.020	0.0090	mg/L		06/01/21 13:47	06/02/21 17:07	1
Vanadium	ND		0.0050	0.0019	mg/L		06/01/21 13:47	06/02/21 17:07	1
Zinc	ND		0.010	0.0030	mg/L		06/01/21 13:47	06/02/21 17:07	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020	0.00010	mg/L		06/02/21 14:00	06/03/21 11:26	1

Client Sample Results

Client: GSI Environmental, Inc
Project/Site: AJU-BB

Job ID: 320-74353-1

Client Sample ID: OS8-W-210526

Lab Sample ID: 320-74353-3

Date Collected: 05/26/21 12:30

Matrix: Water

Date Received: 05/28/21 09:20

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,3-Trichloropropane	ND		1.0	0.13	ug/L			06/04/21 16:46	1
1,1,1,2-Tetrachloroethane	ND		0.50	0.10	ug/L			06/04/21 16:46	1
1,1,1-Trichloroethane	ND		0.50	0.10	ug/L			06/04/21 16:46	1
1,1,2,2-Tetrachloroethane	ND		0.50	0.11	ug/L			06/04/21 16:46	1
1,1,2-Trichloroethane	ND		0.50	0.12	ug/L			06/04/21 16:46	1
1,1-Dichloroethane	ND		0.50	0.10	ug/L			06/04/21 16:46	1
1,1-Dichloroethene	ND		0.50	0.13	ug/L			06/04/21 16:46	1
1,1-Dichloropropene	ND		0.50	0.12	ug/L			06/04/21 16:46	1
1,2,3-Trichlorobenzene	ND		1.0	0.40	ug/L			06/04/21 16:46	1
1,2,4-Trichlorobenzene	ND		1.0	0.25	ug/L			06/04/21 16:46	1
1,2,4-Trimethylbenzene	ND		1.0	0.32	ug/L			06/04/21 16:46	1
1,2-Dibromo-3-Chloropropane	ND	*+	1.0	0.20	ug/L			06/04/21 16:46	1
1,2-Dichlorobenzene	ND		0.50	0.097	ug/L			06/04/21 16:46	1
1,2-Dichloroethane	ND		0.50	0.14	ug/L			06/04/21 16:46	1
1,2-Dichloropropane	ND		0.50	0.15	ug/L			06/04/21 16:46	1
1,3,5-Trimethylbenzene	ND		0.50	0.16	ug/L			06/04/21 16:46	1
1,3-Dichlorobenzene	ND		0.50	0.086	ug/L			06/04/21 16:46	1
1,3-Dichloropropane	ND		1.0	0.10	ug/L			06/04/21 16:46	1
1,4-Dichlorobenzene	ND		0.50	0.083	ug/L			06/04/21 16:46	1
2,2-Dichloropropane	ND		1.0	0.46	ug/L			06/04/21 16:46	1
2-Chlorotoluene	ND		0.50	0.11	ug/L			06/04/21 16:46	1
4-Chlorotoluene	ND		0.50	0.10	ug/L			06/04/21 16:46	1
p-Isopropyltoluene	ND		1.0	0.15	ug/L			06/04/21 16:46	1
Benzene	ND		0.50	0.080	ug/L			06/04/21 16:46	1
Bromobenzene	ND		1.0	0.091	ug/L			06/04/21 16:46	1
Bromoform	ND	*+	1.0	0.19	ug/L			06/04/21 16:46	1
Bromomethane	ND		1.0	0.21	ug/L			06/04/21 16:46	1
Carbon tetrachloride	ND		0.50	0.12	ug/L			06/04/21 16:46	1
Chlorobenzene	ND		0.50	0.070	ug/L			06/04/21 16:46	1
Bromochloromethane	ND		1.0	0.18	ug/L			06/04/21 16:46	1
Chloroethane	ND		1.0	0.24	ug/L			06/04/21 16:46	1
Chloroform	ND		1.0	0.12	ug/L			06/04/21 16:46	1
Chloromethane	ND		1.0	0.26	ug/L			06/04/21 16:46	1
cis-1,2-Dichloroethene	ND		0.50	0.18	ug/L			06/04/21 16:46	1
cis-1,3-Dichloropropene	ND		0.50	0.15	ug/L			06/04/21 16:46	1
Dibromochloromethane	ND		0.50	0.16	ug/L			06/04/21 16:46	1
Dibromomethane	ND		0.50	0.17	ug/L			06/04/21 16:46	1
Bromodichloromethane	ND		0.50	0.14	ug/L			06/04/21 16:46	1
Dichlorodifluoromethane	ND		1.0	0.32	ug/L			06/04/21 16:46	1
Ethylbenzene	ND		0.50	0.084	ug/L			06/04/21 16:46	1
Hexachlorobutadiene	ND		1.0	0.23	ug/L			06/04/21 16:46	1
Isopropylbenzene	ND		0.50	0.11	ug/L			06/04/21 16:46	1
m,p-Xylene	ND		0.50	0.27	ug/L			06/04/21 16:46	1
Methylene Chloride	ND		1.0	0.16	ug/L			06/04/21 16:46	1
Naphthalene	ND		1.0	0.48	ug/L			06/04/21 16:46	1
n-Butylbenzene	ND		1.0	0.18	ug/L			06/04/21 16:46	1
N-Propylbenzene	ND		1.0	0.11	ug/L			06/04/21 16:46	1
o-Xylene	ND		0.50	0.14	ug/L			06/04/21 16:46	1
sec-Butylbenzene	ND		1.0	0.14	ug/L			06/04/21 16:46	1

Eurofins TestAmerica, Sacramento

Client Sample Results

Client: GSI Environmental, Inc
Project/Site: AJU-BB

Job ID: 320-74353-1

Client Sample ID: OS8-W-210526

Lab Sample ID: 320-74353-3

Date Collected: 05/26/21 12:30

Matrix: Water

Date Received: 05/28/21 09:20

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Styrene	ND		0.50	0.13	ug/L			06/04/21 16:46	1
tert-Butylbenzene	ND		1.0	0.13	ug/L			06/04/21 16:46	1
Tetrachloroethene	ND		0.50	0.10	ug/L			06/04/21 16:46	1
Toluene	ND		0.50	0.095	ug/L			06/04/21 16:46	1
trans-1,2-Dichloroethene	ND		0.50	0.11	ug/L			06/04/21 16:46	1
trans-1,3-Dichloropropene	ND		0.50	0.16	ug/L			06/04/21 16:46	1
Trichloroethene	ND		0.50	0.10	ug/L			06/04/21 16:46	1
Trichlorofluoromethane	ND		1.0	0.13	ug/L			06/04/21 16:46	1
Vinyl chloride	ND		0.50	0.18	ug/L			06/04/21 16:46	1
1,2-Dibromoethane (EDB)	ND		0.50	0.12	ug/L			06/04/21 16:46	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	101		78 - 120					06/04/21 16:46	1
4-Bromofluorobenzene (Surr)	105		74 - 120					06/04/21 16:46	1
Dibromofluoromethane (Surr)	110		80 - 123					06/04/21 16:46	1

Method: 314.0 - Perchlorate (IC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perchlorate	ND		4.0	2.0	ug/L			06/03/21 14:19	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	0.0016	J B	0.0050	0.00084	mg/L		06/01/21 13:47	06/02/21 17:11	1
Arsenic	ND		0.020	0.012	mg/L		06/01/21 13:47	06/02/21 17:11	1
Barium	0.11		0.0050	0.0025	mg/L		06/01/21 13:47	06/02/21 17:11	1
Beryllium	ND		0.0020	0.00030	mg/L		06/01/21 13:47	06/02/21 17:11	1
Cadmium	ND		0.0020	0.00050	mg/L		06/01/21 13:47	06/02/21 17:11	1
Cobalt	ND		0.0050	0.0030	mg/L		06/01/21 13:47	06/02/21 17:11	1
Chromium	0.0027	J	0.0080	0.0012	mg/L		06/01/21 13:47	06/02/21 17:11	1
Copper	0.0042	J	0.010	0.0021	mg/L		06/01/21 13:47	06/02/21 17:11	1
Molybdenum	ND		0.020	0.0027	mg/L		06/01/21 13:47	06/02/21 17:11	1
Nickel	ND		0.0050	0.0024	mg/L		06/01/21 13:47	06/02/21 17:11	1
Lead	0.0028	J	0.0050	0.0025	mg/L		06/01/21 13:47	06/02/21 17:11	1
Selenium	ND		0.020	0.013	mg/L		06/01/21 13:47	06/02/21 17:11	1
Antimony	ND		0.020	0.0098	mg/L		06/01/21 13:47	06/02/21 17:11	1
Thallium	ND		0.020	0.0090	mg/L		06/01/21 13:47	06/02/21 17:11	1
Vanadium	0.010		0.0050	0.0019	mg/L		06/01/21 13:47	06/02/21 17:11	1
Zinc	0.027		0.010	0.0030	mg/L		06/01/21 13:47	06/02/21 17:11	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020	0.00010	mg/L		06/02/21 14:00	06/03/21 11:29	1

Eurofins TestAmerica, Sacramento

Surrogate Summary

Client: GSI Environmental, Inc
Project/Site: AJU-BB

Job ID: 320-74353-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Matrix: Water

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	TOL	BFB	DBFM
		(78-120)	(74-120)	(80-123)
320-74353-1	OS357-W-210525	104	104	106
320-74353-3	OS8-W-210526	101	105	110
LCS 320-495507/3	Lab Control Sample	111	115	105
LCSD 320-495507/4	Lab Control Sample Dup	112	104	105
MB 320-495507/7	Method Blank	103	103	105

Surrogate Legend

TOL = Toluene-d8 (Surr)

BFB = 4-Bromofluorobenzene (Surr)

DBFM = Dibromofluoromethane (Surr)

QC Sample Results

Client: GSI Environmental, Inc
Project/Site: AJU-BB

Job ID: 320-74353-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 320-495507/7
Matrix: Water
Analysis Batch: 495507

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
1,2,3-Trichloropropane	ND		1.0	0.13	ug/L			06/04/21 13:25	1
1,1,1,2-Tetrachloroethane	ND		0.50	0.10	ug/L			06/04/21 13:25	1
1,1,1-Trichloroethane	ND		0.50	0.10	ug/L			06/04/21 13:25	1
1,1,1,2,2-Tetrachloroethane	ND		0.50	0.11	ug/L			06/04/21 13:25	1
1,1,2-Trichloroethane	ND		0.50	0.12	ug/L			06/04/21 13:25	1
1,1-Dichloroethane	ND		0.50	0.10	ug/L			06/04/21 13:25	1
1,1-Dichloroethene	ND		0.50	0.13	ug/L			06/04/21 13:25	1
1,1-Dichloropropene	ND		0.50	0.12	ug/L			06/04/21 13:25	1
1,2,3-Trichlorobenzene	ND		1.0	0.40	ug/L			06/04/21 13:25	1
1,2,4-Trichlorobenzene	ND		1.0	0.25	ug/L			06/04/21 13:25	1
1,2,4-Trimethylbenzene	ND		1.0	0.32	ug/L			06/04/21 13:25	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.20	ug/L			06/04/21 13:25	1
1,2-Dichlorobenzene	ND		0.50	0.097	ug/L			06/04/21 13:25	1
1,2-Dichloroethane	ND		0.50	0.14	ug/L			06/04/21 13:25	1
1,2-Dichloropropane	ND		0.50	0.15	ug/L			06/04/21 13:25	1
1,3,5-Trimethylbenzene	ND		0.50	0.16	ug/L			06/04/21 13:25	1
1,3-Dichlorobenzene	ND		0.50	0.086	ug/L			06/04/21 13:25	1
1,3-Dichloropropane	ND		1.0	0.10	ug/L			06/04/21 13:25	1
1,4-Dichlorobenzene	ND		0.50	0.083	ug/L			06/04/21 13:25	1
2,2-Dichloropropane	ND		1.0	0.46	ug/L			06/04/21 13:25	1
2-Chlorotoluene	ND		0.50	0.11	ug/L			06/04/21 13:25	1
4-Chlorotoluene	ND		0.50	0.10	ug/L			06/04/21 13:25	1
p-Isopropyltoluene	ND		1.0	0.15	ug/L			06/04/21 13:25	1
Benzene	ND		0.50	0.080	ug/L			06/04/21 13:25	1
Bromobenzene	ND		1.0	0.091	ug/L			06/04/21 13:25	1
Bromoform	ND		1.0	0.19	ug/L			06/04/21 13:25	1
Bromomethane	ND		1.0	0.21	ug/L			06/04/21 13:25	1
Carbon tetrachloride	ND		0.50	0.12	ug/L			06/04/21 13:25	1
Chlorobenzene	ND		0.50	0.070	ug/L			06/04/21 13:25	1
Bromochloromethane	ND		1.0	0.18	ug/L			06/04/21 13:25	1
Chloroethane	ND		1.0	0.24	ug/L			06/04/21 13:25	1
Chloroform	ND		1.0	0.12	ug/L			06/04/21 13:25	1
Chloromethane	ND		1.0	0.26	ug/L			06/04/21 13:25	1
cis-1,2-Dichloroethene	ND		0.50	0.18	ug/L			06/04/21 13:25	1
cis-1,3-Dichloropropene	ND		0.50	0.15	ug/L			06/04/21 13:25	1
Dibromochloromethane	ND		0.50	0.16	ug/L			06/04/21 13:25	1
Dibromomethane	ND		0.50	0.17	ug/L			06/04/21 13:25	1
Bromodichloromethane	ND		0.50	0.14	ug/L			06/04/21 13:25	1
Dichlorodifluoromethane	ND		1.0	0.32	ug/L			06/04/21 13:25	1
Ethylbenzene	ND		0.50	0.084	ug/L			06/04/21 13:25	1
Hexachlorobutadiene	ND		1.0	0.23	ug/L			06/04/21 13:25	1
Isopropylbenzene	ND		0.50	0.11	ug/L			06/04/21 13:25	1
m,p-Xylene	ND		0.50	0.27	ug/L			06/04/21 13:25	1
Methylene Chloride	ND		1.0	0.16	ug/L			06/04/21 13:25	1
Naphthalene	ND		1.0	0.48	ug/L			06/04/21 13:25	1
n-Butylbenzene	ND		1.0	0.18	ug/L			06/04/21 13:25	1
N-Propylbenzene	ND		1.0	0.11	ug/L			06/04/21 13:25	1
o-Xylene	ND		0.50	0.14	ug/L			06/04/21 13:25	1

Eurofins TestAmerica, Sacramento

QC Sample Results

Client: GSI Environmental, Inc
Project/Site: AJU-BB

Job ID: 320-74353-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 320-495507/7
Matrix: Water
Analysis Batch: 495507

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
sec-Butylbenzene	ND		1.0	0.14	ug/L			06/04/21 13:25	1
Styrene	ND		0.50	0.13	ug/L			06/04/21 13:25	1
tert-Butylbenzene	ND		1.0	0.13	ug/L			06/04/21 13:25	1
Tetrachloroethene	ND		0.50	0.10	ug/L			06/04/21 13:25	1
Toluene	ND		0.50	0.095	ug/L			06/04/21 13:25	1
trans-1,2-Dichloroethene	ND		0.50	0.11	ug/L			06/04/21 13:25	1
trans-1,3-Dichloropropene	ND		0.50	0.16	ug/L			06/04/21 13:25	1
Trichloroethene	ND		0.50	0.10	ug/L			06/04/21 13:25	1
Trichlorofluoromethane	ND		1.0	0.13	ug/L			06/04/21 13:25	1
Vinyl chloride	ND		0.50	0.18	ug/L			06/04/21 13:25	1
1,2-Dibromoethane (EDB)	ND		0.50	0.12	ug/L			06/04/21 13:25	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
<i>Toluene-d8 (Surr)</i>	103		78 - 120		06/04/21 13:25	1
<i>4-Bromofluorobenzene (Surr)</i>	103		74 - 120		06/04/21 13:25	1
<i>Dibromofluoromethane (Surr)</i>	105		80 - 123		06/04/21 13:25	1

Lab Sample ID: LCS 320-495507/3
Matrix: Water
Analysis Batch: 495507

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,2,3-Trichloropropane	20.0	23.5		ug/L		117	73 - 120
1,1,1,2-Tetrachloroethane	20.0	22.2		ug/L		111	79 - 120
1,1,1-Trichloroethane	20.0	22.0		ug/L		110	79 - 121
1,1,2,2-Tetrachloroethane	20.0	21.1		ug/L		106	74 - 137
1,1,2-Trichloroethane	20.0	23.6		ug/L		118	79 - 127
1,1-Dichloroethane	20.0	22.0		ug/L		110	79 - 120
1,1-Dichloroethene	20.0	21.8		ug/L		109	74 - 120
1,1-Dichloropropene	20.0	21.4		ug/L		107	77 - 120
1,2,3-Trichlorobenzene	20.0	27.7		ug/L		139	47 - 162
1,2,4-Trichlorobenzene	20.0	26.0		ug/L		130	61 - 130
1,2,4-Trimethylbenzene	20.0	21.1		ug/L		105	76 - 120
1,2-Dibromo-3-Chloropropane	20.0	25.3	*+	ug/L		126	66 - 121
1,2-Dichlorobenzene	20.0	22.3		ug/L		111	77 - 120
1,2-Dichloroethane	20.0	23.1		ug/L		116	77 - 128
1,2-Dichloropropane	20.0	22.1		ug/L		111	75 - 125
1,3,5-Trimethylbenzene	20.0	20.6		ug/L		103	79 - 120
1,3-Dichlorobenzene	20.0	21.2		ug/L		106	78 - 120
1,3-Dichloropropane	20.0	22.9		ug/L		114	79 - 120
1,4-Dichlorobenzene	20.0	21.1		ug/L		106	74 - 120
2,2-Dichloropropane	20.0	22.8		ug/L		114	75 - 127
2-Chlorotoluene	20.0	20.7		ug/L		104	79 - 120
4-Chlorotoluene	20.0	20.7		ug/L		104	80 - 121
p-Isopropyltoluene	20.0	21.1		ug/L		106	76 - 120
Benzene	20.0	21.2		ug/L		106	79 - 120
Bromobenzene	20.0	21.1		ug/L		106	80 - 120
Bromoform	20.0	24.4	*+	ug/L		122	80 - 120

Eurofins TestAmerica, Sacramento

QC Sample Results

Client: GSI Environmental, Inc
Project/Site: AJU-BB

Job ID: 320-74353-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 320-495507/3
Matrix: Water
Analysis Batch: 495507

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Bromomethane	20.0	20.5		ug/L		103	65 - 132
Carbon tetrachloride	20.0	21.4		ug/L		107	78 - 124
Chlorobenzene	20.0	21.0		ug/L		105	78 - 120
Bromochloromethane	20.0	23.3		ug/L		117	80 - 120
Chloroethane	20.0	22.2		ug/L		111	65 - 123
Chloroform	20.0	22.5		ug/L		113	80 - 120
Chloromethane	20.0	22.5		ug/L		113	62 - 129
cis-1,2-Dichloroethene	20.0	22.5		ug/L		112	78 - 120
cis-1,3-Dichloropropene	20.0	23.0		ug/L		115	80 - 131
Dibromochloromethane	20.0	22.9		ug/L		115	80 - 122
Dibromomethane	20.0	23.6		ug/L		118	80 - 121
Bromodichloromethane	20.0	22.5		ug/L		112	80 - 124
Dichlorodifluoromethane	20.0	19.6		ug/L		98	39 - 161
Ethylbenzene	20.0	20.7		ug/L		104	80 - 120
Hexachlorobutadiene	20.0	23.8		ug/L		119	69 - 120
Isopropylbenzene	20.0	21.4		ug/L		107	80 - 121
m,p-Xylene	20.0	20.9		ug/L		104	80 - 121
Methylene Chloride	20.0	22.9		ug/L		115	77 - 120
Naphthalene	20.0	26.5		ug/L		132	56 - 143
n-Butylbenzene	20.0	21.2		ug/L		106	72 - 120
N-Propylbenzene	20.0	20.4		ug/L		102	76 - 120
o-Xylene	20.0	21.8		ug/L		109	80 - 124
sec-Butylbenzene	20.0	20.4		ug/L		102	77 - 120
Styrene	20.0	22.2		ug/L		111	80 - 120
tert-Butylbenzene	20.0	20.6		ug/L		103	78 - 120
Tetrachloroethene	20.0	19.9		ug/L		100	74 - 120
Toluene	20.0	20.9		ug/L		104	79 - 126
trans-1,2-Dichloroethene	20.0	21.7		ug/L		109	76 - 120
trans-1,3-Dichloropropene	20.0	23.9		ug/L		119	75 - 133
Trichloroethene	20.0	22.2		ug/L		111	74 - 120
Trichlorofluoromethane	20.0	22.8		ug/L		114	60 - 135
Vinyl chloride	20.0	22.0		ug/L		110	68 - 121
1,2-Dibromoethane (EDB)	20.0	23.4		ug/L		117	78 - 120

Surrogate	LCS %Recovery	LCS Qualifier	Limits
Toluene-d8 (Surr)	111		78 - 120
4-Bromofluorobenzene (Surr)	115		74 - 120
Dibromofluoromethane (Surr)	105		80 - 123

Lab Sample ID: LCSD 320-495507/4
Matrix: Water
Analysis Batch: 495507

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

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,2,3-Trichloropropane	20.0	23.6		ug/L		118	73 - 120	1	22
1,1,1,2-Tetrachloroethane	20.0	20.8		ug/L		104	79 - 120	7	23
1,1,1-Trichloroethane	20.0	20.6		ug/L		103	79 - 121	7	25
1,1,2,2-Tetrachloroethane	20.0	19.9		ug/L		99	74 - 137	6	27

Eurofins TestAmerica, Sacramento

QC Sample Results

Client: GSI Environmental, Inc
Project/Site: AJU-BB

Job ID: 320-74353-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 320-495507/4
Matrix: Water
Analysis Batch: 495507

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

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,1,2-Trichloroethane	20.0	23.2		ug/L		116	79 - 127	2	30
1,1-Dichloroethane	20.0	20.5		ug/L		103	79 - 120	7	21
1,1-Dichloroethene	20.0	20.4		ug/L		102	74 - 120	7	22
1,1-Dichloropropene	20.0	20.2		ug/L		101	77 - 120	6	20
1,2,3-Trichlorobenzene	20.0	27.5		ug/L		137	47 - 162	1	45
1,2,4-Trichlorobenzene	20.0	25.1		ug/L		126	61 - 130	3	40
1,2,4-Trimethylbenzene	20.0	21.0		ug/L		105	76 - 120	0	17
1,2-Dibromo-3-Chloropropane	20.0	24.9	*+	ug/L		124	66 - 121	2	33
1,2-Dichlorobenzene	20.0	21.7		ug/L		108	77 - 120	3	19
1,2-Dichloroethane	20.0	21.6		ug/L		108	77 - 128	7	25
1,2-Dichloropropane	20.0	21.5		ug/L		108	75 - 125	3	27
1,3,5-Trimethylbenzene	20.0	20.5		ug/L		103	79 - 120	0	20
1,3-Dichlorobenzene	20.0	20.5		ug/L		103	78 - 120	3	17
1,3-Dichloropropane	20.0	22.2		ug/L		111	79 - 120	3	15
1,4-Dichlorobenzene	20.0	20.6		ug/L		103	74 - 120	2	15
2,2-Dichloropropane	20.0	21.1		ug/L		105	75 - 127	8	25
2-Chlorotoluene	20.0	20.8		ug/L		104	79 - 120	0	19
4-Chlorotoluene	20.0	20.5		ug/L		102	80 - 121	1	19
p-Isopropyltoluene	20.0	20.8		ug/L		104	76 - 120	2	18
Benzene	20.0	20.2		ug/L		101	79 - 120	5	21
Bromobenzene	20.0	21.2		ug/L		106	80 - 120	0	17
Bromoform	20.0	22.3		ug/L		111	80 - 120	9	16
Bromomethane	20.0	19.2		ug/L		96	65 - 132	7	40
Carbon tetrachloride	20.0	20.1		ug/L		100	78 - 124	6	25
Chlorobenzene	20.0	19.9		ug/L		100	78 - 120	5	15
Bromochloromethane	20.0	22.0		ug/L		110	80 - 120	6	19
Chloroethane	20.0	20.6		ug/L		103	65 - 123	8	40
Chloroform	20.0	20.9		ug/L		105	80 - 120	7	22
Chloromethane	20.0	20.9		ug/L		104	62 - 129	7	25
cis-1,2-Dichloroethene	20.0	20.7		ug/L		104	78 - 120	8	18
cis-1,3-Dichloropropene	20.0	23.3		ug/L		117	80 - 131	2	24
Dibromochloromethane	20.0	22.1		ug/L		110	80 - 122	4	17
Dibromomethane	20.0	22.2		ug/L		111	80 - 121	6	17
Bromodichloromethane	20.0	21.6		ug/L		108	80 - 124	4	20
Dichlorodifluoromethane	20.0	18.0		ug/L		90	39 - 161	8	51
Ethylbenzene	20.0	19.5		ug/L		98	80 - 120	6	15
Hexachlorobutadiene	20.0	22.8		ug/L		114	69 - 120	4	30
Isopropylbenzene	20.0	19.8		ug/L		99	80 - 121	8	17
m,p-Xylene	20.0	19.8		ug/L		99	80 - 121	5	15
Methylene Chloride	20.0	21.6		ug/L		108	77 - 120	6	20
Naphthalene	20.0	25.9		ug/L		129	56 - 143	2	48
n-Butylbenzene	20.0	20.7		ug/L		104	72 - 120	2	25
N-Propylbenzene	20.0	20.5		ug/L		103	76 - 120	1	26
o-Xylene	20.0	20.0		ug/L		100	80 - 124	8	18
sec-Butylbenzene	20.0	20.3		ug/L		101	77 - 120	0	19
Styrene	20.0	20.3		ug/L		101	80 - 120	9	15
tert-Butylbenzene	20.0	20.3		ug/L		102	78 - 120	1	19
Tetrachloroethene	20.0	19.0		ug/L		95	74 - 120	5	18
Toluene	20.0	20.8		ug/L		104	79 - 126	1	20

Eurofins TestAmerica, Sacramento

QC Sample Results

Client: GSI Environmental, Inc
Project/Site: AJU-BB

Job ID: 320-74353-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 320-495507/4

Client Sample ID: Lab Control Sample Dup

Matrix: Water

Prep Type: Total/NA

Analysis Batch: 495507

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
trans-1,2-Dichloroethene	20.0	20.2		ug/L		101	76 - 120	7	20
trans-1,3-Dichloropropene	20.0	24.4		ug/L		122	75 - 133	2	29
Trichloroethene	20.0	21.7		ug/L		108	74 - 120	2	20
Trichlorofluoromethane	20.0	20.7		ug/L		103	60 - 135	10	41
Vinyl chloride	20.0	20.3		ug/L		102	68 - 121	8	33
1,2-Dibromoethane (EDB)	20.0	22.4		ug/L		112	78 - 120	4	15

Surrogate	LCSD %Recovery	LCSD Qualifier	LCSD Limits
Toluene-d8 (Surr)	112		78 - 120
4-Bromofluorobenzene (Surr)	104		74 - 120
Dibromofluoromethane (Surr)	105		80 - 123

Method: 314.0 - Perchlorate (IC)

Lab Sample ID: MB 320-495092/5

Client Sample ID: Method Blank

Matrix: Water

Prep Type: Total/NA

Analysis Batch: 495092

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perchlorate	ND		4.0	2.0	ug/L			06/03/21 12:28	1

Lab Sample ID: LCS 320-495092/6

Client Sample ID: Lab Control Sample

Matrix: Water

Prep Type: Total/NA

Analysis Batch: 495092

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Perchlorate	49.9	52.0		ug/L		104	85 - 115

Lab Sample ID: MRL 320-495092/4

Client Sample ID: Lab Control Sample

Matrix: Water

Prep Type: Total/NA

Analysis Batch: 495092

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec. Limits
Perchlorate	3.99	3.65	J	ug/L		92	75 - 125

Lab Sample ID: 320-74353-1 MS

Client Sample ID: OS357-W-210525

Matrix: Water

Prep Type: Total/NA

Analysis Batch: 495092

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Perchlorate	ND		49.9	49.1		ug/L		99	80 - 120

Lab Sample ID: 320-74353-1 MSD

Client Sample ID: OS357-W-210525

Matrix: Water

Prep Type: Total/NA

Analysis Batch: 495092

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Perchlorate	ND		49.9	49.3		ug/L		99	80 - 120	0	20

Eurofins TestAmerica, Sacramento

QC Sample Results

Client: GSI Environmental, Inc
Project/Site: AJU-BB

Job ID: 320-74353-1

Method: 6010B - Metals (ICP)

Lab Sample ID: MB 320-494493/1-A
Matrix: Water
Analysis Batch: 495006

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 494493

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Silver	0.000930	J	0.0050	0.00084	mg/L		06/01/21 13:47	06/02/21 16:13	1
Arsenic	ND		0.020	0.012	mg/L		06/01/21 13:47	06/02/21 16:13	1
Barium	ND		0.0050	0.0025	mg/L		06/01/21 13:47	06/02/21 16:13	1
Beryllium	ND		0.0020	0.00030	mg/L		06/01/21 13:47	06/02/21 16:13	1
Cadmium	ND		0.0020	0.00050	mg/L		06/01/21 13:47	06/02/21 16:13	1
Cobalt	ND		0.0050	0.0030	mg/L		06/01/21 13:47	06/02/21 16:13	1
Chromium	ND		0.0080	0.0012	mg/L		06/01/21 13:47	06/02/21 16:13	1
Copper	ND		0.010	0.0021	mg/L		06/01/21 13:47	06/02/21 16:13	1
Molybdenum	ND		0.020	0.0027	mg/L		06/01/21 13:47	06/02/21 16:13	1
Nickel	ND		0.0050	0.0024	mg/L		06/01/21 13:47	06/02/21 16:13	1
Lead	ND		0.0050	0.0025	mg/L		06/01/21 13:47	06/02/21 16:13	1
Selenium	ND		0.020	0.013	mg/L		06/01/21 13:47	06/02/21 16:13	1
Antimony	ND		0.020	0.0098	mg/L		06/01/21 13:47	06/02/21 16:13	1
Thallium	ND		0.020	0.0090	mg/L		06/01/21 13:47	06/02/21 16:13	1
Vanadium	ND		0.0050	0.0019	mg/L		06/01/21 13:47	06/02/21 16:13	1
Zinc	ND		0.010	0.0030	mg/L		06/01/21 13:47	06/02/21 16:13	1

Lab Sample ID: LCS 320-494493/2-A
Matrix: Water
Analysis Batch: 495006

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 494493

Analyte	Spike Added	LCS	LCS	Unit	D	%Rec	Limits
		Result	Qualifier				
Silver	0.0505	0.0510		mg/L		101	80 - 120
Arsenic	0.500	0.499		mg/L		100	80 - 120
Barium	0.500	0.521		mg/L		104	80 - 120
Beryllium	0.250	0.257		mg/L		103	80 - 120
Cadmium	0.250	0.253		mg/L		101	80 - 120
Cobalt	0.250	0.255		mg/L		102	80 - 120
Chromium	0.250	0.257		mg/L		103	80 - 120
Copper	0.250	0.252		mg/L		101	80 - 120
Molybdenum	0.250	0.261		mg/L		104	80 - 120
Nickel	0.250	0.250		mg/L		100	80 - 120
Lead	0.250	0.258		mg/L		103	80 - 120
Selenium	0.500	0.486		mg/L		97	80 - 120
Antimony	0.495	0.494		mg/L		100	80 - 120
Thallium	0.500	0.516		mg/L		103	80 - 120
Vanadium	0.250	0.257		mg/L		103	80 - 120
Zinc	0.500	0.510		mg/L		102	80 - 120

Method: 7470A - Mercury (CVAA)

Lab Sample ID: MB 320-494894/11-A
Matrix: Water
Analysis Batch: 495175

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 494894

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Mercury	ND		0.00020	0.00010	mg/L		06/02/21 14:00	06/03/21 08:50	1

Eurofins TestAmerica, Sacramento

QC Sample Results

Client: GSI Environmental, Inc
 Project/Site: AJU-BB

Job ID: 320-74353-1

Method: 7470A - Mercury (CVAA) (Continued)

Lab Sample ID: LCS 320-494894/12-A
Matrix: Water
Analysis Batch: 495175

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 494894
%Rec.

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Mercury	0.00100	0.00106		mg/L		106	82 - 113

Lab Sample ID: LCSD 320-494894/13-A
Matrix: Water
Analysis Batch: 495175

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 494894
%Rec.

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	Limits	RPD	RPD Limit
Mercury	0.00100	0.00106		mg/L		106	82 - 113	0	17

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QC Association Summary

Client: GSI Environmental, Inc
Project/Site: AJU-BB

Job ID: 320-74353-1

GC/MS VOA

Analysis Batch: 495507

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
320-74353-1	OS357-W-210525	Total/NA	Water	8260B	
320-74353-3	OS8-W-210526	Total/NA	Water	8260B	
MB 320-495507/7	Method Blank	Total/NA	Water	8260B	
LCS 320-495507/3	Lab Control Sample	Total/NA	Water	8260B	
LCSD 320-495507/4	Lab Control Sample Dup	Total/NA	Water	8260B	

HPLC/IC

Analysis Batch: 495092

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
320-74353-1	OS357-W-210525	Total/NA	Water	314.0	
320-74353-3	OS8-W-210526	Total/NA	Water	314.0	
MB 320-495092/5	Method Blank	Total/NA	Water	314.0	
LCS 320-495092/6	Lab Control Sample	Total/NA	Water	314.0	
MRL 320-495092/4	Lab Control Sample	Total/NA	Water	314.0	
320-74353-1 MS	OS357-W-210525	Total/NA	Water	314.0	
320-74353-1 MSD	OS357-W-210525	Total/NA	Water	314.0	

Metals

Prep Batch: 494493

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
320-74353-1	OS357-W-210525	Total/NA	Water	3010A	
320-74353-3	OS8-W-210526	Total/NA	Water	3010A	
MB 320-494493/1-A	Method Blank	Total/NA	Water	3010A	
LCS 320-494493/2-A	Lab Control Sample	Total/NA	Water	3010A	

Prep Batch: 494894

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
320-74353-1	OS357-W-210525	Total/NA	Water	7470A	
320-74353-3	OS8-W-210526	Total/NA	Water	7470A	
MB 320-494894/11-A	Method Blank	Total/NA	Water	7470A	
LCS 320-494894/12-A	Lab Control Sample	Total/NA	Water	7470A	
LCSD 320-494894/13-A	Lab Control Sample Dup	Total/NA	Water	7470A	

Analysis Batch: 495006

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
320-74353-1	OS357-W-210525	Total/NA	Water	6010B	494493
320-74353-3	OS8-W-210526	Total/NA	Water	6010B	494493
MB 320-494493/1-A	Method Blank	Total/NA	Water	6010B	494493
LCS 320-494493/2-A	Lab Control Sample	Total/NA	Water	6010B	494493

Analysis Batch: 495175

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
320-74353-1	OS357-W-210525	Total/NA	Water	7470A	494894
320-74353-3	OS8-W-210526	Total/NA	Water	7470A	494894
MB 320-494894/11-A	Method Blank	Total/NA	Water	7470A	494894
LCS 320-494894/12-A	Lab Control Sample	Total/NA	Water	7470A	494894
LCSD 320-494894/13-A	Lab Control Sample Dup	Total/NA	Water	7470A	494894

Eurofins TestAmerica, Sacramento

Lab Chronicle

Client: GSI Environmental, Inc
Project/Site: AJU-BB

Job ID: 320-74353-1

Client Sample ID: OS357-W-210525

Lab Sample ID: 320-74353-1

Date Collected: 05/25/21 13:00

Matrix: Water

Date Received: 05/28/21 09:20

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	50 mL	50 mL	495507	06/04/21 16:24	SS	TAL SAC
Total/NA	Analysis	314.0		1			495092	06/03/21 13:12	TCS	TAL SAC
Total/NA	Prep	3010A			50 mL	50 mL	494493	06/01/21 13:47	JP	TAL SAC
Total/NA	Analysis	6010B		1			495006	06/02/21 17:07	SP	TAL SAC
Total/NA	Prep	7470A			30 mL	30 mL	494894	06/02/21 14:00	IM	TAL SAC
Total/NA	Analysis	7470A		1			495175	06/03/21 11:26	IM	TAL SAC

Client Sample ID: OS8-W-210526

Lab Sample ID: 320-74353-3

Date Collected: 05/26/21 12:30

Matrix: Water

Date Received: 05/28/21 09:20

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	50 mL	50 mL	495507	06/04/21 16:46	SS	TAL SAC
Total/NA	Analysis	314.0		1			495092	06/03/21 14:19	TCS	TAL SAC
Total/NA	Prep	3010A			50 mL	50 mL	494493	06/01/21 13:47	JP	TAL SAC
Total/NA	Analysis	6010B		1			495006	06/02/21 17:11	SP	TAL SAC
Total/NA	Prep	7470A			30 mL	30 mL	494894	06/02/21 14:00	IM	TAL SAC
Total/NA	Analysis	7470A		1			495175	06/03/21 11:29	IM	TAL SAC

Laboratory References:

TAL SAC = Eurofins TestAmerica, Sacramento, 880 Riverside Parkway, West Sacramento, CA 95605, TEL (916)373-5600

Accreditation/Certification Summary

Client: GSI Environmental, Inc
Project/Site: AJU-BB

Job ID: 320-74353-1

Laboratory: Eurofins TestAmerica, Sacramento

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

Authority	Program	Identification Number	Expiration Date
California	State	2897	01-31-22

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Method Summary

Client: GSI Environmental, Inc
Project/Site: AJU-BB

Job ID: 320-74353-1

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	TAL SAC
314.0	Perchlorate (IC)	EPA	TAL SAC
6010B	Metals (ICP)	SW846	TAL SAC
7470A	Mercury (CVAA)	SW846	TAL SAC
3010A	Preparation, Total Metals	SW846	TAL SAC
5030B	Purge and Trap	SW846	TAL SAC
7470A	Preparation, Mercury	SW846	TAL SAC

Protocol References:

EPA = US Environmental Protection Agency

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

Laboratory References:

TAL SAC = Eurofins TestAmerica, Sacramento, 880 Riverside Parkway, West Sacramento, CA 95605, TEL (916)373-5600



Sample Summary

Client: GSI Environmental, Inc
Project/Site: AJU-BB

Job ID: 320-74353-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
320-74353-1	OS357-W-210525	Water	05/25/21 13:00	05/28/21 09:20	
320-74353-3	OS8-W-210526	Water	05/26/21 12:30	05/28/21 09:20	

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Salimpour, Afsaneh

From: Travis Wicks <TZWicks@gsi-net.com>
Sent: Tuesday, June 1, 2021 9:29 AM
To: Salimpour, Afsaneh; Susan Gallardo
Subject: RE: Eurofins TestAmerica Sample Login Confirmation files from 320-74353 AJU-BB

EXTERNAL EMAIL*

Hi Afsaneh,

Correct. CAM 17 analyses are total, and your decision on the TB sounds good to me. One change – can you not have OS1-W-210526 (320-74353-2) analyzed? That sample was collected in error.

Thanks,

Travis Wicks | Staff Geologist | GSI Environmental Inc.

phone 510.463.8494 | cell 510.468.6940

twicks@gsi-net.com

Notice: The information contained in (and attached to) this e-mail is intended only for the personal and confidential use of the designated recipient(s) named above. This message may be a consultant/client, attorney/client, or attorney work product communication and as such is privileged and confidential. If the reader of this message is not the intended recipient, you are hereby notified that you have received this document in error and that any review, dissemination, distribution, or copying of this message is strictly prohibited. If you received this communication in error, please notify us immediately by reply e-mail, and delete the original message (including attachments).

From: Afsaneh Salimpour <Afsaneh.Salimpour@Eurofinset.com>
Sent: Tuesday, June 1, 2021 9:06 AM
To: Susan Gallardo <SMGallardo@gsi-net.com>; Travis Wicks <TZWicks@gsi-net.com>
Subject: Eurofins TestAmerica Sample Login Confirmation files from 320-74353 AJU-BB

Hi Travis,

The CAM 17 are totals? correct?

TB containers had no IDs, time and date on them. But the plastic bag in which they came did have ID, time and date that match that of COC for sample 4 (TB).

TB-210527 (320-74353-4)

Afsaneh F Salimpour

Project Manager

Eurofins TestAmerica, Sacramento

Phone: 925-484-1919

E-mail: Afsaneh.Salimpour@Eurofinset.com
www.eurofinsus.com/env



Reference: [320-349597]
Attachments: 3

> > Bank information has changed, please refer to remittance information on invoice. < <

* WARNING - EXTERNAL: This email originated from outside of Eurofins Environment Testing America. Do not click any links or open any attachments unless you trust the sender and know that the content is safe!



FROM: GSI Environmental Inc. 155 Grand Ave. Suite 704 Oakland, CA 94612 (510) 463-8484		PROJECT NAME: AJU-BB		PROJECT NO.: 5182																																																																							
TEL: (510) 463-8484		PROJECT CONTACT: Susan Gallardo		LAB CONTACT: Afsaneh Salimpour (Pleasanton)																																																																							
E-MAIL: smgallardo@gsi-net.com ; tzwick@gsi-net.com		GLOBAL ID:		SAMPLER(S): (PRINT) TRV / GIB																																																																							
LABORATORY: Eurofins Calscience		REQUESTED ANALYSES Please check box or fill in blank as needed.																																																																									
TURNAROUND TIME: <input type="checkbox"/> SAME DAY <input type="checkbox"/> 24 HR <input type="checkbox"/> 48 HR <input type="checkbox"/> 72 HR <input checked="" type="checkbox"/> STANDARD		<table border="1"> <tr> <th rowspan="2">LAB USE ONLY</th> <th rowspan="2">SAMPLE ID</th> <th colspan="2">SAMPLING</th> <th rowspan="2">MATRIX</th> <th rowspan="2">NO. OF CONT.</th> <th colspan="3">Field Filtered</th> <th rowspan="2">Title 22 Metals (6010/7470)</th> <th rowspan="2">Perchlorate (314.0)</th> <th rowspan="2">VOCs (8260) NDM A</th> <th rowspan="2">Hold</th> </tr> <tr> <th>DATE</th> <th>TIME</th> <th>Unpreserved</th> <th>Preserved</th> <th>Field Filtered</th> </tr> <tr> <td>1</td> <td>0587-W-210526</td> <td>5/25/21</td> <td>1300</td> <td>W</td> <td>5</td> <td>X</td> <td>X</td> <td>X</td> <td>X</td> <td>X</td> <td>X</td> <td></td> </tr> <tr> <td>2</td> <td>051-W-210526</td> <td>5/26/21</td> <td>0950</td> <td>W</td> <td>7</td> <td>X</td> <td>X</td> <td>X</td> <td>X</td> <td>X</td> <td>X</td> <td></td> </tr> <tr> <td>3</td> <td>058-W-210526</td> <td>5/26/21</td> <td>1230</td> <td>W</td> <td>5</td> <td>X</td> <td>X</td> <td>X</td> <td>X</td> <td>X</td> <td>X</td> <td></td> </tr> <tr> <td>4</td> <td>TB-210527</td> <td>5/27/21</td> <td>1100</td> <td>W</td> <td>2</td> <td>X</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>X</td> </tr> </table>				LAB USE ONLY	SAMPLE ID	SAMPLING		MATRIX	NO. OF CONT.	Field Filtered			Title 22 Metals (6010/7470)	Perchlorate (314.0)	VOCs (8260) NDM A	Hold	DATE	TIME	Unpreserved	Preserved	Field Filtered	1	0587-W-210526	5/25/21	1300	W	5	X	X	X	X	X	X		2	051-W-210526	5/26/21	0950	W	7	X	X	X	X	X	X		3	058-W-210526	5/26/21	1230	W	5	X	X	X	X	X	X		4	TB-210527	5/27/21	1100	W	2	X						X
LAB USE ONLY	SAMPLE ID	SAMPLING		MATRIX	NO. OF CONT.			Field Filtered				Title 22 Metals (6010/7470)	Perchlorate (314.0)	VOCs (8260) NDM A					Hold																																																								
		DATE	TIME			Unpreserved	Preserved	Field Filtered																																																																			
1	0587-W-210526	5/25/21	1300	W	5	X	X	X	X	X	X																																																																
2	051-W-210526	5/26/21	0950	W	7	X	X	X	X	X	X																																																																
3	058-W-210526	5/26/21	1230	W	5	X	X	X	X	X	X																																																																
4	TB-210527	5/27/21	1100	W	2	X						X																																																															
SPECIAL INSTRUCTIONS:		<p>320-74353 Chain of Custody</p>																																																																									
Relinquished by: (Signature)		Received by: (Signature)		Date: 5-27-2021 Time: 13:51																																																																							
Relinquished by: (Signature)		Received by: (Signature)		Date: 5/27/21 Time: 1600																																																																							
Relinquished by: (Signature)		Received by: (Signature)		Date: 5/27/21 Time: 1600																																																																							

• 10 on plastic bag with containers LS 5125121

3.5 / 3.9 SCS

3.5 24.6



Login Sample Receipt Checklist

Client: GSI Environmental, Inc

Job Number: 320-74353-1

Login Number: 74353

List Source: Eurofins TestAmerica, Sacramento

List Number: 1

Creator: Anderson, Marina M

Question	Answer	Comment
Radioactivity wasn't checked or is \leq background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
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 <math><6\text{mm}</math> (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	



June 09, 2021

Travis Wicks
GSI Environmental Inc.
155 Grand Ave
Suite 704
Oakland, California 94612

Re: Near S SFL
Work Order: 545799

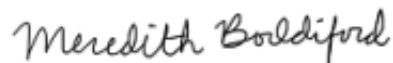
Dear Travis Wicks:

GEL Laboratories, LLC (GEL) appreciates the opportunity to provide the enclosed analytical results for the sample(s) we received on May 28, 2021. This original data report has been prepared and reviewed in accordance with GEL's standard operating procedures.

Test results for NELAP or ISO 17025 accredited tests are verified to meet the requirements of those standards, with any exceptions noted. The results reported relate only to the items tested and to the sample as received by the laboratory. These results may not be reproduced except as full reports without approval by the laboratory. Copies of GEL's accreditations and certifications can be found on our website at www.gel.com.

Our policy is to provide high quality, personalized analytical services to enable you to meet your analytical needs on time every time. We trust that you will find everything in order and to your satisfaction. If you have any questions, please do not hesitate to call me at (843) 556-8171, ext. 4487.

Sincerely,



Meredith Boddiford for
Brielle Luthman
Project Manager

Purchase Order: 5182
Enclosures

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 – (843) 556-8171 – www.gel.com

Certificate of Analysis Report for

GSIE002 GSI Environmental Inc.

Client SDG: 545799 GEL Work Order: 545799

The Qualifiers in this report are defined as follows:

- * A quality control analyte recovery is outside of specified acceptance criteria
- ** Analyte is a Tracer compound
- ** Analyte is a surrogate compound
- U Analyte was analyzed for, but not detected above the MDL, MDA, MDC or LOD.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the Certificate of Analysis.

The designation ND, if present, appears in the result column when the analyte concentration is not detected above the limit as defined in the 'U' qualifier above.

This data report has been prepared and reviewed in accordance with GEL Laboratories LLC standard operating procedures. Please direct any questions to your Project Manager, Brielle Luthman.

Meredith Boldiford

Reviewed by _____

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Company : GSI Environmental Inc.
Address : 155 Grand Ave
Suite 704
Oakland, California 94612
Contact: Travis Wicks
Project: Near S SFL

Report Date: June 9, 2021

Client Sample ID: OS357-W-210525
Sample ID: 545799001
Matrix: Water
Collect Date: 25-MAY-21
Receive Date: 28-MAY-21
Collector: Client
Project: GSIE00119
Client ID: GSIE002

Parameter	Qualifier	Result	Uncertainty	MDC	TPU	RL	Units	PF	DF	Analyst	Date	Time	Batch	Mtd.
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Rad Gamma Spec Analysis

Gammascpec, Gamma, Liquid (Standard List) "As Received"

Cesium-137	U	-0.745	+/-4.88	8.58	+/-4.90	10.0	pCi/L			MJH1	06/01/21	1851	2133739	1
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Rad Gas Flow Proportional Counting

GFPC, Sr90, Liquid "As Received"

Strontium-90	U	0.0268	+/-0.517	0.976	+/-0.517	2.00	pCi/L			BXF1	06/08/21	1009	2133460	2
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Rad Liquid Scintillation Analysis

LSC, Tritium Distillation, Liquid "As Received"

Tritium	U	224	+/-241	401	+/-244	700	pCi/L			KXA1	06/08/21	1610	2133996	3
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The following Analytical Methods were performed

Method	Description
1	EPA 901.1
2	EPA 905.0 Modified/DOE RP501 Rev. 1 Modified
3	EPA 906.0 Modified

Surrogate/Tracer Recovery	Test	Batch ID	Recovery%	Acceptable Limits
Strontium Carrier	GFPC, Sr90, Liquid "As Received"	2133460	92.1	(25%-125%)

Notes:
The MDC is a sample specific MDC.
TPU and Counting Uncertainty are calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

DF: Dilution Factor
DL: Detection Limit
Lc/LC: Critical Level
MDA: Minimum Detectable Activity
MDC: Minimum Detectable Concentration
Mtd.: Method
PF: Prep Factor
RL: Reporting Limit
TPU: Total Propagated Uncertainty

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Company : GSI Environmental Inc.
Address : 155 Grand Ave
Suite 704
Oakland, California 94612

Report Date: June 9, 2021

Contact: Travis Wicks

Project: Near S SFL

Client Sample ID: OS1-W-210526

Project: GSIE00119

Sample ID: 545799002

Client ID: GSIE002

Matrix: Water

Collect Date: 26-MAY-21

Receive Date: 28-MAY-21

Collector: Client

Parameter	Qualifier	Result	Uncertainty	MDC	TPU	RL	Units	PF	DF	Analyst	Date	Time	Batch	Mtd.
Rad Liquid Scintillation Analysis														
<i>LSC, Tritium Distillation, Liquid "As Received"</i>														
Tritium	U	-100	+/-199	405	+/-199	700	pCi/L			KXA1	06/08/21	1627	2133996	1

The following Analytical Methods were performed

Method	Description
1	EPA 906.0 Modified

Surrogate/Tracer Recovery	Test	Batch ID	Recovery%	Acceptable Limits
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Notes:
The MDC is a sample specific MDC.
TPU and Counting Uncertainty are calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

DF: Dilution Factor

DL: Detection Limit

Lc/LC: Critical Level

MDA: Minimum Detectable Activity

MDC: Minimum Detectable Concentration

Mtd.: Method

PF: Prep Factor

RL: Reporting Limit

TPU: Total Propagated Uncertainty

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Company : GSI Environmental Inc.
Address : 155 Grand Ave
Suite 704
Oakland, California 94612

Report Date: June 9, 2021

Contact: Travis Wicks

Project: Near S SFL

Client Sample ID: OS8-W-210526

Project: GSIE00119

Sample ID: 545799003

Client ID: GSIE002

Matrix: Water

Collect Date: 26-MAY-21

Receive Date: 28-MAY-21

Collector: Client

Parameter	Qualifier	Result	Uncertainty	MDC	TPU	RL	Units	PF	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis														
<i>Gammaspec, Gamma, Liquid (Standard List) "As Received"</i>														
Cesium-137	U	1.14	+/-2.87	5.69	+/-2.91	10.0	pCi/L			MJH1	06/01/21	1851	2133739	1
Rad Gas Flow Proportional Counting														
<i>GFPC, Sr90, Liquid "As Received"</i>														
Strontium-90	U	0.333	+/-0.654	1.17	+/-0.656	2.00	pCi/L			BXF1	06/08/21	1536	2133460	2
Rad Liquid Scintillation Analysis														
<i>LSC, Tritium Distillation, Liquid "As Received"</i>														
Tritium	U	200	+/-243	410	+/-246	700	pCi/L			KXA1	06/08/21	1643	2133996	3

The following Analytical Methods were performed

Method	Description
1	EPA 901.1
2	EPA 905.0 Modified/DOE RP501 Rev. 1 Modified
3	EPA 906.0 Modified

Surrogate/Tracer Recovery	Test	Batch ID	Recovery%	Acceptable Limits
Strontium Carrier	GFPC, Sr90, Liquid "As Received"	2133460	60.7	(25%-125%)

Notes:

The MDC is a sample specific MDC.

TPU and Counting Uncertainty are calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

DF: Dilution Factor

DL: Detection Limit

Lc/LC: Critical Level

MDA: Minimum Detectable Activity

MDC: Minimum Detectable Concentration

Mtd.: Method

PF: Prep Factor

RL: Reporting Limit

TPU: Total Propagated Uncertainty

GEL LABORATORIES LLC

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QC Summary

Report Date: June 9, 2021
Page 1 of 3

Client : GSI Environmental Inc.
155 Grand Ave
Suite 704
Oakland, California

Contact: Travis Wicks

Workorder: 545799

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Rad Gamma Spec											
Batch	2133739										
QC1204833556	545799001 DUP										
Cesium-137		U	-0.745	U	-4.42	pCi/L	0		N/A MJH1	06/02/21	08:21
		Uncert:	+/-4.88		+/-4.97						
		TPU:	+/-4.90		+/-5.36						
QC1204833557	LCS										
Americium-241	1.09E+05				1.20E+05	pCi/L	110	(75%-125%)	MJH1	06/02/21	08:22
		Uncert:			+/-3320						
		TPU:			+/-13000						
Cobalt-60	22600				24100	pCi/L	107	(75%-125%)			
		Uncert:			+/-766						
		TPU:			+/-2430						
Cesium-137	38300				40200	pCi/L	105	(75%-125%)			
		Uncert:			+/-812						
		TPU:			+/-3430						
QC1204833555	MB										
Cesium-137				U	0.438	pCi/L			MJH1	06/01/21	18:51
		Uncert:			+/-3.21						
		TPU:			+/-3.21						
Rad Gas Flow											
Batch	2133460										
QC1204832897	545280007 DUP										
Strontium-90		U	-0.0954	U	0.552	pCi/L	0		N/A BXF1	06/08/21	10:08
		Uncert:	+/-0.475		+/-0.630						
		TPU:	+/-0.475		+/-0.636						
QC1204832899	LCS										
Strontium-90	77.3				80.1	pCi/L	104	(75%-125%)	BXF1	06/08/21	10:08
		Uncert:			+/-3.60						
		TPU:			+/-13.1						
QC1204832895	MB										
Strontium-90				U	-0.0794	pCi/L			BXF1	06/08/21	10:08
		Uncert:			+/-0.453						
		TPU:			+/-0.453						
QC1204832898	545280007 MS										
Strontium-90	465	U	-0.0954		494	pCi/L	106	(75%-125%)	BXF1	06/08/21	10:08
		Uncert:	+/-0.475		+/-21.4						
		TPU:	+/-0.475		+/-81.2						
Rad Liquid Scintillation											
Batch	2133996										
QC1204834140	545511001 DUP										
Tritium			2590		2600	pCi/L	.316	(0%-20%)	KXA1	06/08/21	14:38
		Uncert:	+/-193		+/-195						

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QC Summary

Workorder: 545799

Page 2 of 3

Parmname	NOM	Sample Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Rad Liquid Scintillation										
Batch	2133996									
QC1204834142	LCS	TPU:	+/-537							
Tritium	5740			5220	pCi/L	91.1	(75%-125%)	KXA1	06/08/21	17:17
	Uncert:			+/-589						
	TPU:			+/-1170						
QC1204834139	MB									
Tritium		U		132	pCi/L			KXA1	06/08/21	13:03
	Uncert:			+/-122						
	TPU:			+/-125						
QC1204834141	545511001 MS									
Tritium	5750	2590		7300	pCi/L	81.9	(75%-125%)	KXA1	06/08/21	17:00
	Uncert:	+/-193		+/-673						
	TPU:	+/-537		+/-1560						

Notes:

TPU and Counting Uncertainty are calculated at the 95% confidence level (1.96-sigma).

The Qualifiers in this report are defined as follows:

- ** Analyte is a Tracer compound
- < Result is less than value reported
- > Result is greater than value reported
- BD Results are either below the MDC or tracer recovery is low
- FA Failed analysis.
- H Analytical holding time was exceeded
- J See case narrative for an explanation
- J Value is estimated
- K Analyte present. Reported value may be biased high. Actual value is expected to be lower.
- L Analyte present. Reported value may be biased low. Actual value is expected to be higher.
- M M if above MDC and less than LLD
- M REMP Result > MDC/CL and < RDL
- N/A RPD or %Recovery limits do not apply.
- N1 See case narrative
- ND Analyte concentration is not detected above the detection limit
- NJ Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
- Q One or more quality control criteria have not been met. Refer to the applicable narrative or DER.
- R Sample results are rejected
- U Analyte was analyzed for, but not detected above the MDL, MDA, MDC or LOD.
- UI Gamma Spectroscopy--Uncertain identification
- UJ Gamma Spectroscopy--Uncertain identification
- UL Not considered detected. The associated number is the reported concentration, which may be inaccurate due to a low bias.
- X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
- Y Other specific qualifiers were required to properly define the results. Consult case narrative.
- ^ RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.

GEL LABORATORIES LLC

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QC Summary

Workorder: 545799

Page 3 of 3

<u>Parmname</u>	<u>NOM</u>	<u>Sample Qual</u>	<u>QC</u>	<u>Units</u>	<u>RPD%</u>	<u>REC%</u>	<u>Range</u>	<u>Anlst</u>	<u>Date</u>	<u>Time</u>
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h Preparation or preservation holding time was exceeded

N/A indicates that spike recovery limits do not apply when sample concentration exceeds spike conc. by a factor of 4 or more or %RPD not applicable.

** Indicates analyte is a surrogate/tracer compound.

^ The Relative Percent Difference (RPD) obtained from the sample duplicate (DUP) is evaluated against the acceptance criteria when the sample is greater than five times (5X) the contract required detection limit (RL). In cases where either the sample or duplicate value is less than 5X the RL, a control limit of +/- the RL is used to evaluate the DUP result.

For PS, PSD, and SDILT results, the values listed are the measured amounts, not final concentrations.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the QC Summary.

DS 6/1/21

SAMPLE RECEIPT & REVIEW FORM

Client: <u>GSEE GSEI</u>		SDG/AR/COC/Work Order: <u>545799</u>			
Received By: <u>MLS</u>		Date Received: <u>5-28-21</u>			
Carrier and Tracking Number		Circle Applicable: <input checked="" type="checkbox"/> FedEx Express <input type="checkbox"/> FedEx Ground <input type="checkbox"/> UPS <input type="checkbox"/> Field Services <input type="checkbox"/> Courier <input type="checkbox"/> Other <u>7876 6573 5410-6c</u> <u>7876 6573 5421-20c</u>			
Suspected Hazard Information		Yes No *If Net Counts > 100cpm on samples not marked "radioactive", contact the Radiation Safety Group for further investigation.			
A) Shipped as a DOT Hazardous?		Hazard Class Shipped: _____ UN#: _____ If UN2910, Is the Radioactive Shipment Survey Compliant? Yes ___ No ___			
B) Did the client designate the samples are to be received as radioactive?		COC notation or radioactive stickers on containers equal client designation.			
C) Did the RSO classify the samples as radioactive?		Maximum Net Counts Observed* (Observed Counts - Area Background Counts): <u>0</u> <u>CPM</u> mR/Hr Classified as: Rad 1 Rad 2 Rad 3			
D) Did the client designate samples are hazardous?		COC notation or hazard labels on containers equal client designation.			
E) Did the RSO identify possible hazards?		If D or E is yes, select Hazards below. PCB's Flammable Foreign Soil RCRA Asbestos Beryllium Other:			
Sample Receipt Criteria		Yes	NA	No	Comments/Qualifiers (Required for Non-Conforming Items)
1	Shipping containers received intact and sealed?	<input checked="" type="checkbox"/>			Circle Applicable: Seals broken Damaged container Leaking container Other (describe)
2	Chain of custody documents included with shipment?	<input checked="" type="checkbox"/>			Circle Applicable: Client contacted and provided COC COC created upon receipt
3	Samples requiring cold preservation within (0 ≤ 6 deg. C)?*	<input checked="" type="checkbox"/>			Preservation Method: <u>Wet Ice</u> <u>Ice Packs</u> <u>Dry Ice</u> <u>None</u> Other: *all temperatures are recorded in Celsius TEMP: _____
4	Daily check performed and passed on IR temperature gun?	<input checked="" type="checkbox"/>			Temperature Device Serial #: <u>IR3-21</u> Secondary Temperature Device Serial # (If Applicable):
5	Sample containers intact and sealed?	<input checked="" type="checkbox"/>			Circle Applicable: Seals broken Damaged container Leaking container Other (describe)
6	Samples requiring chemical preservation at proper pH?	<input checked="" type="checkbox"/>			Sample ID's and Containers Affected: If Preservation added, Lot#:
7	Do any samples require Volatile Analysis?	<input checked="" type="checkbox"/>			If Yes, are Encores or Soil Kits present for solids? Yes ___ No ___ NA ___ (If yes, take to VOA Freezer)
					Do liquid VOA vials contain acid preservation? Yes ___ No ___ NA ___ (If unknown, select No)
					Are liquid VOA vials free of headspace? Yes ___ No ___ NA ___
Sample ID's and containers affected:					
8	Samples received within holding time?	<input checked="" type="checkbox"/>			ID's and tests affected:
9	Sample ID's on COC match ID's on bottles?	<input checked="" type="checkbox"/>			ID's and containers affected:
10	Date & time on COC match date & time on bottles?	<input checked="" type="checkbox"/>			Circle Applicable: No dates on containers No times on containers COC missing info Other (describe)
11	Number of containers received match number indicated on COC?	<input checked="" type="checkbox"/>			Circle Applicable: No container count on COC Other (describe) <u>Missing 1 cooler</u>
12	Are sample containers identifiable as GEL provided by use of GEL labels?	<input checked="" type="checkbox"/>			
13	COC form is properly signed in relinquished/received sections?	<input checked="" type="checkbox"/>			Circle Applicable: Not relinquished Other (describe)
Comments (Use Continuation Form if needed):					

List of current GEL Certifications as of 09 June 2021

State	Certification
Alabama	42200
Alaska	17-018
Alaska Drinking Water	SC00012
Arkansas	88-0651
CLIA	42D0904046
California	2940
Colorado	SC00012
Connecticut	PH-0169
DoD ELAP/ ISO17025 A2LA	2567.01
Florida NELAP	E87156
Foreign Soils Permit	P330-15-00283, P330-15-00253
Georgia	SC00012
Georgia SDWA	967
Hawaii	SC00012
Idaho	SC00012
Illinois NELAP	200029
Indiana	C-SC-01
Kansas NELAP	E-10332
Kentucky SDWA	90129
Kentucky Wastewater	90129
Louisiana Drinking Water	LA024
Louisiana NELAP	03046 (AI33904)
Maine	2019020
Maryland	270
Massachusetts	M-SC012
Massachusetts PFAS Approv	Letter
Michigan	9976
Mississippi	SC00012
Nebraska	NE-OS-26-13
Nevada	SC000122021-1
New Hampshire NELAP	2054
New Jersey NELAP	SC002
New Mexico	SC00012
New York NELAP	11501
North Carolina	233
North Carolina SDWA	45709
North Dakota	R-158
Oklahoma	2019-165
Pennsylvania NELAP	68-00485
Puerto Rico	SC00012
S. Carolina Radiochem	10120002
Sanitation Districts of L	9255651
South Carolina Chemistry	10120001
Tennessee	TN 02934
Texas NELAP	T104704235-21-19
Utah NELAP	SC000122021-35
Vermont	VT87156
Virginia NELAP	460202
Washington	C780

**Radiochemistry
Technical Case Narrative
GSI Environmental Inc.
SDG #: 545799**

Product: Gammasec, Gamma, Liquid (Standard List)

Analytical Method: EPA 901.1

Analytical Procedure: GL-RAD-A-013 REV# 27

Analytical Batch: 2133739

The following samples were analyzed using the above methods and analytical procedure(s).

<u>GEL Sample ID#</u>	<u>Client Sample Identification</u>
545799001	OS357-W-210525
545799003	OS8-W-210526
1204833555	Method Blank (MB)
1204833556	545799001(OS357-W-210525) Sample Duplicate (DUP)
1204833557	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on an "as received" basis.

Data Summary:

There are no exceptions, anomalies or deviations from the specified methods. All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable.

Product: GFPC, Sr90, Liquid

Analytical Method: EPA 905.0 Modified/DOE RP501 Rev. 1 Modified

Analytical Procedure: GL-RAD-A-004 REV# 21

Analytical Batch: 2133460

The following samples were analyzed using the above methods and analytical procedure(s).

<u>GEL Sample ID#</u>	<u>Client Sample Identification</u>
545799001	OS357-W-210525
545799003	OS8-W-210526
1204832895	Method Blank (MB)
1204832897	545280007(NonSDG) Sample Duplicate (DUP)
1204832898	545280007(NonSDG) Matrix Spike (MS)
1204832899	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on an "as received" basis.

Data Summary:

All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable, with the following exceptions.

Preparation Information

Homogenous Matrix

Sample 545799003 (OS8-W-210526) was non-homogenous matrix. 544962001 was hazy 545579003 has black sediment 545799003 (OS8-W-210526).

Technical Information

Recounts

Sample 545799003 (OS8-W-210526) was recounted due to a suspected false positive. The recount is reported.

Miscellaneous Information

Additional Comments

The matrix spike, 1204832898 (Non SDG 545280007MS), aliquot was reduced to conserve sample volume.

Product: LSC, Tritium Distillation, Liquid

Analytical Method: EPA 906.0 Modified

Analytical Procedure: GL-RAD-A-002 REV# 23

Analytical Batch: 2133996

The following samples were analyzed using the above methods and analytical procedure(s).

<u>GEL Sample ID#</u>	<u>Client Sample Identification</u>
545799001	OS357-W-210525
545799002	OS1-W-210526
545799003	OS8-W-210526
1204834139	Method Blank (MB)
1204834140	545511001(NonSDG) Sample Duplicate (DUP)
1204834141	545511001(NonSDG) Matrix Spike (MS)
1204834142	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on an "as received" basis.

Data Summary:

There are no exceptions, anomalies or deviations from the specified methods. All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable.

Certification Statement

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

2021 Monitoring Report

American Jewish University, Brandeis-Bardin Campus
1101 Peppertree Lane
Brandeis, California

Appendix C

Analytical Laboratory Reports – Fruit Samples



July 23, 2021

Travis Wicks
GSI Environmental Inc.
155 Grand Ave
Suite 704
Oakland, California 94612

Re: Near SSFL
Work Order: 545795

Dear Travis Wicks:

GEL Laboratories, LLC (GEL) appreciates the opportunity to provide the enclosed analytical results for the sample(s) we received on May 28, 2021. This revised data report has been prepared and reviewed in accordance with GEL's standard operating procedures. The data package has been revised to report Sr-90 reanalysis.

Test results for NELAP or ISO 17025 accredited tests are verified to meet the requirements of those standards, with any exceptions noted. The results reported relate only to the items tested and to the sample as received by the laboratory. These results may not be reproduced except as full reports without approval by the laboratory. Copies of GEL's accreditations and certifications can be found on our website at www.gel.com.

Our policy is to provide high quality, personalized analytical services to enable you to meet your analytical needs on time every time. We trust that you will find everything in order and to your satisfaction. If you have any questions, please do not hesitate to call me at (843) 556-8171, ext. 4487.

Sincerely,

Brielle Luthman
Project Manager

Purchase Order: 5182
Enclosures

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 – (843) 556-8171 – www.gel.com

Certificate of Analysis Report for

GSIE002 GSI Environmental Inc.

Client SDG: 545795 GEL Work Order: 545795

The Qualifiers in this report are defined as follows:

- * A quality control analyte recovery is outside of specified acceptance criteria
- ** Analyte is a Tracer compound
- ** Analyte is a surrogate compound
- J See case narrative for an explanation
- J Value is estimated
- U Analyte was analyzed for, but not detected above the MDL, MDA, MDC or LOD.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the Certificate of Analysis.

The designation ND, if present, appears in the result column when the analyte concentration is not detected above the limit as defined in the 'U' qualifier above.

This data report has been prepared and reviewed in accordance with GEL Laboratories LLC standard operating procedures. Please direct any questions to your Project Manager, Brielle Luthman.

Reviewed by _____

B. Luthman

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Report Date: July 23, 2021

Company : GSI Environmental Inc.
 Address : 155 Grand Ave
 Suite 704
 Oakland, California 94612
 Contact: Travis Wicks
 Project: Near SSFL

Client Sample ID: L-1-210527	Project: GSIE00119
Sample ID: 545795001	Client ID: GSIE002
Matrix: Vegetation	
Collect Date: 27-MAY-21 09:20	
Receive Date: 28-MAY-21	
Collector: Client	

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
LC-MS/MS Perchlorate												
Perchlorate by LC-MS/MS "As Received"												
Perchlorate	U	ND	0.403	1.61	ug/kg	8.06	1	JLS	06/03/21	1955	2134493	1
Mercury Analysis-CVAA												
7471 Cold Vapor Mercury, Solid "As Received"												
Mercury	U	ND	7.64	22.8	ug/kg	114	1	MTM1	06/11/21	0855	2137458	2
Metals Analysis-ICP												
SW846 3050B/6010D Metals, Solid "As Received"												
Antimony	J	496	301	1820	ug/kg	91.1	1	JWJ	06/09/21	0039	2134384	3
Arsenic	U	ND	455	2730	ug/kg	91.1	1					
Barium	J	423	91.1	455	ug/kg	91.1	1					
Beryllium	U	ND	91.1	455	ug/kg	91.1	1					
Cadmium	U	ND	91.1	455	ug/kg	91.1	1					
Chromium	U	ND	137	911	ug/kg	91.1	1					
Cobalt	U	ND	137	455	ug/kg	91.1	1					
Copper	U	ND	273	1820	ug/kg	91.1	1					
Lead	U	ND	301	1820	ug/kg	91.1	1					
Molybdenum	U	ND	182	911	ug/kg	91.1	1					
Nickel	U	ND	137	455	ug/kg	91.1	1					
Selenium	U	ND	455	2730	ug/kg	91.1	1					
Silver	U	ND	91.1	455	ug/kg	91.1	1					
Thallium	U	ND	455	1820	ug/kg	91.1	1					
Vanadium	U	ND	91.1	455	ug/kg	91.1	1					
Zinc		5770	364	1820	ug/kg	91.1	1					

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
GEL Prep Method	Laboratory Composite				2133413
SW846 3050B	SW846 3050B Prep	SM1	06/08/21	0955	2134383
SW846 6850 Modified	EPA 6850 Perchlorate Extraction Solids	SXC7	06/03/21	1511	2134492
SW846 7471A Prep	EPA 7471A Mercury Prep Soil	AXS5	06/10/21	1630	2137457

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SW846 6850 Modified	
2	SW846 7471A	
3	SW846 3050B/6010D	

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Certificate of Analysis

Report Date: July 23, 2021

Company : GSI Environmental Inc.
Address : 155 Grand Ave
Suite 704
Oakland, California 94612
Contact: Travis Wicks
Project: Near SSFL

Client Sample ID: L-1-210527
Sample ID: 545795001

Project: GSIE00119
Client ID: GSIE002

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
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Notes:

Column headers are defined as follows:

DF: Dilution Factor	Lc/LC: Critical Level
DL: Detection Limit	PF: Prep Factor
MDA: Minimum Detectable Activity	RL: Reporting Limit
MDC: Minimum Detectable Concentration	SQL: Sample Quantitation Limit

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Certificate of Analysis

Report Date: July 23, 2021

Company : GSI Environmental Inc.
 Address : 155 Grand Ave
 Suite 704
 Oakland, California 94612
 Contact: Travis Wicks
 Project: Near SSFL

Client Sample ID: L-2-210527	Project: GSIE00119
Sample ID: 545795002	Client ID: GSIE002
Matrix: Vegetation	
Collect Date: 27-MAY-21 10:30	
Receive Date: 28-MAY-21	
Collector: Client	

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
LC-MS/MS Perchlorate												
Perchlorate by LC-MS/MS "As Received"												
Perchlorate	U	ND	0.426	1.70	ug/kg	8.51	1	JLS	06/03/21	2021	2134493	1
Mercury Analysis-CVAA												
7471 Cold Vapor Mercury, Solid "As Received"												
Mercury	U	ND	7.05	21.1	ug/kg	105	1	MTM1	06/11/21	0857	2137458	2
Metals Analysis-ICP												
SW846 3050B/6010D Metals, Solid "As Received"												
Antimony	U	ND	321	1950	ug/kg	97.3	1	JWJ	06/09/21	0053	2134384	3
Arsenic	U	ND	486	2920	ug/kg	97.3	1					
Barium	J	134	97.3	486	ug/kg	97.3	1					
Beryllium	U	ND	97.3	486	ug/kg	97.3	1					
Cadmium	U	ND	97.3	486	ug/kg	97.3	1					
Chromium	U	ND	146	973	ug/kg	97.3	1					
Cobalt	U	ND	146	486	ug/kg	97.3	1					
Copper	J	321	292	1950	ug/kg	97.3	1					
Lead	U	ND	321	1950	ug/kg	97.3	1					
Molybdenum	U	ND	195	973	ug/kg	97.3	1					
Nickel	U	ND	146	486	ug/kg	97.3	1					
Selenium	U	ND	486	2920	ug/kg	97.3	1					
Silver	U	ND	97.3	486	ug/kg	97.3	1					
Thallium	U	ND	486	1950	ug/kg	97.3	1					
Vanadium	U	ND	97.3	486	ug/kg	97.3	1					
Zinc		5240	389	1950	ug/kg	97.3	1					

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
GEL Prep Method	Laboratory Composite				2133413
SW846 3050B	SW846 3050B Prep	SM1	06/08/21	0955	2134383
SW846 6850 Modified	EPA 6850 Perchlorate Extraction Solids	SXC7	06/03/21	1511	2134492
SW846 7471A Prep	EPA 7471A Mercury Prep Soil	AXS5	06/10/21	1630	2137457

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SW846 6850 Modified	
2	SW846 7471A	
3	SW846 3050B/6010D	

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Certificate of Analysis

Report Date: July 23, 2021

Company : GSI Environmental Inc.
Address : 155 Grand Ave
Suite 704
Oakland, California 94612
Contact: Travis Wicks
Project: Near SSFL

Client Sample ID: L-2-210527
Sample ID: 545795002

Project: GSIE00119
Client ID: GSIE002

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
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Notes:

Column headers are defined as follows:

DF: Dilution Factor	Lc/LC: Critical Level
DL: Detection Limit	PF: Prep Factor
MDA: Minimum Detectable Activity	RL: Reporting Limit
MDC: Minimum Detectable Concentration	SQL: Sample Quantitation Limit

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Certificate of Analysis

Company : GSI Environmental Inc.
Address : 155 Grand Ave
Suite 704
Oakland, California 94612
Contact: Travis Wicks
Project: Near SSFL

Report Date: July 23, 2021

Client Sample ID: L-1-210527
Sample ID: 545795001
Matrix: Vegetation
Collect Date: 27-MAY-21
Receive Date: 28-MAY-21
Collector: Client
Moisture: 92.4%

Project: GSIE00119
Client ID: GSIE002

Parameter	Qualifier	Result	Uncertainty	MDC	TPU	RL	Units	PF	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis														
<i>Gammapec, Gamma, Solid vegetation "As Received"</i>														
Cesium-137	U	-0.000333	+/-0.00575	0.0120	+/-0.00575	0.100	pCi/g			MJH1	06/05/21	0923	2135601	1
Rad Gas Flow Proportional Counting														
<i>GFPC, Sr90, Vegetation "As Received"</i>														
Strontium-90	U	-0.0780	+/-0.0532	0.119	+/-0.0532	0.500	pCi/g			JXK3	07/19/21	1222	2150390	2
Rad Liquid Scintillation Analysis														
<i>LSC, Tritium Distillation, Vegetation "As Received"</i>														
Tritium	U	0.242	+/-0.658	1.13	+/-0.661	2.00	pCi/g			KXA1	06/10/21	0139	2135236	3

Solid Preparation

Laboratory Composite "As Received"

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	CXC1	06/02/21	1334	2133767
GEL Prep Method	Laboratory Composite				2133413
GEL Prep Method	Wet Soil Prep GL-RAD-A-026	CXC1	06/02/21	1417	2134242

The following Analytical Methods were performed

Method	Description
1	DOE HASL 300, 4.5.2.3/Ga-01-R
2	EPA 905.0 Modified/DOE RP501 Rev. 1 Modified
3	EPA 906.0 Modified
4	GEL Prep Method

Surrogate/Tracer Recovery	Test	Batch ID	Recovery%	Acceptable Limits
Strontium Carrier	GFPC, Sr90, Vegetation "As Received"	2150390	76.4	(25%-125%)

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Certificate of Analysis

Company : GSI Environmental Inc.
Address : 155 Grand Ave
Suite 704
Oakland, California 94612

Report Date: July 23, 2021

Contact: Travis Wicks

Project: Near SSFL

Client Sample ID: L-1-210527

Sample ID: 545795001

Project: GSIE00119

Client ID: GSIE002

Parameter	Qualifier	Result	Uncertainty	MDC	TPU	RL	Units	PF	DF	Analyst	Date	Time	Batch	Mtd.
Surrogate/Tracer	Recovery	Test						Batch ID	Recovery%	Acceptable Limits				

Notes:

The MDC is a sample specific MDC.

TPU and Counting Uncertainty are calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

DF: Dilution Factor

DL: Detection Limit

Lc/LC: Critical Level

MDA: Minimum Detectable Activity

MDC: Minimum Detectable Concentration

Mtd.: Method

PF: Prep Factor

RL: Reporting Limit

TPU: Total Propagated Uncertainty

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Company : GSI Environmental Inc.
 Address : 155 Grand Ave
 Suite 704
 Oakland, California 94612

Report Date: July 23, 2021

Contact: Travis Wicks
 Project: Near SSFL

Client Sample ID: L-2-210527
 Sample ID: 545795002
 Matrix: Vegetation
 Collect Date: 27-MAY-21
 Receive Date: 28-MAY-21
 Collector: Client
 Moisture: 91.7%

Project: GSIE00119
 Client ID: GSIE002

Parameter	Qualifier	Result	Uncertainty	MDC	TPU	RL	Units	PF	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis														
<i>Gammaspec, Gamma, Solid vegetation "As Received"</i>														
Cesium-137	U	-0.000850	+/-0.00621	0.0119	+/-0.00622	0.100	pCi/g			MJH1	06/05/21	0924	2135601	1
Rad Gas Flow Proportional Counting														
<i>GFPC, Sr90, Vegetation "As Received"</i>														
Strontium-90	U	0.0108	+/-0.0191	0.0332	+/-0.0192	0.500	pCi/g			LXB3	06/08/21	1810	2134055	2
Rad Liquid Scintillation Analysis														
<i>LSC, Tritium Distillation, Vegetation "As Received"</i>														
Tritium	U	0.462	+/-0.569	0.960	+/-0.579	2.00	pCi/g			KXA1	06/10/21	1802	2135236	3

Solid Preparation
Laboratory Composite "As Received"

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	CXC1	06/02/21	1334	2133767
GEL Prep Method	Laboratory Composite				2133413
GEL Prep Method	Wet Soil Prep GL-RAD-A-026	CXC1	06/02/21	1417	2134242

The following Analytical Methods were performed

Method	Description
1	DOE HASL 300, 4.5.2.3/Ga-01-R
2	EPA 905.0 Modified/DOE RP501 Rev. 1 Modified
3	EPA 906.0 Modified
4	GEL Prep Method

Surrogate/Tracer Recovery	Test	Batch ID	Recovery%	Acceptable Limits
Strontium Carrier	GFPC, Sr90, Vegetation "As Received"	2134055	71.9	(25%-125%)

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Certificate of Analysis

Company : GSI Environmental Inc.
Address : 155 Grand Ave
Suite 704
Oakland, California 94612

Report Date: July 23, 2021

Contact: Travis Wicks
Project: Near SSFL

Client Sample ID: L-2-210527
Sample ID: 545795002

Project: GSIE00119
Client ID: GSIE002

Parameter	Qualifier	Result	Uncertainty	MDC	TPU	RL	Units	PF	DF	Analyst	Date	Time	Batch	Mtd.
Surrogate/Tracer	Recovery	Test						Batch ID	Recovery%	Acceptable Limits				

Notes:

The MDC is a sample specific MDC.

TPU and Counting Uncertainty are calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

DF: Dilution Factor

DL: Detection Limit

Lc/LC: Critical Level

MDA: Minimum Detectable Activity

MDC: Minimum Detectable Concentration

Mtd.: Method

PF: Prep Factor

RL: Reporting Limit

TPU: Total Propagated Uncertainty

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QC Summary

Report Date: July 23, 2021

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GSI Environmental Inc.
155 Grand Ave
Suite 704
Oakland, California

Contact: Travis Wicks

Workorder: 545795

Parmname	NOM	Sample	Qual	QC	Units	RPD/D%	REC%	Range	Anlst	Date	Time
LC-MS/MS Perchlorate											
Batch	2134493										
QC1204835034		ICS									
Perchlorate	1.95			2.12	ug/kg		109	(70%-130%)	JLS	06/03/21	19:47
QC1204834915		LCS									
Perchlorate	1.87			1.98	ug/kg		106	(70%-130%)		06/03/21	19:39
QC1204834914		MB									
Perchlorate			U	ND	ug/kg					06/03/21	19:30
QC1204834916		545795001	MS								
Perchlorate	1.74	U	ND	J	1.69	ug/kg	97	(75%-125%)		06/03/21	20:04
QC1204834917		545795001	MSD								
Perchlorate	1.61	U	ND		1.63	ug/kg	3	101	(0%-30%)	06/03/21	20:12
Metals Analysis-ICP											
Batch	2134384										
QC1204834723		LCS									
Antimony	48900			47700	ug/kg		97.5	(80%-120%)	JWJ	06/09/21	00:36
Arsenic	48900			48000	ug/kg		98.2	(80%-120%)			
Barium	48900			46800	ug/kg		95.6	(80%-120%)			
Beryllium	48900			49200	ug/kg		101	(80%-120%)			
Cadmium	48900			47000	ug/kg		96.1	(80%-120%)			
Chromium	48900			46600	ug/kg		95.3	(80%-120%)			

GEL LABORATORIES LLC

2040 Savage Road Charleston, SC 29407 - (843) 556-8171 - www.gel.com

QC Summary

Workorder: 545795

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Parmname	NOM	Sample	Qual	QC	Units	RPD/D%	REC%	Range	Anlst	Date	Time
Metals Analysis-ICP											
Batch	2134384										
Cobalt	48900			46300	ug/kg		94.7	(80%-120%)	JWJ	06/09/21	00:36
Copper	48900			47300	ug/kg		96.7	(80%-120%)			
Lead	48900			47000	ug/kg		96.1	(80%-120%)			
Molybdenum	48900			47000	ug/kg		96	(80%-120%)			
Nickel	48900			46800	ug/kg		95.7	(80%-120%)			
Selenium	48900			48100	ug/kg		98.4	(80%-120%)			
Silver	9780			9380	ug/kg		95.9	(80%-120%)			
Thallium	48900			48700	ug/kg		99.6	(80%-120%)			
Vanadium	48900			47200	ug/kg		96.4	(80%-120%)			
Zinc	48900			47200	ug/kg		96.4	(80%-120%)			
QC1204834722	MB										
Antimony			U	ND	ug/kg					06/09/21	00:32
Arsenic			U	ND	ug/kg						
Barium			U	ND	ug/kg						
Beryllium			U	ND	ug/kg						
Cadmium			U	ND	ug/kg						

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QC Summary

Workorder: 545795

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Parmname	NOM	Sample	Qual	QC	Units	RPD/D%	REC%	Range	Anlst	Date	Time
Metals Analysis-ICP											
Batch	2134384										
Chromium			U	ND	ug/kg				JWJ	06/09/21	00:32
Cobalt			U	ND	ug/kg						
Copper			U	ND	ug/kg						
Lead			U	ND	ug/kg						
Molybdenum			U	ND	ug/kg						
Nickel			U	ND	ug/kg						
Selenium			U	ND	ug/kg						
Silver			U	ND	ug/kg						
Thallium			U	ND	ug/kg						
Vanadium			U	ND	ug/kg						
Zinc			J	619	ug/kg						
QC1204834724 545795001 MS											
Antimony	44700	J	496	41800	ug/kg		92.3	(75%-125%)		06/09/21	00:42
Arsenic	44700	U	ND	41900	ug/kg		93.7	(75%-125%)			
Barium	44700	J	423	42300	ug/kg		93.7	(75%-125%)			
Beryllium	44700	U	ND	44500	ug/kg		99.6	(75%-125%)			

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QC Summary

Workorder: 545795

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Parname	NOM	Sample	Qual	QC	Units	RPD/D%	REC%	Range	Anlst	Date	Time
Metals Analysis-ICP											
Batch	2134384										
Cadmium	44700	U	ND	42200	ug/kg		94.3	(75%-125%)	JWJ	06/09/21	00:42
Chromium	44700	U	ND	42200	ug/kg		94.3	(75%-125%)			
Cobalt	44700	U	ND	42200	ug/kg		94.3	(75%-125%)			
Copper	44700	U	ND	43700	ug/kg		97.8	(75%-125%)			
Lead	44700	U	ND	42500	ug/kg		94.9	(75%-125%)			
Molybdenum	44700	U	ND	42500	ug/kg		94.9	(75%-125%)			
Nickel	44700	U	ND	42800	ug/kg		95.6	(75%-125%)			
Selenium	44700	U	ND	42700	ug/kg		94.8	(75%-125%)			
Silver	8940	U	ND	8460	ug/kg		94.6	(75%-125%)			
Thallium	44700	U	ND	43600	ug/kg		97.4	(75%-125%)			
Vanadium	44700	U	ND	42900	ug/kg		96	(75%-125%)			
Zinc	44700		5770	46700	ug/kg		91.6	(75%-125%)			
QC1204834725 545795001 MSD											
Antimony	47400	J	496	44300	ug/kg	5.9	92.3	(0%-20%)		06/09/21	00:45
Arsenic	47400	U	ND	45200	ug/kg	7.51	95.2	(0%-20%)			
Barium	47400	J	423	45500	ug/kg	7.28	95	(0%-20%)			

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QC Summary

Workorder: 545795

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Parmname	NOM	Sample	Qual	QC	Units	RPD/D%	REC%	Range	Anlst	Date	Time
Metals Analysis-ICP											
Batch	2134384										
Beryllium	47400	U	ND	48000	ug/kg	7.53	101	(0%-20%)	JWJ	06/09/21	00:45
Cadmium	47400	U	ND	45100	ug/kg	6.69	95.1	(0%-20%)			
Chromium	47400	U	ND	45000	ug/kg	6.6	94.9	(0%-20%)			
Cobalt	47400	U	ND	45000	ug/kg	6.58	94.9	(0%-20%)			
Copper	47400	U	ND	46400	ug/kg	6	97.9	(0%-20%)			
Lead	47400	U	ND	45300	ug/kg	6.55	95.6	(0%-20%)			
Molybdenum	47400	U	ND	45600	ug/kg	6.99	96	(0%-20%)			
Nickel	47400	U	ND	45300	ug/kg	5.62	95.3	(0%-20%)			
Selenium	47400	U	ND	45500	ug/kg	6.39	95.3	(0%-20%)			
Silver	9490	U	ND	8990	ug/kg	6.14	94.8	(0%-20%)			
Thallium	47400	U	ND	46400	ug/kg	6.27	97.8	(0%-20%)			
Vanadium	47400	U	ND	45800	ug/kg	6.4	96.5	(0%-20%)			
Zinc	47400		5770	48600	ug/kg	3.91	90.3	(0%-20%)			
QC1204834726 545795001 SDILT											
Antimony		J	5.45	U	ND	ug/L	N/A	(0%-20%)		06/09/21	00:50
Arsenic		U	ND	U	ND	ug/L	N/A	(0%-20%)			

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QC Summary

Workorder: 545795

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Parmname	NOM	Sample	Qual	QC	Units	RPD/D%	REC%	Range	Anlst	Date	Time
Metals Analysis-ICP											
Batch	2134384										
Barium	J	4.64	J	1.03	ug/L	11.2		(0%-20%)	JWJ	06/09/21	00:50
Beryllium	U	ND	U	ND	ug/L	N/A		(0%-20%)			
Cadmium	U	ND	U	ND	ug/L	N/A		(0%-20%)			
Chromium	U	ND	U	ND	ug/L	N/A		(0%-20%)			
Cobalt	U	ND	U	ND	ug/L	N/A		(0%-20%)			
Copper	U	ND	U	ND	ug/L	N/A		(0%-20%)			
Lead	U	ND	U	ND	ug/L	N/A		(0%-20%)			
Molybdenum	U	ND	U	ND	ug/L	N/A		(0%-20%)			
Nickel	U	ND	U	ND	ug/L	N/A		(0%-20%)			
Selenium	U	ND	U	ND	ug/L	N/A		(0%-20%)			
Silver	U	ND	U	ND	ug/L	N/A		(0%-20%)			
Thallium	U	ND	U	ND	ug/L	N/A		(0%-20%)			
Vanadium	U	ND	U	ND	ug/L	N/A		(0%-20%)			
Zinc		63.3	J	13.5	ug/L	6.84		(0%-20%)			

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QC Summary

Workorder: 545795

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Parmname	NOM	Sample	Qual	QC	Units	RPD/D%	REC%	Range	Anlst	Date	Time
Metals Analysis-Mercury											
Batch	2137458										
QC1204840113	545832001	DUP									
Mercury		486		524	ug/kg	7.41		(0%-20%)	MTM1	06/11/21	09:02
QC1204840112	LCS										
Mercury	233			235	ug/kg		101	(80%-120%)		06/11/21	08:53
QC1204840111	MB										
Mercury			U	ND	ug/kg					06/11/21	08:52
QC1204840114	545832001	MS									
Mercury	244	486		762	ug/kg		113	(80%-120%)		06/11/21	09:36
QC1204840115	545832001	SDILT									
Mercury		3.76		0.820	ug/L	9.13		(0%-10%)		06/11/21	13:41

Notes:

The Qualifiers in this report are defined as follows:

- ** Analyte is a surrogate compound
- < Result is less than value reported
- > Result is greater than value reported
- A The TIC is a suspected aldol-condensation product
- B The target analyte was detected in the associated blank.
- C Analyte has been confirmed by GC/MS analysis
- D Results are reported from a diluted aliquot of the sample
- E %difference of sample and SD is >10%. Sample concentration must meet flagging criteria
- E Concentration of the target analyte exceeds the instrument calibration range
- FB Mercury was found present at quantifiable concentrations in field blanks received with these samples. Data associated with the blank are deemed invalid for reporting to regulatory agencies
- H Analytical holding time was exceeded
- J See case narrative for an explanation
- J Value is estimated
- JNX Non Calibrated Compound
- N Metals--The Matrix spike sample recovery is not within specified control limits
- N Organics--Presumptive evidence based on mass spectral library search to make a tentative identification of the analyte (TIC). Quantitation is based on nearest internal standard response factor

GEL LABORATORIES LLC

2040 Savage Road Charleston, SC 29407 - (843) 556-8171 - www.gel.com

QC Summary

Workorder: 545795

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Parmname	NOM	Sample	Qual	QC	Units	RPD/D%	REC%	Range	Anlst	Date	Time
N											
N/A											
N1											
ND											
NJ											
P											
Q											
R											
U											
UJ											
X											
Y											
Y											
^											
h											

N/A indicates that spike recovery limits do not apply when sample concentration exceeds spike conc. by a factor of 4 or more or %RPD not applicable.

^ The Relative Percent Difference (RPD) obtained from the sample duplicate (DUP) is evaluated against the acceptance criteria when the sample is greater than five times (5X) the contract required detection limit (RL). In cases where either the sample or duplicate value is less than 5X the RL, a control limit of +/- the RL is used to evaluate the DUP result.

* Indicates that a Quality Control parameter was not within specifications.

For PS, PSD, and SDILT results, the values listed are the measured amounts, not final concentrations.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the QC Summary.

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

QC Summary

Report Date: July 23, 2021
Page 1 of 3

Client : GSI Environmental Inc.
155 Grand Ave
Suite 704
Oakland, California

Contact: Travis Wicks

Workorder: 545795

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Rad Gamma Spec											
Batch	2135601										
QC1204836688	545795001 DUP										
Cesium-137	U	-0.000333	U	-0.00113	pCi/g	0		N/A	MJH1	06/05/21	10:29
	Uncert:	+/-0.00575		+/-0.00786							
	TPU:	+/-0.00575		+/-0.00788							
QC1204836689	LCS										
Americium-241	92.5			105	pCi/g		113	(75%-125%)	MJH1	06/05/21	09:27
	Uncert:			+/-2.37							
	TPU:			+/-8.31							
Cobalt-60	19.1			19.8	pCi/g		103	(75%-125%)			
	Uncert:			+/-0.567							
	TPU:			+/-1.78							
Cesium-137	32.5			33.8	pCi/g		104	(75%-125%)			
	Uncert:			+/-0.616							
	TPU:			+/-3.12							
QC1204836687	MB										
Cesium-137			U	0.00115	pCi/g				MJH1	06/05/21	09:25
	Uncert:			+/-0.00417							
	TPU:			+/-0.00420							
Rad Gas Flow											
Batch	2134055										
QC1204834240	545795002 DUP										
Strontium-90	U	0.0108	U	-0.00249	pCi/g	0		N/A	LXB3	06/08/21	18:10
	Uncert:	+/-0.0191		+/-0.0170							
	TPU:	+/-0.0192		+/-0.0170							
QC1204834241	LCS										
Strontium-90	0.894			0.886	pCi/g		99.1	(75%-125%)	LXB3	06/08/21	18:10
	Uncert:			+/-0.0542							
	TPU:			+/-0.209							
QC1204834239	MB										
Strontium-90			U	-0.00683	pCi/g				LXB3	06/08/21	18:10
	Uncert:			+/-0.0145							
	TPU:			+/-0.0145							
Batch	2150390										
QC1204863755	545795001 DUP										
Strontium-90	U	-0.0780	U	0.0727	pCi/g	0		N/A	JXK3	07/19/21	12:22
	Uncert:	+/-0.0532		+/-0.0731							
	TPU:	+/-0.0532		+/-0.0750							
QC1204863756	LCS										
Strontium-90	3.56			4.26	pCi/g		120	(75%-125%)	JXK3	07/19/21	14:54
	Uncert:			+/-0.222							
	TPU:			+/-0.993							

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QC Summary

Workorder: 545795

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Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Rad Gas Flow											
Batch		2150390									
QC1204863754		MB									
Strontium-90			U	0.0461	pCi/g				JXK3	07/19/21	12:22
				Uncert:							
				TPU:							
Rad Liquid Scintillation											
Batch		2135236									
QC1204836253		545795001	DUP								
Tritium			U	0.242	U	0.244	pCi/g	0		N/A	KXA1
				Uncert:		+/-0.510					06/10/21
				TPU:		+/-0.513					20:27
QC1204836255		LCS									
Tritium		21.9				17.2	pCi/g	78.3	(75%-125%)	KXA1	06/10/21
				Uncert:		+/-1.48					22:11
				TPU:		+/-4.17					
QC1204836252		MB									
Tritium			U	0.432	pCi/g				KXA1	06/10/21	19:14
				Uncert:		+/-0.506					
				TPU:		+/-0.516					
QC1204836254		545795001	MS								
Tritium		31.2	U	0.242		22.3	pCi/g	71.5 *	(75%-125%)	KXA1	06/10/21
				Uncert:		+/-2.03					21:39
				TPU:		+/-5.45					

Notes:

TPU and Counting Uncertainty are calculated at the 95% confidence level (1.96-sigma).

The Qualifiers in this report are defined as follows:

- ** Analyte is a Tracer compound
- < Result is less than value reported
- > Result is greater than value reported
- BD Results are either below the MDC or tracer recovery is low
- FA Failed analysis.
- H Analytical holding time was exceeded
- J See case narrative for an explanation
- J Value is estimated
- K Analyte present. Reported value may be biased high. Actual value is expected to be lower.
- L Analyte present. Reported value may be biased low. Actual value is expected to be higher.
- M M if above MDC and less than LLD
- M REMP Result > MDC/CL and < RDL
- N/A RPD or %Recovery limits do not apply.
- N1 See case narrative
- ND Analyte concentration is not detected above the detection limit
- NJ Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
- Q One or more quality control criteria have not been met. Refer to the applicable narrative or DER.
- R Sample results are rejected

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QC Summary

Workorder: 545795

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Parmname	NOM	Sample Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
U	Analyte was analyzed for, but not detected above the MDL, MDA, MDC or LOD.									
UI	Gamma Spectroscopy--Uncertain identification									
UJ	Gamma Spectroscopy--Uncertain identification									
UL	Not considered detected. The associated number is the reported concentration, which may be inaccurate due to a low bias.									
X	Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier									
Y	Other specific qualifiers were required to properly define the results. Consult case narrative.									
^	RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.									
h	Preparation or preservation holding time was exceeded									

N/A indicates that spike recovery limits do not apply when sample concentration exceeds spike conc. by a factor of 4 or more or %RPD not applicable.

** Indicates analyte is a surrogate/tracer compound.

^ The Relative Percent Difference (RPD) obtained from the sample duplicate (DUP) is evaluated against the acceptance criteria when the sample is greater than five times (5X) the contract required detection limit (RL). In cases where either the sample or duplicate value is less than 5X the RL, a control limit of +/- the RL is used to evaluate the DUP result.

For PS, PSD, and SDILT results, the values listed are the measured amounts, not final concentrations.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the QC Summary.

545795 545806

FROM: GSI Environmental Inc.
 155 Grand Ave. Suite 704
 Oakland, CA 94612
 (510) 463-8484
 TEL: (510) 463-8484
 E-MAIL: smgallardo@gsi-net.com; tzwick@gsi-net.com
 LABORATORY: GEL Laboratories

PROJECT NAME: AJU-BB
 PROJECT CONTACT: Susan Gallardo
 GLOBAL ID: -

PROJECT NO.: 5182
 LAB CONTACT: Brielle Luthman
 SAMPLER(S): (PRINT) CJB/JCV

LAB USE ONLY	SAMPLE ID	SAMPLING		MATRIX	NO. OF CONT.	PRESERVATION			ANALYSES										
		DATE	TIME			Unpreserved	Preserved	Field Filtered	Sr-90 (90S.0)	Cs-137 (901.1)	H-3 (906)	CA Title 22 Metals (6010/7470)	Perchlorate (314.0)						
	L-1-210527	5/27/21	0926	Lemons	16						X	X	X						
	L-2-210527	5/27/21	1030	Lemons	9						X	X	X						

REQUESTED ANALYSES
 Please check box or fill in blank as needed.

TURNAROUND TIME:
 SAME DAY
 24 HR
 5 DAYS
 72 HR
 48 HR
 STANDARD

SPECIAL INSTRUCTIONS:
 - Sr-90 MDC of 0.5 pCi/g
 - H-3 MDC of 2 pCi/g
 - Cs-137 MDC of 1 pCi/g
 - Include flesh only; no peel

Received by: (Signature) *ANM* Date: 5/27/21 Time: 1200
 Received by: (Signature) *ML* Date: 5/28/21 Time: 1000
 Received by: (Signature) Date: Time:

CJB

SAMPLE RECEIPT & REVIEW FORM

Client: USEE GSEI SDG/AR/COC/Work Order: 545806 545795
 Received By: MLS Date Received: 5-28-21 MB 6/1/21

Carrier and Tracking Number
 Circle Applicable: Ex Express FedEx Ground UPS Field Services Courier Other
7876 6573 5410-6c
7876 6573 5421-20c

Suspected Hazard Information
 *If Net Counts > 100cpm on samples not marked "radioactive", contact the Radiation Safety Group for further investigation.

- A) Shipped as a DOT Hazardous? Yes No Hazard Class Shipped: _____ UN#: _____
 If UN2910, Is the Radioactive Shipment Survey Compliant? Yes ___ No ___
- B) Did the client designate the samples are to be received as radioactive? Yes No COC notation or radioactive stickers on containers equal client designation.
- C) Did the RSO classify the samples as radioactive? Yes No Maximum Net Counts Observed* (Observed Counts - Area Background Counts): 0 CPM mR/Hr
 Classified as: Rad 1 Rad 2 Rad 3
- D) Did the client designate samples are hazardous? Yes No COC notation or hazard labels on containers equal client designation.
- E) Did the RSO identify possible hazards? Yes No If D or E is yes, select Hazards below.
 PCB's Flammable Foreign Soil RCRA Asbestos Beryllium Other: _____

Sample Receipt Criteria		Yes	NA	No	Comments/Qualifiers (Required for Non-Conforming Items)
1	Shipping containers received intact and sealed?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Circle Applicable: Seals broken Damaged container Leaking container Other (describe)
2	Chain of custody documents included with shipment?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Circle Applicable: Client contacted and provided COC COC created upon receipt
3	Samples requiring cold preservation within (0 ≤ 6 deg. C)?*	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Preservation Method: <u>Wet Ice</u> Ice Packs Dry ice None Other: _____ *all temperatures are recorded in Celsius TEMP: _____
4	Daily check performed and passed on IR temperature gun?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Temperature Device Serial #: <u>IR3-21</u> Secondary Temperature Device Serial # (If Applicable): _____
5	Sample containers intact and sealed?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Circle Applicable: Seals broken Damaged container Leaking container Other (describe)
6	Samples requiring chemical preservation at proper pH?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Sample ID's and Containers Affected: _____
7	Do any samples require Volatile Analysis?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	If Preservation added, Lot#: _____ If Yes, are Encores or Soil Kits present for solids? Yes ___ No ___ NA ___ (If yes, take to VOA Freezer) Do liquid VOA vials contain acid preservation? Yes ___ No ___ NA ___ (If unknown, select No) Are liquid VOA vials free of headspace? Yes ___ No ___ NA ___ Sample ID's and containers affected: _____
8	Samples received within holding time?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	ID's and tests affected: _____
9	Sample ID's on COC match ID's on bottles?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	ID's and containers affected: _____
10	Date & time on COC match date & time on bottles?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Circle Applicable: No dates on containers No times on containers COC missing info Other (describe)
11	Number of containers received match number indicated on COC?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Circle Applicable: No container count on COC Other (describe)
12	Are sample containers identifiable as GEL provided by use of GEL labels?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<u>missing 1 cooler</u>
13	COC form is properly signed in relinquished/received sections?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Circle Applicable: Not relinquished Other (describe)

Comments (Use Continuation Form if needed):

List of current GEL Certifications as of 23 July 2021

State	Certification
Alabama	42200
Alaska	17-018
Alaska Drinking Water	SC00012
Arkansas	88-0651
CLIA	42D0904046
California	2940
Colorado	SC00012
Connecticut	PH-0169
DoD ELAP/ ISO17025 A2LA	2567.01
Florida NELAP	E87156
Foreign Soils Permit	P330-15-00283, P330-15-00253
Georgia	SC00012
Georgia SDWA	967
Hawaii	SC00012
Idaho	SC00012
Illinois NELAP	200029
Indiana	C-SC-01
Kansas NELAP	E-10332
Kentucky SDWA	90129
Kentucky Wastewater	90129
Louisiana Drinking Water	LA024
Louisiana NELAP	03046 (AI33904)
Maine	2019020
Maryland	270
Massachusetts	M-SC012
Massachusetts PFAS Approv	Letter
Michigan	9976
Mississippi	SC00012
Nebraska	NE-OS-26-13
Nevada	SC000122021-1
New Hampshire NELAP	2054
New Jersey NELAP	SC002
New Mexico	SC00012
New York NELAP	11501
North Carolina	233
North Carolina SDWA	45709
North Dakota	R-158
Oklahoma	2019-165
Pennsylvania NELAP	68-00485
Puerto Rico	SC00012
S. Carolina Radiochem	10120002
Sanitation Districts of L	9255651
South Carolina Chemistry	10120001
Tennessee	TN 02934
Texas NELAP	T104704235-21-19
Utah NELAP	SC000122021-35
Vermont	VT87156
Virginia NELAP	460202
Washington	C780

Perchlorates by LCMSMS

Product: Definitive Low Level Perchlorate Analysis Utilizing Liquid Chromatography/Mass Spectrometry/Mass Spectrometry (LC/MS/MS) by EPA Method 6850 Modified (6850M)

Analytical Method: SW846 6850 Modified

Analytical Procedure: GL-OA-E-067 REV# 15

Analytical Batches: 2134493 and 2134492

Composite Preparation Method: GEL Prep Method

Composite Preparation Procedure: GL-RAD-A-026 REV# 18

Composite Preparation Batch: 2133413

The following samples were analyzed using the above methods and analytical procedure(s).

<u>GEL Sample ID#</u>	<u>Client Sample Identification</u>
545795001	L-1-210527
545795002	L-2-210527
1204834914	Method Blank (MB)
1204834915	Laboratory Control Sample (LCS)
1204834916	545795001(L-1-210527) Matrix Spike (MS)
1204834917	545795001(L-1-210527) Matrix Spike Duplicate (MSD)
1204835034	Interference Check Sample (ICS)

The samples in this SDG were analyzed on an "as received" basis.

Data Summary:

There are no exceptions, anomalies or deviations from the specified methods. All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable.

Metals

Product: Determination of Metals by ICP

Analytical Method: SW846 3050B/6010D

Analytical Procedure: GL-MA-E-013 REV# 32

Analytical Batch: 2134384

Preparation Method: SW846 3050B

Preparation Procedure: GL-MA-E-009 REV# 29

Preparation Batch: 2134383

Composite Preparation Method: GEL Prep Method

Composite Preparation Procedure: GL-RAD-A-026 REV# 18

Composite Preparation Batch: 2133413

The following samples were analyzed using the above methods and analytical procedure(s).

<u>GEL Sample ID#</u>	<u>Client Sample Identification</u>
545795001	L-1-210527
545795002	L-2-210527
1204834722	Method Blank (MB)ICP
1204834723	Laboratory Control Sample (LCS)
1204834726	545795001(L-1-210527L) Serial Dilution (SD)
1204834724	545795001(L-1-210527S) Matrix Spike (MS)
1204834725	545795001(L-1-210527SD) Matrix Spike Duplicate (MSD)

The samples in this SDG were analyzed on an "as received" basis.

Data Summary:

All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable, with the following exceptions.

Technical Information

Preparation/Analytical Method Verification

Method SW-846 3050B is not a total digestion technique for most samples. It is a very strong acid digestion that will dissolve almost all elements that could become environmentally available. By design, elements bound in silicate structures are not normally dissolved by this procedure as they are not usually mobile in the environment.

Product: Mercury Analysis Using the Perkin Elmer Automated Mercury Analyzer

Analytical Method: SW846 7471A

Analytical Procedure: GL-MA-E-010 REV# 38

Analytical Batch: 2137458

Preparation Method: SW846 7471A Prep

Preparation Procedure: GL-MA-E-010 REV# 38

Preparation Batch: 2137457

Composite Preparation Method: GEL Prep Method

Composite Preparation Procedure: GL-RAD-A-026 REV# 18

Composite Preparation Batch: 2133413

The following samples were analyzed using the above methods and analytical procedure(s).

<u>GEL Sample ID#</u>	<u>Client Sample Identification</u>
545795001	L-1-210527
545795002	L-2-210527
1204840111	Method Blank (MB)CVAA
1204840112	Laboratory Control Sample (LCS)
1204840115	545832001(NonSDGL) Serial Dilution (SD)
1204840113	545832001(NonSDGD) Sample Duplicate (DUP)
1204840114	545832001(NonSDGS) Matrix Spike (MS)

The samples in this SDG were analyzed on an "as received" basis.

Data Summary:

There are no exceptions, anomalies or deviations from the specified methods. All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable.

Radiochemistry

Product: Dry Weight

Preparation Method: Dry Soil Prep

Preparation Procedure: GL-RAD-A-021 REV# 24

Preparation Batch: 2133767

Composite Preparation Method: GEL Prep Method

Composite Preparation Procedure: GL-RAD-A-026 REV# 18

Composite Preparation Batch: 2133413

The following samples were analyzed using the above methods and analytical procedure(s).

<u>GEL Sample ID#</u>	<u>Client Sample Identification</u>
545795001	L-1-210527
545795002	L-2-210527

The samples in this SDG were analyzed on an "as received" basis.

Data Summary:

There are no exceptions, anomalies or deviations from the specified methods. All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable.

Product: Gammaspec, Gamma, Solid vegetation

Analytical Method: DOE HASL 300, 4.5.2.3/Ga-01-R

Analytical Procedure: GL-RAD-A-013 REV# 27

Analytical Batch: 2135601

Preparation Method: GEL Prep Method

Preparation Procedure: GL-RAD-A-026 REV# 18

Preparation Batch: 2134242

The following samples were analyzed using the above methods and analytical procedure(s).

<u>GEL Sample ID#</u>	<u>Client Sample Identification</u>
545795001	L-1-210527
545795002	L-2-210527
1204836687	Method Blank (MB)
1204836688	545795001(L-1-210527) Sample Duplicate (DUP)

The samples in this SDG were analyzed on an "as received" basis.

Data Summary:

There are no exceptions, anomalies or deviations from the specified methods. All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable.

Product: GFPC, Sr90, Vegetation

Analytical Method: EPA 905.0 Modified/DOE RP501 Rev. 1 Modified

Analytical Procedure: GL-RAD-A-004 REV# 21

Analytical Batch: 2134055

Preparation Method: Dry Soil Prep

Preparation Procedure: GL-RAD-A-021 REV# 24

Preparation Batch: 2133767

Composite Preparation Method: GEL Prep Method

Composite Preparation Procedure: GL-RAD-A-026 REV# 18

Composite Preparation Batch: 2133413

The following samples were analyzed using the above methods and analytical procedure(s).

<u>GEL Sample ID#</u>	<u>Client Sample Identification</u>
545795002	L-2-210527
1204834239	Method Blank (MB)
1204834240	545795002(L-2-210527) Sample Duplicate (DUP)
1204834241	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on an "as received" basis.

Data Summary:

All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable, with the following exceptions.

Technical Information

Recounts

Sample 545795001 (L-1-210527) was taken through additional clean-up steps and recounted to confirm the result. The recount is reported.

Product: GFPC, Sr90, Vegetation

Analytical Method: EPA 905.0 Modified/DOE RP501 Rev. 1 Modified

Analytical Procedure: GL-RAD-A-004 REV# 22

Analytical Batch: 2150390

Preparation Method: Dry Soil Prep

Preparation Procedure: GL-RAD-A-021 REV# 24

Preparation Batch: 2133767

Composite Preparation Method: GEL Prep Method

Composite Preparation Procedure: GL-RAD-A-026 REV# 18

Composite Preparation Batch: 2133413

The following samples were analyzed using the above methods and analytical procedure(s).

<u>GEL Sample ID#</u>	<u>Client Sample Identification</u>
545795001	L-1-210527
1204863754	Method Blank (MB)
1204863755	545795001(L-1-210527) Sample Duplicate (DUP)
1204863756	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on an "as received" basis.

Data Summary:

All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable, with the following exceptions.

Technical Information

Sample Re-prep/Re-analysis

Samples were re-prepped to verify the results. The re-analysis is being reported.

Recounts

Sample 1204863756 (LCS) was recounted due to high recovery. The recount is reported.

Product: LSC, Tritium Distillation, Vegetation

Analytical Method: EPA 906.0 Modified

Analytical Procedure: GL-RAD-A-002 REV# 23

Analytical Batch: 2135236

Composite Preparation Method: GEL Prep Method

Composite Preparation Procedure: GL-RAD-A-026 REV# 18

Composite Preparation Batch: 2133413

The following samples were analyzed using the above methods and analytical procedure(s).

<u>GEL Sample ID#</u>	<u>Client Sample Identification</u>
------------------------------	--

545795001	L-1-210527
545795002	L-2-210527
1204836252	Method Blank (MB)
1204836253	545795001(L-1-210527) Sample Duplicate (DUP)
1204836254	545795001(L-1-210527) Matrix Spike (MS)
1204836255	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on an "as received" basis.

Data Summary:

All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable, with the following exceptions.

Quality Control (QC) Information

Matrix Spike (MS) Recovery

Matrix spike (See Below) recovery requirement not met due to the matrix of the sample.

Sample	Analyte	Value
1204836254 (L-1-210527MS)	Tritium	71.5* (75%-125%)

Technical Information

Recounts

Sample 1204836254 (L-1-210527MS) was recounted to verify sample results. The recount results are similar to the original results. Original results are reported.

Miscellaneous Information

Additional Comments

The matrix spike, 1204836254 (L-1-210527MS), aliquot was reduced to conserve sample volume.

Certification Statement

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.