August 1, 2023

Mr. Adrian Breitfeld, MAJCS, MBA
American Jewish University
15600 Mulholland Drive
Los Angeles, California 90077

*Via email: adrian.breitfeld@aju.edu*

**Subject:** **2023 Monitoring Report**
American Jewish University, Brandeis-Bardin Campus
1101 Peppertree Lane
Brandeis, California

Dear Mr. Breitfeld:

GSI Environmental Inc. (GSI) has prepared this letter to document the 2023 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 or Campus; 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). This letter provides a summary of the sampling activities conducted by GSI in 2023, analytical testing results of media samples, and our evaluation of the analytical data regarding potential environmental impacts at the Site.

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 also in 2020, 2021, and 2022. No evidence of chemical impacts from the SSFL were detected from any of these events (GSI, 2019, 2020, 2021, and 2022).[1]

[1] https://www.aju.edu/about-aju/our-campuses/brandeis-bardin-safety-data

## 2023 Sampling Program

As in past years, samples were collected from high-use and drainage areas on the Brandeis-Bardin Campus; available crop samples (grapefruit, lemon, and orange) were also collected. The 2023 sampling locations and sample analyses are presented on Table 1. Sampling methodologies and analytical testing methods were consistent with those of previous sampling events, as most recently described in the GSI 2021 Monitoring Report.[2]

Sampling locations were consistent with previous sampling events to enable correlation among the annual sampling events, with one exception. Sample location SRE-SED-2 was replaced with sample location SRE-SED-3, as location SRE-SED-2 could not be accessed due to dense vegetation. As shown on Figure 7, sample location SRE-SED-3 is downhill and within the same drainage flow path as SRE-SED-2.

## Analytical Testing Results

Laboratory analytical results are tabulated in Tables 2 through 7 and summarized below by area. Laboratory reports are included as Attachments A through C.

### *Data Validation*

The analytical results were reviewed in accordance with USEPA-published guidance. Results between the reporting limit and detection limit for a compound are flagged with a "J" to indicate the result is an estimation. Results that are shown with a "B" indicate that the constituent also was detected in the laboratory method blank. A data validation summary is presented as Attachment D. All sample results are considered usable, and data quality is judged to be adequate for the intended purpose.

### *Screening Criteria*

Analytical results are evaluated by comparison to health-based screening levels. For those constituents that could be naturally occurring, such as metals and radionuclides, regional background concentrations were also used to evaluate the data. Screening levels and background values for each constituent are presented with the analytical results on Tables 2 through 7.

### *High Use Area Sample Results*

Soil samples from high use areas within the Main Campus were collected at Terry Field, the Kids' Cabins, Gan Field, Counselor in Training (CIT) Cabins, Alpine Tower, and Hidden Valley Camp. The general sample locations are shown on Figures 3 and 4and the analytical results are discussed below.

<u>Metals and Perchlorate Results</u>

Analytical results for metals and perchlorate in soil samples are tabulated on Table 2, and the laboratory data report is included in Attachment A. All compounds were either (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 results appear consistent with natural conditions and do not indicate migration of contaminants from the SSFL or other anthropogenic sources.

[2] GSI Environmental Inc., 2021, 2021 Monitoring Report, American Jewish University, Brandeis-Bardin Campus, 1101 Peppertree Lane, Brandeis, California, 24 August.

Radionuclide Results

Analytical results for radionuclides in soil samples are tabulated on Table 3, and the laboratory data report is included in Attachment A. Radionuclides were either not detected in the high use areas above their respective minimum detectable concentrations or were lower than published background levels and health-based screening levels. These results appear consistent with natural conditions and do not indicate migration from the SSFL or other anthropogenic sources.

### *Upgradient Drainage Area Sample Results*

This section summarizes analytical results for the sediment and spring water samples collected from upgradient drainages near the southern boundary of the Site, which is adjacent to the buffer zone (designated as the Northern Buffer Zone, or NBZ) between SSFL and the Site. Sampling locations are shown on Figures 5 through 10.

Metals and Perchlorate Results

Analytical results for metals and perchlorate in sediment samples are tabulated on Table 2; laboratory data reports are included in Attachment A. In sediment samples, 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 and perchlorate in spring and surface water samples are tabulated on Table 4. Laboratory data reports are included in Attachment B. Barium, beryllium, chromium, copper, lead, molybdenum, silver, vanadium, and zinc were detected in one or more water samples at concentrations below their respective health-based screening levels. Arsenic was detected in a single sample, OW-W,[3] at a concentration of 0.022 milligrams per liter (mg/L), which is above the health-based screening level of 0.010 mg/L and the SSFL groundwater comparison concentration. Although arsenic has not been detected during past monitoring events, the range of background arsenic concentrations is 0.00012 mg/L to 0.320 mg/L (total of 125 samples in the data set; MWH Americas Inc., 2014). Because the arsenic concentration detected during the 2023 monitoring event is within the background range, the results do not indicate an impact from SSFL or other anthropogenic sources.

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

Radionuclide Results

Analytical results for radionuclides in sediment and water samples are tabulated on Tables 3 and 5, and laboratory data reports are included in Attachments A and B. Radionuclides were not detected above their respective published background levels or health-based screening levels in spring or surface water samples.

In sediment samples, tritium, strontium, and cesium, where detected, were within the range of their respective background concentrations. The results appear consistent with natural conditions and do not indicate migration from the SSFL or other anthropogenic sources.

### *Fruit Sample Results*

Consistent with past events, fruit samples were obtained from trees with ripe fruit at the time of sampling, to the extent available. GSI collected grapefruit, lemon, and orange samples from the

[3] Location OW-W is located near the Old Wells Camp and the southwestern boundary of the Site.

Main Campus Area; sampling locations are shown on Figure 11. No avocado or apple were available on Site during the May 2023 sampling event. GSI also purchased one grapefruit, one lemon, and one orange from a local grocery store to serve as references. Analytical results for metals and perchlorate for both the on-Site and reference samples are tabulated on Table 6, and results for radionuclides are on Table 7. Laboratory data reports are included in Attachment C.

Antimony, arsenic, barium, copper, nickel, selenium, and zinc were detected in the on-Site fruit samples at concentrations consistent with the concentrations of the same metals in the reference fruit samples (Table 6).[4]

The concentration of selenium in the on-Site orange sample was slightly greater than its risk-based screening level. However, as noted in the data validation summary presented in Attachment D, the detections of selenium in the on-Site fruit are estimates as this constituent was presented with a "J flag", when detected, in the fruit samples. A similar concentration of selenium was also observed in the off-Site reference orange sample, and selenium was also detected in the off-Site reference grapefruit sample.

The concentration of arsenic in the on-Site grapefruit and orange sample was greater than its risk-based screening level; however, a similar concentration of arsenic was also observed in the off-Site reference grapefruit, orange, and lemon samples. Concentrations of all other tested metals were well below their respective fruit-specific risk-based screening levels and reference sample concentrations. No other metals were detected in the samples.

Perchlorate was detected in both the on-Site grapefruit and orange, and the reference lemon, at concentrations below the risk-based screening level for these fruits.

Radionuclides were not detected in fruit samples above their respective minimum detectable concentrations. The minimum detectable concentrations for each radionuclide were below their respective risk-based screening levels.

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.

## Conclusions

Results from the 2023 sampling event are consistent with analytical testing of media that has occurred at the Brandeis-Bardin campus since 1991. Analytical results of samples taken in high-use areas, in drainage channels located at the border between the campus and the NBZ, and from fruit grown on Site appear consistent with natural conditions and do not indicate impacts from the SSFL or other anthropogenic sources.

[4] 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.

Should you have any questions regarding the information presented herein, please contact either of the undersigned.

Sincerely,

GSI Environmental, Inc.

Susan Gallardo, PE
Principal Engineer

Matthew Goerz
Senior Scientist

Attachments:

Table 1 Sampling and Analysis Summary
Table 2 Soil and Sediment Analytical Results – Metals and Perchlorate
Table 3 Soil and Sediment Analytical Results – Radionuclides
Table 4 Spring and Surface Water Analytical Results – Metals and Perchlorate
Table 5 Spring and Surface Water Analytical Results – Radionuclides
Table 6 Fruit Analytical Results – Metals and Perchlorate
Table 7 Fruit Analytical Results - Radionuclides

Figure 1 Site Location Map
Figure 2 Site Map and Features
Figure 3 High Use (Main Campus) Area Map and Sampling Locations
Figure 4 Hidden Valley Camp Sampling Locations
Figure 5 Sampling Locations OS357-W and BP-SED-1
Figure 6 Sampling Location RRMDF-SED-1 and RRMDF-W
Figure 7 Sampling Locations 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 and OW-W
Figure 11 Fruit Orchard Sampling Locations

Attachment A. Analytical Laboratory Reports – Soil and Sediment Samples
Attachment B. Analytical Laboratory Reports – Water Samples
Attachment C. Analytical Laboratory Reports – Fruit Samples
Attachment D. Data Validation Summary

# 2023 MONITORING REPORT
## AJU Brandeis-Bardin Campus
Brandeis, CA

## TABLES

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## TABLE 1: SAMPLING AND ANALYSIS SUMMARY

**AJU Brandeis-Bardin Campus**
Brandeis, California

| Sampling Location | Campus Area | Sample Type | Analyses[1] | | | | |
|---|---|---|---|---|---|---|---|
| | | | Metals[2] | Perchlorate[2] | Strontium-90[3] | Tritium[3] | Cesium-137[3] |
| | | | 6010B and 7471A | 314.0 | 905.0 | GL-RAD-A-002 or 906.0[4] | 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 | X | X | X | X | X |
| OS1-SED-1 | | Sediment | X | X | X | X | X |
| OS357-W | Springs OS3, 5, and 7 | Water | 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-D** | Downstream from the reactor and RMDF portions of the SSFL | Sediment | X | X | X | X | X |
| RRMDF-W | | Water | X | X | X | X | X |
| **SRE-SED-3** | Downstream from the sodium reactor portion of the SSFL | Sediment | X | X | X | X | X |
| SRE-W | | Water | X | X | X | X | X |
| OS8-SED-1 | Downstream of Spring OS8 | Sediment | X | X | X | X | X |
| OS8-W | | Water | X | X | X | X | X |
| OW-SED-1 | Old Well Camp area | Sediment | X | X | X | X | X |
| **OW-W** | | Water | 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 | X | X | X | X | X |
| L-1 | | Lemon | X | X | X | X | X |
| O-1 | | Orange | X | X | X | X | X |
| 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 | X | X | X | X | X |
| L-2 | | Lemon | X | X | X | X | X |
| O-2 | | Orange | X | X | X | X | X |

Notes:

1. Methods shown are U.S. Envionmental Protection Agency methods, except as noted.
2. Samples analyzed by Eurofins Calscience of Irvine, except for fruit samples, which were analyzed by GEL Laboratories of Charleston, SC.
3. Samples analyzed by GEL Laboratories of Charleston, SC.
4. Soil/sediment samples analyzed using method GL-RAD-A-002; fruit samples were analyzed using EPA Method 906.0.
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
CIT = counselor-in-training
SSFL = Santa Susana Field Laboratory
**bold** = new sample

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## TABLE 2: SOIL AND SEDIMENT ANALYTICAL RESULTS - METALS AND PERCHLORATE

**AJU Brandeis-Bardin Campus**
Brandeis, California

| Sample Location Name | Sample Name | Matrix | Date Collected | Title 22 Metals[1] | | | | | | | | | | | | | | | | Perchlorate[3] | NDMA[4] |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Antimony | Arsenic | Barium | Beryllium | Cadmium | Chromium | Cobalt | Copper | Lead | Mercury[2] | Molybdenum | Nickel | Selenium | Silver | Thallium | Vanadium | Zinc | |
| | | | | mg/kg | | | | | | | | | | | | | | | | | |
| ***High Use Area Samples*** | | | | | | | | | | | | | | | | | | | | | |
| HV-1 | HV-1-190422 | Soil | 4/22/2019 | <1.8 UJ | **6.9** | **100** | **0.54** | <0.44 | **15** | **5.9** | <5.3 | **5.0** | <0.014 | <1.8 | **9.4** | <3.5 | <0.88 | <1.8 | **29** | **62** | <0.039 | – |
| | HV-1-200603 | | 6/3/2020 | <10 UJ | **5.4** | **62** | <0.50 | <0.50 | **11** | **3.5** | **7.4** | **4.0** | <0.020 | <2.0 | **6.5** | <3.0 | <1.5 | <10 | **20** | **47** | <0.040 | – |
| | HV-1-210526 | | 5/26/2021 | **19** | **5.0** | **66** | **0.86** | <0.20 | **12** | **3.6** | **6.6** | **4.5** | <0.039 | <2.0 | **6.4** | <2.0 | <0.49 | <2.0 | **20** | **46** | <0.040 | – |
| | HV-1-220511[5] | | 5/11/2022 | <0.93 | **4.8** | **68** | **0.11 J** | **0.12 J** | **11** | **3.6** | **6.6** | **4.5** | <0.0077 | <0.74 | **6.5** | <1.4 | <0.089 | <0.83 | **19** | **45** | <0.020 | – |
| | HV-1-230517[5] | | 5/17/2023 | <0.68 | **4.6** | **54** | **0.36** | **0.11 J** | **9.0** | **3.1** | **5.3 B** | **3.8** | <0.0081 | <0.54 | **5.7** | <1.00 | <0.065 | <0.60 | **17** | **39** | <0.020 | – |
| HV-2 | HV-2-190422 | Soil | 4/22/2019 | <1.9 UJ | **5.5** | **77** | **0.37** | <0.47 | **18** | **5.7** | <5.6 | **12** | **0.017** | <1.9 | **11** | <3.7 | **1.8** | <1.9 | **30** | **64** | <0.040 | – |
| | HV-2-200603 | | 6/3/2020 | <10 UJ | **3.3** | **48** | **0.56** | <0.51 | **13** | **3.8** | **8.1** | **8.4** | <0.020 | <2.0 | **8.5** | <3.0 | <1.5 | <10 | **21** | **43** | <0.040 | – |
| | HV-2-210526 | | 5/26/2021 | **21** | **4.5** | **58** | **0.90** | **0.20** | **15** | **4.2** | **10** | **14** | <0.039 | <2.0 | **9.2** | <2.0 | **1.4** | <2.0 | **23** | **50** | <0.200 | – |
| | HV-2-220511[5] | | 5/11/2022 | <0.93 | **4.5** | **54** | **0.84** | **0.094 J** | **14** | **4** | **7.1** | **9.5** | **0.0089 J** | <0.76 | **8.8** | <1.4 | **1.1** | **0.92 J** | **21** | **48** | <0.100 | – |
| | HV-2-230517[5] | | 5/17/2023 | <0.95 | **3.1** | **46** | **0.3** | **0.16 J** | **12** | **3.5** | **10 B** | **7.9** | **0.012 J** | <0.76 | **7.4** | <1.4 | **0.74** | <0.85 | **18** | **40** | <0.020 | – |
| HV-SED-1 | HV-SED-1-190422 | Sediment | 4/22/2019 | <1.4 UJ | **3.8** | **53** | <0.29 | <0.36 | **11** | **3.8** | <4.3 | **7.5** | <0.016 | <1.4 | **6.7** | <2.9 | <0.71 | <1.4 | **21** | **42** | <0.040 | – |
| | HV-SED-1-200603 | | 6/3/2020 | <10 UJ | **3.1** | **53** | <0.50 | <0.50 | **11** | **3.7** | **8.5** | **9.3** | **0.024** | <2.0 | **7.1** | <3.0 | <1.5 | <10 | **22** | **44** | <0.040 | – |
| | HV-SED-1-210526 | | 5/26/2021 | **17** | **3.9** | **47** | **0.75** | <0.20 | **11** | **3.2** | **7.1** | **8.9** | <0.039 | <2.0 | **6.7** | <2.0 | <0.50 | <2.0 | **19** | **43** | <0.039 | – |
| | HV-SED-1-220511[5] | | 5/11/2022 | <0.91 | **3.1** | **42** | **0.055 J** | **0.15 J** | **9.0** | **3.2** | **6.4** | **6.9** | <0.0075 | <0.73 | **6.1** | <1.4 | **0.19 J** | <0.82 | **17** | **39** | <0.020 | – |
| | HV-SED-1-230517[5] | | 5/17/2023 | <0.91 | **2.1** | **34** | **0.25** | **0.12 J** | **7.4** | **2.5** | **6.3 B** | **5.0** | <0.0079 | <0.73 | **4.9** | <1.4 | **0.095 J** | <0.82 | **14** | **31** | <0.020 | |
| TF-1 | TF-1-190422 | Soil | 4/22/2019 | <1.1 UJ | **4.6** | **110** | **0.34** | <0.27 | **16** | **7.1** | **13** | **9.7** | <0.015 | <1.1 | **10** | <2.1 | <0.53 | <1.1 | **35** | **50** | <0.040 | – |
| | TF-1-200603 | | 6/3/2020 | <10 UJ | **5.3** | **88** | <0.50 | <0.50 | **16** | **6.3** | **19** | **8.5** | <0.020 | <2.0 | **11** | <3.0 | <1.5 | <10 | **34** | **52** | <0.040 | – |
| | TF-1-210526 | | 5/26/2021 | **17** | **5.6** | **84** | **1.0** | **0.20** | **20** | **7.6** | **21** | **11** | <0.039 | <2.0 | **13** | <2.0 | <0.5 | <2.0 | **39** | **55** | <0.200 | – |
| | TF-1-220510[5] | | 5/10/2022 | <0.90 | **4.5** | **89** | **0.19** | **0.16 J** | **13** | **5.6** | **15** | **7.8** | <0.0083 | <0.72 | **9.9** | <1.3 | <0.087 | <0.81 | **29** | **44** | <0.20 | – |
| | TF-1-230516[5] | | 5/16/2023 | <0.97 | **4.4** | **90** | **0.39** | **0.23** | **13** | **5.5** | **17 B** | **7.3** | <0.0080 | <0.77 | **8.4** | <1.4 | <0.093 | <0.87 | **31** | **71** | <0.020 | |
| KC-1 | KC-1-190422 | Soil | 4/22/2019 | <1.8 UJ | **5.6** | **75** | **0.44** | <0.45 | **18** | **6.8** | **8.6** | **9.6** | <0.016 | <1.8 | **12** | <3.6 | <0.89 | <1.8 | **36** | **64** | <0.040 | – |
| | KC-1-200603 | | 6/3/2020 | <10 UJ | **5.9** | **60** | <0.50 | <0.50 | **16** | **4.9** | **10** | **8.8** | <0.020 | **2.8** | **9.6** | <3.0 | <1.5 | <10 | **32** | **46** | <0.040 | – |
| | KC-1-210527 | | 5/27/2021 | **13** | **4.4** | **49** | **0.75** | <0.20 | **14** | **4.5** | **8.2** | **9.6** | <0.039 | <2.0 | **8.3** | <2.0 | <0.49 | <2.0 | **27** | **49** | <0.039 | – |
| | KC-1-220511[5] | | 5/11/2022 | <0.94 | **5.5** | **61** | **0.85** | **0.064 J** | **17** | **6** | **10** | **10** | <0.0075 | **1.00 J** | **11** | **2.7** | **0.44 J** | <0.86 | **34** | **55** | <0.099 | – |
| | KC-1-230517[5] | | 5/17/2023 | <0.97 | **5.1** | **53** | **0.42** | **0.095 J** | **15** | **5.2** | **9.8 B** | **9.1** | **0.0082 J** | **0.79 J** | **10** | <1.4 | <0.093 | <0.87 | **30** | **52** | <0.020 | – |
| GF-1 | GF-1-190422 | Soil | 4/22/2019 | <1.8 UJ | **4.0** | **64** | **0.37** | <0.45 | **15** | **5.6** | **6.0** | **8.6** | **0.015** | <1.8 | **9.7** | <3.6 | <0.91 | <1.8 | **31** | **80** | <0.040 | – |
| | GF-1-200603 | | 6/3/2020 | <10 UJ | <3.1 | **30** | <0.51 | <0.51 | **6.1** | **1.9** | **4.5** | <2.0 | <0.020 | <2.0 | **3.8** | <3.1 | <1.5 | <10 | **13** | **27** | <0.040 | – |
| | GF-1-210527 | | 5/27/2021 | **12** | **2.9** | **41** | **0.62** | **0.21** | **10** | **3.7** | **7.3** | **5.7** | <0.038 | <2.0 | **6.7** | <2.0 | <0.50 | <2.0 | **22** | **60** | <0.200 | – |
| | GF-1-220512[5] | | 5/12/2022 | <0.91 | **1.8 J** | **28** | **0.38** | **0.090 J** | **6.7** | **2.3** | **4.6** | **3.4** | **0.0095 J** | <0.71 | **4.3** | <1.3 | <0.085 | <0.79 | **14** | **39** | <0.20 | – |
| | GF-1-230518[5] | | 5/18/2023 | <0.90 | **2.9** | **43** | **0.32** | **0.14 J** | **10** | **3.8** | **7.0 B** | **6.2** | **0.0082 J** | <0.72 | **6.9** | <1.3 | <0.087 | <0.81 | **22** | **62** | <0.020 | – |
| CIT-1 | CIT-1-190422 | Soil | 4/22/2019 | <1.7 UJ | <3.3 | **38** | <0.33 | <0.41 | **9.0** | **2.9** | **5.1** | **5.5** | <0.016 | <1.7 | **5.5** | <3.3 | <0.83 | <1.7 | **15** | **45** | <0.040 | – |
| | CIT-1-200603 | | 6/2/2020 | <10 UJ | <3.0 | **32** | <0.51 | <0.51 | **9.8** | **2.5** | **7.1** | **5.8** | <0.020 | <2.0 | **5.8** | <3.0 | <1.5 | <10 | **16** | **44** | <0.040 | – |
| | CIT-1-210525 | | 5/25/2021 | **12** | **2.7** | **44** | **0.63** | <0.20 | **12** | **3.9** | **8.9** | **8.7** | <0.039 | <2.0 | **7.4** | <2.0 | <0.49 | <2.0 | **21** | **52** | <0.200 | – |
| | CIT-1-220510[5] | | 5/10/2022 | <0.90 | **2.5** | **42** | **0.14 J** | **0.18 J** | **10** | **3.7** | **7.4** | **8.5** | <0.0080 | <0.72 | **6.5** | <1.3 | <0.087 | <0.81 | **19** | **47** | <0.50 | – |
| | CIT-1-230516[5] | | 5/16/2023 | <0.97 | **2.9** | **44** | **0.36** | **0.18 J** | **10** | **4.2** | **9.6 B** | **10** | **0.0085 J** | <0.77 | **7** | <1.4 F1 | <0.093 F1 | <0.87 | **21** | **49** | <0.020 | – |
| AT-1 | AT-1-190422 | Soil | 4/22/2019 | <1.2 UJ | **4.4** | **110** | **0.50** | **0.31** | **19** | **7.8** | **9.8** | **9.0** | <0.016 | <1.2 | **14** | <2.5 | <0.62 | <1.2 | **38** | **44** | <0.039 | – |
| | AT-1-200603 | | 6/3/2020 | <10 UJ | **15** | **31** | <0.50 | <0.50 | **36** | **2.5** | **11** | **2.7** | <0.020 | <2.0 | **4.9** | <3.0 | <1.5 | <10 | **15** | **39** | <0.040 | – |
| | AT-1-210527 | | 5/27/2021 | **14** | **4.4** | **65** | **0.81** | **0.24** | **17** | **5.0** | **12** | **8.1** | <0.038 | <1.9 | **9.4** | <1.9 | <0.48 | <1.9 | **28** | **43** | <0.400 | – |
| | AT-1-220512[5] | | 5/12/2022 | <0.90 | **5.7** | **50** | **0.63** | **0.16 J** | **15** | **4.3** | **11** | **6.5** | <0.0080 | <0.75 | **7.8** | **1.4 J** | <0.090 | <0.84 | **24** | **44** | <0.50 | – |
| | AT-1-230518[5] | | 5/18/2023 | <0.97 | **3.8** | **55** | **0.35** | **0.14 J** | **13** | **4.7** | **9.8 B** | **6.9** | <0.0080 | <0.77 | **8.4** | <1.4 | <0.093 | <0.87 | **25** | **36** | <0.098 | – |
| ***Drainage Sediment Samples*** | | | | | | | | | | | | | | | | | | | | | |
| BP-SED-1 | BP-SED-1-190613 | Sediment | 6/13/2019 | <9.9 UJ | **11** | **52** | <0.50 | <0.50 | **11** | **2.3** | **4.5** | **5.7** | **0.032** | <2.0 | **6.2** | <3.0 | <1.5 | <9.9 | **21** | **42** | <0.040 | – |
| | BP-SED-1-200602 | | 6/2/2020 | <10 UJ | **11** | **43 J** | <0.51 | <0.51 | **10** | **3.3** | **6.5** | **7.7** | **0.022** | <2.0 | **6.8** | <3.0 | <1.5 | <10 | **19** | **37** | <0.040 | – |
| | BP-SED-1-210525 | | 5/25/2021 | **21** | **12** | **51** | **0.89** | <0.2 | **11** | **3.8** | **6.4** | **9.3** | <0.038 | <2.0 | **7.6** | <2.0 | <0.50 | <2.0 | **22** | **45** | <0.039 | – |
| | BP-SED-1-220510[5] | | 5/10/2022 | <0.91 | **9.9** | **50** | **0.061 J** | **0.13 J** | **10** | **3.8** | **6.5** | **8.0** | **0.052** | <0.73 | **7.1** | <1.4 | <0.087 | <0.82 | **20** | **40** | <0.020 | – |
| | BP-SED-1-230516[5] | | 5/16/2023 | <0.92 | **7.7** | **64** | **0.44** | **0.14 J** | **15** | **4.8** | **8.6 B** | **10** | **0.51** | <0.74 | **9.9** | <1.4 | <0.088 | <0.82 | **27** | **52** | <0.019 | – |
| RRMDF-SED-1 | RRMDF-SED-1-190613 | Sediment | 6/13/2019 | <10 UJ | **4.2** | **63** | **0.54** | <0.50 | **10** | **2.1** | **5.2** | **6.4** | **0.018 J** | <2.0 | **5.7** | <3.0 | <1.5 | <10 | **21** | **53** | <0.040 | – |
| | RRMDF-SED-1-200602 | | 6/3/2020 | <10 UJ | <3.0 | **60 J** | <0.50 | <0.50 | **9.5** | **3.2** | **7.4** | **6.7** | <0.020 | <2.0 | **6.5** | <3.0 | <1.5 | <10 | **19** | **48** | <0.040 | – |
| | RRMDF-SED-1-210525 | | 5/25/2021 | **20** | **3.4** | **71** | **0.97** | **0.21** | **12** | **4.1** | **7.1** | **8.3** | <0.04 | <2.0 | **7.7** | <2.0 | <0.50 | <2.0 | **23** | **49** | <0.039 | – |
| | RRMDF-SED-1-220510[5] | | 5/10/2022 | <0.98 | **2.3** | **50** | **0.050 J** | **0.15 J** | **9.6** | **3.1** | **6.5** | **6.6** | **0.016 J** | <0.78 | **6** | <1.5 | <0.094 | <0.88 | **18** | **47** | <0.020 | – |
| RRMDF-SED-D | RRMDF-SED-D-230516[5] | | 5/16/2023 | <0.93 | **3.1** | **48** | **0.34** | **0.074 J** | **9.5** | **3.4** | **5.7 B** | **6.1** | <0.0081 | <0.74 | **6.3** | <1.4 | <0.089 | <0.83 | **19** | **40** | <0.020 | – |
| SRE-SED-1 | SRE-SED-1-190613 | Sediment | 6/13/2019 | <10 UJ | **4.3** | **51** | **0.51** | <0.50 | **7.9** | **2.1** | **3.2** | **6.8** | <0.020 | <2.0 | **4.1** | <3.0 | <1.5 | <10 | **20** | **47** | <0.040 | – |
| SRE-SED-2 | SRE-SED-2-200603 | Sediment | 6/3/2020 | <10 UJ | <3.1 | **42 J** | <0.51 | <0.51 | **7.9** | **2.9** | **8.8** | **5.9** | <0.020 | <2.0 | **5.1** | <3.1 | <1.5 | <10 | **18** | **36** | <0.040 | – |
| | SRE-SED-2-210526 | | 5/26/2021 | **17** | **2.3** | **47** | **0.82** | <0.2 | **8.8** | **3.5** | **8.8** | **7.4** | <0.043 | <2.0 | **5.6** | <2.0 | <0.49 | <2.0 | **19** | **43** | <0.20 | – |
| | SRE-SED-2-220511[5] | | 5/11/2022 | <0.91 | **1.7 J** | **36** | **0.042 J** | **0.082 J** | **7.4** | **2.9** | **5.3** | **4.8** | <0.0076 | <0.73 | **4.6** | <1.4 | <0.087 | <0.82 | **16** | **32** | <0.020 | – |
| SRE-SED-3 | SRE-SED-3-230517[5] | Sediment | 5/17/2023 | <0.52 | **1.4** | **34** | **0.2** | **0.066 J** | **5.9** | **2.3** | **4.1 B** | **4.8** | <0.0081 | <0.42 | **4.1** | <0.78 | <0.050 | <0.47 | **13** | **28** | <0.020 | – |
| OS1-SED-1 | OS1-SED-1-200603 | Sediment | 6/3/2020 | <10 UJ | <3.0 | **32 J** | <0.51 | <0.51 | **6.2** | **2.5** | **3.5** | **3.0** | <0.020 | <2.0 | **4.0** | <3.0 | <1.5 | <10 | **14** | **34** | <0.040 | – |
| | OS1-SED-1-210526 | | 5/26/2021 | **22** | **3.0** | **61** | **0.98** | <0.19 | **13** | **4.5** | **7.3** | **8.6** | **0.11** | <1.9 | **7.9** | <1.9 | **1.0** | <1.9 | **25** | **54** | <0.20 | <0.00049 |
| | OS1-SED-1-220511[5] | | 5/11/2022 | <0.97 | **1.6 J** | **28** | <0.031 | **0.066 J** | **7.1** | **2.9** | **3.9** | **2.7** | <0.0079 | <0.77 | **4.6** | <1.4 | <0.093 | <0.87 | **17** | **24** | <0.020 | – |
| | OS1-SED-1-230517[5] | | 5/17/2023 | <0.96 | **2.1** | **47** | **0.29** | **0.12 J** | **10** | **3.4** | **6.5 B** | **6.2** | **0.019 J** | <0.77 | **6.7** | <1.4 | <0.092 | <0.86 | **22** | **61** | <0.020 | – |

GSI ENVIRONMENTAL

## TABLE 2: SOIL AND SEDIMENT ANALYTICAL RESULTS - METALS AND PERCHLORATE

**AJU Brandeis-Bardin Campus**
Brandeis, California

| Sample Location Name | Sample Name | Matrix | Date Collected | Title 22 Metals[1] | | | | | | | | | | | | | | | | Per-chlorate[3] | NDMA[4] |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Antimony | Arsenic | Barium | Beryllium | Cadmium | Chromium | Cobalt | Copper | Lead | Mercury[2] | Molyb-denum | Nickel | Selenium | Silver | Thallium | Vanadium | Zinc | |
| | | | | *mg/kg* | | | | | | | | | | | | | | | | | |
| OS8-SED-1 | OS8-SED-1-190613 | Sediment | 6/13/2019 | <9.9 UJ | **3.8** | **34** | <0.49 | <0.49 | **12** | **1.4** | **4.8** | **5.4** | <0.020 | <2.0 | **6.1** | <3.0 | <1.5 | <9.9 | **21** | **32** | <0.040 | – |
| | OS8-SED-1-200603 | | 6/2/2020 | <9.9 UJ | <3.0 | **32 J** | <0.50 | <0.50 | **7.5** | **1.9** | **5.5** | **5.3** | <0.020 | <2.0 | **5.1** | <3.0 | <1.5 | <9.9 | **14** | **25** | <0.040 | – |
| | OS8-SED-1-210526 | | 5/26/2021 | **11** | **2.1** | **30** | **0.48** | <0.19 | **6.8** | **2.0** | **4.3** | **5.3** | <0.038 | <1.9 | **4.4** | <1.9 | <0.48 | <1.9 | **13** | **24** | <0.039 | – |
| | OS8-SED-1-220511 [5] | | 5/11/2022 | <0.90 | **1.4 J** | **27** | <0.029 | **0.075 J** | **6.5** | **2.2** | **3.8** | **4.1** | <0.0074 | <0.72 | **4.5** | <1.3 | <0.087 | <0.81 | **12** | **26** | <0.020 | – |
| | OS8-SED-1-230517 [5] | | 5/17/2023 | <0.98 | **2.8** | **47** | **0.29** | **0.060 J** | **11** | **3.3** | **5.4 B** | **3.5** | <0.0080 | <0.78 | **7.9** | <1.5 | <0.094 | <0.88 | **21** | **33** | <0.019 | – |
| OW-SED-1 | OW-SED-1-190613 | Sediment | 6/13/2019 | <10 UJ | <3.0 | **39** | <0.50 | <0.50 | **7.3** | **1.2** | **2.0** | **4.0** | <0.020 | <2.0 | **3.8** | <3.0 | <1.5 | <10 | **15** | **29** | <0.040 | – |
| | OW-SED-1-200603 | | 6/3/2020 | <10 UJ | <3.0 | **37 J** | <0.51 | <0.51 | **9.1** | **2.4** | **4.0** | **4.1** | <0.020 | <2.0 | **4.9** | <3.0 | <1.5 | <10 | **19** | **29** | <0.040 | – |
| | OW-SED-1-210526 | | 5/26/2021 | **18** | **4.9** | **56** | **0.76** | <0.19 | **9.9** | **3.4** | **5.6** | **7.1** | <0.038 | <1.9 | **6.3** | <1.9 | <0.49 | <1.9 | **21** | **36** | <0.040 | – |
| | OW-SED-1-220511 [5] | | 5/11/2022 | <0.93 | **1.9 J** | **31** | <0.030 | **0.074 J** | **6.7** | **2.5** | **3.5** | **4.3** | <0.0079 | <0.74 | **4.1** | <1.4 | <0.089 | <0.83 | **15** | **27** | <0.020 | – |
| | OW-SED-1-230517 [5] | | 5/17/2023 | <0.95 | **1.9 J** | **42** | **0.26** | **0.072 J** | **8.2** | **2.8** | **5.0 B** | **5.8** | **0.0087 J** | <0.76 | **5.5** | <1.4 | <0.091 | <0.85 | **17** | **32** | <0.020 | - |
| ***Screening Criteria*** | | | | | | | | | | | | | | | | | | | | | |
| Residential Risk-Based Screening Levels[6] | | | | 31 | 0.11 | 15,000 | 16 | 71 | 120,000 | 23 | 3,100 | 80 | 1 | 390 | 820 | 390 | 390 | 0.78 | 390 | 23,000 | 55 | 0.002 |
| Regional Background Levels[7] | | | | 0.86 | 39.7 | 319 | 1.87 | 0.58 | 81 | 38 | 102 | 42 | 0.13 | 3.2 | 113 | 0.896 | 0.138 | 0.991 | 151 | 215 | 0.00163 | – |

Notes:

1. Samples analyzed for metals using U.S. Environmental Protection Agency (USEPA) Method 6010B unless otherwise indicated.
2. Samples analyzed for mercury using USEPA Method 7471A.
3. Samples analyzed for perchlorate using USEPA Method 314.0.
4. Samples analyzed for N-Nitrosodimethylamine (NDMA) by TestAmerica method GCMSMS_NDMA.
5. Results reported to the Method Detection Limit.
6. Regional screening levels (RSLs) for residential soil endorsed or modified by the California Department of Toxic Substances Control (DTSC, 2020, revised May 2022), or USEPA RSLs for analytes not included in DTSC's document (USEPA, 2022).
7. Background threshold values as calculated by the DTSC for the Santa Susana Field Laboratory (2013).
8. Drainage samples collected in June 2020 are qualified for barium because this metal was found in the method blank. Samples were not re-extracted because the results were greater than 10 times the concentration found in the blank (1.6 mg/kg barium).

Abbreviations:

**Bold** = analyte detected above the laboratory reporting limit
mg/kg = milligrams per kilogram
< = analyte was not detected above the reporting limit or detection limit shown
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.

GSI ENVIRONMENTAL

## TABLE 3: SOIL AND SEDIMENT ANALYTICAL RESULTS - RADIONUCLIDES

**AJU Brandeis-Bardin Campus**
Brandeis, California

| 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-1-220511 | | 5/11/2022 | <0.0361 | <0.0955 | <0.0510 |
| | HV-1-230517 | | 5/17/2023 | <0.936 | <0.0746 | <0.0711 |
| 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-2-220511 | | 5/11/2022 | <0.501 | <0.0935 | <0.107 |
| | HV-2-230517 | | 5/17/2023 | <0.875 | <0.0477 | <0.0943 |
| 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 |
| | HV-SED-1-220511 | | 5/11/2022 | <0.0571 | <0.0736 | <0.0747 |
| | HV-SED-1-230517 | | 5/17/2023 | <0.850 | <0.0412 | <0.0767 |
| 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 |
| | TF-1-220510 | | 5/10/2022 | <0.974 | <0.0978 | <0.0613 |
| | TF-1-230516 | | 5/16/2023 | <0.909 | <0.0541 | **0.0719** |
| 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 |
| | KC-1-220511 | | 5/11/2022 | <0.628 | <0.0909 | <0.0660 |
| | KC-1-230517 | | 5/17/2023 | <0.860 | <0.0547 | <0.0999 |
| 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 |
| | GF-1-220512 | | 5/12/2022 | <0.105 | <0.0679 | **0.0788** |
| | GF-1-230518 | | 5/18/2023 | <0.920 | <0.0321 | <0.0820 |
| 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** |
| | CIT-1-220510 | | 5/10/2022 | <0.0332 | <0.0956 | **0.115** |
| | CIT-1-230516 | | 5/16/2023 | <0.838 | <0.0432 | **0.087** |
| 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 |
| | AT-1-220512 | | 5/12/2022 | <0.124 | <0.0985 | <0.0687 |
| | AT-1-230518 | | 5/18/2023 | <0.829 | <0.0320 | <0.0694 |

GSI ENVIRONMENTAL

## TABLE 3: SOIL AND SEDIMENT ANALYTICAL RESULTS - RADIONUCLIDES

**AJU Brandeis-Bardin Campus**
Brandeis, California

| Sample Location | Sample Name | Matrix | Date Collected | Tritium[1] | Strontium-90[2] | Cesium-137[3] |
|---|---|---|---|---|---|---|
| | | | | *pCi/g* | | |
| ***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-1-220510 | | 5/10/2022 | <0.0628 | <0.0621 | **0.107** |
| | BP-SED-1-230516 | | 5/16/2023 | **3.16** | <0.0577 | **0.103** |
| 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-1-220510 | | 5/10/2022 | <1.7 | <0.0955 | **0.206** |
| RRMDF-SED-D | RRMDF-SED-D-230516 | Sediment | 5/16/2023 | **0.984** | <0.0415 | <0.0892 |
| 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 | – |
| 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** |
| | SRE-SED-2-220511 | | 5/11/2022 | <0.128 | <0.0959 | <0.0809 |
| SRE-SED-3 | SRE-SED-3-230517 | Sediment | 5/17/2023 | <0.0965 | <0.0558 | <0.0962 |
| OS1-SED-1 | 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** |
| | OS1-SED-1-220511 | | 5/11/2022 | <0.814 | <0.0965 | <0.0875 |
| | OS1-SED-1-230517 | | 5/17/2023 | <1.18 | <0.0574 | **0.141** |
| 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 | – |
| | 058-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-1-220511 | | 5/11/2022 | <0.0891 | <0.0972 | <0.0647 |
| | OS8-SED-1-230517 | | 5/17/2023 | <0.847 | <0.0324 | **0.0759** |
| 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** |
| | OW-SED-1-220511 | | 5/11/2022 | <0.0700 | <0.0940 | <0.0557 |
| | OW-SED-1-230517 | | 5/17/2023 | **1.02** | <0.0594 | **0.129** |

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## TABLE 3: SOIL AND SEDIMENT ANALYTICAL RESULTS - RADIONUCLIDES

**AJU Brandeis-Bardin Campus**
Brandeis, California

| Sample Location | Sample Name | Matrix | Date Collected | Tritium[1] | Strontium-90[2] | Cesium-137[3] |
|---|---|---|---|---|---|---|
| | | | | *pCi/g* | | |
| ***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 (analytical method for May 2022 samples was method GL-RAD-A-002).
2. Samples analyzed for strontium-90 using USEPA Method 905.0.
3. Samples analyzed for cesium-137 using USEPA Method 901.1 or equivalent (analytical method for June 2020 and May 2022 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 in the 2019 Monitoring Report dated 25 November 2019 by GSI Environmental Inc.
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 minimum 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.

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

| 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] | Molyb-denum | Nickel | Selenium | Silver | Thallium | Vanadium | Zinc | Naph-thalene | Other VOCs |
| | | | *mg/L* | | | | | | | | | | | | | | | | | *µg/L* | |
| ***Spring/Seep Samples*** | | | | | | | | | | | | | | | | | | | | | |
| OS1-W | OS1-W-190613 | 6/13/2019 | <0.010 | <0.010 | **0.040** | <0.0020 | <0.0050 | <0.0050 | <0.010 | **0.047** | **0.0063** | <0.00020 | <0.020 | **0.0078 J** | <0.010 | <0.010 | <0.010 | <0.010 | **0.63** | <0.0040 | – | – |
| | OS1-W-220511 [5] | 5/11/2022 | <0.0098 | <0.012 | **0.037** | <0.00030 | <0.00050 | <0.0012 | <0.0030 | **0.016** | **0.0031 J** | <0.000100 | <0.0027 | <0.0024 | <0.013 | <0.00084 | <0.0090 | <0.0019 | **0.19** | **0.0020 J** | – | – |
| | OS1-W-230517 [5] | 5/17/2023 | <0.0098 | <0.012 | **0.048** | <0.00030 | <0.00050 | <0.0012 | <0.0030 | **0.016** | <0.0025 | <0.000100 | <0.0027 | <0.0024 | <0.013 | **0.00091 J** | <0.0090 | <0.0019 | **1** | <0.0020 | – | – |
| 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 | <0.0040 | – | – |
| | 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 | <0.0040 | <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** | <0.0040 | <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 | <0.0020 | <0.48 | None |
| | OS357-W-220510 [5] | 5/10/2022 | <0.0098 | <0.012 | **0.036** | <0.00030 | <0.00050 | <0.0012 | <0.0030 | <0.0021 | <0.0025 | <0.000100 | <0.0027 | <0.0024 | <0.013 | <0.00084 | <0.0090 | <0.0019 | <0.0030 | <0.0020 UJ | – | – |
| | OS357-W-230516 [5] | 5/16/2023 | <0.0098 | <0.012 | **0.043** | **0.0013 J** | <0.00050 | **0.0018 J** | <0.0030 | <0.0021 | <0.0025 | <0.000100 | <0.0027 | <0.0024 | <0.013 | **0.0011 J** | <0.0090 | <0.0019 | **0.0055 J** | <0.0040 | – | – |
| 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 | <0.0040 | **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** | <0.0020 | <0.48 | None |
| | OS8-W-220511 [5] | 5/11/2022 | <0.0098 | <0.012 | **0.056** | <0.00030 | <0.00050 | <0.0012 | <0.0030 | <0.0021 | <0.0025 | <0.000100 | <0.0027 | <0.0024 | <0.013 | <0.00084 | <0.0090 | <0.0019 | <0.0030 | <0.0020 UJ | – | – |
| | OS8-W-230517 [5] | 5/17/2023 | <0.0098 | <0.012 | **0.046** | **0.00041 J** | <0.00050 | **0.0016 J** | <0.0030 | <0.0021 | <0.0025 | <0.000100 | <0.0027 | <0.0024 | <0.013 | <0.00084 | <0.0090 | <0.0019 | <0.0030 | <0.0020 | – | – |
| OW-W | OW-W-230517 [5] | 5/17/2023 | <0.0098 | **0.022** | **0.31** | <0.00030 | <0.00050 | <0.0012 | <0.0030 | **0.0053 J** | **0.0026 J** | <0.000100 | <0.0027 | <0.0024 | <0.013 | <0.00084 | <0.0090 | **0.015** | **0.013** | <0.0020 | – | – |
| ***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 |
| | SRE-W-220511 [5] | 5/11/2022 | <0.0098 | <0.012 | **0.056** | <0.00030 | <0.00050 | **0.0027 J** | <0.0030 | **0.0025 J** | <0.0025 | <0.000100 | <0.0027 | <0.0024 | <0.013 | <0.00084 | <0.0090 | **0.0061** | **0.0099 J** | <0.0020 UJ | – | – |
| | SRE-W-230517 [5] | 5/17/2023 | <0.0098 | <0.012 | **0.055** | <0.00030 | <0.00050 | <0.0012 | <0.0030 | **0.0041 J** | <0.0025 | <0.000100 | **0.0029 J** | <0.0024 | <0.013 | <0.00084 | <0.0090 | **0.0028 J** | **0.0044 J** | <0.0040 | – | – |
| RRMDF-W | RRMDF-W-D-230516 [5] | 5/16/2023 | <0.0098 | <0.012 | **0.061** | **0.00030 J** | <0.00050 | **0.0013 J** | <0.0030 | <0.0021 | <0.0025 | <0.000100 | <0.0027 | <0.0024 | <0.013 | <0.00084 | <0.0090 | <0.0019 | <0.0030 | <0.0010 | – | – |
| ***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 (2022).
   Regional screening levels (RSLs) for residential tap water, as published by the USEPA (2022).
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
< = analyte was not detected above the reporting limit or method detection limit shown
mg/L = milligrams per liter
VOCs = volatile organic compounds
µg/L = nanograms per liter
MCL = maximum contaminant level
J = Reported value is estimated.
RSL = regional screening level
UJ = The analyte was analyzed for, but not detected. The reported quantitation limit is approximate and may be inaccurate or imprecise.
– = not analyzed

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.

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## TABLE 5: SPRING AND SURFACE WATER ANALYTICAL RESULTS - RADIONUCLIDES

**AJU Brandeis-Bardin Campus**
Brandeis, California

| Sample Location Name | Sample Name | Date Collected | Tritium[1] | Strontium-90[2] | Cesium-137[3] |
|---|---|---|---|---|---|
| | | | *pCi/L* | | |
| ***Spring/Seep Samples*** | | | | | |
| OS1-W | OS1-W-190613 | 6/13/2019 | <310 | <0.66 | <7.1 |
| | OS1-W-220511 | 5/11/2022 | <625 | <1.90 | <7.48 |
| | OS1-W-230517 | 5/17/2023 | <554 | <1.82 | <6.13 |
| OS3-W | OS3-W-190613 | 6/13/2019 | <310 | <0.65 | <5.1 |
| | 0S3-W-200602 | 6/2/2020 | <368 | <1.28 | <8.15 |
| OS357-W | 0S357-W-200602 | 6/2/2020 | <362 | <1.32 | <6.86 |
| | OS357-W-210525 | 5/25/2021 | <401 | <0.976 | <8.58 |
| | OS357-W-220510 | 5/10/2022 | <633 | <1.87 | <8.55 |
| | OS357-W-230516 | 5/16/2023 | <532 | <1.85 | <6.08 |
| OS8-W | 0S8-W-200603 | 6/3/2020 | <360 | <1.37 | <8.20 |
| | OS8-W-210526 | 5/26/2021 | <410 | <1.17 | <5.69 |
| | OS8-W-220511 | 5/11/2022 | <632 | <1.82 | <10.1 |
| | OS8-W-230517 | 5/17/2023 | <545 | <1.89 | <545 |
| OW-W | OW-W-230517 | 5/17/2023 | <551 | <1.84 | <7.72 |
| ***Surface Water/Runoff Samples*** | | | | | |
| SRE-W | SRE-W-200603 | 6/3/2020 | <360 | <1.54 | <6.76 |
| | SRE-W-220511 | 5/11/2022 | <622 | <1.88 | <6.17 |
| | SRE-W-230517 | 5/17/2023 | <549 | <1.86 | <5.64 |
| RRMDF-W-D | RRMDF-W-D-230516 | 5/16/2023 | <559 | <1.91 | <6.34 |
| ***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 mimimum 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.

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## TABLE 6: FRUIT ANALYTICAL RESULTS - METALS AND PERCHLORATE

**AJU Brandeis-Bardin Campus**
Brandeis, California

| 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 |
| | G-1-230518 | | 5/18/2023 | | **643 J** | | **521 J** | | **518** | | <89.9 U | | <89.9 U | | <135 U | | <135 U | | **288 J** | | <297 U | | <7.36 hHU |
| 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 |
| | O-1-220512 | | 5/12/2022 | | **646 B** | | <476 | | **457 J** | | <95.2 | | <95.2 | | <143 | | <143 | | **735 J** | | <314 | | <7.31 UJ |
| | O-1-230518 | | 5/18/2023 | | **520 J** | | **823 J** | | **1,230** | | <93.5 U | | <93.5 U | | <140 U | | <140 U | | **595 J** | | <308 U | | <7.47 hHU |
| 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 | | 5/27/2021 | | **496 J** | | <455 | | **423 J** | | <91.1 | | <91.1 | | <137 | | <137 | | <273 | | <301 | | <7.64 |
| | L-1-220512 | | 5/12/2022 | | **814 B** | | <451 | | **513** | | <90.3 | | <90.3 | | <135 | | <135 | | **521 J** | | <298 | | <7.42 UJ |
| | L-1-230518 | | 5/18/2023 | | **819 J** | | <464 U | | **1,690** | | <92.8 U | | <92.8 U | | <139 U | | <139 U | | **579 J** | | <306 U | | <7.05 hHU |
| ***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 |
| | G-2-230518 | | 5/18/2023 | | **397 J** | | **516 J** | | **252 J** | | <95 U | | <95 U | | <142 U | | <142 U | | **458 J** | | <313 U | | <7.3 hHU |
| 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 |
| | O-2-220512 | | 5/12/2022 | | **737 B** | | <473 | | **346 J** | | <94.7 | | <94.7 | | <142 | | <142 | | **1,060 J** | | <313 | | <7.85 UJ |
| | O-2-230518 | | 5/18/2023 | | <323 U | | **625 J** | | **914** | | <98 U | | <98 U | | <147 U | | <147 U | | **828 J** | | <323 U | | <6.7 HUh |
| 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 | | 5/27/2021 | | <321 | | <486 | | **134 J** | | <97.3 | | <97.3 | | <146 | | <146 | | **321 J** | | <321 | | <7.05 |
| | L-2-220512 | | 5/12/2022 | | **833 B** | | <436 | | **736** | | <87.1 | | <87.1 | | <131 | | <131 | | **526 J** | | <287 | | <7.91 UJ |
| | L-2-230518 | | 5/18/2023 | | <279 U | | **437 J** | | **733** | | <84.5 U | | <84.5 U | | **129 J** | | <127 U | | **412 J** | | <279 U | | <7.76 hHU |

GSI ENVIRONMENTAL

## TABLE 6: FRUIT ANALYTICAL RESULTS - METALS AND PERCHLORATE

**AJU Brandeis-Bardin Campus**
Brandeis, California

| 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.* |
| | | | | *µg/kg* | | | | | | | | | | | | | | | |
| ***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 | **5,610** | 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 |
| | G-1-230518 | | 5/18/2023 | | <180 U | | <135 U | | **971 J** | | <89.9 U | | <450 U | | <89.9 U | | **1,350 J** | | **2.12 h** |
| O-1 | 0-1-200604 | 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 |
| | O-1-220512 | | 5/12/2022 | | <190 | | <143 | | **738 B** | | <95.2 | | <476 | | <95.2 | | **1,750 J** | | **0.440 J** |
| | O-1-230518 | | 5/18/2023 | | <187 U | | **206 J** | | **1,210 J** | | <93.5 U | | <467 U | | <93.5 U | | **2,160** | | **0.595 hJ** |
| 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 | | 5/27/2021 | | <182 | | <137 | | <455 | | <91.1 | | <455 | | <91.1 | | **5,770 J** | | <0.403 |
| | L-1-220512 | | 5/12/2022 | | <181 | | <135 | | **1,340 B** | | <90.3 | | <451 | | <90.3 | | **4,390** | | <0.431 UJ |
| | L-1-230518 | | 5/18/2023 | | <186 U | | **145 J** | | **891 J** | | <92.8 U | | <464 U | | <92.8 U | | **2,920** | | <0.495 hU |
| ***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 |
| | G-2-230518 | | 5/18/2023 | | <189 U | | <142 U | | **604 J** | | <95 U | | <473 U | | <95 U | | **1,690 J** | | <0.500 hU |
| O-2 | 0-2-200604 | 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 |
| | O-2-220512 | | 5/12/2022 | | <189 | | <142 | | **1,280 B** | | <94.7 | | <473 | | <94.7 | | **2,140** | | **1.23 J** |
| | O-2-230512 | | 5/18/2023 | | <196 U | | **162 J** | | **1,070 J** | | <98 U | | <489 U | | <97.8 U | | **2,430** | | < 0.483 hU |
| 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 | | 5/27/2021 | | <195 | | <146 | | <486 | | <97.3 | | <486 | | <97.3 | | **5,240 J** | | <0.426 |
| | L-2-220512 | | 5/12/2022 | | <174 | | <131 | | **695 B** | | <87.1 | | <436 | | <87.1 | | **3,020** | | <2.25 UJ |
| | L-2-230518 | | 5/18/2023 | | <169 U | | <127 U | | <422 U | | <84.5 U | | <422 U | | <84.5 U | | **1,570 J** | | **4.31 h** |

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 samples collected in 2021, 2022, or 2023, so the conclusion has not changed from 2020.

Abbreviations:
**Bold** = analyte detected above the laboratory method detection limit
< = analyte was not detected above the detection limit shown
µg/kg = micrograms per kilogram
-- = not applicable
h = preparation or preservation holding time was exceeded
J = Value is estimated.
UJ = The analyte was analyzed for, but not detected. The reported quantitation limit is approximate and may be inaccurate or imprecise.
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.
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, California

| 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 |
| | G-1-230518 | | 5/18/2023 | | <1.75 | | <0.00830 | | <0.0109 |
| O-1 | 0-1-200604 | Orange | 6/4/2020 | 2.04 | <4.98 | 0.843 | <0.0488 | 4.41 | <0.0113 |
| | O-1-220512 | | 5/12/2022 | | <1.33 | | <0.0346 | | <0.0101 |
| | O-1-230518 | | 5/18/2023 | | <1.68 | | <0.00748 | | <0.00928 |
| 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 |
| | L-1-220512 | | 5/12/2022 | | <1.27 | | <0.0356 | | <0.00605 |
| | L-1-230518 | | 5/18/2023 | | <1.87 | | <0.00570 | | <0.0102 |

## TABLE 7: FRUIT ANALYTICAL RESULTS - RADIONUCLIDES

**AJU Brandeis-Bardin Campus**

Brandeis, California

| 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] | | | | | |
| ***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 |
| | G-2-230518 | | 5/18/2023 | | <1.55 | | <0.00798 | | <0.00985 |
| O-2 | 0-2-200604 | Orange | 6/4/2020 | 2.04 | <4.63 | 0.843 | <0.0467 | 4.41 | <0.0308 |
| | O-2-220512 | | 5/12/2022 | | <1.30 | | <0.0342 | | <0.0111 |
| | O-2-230518 | | 5/18/2023 | | <1.48 | | <0.00821 | | <0.0113 |
| 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 |
| | L-2-220512 | | 5/12/2022 | | <1.34 | | <0.0301 | | <0.0114 |
| | L-2-230518 | | 5/12/2023 | | <1.71 | | <0.00495 | | <0.00888 |

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

Abbreviations:

pCi/g = picocuries per gram – = not analyzed
PRG = preliminary remediation goal
< = analyte was not detected above the minimum detectable concentration (MDC) shown
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.

# 2023 MONITORING REPORT
## AJU Brandeis-Bardin Campus
Brandeis, CA

## FIGURES


Reference map provided by Esri, 2022.

GSI ENVIRONMENTAL

| | | | |
|---|---|---|---|
| GSI Job No. | 5182 | Drawn by: | AV |
| Issued: | 14-Jul-2023 | Chk'd by: | SMG |
| Revised: | | Aprv'd by: | SMG |
| Map ID: | AJU_SiteLocMap | **FIGURE 1** | |

## SITE LOCATION MAP

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

N

High Use (Main Campus ) Area - Figure 3

Hidden Valley Camp - Figure 4

Old Well Camp - Figure 10

Drainage - Figure 8

Drainage - Figure 9

Drainage - Figure 7

Drainage - Figure 6

Drainage - Figure 5

Santa Susana Field Laboratory

**Note:**

Imagery downloaded from Esri ArcGIS Online, June 2021.

**LEGEND**

Approximate Site Boundary

Intermittent Stream

Feet

0 700 1,400

GSI ENVIRONMENTAL

| | |
|---|---|
| GSI Job No. | 5182 |
| Issued: | 14-Jul-2023 |
| Map ID: | AJU_SiteMapDrainages |
| Drawn By: | AV |
| Chk'd By: | SMG |
| Aprv'd By: | SMG |

# SITE MAP AND FEATURES

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

**FIGURE 2**


N

**LEGEND**

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

**Note**

Imagery downloaded from Esri ArcGIS Online, June 2021.

Scale (Feet)
0 200 400

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

GSI ENVIRONMENTAL

# HIGH USE (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: 14-Jul-2023 | Chk'd By: SMG |
| Map ID: **AJU_MainCampusLand** | Appv'd By: SMG |

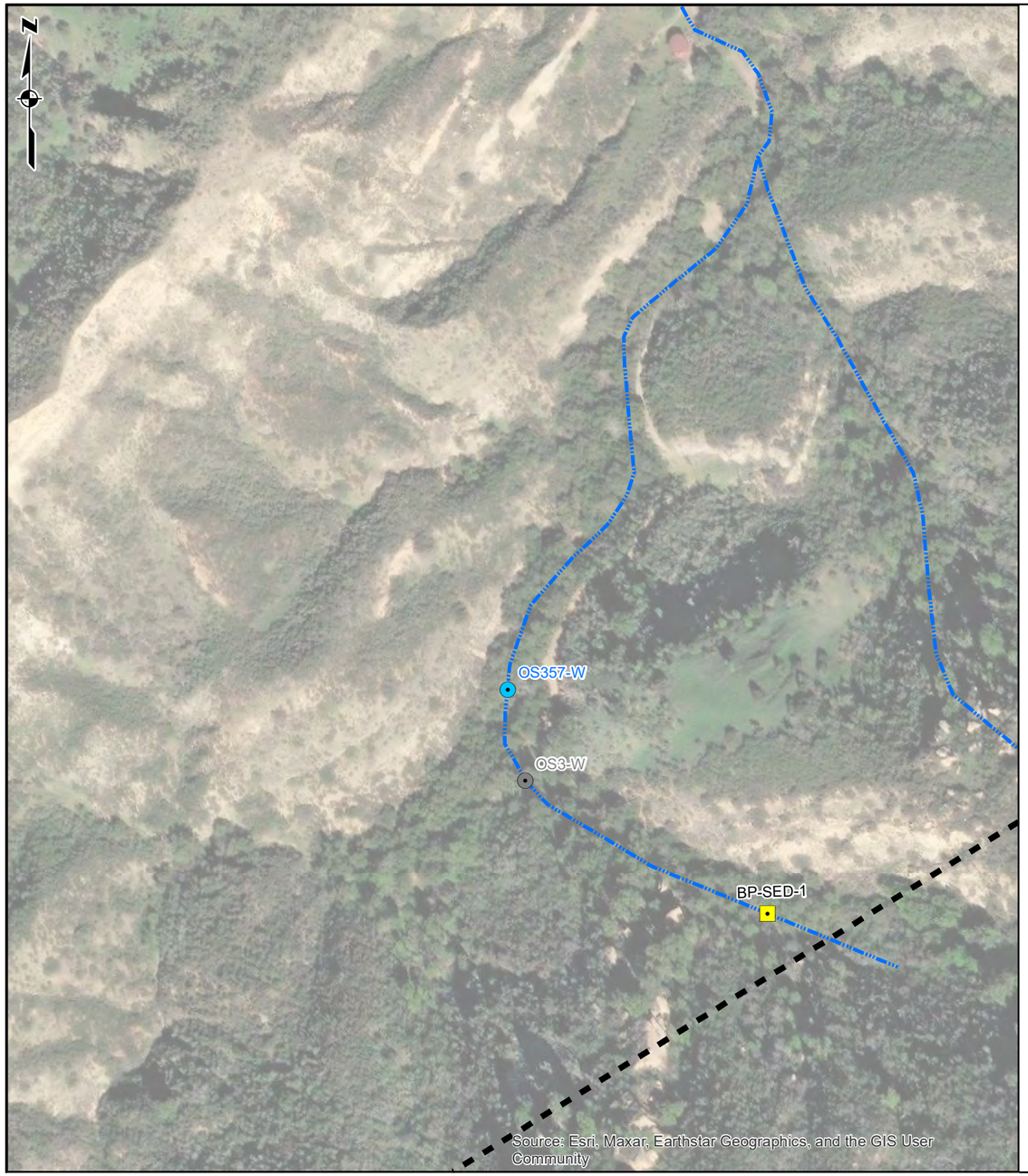
**FIGURE 3**


GSI ENVIRONMENTAL

| | | | |
|---|---|---|---|
| GSI Job No. | 5182 | Drawn by: | AV |
| Issued: | 14-Jul-2023 | Chk'd by: | SMG |
| Revised: | | Aprv'd by: | SMG |
| Map ID: | AJU_HVC_8x11 | **FIGURE 4** | |

**HIDDEN VALLEY CAMP SAMPLING LOCATIONS**

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






## LEGEND

- Sediment Sampling Location
- Water Sampling Location
- Former Water Sampling Location, Not Sampled Since 2020
- Intermittent Stream
- Approximate Site Boundary

## SAMPLING LOCATIONS OS357-W AND BP-SED-1

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

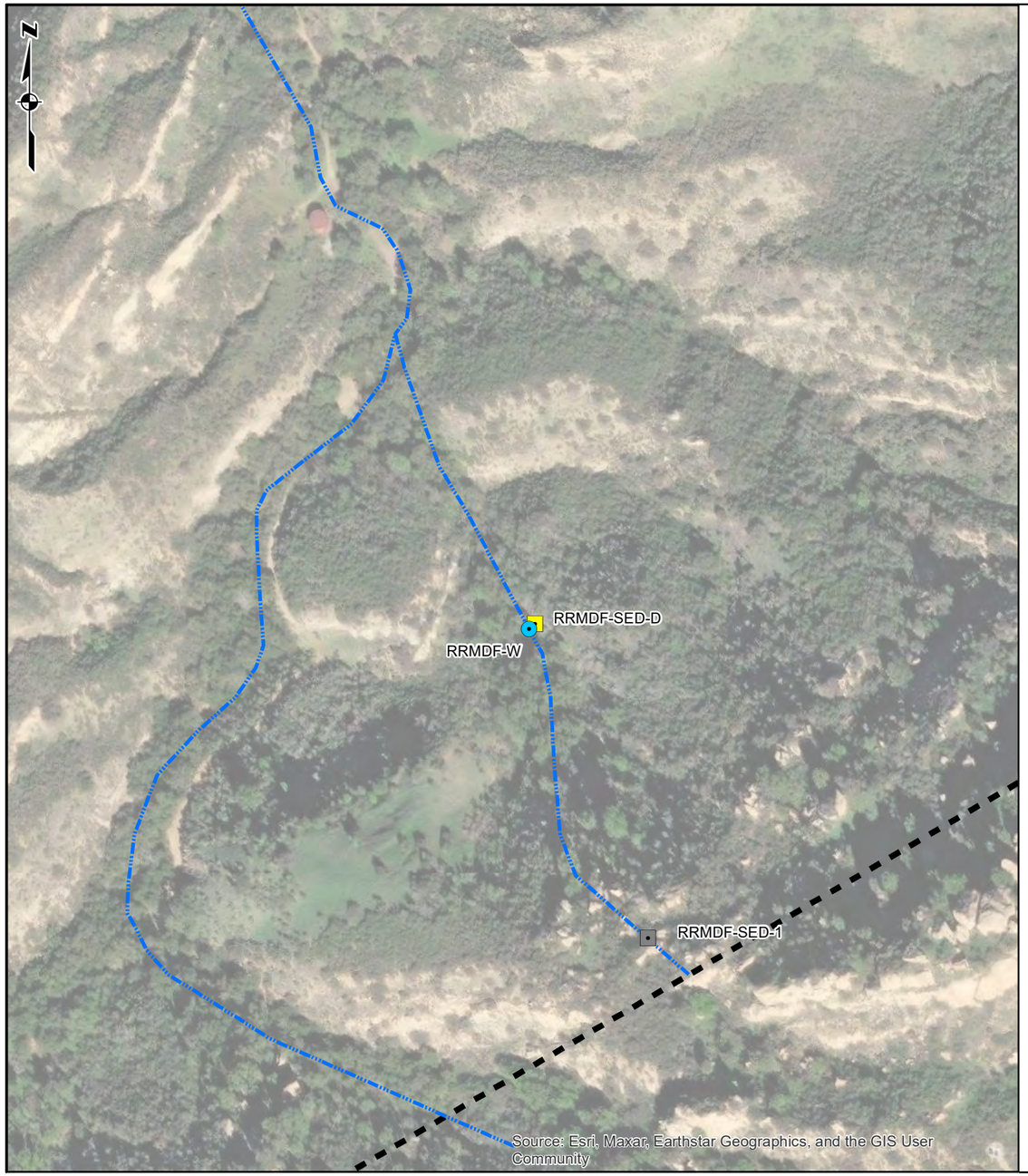
GSI ENVIRONMENTAL

Scale in Feet: 0 300 600

State Plane California Zone V
Datum: NAD 83

| | |
|---|---|
| GSI Job No. 5182 | Drawn By: AV |
| Issued: 14-Jul-2023 | Chk'd By: SMG |
| Map ID: AJU_BurnPit_0722 | Appv'd By: SMG |

**FIGURE 5**






**LEGEND**

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

## SAMPLING LOCATIONS RRMDF-SED-D AND RRMDF-W

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

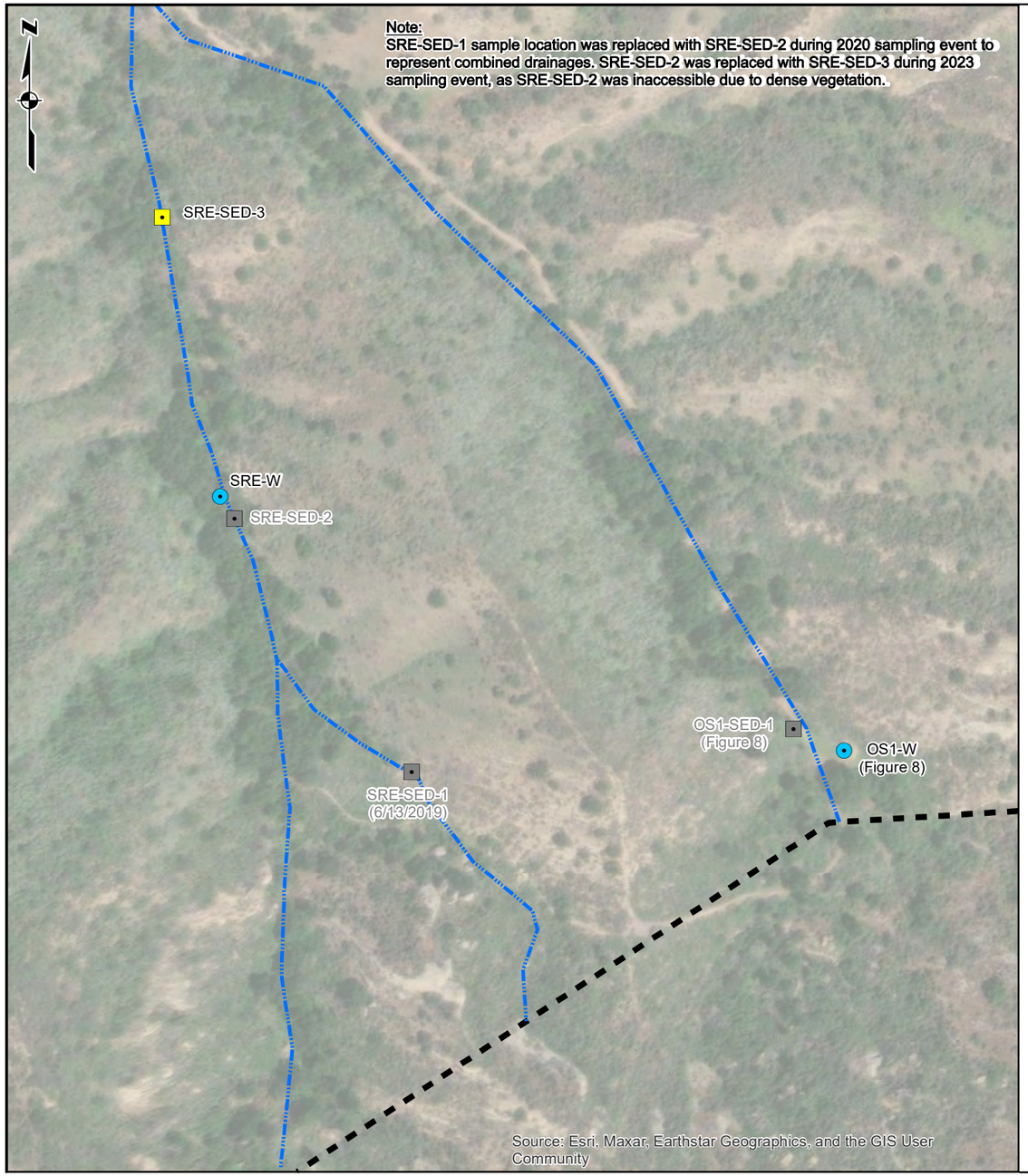
GSI ENVIRONMENTAL

Scale in Feet
0 300 600

State Plane
California Zone V
Datum: NAD 83

| | |
|---|---|
| GSI Job No. 5182 | Drawn By: AV |
| Issued: 14-Jul-2023 | Chk'd By: SMG |
| Map ID: AJU_ReactorRMDF_0722 | Appv'd By: SMG |

**FIGURE 6**






## LEGEND

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

## SAMPLING LOCATIONS SRE-SED-3 AND SRE-W

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

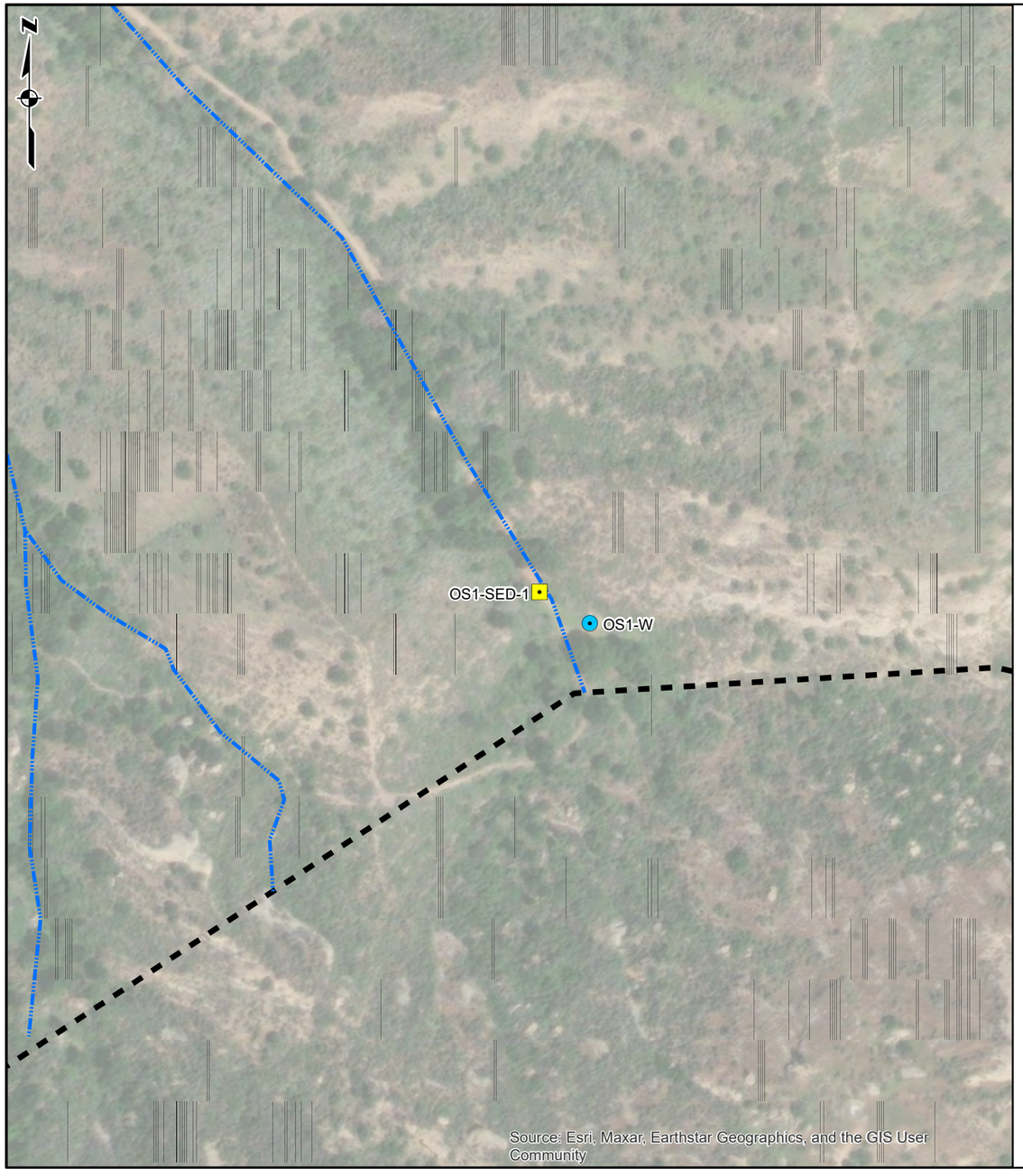
GSI ENVIRONMENTAL

Scale in Feet
0 150 300

State Plane
California Zone V
Datum: NAD 83

| | |
|---|---|
| GSI Job No. 5182 | Drawn By: AV |
| Issued: 14-Jul-2023 | Chk'd By: SMG |
| Map ID: AJU_SRER_0722 | Appv'd By: SMG |

**FIGURE 7**





Spring OS1, which was sampled during the 2023 monitoring event, is identified as monitoring wells RD68A and 68B. This location is monitored by NASA and is not always included in the AJU sampling program.


## LEGEND

- Water Sampling Location
- 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

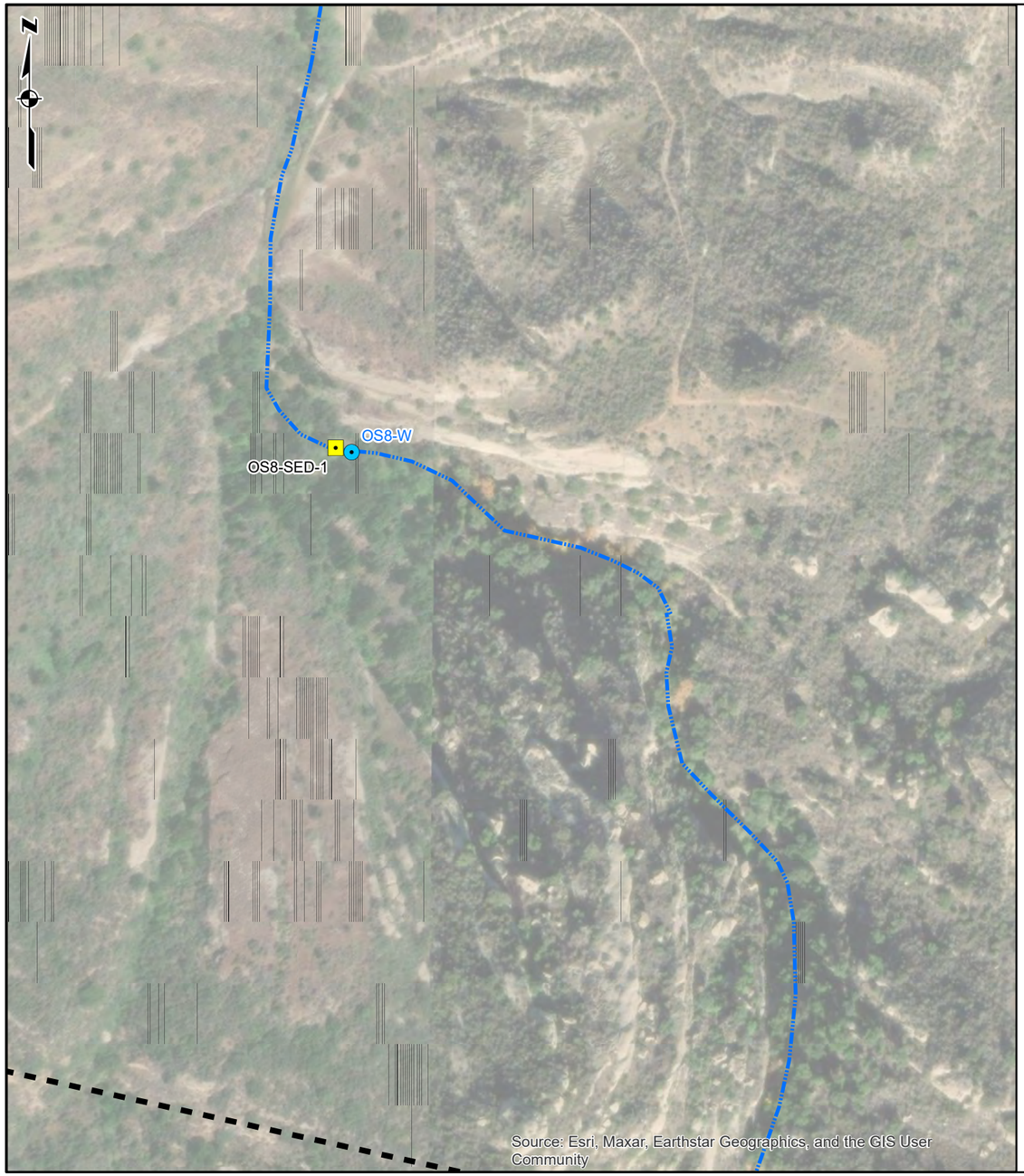
GSI ENVIRONMENTAL

Scale in Feet
0 300 600

State Plane
California Zone V
Datum: NAD 83

| | |
|---|---|
| GSI Job No. 5182 | Drawn By: AV |
| Issued: 14-Jul-2023 | Chk'd By: SMG |
| Map ID: AJU_OS1_0722 | Appv'd By: SMG |

**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

GSI ENVIRONMENTAL

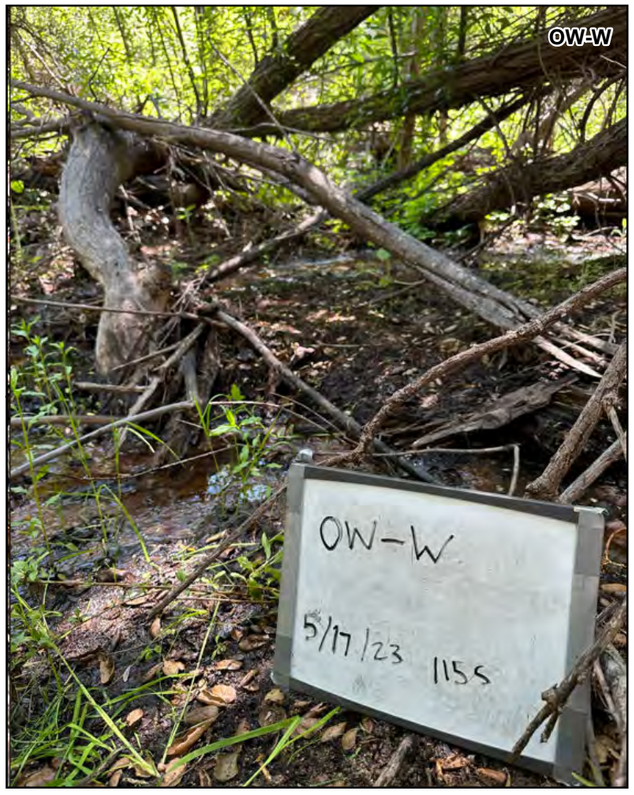
Scale in Feet
0 300 600

State Plane
California Zone V
Datum: NAD 83

| | | | |
|---|---|---|---|
| GSI Job No. | 5182 | Drawn By: | AV |
| Issued: | 14-Jul-2023 | Chk'd By: | SMG |
| Map ID: | AJU_OS8_0722 | Appv'd By: | SMG |

**FIGURE 9**






**LEGEND**

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

## SAMPLING LOCATIONS OW-SED-1 AND OW-W

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

GSI ENVIRONMENTAL

Scale in Feet: 0 200 400

State Plane California Zone V
Datum: NAD 83

| | | | |
|---|---|---|---|
| GSI Job No. | 5182 | Drawn By: | AV |
| Issued: | 14-Jul-2023 | Chk'd By: | SMG |
| Map ID: | AJU_OWC_0722 | Appv'd By: | SMG |

**FIGURE 10**


Notes:
1. For general location on the campus, see Figure 3.
2. Aerial Image downloaded from Google Earth Pro, January 2019.
3. G-1 location was relocated during 2023 sampling event.

GSI ENVIRONMENTAL

| | | | |
|---|---|---|---|
| GSI Job No. | 5182 | Drawn by: | AV |
| Issued: | 14-Jul-2023 | Chk'd by: | SMG |
| Revised: | | Aprv'd by: | SMG |
| Map ID: | AJU_FruitOrchard_0722 | | FIGURE 11 |

**FRUIT ORCHARD SAMPLING LOCATIONS**

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

# 2023 MONITORING REPORT
## AJU Brandeis-Bardin Campus
Brandeis, CA

## ATTACHMENTS

GSI Job No.: 5182

# 2023 MONITORING REPORT
## AJU Brandeis-Bardin Campus
Brandeis, CA

## ATTACHMENT A

Analytical Laboratory Reports – Soil and Sediment Samples

eurofins | Environment Testing

# ANALYTICAL REPORT

## PREPARED FOR

Attn: Susan Gallardo
GSI Environmental, Inc
2000 Powell Street
Suite 820
Emeryville, California 94608

Generated 6/5/2023 1:59:23 PM

## JOB DESCRIPTION

AJU-BB

## JOB NUMBER

320-100538-1

Eurofins Sacramento
880 Riverside Parkway
West Sacramento CA 95605

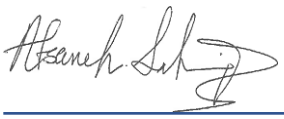
See page two for job notes and contact information.

## Job Notes

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

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

## Authorization



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Authorized for release by
Afsaneh Salimpour, Senior Project Manager
Afsaneh.Salimpour@et.eurofinsus.com
(925)484-1919

# Table of Contents

# Definitions/Glossary

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

Job ID: 320-100538-1

## Qualifiers

### 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. |
| F1 | MS and/or MSD recovery exceeds control limits. |
| J | Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value. |

## Glossary

| Abbreviation | These commonly used abbreviations may or may not be present in this report. |
|---|---|
| ¤ | Listed under the "D" column to designate that the result is reported on a dry weight basis |
| %R | Percent Recovery |
| CFL | Contains Free Liquid |
| 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 |

## Job ID: 320-100538-1

### Laboratory: Eurofins Sacramento

**Narrative**

**Job Narrative**
**320-100538-1**

**Comments**
No additional comments.

**Receipt**
The samples were received on 5/19/2023 9:20 AM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 1.6º C.

**Metals**
Method 6010B: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 320-677905 and analytical batch 320-678840 were outside control limits for one or more analytes. See QC Sample Results for detail. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery is within acceptance limits.

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 sample in analytical batch 320-679423 was diluted due to the nature of the sample matrix and to protect instrumentation: AT-1-230518 (320-100538-7). The sample was difficult to filter, with multiple filters used. 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.

# Detection Summary

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

Job ID: 320-100538-1

## Client Sample ID: CIT-1-230516 — Lab Sample ID: 320-100538-1

| Analyte | Result | Qualifier | RL | MDL | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Arsenic | 2.9 | | 2.1 | 1.3 | mg/Kg | 1 | | 6010B | Total/NA |
| Barium | 44 | | 1.0 | 0.12 | mg/Kg | 1 | | 6010B | Total/NA |
| Beryllium | 0.36 | | 0.21 | 0.031 | mg/Kg | 1 | | 6010B | Total/NA |
| Cadmium | 0.18 | J | 0.21 | 0.031 | mg/Kg | 1 | | 6010B | Total/NA |
| Cobalt | 4.2 | | 0.52 | 0.26 | mg/Kg | 1 | | 6010B | Total/NA |
| Chromium | 10 | | 0.52 | 0.14 | mg/Kg | 1 | | 6010B | Total/NA |
| Copper | 9.6 | B | 1.5 | 0.23 | mg/Kg | 1 | | 6010B | Total/NA |
| Nickel | 7.0 | | 1.0 | 0.25 | mg/Kg | 1 | | 6010B | Total/NA |
| Lead | 10 | | 1.0 | 0.27 | mg/Kg | 1 | | 6010B | Total/NA |
| Vanadium | 21 | | 0.52 | 0.20 | mg/Kg | 1 | | 6010B | Total/NA |
| Zinc | 49 | | 2.1 | 0.20 | mg/Kg | 1 | | 6010B | Total/NA |
| Mercury | 0.0085 | J | 0.041 | 0.0081 | mg/Kg | 1 | | 7471A | Total/NA |

## Client Sample ID: TF-1-230516 — Lab Sample ID: 320-100538-2

| Analyte | Result | Qualifier | RL | MDL | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Arsenic | 4.4 | | 2.1 | 1.3 | mg/Kg | 1 | | 6010B | Total/NA |
| Barium | 90 | | 1.0 | 0.12 | mg/Kg | 1 | | 6010B | Total/NA |
| Beryllium | 0.39 | | 0.21 | 0.031 | mg/Kg | 1 | | 6010B | Total/NA |
| Cadmium | 0.23 | | 0.21 | 0.031 | mg/Kg | 1 | | 6010B | Total/NA |
| Cobalt | 5.5 | | 0.52 | 0.26 | mg/Kg | 1 | | 6010B | Total/NA |
| Chromium | 13 | | 0.52 | 0.14 | mg/Kg | 1 | | 6010B | Total/NA |
| Copper | 17 | B | 1.5 | 0.23 | mg/Kg | 1 | | 6010B | Total/NA |
| Nickel | 8.4 | | 1.0 | 0.25 | mg/Kg | 1 | | 6010B | Total/NA |
| Lead | 7.3 | | 1.0 | 0.27 | mg/Kg | 1 | | 6010B | Total/NA |
| Vanadium | 31 | | 0.52 | 0.20 | mg/Kg | 1 | | 6010B | Total/NA |
| Zinc | 71 | | 2.1 | 0.20 | mg/Kg | 1 | | 6010B | Total/NA |

## Client Sample ID: HV-2-230517 — Lab Sample ID: 320-100538-3

| Analyte | Result | Qualifier | RL | MDL | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Silver | 0.74 | | 0.51 | 0.091 | mg/Kg | 1 | | 6010B | Total/NA |
| Arsenic | 3.1 | | 2.0 | 1.3 | mg/Kg | 1 | | 6010B | Total/NA |
| Barium | 46 | | 1.0 | 0.12 | mg/Kg | 1 | | 6010B | Total/NA |
| Beryllium | 0.30 | | 0.20 | 0.030 | mg/Kg | 1 | | 6010B | Total/NA |
| Cadmium | 0.16 | J | 0.20 | 0.030 | mg/Kg | 1 | | 6010B | Total/NA |
| Cobalt | 3.5 | | 0.51 | 0.25 | mg/Kg | 1 | | 6010B | Total/NA |
| Chromium | 12 | | 0.51 | 0.14 | mg/Kg | 1 | | 6010B | Total/NA |
| Copper | 10 | B | 1.5 | 0.22 | mg/Kg | 1 | | 6010B | Total/NA |
| Nickel | 7.4 | | 1.0 | 0.24 | mg/Kg | 1 | | 6010B | Total/NA |
| Lead | 7.9 | | 1.0 | 0.26 | mg/Kg | 1 | | 6010B | Total/NA |
| Vanadium | 18 | | 0.51 | 0.19 | mg/Kg | 1 | | 6010B | Total/NA |
| Zinc | 40 | | 2.0 | 0.19 | mg/Kg | 1 | | 6010B | Total/NA |
| Mercury | 0.012 | J | 0.041 | 0.0083 | mg/Kg | 1 | | 7471A | Total/NA |

## Client Sample ID: HV-SED-1-230517 — Lab Sample ID: 320-100538-4

| Analyte | Result | Qualifier | RL | MDL | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Silver | 0.095 | J | 0.49 | 0.087 | mg/Kg | 1 | | 6010B | Total/NA |
| Arsenic | 2.1 | | 1.9 | 1.3 | mg/Kg | 1 | | 6010B | Total/NA |
| Barium | 34 | | 0.97 | 0.12 | mg/Kg | 1 | | 6010B | Total/NA |
| Beryllium | 0.25 | | 0.19 | 0.029 | mg/Kg | 1 | | 6010B | Total/NA |

This Detection Summary does not include radiochemical test results.

Eurofins Sacramento

## Client Sample ID: HV-SED-1-230517 (Continued) — Lab Sample ID: 320-100538-4

| Analyte | Result | Qualifier | RL | MDL | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Cadmium | 0.12 | J | 0.19 | 0.029 | mg/Kg | 1 | | 6010B | Total/NA |
| Cobalt | 2.5 | | 0.49 | 0.24 | mg/Kg | 1 | | 6010B | Total/NA |
| Chromium | 7.4 | | 0.49 | 0.14 | mg/Kg | 1 | | 6010B | Total/NA |
| Copper | 6.3 | B | 1.5 | 0.21 | mg/Kg | 1 | | 6010B | Total/NA |
| Nickel | 4.9 | | 0.97 | 0.23 | mg/Kg | 1 | | 6010B | Total/NA |
| Lead | 5.0 | | 0.97 | 0.25 | mg/Kg | 1 | | 6010B | Total/NA |
| Vanadium | 14 | | 0.49 | 0.18 | mg/Kg | 1 | | 6010B | Total/NA |
| Zinc | 31 | | 1.9 | 0.18 | mg/Kg | 1 | | 6010B | Total/NA |

## Client Sample ID: HV-1-230517 — Lab Sample ID: 320-100538-5

| Analyte | Result | Qualifier | RL | MDL | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Arsenic | 4.6 | | 1.4 | 0.94 | mg/Kg | 1 | | 6010B | Total/NA |
| Barium | 54 | | 0.72 | 0.086 | mg/Kg | 1 | | 6010B | Total/NA |
| Beryllium | 0.36 | | 0.14 | 0.022 | mg/Kg | 1 | | 6010B | Total/NA |
| Cadmium | 0.11 | J | 0.14 | 0.022 | mg/Kg | 1 | | 6010B | Total/NA |
| Cobalt | 3.1 | | 0.36 | 0.18 | mg/Kg | 1 | | 6010B | Total/NA |
| Chromium | 9.0 | | 0.36 | 0.10 | mg/Kg | 1 | | 6010B | Total/NA |
| Copper | 5.3 | B | 1.1 | 0.16 | mg/Kg | 1 | | 6010B | Total/NA |
| Nickel | 5.7 | | 0.72 | 0.17 | mg/Kg | 1 | | 6010B | Total/NA |
| Lead | 3.8 | | 0.72 | 0.19 | mg/Kg | 1 | | 6010B | Total/NA |
| Vanadium | 17 | | 0.36 | 0.14 | mg/Kg | 1 | | 6010B | Total/NA |
| Zinc | 39 | | 1.4 | 0.14 | mg/Kg | 1 | | 6010B | Total/NA |

## Client Sample ID: KC-1-230517 — Lab Sample ID: 320-100538-6

| Analyte | Result | Qualifier | RL | MDL | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Arsenic | 5.1 | | 2.1 | 1.3 | mg/Kg | 1 | | 6010B | Total/NA |
| Barium | 53 | | 1.0 | 0.12 | mg/Kg | 1 | | 6010B | Total/NA |
| Beryllium | 0.42 | | 0.21 | 0.031 | mg/Kg | 1 | | 6010B | Total/NA |
| Cadmium | 0.095 | J | 0.21 | 0.031 | mg/Kg | 1 | | 6010B | Total/NA |
| Cobalt | 5.2 | | 0.52 | 0.26 | mg/Kg | 1 | | 6010B | Total/NA |
| Chromium | 15 | | 0.52 | 0.14 | mg/Kg | 1 | | 6010B | Total/NA |
| Copper | 9.8 | B | 1.5 | 0.23 | mg/Kg | 1 | | 6010B | Total/NA |
| Molybdenum | 0.79 | J | 2.1 | 0.77 | mg/Kg | 1 | | 6010B | Total/NA |
| Nickel | 10 | | 1.0 | 0.25 | mg/Kg | 1 | | 6010B | Total/NA |
| Lead | 9.1 | | 1.0 | 0.27 | mg/Kg | 1 | | 6010B | Total/NA |
| Vanadium | 30 | | 0.52 | 0.20 | mg/Kg | 1 | | 6010B | Total/NA |
| Zinc | 52 | | 2.1 | 0.20 | mg/Kg | 1 | | 6010B | Total/NA |
| Mercury | 0.0082 | J | 0.039 | 0.0079 | mg/Kg | 1 | | 7471A | Total/NA |

## Client Sample ID: AT-1-230518 — Lab Sample ID: 320-100538-7

| Analyte | Result | Qualifier | RL | MDL | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Arsenic | 3.8 | | 2.1 | 1.3 | mg/Kg | 1 | | 6010B | Total/NA |
| Barium | 55 | | 1.0 | 0.12 | mg/Kg | 1 | | 6010B | Total/NA |
| Beryllium | 0.35 | | 0.21 | 0.031 | mg/Kg | 1 | | 6010B | Total/NA |
| Cadmium | 0.14 | J | 0.21 | 0.031 | mg/Kg | 1 | | 6010B | Total/NA |
| Cobalt | 4.7 | | 0.52 | 0.26 | mg/Kg | 1 | | 6010B | Total/NA |
| Chromium | 13 | | 0.52 | 0.14 | mg/Kg | 1 | | 6010B | Total/NA |
| Copper | 9.8 | B | 1.5 | 0.23 | mg/Kg | 1 | | 6010B | Total/NA |
| Nickel | 8.4 | | 1.0 | 0.25 | mg/Kg | 1 | | 6010B | Total/NA |

This Detection Summary does not include radiochemical test results.

## Client Sample ID: AT-1-230518 (Continued)

## Lab Sample ID: 320-100538-7

| Analyte | Result | Qualifier | RL | MDL | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Lead | 6.9 | | 1.0 | 0.27 | mg/Kg | 1 | | 6010B | Total/NA |
| Vanadium | 25 | | 0.52 | 0.20 | mg/Kg | 1 | | 6010B | Total/NA |
| Zinc | 36 | | 2.1 | 0.20 | mg/Kg | 1 | | 6010B | Total/NA |

## Client Sample ID: GF-1-230518

## Lab Sample ID: 320-100538-8

| Analyte | Result | Qualifier | RL | MDL | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Arsenic | 2.9 | | 1.9 | 1.3 | mg/Kg | 1 | | 6010B | Total/NA |
| Barium | 43 | | 0.96 | 0.12 | mg/Kg | 1 | | 6010B | Total/NA |
| Beryllium | 0.32 | | 0.19 | 0.029 | mg/Kg | 1 | | 6010B | Total/NA |
| Cadmium | 0.14 | J | 0.19 | 0.029 | mg/Kg | 1 | | 6010B | Total/NA |
| Cobalt | 3.8 | | 0.48 | 0.24 | mg/Kg | 1 | | 6010B | Total/NA |
| Chromium | 10 | | 0.48 | 0.13 | mg/Kg | 1 | | 6010B | Total/NA |
| Copper | 7.0 | B | 1.4 | 0.21 | mg/Kg | 1 | | 6010B | Total/NA |
| Nickel | 6.9 | | 0.96 | 0.23 | mg/Kg | 1 | | 6010B | Total/NA |
| Lead | 6.2 | | 0.96 | 0.25 | mg/Kg | 1 | | 6010B | Total/NA |
| Vanadium | 22 | | 0.48 | 0.18 | mg/Kg | 1 | | 6010B | Total/NA |
| Zinc | 62 | | 1.9 | 0.18 | mg/Kg | 1 | | 6010B | Total/NA |
| Mercury | 0.0082 | J | 0.039 | 0.0079 | mg/Kg | 1 | | 7471A | Total/NA |

This Detection Summary does not include radiochemical test results.

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

Job ID: 320-100538-1

## Client Sample ID: CIT-1-230516

**Date Collected: 05/16/23 13:27**
**Date Received: 05/19/23 09:20**

## Lab Sample ID: 320-100538-1

**Matrix: Solid**

### Method: EPA 314.0 - Perchlorate (IC) - Soluble

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Perchlorate | ND | | 39 | 20 | ug/Kg | | | 06/01/23 17:45 | 1 |

### Method: SW846 6010B - Metals (ICP)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Silver | ND | F1 | 0.52 | 0.093 | mg/Kg | | 05/26/23 06:00 | 05/30/23 09:55 | 1 |
| **Arsenic** | **2.9** | | 2.1 | 1.3 | mg/Kg | | 05/26/23 06:00 | 05/30/23 09:55 | 1 |
| **Barium** | **44** | | 1.0 | 0.12 | mg/Kg | | 05/26/23 06:00 | 05/30/23 09:55 | 1 |
| **Beryllium** | **0.36** | | 0.21 | 0.031 | mg/Kg | | 05/26/23 06:00 | 05/30/23 09:55 | 1 |
| **Cadmium** | **0.18** | **J** | 0.21 | 0.031 | mg/Kg | | 05/26/23 06:00 | 05/30/23 09:55 | 1 |
| **Cobalt** | **4.2** | | 0.52 | 0.26 | mg/Kg | | 05/26/23 06:00 | 05/30/23 09:55 | 1 |
| **Chromium** | **10** | | 0.52 | 0.14 | mg/Kg | | 05/26/23 06:00 | 05/30/23 09:55 | 1 |
| **Copper** | **9.6** | **B** | 1.5 | 0.23 | mg/Kg | | 05/26/23 06:00 | 05/30/23 09:55 | 1 |
| Molybdenum | ND | | 2.1 | 0.77 | mg/Kg | | 05/26/23 06:00 | 05/30/23 09:55 | 1 |
| **Nickel** | **7.0** | | 1.0 | 0.25 | mg/Kg | | 05/26/23 06:00 | 05/30/23 09:55 | 1 |
| **Lead** | **10** | | 1.0 | 0.27 | mg/Kg | | 05/26/23 06:00 | 05/30/23 09:55 | 1 |
| Selenium | ND | F1 | 2.1 | 1.4 | mg/Kg | | 05/26/23 06:00 | 05/30/23 09:55 | 1 |
| Antimony | ND | F1 | 2.1 | 0.97 | mg/Kg | | 05/26/23 06:00 | 05/30/23 09:55 | 1 |
| Thallium | ND | | 2.1 | 0.87 | mg/Kg | | 05/26/23 06:00 | 05/30/23 09:55 | 1 |
| **Vanadium** | **21** | | 0.52 | 0.20 | mg/Kg | | 05/26/23 06:00 | 05/30/23 09:55 | 1 |
| **Zinc** | **49** | | 2.1 | 0.20 | mg/Kg | | 05/26/23 06:00 | 05/30/23 09:55 | 1 |

### Method: SW846 7471A - Mercury (CVAA)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Mercury** | **0.0085** | **J** | 0.041 | 0.0081 | mg/Kg | | 05/22/23 11:28 | 05/22/23 15:49 | 1 |

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

Job ID: 320-100538-1

## Client Sample ID: TF-1-230516

**Date Collected: 05/16/23 13:50**
**Date Received: 05/19/23 09:20**

## Lab Sample ID: 320-100538-2

**Matrix: Solid**

### Method: EPA 314.0 - Perchlorate (IC) - Soluble

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Perchlorate | ND | | 40 | 20 | ug/Kg | | | 06/01/23 18:03 | 1 |

### Method: SW846 6010B - Metals (ICP)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Silver | ND | | 0.52 | 0.093 | mg/Kg | | 05/26/23 06:00 | 05/30/23 10:10 | 1 |
| **Arsenic** | **4.4** | | 2.1 | 1.3 | mg/Kg | | 05/26/23 06:00 | 05/30/23 10:10 | 1 |
| **Barium** | **90** | | 1.0 | 0.12 | mg/Kg | | 05/26/23 06:00 | 05/30/23 10:10 | 1 |
| **Beryllium** | **0.39** | | 0.21 | 0.031 | mg/Kg | | 05/26/23 06:00 | 05/30/23 10:10 | 1 |
| **Cadmium** | **0.23** | | 0.21 | 0.031 | mg/Kg | | 05/26/23 06:00 | 05/30/23 10:10 | 1 |
| **Cobalt** | **5.5** | | 0.52 | 0.26 | mg/Kg | | 05/26/23 06:00 | 05/30/23 10:10 | 1 |
| **Chromium** | **13** | | 0.52 | 0.14 | mg/Kg | | 05/26/23 06:00 | 05/30/23 10:10 | 1 |
| **Copper** | **17** | **B** | 1.5 | 0.23 | mg/Kg | | 05/26/23 06:00 | 05/30/23 10:10 | 1 |
| Molybdenum | ND | | 2.1 | 0.77 | mg/Kg | | 05/26/23 06:00 | 05/30/23 10:10 | 1 |
| **Nickel** | **8.4** | | 1.0 | 0.25 | mg/Kg | | 05/26/23 06:00 | 05/30/23 10:10 | 1 |
| **Lead** | **7.3** | | 1.0 | 0.27 | mg/Kg | | 05/26/23 06:00 | 05/30/23 10:10 | 1 |
| Selenium | ND | | 2.1 | 1.4 | mg/Kg | | 05/26/23 06:00 | 05/30/23 10:10 | 1 |
| Antimony | ND | | 2.1 | 0.97 | mg/Kg | | 05/26/23 06:00 | 05/30/23 10:10 | 1 |
| Thallium | ND | | 2.1 | 0.87 | mg/Kg | | 05/26/23 06:00 | 05/30/23 10:10 | 1 |
| **Vanadium** | **31** | | 0.52 | 0.20 | mg/Kg | | 05/26/23 06:00 | 05/30/23 10:10 | 1 |
| **Zinc** | **71** | | 2.1 | 0.20 | mg/Kg | | 05/26/23 06:00 | 05/30/23 10:10 | 1 |

### Method: SW846 7471A - Mercury (CVAA)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Mercury | ND | | 0.040 | 0.0080 | mg/Kg | | 05/22/23 11:28 | 05/22/23 15:50 | 1 |

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

Job ID: 320-100538-1

## Client Sample ID: HV-2-230517

**Date Collected: 05/17/23 13:35**
**Date Received: 05/19/23 09:20**

## Lab Sample ID: 320-100538-3

**Matrix: Solid**

### Method: EPA 314.0 - Perchlorate (IC) - Soluble

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Perchlorate | ND | | 40 | 20 | ug/Kg | | | 06/01/23 18:21 | 1 |

### Method: SW846 6010B - Metals (ICP)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Silver** | **0.74** | | 0.51 | 0.091 | mg/Kg | | 05/26/23 06:00 | 05/30/23 10:13 | 1 |
| **Arsenic** | **3.1** | | 2.0 | 1.3 | mg/Kg | | 05/26/23 06:00 | 05/30/23 10:13 | 1 |
| **Barium** | **46** | | 1.0 | 0.12 | mg/Kg | | 05/26/23 06:00 | 05/30/23 10:13 | 1 |
| **Beryllium** | **0.30** | | 0.20 | 0.030 | mg/Kg | | 05/26/23 06:00 | 05/30/23 10:13 | 1 |
| **Cadmium** | **0.16** | **J** | 0.20 | 0.030 | mg/Kg | | 05/26/23 06:00 | 05/30/23 10:13 | 1 |
| **Cobalt** | **3.5** | | 0.51 | 0.25 | mg/Kg | | 05/26/23 06:00 | 05/30/23 10:13 | 1 |
| **Chromium** | **12** | | 0.51 | 0.14 | mg/Kg | | 05/26/23 06:00 | 05/30/23 10:13 | 1 |
| **Copper** | **10** | **B** | 1.5 | 0.22 | mg/Kg | | 05/26/23 06:00 | 05/30/23 10:13 | 1 |
| Molybdenum | ND | | 2.0 | 0.76 | mg/Kg | | 05/26/23 06:00 | 05/30/23 10:13 | 1 |
| **Nickel** | **7.4** | | 1.0 | 0.24 | mg/Kg | | 05/26/23 06:00 | 05/30/23 10:13 | 1 |
| **Lead** | **7.9** | | 1.0 | 0.26 | mg/Kg | | 05/26/23 06:00 | 05/30/23 10:13 | 1 |
| Selenium | ND | | 2.0 | 1.4 | mg/Kg | | 05/26/23 06:00 | 05/30/23 10:13 | 1 |
| Antimony | ND | | 2.0 | 0.95 | mg/Kg | | 05/26/23 06:00 | 05/30/23 10:13 | 1 |
| Thallium | ND | | 2.0 | 0.85 | mg/Kg | | 05/26/23 06:00 | 05/30/23 10:13 | 1 |
| **Vanadium** | **18** | | 0.51 | 0.19 | mg/Kg | | 05/26/23 06:00 | 05/30/23 10:13 | 1 |
| **Zinc** | **40** | | 2.0 | 0.19 | mg/Kg | | 05/26/23 06:00 | 05/30/23 10:13 | 1 |

### Method: SW846 7471A - Mercury (CVAA)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Mercury** | **0.012** | **J** | 0.041 | 0.0083 | mg/Kg | | 05/22/23 11:28 | 05/22/23 15:52 | 1 |

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

Job ID: 320-100538-1

## Client Sample ID: HV-SED-1-230517

**Date Collected: 05/17/23 13:40**
**Date Received: 05/19/23 09:20**

## Lab Sample ID: 320-100538-4

**Matrix: Solid**

### Method: EPA 314.0 - Perchlorate (IC) - Soluble

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Perchlorate | ND | | 39 | 20 | ug/Kg | | | 06/01/23 18:39 | 1 |

### Method: SW846 6010B - Metals (ICP)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Silver** | **0.095** | **J** | 0.49 | 0.087 | mg/Kg | | 05/26/23 06:00 | 05/30/23 10:16 | 1 |
| **Arsenic** | **2.1** | | 1.9 | 1.3 | mg/Kg | | 05/26/23 06:00 | 05/30/23 10:16 | 1 |
| **Barium** | **34** | | 0.97 | 0.12 | mg/Kg | | 05/26/23 06:00 | 05/30/23 10:16 | 1 |
| **Beryllium** | **0.25** | | 0.19 | 0.029 | mg/Kg | | 05/26/23 06:00 | 05/30/23 10:16 | 1 |
| **Cadmium** | **0.12** | **J** | 0.19 | 0.029 | mg/Kg | | 05/26/23 06:00 | 05/30/23 10:16 | 1 |
| **Cobalt** | **2.5** | | 0.49 | 0.24 | mg/Kg | | 05/26/23 06:00 | 05/30/23 10:16 | 1 |
| **Chromium** | **7.4** | | 0.49 | 0.14 | mg/Kg | | 05/26/23 06:00 | 05/30/23 10:16 | 1 |
| **Copper** | **6.3** | **B** | 1.5 | 0.21 | mg/Kg | | 05/26/23 06:00 | 05/30/23 10:16 | 1 |
| Molybdenum | ND | | 1.9 | 0.73 | mg/Kg | | 05/26/23 06:00 | 05/30/23 10:16 | 1 |
| **Nickel** | **4.9** | | 0.97 | 0.23 | mg/Kg | | 05/26/23 06:00 | 05/30/23 10:16 | 1 |
| **Lead** | **5.0** | | 0.97 | 0.25 | mg/Kg | | 05/26/23 06:00 | 05/30/23 10:16 | 1 |
| Selenium | ND | | 1.9 | 1.4 | mg/Kg | | 05/26/23 06:00 | 05/30/23 10:16 | 1 |
| Antimony | ND | | 1.9 | 0.91 | mg/Kg | | 05/26/23 06:00 | 05/30/23 10:16 | 1 |
| Thallium | ND | | 1.9 | 0.82 | mg/Kg | | 05/26/23 06:00 | 05/30/23 10:16 | 1 |
| **Vanadium** | **14** | | 0.49 | 0.18 | mg/Kg | | 05/26/23 06:00 | 05/30/23 10:16 | 1 |
| **Zinc** | **31** | | 1.9 | 0.18 | mg/Kg | | 05/26/23 06:00 | 05/30/23 10:16 | 1 |

### Method: SW846 7471A - Mercury (CVAA)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Mercury | ND | | 0.039 | 0.0079 | mg/Kg | | 05/22/23 11:28 | 05/22/23 15:54 | 1 |

## Client Sample ID: HV-1-230517

**Lab Sample ID: 320-100538-5**

**Date Collected: 05/17/23 13:45**

**Matrix: Solid**

**Date Received: 05/19/23 09:20**

### Method: EPA 314.0 - Perchlorate (IC) - Soluble

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Perchlorate | ND | | 40 | 20 | ug/Kg | | | 06/01/23 19:33 | 1 |

### Method: SW846 6010B - Metals (ICP)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Silver | ND | | 0.36 | 0.065 | mg/Kg | | 05/26/23 06:00 | 05/30/23 10:25 | 1 |
| **Arsenic** | **4.6** | | 1.4 | 0.94 | mg/Kg | | 05/26/23 06:00 | 05/30/23 10:25 | 1 |
| **Barium** | **54** | | 0.72 | 0.086 | mg/Kg | | 05/26/23 06:00 | 05/30/23 10:25 | 1 |
| **Beryllium** | **0.36** | | 0.14 | 0.022 | mg/Kg | | 05/26/23 06:00 | 05/30/23 10:25 | 1 |
| **Cadmium** | **0.11** | **J** | 0.14 | 0.022 | mg/Kg | | 05/26/23 06:00 | 05/30/23 10:25 | 1 |
| **Cobalt** | **3.1** | | 0.36 | 0.18 | mg/Kg | | 05/26/23 06:00 | 05/30/23 10:25 | 1 |
| **Chromium** | **9.0** | | 0.36 | 0.10 | mg/Kg | | 05/26/23 06:00 | 05/30/23 10:25 | 1 |
| **Copper** | **5.3** | **B** | 1.1 | 0.16 | mg/Kg | | 05/26/23 06:00 | 05/30/23 10:25 | 1 |
| Molybdenum | ND | | 1.4 | 0.54 | mg/Kg | | 05/26/23 06:00 | 05/30/23 10:25 | 1 |
| **Nickel** | **5.7** | | 0.72 | 0.17 | mg/Kg | | 05/26/23 06:00 | 05/30/23 10:25 | 1 |
| **Lead** | **3.8** | | 0.72 | 0.19 | mg/Kg | | 05/26/23 06:00 | 05/30/23 10:25 | 1 |
| Selenium | ND | | 1.4 | 1.0 | mg/Kg | | 05/26/23 06:00 | 05/30/23 10:25 | 1 |
| Antimony | ND | | 1.4 | 0.68 | mg/Kg | | 05/26/23 06:00 | 05/30/23 10:25 | 1 |
| Thallium | ND | | 1.4 | 0.60 | mg/Kg | | 05/26/23 06:00 | 05/30/23 10:25 | 1 |
| **Vanadium** | **17** | | 0.36 | 0.14 | mg/Kg | | 05/26/23 06:00 | 05/30/23 10:25 | 1 |
| **Zinc** | **39** | | 1.4 | 0.14 | mg/Kg | | 05/26/23 06:00 | 05/30/23 10:25 | 1 |

### Method: SW846 7471A - Mercury (CVAA)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Mercury | ND | | 0.041 | 0.0081 | mg/Kg | | 05/22/23 11:28 | 05/22/23 15:55 | 1 |

**Client Sample ID: KC-1-230517**
**Date Collected: 05/17/23 14:30**
**Date Received: 05/19/23 09:20**

**Lab Sample ID: 320-100538-6**
**Matrix: Solid**

### Method: EPA 314.0 - Perchlorate (IC) - Soluble

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Perchlorate | ND | | 40 | 20 | ug/Kg | | | 06/01/23 19:51 | 1 |

### Method: SW846 6010B - Metals (ICP)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Silver | ND | | 0.52 | 0.093 | mg/Kg | | 05/26/23 06:00 | 05/30/23 10:28 | 1 |
| **Arsenic** | **5.1** | | 2.1 | 1.3 | mg/Kg | | 05/26/23 06:00 | 05/30/23 10:28 | 1 |
| **Barium** | **53** | | 1.0 | 0.12 | mg/Kg | | 05/26/23 06:00 | 05/30/23 10:28 | 1 |
| **Beryllium** | **0.42** | | 0.21 | 0.031 | mg/Kg | | 05/26/23 06:00 | 05/30/23 10:28 | 1 |
| **Cadmium** | **0.095** | **J** | 0.21 | 0.031 | mg/Kg | | 05/26/23 06:00 | 05/30/23 10:28 | 1 |
| **Cobalt** | **5.2** | | 0.52 | 0.26 | mg/Kg | | 05/26/23 06:00 | 05/30/23 10:28 | 1 |
| **Chromium** | **15** | | 0.52 | 0.14 | mg/Kg | | 05/26/23 06:00 | 05/30/23 10:28 | 1 |
| **Copper** | **9.8** | **B** | 1.5 | 0.23 | mg/Kg | | 05/26/23 06:00 | 05/30/23 10:28 | 1 |
| **Molybdenum** | **0.79** | **J** | 2.1 | 0.77 | mg/Kg | | 05/26/23 06:00 | 05/30/23 10:28 | 1 |
| **Nickel** | **10** | | 1.0 | 0.25 | mg/Kg | | 05/26/23 06:00 | 05/30/23 10:28 | 1 |
| **Lead** | **9.1** | | 1.0 | 0.27 | mg/Kg | | 05/26/23 06:00 | 05/30/23 10:28 | 1 |
| Selenium | ND | | 2.1 | 1.4 | mg/Kg | | 05/26/23 06:00 | 05/30/23 10:28 | 1 |
| Antimony | ND | | 2.1 | 0.97 | mg/Kg | | 05/26/23 06:00 | 05/30/23 10:28 | 1 |
| Thallium | ND | | 2.1 | 0.87 | mg/Kg | | 05/26/23 06:00 | 05/30/23 10:28 | 1 |
| **Vanadium** | **30** | | 0.52 | 0.20 | mg/Kg | | 05/26/23 06:00 | 05/30/23 10:28 | 1 |
| **Zinc** | **52** | | 2.1 | 0.20 | mg/Kg | | 05/26/23 06:00 | 05/30/23 10:28 | 1 |

### Method: SW846 7471A - Mercury (CVAA)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Mercury** | **0.0082** | **J** | 0.039 | 0.0079 | mg/Kg | | 05/22/23 11:28 | 05/22/23 15:57 | 1 |

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

Job ID: 320-100538-1

## Client Sample ID: AT-1-230518

**Date Collected: 05/18/23 08:00**
**Date Received: 05/19/23 09:20**

## Lab Sample ID: 320-100538-7

**Matrix: Solid**

### Method: EPA 314.0 - Perchlorate (IC) - Soluble

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Perchlorate | ND | | 200 | 98 | ug/Kg | | | 06/01/23 20:09 | 5 |

### Method: SW846 6010B - Metals (ICP)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Silver | ND | | 0.52 | 0.093 | mg/Kg | | 05/26/23 06:00 | 05/30/23 10:31 | 1 |
| **Arsenic** | **3.8** | | 2.1 | 1.3 | mg/Kg | | 05/26/23 06:00 | 05/30/23 10:31 | 1 |
| **Barium** | **55** | | 1.0 | 0.12 | mg/Kg | | 05/26/23 06:00 | 05/30/23 10:31 | 1 |
| **Beryllium** | **0.35** | | 0.21 | 0.031 | mg/Kg | | 05/26/23 06:00 | 05/30/23 10:31 | 1 |
| **Cadmium** | **0.14** | **J** | 0.21 | 0.031 | mg/Kg | | 05/26/23 06:00 | 05/30/23 10:31 | 1 |
| **Cobalt** | **4.7** | | 0.52 | 0.26 | mg/Kg | | 05/26/23 06:00 | 05/30/23 10:31 | 1 |
| **Chromium** | **13** | | 0.52 | 0.14 | mg/Kg | | 05/26/23 06:00 | 05/30/23 10:31 | 1 |
| **Copper** | **9.8** | **B** | 1.5 | 0.23 | mg/Kg | | 05/26/23 06:00 | 05/30/23 10:31 | 1 |
| Molybdenum | ND | | 2.1 | 0.77 | mg/Kg | | 05/26/23 06:00 | 05/30/23 10:31 | 1 |
| **Nickel** | **8.4** | | 1.0 | 0.25 | mg/Kg | | 05/26/23 06:00 | 05/30/23 10:31 | 1 |
| **Lead** | **6.9** | | 1.0 | 0.27 | mg/Kg | | 05/26/23 06:00 | 05/30/23 10:31 | 1 |
| Selenium | ND | | 2.1 | 1.4 | mg/Kg | | 05/26/23 06:00 | 05/30/23 10:31 | 1 |
| Antimony | ND | | 2.1 | 0.97 | mg/Kg | | 05/26/23 06:00 | 05/30/23 10:31 | 1 |
| Thallium | ND | | 2.1 | 0.87 | mg/Kg | | 05/26/23 06:00 | 05/30/23 10:31 | 1 |
| **Vanadium** | **25** | | 0.52 | 0.20 | mg/Kg | | 05/26/23 06:00 | 05/30/23 10:31 | 1 |
| **Zinc** | **36** | | 2.1 | 0.20 | mg/Kg | | 05/26/23 06:00 | 05/30/23 10:31 | 1 |

### Method: SW846 7471A - Mercury (CVAA)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Mercury | ND | | 0.040 | 0.0080 | mg/Kg | | 05/22/23 11:28 | 05/22/23 15:59 | 1 |

## Client Sample ID: GF-1-230518

**Lab Sample ID: 320-100538-8**

**Date Collected: 05/18/23 08:20**

**Matrix: Solid**

**Date Received: 05/19/23 09:20**

### Method: EPA 314.0 - Perchlorate (IC) - Soluble

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Perchlorate | ND | | 40 | 20 | ug/Kg | | | 06/01/23 20:26 | 1 |

### Method: SW846 6010B - Metals (ICP)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Silver | ND | | 0.48 | 0.087 | mg/Kg | | 05/26/23 06:00 | 05/30/23 10:34 | 1 |
| **Arsenic** | **2.9** | | 1.9 | 1.3 | mg/Kg | | 05/26/23 06:00 | 05/30/23 10:34 | 1 |
| **Barium** | **43** | | 0.96 | 0.12 | mg/Kg | | 05/26/23 06:00 | 05/30/23 10:34 | 1 |
| **Beryllium** | **0.32** | | 0.19 | 0.029 | mg/Kg | | 05/26/23 06:00 | 05/30/23 10:34 | 1 |
| **Cadmium** | **0.14** | **J** | 0.19 | 0.029 | mg/Kg | | 05/26/23 06:00 | 05/30/23 10:34 | 1 |
| **Cobalt** | **3.8** | | 0.48 | 0.24 | mg/Kg | | 05/26/23 06:00 | 05/30/23 10:34 | 1 |
| **Chromium** | **10** | | 0.48 | 0.13 | mg/Kg | | 05/26/23 06:00 | 05/30/23 10:34 | 1 |
| **Copper** | **7.0** | **B** | 1.4 | 0.21 | mg/Kg | | 05/26/23 06:00 | 05/30/23 10:34 | 1 |
| Molybdenum | ND | | 1.9 | 0.72 | mg/Kg | | 05/26/23 06:00 | 05/30/23 10:34 | 1 |
| **Nickel** | **6.9** | | 0.96 | 0.23 | mg/Kg | | 05/26/23 06:00 | 05/30/23 10:34 | 1 |
| **Lead** | **6.2** | | 0.96 | 0.25 | mg/Kg | | 05/26/23 06:00 | 05/30/23 10:34 | 1 |
| Selenium | ND | | 1.9 | 1.3 | mg/Kg | | 05/26/23 06:00 | 05/30/23 10:34 | 1 |
| Antimony | ND | | 1.9 | 0.90 | mg/Kg | | 05/26/23 06:00 | 05/30/23 10:34 | 1 |
| Thallium | ND | | 1.9 | 0.81 | mg/Kg | | 05/26/23 06:00 | 05/30/23 10:34 | 1 |
| **Vanadium** | **22** | | 0.48 | 0.18 | mg/Kg | | 05/26/23 06:00 | 05/30/23 10:34 | 1 |
| **Zinc** | **62** | | 1.9 | 0.18 | mg/Kg | | 05/26/23 06:00 | 05/30/23 10:34 | 1 |

### Method: SW846 7471A - Mercury (CVAA)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Mercury** | **0.0082** | **J** | 0.039 | 0.0079 | mg/Kg | | 05/22/23 11:28 | 05/22/23 16:00 | 1 |

## Method: 314.0 - Perchlorate (IC)

**Lab Sample ID: MB 320-679116/5**
**Matrix: Solid**
**Analysis Batch: 679116**

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

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Perchlorate | ND | | 4.0 | 2.0 | ug/Kg | | | 05/31/23 12:46 | 1 |

**Lab Sample ID: MRL 320-679116/4**
**Matrix: Solid**
**Analysis Batch: 679116**

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

| Analyte | Spike Added | MRL Result | MRL Qualifier | Unit | D | %Rec | %Rec Limits |
|---|---|---|---|---|---|---|---|
| Perchlorate | 3.99 | 4.22 | | ug/L | | 106 | 75 - 125 |

**Lab Sample ID: MB 320-679423/5**
**Matrix: Solid**
**Analysis Batch: 679423**

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

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Perchlorate | ND | | 4.0 | 2.0 | ug/Kg | | | 06/01/23 12:23 | 1 |

**Lab Sample ID: MRL 320-679423/4**
**Matrix: Solid**
**Analysis Batch: 679423**

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

| Analyte | Spike Added | MRL Result | MRL Qualifier | Unit | D | %Rec | %Rec Limits |
|---|---|---|---|---|---|---|---|
| Perchlorate | 3.99 | 3.99 | J | ug/L | | 100 | 75 - 125 |

**Lab Sample ID: MB 320-679091/1-A**
**Matrix: Solid**
**Analysis Batch: 679116**

**Client Sample ID: Method Blank**
**Prep Type: Soluble**

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Perchlorate | ND | | 40 | 20 | ug/Kg | | | 05/31/23 17:33 | 1 |

**Lab Sample ID: LCS 320-679091/2-A**
**Matrix: Solid**
**Analysis Batch: 679116**

**Client Sample ID: Lab Control Sample**
**Prep Type: Soluble**

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits |
|---|---|---|---|---|---|---|---|
| Perchlorate | 499 | 484 | | ug/Kg | | 97 | 75 - 125 |

## Method: 6010B - Metals (ICP)

**Lab Sample ID: MB 320-677905/1-A**
**Matrix: Solid**
**Analysis Batch: 678840**

**Client Sample ID: Method Blank**
**Prep Type: Total/NA**
**Prep Batch: 677905**

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Silver | ND | | 0.50 | 0.090 | mg/Kg | | 05/26/23 06:00 | 05/30/23 09:49 | 1 |
| Arsenic | ND | | 2.0 | 1.3 | mg/Kg | | 05/26/23 06:00 | 05/30/23 09:49 | 1 |
| Barium | ND | | 1.0 | 0.12 | mg/Kg | | 05/26/23 06:00 | 05/30/23 09:49 | 1 |
| Beryllium | ND | | 0.20 | 0.030 | mg/Kg | | 05/26/23 06:00 | 05/30/23 09:49 | 1 |
| Cadmium | ND | | 0.20 | 0.030 | mg/Kg | | 05/26/23 06:00 | 05/30/23 09:49 | 1 |
| Cobalt | ND | | 0.50 | 0.25 | mg/Kg | | 05/26/23 06:00 | 05/30/23 09:49 | 1 |

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

**Lab Sample ID: MB 320-677905/1-A**
**Matrix: Solid**
**Analysis Batch: 678840**

**Client Sample ID: Method Blank**
**Prep Type: Total/NA**
**Prep Batch: 677905**

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Chromium | ND | | 0.50 | 0.14 | mg/Kg | | 05/26/23 06:00 | 05/30/23 09:49 | 1 |
| Copper | 0.361 | J | 1.5 | 0.22 | mg/Kg | | 05/26/23 06:00 | 05/30/23 09:49 | 1 |
| Molybdenum | ND | | 2.0 | 0.75 | mg/Kg | | 05/26/23 06:00 | 05/30/23 09:49 | 1 |
| Nickel | ND | | 1.0 | 0.24 | mg/Kg | | 05/26/23 06:00 | 05/30/23 09:49 | 1 |
| Lead | ND | | 1.0 | 0.26 | mg/Kg | | 05/26/23 06:00 | 05/30/23 09:49 | 1 |
| Selenium | ND | | 2.0 | 1.4 | mg/Kg | | 05/26/23 06:00 | 05/30/23 09:49 | 1 |
| Antimony | ND | | 2.0 | 0.94 | mg/Kg | | 05/26/23 06:00 | 05/30/23 09:49 | 1 |
| Thallium | ND | | 2.0 | 0.84 | mg/Kg | | 05/26/23 06:00 | 05/30/23 09:49 | 1 |
| Vanadium | ND | | 0.50 | 0.19 | mg/Kg | | 05/26/23 06:00 | 05/30/23 09:49 | 1 |
| Zinc | ND | | 2.0 | 0.19 | mg/Kg | | 05/26/23 06:00 | 05/30/23 09:49 | 1 |

**Lab Sample ID: LCS 320-677905/2-A**
**Matrix: Solid**
**Analysis Batch: 678840**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**
**Prep Batch: 677905**

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits |
|---|---|---|---|---|---|---|---|
| Silver | 5.03 | 4.54 | | mg/Kg | | 90 | 80 - 120 |
| Arsenic | 50.0 | 45.5 | | mg/Kg | | 91 | 80 - 120 |
| Barium | 50.0 | 43.4 | | mg/Kg | | 87 | 80 - 120 |
| Beryllium | 25.0 | 22.7 | | mg/Kg | | 91 | 80 - 120 |
| Cadmium | 25.0 | 23.2 | | mg/Kg | | 93 | 80 - 120 |
| Cobalt | 25.0 | 22.3 | | mg/Kg | | 89 | 80 - 120 |
| Chromium | 25.0 | 23.7 | | mg/Kg | | 95 | 80 - 120 |
| Copper | 25.0 | 21.5 | | mg/Kg | | 86 | 80 - 120 |
| Molybdenum | 25.0 | 22.9 | | mg/Kg | | 92 | 80 - 120 |
| Nickel | 25.0 | 22.6 | | mg/Kg | | 90 | 80 - 120 |
| Lead | 25.0 | 23.0 | | mg/Kg | | 92 | 80 - 120 |
| Selenium | 50.0 | 43.6 | | mg/Kg | | 87 | 80 - 120 |
| Antimony | 50.1 | 48.4 | | mg/Kg | | 97 | 80 - 120 |
| Thallium | 50.0 | 45.5 | | mg/Kg | | 91 | 80 - 120 |
| Vanadium | 25.0 | 23.1 | | mg/Kg | | 92 | 80 - 120 |
| Zinc | 50.5 | 49.8 | | mg/Kg | | 99 | 80 - 120 |

**Lab Sample ID: 320-100538-1 MS**
**Matrix: Solid**
**Analysis Batch: 678840**

**Client Sample ID: CIT-1-230516**
**Prep Type: Total/NA**
**Prep Batch: 677905**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec Limits |
|---|---|---|---|---|---|---|---|---|---|
| Silver | ND | F1 | 5.24 | 4.07 | F1 | mg/Kg | | 78 | 80 - 120 |
| Arsenic | 2.9 | | 52.1 | 44.4 | | mg/Kg | | 80 | 80 - 120 |
| Barium | 44 | | 52.1 | 88.0 | | mg/Kg | | 84 | 80 - 120 |
| Beryllium | 0.36 | | 26.0 | 22.1 | | mg/Kg | | 84 | 80 - 120 |
| Cadmium | 0.18 | J | 26.0 | 21.7 | | mg/Kg | | 82 | 80 - 120 |
| Cobalt | 4.2 | | 26.0 | 25.3 | | mg/Kg | | 81 | 80 - 120 |
| Chromium | 10 | | 26.0 | 34.6 | | mg/Kg | | 93 | 80 - 120 |
| Copper | 9.6 | B | 26.0 | 31.3 | | mg/Kg | | 84 | 80 - 120 |
| Molybdenum | ND | | 26.0 | 21.2 | | mg/Kg | | 81 | 80 - 120 |
| Nickel | 7.0 | | 26.1 | 28.5 | | mg/Kg | | 82 | 80 - 120 |
| Lead | 10 | | 26.0 | 32.3 | | mg/Kg | | 86 | 80 - 120 |

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

**Lab Sample ID: 320-100538-1 MS**
**Matrix: Solid**
**Analysis Batch: 678840**

**Client Sample ID: CIT-1-230516**
**Prep Type: Total/NA**
**Prep Batch: 677905**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec Limits |
|---|---|---|---|---|---|---|---|---|---|
| Selenium | ND | F1 | 52.1 | 38.5 | F1 | mg/Kg | | 74 | 80 - 120 |
| Antimony | ND | F1 | 52.1 | 18.4 | F1 | mg/Kg | | 35 | 80 - 120 |
| Thallium | ND | | 52.1 | 42.7 | | mg/Kg | | 82 | 80 - 120 |
| Vanadium | 21 | | 26.0 | 46.3 | | mg/Kg | | 98 | 80 - 120 |
| Zinc | 49 | | 52.6 | 95.9 | | mg/Kg | | 89 | 80 - 120 |

**Lab Sample ID: 320-100538-1 MSD**
**Matrix: Solid**
**Analysis Batch: 678840**

**Client Sample ID: CIT-1-230516**
**Prep Type: Total/NA**
**Prep Batch: 677905**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Silver | ND | F1 | 4.93 | 3.76 | F1 | mg/Kg | | 76 | 80 - 120 | 8 | 35 |
| Arsenic | 2.9 | | 49.0 | 42.0 | | mg/Kg | | 80 | 80 - 120 | 6 | 35 |
| Barium | 44 | | 49.0 | 85.5 | | mg/Kg | | 84 | 80 - 120 | 3 | 35 |
| Beryllium | 0.36 | | 24.5 | 20.9 | | mg/Kg | | 84 | 80 - 120 | 6 | 35 |
| Cadmium | 0.18 | J | 24.5 | 20.5 | | mg/Kg | | 83 | 80 - 120 | 6 | 35 |
| Cobalt | 4.2 | | 24.5 | 24.5 | | mg/Kg | | 83 | 80 - 120 | 3 | 35 |
| Chromium | 10 | | 24.5 | 32.8 | | mg/Kg | | 91 | 80 - 120 | 5 | 35 |
| Copper | 9.6 | B | 24.5 | 29.9 | | mg/Kg | | 83 | 80 - 120 | 5 | 35 |
| Molybdenum | ND | | 24.5 | 19.7 | | mg/Kg | | 80 | 80 - 120 | 7 | 35 |
| Nickel | 7.0 | | 24.5 | 27.5 | | mg/Kg | | 83 | 80 - 120 | 4 | 35 |
| Lead | 10 | | 24.5 | 31.0 | | mg/Kg | | 86 | 80 - 120 | 4 | 35 |
| Selenium | ND | F1 | 49.0 | 37.2 | F1 | mg/Kg | | 76 | 80 - 120 | 3 | 35 |
| Antimony | ND | F1 | 49.1 | 16.5 | F1 | mg/Kg | | 34 | 80 - 120 | 11 | 35 |
| Thallium | ND | | 49.0 | 40.2 | | mg/Kg | | 82 | 80 - 120 | 6 | 35 |
| Vanadium | 21 | | 24.5 | 44.7 | | mg/Kg | | 97 | 80 - 120 | 3 | 35 |
| Zinc | 49 | | 49.5 | 94.2 | | mg/Kg | | 91 | 80 - 120 | 2 | 35 |

## Method: 7471A - Mercury (CVAA)

**Lab Sample ID: MB 320-676650/11-A**
**Matrix: Solid**
**Analysis Batch: 676885**

**Client Sample ID: Method Blank**
**Prep Type: Total/NA**
**Prep Batch: 676650**

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Mercury | ND | | 0.040 | 0.0080 | mg/Kg | | 05/22/23 11:28 | 05/22/23 15:26 | 1 |

**Lab Sample ID: LCS 320-676650/12-A**
**Matrix: Solid**
**Analysis Batch: 676885**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**
**Prep Batch: 676650**

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits |
|---|---|---|---|---|---|---|---|
| Mercury | 0.167 | 0.168 | | mg/Kg | | 100 | 86 - 114 |

## HPLC/IC

### Leach Batch: 679091

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 320-100538-1 | CIT-1-230516 | Soluble | Solid | DI Leach | |
| 320-100538-2 | TF-1-230516 | Soluble | Solid | DI Leach | |
| 320-100538-3 | HV-2-230517 | Soluble | Solid | DI Leach | |
| 320-100538-4 | HV-SED-1-230517 | Soluble | Solid | DI Leach | |
| 320-100538-5 | HV-1-230517 | Soluble | Solid | DI Leach | |
| 320-100538-6 | KC-1-230517 | Soluble | Solid | DI Leach | |
| 320-100538-7 | AT-1-230518 | Soluble | Solid | DI Leach | |
| 320-100538-8 | GF-1-230518 | Soluble | Solid | DI Leach | |
| MB 320-679091/1-A | Method Blank | Soluble | Solid | DI Leach | |
| LCS 320-679091/2-A | Lab Control Sample | Soluble | Solid | DI Leach | |

### Analysis Batch: 679116

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| MB 320-679091/1-A | Method Blank | Soluble | Solid | 314.0 | 679091 |
| MB 320-679116/5 | Method Blank | Total/NA | Solid | 314.0 | |
| LCS 320-679091/2-A | Lab Control Sample | Soluble | Solid | 314.0 | 679091 |
| MRL 320-679116/4 | Lab Control Sample | Total/NA | Solid | 314.0 | |

### Analysis Batch: 679423

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 320-100538-1 | CIT-1-230516 | Soluble | Solid | 314.0 | 679091 |
| 320-100538-2 | TF-1-230516 | Soluble | Solid | 314.0 | 679091 |
| 320-100538-3 | HV-2-230517 | Soluble | Solid | 314.0 | 679091 |
| 320-100538-4 | HV-SED-1-230517 | Soluble | Solid | 314.0 | 679091 |
| 320-100538-5 | HV-1-230517 | Soluble | Solid | 314.0 | 679091 |
| 320-100538-6 | KC-1-230517 | Soluble | Solid | 314.0 | 679091 |
| 320-100538-7 | AT-1-230518 | Soluble | Solid | 314.0 | 679091 |
| 320-100538-8 | GF-1-230518 | Soluble | Solid | 314.0 | 679091 |
| MB 320-679423/5 | Method Blank | Total/NA | Solid | 314.0 | |
| MRL 320-679423/4 | Lab Control Sample | Total/NA | Solid | 314.0 | |

## Metals

### Prep Batch: 676650

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 320-100538-1 | CIT-1-230516 | Total/NA | Solid | 7471A | |
| 320-100538-2 | TF-1-230516 | Total/NA | Solid | 7471A | |
| 320-100538-3 | HV-2-230517 | Total/NA | Solid | 7471A | |
| 320-100538-4 | HV-SED-1-230517 | Total/NA | Solid | 7471A | |
| 320-100538-5 | HV-1-230517 | Total/NA | Solid | 7471A | |
| 320-100538-6 | KC-1-230517 | Total/NA | Solid | 7471A | |
| 320-100538-7 | AT-1-230518 | Total/NA | Solid | 7471A | |
| 320-100538-8 | GF-1-230518 | Total/NA | Solid | 7471A | |
| MB 320-676650/11-A | Method Blank | Total/NA | Solid | 7471A | |
| LCS 320-676650/12-A | Lab Control Sample | Total/NA | Solid | 7471A | |

### Analysis Batch: 676885

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 320-100538-1 | CIT-1-230516 | Total/NA | Solid | 7471A | 676650 |
| 320-100538-2 | TF-1-230516 | Total/NA | Solid | 7471A | 676650 |
| 320-100538-3 | HV-2-230517 | Total/NA | Solid | 7471A | 676650 |

## Metals (Continued)

### Analysis Batch: 676885 (Continued)

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 320-100538-4 | HV-SED-1-230517 | Total/NA | Solid | 7471A | 676650 |
| 320-100538-5 | HV-1-230517 | Total/NA | Solid | 7471A | 676650 |
| 320-100538-6 | KC-1-230517 | Total/NA | Solid | 7471A | 676650 |
| 320-100538-7 | AT-1-230518 | Total/NA | Solid | 7471A | 676650 |
| 320-100538-8 | GF-1-230518 | Total/NA | Solid | 7471A | 676650 |
| MB 320-676650/11-A | Method Blank | Total/NA | Solid | 7471A | 676650 |
| LCS 320-676650/12-A | Lab Control Sample | Total/NA | Solid | 7471A | 676650 |

### Prep Batch: 677905

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 320-100538-1 | CIT-1-230516 | Total/NA | Solid | 3050B | |
| 320-100538-2 | TF-1-230516 | Total/NA | Solid | 3050B | |
| 320-100538-3 | HV-2-230517 | Total/NA | Solid | 3050B | |
| 320-100538-4 | HV-SED-1-230517 | Total/NA | Solid | 3050B | |
| 320-100538-5 | HV-1-230517 | Total/NA | Solid | 3050B | |
| 320-100538-6 | KC-1-230517 | Total/NA | Solid | 3050B | |
| 320-100538-7 | AT-1-230518 | Total/NA | Solid | 3050B | |
| 320-100538-8 | GF-1-230518 | Total/NA | Solid | 3050B | |
| MB 320-677905/1-A | Method Blank | Total/NA | Solid | 3050B | |
| LCS 320-677905/2-A | Lab Control Sample | Total/NA | Solid | 3050B | |
| 320-100538-1 MS | CIT-1-230516 | Total/NA | Solid | 3050B | |
| 320-100538-1 MSD | CIT-1-230516 | Total/NA | Solid | 3050B | |

### Analysis Batch: 678840

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 320-100538-1 | CIT-1-230516 | Total/NA | Solid | 6010B | 677905 |
| 320-100538-2 | TF-1-230516 | Total/NA | Solid | 6010B | 677905 |
| 320-100538-3 | HV-2-230517 | Total/NA | Solid | 6010B | 677905 |
| 320-100538-4 | HV-SED-1-230517 | Total/NA | Solid | 6010B | 677905 |
| 320-100538-5 | HV-1-230517 | Total/NA | Solid | 6010B | 677905 |
| 320-100538-6 | KC-1-230517 | Total/NA | Solid | 6010B | 677905 |
| 320-100538-7 | AT-1-230518 | Total/NA | Solid | 6010B | 677905 |
| 320-100538-8 | GF-1-230518 | Total/NA | Solid | 6010B | 677905 |
| MB 320-677905/1-A | Method Blank | Total/NA | Solid | 6010B | 677905 |
| LCS 320-677905/2-A | Lab Control Sample | Total/NA | Solid | 6010B | 677905 |
| 320-100538-1 MS | CIT-1-230516 | Total/NA | Solid | 6010B | 677905 |
| 320-100538-1 MSD | CIT-1-230516 | Total/NA | Solid | 6010B | 677905 |

# Lab Chronicle

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

Job ID: 320-100538-1

## Client Sample ID: CIT-1-230516
**Date Collected: 05/16/23 13:27**
**Date Received: 05/19/23 09:20**

## Lab Sample ID: 320-100538-1
**Matrix: Solid**

| Prep Type | Batch Type | Batch Method | Run | Dil Factor | Initial Amount | Final Amount | Batch Number | Prepared or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|---|---|
| Soluble | Leach | DI Leach | | | 5.12 g | 50 mL | 679091 | 05/31/23 10:37 | TCS | EET SAC |
| Soluble | Analysis | 314.0 | | 1 | 5 mL | 5 mL | 679423 | 06/01/23 17:45 | TCS | EET SAC |
| Total/NA | Prep | 3050B | | | 0.97 g | 100 mL | 677905 | 05/26/23 06:00 | NIM | EET SAC |
| Total/NA | Analysis | 6010B | | 1 | | | 678840 | 05/30/23 09:55 | GSH | EET SAC |
| Total/NA | Prep | 7471A | | | 0.59 g | 50 mL | 676650 | 05/22/23 11:28 | JAP | EET SAC |
| Total/NA | Analysis | 7471A | | 1 | | | 676885 | 05/22/23 15:49 | JAP | EET SAC |

## Client Sample ID: TF-1-230516
**Date Collected: 05/16/23 13:50**
**Date Received: 05/19/23 09:20**

## Lab Sample ID: 320-100538-2
**Matrix: Solid**

| Prep Type | Batch Type | Batch Method | Run | Dil Factor | Initial Amount | Final Amount | Batch Number | Prepared or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|---|---|
| Soluble | Leach | DI Leach | | | 4.97 g | 50 mL | 679091 | 05/31/23 10:37 | TCS | EET SAC |
| Soluble | Analysis | 314.0 | | 1 | 5 mL | 5 mL | 679423 | 06/01/23 18:03 | TCS | EET SAC |
| Total/NA | Prep | 3050B | | | 0.97 g | 100 mL | 677905 | 05/26/23 06:00 | NIM | EET SAC |
| Total/NA | Analysis | 6010B | | 1 | | | 678840 | 05/30/23 10:10 | GSH | EET SAC |
| Total/NA | Prep | 7471A | | | 0.60 g | 50 mL | 676650 | 05/22/23 11:28 | JAP | EET SAC |
| Total/NA | Analysis | 7471A | | 1 | | | 676885 | 05/22/23 15:50 | JAP | EET SAC |

## Client Sample ID: HV-2-230517
**Date Collected: 05/17/23 13:35**
**Date Received: 05/19/23 09:20**

## Lab Sample ID: 320-100538-3
**Matrix: Solid**

| Prep Type | Batch Type | Batch Method | Run | Dil Factor | Initial Amount | Final Amount | Batch Number | Prepared or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|---|---|
| Soluble | Leach | DI Leach | | | 4.98 g | 50 mL | 679091 | 05/31/23 10:37 | TCS | EET SAC |
| Soluble | Analysis | 314.0 | | 1 | 5 mL | 5 mL | 679423 | 06/01/23 18:21 | TCS | EET SAC |
| Total/NA | Prep | 3050B | | | 0.99 g | 100 mL | 677905 | 05/26/23 06:00 | NIM | EET SAC |
| Total/NA | Analysis | 6010B | | 1 | | | 678840 | 05/30/23 10:13 | GSH | EET SAC |
| Total/NA | Prep | 7471A | | | 0.58 g | 50 mL | 676650 | 05/22/23 11:28 | JAP | EET SAC |
| Total/NA | Analysis | 7471A | | 1 | | | 676885 | 05/22/23 15:52 | JAP | EET SAC |

## Client Sample ID: HV-SED-1-230517
**Date Collected: 05/17/23 13:40**
**Date Received: 05/19/23 09:20**

## Lab Sample ID: 320-100538-4
**Matrix: Solid**

| 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 | 679091 | 05/31/23 10:37 | TCS | EET SAC |
| Soluble | Analysis | 314.0 | | 1 | 5 mL | 5 mL | 679423 | 06/01/23 18:39 | TCS | EET SAC |
| Total/NA | Prep | 3050B | | | 1.03 g | 100 mL | 677905 | 05/26/23 06:00 | NIM | EET SAC |
| Total/NA | Analysis | 6010B | | 1 | | | 678840 | 05/30/23 10:16 | GSH | EET SAC |
| Total/NA | Prep | 7471A | | | 0.61 g | 50 mL | 676650 | 05/22/23 11:28 | JAP | EET SAC |
| Total/NA | Analysis | 7471A | | 1 | | | 676885 | 05/22/23 15:54 | JAP | EET SAC |

# Lab Chronicle

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

Job ID: 320-100538-1

## Client Sample ID: HV-1-230517

**Lab Sample ID: 320-100538-5**

**Date Collected: 05/17/23 13:45**

**Matrix: Solid**

**Date Received: 05/19/23 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 | | | 4.98 g | 50 mL | 679091 | 05/31/23 10:37 | TCS | EET SAC |
| Soluble | Analysis | 314.0 | | 1 | 5 mL | 5 mL | 679423 | 06/01/23 19:33 | TCS | EET SAC |
| Total/NA | Prep | 3050B | | | 1.39 g | 100 mL | 677905 | 05/26/23 06:00 | NIM | EET SAC |
| Total/NA | Analysis | 6010B | | 1 | | | 678840 | 05/30/23 10:25 | GSH | EET SAC |
| Total/NA | Prep | 7471A | | | 0.59 g | 50 mL | 676650 | 05/22/23 11:28 | JAP | EET SAC |
| Total/NA | Analysis | 7471A | | 1 | | | 676885 | 05/22/23 15:55 | JAP | EET SAC |

## Client Sample ID: KC-1-230517

**Lab Sample ID: 320-100538-6**

**Date Collected: 05/17/23 14:30**

**Matrix: Solid**

**Date Received: 05/19/23 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 | | | 4.96 g | 50 mL | 679091 | 05/31/23 10:37 | TCS | EET SAC |
| Soluble | Analysis | 314.0 | | 1 | 5 mL | 5 mL | 679423 | 06/01/23 19:51 | TCS | EET SAC |
| Total/NA | Prep | 3050B | | | 0.97 g | 100 mL | 677905 | 05/26/23 06:00 | NIM | EET SAC |
| Total/NA | Analysis | 6010B | | 1 | | | 678840 | 05/30/23 10:28 | GSH | EET SAC |
| Total/NA | Prep | 7471A | | | 0.61 g | 50 mL | 676650 | 05/22/23 11:28 | JAP | EET SAC |
| Total/NA | Analysis | 7471A | | 1 | | | 676885 | 05/22/23 15:57 | JAP | EET SAC |

## Client Sample ID: AT-1-230518

**Lab Sample ID: 320-100538-7**

**Date Collected: 05/18/23 08:00**

**Matrix: Solid**

**Date Received: 05/19/23 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 | 679091 | 05/31/23 10:37 | TCS | EET SAC |
| Soluble | Analysis | 314.0 | | 5 | 5 mL | 5 mL | 679423 | 06/01/23 20:09 | TCS | EET SAC |
| Total/NA | Prep | 3050B | | | 0.97 g | 100 mL | 677905 | 05/26/23 06:00 | NIM | EET SAC |
| Total/NA | Analysis | 6010B | | 1 | | | 678840 | 05/30/23 10:31 | GSH | EET SAC |
| Total/NA | Prep | 7471A | | | 0.60 g | 50 mL | 676650 | 05/22/23 11:28 | JAP | EET SAC |
| Total/NA | Analysis | 7471A | | 1 | | | 676885 | 05/22/23 15:59 | JAP | EET SAC |

## Client Sample ID: GF-1-230518

**Lab Sample ID: 320-100538-8**

**Date Collected: 05/18/23 08:20**

**Matrix: Solid**

**Date Received: 05/19/23 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 | | | 4.96 g | 50 mL | 679091 | 05/31/23 10:37 | TCS | EET SAC |
| Soluble | Analysis | 314.0 | | 1 | 5 mL | 5 mL | 679423 | 06/01/23 20:26 | TCS | EET SAC |
| Total/NA | Prep | 3050B | | | 1.04 g | 100 mL | 677905 | 05/26/23 06:00 | NIM | EET SAC |
| Total/NA | Analysis | 6010B | | 1 | | | 678840 | 05/30/23 10:34 | GSH | EET SAC |
| Total/NA | Prep | 7471A | | | 0.61 g | 50 mL | 676650 | 05/22/23 11:28 | JAP | EET SAC |
| Total/NA | Analysis | 7471A | | 1 | | | 676885 | 05/22/23 16:00 | JAP | EET SAC |

**Laboratory References:**

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

Eurofins Sacramento

# Accreditation/Certification Summary

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

Job ID: 320-100538-1

## Laboratory: Eurofins 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 | 01-22-24 |

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 |

# Method Summary

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

Job ID: 320-100538-1

| Method | Method Description | Protocol | Laboratory |
|---|---|---|---|
| 314.0 | Perchlorate (IC) | EPA | EET SAC |
| 6010B | Metals (ICP) | SW846 | EET SAC |
| 7471A | Mercury (CVAA) | SW846 | EET SAC |
| 3050B | Preparation, Metals | SW846 | EET SAC |
| 7471A | Preparation, Mercury | SW846 | EET SAC |
| DI Leach | Deionized Water Leaching Procedure | ASTM | EET 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.

**Laboratory References:**

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

# Sample Summary

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

Job ID: 320-100538-1

| Lab Sample ID | Client Sample ID | Matrix | Collected | Received |
|---|---|---|---|---|
| 320-100538-1 | CIT-1-230516 | Solid | 05/16/23 13:27 | 05/19/23 09:20 |
| 320-100538-2 | TF-1-230516 | Solid | 05/16/23 13:50 | 05/19/23 09:20 |
| 320-100538-3 | HV-2-230517 | Solid | 05/17/23 13:35 | 05/19/23 09:20 |
| 320-100538-4 | HV-SED-1-230517 | Solid | 05/17/23 13:40 | 05/19/23 09:20 |
| 320-100538-5 | HV-1-230517 | Solid | 05/17/23 13:45 | 05/19/23 09:20 |
| 320-100538-6 | KC-1-230517 | Solid | 05/17/23 14:30 | 05/19/23 09:20 |
| 320-100538-7 | AT-1-230518 | Solid | 05/18/23 08:00 | 05/19/23 09:20 |
| 320-100538-8 | GF-1-230518 | Solid | 05/18/23 08:20 | 05/19/23 09:20 |

GSI ENVIRONMENTAL

CHAIN-OF-CUSTODY RECORD
Date: 5/16/23 - 5/18/23
Page 1 of 1

| | | |
|---|---|---|
| FROM: GSI Environmental Inc.<br>2000 Powell Street. Suite 820<br>Emeryville, CA 94608 | PROJECT NAME: AJU-BB<br>PROJECT CONTACT: Susan Gallardo<br>GLOBAL ID: -- | PROJECT NO.: 5182<br>LAB CONTACT: Afsaneh Salimpour (Pleasanton)<br>SAMPLER(S): (PRINT) |
| TEL: (510) 463-8484 | E-MAIL: smgallardo@gsi-net.com; sjbowersmith@gsi-net.com | |
| LABORATORY: Eurofins Calscience | | |

TURNAROUND TIME: ☐ SAME DAY ☐ 24 HR ☐ 48 HR ☐ 72 HR ☐ 5 DAYS ☒ STANDARD

SPECIAL INSTRUCTIONS:

**REQUESTED ANALYSES**
Please check box or fill in blank as needed.

| LAB USE ONLY | SAMPLE ID | SAMPLING DATE | SAMPLING TIME | MATRIX | NO. OF CONT. | Unpreserved | Preserved | Field Filtered | Title 22 Metals (6010/7470) | Perchlorate (314.0) |
|---|---|---|---|---|---|---|---|---|---|---|
| 1 | CIT-1-230516 | 5/16/23 | 1327 | S | 2 | X | | | X | X |
| 2 | TF-1-230516 | 5/16/23 | 1350 | S | 2 | X | | | X | X |
| 3 | HV-2-230517 | 5/17/23 | 1335 | S | 2 | X | | | X | X |
| 4 | HV-SED-1-230517 | 5/17/23 | 1340 | S | 2 | X | | | X | X |
| 5 | HV-1-230517 | 5/17/23 | 1345 | S | 2 | X | | | X | X |
| 6 | KC-1-230517 | 5/17/23 | 1430 | S | 2 | X | | | X | X |
| 7 | AT-1-230518 | 5/18/23 | 0800 | S | 2 | X | | | X | X |
| 8 | GF-1-230518 | 5/18/23 | 0820 | S | 2 | X | | | X | X |

320-100538 Chain of Custody

| | | | |
|---|---|---|---|
| Relinquished by: (Signature) Corey Bar | Received by: (Signature) | Date: 5/18/23 | Time: 12:23 |
| Relinquished by: (Signature) | Received by: (Signature) | Date: 5/17/23 | Time: 920 |
| Relinquished by: (Signature) | Received by: (Signature) | Date: | Time: |

1.6c

2.5/2.7 SL

Euro Soil/Sed



6/5/2023

# Login Sample Receipt Checklist

Client: GSI Environmental, Inc

Job Number: 320-100538-1

**Login Number: 100538**
**List Number: 1**
**Creator: Turpen, Laura**

**List Source: Eurofins Sacramento**

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

eurofins | Environment Testing



# ANALYTICAL REPORT

## PREPARED FOR

Attn: Susan Gallardo
GSI Environmental, Inc
2000 Powell Street
Suite 820
Emeryville, California 94608

Generated 6/5/2023 2:09:01 PM

## JOB DESCRIPTION

AJU-BB

## JOB NUMBER

320-100540-1

Eurofins Sacramento
880 Riverside Parkway
West Sacramento CA 95605

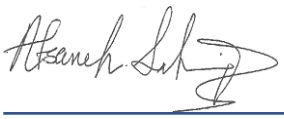
See page two for job notes and contact information.

## Job Notes

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

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

## Authorization



Generated
6/5/2023 2:09:01 PM

Authorized for release by
Afsaneh Salimpour, Senior Project Manager
Afsaneh.Salimpour@et.eurofinsus.com
(925)484-1919

# Table of Contents

# Definitions/Glossary

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

Job ID: 320-100540-1

## Qualifiers

### 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. |
|---|---|
| ¤ | 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 |

## Job ID: 320-100540-1

### Laboratory: Eurofins Sacramento

**Narrative**

**Job Narrative**
**320-100540-1**

**Comments**
No additional comments.

**Receipt**
The samples were received on 5/19/2023 9:20 AM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 1.6º C.

**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: 320-100540-1

## Client Sample ID: BP-SED-1-230516 — Lab Sample ID: 320-100540-1

| Analyte | Result | Qualifier | RL | MDL | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Arsenic | 7.7 | | 2.0 | 1.3 | mg/Kg | 1 | | 6010B | Total/NA |
| Barium | 64 | | 0.98 | 0.12 | mg/Kg | 1 | | 6010B | Total/NA |
| Beryllium | 0.44 | | 0.20 | 0.029 | mg/Kg | 1 | | 6010B | Total/NA |
| Cadmium | 0.14 | J | 0.20 | 0.029 | mg/Kg | 1 | | 6010B | Total/NA |
| Cobalt | 4.8 | | 0.49 | 0.25 | mg/Kg | 1 | | 6010B | Total/NA |
| Chromium | 15 | | 0.49 | 0.14 | mg/Kg | 1 | | 6010B | Total/NA |
| Copper | 8.6 | B | 1.5 | 0.22 | mg/Kg | 1 | | 6010B | Total/NA |
| Nickel | 9.9 | | 0.98 | 0.24 | mg/Kg | 1 | | 6010B | Total/NA |
| Lead | 10 | | 0.98 | 0.25 | mg/Kg | 1 | | 6010B | Total/NA |
| Vanadium | 27 | | 0.49 | 0.19 | mg/Kg | 1 | | 6010B | Total/NA |
| Zinc | 52 | | 2.0 | 0.19 | mg/Kg | 1 | | 6010B | Total/NA |
| Mercury | 0.51 | | 0.039 | 0.0077 | mg/Kg | 1 | | 7471A | Total/NA |

## Client Sample ID: RRMDF-SED-D-230516 — Lab Sample ID: 320-100540-2

| Analyte | Result | Qualifier | RL | MDL | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Arsenic | 3.1 | | 2.0 | 1.3 | mg/Kg | 1 | | 6010B | Total/NA |
| Barium | 48 | | 0.99 | 0.12 | mg/Kg | 1 | | 6010B | Total/NA |
| Beryllium | 0.34 | | 0.20 | 0.030 | mg/Kg | 1 | | 6010B | Total/NA |
| Cadmium | 0.074 | J | 0.20 | 0.030 | mg/Kg | 1 | | 6010B | Total/NA |
| Cobalt | 3.4 | | 0.50 | 0.25 | mg/Kg | 1 | | 6010B | Total/NA |
| Chromium | 9.5 | | 0.50 | 0.14 | mg/Kg | 1 | | 6010B | Total/NA |
| Copper | 5.7 | B | 1.5 | 0.22 | mg/Kg | 1 | | 6010B | Total/NA |
| Nickel | 6.3 | | 0.99 | 0.24 | mg/Kg | 1 | | 6010B | Total/NA |
| Lead | 6.1 | | 0.99 | 0.26 | mg/Kg | 1 | | 6010B | Total/NA |
| Vanadium | 19 | | 0.50 | 0.19 | mg/Kg | 1 | | 6010B | Total/NA |
| Zinc | 40 | | 2.0 | 0.19 | mg/Kg | 1 | | 6010B | Total/NA |

## Client Sample ID: SRE-SED-3-230517 — Lab Sample ID: 320-100540-3

| Analyte | Result | Qualifier | RL | MDL | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Arsenic | 1.4 | | 1.1 | 0.72 | mg/Kg | 1 | | 6010B | Total/NA |
| Barium | 34 | | 0.56 | 0.067 | mg/Kg | 1 | | 6010B | Total/NA |
| Beryllium | 0.20 | | 0.11 | 0.017 | mg/Kg | 1 | | 6010B | Total/NA |
| Cadmium | 0.066 | J | 0.11 | 0.017 | mg/Kg | 1 | | 6010B | Total/NA |
| Cobalt | 2.3 | | 0.28 | 0.14 | mg/Kg | 1 | | 6010B | Total/NA |
| Chromium | 5.9 | | 0.28 | 0.078 | mg/Kg | 1 | | 6010B | Total/NA |
| Copper | 4.1 | B | 0.83 | 0.12 | mg/Kg | 1 | | 6010B | Total/NA |
| Nickel | 4.1 | | 0.56 | 0.13 | mg/Kg | 1 | | 6010B | Total/NA |
| Lead | 4.8 | | 0.56 | 0.14 | mg/Kg | 1 | | 6010B | Total/NA |
| Vanadium | 13 | | 0.28 | 0.11 | mg/Kg | 1 | | 6010B | Total/NA |
| Zinc | 28 | | 1.1 | 0.11 | mg/Kg | 1 | | 6010B | Total/NA |

## Client Sample ID: OS1-SED-1-230517 — Lab Sample ID: 320-100540-4

| Analyte | Result | Qualifier | RL | MDL | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Arsenic | 2.1 | | 2.0 | 1.3 | mg/Kg | 1 | | 6010B | Total/NA |
| Barium | 47 | | 1.0 | 0.12 | mg/Kg | 1 | | 6010B | Total/NA |
| Beryllium | 0.29 | | 0.20 | 0.031 | mg/Kg | 1 | | 6010B | Total/NA |
| Cadmium | 0.12 | J | 0.20 | 0.031 | mg/Kg | 1 | | 6010B | Total/NA |
| Cobalt | 3.4 | | 0.51 | 0.26 | mg/Kg | 1 | | 6010B | Total/NA |
| Chromium | 10 | | 0.51 | 0.14 | mg/Kg | 1 | | 6010B | Total/NA |

This Detection Summary does not include radiochemical test results.

Eurofins Sacramento

## Client Sample ID: OS1-SED-1-230517 (Continued) — Lab Sample ID: 320-100540-4

| Analyte | Result | Qualifier | RL | MDL | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Copper | 6.5 | B | 1.5 | 0.22 | mg/Kg | 1 | | 6010B | Total/NA |
| Nickel | 6.7 | | 1.0 | 0.24 | mg/Kg | 1 | | 6010B | Total/NA |
| Lead | 6.2 | | 1.0 | 0.27 | mg/Kg | 1 | | 6010B | Total/NA |
| Vanadium | 22 | | 0.51 | 0.19 | mg/Kg | 1 | | 6010B | Total/NA |
| Zinc | 61 | | 2.0 | 0.19 | mg/Kg | 1 | | 6010B | Total/NA |
| Mercury | 0.019 | J | 0.039 | 0.0077 | mg/Kg | 1 | | 7471A | Total/NA |

## Client Sample ID: OW-SED-1-230517 — Lab Sample ID: 320-100540-5

| Analyte | Result | Qualifier | RL | MDL | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Arsenic | 1.9 | J | 2.0 | 1.3 | mg/Kg | 1 | | 6010B | Total/NA |
| Barium | 42 | | 1.0 | 0.12 | mg/Kg | 1 | | 6010B | Total/NA |
| Beryllium | 0.26 | | 0.20 | 0.030 | mg/Kg | 1 | | 6010B | Total/NA |
| Cadmium | 0.072 | J | 0.20 | 0.030 | mg/Kg | 1 | | 6010B | Total/NA |
| Cobalt | 2.8 | | 0.51 | 0.25 | mg/Kg | 1 | | 6010B | Total/NA |
| Chromium | 8.2 | | 0.51 | 0.14 | mg/Kg | 1 | | 6010B | Total/NA |
| Copper | 5.0 | B | 1.5 | 0.22 | mg/Kg | 1 | | 6010B | Total/NA |
| Nickel | 5.5 | | 1.0 | 0.24 | mg/Kg | 1 | | 6010B | Total/NA |
| Lead | 5.8 | | 1.0 | 0.26 | mg/Kg | 1 | | 6010B | Total/NA |
| Vanadium | 17 | | 0.51 | 0.19 | mg/Kg | 1 | | 6010B | Total/NA |
| Zinc | 32 | | 2.0 | 0.19 | mg/Kg | 1 | | 6010B | Total/NA |
| Mercury | 0.0087 | J | 0.038 | 0.0076 | mg/Kg | 1 | | 7471A | Total/NA |

## Client Sample ID: OS8-SED-1-230517 — Lab Sample ID: 320-100540-6

| Analyte | Result | Qualifier | RL | MDL | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Arsenic | 2.8 | | 2.1 | 1.4 | mg/Kg | 1 | | 6010B | Total/NA |
| Barium | 47 | | 1.0 | 0.13 | mg/Kg | 1 | | 6010B | Total/NA |
| Beryllium | 0.29 | | 0.21 | 0.031 | mg/Kg | 1 | | 6010B | Total/NA |
| Cadmium | 0.060 | J | 0.21 | 0.031 | mg/Kg | 1 | | 6010B | Total/NA |
| Cobalt | 3.3 | | 0.52 | 0.26 | mg/Kg | 1 | | 6010B | Total/NA |
| Chromium | 11 | | 0.52 | 0.15 | mg/Kg | 1 | | 6010B | Total/NA |
| Copper | 5.4 | B | 1.6 | 0.23 | mg/Kg | 1 | | 6010B | Total/NA |
| Nickel | 7.9 | | 1.0 | 0.25 | mg/Kg | 1 | | 6010B | Total/NA |
| Lead | 3.5 | | 1.0 | 0.27 | mg/Kg | 1 | | 6010B | Total/NA |
| Vanadium | 21 | | 0.52 | 0.20 | mg/Kg | 1 | | 6010B | Total/NA |
| Zinc | 33 | | 2.1 | 0.20 | mg/Kg | 1 | | 6010B | Total/NA |

This Detection Summary does not include radiochemical test results.

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

Job ID: 320-100540-1

## Client Sample ID: BP-SED-1-230516

**Date Collected: 05/16/23 10:00**
**Date Received: 05/19/23 09:20**

## Lab Sample ID: 320-100540-1

**Matrix: Solid**

### Method: EPA 314.0 - Perchlorate (IC) - Soluble

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Perchlorate | ND | | 39 | 19 | ug/Kg | | | 06/01/23 15:58 | 1 |

### Method: SW846 6010B - Metals (ICP)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Silver | ND | | 0.49 | 0.088 | mg/Kg | | 05/26/23 06:00 | 05/30/23 10:37 | 1 |
| **Arsenic** | **7.7** | | 2.0 | 1.3 | mg/Kg | | 05/26/23 06:00 | 05/30/23 10:37 | 1 |
| **Barium** | **64** | | 0.98 | 0.12 | mg/Kg | | 05/26/23 06:00 | 05/30/23 10:37 | 1 |
| **Beryllium** | **0.44** | | 0.20 | 0.029 | mg/Kg | | 05/26/23 06:00 | 05/30/23 10:37 | 1 |
| **Cadmium** | **0.14** | **J** | 0.20 | 0.029 | mg/Kg | | 05/26/23 06:00 | 05/30/23 10:37 | 1 |
| **Cobalt** | **4.8** | | 0.49 | 0.25 | mg/Kg | | 05/26/23 06:00 | 05/30/23 10:37 | 1 |
| **Chromium** | **15** | | 0.49 | 0.14 | mg/Kg | | 05/26/23 06:00 | 05/30/23 10:37 | 1 |
| **Copper** | **8.6** | **B** | 1.5 | 0.22 | mg/Kg | | 05/26/23 06:00 | 05/30/23 10:37 | 1 |
| Molybdenum | ND | | 2.0 | 0.74 | mg/Kg | | 05/26/23 06:00 | 05/30/23 10:37 | 1 |
| **Nickel** | **9.9** | | 0.98 | 0.24 | mg/Kg | | 05/26/23 06:00 | 05/30/23 10:37 | 1 |
| **Lead** | **10** | | 0.98 | 0.25 | mg/Kg | | 05/26/23 06:00 | 05/30/23 10:37 | 1 |
| Selenium | ND | | 2.0 | 1.4 | mg/Kg | | 05/26/23 06:00 | 05/30/23 10:37 | 1 |
| Antimony | ND | | 2.0 | 0.92 | mg/Kg | | 05/26/23 06:00 | 05/30/23 10:37 | 1 |
| Thallium | ND | | 2.0 | 0.82 | mg/Kg | | 05/26/23 06:00 | 05/30/23 10:37 | 1 |
| **Vanadium** | **27** | | 0.49 | 0.19 | mg/Kg | | 05/26/23 06:00 | 05/30/23 10:37 | 1 |
| **Zinc** | **52** | | 2.0 | 0.19 | mg/Kg | | 05/26/23 06:00 | 05/30/23 10:37 | 1 |

### Method: SW846 7471A - Mercury (CVAA)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Mercury** | **0.51** | | 0.039 | 0.0077 | mg/Kg | | 05/23/23 10:41 | 05/23/23 14:37 | 1 |

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

Job ID: 320-100540-1

## Client Sample ID: RRMDF-SED-D-230516

**Lab Sample ID: 320-100540-2**

**Date Collected: 05/16/23 12:15**

**Matrix: Solid**

**Date Received: 05/19/23 09:20**

### Method: EPA 314.0 - Perchlorate (IC) - Soluble

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Perchlorate | ND | | 40 | 20 | ug/Kg | | | 06/01/23 16:16 | 1 |

### Method: SW846 6010B - Metals (ICP)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Silver | ND | | 0.50 | 0.089 | mg/Kg | | 05/26/23 06:00 | 05/30/23 10:40 | 1 |
| **Arsenic** | **3.1** | | 2.0 | 1.3 | mg/Kg | | 05/26/23 06:00 | 05/30/23 10:40 | 1 |
| **Barium** | **48** | | 0.99 | 0.12 | mg/Kg | | 05/26/23 06:00 | 05/30/23 10:40 | 1 |
| **Beryllium** | **0.34** | | 0.20 | 0.030 | mg/Kg | | 05/26/23 06:00 | 05/30/23 10:40 | 1 |
| **Cadmium** | **0.074** | **J** | 0.20 | 0.030 | mg/Kg | | 05/26/23 06:00 | 05/30/23 10:40 | 1 |
| **Cobalt** | **3.4** | | 0.50 | 0.25 | mg/Kg | | 05/26/23 06:00 | 05/30/23 10:40 | 1 |
| **Chromium** | **9.5** | | 0.50 | 0.14 | mg/Kg | | 05/26/23 06:00 | 05/30/23 10:40 | 1 |
| **Copper** | **5.7** | **B** | 1.5 | 0.22 | mg/Kg | | 05/26/23 06:00 | 05/30/23 10:40 | 1 |
| Molybdenum | ND | | 2.0 | 0.74 | mg/Kg | | 05/26/23 06:00 | 05/30/23 10:40 | 1 |
| **Nickel** | **6.3** | | 0.99 | 0.24 | mg/Kg | | 05/26/23 06:00 | 05/30/23 10:40 | 1 |
| **Lead** | **6.1** | | 0.99 | 0.26 | mg/Kg | | 05/26/23 06:00 | 05/30/23 10:40 | 1 |
| Selenium | ND | | 2.0 | 1.4 | mg/Kg | | 05/26/23 06:00 | 05/30/23 10:40 | 1 |
| Antimony | ND | | 2.0 | 0.93 | mg/Kg | | 05/26/23 06:00 | 05/30/23 10:40 | 1 |
| Thallium | ND | | 2.0 | 0.83 | mg/Kg | | 05/26/23 06:00 | 05/30/23 10:40 | 1 |
| **Vanadium** | **19** | | 0.50 | 0.19 | mg/Kg | | 05/26/23 06:00 | 05/30/23 10:40 | 1 |
| **Zinc** | **40** | | 2.0 | 0.19 | mg/Kg | | 05/26/23 06:00 | 05/30/23 10:40 | 1 |

### Method: SW846 7471A - Mercury (CVAA)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Mercury | ND | | 0.041 | 0.0081 | mg/Kg | | 05/23/23 10:41 | 05/23/23 14:44 | 1 |

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

Job ID: 320-100540-1

## Client Sample ID: SRE-SED-3-230517

**Lab Sample ID: 320-100540-3**

**Date Collected: 05/17/23 09:10**

**Matrix: Solid**

**Date Received: 05/19/23 09:20**

### Method: EPA 314.0 - Perchlorate (IC) - Soluble

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Perchlorate | ND | | 40 | 20 | ug/Kg | | | 06/01/23 16:34 | 1 |

### Method: SW846 6010B - Metals (ICP)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Silver | ND | | 0.28 | 0.050 | mg/Kg | | 05/26/23 06:00 | 05/30/23 10:43 | 1 |
| **Arsenic** | **1.4** | | 1.1 | 0.72 | mg/Kg | | 05/26/23 06:00 | 05/30/23 10:43 | 1 |
| **Barium** | **34** | | 0.56 | 0.067 | mg/Kg | | 05/26/23 06:00 | 05/30/23 10:43 | 1 |
| **Beryllium** | **0.20** | | 0.11 | 0.017 | mg/Kg | | 05/26/23 06:00 | 05/30/23 10:43 | 1 |
| **Cadmium** | **0.066** | **J** | 0.11 | 0.017 | mg/Kg | | 05/26/23 06:00 | 05/30/23 10:43 | 1 |
| **Cobalt** | **2.3** | | 0.28 | 0.14 | mg/Kg | | 05/26/23 06:00 | 05/30/23 10:43 | 1 |
| **Chromium** | **5.9** | | 0.28 | 0.078 | mg/Kg | | 05/26/23 06:00 | 05/30/23 10:43 | 1 |
| **Copper** | **4.1** | **B** | 0.83 | 0.12 | mg/Kg | | 05/26/23 06:00 | 05/30/23 10:43 | 1 |
| Molybdenum | ND | | 1.1 | 0.42 | mg/Kg | | 05/26/23 06:00 | 05/30/23 10:43 | 1 |
| **Nickel** | **4.1** | | 0.56 | 0.13 | mg/Kg | | 05/26/23 06:00 | 05/30/23 10:43 | 1 |
| **Lead** | **4.8** | | 0.56 | 0.14 | mg/Kg | | 05/26/23 06:00 | 05/30/23 10:43 | 1 |
| Selenium | ND | | 1.1 | 0.78 | mg/Kg | | 05/26/23 06:00 | 05/30/23 10:43 | 1 |
| Antimony | ND | | 1.1 | 0.52 | mg/Kg | | 05/26/23 06:00 | 05/30/23 10:43 | 1 |
| Thallium | ND | | 1.1 | 0.47 | mg/Kg | | 05/26/23 06:00 | 05/30/23 10:43 | 1 |
| **Vanadium** | **13** | | 0.28 | 0.11 | mg/Kg | | 05/26/23 06:00 | 05/30/23 10:43 | 1 |
| **Zinc** | **28** | | 1.1 | 0.11 | mg/Kg | | 05/26/23 06:00 | 05/30/23 10:43 | 1 |

### Method: SW846 7471A - Mercury (CVAA)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Mercury | ND | | 0.041 | 0.0081 | mg/Kg | | 05/23/23 10:41 | 05/23/23 14:46 | 1 |

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

Job ID: 320-100540-1

## Client Sample ID: OS1-SED-1-230517

**Lab Sample ID: 320-100540-4**

**Date Collected: 05/17/23 10:20**

**Matrix: Solid**

**Date Received: 05/19/23 09:20**

### Method: EPA 314.0 - Perchlorate (IC) - Soluble

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Perchlorate | ND | | 40 | 20 | ug/Kg | | | 06/01/23 16:52 | 1 |

### Method: SW846 6010B - Metals (ICP)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Silver | ND | | 0.51 | 0.092 | mg/Kg | | 05/26/23 06:00 | 05/30/23 10:46 | 1 |
| **Arsenic** | **2.1** | | 2.0 | 1.3 | mg/Kg | | 05/26/23 06:00 | 05/30/23 10:46 | 1 |
| **Barium** | **47** | | 1.0 | 0.12 | mg/Kg | | 05/26/23 06:00 | 05/30/23 10:46 | 1 |
| **Beryllium** | **0.29** | | 0.20 | 0.031 | mg/Kg | | 05/26/23 06:00 | 05/30/23 10:46 | 1 |
| **Cadmium** | **0.12** | **J** | 0.20 | 0.031 | mg/Kg | | 05/26/23 06:00 | 05/30/23 10:46 | 1 |
| **Cobalt** | **3.4** | | 0.51 | 0.26 | mg/Kg | | 05/26/23 06:00 | 05/30/23 10:46 | 1 |
| **Chromium** | **10** | | 0.51 | 0.14 | mg/Kg | | 05/26/23 06:00 | 05/30/23 10:46 | 1 |
| **Copper** | **6.5** | **B** | 1.5 | 0.22 | mg/Kg | | 05/26/23 06:00 | 05/30/23 10:46 | 1 |
| Molybdenum | ND | | 2.0 | 0.77 | mg/Kg | | 05/26/23 06:00 | 05/30/23 10:46 | 1 |
| **Nickel** | **6.7** | | 1.0 | 0.24 | mg/Kg | | 05/26/23 06:00 | 05/30/23 10:46 | 1 |
| **Lead** | **6.2** | | 1.0 | 0.27 | mg/Kg | | 05/26/23 06:00 | 05/30/23 10:46 | 1 |
| Selenium | ND | | 2.0 | 1.4 | mg/Kg | | 05/26/23 06:00 | 05/30/23 10:46 | 1 |
| Antimony | ND | | 2.0 | 0.96 | mg/Kg | | 05/26/23 06:00 | 05/30/23 10:46 | 1 |
| Thallium | ND | | 2.0 | 0.86 | mg/Kg | | 05/26/23 06:00 | 05/30/23 10:46 | 1 |
| **Vanadium** | **22** | | 0.51 | 0.19 | mg/Kg | | 05/26/23 06:00 | 05/30/23 10:46 | 1 |
| **Zinc** | **61** | | 2.0 | 0.19 | mg/Kg | | 05/26/23 06:00 | 05/30/23 10:46 | 1 |

### Method: SW846 7471A - Mercury (CVAA)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Mercury** | **0.019** | **J** | 0.039 | 0.0077 | mg/Kg | | 05/23/23 10:41 | 05/23/23 14:49 | 1 |

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

Job ID: 320-100540-1

## Client Sample ID: OW-SED-1-230517

**Lab Sample ID: 320-100540-5**

**Date Collected: 05/17/23 12:00**

**Matrix: Solid**

**Date Received: 05/19/23 09:20**

### Method: EPA 314.0 - Perchlorate (IC) - Soluble

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Perchlorate | ND | | 40 | 20 | ug/Kg | | | 06/01/23 17:10 | 1 |

### Method: SW846 6010B - Metals (ICP)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Silver | ND | | 0.51 | 0.091 | mg/Kg | | 05/26/23 06:00 | 05/30/23 10:49 | 1 |
| **Arsenic** | **1.9** | **J** | 2.0 | 1.3 | mg/Kg | | 05/26/23 06:00 | 05/30/23 10:49 | 1 |
| **Barium** | **42** | | 1.0 | 0.12 | mg/Kg | | 05/26/23 06:00 | 05/30/23 10:49 | 1 |
| **Beryllium** | **0.26** | | 0.20 | 0.030 | mg/Kg | | 05/26/23 06:00 | 05/30/23 10:49 | 1 |
| **Cadmium** | **0.072** | **J** | 0.20 | 0.030 | mg/Kg | | 05/26/23 06:00 | 05/30/23 10:49 | 1 |
| **Cobalt** | **2.8** | | 0.51 | 0.25 | mg/Kg | | 05/26/23 06:00 | 05/30/23 10:49 | 1 |
| **Chromium** | **8.2** | | 0.51 | 0.14 | mg/Kg | | 05/26/23 06:00 | 05/30/23 10:49 | 1 |
| **Copper** | **5.0** | **B** | 1.5 | 0.22 | mg/Kg | | 05/26/23 06:00 | 05/30/23 10:49 | 1 |
| Molybdenum | ND | | 2.0 | 0.76 | mg/Kg | | 05/26/23 06:00 | 05/30/23 10:49 | 1 |
| **Nickel** | **5.5** | | 1.0 | 0.24 | mg/Kg | | 05/26/23 06:00 | 05/30/23 10:49 | 1 |
| **Lead** | **5.8** | | 1.0 | 0.26 | mg/Kg | | 05/26/23 06:00 | 05/30/23 10:49 | 1 |
| Selenium | ND | | 2.0 | 1.4 | mg/Kg | | 05/26/23 06:00 | 05/30/23 10:49 | 1 |
| Antimony | ND | | 2.0 | 0.95 | mg/Kg | | 05/26/23 06:00 | 05/30/23 10:49 | 1 |
| Thallium | ND | | 2.0 | 0.85 | mg/Kg | | 05/26/23 06:00 | 05/30/23 10:49 | 1 |
| **Vanadium** | **17** | | 0.51 | 0.19 | mg/Kg | | 05/26/23 06:00 | 05/30/23 10:49 | 1 |
| **Zinc** | **32** | | 2.0 | 0.19 | mg/Kg | | 05/26/23 06:00 | 05/30/23 10:49 | 1 |

### Method: SW846 7471A - Mercury (CVAA)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Mercury** | **0.0087** | **J** | 0.038 | 0.0076 | mg/Kg | | 05/23/23 10:41 | 05/23/23 14:51 | 1 |

**Client Sample ID: OS8-SED-1-230517**
**Date Collected: 05/17/23 13:00**
**Date Received: 05/19/23 09:20**

**Lab Sample ID: 320-100540-6**
**Matrix: Solid**

### Method: EPA 314.0 - Perchlorate (IC) - Soluble

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Perchlorate | ND | | 39 | 19 | ug/Kg | | | 06/01/23 17:28 | 1 |

### Method: SW846 6010B - Metals (ICP)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Silver | ND | | 0.52 | 0.094 | mg/Kg | | 05/26/23 06:00 | 05/30/23 10:52 | 1 |
| **Arsenic** | **2.8** | | 2.1 | 1.4 | mg/Kg | | 05/26/23 06:00 | 05/30/23 10:52 | 1 |
| **Barium** | **47** | | 1.0 | 0.13 | mg/Kg | | 05/26/23 06:00 | 05/30/23 10:52 | 1 |
| **Beryllium** | **0.29** | | 0.21 | 0.031 | mg/Kg | | 05/26/23 06:00 | 05/30/23 10:52 | 1 |
| **Cadmium** | **0.060** | **J** | 0.21 | 0.031 | mg/Kg | | 05/26/23 06:00 | 05/30/23 10:52 | 1 |
| **Cobalt** | **3.3** | | 0.52 | 0.26 | mg/Kg | | 05/26/23 06:00 | 05/30/23 10:52 | 1 |
| **Chromium** | **11** | | 0.52 | 0.15 | mg/Kg | | 05/26/23 06:00 | 05/30/23 10:52 | 1 |
| **Copper** | **5.4** | **B** | 1.6 | 0.23 | mg/Kg | | 05/26/23 06:00 | 05/30/23 10:52 | 1 |
| Molybdenum | ND | | 2.1 | 0.78 | mg/Kg | | 05/26/23 06:00 | 05/30/23 10:52 | 1 |
| **Nickel** | **7.9** | | 1.0 | 0.25 | mg/Kg | | 05/26/23 06:00 | 05/30/23 10:52 | 1 |
| **Lead** | **3.5** | | 1.0 | 0.27 | mg/Kg | | 05/26/23 06:00 | 05/30/23 10:52 | 1 |
| Selenium | ND | | 2.1 | 1.5 | mg/Kg | | 05/26/23 06:00 | 05/30/23 10:52 | 1 |
| Antimony | ND | | 2.1 | 0.98 | mg/Kg | | 05/26/23 06:00 | 05/30/23 10:52 | 1 |
| Thallium | ND | | 2.1 | 0.88 | mg/Kg | | 05/26/23 06:00 | 05/30/23 10:52 | 1 |
| **Vanadium** | **21** | | 0.52 | 0.20 | mg/Kg | | 05/26/23 06:00 | 05/30/23 10:52 | 1 |
| **Zinc** | **33** | | 2.1 | 0.20 | mg/Kg | | 05/26/23 06:00 | 05/30/23 10:52 | 1 |

### Method: SW846 7471A - Mercury (CVAA)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Mercury | ND | | 0.040 | 0.0080 | mg/Kg | | 05/23/23 10:41 | 05/23/23 14:52 | 1 |

## Method: 314.0 - Perchlorate (IC)

**Lab Sample ID: MB 320-679116/5**
**Matrix: Solid**
**Analysis Batch: 679116**

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

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Perchlorate | ND | | 4.0 | 2.0 | ug/Kg | | | 05/31/23 12:46 | 1 |

**Lab Sample ID: MRL 320-679116/4**
**Matrix: Solid**
**Analysis Batch: 679116**

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

| Analyte | Spike Added | MRL Result | MRL Qualifier | Unit | D | %Rec | %Rec Limits |
|---|---|---|---|---|---|---|---|
| Perchlorate | 3.99 | 4.22 | | ug/L | | 106 | 75 - 125 |

**Lab Sample ID: MB 320-679423/5**
**Matrix: Solid**
**Analysis Batch: 679423**

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

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Perchlorate | ND | | 4.0 | 2.0 | ug/Kg | | | 06/01/23 12:23 | 1 |

**Lab Sample ID: MRL 320-679423/4**
**Matrix: Solid**
**Analysis Batch: 679423**

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

| Analyte | Spike Added | MRL Result | MRL Qualifier | Unit | D | %Rec | %Rec Limits |
|---|---|---|---|---|---|---|---|
| Perchlorate | 3.99 | 3.99 | J | ug/L | | 100 | 75 - 125 |

**Lab Sample ID: MB 320-679091/1-A**
**Matrix: Solid**
**Analysis Batch: 679116**

**Client Sample ID: Method Blank**
**Prep Type: Soluble**

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Perchlorate | ND | | 40 | 20 | ug/Kg | | | 05/31/23 17:33 | 1 |

**Lab Sample ID: LCS 320-679091/2-A**
**Matrix: Solid**
**Analysis Batch: 679116**

**Client Sample ID: Lab Control Sample**
**Prep Type: Soluble**

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits |
|---|---|---|---|---|---|---|---|
| Perchlorate | 499 | 484 | | ug/Kg | | 97 | 75 - 125 |

## Method: 6010B - Metals (ICP)

**Lab Sample ID: MB 320-677905/1-A**
**Matrix: Solid**
**Analysis Batch: 678840**

**Client Sample ID: Method Blank**
**Prep Type: Total/NA**
**Prep Batch: 677905**

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Silver | ND | | 0.50 | 0.090 | mg/Kg | | 05/26/23 06:00 | 05/30/23 09:49 | 1 |
| Arsenic | ND | | 2.0 | 1.3 | mg/Kg | | 05/26/23 06:00 | 05/30/23 09:49 | 1 |
| Barium | ND | | 1.0 | 0.12 | mg/Kg | | 05/26/23 06:00 | 05/30/23 09:49 | 1 |
| Beryllium | ND | | 0.20 | 0.030 | mg/Kg | | 05/26/23 06:00 | 05/30/23 09:49 | 1 |
| Cadmium | ND | | 0.20 | 0.030 | mg/Kg | | 05/26/23 06:00 | 05/30/23 09:49 | 1 |
| Cobalt | ND | | 0.50 | 0.25 | mg/Kg | | 05/26/23 06:00 | 05/30/23 09:49 | 1 |

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

**Lab Sample ID: MB 320-677905/1-A**
**Matrix: Solid**
**Analysis Batch: 678840**

**Client Sample ID: Method Blank**
**Prep Type: Total/NA**
**Prep Batch: 677905**

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Chromium | ND | | 0.50 | 0.14 | mg/Kg | | 05/26/23 06:00 | 05/30/23 09:49 | 1 |
| Copper | 0.361 | J | 1.5 | 0.22 | mg/Kg | | 05/26/23 06:00 | 05/30/23 09:49 | 1 |
| Molybdenum | ND | | 2.0 | 0.75 | mg/Kg | | 05/26/23 06:00 | 05/30/23 09:49 | 1 |
| Nickel | ND | | 1.0 | 0.24 | mg/Kg | | 05/26/23 06:00 | 05/30/23 09:49 | 1 |
| Lead | ND | | 1.0 | 0.26 | mg/Kg | | 05/26/23 06:00 | 05/30/23 09:49 | 1 |
| Selenium | ND | | 2.0 | 1.4 | mg/Kg | | 05/26/23 06:00 | 05/30/23 09:49 | 1 |
| Antimony | ND | | 2.0 | 0.94 | mg/Kg | | 05/26/23 06:00 | 05/30/23 09:49 | 1 |
| Thallium | ND | | 2.0 | 0.84 | mg/Kg | | 05/26/23 06:00 | 05/30/23 09:49 | 1 |
| Vanadium | ND | | 0.50 | 0.19 | mg/Kg | | 05/26/23 06:00 | 05/30/23 09:49 | 1 |
| Zinc | ND | | 2.0 | 0.19 | mg/Kg | | 05/26/23 06:00 | 05/30/23 09:49 | 1 |

**Lab Sample ID: LCS 320-677905/2-A**
**Matrix: Solid**
**Analysis Batch: 678840**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**
**Prep Batch: 677905**

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits |
|---|---|---|---|---|---|---|---|
| Silver | 5.03 | 4.54 | | mg/Kg | | 90 | 80 - 120 |
| Arsenic | 50.0 | 45.5 | | mg/Kg | | 91 | 80 - 120 |
| Barium | 50.0 | 43.4 | | mg/Kg | | 87 | 80 - 120 |
| Beryllium | 25.0 | 22.7 | | mg/Kg | | 91 | 80 - 120 |
| Cadmium | 25.0 | 23.2 | | mg/Kg | | 93 | 80 - 120 |
| Cobalt | 25.0 | 22.3 | | mg/Kg | | 89 | 80 - 120 |
| Chromium | 25.0 | 23.7 | | mg/Kg | | 95 | 80 - 120 |
| Copper | 25.0 | 21.5 | | mg/Kg | | 86 | 80 - 120 |
| Molybdenum | 25.0 | 22.9 | | mg/Kg | | 92 | 80 - 120 |
| Nickel | 25.0 | 22.6 | | mg/Kg | | 90 | 80 - 120 |
| Lead | 25.0 | 23.0 | | mg/Kg | | 92 | 80 - 120 |
| Selenium | 50.0 | 43.6 | | mg/Kg | | 87 | 80 - 120 |
| Antimony | 50.1 | 48.4 | | mg/Kg | | 97 | 80 - 120 |
| Thallium | 50.0 | 45.5 | | mg/Kg | | 91 | 80 - 120 |
| Vanadium | 25.0 | 23.1 | | mg/Kg | | 92 | 80 - 120 |
| Zinc | 50.5 | 49.8 | | mg/Kg | | 99 | 80 - 120 |

## Method: 7471A - Mercury (CVAA)

**Lab Sample ID: MB 320-676972/11-A**
**Matrix: Solid**
**Analysis Batch: 677099**

**Client Sample ID: Method Blank**
**Prep Type: Total/NA**
**Prep Batch: 676972**

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Mercury | ND | | 0.040 | 0.0080 | mg/Kg | | 05/23/23 10:41 | 05/23/23 14:08 | 1 |

**Lab Sample ID: LCS 320-676972/12-A**
**Matrix: Solid**
**Analysis Batch: 677099**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**
**Prep Batch: 676972**

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits |
|---|---|---|---|---|---|---|---|
| Mercury | 0.167 | 0.173 | | mg/Kg | | 104 | 86 - 114 |

## HPLC/IC

### Leach Batch: 679091

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 320-100540-1 | BP-SED-1-230516 | Soluble | Solid | DI Leach | |
| 320-100540-2 | RRMDF-SED-D-230516 | Soluble | Solid | DI Leach | |
| 320-100540-3 | SRE-SED-3-230517 | Soluble | Solid | DI Leach | |
| 320-100540-4 | OS1-SED-1-230517 | Soluble | Solid | DI Leach | |
| 320-100540-5 | OW-SED-1-230517 | Soluble | Solid | DI Leach | |
| 320-100540-6 | OS8-SED-1-230517 | Soluble | Solid | DI Leach | |
| MB 320-679091/1-A | Method Blank | Soluble | Solid | DI Leach | |
| LCS 320-679091/2-A | Lab Control Sample | Soluble | Solid | DI Leach | |

### Analysis Batch: 679116

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| MB 320-679091/1-A | Method Blank | Soluble | Solid | 314.0 | 679091 |
| MB 320-679116/5 | Method Blank | Total/NA | Solid | 314.0 | |
| LCS 320-679091/2-A | Lab Control Sample | Soluble | Solid | 314.0 | 679091 |
| MRL 320-679116/4 | Lab Control Sample | Total/NA | Solid | 314.0 | |

### Analysis Batch: 679423

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 320-100540-1 | BP-SED-1-230516 | Soluble | Solid | 314.0 | 679091 |
| 320-100540-2 | RRMDF-SED-D-230516 | Soluble | Solid | 314.0 | 679091 |
| 320-100540-3 | SRE-SED-3-230517 | Soluble | Solid | 314.0 | 679091 |
| 320-100540-4 | OS1-SED-1-230517 | Soluble | Solid | 314.0 | 679091 |
| 320-100540-5 | OW-SED-1-230517 | Soluble | Solid | 314.0 | 679091 |
| 320-100540-6 | OS8-SED-1-230517 | Soluble | Solid | 314.0 | 679091 |
| MB 320-679423/5 | Method Blank | Total/NA | Solid | 314.0 | |
| MRL 320-679423/4 | Lab Control Sample | Total/NA | Solid | 314.0 | |

## Metals

### Prep Batch: 676972

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 320-100540-1 | BP-SED-1-230516 | Total/NA | Solid | 7471A | |
| 320-100540-2 | RRMDF-SED-D-230516 | Total/NA | Solid | 7471A | |
| 320-100540-3 | SRE-SED-3-230517 | Total/NA | Solid | 7471A | |
| 320-100540-4 | OS1-SED-1-230517 | Total/NA | Solid | 7471A | |
| 320-100540-5 | OW-SED-1-230517 | Total/NA | Solid | 7471A | |
| 320-100540-6 | OS8-SED-1-230517 | Total/NA | Solid | 7471A | |
| MB 320-676972/11-A | Method Blank | Total/NA | Solid | 7471A | |
| LCS 320-676972/12-A | Lab Control Sample | Total/NA | Solid | 7471A | |

### Analysis Batch: 677099

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 320-100540-1 | BP-SED-1-230516 | Total/NA | Solid | 7471A | 676972 |
| 320-100540-2 | RRMDF-SED-D-230516 | Total/NA | Solid | 7471A | 676972 |
| 320-100540-3 | SRE-SED-3-230517 | Total/NA | Solid | 7471A | 676972 |
| 320-100540-4 | OS1-SED-1-230517 | Total/NA | Solid | 7471A | 676972 |
| 320-100540-5 | OW-SED-1-230517 | Total/NA | Solid | 7471A | 676972 |
| 320-100540-6 | OS8-SED-1-230517 | Total/NA | Solid | 7471A | 676972 |
| MB 320-676972/11-A | Method Blank | Total/NA | Solid | 7471A | 676972 |
| LCS 320-676972/12-A | Lab Control Sample | Total/NA | Solid | 7471A | 676972 |

# QC Association Summary

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

Job ID: 320-100540-1

## Metals

### Prep Batch: 677905

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 320-100540-1 | BP-SED-1-230516 | Total/NA | Solid | 3050B | |
| 320-100540-2 | RRMDF-SED-D-230516 | Total/NA | Solid | 3050B | |
| 320-100540-3 | SRE-SED-3-230517 | Total/NA | Solid | 3050B | |
| 320-100540-4 | OS1-SED-1-230517 | Total/NA | Solid | 3050B | |
| 320-100540-5 | OW-SED-1-230517 | Total/NA | Solid | 3050B | |
| 320-100540-6 | OS8-SED-1-230517 | Total/NA | Solid | 3050B | |
| MB 320-677905/1-A | Method Blank | Total/NA | Solid | 3050B | |
| LCS 320-677905/2-A | Lab Control Sample | Total/NA | Solid | 3050B | |

### Analysis Batch: 678840

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 320-100540-1 | BP-SED-1-230516 | Total/NA | Solid | 6010B | 677905 |
| 320-100540-2 | RRMDF-SED-D-230516 | Total/NA | Solid | 6010B | 677905 |
| 320-100540-3 | SRE-SED-3-230517 | Total/NA | Solid | 6010B | 677905 |
| 320-100540-4 | OS1-SED-1-230517 | Total/NA | Solid | 6010B | 677905 |
| 320-100540-5 | OW-SED-1-230517 | Total/NA | Solid | 6010B | 677905 |
| 320-100540-6 | OS8-SED-1-230517 | Total/NA | Solid | 6010B | 677905 |
| MB 320-677905/1-A | Method Blank | Total/NA | Solid | 6010B | 677905 |
| LCS 320-677905/2-A | Lab Control Sample | Total/NA | Solid | 6010B | 677905 |

# Lab Chronicle

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

Job ID: 320-100540-1

## Client Sample ID: BP-SED-1-230516

**Lab Sample ID: 320-100540-1**

**Date Collected: 05/16/23 10:00**

**Matrix: Solid**

**Date Received: 05/19/23 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 | | | 5.18 g | 50 mL | 679091 | 05/31/23 10:37 | TCS | EET SAC |
| Soluble | Analysis | 314.0 | | 1 | 5 mL | 5 mL | 679423 | 06/01/23 15:58 | TCS | EET SAC |
| Total/NA | Prep | 3050B | | | 1.02 g | 100 mL | 677905 | 05/26/23 06:00 | NIM | EET SAC |
| Total/NA | Analysis | 6010B | | 1 | | | 678840 | 05/30/23 10:37 | GSH | EET SAC |
| Total/NA | Prep | 7471A | | | 0.62 g | 50 mL | 676972 | 05/23/23 10:41 | JAP | EET SAC |
| Total/NA | Analysis | 7471A | | 1 | | | 677099 | 05/23/23 14:37 | JAP | EET SAC |

## Client Sample ID: RRMDF-SED-D-230516

**Lab Sample ID: 320-100540-2**

**Date Collected: 05/16/23 12:15**

**Matrix: Solid**

**Date Received: 05/19/23 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 | | | 4.94 g | 50 mL | 679091 | 05/31/23 10:37 | TCS | EET SAC |
| Soluble | Analysis | 314.0 | | 1 | 5 mL | 5 mL | 679423 | 06/01/23 16:16 | TCS | EET SAC |
| Total/NA | Prep | 3050B | | | 1.01 g | 100 mL | 677905 | 05/26/23 06:00 | NIM | EET SAC |
| Total/NA | Analysis | 6010B | | 1 | | | 678840 | 05/30/23 10:40 | GSH | EET SAC |
| Total/NA | Prep | 7471A | | | 0.59 g | 50 mL | 676972 | 05/23/23 10:41 | JAP | EET SAC |
| Total/NA | Analysis | 7471A | | 1 | | | 677099 | 05/23/23 14:44 | JAP | EET SAC |

## Client Sample ID: SRE-SED-3-230517

**Lab Sample ID: 320-100540-3**

**Date Collected: 05/17/23 09:10**

**Matrix: Solid**

**Date Received: 05/19/23 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 | | | 4.99 g | 50 mL | 679091 | 05/31/23 10:37 | TCS | EET SAC |
| Soluble | Analysis | 314.0 | | 1 | 5 mL | 5 mL | 679423 | 06/01/23 16:34 | TCS | EET SAC |
| Total/NA | Prep | 3050B | | | 1.80 g | 100 mL | 677905 | 05/26/23 06:00 | NIM | EET SAC |
| Total/NA | Analysis | 6010B | | 1 | | | 678840 | 05/30/23 10:43 | GSH | EET SAC |
| Total/NA | Prep | 7471A | | | 0.59 g | 50 mL | 676972 | 05/23/23 10:41 | JAP | EET SAC |
| Total/NA | Analysis | 7471A | | 1 | | | 677099 | 05/23/23 14:46 | JAP | EET SAC |

## Client Sample ID: OS1-SED-1-230517

**Lab Sample ID: 320-100540-4**

**Date Collected: 05/17/23 10:20**

**Matrix: Solid**

**Date Received: 05/19/23 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 | | | 5.02 g | 50 mL | 679091 | 05/31/23 10:37 | TCS | EET SAC |
| Soluble | Analysis | 314.0 | | 1 | 5 mL | 5 mL | 679423 | 06/01/23 16:52 | TCS | EET SAC |
| Total/NA | Prep | 3050B | | | 0.98 g | 100 mL | 677905 | 05/26/23 06:00 | NIM | EET SAC |
| Total/NA | Analysis | 6010B | | 1 | | | 678840 | 05/30/23 10:46 | GSH | EET SAC |
| Total/NA | Prep | 7471A | | | 0.62 g | 50 mL | 676972 | 05/23/23 10:41 | JAP | EET SAC |
| Total/NA | Analysis | 7471A | | 1 | | | 677099 | 05/23/23 14:49 | JAP | EET SAC |

# Lab Chronicle

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

Job ID: 320-100540-1

## Client Sample ID: OW-SED-1-230517

**Lab Sample ID: 320-100540-5**

**Date Collected: 05/17/23 12:00**

**Matrix: Solid**

**Date Received: 05/19/23 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 | 679091 | 05/31/23 10:37 | TCS | EET SAC |
| Soluble | Analysis | 314.0 | | 1 | 5 mL | 5 mL | 679423 | 06/01/23 17:10 | TCS | EET SAC |
| Total/NA | Prep | 3050B | | | 0.99 g | 100 mL | 677905 | 05/26/23 06:00 | NIM | EET SAC |
| Total/NA | Analysis | 6010B | | 1 | | | 678840 | 05/30/23 10:49 | GSH | EET SAC |
| Total/NA | Prep | 7471A | | | 0.63 g | 50 mL | 676972 | 05/23/23 10:41 | JAP | EET SAC |
| Total/NA | Analysis | 7471A | | 1 | | | 677099 | 05/23/23 14:51 | JAP | EET SAC |

## Client Sample ID: OS8-SED-1-230517

**Lab Sample ID: 320-100540-6**

**Date Collected: 05/17/23 13:00**

**Matrix: Solid**

**Date Received: 05/19/23 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 | | | 5.13 g | 50 mL | 679091 | 05/31/23 10:37 | TCS | EET SAC |
| Soluble | Analysis | 314.0 | | 1 | 5 mL | 5 mL | 679423 | 06/01/23 17:28 | TCS | EET SAC |
| Total/NA | Prep | 3050B | | | 0.96 g | 100 mL | 677905 | 05/26/23 06:00 | NIM | EET SAC |
| Total/NA | Analysis | 6010B | | 1 | | | 678840 | 05/30/23 10:52 | GSH | EET SAC |
| Total/NA | Prep | 7471A | | | 0.60 g | 50 mL | 676972 | 05/23/23 10:41 | JAP | EET SAC |
| Total/NA | Analysis | 7471A | | 1 | | | 677099 | 05/23/23 14:52 | JAP | EET SAC |

**Laboratory References:**

EET SAC = Eurofins 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: 320-100540-1

## Laboratory: Eurofins 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 | 01-22-24 |

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 |

# Method Summary

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

Job ID: 320-100540-1

| Method | Method Description | Protocol | Laboratory |
|---|---|---|---|
| 314.0 | Perchlorate (IC) | EPA | EET SAC |
| 6010B | Metals (ICP) | SW846 | EET SAC |
| 7471A | Mercury (CVAA) | SW846 | EET SAC |
| 3050B | Preparation, Metals | SW846 | EET SAC |
| 7471A | Preparation, Mercury | SW846 | EET SAC |
| DI Leach | Deionized Water Leaching Procedure | ASTM | EET 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.

**Laboratory References:**

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

# Sample Summary

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

Job ID: 320-100540-1

| Lab Sample ID | Client Sample ID | Matrix | Collected | Received |
|---|---|---|---|---|
| 320-100540-1 | BP-SED-1-230516 | Solid | 05/16/23 10:00 | 05/19/23 09:20 |
| 320-100540-2 | RRMDF-SED-D-230516 | Solid | 05/16/23 12:15 | 05/19/23 09:20 |
| 320-100540-3 | SRE-SED-3-230517 | Solid | 05/17/23 09:10 | 05/19/23 09:20 |
| 320-100540-4 | OS1-SED-1-230517 | Solid | 05/17/23 10:20 | 05/19/23 09:20 |
| 320-100540-5 | OW-SED-1-230517 | Solid | 05/17/23 12:00 | 05/19/23 09:20 |
| 320-100540-6 | OS8-SED-1-230517 | Solid | 05/17/23 13:00 | 05/19/23 09:20 |

GSI ENVIRONMENTAL

CHAIN-OF-CUSTODY RECORD
Date: 5/16/23 - 5/17/23
Page 1 of 1

| | | |
|---|---|---|
| FROM: GSI Environmental Inc.<br>2000 Powell Street. Suite 820<br>Emeryville, CA 94608 | PROJECT NAME: AJU-BB<br>PROJECT CONTACT: Susan Gallardo<br>GLOBAL ID: -- | PROJECT NO.: 5182<br>LAB CONTACT: Afsaneh Salimpour (Pleasanton)<br>SAMPLER(S): (PRINT) |
| TEL: (510) 463-8484 | E-MAIL: smgallardo@gsi-net.com; sjbowersmith@gsi-net.com | |
| LABORATORY: Eurofins Calscience | | |

TURNAROUND TIME: ☐ SAME DAY ☐ 24 HR ☐ 48 HR ☐ 72 HR ☐ 5 DAYS ☒ STANDARD

SPECIAL INSTRUCTIONS:

**REQUESTED ANALYSES**
Please check box or fill in blank as needed.

320-100540 Chain of Custody

| LAB USE ONLY | SAMPLE ID | SAMPLING DATE | SAMPLING TIME | MATRIX | NO. OF CONT. | Unpreserved | Preserved | Field Filtered | Title 22 Metals (6010/7470) | Perchlorate (314.0) |
|---|---|---|---|---|---|---|---|---|---|---|
| 1 | BP-SED-1-230516 | 5/16/23 | 1000 | S | 2 | X | | | X | X |
| ~~1~~ | ~~RRMDF-SED-D-230516~~ | | | | | | | | | |
| 2 | RRMDF-SED-D-230516 | 5/16/23 | 1215 | S | 2 | X | | | X | X |
| 3 | SRE-SED-3-230517 | 5/17/23 | 0910 | S | 2 | X | | | X | X |
| 4 | OS1-SED-1-230517 | 5/17/23 | 1020 | S | 2 | X | | | X | X |
| 5 | OW-SED-1-230517 | 5/17/23 | 1200 | S | 2 | X | | | X | X |
| 6 | OS8-SED-1-230517 | 5/17/23 | 1300 | S | 2 | X | | | X | X |

| | | | |
|---|---|---|---|
| Relinquished by: (Signature) Cathy Bar | Received by: (Signature) | Date: 5/18/23 | Time: 12:23 |
| Relinquished by: (Signature) | Received by: (Signature) | Date: 5/19/23 | Time: 920 |
| Relinquished by: (Signature) | Received by: (Signature) | Date: | Time: |

1.6c

2.5/2.7 5/16

Euro Soil/Sed



6/5/2023

# Login Sample Receipt Checklist

Client: GSI Environmental, Inc

Job Number: 320-100540-1

**Login Number: 100540**
**List Number: 1**
**Creator: Turpen, Laura**

**List Source: Eurofins Sacramento**

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

GEL Laboratories LLC
a member of The GEL Group INC

PO Box 30712 Charleston, SC 29417
2040 Savage Road Charleston, SC 29407
P 843.556.8171
F 843.766.1178

gel.com

June 08, 2023

Susan Gallardo
GSI Environmental Inc.
155 Grand Ave
Suite 704
Oakland, California 94612

Re: Near SSFL
Work Order: 623069

Dear Susan Gallardo:

GEL Laboratories, LLC (GEL) appreciates the opportunity to provide the enclosed analytical results for the sample(s) we received on May 20, 2023. This original data report has been prepared and reviewed in accordance with GEL's standard operating procedures.

The samples were delivered with proper chain of custody documentation and signatures. All sample containers arrived without any visible signs of tampering or breakage. There are no additional comments concerning sample receipt.

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. 1614.

Sincerely,

Jordan Melton

Jordan Melton for
Delaney Stone
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: 623069 GEL Work Order: 623069

**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, Delaney Stone.

Reviewed by Jordan Melton

# 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 8, 2023

Contact: Susan Gallardo
Project: Near SSFL

Client Sample ID: CIT-1-230516
Sample ID: 623069001
Matrix: Solid
Collect Date: 16-MAY-23
Receive Date: 20-MAY-23
Collector: Client
Moisture: 8.7%

Project: GSIE00119
Client ID: GSIE002

| Parameter | Qualifier | Result | Uncertainty | MDC | TPU | RL | Units | PF | DF | Analyst | Date | Time | Batch | Mtd. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Rad Gamma Spec Analysis** | | | | | | | | | | | | | | |
| *Gammaspec, Gamma, Solid (Standard List) "Dry Weight Corrected"* | | | | | | | | | | | | | | |
| Cesium-137 | | 0.0873 | +/-0.0594 | 0.0678 | +/-0.0598 | 0.100 | pCi/g | | | MXR1 | 05/24/23 | 1840 | 2432917 | 1 |
| **Rad Gas Flow Proportional Counting** | | | | | | | | | | | | | | |
| *GFPC, Sr90, Solid "Dry Weight Corrected"* | | | | | | | | | | | | | | |
| Strontium-90 | U | 0.0214 | +/-0.0256 | 0.0432 | +/-0.0259 | 0.100 | pCi/g | | | ST2 | 06/02/23 | 1305 | 2433125 | 2 |
| **Rad Liquid Scintillation Analysis** | | | | | | | | | | | | | | |
| *LSC, Tritium Distillation, Soil "As Received"* | | | | | | | | | | | | | | |
| Tritium | U | -0.262 | +/-0.461 | 0.838 | +/-0.461 | 0.200 | pCi/g | | | KXA1 | 06/03/23 | 1756 | 2433250 | 3 |

**The following Prep Methods were performed**

| Method | Description | Analyst | Date | Time | Prep Batch |
|---|---|---|---|---|---|
| Dry Soil Prep | Dry Soil Prep GL-RAD-A-021 | GG | 05/22/23 | 1525 | 2432735 |

**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" | 2433125 | 96.6 | (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: June 8, 2023

Contact: Susan Gallardo
Project: Near SSFL

Client Sample ID: CIT-1-230516
Sample ID: 623069001

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: June 8, 2023

Contact: Susan Gallardo
Project: Near SSFL

Client Sample ID: TF-1-230516
Sample ID: 623069002
Matrix: Solid
Collect Date: 16-MAY-23
Receive Date: 20-MAY-23
Collector: Client
Moisture: 7.85%

Project: GSIE00119
Client ID: GSIE002

| Parameter | Qualifier | Result | Uncertainty | MDC | TPU | RL | Units | PF | DF | Analyst | Date | Time | Batch | Mtd. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Rad Gamma Spec Analysis** | | | | | | | | | | | | | | |
| *Gammaspec, Gamma, Solid (Standard List) "Dry Weight Corrected"* | | | | | | | | | | | | | | |
| Cesium-137 | | 0.0884 | +/-0.0547 | 0.0719 | +/-0.0552 | 0.100 | pCi/g | | | MXR1 | 05/24/23 | 1841 | 2432917 | 1 |
| **Rad Gas Flow Proportional Counting** | | | | | | | | | | | | | | |
| *GFPC, Sr90, Solid "Dry Weight Corrected"* | | | | | | | | | | | | | | |
| Strontium-90 | U | -0.0335 | +/-0.0263 | 0.0541 | +/-0.0263 | 0.100 | pCi/g | | | ST2 | 06/05/23 | 1127 | 2433125 | 2 |
| **Rad Liquid Scintillation Analysis** | | | | | | | | | | | | | | |
| *LSC, Tritium Distillation, Soil "As Received"* | | | | | | | | | | | | | | |
| Tritium | U | -0.0691 | +/-0.510 | 0.909 | +/-0.510 | 0.200 | pCi/g | | | KXA1 | 06/03/23 | 1858 | 2433250 | 3 |

**The following Prep Methods were performed**

| Method | Description | Analyst | Date | Time | Prep Batch |
|---|---|---|---|---|---|
| Dry Soil Prep | Dry Soil Prep GL-RAD-A-021 | GG | 05/22/23 | 1525 | 2432735 |

**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" | 2433125 | 103 | (25%-125%) |

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# Certificate of Analysis

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

Report Date: June 8, 2023

Contact: Susan Gallardo
Project: Near SSFL

Client Sample ID: TF-1-230516
Sample ID: 623069002

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: June 8, 2023

Contact: Susan Gallardo
Project: Near SSFL

Client Sample ID: HV-2-230517
Sample ID: 623069003
Matrix: Solid
Collect Date: 17-MAY-23
Receive Date: 20-MAY-23
Collector: Client
Moisture: 11%

Project: GSIE00119
Client ID: GSIE002

| Parameter | Qualifier | Result | Uncertainty | MDC | TPU | RL | Units | PF | DF | Analyst | Date | Time | Batch | Mtd. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Rad Gamma Spec Analysis** | | | | | | | | | | | | | | |
| *Gammaspec, Gamma, Solid (Standard List) "Dry Weight Corrected"* | | | | | | | | | | | | | | |
| Cesium-137 | U | 0.0212 | +/-0.0477 | 0.0943 | +/-0.0486 | 0.100 | pCi/g | | | MXR1 | 05/24/23 | 1842 | 2432917 | 1 |
| **Rad Gas Flow Proportional Counting** | | | | | | | | | | | | | | |
| *GFPC, Sr90, Solid "Dry Weight Corrected"* | | | | | | | | | | | | | | |
| Strontium-90 | U | -0.00170 | +/-0.0249 | 0.0477 | +/-0.0249 | 0.100 | pCi/g | | | ST2 | 06/02/23 | 1305 | 2433125 | 2 |
| **Rad Liquid Scintillation Analysis** | | | | | | | | | | | | | | |
| *LSC, Tritium Distillation, Soil "As Received"* | | | | | | | | | | | | | | |
| Tritium | U | 0.326 | +/-0.513 | 0.875 | +/-0.519 | 0.200 | pCi/g | | | KXA1 | 06/03/23 | 2000 | 2433250 | 3 |

**The following Prep Methods were performed**

| Method | Description | Analyst | Date | Time | Prep Batch |
|---|---|---|---|---|---|
| Dry Soil Prep | Dry Soil Prep GL-RAD-A-021 | GG | 05/22/23 | 1525 | 2432735 |

**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" | 2433125 | 87.4 | (25%-125%) |

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# Certificate of Analysis

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

Report Date: June 8, 2023

Contact: Susan Gallardo
Project: Near SSFL

Client Sample ID: HV-2-230517
Sample ID: 623069003

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
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Report Date: June 8, 2023

Contact: Susan Gallardo

Project: Near SSFL

Client Sample ID: HV-SED-1-230517
Sample ID: 623069004
Matrix: Solid
Collect Date: 17-MAY-23
Receive Date: 20-MAY-23
Collector: Client
Moisture: 2.27%

Project: GSIE00119
Client ID: GSIE002

| Parameter | Qualifier | Result | Uncertainty | MDC | TPU | RL | Units | PF | DF | Analyst | Date | Time | Batch | Mtd. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Rad Gamma Spec Analysis** | | | | | | | | | | | | | | |
| *Gammaspec, Gamma, Solid (Standard List) "Dry Weight Corrected"* | | | | | | | | | | | | | | |
| Cesium-137 | U | 0.0280 | +/-0.0416 | 0.0767 | +/-0.0436 | 0.100 | pCi/g | | | MXR1 | 05/24/23 | 1844 | 2432917 | 1 |
| **Rad Gas Flow Proportional Counting** | | | | | | | | | | | | | | |
| *GFPC, Sr90, Solid "Dry Weight Corrected"* | | | | | | | | | | | | | | |
| Strontium-90 | U | 0.0319 | +/-0.0259 | 0.0412 | +/-0.0266 | 0.100 | pCi/g | | | ST2 | 06/02/23 | 1305 | 2433125 | 2 |
| **Rad Liquid Scintillation Analysis** | | | | | | | | | | | | | | |
| *LSC, Tritium Distillation, Soil "As Received"* | | | | | | | | | | | | | | |
| Tritium | U | 0.420 | +/-0.504 | 0.850 | +/-0.513 | 0.200 | pCi/g | | | KXA1 | 06/03/23 | 2102 | 2433250 | 3 |

**The following Prep Methods were performed**

| Method | Description | Analyst | Date | Time | Prep Batch |
|---|---|---|---|---|---|
| Dry Soil Prep | Dry Soil Prep GL-RAD-A-021 | GG | 05/22/23 | 1525 | 2432735 |

**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" | 2433125 | 98.9 | (25%-125%) |

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# Certificate of Analysis

Company : GSI Environmental Inc.
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Oakland, California 94612

Report Date: June 8, 2023

Contact: Susan Gallardo
Project: Near SSFL

Client Sample ID: HV-SED-1-230517
Sample ID: 623069004

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
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Report Date: June 8, 2023

Contact: Susan Gallardo
Project: Near SSFL

Client Sample ID: HV-1-230517
Sample ID: 623069005
Matrix: Solid
Collect Date: 17-MAY-23
Receive Date: 20-MAY-23
Collector: Client
Moisture: 7.2%

Project: GSIE00119
Client ID: GSIE002

| Parameter | Qualifier | Result | Uncertainty | MDC | TPU | RL | Units | PF | DF | Analyst | Date | Time | Batch | Mtd. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Rad Gamma Spec Analysis** | | | | | | | | | | | | | | |
| *Gammaspec, Gamma, Solid (Standard List) "Dry Weight Corrected"* | | | | | | | | | | | | | | |
| Cesium-137 | U | 0.00536 | +/-0.0367 | 0.0711 | +/-0.0368 | 0.100 | pCi/g | | | MXR1 | 05/24/23 | 1845 | 2432917 | 1 |
| **Rad Gas Flow Proportional Counting** | | | | | | | | | | | | | | |
| *GFPC, Sr90, Solid "Dry Weight Corrected"* | | | | | | | | | | | | | | |
| Strontium-90 | U | 0.0394 | +/-0.0445 | 0.0746 | +/-0.0451 | 0.100 | pCi/g | | | ST2 | 06/02/23 | 1305 | 2433125 | 2 |
| **Rad Liquid Scintillation Analysis** | | | | | | | | | | | | | | |
| *LSC, Tritium Distillation, Soil "As Received"* | | | | | | | | | | | | | | |
| Tritium | U | 0.502 | +/-0.558 | 0.936 | +/-0.569 | 0.200 | pCi/g | | | KXA1 | 06/03/23 | 2204 | 2433250 | 3 |

**The following Prep Methods were performed**

| Method | Description | Analyst | Date | Time | Prep Batch |
|---|---|---|---|---|---|
| Dry Soil Prep | Dry Soil Prep GL-RAD-A-021 | GG | 05/22/23 | 1525 | 2432735 |

**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" | 2433125 | 52.9 | (25%-125%) |

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# Certificate of Analysis

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

Report Date: June 8, 2023

Contact: Susan Gallardo
Project: Near SSFL

Client Sample ID: HV-1-230517
Sample ID: 623069005

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: June 8, 2023

Contact: Susan Gallardo
Project: Near SSFL

Client Sample ID: KC-1-230517
Sample ID: 623069006
Matrix: Solid
Collect Date: 17-MAY-23
Receive Date: 20-MAY-23
Collector: Client
Moisture: 4.04%

Project: GSIE00119
Client ID: GSIE002

| Parameter | Qualifier | Result | Uncertainty | MDC | TPU | RL | Units | PF | DF | Analyst | Date | Time | Batch | Mtd. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Rad Gamma Spec Analysis** | | | | | | | | | | | | | | |
| *Gammaspec, Gamma, Solid (Standard List) "Dry Weight Corrected"* | | | | | | | | | | | | | | |
| Cesium-137 | UI | 0.000 | +/-0.155 | 0.0999 | +/-0.156 | 0.100 | pCi/g | | | MXR1 | 05/24/23 | 1850 | 2432917 | 1 |
| **Rad Gas Flow Proportional Counting** | | | | | | | | | | | | | | |
| *GFPC, Sr90, Solid "Dry Weight Corrected"* | | | | | | | | | | | | | | |
| Strontium-90 | U | 0.00580 | +/-0.0291 | 0.0547 | +/-0.0291 | 0.100 | pCi/g | | | ST2 | 06/02/23 | 1305 | 2433125 | 2 |
| **Rad Liquid Scintillation Analysis** | | | | | | | | | | | | | | |
| *LSC, Tritium Distillation, Soil "As Received"* | | | | | | | | | | | | | | |
| Tritium | U | -0.0287 | +/-0.485 | 0.860 | +/-0.485 | 0.200 | pCi/g | | | KXA1 | 06/03/23 | 2306 | 2433250 | 3 |

**The following Prep Methods were performed**

| Method | Description | Analyst | Date | Time | Prep Batch |
|---|---|---|---|---|---|
| Dry Soil Prep | Dry Soil Prep GL-RAD-A-021 | GG | 05/22/23 | 1525 | 2432735 |

**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" | 2433125 | 64.4 | (25%-125%) |

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# Certificate of Analysis

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

Report Date: June 8, 2023

Contact: Susan Gallardo
Project: Near SSFL

Client Sample ID: KC-1-230517
Sample ID: 623069006

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: June 8, 2023

Contact: Susan Gallardo

Project: Near SSFL

Client Sample ID: AT-1-230518
Sample ID: 623069007
Matrix: Solid
Collect Date: 18-MAY-23
Receive Date: 20-MAY-23
Collector: Client
Moisture: 8.34%

Project: GSIE00119
Client ID: GSIE002

| Parameter | Qualifier | Result | Uncertainty | MDC | TPU | RL | Units | PF | DF | Analyst | Date | Time | Batch | Mtd. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Rad Gamma Spec Analysis** | | | | | | | | | | | | | | |
| *Gammaspec, Gamma, Solid (Standard List) "Dry Weight Corrected"* | | | | | | | | | | | | | | |
| Cesium-137 | UI | 0.000 | +/-0.104 | 0.0694 | +/-0.105 | 0.100 | pCi/g | | | MXR1 | 05/24/23 | 1851 | 2432917 | 1 |
| **Rad Gas Flow Proportional Counting** | | | | | | | | | | | | | | |
| *GFPC, Sr90, Solid "Dry Weight Corrected"* | | | | | | | | | | | | | | |
| Strontium-90 | U | 0.00597 | +/-0.0172 | 0.0320 | +/-0.0173 | 0.100 | pCi/g | | | ST2 | 06/02/23 | 1305 | 2433125 | 2 |
| **Rad Liquid Scintillation Analysis** | | | | | | | | | | | | | | |
| *LSC, Tritium Distillation, Soil "As Received"* | | | | | | | | | | | | | | |
| Tritium | U | 0.175 | +/-0.480 | 0.829 | +/-0.482 | 0.200 | pCi/g | | | KXA1 | 06/04/23 | 0008 | 2433250 | 3 |

**The following Prep Methods were performed**

| Method | Description | Analyst | Date | Time | Prep Batch |
|---|---|---|---|---|---|
| Dry Soil Prep | Dry Soil Prep GL-RAD-A-021 | GG | 05/22/23 | 1525 | 2432735 |

**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" | 2433125 | 96.6 | (25%-125%) |

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# Certificate of Analysis

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

Report Date: June 8, 2023

Contact: Susan Gallardo
Project: Near SSFL

Client Sample ID: AT-1-230518
Sample ID: 623069007

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: June 8, 2023

Contact: Susan Gallardo

Project: Near SSFL

Client Sample ID: GF-1-230518
Sample ID: 623069008
Matrix: Solid
Collect Date: 18-MAY-23
Receive Date: 20-MAY-23
Collector: Client
Moisture: 21.3%

Project: GSIE00119
Client ID: GSIE002

| Parameter | Qualifier | Result | Uncertainty | MDC | TPU | RL | Units | PF | DF | Analyst | Date | Time | Batch | Mtd. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Rad Gamma Spec Analysis** | | | | | | | | | | | | | | |
| *Gammaspec, Gamma, Solid (Standard List) "Dry Weight Corrected"* | | | | | | | | | | | | | | |
| Cesium-137 | U | 0.0784 | +/-0.0586 | 0.0820 | +/-0.0590 | 0.100 | pCi/g | | | MXR1 | 05/24/23 | 1855 | 2432917 | 1 |
| **Rad Gas Flow Proportional Counting** | | | | | | | | | | | | | | |
| *GFPC, Sr90, Solid "Dry Weight Corrected"* | | | | | | | | | | | | | | |
| Strontium-90 | U | 0.0252 | +/-0.0205 | 0.0321 | +/-0.0210 | 0.100 | pCi/g | | | ST2 | 06/02/23 | 1305 | 2433125 | 2 |
| **Rad Liquid Scintillation Analysis** | | | | | | | | | | | | | | |
| *LSC, Tritium Distillation, Soil "As Received"* | | | | | | | | | | | | | | |
| Tritium | U | 0.144 | +/-0.528 | 0.920 | +/-0.529 | 0.200 | pCi/g | | | KXA1 | 06/04/23 | 0110 | 2433250 | 3 |

**The following Prep Methods were performed**

| Method | Description | Analyst | Date | Time | Prep Batch |
|---|---|---|---|---|---|
| Dry Soil Prep | Dry Soil Prep GL-RAD-A-021 | GG | 05/22/23 | 1525 | 2432735 |

**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" | 2433125 | 101 | (25%-125%) |

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# Certificate of Analysis

Company : GSI Environmental Inc.
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Oakland, California 94612

Report Date: June 8, 2023

Contact: Susan Gallardo
Project: Near SSFL

Client Sample ID: GF-1-230518
Sample ID: 623069008

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

## *QC Summary*

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

**Contact:** **Susan Gallardo**

**Workorder:** **623069**

**Report Date: June 8, 2023**


| Parmname | NOM | Sample | Qual | QC | Units | RPD% | REC% | Range | Anlst | Date Time |
|---|---|---|---|---|---|---|---|---|---|---|
| **Rad Gamma Spec** | | | | | | | | | | |
| Batch 2432917 | | | | | | | | | | |
| QC1205412990 623069001 DUP | | | | | | | | | | |
| Cesium-137 | | 0.0873 | U | 0.0612 | pCi/g | 21.6 | | (0% - 100%) | MXR1 | 05/24/2321:47 |
| | Uncert: | +/-0.0594 | | +/-0.0525 | | | | | | |
| | TPU: | +/-0.0598 | | +/-0.0595 | | | | | | |
| QC1205412991 LCS | | | | | | | | | | |
| Americium-241 | 484 | | | 532 | pCi/g | | 110 | (75%-125%) | MXR1 | 05/24/2321:49 |
| | Uncert: | | | +/-4.85 | | | | | | |
| | TPU: | | | +/-41.6 | | | | | | |
| Cobalt-60 | 67.0 | | | 64.4 | pCi/g | | 96.1 | (75%-125%) | | |
| | Uncert: | | | +/-2.21 | | | | | | |
| | TPU: | | | +/-5.71 | | | | | | |
| Cesium-137 | 154 | | | 161 | pCi/g | | 105 | (75%-125%) | | |
| | Uncert: | | | +/-2.82 | | | | | | |
| | TPU: | | | +/-17.6 | | | | | | |
| QC1205412989 MB | | | | | | | | | | |
| Cesium-137 | | | U | 0.000611 | pCi/g | | | | MXR1 | 05/24/2321:46 |
| | Uncert: | | | +/-0.0416 | | | | | | |
| | TPU: | | | +/-0.0416 | | | | | | |
| **Rad Gas Flow** | | | | | | | | | | |
| Batch 2433125 | | | | | | | | | | |
| QC1205413332 623069001 DUP | | | | | | | | | | |
| Strontium-90 | U | 0.0214 | U | 0.00343 | pCi/g | 0 | | N/A | ST2 | 06/02/2313:05 |
| | Uncert: | +/-0.0256 | | +/-0.0357 | | | | | | |
| | TPU: | +/-0.0259 | | +/-0.0357 | | | | | | |
| QC1205413333 LCS | | | | | | | | | | |
| Strontium-90 | 4.07 | | | 4.21 | pCi/g | | 103 | (75%-125%) | ST2 | 06/02/2313:03 |
| | Uncert: | | | +/-0.166 | | | | | | |
| | TPU: | | | +/-0.781 | | | | | | |
| QC1205413331 MB | | | | | | | | | | |
| Strontium-90 | | | U | 0.0315 | pCi/g | | | | ST2 | 06/02/2313:04 |
| | Uncert: | | | +/-0.0240 | | | | | | |
| | TPU: | | | +/-0.0246 | | | | | | |
| **Rad Liquid Scintillation** | | | | | | | | | | |
| Batch 2433250 | | | | | | | | | | |
| QC1205413560 623069001 DUP | | | | | | | | | | |
| Tritium | U | -0.262 | U | -0.171 | pCi/g | 0 | | N/A | KXA1 | 06/04/2310:43 |
| | Uncert: | +/-0.461 | | +/-0.471 | | | | | | |
| | TPU: | +/-0.461 | | +/-0.471 | | | | | | |
| QC1205413562 LCS | | | | | | | | | | |
| Tritium | 25.2 | | | 23.9 | pCi/g | | 94.8 | (75%-125%) | KXA1 | 06/04/2312:01 |
| | Uncert: | | | +/-2.42 | | | | | | |

## *QC Summary*

**Workorder:** **623069**



| Parmname | NOM | Sample | Qual | QC | Units | RPD% | REC% | Range | Anlst | Date Time |
|---|---|---|---|---|---|---|---|---|---|---|
| **Rad Liquid Scintillation** | | | | | | | | | | |
| Batch 2433250 | | | | | | | | | | |
| | TPU: | | | +/-5.93 | | | | | | |
| QC1205413559 MB | | | | | | | | | | |
| Tritium | | | U | 0.0143 | pCi/g | | | | KXA1 | 06/04/2309:41 |
| | Uncert: | | | +/-0.488 | | | | | | |
| | TPU: | | | +/-0.488 | | | | | | |
| QC1205413561 623069001 MS | | | | | | | | | | |
| Tritium | 25.2 | U -0.262 | | 23.9 | pCi/g | | 95 | (75%-125%) | KXA1 | 06/04/2311:45 |
| | Uncert: | +/-0.461 | | +/-2.45 | | | | | | |
| | TPU: | +/-0.461 | | +/-5.96 | | | | | | |

**Notes:**

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

The Qualifiers in this report are defined as follows:

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

# *QC Summary*

**Workorder:** **623069**



| 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 acceptence 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.

GSI ENVIRONMENTAL

623069

CHAIN-OF-CUSTODY RECORD
Date: 5/16/23 - 5/18/23
Page 1 of 1

| FROM: | PROJECT NAME: | PROJECT NO.: |
|---|---|---|
| GSI Environmental Inc.<br>2000 Powell Street. Suite 820<br>Emeryville, CA 94608 | AJU-BB | 5182 |
| | PROJECT CONTACT: Susan Gallardo | LAB CONTACT: Delaney Stone |
| | GLOBAL ID: – | SAMPLER(S): (PRINT) |

TEL: (510) 463-8484 E-MAIL: smgallardo@gsi-net.com;sjbowersmith@gsi-net.com

LABORATORY: GEL Laboratories

TURNAROUND TIME:
☐ SAME DAY ☐ 24 HR ☐ 48 HR
☐ 72 HR ☐ 5 DAYS ☒ STANDARD

SPECIAL INSTRUCTIONS:
- Sr-90 MDC of 0.1 pCi/g
- Cs-137 MDC of 0.1 pCi/g
- H-3 MDC of 0.2 pCi/g

**REQUESTED ANALYSES**
Please check box or fill in blank as needed.

| LAB USE ONLY | SAMPLE ID | SAMPLING DATE | SAMPLING TIME | MATRIX | NO. OF CONT. | Unpreserved | Preserved | Field Filtered | Sr-90 (905.0) | Cs-137 (901.1) | H-3 (906) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | CIT-1-230516 | 5/16/23 | 1327 | S | 1 2 1R | X | | | X | X | X |
| | TF-1-230516 | 5/16/23 | 1350 | S | 1 2 1R | X | | | X | X | X |
| | HV-2-230517 | 5/17/23 | 1335 | S | 1 2 1R | X | | | X | X | X |
| | HV-SED-1-230517 | 5/17/23 | 1340 | S | 1 | X | | | X | X | X |
| | HV-1-230517 | 5/17/23 | 1345 | S | 1 | X | | | X | X | X |
| | KC-1-230517 | 5/17/23 | 1430 | S | 1 | X | | | X | X | X |
| | AT-1-230518 | 5/18/23 | 0800 | S | 1 | X | | | X | X | X |
| | GF-1-230518 | 5/18/23 | 0820 | S | 1 | X | | | X | X | X |

| | | | |
|---|---|---|---|
| Relinquished by: (Signature) | Received by: (Signature) Fedex | Date: 5/18/23 | Time: 11:00 |
| Relinquished by: (Signature) | Received by: (Signature) | Date: 5.20.23 | Time: |
| Relinquished by: (Signature) | Received by: (Signature) | Date: | Time: |

GEL – Soil / sed

GEL Laboratories LLC

# SAMPLE RECEIPT & REVIEW FORM

| | |
|---|---|
| Client: ESE | SDG/AR/COC/Work Order: 623069 DS |
| Received By: MVH | Date Received: 5/20/2023 |
| Carrier and Tracking Number | Circle Applicable: FedEx Express FedEx Ground UPS Field Services Courier Other<br>772138212081<br>772138211486 772138213412 |

| 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#:<br>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): 0 0 CPM/ mR/Hr<br>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.<br>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: Wet Ice Ice Packs Dry ice None Other:<br>*all temperatures are recorded in Celsius TEMP: 18 |
| 4 | Daily check performed and passed on IR temperature gun? | ✓ | | | Temperature Device Serial #: IR2-21<br>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:<br>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)<br>Do liquid VOA vials contain acid preservation? Yes___ No___ NA___(If unknown, select No)<br>Are liquid VOA vials free of headspace? Yes___ No___ NA___<br>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)<br>SK-10-230517 Bottle says 920, SRG-W-230517 @910 |
| 11 | Number of containers received match number indicated on COC? | ✓ | | | Circle Applicable: No container count on COC Other (describe) |
| 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):

~~Missing two Coolers~~ JM 5/23

PM (or PMA) review: Initials JM Date 5-23-23 Page 1 of 1

GL-CHL-SR-001 Rev 7

**List of current GEL Certifications as of 08 June 2023**

| 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 | SC000122023-4 |
| 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 | 2022-160 |
| 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 | T104704235-22-20 |
| Utah NELAP | SC000122022-37 |
| Vermont | VT87156 |
| Virginia NELAP | 460202 |
| Washington | C780 |

**Radiochemistry**
**Technical Case Narrative**
**GSI Environmental Inc.**
**SDG #: 623069**

**Product:** **Dry Weight**
**Preparation Method:** Dry Soil Prep
**Preparation Procedure:** GL-RAD-A-021 REV# 24
**Preparation Batch:** 2432735

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

| GEL Sample ID# | Client Sample Identification |
|---|---|
| 623069001 | CIT-1-230516 |
| 623069002 | TF-1-230516 |
| 623069003 | HV-2-230517 |
| 623069004 | HV-SED-1-230517 |
| 623069005 | HV-1-230517 |
| 623069006 | KC-1-230517 |
| 623069007 | AT-1-230518 |
| 623069008 | GF-1-230518 |

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 (Standard List)**
**Analytical Method:** DOE HASL 300, 4.5.2.3/Ga-01-R
**Analytical Procedure:** GL-RAD-A-013 REV# 27
**Analytical Batch:** 2432917

**Preparation Method:** Dry Soil Prep
**Preparation Procedure:** GL-RAD-A-021 REV# 24
**Preparation Batch:** 2432735

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

| GEL Sample ID# | Client Sample Identification |
|---|---|
| 623069001 | CIT-1-230516 |
| 623069002 | TF-1-230516 |
| 623069003 | HV-2-230517 |
| 623069004 | HV-SED-1-230517 |
| 623069005 | HV-1-230517 |
| 623069006 | KC-1-230517 |

| | |
|---|---|
| 623069007 | AT-1-230518 |
| 623069008 | GF-1-230518 |
| 1205412989 | Method Blank (MB) |
| 1205412990 | 623069001(CIT-1-230516) Sample Duplicate (DUP) |
| 1205412991 | Laboratory Control Sample (LCS) |

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

**Qualifier Information**

| Qualifier | Reason | Analyte | Sample | Client Sample |
|---|---|---|---|---|
| UI | Results are considered a false positive due to high peak-width. | Cesium-137 | 623069006 | KC-1-230517 |
| | | Cesium-137 | 623069007 | AT-1-230518 |

**Product:** **GFPC, Sr90, Solid**
**Analytical Method:** EPA 905.0 Modified/DOE RP501 Rev. 1 Modified
**Analytical Procedure:** GL-RAD-A-004 REV# 22
**Analytical Batch:** 2433125

**Preparation Method:** Dry Soil Prep
**Preparation Procedure:** GL-RAD-A-021 REV# 24
**Preparation Batch:** 2432735

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

| GEL Sample ID# | Client Sample Identification |
|---|---|
| 623069001 | CIT-1-230516 |
| 623069002 | TF-1-230516 |
| 623069003 | HV-2-230517 |
| 623069004 | HV-SED-1-230517 |
| 623069005 | HV-1-230517 |
| 623069006 | KC-1-230517 |
| 623069007 | AT-1-230518 |
| 623069008 | GF-1-230518 |
| 1205413331 | Method Blank (MB) |
| 1205413332 | 623069001(CIT-1-230516) Sample Duplicate (DUP) |
| 1205413333 | 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 623069002 (TF-1-230516) was recounted due to a suspected false positive. The recount is reported.

**Product:** **LSC, Tritium Distillation, Soil**
**Analytical Method:** EPA 906.0 Modified
**Analytical Procedure:** GL-RAD-A-002 REV# 24
**Analytical Batch:** 2433250

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

| GEL Sample ID# | Client Sample Identification |
|---|---|
| 623069001 | CIT-1-230516 |
| 623069002 | TF-1-230516 |
| 623069003 | HV-2-230517 |
| 623069004 | HV-SED-1-230517 |
| 623069005 | HV-1-230517 |
| 623069006 | KC-1-230517 |
| 623069007 | AT-1-230518 |
| 623069008 | GF-1-230518 |
| 1205413559 | Method Blank (MB) |
| 1205413560 | 623069001(CIT-1-230516) Sample Duplicate (DUP) |
| 1205413561 | 623069001(CIT-1-230516) Matrix Spike (MS) |
| 1205413562 | 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**

**RDL Met**
Samples (See Below) did not meet the detection limits due to the small sample aliquots used. The aliquots were reduced due to the matrix of the samples.

| Sample | Analyte | Value |
|---|---|---|
| 1205413559 (MB) | Tritium | Result 0.0143 < MDA 0.861 > RDL 0.2 pCi/g |
| 1205413560 (CIT-1-230516DUP) | Tritium | Result -0.171 < MDA 0.848 > RDL 0.2 pCi/g |
| 623069001 (CIT-1-230516) | Tritium | Result -0.262 < MDA 0.838 > RDL 0.2 pCi/g |

| | | |
|---|---|---|
| 623069002 (TF-1-230516) | Tritium | Result -0.0691 < MDA 0.909 > RDL 0.2 pCi/g |
| 623069003 (HV-2-230517) | Tritium | Result 0.326 < MDA 0.875 > RDL 0.2 pCi/g |
| 623069004 (HV-SED-1-230517) | Tritium | Result 0.42 < MDA 0.85 > RDL 0.2 pCi/g |
| 623069005 (HV-1-230517) | Tritium | Result 0.502 < MDA 0.936 > RDL 0.2 pCi/g |
| 623069006 (KC-1-230517) | Tritium | Result -0.0287 < MDA 0.86 > RDL 0.2 pCi/g |
| 623069007 (AT-1-230518) | Tritium | Result 0.175 < MDA 0.829 > RDL 0.2 pCi/g |
| 623069008 (GF-1-230518) | Tritium | Result 0.144 < MDA 0.92 > RDL 0.2 pCi/g |

**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.

GEL Laboratories LLC
a member of The GEL Group INC

PO Box 30712 Charleston, SC 29417
2040 Savage Road Charleston, SC 29407
P 843.556.8171
F 843.766.1178

gel.com

June 08, 2023

Susan Gallardo
GSI Environmental Inc.
155 Grand Ave
Suite 704
Oakland, California 94612

Re: Near SSFL
Work Order: 623070

Dear Susan Gallardo:

GEL Laboratories, LLC (GEL) appreciates the opportunity to provide the enclosed analytical results for the sample(s) we received on May 20, 2023. This original data report has been prepared and reviewed in accordance with GEL's standard operating procedures.

The samples were delivered with proper chain of custody documentation and signatures. All sample containers arrived without any visible signs of tampering or breakage. Collect time on the Chain of Custody does not match the collect time on the container received*623070003(SRE-SED-3-230517)*.

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. 1614.

Sincerely,

Jordan Melton

Jordan Melton for
Delaney Stone
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: 623070 GEL Work Order: 623070

**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, Delaney Stone.

Reviewed by Jordan Melton

# 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 8, 2023

Contact: Susan Gallardo
Project: Near SSFL

Client Sample ID: BP-SED-1-230516
Sample ID: 623070001
Matrix: Solid
Collect Date: 16-MAY-23
Receive Date: 20-MAY-23
Collector: Client
Moisture: 10.8%

Project: GSIE00119
Client ID: GSIE002

| Parameter | Qualifier | Result | Uncertainty | MDC | TPU | RL | Units | PF | DF | Analyst | Date | Time | Batch | Mtd. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Rad Gamma Spec Analysis** | | | | | | | | | | | | | | |
| *Gammaspec, Gamma, Solid (Standard List) "Dry Weight Corrected"* | | | | | | | | | | | | | | |
| Cesium-137 | | 0.103 | +/-0.0784 | 0.0901 | +/-0.0789 | 0.100 | pCi/g | | | MXR1 | 05/24/23 | 2017 | 2432917 | 1 |
| **Rad Gas Flow Proportional Counting** | | | | | | | | | | | | | | |
| *GFPC, Sr90, Solid "Dry Weight Corrected"* | | | | | | | | | | | | | | |
| Strontium-90 | U | 0.0178 | +/-0.0332 | 0.0577 | +/-0.0334 | 0.100 | pCi/g | | | ST2 | 06/02/23 | 1305 | 2433125 | 2 |
| **Rad Liquid Scintillation Analysis** | | | | | | | | | | | | | | |
| *LSC, Tritium Distillation, Soil "As Received"* | | | | | | | | | | | | | | |
| Tritium | | 3.16 | +/-0.652 | 0.879 | +/-0.969 | 0.200 | pCi/g | | | KXA1 | 06/04/23 | 0212 | 2433250 | 3 |

**The following Prep Methods were performed**

| Method | Description | Analyst | Date | Time | Prep Batch |
|---|---|---|---|---|---|
| Dry Soil Prep | Dry Soil Prep GL-RAD-A-021 | GG | 05/22/23 | 1525 | 2432735 |

**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" | 2433125 | 96.6 | (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: June 8, 2023

Contact: Susan Gallardo
Project: Near SSFL

Client Sample ID: BP-SED-1-230516
Sample ID: 623070001

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: June 8, 2023

Contact: Susan Gallardo
Project: Near SSFL

Client Sample ID: RRMDF-SED-D-230516
Sample ID: 623070002
Matrix: Solid
Collect Date: 16-MAY-23
Receive Date: 20-MAY-23
Collector: Client
Moisture: 23.8%

Project: GSIE00119
Client ID: GSIE002

| Parameter | Qualifier | Result | Uncertainty | MDC | TPU | RL | Units | PF | DF | Analyst | Date | Time | Batch | Mtd. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Rad Gamma Spec Analysis** | | | | | | | | | | | | | | |
| *Gammaspec, Gamma, Solid (Standard List) "Dry Weight Corrected"* | | | | | | | | | | | | | | |
| Cesium-137 | U | 0.0652 | +/-0.0603 | 0.0892 | +/-0.0608 | 0.100 | pCi/g | | | MXR1 | 05/24/23 | 2018 | 2432917 | 1 |
| **Rad Gas Flow Proportional Counting** | | | | | | | | | | | | | | |
| *GFPC, Sr90, Solid "Dry Weight Corrected"* | | | | | | | | | | | | | | |
| Strontium-90 | U | -0.0292 | +/-0.0167 | 0.0415 | +/-0.0167 | 0.100 | pCi/g | | | ST2 | 06/05/23 | 1304 | 2433125 | 2 |
| **Rad Liquid Scintillation Analysis** | | | | | | | | | | | | | | |
| *LSC, Tritium Distillation, Soil "As Received"* | | | | | | | | | | | | | | |
| Tritium | | 0.984 | +/-0.537 | 0.856 | +/-0.581 | 0.200 | pCi/g | | | KXA1 | 06/04/23 | 0314 | 2433250 | 3 |

**The following Prep Methods were performed**

| Method | Description | Analyst | Date | Time | Prep Batch |
|---|---|---|---|---|---|
| Dry Soil Prep | Dry Soil Prep GL-RAD-A-021 | GG | 05/22/23 | 1525 | 2432735 |

**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" | 2433125 | 89.7 | (25%-125%) |

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# Certificate of Analysis

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

Report Date: June 8, 2023

Contact: Susan Gallardo
Project: Near SSFL

Client Sample ID: RRMDF-SED-D-230516
Sample ID: 623070002

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
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Oakland, California 94612

Report Date: June 8, 2023

Contact: Susan Gallardo

Project: Near SSFL

Client Sample ID: SRE-SED-3-230517
Sample ID: 623070003
Matrix: Solid
Collect Date: 17-MAY-23
Receive Date: 20-MAY-23
Collector: Client
Moisture: 36.6%

Project: GSIE00119
Client ID: GSIE002

| Parameter | Qualifier | Result | Uncertainty | MDC | TPU | RL | Units | PF | DF | Analyst | Date | Time | Batch | Mtd. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Rad Gamma Spec Analysis** | | | | | | | | | | | | | | |
| *Gammaspec, Gamma, Solid (Standard List) "Dry Weight Corrected"* | | | | | | | | | | | | | | |
| Cesium-137 | U | 0.0676 | +/-0.0435 | 0.0962 | +/-0.0536 | 0.100 | pCi/g | | | MXR1 | 05/24/23 | 2019 | 2432917 | 1 |
| **Rad Gas Flow Proportional Counting** | | | | | | | | | | | | | | |
| *GFPC, Sr90, Solid "Dry Weight Corrected"* | | | | | | | | | | | | | | |
| Strontium-90 | U | 0.0290 | +/-0.0332 | 0.0558 | +/-0.0336 | 0.100 | pCi/g | | | ST2 | 06/02/23 | 1305 | 2433125 | 2 |
| **Rad Liquid Scintillation Analysis** | | | | | | | | | | | | | | |
| *LSC, Tritium Distillation, Soil "As Received"* | | | | | | | | | | | | | | |
| Tritium | U | 0.0965 | +/-0.506 | 0.885 | +/-0.507 | 0.200 | pCi/g | | | KXA1 | 06/04/23 | 0533 | 2433250 | 3 |

**The following Prep Methods were performed**

| Method | Description | Analyst | Date | Time | Prep Batch |
|---|---|---|---|---|---|
| Dry Soil Prep | Dry Soil Prep GL-RAD-A-021 | GG | 05/22/23 | 1525 | 2432735 |

**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" | 2433125 | 101 | (25%-125%) |

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# Certificate of Analysis

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

Report Date: June 8, 2023

Contact: Susan Gallardo
Project: Near SSFL

Client Sample ID: SRE-SED-3-230517
Sample ID: 623070003

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: June 8, 2023

Contact: Susan Gallardo
Project: Near SSFL

Client Sample ID: OS1-SED-1-230517
Sample ID: 623070004
Matrix: Solid
Collect Date: 17-MAY-23
Receive Date: 20-MAY-23
Collector: Client
Moisture: 30.7%

Project: GSIE00119
Client ID: GSIE002

| Parameter | Qualifier | Result | Uncertainty | MDC | TPU | RL | Units | PF | DF | Analyst | Date | Time | Batch | Mtd. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Rad Gamma Spec Analysis** | | | | | | | | | | | | | | |
| *Gammaspec, Gamma, Solid (Standard List) "Dry Weight Corrected"* | | | | | | | | | | | | | | |
| Cesium-137 | | 0.141 | +/-0.0697 | 0.0690 | +/-0.0706 | 0.100 | pCi/g | | | MXR1 | 05/24/23 | 2028 | 2432917 | 1 |
| **Rad Gas Flow Proportional Counting** | | | | | | | | | | | | | | |
| *GFPC, Sr90, Solid "Dry Weight Corrected"* | | | | | | | | | | | | | | |
| Strontium-90 | U | 0.0206 | +/-0.0333 | 0.0574 | +/-0.0335 | 0.100 | pCi/g | | | ST2 | 06/02/23 | 1305 | 2433125 | 2 |
| **Rad Liquid Scintillation Analysis** | | | | | | | | | | | | | | |
| *LSC, Tritium Distillation, Soil "As Received"* | | | | | | | | | | | | | | |
| Tritium | U | 0.159 | +/-0.675 | 1.18 | +/-0.676 | 0.200 | pCi/g | | | KXA1 | 06/04/23 | 0635 | 2433250 | 3 |

**The following Prep Methods were performed**

| Method | Description | Analyst | Date | Time | Prep Batch |
|---|---|---|---|---|---|
| Dry Soil Prep | Dry Soil Prep GL-RAD-A-021 | GG | 05/22/23 | 1525 | 2432735 |

**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" | 2433125 | 92 | (25%-125%) |

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# Certificate of Analysis

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

Report Date: June 8, 2023

Contact: Susan Gallardo
Project: Near SSFL

Client Sample ID: OS1-SED-1-230517
Sample ID: 623070004

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: June 8, 2023

Contact: Susan Gallardo

Project: Near SSFL

Client Sample ID: OW-SED-1-230517
Sample ID: 623070005
Matrix: Solid
Collect Date: 17-MAY-23
Receive Date: 20-MAY-23
Collector: Client
Moisture: 34.9%

Project: GSIE00119
Client ID: GSIE002

| Parameter | Qualifier | Result | Uncertainty | MDC | TPU | RL | Units | PF | DF | Analyst | Date | Time | Batch | Mtd. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Rad Gamma Spec Analysis** | | | | | | | | | | | | | | |
| *Gammaspec, Gamma, Solid (Standard List) "Dry Weight Corrected"* | | | | | | | | | | | | | | |
| Cesium-137 | | 0.129 | +/-0.0795 | 0.0631 | +/-0.0804 | 0.100 | pCi/g | | | MXR1 | 05/24/23 | 2029 | 2432917 | 1 |
| **Rad Gas Flow Proportional Counting** | | | | | | | | | | | | | | |
| *GFPC, Sr90, Solid "Dry Weight Corrected"* | | | | | | | | | | | | | | |
| Strontium-90 | U | 0.00282 | +/-0.0318 | 0.0594 | +/-0.0318 | 0.100 | pCi/g | | | ST2 | 06/02/23 | 1306 | 2433125 | 2 |
| **Rad Liquid Scintillation Analysis** | | | | | | | | | | | | | | |
| *LSC, Tritium Distillation, Soil "As Received"* | | | | | | | | | | | | | | |
| Tritium | | 1.02 | +/-0.543 | 0.863 | +/-0.590 | 0.200 | pCi/g | | | KXA1 | 06/04/23 | 0737 | 2433250 | 3 |

**The following Prep Methods were performed**

| Method | Description | Analyst | Date | Time | Prep Batch |
|---|---|---|---|---|---|
| Dry Soil Prep | Dry Soil Prep GL-RAD-A-021 | GG | 05/22/23 | 1525 | 2432735 |

**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" | 2433125 | 73.6 | (25%-125%) |

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# Certificate of Analysis

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

Report Date: June 8, 2023

Contact: Susan Gallardo
Project: Near SSFL

Client Sample ID: OW-SED-1-230517
Sample ID: 623070005

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: June 8, 2023

Contact: Susan Gallardo

Project: Near SSFL

Client Sample ID: OS8-SED-1-230517
Sample ID: 623070006
Matrix: Solid
Collect Date: 17-MAY-23
Receive Date: 20-MAY-23
Collector: Client
Moisture: 23.3%

Project: GSIE00119
Client ID: GSIE002

| Parameter | Qualifier | Result | Uncertainty | MDC | TPU | RL | Units | PF | DF | Analyst | Date | Time | Batch | Mtd. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Rad Gamma Spec Analysis** | | | | | | | | | | | | | | |
| *Gammaspec, Gamma, Solid (Standard List) "Dry Weight Corrected"* | | | | | | | | | | | | | | |
| Cesium-137 | | 0.0759 | +/-0.0533 | 0.0731 | +/-0.0537 | 0.100 | pCi/g | | | MXR1 | 05/24/23 | 2032 | 2432917 | 1 |
| **Rad Gas Flow Proportional Counting** | | | | | | | | | | | | | | |
| *GFPC, Sr90, Solid "Dry Weight Corrected"* | | | | | | | | | | | | | | |
| Strontium-90 | U | 0.0228 | +/-0.0204 | 0.0324 | +/-0.0208 | 0.100 | pCi/g | | | ST2 | 06/02/23 | 1306 | 2433125 | 2 |
| **Rad Liquid Scintillation Analysis** | | | | | | | | | | | | | | |
| *LSC, Tritium Distillation, Soil "As Received"* | | | | | | | | | | | | | | |
| Tritium | U | 0.248 | +/-0.494 | 0.847 | +/-0.497 | 0.200 | pCi/g | | | KXA1 | 06/04/23 | 0839 | 2433250 | 3 |

**The following Prep Methods were performed**

| Method | Description | Analyst | Date | Time | Prep Batch |
|---|---|---|---|---|---|
| Dry Soil Prep | Dry Soil Prep GL-RAD-A-021 | GG | 05/22/23 | 1525 | 2432735 |

**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" | 2433125 | 94.3 | (25%-125%) |

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# Certificate of Analysis

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

Report Date: June 8, 2023

Contact: Susan Gallardo
Project: Near SSFL

Client Sample ID: OS8-SED-1-230517
Sample ID: 623070006

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

## *QC Summary*

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

**Contact:** **Susan Gallardo**

**Workorder:** **623070**

**Report Date: June 8, 2023**


| Parmname | NOM | Sample | Qual | QC | Units | RPD% | REC% | Range | Anlst | Date Time |
|---|---|---|---|---|---|---|---|---|---|---|
| **Rad Gamma Spec** | | | | | | | | | | |
| Batch 2432917 | | | | | | | | | | |
| QC1205412990 623069001 DUP | | | | | | | | | | |
| Cesium-137 | | 0.0873 | U | 0.0612 | pCi/g | 21.6 | | (0% - 100%) | MXR1 | 05/24/2321:47 |
| | Uncert: | +/-0.0594 | | +/-0.0525 | | | | | | |
| | TPU: | +/-0.0598 | | +/-0.0595 | | | | | | |
| QC1205412991 LCS | | | | | | | | | | |
| Americium-241 | 484 | | | 532 | pCi/g | | 110 | (75%-125%) | MXR1 | 05/24/2321:49 |
| | Uncert: | | | +/-4.85 | | | | | | |
| | TPU: | | | +/-41.6 | | | | | | |
| Cobalt-60 | 67.0 | | | 64.4 | pCi/g | | 96.1 | (75%-125%) | | |
| | Uncert: | | | +/-2.21 | | | | | | |
| | TPU: | | | +/-5.71 | | | | | | |
| Cesium-137 | 154 | | | 161 | pCi/g | | 105 | (75%-125%) | | |
| | Uncert: | | | +/-2.82 | | | | | | |
| | TPU: | | | +/-17.6 | | | | | | |
| QC1205412989 MB | | | | | | | | | | |
| Cesium-137 | | | U | 0.000611 | pCi/g | | | | MXR1 | 05/24/2321:46 |
| | Uncert: | | | +/-0.0416 | | | | | | |
| | TPU: | | | +/-0.0416 | | | | | | |
| **Rad Gas Flow** | | | | | | | | | | |
| Batch 2433125 | | | | | | | | | | |
| QC1205413332 623069001 DUP | | | | | | | | | | |
| Strontium-90 | U | 0.0214 | U | 0.00343 | pCi/g | 0 | | N/A | ST2 | 06/02/2313:05 |
| | Uncert: | +/-0.0256 | | +/-0.0357 | | | | | | |
| | TPU: | +/-0.0259 | | +/-0.0357 | | | | | | |
| QC1205413333 LCS | | | | | | | | | | |
| Strontium-90 | 4.07 | | | 4.21 | pCi/g | | 103 | (75%-125%) | ST2 | 06/02/2313:03 |
| | Uncert: | | | +/-0.166 | | | | | | |
| | TPU: | | | +/-0.781 | | | | | | |
| QC1205413331 MB | | | | | | | | | | |
| Strontium-90 | | | U | 0.0315 | pCi/g | | | | ST2 | 06/02/2313:04 |
| | Uncert: | | | +/-0.0240 | | | | | | |
| | TPU: | | | +/-0.0246 | | | | | | |
| **Rad Liquid Scintillation** | | | | | | | | | | |
| Batch 2433250 | | | | | | | | | | |
| QC1205413560 623069001 DUP | | | | | | | | | | |
| Tritium | U | -0.262 | U | -0.171 | pCi/g | 0 | | N/A | KXA1 | 06/04/2310:43 |
| | Uncert: | +/-0.461 | | +/-0.471 | | | | | | |
| | TPU: | +/-0.461 | | +/-0.471 | | | | | | |
| QC1205413562 LCS | | | | | | | | | | |
| Tritium | 25.2 | | | 23.9 | pCi/g | | 94.8 | (75%-125%) | KXA1 | 06/04/2312:01 |
| | Uncert: | | | +/-2.42 | | | | | | |

## *QC Summary*

**Workorder:** **623070**



| Parmname | NOM | Sample | Qual | QC | Units | RPD% | REC% | Range | Anlst | Date Time |
|---|---|---|---|---|---|---|---|---|---|---|
| **Rad Liquid Scintillation** | | | | | | | | | | |
| Batch 2433250 | | | | | | | | | | |
| | TPU: | | | +/-5.93 | | | | | | |
| QC1205413559 MB | | | | | | | | | | |
| Tritium | | | U | 0.0143 | pCi/g | | | | KXA1 | 06/04/2309:41 |
| | Uncert: | | | +/-0.488 | | | | | | |
| | TPU: | | | +/-0.488 | | | | | | |
| QC1205413561 623069001 MS | | | | | | | | | | |
| Tritium | 25.2 | U -0.262 | | 23.9 | pCi/g | | 95 | (75%-125%) | KXA1 | 06/04/2311:45 |
| | Uncert: | +/-0.461 | | +/-2.45 | | | | | | |
| | TPU: | +/-0.461 | | +/-5.96 | | | | | | |

**Notes:**

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

The Qualifiers in this report are defined as follows:

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

# *QC Summary*

**Workorder:** **623070**



| 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 acceptence 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.

GSI ENVIRONMENTAL

623070

CHAIN-OF-CUSTODY RECORD
Date: 5/16/23 - 5/17/23
Page 1 of 1

| | | |
|---|---|---|
| FROM: GSI Environmental Inc.<br>2000 Powell Street. Suite 820<br>Emeryville, CA 94608 | PROJECT NAME: AJU-BB<br>PROJECT CONTACT: Susan Gallardo<br>GLOBAL ID: -- | PROJECT NO.: 5182<br>LAB CONTACT: Delaney Stone<br>SAMPLER(S): (PRINT) |
| TEL: (510) 463-8484 | E-MAIL: smgallardo@gsi-net.com;sjbowersmith@gsi-net.com | |
| LABORATORY: GEL Laboratories | | |

TURNAROUND TIME:
☐ SAME DAY ☐ 24 HR ☐ 48 HR
☐ 72 HR ☐ 5 DAYS ☒ STANDARD

SPECIAL INSTRUCTIONS:
- Sr-90 MDC of 0.1 pCi/g
- Cs-137 MDC of 0.1 pCi/g
- H-3 MDC of 0.2 pCi/g

**REQUESTED ANALYSES**
Please check box or fill in blank as needed.

| LAB USE ONLY | SAMPLE ID | SAMPLING DATE | SAMPLING TIME | MATRIX | NO. OF CONT. | Unpreserved | Preserved | Field Filtered | Sr-90 (905.0) | Cs-137 (901.1) | H-3 (906) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | BP-SED-1-230516 | 5/16/23 | 1000 | S | 1 | X | | | X | X | X |
| | RRMDF-SED-D-230516 | 5/16/23 | 1215 | S | 1 | X | | | X | X | X |
| | SRE-SED-3-230517 | 5/17/23 | 0910 | S | 1 | X | | | X | X | X |
| | OS1-SED-1-230517 | 5/17/23 | 1020 | S | 1 | X | | | X | X | X |
| | OW-SED-1-230517 | 5/17/23 | 1200 | S | 1 | X | | | X | X | X |
| | OS8-SED-1-230517 | 5/17/23 | 1300 | S | 1 | X | | | X | X | X |

| | | | |
|---|---|---|---|
| Relinquished by: (Signature) | Received by: (Signature) Fedex | Date: 5/18/23 | Time: 11:00 |
| Relinquished by: (Signature) | Received by: (Signature) | Date: 5/22/23 | Time: |
| Relinquished by: (Signature) | Received by: (Signature) | Date: | Time: |

GEL Soil/SED

GEL Laboratories LLC

## SAMPLE RECEIPT & REVIEW FORM

| | |
|---|---|
| Client: CDE | SDG/AR/COC/Work Order: 623070 DJ |
| Received By: MVH | Date Received: 5/20/2023 |
| Carrier and Tracking Number | Circle Applicable: FedEx Express FedEx Ground UPS Field Services Courier Other<br>7213882120 81<br>7213882114 86 7213882134 12 |

| 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#:<br>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): 0 0 CPM/ mR/Hr<br>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.<br>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: Wet Ice Ice Packs Dry ice None Other:<br>*all temperatures are recorded in Celsius TEMP: 18 |
| 4 | Daily check performed and passed on IR temperature gun? | ✓ | | | Temperature Device Serial #: IR2-21<br>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:<br>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)<br>Do liquid VOA vials contain acid preservation? Yes___ No___ NA___(If unknown, select No)<br>Are liquid VOA vials free of headspace? Yes___ No___ NA___<br>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)<br>SR-MD-230517 Bottle says 920, SR6-W-230517 @910 |
| 11 | Number of containers received match number indicated on COC? | ✓ | | | Circle Applicable: No container count on COC Other (describe) |
| 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):

~~Missing two Coolers~~ JM 5/23

PM (or PMA) review: Initials JM Date 5-23-23 Page 1 of 1

GL-CHL-SR-001 Rev 7

## Jordan Melton

**From:** Skyler J. Bowersmith <SJBowersmith@gsi-net.com>
**Sent:** Tuesday, May 23, 2023 4:03 PM
**To:** Jordan Melton; Susan Gallardo
**Cc:** Team Stone
**Subject:** RE: Confirmation on collect times for samples SRE-W-230517 & SRE-SED-3-230517



Hey Jordan,
I looked back at our Sample control logs and ….

SRE-W-230517 should be 9:10
And
SRE-SED-3-230517 should be 9:20

The times we put on the COC are mismatched so proceed with the times on the containers.
Thank you!

**Skyler J. Bowersmith**
*Environmental Technician*

**GSI Environmental Inc.**
**O** 510.463.8484 | **C** 510.362.5240

---

**From:** Jordan Melton <Jordan.Melton@gel.com>
**Sent:** Tuesday, May 23, 2023 5:59 AM
**To:** Susan Gallardo <smgallardo@gsi-net.com>
**Cc:** Skyler J. Bowersmith <SJBowersmith@gsi-net.com>; Team Stone <Team.Stone@gel.com>
**Subject:** RE: Confirmation on collect times for samples SRE-W-230517 & SRE-SED-3-230517



Good morning,

We have a couple collect time discrepancies between the Chain of Custody and the containers received.

Sample SRE-W-230517 has the collect time as 9:10 on the container, however the Chain of Custody says 9:20.

Sample SRE-SED-3-230517 has the collect time as 9:20 on the container, however the Chain of Custody says 9:10.

Please confirm the correct collect times.

Thank you,
Jordan Melton
GEL Laboratories LLC
Project Manager Assistant

---

**From:** Susan Gallardo <smgallardo@gsi-net.com>
**Sent:** Monday, May 22, 2023 1:49 PM

**To:** Jordan Melton <Jordan.Melton@gel.com>
**Cc:** Skyler J. Bowersmith <SJBowersmith@gsi-net.com>
**Subject:** RE: Follow up to the missing cooler



Thank you.

**Susan Gallardo, PE**
*Principal Engineer*

**GSI Environmental Inc.**
**O** 510.858.0054 | **C** 510.520.2363

---

**From:** Jordan Melton <Jordan.Melton@gel.com>
**Sent:** Monday, May 22, 2023 9:43 AM
**To:** Susan Gallardo <smgallardo@gsi-net.com>
**Cc:** Skyler J. Bowersmith <sjbowersmith@gsi-net.com>
**Subject:** RE: Follow up to the missing cooler



Good afternoon,

We were able to locate the missing cooler. We now have it and can move forward with the analysis of the missing samples.

Thank you,
Jordan Melton
GEL Laboratories LLC
Project Manager Assistant

---

**From:** Jordan Melton
**Sent:** Monday, May 22, 2023 12:18 PM
**To:** smgallardo@gsi-net.com
**Cc:** sjbowersmith@gsi-net.com
**Subject:** Missing a cooler

Good afternoon,

GEL received 2 of the 3 coolers. The cooler with the tracking 772138213412 was not received. Therefore, we didn't receive the following samples:

BP-SED-1-230516
RRMDF-SED-D-230516
SRE-SED-3-230517
TF-1-230516
CIT-1-230516
05357-W-230516
SRE-W-23017
OS1-W-230514

Also,
I have attached a photo of a few bags of fruit that were received with no label on them. Please verify if these were supposed to be labeled as:

L-2-230518 (for the lemons)
G-2-230518 (for the grapefruits)
O-2-230518 (for the oranges)

The other bags of fruit had the labels:
L-1-230518
G-1-230518
O-1-230518

I have attached the Chain of Custody as a reference as well.

Thank you,
**Jordan Melton**
**Project Manager Assistant**

GEL Laboratories LLC 1981

2040 Savage Road, Charleston, SC 29407 | P.O. Box 30712, Charleston, SC 29417
Office Main: 843.556.8171 |Office Fax: 843.769.7383
E-Mail: Jordan.Melton@gel.com | Website: www.gel.com
**Follow us on LinkedIn**

**List of current GEL Certifications as of 08 June 2023**

| 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 | SC000122023-4 |
| 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 | 2022-160 |
| 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 | T104704235-22-20 |
| Utah NELAP | SC000122022-37 |
| Vermont | VT87156 |
| Virginia NELAP | 460202 |
| Washington | C780 |

**Radiochemistry**
**Technical Case Narrative**
**GSI Environmental Inc.**
**SDG #: 623070**

**Product:** **Dry Weight**
**Preparation Method:** Dry Soil Prep
**Preparation Procedure:** GL-RAD-A-021 REV# 24
**Preparation Batch:** 2432735

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

| GEL Sample ID# | Client Sample Identification |
|---|---|
| 623070001 | BP-SED-1-230516 |
| 623070002 | RRMDF-SED-D-230516 |
| 623070003 | SRE-SED-3-230517 |
| 623070004 | OS1-SED-1-230517 |
| 623070005 | OW-SED-1-230517 |
| 623070006 | OS8-SED-1-230517 |

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 (Standard List)**
**Analytical Method:** DOE HASL 300, 4.5.2.3/Ga-01-R
**Analytical Procedure:** GL-RAD-A-013 REV# 27
**Analytical Batch:** 2432917

**Preparation Method:** Dry Soil Prep
**Preparation Procedure:** GL-RAD-A-021 REV# 24
**Preparation Batch:** 2432735

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

| GEL Sample ID# | Client Sample Identification |
|---|---|
| 623070001 | BP-SED-1-230516 |
| 623070002 | RRMDF-SED-D-230516 |
| 623070003 | SRE-SED-3-230517 |
| 623070004 | OS1-SED-1-230517 |
| 623070005 | OW-SED-1-230517 |
| 623070006 | OS8-SED-1-230517 |
| 1205412989 | Method Blank (MB) |
| 1205412990 | 623069001(CIT-1-230516) Sample Duplicate (DUP) |

1205412991 Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on a "dry weight" 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, Solid**
**Analytical Method:** EPA 905.0 Modified/DOE RP501 Rev. 1 Modified
**Analytical Procedure:** GL-RAD-A-004 REV# 22
**Analytical Batch:** 2433125

**Preparation Method:** Dry Soil Prep
**Preparation Procedure:** GL-RAD-A-021 REV# 24
**Preparation Batch:** 2432735

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

| GEL Sample ID# | Client Sample Identification |
|---|---|
| 623070001 | BP-SED-1-230516 |
| 623070002 | RRMDF-SED-D-230516 |
| 623070003 | SRE-SED-3-230517 |
| 623070004 | OS1-SED-1-230517 |
| 623070005 | OW-SED-1-230517 |
| 623070006 | OS8-SED-1-230517 |
| 1205413331 | Method Blank (MB) |
| 1205413332 | 623069001(CIT-1-230516) Sample Duplicate (DUP) |
| 1205413333 | 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**

**Negative > 3 sigma TPU**
Sample result was more negative than the three sigma TPU. The background control chart was examined and the detector was determined to be fully functional.

| Sample | Analyte | Value |
|---|---|---|
| 623070002 (RRMDF-SED-D-230516) | Strontium-90 | Negative Result > 3 sigma value |

**Recounts**
Sample 623070002 (RRMDF-SED-D-230516) was recounted due to a suspected false positive. The recount is reported.

**Product:** **LSC, Tritium Distillation, Soil**
**Analytical Method:** EPA 906.0 Modified
**Analytical Procedure:** GL-RAD-A-002 REV# 24
**Analytical Batch:** 2433250

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

| GEL Sample ID# | Client Sample Identification |
|---|---|
| 623070001 | BP-SED-1-230516 |
| 623070002 | RRMDF-SED-D-230516 |
| 623070003 | SRE-SED-3-230517 |
| 623070004 | OS1-SED-1-230517 |
| 623070005 | OW-SED-1-230517 |
| 623070006 | OS8-SED-1-230517 |
| 1205413559 | Method Blank (MB) |
| 1205413560 | 623069001(CIT-1-230516) Sample Duplicate (DUP) |
| 1205413561 | 623069001(CIT-1-230516) Matrix Spike (MS) |
| 1205413562 | 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**

**RDL Met**
Samples (See Below) did not meet the detection limits due to the small sample aliquots used. The aliquots were reduced due to the matrix of the samples.

| Sample | Analyte | Value |
|---|---|---|
| 1205413559 (MB) | Tritium | Result 0.0143 < MDA 0.861 > RDL 0.2 pCi/g |
| 1205413560 (CIT-1-230516DUP) | Tritium | Result -0.171 < MDA 0.848 > RDL 0.2 pCi/g |
| 623070003 (SRE-SED-3-230517) | Tritium | Result 0.0965 < MDA 0.885 > RDL 0.2 pCi/g |
| 623070004 (OS1-SED-1-230517) | Tritium | Result 0.159 < MDA 1.18 > RDL 0.2 pCi/g |
| 623070006 (OS8-SED-1-230517) | Tritium | Result 0.248 < MDA 0.847 > RDL 0.2 pCi/g |

**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.

GSI Job No.: 5182

# 2023 MONITORING REPORT
## AJU Brandeis-Bardin Campus
Brandeis, CA

## ATTACHMENT B

Analytical Laboratory Reports – Water Samples

eurofins | Environment Testing

# ANALYTICAL REPORT

## PREPARED FOR

Attn: Susan Gallardo
GSI Environmental, Inc
2000 Powell Street
Suite 820
Emeryville, California 94608

Generated 6/5/2023 3:25:19 PM

## JOB DESCRIPTION

AJU-BB

## JOB NUMBER

320-100543-1

Eurofins Sacramento
880 Riverside Parkway
West Sacramento CA 95605

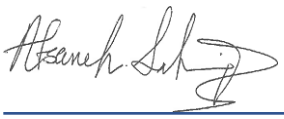
See page two for job notes and contact information.

## Job Notes

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

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

## Authorization



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Authorized for release by
Afsaneh Salimpour, Senior Project Manager
Afsaneh.Salimpour@et.eurofinsus.com
(925)484-1919

# Table of Contents

# Definitions/Glossary

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

Job ID: 320-100543-1

## Qualifiers

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

## Glossary

| Abbreviation | These commonly used abbreviations may or may not be present in this report. |
|---|---|
| ¤ | Listed under the "D" column to designate that the result is reported on a dry weight basis |
| %R | Percent Recovery |
| CFL | Contains Free Liquid |
| 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 |

## Job ID: 320-100543-1

### Laboratory: Eurofins Sacramento

**Narrative**

**Job Narrative**
**320-100543-1**

**Comments**
No additional comments.

**Receipt**
The samples were received on 5/19/2023 9:20 AM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 1.6º C.

**Receipt Exceptions**

Perchlorate analysis requires that samples have significant headspace (1/3 of container volume) to reduce potential anaerobic biodegradation. The following sample(s) were received with insufficient headspace: samples 1-6. All containers are filled. OS357-W-230516 (320-100543-1), RRMDF-W-D-230516 (320-100543-2), SRE-W-230517 (320-100543-3), OS1-W-230517 (320-100543-4), OW-W-230517 (320-100543-5) and OS8-W-230517 (320-100543-6).

The container label for the following sample did not match the information listed on the Chain-of-Custody (COC): SRE-W-230517 (320-100543-3). Sample 3, container A has time 0920.

**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: Due to the nature of the matrix and the high conductivity measurement for the following samples, and in order to protect instrumentation, the following samples in analytical batch 320-679423 were diluted. Elevated reporting limits (RLs) are provided.OS357-W-230516 (320-100543-1), RRMDF-W-D-230516 (320-100543-2) and SRE-W-230517 (320-100543-3)

Method 314.0: The method requirement for headspace was not met. The following perchlorate sample in analytical batch 320-679421 was received with no headspace in the sample container: OS8-W-230517 (320-100543-6).

Method 314.0: The method requirement for headspace was not met. The following perchlorate samples in analytical batch 320-679423 were received with no headspace in the sample container: OS357-W-230516 (320-100543-1), RRMDF-W-D-230516 (320-100543-2), SRE-W-230517 (320-100543-3), OS1-W-230517 (320-100543-4) and OW-W-230517 (320-100543-5).

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

# Detection Summary

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

Job ID: 320-100543-1

## Client Sample ID: OS357-W-230516 — Lab Sample ID: 320-100543-1

| Analyte | Result | Qualifier | RL | MDL | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Silver | 0.0011 | J | 0.0050 | 0.00084 | mg/L | 1 | | 6010B | Total/NA |
| Barium | 0.043 | | 0.0050 | 0.0025 | mg/L | 1 | | 6010B | Total/NA |
| Beryllium | 0.0013 | J | 0.0020 | 0.00030 | mg/L | 1 | | 6010B | Total/NA |
| Chromium | 0.0018 | J | 0.0080 | 0.0012 | mg/L | 1 | | 6010B | Total/NA |
| Zinc | 0.0055 | J | 0.010 | 0.0030 | mg/L | 1 | | 6010B | Total/NA |

## Client Sample ID: RRMDF-W-D-230516 — Lab Sample ID: 320-100543-2

| Analyte | Result | Qualifier | RL | MDL | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Barium | 0.061 | | 0.0050 | 0.0025 | mg/L | 1 | | 6010B | Total/NA |
| Beryllium | 0.00030 | J | 0.0020 | 0.00030 | mg/L | 1 | | 6010B | Total/NA |
| Chromium | 0.0013 | J | 0.0080 | 0.0012 | mg/L | 1 | | 6010B | Total/NA |

## Client Sample ID: SRE-W-230517 — Lab Sample ID: 320-100543-3

| Analyte | Result | Qualifier | RL | MDL | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Barium | 0.055 | | 0.0050 | 0.0025 | mg/L | 1 | | 6010B | Total/NA |
| Copper | 0.0041 | J | 0.010 | 0.0021 | mg/L | 1 | | 6010B | Total/NA |
| Molybdenum | 0.0029 | J | 0.020 | 0.0027 | mg/L | 1 | | 6010B | Total/NA |
| Vanadium | 0.0028 | J | 0.0050 | 0.0019 | mg/L | 1 | | 6010B | Total/NA |
| Zinc | 0.0044 | J | 0.010 | 0.0030 | mg/L | 1 | | 6010B | Total/NA |

## Client Sample ID: OS1-W-230517 — Lab Sample ID: 320-100543-4

| Analyte | Result | Qualifier | RL | MDL | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Silver | 0.00091 | J | 0.0050 | 0.00084 | mg/L | 1 | | 6010B | Total/NA |
| Barium | 0.048 | | 0.0050 | 0.0025 | mg/L | 1 | | 6010B | Total/NA |
| Copper | 0.016 | | 0.010 | 0.0021 | mg/L | 1 | | 6010B | Total/NA |
| Zinc | 1.0 | | 0.010 | 0.0030 | mg/L | 1 | | 6010B | Total/NA |

## Client Sample ID: OW-W-230517 — Lab Sample ID: 320-100543-5

| Analyte | Result | Qualifier | RL | MDL | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Arsenic | 0.022 | | 0.020 | 0.012 | mg/L | 1 | | 6010B | Total/NA |
| Barium | 0.31 | | 0.0050 | 0.0025 | mg/L | 1 | | 6010B | Total/NA |
| Copper | 0.0053 | J | 0.010 | 0.0021 | mg/L | 1 | | 6010B | Total/NA |
| Lead | 0.0026 | J | 0.0050 | 0.0025 | mg/L | 1 | | 6010B | Total/NA |
| Vanadium | 0.015 | | 0.0050 | 0.0019 | mg/L | 1 | | 6010B | Total/NA |
| Zinc | 0.013 | | 0.010 | 0.0030 | mg/L | 1 | | 6010B | Total/NA |

## Client Sample ID: OS8-W-230517 — Lab Sample ID: 320-100543-6

| Analyte | Result | Qualifier | RL | MDL | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Barium | 0.046 | | 0.0050 | 0.0025 | mg/L | 1 | | 6010B | Total/NA |
| Beryllium | 0.00041 | J | 0.0020 | 0.00030 | mg/L | 1 | | 6010B | Total/NA |
| Chromium | 0.0016 | J | 0.0080 | 0.0012 | mg/L | 1 | | 6010B | Total/NA |

This Detection Summary does not include radiochemical test results.

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

Job ID: 320-100543-1

## Client Sample ID: OS357-W-230516

**Date Collected: 05/16/23 09:40**
**Date Received: 05/19/23 09:20**

## Lab Sample ID: 320-100543-1

**Matrix: Water**

### Method: EPA 314.0 - Perchlorate (IC)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Perchlorate | ND | | 8.0 | 4.0 | ug/L | | | 06/01/23 14:46 | 2 |

### Method: SW846 6010B - Metals (ICP)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Silver** | **0.0011** | **J** | 0.0050 | 0.00084 | mg/L | | 05/30/23 10:15 | 06/01/23 15:22 | 1 |
| Arsenic | ND | | 0.020 | 0.012 | mg/L | | 05/30/23 10:15 | 06/01/23 15:22 | 1 |
| **Barium** | **0.043** | | 0.0050 | 0.0025 | mg/L | | 05/30/23 10:15 | 06/01/23 15:22 | 1 |
| **Beryllium** | **0.0013** | **J** | 0.0020 | 0.00030 | mg/L | | 05/30/23 10:15 | 06/01/23 15:22 | 1 |
| Cadmium | ND | | 0.0020 | 0.00050 | mg/L | | 05/30/23 10:15 | 06/01/23 15:22 | 1 |
| Cobalt | ND | | 0.0050 | 0.0030 | mg/L | | 05/30/23 10:15 | 06/01/23 15:22 | 1 |
| **Chromium** | **0.0018** | **J** | 0.0080 | 0.0012 | mg/L | | 05/30/23 10:15 | 06/01/23 15:22 | 1 |
| Copper | ND | | 0.010 | 0.0021 | mg/L | | 05/30/23 10:15 | 06/01/23 15:22 | 1 |
| Molybdenum | ND | | 0.020 | 0.0027 | mg/L | | 05/30/23 10:15 | 06/01/23 15:22 | 1 |
| Nickel | ND | | 0.0050 | 0.0024 | mg/L | | 05/30/23 10:15 | 06/01/23 15:22 | 1 |
| Lead | ND | | 0.0050 | 0.0025 | mg/L | | 05/30/23 10:15 | 06/01/23 15:22 | 1 |
| Selenium | ND | | 0.020 | 0.013 | mg/L | | 05/30/23 10:15 | 06/01/23 15:22 | 1 |
| Antimony | ND | | 0.020 | 0.0098 | mg/L | | 05/30/23 10:15 | 06/01/23 15:22 | 1 |
| Thallium | ND | | 0.020 | 0.0090 | mg/L | | 05/30/23 10:15 | 06/01/23 15:22 | 1 |
| Vanadium | ND | | 0.0050 | 0.0019 | mg/L | | 05/30/23 10:15 | 06/01/23 15:22 | 1 |
| **Zinc** | **0.0055** | **J** | 0.010 | 0.0030 | mg/L | | 05/30/23 10:15 | 06/01/23 15:22 | 1 |

### Method: SW846 7470A - Mercury (CVAA)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Mercury | ND | | 0.00020 | 0.00010 | mg/L | | 05/23/23 17:20 | 05/24/23 14:47 | 1 |

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

Job ID: 320-100543-1

## Client Sample ID: RRMDF-W-D-230516

**Date Collected: 05/16/23 12:15**
**Date Received: 05/19/23 09:20**

## Lab Sample ID: 320-100543-2

**Matrix: Water**

### Method: EPA 314.0 - Perchlorate (IC)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Perchlorate | ND | | 20 | 10 | ug/L | | | 06/01/23 15:04 | 5 |

### Method: SW846 6010B - Metals (ICP)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Silver | ND | | 0.0050 | 0.00084 | mg/L | | 05/30/23 10:15 | 06/01/23 15:26 | 1 |
| Arsenic | ND | | 0.020 | 0.012 | mg/L | | 05/30/23 10:15 | 06/01/23 15:26 | 1 |
| **Barium** | **0.061** | | 0.0050 | 0.0025 | mg/L | | 05/30/23 10:15 | 06/01/23 15:26 | 1 |
| **Beryllium** | **0.00030** | **J** | 0.0020 | 0.00030 | mg/L | | 05/30/23 10:15 | 06/01/23 15:26 | 1 |
| Cadmium | ND | | 0.0020 | 0.00050 | mg/L | | 05/30/23 10:15 | 06/01/23 15:26 | 1 |
| Cobalt | ND | | 0.0050 | 0.0030 | mg/L | | 05/30/23 10:15 | 06/01/23 15:26 | 1 |
| **Chromium** | **0.0013** | **J** | 0.0080 | 0.0012 | mg/L | | 05/30/23 10:15 | 06/01/23 15:26 | 1 |
| Copper | ND | | 0.010 | 0.0021 | mg/L | | 05/30/23 10:15 | 06/01/23 15:26 | 1 |
| Molybdenum | ND | | 0.020 | 0.0027 | mg/L | | 05/30/23 10:15 | 06/01/23 15:26 | 1 |
| Nickel | ND | | 0.0050 | 0.0024 | mg/L | | 05/30/23 10:15 | 06/01/23 15:26 | 1 |
| Lead | ND | | 0.0050 | 0.0025 | mg/L | | 05/30/23 10:15 | 06/01/23 15:26 | 1 |
| Selenium | ND | | 0.020 | 0.013 | mg/L | | 05/30/23 10:15 | 06/01/23 15:26 | 1 |
| Antimony | ND | | 0.020 | 0.0098 | mg/L | | 05/30/23 10:15 | 06/01/23 15:26 | 1 |
| Thallium | ND | | 0.020 | 0.0090 | mg/L | | 05/30/23 10:15 | 06/01/23 15:26 | 1 |
| Vanadium | ND | | 0.0050 | 0.0019 | mg/L | | 05/30/23 10:15 | 06/01/23 15:26 | 1 |
| Zinc | ND | | 0.010 | 0.0030 | mg/L | | 05/30/23 10:15 | 06/01/23 15:26 | 1 |

### Method: SW846 7470A - Mercury (CVAA)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Mercury | ND | | 0.00020 | 0.00010 | mg/L | | 05/23/23 17:20 | 05/24/23 14:49 | 1 |

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

Job ID: 320-100543-1

## Client Sample ID: SRE-W-230517

**Date Collected: 05/17/23 09:20**
**Date Received: 05/19/23 09:20**

## Lab Sample ID: 320-100543-3

**Matrix: Water**

### Method: EPA 314.0 - Perchlorate (IC)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Perchlorate | ND | | 8.0 | 4.0 | ug/L | | | 06/01/23 13:53 | 2 |

### Method: SW846 6010B - Metals (ICP)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Silver | ND | | 0.0050 | 0.00084 | mg/L | | 05/30/23 10:15 | 06/02/23 11:07 | 1 |
| Arsenic | ND | | 0.020 | 0.012 | mg/L | | 05/30/23 10:15 | 06/02/23 11:07 | 1 |
| **Barium** | **0.055** | | 0.0050 | 0.0025 | mg/L | | 05/30/23 10:15 | 06/02/23 11:07 | 1 |
| Beryllium | ND | | 0.0020 | 0.00030 | mg/L | | 05/30/23 10:15 | 06/02/23 11:07 | 1 |
| Cadmium | ND | | 0.0020 | 0.00050 | mg/L | | 05/30/23 10:15 | 06/02/23 11:07 | 1 |
| Cobalt | ND | | 0.0050 | 0.0030 | mg/L | | 05/30/23 10:15 | 06/02/23 11:07 | 1 |
| Chromium | ND | | 0.0080 | 0.0012 | mg/L | | 05/30/23 10:15 | 06/02/23 11:07 | 1 |
| **Copper** | **0.0041** | **J** | 0.010 | 0.0021 | mg/L | | 05/30/23 10:15 | 06/02/23 11:07 | 1 |
| **Molybdenum** | **0.0029** | **J** | 0.020 | 0.0027 | mg/L | | 05/30/23 10:15 | 06/02/23 11:07 | 1 |
| Nickel | ND | | 0.0050 | 0.0024 | mg/L | | 05/30/23 10:15 | 06/02/23 11:07 | 1 |
| Lead | ND | | 0.0050 | 0.0025 | mg/L | | 05/30/23 10:15 | 06/02/23 11:07 | 1 |
| Selenium | ND | | 0.020 | 0.013 | mg/L | | 05/30/23 10:15 | 06/02/23 11:07 | 1 |
| Antimony | ND | | 0.020 | 0.0098 | mg/L | | 05/30/23 10:15 | 06/02/23 11:07 | 1 |
| Thallium | ND | | 0.020 | 0.0090 | mg/L | | 05/30/23 10:15 | 06/02/23 11:07 | 1 |
| **Vanadium** | **0.0028** | **J** | 0.0050 | 0.0019 | mg/L | | 05/30/23 10:15 | 06/02/23 11:07 | 1 |
| **Zinc** | **0.0044** | **J** | 0.010 | 0.0030 | mg/L | | 05/30/23 10:15 | 06/02/23 11:07 | 1 |

### Method: SW846 7470A - Mercury (CVAA)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Mercury | ND | | 0.00020 | 0.00010 | mg/L | | 05/23/23 17:20 | 05/24/23 14:50 | 1 |

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

Job ID: 320-100543-1

## Client Sample ID: OS1-W-230517

**Lab Sample ID: 320-100543-4**

**Date Collected: 05/17/23 10:15**

**Matrix: Water**

**Date Received: 05/19/23 09:20**

### Method: EPA 314.0 - Perchlorate (IC)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Perchlorate | ND | | 4.0 | 2.0 | ug/L | | | 06/01/23 14:29 | 1 |

### Method: SW846 6010B - Metals (ICP)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Silver** | **0.00091** | **J** | 0.0050 | 0.00084 | mg/L | | 05/30/23 10:15 | 06/02/23 11:10 | 1 |
| Arsenic | ND | | 0.020 | 0.012 | mg/L | | 05/30/23 10:15 | 06/02/23 11:10 | 1 |
| **Barium** | **0.048** | | 0.0050 | 0.0025 | mg/L | | 05/30/23 10:15 | 06/02/23 11:10 | 1 |
| Beryllium | ND | | 0.0020 | 0.00030 | mg/L | | 05/30/23 10:15 | 06/02/23 11:10 | 1 |
| Cadmium | ND | | 0.0020 | 0.00050 | mg/L | | 05/30/23 10:15 | 06/02/23 11:10 | 1 |
| Cobalt | ND | | 0.0050 | 0.0030 | mg/L | | 05/30/23 10:15 | 06/02/23 11:10 | 1 |
| Chromium | ND | | 0.0080 | 0.0012 | mg/L | | 05/30/23 10:15 | 06/02/23 11:10 | 1 |
| **Copper** | **0.016** | | 0.010 | 0.0021 | mg/L | | 05/30/23 10:15 | 06/02/23 11:10 | 1 |
| Molybdenum | ND | | 0.020 | 0.0027 | mg/L | | 05/30/23 10:15 | 06/02/23 11:10 | 1 |
| Nickel | ND | | 0.0050 | 0.0024 | mg/L | | 05/30/23 10:15 | 06/02/23 11:10 | 1 |
| Lead | ND | | 0.0050 | 0.0025 | mg/L | | 05/30/23 10:15 | 06/02/23 11:10 | 1 |
| Selenium | ND | | 0.020 | 0.013 | mg/L | | 05/30/23 10:15 | 06/02/23 11:10 | 1 |
| Antimony | ND | | 0.020 | 0.0098 | mg/L | | 05/30/23 10:15 | 06/02/23 11:10 | 1 |
| Thallium | ND | | 0.020 | 0.0090 | mg/L | | 05/30/23 10:15 | 06/02/23 11:10 | 1 |
| Vanadium | ND | | 0.0050 | 0.0019 | mg/L | | 05/30/23 10:15 | 06/02/23 11:10 | 1 |
| **Zinc** | **1.0** | | 0.010 | 0.0030 | mg/L | | 05/30/23 10:15 | 06/02/23 11:10 | 1 |

### Method: SW846 7470A - Mercury (CVAA)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Mercury | ND | | 0.00020 | 0.00010 | mg/L | | 05/23/23 17:20 | 05/24/23 14:52 | 1 |

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

Job ID: 320-100543-1

## Client Sample ID: OW-W-230517

**Date Collected: 05/17/23 11:55**
**Date Received: 05/19/23 09:20**

## Lab Sample ID: 320-100543-5

**Matrix: Water**

### Method: EPA 314.0 - Perchlorate (IC)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Perchlorate | ND | | 4.0 | 2.0 | ug/L | | | 06/01/23 14:11 | 1 |

### Method: SW846 6010B - Metals (ICP)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Silver | ND | | 0.0050 | 0.00084 | mg/L | | 05/30/23 10:15 | 06/02/23 11:13 | 1 |
| **Arsenic** | **0.022** | | 0.020 | 0.012 | mg/L | | 05/30/23 10:15 | 06/02/23 11:13 | 1 |
| **Barium** | **0.31** | | 0.0050 | 0.0025 | mg/L | | 05/30/23 10:15 | 06/02/23 11:13 | 1 |
| Beryllium | ND | | 0.0020 | 0.00030 | mg/L | | 05/30/23 10:15 | 06/02/23 11:13 | 1 |
| Cadmium | ND | | 0.0020 | 0.00050 | mg/L | | 05/30/23 10:15 | 06/02/23 11:13 | 1 |
| Cobalt | ND | | 0.0050 | 0.0030 | mg/L | | 05/30/23 10:15 | 06/02/23 11:13 | 1 |
| Chromium | ND | | 0.0080 | 0.0012 | mg/L | | 05/30/23 10:15 | 06/02/23 11:13 | 1 |
| **Copper** | **0.0053** | **J** | 0.010 | 0.0021 | mg/L | | 05/30/23 10:15 | 06/02/23 11:13 | 1 |
| Molybdenum | ND | | 0.020 | 0.0027 | mg/L | | 05/30/23 10:15 | 06/02/23 11:13 | 1 |
| Nickel | ND | | 0.0050 | 0.0024 | mg/L | | 05/30/23 10:15 | 06/02/23 11:13 | 1 |
| **Lead** | **0.0026** | **J** | 0.0050 | 0.0025 | mg/L | | 05/30/23 10:15 | 06/02/23 11:13 | 1 |
| Selenium | ND | | 0.020 | 0.013 | mg/L | | 05/30/23 10:15 | 06/02/23 11:13 | 1 |
| Antimony | ND | | 0.020 | 0.0098 | mg/L | | 05/30/23 10:15 | 06/02/23 11:13 | 1 |
| Thallium | ND | | 0.020 | 0.0090 | mg/L | | 05/30/23 10:15 | 06/02/23 11:13 | 1 |
| **Vanadium** | **0.015** | | 0.0050 | 0.0019 | mg/L | | 05/30/23 10:15 | 06/02/23 11:13 | 1 |
| **Zinc** | **0.013** | | 0.010 | 0.0030 | mg/L | | 05/30/23 10:15 | 06/02/23 11:13 | 1 |

### Method: SW846 7470A - Mercury (CVAA)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Mercury | ND | | 0.00020 | 0.00010 | mg/L | | 05/23/23 17:20 | 05/24/23 14:54 | 1 |

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

Job ID: 320-100543-1

## Client Sample ID: OS8-W-230517

**Date Collected: 05/17/23 12:55**
**Date Received: 05/19/23 09:20**

## Lab Sample ID: 320-100543-6

**Matrix: Water**

### Method: EPA 314.0 - Perchlorate (IC)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Perchlorate | ND | | 4.0 | 2.0 | ug/L | | | 06/01/23 19:56 | 1 |

### Method: SW846 6010B - Metals (ICP)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Silver | ND | | 0.0050 | 0.00084 | mg/L | | 05/30/23 10:15 | 06/01/23 15:44 | 1 |
| Arsenic | ND | | 0.020 | 0.012 | mg/L | | 05/30/23 10:15 | 06/01/23 15:44 | 1 |
| **Barium** | **0.046** | | 0.0050 | 0.0025 | mg/L | | 05/30/23 10:15 | 06/01/23 15:44 | 1 |
| **Beryllium** | **0.00041** | **J** | 0.0020 | 0.00030 | mg/L | | 05/30/23 10:15 | 06/01/23 15:44 | 1 |
| Cadmium | ND | | 0.0020 | 0.00050 | mg/L | | 05/30/23 10:15 | 06/01/23 15:44 | 1 |
| Cobalt | ND | | 0.0050 | 0.0030 | mg/L | | 05/30/23 10:15 | 06/01/23 15:44 | 1 |
| **Chromium** | **0.0016** | **J** | 0.0080 | 0.0012 | mg/L | | 05/30/23 10:15 | 06/01/23 15:44 | 1 |
| Copper | ND | | 0.010 | 0.0021 | mg/L | | 05/30/23 10:15 | 06/01/23 15:44 | 1 |
| Molybdenum | ND | | 0.020 | 0.0027 | mg/L | | 05/30/23 10:15 | 06/01/23 15:44 | 1 |
| Nickel | ND | | 0.0050 | 0.0024 | mg/L | | 05/30/23 10:15 | 06/01/23 15:44 | 1 |
| Lead | ND | | 0.0050 | 0.0025 | mg/L | | 05/30/23 10:15 | 06/01/23 15:44 | 1 |
| Selenium | ND | | 0.020 | 0.013 | mg/L | | 05/30/23 10:15 | 06/01/23 15:44 | 1 |
| Antimony | ND | | 0.020 | 0.0098 | mg/L | | 05/30/23 10:15 | 06/01/23 15:44 | 1 |
| Thallium | ND | | 0.020 | 0.0090 | mg/L | | 05/30/23 10:15 | 06/01/23 15:44 | 1 |
| Vanadium | ND | | 0.0050 | 0.0019 | mg/L | | 05/30/23 10:15 | 06/01/23 15:44 | 1 |
| Zinc | ND | | 0.010 | 0.0030 | mg/L | | 05/30/23 10:15 | 06/01/23 15:44 | 1 |

### Method: SW846 7470A - Mercury (CVAA)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Mercury | ND | | 0.00020 | 0.00010 | mg/L | | 05/31/23 14:50 | 06/01/23 17:26 | 1 |

## Method: 314.0 - Perchlorate (IC)

**Lab Sample ID: MB 320-679421/5**
**Matrix: Water**
**Analysis Batch: 679421**

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

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Perchlorate | ND | | 4.0 | 2.0 | ug/L | | | 06/01/23 14:03 | 1 |

**Lab Sample ID: LCS 320-679421/6**
**Matrix: Water**
**Analysis Batch: 679421**

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

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits |
|---|---|---|---|---|---|---|---|
| Perchlorate | 49.9 | 53.0 | | ug/L | | 106 | 85 - 115 |

**Lab Sample ID: MRL 320-679421/4**
**Matrix: Water**
**Analysis Batch: 679421**

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

| Analyte | Spike Added | MRL Result | MRL Qualifier | Unit | D | %Rec | %Rec Limits |
|---|---|---|---|---|---|---|---|
| Perchlorate | 3.99 | 3.75 | J | ug/L | | 94 | 75 - 125 |

**Lab Sample ID: MB 320-679423/5**
**Matrix: Water**
**Analysis Batch: 679423**

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

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Perchlorate | ND | | 4.0 | 2.0 | ug/L | | | 06/01/23 12:23 | 1 |

**Lab Sample ID: LCS 320-679423/6**
**Matrix: Water**
**Analysis Batch: 679423**

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

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits |
|---|---|---|---|---|---|---|---|
| Perchlorate | 49.9 | 55.6 | | ug/L | | 112 | 85 - 115 |

**Lab Sample ID: MRL 320-679423/4**
**Matrix: Water**
**Analysis Batch: 679423**

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

| Analyte | Spike Added | MRL Result | MRL Qualifier | Unit | D | %Rec | %Rec Limits |
|---|---|---|---|---|---|---|---|
| Perchlorate | 3.99 | 3.99 | J | ug/L | | 100 | 75 - 125 |

## Method: 6010B - Metals (ICP)

**Lab Sample ID: MB 320-678766/1-A**
**Matrix: Water**
**Analysis Batch: 679677**

**Client Sample ID: Method Blank**
**Prep Type: Total/NA**
**Prep Batch: 678766**

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Silver | ND | | 0.0050 | 0.00084 | mg/L | | 05/30/23 10:15 | 06/01/23 14:56 | 1 |
| Arsenic | ND | | 0.020 | 0.012 | mg/L | | 05/30/23 10:15 | 06/01/23 14:56 | 1 |
| Barium | ND | | 0.0050 | 0.0025 | mg/L | | 05/30/23 10:15 | 06/01/23 14:56 | 1 |
| Beryllium | ND | | 0.0020 | 0.00030 | mg/L | | 05/30/23 10:15 | 06/01/23 14:56 | 1 |
| Cadmium | ND | | 0.0020 | 0.00050 | mg/L | | 05/30/23 10:15 | 06/01/23 14:56 | 1 |
| Cobalt | ND | | 0.0050 | 0.0030 | mg/L | | 05/30/23 10:15 | 06/01/23 14:56 | 1 |

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

**Lab Sample ID: MB 320-678766/1-A**
**Matrix: Water**
**Analysis Batch: 679677**

**Client Sample ID: Method Blank**
**Prep Type: Total/NA**
**Prep Batch: 678766**

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Chromium | ND | | 0.0080 | 0.0012 | mg/L | | 05/30/23 10:15 | 06/01/23 14:56 | 1 |
| Copper | ND | | 0.010 | 0.0021 | mg/L | | 05/30/23 10:15 | 06/01/23 14:56 | 1 |
| Molybdenum | ND | | 0.020 | 0.0027 | mg/L | | 05/30/23 10:15 | 06/01/23 14:56 | 1 |
| Nickel | ND | | 0.0050 | 0.0024 | mg/L | | 05/30/23 10:15 | 06/01/23 14:56 | 1 |
| Lead | ND | | 0.0050 | 0.0025 | mg/L | | 05/30/23 10:15 | 06/01/23 14:56 | 1 |
| Selenium | ND | | 0.020 | 0.013 | mg/L | | 05/30/23 10:15 | 06/01/23 14:56 | 1 |
| Antimony | ND | | 0.020 | 0.0098 | mg/L | | 05/30/23 10:15 | 06/01/23 14:56 | 1 |
| Thallium | ND | | 0.020 | 0.0090 | mg/L | | 05/30/23 10:15 | 06/01/23 14:56 | 1 |
| Vanadium | ND | | 0.0050 | 0.0019 | mg/L | | 05/30/23 10:15 | 06/01/23 14:56 | 1 |
| Zinc | ND | | 0.010 | 0.0030 | mg/L | | 05/30/23 10:15 | 06/01/23 14:56 | 1 |

**Lab Sample ID: LCS 320-678766/2-A**
**Matrix: Water**
**Analysis Batch: 679677**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**
**Prep Batch: 678766**

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits |
|---|---|---|---|---|---|---|---|
| Silver | 0.0503 | 0.0476 | | mg/L | | 95 | 80 - 120 |
| Arsenic | 0.500 | 0.439 | | mg/L | | 88 | 80 - 120 |
| Barium | 0.500 | 0.436 | | mg/L | | 87 | 80 - 120 |
| Beryllium | 0.250 | 0.233 | | mg/L | | 93 | 80 - 120 |
| Cadmium | 0.250 | 0.229 | | mg/L | | 92 | 80 - 120 |
| Cobalt | 0.250 | 0.229 | | mg/L | | 92 | 80 - 120 |
| Chromium | 0.250 | 0.223 | | mg/L | | 89 | 80 - 120 |
| Copper | 0.250 | 0.214 | | mg/L | | 86 | 80 - 120 |
| Molybdenum | 0.250 | 0.227 | | mg/L | | 91 | 80 - 120 |
| Nickel | 0.250 | 0.228 | | mg/L | | 91 | 80 - 120 |
| Lead | 0.250 | 0.229 | | mg/L | | 91 | 80 - 120 |
| Selenium | 0.500 | 0.429 | | mg/L | | 86 | 80 - 120 |
| Antimony | 0.501 | 0.464 | | mg/L | | 93 | 80 - 120 |
| Thallium | 0.500 | 0.429 | | mg/L | | 86 | 80 - 120 |
| Vanadium | 0.250 | 0.222 | | mg/L | | 89 | 80 - 120 |
| Zinc | 0.505 | 0.476 | | mg/L | | 94 | 80 - 120 |

## Method: 7470A - Mercury (CVAA)

**Lab Sample ID: MB 320-677115/11-A**
**Matrix: Water**
**Analysis Batch: 677474**

**Client Sample ID: Method Blank**
**Prep Type: Total/NA**
**Prep Batch: 677115**

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Mercury | ND | | 0.00020 | 0.00010 | mg/L | | 05/23/23 17:20 | 05/24/23 14:21 | 1 |

**Lab Sample ID: LCS 320-677115/12-A**
**Matrix: Water**
**Analysis Batch: 677474**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**
**Prep Batch: 677115**

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits |
|---|---|---|---|---|---|---|---|
| Mercury | 0.00100 | 0.00100 | | mg/L | | 100 | 82 - 113 |

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

**Lab Sample ID: MB 320-679137/11-A**
**Matrix: Water**
**Analysis Batch: 679638**

**Client Sample ID: Method Blank**
**Prep Type: Total/NA**
**Prep Batch: 679137**

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Mercury | ND | | 0.00020 | 0.00010 | mg/L | | 05/31/23 14:50 | 06/01/23 16:30 | 1 |

**Lab Sample ID: LCS 320-679137/12-A**
**Matrix: Water**
**Analysis Batch: 679638**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**
**Prep Batch: 679137**

| Analyte | | | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Mercury | | | 0.00100 | 0.00101 | | mg/L | | 101 | 82 - 113 | | |

## HPLC/IC

### Analysis Batch: 679421

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 320-100543-6 | OS8-W-230517 | Total/NA | Water | 314.0 | |
| MB 320-679421/5 | Method Blank | Total/NA | Water | 314.0 | |
| LCS 320-679421/6 | Lab Control Sample | Total/NA | Water | 314.0 | |
| MRL 320-679421/4 | Lab Control Sample | Total/NA | Water | 314.0 | |

### Analysis Batch: 679423

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 320-100543-1 | OS357-W-230516 | Total/NA | Water | 314.0 | |
| 320-100543-2 | RRMDF-W-D-230516 | Total/NA | Water | 314.0 | |
| 320-100543-3 | SRE-W-230517 | Total/NA | Water | 314.0 | |
| 320-100543-4 | OS1-W-230517 | Total/NA | Water | 314.0 | |
| 320-100543-5 | OW-W-230517 | Total/NA | Water | 314.0 | |
| MB 320-679423/5 | Method Blank | Total/NA | Water | 314.0 | |
| LCS 320-679423/6 | Lab Control Sample | Total/NA | Water | 314.0 | |
| MRL 320-679423/4 | Lab Control Sample | Total/NA | Water | 314.0 | |

## Metals

### Prep Batch: 677115

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 320-100543-1 | OS357-W-230516 | Total/NA | Water | 7470A | |
| 320-100543-2 | RRMDF-W-D-230516 | Total/NA | Water | 7470A | |
| 320-100543-3 | SRE-W-230517 | Total/NA | Water | 7470A | |
| 320-100543-4 | OS1-W-230517 | Total/NA | Water | 7470A | |
| 320-100543-5 | OW-W-230517 | Total/NA | Water | 7470A | |
| MB 320-677115/11-A | Method Blank | Total/NA | Water | 7470A | |
| LCS 320-677115/12-A | Lab Control Sample | Total/NA | Water | 7470A | |

### Analysis Batch: 677474

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 320-100543-1 | OS357-W-230516 | Total/NA | Water | 7470A | 677115 |
| 320-100543-2 | RRMDF-W-D-230516 | Total/NA | Water | 7470A | 677115 |
| 320-100543-3 | SRE-W-230517 | Total/NA | Water | 7470A | 677115 |
| 320-100543-4 | OS1-W-230517 | Total/NA | Water | 7470A | 677115 |
| 320-100543-5 | OW-W-230517 | Total/NA | Water | 7470A | 677115 |
| MB 320-677115/11-A | Method Blank | Total/NA | Water | 7470A | 677115 |
| LCS 320-677115/12-A | Lab Control Sample | Total/NA | Water | 7470A | 677115 |

### Prep Batch: 678766

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 320-100543-1 | OS357-W-230516 | Total/NA | Water | 3010A | |
| 320-100543-2 | RRMDF-W-D-230516 | Total/NA | Water | 3010A | |
| 320-100543-3 | SRE-W-230517 | Total/NA | Water | 3010A | |
| 320-100543-4 | OS1-W-230517 | Total/NA | Water | 3010A | |
| 320-100543-5 | OW-W-230517 | Total/NA | Water | 3010A | |
| 320-100543-6 | OS8-W-230517 | Total/NA | Water | 3010A | |
| MB 320-678766/1-A | Method Blank | Total/NA | Water | 3010A | |
| LCS 320-678766/2-A | Lab Control Sample | Total/NA | Water | 3010A | |

## Metals

### Prep Batch: 679137

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 320-100543-6 | OS8-W-230517 | Total/NA | Water | 7470A | |
| MB 320-679137/11-A | Method Blank | Total/NA | Water | 7470A | |
| LCS 320-679137/12-A | Lab Control Sample | Total/NA | Water | 7470A | |

### Analysis Batch: 679638

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 320-100543-6 | OS8-W-230517 | Total/NA | Water | 7470A | 679137 |
| MB 320-679137/11-A | Method Blank | Total/NA | Water | 7470A | 679137 |
| LCS 320-679137/12-A | Lab Control Sample | Total/NA | Water | 7470A | 679137 |

### Analysis Batch: 679677

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 320-100543-1 | OS357-W-230516 | Total/NA | Water | 6010B | 678766 |
| 320-100543-2 | RRMDF-W-D-230516 | Total/NA | Water | 6010B | 678766 |
| 320-100543-6 | OS8-W-230517 | Total/NA | Water | 6010B | 678766 |
| MB 320-678766/1-A | Method Blank | Total/NA | Water | 6010B | 678766 |
| LCS 320-678766/2-A | Lab Control Sample | Total/NA | Water | 6010B | 678766 |

### Analysis Batch: 679947

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 320-100543-3 | SRE-W-230517 | Total/NA | Water | 6010B | 678766 |
| 320-100543-4 | OS1-W-230517 | Total/NA | Water | 6010B | 678766 |
| 320-100543-5 | OW-W-230517 | Total/NA | Water | 6010B | 678766 |

# Lab Chronicle

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

Job ID: 320-100543-1

## Client Sample ID: OS357-W-230516
**Lab Sample ID: 320-100543-1**
**Date Collected: 05/16/23 09:40**
**Matrix: Water**
**Date Received: 05/19/23 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 | 314.0 | | 2 | 5 mL | 5 mL | 679423 | 06/01/23 14:46 | TCS | EET SAC |
| Total/NA | Prep | 3010A | | | 50 mL | 50 mL | 678766 | 05/30/23 10:15 | NIM | EET SAC |
| Total/NA | Analysis | 6010B | | 1 | | | 679677 | 06/01/23 15:22 | GSH | EET SAC |
| Total/NA | Prep | 7470A | | | 30 mL | 30 mL | 677115 | 05/23/23 17:20 | JAP | EET SAC |
| Total/NA | Analysis | 7470A | | 1 | | | 677474 | 05/24/23 14:47 | JAP | EET SAC |

## Client Sample ID: RRMDF-W-D-230516
**Lab Sample ID: 320-100543-2**
**Date Collected: 05/16/23 12:15**
**Matrix: Water**
**Date Received: 05/19/23 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 | 314.0 | | 5 | 5 mL | 5 mL | 679423 | 06/01/23 15:04 | TCS | EET SAC |
| Total/NA | Prep | 3010A | | | 50 mL | 50 mL | 678766 | 05/30/23 10:15 | NIM | EET SAC |
| Total/NA | Analysis | 6010B | | 1 | | | 679677 | 06/01/23 15:26 | GSH | EET SAC |
| Total/NA | Prep | 7470A | | | 30 mL | 30 mL | 677115 | 05/23/23 17:20 | JAP | EET SAC |
| Total/NA | Analysis | 7470A | | 1 | | | 677474 | 05/24/23 14:49 | JAP | EET SAC |

## Client Sample ID: SRE-W-230517
**Lab Sample ID: 320-100543-3**
**Date Collected: 05/17/23 09:20**
**Matrix: Water**
**Date Received: 05/19/23 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 | 314.0 | | 2 | 5 mL | 5 mL | 679423 | 06/01/23 13:53 | TCS | EET SAC |
| Total/NA | Prep | 3010A | | | 50 mL | 50 mL | 678766 | 05/30/23 10:15 | NIM | EET SAC |
| Total/NA | Analysis | 6010B | | 1 | | | 679947 | 06/02/23 11:07 | GSH | EET SAC |
| Total/NA | Prep | 7470A | | | 30 mL | 30 mL | 677115 | 05/23/23 17:20 | JAP | EET SAC |
| Total/NA | Analysis | 7470A | | 1 | | | 677474 | 05/24/23 14:50 | JAP | EET SAC |

## Client Sample ID: OS1-W-230517
**Lab Sample ID: 320-100543-4**
**Date Collected: 05/17/23 10:15**
**Matrix: Water**
**Date Received: 05/19/23 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 | 314.0 | | 1 | 5 mL | 5 mL | 679423 | 06/01/23 14:29 | TCS | EET SAC |
| Total/NA | Prep | 3010A | | | 50 mL | 50 mL | 678766 | 05/30/23 10:15 | NIM | EET SAC |
| Total/NA | Analysis | 6010B | | 1 | | | 679947 | 06/02/23 11:10 | GSH | EET SAC |
| Total/NA | Prep | 7470A | | | 30 mL | 30 mL | 677115 | 05/23/23 17:20 | JAP | EET SAC |
| Total/NA | Analysis | 7470A | | 1 | | | 677474 | 05/24/23 14:52 | JAP | EET SAC |

## Client Sample ID: OW-W-230517
**Lab Sample ID: 320-100543-5**
**Date Collected: 05/17/23 11:55**
**Matrix: Water**
**Date Received: 05/19/23 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 | 314.0 | | 1 | 5 mL | 5 mL | 679423 | 06/01/23 14:11 | TCS | EET SAC |

# Lab Chronicle

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

Job ID: 320-100543-1

## Client Sample ID: OW-W-230517

**Lab Sample ID: 320-100543-5**

**Date Collected: 05/17/23 11:55**

**Matrix: Water**

**Date Received: 05/19/23 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 | 3010A | | | 50 mL | 50 mL | 678766 | 05/30/23 10:15 | NIM | EET SAC |
| Total/NA | Analysis | 6010B | | 1 | | | 679947 | 06/02/23 11:13 | GSH | EET SAC |
| Total/NA | Prep | 7470A | | | 30 mL | 30 mL | 677115 | 05/23/23 17:20 | JAP | EET SAC |
| Total/NA | Analysis | 7470A | | 1 | | | 677474 | 05/24/23 14:54 | JAP | EET SAC |

## Client Sample ID: OS8-W-230517

**Lab Sample ID: 320-100543-6**

**Date Collected: 05/17/23 12:55**

**Matrix: Water**

**Date Received: 05/19/23 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 | 314.0 | | 1 | 5 mL | 5 mL | 679421 | 06/01/23 19:56 | TCS | EET SAC |
| Total/NA | Prep | 3010A | | | 50 mL | 50 mL | 678766 | 05/30/23 10:15 | NIM | EET SAC |
| Total/NA | Analysis | 6010B | | 1 | | | 679677 | 06/01/23 15:44 | GSH | EET SAC |
| Total/NA | Prep | 7470A | | | 30 mL | 30 mL | 679137 | 05/31/23 14:50 | JAP | EET SAC |
| Total/NA | Analysis | 7470A | | 1 | | | 679638 | 06/01/23 17:26 | JAP | EET SAC |

**Laboratory References:**

EET SAC = Eurofins 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: 320-100543-1

## Laboratory: Eurofins 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 | 01-22-24 |

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 | | Water | Perchlorate |

# Method Summary

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

Job ID: 320-100543-1

| Method | Method Description | Protocol | Laboratory |
|---|---|---|---|
| 314.0 | Perchlorate (IC) | EPA | EET SAC |
| 6010B | Metals (ICP) | SW846 | EET SAC |
| 7470A | Mercury (CVAA) | SW846 | EET SAC |
| 3010A | Preparation, Total Metals | SW846 | EET SAC |
| 7470A | Preparation, Mercury | SW846 | EET 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:**

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

# Sample Summary

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

Job ID: 320-100543-1

| Lab Sample ID | Client Sample ID | Matrix | Collected | Received |
|---|---|---|---|---|
| 320-100543-1 | OS357-W-230516 | Water | 05/16/23 09:40 | 05/19/23 09:20 |
| 320-100543-2 | RRMDF-W-D-230516 | Water | 05/16/23 12:15 | 05/19/23 09:20 |
| 320-100543-3 | SRE-W-230517 | Water | 05/17/23 09:20 | 05/19/23 09:20 |
| 320-100543-4 | OS1-W-230517 | Water | 05/17/23 10:15 | 05/19/23 09:20 |
| 320-100543-5 | OW-W-230517 | Water | 05/17/23 11:55 | 05/19/23 09:20 |
| 320-100543-6 | OS8-W-230517 | Water | 05/17/23 12:55 | 05/19/23 09:20 |

GSI ENVIRONMENTAL

CHAIN-OF-CUSTODY RECORD
Date: 5/16/23 - 5/17/23
Page 1 of 1

| | | |
|---|---|---|
| FROM: GSI Environmental Inc. 2000 Powell Street. Suite 820 Emeryville, CA 94608 (510) 463-8484 | PROJECT NAME: AJU-BB | PROJECT NO.: 5182 |
| | PROJECT CONTACT: Susan Gallardo | LAB CONTACT: Afsaneh Salimpour (Pleasanton) |
| | GLOBAL ID: | SAMPLER(S): (PRINT) CJB |
| TEL: (510) 463-8484 | E-MAIL: smgallardo@gsi-net.com; sjbowersmith@gsi-net.com | |
| LABORATORY: Eurofins Calscience | | |

TURNAROUND TIME: ☐ SAME DAY ☐ 24 HR ☐ 48 HR ☐ 72 HR ☐ 5 DAYS ☒ STANDARD

SPECIAL INSTRUCTIONS:

**REQUESTED ANALYSES**
Please check box or fill in blank as needed.

| LAB USE ONLY | SAMPLE ID | SAMPLING DATE | SAMPLING TIME | MATRIX* | NO. OF CONT. | Unpreserved | Preserved | Field Filtered | Title 22 Metals (6010/7470) | Perchlorate (314.0) |
|---|---|---|---|---|---|---|---|---|---|---|
| 1 | OS357-W-230516 | 5/16/23 | 0940 | W | 2 | 1 | 1 | | X | X |
| 2 | RR MDF-W-D-230516 | 5/16/23 | 1215 | W | 2 | 1 | 1 | | X | X |
| 3 | GRE-W-230517 | 5/17/23 | 0920 | W | 2 | 1 | 1 | | X | X |
| 4 | OS1-W-230517 | 5/17/23 | 1015 | W | 2 | 1 | 1 | | X | X |
| 5 | OW-W-230517 | 5/17/23 | 1155 | W | 2 | 1 | 1 | | X | X |
| 6 | OS8-W-230517 | 5/17/23 | 1255 | W | 2 | 1 | 1 | | X | X |

320-100543 Chain of Custody

| | | | |
|---|---|---|---|
| Relinquished by: (Signature) | Received by: (Signature) | Date: 5/18/23 | Time: 1123 |
| Relinquished by: (Signature) | Received by: (Signature) | Date: 5/19/23 | Time: 920 |
| Relinquished by: (Signature) | Received by: (Signature) | Date: | Time: |

2.8/3.0 SG

Furo. w.tr

1.4C



6/5/2023

# Login Sample Receipt Checklist

Client: GSI Environmental, Inc

Job Number: 320-100543-1

**Login Number: 100543**
**List Number: 1**
**Creator: Turpen, Laura**

**List Source: Eurofins Sacramento**

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

GEL Laboratories LLC
a member of The GEL Group INC

PO Box 30712 Charleston, SC 29417
2040 Savage Road Charleston, SC 29407
P 843.556.8171
F 843.766.1178

gel.com

June 08, 2023

Susan Gallardo
GSI Environmental Inc.
155 Grand Ave
Suite 704
Oakland, California 94612

Re: Near SSFL
Work Order: 623068

Dear Susan Gallardo:

GEL Laboratories, LLC (GEL) appreciates the opportunity to provide the enclosed analytical results for the sample(s) we received on May 20, 2023. This original data report has been prepared and reviewed in accordance with GEL's standard operating procedures.

The samples were delivered with proper chain of custody documentation and signatures. All sample containers arrived without any visible signs of tampering or breakage. Collect time on the Chain of Custody does not match the collect time on the container received*623068002(SRE-W-230517)*.

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. 1614.

Sincerely,

Jordan Melton

Jordan Melton for
Delaney Stone
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: 623068 GEL Work Order: 623068

**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, Delaney Stone.

Reviewed by Jordan Melton

# 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 8, 2023

Contact: Susan Gallardo
Project: Near SSFL

Client Sample ID: OS357-W-230516
Sample ID: 623068001
Matrix: Water
Collect Date: 16-MAY-23
Receive Date: 20-MAY-23
Collector: Client

Project: GSIE00119
Client ID: GSIE002

| Parameter | Qualifier | Result | Uncertainty | MDC | TPU | RL | Units | PF | DF | Analyst | Date | Time | Batch | Mtd. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Rad Gamma Spec Analysis** | | | | | | | | | | | | | | |
| *Gammaspec, Gamma, Liquid (Standard List) "As Received"* | | | | | | | | | | | | | | |
| Cesium-137 | U | -0.583 | +/-3.39 | 6.08 | +/-3.40 | 10.0 | pCi/L | | | RYH1 | 05/25/23 | 2308 | 2432914 | 1 |
| **Rad Gas Flow Proportional Counting** | | | | | | | | | | | | | | |
| *GFPC, Sr90, Liquid "As Received"* | | | | | | | | | | | | | | |
| Strontium-90 | U | 1.02 | +/-1.11 | 1.85 | +/-1.12 | 2.00 | pCi/L | | | ST2 | 06/05/23 | 1550 | 2438285 | 2 |
| **Rad Liquid Scintillation Analysis** | | | | | | | | | | | | | | |
| *LSC, Tritium Distillation, Liquid "As Received"* | | | | | | | | | | | | | | |
| Tritium | U | 397 | +/-330 | 532 | +/-339 | 700 | pCi/L | | | KXA1 | 05/31/23 | 1708 | 2433269 | 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" | 2438285 | 103 | (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

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# Certificate of Analysis

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

Report Date: June 8, 2023

Contact: Susan Gallardo
Project: Near SSFL

Client Sample ID: SRE-W-230517
Sample ID: 623068002
Matrix: Water
Collect Date: 17-MAY-23
Receive Date: 20-MAY-23
Collector: Client

Project: GSIE00119
Client ID: GSIE002

| Parameter | Qualifier | Result | Uncertainty | MDC | TPU | RL | Units | PF | DF | Analyst | Date | Time | Batch | Mtd. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Rad Gamma Spec Analysis** | | | | | | | | | | | | | | |
| *Gammaspec, Gamma, Liquid (Standard List) "As Received"* | | | | | | | | | | | | | | |
| Cesium-137 | U | -4.62 | +/-4.04 | 5.64 | +/-4.56 | 10.0 | pCi/L | | | RYH1 | 05/25/23 | 2309 | 2432914 | 1 |
| **Rad Gas Flow Proportional Counting** | | | | | | | | | | | | | | |
| *GFPC, Sr90, Liquid "As Received"* | | | | | | | | | | | | | | |
| Strontium-90 | U | 1.07 | +/-1.12 | 1.86 | +/-1.14 | 2.00 | pCi/L | | | ST2 | 06/05/23 | 1550 | 2438285 | 2 |
| **Rad Liquid Scintillation Analysis** | | | | | | | | | | | | | | |
| *LSC, Tritium Distillation, Liquid "As Received"* | | | | | | | | | | | | | | |
| Tritium | U | 525 | +/-352 | 549 | +/-366 | 700 | pCi/L | | | KXA1 | 05/31/23 | 0924 | 2433269 | 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" | 2438285 | 85.1 | (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

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# Certificate of Analysis

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

Report Date: June 8, 2023

Contact: Susan Gallardo
Project: Near SSFL

Client Sample ID: 0S1-W-230517
Sample ID: 623068003
Matrix: Water
Collect Date: 17-MAY-23
Receive Date: 20-MAY-23
Collector: Client

Project: GSIE00119
Client ID: GSIE002

| Parameter | Qualifier | Result | Uncertainty | MDC | TPU | RL | Units | PF | DF | Analyst | Date | Time | Batch | Mtd. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Rad Gamma Spec Analysis** | | | | | | | | | | | | | | |
| *Gammaspec, Gamma, Liquid (Standard List) "As Received"* | | | | | | | | | | | | | | |
| Cesium-137 | U | -3.66 | +/-4.23 | 6.13 | +/-4.55 | 10.0 | pCi/L | | | RYH1 | 05/25/23 | 2309 | 2432914 | 1 |
| **Rad Gas Flow Proportional Counting** | | | | | | | | | | | | | | |
| *GFPC, Sr90, Liquid "As Received"* | | | | | | | | | | | | | | |
| Strontium-90 | U | 0.890 | +/-1.08 | 1.82 | +/-1.09 | 2.00 | pCi/L | | | ST2 | 06/05/23 | 1550 | 2438285 | 2 |
| **Rad Liquid Scintillation Analysis** | | | | | | | | | | | | | | |
| *LSC, Tritium Distillation, Liquid "As Received"* | | | | | | | | | | | | | | |
| Tritium | U | 191 | +/-319 | 554 | +/-321 | 700 | pCi/L | | | KXA1 | 05/31/23 | 0940 | 2433269 | 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" | 2438285 | 96.6 | (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

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# Certificate of Analysis

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

Report Date: June 8, 2023

Contact: Susan Gallardo
Project: Near SSFL

Client Sample ID: 0W-W-230517
Sample ID: 623068004
Matrix: Water
Collect Date: 17-MAY-23
Receive Date: 20-MAY-23
Collector: Client

Project: GSIE00119
Client ID: GSIE002

| Parameter | Qualifier | Result | Uncertainty | MDC | TPU | RL | Units | PF | DF | Analyst | Date | Time | Batch | Mtd. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Rad Gamma Spec Analysis** | | | | | | | | | | | | | | |
| *Gammaspec, Gamma, Liquid (Standard List) "As Received"* | | | | | | | | | | | | | | |
| Cesium-137 | U | -1.23 | +/-4.31 | 7.72 | +/-4.35 | 10.0 | pCi/L | | | RYH1 | 05/25/23 | 2310 | 2432914 | 1 |
| **Rad Gas Flow Proportional Counting** | | | | | | | | | | | | | | |
| *GFPC, Sr90, Liquid "As Received"* | | | | | | | | | | | | | | |
| Strontium-90 | U | 1.54 | +/-1.15 | 1.84 | +/-1.18 | 2.00 | pCi/L | | | ST2 | 06/05/23 | 1551 | 2438285 | 2 |
| **Rad Liquid Scintillation Analysis** | | | | | | | | | | | | | | |
| *LSC, Tritium Distillation, Liquid "As Received"* | | | | | | | | | | | | | | |
| Tritium | U | 358 | +/-335 | 551 | +/-343 | 700 | pCi/L | | | KXA1 | 05/31/23 | 0956 | 2433269 | 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" | 2438285 | 106 | (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

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# Certificate of Analysis

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

Report Date: June 8, 2023

Contact: Susan Gallardo
Project: Near SSFL

Client Sample ID: OS8-W-230517
Sample ID: 623068005
Matrix: Water
Collect Date: 17-MAY-23
Receive Date: 20-MAY-23
Collector: Client

Project: GSIE00119
Client ID: GSIE002

| Parameter | Qualifier | Result | Uncertainty | MDC | TPU | RL | Units | PF | DF | Analyst | Date | Time | Batch | Mtd. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Rad Gamma Spec Analysis** | | | | | | | | | | | | | | |
| *Gammaspec, Gamma, Liquid (Standard List) "As Received"* | | | | | | | | | | | | | | |
| Cesium-137 | U | 0.996 | +/-3.79 | 6.85 | +/-3.82 | 10.0 | pCi/L | | | RYH1 | 05/25/23 | 2311 | 2432914 | 1 |
| **Rad Gas Flow Proportional Counting** | | | | | | | | | | | | | | |
| *GFPC, Sr90, Liquid "As Received"* | | | | | | | | | | | | | | |
| Strontium-90 | U | -0.0836 | +/-0.999 | 1.89 | +/-0.999 | 2.00 | pCi/L | | | ST2 | 06/05/23 | 1551 | 2438285 | 2 |
| **Rad Liquid Scintillation Analysis** | | | | | | | | | | | | | | |
| *LSC, Tritium Distillation, Liquid "As Received"* | | | | | | | | | | | | | | |
| Tritium | U | 150 | +/-310 | 545 | +/-311 | 700 | pCi/L | | | KXA1 | 05/31/23 | 1013 | 2433269 | 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" | 2438285 | 87.4 | (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

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# Certificate of Analysis

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

Report Date: June 8, 2023

Contact: Susan Gallardo
Project: Near SSFL

Client Sample ID: RRMDF-W-D-230516
Sample ID: 623068006
Matrix: Water
Collect Date: 16-MAY-23
Receive Date: 20-MAY-23
Collector: Client

Project: GSIE00119
Client ID: GSIE002

| Parameter | Qualifier | Result | Uncertainty | MDC | TPU | RL | Units | PF | DF | Analyst | Date | Time | Batch | Mtd. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Rad Gamma Spec Analysis** | | | | | | | | | | | | | | |
| *Gammaspec, Gamma, Liquid (Standard List) "As Received"* | | | | | | | | | | | | | | |
| Cesium-137 | U | 1.23 | +/-3.15 | 6.34 | +/-3.20 | 10.0 | pCi/L | | | RYH1 | 05/25/23 | 2314 | 2432914 | 1 |
| **Rad Gas Flow Proportional Counting** | | | | | | | | | | | | | | |
| *GFPC, Sr90, Liquid "As Received"* | | | | | | | | | | | | | | |
| Strontium-90 | U | 1.29 | +/-1.17 | 1.91 | +/-1.19 | 2.00 | pCi/L | | | ST2 | 06/06/23 | 0711 | 2438285 | 2 |
| **Rad Liquid Scintillation Analysis** | | | | | | | | | | | | | | |
| *LSC, Tritium Distillation, Liquid "As Received"* | | | | | | | | | | | | | | |
| Tritium | U | 499 | +/-355 | 559 | +/-368 | 700 | pCi/L | | | KXA1 | 05/31/23 | 1029 | 2433269 | 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" | 2438285 | 78.2 | (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

## *QC Summary*

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

**Contact:** **Susan Gallardo**

**Workorder:** **623068**

**Report Date: June 8, 2023**


| Parmname | NOM | Sample | Qual | QC | Units | RPD% | REC% | Range | Anlst | Date Time |
|---|---|---|---|---|---|---|---|---|---|---|
| **Rad Gamma Spec** | | | | | | | | | | |
| Batch 2432914 | | | | | | | | | | |
| QC1205412987 623068001 DUP | | | | | | | | | | |
| Cesium-137 | U | -0.583 | U | -7.91 | pCi/L | 0 | | N/A | RYH1 | 05/26/2305:37 |
| | Uncert: | +/-3.39 | | +/-5.58 | | | | | | |
| | TPU: | +/-3.40 | | +/-6.67 | | | | | | |
| QC1205412988 LCS | | | | | | | | | | |
| Americium-241 | 1.08E+05 | | | 1.24E+05 | pCi/L | | 114 | (75%-125%) | RYH1 | 05/26/2305:38 |
| | Uncert: | | | +/-3840 | | | | | | |
| | TPU: | | | +/-16400 | | | | | | |
| Cobalt-60 | 17300 | | | 19000 | pCi/L | | 110 | (75%-125%) | | |
| | Uncert: | | | +/-637 | | | | | | |
| | TPU: | | | +/-2040 | | | | | | |
| Cesium-137 | 36500 | | | 36900 | pCi/L | | 101 | (75%-125%) | | |
| | Uncert: | | | +/-749 | | | | | | |
| | TPU: | | | +/-3180 | | | | | | |
| QC1205412986 MB | | | | | | | | | | |
| Cesium-137 | | | U | -1.68 | pCi/L | | | | RYH1 | 05/25/2323:22 |
| | Uncert: | | | +/-3.37 | | | | | | |
| | TPU: | | | +/-3.46 | | | | | | |
| **Rad Gas Flow** | | | | | | | | | | |
| Batch 2438285 | | | | | | | | | | |
| QC1205422903 623068006 DUP | | | | | | | | | | |
| Strontium-90 | U | 1.29 | | 2.84 | pCi/L | 75 | | (0% - 100%) | ST2 | 06/05/2315:50 |
| | Uncert: | +/-1.17 | | +/-1.24 | | | | | | |
| | TPU: | +/-1.19 | | +/-1.32 | | | | | | |
| QC1205422904 LCS | | | | | | | | | | |
| Strontium-90 | 81.0 | | | 94.6 | pCi/L | | 117 | (75%-125%) | ST2 | 06/06/2307:11 |
| | Uncert: | | | +/-4.96 | | | | | | |
| | TPU: | | | +/-16.1 | | | | | | |
| QC1205422902 MB | | | | | | | | | | |
| Strontium-90 | | | U | 1.40 | pCi/L | | | | ST2 | 06/05/2315:50 |
| | Uncert: | | | +/-1.15 | | | | | | |
| | TPU: | | | +/-1.17 | | | | | | |
| **Rad Liquid Scintillation** | | | | | | | | | | |
| Batch 2433269 | | | | | | | | | | |
| QC1205413601 623068001 DUP | | | | | | | | | | |
| Tritium | U | 397 | U | 514 | pCi/L | 0 | | N/A | KXA1 | 05/31/2311:02 |
| | Uncert: | +/-330 | | +/-346 | | | | | | |
| | TPU: | +/-339 | | +/-360 | | | | | | |
| QC1205413603 LCS | | | | | | | | | | |
| Tritium | 5040 | | | 5010 | pCi/L | | 99.3 | (75%-125%) | KXA1 | 05/31/2311:34 |
| | Uncert: | | | +/-670 | | | | | | |

## *QC Summary*

**Workorder:** **623068**



| Parmname | NOM | Sample | Qual | QC | Units | RPD% | REC% | Range | Anlst | Date Time |
|---|---|---|---|---|---|---|---|---|---|---|
| **Rad Liquid Scintillation** | | | | | | | | | | |
| Batch 2433269 | | | | | | | | | | |
| | TPU: | | | +/-1180 | | | | | | |
| QC1205413600 MB | | | | | | | | | | |
| Tritium | | | U | 244 | pCi/L | | | | KXA1 | 05/31/2310:45 |
| | Uncert: | | | +/-322 | | | | | | |
| | TPU: | | | +/-325 | | | | | | |
| QC1205413602 623068001 MS | | | | | | | | | | |
| Tritium | 5050 | U 397 | | 5450 | pCi/L | | 108 | (75%-125%) | KXA1 | 05/31/2311:18 |
| | Uncert: | +/-330 | | +/-689 | | | | | | |
| | TPU: | +/-339 | | +/-1260 | | | | | | |

**Notes:**

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

The Qualifiers in this report are defined as follows:

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

# *QC Summary*

**Workorder:** **623068**



| 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 acceptence 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.

GSI ENVIRONMENTAL

623068

CHAIN-OF-CUSTODY RECORD
Date: 5/16/23 - 5/17/23
Page 1 of 1

| | | |
|---|---|---|
| FROM: GSI Environmental Inc.<br>2000 Powell Street. Suite 820<br>Emeryville, CA 94608 | PROJECT NAME: AJU-BB<br>PROJECT CONTACT: Susan Gallardo<br>GLOBAL ID: -- | PROJECT NO.: 5182<br>LAB CONTACT: Delaney Stone<br>SAMPLER(S): (PRINT) CJB |
| TEL: (510) 463-8484 | E-MAIL: smgallardo@gsi-net.com;sjbowersmith@gsi-net.com | |
| LABORATORY: GEL Laboratories | | |

TURNAROUND TIME: ☐ SAME DAY ☐ 24 HR ☐ 48 HR ☐ 72 HR ☐ 5 DAYS ☒ STANDARD

SPECIAL INSTRUCTIONS:
- Sr-90 MDC of 8 pCi/L
- Cs-137 MDC of 200 pCi/L
- H-3 MDC of 20,000 pCi/L

**REQUESTED ANALYSES**
Please check box or fill in blank as needed.

| LAB USE ONLY | SAMPLE ID | SAMPLING DATE | SAMPLING TIME | MATRIX | NO. OF CONT. | Unpreserved | Preserved | Field Filtered | Sr-90 (905.0) | Cs-137 (901.1) | H-3 (906) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | OS357-W-230516 | 5/16/23 | 0940 | W | 3 | | X | | X | X | X |
| | ~~RRMDF-SED-D-230516~~ | ~~5/16/23~~ | ~~1215~~ | ~~W~~ | | | | | | | |
| | ~~RRMDF-W-D-230516~~ | ~~5/16/23~~ | ~~1215~~ | ~~W~~ | ~~3~~ | | ~~X~~ | | ~~X~~ | ~~X~~ | ~~X~~ |
| | SRB-W-230517 | 5/17/23 | 0920 | W | 3 | | X | | X | X | X |
| | OS1-W-230517 | 5/17/23 | 1015 | W | 3 | | X | | X | X | X |
| | DW-W-230517 | 5/17/23 | 1155 | W | 3 | | X | | X | X | X |
| | OS8-W-230517 | 5/17/23 | 1255 | W | 3 | | X | | X | X | X |
| | RRMDF-W-D-230516 | 5/16/23 | 1215 | W | 3 | | X | | X | X | X |

| | | | |
|---|---|---|---|
| Relinquished by: (Signature) | Received by: (Signature) Fedex | Date: 5/19/23 | Time: 11:00 |
| Relinquished by: (Signature) | Received by: (Signature) | Date: 5.20.23 | Time: |
| Relinquished by: (Signature) | Received by: (Signature) | Date: | Time: |

GEL - water

GEL Laboratories LLC

# SAMPLE RECEIPT & REVIEW FORM

| | |
|---|---|
| Client: QSE | SDG/AR/COC/Work Order: 623068 DJ |
| Received By: MVH | Date Received: 5/20/2023 |
| Carrier and Tracking Number | Circle Applicable: FedEx Express FedEx Ground UPS Field Services Courier Other<br>7213882120 81<br>7213882148 6 7213882134 12 |

| 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#:<br>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): 0 CPM/ mR/Hr<br>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.<br>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: Wet Ice Ice Packs Dry ice None Other:<br>*all temperatures are recorded in Celsius TEMP: 18 |
| 4 | Daily check performed and passed on IR temperature gun? | ✓ | | | Temperature Device Serial #: IR2-21<br>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:<br>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)<br>Do liquid VOA vials contain acid preservation? Yes___ No___ NA___(If unknown, select No)<br>Are liquid VOA vials free of headspace? Yes___ No___ NA___<br>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) SLG-W-230517 bottle keys 420, SLG-W-230517 @910 |
| 11 | Number of containers received match number indicated on COC? | ✓ | | | Circle Applicable: No container count on COC Other (describe) |
| 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):

~~*missing two coolers~~ JM 5/23

PM (or PMA) review: Initials JM Date 5-23-23 Page 1 of 1

GL-CHL-SR-001 Rev 7

**List of current GEL Certifications as of 08 June 2023**

| 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 | SC000122023-4 |
| 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 | 2022-160 |
| 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 | T104704235-22-20 |
| Utah NELAP | SC000122022-37 |
| Vermont | VT87156 |
| Virginia NELAP | 460202 |
| Washington | C780 |

**Radiochemistry**
**Technical Case Narrative**
**GSI Environmental Inc.**
**SDG #: 623068**

**Product:** **Gammaspec, Gamma, Liquid (Standard List)**
**Analytical Method:** EPA 901.1
**Analytical Procedure:** GL-RAD-A-013 REV# 27
**Analytical Batch:** 2432914

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

| GEL Sample ID# | Client Sample Identification |
|---|---|
| 623068001 | OS357-W-230516 |
| 623068002 | SRE-W-230517 |
| 623068003 | 0S1-W-230517 |
| 623068004 | 0W-W-230517 |
| 623068005 | OS8-W-230517 |
| 623068006 | RRMDF-W-D-230516 |
| 1205412986 | Method Blank (MB) |
| 1205412987 | 623068001(OS357-W-230516) Sample Duplicate (DUP) |
| 1205412988 | 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# 22
**Analytical Batch:** 2438285

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

| GEL Sample ID# | Client Sample Identification |
|---|---|
| 623068001 | OS357-W-230516 |
| 623068002 | SRE-W-230517 |
| 623068003 | 0S1-W-230517 |
| 623068004 | 0W-W-230517 |
| 623068005 | OS8-W-230517 |
| 623068006 | RRMDF-W-D-230516 |
| 1205422902 | Method Blank (MB) |
| 1205422903 | 623068006(RRMDF-W-D-230516) Sample Duplicate (DUP) |
| 1205422904 | 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**
Samples 1205422903 (RRMDF-W-D-230516DUP) and 623068006 (RRMDF-W-D-230516) were non-homogenous matrix. particles 1205422903 (RRMDF-W-D-230516DUP) and 623068006 (RRMDF-W-D-230516).

**Technical Information**

**Sample Re-prep/Re-analysis**
Samples were reprepped due to low recovery. The re-analysis is being reported.

**Recounts**
Sample 1205422904 (LCS) was recounted due to high recovery. The recount is reported. Sample 623068006 (RRMDF-W-D-230516) was recounted due to a suspected false positive. The recount is reported.

**Product:** **LSC, Tritium Distillation, Liquid**
**Analytical Method:** EPA 906.0 Modified
**Analytical Procedure:** GL-RAD-A-002 REV# 24
**Analytical Batch:** 2433269

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

| GEL Sample ID# | Client Sample Identification |
|---|---|
| 623068001 | OS357-W-230516 |
| 623068002 | SRE-W-230517 |
| 623068003 | 0S1-W-230517 |
| 623068004 | 0W-W-230517 |
| 623068005 | OS8-W-230517 |
| 623068006 | RRMDF-W-D-230516 |
| 1205413600 | Method Blank (MB) |
| 1205413601 | 623068001(OS357-W-230516) Sample Duplicate (DUP) |
| 1205413602 | 623068001(OS357-W-230516) Matrix Spike (MS) |
| 1205413603 | 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 623068004 (0W-W-230517) was non-homogenous matrix. sediment 623068004 (0W-W-230517).

**Technical Information**

**Recounts**
Sample 623068001 (OS357-W-230516) was recounted to verify sample results. Recount is reported.

**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.

GSI Job No.: 5182

# 2023 MONITORING REPORT
## AJU Brandeis-Bardin Campus
Brandeis, CA

## ATTACHMENT C

Analytical Laboratory Reports – Fruit Samples

GEL Laboratories LLC
a member of The GEL Group INC

PO Box 30712 Charleston, SC 29417
2040 Savage Road Charleston, SC 29407
P 843.556.8171
F 843.766.1178

gel.com

June 08, 2023

Susan Gallardo
GSI Environmental Inc.
155 Grand Ave
Suite 704
Oakland, California 94612

Re: Near SSFL
Work Order: 623067

Dear Susan Gallardo:

GEL Laboratories, LLC (GEL) appreciates the opportunity to provide the enclosed analytical results for the sample(s) we received on May 20, 2023. This original data report has been prepared and reviewed in accordance with GEL's standard operating procedures.

The samples were delivered with proper chain of custody documentation and signatures. All sample containers arrived without any visible signs of tampering or breakage. There are no additional comments concerning sample receipt.

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. 1614.

Sincerely,

Jordan Melton

Jordan Melton for
Delaney Stone
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: 623067 GEL Work Order: 623067

**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, Delaney Stone.

Reviewed by Jordan Melton

# 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 8, 2023

Contact: Susan Gallardo
Project: Near SSFL

Client Sample ID: L-1-230518
Sample ID: 623067001
Matrix: Vegetation
Collect Date: 18-MAY-23
Receive Date: 20-MAY-23
Collector: Client
Moisture: 89.7%

Project: GSIE00119
Client ID: GSIE002

| Parameter | Qualifier | Result | Uncertainty | MDC | TPU | RL | Units | PF | DF | Analyst | Date | Time | Batch | Mtd. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Rad Gamma Spec Analysis** | | | | | | | | | | | | | | |
| *Gammaspec, Gamma, Solid vegetation "As Received"* | | | | | | | | | | | | | | |
| Cesium-137 | U | 0.00174 | +/-0.0146 | 0.0102 | +/-0.0146 | 0.100 | pCi/g | | | RYH1 | 05/28/23 | 0956 | 2432912 | 1 |
| **Rad Gas Flow Proportional Counting** | | | | | | | | | | | | | | |
| *GFPC, Sr90, Solid "As Received"* | | | | | | | | | | | | | | |
| Strontium-90 | U | 0.00173 | +/-0.00324 | 0.00570 | +/-0.00326 | 0.100 | pCi/g | | | ST2 | 06/02/23 | 1121 | 2433177 | 2 |
| **Rad Liquid Scintillation Analysis** | | | | | | | | | | | | | | |
| *LSC, Tritium Distillation, Vegetation "As Received"* | | | | | | | | | | | | | | |
| Tritium | U | -0.497 | +/-1.04 | 1.87 | +/-1.04 | 2.00 | pCi/g | | | KXA1 | 05/26/23 | 1135 | 2433245 | 3 |

**The following Prep Methods were performed**

| Method | Description | Analyst | Date | Time | Prep Batch |
|---|---|---|---|---|---|
| GEL Prep Method | Wet Soil Prep GL-RAD-A-026 | KO3 | 05/22/23 | 1625 | 2432738 |
| Dry Soil Prep | Dry Soil Prep GL-RAD-A-021 | LC2 | 05/22/23 | 1443 | 2432733 |

**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 "As Received" | 2433177 | 106 | (25%-125%) |

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# Certificate of Analysis

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

Report Date: June 8, 2023

Contact: Susan Gallardo
Project: Near SSFL

Client Sample ID: L-1-230518
Sample ID: 623067001

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: June 8, 2023

Contact: Susan Gallardo
Project: Near SSFL

Client Sample ID: G-1-230518
Sample ID: 623067002
Matrix: Vegetation
Collect Date: 18-MAY-23
Receive Date: 20-MAY-23
Collector: Client
Moisture: 85.9%

Project: GSIE00119
Client ID: GSIE002

| Parameter | Qualifier | Result | Uncertainty | MDC | TPU | RL | Units | PF | DF | Analyst | Date | Time | Batch | Mtd. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Rad Gamma Spec Analysis** | | | | | | | | | | | | | | |
| *Gammaspec, Gamma, Solid vegetation "As Received"* | | | | | | | | | | | | | | |
| Cesium-137 | U | 0.00209 | +/-0.00565 | 0.0109 | +/-0.00573 | 0.100 | pCi/g | | | RYH1 | 05/28/23 | 0957 | 2432912 | 1 |
| **Rad Gas Flow Proportional Counting** | | | | | | | | | | | | | | |
| *GFPC, Sr90, Solid "As Received"* | | | | | | | | | | | | | | |
| Strontium-90 | U | 0.00229 | +/-0.00468 | 0.00830 | +/-0.00470 | 0.100 | pCi/g | | | ST2 | 06/02/23 | 1121 | 2433177 | 2 |
| **Rad Liquid Scintillation Analysis** | | | | | | | | | | | | | | |
| *LSC, Tritium Distillation, Vegetation "As Received"* | | | | | | | | | | | | | | |
| Tritium | U | -0.100 | +/-0.988 | 1.75 | +/-0.988 | 2.00 | pCi/g | | | KXA1 | 05/26/23 | 1227 | 2433245 | 3 |

**The following Prep Methods were performed**

| Method | Description | Analyst | Date | Time | Prep Batch |
|---|---|---|---|---|---|
| Dry Soil Prep | Dry Soil Prep GL-RAD-A-021 | LC2 | 05/22/23 | 1443 | 2432733 |
| GEL Prep Method | Wet Soil Prep GL-RAD-A-026 | KO3 | 05/22/23 | 1625 | 2432738 |

**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 "As Received" | 2433177 | 96.6 | (25%-125%) |

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# Certificate of Analysis

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

Report Date: June 8, 2023

Contact: Susan Gallardo
Project: Near SSFL

Client Sample ID: G-1-230518
Sample ID: 623067002

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
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# Certificate of Analysis

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

Report Date: June 8, 2023

Contact: Susan Gallardo
Project: Near SSFL

Client Sample ID: O-1-230518
Sample ID: 623067003
Matrix: Vegetation
Collect Date: 18-MAY-23
Receive Date: 20-MAY-23
Collector: Client
Moisture: 82.9%

Project: GSIE00119
Client ID: GSIE002

| Parameter | Qualifier | Result | Uncertainty | MDC | TPU | RL | Units | PF | DF | Analyst | Date | Time | Batch | Mtd. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Rad Gamma Spec Analysis** | | | | | | | | | | | | | | |
| *Gammaspec, Gamma, Solid vegetation "As Received"* | | | | | | | | | | | | | | |
| Cesium-137 | U | -0.00121 | +/-0.00507 | 0.00928 | +/-0.00510 | 0.100 | pCi/g | | | RYH1 | 05/28/23 | 0958 | 2432912 | 1 |
| **Rad Gas Flow Proportional Counting** | | | | | | | | | | | | | | |
| *GFPC, Sr90, Solid "As Received"* | | | | | | | | | | | | | | |
| Strontium-90 | U | 0.00638 | +/-0.00486 | 0.00748 | +/-0.00501 | 0.100 | pCi/g | | | ST2 | 06/02/23 | 1120 | 2433177 | 2 |
| **Rad Liquid Scintillation Analysis** | | | | | | | | | | | | | | |
| *LSC, Tritium Distillation, Vegetation "As Received"* | | | | | | | | | | | | | | |
| Tritium | U | -0.642 | +/-0.922 | 1.68 | +/-0.922 | 2.00 | pCi/g | | | KXA1 | 05/26/23 | 1320 | 2433245 | 3 |

**The following Prep Methods were performed**

| Method | Description | Analyst | Date | Time | Prep Batch |
|---|---|---|---|---|---|
| Dry Soil Prep | Dry Soil Prep GL-RAD-A-021 | LC2 | 05/22/23 | 1443 | 2432733 |
| GEL Prep Method | Wet Soil Prep GL-RAD-A-026 | KO3 | 05/22/23 | 1625 | 2432738 |

**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 "As Received" | 2433177 | 98.9 | (25%-125%) |

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# Certificate of Analysis

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

Report Date: June 8, 2023

Contact: Susan Gallardo
Project: Near SSFL

Client Sample ID: O-1-230518
Sample ID: 623067003

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: June 8, 2023

Contact: Susan Gallardo
Project: Near SSFL

Client Sample ID: L-2-230518
Sample ID: 623067004
Matrix: Vegetation
Collect Date: 18-MAY-23
Receive Date: 20-MAY-23
Collector: Client
Moisture: 89%

Project: GSIE00119
Client ID: GSIE002

| Parameter | Qualifier | Result | Uncertainty | MDC | TPU | RL | Units | PF | DF | Analyst | Date | Time | Batch | Mtd. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Rad Gamma Spec Analysis** | | | | | | | | | | | | | | |
| *Gammaspec, Gamma, Solid vegetation "As Received"* | | | | | | | | | | | | | | |
| Cesium-137 | U | -0.00136 | +/-0.00480 | 0.00888 | +/-0.00484 | 0.100 | pCi/g | | | RYH1 | 05/28/23 | 0959 | 2432912 | 1 |
| **Rad Gas Flow Proportional Counting** | | | | | | | | | | | | | | |
| *GFPC, Sr90, Solid "As Received"* | | | | | | | | | | | | | | |
| Strontium-90 | U | 0.00185 | +/-0.00284 | 0.00495 | +/-0.00286 | 0.100 | pCi/g | | | ST2 | 06/02/23 | 1120 | 2433177 | 2 |
| **Rad Liquid Scintillation Analysis** | | | | | | | | | | | | | | |
| *LSC, Tritium Distillation, Vegetation "As Received"* | | | | | | | | | | | | | | |
| Tritium | U | 0.249 | +/-0.988 | 1.71 | +/-0.989 | 2.00 | pCi/g | | | KXA1 | 05/26/23 | 1412 | 2433245 | 3 |

**The following Prep Methods were performed**

| Method | Description | Analyst | Date | Time | Prep Batch |
|---|---|---|---|---|---|
| Dry Soil Prep | Dry Soil Prep GL-RAD-A-021 | LC2 | 05/22/23 | 1443 | 2432733 |
| GEL Prep Method | Wet Soil Prep GL-RAD-A-026 | KO3 | 05/22/23 | 1625 | 2432738 |

**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 "As Received" | 2433177 | 103 | (25%-125%) |

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# Certificate of Analysis

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

Report Date: June 8, 2023

Contact: Susan Gallardo
Project: Near SSFL

Client Sample ID: L-2-230518
Sample ID: 623067004

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: June 8, 2023

Contact: Susan Gallardo
Project: Near SSFL

Client Sample ID: G-2-230518
Sample ID: 623067005
Matrix: Vegetation
Collect Date: 18-MAY-23
Receive Date: 20-MAY-23
Collector: Client
Moisture: 85.8%

Project: GSIE00119
Client ID: GSIE002

| Parameter | Qualifier | Result | Uncertainty | MDC | TPU | RL | Units | PF | DF | Analyst | Date | Time | Batch | Mtd. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Rad Gamma Spec Analysis** | | | | | | | | | | | | | | |
| *Gammaspec, Gamma, Solid vegetation "As Received"* | | | | | | | | | | | | | | |
| Cesium-137 | U | 0.00201 | +/-0.00495 | 0.00985 | +/-0.00504 | 0.100 | pCi/g | | | RYH1 | 05/28/23 | 0959 | 2432912 | 1 |
| **Rad Gas Flow Proportional Counting** | | | | | | | | | | | | | | |
| *GFPC, Sr90, Solid "As Received"* | | | | | | | | | | | | | | |
| Strontium-90 | U | 0.00315 | +/-0.00463 | 0.00798 | +/-0.00466 | 0.100 | pCi/g | | | ST2 | 06/02/23 | 1121 | 2433177 | 2 |
| **Rad Liquid Scintillation Analysis** | | | | | | | | | | | | | | |
| *LSC, Tritium Distillation, Vegetation "As Received"* | | | | | | | | | | | | | | |
| Tritium | U | -0.354 | +/-0.864 | 1.55 | +/-0.864 | 2.00 | pCi/g | | | KXA1 | 05/26/23 | 1504 | 2433245 | 3 |

**The following Prep Methods were performed**

| Method | Description | Analyst | Date | Time | Prep Batch |
|---|---|---|---|---|---|
| Dry Soil Prep | Dry Soil Prep GL-RAD-A-021 | LC2 | 05/22/23 | 1443 | 2432733 |
| GEL Prep Method | Wet Soil Prep GL-RAD-A-026 | KO3 | 05/22/23 | 1625 | 2432738 |

**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 "As Received" | 2433177 | 108 | (25%-125%) |

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# Certificate of Analysis

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

Report Date: June 8, 2023

Contact: Susan Gallardo
Project: Near SSFL

Client Sample ID: G-2-230518
Sample ID: 623067005

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: June 8, 2023

Contact: Susan Gallardo
Project: Near SSFL

Client Sample ID: O-2-230518
Sample ID: 623067006
Matrix: Vegetation
Collect Date: 18-MAY-23
Receive Date: 20-MAY-23
Collector: Client
Moisture: 86.5%

Project: GSIE00119
Client ID: GSIE002

| Parameter | Qualifier | Result | Uncertainty | MDC | TPU | RL | Units | PF | DF | Analyst | Date | Time | Batch | Mtd. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Rad Gamma Spec Analysis** | | | | | | | | | | | | | | |
| *Gammaspec, Gamma, Solid vegetation "As Received"* | | | | | | | | | | | | | | |
| Cesium-137 | U | 0.000323 | +/-0.00593 | 0.0113 | +/-0.00593 | 0.100 | pCi/g | | | RYH1 | 05/28/23 | 1000 | 2432912 | 1 |
| **Rad Gas Flow Proportional Counting** | | | | | | | | | | | | | | |
| *GFPC, Sr90, Solid "As Received"* | | | | | | | | | | | | | | |
| Strontium-90 | U | -0.00343 | +/-0.00386 | 0.00821 | +/-0.00387 | 0.100 | pCi/g | | | ST2 | 06/02/23 | 1121 | 2433177 | 2 |
| **Rad Liquid Scintillation Analysis** | | | | | | | | | | | | | | |
| *LSC, Tritium Distillation, Vegetation "As Received"* | | | | | | | | | | | | | | |
| Tritium | U | 0.345 | +/-0.859 | 1.48 | +/-0.863 | 2.00 | pCi/g | | | KXA1 | 05/26/23 | 1557 | 2433245 | 3 |

**The following Prep Methods were performed**

| Method | Description | Analyst | Date | Time | Prep Batch |
|---|---|---|---|---|---|
| GEL Prep Method | Wet Soil Prep GL-RAD-A-026 | KO3 | 05/22/23 | 1625 | 2432738 |
| Dry Soil Prep | Dry Soil Prep GL-RAD-A-021 | LC2 | 05/22/23 | 1443 | 2432733 |

**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 "As Received" | 2433177 | 98.9 | (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: June 8, 2023

Contact: Susan Gallardo
Project: Near SSFL

Client Sample ID: O-2-230518
Sample ID: 623067006

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

## *QC Summary*

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

**Contact:** **Susan Gallardo**

**Workorder:** **623067**

**Report Date: June 8, 2023**


| Parmname | NOM | Sample | Qual | QC | Units | RPD% | REC% | Range | Anlst | Date Time |
|---|---|---|---|---|---|---|---|---|---|---|
| **Rad Gamma Spec** | | | | | | | | | | |
| Batch 2432912 | | | | | | | | | | |
| QC1205412980 623067001 DUP | | | | | | | | | | |
| Cesium-137 | U | 0.00174 | U | 0.00331 | pCi/g | 0 | | | N/A RYH1 | 05/28/23 13:06 |
| | Uncert: | +/-0.0146 | | +/-0.00514 | | | | | | |
| | TPU: | +/-0.0146 | | +/-0.00536 | | | | | | |
| QC1205412981 LCS | | | | | | | | | | |
| Americium-241 | 101 | | | 109 | pCi/g | | 109 | (75%-125%) | RYH1 | 05/28/23 10:02 |
| | Uncert: | | | +/-2.08 | | | | | | |
| | TPU: | | | +/-9.97 | | | | | | |
| Cobalt-60 | 16.1 | | | 16.2 | pCi/g | | 100 | (75%-125%) | | |
| | Uncert: | | | +/-0.509 | | | | | | |
| | TPU: | | | +/-1.50 | | | | | | |
| Cesium-137 | 33.9 | | | 35.3 | pCi/g | | 104 | (75%-125%) | | |
| | Uncert: | | | +/-0.623 | | | | | | |
| | TPU: | | | +/-3.16 | | | | | | |
| QC1205412979 MB | | | | | | | | | | |
| Cesium-137 | | | U | -0.000241 | pCi/g | | | | RYH1 | 05/28/23 10:01 |
| | Uncert: | | | +/-0.00427 | | | | | | |
| | TPU: | | | +/-0.00427 | | | | | | |
| **Rad Gas Flow** | | | | | | | | | | |
| Batch 2433177 | | | | | | | | | | |
| QC1205413432 623067001 DUP | | | | | | | | | | |
| Strontium-90 | U | 0.00173 | U | 0.00389 | pCi/g | 0 | | | N/A ST2 | 06/02/23 11:21 |
| | Uncert: | +/-0.00324 | | +/-0.00390 | | | | | | |
| | TPU: | +/-0.00326 | | +/-0.00397 | | | | | | |
| QC1205413433 LCS | | | | | | | | | | |
| Strontium-90 | 0.422 | | | 0.474 | pCi/g | | 112 | (75%-125%) | ST2 | 06/02/23 11:21 |
| | Uncert: | | | +/-0.0213 | | | | | | |
| | TPU: | | | +/-0.0902 | | | | | | |
| QC1205413431 MB | | | | | | | | | | |
| Strontium-90 | | | U | -0.00107 | pCi/g | | | | ST2 | 06/02/23 11:21 |
| | Uncert: | | | +/-0.00578 | | | | | | |
| | TPU: | | | +/-0.00578 | | | | | | |
| **Rad Liquid Scintillation** | | | | | | | | | | |
| Batch 2433245 | | | | | | | | | | |
| QC1205413555 623067001 DUP | | | | | | | | | | |
| Tritium | U | -0.497 | U | 0.517 | pCi/g | 0 | | | N/A KXA1 | 05/26/23 17:41 |
| | Uncert: | +/-1.04 | | +/-1.04 | | | | | | |
| | TPU: | +/-1.04 | | +/-1.05 | | | | | | |
| QC1205413557 LCS | | | | | | | | | | |
| Tritium | 19.9 | | | 18.5 | pCi/g | | 93.3 | (75%-125%) | KXA1 | 05/26/23 19:26 |
| | Uncert: | | | +/-1.47 | | | | | | |

## *QC Summary*

**Workorder:** **623067**



| Parmname | NOM | Sample | Qual | QC | Units | RPD% | REC% | Range | Anlst | Date Time |
|---|---|---|---|---|---|---|---|---|---|---|
| **Rad Liquid Scintillation** | | | | | | | | | | |
| Batch 2433245 | | | | | | | | | | |
| | TPU: | | | +/-4.45 | | | | | | |
| QC1205413554 MB | | | | | | | | | | |
| Tritium | | | U | 0.0860 | pCi/g | | | | KXA1 | 05/26/2316:49 |
| | Uncert: | | | +/-0.778 | | | | | | |
| | TPU: | | | +/-0.779 | | | | | | |
| QC1205413556 623067001 MS | | | | | | | | | | |
| Tritium | 49.9 U | -0.497 | | 42.0 | pCi/g | | 84.1 | (75%-125%) | KXA1 | 05/26/2318:33 |
| | Uncert: | +/-1.04 | | +/-3.59 | | | | | | |
| | TPU: | +/-1.04 | | +/-10.2 | | | | | | |

**Notes:**

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

The Qualifiers in this report are defined as follows:

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

# *QC Summary*

**Workorder:** **623067**



| 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 acceptence 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.

GSI ENVIRONMENTAL

623067

CHAIN-OF-CUSTODY RECORD
Date: 5/18/23
Page 1 of 1

| FROM: | PROJECT NAME: | PROJECT NO.: |
|---|---|---|
| GSI Environmental Inc.<br>2000 Powell Street. Suite 820<br>Emeryville, CA 94608 | AJU-BB | 5182 |
| | PROJECT CONTACT: Susan Gallardo | LAB CONTACT: Delaney Stone |
| | GLOBAL ID: – | SAMPLER(S): (PRINT) |

TEL: (510) 463-8484 E-MAIL: smgallardo@gsi-net.com;sjbowersmith@gsi-net.com

LABORATORY: GEL Laboratories

TURNAROUND TIME:
☐ SAME DAY ☐ 24 HR ☐ 48 HR
☐ 72 HR ☐ 5 DAYS ☒ STANDARD

SPECIAL INSTRUCTIONS:
- Sr-90 MDC of 0.5 pCi/g
- Cs-137 MDC of 1 pCi/g
- H-3 MDC of 2 pCi/g
- Include flesh only; no peel

**REQUESTED ANALYSES**
Please check box or fill in blank as needed.

| LAB USE ONLY | SAMPLE ID | SAMPLING DATE | SAMPLING TIME | MATRIX | NO. OF CONT. | Unpreserved | Preserved | Field Filtered | Sr-90 (905.0) | Cs-137 (901.1) | H-3 (906) | CA Title 22 Metals (6010/7470) | Perchlorate (314.0) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | L-1-230518 | 5/18/23 | 0835 | Fruit | 1 | X | | | X | X | X | | |
| | G-1-230518 | 5/18/23 | 0840 | Fruit | 1 | X | | | X | X | X | | |
| | O-1-230518 | 5/18/23 | 0845 | Fruit | 1 | X | | | X | X | X | | |
| | L-2-230518 | 5/18/23 | 0940 | Fruit | 1 | X | | | X | X | X | | |
| | G-2-230518 | 5/18/23 | 0950 | Fruit | 1 | X | | | X | X | X | | |
| | O-2-230518 | 5/18/23 | 1000 | Fruit | 1 | X | | | X | X | X | | |

| | | | |
|---|---|---|---|
| Relinquished by: (Signature) | Received by: (Signature) Fedex | Date: 5/18/23 | Time: 11:00 |
| Relinquished by: (Signature) | Received by: (Signature) | Date: 5/20/23 | Time: 930 |
| Relinquished by: (Signature) | Received by: (Signature) | Date: | Time: |

Fruit (L,G,O)

GEL Laboratories LLC

# SAMPLE RECEIPT & REVIEW FORM

| | |
|---|---|
| **Client:** QOE | **SDG/AR/COC/Work Order:** 623067 DJ |
| **Received By:** MVH | **Date Received:** 5.26.2023 |
| **Carrier and Tracking Number** | Circle Applicable: FedEx Express FedEx Ground UPS Field Services Courier Other<br>772138212081<br>772138211486 772138213412 |

| **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#:<br>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): 0 0 CPM/ mR/Hr<br>**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.<br>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: Wet Ice Ice Packs Dry ice None Other:<br>*all temperatures are recorded in Celsius **TEMP:** 18 |
| 4 | Daily check performed and passed on IR temperature gun? | ✓ | | | **Temperature Device Serial #:** IR2-21<br>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:<br>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)<br>Do liquid VOA vials contain acid preservation? Yes___ No___ NA___(If unknown, select No)<br>Are liquid VOA vials free of headspace? Yes___ No___ NA___<br>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)<br>SR-WD-230517 bottle says 926, SR6-W-230517 @910 |
| 11 | Number of containers received match number indicated on COC? | ✓ | | | Circle Applicable: No container count on COC Other (describe) |
| 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):

~~*missing two Coolers~~ JM 5/23

PM (or PMA) review: Initials JM Date 5-23-23 Page 1 of 1

GL-CHL-SR-001 Rev 7

**List of current GEL Certifications as of 08 June 2023**

| 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 | SC000122023-4 |
| 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 | 2022-160 |
| 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 | T104704235-22-20 |
| Utah NELAP | SC000122022-37 |
| Vermont | VT87156 |
| Virginia NELAP | 460202 |
| Washington | C780 |

**Radiochemistry**
**Technical Case Narrative**
**GSI Environmental Inc.**
**SDG #: 623067**

**Product:** **Dry Weight**
**Preparation Method:** Dry Soil Prep
**Preparation Procedure:** GL-RAD-A-021 REV# 24
**Preparation Batch:** 2432733

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

| GEL Sample ID# | Client Sample Identification |
|---|---|
| 623067001 | L-1-230518 |
| 623067002 | G-1-230518 |
| 623067003 | O-1-230518 |
| 623067004 | L-2-230518 |
| 623067005 | G-2-230518 |
| 623067006 | O-2-230518 |

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:** 2432912

**Preparation Method:** GEL Prep Method
**Preparation Procedure:** GL-RAD-A-026 REV# 18
**Preparation Batch:** 2432738

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

| GEL Sample ID# | Client Sample Identification |
|---|---|
| 623067001 | L-1-230518 |
| 623067002 | G-1-230518 |
| 623067003 | O-1-230518 |
| 623067004 | L-2-230518 |
| 623067005 | G-2-230518 |
| 623067006 | O-2-230518 |
| 1205412979 | Method Blank (MB) |
| 1205412980 | 623067001(L-1-230518) Sample Duplicate (DUP) |

1205412981 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, Solid**
**Analytical Method:** EPA 905.0 Modified/DOE RP501 Rev. 1 Modified
**Analytical Procedure:** GL-RAD-A-004 REV# 22
**Analytical Batch:** 2433177

**Preparation Method:** Dry Soil Prep
**Preparation Procedure:** GL-RAD-A-021 REV# 24
**Preparation Batch:** 2432733

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

| GEL Sample ID# | Client Sample Identification |
|---|---|
| 623067001 | L-1-230518 |
| 623067002 | G-1-230518 |
| 623067003 | O-1-230518 |
| 623067004 | L-2-230518 |
| 623067005 | G-2-230518 |
| 623067006 | O-2-230518 |
| 1205413431 | Method Blank (MB) |
| 1205413432 | 623067001(L-1-230518) Sample Duplicate (DUP) |
| 1205413433 | 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:** **LSC, Tritium Distillation, Vegetation**
**Analytical Method:** EPA 906.0 Modified
**Analytical Procedure:** GL-RAD-A-002 REV# 24
**Analytical Batch:** 2433245

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

| GEL Sample ID# | Client Sample Identification |
|---|---|
| 623067001 | L-1-230518 |
| 623067002 | G-1-230518 |
| 623067003 | O-1-230518 |
| 623067004 | L-2-230518 |
| 623067005 | G-2-230518 |
| 623067006 | O-2-230518 |
| 1205413554 | Method Blank (MB) |
| 1205413555 | 623067001(L-1-230518) Sample Duplicate (DUP) |
| 1205413556 | 623067001(L-1-230518) Matrix Spike (MS) |
| 1205413557 | 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.

**Miscellaneous Information**

**Additional Comments**
The matrix spike, 1205413556 (L-1-230518MS), 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.

GEL Laboratories LLC
a member of The GEL Group INC

PO Box 30712 Charleston, SC 29417
2040 Savage Road Charleston, SC 29407
P 843.556.8171
F 843.766.1178

gel.com

July 11, 2023

Susan Gallardo
GSI Environmental Inc.
155 Grand Ave
Suite 704
Oakland, California 94612

Re: Near SSFL
Work Order: 626890

Dear Susan Gallardo:

GEL Laboratories, LLC (GEL) appreciates the opportunity to provide the enclosed analytical results for the sample(s) we received on May 20, 2023. This original data report has been prepared and reviewed in accordance with GEL's standard operating procedures.

The samples were delivered with proper chain of custody documentation and signatures. All sample containers arrived without any visible signs of tampering or breakage. There are no additional comments concerning sample receipt.

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. 1614.

Sincerely,

Jordan Melton

Jordan Melton for
Delaney Stone
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: 626890 GEL Work Order: 626890

**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
B Either presence of analyte detected in the associated blank, or MDL/IDL < sample value < PQL
H Analytical holding time was exceeded
J Value is estimated
U Analyte was analyzed for, but not detected above the MDL, MDA, MDC or LOD.
h Preparation or preservation holding time was exceeded

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, Delaney Stone.

Reviewed by Jordan Melton

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

# *Certificate of Analysis*

Report Date: July 11, 2023

| | |
|---|---|
| Company : | GSI Environmental Inc. |
| Address : | 155 Grand Ave<br>Suite 704<br>Oakland, California 94612 |
| Contact: | Susan Gallardo |
| Project: | Near SSFL |

| | | | |
|---|---|---|---|
| Client Sample ID: | L-1-230518 | Project: | GSIE00119 |
| Sample ID: | 626890001 | Client ID: | GSIE002 |
| Matrix: | Vegetation | | |
| Collect Date: | 18-MAY-23 08:35 | | |
| Receive Date: | 20-MAY-23 | | |
| 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 | hU | ND | 0.495 | 1.98 | ug/kg | 9.90 | 1 | EC5 | 07/07/23 | 1656 | 2454990 | 1 |
| Mercury Analysis-CVAA | | | | | | | | | | | | |
| 7471 Cold Vapor Mercury, Solid "As Received" | | | | | | | | | | | | |
| Mercury | hHU | ND | 7.05 | 21.1 | ug/kg | 105 | 1 | JP2 | 06/22/23 | 1120 | 2447556 | 2 |
| Metals Analysis-ICP | | | | | | | | | | | | |
| SW846 3050B/6010D Metals, Solid "As Received" | | | | | | | | | | | | |
| Antimony | J | 819 | 306 | 1860 | ug/kg | 92.8 | 1 | TXT1 | 06/26/23 | 1521 | 2447507 | 3 |
| Arsenic | U | ND | 464 | 2780 | ug/kg | 92.8 | 1 | | | | | |
| Barium | | 1690 | 92.8 | 464 | ug/kg | 92.8 | 1 | | | | | |
| Beryllium | U | ND | 92.8 | 464 | ug/kg | 92.8 | 1 | | | | | |
| Cadmium | U | ND | 92.8 | 464 | ug/kg | 92.8 | 1 | | | | | |
| Chromium | U | ND | 139 | 928 | ug/kg | 92.8 | 1 | | | | | |
| Cobalt | U | ND | 139 | 464 | ug/kg | 92.8 | 1 | | | | | |
| Copper | J | 579 | 278 | 1860 | ug/kg | 92.8 | 1 | | | | | |
| Lead | U | ND | 306 | 1860 | ug/kg | 92.8 | 1 | | | | | |
| Molybdenum | U | ND | 186 | 928 | ug/kg | 92.8 | 1 | | | | | |
| Nickel | J | 145 | 139 | 464 | ug/kg | 92.8 | 1 | | | | | |
| Selenium | J | 891 | 464 | 2780 | ug/kg | 92.8 | 1 | | | | | |
| Silver | U | ND | 92.8 | 464 | ug/kg | 92.8 | 1 | | | | | |
| Thallium | U | ND | 464 | 1860 | ug/kg | 92.8 | 1 | | | | | |
| Vanadium | U | ND | 92.8 | 464 | ug/kg | 92.8 | 1 | | | | | |
| Zinc | | 2920 | 371 | 1860 | ug/kg | 92.8 | 1 | | | | | |

The following Prep Methods were performed:

| Method | Description | Analyst | Date | Time | Prep Batch |
|---|---|---|---|---|---|
| SW846 7471B Prep | SW846 7471B Mercury Prep Soil | EK1 | 06/21/23 | 1600 | 2447555 |
| SW846 6850 Modified | EPA 6850 Perchlorate Extraction Solids | EC5 | 07/07/23 | 0752 | 2454989 |
| SW846 3050B | SW846 3050B Prep | JD2 | 06/23/23 | 0755 | 2447506 |

The following Analytical Methods were performed:

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

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# *Certificate of Analysis*

Report Date: July 11, 2023

| | |
|---|---|
| Company : | GSI Environmental Inc. |
| Address : | 155 Grand Ave<br>Suite 704<br>Oakland, California 94612 |
| Contact: | Susan Gallardo |
| Project: | Near SSFL |

| | | | |
|---|---|---|---|
| Client Sample ID: | L-1-230518 | Project: | GSIE00119 |
| Sample ID: | 626890001 | Client ID: | GSIE002 |

| Parameter | Qualifier | Result | DL | RL | Units | PF | DF | Analyst | Date | Time | Batch | Method |
|---|---|---|---|---|---|---|---|---|---|---|---|---|

**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 11, 2023

| | |
|---|---|
| Company : | GSI Environmental Inc. |
| Address : | 155 Grand Ave<br>Suite 704<br>Oakland, California 94612 |
| Contact: | Susan Gallardo |
| Project: | Near SSFL |

| | | | |
|---|---|---|---|
| Client Sample ID: | G-1-230518 | Project: | GSIE00119 |
| Sample ID: | 626890002 | Client ID: | GSIE002 |
| Matrix: | Vegetation | | |
| Collect Date: | 18-MAY-23 08:40 | | |
| Receive Date: | 20-MAY-23 | | |
| 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 | h | 2.12 | 0.465 | 1.86 | ug/kg | 9.30 | 1 | EC5 | 07/07/23 | 1725 | 2454990 | 1 |
| Mercury Analysis-CVAA | | | | | | | | | | | | |
| 7471 Cold Vapor Mercury, Solid "As Received" | | | | | | | | | | | | |
| Mercury | hHU | ND | 7.36 | 22.0 | ug/kg | 110 | 1 | JP2 | 06/22/23 | 1122 | 2447556 | 2 |
| Metals Analysis-ICP | | | | | | | | | | | | |
| SW846 3050B/6010D Metals, Solid "As Received" | | | | | | | | | | | | |
| Antimony | J | 643 | 297 | 1800 | ug/kg | 89.9 | 1 | TXT1 | 06/26/23 | 1538 | 2447507 | 3 |
| Arsenic | J | 521 | 450 | 2700 | ug/kg | 89.9 | 1 | | | | | |
| Barium | | 518 | 89.9 | 450 | ug/kg | 89.9 | 1 | | | | | |
| Beryllium | U | ND | 89.9 | 450 | ug/kg | 89.9 | 1 | | | | | |
| Cadmium | U | ND | 89.9 | 450 | ug/kg | 89.9 | 1 | | | | | |
| Chromium | U | ND | 135 | 899 | ug/kg | 89.9 | 1 | | | | | |
| Cobalt | U | ND | 135 | 450 | ug/kg | 89.9 | 1 | | | | | |
| Copper | J | 288 | 270 | 1800 | ug/kg | 89.9 | 1 | | | | | |
| Lead | U | ND | 297 | 1800 | ug/kg | 89.9 | 1 | | | | | |
| Molybdenum | U | ND | 180 | 899 | ug/kg | 89.9 | 1 | | | | | |
| Nickel | U | ND | 135 | 450 | ug/kg | 89.9 | 1 | | | | | |
| Selenium | J | 971 | 450 | 2700 | ug/kg | 89.9 | 1 | | | | | |
| Silver | U | ND | 89.9 | 450 | ug/kg | 89.9 | 1 | | | | | |
| Thallium | U | ND | 450 | 1800 | ug/kg | 89.9 | 1 | | | | | |
| Vanadium | U | ND | 89.9 | 450 | ug/kg | 89.9 | 1 | | | | | |
| Zinc | J | 1350 | 360 | 1800 | ug/kg | 89.9 | 1 | | | | | |

The following Prep Methods were performed:

| Method | Description | Analyst | Date | Time | Prep Batch |
|---|---|---|---|---|---|
| SW846 3050B | SW846 3050B Prep | JD2 | 06/23/23 | 0755 | 2447506 |
| SW846 6850 Modified | EPA 6850 Perchlorate Extraction Solids | EC5 | 07/07/23 | 0752 | 2454989 |
| SW846 7471B Prep | SW846 7471B Mercury Prep Soil | EK1 | 06/21/23 | 1600 | 2447555 |

The following Analytical Methods were performed:

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

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# *Certificate of Analysis*

Report Date: July 11, 2023

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|---|---|
| Company : | GSI Environmental Inc. |
| Address : | 155 Grand Ave<br>Suite 704<br>Oakland, California 94612 |
| Contact: | Susan Gallardo |
| Project: | Near SSFL |

| | | | |
|---|---|---|---|
| Client Sample ID: | G-1-230518 | Project: | GSIE00119 |
| Sample ID: | 626890002 | Client ID: | GSIE002 |

| Parameter | Qualifier | Result | DL | RL | Units | PF | DF | Analyst | Date | Time | Batch | Method |
|---|---|---|---|---|---|---|---|---|---|---|---|---|

**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 11, 2023

| | |
|---|---|
| Company : | GSI Environmental Inc. |
| Address : | 155 Grand Ave<br>Suite 704<br>Oakland, California 94612 |
| Contact: | Susan Gallardo |
| Project: | Near SSFL |

| | | | |
|---|---|---|---|
| Client Sample ID: | O-1-230518 | Project: | GSIE00119 |
| Sample ID: | 626890003 | Client ID: | GSIE002 |
| Matrix: | Vegetation | | |
| Collect Date: | 18-MAY-23 08:45 | | |
| Receive Date: | 20-MAY-23 | | |
| 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 | hJ | 0.595 | 0.488 | 1.95 | ug/kg | 9.76 | 1 | EC5 | 07/07/23 | 1735 | 2454990 | 1 |
| Mercury Analysis-CVAA | | | | | | | | | | | | |
| 7471 Cold Vapor Mercury, Solid "As Received" | | | | | | | | | | | | |
| Mercury | hHU | ND | 7.47 | 22.3 | ug/kg | 112 | 1 | JP2 | 06/22/23 | 1123 | 2447556 | 2 |
| Metals Analysis-ICP | | | | | | | | | | | | |
| SW846 3050B/6010D Metals, Solid "As Received" | | | | | | | | | | | | |
| Antimony | J | 520 | 308 | 1870 | ug/kg | 93.5 | 1 | TXT1 | 06/26/23 | 1541 | 2447507 | 3 |
| Arsenic | J | 823 | 467 | 2800 | ug/kg | 93.5 | 1 | | | | | |
| Barium | | 1230 | 93.5 | 467 | ug/kg | 93.5 | 1 | | | | | |
| Beryllium | U | ND | 93.5 | 467 | ug/kg | 93.5 | 1 | | | | | |
| Cadmium | U | ND | 93.5 | 467 | ug/kg | 93.5 | 1 | | | | | |
| Chromium | U | ND | 140 | 935 | ug/kg | 93.5 | 1 | | | | | |
| Cobalt | U | ND | 140 | 467 | ug/kg | 93.5 | 1 | | | | | |
| Copper | J | 595 | 280 | 1870 | ug/kg | 93.5 | 1 | | | | | |
| Lead | U | ND | 308 | 1870 | ug/kg | 93.5 | 1 | | | | | |
| Molybdenum | U | ND | 187 | 935 | ug/kg | 93.5 | 1 | | | | | |
| Nickel | J | 206 | 140 | 467 | ug/kg | 93.5 | 1 | | | | | |
| Selenium | J | 1210 | 467 | 2800 | ug/kg | 93.5 | 1 | | | | | |
| Silver | U | ND | 93.5 | 467 | ug/kg | 93.5 | 1 | | | | | |
| Thallium | U | ND | 467 | 1870 | ug/kg | 93.5 | 1 | | | | | |
| Vanadium | U | ND | 93.5 | 467 | ug/kg | 93.5 | 1 | | | | | |
| Zinc | | 2160 | 374 | 1870 | ug/kg | 93.5 | 1 | | | | | |

The following Prep Methods were performed:

| Method | Description | Analyst | Date | Time | Prep Batch |
|---|---|---|---|---|---|
| SW846 6850 Modified | EPA 6850 Perchlorate Extraction Solids | EC5 | 07/07/23 | 0752 | 2454989 |
| SW846 7471B Prep | SW846 7471B Mercury Prep Soil | EK1 | 06/21/23 | 1600 | 2447555 |
| SW846 3050B | SW846 3050B Prep | JD2 | 06/23/23 | 0755 | 2447506 |

The following Analytical Methods were performed:

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

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# *Certificate of Analysis*

Report Date: July 11, 2023

| | |
|---|---|
| Company : | GSI Environmental Inc. |
| Address : | 155 Grand Ave<br>Suite 704<br>Oakland, California 94612 |
| Contact: | Susan Gallardo |
| Project: | Near SSFL |

| | | | |
|---|---|---|---|
| Client Sample ID: | O-1-230518 | Project: | GSIE00119 |
| Sample ID: | 626890003 | Client ID: | GSIE002 |

| Parameter | Qualifier | Result | DL | RL | Units | PF | DF | Analyst | Date | Time | Batch | Method |
|---|---|---|---|---|---|---|---|---|---|---|---|---|

**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 11, 2023

| | |
|---|---|
| Company : | GSI Environmental Inc. |
| Address : | 155 Grand Ave<br>Suite 704<br>Oakland, California 94612 |
| Contact: | Susan Gallardo |
| Project: | Near SSFL |

| | | | |
|---|---|---|---|
| Client Sample ID: | L-2-230518 | Project: | GSIE00119 |
| Sample ID: | 626890004 | Client ID: | GSIE002 |
| Matrix: | Vegetation | | |
| Collect Date: | 18-MAY-23 09:40 | | |
| Receive Date: | 20-MAY-23 | | |
| 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 | h | 4.31 | 0.498 | 1.99 | ug/kg | 9.95 | 1 | EC5 | 07/07/23 | 1745 | 2454990 | 1 |
| Mercury Analysis-CVAA | | | | | | | | | | | | |
| 7471 Cold Vapor Mercury, Solid "As Received" | | | | | | | | | | | | |
| Mercury | hHU | ND | 7.76 | 23.2 | ug/kg | 116 | 1 | JP2 | 06/22/23 | 1125 | 2447556 | 2 |
| Metals Analysis-ICP | | | | | | | | | | | | |
| SW846 3050B/6010D Metals, Solid "As Received" | | | | | | | | | | | | |
| Antimony | U | ND | 279 | 1690 | ug/kg | 84.5 | 1 | TXT1 | 06/26/23 | 1545 | 2447507 | 3 |
| Arsenic | J | 437 | 422 | 2530 | ug/kg | 84.5 | 1 | | | | | |
| Barium | | 733 | 84.5 | 422 | ug/kg | 84.5 | 1 | | | | | |
| Beryllium | U | ND | 84.5 | 422 | ug/kg | 84.5 | 1 | | | | | |
| Cadmium | U | ND | 84.5 | 422 | ug/kg | 84.5 | 1 | | | | | |
| Chromium | J | 129 | 127 | 845 | ug/kg | 84.5 | 1 | | | | | |
| Cobalt | U | ND | 127 | 422 | ug/kg | 84.5 | 1 | | | | | |
| Copper | J | 412 | 253 | 1690 | ug/kg | 84.5 | 1 | | | | | |
| Lead | U | ND | 279 | 1690 | ug/kg | 84.5 | 1 | | | | | |
| Molybdenum | U | ND | 169 | 845 | ug/kg | 84.5 | 1 | | | | | |
| Nickel | U | ND | 127 | 422 | ug/kg | 84.5 | 1 | | | | | |
| Selenium | U | ND | 422 | 2530 | ug/kg | 84.5 | 1 | | | | | |
| Silver | U | ND | 84.5 | 422 | ug/kg | 84.5 | 1 | | | | | |
| Thallium | U | ND | 422 | 1690 | ug/kg | 84.5 | 1 | | | | | |
| Vanadium | U | ND | 84.5 | 422 | ug/kg | 84.5 | 1 | | | | | |
| Zinc | J | 1570 | 338 | 1690 | ug/kg | 84.5 | 1 | | | | | |

The following Prep Methods were performed:

| Method | Description | Analyst | Date | Time | Prep Batch |
|---|---|---|---|---|---|
| SW846 3050B | SW846 3050B Prep | JD2 | 06/23/23 | 0755 | 2447506 |
| SW846 6850 Modified | EPA 6850 Perchlorate Extraction Solids | EC5 | 07/07/23 | 0752 | 2454989 |
| SW846 7471B Prep | SW846 7471B Mercury Prep Soil | EK1 | 06/21/23 | 1600 | 2447555 |

The following Analytical Methods were performed:

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

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# *Certificate of Analysis*

Report Date: July 11, 2023

| | |
|---|---|
| Company : | GSI Environmental Inc. |
| Address : | 155 Grand Ave<br>Suite 704<br>Oakland, California 94612 |
| Contact: | Susan Gallardo |
| Project: | Near SSFL |

| | | | |
|---|---|---|---|
| Client Sample ID: | L-2-230518 | Project: | GSIE00119 |
| Sample ID: | 626890004 | Client ID: | GSIE002 |

| Parameter | Qualifier | Result | DL | RL | Units | PF | DF | Analyst | Date | Time | Batch | Method |
|---|---|---|---|---|---|---|---|---|---|---|---|---|

**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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| Address : | 155 Grand Ave<br>Suite 704<br>Oakland, California 94612 |
| Contact: | Susan Gallardo |
| Project: | Near SSFL |

| | | | |
|---|---|---|---|
| Client Sample ID: | G-2-230518 | Project: | GSIE00119 |
| Sample ID: | 626890005 | Client ID: | GSIE002 |
| Matrix: | Vegetation | | |
| Collect Date: | 18-MAY-23 09:50 | | |
| Receive Date: | 20-MAY-23 | | |
| 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 | hU | ND | 0.500 | 2.00 | ug/kg | 10.0 | 1 | EC5 | 07/07/23 | 1755 | 2454990 | 1 |
| Mercury Analysis-CVAA | | | | | | | | | | | | |
| 7471 Cold Vapor Mercury, Solid "As Received" | | | | | | | | | | | | |
| Mercury | hHU | ND | 7.31 | 21.8 | ug/kg | 109 | 1 | JP2 | 06/22/23 | 1127 | 2447556 | 2 |
| Metals Analysis-ICP | | | | | | | | | | | | |
| SW846 3050B/6010D Metals, Solid "As Received" | | | | | | | | | | | | |
| Antimony | J | 397 | 313 | 1890 | ug/kg | 94.7 | 1 | TXT1 | 06/26/23 | 1549 | 2447507 | 3 |
| Arsenic | J | 516 | 473 | 2840 | ug/kg | 94.7 | 1 | | | | | |
| Barium | J | 252 | 94.7 | 473 | ug/kg | 94.7 | 1 | | | | | |
| Beryllium | U | ND | 94.7 | 473 | ug/kg | 94.7 | 1 | | | | | |
| Cadmium | U | ND | 94.7 | 473 | ug/kg | 94.7 | 1 | | | | | |
| Chromium | U | ND | 142 | 947 | ug/kg | 94.7 | 1 | | | | | |
| Cobalt | U | ND | 142 | 473 | ug/kg | 94.7 | 1 | | | | | |
| Copper | J | 458 | 284 | 1890 | ug/kg | 94.7 | 1 | | | | | |
| Lead | U | ND | 313 | 1890 | ug/kg | 94.7 | 1 | | | | | |
| Molybdenum | U | ND | 189 | 947 | ug/kg | 94.7 | 1 | | | | | |
| Nickel | U | ND | 142 | 473 | ug/kg | 94.7 | 1 | | | | | |
| Selenium | J | 604 | 473 | 2840 | ug/kg | 94.7 | 1 | | | | | |
| Silver | U | ND | 94.7 | 473 | ug/kg | 94.7 | 1 | | | | | |
| Thallium | U | ND | 473 | 1890 | ug/kg | 94.7 | 1 | | | | | |
| Vanadium | U | ND | 94.7 | 473 | ug/kg | 94.7 | 1 | | | | | |
| Zinc | J | 1690 | 379 | 1890 | ug/kg | 94.7 | 1 | | | | | |

The following Prep Methods were performed:

| Method | Description | Analyst | Date | Time | Prep Batch |
|---|---|---|---|---|---|
| SW846 6850 Modified | EPA 6850 Perchlorate Extraction Solids | EC5 | 07/07/23 | 0752 | 2454989 |
| SW846 7471B Prep | SW846 7471B Mercury Prep Soil | EK1 | 06/21/23 | 1600 | 2447555 |
| SW846 3050B | SW846 3050B Prep | JD2 | 06/23/23 | 0755 | 2447506 |

The following Analytical Methods were performed:

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

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# *Certificate of Analysis*

Report Date: July 11, 2023

| | |
|---|---|
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| Address : | 155 Grand Ave<br>Suite 704<br>Oakland, California 94612 |
| Contact: | Susan Gallardo |
| Project: | Near SSFL |

| | | | |
|---|---|---|---|
| Client Sample ID: | G-2-230518 | Project: | GSIE00119 |
| Sample ID: | 626890005 | Client ID: | GSIE002 |

| Parameter | Qualifier | Result | DL | RL | Units | PF | DF | Analyst | Date | Time | Batch | Method |
|---|---|---|---|---|---|---|---|---|---|---|---|---|

**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 11, 2023

| | |
|---|---|
| Company : | GSI Environmental Inc. |
| Address : | 155 Grand Ave<br>Suite 704<br>Oakland, California 94612 |
| Contact: | Susan Gallardo |
| Project: | Near SSFL |

| | | | |
|---|---|---|---|
| Client Sample ID: | O-2-230518 | Project: | GSIE00119 |
| Sample ID: | 626890006 | Client ID: | GSIE002 |
| Matrix: | Vegetation | | |
| Collect Date: | 18-MAY-23 10:00 | | |
| Receive Date: | 20-MAY-23 | | |
| 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 | hU | ND | 0.483 | 1.93 | ug/kg | 9.66 | 1 | EC5 | 07/07/23 | 1835 | 2454990 | 1 |
| Mercury Analysis-CVAA | | | | | | | | | | | | |
| 7471 Cold Vapor Mercury, Solid "As Received" | | | | | | | | | | | | |
| Mercury | HUh | ND | 6.74 | 20.1 | ug/kg | 101 | 1 | JP2 | 06/22/23 | 1129 | 2447556 | 2 |
| Metals Analysis-ICP | | | | | | | | | | | | |
| SW846 3050B/6010D Metals, Solid "As Received" | | | | | | | | | | | | |
| Antimony | U | ND | 323 | 1960 | ug/kg | 97.8 | 1 | TXT1 | 06/26/23 | 1553 | 2447507 | 3 |
| Arsenic | J | 625 | 489 | 2940 | ug/kg | 97.8 | 1 | | | | | |
| Barium | | 914 | 97.8 | 489 | ug/kg | 97.8 | 1 | | | | | |
| Beryllium | U | ND | 97.8 | 489 | ug/kg | 97.8 | 1 | | | | | |
| Cadmium | U | ND | 97.8 | 489 | ug/kg | 97.8 | 1 | | | | | |
| Chromium | U | ND | 147 | 978 | ug/kg | 97.8 | 1 | | | | | |
| Cobalt | U | ND | 147 | 489 | ug/kg | 97.8 | 1 | | | | | |
| Copper | J | 828 | 294 | 1960 | ug/kg | 97.8 | 1 | | | | | |
| Lead | U | ND | 323 | 1960 | ug/kg | 97.8 | 1 | | | | | |
| Molybdenum | U | ND | 196 | 978 | ug/kg | 97.8 | 1 | | | | | |
| Nickel | J | 162 | 147 | 489 | ug/kg | 97.8 | 1 | | | | | |
| Selenium | J | 1070 | 489 | 2940 | ug/kg | 97.8 | 1 | | | | | |
| Silver | U | ND | 97.8 | 489 | ug/kg | 97.8 | 1 | | | | | |
| Thallium | U | ND | 489 | 1960 | ug/kg | 97.8 | 1 | | | | | |
| Vanadium | U | ND | 97.8 | 489 | ug/kg | 97.8 | 1 | | | | | |
| Zinc | | 2430 | 391 | 1960 | ug/kg | 97.8 | 1 | | | | | |

The following Prep Methods were performed:

| Method | Description | Analyst | Date | Time | Prep Batch |
|---|---|---|---|---|---|
| SW846 7471B Prep | SW846 7471B Mercury Prep Soil | EK1 | 06/21/23 | 1600 | 2447555 |
| SW846 6850 Modified | EPA 6850 Perchlorate Extraction Solids | EC5 | 07/07/23 | 0752 | 2454989 |
| SW846 3050B | SW846 3050B Prep | JD2 | 06/23/23 | 0755 | 2447506 |

The following Analytical Methods were performed:

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

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# *Certificate of Analysis*

Report Date: July 11, 2023

| | |
|---|---|
| Company : | GSI Environmental Inc. |
| Address : | 155 Grand Ave<br>Suite 704<br>Oakland, California 94612 |
| Contact: | Susan Gallardo |
| Project: | Near SSFL |

| | | | |
|---|---|---|---|
| Client Sample ID: | O-2-230518 | Project: | GSIE00119 |
| Sample ID: | 626890006 | Client ID: | GSIE002 |

| Parameter | Qualifier | Result | DL | RL | Units | PF | DF | Analyst | Date | Time | Batch | Method |
|---|---|---|---|---|---|---|---|---|---|---|---|---|

**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 |

## *QC Summary*

**Report Date: July 11, 2023**



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

**Contact:** **Susan Gallardo**

**Workorder:** **626890**

| Parmname | | | NOM | | Sample | Qual | QC | Units | RPD/D% | REC% | Range | Anlst | Date Time |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **LC-MS/MS Perchlorate** | | | | | | | | | | | | | |
| Batch 2454990 | | | | | | | | | | | | | |
| QC1205451966 | ICS | | | | | | | | | | | | |
| Perchlorate | | | 1.96 | | | | 2.05 | ug/kg | | 105 | (70%-130%) | EC5 | 07/07/23 16:46 |
| QC1205451965 | LCS | | | | | | | | | | | | |
| Perchlorate | | | 2.00 | | | J | 1.96 | ug/kg | | 98 | (70%-130%) | | 07/07/23 16:36 |
| QC1205451964 | MB | | | | | | | | | | | | |
| Perchlorate | | | | | | U | ND | ug/kg | | | | | 07/07/23 16:26 |
| QC1205451967 | 626890001 | MS | | | | | | | | | | | |
| Perchlorate | | | 1.95 | hU | ND | hJ | 1.88 | ug/kg | | 97 | (75%-125%) | | 07/07/23 17:06 |
| QC1205451968 | 626890001 | MSD | | | | | | | | | | | |
| Perchlorate | | | 1.92 | hU | ND | hJ | 1.88 | ug/kg | 0 | 98 | (0%-30%) | | 07/07/23 17:16 |
| **Metals Analysis-ICP** | | | | | | | | | | | | | |
| Batch 2447507 | | | | | | | | | | | | | |
| QC1205439397 | LCS | | | | | | | | | | | | |
| Antimony | | | 42800 | | | | 42900 | ug/kg | | 100 | (80%-120%) | TXT1 | 06/26/23 15:12 |
| Arsenic | | | 42800 | | | | 39900 | ug/kg | | 93.1 | (80%-120%) | | |
| Barium | | | 42800 | | | | 40000 | ug/kg | | 93.3 | (80%-120%) | | |
| Beryllium | | | 42800 | | | | 41300 | ug/kg | | 96.5 | (80%-120%) | | |
| Cadmium | | | 42800 | | | | 40600 | ug/kg | | 94.9 | (80%-120%) | | |
| Chromium | | | 42800 | | | | 41000 | ug/kg | | 95.7 | (80%-120%) | | |

## *QC Summary*

**Workorder:** **626890**



| Parmname | NOM | Sample | Qual | QC | Units | RPD/D% | REC% | Range | Anlst | Date Time |
|---|---|---|---|---|---|---|---|---|---|---|
| **Metals Analysis-ICP** | | | | | | | | | | |
| Batch 2447507 | | | | | | | | | | |
| Cobalt | 42800 | | | 41100 | ug/kg | | 96 | (80%-120%) | TXT1 | 06/26/23 15:12 |
| Copper | 42800 | | | 41900 | ug/kg | | 97.8 | (80%-120%) | | |
| Lead | 42800 | | | 40100 | ug/kg | | 93.8 | (80%-120%) | | |
| Molybdenum | 42800 | | | 40600 | ug/kg | | 94.9 | (80%-120%) | | |
| Nickel | 42800 | | | 40700 | ug/kg | | 95.1 | (80%-120%) | | |
| Selenium | 42800 | | | 41500 | ug/kg | | 97 | (80%-120%) | | |
| Silver | 8560 | | | 8470 | ug/kg | | 99 | (80%-120%) | | |
| Thallium | 42800 | | | 40500 | ug/kg | | 94.5 | (80%-120%) | | |
| Vanadium | 42800 | | | 40500 | ug/kg | | 94.7 | (80%-120%) | | |
| Zinc | 42800 | | | 41400 | ug/kg | | 96.7 | (80%-120%) | | |
| QC1205439396 MB | | | | | | | | | | |
| Antimony | | | U | ND | ug/kg | | | | | 06/26/23 16:11 |
| Arsenic | | | U | ND | ug/kg | | | | | |
| Barium | | | U | ND | ug/kg | | | | | |
| Beryllium | | | U | ND | ug/kg | | | | | |
| Cadmium | | | U | ND | ug/kg | | | | | |

## *QC Summary*

**Workorder:** **626890**



| Parmname | NOM | Sample | Qual | QC | Units | RPD/D% | REC% | Range | Anlst | Date Time |
|---|---|---|---|---|---|---|---|---|---|---|
| **Metals Analysis-ICP** | | | | | | | | | | |
| Batch 2447507 | | | | | | | | | | |
| Chromium | | | U | ND | ug/kg | | | | TXT1 | 06/26/23 16:11 |
| 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 | | | J | 777 | ug/kg | | | | | |
| Silver | | | U | ND | ug/kg | | | | | |
| Thallium | | | U | ND | ug/kg | | | | | |
| Vanadium | | | U | ND | ug/kg | | | | | |
| Zinc | | | J | 795 | ug/kg | | | | | |
| QC1205439398 626890001 MS | | | | | | | | | | |
| Antimony | 42400 | J | 819 | 40200 | ug/kg | | 92.9 | (75%-125%) | | 06/26/23 15:25 |
| Arsenic | 42400 | U | ND | 37900 | ug/kg | | 88.5 | (75%-125%) | | |
| Barium | 42400 | | 1690 | 40200 | ug/kg | | 90.8 | (75%-125%) | | |
| Beryllium | 42400 | U | ND | 40400 | ug/kg | | 95.3 | (75%-125%) | | |

## *QC Summary*

**Workorder:** **626890**



| Parmname | NOM | | Sample | Qual | QC | Units | RPD/D% | REC% | Range | Anlst | Date Time |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Metals Analysis-ICP** | | | | | | | | | | | |
| Batch 2447507 | | | | | | | | | | | |
| Cadmium | 42400 | U | ND | | 39400 | ug/kg | | 92.9 | (75%-125%) | TXT1 | 06/26/23 15:25 |
| Chromium | 42400 | U | ND | | 39400 | ug/kg | | 92.8 | (75%-125%) | | |
| Cobalt | 42400 | U | ND | | 39800 | ug/kg | | 93.9 | (75%-125%) | | |
| Copper | 42400 | J | 579 | | 41400 | ug/kg | | 96.4 | (75%-125%) | | |
| Lead | 42400 | U | ND | | 39000 | ug/kg | | 92 | (75%-125%) | | |
| Molybdenum | 42400 | U | ND | | 39500 | ug/kg | | 93 | (75%-125%) | | |
| Nickel | 42400 | J | 145 | | 39400 | ug/kg | | 92.6 | (75%-125%) | | |
| Selenium | 42400 | J | 891 | | 38600 | ug/kg | | 89.1 | (75%-125%) | | |
| Silver | 8470 | U | ND | | 8190 | ug/kg | | 96.6 | (75%-125%) | | |
| Thallium | 42400 | U | ND | | 39300 | ug/kg | | 92.8 | (75%-125%) | | |
| Vanadium | 42400 | U | ND | | 39500 | ug/kg | | 93.2 | (75%-125%) | | |
| Zinc | 42400 | | 2920 | | 41400 | ug/kg | | 90.8 | (75%-125%) | | |
| QC1205439399 626890001 MSD | | | | | | | | | | | |
| Antimony | 46200 | J | 819 | | 44800 | ug/kg | 10.9 | 95.3 | (0%-20%) | | 06/26/23 15:28 |
| Arsenic | 46200 | U | ND | | 41900 | ug/kg | 10.2 | 89.9 | (0%-20%) | | |
| Barium | 46200 | | 1690 | | 43700 | ug/kg | 8.34 | 90.9 | (0%-20%) | | |

## *QC Summary*

**Workorder:** **626890**



| Parmname | NOM | | Sample | Qual | QC | Units | RPD/D% | REC% | Range | Anlst | Date Time |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Metals Analysis-ICP** | | | | | | | | | | | |
| Batch 2447507 | | | | | | | | | | | |
| Beryllium | 46200 | U | ND | | 44500 | ug/kg | 9.67 | 96.3 | (0%-20%) | TXT1 | 06/26/23 15:28 |
| Cadmium | 46200 | U | ND | | 43400 | ug/kg | 9.63 | 93.8 | (0%-20%) | | |
| Chromium | 46200 | U | ND | | 42700 | ug/kg | 7.9 | 92.1 | (0%-20%) | | |
| Cobalt | 46200 | U | ND | | 44000 | ug/kg | 10 | 95.2 | (0%-20%) | | |
| Copper | 46200 | J | 579 | | 45700 | ug/kg | 9.69 | 97.6 | (0%-20%) | | |
| Lead | 46200 | U | ND | | 43200 | ug/kg | 10.2 | 93.4 | (0%-20%) | | |
| Molybdenum | 46200 | U | ND | | 43500 | ug/kg | 9.7 | 94 | (0%-20%) | | |
| Nickel | 46200 | J | 145 | | 43200 | ug/kg | 9.33 | 93.2 | (0%-20%) | | |
| Selenium | 46200 | J | 891 | | 41900 | ug/kg | 8.01 | 88.7 | (0%-20%) | | |
| Silver | 9240 | U | ND | | 9010 | ug/kg | 9.58 | 97.5 | (0%-20%) | | |
| Thallium | 46200 | U | ND | | 43800 | ug/kg | 10.8 | 94.8 | (0%-20%) | | |
| Vanadium | 46200 | U | ND | | 43600 | ug/kg | 9.78 | 94.3 | (0%-20%) | | |
| Zinc | 46200 | | 2920 | | 45400 | ug/kg | 9.16 | 91.8 | (0%-20%) | | |
| QC1205439400 626890001 SDILT | | | | | | | | | | | |
| Antimony | | J | 8.82 | U | ND | ug/L | N/A | | (0%-20%) | | 06/26/23 15:34 |
| Arsenic | | U | ND | U | ND | ug/L | N/A | | (0%-20%) | | |

## *QC Summary*

**Workorder:** **626890**



| Parmname | NOM | Sample | Qual | QC | Units | RPD/D% | REC% | Range | Anlst | Date Time |
|---|---|---|---|---|---|---|---|---|---|---|
| **Metals Analysis-ICP** | | | | | | | | | | |
| Batch 2447507 | | | | | | | | | | |
| Barium | | 18.3 | J | 3.67 | ug/L | .501 | | (0%-20%) | TXT1 | 06/26/23 15:34 |
| 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 | J | 6.24 | 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 | J | 1.56 | U | ND | ug/L | N/A | | (0%-20%) | | |
| Selenium | J | 9.60 | J | 7.82 | ug/L | 307 | | (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 | | 31.5 | J | 8.71 | ug/L | 38.3 | | (0%-20%) | | |

## *QC Summary*

**Workorder:** **626890**



| Parmname | NOM | Sample | Qual | QC | Units | RPD/D% | REC% | Range | Anlst | Date Time |
|---|---|---|---|---|---|---|---|---|---|---|
| **Metals Analysis-Mercury** | | | | | | | | | | |
| Batch 2447556 | | | | | | | | | | |
| QC1205439651 626718001 DUP | | | | | | | | | | |
| Mercury | U | ND | U | ND | ug/kg | N/A | | | JP2 | 06/22/23 11:01 |
| QC1205439473 LCS | | | | | | | | | | |
| Mercury | 213 | | | 216 | ug/kg | | 102 | (80%-120%) | | 06/22/23 10:39 |
| QC1205439472 MB | | | | | | | | | | |
| Mercury | | | U | ND | ug/kg | | | | | 06/22/23 10:37 |
| QC1205439652 626718001 MS | | | | | | | | | | |
| Mercury | 277 U | ND | | 289 | ug/kg | | 103 | (80%-120%) | | 06/22/23 11:03 |
| QC1205439653 626718001 SDILT | | | | | | | | | | |
| Mercury | U | ND | U | ND | ug/L | N/A | | (0%-10%) | | 06/22/23 11:04 |

**Notes:**

The Qualifiers in this report are defined as follows:

- U Analyte was analyzed for, but not detected above the MDL, MDA, MDC or LOD.
- J Value is estimated
- P Organics--The concentrations between the primary and confirmation columns/detectors is >40% different. For HPLC, the difference is >70%.
- C Analyte has been confirmed by GC/MS analysis
- B The target analyte was detected in the associated blank.
- E Concentration of the target analyte exceeds the instrument calibration range
- A The TIC is a suspected aldol-condensation product
- X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
- 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
- H Analytical holding time was exceeded
- ** Analyte is a surrogate compound
- < Result is less than value reported
- > Result is greater than value reported
- h Preparation or preservation holding time was exceeded
- R Sample results are rejected
- ^ RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.

## *QC Summary*

**Workorder:** **626890**



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

D Results are reported from a diluted aliquot of the sample

N/A RPD or %Recovery limits do not apply.

ND Analyte concentration is not detected above the detection limit

E %difference of sample and SD is >10%. Sample concentration must meet flagging criteria

NJ Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier

JNX Non Calibrated Compound

UJ Compound cannot be extracted

Q One or more quality control criteria have not been met. Refer to the applicable narrative or DER.

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

N1 See case narrative

Y Other specific qualifiers were required to properly define the results. Consult case narrative.

Y QC Samples were not spiked with this compound

N 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

J See case narrative for an explanation

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.

GSI ENVIRONMENTAL

623067

CHAIN-OF-CUSTODY RECORD
Date: 5/18/23
Page 1 of 1

| | | |
|---|---|---|
| FROM: GSI Environmental Inc.<br>2000 Powell Street. Suite 820<br>Emeryville, CA 94608 | PROJECT NAME: AJU-BB<br>PROJECT CONTACT: Susan Gallardo<br>GLOBAL ID: – | PROJECT NO.: 5182<br>LAB CONTACT: Delaney Stone<br>SAMPLER(S): (PRINT) |
| TEL: (510) 463-8484 | E-MAIL: smgallardo@gsi-net.com;sjbowersmith@gsi-net.com | |
| LABORATORY: GEL Laboratories | | |

TURNAROUND TIME:
☐ SAME DAY ☐ 24 HR ☐ 48 HR
☐ 72 HR ☐ 5 DAYS ☒ STANDARD

SPECIAL INSTRUCTIONS:
- Sr-90 MDC of 0.5 pCi/g
- Cs-137 MDC of 1 pCi/g
- H-3 MDC of 2 pCi/g
- Include flesh only; no peel

**REQUESTED ANALYSES**
Please check box or fill in blank as needed.

| LAB USE ONLY | SAMPLE ID | SAMPLING DATE | SAMPLING TIME | MATRIX | NO. OF CONT. | Unpreserved | Preserved | Field Filtered | Sr-90 (905.0) | Cs-137 (901.1) | H-3 (906) | CA Title 22 Metals (6010/7470) | Perchlorate (314.0) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | L-1-230518 | 5/18/23 | 0835 | Fruit | 1 | X | | | X | X | X | | |
| | G-1-230518 | 5/18/23 | 0840 | Fruit | 1 | X | | | X | X | X | | |
| | O-1-230518 | 5/18/23 | 0845 | Fruit | 1 | X | | | X | X | X | | |
| | L-2-230518 | 5/18/23 | 0940 | Fruit | 1 | X | | | X | X | X | | |
| | G-2-230518 | 5/18/23 | 0950 | Fruit | 1 | X | | | X | X | X | | |
| | O-2-230518 | 5/18/23 | 1000 | Fruit | 1 | X | | | X | X | X | | |

| | | | |
|---|---|---|---|
| Relinquished by: (Signature) | Received by: (Signature) Fedex | Date: 5/18/23 | Time: 11:00 |
| Relinquished by: (Signature) | Received by: (Signature) | Date: 5/20/23 | Time: 930 |
| Relinquished by: (Signature) | Received by: (Signature) | Date: | Time: |

Fruit (L,G,O)

GEL Laboratories LLC

## SAMPLE RECEIPT & REVIEW FORM

| | |
|---|---|
| **Client:** QOE | **SDG/AR/COC/Work Order:** 623062 DJ |
| **Received By:** MVH | **Date Received:** 5.26.2023 |
| **Carrier and Tracking Number** | Circle Applicable: FedEx Express FedEx Ground UPS Field Services Courier Other<br>772138212081<br>772138211486 772138213412 |

| **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#:<br>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): 0 0 CPM/ mR/Hr<br>**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.<br>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: Wet Ice Ice Packs Dry ice None Other:<br>*all temperatures are recorded in Celsius **TEMP:** 18 |
| 4 | Daily check performed and passed on IR temperature gun? | ✓ | | | **Temperature Device Serial #:** IR2-21<br>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:<br>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)<br>Do liquid VOA vials contain acid preservation? Yes___ No___ NA___(If unknown, select No)<br>Are liquid VOA vials free of headspace? Yes___ No___ NA___<br>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)<br>SR-WD-230517 Bottle says 926, SR6-W-230517 @910 |
| 11 | Number of containers received match number indicated on COC? | ✓ | | | Circle Applicable: No container count on COC Other (describe) |
| 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):

~~*missing two Coolers~~ JM 5/23

PM (or PMA) review: Initials JM Date 5-23-23 Page 1 of 1

GL-CHL-SR-001 Rev 7

**List of current GEL Certifications as of 11 July 2023**

| 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 | SC000122023-4 |
| 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 | 2022-160 |
| 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 | T104704235-22-20 |
| Utah NELAP | SC000122022-37 |
| Vermont | VT87156 |
| Virginia NELAP | 460202 |
| Washington | C780 |

**Technical Case Narrative**
**GSI Environmental Inc.**
**SDG #: 626890**

# 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# 17
**Analytical Batches:** 2454990 and 2454989

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

| GEL Sample ID# | Client Sample Identification |
|---|---|
| 626890001 | L-1-230518 |
| 626890002 | G-1-230518 |
| 626890003 | O-1-230518 |
| 626890004 | L-2-230518 |
| 626890005 | G-2-230518 |
| 626890006 | O-2-230518 |
| 1205451964 | Method Blank (MB) |
| 1205451965 | Laboratory Control Sample (LCS) |
| 1205451966 | Interference Check Sample (ICS) |
| 1205451967 | 626890001(L-1-230518) Matrix Spike (MS) |
| 1205451968 | 626890001(L-1-230518) 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**

**Holding Time Specifications**
Samples (See Below) were logged in for this analysis outside of the method specified holding time. The data is qualified.

| Sample | Analyte | Value |
|---|---|---|
| 1205451967 (L-1-230518MS) | | Logged 21-JUN-23, out of holding 15-JUN-23 |
| 1205451968 (L-1-230518MSD) | | Logged 21-JUN-23, out of holding 15-JUN-23 |
| 626890001 (L-1-230518) | | Logged 21-JUN-23, out of holding 15-JUN-23 |
| 626890002 (G-1-230518) | | Logged 21-JUN-23, out of holding 15-JUN-23 |
| 626890003 (O-1-230518) | | Logged 21-JUN-23, out of holding 15-JUN-23 |
| 626890004 (L-2-230518) | | Logged 21-JUN-23, out of holding 15-JUN-23 |
| 626890005 (G-2-230518) | | Logged 21-JUN-23, out of holding 15-JUN-23 |
| 626890006 (O-2-230518) | | Logged 21-JUN-23, out of holding 15-JUN-23 |

# Metals

**Product:** **Determination of Metals by ICP**
**Analytical Method:** SW846 3050B/6010D
**Analytical Procedure:** GL-MA-E-013 REV# 32
**Analytical Batch:** 2447507

**Preparation Method:** SW846 3050B
**Preparation Procedure:** GL-MA-E-009 REV# 29
**Preparation Batch:** 2447506

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

| GEL Sample ID# | Client Sample Identification |
|---|---|
| 626890001 | L-1-230518 |
| 626890002 | G-1-230518 |
| 626890003 | O-1-230518 |
| 626890004 | L-2-230518 |
| 626890005 | G-2-230518 |
| 626890006 | O-2-230518 |
| 1205439396 | Method Blank (MB)**ICP** |
| 1205439397 | Laboratory Control Sample (LCS) |
| 1205439400 | 626890001(L-1-230518L) Serial Dilution (SD) |
| 1205439398 | 626890001(L-1-230518S) Matrix Spike (MS) |
| 1205439399 | 626890001(L-1-230518SD) 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 7471B
**Analytical Procedure:** GL-MA-E-010 REV# 39
**Analytical Batch:** 2447556

**Preparation Method:** SW846 7471B Prep
**Preparation Procedure:** GL-MA-E-010 REV# 39
**Preparation Batch:** 2447555

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

| GEL Sample ID# | Client Sample Identification |
|---|---|
| 626890001 | L-1-230518 |
| 626890002 | G-1-230518 |
| 626890003 | O-1-230518 |
| 626890004 | L-2-230518 |
| 626890005 | G-2-230518 |
| 626890006 | O-2-230518 |
| 1205439472 | Method Blank (MB)**CVAA** |
| 1205439473 | Laboratory Control Sample (LCS) |
| 1205439653 | 626718001(NonSDGL) Serial Dilution (SD) |
| 1205439651 | 626718001(NonSDGD) Sample Duplicate (DUP) |
| 1205439652 | 626718001(NonSDGS) Matrix Spike (MS) |

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**

**Holding Time Specifications**
GEL assigns holding times based on the associated methodology. Holding time is measured by comparison of the date and time of sample collection to the date and time of sample preparation and analysis. Those holding times expressed in hours are calculated in the AlphaLIMS system. Those holding times expressed as days expire at midnight on the day of expiration. Samples (See Below) did not meet the specified holding time requirements. Samples were logged in beyond the required holding time.

| Sample | Analyte | Value |
|---|---|---|
| 626890001 (L-1-230518) | | Logged 21-JUN-23, out of holding 15-JUN-23 |
| 626890002 (G-1-230518) | | Logged 21-JUN-23, out of holding 15-JUN-23 |
| 626890003 (O-1-230518) | | Logged 21-JUN-23, out of holding 15-JUN-23 |
| 626890004 (L-2-230518) | | Logged 21-JUN-23, out of holding 15-JUN-23 |
| 626890005 (G-2-230518) | | Logged 21-JUN-23, out of holding 15-JUN-23 |
| 626890006 (O-2-230518) | | Logged 21-JUN-23, out of holding 15-JUN-23 |

**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.

GSI Job No.: 5182

# 2023 MONITORING REPORT
## AJU Brandeis-Bardin Campus
Brandeis, CA

## ATTACHMENT D

Data Validation Summary

# Appendix D

## Data Validation Summary

AJU Brandeis-Bardin Campus
Brandeis, California

Analytical results for soil, sediment, water and crop samples collected during the 2023 sampling event at the AJU Brandeis-Bardin Campus are tabulated and presented on Tables 2 through 7. The analytical results were reviewed in accordance with the following documents:

- 2020 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:

- Water samples for perchlorate analysis were received at the laboratory with insufficient headspace. No perchlorate was detected in the samples; the non-detect sample results were flagged with “UJ”.
- The matrix spike/matrix spike duplicate recoveries for silver, selenium, and antimony related to soil sample CIT-1-230516 were out of sample control limits; the non-detect results were flagged with “F1”.

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