March 27, 2023

Mr. Len Zintak
Federal On-Scene Coordinator
U.S. Environmental Protection Agency, Region 5
77 West Jackson Boulevard
Chicago, Illinois 60604

Subject: **Removal Report – Revision 0**
Morris Lithium Battery Site
Morris, Grundy County, Illinois
EPA Contract Number: 68HE0519D0005
Task Order – Task Order Line-Item Number (TO-TOLIN): F0032-0001CI103
Document Tracking Number: 1648

Dear Mr. Zintak:

The Tetra Tech, Inc. Superfund Technical Assessment and Response Team hereby submits Revision 0 of the removal report for the Morris Lithium Battery Fire Site—in Morris, Grundy County, Illinois—for your review and comment. This report summarizes the U.S. Environmental Protection Agency removal action conducted from April 11, 2022 through October 31, 2022.

If you have any questions regarding this report, please call me at (312) 201-7700 or via email at Joe.Sanders@tetratech.com.

Respectfully,

Joseph Sanders
Project Manager

Enclosure

cc: TO-TOLIN file
Karl Schultz, Tetra Tech Program Manager

1 South Wacker Drive, Suite 3700
Chicago, IL 60606
Tel (312) 201-7700 | Fax (312) 201-0031
www.tetratech.com

REMOVAL REPORT
MORRIS LITHIUM BATTERY SITE
MORRIS, GRUNDY COUNTY, ILLINOIS

Revision 0

March 27, 2023

Prepared for:

U.S. Environmental Protection Agency, Region 5
77 West Jackson Boulevard
Chicago, IL 60604

Submitted by:

Tetra Tech, Inc. Superfund Technical Assessment and Response Team
1 South Wacker Drive, Suite 3700
Chicago, IL 60606

EPA Contract Number:	**68HE0519D0005**
Task Order – Task Order Line-Item Number (TO-TOLIN):	**F0032-0001CI103**
Document Tracking Number:	**1648**

CONTENTS

TABLE

APPENDICES

ATTACHMENTS

1. INTRODUCTION

Under Contract 68HE0519D0005, Task Order – Task Order Line-Item Number (TO-TOLIN) F0032-0001CI103, U.S. Environmental Protection Agency (EPA) Region 5 tasked the Tetra Tech, Inc. (Tetra Tech) Superfund Technical Assessment and Response Team (START) to perform the following activities at the Morris Lithium Battery Site:

- Develop and implement a site-specific air monitoring and sampling plan (AMSP) (Tetra Tech 2022a) with an addendum (Tetra Tech 2022c) containing provisions for air sampling
- Develop and implement a site-specific sampling and analysis plan (SAP) (Tetra Tech 2021) with an addendum (Tetra Tech 2022f)
- Perform oversight, create documentation, and monitor air while the emergency and rapid response services (ERRS) contractor develops a battery inventory and secures the site for winter conditions (Tetra Tech 2022e)
- Perform real-time air monitoring for particulates to evaluate potential worker exposure and the potential off-site migration of contaminants
- Conduct sampling to characterize material for off-site disposal
- Provide general oversight, including written and photographic documentation, of on-site activities
- Track costs related to oversight activities
- Develop a letter for the transmittal of concrete sampling results (Tetra Tech 2023)
- Develop a removal report of completed activities

Overall, the purpose of START's work was to mitigate threats to public health, welfare, and the environment posed by uncontrolled hazardous substances at the site.

This removal report documents site activities from April 11, 2022, through October 31, 2022. It discusses the site background in Section 2, removal action activities in Section 3, and conclusions from those activities in Section 4. References cited throughout the report are listed in Section 5. For reference, figures are provided in Appendix A, monitoring summary tables are provided in Appendix B, analytical summary tables are provided in Appendix C, and photographic documentation is provided in Appendix D. Additionally, analytical reports from Eurofins are included in Attachment 1, analytical reports from Microbac Laboratories Inc. for floor debris samples are included in Attachment 2, structural engineering reports from Chamlin and Associates, Inc. are included in Attachment 3, and special permits for shipping from the U.S. Department of Transportation (DOT) are included in Attachment 4.

2. SITE BACKGROUND

The site is at 900 East Benton Street in the City of Morris, Grundy County, Illinois (Appendix A, Figure 1). The geographical coordinates at its approximate center are 41.362570° north latitude and 88.411206° west longitude. It consists of a former Federal Paperboard warehouse in a mixed commercial and residential area (Appendix A, Figure 2). The site is bordered to the north, west, and south by residential areas and to the east by commercial properties. It is also approximately 1,500 feet north of the Illinois & Michigan (I&M) Canal and the Illinois River. The site was previously occupied by Federal Paperboard and historically operated as a paper mill until its closure in 1980. Superior Battery, a battery supplier, currently occupies the site.

On June 29, 2021, at approximately 11:45 a.m., City of Morris firefighters responded to a fire at the site. Responders discovered that the site was storing approximately 388,928 pounds of lithium metal, lithium-ion, nickel metal hydride, nickel cadmium, lead-acid, and alkaline batteries. In addition to the challenges posed by the reactivity of lithium, byproducts of lithium combustion—such as lithium hydride (LiH) and lithium hydroxide (LiOH)—are combustible, toxic, and corrosive; subsequently, the responders implemented a 0.5-mile mandatory evacuation area surrounding the site. EPA, Illinois Environmental Protection Agency (IEPA), and START, in addition to local authorities, then responded to oversee response activities and conduct air monitoring and sampling. A letter report summarizing these emergency response activities was submitted to EPA on June 27, 2022 (Tetra Tech 2022b). Following the fire, EPA tasked START with conducting oversight and air monitoring during a fund-lead time-critical removal action at the site (EPA 2021).

3. REMOVAL ACTION ACTIVITIES

On-site time-critical removal action activities took place from November 8, 2021, to October 21, 2022. Activities that took place from November 8, 2021, to March 15, 2022, were described in a letter report submitted to EPA on August 4, 2022 (Tetra Tech 2022e). This report describes activities that occurred from April 11, 2022, to October 21, 2022.

In support of the time-critical removal action at the site, START completed the following activities as tasked by EPA:

- Performed fixed and roaming outdoor air monitoring
- Performed roaming indoor air monitoring
- Collected perimeter air samples for heavy metals
- Collected concrete chip samples to characterize material for waste disposal
- Oversaw work conducted by the ERRS contractor
- Collected written, digital, and photographic documentation of site conditions and activities

Environmental Restoration, LLC (ER)—the ERRS contractor—completed the following removal activities as tasked by EPA:

- Prepared and secured the site
- Provided site-specific plans
- Identified, inventoried, and sorted batteries, electronic waste (e-waste), and hazardous and non-hazardous materials for removal
- Conducted personnel air sampling
- Packaged batteries and waste as required by DOT regulations
- Arranged for the off-site transportation and disposal of waste
- Aided START in concrete sampling for waste characterization
- Vacuumed site building floors using a high-efficiency particulate air (HEPA) filter
- Installed fencing and secured the site following the removal

With respect to this work, this section discusses: (1) site plans and preparation activities; (2) oversight and documentation; (3) air monitoring; (4) sampling; (5) the removal action; (6) transport and disposal; (7) enforcement activities; and (8) site security and demobilization.

3.1. SITE PLANS AND PREPARATIONS

Prior to the removal action, ER and START updated and developed site plans to be implemented during the removal action. ER amended the existing site-specific health and safety plan (HASP) (ER 2021) to include work planned under the removal action. The amended HASP was reviewed by the EPA OSC and START. It details the hazards for each task to be performed, including the site-related contaminants of concern, and health and safety protocols. The HASP also describes proper personal protective equipment (PPE) to be used by workers.

START developed the site-specific AMSP (Tetra Tech 2022a) with an addendum (Tetra Tech 2022c) as well as the SAP (Tetra Tech 2021) and SAP addendum (Tetra Tech 2022f). The AMSP and its addendum describe the air monitoring and air sampling activities needed to assess and mitigate the impact of removal activities on air quality in and around the site; the SAP and its addendum summarize multimedia sample collection and analysis procedures completed in association with the removal activities at the site.

During the initial phase of the removal action, ER conducted general site setup activities, including access improvements, equipment maintenance and preparation, field office trailer setup, the installation of site security measures, and structural stabilization of the southwest corner of the building. Copies of the structural engineering reports are included in Attachment 3.

3.2. OVERSIGHT AND DOCUMENTATION

START created written, digital, and photographic documentation of removal activities through the duration of the removal action. START personnel recorded daily weather conditions, ERRS contractor activities, START air monitoring and sampling activities, and waste disposal events in the field logbook. START also utilized digital data collection tools and maintained digital records of air quality monitoring data, laboratory analytical results, and photographic documentation. Site figures are presented in Appendix A, air monitoring tables are presented in Appendix B, analytical tables are presented in Appendix C, and representative site photographs are presented in Appendix D. Additionally, laboratory analytical reports are provided in Attachment 1. Logbook notes are not included in this report but are stored in the site file with other records.

3.3. AIR MONITORING

During site activities, START conducted fixed and roaming air monitoring to evaluate potential threats to human health caused by exposure to elevated concentrations of metals, volatile organic compounds (VOCs), and particulate matter in air.

START placed air monitoring stations around the perimeter of the site at its northeast, northwest, southeast, and southwest corners (Appendix A, Figure 3). Roving monitoring was conducted inside the building; locations inside the building were subject to change based on weather conditions and site activities. Air monitoring equipment consisted of four AreaRAE Pro units, four TSI DustTrak DRX (DRX) particulate monitors, a MultiRAE Pro unit, a handheld TSI DustTrak DRX (HDRX) particulate monitor, and a Single Point Monitor (SPM) Flex. The SPM Flex was not used every workday due to excessive levels of heat and/or humidity.

A tablet computer collected air monitoring data on an ESRI Survey 123 form for each roaming point for nearly real-time updates on air quality. It collected readings at approximately 3–5 feet aboveground in the typical breathing zone. START conducted air monitoring in accordance with the AMSP addendum (Tetra Tech 2022c).

The AreaRAE Pro units assessed airborne concentrations of VOCs, oxygen, carbon monoxide, hydrogen fluoride, and hydrogen sulfide as well as the percent lower explosive limit. The MultiRAE Pro assessed airborne concentrations of VOCs, oxygen, carbon monoxide, and hydrogen sulfide as well as the percent lower explosive limit. START calibrated and maintained the AreaRAE Pro and MultiRAE Pro units according to the manufacturer's instructions to ensure precision and accuracy of the instrument response. The DRX and HDRX units monitored particulates less than 10 microns (µm) in diameter (PM_{10}) and less than 2.5 µm in diameter ($PM_{2.5}$). The DRX and HDRX monitors were zero-calibrated daily using a zero filter prior to use. Finally, the SPM Flex was equipped with a mineral acid tape for the monitoring of hydrogen fluoride gas.

Each AreaRAE Pro and DRX unit was connected to EPA's VIPER Survey Controller software to provide real-time telemetry to the START field office. START established email alerts for site-specific warning and/or action level exceedances. If an alert were received, START would evaluate the data and equipment to ensure that the exceedance was not caused by an equipment malfunction. If an alert was determined to be legitimate, protocol dictated that START notify the EPA OSC.

START determined site-specific action levels using relevant state and federal benchmarks and used them to determine if protective actions needed to be taken for residents or workers. Action levels for the level of PPE to be used are based on the approved HASP (ER 2021).

Outdoor fixed and roaming air monitoring concluded on October 19, 2022 and October 24, 2022, respectively. Outdoor air monitoring data tables can be found in Appendix B.

3.4. SAMPLING

START conducted two types of sampling throughout the removal action: air sampling and concrete sampling. Air samples were taken at the northeast, northwest, southeast, and southwest corners of the site while concrete chip samples were taken from the floor of building. The purpose of the air sampling activities was to evaluate the composition of particulates at the site; the purpose of the concrete sampling activities was for waste characterization for disposal. Additional details regarding the sampling events are presented in the following sections.

3.4.1. Air Sampling

On June 28, June 29, and July 6, 2022, START collected ambient air samples at each of the perimeter stations to evaluate whether contaminants were migrating to the surrounding areas. Samples were collected from three days representative of general site activities based on OSC direction. START collected the samples using Gillian GilAir 5 low-flow sampling pumps with a 0.8-µm mixed cellulose ester (MCE) membrane filter cassette. Sampling pumps were calibrated by use of a BIOS DryCal Air Flow Calibrator to a flow rate of 2 to 2.5 liters per minute (L/min) and ran for 8 hours in compliance with specifications of National Institute for Occupational Health and Safety (NIOSH) Method 7303. Calibration and flow verification took place prior to deployment and again after sample collection. Pumps were placed approximately 4.5 feet aboveground to represent the typical breathing zone. START submitted samples to Eurofins Test America in University Park, Illinois for analyses of metals, including lithium. All air sample results were below EPA Regional Screening Levels (RSLs) (EPA 2022) and Protective Action Criteria (PAC). Validated air sample results are presented in Table 1 of Appendix C. The Level II analytical report was produced by Eurofins (Attachment 1). Level IV reports will be maintained in the site file.

3.4.2. Concrete Sampling

On August 24 and October 6, 2022, START collected five-point composite concrete samples within 1–2 inches of the surface in five contaminated grids. Previous sampling efforts by ER

revealed floor debris with elevated concentrations of contaminants in five grids within the building; START collected concrete samples to determine whether the contaminants had leached into the concrete floor slab. Sample locations were selected in the most highly contaminated areas as determined from fire debris analytical results provided by ER (Attachment 2). START collected samples to determine if concentrations of contaminants in the concrete exceeded thresholds established by off-site disposal facilities/landfills and posed a threat to human health or the environment. The information generated by this sampling event also aided in developing a waste profile for eventual disposal of the material.

During a previous sampling event by ER, laboratory analytical results indicated elevated levels of lead and cadmium in five areas in the building. Prior to START sampling, sample location boundaries and sample aliquot locations were mapped and marked by use of spray paint to identify each aliquot location and sampling area (Appendix A, Figure 4). Concrete chip samples were obtained by using a decontaminated jack hammer attached to ER equipment to break the concrete into small pieces at each aliquot location. The ideal particle size for analysis is a diameter less than 9.5 millimeters (mm). The five sample aliquots from each of the five sample areas were combined into a resealable plastic bag, homogenized, placed into laboratory-provided sample containers, and stored on ice until shipment to the laboratory. Equipment rinsate blank samples were collected on the last day of sampling by slowly rinsing the decontaminated stainless jackhammer tip with laboratory-grade deionized water while simultaneously collecting the used rinse water in a laboratory-provided container.

START submitted samples to Eurofins Test America in University Park, Illinois for analyses of total cyanide and sulfide, polychlorinated biphenyls (PCBs) dry weight, percent solids, pH, and Target Analyte List (TAL) metals, including lithium and nickel. In addition, they were analyzed according to the Toxicity Characteristic Leaching Procedure (TCLP) for Resource Conservation and Recovery Act (RCRA) metals and semivolatile organic compounds (SVOCs). Concrete chip sample results were then compared to RCRA criteria for identifying hazardous materials and the Toxic Substances Control Act of 1976 (TSCA) disposal requirement per Title 40 *Code of Federal Regulations* (40 CFR), Section 761.61. All concrete sample results were below these standards. Validated concrete sample results are presented in Table 2 of Appendix C. The Level IV analytical report was produced by Eurofins (Attachment 1).

START handled and packaged all samples in accordance with the site-specific SAP addendum (Tetra Tech 2022f). Additionally, concrete sample analytical results were validated by a START

chemist in accordance with Tetra Tech's quality assurance project plan (QAPP) for START (Tetra Tech 2022d).

3.5. REMOVAL ACTION

EPA remobilized to the site on April 11, 2022, to begin setup for the removal action. The command post was on the southeast side of the Superior Battery building, and the personnel decontamination area in the northwest corner of the site near the loading dock. A structural engineer reinspected the building and recommended that part of the southern wall be demolished because of fire damage to its masonry brick. The engineer also recommended shoring up the southwest corner of the building with cables to reinforce the vertical support and the roof. Engineering reports are presented in Attachment 3. DOT also visited the site to discuss special permits for battery packaging and shipping; these permits are included in Attachment 4.

Following site setup activities, ER separated and sorted debris, e-waste, and batteries. The batteries were sorted according to size, condition, and battery chemistry. Battery sizes ranged from button batteries to industrial-size batteries. The condition of the batteries ranged from intact but fire-damaged batteries to completely burned ash. The battery chemistries included lithium metal, lithium-ion, nickel metal hydride (NiMH), nickel cadmium (NiCad), lead-acid, and alkaline. The distribution of the different battery types and e-waste within the building before the removal is shown in Figure 5 of Appendix A.

ER first shipped e-waste and lead-acid batteries off site followed by the NiMH and NiCad batteries. DOT issued emergency special permits (DOTSP) for the work on May 31, 2022 (Attachment 4). DOTSP 21363 and DOTSP 16532 allowed ER to ship damaged, defective, or recalled (DDR) lithium-ion and lithium metal batteries. All batteries inside the building were considered fire damaged, and the lithium batteries were shipped as DDR. No batteries were left on site upon the completion of the removal action.

ER palletized and shipped burned e-waste to Universal Recycling Technologies in Janesville, Wisconsin, for disposal; approximately 55,984 pounds of burned e-waste was shipped. The floor debris/ash from the fire was sampled and analyzed by ER for disposal parameters; its piles contained partially and completely burned batteries and other debris. The contents of the piles were sorted by ER and placed in 20- or 30-cubic-yard roll-off containers to be shipped off site for landfill. PPE and debris, non-hazardous waste, and hazardous waste were shipped by ER to Republic Land Comp LF in Ottawa, Illinois, and US Ecology in Belleville, Michigan, for disposal.

Sorted batteries were placed inside 5-gallon plastic buckets while waiting to be loaded into drums by ER. Batteries were packaged in accordance with DOTSPs 21363 and 16532. Depending on the type of battery, battery terminals were taped to prevent the terminal from contacting other materials. Batteries were shipped in either 55-gallon, 85-gallon, or Call-2-Recycle (C2R) drums. CellBlock granulate was used as a fire-retardant insulating layer to contain the batteries in case of a battery reaction or thermal runaway during transport.

The procedure by which ER prepared the drums for transport is listed below:

1. Place 3 inches of CellBlock in the bottom of a drum.
2. Deposit a layer of batteries into the drum.
3. Cover the batteries with another layer of CellBlock.
4. Continue alternating layers of batteries and CellBlock until the drum is full, then cap the drum with a top layer of CellBlock.
5. Weigh the drum and place it on a pallet.
6. Band together the drums on a pallet and individually label each to comply with shipping requitements.
7. Stage and inspect complete pallets prior to shipping.
8. Ventilate drums and transport vehicles to reduce the buildup of gasses in the event of a release.

Approximately 43,827 pounds of wet NiCad batteries were shipped to INMETCO in Ellwood City, Pennsylvania, for disposal/recycling. Additionally, approximately 75,325 pounds of dry NiCad/NiMH (dry cell nickel) batteries, approximately 69,919 pounds of lead-acid batteries, approximately 24,932 pounds of alkaline batteries, and approximately 174,925 pounds of lithium batteries were shipped to Retriev Technologies (now Cirba) in Lancaster, Ohio, for recycling/disposal. Battery specialists from Retriev (Cirba) and Battery Solutions (now Cirba) disassembled electric vehicle (EV) and club car batteries. The internal batteries were removed from the external casings in preparation for disposal. Lastly, lithium batteries were shipped in Call2Recycle (C2R) drums under DOTSP 21363. Some of the batteries were forwarded from RetrievOhio to RetrievTrail in Trail, British Columbia, Canada, for disposal.

A “Hurricane 500E” HEPA vacuum unit was mobilized to the site by ER to remove the remaining soot/debris from the floor of the building. HEPA vacuuming of the concrete floor of the building was completed in October, and sampling of the concrete floor was conducted to provide analytical data for a possible future building demolition at the site.

The City of Morris Water Department visited the site to investigate sewer connections to the Superior Battery building. The building did not appear to be connected to the city stormwater or sanitary-water sewers. City representatives plugged drain lines from the eastern side of the building during the fire at the site.

The City of Morris, Illinois EPA, and EPA met to discuss the post-removal plans for the site. Non-hazardous items that remained at the property of Superior Battery were turned over to the owner on a case-by-case basis. On several occasions, the owner removed roofing material, lights, solar panels, signs, and inverters from the site with the permission of the OSC. The owner requested to remove intact batteries; however, the batteries were determined to be heat damaged and were removed for disposal/recycling. Non-hazardous items that the owner did not collect were moved and covered along the western fence line. Larger items were grouped together and moved around the building as space was needed. Prior to the completion of fieldwork, all non-hazardous Superior Battery items were moved back inside the building. The locations and descriptions of personal property are present in Figure 6 of Appendix A.

The removal action was completed on October 31, 2022. A total of 388,928 pounds of batteries were shipped off site during the cleanup, and 191.74 tons of fire ash, debris, and PPE were shipped off site for disposal. One 55-gallon drum of flammable liquid adhesive was discovered on site and was disposed as hazardous waste by Chemtron in Avon, Ohio. Additionally, 62 partially burned battery cooling units (BCUs) containing a small explosive charge were discovered on site. The BCUs were inspected by an Explosive Ordnance Disposal Technician and were shipped to the McAlester Army Ammunition Plant in McAlester, Oklahoma, for disposal.

3.6. TRANSPORT AND DISPOSAL

During removal activities, non-hazardous and hazardous ash, debris, PPE, and waste were transported off site for disposal by Republic Land Comp LF. DDR batteries were transported off site for disposal as either fully regulated or under a special permit. Additionally, one drum of flammable liquid adhesive and one drum of BCUs were transported off site for disposal. All batteries were shipped in accordance with Comprehensive Environmental Response, Compensation, and Liability Act off-site rules. Disposal information—including type, volume, and disposal facility—are provided in Table 1:

Table 1 — Disposal Information

Waste Stream	Quantity	Disposal Facility
Personal Protective Equipment/Debris	37.05 tons	Republic Land Comp LF Ottawa, Illinois
Non-hazardous Ash/Debris	74.69 tons	Republic Land Comp LF Ottawa, Illinois
Hazardous Ash/Debris	80 tons	US Ecology Belleville, Michigan
Electronic Waste	55,984 pounds	Universal Recycling Technologies Janesville, Wisconsin
Lead-acid Batteries	69,919 pounds	Retriev Technologies (Cirba) Lancaster, Ohio
Wet NiCad Batteries	43,827 pounds	INMETCO Ellwood City, Pennsylvania
Dry Cell Nickel Batteries	75,325 pounds	Retriev Technologies (Cirba) Lancaster, Ohio
Alkaline Dry Cell Batteries	24,932 Pounds	Retriev Technologies (Cirba) Lancaster, Ohio
Lithium Metal Batteries	60,569 pounds	Retriev Technologies (Cirba) Lancaster, Ohio
Lithium Ion Batteries	114,356 pounds	Retriev Technologies (Cirba) Lancaster, Ohio
Liquid Adhesive	1 drum	Chemtron Avon, Ohio
Battery Cooling Units	1 drum	McAlester Army Ammunition Plant McAlester, Oklahoma

3.7. ENFORCEMENT ACTIVITIES

Superior Battery is the property owner and a potentially responsible party (PRP). The company has recently changed its name to NANFU USA, Inc. An administrative settlement agreement and order on consent (ASAOC) became effective on September 14, 2021. EPA determined that Superior Battery was late and seriously deficient in the performance of several work requirements of the ASAOC. EPA implemented work takeover provisions within the ASAOC, and an EPA-led cleanup began on November 15, 2021.

Superior Battery was allowed to remove non-hazardous, non-battery items from the building such as solar panels, roofing materials, power supplies (transformers), tools, and power inverters. The remaining items are now staged inside the building and have been secured with tarps. The PRP

was also allowed to remove an excavator from the site in 2021, and two empty box trucks were later removed from the site by the PRP in the spring of 2022. Currently, non-hazardous items—such as metal shelving, file cabinets, and pallets—remain in the building; all batteries on site during the fire in summer 2021 have some degree of heat/fire damage. EPA and DOT agreed that lithium batteries that were in the building during the fire were to be shipped off site as DDR batteries.

3.8. SITE SECURITY AND DEMOBILIZATION

Following completion of removal activities, ER began decontaminating equipment and restaging Superior Battery property within the building. Once equipment was decontaminated, it was stored until it could be hauled off site. ER secured the site perimeter with chain-link fencing. Additional chain-link fencing was installed on the western side of the site and at the three entrances on the eastern side of the building.

Fire department warning signs have been posted around the perimeter of the site. Temporary fencing was removed from much of the site perimeter, but it was left in place along the western side of the building as a secondary means to protect against unauthorized access to the building. Additionally, Burnett and Son's Electric and ComEd disconnected power to the trailers and site while Satellite Co. and Mobile Mini removed the office trailers from the site.

Lastly, EPA, START, and ER conducted a final walkthrough of the site. During the final walkthrough, all pipes, sumps, and drains were identified—see their locations in Figure 7 of Appendix A. ER and START then demobilized from the site October 28, 2022. After the electrician returned to the site to remove the final power pole on October 31, 2022, EPA then turned the site over to the property owner, the City of Morris, and the Morris Fire Department and then demobilized.

4. CONCLUSION

The scope of work for this time-critical removal action was to remove, transport, and dispose of batteries and wastes at EPA-approved disposal facilities in accordance with the EPA off-site Rule 40 of the CFR, Section 300.440. Additionally, EPA took necessary response actions to address the release or threatened release of a hazardous substances, pollutants, or contaminants that may have posed an imminent and substantial endangerment to public health or the environment.

The immediate risk to public health or the environment from direct contact or exposure to potentially uncontrolled hazardous waste liquids and solids has been eliminated from the site. It was accomplished through the collection, identification, and proper disposal of site wastes.

5. REFERENCES

Environmental Restoration, LLC. (ER). 2021. "MF-25 Lithium Battery Site Health and Safety Plan." Contract 68HE0519D0005, U.S. Environmental Protection Agency (EPA) Region 5. Revision 2. November.

Tetra Tech, Inc. (Tetra Tech). 2021. "Sampling and Analysis Plan." Morris Lithium Battery Fire Site, Contract 68HE0519D0005. Document Tracking Number (DTN) 0901, Revision 0. October 4.

Tetra Tech. 2022a. "Air Monitoring and Sampling Plan." Morris Lithium Battery Fire Site, Contract 68HE0519D0005. DTN 0965b, Revision 2. May 25.

Tetra Tech. 2022b. "Letter Report." Morris Lithium Battery Fire Site, Contract 68HE0519D0005. DTN 0763c, Revision 3. June 27.

Tetra Tech. 2022c. "Air Monitoring and Sampling Plan Addendum." Morris Lithium Battery Fire Site, Contract 68HE0519D0005. DTN 1310, Revision 0. July 26.

Tetra Tech. 2022d. "Quality Assurance Project Plan." Superfund Technical Assessment and Response Team (START) V, EPA Region 5. Revision 4. August.

Tetra Tech. 2022e. "Letter Report" Morris Lithium Battery Fire Site, Contract 68HE0519D0005. DTN 1058, Revision 0. August 4.

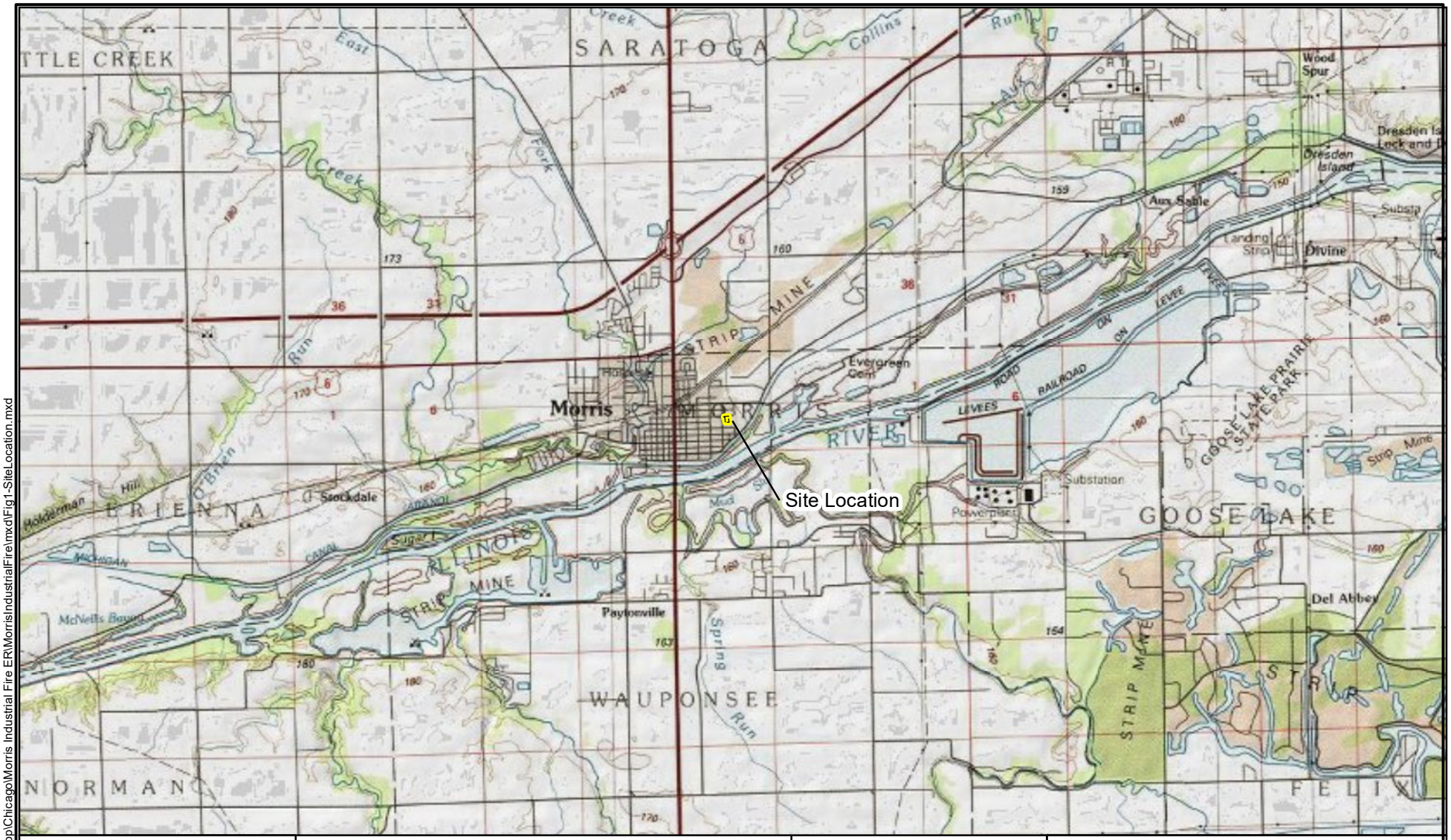
Tetra Tech. 2022f. "Sampling and Analysis Plan Addendum 1." Morris Lithium Battery Fire Site, Contract 68HE0519D0005. DTN 1374, Revision 0. August 23.

Tetra Tech. 2023. "Results Letter." Morris Lithium Battery Fire Site, Contract 68HE0519D0005. DTN 1607, Revision 0. January 13.

U.S. Environmental Protection Agency (EPA). 2021. "Action Memorandum for Morris Lithium Battery Site." July.

U.S. Environmental Protection Agency (EPA). 2022. "Regional Screening Levels." November.

APPENDIX A. SITE FIGURES



Legend

Site Boundary

Source: Esri 2020

N

1.5 0 1.5

Miles

Morris Lithium Battery Fire
Morris, Grundy County, Illinois

Figure 1

Site Location

TETRA TECH

Prepared For: USEPA

Prepared By: Tetra Tech Inc.

File Path: C:\Users\andrew.prestridge\Desktop\Chicago\Morris Industrial Fire ER\MorrisIndustrialFire\mxd\Fig1-SiteLocation.mxd

Date Saved: 9/23/2021

EPA Contract No.: 68-HE-0519-D0005

TO-TOLIN No.: F0032-0001CI103

Coordinate System: WGS 1984 Web Mercator Auxiliary Sphere Projection: Mercator Auxiliary Sphere Datum:WGS 1984 Units: Meter

Legend

Site Boundary

N

100 0 100

Feet

Morris Lithium Battery Fire
Morris, Grundy County, Illinois

Figure 2

Site Layout

TETRA TECH

Prepared For: USEPA

Prepared By: Tetra Tech Inc.

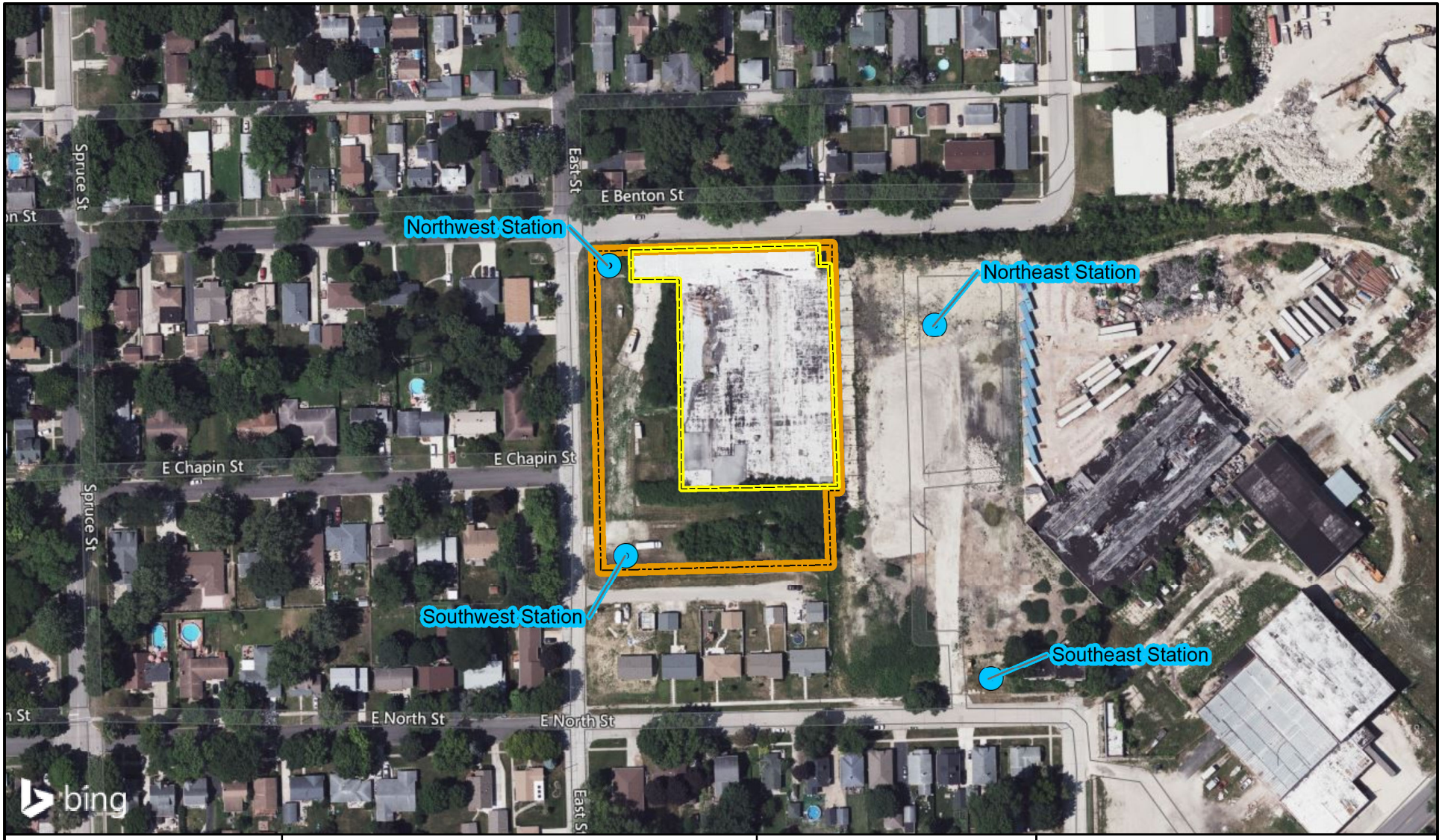
File Path: C:\Users\andrew.prestridge\Desktop\Chicago\Morris Industrial Fire ER\MorrisIndustrialFire\mxd\Fig2-SiteLayout.mxd

Date Saved: 9/23/2021

EPA Contract No.: 68-HE-0519-D0005

TO-TOLIN No.: F0032-0001CI103

Coordinate System: WGS 1984 Web Mercator Auxiliary Sphere Projection: Mercator Auxiliary Sphere Datum:WGS 1984 Units: Meter



Legend

- Stationary Air Monitoring Stations
- Approximate Building Footprint
- Approximate Parcel Boundary

Source: Bing Maps Hybrid, 2020

N

200 0 200

Feet

Morris Lithium Battery Fire
Morris, Grundy County, Illinois

Figure 3
Air Monitoring Locations

TETRA TECH

Prepared For: USEPA | Prepared By: Tetra Tech Inc.

File Path: G:\G\G9031-START V\Illinois\MorrisIndustrialFire\mxd\Fig3_AirMonLocations.mxd

Date Saved: 5/20/2022 EPA Contract No.: 68-HE-0519-D0005 TO-TOLIN No.: F0032-0001CI103

Coordinate System: WGS 1984 Web Mercator Auxiliary Sphere Projection: Mercator Auxiliary Sphere Datum:WGS 1984 Units: Meter

Legend

Sampling Area

Aliquot Location

Note: A 5-point composite sample was collected within each sampling area.

N

40 0 40

Feet

Morris Lithium Battery Fire
Morris, Grundy County, Illinois

Figure 4

Concrete Sampling Locations

TETRA TECH

Prepared For: USEPA

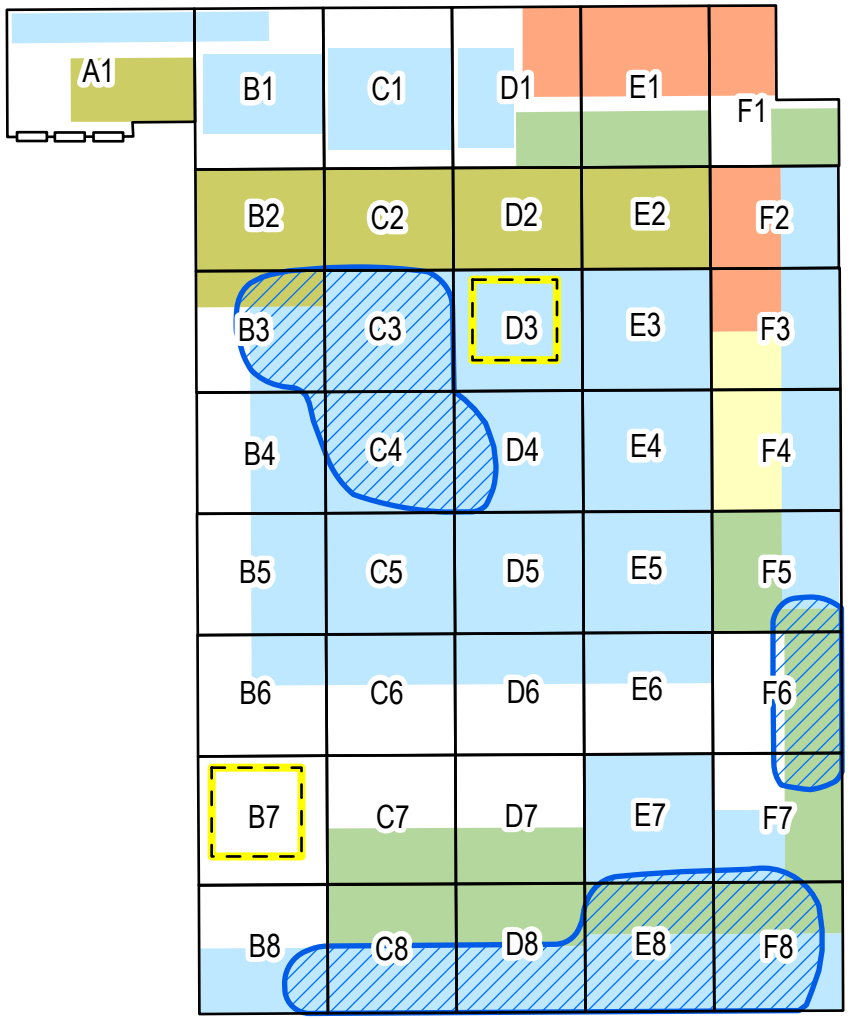
Prepared By: Tetra Tech Inc.

File Path: G:\G\G9031-START V\Illinois\Morris\IndustrialFire\mxd

Date Saved: 8/16/2022

EPA Contract No.: 68-HE-0519-D0005

TO-TOLIN No.: F0032-0001CI103



Legend

- Lithium (Ion or Metal)
- Nickel (NiCd or NiMH)
- Alkaline
- Lead Acid
- E-Waste
- Damaged Roof
- Portland Cement

N

40 0 40
Feet

Morris Lithium Battery Fire
Morris, Grundy County, Illinois

Figure 5

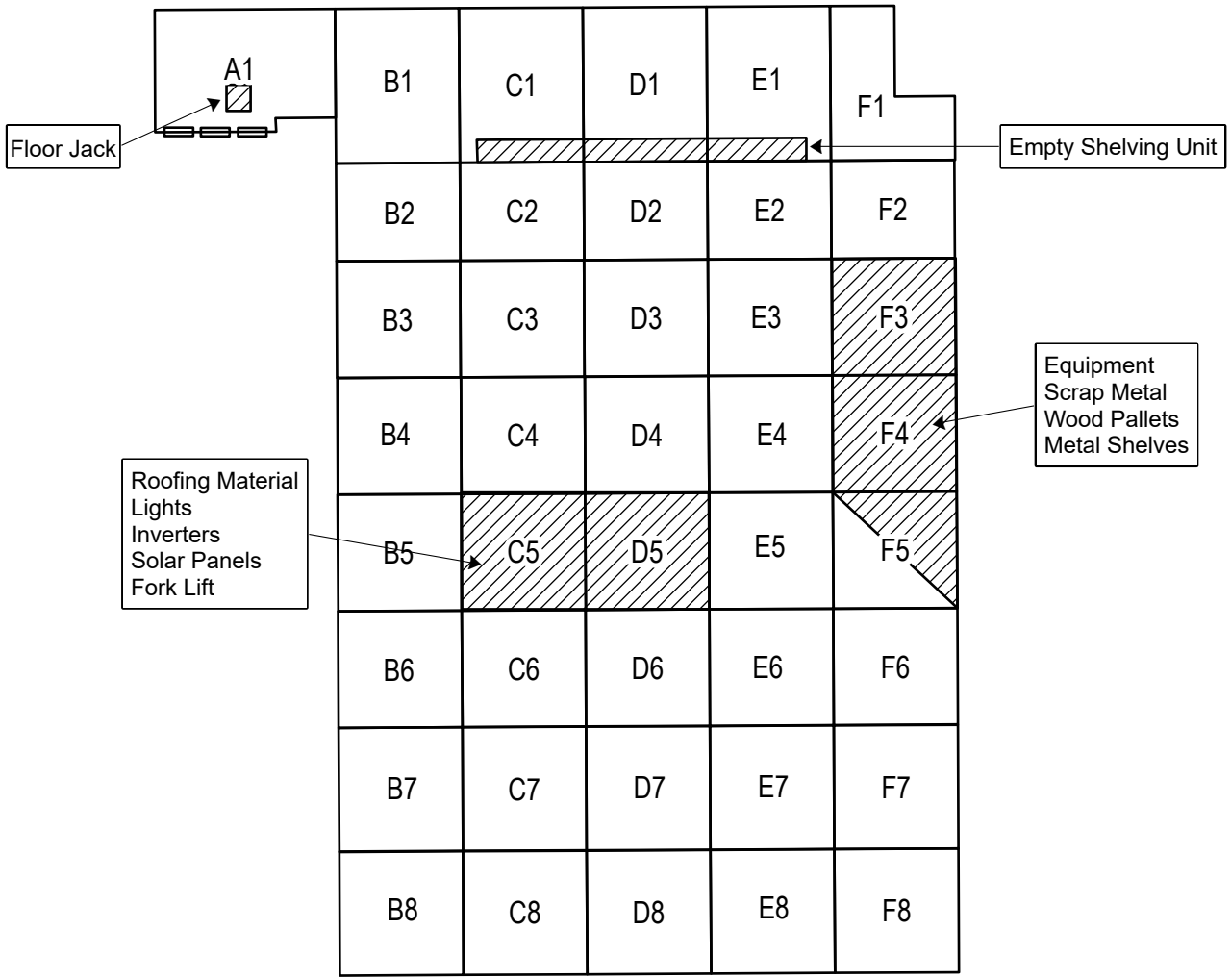
Distribution of Batteries within the Building as of Fall 2021

TETRA TECH

Prepared For: USEPA | Prepared By: Tetra Tech Inc.

File Path: G:\G\G9031-START V\Illinois\Morris\IndustrialFire\mxd

Date Saved: 6/27/2022 | EPA Contract No.: 68-HE-0519-D0005 | TO-TOLIN No.: F0032-0001CI103



Legend

Superior Battery Property Non-Hazardous Items

N

40 0 40

Feet

Morris Lithium Battery Fire
Morris, Grundy County, Illinois

Figure 6

Superior Battery Property

TETRA TECH

Prepared For: USEPA

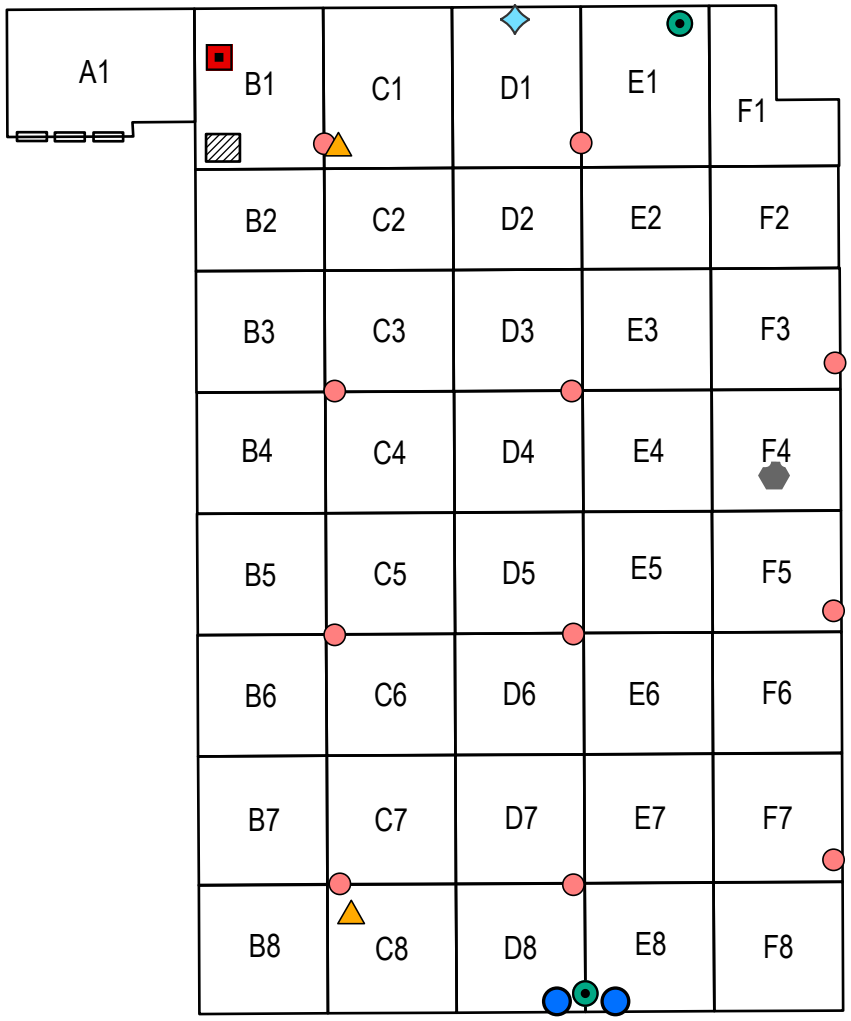
Prepared By: Tetra Tech Inc.

File Path: G:\G\G9031-START V\Illinois\Morris\IndustrialFire\mxd

Date Saved: 11/3/2022

EPA Contract No.: 68-HE-0519-D0005

TO-TOLIN No.: F0032-0001CI103



Legend

- Electrical
- Floor Drain
- Sump Pit
- Sump Pit with Pump
- Valve
- 6-inch Roof Drain
- 8-inch Sprinkler Water Pipe
- 10-inch Water Supply Line

N

40 0 40
Feet

Morris Lithium Battery Fire
Morris, Grundy County, Illinois

Figure 7

Pipes, Sumps, and Drains

TETRA TECH

Prepared For: USEPA | Prepared By: Tetra Tech Inc.

File Path: G:\G\G9031-START V\Illinois\Morris\IndustrialFire\mxd

Date Saved: 11/2/2022 | EPA Contract No.: 68-HE-0519-D0005 | TO-TOLIN No.: F0032-0001CI103

APPENDIX B. AIR MONITORING TABLES

Air Monitoring Summary Tables

The tables below summarize air monitoring data collected using Handheld DustTrak and MultiRAE Pro instruments.

Project Name: Morris Industrial Fire Site
Date/Time: 04/20/22 10:02 to 04/20/22 10:13

Weather

Temperature: 47 °F
Wind Speed: 19 miles per hour
Wind Direction: South / southeast
Conditions: Cloudy

Fixed Discrete Air Monitoring Location: Northwest Perimeter					
Instrument	**Analyte**	**Morris Industrial Fire Public Health Screening Level[1]**	**Public Health Screening Level Exceeded?**	**Number of Measurements**	**Concentration Range**
MultiRAE Pro	H_2S (ppm)	0.1 ppm	No	1	0.000 to 0.000
	CO (ppm)	--	No	1	0.00 to 0.00
	O_2 (%)	--	No	1	20.9 to 20.9
	LEL (%)	--	No	1	0.000 to 0.000
	VOC (ppm)	1 ppm	No	1	0.000 to 0.000
Handheld DustTrak	$PM_{2.5}$ (mg/m^3)	0.025 mg/m^3	No	1	0.010 to 0.010
	PM_{10} (mg/m^3)	0.05 mg/m^3	No	1	0.011 to 0.011

Fixed Discrete Air Monitoring Location: Northeast Perimeter					
Instrument	**Analyte**	**Morris Industrial Fire Public Health Screening Level[1]**	**Public Health Screening Level Exceeded?**	**Number of Measurements**	**Concentration Range**
MultiRAE Pro	H_2S (ppm)	0.1 ppm	No	1	0.000 to 0.000
	CO (ppm)	--	No	1	0.00 to 0.00
	O_2 (%)	--	No	1	20.9 to 20.9
	LEL (%)	--	No	1	0.000 to 0.000
	VOC (ppm)	1 ppm	No	1	0.000 to 0.000
Handheld DustTrak	$PM_{2.5}$ (mg/m^3)	0.025 mg/m^3	No	1	0.012 to 0.012
	PM_{10} (mg/m^3)	0.05 mg/m^3	No	1	0.013 to 0.013

Fixed Discrete Air Monitoring Location: Southeast Perimeter					
Instrument	**Analyte**	**Morris Industrial Fire Public Health Screening Level[1]**	**Public Health Screening Level Exceeded?**	**Number of Measurements**	**Concentration Range**
MultiRAE Pro	H_2S (ppm)	0.1 ppm	No	1	0.000 to 0.000
	CO (ppm)	--	No	1	0.00 to 0.00
	O_2 (%)	--	No	1	20.9 to 20.9
	LEL (%)	--	No	1	0.000 to 0.000
	VOC (ppm)	1 ppm	No	1	0.000 to 0.000
Handheld DustTrak	$PM_{2.5}$ (mg/m^3)	0.025 mg/m^3	No	1	0.010 to 0.010
	PM_{10} (mg/m^3)	0.05 mg/m^3	No	1	0.011 to 0.011

Notes: See last page.

Air Monitoring Summary Tables

The tables below summarize air monitoring data collected using Handheld DustTrak and MultiRAE Pro instruments.

Project Name: Morris Industrial Fire Site
Date/Time: 04/20/22 10:02 to 04/20/22 10:13

Weather

Temperature: 47 °F
Wind Speed: 19 miles per hour
Wind Direction: South / southeast
Conditions: Cloudy

Fixed Discrete Air Monitoring Location: Southwest Perimeter					
Instrument	**Analyte**	**Morris Industrial Fire Public Health Screening Level[1]**	**Public Health Screening Level Exceeded?**	**Number of Measurements**	**Concentration Range**
MultiRAE Pro	H_2S (ppm)	0.1 ppm	No	1	0.000 to 0.000
	CO (ppm)	--	No	1	0.00 to 0.00
	O_2 (%)	--	No	1	20.9 to 20.9
	LEL (%)	--	No	1	0.000 to 0.000
	VOC (ppm)	1 ppm	No	1	0.000 to 0.000
Handheld DustTrak	$PM_{2.5}$ (mg/m^3)	0.025 mg/m^3	No	1	0.009 to 0.009
	PM_{10} (mg/m^3)	0.05 mg/m^3	No	1	0.010 to 0.010

Notes: See last page.

Comments
Start and stop times for each air monitoring instrument varies. The monitoring period is based on the earliest start time and latest stop time out of all units.
1 - Site-specific public health screening levels are based on 1-hour time-weighted averages and were established by Agency for Toxic Substances and Disease Registry (ATSDR). Fixed discrete monitoring readings are discrete readings, and so do not represent conditions over a full 1-hour period.
2 - $PM_{2.5}$ and PM_{10} exceedances of site-specific screening levels were observed at the fixed discrete air monitoring locations during the monitoring period. There was no active fire, smoke or site activities conducted at the facility during the monitoring period.

Notes:

°F - Degrees Fahrenheit
CO - Carbon Monoxide
H_2S - Hydrogen Sulfide
LEL - Lower explosive limit
mg/m^3 - milligrams per cubic meter
O_2 - Oxygen
$PM_{2.5}$ - Particles that are 2.5 micrometers and smaller
PM_{10} - Particles that are 10 micrometers and smaller
ppb - Parts per billion
ppm - Parts per million
VOC - Volatile organic compounds

Air Monitoring Summary Tables

The tables below summarize air monitoring data collected using EPA AreaRAE Pro and DustTrak DRX instruments.

Project Name: Morris Industrial Fire Site
Date/Time: 05/09/2022 07:28 to 05/13/2022 16:44

Northeast Air Monitoring Station					
Instrument	**Analyte**	**Morris Industrial Fire Public Health Screening Level[1]**	**Public Health Screening Level Exceeded?**	**1-Hour Period Concentration Range**	**Average of All 1-Hour Periods**
DustTrak (S/N: 8533153912)	$PM_{2.5}$ (mg/m^3)	0.025 mg/m^3	**Yes (see Comment 2)**	0.000 to 0.047	0.026
	PM_{10} (mg/m^3)	0.05 mg/m^3	No	0.000 to 0.047	0.027
AreaRAE Pro (S/N: W01A00002413)	VOC (ppm)	0.5 ppm	No	0.00 to 0.00	0.00
	CO (ppm)	--	No	0.0 to 0.2	0.0
	H_2S (ppm)	0.1 ppm	No	0.0 to 0.0	0.0
	HF	0.2 ppm	No	0.0 to 0.1	0.0

Northwest Air Monitoring Station					
Instrument	**Analyte**	**Morris Industrial Fire Public Health Screening Level[1]**	**Public Health Screening Level Exceeded?**	**1-Hour Period Concentration Range**	**Average of All 1-Hour Periods**
DustTrak (S/N: 8533153917)	$PM_{2.5}$ (mg/m^3)	0.025 mg/m^3	**Yes (see Comment 2)**	0.004 to 0.132	0.035
	PM_{10} (mg/m^3)	0.05 mg/m^3	**Yes (see Comment 2)**	0.007 to 0.142	0.039
AreaRAE Pro (S/N: W01A00002412)	VOC (ppm)	0.5 ppm	No	0.00 to 0.01	0.00
	CO (ppm)	--	No	0.0 to 0.0	0.0
	H_2S (ppm)	0.1 ppm	No	0.0 to 0.0	0.0
	HF	0.2 ppm	No	0.0 to 0.0	0.0

Southeast Air Monitoring Station					
Instrument	**Analyte**	**Morris Industrial Fire Public Health Screening Level[1]**	**Public Health Screening Level Exceeded?**	**1-Hour Period Concentration Range**	**Average of All 1-Hour Periods**
DustTrak (S/N: 8533153910)	$PM_{2.5}$ (mg/m^3)	0.025 mg/m^3	**Yes (see Comment 2)**	0.003 to 0.058	0.025
	PM_{10} (mg/m^3)	0.05 mg/m^3	**Yes (see Comment 2)**	0.004 to 0.059	0.026
AreaRAE Pro (S/N: W01A00002410)	VOC (ppm)	0.5 ppm	No	0.00 to 0.10	0.00
	CO (ppm)	--	No	0.0 to 0.0	0.0
	H_2S (ppm)	0.1 ppm	No	0.0 to 0.0	0.0
	HF	0.2 ppm	No	0.0 to 0.0	0.0

Notes: See last page.

Air Monitoring Summary Tables

The tables below summarize air monitoring data collected using EPA AreaRAE Pro and DustTrak DRX instruments.

Project Name: Morris Industrial Fire Site
Date/Time: 05/09/2022 07:28 to 05/13/2022 16:44

Southwest Air Monitoring Station					
Instrument	**Analyte**	**Morris Industrial Fire Public Health Screening Level[1]**	**Public Health Screening Level Exceeded?**	**1-Hour Period Concentration Range**	**Average of All 1-Hour Periods**
DustTrak (S/N: 8533154003)	$PM_{2.5}$ (mg/m^3)	0.025 mg/m^3	**Yes (see Comment 2)**	0.005 to 0.059	0.025
	PM_{10} (mg/m^3)	0.05 mg/m^3	**Yes (see Comment 2)**	0.005 to 0.059	0.026
AreaRAE Pro (S/N: W01A00002411)	VOC (ppm)	0.5 ppm	No	0.00 to 0.00	0.00
	CO (ppm)	--	No	0.0 to 1.8	0.0
	H_2S (ppm)	0.1 ppm	No	0.0 to 0.0	0.0
	HF	0.2 ppm	No	0.0 to 0.0	0.0

Comments
Air monitoring measurements have been averaged over a 1-hour time period and summarized above.
Start and stop times for each air monitoring instrument varies. The monitoring period is based on the earliest start time and latest stop time out of all units.
Air monitoring is not performed during inclement weather conditions/rain and thunderstorms.
1 - Public health screening levels are based on 1-hour time-weighted averages and were established by Agency for Toxic Substances and Disease Registry (ATSDR).
2 - $PM_{2.5}$ and PM_{10} 1-hour time-weighted averages were greater than the screening levels at multiple stations throughout the week. Visible dust originating from gravel stockpiles located directly south of the northeast station was observed and noted in the field log book during these periods. Upwind/off-site elevated levels $PM_{2.5}$ and PM_{10} impacted downwind air monitoring stations.
Notes: CO - Carbon Monoxide H_2S - Hydrogen Sulfide HF - Hydrogen Fluoride mg/m^3 - Milligrams per cubic meter $PM_{2.5}$ - Particles that are 2.5 micrometers and smaller PM_{10} - Particles that are 10 micrometers and smaller ppm - Parts per million S/N - Serial number VOC - Volatile organic compounds

Air Quality Index Categories and Recommendations

Air Quality Index Category	**24-Hour Avg. $PM_{2.5}$ Concentrations (ug/m^3)**	**24-Hour Avg. PM_{10} Concentrations (ug/m^3)**	**Recommended Actions**
Good	0 to 12.0	0 to 54	None
Moderate	12.1 to 35.4	55 to 154	People with heart or lung disease, older adults (65 and up), and children: **Consider reducing** prolonged or heavy exertion.
Unhealthy for Sensitive Groups	35.5 to 55.4	155 to 254	People with heart or lung disease, older adults (65 and up), and children: **Reduce** prolonged or heavy exertion.
Unhealthy	55.5 to 150.4	255 to 354	People with heart or lung disease, older adults (65 and up), and children: **Avoid** prolonged or heavy exertion. Everyone else should **reduce** prolonged or heavy exertion.
Very Unhealthy	150.5 to 250.4	355 to 424	People with heart or lung disease, older adults (65 and up), and children: **Avoid all physical activity outdoors**. Everyone else should **avoid** prolonged or heavy exertion.
Hazardous	250.5 to 500.4	**425 to 605**	**Everyone should avoid all physical activity outdoors**. People with heart or lung disease, older adults (65 and up), and children should remain indoors and keep activity levels low.

Comment: Illinois Statewide Average 24-hour $PM_{2.5}$ Concentration in 2020: 19.9 ug/m^3

Comment: Off-site monitoring locations include both upwind and downwind locations. Elevated $PM_{2.5}$ and PM_{10} concentrations may represent other sources.

Daily average $PM_{2.5}$ data for fixed monitoring locations can be found here: http://www.epa.state.il.us/air/pm25/index.html.

Visit the landing page for the air quality index, ozone, and particulate monitoring data here: https://www2.illinois.gov/epa/topics/air-quality/outdoor-air/Pages/default.aspx.

Air Monitoring Summary Tables

The tables below summarize air monitoring data collected using EPA AreaRAE Pro and DustTrak DRX instruments.

Project Name: Morris Industrial Fire Site
Date/Time: 05/16/2022 05:55 to 05/20/2022 16:42

Northeast Air Monitoring Station					
Instrument	**Analyte**	**Morris Industrial Fire Public Health Screening Level[1]**	**Public Health Screening Level Exceeded?**	**1-Hour Period Concentration Range**	**Average of All 1-Hour Periods**
DustTrak (S/N: 8533153912)	$PM_{2.5}$ (mg/m^3)	0.025 mg/m^3	**Yes (see Comment 2)**	0.000 to 0.056	0.012
	PM_{10} (mg/m^3)	0.05 mg/m^3	**Yes (see Comment 2)**	0.000 to 0.056	0.013
AreaRAE Pro (S/N: W01A00002413)	VOC (ppm)	0.5 ppm	No	0.0 to 0.0	0.0
	CO (ppm)	--	No	0.0 to 2.0	0.0
	H_2S (ppm)	0.1 ppm	No	0.0 to 0.0	0.0
	HF (ppm)	0.2 ppm	No	0.0 to 0.0	0.0

Northwest Air Monitoring Station					
Instrument	**Analyte**	**Morris Industrial Fire Public Health Screening Level[1]**	**Public Health Screening Level Exceeded?**	**1-Hour Period Concentration Range**	**Average of All 1-Hour Periods**
DustTrak (S/N: 8533153917)	$PM_{2.5}$ (mg/m^3)	0.025 mg/m^3	**Yes (see Comment 2)**	0.000 to 0.060	0.019
	PM_{10} (mg/m^3)	0.05 mg/m^3	**Yes (see Comment 2)**	0.000 to 0.061	0.021
AreaRAE Pro (S/N: W01A00002412)	VOC (ppm)	0.5 ppm	No	0.0 to 0.0	0.0
	CO (ppm)	--	No	0.0 to 2.0	0.0
	H_2S (ppm)	0.1 ppm	No	0.0 to 0.0	0.0
	HF (ppm)	0.2 ppm	**Yes**	0.0 to 0.4	0.0

Southeast Air Monitoring Station					
Instrument	**Analyte**	**Morris Industrial Fire Public Health Screening Level[1]**	**Public Health Screening Level Exceeded?**	**1-Hour Period Concentration Range**	**Average of All 1-Hour Periods**
DustTrak (S/N: 8533153910)	$PM_{2.5}$ (mg/m^3)	0.025 mg/m^3	**Yes (see Comment 2)**	0.002 to 0.063	0.013
	PM_{10} (mg/m^3)	0.05 mg/m^3	**Yes (see Comment 2)**	0.003 to 0.063	0.014
AreaRAE Pro (S/N: W01A00002410)	VOC (ppm)	0.5 ppm	No	0.0 to 0.0	0.0
	CO (ppm)	--	No	0.0 to 3.0	0.1
	H_2S (ppm)	0.1 ppm	No	0.0 to 0.0	0.0
	HF (ppm)	0.2 ppm	No	0.0 to 0.0	0.0

Notes: See last page.

Air Monitoring Summary Tables

The tables below summarize air monitoring data collected using EPA AreaRAE Pro and DustTrak DRX instruments.

Project Name: Morris Industrial Fire Site
Date/Time: 05/16/2022 05:55 to 05/20/2022 16:42

Southwest Air Monitoring Station					
Instrument	**Analyte**	**Morris Industrial Fire Public Health Screening Level[1]**	**Public Health Screening Level Exceeded?**	**1-Hour Period Concentration Range**	**Average of All 1-Hour Periods**
DustTrak (S/N: 8533154003)	$PM_{2.5}$ (mg/m^3)	0.025 mg/m^3	**Yes (see Comment 2)**	0.001 to 0.060	0.013
	PM_{10} (mg/m^3)	0.05 mg/m^3	**Yes (see Comment 2)**	0.001 to 0.060	0.014
AreaRAE Pro (S/N: W01A00002411)	VOC (ppm)	0.5 ppm	No	0.0 to 0.0	0.0
	CO (ppm)	--	No	0.0 to 1.4	0.0
	H_2S (ppm)	0.1 ppm	No	0.0 to 0.0	0.0
	HF (ppm)	0.2 ppm	**Yes (see Comment 3)**	0.0 to 0.8	0.1

Comments
Air monitoring measurements have been averaged over a 1-hour time period and summarized above.
Start and stop times for each air monitoring instrument varies. The monitoring period is based on the earliest start time and latest stop time out of all units.
Air monitoring is not performed during inclement weather conditions/rain and thunderstorms.
1 - Public health screening levels are based on 1-hour time-weighted averages and were established by Agency for Toxic Substances and Disease Registry (ATSDR).
2 - $PM_{2.5}$ and PM_{10} 1-hour time-weighted averages were greater than the action level at multiple stations throughout the week. Visible dust originating from gravel stockpiles located directly south of the northeast station was observed and noted in the field log book during these periods. Upwind/off-site elevated levels $PM_{2.5}$ and PM_{10} impacted downwind air monitoring stations.
3 - HF measurements were between 0.7 ppm and 0.8 ppm from 7:07 to 14:04 on 5/18/2022 at the southwest station. During this period, site activities included sorting alkaline batteries along the east/northeast side of the interior of the building. The air monitoring instrument within the building measuring HF, a Single Point Monitor (SPM) Flex, recorded a maximum HF measurement of 0.07 ppm during this period. According to the manufacturer, the operating range of the AreaRAE Pro is 0% to 95% relative humidity (non-condensing). Relative humidity was greater than 95% for the majority of this period.
Notes: CO - Carbon Monoxide H_2S - Hydrogen Sulfide HF - Hydrogen Fluoride mg/m^3 - Milligrams per cubic meter $PM_{2.5}$ - Particles that are 2.5 micrometers and smaller PM_{10} - Particles that are 10 micrometers and smaller ppm - Parts per million S/N - Serial number VOC - Volatile organic compounds

Air Quality Index Categories and Recommendations

Air Quality Index Category	**24-Hour Avg. $PM_{2.5}$ Concentrations (ug/m^3)**	**24-Hour Avg. PM_{10} Concentrations (ug/m^3)**	**Recommended Actions**
Good	0 to 12.0	0 to 54	None
Moderate	12.1 to 35.4	55 to 154	People with heart or lung disease, older adults (65 and up), and children: **Consider reducing** prolonged or heavy exertion.
Unhealthy for Sensitive Groups	35.5 to 55.4	155 to 254	People with heart or lung disease, older adults (65 and up), and children: **Reduce** prolonged or heavy exertion.
Unhealthy	55.5 to 150.4	255 to 354	People with heart or lung disease, older adults (65 and up), and children: **Avoid** prolonged or heavy exertion. Everyone else should **reduce** prolonged or heavy exertion.
Very Unhealthy	150.5 to 250.4	355 to 424	People with heart or lung disease, older adults (65 and up), and children: **Avoid all physical activity outdoors**. Everyone else should **avoid** prolonged or heavy exertion.
Hazardous	250.5 to 500.4	**425 to 605**	**Everyone should avoid all physical activity outdoors**. People with heart or lung disease, older adults (65 and up), and children should remain indoors and keep activity levels low.

Comment: Illinois Statewide Average 24-hour $PM_{2.5}$ Concentration in 2020: 19.9 ug/m^3

Comment: Off-site monitoring locations include both upwind and downwind locations. Elevated $PM_{2.5}$ and PM_{10} concentrations may represent other sources.

Daily average $PM_{2.5}$ data for fixed monitoring locations can be found here: http://www.epa.state.il.us/air/pm25/index.html.

Visit the landing page for the air quality index, ozone, and particulate monitoring data here: https://www2.illinois.gov/epa/topics/air-quality/outdoor-air/Pages/default.aspx.

Air Monitoring Summary Tables

The tables below summarize air monitoring data collected using EPA AreaRAE Pro and DustTrak DRX instruments.

Project Name: Morris Industrial Fire Site
Date/Time: 05/23/2022 05:13 to 05/26/2022 16:39

Northeast Air Monitoring Station					
Instrument	**Analyte**	**Morris Industrial Fire Public Health Screening Level[1]**	**Public Health Screening Level Exceeded?**	**1-Hour Period Concentration Range**	**Average of All 1-Hour Periods**
DustTrak (S/N: 8533153912)	$PM_{2.5}$ (mg/m^3)	0.025 mg/m^3	No	0.005 to 0.012	0.007
	PM_{10} (mg/m^3)	0.05 mg/m^3	No	0.005 to 0.015	0.008
AreaRAE Pro (S/N: W01A00002413)	VOC (ppm)	0.5 ppm	No	0.0 to 0.0	0.0
	CO (ppm)	--	No	0.0 to 2.0	0.0
	H_2S (ppm)	0.1 ppm	No	0.0 to 0.0	0.0
	HF (ppm)	0.2 ppm	No	0.0 to 0.0	0.0

Northwest Air Monitoring Station					
Instrument	**Analyte**	**Morris Industrial Fire Public Health Screening Level[1]**	**Public Health Screening Level Exceeded?**	**1-Hour Period Concentration Range**	**Average of All 1-Hour Periods**
DustTrak (S/N: 8533153917)	$PM_{2.5}$ (mg/m^3)	0.025 mg/m^3	No	0.000 to 0.012	0.005
	PM_{10} (mg/m^3)	0.05 mg/m^3	No	0.000 to 0.019	0.006
AreaRAE Pro (S/N: W01A00002412)	VOC (ppm)	0.5 ppm	No	0.0 to 0.1	0.0
	CO (ppm)	--	No	0.0 to 0.0	0.0
	H_2S (ppm)	0.1 ppm	No	0.0 to 0.0	0.0
	HF (ppm)	0.2 ppm	No	0.0 to 0.0	0.0

Southeast Air Monitoring Station					
Instrument	**Analyte**	**Morris Industrial Fire Public Health Screening Level[1]**	**Public Health Screening Level Exceeded?**	**1-Hour Period Concentration Range**	**Average of All 1-Hour Periods**
DustTrak (S/N: 8533153910)	$PM_{2.5}$ (mg/m^3)	0.025 mg/m^3	No	0.004 to 0.016	0.007
	PM_{10} (mg/m^3)	0.05 mg/m^3	No	0.004 to 0.018	0.008
AreaRAE Pro (S/N: W01A00002410)	VOC (ppm)	0.5 ppm	No	0.0 to 0.0	0.0
	CO (ppm)	--	No	0.0 to 0.3	0.0
	H_2S (ppm)	0.1 ppm	No	0.0 to 0.0	0.0
	HF (ppm)	0.2 ppm	No	0.0 to 0.0	0.0

Notes: See last page.

Air Monitoring Summary Tables

The tables below summarize air monitoring data collected using EPA AreaRAE Pro and DustTrak DRX instruments.

Project Name: Morris Industrial Fire Site
Date/Time: 05/23/2022 05:13 to 05/26/2022 16:39

Southwest Air Monitoring Station					
Instrument	**Analyte**	**Morris Industrial Fire Public Health Screening Level[1]**	**Public Health Screening Level Exceeded?**	**1-Hour Period Concentration Range**	**Average of All 1-Hour Periods**
DustTrak (5/23-5/24 - S/N: 8533154003 5/24-5/26 - S/N: 8533154004)	$PM_{2.5}$ (mg/m^3)	0.025 mg/m^3	No	0.004 to 0.010	0.007
	PM_{10} (mg/m^3)	0.05 mg/m^3	No	0.005 to 0.013	0.008
AreaRAE Pro (S/N: W01A00002411)	VOC (ppm)	0.5 ppm	No	0.0 to 0.1	0.0
	CO (ppm)	--	No	0.0 to 0.0	0.0
	H_2S (ppm)	0.1 ppm	No	0.0 to 0.0	0.0
	HF (ppm)	0.2 ppm	No	0.0 to 0.0	0.0

Comments
Air monitoring measurements have been averaged over a 1-hour time period and summarized above.
Start and stop times for each air monitoring instrument varies. The monitoring period is based on the earliest start time and latest stop time out of all units.
Air monitoring is not performed during inclement weather conditions/rain and thunderstorms. On May 25, 2022, AreaRAE Pro and DustTrak instruments were not deployed due to inclement weather. Discrete air monitoring measurements were collected with a Handheld DustTrak and a MultiRAE Pro. No measurements were observed above the screening levels.
1 - Public health screening levels are based on 1-hour time-weighted averages and were established by Agency for Toxic Substances and Disease Registry (ATSDR).
Notes: CO - Carbon Monoxide H_2S - Hydrogen Sulfide HF - Hydrogen Fluoride mg/m^3 - Milligrams per cubic meter $PM_{2.5}$ - Particles that are 2.5 micrometers and smaller PM_{10} - Particles that are 10 micrometers and smaller ppm - Parts per million S/N - Serial number VOC - Volatile organic compounds

Air Monitoring Results Summary Table
Monitoring Period: 05/25/2022 12:53 to 05/25/2022 16:55
Morris Lithium Battery Fire Site
Morris, Grundy County, Illinois

Location	Date/Time	VOC (ppm)	LEL (%)	CO (ppm)	O_2 (%)	H_2S (ppm)	PM_{10} (mg/m^3)	$PM_{2.5}$ (mg/m^3)
		Action Levels[1]						
		0.5 ppm	5 %	25 ppm	19.5 to 23.5 %	0.1 ppm	0.05 mg/m^3	0.025 mg/m^3
Northeast Station	05/25/2022 12:53						0.026	0.022
	05/25/2022 12:56	0	0	0	20.9	0		
	05/25/2022 15:21	0	0	0	20.9	0	0.01	0.009
	05/25/2022 16:48	0	0	0	20.9	0	0.013	0.01
Southeast Station	05/25/2022 12:56						0.021	0.02
	05/25/2022 13:03	0	0	0	20.9	0		
	05/25/2022 15:17	0	0	0	20.9	0	0.011	
	05/25/2022 16:55	0	0	0	20.9	0	0.013	0.012
Southwest Station	05/25/2022 15:26	0	0	0	20.9	0	0.01	0.009
	05/25/2022 16:45	0	0	0	20.9	0	0.013	0.011
Northwest Station	05/25/2022 13:13	0	0	0	20.9	0	0.017	0.015
	05/25/2022 15:29	0	0	0	20.9	0	0.01	0.009
	05/25/2022 16:42	0	0	0	20.9	0	0.027	0.015

Notes:
1 - Site-specific public health screening levels are based on 1-hour time-weighted averages and were established by Agency for Toxic Substances and Disease Registry (ATSDR). Fixed discrete monitoring readings are discrete readings, and so do not represent conditions over a full 1-hour period.

Highlighted values are discrete readings above the 1-hour time-weighted average site-specific public health screening level.

% - Percent
CO - Carbon Monoxide
H_2S - Hydrogen Sulfide
HF - Hydrogen Fluoride
LEL - Lower explosive limit
mg/m^3 - Milligrams per cubic meter
O_2 - Oxygen
$PM_{2.5}$ - Particles that are 2.5 micrometers and smaller
PM_{10} - Particles that are 10 micrometers and smaller
ppm - Parts per million
VOC - Volatile organic compounds

Air Quality Index Categories and Recommendations

Air Quality Index Category	**24-Hour Avg. $PM_{2.5}$ Concentrations (ug/m^3)**	**24-Hour Avg. PM_{10} Concentrations (ug/m^3)**	**Recommended Actions**
Good	0 to 12.0	0 to 54	None
Moderate	12.1 to 35.4	55 to 154	People with heart or lung disease, older adults (65 and up), and children: **Consider reducing** prolonged or heavy exertion.
Unhealthy for Sensitive Groups	35.5 to 55.4	155 to 254	People with heart or lung disease, older adults (65 and up), and children: **Reduce** prolonged or heavy exertion.
Unhealthy	55.5 to 150.4	255 to 354	People with heart or lung disease, older adults (65 and up), and children: **Avoid** prolonged or heavy exertion. Everyone else should **reduce** prolonged or heavy exertion.
Very Unhealthy	150.5 to 250.4	355 to 424	People with heart or lung disease, older adults (65 and up), and children: **Avoid all physical activity outdoors**. Everyone else should **avoid** prolonged or heavy exertion.
Hazardous	250.5 to 500.4	**425 to 605**	**Everyone should avoid all physical activity outdoors**. People with heart or lung disease, older adults (65 and up), and children should remain indoors and keep activity levels low.

Comment: Illinois Statewide Average 24-hour $PM_{2.5}$ Concentration in 2020: 19.9 ug/m^3

Comment: Off-site monitoring locations include both upwind and downwind locations. Elevated $PM_{2.5}$ and PM_{10} concentrations may represent other sources.

Daily average $PM_{2.5}$ data for fixed monitoring locations can be found here: http://www.epa.state.il.us/air/pm25/index.html.

Visit the landing page for the air quality index, ozone, and particulate monitoring data here: https://www2.illinois.gov/epa/topics/air-quality/outdoor-air/Pages/default.aspx.

Air Monitoring Summary Tables

The tables below summarize air monitoring data collected using EPA AreaRAE Pro and DustTrak DRX instruments.

Project Name: Morris Industrial Fire Site
Date/Time: 06/01/2022 06:50 to 06/03/2022 16:39

Northeast Air Monitoring Station					
Instrument	**Analyte**	**Morris Industrial Fire Public Health Screening Level[1]**	**Public Health Screening Level Exceeded?**	**1-Hour Period Concentration Range**	**Average of All 1-Hour Periods**
DustTrak (S/N: 8533153912)	$PM_{2.5}$ (mg/m^3)	0.025 mg/m^3	No	0.003 to 0.010	0.006
	PM_{10} (mg/m^3)	0.05 mg/m^3	No	0.004 to 0.012	0.007
AreaRAE Pro (S/N: W01A00002413)	VOC (ppm)	0.5 ppm	No	0.0 to 0.0	0.0
	CO (ppm)	--	No	0.0 to 0.5	0.0
	H_2S (ppm)	0.1 ppm	No	0.0 to 0.0	0.0
	HF (ppm)	0.2 ppm	No	0.0 to 0.0	0.0

Northwest Air Monitoring Station					
Instrument	**Analyte**	**Morris Industrial Fire Public Health Screening Level[1]**	**Public Health Screening Level Exceeded?**	**1-Hour Period Concentration Range**	**Average of All 1-Hour Periods**
DustTrak (S/N: 8533153917)	$PM_{2.5}$ (mg/m^3)	0.025 mg/m^3	No	0.000 to 0.008	0.003
	PM_{10} (mg/m^3)	0.05 mg/m^3	No	0.000 to 0.028	0.004
AreaRAE Pro (S/N: W01A00002412)	VOC (ppm)	0.5 ppm	No	0.0 to 0.1	0.0
	CO (ppm)	--	No	0.0 to 0.0	0.0
	H_2S (ppm)	0.1 ppm	No	0.0 to 0.0	0.0
	HF (ppm)	0.2 ppm	No	0.0 to 0.0	0.0

Southeast Air Monitoring Station					
Instrument	**Analyte**	**Morris Industrial Fire Public Health Screening Level[1]**	**Public Health Screening Level Exceeded?**	**1-Hour Period Concentration Range**	**Average of All 1-Hour Periods**
DustTrak (S/N: 8533153910)	$PM_{2.5}$ (mg/m^3)	0.025 mg/m^3	No	0.003 to 0.008	0.005
	PM_{10} (mg/m^3)	0.05 mg/m^3	No	0.003 to 0.009	0.006
AreaRAE Pro (S/N: W01A00002410)	VOC (ppm)	0.5 ppm	No	0.0 to 0.0	0.0
	CO (ppm)	--	No	0.0 to 0.0	0.0
	H_2S (ppm)	0.1 ppm	No	0.0 to 0.0	0.0
	HF (ppm)	0.2 ppm	No	0.0 to 0.0	0.0

Notes: See last page.

Air Monitoring Summary Tables

The tables below summarize air monitoring data collected using EPA AreaRAE Pro and DustTrak DRX instruments.

Project Name: Morris Industrial Fire Site
Date/Time: 06/01/2022 06:50 to 06/03/2022 16:39

Southwest Air Monitoring Station					
Instrument	**Analyte**	**Morris Industrial Fire Public Health Screening Level[1]**	**Public Health Screening Level Exceeded?**	**1-Hour Period Concentration Range**	**Average of All 1-Hour Periods**
DustTrak (S/N: 8533154003)	$PM_{2.5}$ (mg/m^3)	0.025 mg/m^3	No	0.002 to 0.008	0.004
	PM_{10} (mg/m^3)	0.05 mg/m^3	No	0.002 to 0.008	0.005
AreaRAE Pro (S/N: W01A00002411)	VOC (ppm)	0.5 ppm	No	0.0 to 0.1	0.0
	CO (ppm)	--	No	0.0 to 0.0	0.0
	H_2S (ppm)	0.1 ppm	No	0.0 to 0.0	0.0
	HF (ppm)	0.2 ppm	No	0.0 to 0.0	0.0

Comments
Air monitoring measurements have been averaged over a 1-hour time period and summarized above.
Start and stop times for each air monitoring instrument varies. The monitoring period is based on the earliest start time and latest stop time out of all units.
Air monitoring is not performed during inclement weather conditions/rain and thunderstorms.
1 - Public health screening levels are based on 1-hour time-weighted averages and were established by Agency for Toxic Substances and Disease Registry (ATSDR).
Notes: CO - Carbon Monoxide H_2S - Hydrogen Sulfide HF - Hydrogen Fluoride mg/m^3 - Milligrams per cubic meter $PM_{2.5}$ - Particles that are 2.5 micrometers and smaller PM_{10} - Particles that are 10 micrometers and smaller ppm - Parts per million S/N - Serial number VOC - Volatile organic compounds

Air Quality Index Categories and Recommendations

Air Quality Index Category	**24-Hour Avg. $PM_{2.5}$ Concentrations (ug/m^3)**	**24-Hour Avg. PM_{10} Concentrations (ug/m^3)**	**Recommended Actions**
Good	0 to 12.0	0 to 54	None
Moderate	12.1 to 35.4	55 to 154	People with heart or lung disease, older adults (65 and up), and children: **Consider reducing** prolonged or heavy exertion.
Unhealthy for Sensitive Groups	35.5 to 55.4	155 to 254	People with heart or lung disease, older adults (65 and up), and children: **Reduce** prolonged or heavy exertion.
Unhealthy	55.5 to 150.4	255 to 354	People with heart or lung disease, older adults (65 and up), and children: **Avoid** prolonged or heavy exertion. Everyone else should **reduce** prolonged or heavy exertion.
Very Unhealthy	150.5 to 250.4	355 to 424	People with heart or lung disease, older adults (65 and up), and children: **Avoid all physical activity outdoors**. Everyone else should **avoid** prolonged or heavy exertion.
Hazardous	250.5 to 500.4	**425 to 605**	**Everyone should avoid all physical activity outdoors**. People with heart or lung disease, older adults (65 and up), and children should remain indoors and keep activity levels low.

Comment: Illinois Statewide Average 24-hour $PM_{2.5}$ Concentration in 2020: 19.9 ug/m^3

Comment: Off-site monitoring locations include both upwind and downwind locations. Elevated $PM_{2.5}$ and PM_{10} concentrations may represent other sources.

Daily average $PM_{2.5}$ data for fixed monitoring locations can be found here: http://www.epa.state.il.us/air/pm25/index.html.

Visit the landing page for the air quality index, ozone, and particulate monitoring data here: https://www2.illinois.gov/epa/topics/air-quality/outdoor-air/Pages/default.aspx.

Air Monitoring Summary Tables

The tables below summarize air monitoring data collected using EPA AreaRAE Pro and DustTrak DRX instruments.

Project Name: Morris Industrial Fire Site
Date/Time: 06/06/2022 05:27 to 06/10/2022 16:55

Northeast Air Monitoring Station					
Instrument	**Analyte**	**Morris Industrial Fire Public Health Screening Level[1]**	**Public Health Screening Level Exceeded?**	**1-Hour Period Concentration Range**	**Average of All 1-Hour Periods**
DustTrak (S/N: 8533153912)	$PM_{2.5}$ (mg/m^3)	0.025 mg/m^3	No	0.003 to 0.022	0.008
	PM_{10} (mg/m^3)	0.05 mg/m^3	No	0.003 to 0.024	0.008
AreaRAE Pro (S/N: W01A00002413)	VOC (ppm)	0.5 ppm	No	0.0 to 0.0	0.0
	CO (ppm)	--	No	0.0 to 0.0	0.0
	H_2S (ppm)	0.1 ppm	No	0.0 to 0.0	0.0
	HF (ppm)	0.2 ppm	No	0.0 to 0.0	0.0

Northwest Air Monitoring Station					
Instrument	**Analyte**	**Morris Industrial Fire Public Health Screening Level[1]**	**Public Health Screening Level Exceeded?**	**1-Hour Period Concentration Range**	**Average of All 1-Hour Periods**
DustTrak (S/N: 8533153917)	$PM_{2.5}$ (mg/m^3)	0.025 mg/m^3	**Yes (see Comment 2)**	0.000 to 0.036	0.004
	PM_{10} (mg/m^3)	0.05 mg/m^3	No	0.000 to 0.045	0.005
AreaRAE Pro (S/N: W01A00002412)	VOC (ppm)	0.5 ppm	No	0.0 to 0.1	0.0
	CO (ppm)	--	No	0.0 to 0.0	0.0
	H_2S (ppm)	0.1 ppm	No	0.0 to 0.0	0.0
	HF (ppm)	0.2 ppm	No	0.0 to 0.0	0.0

Southeast Air Monitoring Station					
Instrument	**Analyte**	**Morris Industrial Fire Public Health Screening Level[1]**	**Public Health Screening Level Exceeded?**	**1-Hour Period Concentration Range**	**Average of All 1-Hour Periods**
DustTrak (S/N: 8533153910)	$PM_{2.5}$ (mg/m^3)	0.025 mg/m^3	No	0.004 to 0.024	0.008
	PM_{10} (mg/m^3)	0.05 mg/m^3	No	0.004 to 0.025	0.008
AreaRAE Pro (S/N: W01A00002410)	VOC (ppm)	0.5 ppm	No	0.0 to 0.0	0.0
	CO (ppm)	--	No	0.0 to 0.0	0.0
	H_2S (ppm)	0.1 ppm	No	0.0 to 0.0	0.0
	HF (ppm)	0.2 ppm	No	0.0 to 0.0	0.0

Notes: See last page.

Air Monitoring Summary Tables

The tables below summarize air monitoring data collected using EPA AreaRAE Pro and DustTrak DRX instruments.

Project Name: Morris Industrial Fire Site
Date/Time: 06/06/2022 05:27 to 06/10/2022 16:55

Southwest Air Monitoring Station					
Instrument	**Analyte**	**Morris Industrial Fire Public Health Screening Level[1]**	**Public Health Screening Level Exceeded?**	**1-Hour Period Concentration Range**	**Average of All 1-Hour Periods**
DustTrak (S/N: 8533154003)	$PM_{2.5}$ (mg/m^3)	0.025 mg/m^3	No	0.003 to 0.023	0.007
	PM_{10} (mg/m^3)	0.05 mg/m^3	No	0.003 to 0.023	0.007
AreaRAE Pro (S/N: W01A00002411)	VOC (ppm)	0.5 ppm	No	0.0 to 0.4	0.0
	CO (ppm)	--	No	0.0 to 0.0	0.0
	H_2S (ppm)	0.1 ppm	No	0.0 to 0.0	0.0
	HF (ppm)	0.2 ppm	No	0.0 to 0.0	0.0

Comments
Air monitoring measurements have been averaged over a 1-hour time period and summarized above.
Start and stop times for each air monitoring instrument varies. The monitoring period is based on the earliest start time and latest stop time out of all units.
Air monitoring is not performed during inclement weather conditions/rain and thunderstorms.
1 - Public health screening levels are based on 1-hour time-weighted averages and were established by Agency for Toxic Substances and Disease Registry (ATSDR).
2 - Elevated $PM_{2.5}$ measurements greater than the action level were recorded at the Northwest Station on June 9, 2022 at 8:15. $PM_{2.5}$ was greater than the action level for less than 60 seconds. $PM_{2.5}$ measurements for the remainder of the monitoring period on June 9, 2022 were below the action level.
Notes: CO - Carbon Monoxide H_2S - Hydrogen Sulfide HF - Hydrogen Fluoride mg/m^3 - Milligrams per cubic meter $PM_{2.5}$ - Particles that are 2.5 micrometers and smaller PM_{10} - Particles that are 10 micrometers and smaller ppm - Parts per million S/N - Serial number VOC - Volatile organic compounds

Air Monitoring Results Summary Table
Monitoring Period: 06/06/2022 and 06/08/2022
Morris Lithium Battery Fire Site
Morris, Grundy County, Illinois

Location	Date/Time	VOC (ppm)	LEL (%)	CO (ppm)	O_2 (%)	H_2S (ppm)	PM_{10} (mg/m^3)	$PM_{2.5}$ (mg/m^3)
		Action Levels[1]						
		0.5 ppm	5 %	25 ppm	19.5 to 23.5 %	0.1 ppm	0.05 mg/m^3	0.025 mg/m^3
Southeast Station	06/06/2022 12:43	0	0	0	20.9	0	0.03	0.029[2]
	06/06/2022 12:54	0	0		20.9	0	0.036	0.034[2]
	06/06/2022 14:37	0						
	06/06/2022 14:56		0	0	20.9	0	0.029	0.028[2]
	06/08/2022 08:26	0	0	0	20.9	0	0.016	0.011
	06/08/2022 08:35	0	0	0	20.9	0	0.011	
	06/08/2022 15:36							0.012
	06/08/2022 16:06	0	0	0	20.9	0	0.014	
Northeast Station	06/06/2022 12:46	0	0	0	20.9	0	0.036	0.033[2]
	06/06/2022 14:39	0	0	0	20.9	0	0.031	0.029[2]
	06/08/2022 08:29							0.01
	06/08/2022 15:39	0	0	0	20.9	0	0.012	0.011
Southwest Station	06/06/2022 12:56	0	0	0	20.9	0	0.035	0.034[2]
	06/06/2022 14:44	0	0	0	20.9	0	0.024	0.023
	06/08/2022 08:35							0.009
	06/08/2022 15:47	0	0	0	20.9	0	0.011	0.01
Northwest Station	06/06/2022 14:46	0	0	0	20.9	0	0.029	0.028[2]
	06/08/2022 08:38	0	0	0	20.9	0	0.013	0.011
	06/08/2022 09:32	0	0	0	20.9	0	0.011	
	06/08/2022 15:50	0	0	0	20.9	0	0.011	0.01

Notes: See last page.

Notes:

1 - Site-specific public health screening levels are based on 1-hour time-weighted averages and were established by Agency for Toxic Substances and Disease Registry (ATSDR). Fixed discrete monitoring readings are discrete readings, and so do not represent conditions over a full 1-hour period.

2 - Discrete measurements of $PM_{2.5}$ were recorded above the action levels at all stations on June 6, 2022. Upwind/off-site $PM_{2.5}$ likely impacted downwind stations, however discrete measurements do not represent conditions over a full 1-hour period and cannot be directly compared to action levels based on 1-hour time-weighted averages.

Highlighted values are discrete readings above the 1-hour time-weighted average site-specific public health screening level.

% - Percent

CO - Carbon Monoxide

H_2S - Hydrogen Sulfide

LEL - Lower explosive limit

mg/m^3 - Milligrams per cubic meter

O_2 - Oxygen

$PM_{2.5}$ - Particles that are 2.5 micrometers and smaller

PM_{10} - Particles that are 10 micrometers and smaller

ppm - Parts per million

VOC - Volatile organic compounds

Air Quality Index Categories and Recommendations

Air Quality Index Category	**24-Hour Avg. $PM_{2.5}$ Concentrations (ug/m^3)**	**24-Hour Avg. PM_{10} Concentrations (ug/m^3)**	**Recommended Actions**
Good	0 to 12.0	0 to 54	None
Moderate	12.1 to 35.4	55 to 154	People with heart or lung disease, older adults (65 and up), and children: **Consider reducing** prolonged or heavy exertion.
Unhealthy for Sensitive Groups	35.5 to 55.4	155 to 254	People with heart or lung disease, older adults (65 and up), and children: **Reduce** prolonged or heavy exertion.
Unhealthy	55.5 to 150.4	255 to 354	People with heart or lung disease, older adults (65 and up), and children: **Avoid** prolonged or heavy exertion. Everyone else should **reduce** prolonged or heavy exertion.
Very Unhealthy	150.5 to 250.4	355 to 424	People with heart or lung disease, older adults (65 and up), and children: **Avoid all physical activity outdoors**. Everyone else should **avoid** prolonged or heavy exertion.
Hazardous	250.5 to 500.4	**425 to 605**	**Everyone should avoid all physical activity outdoors**. People with heart or lung disease, older adults (65 and up), and children should remain indoors and keep activity levels low.

Comment: Illinois Statewide Average 24-hour $PM_{2.5}$ Concentration in 2020: 19.9 ug/m^3

Comment: Off-site monitoring locations include both upwind and downwind locations. Elevated $PM_{2.5}$ and PM_{10} concentrations may represent other sources.

Daily average $PM_{2.5}$ data for fixed monitoring locations can be found here: http://www.epa.state.il.us/air/pm25/index.html.

Visit the landing page for the air quality index, ozone, and pm data here: https://www2.illinois.gov/epa/topics/air-quality/outdoor-air/Pages/default.aspx.

Air Monitoring Summary Tables

The tables below summarize air monitoring data collected using EPA AreaRAE Pro and DustTrak DRX instruments.

Project Name: Morris Industrial Fire Site
Date/Time: 06/13/2022 05:56 to 06/17/2022 16:47

Northeast Air Monitoring Station						
Instrument	**Analyte**	**Morris Industrial Fire Public Health Screening Level[1]**	**Public Health Screening Level Exceeded?**	**Number of 1-Hour Periods**	**1-Hour Period Concentration Range**	**Average of All 1-Hour Periods**
DustTrak (S/N: 8533153912)	$PM_{2.5}$ (mg/m^3)	0.025 mg/m^3	**Yes (see Comment 2)**	2836	0.004 to 0.038	0.019
	PM_{10} (mg/m^3)	0.05 mg/m^3	No	2836	0.004 to 0.039	0.021
AreaRAE Pro (S/N: W01A00002413)	VOC (ppm)	0.5 ppm	No	2916	0.0 to 0.0	0.0
	CO (ppm)	--	No	2916	0.0 to 0.9	0.0
	H_2S (ppm)	0.1 ppm	No	2916	0.0 to 0.0	0.0
	HF (ppm)	0.2 ppm	No	2916	0.0 to 0.0	0.0

Northwest Air Monitoring Station						
Instrument	**Analyte**	**Morris Industrial Fire Public Health Screening Level[1]**	**Public Health Screening Level Exceeded?**	**Number of 1-Hour Periods**	**1-Hour Period Concentration Range**	**Average of All 1-Hour Periods**
DustTrak (S/N: 8533153917)	$PM_{2.5}$ (mg/m^3)	0.025 mg/m^3	**Yes (see Comment 2)**	2808	0.000 to 0.035	0.016
	PM_{10} (mg/m^3)	0.05 mg/m^3	No	2808	0.000 to 0.041	0.018
AreaRAE Pro (S/N: W01A00002412)	VOC (ppm)	0.5 ppm	No	2916	0.0 to 0.0	0.0
	CO (ppm)	--	No	2916	0.0 to 0.9	0.0
	H_2S (ppm)	0.1 ppm	No	2916	0.0 to 0.0	0.0
	HF (ppm)	0.2 ppm	No	2916	0.0 to 0.0	0.0

Southeast Air Monitoring Station						
Instrument	**Analyte**	**Morris Industrial Fire Public Health Screening Level[1]**	**Public Health Screening Level Exceeded?**	**Number of 1-Hour Periods**	**1-Hour Period Concentration Range**	**Average of All 1-Hour Periods**
DustTrak (S/N: 8533153910)	$PM_{2.5}$ (mg/m^3)	0.025 mg/m^3	**Yes (see Comment 2)**	2843	0.002 to 0.040	0.020
	PM_{10} (mg/m^3)	0.05 mg/m^3	No	2843	0.003 to 0.044	0.022
AreaRAE Pro (S/N: W01A00002410)	VOC (ppm)	0.5 ppm	No	2961	0.0 to 0.1	0.0
	CO (ppm)	--	No	2961	0.0 to 1.0	0.0
	H_2S (ppm)	0.1 ppm	No	2961	0.0 to 0.0	0.0
	HF (ppm)	0.2 ppm	No	2961	0.0 to 0.0	0.0

Notes: See last page.

Air Monitoring Summary Tables

The tables below summarize air monitoring data collected using EPA AreaRAE Pro and DustTrak DRX instruments.

Project Name: Morris Industrial Fire Site
Date/Time: 06/13/2022 05:56 to 06/17/2022 16:47

Southwest Air Monitoring Station						
Instrument	**Analyte**	**Morris Industrial Fire Public Health Screening Level[1]**	**Public Health Screening Level Exceeded?**	**Number of 1-Hour Periods**	**1-Hour Period Concentration Range**	**Average of All 1-Hour Periods**
DustTrak (S/N: 8533154003)	$PM_{2.5}$ (mg/m^3)	0.025 mg/m^3	**Yes (see Comment 2)**	2832	0.002 to 0.044	0.018
	PM_{10} (mg/m^3)	0.05 mg/m^3	**Yes (see Comment 2)**	2832	0.002 to 0.056	0.019
AreaRAE Pro (S/N: W01A00002411)	VOC (ppm)	0.5 ppm	No	3030	0.0 to 0.2	0.0
	CO (ppm)	--	No	3030	0.0 to 1.0	0.0
	H_2S (ppm)	0.1 ppm	No	3030	0.0 to 0.0	0.0
	HF (ppm)	0.2 ppm	No	3030	0.0 to 0.0	0.0

Comments
Air monitoring measurements have been averaged over a 1-hour time period and summarized above.
Start and stop times for each air monitoring instrument varies. The monitoring period is based on the earliest start time and latest stop time out of all units.
Air monitoring is not performed during inclement weather conditions/rain and thunderstorms.
1 - Public health screening levels are based on 1-hour time-weighted averages and were established by Agency for Toxic Substances and Disease Registry (ATSDR).
2 - $PM_{2.5}$ 1-hour time-weighted averages were greater than the action level at all stations throughout the week. The southwest station PM_{10} 1-hour time-weighted averages were greater than the action level throughout the week. Upwind/off-site elevated levels $PM_{2.5}$ and PM_{10} impacted downwind air monitoring stations.

Notes:
CO - Carbon Monoxide
H_2S - Hydrogen Sulfide
HF - Hydrogen Fluoride
LEL - Lower explosive limit
mg/m^3 - Milligrams per cubic meter
$PM_{2.5}$ - Particles that are 2.5 micrometers and smaller
PM_{10} - Particles that are 10 micrometers and smaller
ppm - Parts per million
S/N - Serial number
VOC - Volatile organic compounds

Air Quality Index Categories and Recommendations

Air Quality Index Category	**24-Hour Avg. $PM_{2.5}$ Concentrations (ug/m^3)**	**24-Hour Avg. PM_{10} Concentrations (ug/m^3)**	**Recommended Actions**
Good	0 to 12.0	0 to 54	None
Moderate	12.1 to 35.4	55 to 154	People with heart or lung disease, older adults (65 and up), and children: **Consider reducing** prolonged or heavy exertion.
Unhealthy for Sensitive Groups	35.5 to 55.4	155 to 254	People with heart or lung disease, older adults (65 and up), and children: **Reduce** prolonged or heavy exertion.
Unhealthy	55.5 to 150.4	255 to 354	People with heart or lung disease, older adults (65 and up), and children: **Avoid** prolonged or heavy exertion. Everyone else should **reduce** prolonged or heavy exertion.
Very Unhealthy	150.5 to 250.4	355 to 424	People with heart or lung disease, older adults (65 and up), and children: **Avoid all physical activity outdoors**. Everyone else should **avoid** prolonged or heavy exertion.
Hazardous	250.5 to 500.4	**425 to 605**	**Everyone should avoid all physical activity outdoors**. People with heart or lung disease, older adults (65 and up), and children should remain indoors and keep activity levels low.

Comment: Illinois Statewide Average 24-hour $PM_{2.5}$ Concentration in 2020: 19.9 ug/m^3

Comment: Off-site monitoring locations include both upwind and downwind locations. Elevated $PM_{2.5}$ and PM_{10} concentrations may represent other sources.

Daily average $PM_{2.5}$ data for fixed monitoring locations can be found here: http://www.epa.state.il.us/air/pm25/index.html.

Visit the landing page for the air quality index, ozone, and particulate monitoring data here: https://www2.illinois.gov/epa/topics/air-quality/outdoor-air/Pages/default.aspx.

Air Monitoring Summary Tables

The tables below summarize air monitoring data collected using EPA AreaRAE Pro and DustTrak DRX instruments.

Project Name: Morris Industrial Fire Site
Date/Time: 06/21/2022 07:39 to 06/24/2022 16:15

Northeast Air Monitoring Station					
Instrument	**Analyte**	**Morris Industrial Fire Public Health Screening Level[1]**	**Public Health Screening Level Exceeded?**	**1-Hour Period Concentration Range**	**Average of All 1-Hour Periods**
DustTrak (S/N: 8533153912)	$PM_{2.5}$ (mg/m^3)	0.025 mg/m^3	No	0.003 to 0.017	0.009
	PM_{10} (mg/m^3)	0.05 mg/m^3	No	0.004 to 0.018	0.010
AreaRAE Pro (S/N: W01A00002413)	VOC (ppm)	0.5 ppm	No	0.0 to 0.0	0.0
	CO (ppm)	--	No	0.0 to 0.0	0.0
	H_2S (ppm)	0.1 ppm	No	0.0 to 0.0	0.0
	HF (ppm)	0.2 ppm	**Yes (see Comment 2)**	0.0 to 0.5	0.0

Northwest Air Monitoring Station					
Instrument	**Analyte**	**Morris Industrial Fire Public Health Screening Level[1]**	**Public Health Screening Level Exceeded?**	**1-Hour Period Concentration Range**	**Average of All 1-Hour Periods**
DustTrak (S/N: 8533153917)	$PM_{2.5}$ (mg/m^3)	0.025 mg/m^3	No	0.000 to 0.019	0.005
	PM_{10} (mg/m^3)	0.05 mg/m^3	No	0.001 to 0.022	0.007
AreaRAE Pro (S/N: W01A00002412)	VOC (ppm)	0.5 ppm	No	0.0 to 0.1	0.0
	CO (ppm)	--	No	0.0 to 0.4	0.0
	H_2S (ppm)	0.1 ppm	No	0.0 to 0.0	0.0
	HF (ppm)	0.2 ppm	No	0.0 to 0.0	0.0

Southeast Air Monitoring Station					
Instrument	**Analyte**	**Morris Industrial Fire Public Health Screening Level[1]**	**Public Health Screening Level Exceeded?**	**1-Hour Period Concentration Range**	**Average of All 1-Hour Periods**
DustTrak (S/N: 8533153910)	$PM_{2.5}$ (mg/m^3)	0.025 mg/m^3	No	0.002 to 0.020	0.007
	PM_{10} (mg/m^3)	0.05 mg/m^3	No	0.003 to 0.022	0.008
AreaRAE Pro (S/N: W01A00002410)	VOC (ppm)	0.5 ppm	No	0.0 to 0.0	0.0
	CO (ppm)	--	No	0.0 to 0.1	0.0
	H_2S (ppm)	0.1 ppm	No	0.0 to 0.0	0.0
	HF (ppm)	0.2 ppm	**Yes (see Comment 3)**	0.0 to 0.8	0.1

Notes: See last page.

Air Monitoring Summary Tables

The tables below summarize air monitoring data collected using EPA AreaRAE Pro and DustTrak DRX instruments.

Project Name: Morris Industrial Fire Site
Date/Time: 06/21/2022 07:39 to 06/24/2022 16:15

Southwest Air Monitoring Station					
Instrument	**Analyte**	**Morris Industrial Fire Public Health Screening Level[1]**	**Public Health Screening Level Exceeded?**	**1-Hour Period Concentration Range**	**Average of All 1-Hour Periods**
DustTrak (S/N: 8533154004)	$PM_{2.5}$ (mg/m^3)	0.025 mg/m^3	No	0.001 to 0.022	0.006
	PM_{10} (mg/m^3)	0.05 mg/m^3	No	0.002 to 0.023	0.007
AreaRAE Pro (S/N: W01A00002411)	VOC (ppm)	0.5 ppm	No	0.0 to 0.0	0.0
	CO (ppm)	--	No	0.0 to 2.0	0.0
	H_2S (ppm)	0.1 ppm	No	0.0 to 0.0	0.0
	HF (ppm)	0.2 ppm	No	0.0 to 0.0	0.0

Comments
Air monitoring measurements have been averaged over a 1-hour time period and summarized above.
Start and stop times for each air monitoring instrument varies. The monitoring period is based on the earliest start time and latest stop time out of all units.
Air monitoring is not performed during inclement weather conditions/rain and thunderstorms.
1 - Public health screening levels are based on 1-hour time-weighted averages and were established by Agency for Toxic Substances and Disease Registry (ATSDR).
2 - HF 1-hr time-weighted averages were greater than the action level at the downwind/crosswind northeast station on June 24, 2022 from 7:22 through 9:21 and from 10:21 through 12:06. A mobile instrument, the Single Point Monitor (SPM) Flex, was used to verify the elevated HF measurements during each period. The SPM Flex measured 0 ppm for HF and confirmed HF sensor drift in the AreaRAE Pro instrument. The AreaRAE Pro instruments were then fresh air calibrated.
3 - HF 1-hr time-weighted averages were greater than the action level at the downwind southeast station on June 21, 2022 from 8:18 through 12:06, on June 22, 2022 from 6:57 though 9:12, on June 23, 2022 from 7:00 through 8:08 and 9:41 through 11:30, on June 24 from 7:20 through 9:21. A mobile instrument, the Single Point Monitor (SPM) Flex, was used to verify the elevated HF measurements during each period. The SPM Flex measured 0 ppm for HF and confirmed HF sensor drift in the AreaRAE Pro instrument. The AreaRAE Pro instruments were then fresh air calibrated.
Notes: CO - Carbon Monoxide H_2S - Hydrogen Sulfide HF - Hydrogen Fluoride mg/m^3 - Milligrams per cubic meter $PM_{2.5}$ - Particles that are 2.5 micrometers and smaller PM_{10} - Particles that are 10 micrometers and smaller ppm - Parts per million S/N - Serial number VOC - Volatile organic compounds

Air Quality Index Categories and Recommendations

Air Quality Index Category	**24-Hour Avg. $PM_{2.5}$ Concentrations (ug/m^3)**	**24-Hour Avg. PM_{10} Concentrations (ug/m^3)**	**Recommended Actions**
Good	0 to 12.0	0 to 54	None
Moderate	12.1 to 35.4	55 to 154	People with heart or lung disease, older adults (65 and up), and children: **Consider reducing** prolonged or heavy exertion.
Unhealthy for Sensitive Groups	35.5 to 55.4	155 to 254	People with heart or lung disease, older adults (65 and up), and children: **Reduce** prolonged or heavy exertion.
Unhealthy	55.5 to 150.4	255 to 354	People with heart or lung disease, older adults (65 and up), and children: **Avoid** prolonged or heavy exertion. Everyone else should **reduce** prolonged or heavy exertion.
Very Unhealthy	150.5 to 250.4	355 to 424	People with heart or lung disease, older adults (65 and up), and children: **Avoid all physical activity outdoors**. Everyone else should **avoid** prolonged or heavy exertion.
Hazardous	250.5 to 500.4	**425 to 605**	**Everyone should avoid all physical activity outdoors**. People with heart or lung disease, older adults (65 and up), and children should remain indoors and keep activity levels low.

Comment: Illinois Statewide Average 24-hour $PM_{2.5}$ Concentration in 2020: 19.9 ug/m^3

Comment: Off-site monitoring locations include both upwind and downwind locations. Elevated $PM_{2.5}$ and PM_{10} concentrations may represent other sources.

Daily average $PM_{2.5}$ data for fixed monitoring locations can be found here: http://www.epa.state.il.us/air/pm25/index.html.

Visit the landing page for the air quality index, ozone, and particulate monitoring data here: https://www2.illinois.gov/epa/topics/air-quality/outdoor-air/Pages/default.aspx.

Air Monitoring Summary Tables

The tables below summarize air monitoring data collected using EPA AreaRAE Pro and DustTrak DRX instruments.

Project Name: Morris Industrial Fire Site
Date/Time: 06/27/2022 09:39 to 06/30/2022 16:51

Northeast Air Monitoring Station					
Instrument	**Analyte**	**Morris Industrial Fire Public Health Screening Level[1]**	**Public Health Screening Level Exceeded?**	**1-Hour Period Concentration Range**	**Average of All 1-Hour Periods**
DustTrak (S/N: 8533153912)	$PM_{2.5}$ (mg/m^3)	0.025 mg/m^3	**Yes (see Comment 2)**	0.006 to 0.074	0.013
	PM_{10} (mg/m^3)	0.05 mg/m^3	**Yes (see Comment 2)**	0.006 to 0.122	0.014
AreaRAE Pro (S/N: W01A00002413)	VOC (ppm)	0.5 ppm	No	0.0 to 0.0	0.0
	CO (ppm)	--	No	0.0 to 0.0	0.0
	H_2S (ppm)	0.1 ppm	No	0.0 to 0.0	0.0
	HF (ppm)	0.2 ppm	**Yes (see Comment 3)**	0.0 to 0.4	0.0

Northwest Air Monitoring Station					
Instrument	**Analyte**	**Morris Industrial Fire Public Health Screening Level[1]**	**Public Health Screening Level Exceeded?**	**1-Hour Period Concentration Range**	**Average of All 1-Hour Periods**
DustTrak (S/N: 8533153917)	$PM_{2.5}$ (mg/m^3)	0.025 mg/m^3	No	0.000 to 0.021	0.009
	PM_{10} (mg/m^3)	0.05 mg/m^3	No	0.001 to 0.026	0.009
AreaRAE Pro (S/N: W01A00002412)	VOC (ppm)	0.5 ppm	No	0.0 to 0.1	0.0
	CO (ppm)	--	No	0.0 to 0.3	0.0
	H_2S (ppm)	0.1 ppm	No	0.0 to 0.0	0.0
	HF (ppm)	0.2 ppm	**Yes (see Comment 4)**	0.0 to 0.2	0.0

Southeast Air Monitoring Station					
Instrument	**Analyte**	**Morris Industrial Fire Public Health Screening Level[1]**	**Public Health Screening Level Exceeded?**	**1-Hour Period Concentration Range**	**Average of All 1-Hour Periods**
DustTrak (S/N: 8533153910)	$PM_{2.5}$ (mg/m^3)	0.025 mg/m^3	No	0.006 to 0.020	0.012
	PM_{10} (mg/m^3)	0.05 mg/m^3	No	0.006 to 0.021	0.013
AreaRAE Pro (S/N: W01A00002410)	VOC (ppm)	0.5 ppm	No	0.0 to 0.1	0.0
	CO (ppm)	--	No	0.0 to 0.2	0.0
	H_2S (ppm)	0.1 ppm	No	0.0 to 0.0	0.0
	HF (ppm)	0.2 ppm	No	0.0 to 0.0	0.0

Notes: See last page.

Air Monitoring Summary Tables

The tables below summarize air monitoring data collected using EPA AreaRAE Pro and DustTrak DRX instruments.

Project Name: Morris Industrial Fire Site
Date/Time: 06/27/2022 09:39 to 06/30/2022 16:51

Southwest Air Monitoring Station					
Instrument	**Analyte**	**Morris Industrial Fire Public Health Screening Level[1]**	**Public Health Screening Level Exceeded?**	**1-Hour Period Concentration Range**	**Average of All 1-Hour Periods**
DustTrak (S/N: 8533154003)	$PM_{2.5}$ (mg/m^3)	0.025 mg/m^3	No	0.004 to 0.019	0.010
	PM_{10} (mg/m^3)	0.05 mg/m^3	No	0.005 to 0.020	0.011
AreaRAE Pro (S/N: W01A00002411)	VOC (ppm)	0.5 ppm	No	0.0 to 0.1	0.0
	CO (ppm)	--	No	0.0 to 0.0	0.0
	H_2S (ppm)	0.1 ppm	No	0.0 to 0.0	0.0
	HF (ppm)	0.2 ppm	No	0.0 to 0.0	0.0

Comments
Air monitoring measurements have been averaged over a 1-hour time period and summarized above.
Start and stop times for each air monitoring instrument varies. The monitoring period is based on the earliest start time and latest stop time out of all units.
Air monitoring is not performed during inclement weather conditions/rain and thunderstorms.
1 - Public health screening levels are based on 1-hour time-weighted averages and were established by Agency for Toxic Substances and Disease Registry (ATSDR).
2 - $PM_{2.5}$ and PM_{10} 1-hour time-weighted averages were greater than the action level at the downwind northeast station on June 29, 2022 from 6:50 through 7:53.
3 - HF 1-hr time-weighted averages were greater than the action level at the downwind northeast station on June 28, 2022 from 7:51 through 9:27 and on June 30, 2022 from 7:07 though 9:09. A mobile instrument, the Single Point Monitor (SPM) Flex, was used to verify the elevated HF measurements during each period. The SPM Flex measured 0 ppm for HF and confirmed HF sensor drift in the AreaRAE Pro instrument.
4 - HF 1-hr time-weighted averages were greater than the action level at the downwind northwest station on June 28, 2022 from 7:14 through 8:15. A mobile instrument, the SPM Flex, was used to verify the elevated HF measurements during each period. The SPM Flex measured 0 ppm for HF and confirmed HF sensor drift in the AreaRAE Pro instrument.
Notes: CO - Carbon Monoxide H_2S - Hydrogen Sulfide HF - Hydrogen Fluoride mg/m^3 - Milligrams per cubic meter $PM_{2.5}$ - Particles that are 2.5 micrometers and smaller PM_{10} - Particles that are 10 micrometers and smaller ppm - Parts per million S/N - Serial number VOC - Volatile organic compounds

Air Quality Index Categories and Recommendations

Air Quality Index Category	**24-Hour Avg. $PM_{2.5}$ Concentrations (ug/m^3)**	**24-Hour Avg. PM_{10} Concentrations (ug/m^3)**	**Recommended Actions**
Good	0 to 12.0	0 to 54	None
Moderate	12.1 to 35.4	55 to 154	People with heart or lung disease, older adults (65 and up), and children: **Consider reducing** prolonged or heavy exertion.
Unhealthy for Sensitive Groups	35.5 to 55.4	155 to 254	People with heart or lung disease, older adults (65 and up), and children: **Reduce** prolonged or heavy exertion.
Unhealthy	55.5 to 150.4	255 to 354	People with heart or lung disease, older adults (65 and up), and children: **Avoid** prolonged or heavy exertion. Everyone else should **reduce** prolonged or heavy exertion.
Very Unhealthy	150.5 to 250.4	355 to 424	People with heart or lung disease, older adults (65 and up), and children: **Avoid all physical activity outdoors**. Everyone else should **avoid** prolonged or heavy exertion.
Hazardous	250.5 to 500.4	**425 to 605**	**Everyone should avoid all physical activity outdoors**. People with heart or lung disease, older adults (65 and up), and children should remain indoors and keep activity levels low.

Comment: Illinois Statewide Average 24-hour $PM_{2.5}$ Concentration in 2020: 19.9 ug/m^3

Comment: Off-site monitoring locations include both upwind and downwind locations. Elevated $PM_{2.5}$ and PM_{10} concentrations may represent other sources.

Daily average $PM_{2.5}$ data for fixed monitoring locations can be found here: http://www.epa.state.il.us/air/pm25/index.html.

Visit the landing page for the air quality index, ozone, and particulate monitoring data here: https://www2.illinois.gov/epa/topics/air-quality/outdoor-air/Pages/default.aspx.

Air Monitoring Summary Tables

The tables below summarize air monitoring data collected using EPA AreaRAE Pro and DustTrak DRX instruments.

Project Name: Morris Industrial Fire Site
Date/Time: 07/06/2022 07:41 to 07/07/2022 16:53

Northeast Air Monitoring Station					
Instrument	**Analyte**	**Morris Industrial Fire Public Health Screening Level[1]**	**Public Health Screening Level Exceeded?**	**1-Hour Period Concentration Range**	**Average of All 1-Hour Periods**
DustTrak (S/N: 8533153912)	$PM_{2.5}$ (mg/m^3)	0.025 mg/m^3	No	0.006 to 0.023	0.012
	PM_{10} (mg/m^3)	0.05 mg/m^3	No	0.006 to 0.023	0.012
AreaRAE Pro (S/N: W01A00002413)	VOC (ppm)	0.5 ppm	No	0.0 to 0.0	0.0
	CO (ppm)	--	No	0.0 to 0.0	0.0
	H_2S (ppm)	0.1 ppm	No	0.0 to 0.0	0.0
	HF (ppm)	0.2 ppm	No	0.0 to 0.0	0.0

Northwest Air Monitoring Station					
Instrument	**Analyte**	**Morris Industrial Fire Public Health Screening Level[1]**	**Public Health Screening Level Exceeded?**	**1-Hour Period Concentration Range**	**Average of All 1-Hour Periods**
DustTrak (S/N: 8533153917)	$PM_{2.5}$ (mg/m^3)	0.025 mg/m^3	No	0.003 to 0.025	0.011
	PM_{10} (mg/m^3)	0.05 mg/m^3	No	0.004 to 0.026	0.011
AreaRAE Pro (S/N: W01A00002412)	VOC (ppm)	0.5 ppm	No	0.0 to 0.1	0.0
	CO (ppm)	--	No	0.0 to 0.5	0.0
	H_2S (ppm)	0.1 ppm	No	0.0 to 0.0	0.0
	HF (ppm)	0.2 ppm	No	0.0 to 0.0	0.0

Southeast Air Monitoring Station					
Instrument	**Analyte**	**Morris Industrial Fire Public Health Screening Level[1]**	**Public Health Screening Level Exceeded?**	**1-Hour Period Concentration Range**	**Average of All 1-Hour Periods**
DustTrak (S/N: 8533153910)	$PM_{2.5}$ (mg/m^3)	0.025 mg/m^3	**Yes (see Comment 2)**	0.006 to 0.025	0.012
	PM_{10} (mg/m^3)	0.05 mg/m^3	No	0.006 to 0.026	0.012
AreaRAE Pro (S/N: W01A00002410)	VOC (ppm)	0.5 ppm	No	0.0 to 0.0	0.0
	CO (ppm)	--	No	0.0 to 0.0	0.0
	H_2S (ppm)	0.1 ppm	No	0.0 to 0.0	0.0
	HF (ppm)	0.2 ppm	**Yes (see Comment 3)**	0.0 to 0.7	0.0

Notes: See last page.

Air Monitoring Summary Tables

The tables below summarize air monitoring data collected using EPA AreaRAE Pro and DustTrak DRX instruments.

Project Name: Morris Industrial Fire Site
Date/Time: 07/06/2022 07:41 to 07/07/2022 16:53

Southwest Air Monitoring Station					
Instrument	**Analyte**	**Morris Industrial Fire Public Health Screening Level[1]**	**Public Health Screening Level Exceeded?**	**1-Hour Period Concentration Range**	**Average of All 1-Hour Periods**
DustTrak (S/N: 8533154003)	$PM_{2.5}$ (mg/m^3)	0.025 mg/m^3	**Yes (see Comment 2)**	0.005 to 0.026	0.012
	PM_{10} (mg/m^3)	0.05 mg/m^3	No	0.006 to 0.028	0.012
AreaRAE Pro (S/N: W01A00002411)	VOC (ppm)	0.5 ppm	No	0.0 to 0.1	0.0
	CO (ppm)	--	No	0.0 to 0.0	0.0
	H_2S (ppm)	0.1 ppm	No	0.0 to 0.0	0.0
	HF (ppm)	0.2 ppm	No	0.0 to 0.0	0.0

Comments
Air monitoring measurements have been averaged over a 1-hour time period and summarized above.
Start and stop times for each air monitoring instrument varies. The monitoring period is based on the earliest start time and latest stop time out of all units.
Air monitoring is not performed during inclement weather conditions/rain and thunderstorms.
1 - Public health screening levels are based on 1-hour time-weighted averages and were established by Agency for Toxic Substances and Disease Registry (ATSDR).
2 - $PM_{2.5}$ 1-hour time-weighted averages were greater than the action level at the southwest and southeast stations. The southeast station was greater than the action level on July 7 from 7:52 to 7:58. The southwest station was greater than the action level on July 6, 2022 from 8:27 to 8:32 and July 7, 2022 from 8:04 to 8:08.
3 - HF exceedances for the southeast station are likely due to sensor drift due to high humidity outside of the HF sensor range.
Notes: CO - Carbon Monoxide H_2S - Hydrogen Sulfide HF - Hydrogen Fluoride mg/m^3 - Milligrams per cubic meter $PM_{2.5}$ - Particles that are 2.5 micrometers and smaller PM_{10} - Particles that are 10 micrometers and smaller ppm - Parts per million S/N - Serial number VOC - Volatile organic compounds

Air Monitoring Results Summary Table
Monitoring Period: 07/08/2022 07:56 to 08:06
Morris Lithium Battery Fire Site
Morris, Grundy County, Illinois

Location	Date/Time	Action Levels Exceeded?	VOC (ppm)	LEL (%)	CO (ppm)	O_2 (%)	H_2S (ppm)	PM_{10} (mg/m^3)	$PM_{2.5}$ (mg/m^3)	HF (ppm)
			[1]Action Levels							
			0.5 ppm	5%	25 ppm	19.5 to 23.5 %	0.1 ppm	0.05 mg/m^3	0.025 mg/m^3	0.2 ppm
Outside SE	07/08/2022 07:56	**Yes (see Comment 2)**	0	0	0	20.9	0	0.034	0.032	
Outside NE	07/08/2022 07:59	**Yes (see Comment 2)**	0	0	0	20.9	0	0.032	0.031	
Outside SW	07/08/2022 08:03	**Yes (see Comment 2)**	0	0	0	20.9	0	0.036	0.034	
Outside NW	07/08/2022 08:06	**Yes (see Comment 2)**	0	0	0	20.9	0	0.047	0.038	

Notes: See last page.

Air Monitoring Results Summary Table
Monitoring Period: 07/08/2022 07:56 to 08:06
Morris Lithium Battery Fire Site
Morris, Grundy County, Illinois

Notes:
1 - Action levels are established in the site-specific health and safety plan.
2 - Upwind/off-site $PM_{2.5}$ likely impacted downwind stations, however discrete measurements do not represent conditions over a full 1-hour period and cannot be directly compared to action levels based on 1-hour time-weighted averages.

Highlighted values are discrete readings above the site-specific action level.

% - Percent
CO - Carbon Monoxide
H_2S - Hydrogen Sulfide
HF - Hydrogen Fluoride
LEL - Lower explosive limit
mg/m^3 - Milligrams per cubic meter
O_2 - Oxygen
$PM_{2.5}$ - Particles that are 2.5 micrometers and smaller
PM_{10} - Particles that are 10 micrometers and smaller
ppm - Parts per million
VOC - Volatile organic compounds

Air Quality Index Categories and Recommendations

Air Quality Index Category	**24-Hour Avg. $PM_{2.5}$ Concentrations (ug/m^3)**	**24-Hour Avg. PM_{10} Concentrations (ug/m^3)**	**Recommended Actions**
Good	0 to 12.0	0 to 54	None
Moderate	12.1 to 35.4	55 to 154	People with heart or lung disease, older adults (65 and up), and children: **Consider reducing** prolonged or heavy exertion.
Unhealthy for Sensitive Groups	35.5 to 55.4	155 to 254	People with heart or lung disease, older adults (65 and up), and children: **Reduce** prolonged or heavy exertion.
Unhealthy	55.5 to 150.4	255 to 354	People with heart or lung disease, older adults (65 and up), and children: **Avoid** prolonged or heavy exertion. Everyone else should **reduce** prolonged or heavy exertion.
Very Unhealthy	150.5 to 250.4	355 to 424	People with heart or lung disease, older adults (65 and up), and children: **Avoid all physical activity outdoors**. Everyone else should **avoid** prolonged or heavy exertion.
Hazardous	250.5 to 500.4	**425 to 605**	**Everyone should avoid all physical activity outdoors**. People with heart or lung disease, older adults (65 and up), and children should remain indoors and keep activity levels low.

Comment: Illinois Statewide Average 24-hour $PM_{2.5}$ Concentration in 2020: 19.9 ug/m^3

Comment: Off-site monitoring locations include both upwind and downwind locations. Elevated $PM_{2.5}$ and PM_{10} concentrations may represent other sources.

Daily average $PM_{2.5}$ data for fixed monitoring locations can be found here: http://www.epa.state.il.us/air/pm25/index.html.

Visit the landing page for the air quality index, ozone, and particulate monitoring data here: https://www2.illinois.gov/epa/topics/air-quality/outdoor-air/Pages/default.aspx.

Air Monitoring Summary Tables

The tables below summarize air monitoring data collected using EPA AreaRAE Pro and DustTrak DRX instruments.

Project Name: Morris Industrial Fire Site
Date/Time: 07/11/2022 08:36 to 07/14/2022 16:50

Northeast Air Monitoring Station					
Instrument	**Analyte**	**Morris Industrial Fire Public Health Screening Level[1]**	**Public Health Screening Level Exceeded?**	**1-Hour Period Concentration Range**	**Average of All 1-Hour Periods**
DustTrak (S/N: 8533153912)	$PM_{2.5}$ (mg/m^3)	0.025 mg/m^3	**Yes (see Comment 2)**	0.005 to 0.029	0.010
	PM_{10} (mg/m^3)	0.05 mg/m^3	No	0.006 to 0.033	0.011
AreaRAE Pro (S/N: W01A00002413)	VOC (ppm)	0.5 ppm	No	0.0 to 0.0	0.0
	CO (ppm)	--	No	0.0 to 0.0	0.0
	H_2S (ppm)	0.1 ppm	No	0.0 to 0.0	0.0
	HF (ppm)	0.2 ppm	No	0.0 to 0.0	0.0

Northwest Air Monitoring Station					
Instrument	**Analyte**	**Morris Industrial Fire Public Health Screening Level[1]**	**Public Health Screening Level Exceeded?**	**1-Hour Period Concentration Range**	**Average of All 1-Hour Periods**
DustTrak (S/N: 8533153917)	$PM_{2.5}$ (mg/m^3)	0.025 mg/m^3	No	0.000 to 0.023	0.006
	PM_{10} (mg/m^3)	0.05 mg/m^3	No	0.001 to 0.027	0.007
AreaRAE Pro (S/N: W01A00002412)	VOC (ppm)	0.5 ppm	No	0.0 to 0.1	0.0
	CO (ppm)	--	No	0.0 to 0.5	0.0
	H_2S (ppm)	0.1 ppm	No	0.0 to 0.0	0.0
	HF (ppm)	0.2 ppm	No	0.0 to 0.0	0.0

Southeast Air Monitoring Station					
Instrument	**Analyte**	**Morris Industrial Fire Public Health Screening Level[1]**	**Public Health Screening Level Exceeded?**	**1-Hour Period Concentration Range**	**Average of All 1-Hour Periods**
DustTrak (S/N: 8533153910)	$PM_{2.5}$ (mg/m^3)	0.025 mg/m^3	No	0.004 to 0.019	0.009
	PM_{10} (mg/m^3)	0.05 mg/m^3	No	0.005 to 0.022	0.010
AreaRAE Pro (S/N: W01A00002410)	VOC (ppm)	0.5 ppm	No	0.0 to 0.1	0.0
	CO (ppm)	--	No	0.0 to 0.1	0.0
	H_2S (ppm)	0.1 ppm	No	0.0 to 0.0	0.0
	HF (ppm)	0.2 ppm	**Yes (see Comment 3)**	0.0 to 0.7	0.0

Notes: See last page.

Air Monitoring Summary Tables

The tables below summarize air monitoring data collected using EPA AreaRAE Pro and DustTrak DRX instruments.

Project Name: Morris Industrial Fire Site
Date/Time: 07/11/2022 08:36 to 07/14/2022 16:50

Southwest Air Monitoring Station					
Instrument	**Analyte**	**Morris Industrial Fire Public Health Screening Level[1]**	**Public Health Screening Level Exceeded?**	**1-Hour Period Concentration Range**	**Average of All 1-Hour Periods**
DustTrak (S/N: 8533154003)	$PM_{2.5}$ (mg/m^3)	0.025 mg/m^3	No	0.003 to 0.016	0.007
	PM_{10} (mg/m^3)	0.05 mg/m^3	No	0.004 to 0.017	0.008
AreaRAE Pro (S/N: W01A00002411)	VOC (ppm)	0.5 ppm	No	0.0 to 0.4	0.0
	CO (ppm)	--	No	0.0 to 0.0	0.0
	H_2S (ppm)	0.1 ppm	No	0.0 to 0.0	0.0
	HF (ppm)	0.2 ppm	No	0.0 to 0.0	0.0

Comments
Air monitoring measurements have been averaged over a 1-hour time period and summarized above.
Start and stop times for each air monitoring instrument varies. The monitoring period is based on the earliest start time and latest stop time out of all units.
Air monitoring is not performed during inclement weather conditions/rain and thunderstorms.
1 - Public health screening levels are based on 1-hour time-weighted averages and were established by Agency for Toxic Substances and Disease Registry (ATSDR).
2 - $PM_{2.5}$ 1-hour time-weighted averages were greater than the action level at the northeast station on July 11, 2022 from 10:22 to 10:24.
3 - HF exceedances for the southeast station are likely due to sensor drift due to high humidity outside of the HF sensor range.
Notes: CO - Carbon Monoxide H_2S - Hydrogen Sulfide HF - Hydrogen Fluoride mg/m^3 - Milligrams per cubic meter $PM_{2.5}$ - Particles that are 2.5 micrometers and smaller PM_{10} - Particles that are 10 micrometers and smaller ppm - Parts per million S/N - Serial number VOC - Volatile organic compounds

Air Monitoring Results Summary Table
Monitoring Period: 07/15/2022 07:28 to 07:38
Morris Lithium Battery Fire Site
Morris, Grundy County, Illinois

Location	Date/Time	Action Levels Exceeded?	VOC (ppm)	LEL (%)	CO (ppm)	O_2 (%)	H_2S (ppm)	PM_{10} (mg/m^3)	$PM_{2.5}$ (mg/m^3)	HF (ppm)
			[1]Action Levels							
			0.5 ppm	5%	25 ppm	19.5 to 23.5 %	0.1 ppm	0.05 mg/m^3	0.025 mg/m^3	0.2 ppm
Outside SE	07/15/2022 07:28	**No**	0	0	0	20.9	0	0.018	0.016	--
Outside NE	07/15/2022 07:32	**No**	0	0	0	20.9	0	0.032	0.023	--
Outside SW	07/15/2022 07:35	**No**	0	0	0	20.9	0	0.018	0.017	--
Outside NW	07/15/2022 07:38	**No**	0	0	0	20.9	0	0.02	0.018	--

Notes: See last page.

Air Monitoring Results Summary Table
Monitoring Period: 07/15/2022 07:28 to 07:38 Morris
Lithium Battery Fire Site
Morris, Grundy County, Illinois

Notes:
1 - Action levels are established in the site-specific health and safety plan.

Highlighted values are discrete readings above the site-specific action level

% - Percent
CO - Carbon Monoxide
H_2S - Hydrogen Sulfide
HF - Hydrogen Fluoride
LEL - Lower explosive limit
mg/m^3 - Milligrams per cubic meter
O_2 - Oxygen
$PM_{2.5}$ - Particles that are 2.5 micrometers and smaller
PM_{10} - Particles that are 10 micrometers and smaller
ppm - Parts per million
VOC - Volatile organic compounds

Air Quality Index Categories and Recommendations

Air Quality Index Category	**24-Hour Avg. $PM_{2.5}$ Concentrations (ug/m^3)**	**24-Hour Avg. PM_{10} Concentrations (ug/m^3)**	**Recommended Actions**
Good	0 to 12.0	0 to 54	None
Moderate	12.1 to 35.4	55 to 154	People with heart or lung disease, older adults (65 and up), and children: **Consider reducing** prolonged or heavy exertion.
Unhealthy for Sensitive Groups	35.5 to 55.4	155 to 254	People with heart or lung disease, older adults (65 and up), and children: **Reduce** prolonged or heavy exertion.
Unhealthy	55.5 to 150.4	255 to 354	People with heart or lung disease, older adults (65 and up), and children: **Avoid** prolonged or heavy exertion. Everyone else should **reduce** prolonged or heavy exertion.
Very Unhealthy	150.5 to 250.4	355 to 424	People with heart or lung disease, older adults (65 and up), and children: **Avoid all physical activity outdoors**. Everyone else should **avoid** prolonged or heavy exertion.
Hazardous	250.5 to 500.4	**425 to 605**	**Everyone should avoid all physical activity outdoors**. People with heart or lung disease, older adults (65 and up), and children should remain indoors and keep activity levels low.

Comment: Illinois Statewide Average 24-hour $PM_{2.5}$ Concentration in 2020: 19.9 ug/m^3

Comment: Off-site monitoring locations include both upwind and downwind locations. Elevated $PM_{2.5}$ and PM_{10} concentrations may represent other sources.

Daily average $PM_{2.5}$ data for fixed monitoring locations can be found here: http://www.epa.state.il.us/air/pm25/index.html.

Visit the landing page for the air quality index, ozone, and particulate monitoring data here: https://www2.illinois.gov/epa/topics/air-quality/outdoor-air/Pages/default.aspx.

Air Monitoring Summary Tables

The tables below summarize air monitoring data collected using EPA AreaRAE Pro and DustTrak DRX instruments.

Project Name: Morris Industrial Fire Site
Date/Time: 07/18/2022 06:41 to 07/22/2022 16:49

Northeast Air Monitoring Station					
Instrument	**Analyte**	**Morris Industrial Fire Public Health Screening Level[1]**	**Public Health Screening Level Exceeded?**	**1-Hour Period Concentration Range**	**Average of All 1-Hour Periods**
DustTrak (S/N: 8533153912)	$PM_{2.5}$ (mg/m^3)	0.025 mg/m^3	**Yes (see Comment 2)**	0.003 to 0.059	0.017
	PM_{10} (mg/m^3)	0.05 mg/m^3	**Yes (see Comment 2)**	0.004 to 0.060	0.017
AreaRAE Pro (S/N: W01A00002413)	VOC (ppm)	0.5 ppm	No	0.0 to 0.0	0.0
	CO (ppm)	--	No	0.0 to 0.0	0.0
	H_2S (ppm)	0.1 ppm	No	0.0 to 0.0	0.0
	HF (ppm)	0.2 ppm	**Yes (see Comment 3)**	0.0 to 0.3	0.0

Northwest Air Monitoring Station					
Instrument	**Analyte**	**Morris Industrial Fire Public Health Screening Level[1]**	**Public Health Screening Level Exceeded?**	**1-Hour Period Concentration Range**	**Average of All 1-Hour Periods**
DustTrak (S/N: 8533153917)	$PM_{2.5}$ (mg/m^3)	0.025 mg/m^3	**Yes (see Comment 2)**	0.001 to 0.062	0.012
	PM_{10} (mg/m^3)	0.05 mg/m^3	**Yes (see Comment 2)**	0.003 to 0.067	0.013
AreaRAE Pro (S/N: W01A00002412)	VOC (ppm)	0.5 ppm	No	0.0 to 0.1	0.0
	CO (ppm)	--	No	0.0 to 0.4	0.0
	H_2S (ppm)	0.1 ppm	No	0.0 to 0.0	0.0
	HF (ppm)	0.2 ppm	No	0.0 to 0.0	0.0

Southeast Air Monitoring Station					
Instrument	**Analyte**	**Morris Industrial Fire Public Health Screening Level[1]**	**Public Health Screening Level Exceeded?**	**1-Hour Period Concentration Range**	**Average of All 1-Hour Periods**
DustTrak (S/N: 8533153910)	$PM_{2.5}$ (mg/m^3)	0.025 mg/m^3	**Yes (see Comment 2)**	0.002 to 0.064	0.017
	PM_{10} (mg/m^3)	0.05 mg/m^3	**Yes (see Comment 2)**	0.003 to 0.065	0.017
AreaRAE Pro (S/N: W01A00002410)	VOC (ppm)	0.5 ppm	No	0.0 to 0.3	0.0
	CO (ppm)	--	No	0.0 to 0.7	0.0
	H_2S (ppm)	0.1 ppm	No	0.0 to 0.0	0.0
	HF (ppm)	0.2 ppm	No	0.0 to 0.0	0.0

Notes: See last page.

Air Monitoring Summary Tables

The tables below summarize air monitoring data collected using EPA AreaRAE Pro and DustTrak DRX instruments.

Project Name: Morris Industrial Fire Site
Date/Time: 07/18/2022 06:41 to 07/22/2022 16:49

Southwest Air Monitoring Station					
Instrument	**Analyte**	**Morris Industrial Fire Public Health Screening Level[1]**	**Public Health Screening Level Exceeded?**	**1-Hour Period Concentration Range**	**Average of All 1-Hour Periods**
DustTrak (S/N: 8533154003)	$PM_{2.5}$ (mg/m^3)	0.025 mg/m^3	**Yes (see Comment 2)**	0.002 to 0.062	0.014
	PM_{10} (mg/m^3)	0.05 mg/m^3	**Yes (see Comment 2)**	0.003 to 0.063	0.014
AreaRAE Pro (S/N: W01A00002411)	VOC (ppm)	0.5 ppm	No	0.0 to 0.1	0.0
	CO (ppm)	--	No	0.0 to 0.0	0.0
	H_2S (ppm)	0.1 ppm	No	0.0 to 0.0	0.0
	HF (ppm)	0.2 ppm	No	0.0 to 0.0	0.0

Comments
Air monitoring measurements have been averaged over a 1-hour time period and summarized above.
Start and stop times for each air monitoring instrument varies. The monitoring period is based on the earliest start time and latest stop time out of all units.
Air monitoring is not performed during inclement weather conditions/rain and thunderstorms.
1 - Public health screening levels are based on 1-hour time-weighted averages and were established by Agency for Toxic Substances and Disease Registry (ATSDR).
2 - $PM_{2.5}$ and PM_{10} 1-hour time-weighted averages were greater than the action level at multiple stations throughout the week. Upwind/off-site elevated levels $PM_{2.5}$ and PM_{10} impacted downwind air monitoring stations.
3 - The HF exceedance for the northeast station is likely due to leftover calibration gas remaining in the chamber.
Notes: CO - Carbon Monoxide H_2S - Hydrogen Sulfide HF - Hydrogen Fluoride mg/m^3 - Milligrams per cubic meter $PM_{2.5}$ - Particles that are 2.5 micrometers and smaller PM_{10} - Particles that are 10 micrometers and smaller ppm - Parts per million S/N - Serial number VOC - Volatile organic compounds

Air Monitoring Summary Tables

The tables below summarize air monitoring data collected using EPA AreaRAE Pro and DustTrak DRX instruments.

Project Name: Morris Industrial Fire Site
Date/Time: 07/25/2022 08:16 to 07/29/2022 16:58

Northeast Air Monitoring Station					
Instrument	**Analyte**	**Morris Industrial Fire Public Health Screening Level[1]**	**Public Health Screening Level Exceeded?**	**1-Hour Period Concentration Range**	**Average of All 1-Hour Periods**
DustTrak (S/N: 8533153912)	$PM_{2.5}$ (mg/m^3)	0.025 mg/m^3	No	0.003 to 0.020	0.009
	PM_{10} (mg/m^3)	0.05 mg/m^3	No	0.004 to 0.023	0.009
AreaRAE Pro (S/N: W01A00002413)	VOC (ppm)	0.5 ppm	No	0.0 to 0.0	0.0
	CO (ppm)	--	No	0.0 to 0.0	0.0
	H_2S (ppm)	0.1 ppm	No	0.0 to 0.0	0.0
	HF (ppm)	0.2 ppm	No	0.0 to 0.0	0.0

Northwest Air Monitoring Station					
Instrument	**Analyte**	**Morris Industrial Fire Public Health Screening Level[1]**	**Public Health Screening Level Exceeded?**	**1-Hour Period Concentration Range**	**Average of All 1-Hour Periods**
DustTrak (S/N: 8533153917)	$PM_{2.5}$ (mg/m^3)	0.025 mg/m^3	No	0.001 to 0.021	0.006
	PM_{10} (mg/m^3)	0.05 mg/m^3	No	0.001 to 0.031	0.006
AreaRAE Pro (S/N: W01A00002412)	VOC (ppm)	0.5 ppm	No	0.0 to 0.1	0.0
	CO (ppm)	--	No	0.0 to 0.4	0.0
	H_2S (ppm)	0.1 ppm	No	0.0 to 0.0	0.0
	HF (ppm)	0.2 ppm	No	0.0 to 0.1	0.0

Southeast Air Monitoring Station					
Instrument	**Analyte**	**Morris Industrial Fire Public Health Screening Level[1]**	**Public Health Screening Level Exceeded?**	**1-Hour Period Concentration Range**	**Average of All 1-Hour Periods**
DustTrak* (S/N: 8533153910 / 8533194405)	$PM_{2.5}$ (mg/m^3)	0.025 mg/m^3	No	0.000 to 0.005	0.002
	PM_{10} (mg/m^3)	0.05 mg/m^3	No	0.000 to 0.005	0.003
AreaRAE Pro (S/N: W01A00002410)	VOC (ppm)	0.5 ppm	No	0.0 to 0.1	0.0
	CO (ppm)	--	No	0.0 to 0.0	0.0
	H_2S (ppm)	0.1 ppm	No	0.0 to 0.0	0.0
	HF (ppm)	0.2 ppm	**Yes (see Comment 2)**	0.0 to 0.8	0.0

Notes: See last page.

Air Monitoring Summary Tables

The tables below summarize air monitoring data collected using EPA AreaRAE Pro and DustTrak DRX instruments.

Project Name: Morris Industrial Fire Site
Date/Time: 07/25/2022 08:16 to 07/29/2022 16:58

Southwest Air Monitoring Station					
Instrument	**Analyte**	**Morris Industrial Fire Public Health Screening Level[1]**	**Public Health Screening Level Exceeded?**	**1-Hour Period Concentration Range**	**Average of All 1-Hour Periods**
DustTrak (S/N: 8533154003)	$PM_{2.5}$ (mg/m^3)	0.025 mg/m^3	No	0.001 to 0.019	0.005
	PM_{10} (mg/m^3)	0.05 mg/m^3	No	0.002 to 0.023	0.006
AreaRAE Pro (S/N: W01A00002411)	VOC (ppm)	0.5 ppm	No	0.0 to 0.2	0.0
	CO (ppm)	--	No	0.0 to 0.0	0.0
	H_2S (ppm)	0.1 ppm	No	0.0 to 0.0	0.0
	HF (ppm)	0.2 ppm	No	0.0 to 0.0	0.0

Comments
Air monitoring measurements have been averaged over a 1-hour time period and summarized above.
Start and stop times for each air monitoring instrument varies. The monitoring period is based on the earliest start time and latest stop time out of all units.
Air monitoring is not performed during inclement weather conditions/rain and thunderstorms.
* DustTrak 8533153910 sent back for repairs and was replaced with 8533194405. Data from 7/29/2022 is on the replacement unit. No data was taken on 7/27/2022 and 7/28/2022.
1 - Public health screening levels are based on 1-hour time-weighted averages and were established by Agency for Toxic Substances and Disease Registry (ATSDR).
2 - The HF exceedance for the northeast station is likely due to leftover calibration gas remaining in the chamber.
Notes: CO - Carbon Monoxide H_2S - Hydrogen Sulfide HF - Hydrogen Fluoride mg/m^3 - Milligrams per cubic meter $PM_{2.5}$ - Particles that are 2.5 micrometers and smaller PM_{10} - Particles that are 10 micrometers and smaller ppm - Parts per million S/N - Serial number VOC - Volatile organic compounds

Air Quality Index Categories and Recommendations

Air Quality Index Category	**24-Hour Avg. $PM_{2.5}$ Concentrations (ug/m^3)**	**24-Hour Avg. PM_{10} Concentrations (ug/m^3)**	**Recommended Actions**
Good	0 to 12.0	0 to 54	None
Moderate	12.1 to 35.4	55 to 154	People with heart or lung disease, older adults (65 and up), and children: **Consider reducing** prolonged or heavy exertion.
Unhealthy for Sensitive Groups	35.5 to 55.4	155 to 254	People with heart or lung disease, older adults (65 and up), and children: **Reduce** prolonged or heavy exertion.
Unhealthy	55.5 to 150.4	255 to 354	People with heart or lung disease, older adults (65 and up), and children: **Avoid** prolonged or heavy exertion. Everyone else should **reduce** prolonged or heavy exertion.
Very Unhealthy	150.5 to 250.4	355 to 424	People with heart or lung disease, older adults (65 and up), and children: **Avoid all physical activity outdoors**. Everyone else should **avoid** prolonged or heavy exertion.
Hazardous	250.5 to 500.4	**425 to 605**	**Everyone should avoid all physical activity outdoors**. People with heart or lung disease, older adults (65 and up), and children should remain indoors and keep activity levels low.

Comment: Illinois Statewide Average 24-hour $PM_{2.5}$ Concentration in 2020: 19.9 ug/m^3

Comment: Off-site monitoring locations include both upwind and downwind locations. Elevated $PM_{2.5}$ and PM_{10} concentrations may represent other sources.

Daily average $PM_{2.5}$ data for fixed monitoring locations can be found here: http://www.epa.state.il.us/air/pm25/index.html.

Visit the landing page for the air quality index, ozone, and particulate monitoring data here: https://www2.illinois.gov/epa/topics/air-quality/outdoor-air/Pages/default.aspx.

Air Monitoring Summary Tables

The tables below summarize air monitoring data collected using EPA AreaRAE Pro and DustTrak DRX instruments.

Project Name: Morris Industrial Fire Site
Date/Time: 08/01/2022 06:35 to 08/05/2022 16:54

Northeast Air Monitoring Station					
Instrument	**Analyte**	**Morris Industrial Fire Public Health Screening Level[1]**	**Public Health Screening Level Exceeded?**	**1-Hour Period Concentration Range**	**Average of All 1-Hour Periods**
DustTrak (S/N: 8533153912)	$PM_{2.5}$ (mg/m^3)	0.025 mg/m^3	**Yes (see Comment 2)**	0.005 to 0.029	0.014
	PM_{10} (mg/m^3)	0.05 mg/m^3	No	0.006 to 0.029	0.015
AreaRAE Pro (S/N: W01A00002413)	VOC (ppm)	0.5 ppm	No	0.0 to 0.0	0.0
	CO (ppm)	--	No	0.0 to 0.0	0.0
	H_2S (ppm)	0.1 ppm	No	0.0 to 0.0	0.0
	HF (ppm)	0.2 ppm	No	0.0 to 0.0	0.0

Northwest Air Monitoring Station					
Instrument	**Analyte**	**Morris Industrial Fire Public Health Screening Level[1]**	**Public Health Screening Level Exceeded?**	**1-Hour Period Concentration Range**	**Average of All 1-Hour Periods**
DustTrak (S/N: 8533153917)	$PM_{2.5}$ (mg/m^3)	0.025 mg/m^3	**Yes (see Comment 2)**	0.001 to 0.037	0.010
	PM_{10} (mg/m^3)	0.05 mg/m^3	No	0.002 to 0.039	0.011
AreaRAE Pro (S/N: W01A00002412)	VOC (ppm)	0.5 ppm	**Yes (see Comment 3)**	0.0 to 0.7	0.0
	CO (ppm)	--	No	0.0 to 1.0	0.0
	H_2S (ppm)	0.1 ppm	No	0.0 to 0.0	0.0
	HF (ppm)	0.2 ppm	No	0.0 to 0.0	0.0

Southeast Air Monitoring Station					
Instrument	**Analyte**	**Morris Industrial Fire Public Health Screening Level[1]**	**Public Health Screening Level Exceeded?**	**1-Hour Period Concentration Range**	**Average of All 1-Hour Periods**
DustTrak (S/N: 8533194405)	$PM_{2.5}$ (mg/m^3)	0.025 mg/m^3	**Yes (see Comment 2)**	0.002 to 0.033	0.013
	PM_{10} (mg/m^3)	0.05 mg/m^3	No	0.003 to 0.033	0.014
AreaRAE Pro (S/N: W01A00002410)	VOC (ppm)	0.5 ppm	No	0.0 to 0.1	0.0
	CO (ppm)	--	No	0.0 to 0.0	0.0
	H_2S (ppm)	0.1 ppm	No	0.0 to 0.0	0.0
	HF (ppm)	0.2 ppm	**Yes (see Comment 4)**	0.0 to 0.6	0.0

Notes: See last page.

Air Monitoring Summary Tables

The tables below summarize air monitoring data collected using EPA AreaRAE Pro and DustTrak DRX instruments.

Project Name: Morris Industrial Fire Site
Date/Time: 08/01/2022 06:35 to 08/05/2022 16:54

Southwest Air Monitoring Station					
Instrument	**Analyte**	**Morris Industrial Fire Public Health Screening Level[1]**	**Public Health Screening Level Exceeded?**	**1-Hour Period Concentration Range**	**Average of All 1-Hour Periods**
DustTrak (S/N: 8533154003)	$PM_{2.5}$ (mg/m^3)	0.025 mg/m^3	**Yes (see Comment 2)**	0.001 to 0.074	0.012
	PM_{10} (mg/m^3)	0.05 mg/m^3	**Yes (see Comment 2)**	0.002 to 0.119	0.013
AreaRAE Pro (S/N: W01A00002411)	VOC (ppm)	0.5 ppm	No	0.0 to 0.1	0.0
	CO (ppm)	--	No	0.0 to 0.2	0.0
	H_2S (ppm)	0.1 ppm	No	0.0 to 0.0	0.0
	HF (ppm)	0.2 ppm	No	0.0 to 0.0	0.0

Comments
Air monitoring measurements have been averaged over a 1-hour time period and summarized above.
Start and stop times for each air monitoring instrument varies. The monitoring period is based on the earliest start time and latest stop time out of all units.
Air monitoring is not performed during inclement weather conditions/rain and thunderstorms.
1 - Public health screening levels are based on 1-hour time-weighted averages and were established by Agency for Toxic Substances and Disease Registry (ATSDR).
2 - $PM_{2.5}$ 1-hour time-weighted averages were greater than the action level at all stations on August 5, 2022 and greater than PM_{10} 1-hour time-weighted average for the southwest station on August 4, 2022. Upwind/off-site elevated levels $PM_{2.5}$ and PM_{10} impacted downwind air monitoring stations.
3 - The VOC exceedance for the northwest station is likely due to leftover calibration gas remaining in the chamber.
4 - The HF exceedance for the southeast station is likely due to leftover calibration gas remaining in the chamber.
Notes: CO - Carbon Monoxide H_2S - Hydrogen Sulfide HF - Hydrogen Fluoride mg/m^3 - Milligrams per cubic meter $PM_{2.5}$ - Particles that are 2.5 micrometers and smaller PM_{10} - Particles that are 10 micrometers and smaller ppm - Parts per million S/N - Serial number VOC - Volatile organic compounds

Air Quality Index Categories and Recommendations

Air Quality Index Category	**24-Hour Avg. $PM_{2.5}$ Concentrations (ug/m^3)**	**24-Hour Avg. PM_{10} Concentrations (ug/m^3)**	**Recommended Actions**
Good	0 to 12.0	0 to 54	None
Moderate	12.1 to 35.4	55 to 154	People with heart or lung disease, older adults (65 and up), and children: **Consider reducing** prolonged or heavy exertion.
Unhealthy for Sensitive Groups	35.5 to 55.4	155 to 254	People with heart or lung disease, older adults (65 and up), and children: **Reduce** prolonged or heavy exertion.
Unhealthy	55.5 to 150.4	255 to 354	People with heart or lung disease, older adults (65 and up), and children: **Avoid** prolonged or heavy exertion. Everyone else should **reduce** prolonged or heavy exertion.
Very Unhealthy	150.5 to 250.4	355 to 424	People with heart or lung disease, older adults (65 and up), and children: **Avoid all physical activity outdoors**. Everyone else should **avoid** prolonged or heavy exertion.
Hazardous	250.5 to 500.4	**425 to 605**	**Everyone should avoid all physical activity outdoors**. People with heart or lung disease, older adults (65 and up), and children should remain indoors and keep activity levels low.

Comment: Illinois Statewide Average 24-hour $PM_{2.5}$ Concentration in 2020: 19.9 ug/m^3

Comment: Off-site monitoring locations include both upwind and downwind locations. Elevated $PM_{2.5}$ and PM_{10} concentrations may represent other sources.

Daily average $PM_{2.5}$ data for fixed monitoring locations can be found here: http://www.epa.state.il.us/air/pm25/index.html.

Visit the landing page for the air quality index, ozone, and particulate monitoring data here: https://www2.illinois.gov/epa/topics/air-quality/outdoor-air/Pages/default.aspx.

Air Monitoring Summary Tables

The tables below summarize air monitoring data collected using EPA AreaRAE Pro and DustTrak DRX instruments.

Project Name: Morris Industrial Fire Site
Date/Time: 08/08/2022 07:04 to 08/12/2022 16:54

Northeast Air Monitoring Station					
Instrument	**Analyte**	**Morris Industrial Fire Public Health Screening Level[1]**	**Public Health Screening Level Exceeded?**	**1-Hour Period Concentration Range**	**Average of All 1-Hour Periods**
DustTrak (S/N: 8533153912)	$PM_{2.5}$ (mg/m^3)	0.025 mg/m^3	**Yes (see Comment 2)**	0.002 to 0.056	0.009
	PM_{10} (mg/m^3)	0.05 mg/m^3	**Yes (see Comment 2)**	0.003 to 0.060	0.009
AreaRAE Pro (S/N: W01A00002413)	VOC (ppm)	0.5 ppm	No	0.0 to 0.0	0.0
	CO (ppm)	--	No	0.0 to 0.5	0.0
	H_2S (ppm)	0.1 ppm	No	0.0 to 0.0	0.0
	HF (ppm)	0.2 ppm	No	0.0 to 0.0	0.0

Northwest Air Monitoring Station					
Instrument	**Analyte**	**Morris Industrial Fire Public Health Screening Level[1]**	**Public Health Screening Level Exceeded?**	**1-Hour Period Concentration Range**	**Average of All 1-Hour Periods**
DustTrak (S/N: 8533153917)	$PM_{2.5}$ (mg/m^3)	0.025 mg/m^3	**Yes (see Comment 2)**	0.001 to 0.072	0.007
	PM_{10} (mg/m^3)	0.05 mg/m^3	**Yes (see Comment 2)**	0.001 to 0.085	0.008
AreaRAE Pro (S/N: W01A00002412)	VOC (ppm)	0.5 ppm	No	0.0 to 0.0	0.0
	CO (ppm)	--	No	0.0 to 0.6	0.0
	H_2S (ppm)	0.1 ppm	No	0.0 to 0.0	0.0
	HF (ppm)	0.2 ppm	No	0.0 to 0.0	0.0

Southeast Air Monitoring Station					
Instrument	**Analyte**	**Morris Industrial Fire Public Health Screening Level[1]**	**Public Health Screening Level Exceeded?**	**1-Hour Period Concentration Range**	**Average of All 1-Hour Periods**
DustTrak (S/N: 8533194405 / 85333173907)	$PM_{2.5}$ (mg/m^3)	0.025 mg/m^3	**Yes (see Comment 2)**	0.003 to 0.034	0.007
	PM_{10} (mg/m^3)	0.05 mg/m^3	No	0.003 to 0.036	0.008
AreaRAE Pro (S/N: W01A00002410)	VOC (ppm)	0.5 ppm	No	0.0 to 0.1	0.0
	CO (ppm)	--	No	0.0 to 0.1	0.0
	H_2S (ppm)	0.1 ppm	No	0.0 to 0.0	0.0
	HF (ppm)	0.2 ppm	No	0.0 to 0.0	0.0

Notes: See last page.

Air Monitoring Summary Tables

The tables below summarize air monitoring data collected using EPA AreaRAE Pro and DustTrak DRX instruments.

Project Name: Morris Industrial Fire Site
Date/Time: 08/08/2022 07:04 to 08/12/2022 16:54

Southwest Air Monitoring Station					
Instrument	**Analyte**	**Morris Industrial Fire Public Health Screening Level[1]**	**Public Health Screening Level Exceeded?**	**1-Hour Period Concentration Range**	**Average of All 1-Hour Periods**
DustTrak (S/N: 8533154003)	$PM_{2.5}$ (mg/m^3)	0.025 mg/m^3	**Yes (see Comment 2)**	0.002 to 0.053	0.006
	PM_{10} (mg/m^3)	0.05 mg/m^3	**Yes (see Comment 2)**	0.002 to 0.059	0.007
AreaRAE Pro (S/N: W01A00002411)	VOC (ppm)	0.5 ppm	No	0.0 to 0.1	0.0
	CO (ppm)	--	No	0.0 to 0.0	0.0
	H_2S (ppm)	0.1 ppm	No	0.0 to 0.0	0.0
	HF (ppm)	0.2 ppm	No	0.0 to 0.0	0.0

Comments
Air monitoring measurements have been averaged over a 1-hour time period and summarized above.
Start and stop times for each air monitoring instrument varies. The monitoring period is based on the earliest start time and latest stop time out of all units.
Air monitoring is not performed during inclement weather conditions/rain and thunderstorms.
DustTrak 8533194405 swapped for 85333173907 beginning August 10, 2022.
1 - Public health screening levels are based on 1-hour time-weighted averages and were established by Agency for Toxic Substances and Disease Registry (ATSDR).
2 - $PM_{2.5}$ and PM_{10} 1-hour time-weighted averages were greater than the action level on August 11, 2022. Upwind/off-site elevated levels $PM_{2.5}$ and PM_{10} impacted downwind air monitoring stations.
Notes: CO - Carbon Monoxide H_2S - Hydrogen Sulfide HF - Hydrogen Fluoride mg/m^3 - Milligrams per cubic meter $PM_{2.5}$ - Particles that are 2.5 micrometers and smaller PM_{10} - Particles that are 10 micrometers and smaller ppm - Parts per million S/N - Serial number VOC - Volatile organic compounds

Air Monitoring Results Summary Table
Monitoring Period: 08/08/2022 08:07 to 13:51
Morris Lithium Battery Fire Site
Morris, Grundy County, Illinois

Location	Date/Time	Action Levels Exceeded?	VOC (ppm)	LEL (%)	CO (ppm)	O_2 (%)	H_2S (ppm)	PM_{10} (mg/m^3)	$PM_{2.5}$ (mg/m^3)
			[1]Action Levels						
			0.5 ppm	5%	25 ppm	19.5 to 23.5 %	0.1 ppm	0.05 mg/m^3	0.025 mg/m^3
Outside_SE	08/08/2022 08:07	No	0	0	0	20.9	0	0.008	0.007
	08/08/2022 13:31	No	0	0	0	20.9	0	0.024	0.023
Outside_NE	08/08/2022 08:10	No	0	0	0	20.9	0	0.007	0.006
	08/08/2022 13:34	No	0	0	0	20.9	0	0.026	0.024
Outside_SW	08/08/2022 08:13	No	0	0	0	20.9	0	0.008	0.006
	08/08/2022 13:38	No	0	0	0	20.9	0	0.024	0.022
Outside_NW	08/08/2022 08:15	No	0	0	0	20.9	0	0.008	0.007
	08/08/2022 13:41	No	0	0	0	20.9	0	0.022	0.021

Notes: See last page.

Air Monitoring Results Summary Table
Monitoring Period: 08/08/2022 08:07 to 13:51
Morris Lithium Battery Fire Site
Morris, Grundy County, Illinois

Location	Date/Time	Action Levels Exceeded?	VOC (ppm)	LEL (%)	CO (ppm)	O_2 (%)	H_2S (ppm)	PM_{10} (mg/m^3)	$PM_{2.5}$ (mg/m^3)
			[1]Action Levels						
			0.5 ppm	5%	25 ppm	19.5 to 23.5 %	0.1 ppm	0.05 mg/m^3	0.025 mg/m^3

Notes:
1 - Action levels are established in the site-specific health and safety plan.

Highlighted values are discrete readings above the site-specific action level

% - Percent
CO - Carbon Monoxide
H_2S - Hydrogen Sulfide
HF - Hydrogen Fluoride
LEL - Lower explosive limit
mg/m^3 - Milligrams per cubic meter
O_2 - Oxygen
$PM_{2.5}$ - Particles that are 2.5 micrometers and smaller
PM_{10} - Particles that are 10 micrometers and smaller
ppm - Parts per million
VOC - Volatile organic compounds

Air Quality Index Categories and Recommendations

Air Quality Index Category	**24-Hour Avg. $PM_{2.5}$ Concentrations (ug/m^3)**	**24-Hour Avg. PM_{10} Concentrations (ug/m^3)**	**Recommended Actions**
Good	0 to 12.0	0 to 54	None
Moderate	12.1 to 35.4	55 to 154	People with heart or lung disease, older adults (65 and up), and children: **Consider reducing** prolonged or heavy exertion.
Unhealthy for Sensitive Groups	35.5 to 55.4	155 to 254	People with heart or lung disease, older adults (65 and up), and children: **Reduce** prolonged or heavy exertion.
Unhealthy	55.5 to 150.4	255 to 354	People with heart or lung disease, older adults (65 and up), and children: **Avoid** prolonged or heavy exertion. Everyone else should **reduce** prolonged or heavy exertion.
Very Unhealthy	150.5 to 250.4	355 to 424	People with heart or lung disease, older adults (65 and up), and children: **Avoid all physical activity outdoors**. Everyone else should **avoid** prolonged or heavy exertion.
Hazardous	250.5 to 500.4	**425 to 605**	**Everyone should avoid all physical activity outdoors**. People with heart or lung disease, older adults (65 and up), and children should remain indoors and keep activity levels low.

Comment: Illinois Statewide Average 24-hour $PM_{2.5}$ Concentration in 2020: 19.9 ug/m^3

Comment: Off-site monitoring locations include both upwind and downwind locations. Elevated $PM_{2.5}$ and PM_{10} concentrations may represent other sources.

Daily average $PM_{2.5}$ data for fixed monitoring locations can be found here: http://www.epa.state.il.us/air/pm25/index.html.

Visit the landing page for the air quality index, ozone, and particulate monitoring data here: https://www2.illinois.gov/epa/topics/air-quality/outdoor-air/Pages/default.aspx.

Air Monitoring Summary Tables

The tables below summarize air monitoring data collected using EPA AreaRAE Pro and DustTrak DRX instruments.

Project Name: Morris Industrial Fire Site
Date/Time: 08/15/2022 06:48 to 08/19/2022 16:55

Northeast Air Monitoring Station					
Instrument	**Analyte**	**Morris Industrial Fire Public Health Screening Level[1]**	**Public Health Screening Level Exceeded?**	**1-Hour Period Concentration Range**	**Average of All 1-Hour Periods**
DustTrak (S/N: 8533153912 / 8533173907)	$PM_{2.5}$ (mg/m^3)	0.025 mg/m^3	**Yes (see Comment 2)**	0.007 to 0.031	0.014
	PM_{10} (mg/m^3)	0.05 mg/m^3	No	0.007 to 0.044	0.014
AreaRAE Pro (S/N: W01A00002413)	VOC (ppm)	0.5 ppm	No	0.0 to 0.0	0.0
	CO (ppm)	--	No	0.0 to 0.6	0.0
	H_2S (ppm)	0.1 ppm	No	0.0 to 0.0	0.0
	HF (ppm)	0.2 ppm	**Yes (see Comment 3)**	0.0 to 0.4	0.0

Northwest Air Monitoring Station					
Instrument	**Analyte**	**Morris Industrial Fire Public Health Screening Level[1]**	**Public Health Screening Level Exceeded?**	**1-Hour Period Concentration Range**	**Average of All 1-Hour Periods**
DustTrak (S/N: 8533153917)	$PM_{2.5}$ (mg/m^3)	0.025 mg/m^3	**Yes (see Comment 2)**	0.002 to 0.049	0.012
	PM_{10} (mg/m^3)	0.05 mg/m^3	**Yes (see Comment 2)**	0.003 to 0.051	0.012
AreaRAE Pro (S/N: W01A00002412)	VOC (ppm)	0.5 ppm	No	0.0 to 0.2	0.0
	CO (ppm)	--	No	0.0 to 0.7	0.0
	H_2S (ppm)	0.1 ppm	No	0.0 to 0.0	0.0
	HF (ppm)	0.2 ppm	No	0.0 to 0.0	0.0

Southeast Air Monitoring Station					
Instrument	**Analyte**	**Morris Industrial Fire Public Health Screening Level[1]**	**Public Health Screening Level Exceeded?**	**1-Hour Period Concentration Range**	**Average of All 1-Hour Periods**
DustTrak (S/N: 8533194405 / 85333173907)	$PM_{2.5}$ (mg/m^3)	0.025 mg/m^3	**Yes (see Comment 2)**	0.006 to 0.038	0.016
	PM_{10} (mg/m^3)	0.05 mg/m^3	No	0.007 to 0.039	0.017
AreaRAE Pro (S/N: W01A00002410)	VOC (ppm)	0.5 ppm	No	0.0 to 0.2	0.0
	CO (ppm)	--	No	0.0 to 0.0	0.0
	H_2S (ppm)	0.1 ppm	No	0.0 to 0.0	0.0
	HF (ppm)	0.2 ppm	No	0.0 to 0.0	0.0

Notes: See last page.

Air Monitoring Summary Tables

The tables below summarize air monitoring data collected using EPA AreaRAE Pro and DustTrak DRX instruments.

Project Name: Morris Industrial Fire Site
Date/Time: 08/15/2022 06:48 to 08/19/2022 16:55

Southwest Air Monitoring Station					
Instrument	**Analyte**	**Morris Industrial Fire Public Health Screening Level[1]**	**Public Health Screening Level Exceeded?**	**1-Hour Period Concentration Range**	**Average of All 1-Hour Periods**
DustTrak (S/N: 8533154003)	$PM_{2.5}$ (mg/m^3)	0.025 mg/m^3	**Yes (see Comment 2)**	0.005 to 0.026	0.012
	PM_{10} (mg/m^3)	0.05 mg/m^3	No	0.005 to 0.027	0.013
AreaRAE Pro (S/N: W01A00002411)	VOC (ppm)	0.5 ppm	No	0.0 to 0.1	0.0
	CO (ppm)	--	No	0.0 to 1.7	0.0
	H_2S (ppm)	0.1 ppm	No	0.0 to 0.0	0.0
	HF (ppm)	0.2 ppm	No	0.0 to 0.0	0.0

Comments
Air monitoring measurements have been averaged over a 1-hour time period and summarized above.
Start and stop times for each air monitoring instrument varies. The monitoring period is based on the earliest start time and latest stop time out of all units.
Air monitoring is not performed during inclement weather conditions/rain and thunderstorms.
DustTrak 8533153912 swapped for 8533173907 beginning August 16, 2022.
1 - Public health screening levels are based on 1-hour time-weighted averages and were established by Agency for Toxic Substances and Disease Registry (ATSDR).
2 - $PM_{2.5}$ 1-hour time-weighted averages at all stations and PM_{10} 1-hour TWA for the northwest station were greater than the action levels throughout the week. Upwind/off-site elevated levels $PM_{2.5}$ and PM_{10} impacted downwind air monitoring stations.
3 - HF exceedances were observed at the northeast station in the morning throughout the week. This is likely due to calibration gas still remaining inside the unit since this occurred immediately after deployment. On August 16, 2022 from 08:20 to 08:39, there were HF exceedances that were confirmed with an SPM Flex at the northeast station. This station was upwind at the time of the exceedances.
Notes: CO - Carbon Monoxide H_2S - Hydrogen Sulfide HF - Hydrogen Fluoride mg/m^3 - Milligrams per cubic meter $PM_{2.5}$ - Particles that are 2.5 micrometers and smaller PM_{10} - Particles that are 10 micrometers and smaller ppm - Parts per million S/N - Serial number VOC - Volatile organic compounds

Air Quality Index Categories and Recommendations

Air Quality Index Category	**24-Hour Avg. $PM_{2.5}$ Concentrations (ug/m^3)**	**24-Hour Avg. PM_{10} Concentrations (ug/m^3)**	**Recommended Actions**
Good	0 to 12.0	0 to 54	None
Moderate	12.1 to 35.4	55 to 154	People with heart or lung disease, older adults (65 and up), and children: **Consider reducing** prolonged or heavy exertion.
Unhealthy for Sensitive Groups	35.5 to 55.4	155 to 254	People with heart or lung disease, older adults (65 and up), and children: **Reduce** prolonged or heavy exertion.
Unhealthy	55.5 to 150.4	255 to 354	People with heart or lung disease, older adults (65 and up), and children: **Avoid** prolonged or heavy exertion. Everyone else should **reduce** prolonged or heavy exertion.
Very Unhealthy	150.5 to 250.4	355 to 424	People with heart or lung disease, older adults (65 and up), and children: **Avoid all physical activity outdoors**. Everyone else should **avoid** prolonged or heavy exertion.
Hazardous	250.5 to 500.4	**425 to 605**	**Everyone should avoid all physical activity outdoors**. People with heart or lung disease, older adults (65 and up), and children should remain indoors and keep activity levels low.

Comment: Illinois Statewide Average 24-hour $PM_{2.5}$ Concentration in 2020: 19.9 ug/m^3

Comment: Off-site monitoring locations include both upwind and downwind locations. Elevated $PM_{2.5}$ and PM_{10} concentrations may represent other sources.

Daily average $PM_{2.5}$ data for fixed monitoring locations can be found here: http://www.epa.state.il.us/air/pm25/index.html. Y

Visit the landing page for the air quality index, ozone, and particulate monitoring data here: https://www2.illinois.gov/epa/topics/air-quality/outdoor-air/Pages/default.aspx.

Air Monitoring Summary Tables

The tables below summarize air monitoring data collected using EPA AreaRAE Pro and DustTrak DRX instruments.

Project Name: Morris Industrial Fire Site
Date/Time: 08/22/2022 08:30 to 08/26/2022 17:00

Northeast Air Monitoring Station					
Instrument	**Analyte**	**Morris Industrial Fire Public Health Screening Level[1]**	**Public Health Screening Level Exceeded?**	**1-Hour Period Concentration Range**	**Average of All 1-Hour Periods**
DustTrak #003 (S/N: 8533153915)	$PM_{2.5}$ (mg/m^3)	0.025 mg/m^3	**Yes (see Comment 2)**	0.004 to 0.031	0.011
	PM_{10} (mg/m^3)	0.05 mg/m^3	**Yes (see Comment 2)**	0.004 to 0.052	0.011
AreaRAE Pro #4 (S/N: W01A00002413)	VOC (ppm)	0.5 ppm	No	0.0 to 0.1	0.0
	CO (ppm)	--	No	0.0 to 0.0	0.0
	H_2S (ppm)	0.1 ppm	No	0.0 to 0.0	0.0
	HF (ppm)	0.2 ppm	No	0.0 to 0.0	0.0

Northwest Air Monitoring Station					
Instrument	**Analyte**	**Morris Industrial Fire Public Health Screening Level[1]**	**Public Health Screening Level Exceeded?**	**1-Hour Period Concentration Range**	**Average of All 1-Hour Periods**
DustTrak #007 (S/N: 8533153917)	$PM_{2.5}$ (mg/m^3)	0.025 mg/m^3	**Yes (see Comment 2)**	0.001 to 0.028	0.010
	PM_{10} (mg/m^3)	0.05 mg/m^3	No	0.001 to 0.029	0.010
AreaRAE Pro #3 (S/N: W01A00002412)	VOC (ppm)	0.5 ppm	No	0.0 to 0.3	0.0
	CO (ppm)	--	No	0.0 to 0.3	0.0
	H_2S (ppm)	0.1 ppm	No	0.0 to 0.0	0.0
	HF (ppm)	0.2 ppm	No	0.0 to 0.0	0.0

Southeast Air Monitoring Station					
Instrument	**Analyte**	**Morris Industrial Fire Public Health Screening Level[1]**	**Public Health Screening Level Exceeded?**	**1-Hour Period Concentration Range**	**Average of All 1-Hour Periods**
DustTrak #016 (S/N: 8533173907)	$PM_{2.5}$ (mg/m^3)	0.025 mg/m^3	No	0.007 to 0.024	0.013
	PM_{10} (mg/m^3)	0.05 mg/m^3	No	0.007 to 0.026	0.014
AreaRAE Pro #1 (S/N: W01A00002410)	VOC (ppm)	0.5 ppm	No	0.0 to 0.2	0.0
	CO (ppm)	--	No	0.0 to 0.4	0.0
	H_2S (ppm)	0.1 ppm	No	0.0 to 0.0	0.0
	HF (ppm)	0.2 ppm	No	0.0 to 0.0	0.0

Notes: See last page.

Air Monitoring Summary Tables

The tables below summarize air monitoring data collected using EPA AreaRAE Pro and DustTrak DRX instruments.

Project Name: Morris Industrial Fire Site
Date/Time: 08/22/2022 08:30 to 08/26/2022 17:00

Southwest Air Monitoring Station					
Instrument	**Analyte**	**Morris Industrial Fire Public Health Screening Level[1]**	**Public Health Screening Level Exceeded?**	**1-Hour Period Concentration Range**	**Average of All 1-Hour Periods**
DustTrak #008 (S/N: 8533154004)	$PM_{2.5}$ (mg/m^3)	0.025 mg/m^3	**Yes (see Comment 2)**	0.005 to 0.028	0.011
	PM_{10} (mg/m^3)	0.05 mg/m^3	No	0.005 to 0.031	0.012
AreaRAE Pro #2 (S/N: W01A00002411)	VOC (ppm)	0.5 ppm	No	0.0 to 0.2	0.0
	CO (ppm)	--	No	0.0 to 0.1	0.0
	H_2S (ppm)	0.1 ppm	No	0.0 to 0.0	0.0
	HF (ppm)	0.2 ppm	No	0.0 to 0.0	0.0

Comments
Air monitoring measurements have been averaged over a 1-hour time period and summarized above.
Start and stop times for each air monitoring instrument varies. The monitoring period is based on the earliest start time and latest stop time out of all units.
Air monitoring is not performed during inclement weather conditions/rain and thunderstorms.
1 - Public health screening levels are based on 1-hour time-weighted averages and were established by Agency for Toxic Substances and Disease Registry (ATSDR).
2 - $PM_{2.5}$ and PM_{10} 1-hour time-weighted averages were greater than the action level at multiple stations throughout the week. Upwind/off-site elevated levels $PM_{2.5}$ and PM_{10} impacted downwind air monitoring stations.
Notes: CO - Carbon Monoxide H_2S - Hydrogen Sulfide HF - Hydrogen Fluoride mg/m^3 - Milligrams per cubic meter $PM_{2.5}$ - Particles that are 2.5 micrometers and smaller PM_{10} - Particles that are 10 micrometers and smaller ppm - Parts per million S/N - Serial number VOC - Volatile organic compounds

Air Quality Index Categories and Recommendations

Air Quality Index Category	**24-Hour Avg. $PM_{2.5}$ Concentrations (ug/m^3)**	**24-Hour Avg. PM_{10} Concentrations (ug/m^3)**	**Recommended Actions**
Good	0 to 12.0	0 to 54	None
Moderate	12.1 to 35.4	55 to 154	People with heart or lung disease, older adults (65 and up), and children: **Consider reducing** prolonged or heavy exertion.
Unhealthy for Sensitive Groups	35.5 to 55.4	155 to 254	People with heart or lung disease, older adults (65 and up), and children: **Reduce** prolonged or heavy exertion.
Unhealthy	55.5 to 150.4	255 to 354	People with heart or lung disease, older adults (65 and up), and children: **Avoid** prolonged or heavy exertion. Everyone else should **reduce** prolonged or heavy exertion.
Very Unhealthy	150.5 to 250.4	355 to 424	People with heart or lung disease, older adults (65 and up), and children: **Avoid all physical activity outdoors**. Everyone else should **avoid** prolonged or heavy exertion.
Hazardous	250.5 to 500.4	**425 to 605**	**Everyone should avoid all physical activity outdoors**. People with heart or lung disease, older adults (65 and up), and children should remain indoors and keep activity levels low.

Comment: Illinois Statewide Average 24-hour $PM_{2.5}$ Concentration in 2020: 19.9 ug/m^3

Comment: Off-site monitoring locations include both upwind and downwind locations. Elevated $PM_{2.5}$ and PM_{10} concentrations may represent other sources.

Daily average $PM_{2.5}$ data for fixed monitoring locations can be found here: http://www.epa.state.il.us/air/pm25/index.html.

Visit the landing page for the air quality index, ozone, and particulate monitoring data here: https://www2.illinois.gov/epa/topics/air-quality/outdoor-air/Pages/default.aspx.

Air Monitoring Summary Tables

The tables below summarize air monitoring data collected using EPA AreaRAE Pro and DustTrak DRX instruments.

Project Name: Morris Industrial Fire Site
Date/Time: 08/29/2022 09:01 to 09/01/2022 16:59

Northeast Air Monitoring Station					
Instrument	**Analyte**	**Morris Industrial Fire Public Health Screening Level[1]**	**Public Health Screening Level Exceeded?**	**8-hour Period Concentration Range**	**Average of All 8-hour Periods**
DustTrak #003 (S/N: 8533153915)	$PM_{2.5}$ (mg/m^3)	0.025 mg/m^3	**Yes (see Comment 2)**	0.006 to 0.027	0.009
	PM_{10} (mg/m^3)	0.05 mg/m^3	No	0.006 to 0.037	0.009
AreaRAE Pro #4 (S/N: W01A00002413)	VOC (ppm)	0.5 ppm	No	0.0 to 0.0	0.0
	CO (ppm)	--	No	0.0 to 0.0	0.0
	H_2S (ppm)	0.1 ppm	No	0.0 to 0.0	0.0
	HF (ppm)	0.2 ppm	No	0.0 to 0.2	0.0

Northwest Air Monitoring Station					
Instrument	**Analyte**	**Morris Industrial Fire Public Health Screening Level[1]**	**Public Health Screening Level Exceeded?**	**8-hour Period Concentration Range**	**Average of All 8-hour Periods**
DustTrak #007 (S/N: 8533153917)	$PM_{2.5}$ (mg/m^3)	0.025 mg/m^3	No	0.002 to 0.020	0.008
	PM_{10} (mg/m^3)	0.05 mg/m^3	No	0.003 to 0.027	0.009
AreaRAE Pro #3 (S/N: W01A00002412)	VOC (ppm)	0.5 ppm	No	0.0 to 0.1	0.0
	CO (ppm)	--	No	0.0 to 0.4	0.0
	H_2S (ppm)	0.1 ppm	No	0.0 to 0.0	0.0
	HF (ppm)	0.2 ppm	No	0.0 to 0.0	0.0

Southeast Air Monitoring Station					
Instrument	**Analyte**	**Morris Industrial Fire Public Health Screening Level[1]**	**Public Health Screening Level Exceeded?**	**8-hour Period Concentration Range**	**Average of All 8-hour Periods**
DustTrak #016 (S/N: 8533173907)	$PM_{2.5}$ (mg/m^3)	0.025 mg/m^3	**Yes (see Comment 2)**	0.007 to 0.080	0.012
	PM_{10} (mg/m^3)	0.05 mg/m^3	**Yes (see Comment 2)**	0.007 to 0.087	0.013
AreaRAE Pro #1 (S/N: W01A00002410)	VOC (ppm)	0.5 ppm	No	0.0 to 0.1	0.0
	CO (ppm)	--	No	0.0 to 0.0	0.0
	H_2S (ppm)	0.1 ppm	No	0.0 to 0.0	0.0
	HF (ppm)	0.2 ppm	No	0.0 to 0.0	0.0

Notes: See last page.

Air Monitoring Summary Tables

The tables below summarize air monitoring data collected using EPA AreaRAE Pro and DustTrak DRX instruments.

Project Name: Morris Industrial Fire Site
Date/Time: 08/29/2022 09:01 to 09/01/2022 16:59

Southwest Air Monitoring Station					
Instrument	**Analyte**	**Morris Industrial Fire Public Health Screening Level[1]**	**Public Health Screening Level Exceeded?**	**8-hour Period Concentration Range**	**Average of All 8-hour Periods**
DustTrak #008 (S/N: 8533154004)	$PM_{2.5}$ (mg/m^3)	0.025 mg/m^3	No	0.005 to 0.016	0.009
	PM_{10} (mg/m^3)	0.05 mg/m^3	No	0.006 to 0.017	0.011
AreaRAE Pro #2 (S/N: W01A00002411)	VOC (ppm)	0.5 ppm	No	0.0 to 0.1	0.0
	CO (ppm)	--	No	0.0 to 0.2	0.0
	H_2S (ppm)	0.1 ppm	No	0.0 to 0.0	0.0
	HF (ppm)	0.2 ppm	No	0.0 to 0.0	0.0

Comments
Air monitoring measurements have been averaged over a 8-hour time period and summarized above.
Start and stop times for each air monitoring instrument varies. The monitoring period is based on the earliest start time and latest stop time out of all units.
Air monitoring is not performed during inclement weather conditions/rain and thunderstorms.
1 - Public health screening levels are based on 8-hour time-weighted averages and were established by Agency for Toxic Substances and Disease Registry (ATSDR).
2 - $PM_{2.5}$ and PM_{10} 1-hour time-weighted averages were greater than the action level at multiple stations throughout the week. Upwind/off-site elevated levels $PM_{2.5}$ and PM_{10} impacted downwind air monitoring stations.
Notes: CO - Carbon Monoxide H_2S - Hydrogen Sulfide HF - Hydrogen Fluoride mg/m^3 - Milligrams per cubic meter $PM_{2.5}$ - Particles that are 2.5 micrometers and smaller PM_{10} - Particles that are 10 micrometers and smaller ppm - Parts per million S/N - Serial number VOC - Volatile organic compounds

Air Monitoring Results Summary Table
Monitoring Period: 08/29/2022 8:00 to 08/29/2022 08:51
Morris Lithium Battery Fire Site
Morris, Grundy County, Illinois

Location	Date/Time	VOC (ppm)	LEL (%)	CO (ppm)	O_2 (%)	H_2S (ppm)	$PM_{2.5}$ (mg/m^3)	PM_{10} (mg/m^3)	HF (ppm)
		Action Levels[1]							
		0.5 ppm	5%	25 ppm	19.5% to 23.5%	0.1 ppm	0.025 mg/m^3	0.05 mg/m^3	0.2 ppm
Outside SE	08/29/2022 08:00	0	0	0	20.9	0	0.034	0.045	--
	08/29/2022 08:19	0	0	0	20.9	0	0.023	0.025	--
	08/29/2022 08:41	0	0	0	20.9	0	0.029	0.030	--
Outside NE	08/29/2022 08:03	0	0	0	20.9	0	0.019	0.021	--
	08/29/2022 08:23	0	0	0	20.9	0	0.027	0.027	--
	08/29/2022 08:44	0	0	0	20.9	0	0.017	0.017	--
Outside SW	08/29/2022 08:29	0	0	0	20.9	0	0.201	0.219	--
	08/29/2022 08:49	0	0	0	20.9	0	0.018	0.018	--
	08/29/2022 08:09	0	0	0	20.9	0	0.019	0.020	--
Outside NW	08/29/2022 08:12	0	0	0	20.9	0	0.020	0.020	--
	08/29/2022 08:32	0	0	0	20.9	0	0.038	0.044	--
	08/29/2022 08:51	0	0	0	20.9	0	0.015	0.014	--

Notes:
1 - Action levels are established in the site-specific health and safety plan.

Highlighted values are discrete readings above the site-specific action level. Upwind/off-site elevated levels $PM_{2.5}$ and PM_{10} impacted downwind air monitoring stations.

% - Percent
CO - Carbon Monoxide
H_2S - Hydrogen Sulfide
HF - Hydrogen Fluoride
LEL - Lower explosive limit
mg/m^3 - Milligrams per cubic meter
O_2 - Oxygen
$PM_{2.5}$ - Particles that are 2.5 micrometers and smaller
PM_{10} - Particles that are 10 micrometers and smaller
ppm - Parts per million
VOC - Volatile organic compounds

Air Quality Index Categories and Recommendations

Air Quality Index Category	**24-Hour Avg. $PM_{2.5}$ Concentrations (ug/m^3)**	**24-Hour Avg. PM_{10} Concentrations (ug/m^3)**	**Recommended Actions**
Good	0 to 12.0	0 to 54	None
Moderate	12.1 to 35.4	55 to 154	People with heart or lung disease, older adults (65 and up), and children: **Consider reducing** prolonged or heavy exertion.
Unhealthy for Sensitive Groups	35.5 to 55.4	155 to 254	People with heart or lung disease, older adults (65 and up), and children: **Reduce** prolonged or heavy exertion.
Unhealthy	55.5 to 150.4	255 to 354	People with heart or lung disease, older adults (65 and up), and children: **Avoid** prolonged or heavy exertion. Everyone else should **reduce** prolonged or heavy exertion.
Very Unhealthy	150.5 to 250.4	355 to 424	People with heart or lung disease, older adults (65 and up), and children: **Avoid all physical activity outdoors**. Everyone else should **avoid** prolonged or heavy exertion.
Hazardous	250.5 to 500.4	**425 to 605**	**Everyone should avoid all physical activity outdoors**. People with heart or lung disease, older adults (65 and up), and children should remain indoors and keep activity levels low.

Comment: Illinois Statewide Average 24-hour $PM_{2.5}$ Concentration in 2020: 19.9 ug/m^3

Comment: Off-site monitoring locations include both upwind and downwind locations. Elevated $PM_{2.5}$ and PM_{10} concentrations may represent other sources.

Daily average $PM_{2.5}$ data for fixed monitoring locations can be found here: http://www.epa.state.il.us/air/pm25/index.html.

Visit the landing page for the air quality index, ozone, and particulate monitoring data here: https://www2.illinois.gov/epa/topics/air-quality/outdoor-air/Pages/default.aspx.

Air Monitoring Summary Tables

The tables below summarize air monitoring data collected using EPA AreaRAE Pro and DustTrak DRX instruments.

Project Name: Morris Industrial Fire Site
Date/Time: 09/07/2022 07:03 to 09/09/2022 16:55

Northeast Air Monitoring Station					
Instrument	**Analyte**	**Morris Industrial Fire Public Health Screening Level[1]**	**Public Health Screening Level Exceeded?**	**8-hour Period Concentration Range**	**Average of All 8-hour Periods**
DustTrak #003 (S/N: 8533153915)	$PM_{2.5}$ (mg/m^3)	0.025 mg/m^3	No	0.006 to 0.018	0.008
	PM_{10} (mg/m^3)	0.05 mg/m^3	No	0.006 to 0.021	0.008
AreaRAE Pro #4 (S/N: W01A00002413)	VOC (ppm)	0.5 ppm	No	0.0 to 0.0	0.0
	CO (ppm)	--	No	0.0 to 0.0	0.0
	H_2S (ppm)	0.1 ppm	No	0.0 to 0.0	0.0
	HF (ppm)	0.2 ppm	No	0.0 to 0.2	0.0

Northwest Air Monitoring Station					
Instrument	**Analyte**	**Morris Industrial Fire Public Health Screening Level[1]**	**Public Health Screening Level Exceeded?**	**8-hour Period Concentration Range**	**Average of All 8-hour Periods**
DustTrak #007 (S/N: 8533153917)	$PM_{2.5}$ (mg/m^3)	0.025 mg/m^3	No	0.000 to 0.023	0.008
	PM_{10} (mg/m^3)	0.05 mg/m^3	No	0.000 to 0.026	0.009
AreaRAE Pro #3 (S/N: W01A00002412)	VOC (ppm)	0.5 ppm	No	0.0 to 0.2	0.0
	CO (ppm)	--	No	0.0 to 0.1	0.0
	H_2S (ppm)	0.1 ppm	No	0.0 to 0.0	0.0
	HF (ppm)	0.2 ppm	No	0.0 to 0.0	0.0

Southeast Air Monitoring Station					
Instrument	**Analyte**	**Morris Industrial Fire Public Health Screening Level[1]**	**Public Health Screening Level Exceeded?**	**8-hour Period Concentration Range**	**Average of All 8-hour Periods**
DustTrak #016 (S/N: 8533173907)	$PM_{2.5}$ (mg/m^3)	0.025 mg/m^3	**Yes (see Comment 2)**	0.005 to 0.044	0.011
	PM_{10} (mg/m^3)	0.05 mg/m^3	**Yes (see Comment 2)**	0.005 to 0.068	0.012
AreaRAE Pro #1 (S/N: W01A00002410)	VOC (ppm)	0.5 ppm	No	0.0 to 0.3	0.0
	CO (ppm)	--	No	0.0 to 4.7	0.2
	H_2S (ppm)	0.1 ppm	No	0.0 to 0.0	0.0
	HF (ppm)	0.2 ppm	No	0.0 to 0.0	0.0

Notes: See last page.

Air Monitoring Summary Tables

The tables below summarize air monitoring data collected using EPA AreaRAE Pro and DustTrak DRX instruments.

Project Name: Morris Industrial Fire Site
Date/Time: 09/07/2022 07:03 to 09/09/2022 16:55

Southwest Air Monitoring Station					
Instrument	**Analyte**	**Morris Industrial Fire Public Health Screening Level[1]**	**Public Health Screening Level Exceeded?**	**8-hour Period Concentration Range**	**Average of All 8-hour Periods**
DustTrak #008 (S/N: 8533154004)	$PM_{2.5}$ (mg/m^3)	0.025 mg/m^3	No	0.003 to 0.023	0.007
	PM_{10} (mg/m^3)	0.05 mg/m^3	No	0.003 to 0.024	0.007
AreaRAE Pro #2 (S/N: W01A00002411)	VOC (ppm)	0.5 ppm	No	0.0 to 0.2	0.0
	CO (ppm)	--	No	0.0 to 2.0	0.0
	H_2S (ppm)	0.1 ppm	No	0.0 to 0.0	0.0
	HF (ppm)	0.2 ppm	No	0.0 to 0.0	0.0

Comments
Air monitoring measurements have been averaged over a 8-hour time period and summarized above.
Start and stop times for each air monitoring instrument varies. The monitoring period is based on the earliest start time and latest stop time out of all units.
Air monitoring is not performed during inclement weather conditions/rain and thunderstorms.
1 - Public health screening levels are based on 8-hour time-weighted averages and were established by Agency for Toxic Substances and Disease Registry (ATSDR).
2 - $PM_{2.5}$ and PM_{10} 1-hour time-weighted averages were greater than the action level at the southeast station on September 8, 2022. During this time, elevated concentrations of $PM_{2.5}$ and PM_{10} were attributable to lawn mowing occurring near the air monitoring station.
Notes: CO - Carbon Monoxide H_2S - Hydrogen Sulfide HF - Hydrogen Fluoride mg/m^3 - Milligrams per cubic meter $PM_{2.5}$ - Particles that are 2.5 micrometers and smaller PM_{10} - Particles that are 10 micrometers and smaller ppm - Parts per million S/N - Serial number VOC - Volatile organic compounds

Air Quality Index Categories and Recommendations

Air Quality Index Category	**24-Hour Avg. $PM_{2.5}$ Concentrations (ug/m^3)**	**24-Hour Avg. PM_{10} Concentrations (ug/m^3)**	**Recommended Actions**
Good	0 to 12.0	0 to 54	None
Moderate	12.1 to 35.4	55 to 154	People with heart or lung disease, older adults (65 and up), and children: **Consider reducing** prolonged or heavy exertion.
Unhealthy for Sensitive Groups	35.5 to 55.4	155 to 254	People with heart or lung disease, older adults (65 and up), and children: **Reduce** prolonged or heavy exertion.
Unhealthy	55.5 to 150.4	255 to 354	People with heart or lung disease, older adults (65 and up), and children: **Avoid** prolonged or heavy exertion. Everyone else should **reduce** prolonged or heavy exertion.
Very Unhealthy	150.5 to 250.4	355 to 424	People with heart or lung disease, older adults (65 and up), and children: **Avoid all physical activity outdoors**. Everyone else should **avoid** prolonged or heavy exertion.
Hazardous	250.5 to 500.4	**425 to 605**	**Everyone should avoid all physical activity outdoors**. People with heart or lung disease, older adults (65 and up), and children should remain indoors and keep activity levels low.

Comment: Illinois Statewide Average 24-hour $PM_{2.5}$ Concentration in 2020: 19.9 ug/m^3

Comment: Off-site monitoring locations include both upwind and downwind locations. Elevated $PM_{2.5}$ and PM_{10} concentrations may represent other sources.

Daily average $PM_{2.5}$ data for fixed monitoring locations can be found here: http://www.epa.state.il.us/air/pm25/index.html.

Visit the landing page for the air quality Index, ozone, and particulate monitoring data here: https://www2.illinois.gov/epa/topics/air-quality/outdoor-air/Pages/default.aspx.

Air Monitoring Summary Tables

The tables below summarize air monitoring data collected using EPA AreaRAE Pro and DustTrak DRX instruments.

Project Name: Morris Industrial Fire Site
Date/Time: 09/12/2022 07:43 to 09/16/2022 16:58

Northeast Air Monitoring Station					
Instrument	**Analyte**	**Morris Industrial Fire Public Health Screening Level[1]**	**Public Health Screening Level Exceeded?**	**8-hour Period Concentration Range**	**Average of All 8-hour Periods**
DustTrak #003 (S/N: 8533153915)	$PM_{2.5}$ (mg/m^3)	0.025 mg/m^3	No	0.001 to 0.019	0.007
	PM_{10} (mg/m^3)	0.05 mg/m^3	No	0.001 to 0.023	0.008
AreaRAE Pro #4 (S/N: W01A00002413)	VOC (ppm)	0.5 ppm	No	0.0 to 0.0	0.0
	CO (ppm)	--	No	0.0 to 0.0	0.0
	H_2S (ppm)	0.1 ppm	No	0.0 to 0.0	0.0
	HF (ppm)	0.2 ppm	**Yes (see Comment 2)**	0.0 to 0.2	0.0

Northwest Air Monitoring Station					
Instrument	**Analyte**	**Morris Industrial Fire Public Health Screening Level[1]**	**Public Health Screening Level Exceeded?**	**8-hour Period Concentration Range**	**Average of All 8-hour Periods**
DustTrak #007 (S/N: 8533153917)	$PM_{2.5}$ (mg/m^3)	0.025 mg/m^3	**Yes (see Comment 3)**	0.000 to 0.034	0.008
	PM_{10} (mg/m^3)	0.05 mg/m^3	**Yes (see Comment 3)**	0.000 to 0.052	0.008
AreaRAE Pro #3 (S/N: W01A00002412)	VOC (ppm)	0.5 ppm	No	0.0 to 0.1	0.0
	CO (ppm)	--	No	0.0 to 3.0	0.0
	H_2S (ppm)	0.1 ppm	No	0.0 to 0.0	0.0
	HF (ppm)	0.2 ppm	No	0.0 to 0.0	0.0

Southeast Air Monitoring Station					
Instrument	**Analyte**	**Morris Industrial Fire Public Health Screening Level[1]**	**Public Health Screening Level Exceeded?**	**8-hour Period Concentration Range**	**Average of All 8-hour Periods**
DustTrak #016 (S/N: 8533173907)	$PM_{2.5}$ (mg/m^3)	0.025 mg/m^3	**Yes (see Comment 3)**	0.001 to 0.026	0.009
	PM_{10} (mg/m^3)	0.05 mg/m^3	No	0.001 to 0.027	0.010
AreaRAE Pro #1 (S/N: W01A00002410)	VOC (ppm)	0.5 ppm	No	0.0 to 0.1	0.0
	CO (ppm)	--	No	0.0 to 0.3	0.0
	H_2S (ppm)	0.1 ppm	No	0.0 to 0.0	0.0
	HF (ppm)	0.2 ppm	No	0.0 to 0.0	0.0

Notes: See last page.

Air Monitoring Summary Tables

The tables below summarize air monitoring data collected using EPA AreaRAE Pro and DustTrak DRX instruments.

Project Name: Morris Industrial Fire Site
Date/Time: 09/12/2022 07:43 to 09/16/2022 16:58

Southwest Air Monitoring Station					
Instrument	**Analyte**	**Morris Industrial Fire Public Health Screening Level[1]**	**Public Health Screening Level Exceeded?**	**8-hour Period Concentration Range**	**Average of All 8-hour Periods**
DustTrak #008 (S/N: 8533154004)	$PM_{2.5}$ (mg/m^3)	0.025 mg/m^3	**Yes (see Comment 3)**	0.002 to 0.026	0.007
	PM_{10} (mg/m^3)	0.05 mg/m^3	No	0.002 to 0.026	0.008
AreaRAE Pro #2 (S/N: W01A00002411)	VOC (ppm)	0.5 ppm	No	0.0 to 0.2	0.0
	CO (ppm)	--	No	0.0 to 0.0	0.0
	H_2S (ppm)	0.1 ppm	No	0.0 to 0.0	0.0
	HF (ppm)	0.2 ppm	No	0.0 to 0.0	0.0

Comments
Air monitoring measurements have been averaged over a 8-hour time period and summarized above.
Start and stop times for each air monitoring instrument varies. The monitoring period is based on the earliest start time and latest stop time out of all units.
Air monitoring is not performed during inclement weather conditions/rain and thunderstorms.
1 - Public health screening levels are based on 8-hour time-weighted averages and were established by Agency for Toxic Substances and Disease Registry (ATSDR).
2 - Elevated HF measurements were documented at the northeast station on September 12, 2022 from 07:23 to 08:36. A mobile air monitoring instrument was used to verify the elevated measurements. The mobile instrument documented HF concentrations were 0 ppm during this time period.
3 - $PM_{2.5}$ and PM_{10} 1-hour Ttime-weighted averages were greater than the action level at multiple stations on September 16, 2022. Upwind/off-site elevated levels $PM_{2.5}$ and PM_{10} impacted downwind air monitoring stations.
Notes: CO - Carbon Monoxide H_2S - Hydrogen Sulfide HF - Hydrogen Fluoride mg/m^3 - Milligrams per cubic meter $PM_{2.5}$ - Particles that are 2.5 micrometers and smaller PM_{10} - Particles that are 10 micrometers and smaller ppm - Parts per million S/N - Serial number VOC - Volatile organic compounds

Air Quality Index Categories and Recommendations

Air Quality Index Category	**24-Hour Avg. $PM_{2.5}$ Concentrations (ug/m^3)**	**24-Hour Avg. PM_{10} Concentrations (ug/m^3)**	**Recommended Actions**
Good	0 to 12.0	0 to 54	None
Moderate	12.1 to 35.4	55 to 154	People with heart or lung disease, older adults (65 and up), and children: **Consider reducing** prolonged or heavy exertion.
Unhealthy for Sensitive Groups	35.5 to 55.4	155 to 254	People with heart or lung disease, older adults (65 and up), and children: **Reduce** prolonged or heavy exertion.
Unhealthy	55.5 to 150.4	255 to 354	People with heart or lung disease, older adults (65 and up), and children: **Avoid** prolonged or heavy exertion. Everyone else should **reduce** prolonged or heavy exertion.
Very Unhealthy	150.5 to 250.4	355 to 424	People with heart or lung disease, older adults (65 and up), and children: **Avoid all physical activity outdoors**. Everyone else should **avoid** prolonged or heavy exertion.
Hazardous	250.5 to 500.4	**425 to 605**	**Everyone should avoid all physical activity outdoors**. People with heart or lung disease, older adults (65 and up), and children should remain indoors and keep activity levels low.

Comment: Illinois Statewide Average 24-hour $PM_{2.5}$ Concentration in 2020: 19.9 ug/m^3

Comment: Off-site monitoring locations include both upwind and downwind locations. Elevated $PM_{2.5}$ and PM_{10} concentrations may represent other sources.

Daily average $PM_{2.5}$ data for fixed monitoring locations can be found here: http://www.epa.state.il.us/air/pm25/index.html.

Visit the landing page for the air quality index, ozone, and particulate data here: https://www2.illinois.gov/epa/topics/air-quality/outdoor-air/Pages/default.aspx.

Air Monitoring Summary Tables

The tables below summarize air monitoring data collected using EPA AreaRAE Pro and DustTrak DRX instruments.

Project Name: Morris Industrial Fire Site
Date/Time: 09/19/2022 08:00 to 09/23/2022 16:13

Northeast Air Monitoring Station					
Instrument	**Analyte**	**Morris Industrial Fire Public Health Screening Level[1]**	**Public Health Screening Level Exceeded?**	**8-hour Period Concentration Range**	**Average of All 8-hour Periods**
DustTrak #003 (S/N: 8533153915)	$PM_{2.5}$ (mg/m^3)	0.025 mg/m^3	**Yes (see Comment 2)**	0.001 to 0.055	0.007
	PM_{10} (mg/m^3)	0.05 mg/m^3	**Yes (see Comment 2)**	0.001 to 0.082	0.007
AreaRAE Pro #4 (S/N: W01A00002413)	VOC (ppm)	0.5 ppm	No	0.0 to 0.0	0.0
	CO (ppm)	--	No	0.0 to 0.0	0.0
	H_2S (ppm)	0.1 ppm	No	0.0 to 0.0	0.0
	HF (ppm)	0.2 ppm	**Yes (see Comment 3)**	0.0 to 0.2	0.0

Northwest Air Monitoring Station					
Instrument	**Analyte**	**Morris Industrial Fire Public Health Screening Level[1]**	**Public Health Screening Level Exceeded?**	**8-hour Period Concentration Range**	**Average of All 8-hour Periods**
DustTrak #007 (S/N: 8533153917)	$PM_{2.5}$ (mg/m^3)	0.025 mg/m^3	**Yes (see Comment 2)**	0.000 to 0.029	0.006
	PM_{10} (mg/m^3)	0.05 mg/m^3	No	0.000 to 0.036	0.007
AreaRAE Pro #3 (S/N: W01A00002412)	VOC (ppm)	0.5 ppm	No	0.0 to 0.2	0.0
	CO (ppm)	--	No	0.0 to 0.3	0.0
	H_2S (ppm)	0.1 ppm	No	0.0 to 0.0	0.0
	HF (ppm)	0.2 ppm	No	0.0 to 0.0	0.0

Southeast Air Monitoring Station					
Instrument	**Analyte**	**Morris Industrial Fire Public Health Screening Level[1]**	**Public Health Screening Level Exceeded?**	**8-hour Period Concentration Range**	**Average of All 8-hour Periods**
DustTrak #016 (S/N: 8533173907)	$PM_{2.5}$ (mg/m^3)	0.025 mg/m^3	No	0.001 to 0.021	0.008
	PM_{10} (mg/m^3)	0.05 mg/m^3	No	0.001 to 0.023	0.009
AreaRAE Pro #1 (S/N: W01A00002410)	VOC (ppm)	0.5 ppm	No	0.0 to 0.3	0.0
	CO (ppm)	--	No	0.0 to 0.0	0.0
	H_2S (ppm)	0.1 ppm	No	0.0 to 0.0	0.0
	HF (ppm)	0.2 ppm	**Yes (see Comment 3)**	0.0 to 0.6	0.0

Notes: See last page.

Air Monitoring Summary Tables

The tables below summarize air monitoring data collected using EPA AreaRAE Pro and DustTrak DRX instruments.

Project Name: Morris Industrial Fire Site
Date/Time: 09/19/2022 08:00 to 09/23/2022 16:13

Southwest Air Monitoring Station					
Instrument	**Analyte**	**Morris Industrial Fire Public Health Screening Level[1]**	**Public Health Screening Level Exceeded?**	**8-hour Period Concentration Range**	**Average of All 8-hour Periods**
DustTrak #008 (S/N: 8533154004)	$PM_{2.5}$ (mg/m^3)	0.025 mg/m^3	No	0.000 to 0.018	0.007
	PM_{10} (mg/m^3)	0.05 mg/m^3	No	0.000 to 0.018	0.008
AreaRAE Pro #2 (S/N: W01A00002411)	VOC (ppm)	0.5 ppm	No	0.0 to 0.3	0.0
	CO (ppm)	--	No	0.0 to 0.0	0.0
	H_2S (ppm)	0.1 ppm	No	0.0 to 0.0	0.0
	HF (ppm)	0.2 ppm	**Yes (see Comment 3)**	0.0 to 0.7	0.0

Comments
Air monitoring measurements have been averaged over a 8-hour time period and summarized above.
Start and stop times for each air monitoring instrument varies. The monitoring period is based on the earliest start time and latest stop time out of all units.
Air monitoring is not performed during inclement weather conditions/rain and thunderstorms.
1 - Public health screening levels are based on 8-hour time-weighted averages and were established by Agency for Toxic Substances and Disease Registry (ATSDR).
2 - $PM_{2.5}$ and PM_{10} 1-hour time-weighted averages were greater than the action level at multiple stations. Upwind/off-site elevated levels $PM_{2.5}$ and PM_{10} impacted downwind air monitoring stations.
3 - Elevated HF measurements were documented at multiple stations. A mobile air monitoring instrument was used to verify the elevated measurements. The mobile instrument documented HF concentrations were 0 ppm during this time period.
Notes: CO - Carbon Monoxide H_2S - Hydrogen Sulfide HF - Hydrogen Fluoride mg/m^3 - Milligrams per cubic meter $PM_{2.5}$ - Particles that are 2.5 micrometers and smaller PM_{10} - Particles that are 10 micrometers and smaller ppm - Parts per million S/N - Serial number VOC - Volatile organic compounds

Air Monitoring Summary Tables

The tables below summarize air monitoring data collected using EPA AreaRAE Pro and DustTrak DRX instruments.

Project Name: Morris Industrial Fire Site
Date/Time: 09/26/2022 06:49 to 09/30/2022 16:56

Northeast Air Monitoring Station					
Instrument	**Analyte**	**Morris Industrial Fire Public Health Screening Level[1]**	**Public Health Screening Level Exceeded?**	**8-hour Period Concentration Range**	**Average of All 8-hour Periods**
DustTrak #003 (S/N: 8533153915)	$PM_{2.5}$ (mg/m^3)	0.025 mg/m^3	**Yes (see Comment 2)**	0.001 to 0.104	0.005
	PM_{10} (mg/m^3)	0.05 mg/m^3	**Yes (see Comment 2)**	0.001 to 0.133	0.006
AreaRAE Pro #4 (S/N: W01A00002413)	VOC (ppm)	0.5 ppm	No	0.0 to 0.0	0.0
	CO (ppm)	--	No	0.0 to 0.0	0.0
	H_2S (ppm)	0.1 ppm	No	0.0 to 0.0	0.0
	HF (ppm)	0.2 ppm	**Yes (see Comment 3)**	0.0 to 0.2	0.0

Northwest Air Monitoring Station					
Instrument	**Analyte**	**Morris Industrial Fire Public Health Screening Level[1]**	**Public Health Screening Level Exceeded?**	**8-hour Period Concentration Range**	**Average of All 8-hour Periods**
DustTrak #007 (S/N: 8533153917)	$PM_{2.5}$ (mg/m^3)	0.025 mg/m^3	**Yes (see Comment 2)**	0.000 to 0.025	0.005
	PM_{10} (mg/m^3)	0.05 mg/m^3	No	0.000 to 0.035	0.006
AreaRAE Pro #3 (S/N: W01A00002412)	VOC (ppm)	0.5 ppm	No	0.0 to 0.1	0.0
	CO (ppm)	--	No	0.0 to 0.0	0.0
	H_2S (ppm)	0.1 ppm	No	0.0 to 0.0	0.0
	HF (ppm)	0.2 ppm	No	0.0 to 0.1	0.0

Southeast Air Monitoring Station					
Instrument	**Analyte**	**Morris Industrial Fire Public Health Screening Level[1]**	**Public Health Screening Level Exceeded?**	**8-hour Period Concentration Range**	**Average of All 8-hour Periods**
DustTrak #016 (S/N: 8533173907)	$PM_{2.5}$ (mg/m^3)	0.025 mg/m^3	No	0.002 to 0.020	0.005
	PM_{10} (mg/m^3)	0.05 mg/m^3	No	0.002 to 0.020	0.006
AreaRAE Pro #1 (S/N: W01A00002410)	VOC (ppm)	0.5 ppm	No	0.0 to 0.2	0.0
	CO (ppm)	--	No	0.0 to 0.0	0.0
	H_2S (ppm)	0.1 ppm	No	0.0 to 0.0	0.0
	HF (ppm)	0.2 ppm	No	0.0 to 0.2	0.0

Notes: See last page.

Air Monitoring Summary Tables

The tables below summarize air monitoring data collected using EPA AreaRAE Pro and DustTrak DRX instruments.

Project Name: Morris Industrial Fire Site
Date/Time: 09/26/2022 06:49 to 09/30/2022 16:56

Southwest Air Monitoring Station					
Instrument	**Analyte**	**Morris Industrial Fire Public Health Screening Level[1]**	**Public Health Screening Level Exceeded?**	**8-hour Period Concentration Range**	**Average of All 8-hour Periods**
DustTrak #008 (S/N: 8533154004)	$PM_{2.5}$ (mg/m^3)	0.025 mg/m^3	No	0.002 to 0.021	0.005
	PM_{10} (mg/m^3)	0.05 mg/m^3	No	0.002 to 0.040	0.006
AreaRAE Pro #2 (S/N: W01A00002411)	VOC (ppm)	0.5 ppm	No	0.0 to 0.1	0.0
	CO (ppm)	--	No	0.0 to 0.0	0.0
	H_2S (ppm)	0.1 ppm	No	0.0 to 0.0	0.0
	HF (ppm)	0.2 ppm	No	0.0 to 0.0	0.0

Comments
Air monitoring measurements have been averaged over a 8-hour time period and summarized above.
Start and stop times for each air monitoring instrument varies. The monitoring period is based on the earliest start time and latest stop time out of all units.
Air monitoring is not performed during inclement weather conditions/rain and thunderstorms.
1 - Public health screening levels are based on 8-hour time-weighted averages and were established by Agency for Toxic Substances and Disease Registry (ATSDR).
2 - $PM_{2.5}$ and PM_{10} 1-hour time-weighted averages were greater than the action level at multiple stations. Upwind/off-site elevated levels $PM_{2.5}$ and PM_{10} impacted downwind air monitoring stations.
3 - Elevated HF measurements were documented at the Northeast Station from 7:50 through 8:23. A mobile air monitoring instrument was used to verify the elevated measurements. The mobile instrument documented HF concentrations were 0 ppm during this time period.
Notes: CO - Carbon Monoxide H_2S - Hydrogen Sulfide HF - Hydrogen Fluoride mg/m^3 - Milligrams per cubic meter $PM_{2.5}$ - Particles that are 2.5 micrometers and smaller PM_{10} - Particles that are 10 micrometers and smaller ppm - Parts per million S/N - Serial number VOC - Volatile organic compounds

Air Quality Index Categories and Recommendations

Air Quality Index Category	**24-Hour Avg. $PM_{2.5}$ Concentrations (ug/m^3)**	**24-Hour Avg. PM_{10} Concentrations (ug/m^3)**	**Recommended Actions**
Good	0 to 12.0	0 to 54	None
Moderate	12.1 to 35.4	55 to 154	People with heart or lung disease, older adults (65 and up), and children: **Consider reducing** prolonged or heavy exertion.
Unhealthy for Sensitive Groups	35.5 to 55.4	155 to 254	People with heart or lung disease, older adults (65 and up), and children: **Reduce** prolonged or heavy exertion.
Unhealthy	55.5 to 150.4	255 to 354	People with heart or lung disease, older adults (65 and up), and children: **Avoid** prolonged or heavy exertion. Everyone else should **reduce** prolonged or heavy exertion.
Very Unhealthy	150.5 to 250.4	355 to 424	People with heart or lung disease, older adults (65 and up), and children: **Avoid all physical activity outdoors**. Everyone else should **avoid** prolonged or heavy exertion.
Hazardous	250.5 to 500.4	**425 to 605**	**Everyone should avoid all physical activity outdoors**. People with heart or lung disease, older adults (65 and up), and children should remain indoors and keep activity levels low.

Comment: Illinois Statewide Average 24-hour $PM_{2.5}$ Concentration in 2020: 19.9 ug/m^3

Comment: Off-site monitoring locations include both upwind and downwind locations. Elevated $PM_{2.5}$ and PM_{10} concentrations may represent other sources.

Daily average $PM_{2.5}$ data for fixed monitoring locations can be found here: http://www.epa.state.il.us/air/pm25/index.html.

Visit the landing page for the air quality index, ozone, and particulate data here: https://www2.illinois.gov/epa/topics/air-quality/outdoor-air/Pages/default.aspx.

Air Monitoring Summary Tables

The tables below summarize air monitoring data collected using EPA AreaRAE Pro and DustTrak DRX instruments.

Project Name: Morris Industrial Fire Site
Date/Time: 10/03/2022 06:39 to 10/07/2022 12:24

Northeast Air Monitoring Station					
Instrument	**Analyte**	**Morris Industrial Fire Public Health Screening Level[1]**	**Public Health Screening Level Exceeded?**	**8-hour Period Concentration Range**	**Average of All 8-hour Periods**
DustTrak #003 (S/N: 8533153915)	$PM_{2.5}$ (mg/m^3)	0.025 mg/m^3	**Yes (see Comment 2)**	0.002 to 0.028	0.007
	PM_{10} (mg/m^3)	0.05 mg/m^3	No	0.002 to 0.028	0.007
AreaRAE Pro #4 (S/N: W01A00002413)	VOC (ppm)	0.5 ppm	No	0.0 to 0.0	0.0
	CO (ppm)	--	No	0.0 to 0.0	0.0
	H_2S (ppm)	0.1 ppm	No	0.0 to 0.0	0.0
	HF (ppm)	0.2 ppm	No	0.0 to 0.0	0.0

Northwest Air Monitoring Station					
Instrument	**Analyte**	**Morris Industrial Fire Public Health Screening Level[1]**	**Public Health Screening Level Exceeded?**	**8-hour Period Concentration Range**	**Average of All 8-hour Periods**
DustTrak #007 (S/N: 8533153917)	$PM_{2.5}$ (mg/m^3)	0.025 mg/m^3	**Yes (see Comment 2)**	0.000 to 0.041	0.008
	PM_{10} (mg/m^3)	0.05 mg/m^3	No	0.000 to 0.042	0.009
AreaRAE Pro #3 (S/N: W01A00002412)	VOC (ppm)	0.5 ppm	No	0.0 to 0.0	0.0
	CO (ppm)	--	No	0.0 to 0.0	0.0
	H_2S (ppm)	0.1 ppm	No	0.0 to 0.0	0.0
	HF (ppm)	0.2 ppm	**Yes (see Comment 3)**	0.0 to 0.6	0.0

Southeast Air Monitoring Station					
Instrument	**Analyte**	**Morris Industrial Fire Public Health Screening Level[1]**	**Public Health Screening Level Exceeded?**	**8-hour Period Concentration Range**	**Average of All 8-hour Periods**
DustTrak #016 (S/N: 8533173907)	$PM_{2.5}$ (mg/m^3)	0.025 mg/m^3	**Yes (see Comment 2)**	0.001 to 0.032	0.007
	PM_{10} (mg/m^3)	0.05 mg/m^3	No	0.001 to 0.032	0.008
AreaRAE Pro #1 (S/N: W01A00002410)	VOC (ppm)	0.5 ppm	No	0.0 to 0.2	0.0
	CO (ppm)	--	No	0.0 to 0.0	0.0
	H_2S (ppm)	0.1 ppm	No	0.0 to 0.0	0.0
	HF (ppm)	0.2 ppm	**Yes (see Comment 3)**	0.0 to 0.6	0.0

Notes: See last page.

Air Monitoring Summary Tables

The tables below summarize air monitoring data collected using EPA AreaRAE Pro and DustTrak DRX instruments.

Project Name: Morris Industrial Fire Site
Date/Time: 10/03/2022 06:39 to 10/07/2022 12:24

Southwest Air Monitoring Station					
Instrument	**Analyte**	**Morris Industrial Fire Public Health Screening Level[1]**	**Public Health Screening Level Exceeded?**	**8-hour Period Concentration Range**	**Average of All 8-hour Periods**
DustTrak #008 (S/N: 8533154004)	$PM_{2.5}$ (mg/m^3)	0.025 mg/m^3	**Yes (see comment 2)**	0.001 to 0.038	0.007
	PM_{10} (mg/m^3)	0.05 mg/m^3	No	0.002 to 0.039	0.008
AreaRAE Pro #2 (S/N: W01A00002411)	VOC (ppm)	0.5 ppm	No	0.0 to 0.1	0.0
	CO (ppm)	--	No	0.0 to 0.0	0.0
	H_2S (ppm)	0.1 ppm	No	0.0 to 0.0	0.0
	HF (ppm)	0.2 ppm	No	0.0 to 0.0	0.0

Comments
Air monitoring measurements have been averaged over a 8-hour time period and summarized above.
Start and stop times for each air monitoring instrument varies. The monitoring period is based on the earliest start time and latest stop time out of all units.
Air monitoring is not performed during inclement weather conditions/rain and thunderstorms.
1 - Public health screening levels are based on 8-hour time-weighted averages and were established by Agency for Toxic Substances and Disease Registry (ATSDR).
2 - $PM_{2.5}$ and PM_{10} 1-hour time-weighted averages were greater than the action level at multiple stations. Upwind/off-site elevated levels $PM_{2.5}$ and PM_{10} impacted downwind air monitoring stations.
3 - Elevated HF measurements were documented at multiple stations. A mobile air monitoring instrument was used to verify the elevated measurements. The mobile instrument documented HF concentrations were 0 ppm during these time periods.
Notes: CO - Carbon Monoxide H_2S - Hydrogen Sulfide HF - Hydrogen Fluoride mg/m^3 - Milligrams per cubic meter $PM_{2.5}$ - Particles that are 2.5 micrometers and smaller PM_{10} - Particles that are 10 micrometers and smaller ppm - Parts per million S/N - Serial number VOC - Volatile organic compounds

Air Quality Index Categories and Recommendations

Air Quality Index Category	**24-Hour Avg. $PM_{2.5}$ Concentrations (ug/m^3)**	**24-Hour Avg. PM_{10} Concentrations (ug/m^3)**	**Recommended Actions**
Good	0 to 12.0	0 to 54	None
Moderate	12.1 to 35.4	55 to 154	People with heart or lung disease, older adults (65 and up), and children: **Consider reducing** prolonged or heavy exertion.
Unhealthy for Sensitive Groups	35.5 to 55.4	155 to 254	People with heart or lung disease, older adults (65 and up), and children: **Reduce** prolonged or heavy exertion.
Unhealthy	55.5 to 150.4	255 to 354	People with heart or lung disease, older adults (65 and up), and children: **Avoid** prolonged or heavy exertion. Everyone else should **reduce** prolonged or heavy exertion.
Very Unhealthy	150.5 to 250.4	355 to 424	People with heart or lung disease, older adults (65 and up), and children: **Avoid all physical activity outdoors**. Everyone else should **avoid** prolonged or heavy exertion.
Hazardous	250.5 to 500.4	**425 to 605**	**Everyone should avoid all physical activity outdoors**. People with heart or lung disease, older adults (65 and up), and children should remain indoors and keep activity levels low.

Comment: Illinois Statewide Average 24-hour $PM_{2.5}$ Concentration in 2020: 19.9 ug/m^3

Comment: Off-site monitoring locations include both upwind and downwind locations. Elevated $PM_{2.5}$ and PM_{10} concentrations may represent other sources.

Daily average $PM_{2.5}$ data for fixed monitoring locations can be found here: http://www.epa.state.il.us/air/pm25/index.html.

Visit the landing page for the air quality index, ozone, and particulate monitoring data: https://www2.illinois.gov/epa/topics/air-quality/outdoor-air/Pages/default.aspx.

Air Monitoring Summary Tables

The tables below summarize air monitoring data collected using EPA AreaRAE Pro and DustTrak DRX instruments.

Project Name: Morris Industrial Fire Site
Date/Time: 10/11/2022 06:50 to 10/14/2022 17:08

Northeast Air Monitoring Station					
Instrument	**Analyte**	**Morris Industrial Fire Public Health Screening Level[1]**	**Public Health Screening Level Exceeded?**	**8-hour Period Concentration Range**	**Average of All 8-hour Periods**
DustTrak #003 (S/N: 8533153915)	$PM_{2.5}$ (mg/m^3)	0.025 mg/m^3	**Yes (see Comment 2)**	0.002 to 0.033	0.008
	PM_{10} (mg/m^3)	0.05 mg/m^3	No	0.003 to 0.043	0.008
AreaRAE Pro #4 (S/N: W01A00002413)	VOC (ppm)	0.5 ppm	No	0.0 to 0.0	0.0
	CO (ppm)	--	No	0.0 to 0.0	0.0
	H_2S (ppm)	0.1 ppm	No	0.0 to 0.0	0.0
	HF (ppm)	0.2 ppm	**Yes (see Comment 3)**	0.0 to 0.2	0.0

Northwest Air Monitoring Station					
Instrument	**Analyte**	**Morris Industrial Fire Public Health Screening Level[1]**	**Public Health Screening Level Exceeded?**	**8-hour Period Concentration Range**	**Average of All 8-hour Periods**
DustTrak #007 (S/N: 8533153917)	$PM_{2.5}$ (mg/m^3)	0.025 mg/m^3	**Yes (see Comment 2)**	0.003 to 0.064	0.010
	PM_{10} (mg/m^3)	0.05 mg/m^3	**Yes (see Comment 2)**	0.005 to 0.121	0.012
AreaRAE Pro #3 (S/N: W01A00002412)	VOC (ppm)	0.5 ppm	No	0.0 to 0.0	0.0
	CO (ppm)	--	No	0.0 to 0.0	0.0
	H_2S (ppm)	0.1 ppm	No	0.0 to 0.0	0.0
	HF (ppm)	0.2 ppm	No	0.0 to 0.1	0.0

Southeast Air Monitoring Station					
Instrument	**Analyte**	**Morris Industrial Fire Public Health Screening Level[1]**	**Public Health Screening Level Exceeded?**	**8-hour Period Concentration Range**	**Average of All 8-hour Periods**
DustTrak #016 (S/N: 8533173907)	$PM_{2.5}$ (mg/m^3)	0.025 mg/m^3	No	0.004 to 0.020	0.010
	PM_{10} (mg/m^3)	0.05 mg/m^3	No	0.005 to 0.021	0.011
AreaRAE Pro #1 (S/N: W01A00002410)	VOC (ppm)	0.5 ppm	No	0.0 to 0.1	0.0
	CO (ppm)	--	No	0.0 to 0.0	0.0
	H_2S (ppm)	0.1 ppm	No	0.0 to 0.0	0.0
	HF (ppm)	0.2 ppm	**Yes (see Comment 3)**	0.0 to 1.4	0.2

Notes: See last page.

Air Monitoring Summary Tables

The tables below summarize air monitoring data collected using EPA AreaRAE Pro and DustTrak DRX instruments.

Project Name: Morris Industrial Fire Site
Date/Time: 10/11/2022 06:50 to 10/14/2022 17:08

Southwest Air Monitoring Station					
Instrument	**Analyte**	**Morris Industrial Fire Public Health Screening Level[1]**	**Public Health Screening Level Exceeded?**	**8-hour Period Concentration Range**	**Average of All 8-hour Periods**
DustTrak #008 (S/N: 8533154004)	$PM_{2.5}$ (mg/m^3)	0.025 mg/m^3	No	0.004 to 0.021	0.010
	PM_{10} (mg/m^3)	0.05 mg/m^3	No	0.006 to 0.031	0.013
AreaRAE Pro #2 (S/N: W01A00002411)	VOC (ppm)	0.5 ppm	No	0.0 to 0.1	0.0
	CO (ppm)	--	No	0.0 to 0.0	0.0
	H_2S (ppm)	0.1 ppm	No	0.0 to 0.0	0.0
	HF (ppm)	0.2 ppm	No	0.0 to 0.0	0.0

Comments
Air monitoring measurements have been averaged over a 8-hour time period and summarized above.
Start and stop times for each air monitoring instrument varies. The monitoring period is based on the earliest start time and latest stop time out of all units.
Air monitoring is not performed during inclement weather conditions/rain and thunderstorms.
1 - Public health screening levels are based on 8-hour time-weighted averages and were established by Agency for Toxic Substances and Disease Registry (ATSDR).
2 - $PM_{2.5}$ and PM_{10} 1-hour time-weighted averages were greater than the action level at multiple stations. Upwind/off-site elevated levels $PM_{2.5}$ and PM_{10} impacted downwind air monitoring stations.
3 - Elevated HF measurements were documented at multiple stations. A mobile air monitoring instrument was used to verify the elevated measurements. The mobile instrument documented HF concentrations were 0 ppm during this time period.
Notes: CO - Carbon Monoxide H_2S - Hydrogen Sulfide HF - Hydrogen Fluoride mg/m^3 - Milligrams per cubic meter $PM_{2.5}$ - Particles that are 2.5 micrometers and smaller PM_{10} - Particles that are 10 micrometers and smaller ppm - Parts per million S/N - Serial number VOC - Volatile organic compounds

Air Monitoring Results Summary Table
Monitoring Period: 10/11/2022 16:17 to 10/12/2022 16:25
Morris Lithium Battery Fire Site
Morris, Grundy County, Illinois

Location	Date/Time	VOC (ppm)	LEL (%)	CO (ppm)	O_2 (%)	H_2S (ppm)	PM_{10} (mg/m^3)	$PM_{2.5}$ (mg/m^3)	HF (ppm)
		Action Levels[1]							
		0.5 ppm	5%	25 ppm	19.5% to 23.5%	0.1 ppm	0.05 mg/m^3	0.025 mg/m^3	0.2 ppm
Outside SE	10/11/2022 16:18	0	0	0	20.9	0	0.024	0.021	--
	10/12/2022 07:58	0	0	0	20.9	0	0.035	0.032	--
	10/12/2022 16:15	0	0	0	20.9	0	0.009	0.006	--
Outside NE	10/11/2022 16:21	0	0	0	20.9	0	0.022	0.021	--
	10/12/2022 08:00	0	0	0	20.9	0	0.036	0.033	--
	10/12/2022 16:17	0	0	0	20.9	0	0.008	0.006	--
Outside SW	10/11/2022 16:26	0	0	0	20.9	0	0.02	0.02	--
	10/12/2022 08:07	0	0	0	20.9	0	0.039	0.037	--
	10/12/2022 16:23	0	0	0	20.9	0	0.008	0.006	--
Outside NW	10/11/2022 16:29	0	0	0	20.9	0	0.025	0.023	--
	10/12/2022 08:08	0	0	0	20.9	0	0.032	0.03	--
	10/12/2022 16:25	0	0	0	20.9	0	0.007	0.006	--

Notes: See last page.

Air Monitoring Results Summary Table
Monitoring Period: 10/11/2022 16:17 to 10/12/2022 16:25
Morris Lithium Battery Fire Site
Morris, Grundy County, Illinois

Notes:

Highlighted values are discrete readings above the site-specific action level

% - percent
CO - Carbon Monoxide
H_2S - Hydrogen Sulfide
HF - Hydrogen Fluoride
LEL - Lower explosive limit
mg/m^3 - Milligrams per cubic meter
O_2 - Oxygen
$PM_{2.5}$ - Particles that are 2.5 micrometers and smaller
PM_{10} - Particles that are 10 micrometers and smaller
ppm - Parts per million
VOC - Volatile organic compounds

Air Quality Index Categories and Recommendations

Air Quality Index Category	**24-Hour Avg. $PM_{2.5}$ Concentrations (ug/m^3)**	**24-Hour Avg. PM_{10} Concentrations (ug/m^3)**	**Recommended Actions**
Good	0 to 12.0	0 to 54	None
Moderate	12.1 to 35.4	55 to 154	People with heart or lung disease, older adults (65 and up), and children: **Consider reducing** prolonged or heavy exertion.
Unhealthy for Sensitive Groups	35.5 to 55.4	155 to 254	People with heart or lung disease, older adults (65 and up), and children: **Reduce** prolonged or heavy exertion.
Unhealthy	55.5 to 150.4	255 to 354	People with heart or lung disease, older adults (65 and up), and children: **Avoid** prolonged or heavy exertion. Everyone else should **reduce** prolonged or heavy exertion.
Very Unhealthy	150.5 to 250.4	355 to 424	People with heart or lung disease, older adults (65 and up), and children: **Avoid all physical activity outdoors**. Everyone else should **avoid** prolonged or heavy exertion.
Hazardous	250.5 to 500.4	**425 to 605**	**Everyone should avoid all physical activity outdoors**. People with heart or lung disease, older adults (65 and up), and children should remain indoors and keep activity levels low.

Comment: Illinois Statewide Average 24-hour $PM_{2.5}$ Concentration in 2020: 19.9 ug/m^3

Comment: Off-site monitoring locations include both upwind and downwind locations. Elevated $PM_{2.5}$ and PM_{10} concentrations may represent other sources.

Daily average $PM_{2.5}$ data for fixed monitoring locations can be found here: http://www.epa.state.il.us/air/pm25/index.html.

Visit the landing page for the air quality index, ozone, and particulate monitoring data: https://www2.illinois.gov/epa/topics/air-quality/outdoor-air/Pages/default.aspx.

Air Monitoring Summary Tables

The tables below summarize air monitoring data collected using EPA AreaRAE Pro and DustTrak DRX instruments.

Project Name: Morris Industrial Fire Site
Date/Time: 10/17/2022 06:57 to 10/19/2022 17:01

Northeast Air Monitoring Station					
Instrument	**Analyte**	**Morris Industrial Fire Public Health Screening Level[1]**	**Public Health Screening Level Exceeded?**	**8-hour Period Concentration Range**	**Average of All 8-hour Periods**
DustTrak #003 (S/N: 8533153915)	$PM_{2.5}$ (mg/m^3)	0.025 mg/m^3	**Yes (see Comment 2)**	0.000 to 0.036	0.002
	PM_{10} (mg/m^3)	0.05 mg/m^3	**Yes (see Comment 2)**	0.000 to 0.057	0.002
AreaRAE Pro #4 (S/N: W01A00002413)	VOC (ppm)	0.5 ppm	No	0.0 to 0.3	0.0
	CO (ppm)	--	No	0.0 to 0.2	0.0
	H_2S (ppm)	0.1 ppm	No	0.0 to 0.0	0.0
	HF (ppm)	0.2 ppm	No	0.0 to 0.0	0.0

Northwest Air Monitoring Station					
Instrument	**Analyte**	**Morris Industrial Fire Public Health Screening Level[1]**	**Public Health Screening Level Exceeded?**	**8-hour Period Concentration Range**	**Average of All 8-hour Periods**
DustTrak #007 (S/N: 8533153917)	$PM_{2.5}$ (mg/m^3)	0.025 mg/m^3	No	0.002 to 0.007	0.004
	PM_{10} (mg/m^3)	0.05 mg/m^3	No	0.002 to 0.010	0.004
AreaRAE Pro #3 (S/N: W01A00002412)	VOC (ppm)	0.5 ppm	No	0.0 to 0.1	0.0
	CO (ppm)	--	No	0.0 to 0.0	0.0
	H_2S (ppm)	0.1 ppm	No	0.0 to 0.0	0.0
	HF (ppm)	0.2 ppm	**Yes (see Comment 3)**	0.0 to 1.2	0.1

Southeast Air Monitoring Station					
Instrument	**Analyte**	**Morris Industrial Fire Public Health Screening Level[1]**	**Public Health Screening Level Exceeded?**	**8-hour Period Concentration Range**	**Average of All 8-hour Periods**
DustTrak #016 (S/N: 8533173907)	$PM_{2.5}$ (mg/m^3)	0.025 mg/m^3	No	0.002 to 0.017	0.003
	PM_{10} (mg/m^3)	0.05 mg/m^3	No	0.002 to 0.031	0.004
AreaRAE Pro #1 (S/N: W01A00002410)	VOC (ppm)	0.5 ppm	No	0.0 to 0.1	0.0
	CO (ppm)	--	No	0.0 to 0.0	0.0
	H_2S (ppm)	0.1 ppm	No	0.0 to 0.0	0.0
	HF (ppm)	0.2 ppm	**Yes (see Comment 3)**	0.0 to 1.0	0.3

Notes: See last page.

Air Monitoring Summary Tables

The tables below summarize air monitoring data collected using EPA AreaRAE Pro and DustTrak DRX instruments.

Project Name: Morris Industrial Fire Site
Date/Time: 10/17/2022 06:57 to 10/19/2022 17:01

Southwest Air Monitoring Station					
Instrument	**Analyte**	**Morris Industrial Fire Public Health Screening Level[1]**	**Public Health Screening Level Exceeded?**	**8-hour Period Concentration Range**	**Average of All 8-hour Periods**
DustTrak #008 (S/N: 8533154004)	$PM_{2.5}$ (mg/m^3)	0.025 mg/m^3	No	0.000 to 0.007	0.003
	PM_{10} (mg/m^3)	0.05 mg/m^3	No	0.001 to 0.016	0.004
AreaRAE Pro #2 (S/N: W01A00002411)	VOC (ppm)	0.5 ppm	No	0.0 to 0.1	0.0
	CO (ppm)	--	No	0.0 to 0.0	0.0
	H_2S (ppm)	0.1 ppm	No	0.0 to 0.0	0.0
	HF (ppm)	0.2 ppm	No	0.0 to 0.0	0.0

Comments
Air monitoring measurements have been averaged over a 8-hour time period and summarized above.
Start and stop times for each air monitoring instrument varies. The monitoring period is based on the earliest start time and latest stop time out of all units.
Air monitoring is not performed during inclement weather conditions/rain and thunderstorms.
1 - Public health screening levels are based on 8-hour time-weighted averages and were established by Agency for Toxic Substances and Disease Registry (ATSDR).
2 - $PM_{2.5}$ and PM_{10} 1-hour time-weighted averages were greater than the action level at the northeast station. Upwind/off-site elevated levels $PM_{2.5}$ and PM_{10} impacted downwind air monitoring stations.
3 - Elevated HF measurements were documented at multiple stations. A mobile air monitoring instrument was used to verify the elevated measurements. The mobile instrument documented HF concentrations were 0 ppm during this time period.
Notes: CO - Carbon Monoxide H_2S - Hydrogen Sulfide HF - Hydrogen Fluoride mg/m^3 - Milligrams per cubic meter $PM_{2.5}$ - Particles that are 2.5 micrometers and smaller PM_{10} - Particles that are 10 micrometers and smaller ppm - Parts per million S/N - Serial number VOC - Volatile organic compounds

Air Monitoring Results Summary Table
Monitoring Period: 10/20/2022 10:41 to 10/21/2022 17:13
Morris Lithium Battery Fire Site
Morris, Grundy County, Illinois

Location	Date/Time	VOC (ppm)	LEL (%)	CO (ppm)	O_2 (%)	H_2S (ppm)	PM_{10} (mg/m^3)	$PM_{2.5}$ (mg/m^3)	HF (ppm)
		Action Levels[1]							
		0.5 ppm	5%	25 ppm	19.5% to 23.5%	0.1 ppm	0.05 mg/m^3	0.025 mg/m^3	0.2 ppm
Southeast Corner	10/20/2022 10:41	0	0	0	20.9	0	0.022	0.014	0
	10/20/2022 15:06	0	0	0	20.9	0	0.023	0.015	0
	10/21/2022 07:49	0	0	0	20.9	0	0.027	0.018	0
	10/21/2022 14:42	0	0	0	20.9	0	0.032	0.021	0
Northeast Corner	10/20/2022 10:46	0	0	0	20.9	0	0.025	0.017	0
	10/20/2022 15:09	0	0	0	20.9	0	0.073	0.042	0
	10/21/2022 14:46	0	0	0	20.9	0	0.035	0.023	0
	10/21/2022 19:53	0	0	0	20.9	0	0.022	0.016	0
Southwest Corner	10/20/2022 10:51	0	0	0	20.9	0	0.032	0.018	0
	10/20/2022 15:18	0	0	0	20.9	0	0.043	0.023	0
	10/21/2022 07:57	0	0	0	20.9	0	0.021	0.016	0
	10/21/2022 14:53	0	0	0	20.9	0	0.042	0.023	0
Northwest Corner	10/20/2022 10:54	0	0	0	20.9	0	0.04	0.021	0
	10/20/2022 15:20	0	0	0	20.9	0	0.028	0.017	0
	10/21/2022 08:01	0	0	0	20.9	0	0.025	0.018	0
	10/21/2022 17:13	0	0	0	20.9	0	0.044	0.026	0

Notes:

Highlighted values are discrete readings above the site-specific action level. $PM_{2.5}$ and PM_{10} 1-hour TWAs were greater than the action level at the northeast station on 10/20/2022 and $PM_{2.5}$ 1-hour time-weighted averages were greater than the action level at the northwest station on 10/21/2022. Upwind/off-site elevated levels $PM_{2.5}$ and PM_{10} impacted downwind air monitoring stations.

% - Percent
CO - Carbon Monoxide
H_2S - Hydrogen Sulfide
HF - Hydrogen Fluoride
LEL - Lower explosive limit
mg/m^3 - Milligrams per cubic meter
O_2 - Oxygen
$PM_{2.5}$ - Particles that are 2.5 micrometers and smaller
PM_{10} - Particles that are 10 micrometers and smaller
ppm - Parts per million
VOC - Volatile organic compounds

Air Quality Index Categories and Recommendations

Air Quality Index Category	**24-Hour Avg. $PM_{2.5}$ Concentrations (ug/m^3)**	**24-Hour Avg. PM_{10} Concentrations (ug/m^3)**	**Recommended Actions**
Good	0 to 12.0	0 to 54	None
Moderate	12.1 to 35.4	55 to 154	People with heart or lung disease, older adults (65 and up), and children: **Consider reducing** prolonged or heavy exertion.
Unhealthy for Sensitive Groups	35.5 to 55.4	155 to 254	People with heart or lung disease, older adults (65 and up), and children: **Reduce** prolonged or heavy exertion.
Unhealthy	55.5 to 150.4	255 to 354	People with heart or lung disease, older adults (65 and up), and children: **Avoid** prolonged or heavy exertion. Everyone else should **reduce** prolonged or heavy exertion.
Very Unhealthy	150.5 to 250.4	355 to 424	People with heart or lung disease, older adults (65 and up), and children: **Avoid all physical activity outdoors**. Everyone else should **avoid** prolonged or heavy exertion.
Hazardous	250.5 to 500.4	**425 to 605**	**Everyone should avoid all physical activity outdoors**. People with heart or lung disease, older adults (65 and up), and children should remain indoors and keep activity levels low.

Comment: Illinois Statewide Average 24-hour $PM_{2.5}$ Concentration in 2020: 19.9 ug/m^3

Comment: Off-site monitoring locations include both upwind and downwind locations. Elevated $PM_{2.5}$ and PM_{10} concentrations may represent other sources.

Daily average $PM_{2.5}$ data for fixed monitoring locations can be found here: http://www.epa.state.il.us/air/pm25/index.html.

Visiting the landing page for the air quality index, ozone, and particulate monitoring data: https://www2.illinois.gov/epa/topics/air-quality/outdoor-air/Pages/default.aspx.

Air Monitoring Results Summary Table
Monitoring Period: 10/24/2022 8:58 to 10/24/2022 14:21
Morris Lithium Battery Fire Site
Morris, Grundy County, Illinois

Location	Date/Time	VOC (ppm)	LEL (%)	CO (ppm)	O_2 (%)	H_2S (ppm)	PM_{10} (mg/m^3)	$PM_{2.5}$ (mg/m^3)	HF (ppm)
		Action Levels[1]							
		0.5 ppm	5%	25 ppm	19.5% to 23.5%	0.1 ppm	0.05 mg/m^3	0.025 mg/m^3	0.2 ppm
Outside SE	10/24/2022 08:58	0	0	0	20.9	0	0.026	0.022	0
	10/24/2022 14:10	0	0	0	20.9	0	0.016	0.013	0
Outside NE	10/24/2022 09:01	0	0	0	20.9	0	0.023	0.02	0
	10/24/2022 14:13	0	0	0	20.9	0	0.014	0.012	0
Outside SW	10/24/2022 09:21	0	0	0	20.9	0	0.02	0.018	0
	10/24/2022 14:18	0	0	0	20.9	0	0.014	0.011	0
Outside NW	10/24/2022 09:27	0	0	0	20.9	0	0.022	0.02	0
	10/24/2022 14:21	0	0	0	20.9	0	0.022	0.016	0

Notes:

Highlighted values are discrete readings above the site-specific action level.

% - Percent
CO - Carbon Monoxide
H_2S - Hydrogen Sulfide
HF - Hydrogen Fluoride
LEL - Lower explosive limit
mg/m^3 - Milligrams per cubic meter
O_2 - Oxygen
$PM_{2.5}$ - Particles that are 2.5 micrometers and smaller
PM_{10} - Particles that are 10 micrometers and smaller
ppm - Parts per million
VOC - Volatile organic compounds

Air Quality Index Categories and Recommendations

Air Quality Index Category	**24-Hour Avg. $PM_{2.5}$ Concentrations (ug/m^3)**	**24-Hour Avg. PM_{10} Concentrations (ug/m^3)**	**Recommended Actions**
Good	0 to 12.0	0 to 54	None
Moderate	12.1 to 35.4	55 to 154	People with heart or lung disease, older adults (65 and up), and children: **Consider reducing** prolonged or heavy exertion.
Unhealthy for Sensitive Groups	35.5 to 55.4	155 to 254	People with heart or lung disease, older adults (65 and up), and children: **Reduce** prolonged or heavy exertion.
Unhealthy	55.5 to 150.4	255 to 354	People with heart or lung disease, older adults (65 and up), and children: **Avoid** prolonged or heavy exertion. Everyone else should **reduce** prolonged or heavy exertion.
Very Unhealthy	150.5 to 250.4	355 to 424	People with heart or lung disease, older adults (65 and up), and children: **Avoid all physical activity outdoors**. Everyone else should **avoid** prolonged or heavy exertion.
Hazardous	250.5 to 500.4	**425 to 605**	**Everyone should avoid all physical activity outdoors**. People with heart or lung disease, older adults (65 and up), and children should remain indoors and keep activity levels low.

Comment: Illinois Statewide Average 24-hour $PM_{2.5}$ Concentration in 2020: 19.9 ug/m^3

Comment: Off-site monitoring locations include both upwind and downwind locations. Elevated $PM_{2.5}$ and PM_{10} concentrations may represent other sources.

Daily average $PM_{2.5}$ data for fixed monitoring locations can be found here: http://www.epa.state.il.us/air/pm25/index.html.

Visit the landing page for the air quality index, ozone, and particulate monitoring data here: https://www2.illinois.gov/epa/topics/air-quality/outdoor-air/Pages/default.aspx.

APPENDIX C. ANALYTICAL DATA TABLES

Appendix C
Air Sample Analytical Results
Morris Industrial Fire
Morris, Grundy County, Illinois

		EPA Residential Air RSL µg/m^3 (TCR=1E-6, HQ=1)	Protective Action Criteria (PAC) PAC-1 µg/m^3	MIF-NE-01-220628	MIF-NW-01-220628	MIF-NW-02-220628	MIF-SE-01-220628
				6/28/2022	6/28/2022	6/28/2022	6/28/2022
Metals (µg/m^3) NIOSH Method 7303	CAS						
Aluminum	7429-90-5	5.2	NE	3.7646 U	3.641 U	3.6758 U	3.7518 U
Antimony	7440-36-0	0.31	1500	1.1294 U	1.0923 U	1.1027 U	1.1255 U
Arsenic	7440-38-2	0.00065	1500	1.8823 U	1.8205 U	1.8379 U	1.8759 U
Barium	7440-39-3	0.52	1500	0.18823 U	0.18205 U	0.18379 U	0.18759 U
Beryllium	7440-41-7	0.0012	2.3	0.0094116 U	0.0091024 U	0.0091896 U	0.0093795 U
Cadmium	7440-43-9	0.0016	100	0.05647 U	0.054615 U	0.055137 U	0.056277 U
Calcium	7440-70-2	NE	NE	11.294 U	10.923 U	11.027 U	11.255 U
Chromium	7440-47-3	NE	1500	0.94116 U	0.91024 U	0.91896 U	0.93795 U
Cobalt	7440-48-4	0.00031	180	0.05647 U	0.054615 U	0.055137 U	0.056277 U
Copper	7440-50-8	NE	3000	0.37646 U	0.3641 U	0.36758 U	0.37518 U
Iron	7439-89-6	NE	3200	3.7646 U	3.641 U	3.6758 U	3.7518 U
Lead	7439-92-1	0.15	150	0.37646 U	0.3641 U	0.36758 U	0.37518 U
Lithium	7439-93-2	NE	3300	0.75293 U	0.72819 U	0.73516 U	0.75036 U
Magnesium	7439-95-4	NE	18000	0.94116 U	0.91024 U	0.91896 U	0.93795 U
Manganese	7439-96-5	0.052	3000	0.094116 U	0.091024 U	0.091896 U	0.093795 U
Molybdenum	7439-98-7	2.1	30000	0.28235 U	0.27307 U	0.27569 U	0.28139 U
Nickel	7440-02-0	0.011	4500	0.094116 U	0.091024 U	0.091896 U	0.093795 U
Phosphorus	7723-14-0	NE	270	3.7646 U	3.641 U	3.6758 U	3.7518 U
Potassium	7440-09-7	NE	2300	9.4116 U	9.1024 U	9.1896 U	9.3795 U
Selenium	7782-49-2	21	600	1.8823 U	1.8205 U	1.8379 U	1.8759 U
Silver	7440-22-4	NE	300	0.18823 U	0.18205 U	0.18379 U	0.18759 U
Sodium	7440-23-5	NE	13000	2.8235 U	2.7307 U	2.7569 U	2.8139 U
Tellurium	13494-80-9	NE	1800	0.94116 U	0.91024 U	0.91896 U	0.93795 U
Thallium	7440-28-0	NE	60	0.94116 U	0.91024 U	0.91896 U	0.93795 U
Titanium	7440-32-6	NE	30000	0.05647 U	0.054615 U	0.055137 U	0.056277 U
Vanadium	7440-62-2	0.1	3000	0.05647 U	0.054615 U	0.055137 U	0.056277 U
Yttrium	7440-65-5	NE	3000	0.05647 U	0.054615 U	0.055137 U	0.056277 U
Zinc	7440-66-6	NE	6000	0.37646 U	0.3641 U	0.36758 U	0.37518 U
Zirconium	7440-67-7	NE	10000	0.37646 U	0.3641 U	0.36758 U	0.37518 U

See notes on last page

Appendix C
Air Sample Analytical Results
Morris Industrial Fire
Morris, Grundy County, Illinois

		EPA Residential Air RSL µg/m^3 (TCR=1E-6, HQ=1)	Protective Action Criteria (PAC) PAC-1 µg/m^3	MIF-SW-01-220628	MIF-NE-01-220629	MIF-NW-01-220629	MIF-SE-01-220629
				6/28/2022	6/29/2022	6/29/2022	6/29/2022
Metals (µg/m^3) NIOSH Method 7303	CAS						
Aluminum	7429-90-5	5.2	NE	3.6882 U	3.9669 U	3.9744 U	3.8555 U
Antimony	7440-36-0	0.31	1500	1.1064 U	1.1901 U	1.1923 U	1.1566 U
Arsenic	7440-38-2	0.00065	1500	1.8441 U	1.9834 U	1.9872 U	1.9277 U
Barium	7440-39-3	0.52	1500	0.18441 U	0.19834 U	0.19872 U	0.19277 U
Beryllium	7440-41-7	0.0012	2.3	0.0092204 U	0.0099172 U	0.0099361 U	0.0096387 U
Cadmium	7440-43-9	0.0016	100	0.055322 U	0.059503 U	0.059617 U	0.057832 U
Calcium	7440-70-2	NE	NE	11.064 U	11.901 U	11.923 U	11.566 U
Chromium	7440-47-3	NE	1500	0.92204 U	0.99172 U	0.99361 U	0.96387 U
Cobalt	7440-48-4	0.00031	180	0.055322 U	0.059503 U	0.059617 U	0.057832 U
Copper	7440-50-8	NE	3000	0.36882 U	0.39669 U	0.39744 U	0.38555 U
Iron	7439-89-6	NE	3200	3.6882 U	3.9669 U	3.9744 U	3.8555 U
Lead	7439-92-1	0.15	150	0.36882 U	0.39669 U	0.39744 U	0.38555 U
Lithium	7439-93-2	NE	3300	0.73763 U	0.79337 U	0.79489 U	0.77109 U
Magnesium	7439-95-4	NE	18000	0.92204 U	0.99172 U	0.99361 U	0.96387 U
Manganese	7439-96-5	0.052	3000	0.092204 U	0.099172 U	0.099361 U	0.096387 U
Molybdenum	7439-98-7	2.1	30000	0.27661 U	0.29752 U	0.29808 U	0.28916 U
Nickel	7440-02-0	0.011	4500	0.092204 U	0.099172 U	0.099361 U	0.096387 U
Phosphorus	7723-14-0	NE	270	3.6882 U	3.9669 U	3.9744 U	3.8555 U
Potassium	7440-09-7	NE	2300	9.2204 U	9.9172 U	9.9361 U	9.6387 U
Selenium	7782-49-2	21	600	1.8441 U	1.9834 U	1.9872 U	1.9277 U
Silver	7440-22-4	NE	300	0.18441 U	0.19834 U	0.19872 U	0.19277 U
Sodium	7440-23-5	NE	13000	2.7661 U	2.9752 U	2.9808 U	2.8916 U
Tellurium	13494-80-9	NE	1800	0.92204 U	0.99172 U	0.99361 U	0.96387 U
Thallium	7440-28-0	NE	60	0.92204 U	0.99172 U	0.99361 U	0.96387 U
Titanium	7440-32-6	NE	30000	0.055322 U	0.059503 U	0.059617 U	0.057832 U
Vanadium	7440-62-2	0.1	3000	0.055322 U	0.059503 U	0.059617 U	0.057832 U
Yttrium	7440-65-5	NE	3000	0.055322 U	0.059503 U	0.059617 U	0.057832 U
Zinc	7440-66-6	NE	6000	0.36882 U	0.39669 U	0.39744 U	0.38555 U
Zirconium	7440-67-7	NE	10000	0.36882 U	0.39669 U	0.39744 U	0.38555 U

See notes on last page

Appendix C
Air Sample Analytical Results
Morris Industrial Fire
Morris, Grundy County, Illinois

		EPA Residential Air RSL µg/m^3 (TCR=1E-6, HQ=1)	Protective Action Criteria (PAC) PAC-1 µg/m^3	MIF-SW-01-220629	MIF-NE-01-220706	MIF-NW-01-220706	MIF-SE-01-220706
				6/29/2022	7/6/2022	7/6/2022	7/6/2022
Metals (µg/m^3) NIOSH Method 7303	CAS						
Aluminum	7429-90-5	5.2	NE	4.0305 U	4.9196 U	4.867 U	4.8835 U
Antimony	7440-36-0	0.31	1500	1.2092 U	1.4759 U	1.4601 U	1.465 U
Arsenic	7440-38-2	0.00065	1500	2.0153 U	2.4598 U	2.4335 U	2.4417 U
Barium	7440-39-3	0.52	1500	0.20153 U	0.24598 U	0.24335 U	0.24417 U
Beryllium	7440-41-7	0.0012	2.3	0.010076 U	0.012299 U	0.012168 U	0.012209 U
Cadmium	7440-43-9	0.0016	100	0.060458 U	0.073793 U	0.073005 U	0.073252 U
Calcium	7440-70-2	NE	NE	12.092 U	14.759 U	14.601 U	14.65 U
Chromium	7440-47-3	NE	1500	1.0076 U	1.2299 U	1.2168 U	1.2209 U
Cobalt	7440-48-4	0.00031	180	0.060458 U	0.073793 U	0.073005 U	0.073252 U
Copper	7440-50-8	NE	3000	0.40305 U	0.49196 U	0.4867 U	0.48835 U
Iron	7439-89-6	NE	3200	4.0305 U	4.9196 U	4.867 U	4.8835 U
Lead	7439-92-1	0.15	150	0.40305 U	0.49196 U	0.4867 U	0.48835 U
Lithium	7439-93-2	NE	3300	0.80611 U	0.98391 U	0.97341 U	0.9767 U
Magnesium	7439-95-4	NE	18000	1.0076 U	1.2299 U	1.2168 U	1.2209 U
Manganese	7439-96-5	0.052	3000	0.10076 U	0.12299 U	0.12168 U	0.12209 U
Molybdenum	7439-98-7	2.1	30000	0.30229 U	0.36897 U	0.36503 U	0.36626 U
Nickel	7440-02-0	0.011	4500	0.10076 U	0.12299 U	0.12168 U	0.12209 U
Phosphorus	7723-14-0	NE	270	4.0305 U	4.9196 U	4.867 U	4.8835 U
Potassium	7440-09-7	NE	2300	10.076 U	12.299 U	12.168 U	12.209 U
Selenium	7782-49-2	21	600	2.0153 U	2.4598 U	2.4335 U	2.4417 U
Silver	7440-22-4	NE	300	0.20153 U	0.24598 U	0.24335 U	0.24417 U
Sodium	7440-23-5	NE	13000	3.0229 U	3.6897 U	3.6503 U	3.6626 U
Tellurium	13494-80-9	NE	1800	1.0076 U	1.2299 U	1.2168 U	1.2209 U
Thallium	7440-28-0	NE	60	1.0076 U	1.2299 U	1.2168 U	1.2209 U
Titanium	7440-32-6	NE	30000	0.060458 U	0.073793 U	0.073005 U	0.073252 U
Vanadium	7440-62-2	0.1	3000	0.060458 U	0.073793 U	0.073005 U	0.073252 U
Yttrium	7440-65-5	NE	3000	0.060458 U	0.073793 U	0.073005 U	0.073252 U
Zinc	7440-66-6	NE	6000	0.40305 U	0.49196 U	0.4867 U	0.48835 U
Zirconium	7440-67-7	NE	10000	0.40305 U	0.49196 U	0.4867 U	0.48835 U

See notes on last page

Appendix C
Air Sample Analytical Results
Morris Industrial Fire
Morris, Grundy County, Illinois

		EPA Residential Air RSL µg/m^3 (TCR=1E-6, HQ=1)	Protective Action Criteria (PAC) PAC-1 µg/m^3	MIF-SW-01-220706	MIF-SW-02-220706
				7/6/2022	7/6/2022
Metals (µg/m^3) NIOSH Method 7303	CAS				
Aluminum	7429-90-5	5.2	NE	4.7918 U	4.728 U
Antimony	7440-36-0	0.31	1500	1.4375 U	1.4184 U
Arsenic	7440-38-2	0.00065	1500	2.3959 U	2.364 U
Barium	7440-39-3	0.52	1500	0.23959 U	0.2364 U
Beryllium	7440-41-7	0.0012	2.3	0.011979 U	0.01182 U
Cadmium	7440-43-9	0.0016	100	0.071877 U	0.07092 U
Calcium	7440-70-2	NE	NE	14.375 U	14.184 U
Chromium	7440-47-3	NE	1500	1.1979 U	1.182 U
Cobalt	7440-48-4	0.00031	180	0.071877 U	0.07092 U
Copper	7440-50-8	NE	3000	0.47918 U	0.4728 U
Iron	7439-89-6	NE	3200	4.7918 U	4.728 U
Lead	7439-92-1	0.15	150	0.47918 U	0.4728 U
Lithium	7439-93-2	NE	3300	0.95836 U	0.9456 U
Magnesium	7439-95-4	NE	18000	1.1979 U	1.182 U
Manganese	7439-96-5	0.052	3000	0.11979 U	0.1182 U
Molybdenum	7439-98-7	2.1	30000	0.35938 U	0.3546 U
Nickel	7440-02-0	0.011	4500	0.11979 U	0.1182 U
Phosphorus	7723-14-0	NE	270	4.7918 U	4.728 U
Potassium	7440-09-7	NE	2300	11.979 U	11.82 U
Selenium	7782-49-2	21	600	2.3959 U	2.364 U
Silver	7440-22-4	NE	300	0.23959 U	0.2364 U
Sodium	7440-23-5	NE	13000	3.5938 U	3.546 U
Tellurium	13494-80-9	NE	1800	1.1979 U	1.182 U
Thallium	7440-28-0	NE	60	1.1979 U	1.182 U
Titanium	7440-32-6	NE	30000	0.071877 U	0.07092 U
Vanadium	7440-62-2	0.1	3000	0.071877 U	0.07092 U
Yttrium	7440-65-5	NE	3000	0.071877 U	0.07092 U
Zinc	7440-66-6	NE	6000	0.47918 U	0.4728 U
Zirconium	7440-67-7	NE	10000	0.47918 U	0.4728 U

See notes on last page

Analytical Results for Air Samples
Morris Industrial Fire
Morris, Grundy County, Illinoisis

Notes:

= result greater than the EPA RSL for residential air
= result greater than the PAC-1
= result greater than the EPA RSL and PAC-1

Result Qualifiers: All qualifiers are laboratory qualifiers.
U = The analyte was analyzed for, but was not detected at or above the associated value (reporting limit).

C = Celsius
CAS = Chemical Abstract Service
EPA = U. S. Environmental Protection Agency
Hg = Mercury
HQ = Hazard Quotient
mm = Millimeter
NE = Not established
NIOSH = National Institute for Occupational Safety and Health
PAC = Protective Action Criteria
RSL = Regional Screening Level
TCR = Target Cancer Risk
$\mu g/m^3$ = Micrograms per cubic meter

EPA Regional Screening Levels (RSLs) TCR 1E-06 and HQ 1.0 generic tables as of May 2022:
https://www.epa.gov/risk/regional-screening-levels-rsls-generic-tables
Protective Action Criteria based on Protective Action Criteria Table 4. Substances with a PAC defined in parts per million converted to $\mu g/m^3$ assuming normal temperature and pressure (25°C, 760 mm Hg) https://www.energy.gov/ehss/protective-action-criteria-pac-aegls-erpgs-teels

Appendix C
Analytical Results Summary for Concrete Chip Samples
Morris Lithium Battery Fire Site
Morris, Grundy County, Illinois

	TSCA Disposal Requirement	Hazardous Waste Characteristic Criteria	MLBF-C-F6-01-220824	MLBF-C-B1C1-01-221006
Metals (mg/L)				
Arsenic	NE	5	0.05 U	--
Barium	NE	100	0.27 J	0.34 J
Cadmium	NE	1	0.005 U	0.0050 U
Chromium	NE	5	0.027	0.011 J
Lead	NE	5	0.05 UJ	0.050 U
Selenium	NE	1	0.05 U	0.050 U
Silver	NE	5	0.025 U	0.025 U
Mercury (mg/L)				
Mercury	NE	0.2	0.0002 U	0.0002 U
Polychlorinated Biphenyls (mg/kg)				
PCB-1016	50	NE	26 U	17 U
PCB-1221	50	NE	26 U	17 U
PCB-1232	50	NE	26 U	17 U
PCB-1242	50	NE	26 U	17 U
PCB-1248	50	NE	26 U	17 U
PCB-1254	50	NE	47	24 J
PCB-1260	50	NE	26 U	17 U
PCB-1262	50	NE	26 U	17 U
PCB-1268	50	NE	26 U	17 U
Semivolatile Organic Compounds (mg/L)				
1,4-Dichlorobenzene	NE	7.5	0.1 U	0.1 UJ
2,4,5-Trichlorophenol	NE	400	0.5 UJ	0.5 U
2,4,6-Trichlorophenol	NE	2	0.25 UJ	0.25 U
2,4-Dinitrotoluene	NE	0.13	0.05 U	0.05 UJ
2-Methylphenol	NE	200	0.1 UJ	0.1 U
Hexachlorobenzene	NE	0.13	0.025 U	0.025 UJ
Hexachlorobutadiene	NE	0.5	0.25 U	0.25 UJ
Hexachloroethane	NE	3	0.25 U	0.25 UJ
Nitrobenzene	NE	2	0.05 U	0.05 UJ
Pentachlorophenol	NE	100	1 UJ	1 U
Pyridine	NE	5	1 U	1 UJ
2-Methylphenol	NE	200	0.1 UJ	0.1 U
Hexachlorobenzene	NE	0.13	0.025 U	0.025 UJ
Hexachlorobutadiene	NE	0.5	0.25 U	0.25 UJ
Hexachloroethane	NE	3	0.25 U	0.25 UJ
Nitrobenzene	NE	2	0.05 U	0.05 UJ
Pentachlorophenol	NE	100	1 UJ	1 U
Cyanide, Total and or Amenable (mg/L)				
Cyanide, Total	NE	NE	0.23 U	--
Calc Sulfide, Acid Soluble and Insoluble (Titrimetric) (mg/kg)				
Sulfide	NE	NE	10 U	10 U
pH (SU)				
pH	NE	≤2 or ≥12.5	12.3 J	12.2 J

Notes: See last page.

Appendix C
Analytical Results Summary for Concrete Chip Samples
Morris Lithium Battery Fire Site
Morris, Grundy County, Illinois

	TSCA Disposal Requirement	Hazardous Waste Characteristic Criteria	MLBF-C-C2D2-01-221006	MLBF-C-C2D2-02-221006-DUP
Metals (mg/L)				
Arsenic	NE	5	--	--
Barium	NE	100	0.29 J	0.32 J
Cadmium	NE	1	0.0050 U	0.0050 U
Chromium	NE	5	0.020 J	0.020 J
Lead	NE	5	0.050 U	0.050 U
Selenium	NE	1	0.050 U	0.050 U
Silver	NE	5	0.025 U	0.025 U
Mercury (mg/L)				
Mercury	NE	0.2	0.0002 U	0.0002 U
Polychlorinated Biphenyls (mg/kg)				
PCB-1016	50	NE	18 U	18 U
PCB-1221	50	NE	18 U	18 U
PCB-1232	50	NE	18 U	18 U
PCB-1242	50	NE	18 U	18 U
PCB-1248	50	NE	18 U	18 U
PCB-1254	50	NE	17 J	18 J+
PCB-1260	50	NE	18 U	18 U
PCB-1262	50	NE	18 U	18 U
PCB-1268	50	NE	18 U	18 U
Semivolatile Organic Compounds (mg/L)				
1,4-Dichlorobenzene	NE	7.5	0.1 UJ	0.1 UJ
2,4,5-Trichlorophenol	NE	400	0.5 U	0.5 U
2,4,6-Trichlorophenol	NE	2	0.25 U	0.25 U
2,4-Dinitrotoluene	NE	0.13	0.05 UJ	0.05 UJ
2-Methylphenol	NE	200	0.1 U	0.1 U
Hexachlorobenzene	NE	0.13	0.025 UJ	0.025 UJ
Hexachlorobutadiene	NE	0.5	0.25 UJ	0.25 UJ
Hexachloroethane	NE	3	0.25 UJ	0.25 UJ
Nitrobenzene	NE	2	0.05 UJ	0.05 UJ
Pentachlorophenol	NE	100	1 U	1 U
Pyridine	NE	5	1 UJ	1 UJ
2-Methylphenol	NE	200	0.1 U	0.1 U
Hexachlorobenzene	NE	0.13	0.025 UJ	0.025 UJ
Hexachlorobutadiene	NE	0.5	0.25 UJ	0.25 UJ
Hexachloroethane	NE	3	0.25 UJ	0.25 UJ
Nitrobenzene	NE	2	0.05 UJ	0.05 UJ
Pentachlorophenol	NE	100	1 U	1 U
Cyanide, Total and or Amenable (mg/L)				
Cyanide, Total	NE	NE	--	--
Calc Sulfide, Acid Soluble and Insoluble (Titrimetric) (mg/kg)				
Sulfide	NE	NE	10 U	10 U
pH (SU)				
pH	NE	≤2 or ≥12.5	12.3 J	12.3 J

Notes: See last page.

Appendix C
Analytical Results Summary for Concrete Chip Samples
Morris Lithium Battery Fire Site
Morris, Grundy County, Illinois

	TSCA Disposal Requirement	Hazardous Waste Characteristic Criteria	MLBF-C-D7-01-221006	MLBF-C-E4-01-221006
Metals (mg/L)				
Arsenic	NE	5	--	--
Barium	NE	100	0.35 J	0.29 J
Cadmium	NE	1	0.0050 U	0.0050 U
Chromium	NE	5	0.018 J	0.020 J
Lead	NE	5	0.050 U	0.050 U
Selenium	NE	1	0.050 U	0.050 U
Silver	NE	5	0.025 U	0.025 U
Mercury (mg/L)				
Mercury	NE	0.2	0.0002 U	0.0019 J-
Polychlorinated Biphenyls (mg/kg)				
PCB-1016	50	NE	18 U	17 U
PCB-1221	50	NE	18 U	17 U
PCB-1232	50	NE	18 U	17 U
PCB-1242	50	NE	18 U	17 U
PCB-1248	50	NE	18 U	17 U
PCB-1254	50	NE	21 J	40 J+
PCB-1260	50	NE	18 U	17 U
PCB-1262	50	NE	18 U	17 U
PCB-1268	50	NE	18 U	17 U
Semivolatile Organic Compounds (mg/L)				
1,4-Dichlorobenzene	NE	7.5	0.1 UJ	0.1 UJ
2,4,5-Trichlorophenol	NE	400	0.5 U	0.5 UJ
2,4,6-Trichlorophenol	NE	2	0.25 U	0.25 U
2,4-Dinitrotoluene	NE	0.13	0.05 UJ	0.05 UJ
2-Methylphenol	NE	200	0.1 U	0.1 U
Hexachlorobenzene	NE	0.13	0.025 UJ	0.025 UJ
Hexachlorobutadiene	NE	0.5	0.25 UJ	0.25 UJ
Hexachloroethane	NE	3	0.25 UJ	0.25 UJ
Nitrobenzene	NE	2	0.05 UJ	0.05 UJ
Pentachlorophenol	NE	100	1 U	1 UJ
Pyridine	NE	5	1 UJ	1 UJ
2-Methylphenol	NE	200	0.1 U	0.1 U
Hexachlorobenzene	NE	0.13	0.025 UJ	0.025 UJ
Hexachlorobutadiene	NE	0.5	0.25 UJ	0.25 UJ
Hexachloroethane	NE	3	0.25 UJ	0.25 UJ
Nitrobenzene	NE	2	0.05 UJ	0.05 UJ
Pentachlorophenol	NE	100	1 U	1 UJ
Cyanide, Total and or Amenable (mg/L)				
Cyanide, Total	NE	NE	--	--
Calc Sulfide, Acid Soluble and Insoluble (Titrimetric) (mg/kg)				
Sulfide	NE	NE	10 U	10 UJ
pH (SU)				
pH	NE	≤2 or ≥12.5	12.2 J	12.2 J

Notes: See last page.

Appendix C
Analytical Results Summary for Concrete Chip Samples
Morris Lithium Battery Fire Site
Morris, Grundy County, Illinois

Notes:
= result greater than the TSCA disposal requirement per 40 CFR 761.61
= result greater than the hazardous waste characteristic criteria

Result Qualifiers:
J- = Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value, biased low.
J+ = Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value, biased high.
J = Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
U = Analyte was not detected.

-- = Not analyzed
≥ = Greater than or equal to
≤ = Less than or equal to
MDL = Method detection limit
mg/kg = Milligram per kilogram
mg/L = Milligram per liter
NE = Not established
RL = Reporting limit
SU = Standard unit
TSCA = Toxic Substances Control Act

TSCA Disposal Requirement per Title 40 Code of Federal Regulation (CFR) 761.61
Corrosivity hazardous waste characteristic criteria per 40 CFR 261.22
Reactivity hazardous waste characteristic criteria per 40 CFR 261.23
Toxicity hazardous waste characteristic criteria per 40 CFR 261.24

APPENDIX D. PHOTOGRAPHIC DOCUMENTATION

PHOTOGRAPHIC LOG

Photograph 1

Date: April 12, 2022

Description: Clearing the ground for the gravel lot

Photograph 2

Date: April 12, 2022

Description: Site preparations

Photograph 3

Date: April 18, 2022

Description: Demolition of the southern wall

Photograph 4

Date: April 19, 2022

Description: Temporary building with electricity installed

Photograph 5

Date: April 25, 2022

Description: Emergency and rapid response services (ERRS) personnel sorting through debris

Photograph 6

Date: May 02, 2022

Description: Stabilizing the southwest corner of the building

Photograph 7

Date: May 6, 2022

Description: Burned batteries and debris

Photograph 8

Date: May 11, 2022

Description: Electronic waste (e-waste) transport

Photograph 9

Date: May 11, 2022

Description: Negative pressure fan for dust suppression

Photograph 10

Date: May 11, 2022

Description: Batteries being sorted and prepared for removal

Photograph 11

Date: May 16, 2022

Description: Batteries being sorted and prepared for removal

Photograph 12

Date: May 16, 2022

Description: ERRS personnel using water for dust suppression

Photograph 13

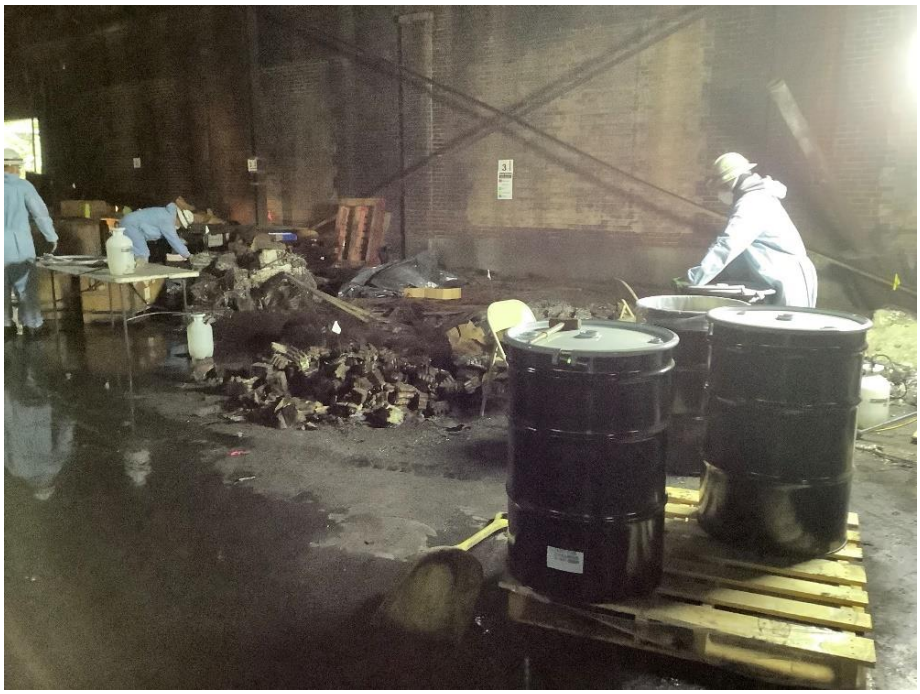
Date: May 17, 2022

Description: Staging area prior to being cleared out

Photograph 14

Date: May 18, 2022

Description: Drum being weighed



Photograph 15

Date: May 18, 2022

Description: Drums being loaded on to pallet

Photograph 16

Date: May 19, 2022

Description: Batteries being sorted

Photograph 17

Date: May 20, 2022

Description: ERRS workers sorting through debris

Photograph 18

Date: May 20, 2022

Description: Taping battery terminals

Photograph 19

Date: May 20, 2022

Description: ERRS personnel watering pavement for dust suppression

Photograph 20

Date: May 23, 2022

Description: Shipment of empty drums

Photograph 21

Date: May 23, 2022

Description: Waste being loaded into roll-off bin

Photograph 22

Date: May 23, 2022

Description: Drums being prepared for removal

Photograph 23

Date: May 25, 2022

Description: Heritage truck onsite to haul away drums

Photograph 24

Date: May 25, 2022

Description: Truck being loaded

Photograph 25

Date: May 25, 2022

Description: E-waste shipment

Photograph 26

Date: June 1, 2022

Description: Sorting station

Photograph 27

Date: June 28, 2022

Description: Staged drums waiting to be shipped out

Photograph 28

Date: June 28, 2022

Description: Load of drums secured in the truck for removal

Photograph 29

Date: July 18, 2022

Description: Superior Battery property moved to western fence line

Photograph 30

Date: July 19, 2022

Description: Drums waiting to be loaded into truck for removal

Photograph 31

Date: July 19, 2022

Description: Batteries being sorted into 5- gallon buckets

Photograph 32

Date: July 19, 2022

Description: Fully loaded truck ready to leave the site

Photograph 33

Date: July 21, 2022

Description: Fence being repaired on the west site of property

Photograph 34

Date: July 21, 2022

Description: Fence repairs complete on the west side of the property

Photograph 35

Date: July 22, 2022

Description: Completed fencing on the east side of the property

Photograph 36

Date: August 8, 2022

Description: Sorted batteries covered to protect against moisture

Photograph 37

Date: August 8, 2022

Description: Sorted batteries waiting to be placed in drums

Photograph 38

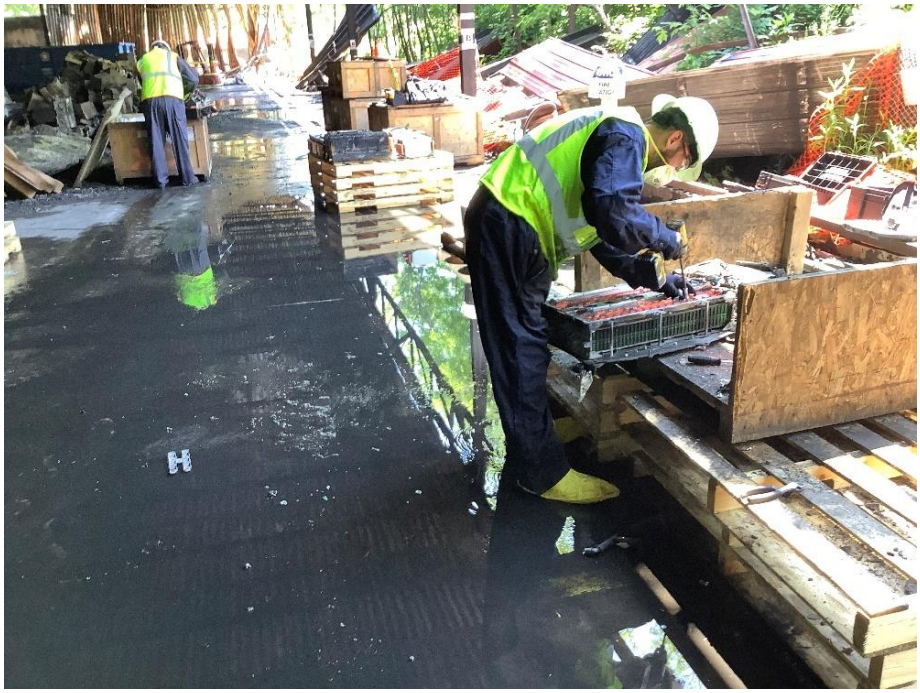
Date: August 8, 2022

Description: A pile of cases after battery removal

Photograph 39

Date: August 11, 2022

Description: 85-gallon drums staged for removal



Photograph 40

Date: June 7, 2022

Description: Disassembly of large batteries

Photograph 41

Date: June 8, 2022

Description: Weighing station

Photograph 42

Date: August 17, 2022

Description: Roll-off container pickup

Photograph 43

Date: August 17, 2022

Description: Drums staged for removal

Photograph 44

Date: August 17, 2022

Description: Loaded drums being prepared for removal

Photograph 45

Date: August 17, 2022

Description: Fire suppression granulate (CellBlock) base layer in a drum

Photograph 46

Date: August 17, 2022

Description: Batteries being loaded into a drum

Photograph 47

Date: August 17, 2022

Description: Layer of batteries in a drum

Photograph 48

Date: August 17, 2022

Description: A CellBlock layer to cover batteries in a drum

Photograph 49

Date: August 17, 2022

Description: A CellBlock layer between battery layers in a drum

Photograph 50

Date: June 16, 2022

Description: Staged drums in the site building

Photograph 51

Date: August 24, 2022

Description: Decontaminating rammer attachment prior to concrete sampling

Photograph 52

Date: August 24, 2022

Description: Preparation for breaking concrete

Photograph 53

Date: August 24, 2022

Description: Breaking concrete for a chip sample

Photograph 54

Date: August 24, 2022

Description: Completed concrete aliquot

Photograph 55

Date: August 24, 2022

Description: Concrete sample collection

Photograph 56

Date: August 30, 2022

Description: Waste removal

Photograph 57

Date: August 30, 2022

Description: Barrier installed to prevent sediment and waster movement out the building

Photograph 58

Date: August 30, 2022

Description: Battery sorting and cleanup moving to the southern wall of the site building

Photograph 59

Date: August 31, 2022

Description: Multiple battery types being staged for removal

Photograph 60

Date: September 1, 2022

Description: Batteries being sorted into 5-gallon buckets along the southern side of the site building

Photograph 61

Date: September 9, 2022

Description: A fresh drum shipment waiting to be filled

Photograph 62

Date: September 13, 2022

Description: A pile of batteries and ash being sorted

Photograph 63

Date: September 13, 2022

Description: Progress of battery removal along the site building's southern wall

Photograph 64

Date: September 13, 2022

Description: Progress of battery removal along the site building's eastern wall

Photograph 65

Date: September 14, 2022

Description: Battery cleanup along the site building's southeast corner

Photograph 66

Date: September 15, 2022

Description: Progress along the site building's western wall

Photograph 67

Date: September 15, 2022

Description: Area of roof collapse

Photograph 68

Date: September 15, 2022

Description: Heritage truck on site for drum removal

Photograph 69

Date: September 16, 2022

Description: Continued progress toward the center of the building

Photograph 70

Date: September 27, 2022

Description: Hurricane 500E Industrial high-efficiency particulate air (HEPA) vacuum

Photograph 71

Date: September 27, 2022

Description: Progress in the southwestern corner of the site building

Photograph 72

Date: September 27, 2022

Description: Last remaining piles of battery to be sorted along the southern wall

Photograph 73

Date: September 27, 2022

Description: Vacuumed quadrants being prepared to consolidate Superior Battery personal property

Photograph 74

Date: September 27, 2022

Description: Superior Battery personal property moved back into building along the eastern wall

Photograph 75

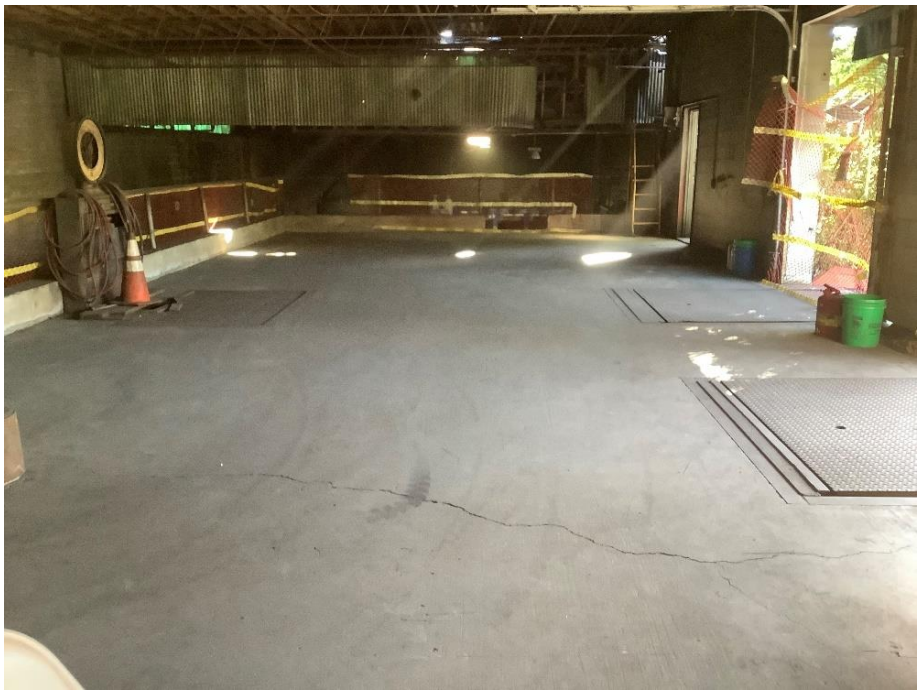
Date: September 28, 2022

Description: Preparing a HEPA vacuum

Photograph 76

Date: September 29, 2022

Description: Roll-off container swap out



Photograph 77

Date: September 29, 2022

Description: Cleared staging area

Photograph 78

Date: September 29, 2022

Description: HEPA vacuuming

Photograph 79

Date: September 30, 2022

Description: Batteries cleared from the southern side of the building; continued HEPA vacuuming

Photograph 80

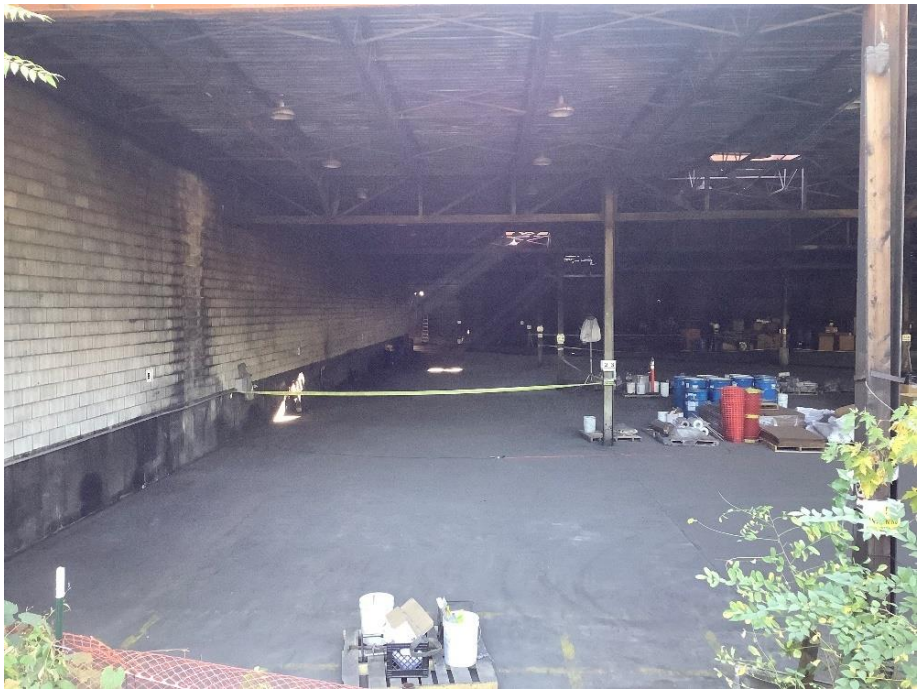
Date: October 3, 2022

Description: HEPA vacuuming along the northern side of the building

Photograph 81

Date: October 3, 2022

Description: Equipment relocated for vacuuming



Photograph 82

Date: October 4, 2022

Description: View of the interior of the building from the outside

Photograph 83

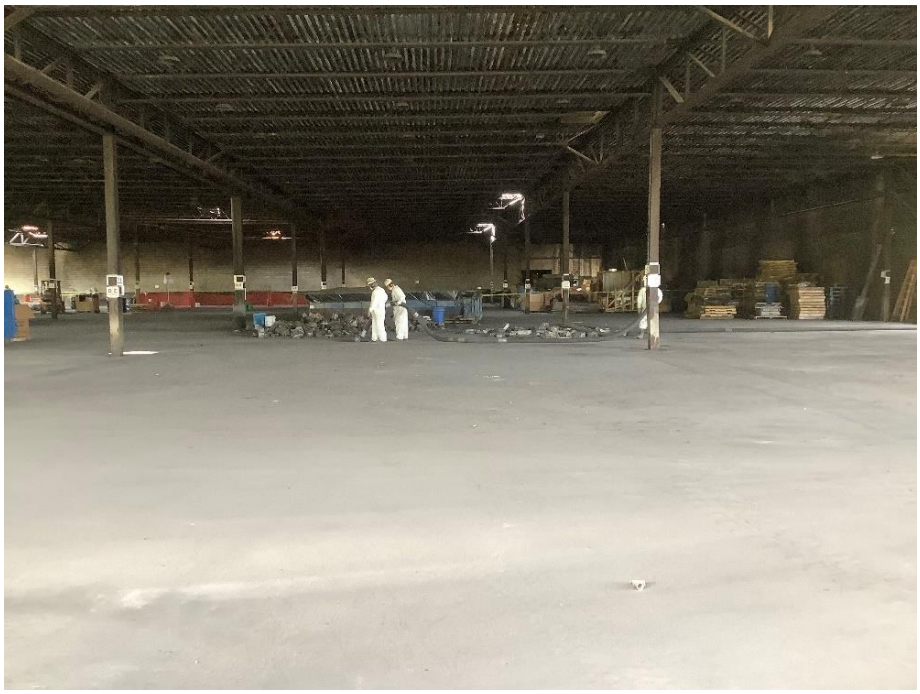
Date: October 4, 2022

Description: Mixed drum shipment

Photograph 84

Date: October 5, 2022

Description: Vacuumed floor



Photograph 85

Date: October 5, 2022

Description: Continued vacuuming with a two-man team towards the interior of the building

Photograph 86

Date: October 5, 2022

Description: Vacuum apparatus

Photograph 87

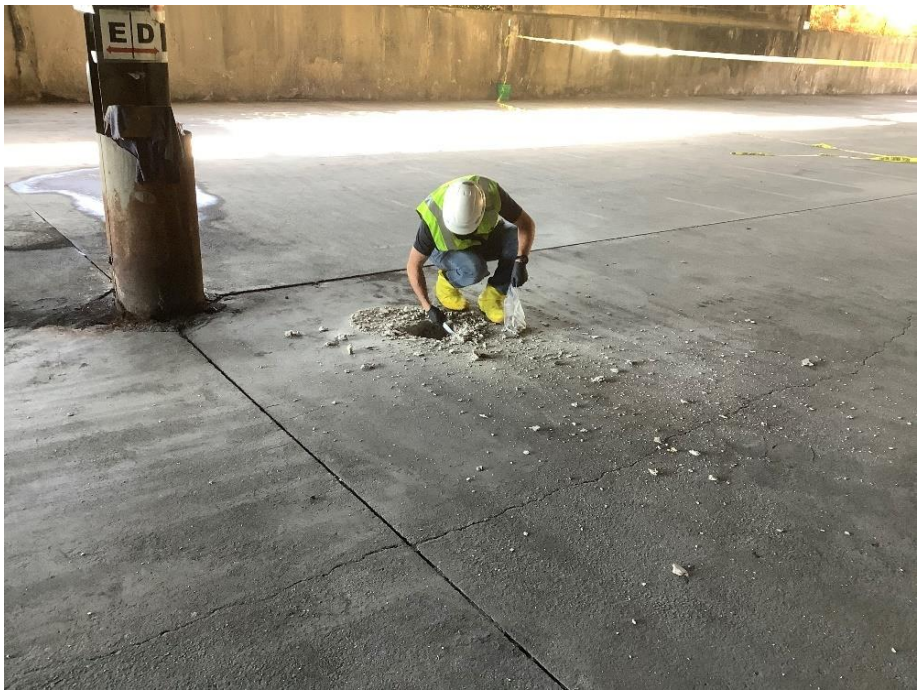
Date: October 6, 2022

Description: Concrete sampling in Quadrant E4

Photograph 88

Date: October 6, 2022

Description: Broken-up concrete



Photograph 89

Date: October 6, 2022

Description: Collection of concrete chip samples

Photograph 90

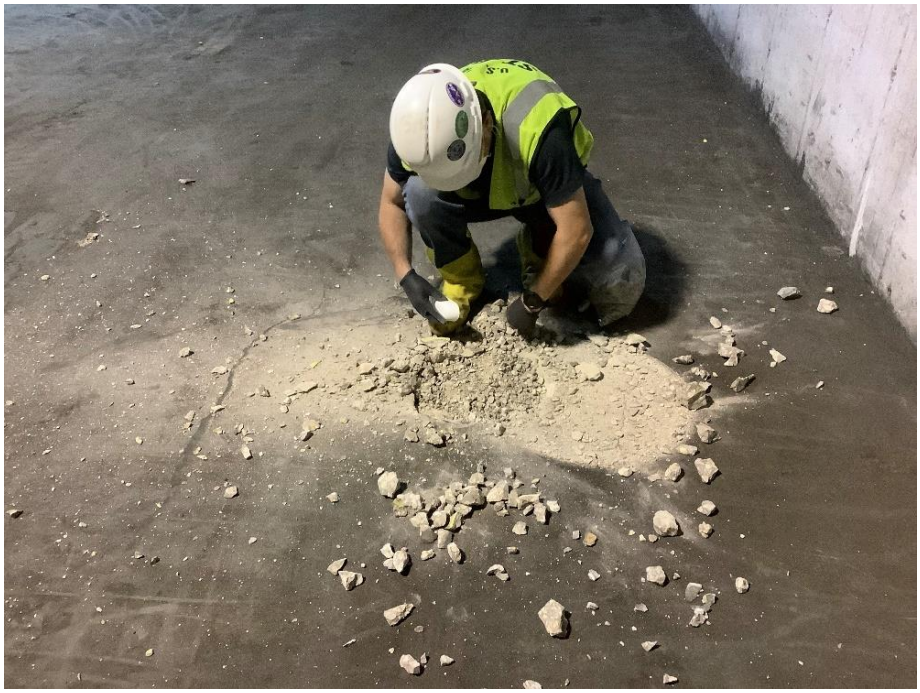
Date: October 6, 2022

Description: Completed aliquot collection in Quadrant D7

Photograph 91

Date: October 6, 2022

Description: Additional aliquot collection in Quadrant D7



Photograph 92

Date: October 6, 2022

Description: Concrete sample collection in Quadrants B1/C1

Photograph 93

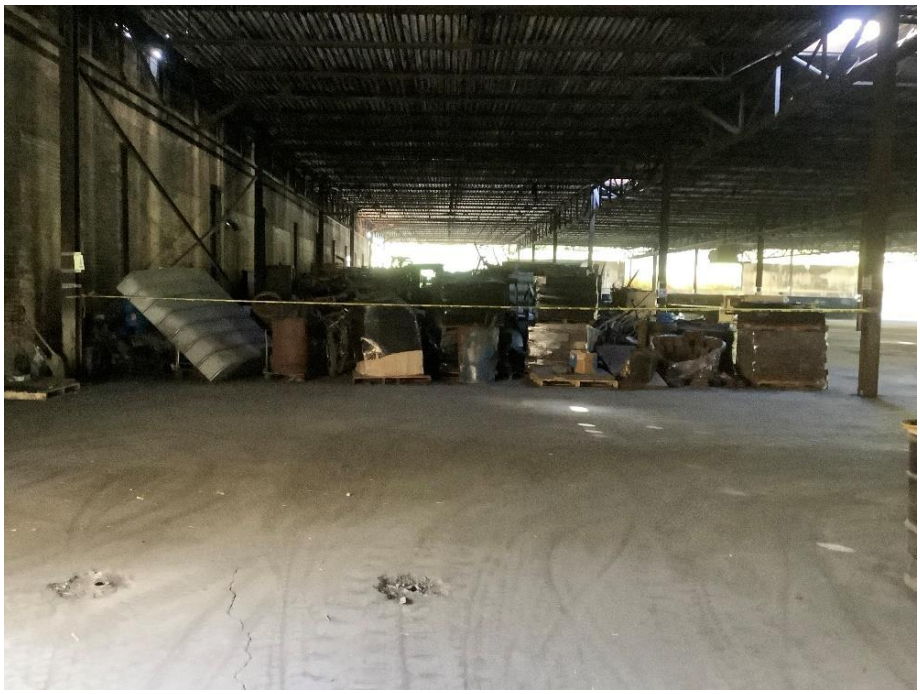
Date: October 6, 2022

Description: Concrete sample collection in Quadrants C2/D2

Photograph 94

Date: October 7, 2022

Description: Decontaminating equipment



Photograph 95

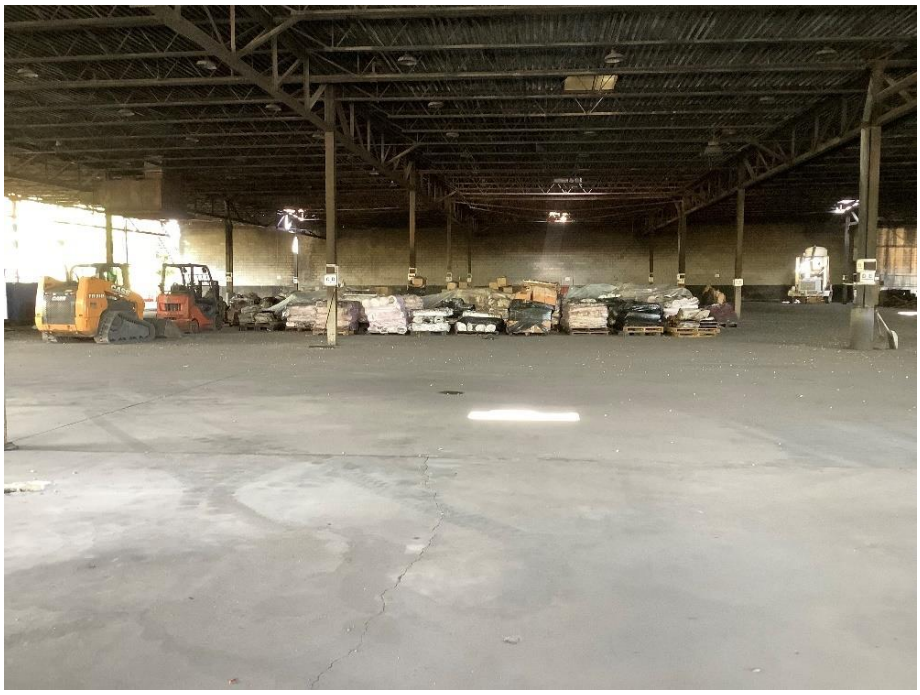
Date: October 7, 2022

Description: Superior Battery non-hazardous personal property to remain in building

Photograph 96

Date: October 7, 2022

Description: Secured battery cooling units



Photograph 97

Date: October 18, 2022

Description: Superior Battery non-hazardous personal property to remain in the building

Photograph 98

Date: October 18, 2022

Description: Superior Battery non-hazardous personal property to remain in the building

Photograph 99

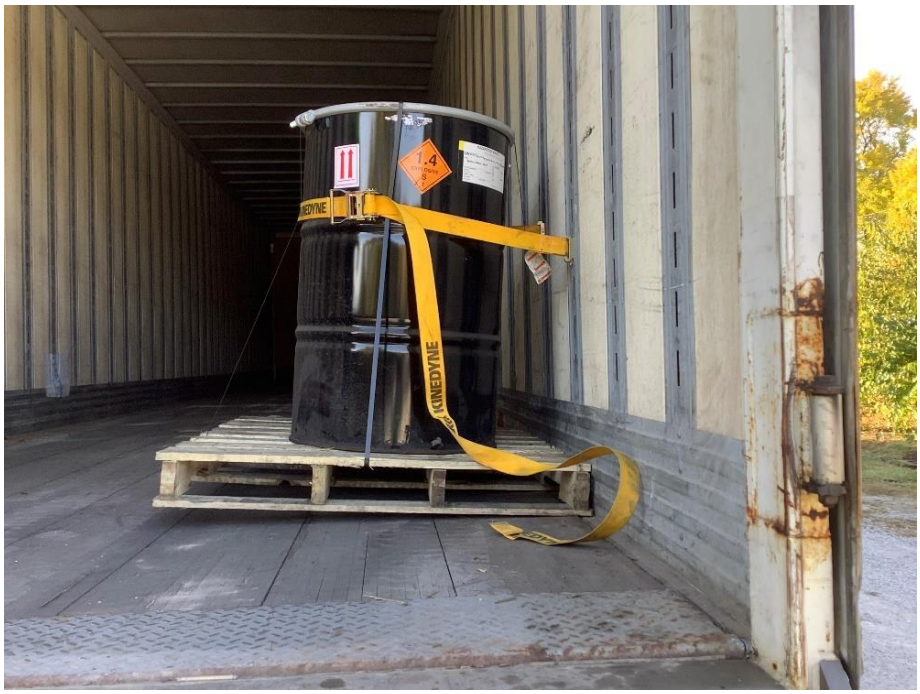
Date: October 21, 2022

Description: Battery cooling units being transported to a truck for removal

Photograph 100

Date: October 21, 2022

Description: Battery cooling units being loaded onto a truck



Photograph 101

Date: October 21, 2022

Description: Battery cooling units secured for transport

Photograph 102

Date: October 21, 2022

Description: Installed fence to secure entry points along the eastern side of the building

Photograph 103

Date: October 21, 2022

Description: Superior Battery non-hazardous personal property covered for protection

Photograph 104

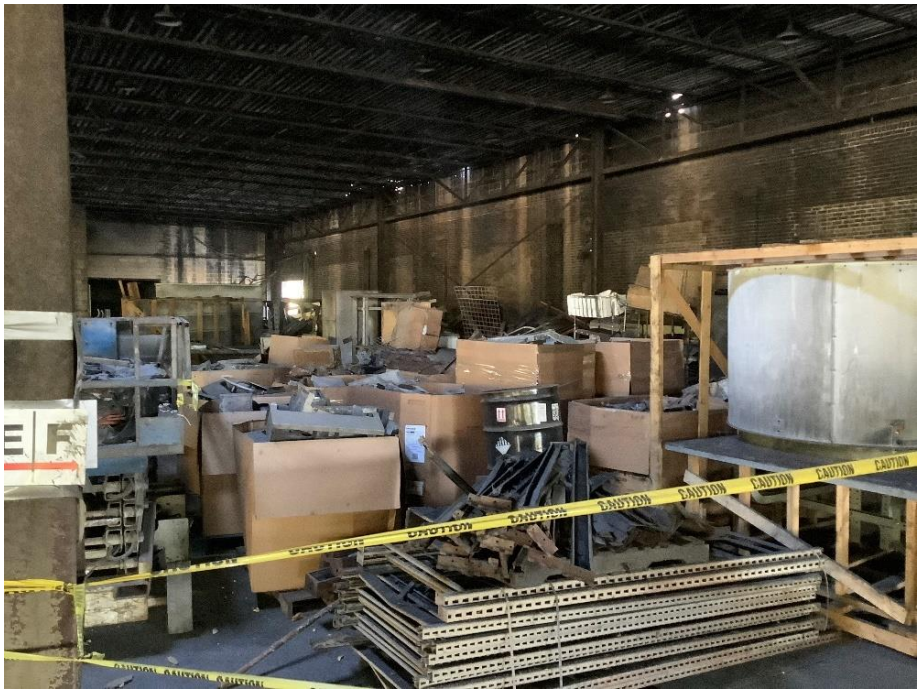
Date: October 21, 2022

Description: Cleared floors

Photograph 105

Date: October 21, 2022

Description: Installed fence to secure the portion of missing wall along the eastern side of the building



Photograph 106

Date: October 21, 2022

Description: Superior Battery non-hazardous personal property

Photograph 107

Date: October 26, 2022

Description: Northern side of the building, cleared of batteries and vacuumed

Photograph 108

Date: October 26, 2022

Description: Southern side of the building, cleared of batteries and vacuumed

Photograph 109

Date: October 26, 2022

Description: Western side of the building, cleared of batteries and vacuumed

Photograph 110

Date: October 26, 2022

Description: Superior Battery non-hazardous personal property

Photograph 111

Date: October 26, 2022

Description: Northwestern corner of the building, cleared of batteries and vacuumed

Photograph 112

Date: October 26, 2022

Description: Center of the building, cleared of batteries and vacuumed

Photograph 113

Date: October 26, 2022

Description: Exterior of the building after battery removal, facing south

Photograph 114

Date: October 26, 2022

Description: Structural supports on the southwestern corner of the site

Photograph 115

Date: October 26, 2022

Description: Exterior of the building after battery removal, facing north

Photograph 116

Date: October 26, 2022

Description: Electricians disconnecting power from the site

Photograph 117

Date: October 26, 2022

Description: Electricians disconnecting temporary buildings and installing a permanent power box for the city

Photograph 118

Date: October 26, 2022

Description: Completed electric box installation

Photograph 119

Date: October 26, 2022

Description: U.S. Environmental Protection Agency (EPA) temporary building being loaded onto a trailer for removal

Photograph 120

Date: October 26, 2022

Description: Removal of the EPA temporary building

Photograph 121

Date: October 27, 2022

Description: ERRS contractor equipment removal

Photograph 122

Date: October 27, 2022

Description: Temporary building removal

Photograph 123

Date: October 27, 2022

Description: Roll-off container removal

Photograph 124

Date: October 27, 2022

Description: Securing of the roll-off container

Photograph 125

Date: October 27, 2022

Description: Superfund Technical Assessment and Response Team (START) temporary building removal

Photograph 126

Date: October 27, 2022

Description: ERRS contractor temporary building removal

Photograph 127

Date: October 27, 2022

Description: Cleared lot after temporary building removal

Photograph 128

Date: October 28, 2022

Description: Fencing and a warning sign along the western side of the building

Photograph 129

Date: October 28, 2022

Description: Loading bays closed and secured

Photograph 130

Date: October 28, 2022

Description: Empty city lot

Photograph 131

Date: October 18, 2022

Description: Roll-off waste removal

Photograph 132

Date: October 28, 2022

Description: Secured front gate of the site prior to turnover

ATTACHMENT 1. ANALYTICAL REPORTS: 2218993, 221285, AND 223407

Case Narrative

Analysis: ICP Metals
Preparation SOP#: IH-AN-021, Rev. 9
Analysis SOP#: NIOSH 7300 Mod, Rev. 7
Analysis Batch: IICP/18190

Client: Tetra Tech, Inc.
Matrix: MCE
ALS WorkOrder IDs: 2218993
HBN: 296040

General Set Information: There are sixteen MCE field samples in this workorder that were analyzed in this HBN. The samples were analyzed for panel B, antimony and potassium by NIOSH Method 7300, modified.

Method Summary: Each MCE filter was digested in a hotblock in the presence of 1:1 (v/v) nitric acid. The resulting digest was analyzed using an Agilent 5110 ICP-OES "ICP13" Analyzer equipped with an Agilent SPS 4 autosampler and ICP Expert software.

Sample Preparation: Each sample was transferred to 50 mL centrifuge tube and digested in the presence of 10 mL of 1:1 (v/v) nitric acid. Each sample was digested in a hot block set at 92 +/-5 ºC for 55 minutes. The digestion solution was diluted to 25 mL final volume with ASTM Type II water.

Instrument Calibration: Instrument calibration was performed in accordance with published procedures.

Initial and Continuing Calibration Data: Initial and Continuing calibrations were performed in accordance with published procedures.

Dilutions: No dilutions were required.

Method and Sample QC Data: The method blanks concentrations are less than the reporting limit for the requested analytes.

All LCS and LCSD results are within historical control limits for the requested analytes.

NC/CAR: NC/CAR 2,255 was initiated due to the calibration STD1/CCV being past its expiration date.

Flagging Codes: Refer to the last page of the report for all applicable flagging codes.

Sample Calculation:

Method 7300 Mod: $C \times \frac{Vf}{sample} \times DF = Concentration(\mu g/sample)$

Where,

C = Instrument value in µg/L (The average of all replicate integrations).

Vf = Final digestion volume (L)

DF = Dilution Factor

Miscellaneous Comments: None.

Joanna Sanchez 14 July 2022

ANALYTICAL REPORT

Report Date: July 15, 2022

Bruce Welch
Tetra Tech, Inc.
1 S. Wacker Drive
Chicago, IL 60606

Phone: 312 201 7430

E-mail: Bruce.Welch@tetratech.com

Workorder: **34-2218993**
Client Project ID: Morris Lithium Battery Fire Si
Purchase Order: NA
Project Manager: Patrick Noteboom

Analytical Results

Sample ID: **MIF-SE-01-220628**
Lab ID: 2218993001
Sampling Location: Morris Lithium Batte
Collected: 06/28/2022
Received: 07/08/2022

Method: NIOSH 7303 Mod., MCE
Dilution: 1
Media: MCE Filter
Sampling Parameter: Air Volume 1332.69 L
Instrument: ICP13
Prepared: 07/12/2022 (295900)
Analyzed: 07/14/2022 (296040)

Analyte	Result (ug/sample)	Result (mg/m³)	RL (ug/sample)
Aluminum	<5.0	<0.0038	5.0
Antimony	<1.5	<0.0011	1.5
Arsenic	<2.5	<0.0019	2.5
Barium	<0.25	<0.00019	0.25
Beryllium	<0.013	<0.0000094	0.013
Cadmium	<0.075	<0.000056	0.075
Calcium	<15	<0.011	15
Chromium	<1.3	<0.00094	1.3
Cobalt	<0.075	<0.000056	0.075
Copper	<0.50	<0.00038	0.50
Iron	<5.0	<0.0038	5.0
Lead	<0.50	<0.00038	0.50
Lithium	<1.0	<0.00075	1.0
Magnesium	<1.3	<0.00094	1.3
Manganese	<0.13	<0.000094	0.13
Molybdenum	<0.38	<0.00028	0.38
Nickel	<0.13	<0.000094	0.13
Phosphorus	<5.0	<0.0038	5.0
Potassium	<13	<0.0094	13
Selenium	<2.5	<0.0019	2.5
Silver	<0.25	<0.00019	0.25
Sodium	<3.8	<0.0028	3.8
Tellurium	<1.3	<0.00094	1.3
Thallium	<1.3	<0.00094	1.3
Titanium	<0.075	<0.000056	0.075
Vanadium	<0.075	<0.000056	0.075

Results Continued on Next Page

ANALYTICAL REPORT

Workorder: **34-2218993**
Client Project ID: Morris Lithium Battery Fire Si
Purchase Order: NA
Project Manager: Patrick Noteboom

Analytical Results

Sample ID: **MIF-SE-01-220628**
Lab ID: 2218993001
Sampling Location: Morris Lithium Batte
Collected: 06/28/2022
Received: 07/08/2022

Method: NIOSH 7303 Mod., MCE
Dilution: 1
Media: MCE Filter
Sampling Parameter: Air Volume 1332.69 L
Instrument: ICP13
Prepared: 07/12/2022 (295900)
Analyzed: 07/14/2022 (296040)

Analyte	Result (ug/sample)	Result (mg/m³)	RL (ug/sample)
Yttrium	<0.075	<0.000056	0.075
Zinc	<0.50	<0.00038	0.50
Zirconium	<0.50	<0.00038	0.50

Sample ID: **MIF-NW-01-220628**
Lab ID: 2218993002
Sampling Location: Morris Lithium Batte
Collected: 06/28/2022
Received: 07/08/2022

Method: NIOSH 7303 Mod., MCE
Dilution: 1
Media: MCE Filter
Sampling Parameter: Air Volume 1373.26 L
Instrument: ICP13
Prepared: 07/12/2022 (295900)
Analyzed: 07/14/2022 (296040)

Analyte	Result (ug/sample)	Result (mg/m³)	RL (ug/sample)
Aluminum	<5.0	<0.0036	5.0
Antimony	<1.5	<0.0011	1.5
Arsenic	<2.5	<0.0018	2.5
Barium	<0.25	<0.00018	0.25
Beryllium	<0.013	<0.0000091	0.013
Cadmium	<0.075	<0.000055	0.075
Calcium	<15	<0.011	15
Chromium	<1.3	<0.00091	1.3
Cobalt	<0.075	<0.000055	0.075
Copper	<0.50	<0.00036	0.50
Iron	<5.0	<0.0036	5.0
Lead	<0.50	<0.00036	0.50
Lithium	<1.0	<0.00073	1.0
Magnesium	<1.3	<0.00091	1.3
Manganese	<0.13	<0.000091	0.13
Molybdenum	<0.38	<0.00027	0.38
Nickel	<0.13	<0.000091	0.13
Phosphorus	<5.0	<0.0036	5.0
Potassium	<13	<0.0091	13
Selenium	<2.5	<0.0018	2.5
Silver	<0.25	<0.00018	0.25
Sodium	<3.8	<0.0027	3.8
Tellurium	<1.3	<0.00091	1.3
Thallium	<1.3	<0.00091	1.3
Titanium	<0.075	<0.000055	0.075
Vanadium	<0.075	<0.000055	0.075
Yttrium	<0.075	<0.000055	0.075

Results Continued on Next Page

ANALYTICAL REPORT

Workorder: **34-2218993**
Client Project ID: Morris Lithium Battery Fire Si
Purchase Order: NA
Project Manager: Patrick Noteboom

Analytical Results

Sample ID: **MIF-NW-01-220628** Collected: 06/28/2022
Lab ID: 2218993002 Sampling Location: Morris Lithium Batte Received: 07/08/2022

Method: NIOSH 7303 Mod., MCE **Media:** MCE Filter **Instrument:** ICP13
Dilution: 1 **Sampling Parameter:** Air Volume 1373.26 L **Prepared:** 07/12/2022 (295900)
Analyzed: 07/14/2022 (296040)

Analyte	Result (ug/sample)	Result (mg/m³)	RL (ug/sample)
Zinc	<0.50	<0.00036	0.50
Zirconium	<0.50	<0.00036	0.50

Sample ID: **MIF-NW-02-220628** Collected: 06/28/2022
Lab ID: 2218993003 Sampling Location: Morris Lithium Batte Received: 07/08/2022

Method: NIOSH 7303 Mod., MCE **Media:** MCE Filter **Instrument:** ICP13
Dilution: 1 **Sampling Parameter:** Air Volume 1360.24 L **Prepared:** 07/12/2022 (295900)
Analyzed: 07/14/2022 (296040)

Analyte	Result (ug/sample)	Result (mg/m³)	RL (ug/sample)
Aluminum	<5.0	<0.0037	5.0
Antimony	<1.5	<0.0011	1.5
Arsenic	<2.5	<0.0018	2.5
Barium	<0.25	<0.00018	0.25
Beryllium	<0.013	<0.0000092	0.013
Cadmium	<0.075	<0.000055	0.075
Calcium	<15	<0.011	15
Chromium	<1.3	<0.00092	1.3
Cobalt	<0.075	<0.000055	0.075
Copper	<0.50	<0.00037	0.50
Iron	<5.0	<0.0037	5.0
Lead	<0.50	<0.00037	0.50
Lithium	<1.0	<0.00074	1.0
Magnesium	<1.3	<0.00092	1.3
Manganese	<0.13	<0.000092	0.13
Molybdenum	<0.38	<0.00028	0.38
Nickel	<0.13	<0.000092	0.13
Phosphorus	<5.0	<0.0037	5.0
Potassium	<13	<0.0092	13
Selenium	<2.5	<0.0018	2.5
Silver	<0.25	<0.00018	0.25
Sodium	<3.8	<0.0028	3.8
Tellurium	<1.3	<0.00092	1.3
Thallium	<1.3	<0.00092	1.3
Titanium	<0.075	<0.000055	0.075
Vanadium	<0.075	<0.000055	0.075
Yttrium	<0.075	<0.000055	0.075
Zinc	<0.50	<0.00037	0.50

Results Continued on Next Page

ANALYTICAL REPORT

Workorder: **34-2218993**
Client Project ID: Morris Lithium Battery Fire Si
Purchase Order: NA
Project Manager: Patrick Noteboom

Analytical Results

Sample ID: **MIF-NW-02-220628**
Lab ID: 2218993003
Sampling Location: Morris Lithium Batte
Collected: 06/28/2022
Received: 07/08/2022

Method: NIOSH 7303 Mod., MCE
Dilution: 1
Media: MCE Filter
Sampling Parameter: Air Volume 1360.24 L
Instrument: ICP13
Prepared: 07/12/2022 (295900)
Analyzed: 07/14/2022 (296040)

Analyte	Result (ug/sample)	Result (mg/m³)	RL (ug/sample)
Zirconium	<0.50	<0.00037	0.50

Sample ID: **MIF-SW-01-220628**
Lab ID: 2218993004
Sampling Location: Morris Lithium Batte
Collected: 06/28/2022
Received: 07/08/2022

Method: NIOSH 7303 Mod., MCE
Dilution: 1
Media: MCE Filter
Sampling Parameter: Air Volume 1355.69 L
Instrument: ICP13
Prepared: 07/12/2022 (295900)
Analyzed: 07/14/2022 (296040)

Analyte	Result (ug/sample)	Result (mg/m³)	RL (ug/sample)
Aluminum	<5.0	<0.0037	5.0
Antimony	<1.5	<0.0011	1.5
Arsenic	<2.5	<0.0018	2.5
Barium	<0.25	<0.00018	0.25
Beryllium	<0.013	<0.0000092	0.013
Cadmium	<0.075	<0.000055	0.075
Calcium	<15	<0.011	15
Chromium	<1.3	<0.00092	1.3
Cobalt	<0.075	<0.000055	0.075
Copper	<0.50	<0.00037	0.50
Iron	<5.0	<0.0037	5.0
Lead	<0.50	<0.00037	0.50
Lithium	<1.0	<0.00074	1.0
Magnesium	<1.3	<0.00092	1.3
Manganese	<0.13	<0.000092	0.13
Molybdenum	<0.38	<0.00028	0.38
Nickel	<0.13	<0.000092	0.13
Phosphorus	<5.0	<0.0037	5.0
Potassium	<13	<0.0092	13
Selenium	<2.5	<0.0018	2.5
Silver	<0.25	<0.00018	0.25
Sodium	<3.8	<0.0028	3.8
Tellurium	<1.3	<0.00092	1.3
Thallium	<1.3	<0.00092	1.3
Titanium	<0.075	<0.000055	0.075
Vanadium	<0.075	<0.000055	0.075
Yttrium	<0.075	<0.000055	0.075
Zinc	<0.50	<0.00037	0.50
Zirconium	<0.50	<0.00037	0.50

ANALYTICAL REPORT

Workorder: **34-2218993**
Client Project ID: Morris Lithium Battery Fire Si
Purchase Order: NA
Project Manager: Patrick Noteboom

Analytical Results

Sample ID: **MIF-NE-01-220628**
Lab ID: 2218993005
Sampling Location: Morris Lithium Batte
Collected: 06/28/2022
Received: 07/08/2022

Method: NIOSH 7303 Mod., MCE
Dilution: 1
Media: MCE Filter
Sampling Parameter: Air Volume 1328.15 L
Instrument: ICP13
Prepared: 07/12/2022 (295900)
Analyzed: 07/14/2022 (296040)

Analyte	Result (ug/sample)	Result (mg/m³)	RL (ug/sample)
Aluminum	<5.0	<0.0038	5.0
Antimony	<1.5	<0.0011	1.5
Arsenic	<2.5	<0.0019	2.5
Barium	<0.25	<0.00019	0.25
Beryllium	<0.013	<0.0000094	0.013
Cadmium	<0.075	<0.000056	0.075
Calcium	<15	<0.011	15
Chromium	<1.3	<0.00094	1.3
Cobalt	<0.075	<0.000056	0.075
Copper	<0.50	<0.00038	0.50
Iron	<5.0	<0.0038	5.0
Lead	<0.50	<0.00038	0.50
Lithium	<1.0	<0.00075	1.0
Magnesium	<1.3	<0.00094	1.3
Manganese	<0.13	<0.000094	0.13
Molybdenum	<0.38	<0.00028	0.38
Nickel	<0.13	<0.000094	0.13
Phosphorus	<5.0	<0.0038	5.0
Potassium	<13	<0.0094	13
Selenium	<2.5	<0.0019	2.5
Silver	<0.25	<0.00019	0.25
Sodium	<3.8	<0.0028	3.8
Tellurium	<1.3	<0.00094	1.3
Thallium	<1.3	<0.00094	1.3
Titanium	<0.075	<0.000056	0.075
Vanadium	<0.075	<0.000056	0.075
Yttrium	<0.075	<0.000056	0.075
Zinc	<0.50	<0.00038	0.50
Zirconium	<0.50	<0.00038	0.50

Sample ID: **MIF-NE-01-220629**
Lab ID: 2218993006
Sampling Location: Morris Lithium Batte
Collected: 06/29/2022
Received: 07/08/2022

Method: NIOSH 7303 Mod., MCE
Dilution: 1
Media: MCE Filter
Sampling Parameter: Air Volume 1260.44 L
Instrument: ICP13
Prepared: 07/12/2022 (295900)
Analyzed: 07/14/2022 (296040)

Analyte	Result (ug/sample)	Result (mg/m³)	RL (ug/sample)
Aluminum	<5.0	<0.0040	5.0

Results Continued on Next Page

ANALYTICAL REPORT

Workorder: **34-2218993**
Client Project ID: Morris Lithium Battery Fire Si
Purchase Order: NA
Project Manager: Patrick Noteboom

Analytical Results

Sample ID: **MIF-NE-01-220629** Collected: 06/29/2022
Lab ID: 2218993006 Sampling Location: Morris Lithium Batte Received: 07/08/2022

Method: NIOSH 7303 Mod., MCE **Media:** MCE Filter **Instrument:** ICP13
Dilution: 1 **Sampling Parameter:** Air Volume 1260.44 L **Prepared:** 07/12/2022 (295900)
Analyzed: 07/14/2022 (296040)

Analyte	Result (ug/sample)	Result (mg/m³)	RL (ug/sample)
Antimony	<1.5	<0.0012	1.5
Arsenic	<2.5	<0.0020	2.5
Barium	<0.25	<0.00020	0.25
Beryllium	<0.013	<0.0000099	0.013
Cadmium	<0.075	<0.000060	0.075
Calcium	<15	<0.012	15
Chromium	<1.3	<0.00099	1.3
Cobalt	<0.075	<0.000060	0.075
Copper	<0.50	<0.00040	0.50
Iron	<5.0	<0.0040	5.0
Lead	<0.50	<0.00040	0.50
Lithium	<1.0	<0.00079	1.0
Magnesium	<1.3	<0.00099	1.3
Manganese	<0.13	<0.000099	0.13
Molybdenum	<0.38	<0.00030	0.38
Nickel	<0.13	<0.000099	0.13
Phosphorus	<5.0	<0.0040	5.0
Potassium	<13	<0.0099	13
Selenium	<2.5	<0.0020	2.5
Silver	<0.25	<0.00020	0.25
Sodium	<3.8	<0.0030	3.8
Tellurium	<1.3	<0.00099	1.3
Thallium	<1.3	<0.00099	1.3
Titanium	<0.075	<0.000060	0.075
Vanadium	<0.075	<0.000060	0.075
Yttrium	<0.075	<0.000060	0.075
Zinc	<0.50	<0.00040	0.50
Zirconium	<0.50	<0.00040	0.50

Sample ID: **MIF-SE-01-220629** Collected: 06/29/2022
Lab ID: 2218993007 Sampling Location: Morris Lithium Batte Received: 07/08/2022

Method: NIOSH 7303 Mod., MCE **Media:** MCE Filter **Instrument:** ICP13
Dilution: 1 **Sampling Parameter:** Air Volume 1296.86 L **Prepared:** 07/12/2022 (295900)
Analyzed: 07/14/2022 (296040)

Analyte	Result (ug/sample)	Result (mg/m³)	RL (ug/sample)
Aluminum	<5.0	<0.0039	5.0
Antimony	<1.5	<0.0012	1.5

Results Continued on Next Page

ANALYTICAL REPORT

Workorder: **34-2218993**
Client Project ID: Morris Lithium Battery Fire Si
Purchase Order: NA
Project Manager: Patrick Noteboom

Analytical Results

Sample ID: **MIF-SE-01-220629**
Lab ID: 2218993007
Sampling Location: Morris Lithium Batte
Collected: 06/29/2022
Received: 07/08/2022

Method: NIOSH 7303 Mod., MCE
Dilution: 1
Media: MCE Filter
Sampling Parameter: Air Volume 1296.86 L
Instrument: ICP13
Prepared: 07/12/2022 (295900)
Analyzed: 07/14/2022 (296040)

Analyte	Result (ug/sample)	Result (mg/m³)	RL (ug/sample)
Arsenic	<2.5	<0.0019	2.5
Barium	<0.25	<0.00019	0.25
Beryllium	<0.013	<0.0000096	0.013
Cadmium	<0.075	<0.000058	0.075
Calcium	<15	<0.012	15
Chromium	<1.3	<0.00096	1.3
Cobalt	<0.075	<0.000058	0.075
Copper	<0.50	<0.00039	0.50
Iron	<5.0	<0.0039	5.0
Lead	<0.50	<0.00039	0.50
Lithium	<1.0	<0.00077	1.0
Magnesium	<1.3	<0.00096	1.3
Manganese	<0.13	<0.000096	0.13
Molybdenum	<0.38	<0.00029	0.38
Nickel	<0.13	<0.000096	0.13
Phosphorus	<5.0	<0.0039	5.0
Potassium	<13	<0.0096	13
Selenium	<2.5	<0.0019	2.5
Silver	<0.25	<0.00019	0.25
Sodium	<3.8	<0.0029	3.8
Tellurium	<1.3	<0.00096	1.3
Thallium	<1.3	<0.00096	1.3
Titanium	<0.075	<0.000058	0.075
Vanadium	<0.075	<0.000058	0.075
Yttrium	<0.075	<0.000058	0.075
Zinc	<0.50	<0.00039	0.50
Zirconium	<0.50	<0.00039	0.50

Sample ID: **MIF-SW-01-220629**
Lab ID: 2218993008
Sampling Location: Morris Lithium Batte
Collected: 06/29/2022
Received: 07/08/2022

Method: NIOSH 7303 Mod., MCE
Dilution: 1
Media: MCE Filter
Sampling Parameter: Air Volume 1240.53 L
Instrument: ICP13
Prepared: 07/12/2022 (295900)
Analyzed: 07/14/2022 (296040)

Analyte	Result (ug/sample)	Result (mg/m³)	RL (ug/sample)
Aluminum	<5.0	<0.0040	5.0
Antimony	<1.5	<0.0012	1.5
Arsenic	<2.5	<0.0020	2.5

Results Continued on Next Page

ANALYTICAL REPORT

Workorder: **34-2218993**
Client Project ID: Morris Lithium Battery Fire Si
Purchase Order: NA
Project Manager: Patrick Noteboom

Analytical Results

Sample ID: **MIF-SW-01-220629** Collected: 06/29/2022
Lab ID: 2218993008 Sampling Location: Morris Lithium Batte Received: 07/08/2022

Method: NIOSH 7303 Mod., MCE **Media:** MCE Filter **Instrument:** ICP13
Dilution: 1 **Sampling Parameter:** Air Volume 1240.53 L **Prepared:** 07/12/2022 (295900)
Analyzed: 07/14/2022 (296040)

Analyte	Result (ug/sample)	Result (mg/m³)	RL (ug/sample)
Barium	<0.25	<0.00020	0.25
Beryllium	<0.013	<0.000010	0.013
Cadmium	<0.075	<0.000060	0.075
Calcium	<15	<0.012	15
Chromium	<1.3	<0.0010	1.3
Cobalt	<0.075	<0.000060	0.075
Copper	<0.50	<0.00040	0.50
Iron	<5.0	<0.0040	5.0
Lead	<0.50	<0.00040	0.50
Lithium	<1.0	<0.00081	1.0
Magnesium	<1.3	<0.0010	1.3
Manganese	<0.13	<0.00010	0.13
Molybdenum	<0.38	<0.00030	0.38
Nickel	<0.13	<0.00010	0.13
Phosphorus	<5.0	<0.0040	5.0
Potassium	<13	<0.010	13
Selenium	<2.5	<0.0020	2.5
Silver	<0.25	<0.00020	0.25
Sodium	<3.8	<0.0030	3.8
Tellurium	<1.3	<0.0010	1.3
Thallium	<1.3	<0.0010	1.3
Titanium	<0.075	<0.000060	0.075
Vanadium	<0.075	<0.000060	0.075
Yttrium	<0.075	<0.000060	0.075
Zinc	<0.50	<0.00040	0.50
Zirconium	<0.50	<0.00040	0.50

Sample ID: **MIF-NW-01-220629** Collected: 06/29/2022
Lab ID: 2218993009 Sampling Location: Morris Lithium Batte Received: 07/08/2022

Method: NIOSH 7303 Mod., MCE **Media:** MCE Filter **Instrument:** ICP13
Dilution: 1 **Sampling Parameter:** Air Volume 1258.04 L **Prepared:** 07/12/2022 (295900)
Analyzed: 07/14/2022 (296040)

Analyte	Result (ug/sample)	Result (mg/m³)	RL (ug/sample)
Aluminum	<5.0	<0.0040	5.0
Antimony	<1.5	<0.0012	1.5
Arsenic	<2.5	<0.0020	2.5
Barium	<0.25	<0.00020	0.25

Results Continued on Next Page

ANALYTICAL REPORT

Workorder: **34-2218993**
Client Project ID: Morris Lithium Battery Fire Si
Purchase Order: NA
Project Manager: Patrick Noteboom

Analytical Results

Sample ID: **MIF-NW-01-220629**
Lab ID: 2218993009
Sampling Location: Morris Lithium Batte
Collected: 06/29/2022
Received: 07/08/2022

Method: NIOSH 7303 Mod., MCE
Dilution: 1
Media: MCE Filter
Sampling Parameter: Air Volume 1258.04 L
Instrument: ICP13
Prepared: 07/12/2022 (295900)
Analyzed: 07/14/2022 (296040)

Analyte	Result (ug/sample)	Result (mg/m³)	RL (ug/sample)
Beryllium	<0.013	<0.0000099	0.013
Cadmium	<0.075	<0.000060	0.075
Calcium	<15	<0.012	15
Chromium	<1.3	<0.00099	1.3
Cobalt	<0.075	<0.000060	0.075
Copper	<0.50	<0.00040	0.50
Iron	<5.0	<0.0040	5.0
Lead	<0.50	<0.00040	0.50
Lithium	<1.0	<0.00079	1.0
Magnesium	<1.3	<0.00099	1.3
Manganese	<0.13	<0.000099	0.13
Molybdenum	<0.38	<0.00030	0.38
Nickel	<0.13	<0.000099	0.13
Phosphorus	<5.0	<0.0040	5.0
Potassium	<13	<0.0099	13
Selenium	<2.5	<0.0020	2.5
Silver	<0.25	<0.00020	0.25
Sodium	<3.8	<0.0030	3.8
Tellurium	<1.3	<0.00099	1.3
Thallium	<1.3	<0.00099	1.3
Titanium	<0.075	<0.000060	0.075
Vanadium	<0.075	<0.000060	0.075
Yttrium	<0.075	<0.000060	0.075
Zinc	<0.50	<0.00040	0.50
Zirconium	<0.50	<0.00040	0.50

Sample ID: **MIF-NE-01-220706**
Lab ID: 2218993010
Sampling Location: Morris Lithium Batte
Collected: 07/06/2022
Received: 07/08/2022

Method: NIOSH 7303 Mod., MCE
Dilution: 1
Media: MCE Filter
Sampling Parameter: Air Volume 1016.35 L
Instrument: ICP13
Prepared: 07/12/2022 (295900)
Analyzed: 07/14/2022 (296040)

Analyte	Result (ug/sample)	Result (mg/m³)	RL (ug/sample)
Aluminum	<5.0	<0.0049	5.0
Antimony	<1.5	<0.0015	1.5
Arsenic	<2.5	<0.0025	2.5
Barium	<0.25	<0.00025	0.25
Beryllium	<0.013	<0.000012	0.013

Results Continued on Next Page

ANALYTICAL REPORT

Workorder: **34-2218993**
Client Project ID: Morris Lithium Battery Fire Si
Purchase Order: NA
Project Manager: Patrick Noteboom

Analytical Results

Sample ID: **MIF-NE-01-220706** Collected: 07/06/2022
Lab ID: 2218993010 Sampling Location: Morris Lithium Batte Received: 07/08/2022

Method: NIOSH 7303 Mod., MCE **Media:** MCE Filter **Instrument:** ICP13
Dilution: 1 **Sampling Parameter:** Air Volume 1016.35 L **Prepared:** 07/12/2022 (295900)
Analyzed: 07/14/2022 (296040)

Analyte	Result (ug/sample)	Result (mg/m³)	RL (ug/sample)
Cadmium	<0.075	<0.000074	0.075
Calcium	<15	<0.015	15
Chromium	<1.3	<0.0012	1.3
Cobalt	<0.075	<0.000074	0.075
Copper	<0.50	<0.00049	0.50
Iron	<5.0	<0.0049	5.0
Lead	<0.50	<0.00049	0.50
Lithium	<1.0	<0.00098	1.0
Magnesium	<1.3	<0.0012	1.3
Manganese	<0.13	<0.00012	0.13
Molybdenum	<0.38	<0.00037	0.38
Nickel	<0.13	<0.00012	0.13
Phosphorus	<5.0	<0.0049	5.0
Potassium	<13	<0.012	13
Selenium	<2.5	<0.0025	2.5
Silver	<0.25	<0.00025	0.25
Sodium	<3.8	<0.0037	3.8
Tellurium	<1.3	<0.0012	1.3
Thallium	<1.3	<0.0012	1.3
Titanium	<0.075	<0.000074	0.075
Vanadium	<0.075	<0.000074	0.075
Yttrium	<0.075	<0.000074	0.075
Zinc	<0.50	<0.00049	0.50
Zirconium	<0.50	<0.00049	0.50

Sample ID: **MIF-SE-01-220706** Collected: 07/06/2022
Lab ID: 2218993011 Sampling Location: Morris Lithium Batte Received: 07/08/2022

Method: NIOSH 7303 Mod., MCE **Media:** MCE Filter **Instrument:** ICP13
Dilution: 1 **Sampling Parameter:** Air Volume 1023.86 L **Prepared:** 07/12/2022 (295900)
Analyzed: 07/14/2022 (296040)

Analyte	Result (ug/sample)	Result (mg/m³)	RL (ug/sample)
Aluminum	<5.0	<0.0049	5.0
Antimony	<1.5	<0.0015	1.5
Arsenic	<2.5	<0.0024	2.5
Barium	<0.25	<0.00024	0.25
Beryllium	<0.013	<0.000012	0.013
Cadmium	<0.075	<0.000073	0.075

Results Continued on Next Page

ANALYTICAL REPORT

Workorder: **34-2218993**
Client Project ID: Morris Lithium Battery Fire Si
Purchase Order: NA
Project Manager: Patrick Noteboom

Analytical Results

Sample ID: **MIF-SE-01-220706** Collected: 07/06/2022
Lab ID: 2218993011 Sampling Location: Morris Lithium Batte Received: 07/08/2022

Method: NIOSH 7303 Mod., MCE **Media:** MCE Filter **Instrument:** ICP13
Dilution: 1 **Sampling Parameter:** Air Volume 1023.86 L **Prepared:** 07/12/2022 (295900)
Analyzed: 07/14/2022 (296040)

Analyte	Result (ug/sample)	Result (mg/m³)	RL (ug/sample)
Calcium	<15	<0.015	15
Chromium	<1.3	<0.0012	1.3
Cobalt	<0.075	<0.000073	0.075
Copper	<0.50	<0.00049	0.50
Iron	<5.0	<0.0049	5.0
Lead	<0.50	<0.00049	0.50
Lithium	<1.0	<0.00098	1.0
Magnesium	<1.3	<0.0012	1.3
Manganese	<0.13	<0.00012	0.13
Molybdenum	<0.38	<0.00037	0.38
Nickel	<0.13	<0.00012	0.13
Phosphorus	<5.0	<0.0049	5.0
Potassium	<13	<0.012	13
Selenium	<2.5	<0.0024	2.5
Silver	<0.25	<0.00024	0.25
Sodium	<3.8	<0.0037	3.8
Tellurium	<1.3	<0.0012	1.3
Thallium	<1.3	<0.0012	1.3
Titanium	<0.075	<0.000073	0.075
Vanadium	<0.075	<0.000073	0.075
Yttrium	<0.075	<0.000073	0.075
Zinc	<0.50	<0.00049	0.50
Zirconium	<0.50	<0.00049	0.50

Sample ID: **MIF-NW-01-220706** Collected: 07/06/2022
Lab ID: 2218993012 Sampling Location: Morris Lithium Batte Received: 07/08/2022

Method: NIOSH 7303 Mod., MCE **Media:** MCE Filter **Instrument:** ICP13
Dilution: 1 **Sampling Parameter:** Air Volume 1027.32 L **Prepared:** 07/12/2022 (295900)
Analyzed: 07/14/2022 (296040)

Analyte	Result (ug/sample)	Result (mg/m³)	RL (ug/sample)
Aluminum	<5.0	<0.0049	5.0
Antimony	<1.5	<0.0015	1.5
Arsenic	<2.5	<0.0024	2.5
Barium	<0.25	<0.00024	0.25
Beryllium	<0.013	<0.000012	0.013
Cadmium	<0.075	<0.000073	0.075
Calcium	<15	<0.015	15

Results Continued on Next Page

ANALYTICAL REPORT

Workorder: **34-2218993**
Client Project ID: Morris Lithium Battery Fire Si
Purchase Order: NA
Project Manager: Patrick Noteboom

Analytical Results

Sample ID: **MIF-NW-01-220706** Collected: 07/06/2022
Lab ID: 2218993012 Sampling Location: Morris Lithium Batte Received: 07/08/2022

Method: NIOSH 7303 Mod., MCE **Media:** MCE Filter **Instrument:** ICP13
Dilution: 1 **Sampling Parameter:** Air Volume 1027.32 L **Prepared:** 07/12/2022 (295900)
Analyzed: 07/14/2022 (296040)

Analyte	Result (ug/sample)	Result (mg/m³)	RL (ug/sample)
Chromium	<1.3	<0.0012	1.3
Cobalt	<0.075	<0.000073	0.075
Copper	<0.50	<0.00049	0.50
Iron	<5.0	<0.0049	5.0
Lead	<0.50	<0.00049	0.50
Lithium	<1.0	<0.00097	1.0
Magnesium	<1.3	<0.0012	1.3
Manganese	<0.13	<0.00012	0.13
Molybdenum	<0.38	<0.00037	0.38
Nickel	<0.13	<0.00012	0.13
Phosphorus	<5.0	<0.0049	5.0
Potassium	<13	<0.012	13
Selenium	<2.5	<0.0024	2.5
Silver	<0.25	<0.00024	0.25
Sodium	<3.8	<0.0037	3.8
Tellurium	<1.3	<0.0012	1.3
Thallium	<1.3	<0.0012	1.3
Titanium	<0.075	<0.000073	0.075
Vanadium	<0.075	<0.000073	0.075
Yttrium	<0.075	<0.000073	0.075
Zinc	<0.50	<0.00049	0.50
Zirconium	<0.50	<0.00049	0.50

Sample ID: **MIF-SW-01-220706** Collected: 07/06/2022
Lab ID: 2218993013 Sampling Location: Morris Lithium Batte Received: 07/08/2022

Method: NIOSH 7303 Mod., MCE **Media:** MCE Filter **Instrument:** ICP13
Dilution: 1 **Sampling Parameter:** Air Volume 1043.45 L **Prepared:** 07/12/2022 (295900)
Analyzed: 07/14/2022 (296040)

Analyte	Result (ug/sample)	Result (mg/m³)	RL (ug/sample)
Aluminum	<5.0	<0.0048	5.0
Antimony	<1.5	<0.0014	1.5
Arsenic	<2.5	<0.0024	2.5
Barium	<0.25	<0.00024	0.25
Beryllium	<0.013	<0.000012	0.013
Cadmium	<0.075	<0.000072	0.075
Calcium	<15	<0.014	15
Chromium	<1.3	<0.0012	1.3

Results Continued on Next Page

ANALYTICAL REPORT

Workorder: **34-2218993**
Client Project ID: Morris Lithium Battery Fire Si
Purchase Order: NA
Project Manager: Patrick Noteboom

Analytical Results

Sample ID: **MIF-SW-01-220706**
Lab ID: 2218993013
Sampling Location: Morris Lithium Batte
Collected: 07/06/2022
Received: 07/08/2022

Method: NIOSH 7303 Mod., MCE
Dilution: 1
Media: MCE Filter
Sampling Parameter: Air Volume 1043.45 L
Instrument: ICP13
Prepared: 07/12/2022 (295900)
Analyzed: 07/14/2022 (296040)

Analyte	Result (ug/sample)	Result (mg/m³)	RL (ug/sample)
Cobalt	<0.075	<0.000072	0.075
Copper	<0.50	<0.00048	0.50
Iron	<5.0	<0.0048	5.0
Lead	<0.50	<0.00048	0.50
Lithium	<1.0	<0.00096	1.0
Magnesium	<1.3	<0.0012	1.3
Manganese	<0.13	<0.00012	0.13
Molybdenum	<0.38	<0.00036	0.38
Nickel	<0.13	<0.00012	0.13
Phosphorus	<5.0	<0.0048	5.0
Potassium	<13	<0.012	13
Selenium	<2.5	<0.0024	2.5
Silver	<0.25	<0.00024	0.25
Sodium	<3.8	<0.0036	3.8
Tellurium	<1.3	<0.0012	1.3
Thallium	<1.3	<0.0012	1.3
Titanium	<0.075	<0.000072	0.075
Vanadium	<0.075	<0.000072	0.075
Yttrium	<0.075	<0.000072	0.075
Zinc	<0.50	<0.00048	0.50
Zirconium	<0.50	<0.00048	0.50

Sample ID: **MIF-SW-02-220706**
Lab ID: 2218993014
Sampling Location: Morris Lithium Batte
Collected: 07/06/2022
Received: 07/08/2022

Method: NIOSH 7303 Mod., MCE
Dilution: 1
Media: MCE Filter
Sampling Parameter: Air Volume 1057.53 L
Instrument: ICP13
Prepared: 07/12/2022 (295900)
Analyzed: 07/14/2022 (296040)

Analyte	Result (ug/sample)	Result (mg/m³)	RL (ug/sample)
Aluminum	<5.0	<0.0047	5.0
Antimony	<1.5	<0.0014	1.5
Arsenic	<2.5	<0.0024	2.5
Barium	<0.25	<0.00024	0.25
Beryllium	<0.013	<0.000012	0.013
Cadmium	<0.075	<0.000071	0.075
Calcium	<15	<0.014	15
Chromium	<1.3	<0.0012	1.3
Cobalt	<0.075	<0.000071	0.075

Results Continued on Next Page

ANALYTICAL REPORT

Workorder: **34-2218993**
Client Project ID: Morris Lithium Battery Fire Si
Purchase Order: NA
Project Manager: Patrick Noteboom

Analytical Results

Sample ID: **MIF-SW-02-220706** Collected: 07/06/2022
Lab ID: 2218993014 Sampling Location: Morris Lithium Batte Received: 07/08/2022

Method: NIOSH 7303 Mod., MCE **Media:** MCE Filter **Instrument:** ICP13
Dilution: 1 **Sampling Parameter:** Air Volume 1057.53 L **Prepared:** 07/12/2022 (295900)
Analyzed: 07/14/2022 (296040)

Analyte	Result (ug/sample)	Result (mg/m³)	RL (ug/sample)
Copper	<0.50	<0.00047	0.50
Iron	<5.0	<0.0047	5.0
Lead	<0.50	<0.00047	0.50
Lithium	<1.0	<0.00095	1.0
Magnesium	<1.3	<0.0012	1.3
Manganese	<0.13	<0.00012	0.13
Molybdenum	<0.38	<0.00035	0.38
Nickel	<0.13	<0.00012	0.13
Phosphorus	<5.0	<0.0047	5.0
Potassium	<13	<0.012	13
Selenium	<2.5	<0.0024	2.5
Silver	<0.25	<0.00024	0.25
Sodium	<3.8	<0.0035	3.8
Tellurium	<1.3	<0.0012	1.3
Thallium	<1.3	<0.0012	1.3
Titanium	<0.075	<0.000071	0.075
Vanadium	<0.075	<0.000071	0.075
Yttrium	<0.075	<0.000071	0.075
Zinc	<0.50	<0.00047	0.50
Zirconium	<0.50	<0.00047	0.50

Sample ID: **MIF-FB-220706** Collected: 07/06/2022
Lab ID: 2218993015 Sampling Location: Morris Lithium Batte Received: 07/08/2022

Method: NIOSH 7303 Mod., MCE **Media:** MCE Filter **Instrument:** ICP13
Dilution: 1 **Sampling Parameter:** Air Volume Not Applicable **Prepared:** 07/12/2022 (295900)
Analyzed: 07/14/2022 (296040)

Analyte	Result (ug/sample)	Result (mg/m³)	RL (ug/sample)
Aluminum	<5.0	NA	5.0
Antimony	<1.5	NA	1.5
Arsenic	<2.5	NA	2.5
Barium	<0.25	NA	0.25
Beryllium	<0.013	NA	0.013
Cadmium	<0.075	NA	0.075
Calcium	<15	NA	15
Chromium	<1.3	NA	1.3
Cobalt	<0.075	NA	0.075
Copper	<0.50	NA	0.50

Results Continued on Next Page

ANALYTICAL REPORT

Workorder: **34-2218993**
Client Project ID: Morris Lithium Battery Fire Si
Purchase Order: NA
Project Manager: Patrick Noteboom

Analytical Results

Sample ID: **MIF-FB-220706** Collected: 07/06/2022
Lab ID: 2218993015 Sampling Location: Morris Lithium Batte Received: 07/08/2022

Method: NIOSH 7303 Mod., MCE **Media:** MCE Filter **Instrument:** ICP13
Dilution: 1 **Sampling Parameter:** Air Volume Not Applicable **Prepared:** 07/12/2022 (295900)
Analyzed: 07/14/2022 (296040)

Analyte	Result (ug/sample)	Result (mg/m³)	RL (ug/sample)
Iron	<5.0	NA	5.0
Lead	<0.50	NA	0.50
Lithium	<1.0	NA	1.0
Magnesium	<1.3	NA	1.3
Manganese	<0.13	NA	0.13
Molybdenum	<0.38	NA	0.38
Nickel	<0.13	NA	0.13
Phosphorus	<5.0	NA	5.0
Potassium	<13	NA	13
Selenium	<2.5	NA	2.5
Silver	<0.25	NA	0.25
Sodium	<3.8	NA	3.8
Tellurium	<1.3	NA	1.3
Thallium	<1.3	NA	1.3
Titanium	<0.075	NA	0.075
Vanadium	<0.075	NA	0.075
Yttrium	<0.075	NA	0.075
Zinc	<0.50	NA	0.50
Zirconium	<0.50	NA	0.50

Sample ID: **MIF-LB-220706** Collected: 07/06/2022
Lab ID: 2218993016 Sampling Location: Morris Lithium Batte Received: 07/08/2022

Method: NIOSH 7303 Mod., MCE **Media:** MCE Filter **Instrument:** ICP13
Dilution: 1 **Sampling Parameter:** Air Volume Not Applicable **Prepared:** 07/12/2022 (295900)
Analyzed: 07/14/2022 (296040)

Analyte	Result (ug/sample)	Result (mg/m³)	RL (ug/sample)
Aluminum	<5.0	NA	5.0
Antimony	<1.5	NA	1.5
Arsenic	<2.5	NA	2.5
Barium	<0.25	NA	0.25
Beryllium	<0.013	NA	0.013
Cadmium	<0.075	NA	0.075
Calcium	<15	NA	15
Chromium	<1.3	NA	1.3
Cobalt	<0.075	NA	0.075
Copper	<0.50	NA	0.50
Iron	<5.0	NA	5.0

Results Continued on Next Page

ANALYTICAL REPORT

Workorder: **34-2218993**
Client Project ID: Morris Lithium Battery Fire Si
Purchase Order: NA
Project Manager: Patrick Noteboom

Analytical Results

Sample ID: **MIF-LB-220706**
Lab ID: 2218993016
Sampling Location: Morris Lithium Batte
Collected: 07/06/2022
Received: 07/08/2022

Method: NIOSH 7303 Mod., MCE
Dilution: 1
Media: MCE Filter
Sampling Parameter: Air Volume Not Applicable
Instrument: ICP13
Prepared: 07/12/2022 (295900)
Analyzed: 07/14/2022 (296040)

Analyte	Result (ug/sample)	Result (mg/m³)	RL (ug/sample)
Lead	<0.50	NA	0.50
Lithium	<1.0	NA	1.0
Magnesium	<1.3	NA	1.3
Manganese	<0.13	NA	0.13
Molybdenum	<0.38	NA	0.38
Nickel	<0.13	NA	0.13
Phosphorus	<5.0	NA	5.0
Potassium	<13	NA	13
Selenium	<2.5	NA	2.5
Silver	<0.25	NA	0.25
Sodium	<3.8	NA	3.8
Tellurium	<1.3	NA	1.3
Thallium	<1.3	NA	1.3
Titanium	<0.075	NA	0.075
Vanadium	<0.075	NA	0.075
Yttrium	<0.075	NA	0.075
Zinc	<0.50	NA	0.50
Zirconium	<0.50	NA	0.50

Comments

Quality Control: IH Metals QC - (Batch: 296040)

Calibration STD1/CCV standard expired on 07/12/22. It was not caught that the standard was expired and it was used for this analysis. NC/CAR 2,255 was initiate due to this occurrence.

Report Authorization (/S/ is an electronic signature that complies with 21 CFR Part 11)

Method (Analysis Batch)	Analyst	Peer Review
NIOSH 7303 Mod., MCE (296040)	/S/ Joanna C. Sanchez 07/14/2022 16:25	/S/ Ethan Hamilton 07/15/2022 15:59

Laboratory Contact Information

ALS Environmental
960 W Levoy Drive
Salt Lake City, Utah 84123

Phone: (801) 266-7700
Email: alslt.lab@ALSGlobal.com
Web: www.alsglobal.com/slt

ANALYTICAL REPORT

Workorder: **34-2218993**
Client Project ID: Morris Lithium Battery Fire Si
Purchase Order: NA
Project Manager: Patrick Noteboom

General Lab Comments

The results provided in this report relate only to the items tested.
Samples were received in acceptable condition unless otherwise noted.
The following was provided by the client: Sample ID, Collection Date, Sampling Location, Media Type, Sampling Parameter.
Collection Date, Media Type, and Sampling Parameter can potentially affect the validity of the results.
Samples have not been blank corrected unless otherwise noted.
This test report shall not be reproduced, except in full, without written approval of ALS.

ALS provides professional analytical services for all samples submitted. ALS is not in a position to interpret the data and assumes no responsibility for the quality of the samples submitted.

All quality control samples processed with the samples in this report yielded acceptable results unless otherwise noted.

ALS is accredited for specific fields of testing (scopes) in the following testing sectors. The quality system implemented at ALS conforms to accreditation requirements and is applied to all analytical testing performed by ALS. The following table lists testing sector, accreditation body, accreditation number and website. Please contact these accrediting bodies or your ALS project manager for the current scope of accreditation that applies to your analytical testing.

Testing Sector	Accreditation Body (Standard)	Certificate Number	Website
Industrial Hygiene	AIHA (ISO 17025 & AIHA IHLAP)	101574	http://www.aihaaccreditedlabs.org
	DOECAP-AP	L22-62	http://www.pjlabs.com
	Washington	C596	https://ecology.wa.gov/Regulations-Permits/Permits-certifications/Laboratory-Accreditation
Dietary Supplements	PJLA (ISO 17025)	L22-61	http://www.pjlabs.com

Definitions

LOD = Limit of Detection = MDL = Method Detection Limit, A statistical estimate of method/media/instrument sensitivity.
LOQ = Limit of Quantitation = RL = Reporting Limit, A verified value of method/media/instrument sensitivity.
ND = Not Detected, Testing result not detected above the LOD or LOQ.
NA = Not Applicable.
** No result could be reported, see sample comments for details.
< Means this testing result is less than the numerical value.
( ) This testing result is between the LOD and LOQ and has higher analytical uncertainty than values at or above the LOQ.

Quality Control Sample
Batch Report

Analysis Information

Workorder: **2218993**

Limits: Historical/Performance
Basis: ALS Laboratory Group

Preparation: IH Metals, MCE Prep
Batch: IIPX/31382 (HBN: 295900)
Prepared By: Phillip Rich

Analysis: IH Metals, MCE QC
Batch: IICP/18190 (HBN: 296040)
Analyzed By: Joanna C. Sanchez

Blank

LRB: 790482
Analyzed: 07/14/2022 11:04
Units: ug/sample

Analyte	Result	MDL	RL
Aluminum	ND	NA	5.00
Antimony	ND	NA	1.50
Arsenic	ND	NA	2.50
Barium	ND	NA	0.250
Beryllium	ND	NA	0.0125
Cadmium	ND	NA	0.0750
Calcium	ND	NA	15.0
Chromium	ND	NA	1.25
Cobalt	ND	NA	0.0750
Copper	ND	NA	0.500
Iron	ND	NA	5.00
Lead	ND	NA	0.500
Lithium	ND	NA	2.50
Magnesium	ND	NA	1.25
Manganese	ND	NA	0.125
Molybdenum	ND	NA	0.375
Nickel	ND	NA	0.125
Phosphorus	ND	NA	5.00
Potassium	ND	NA	12.5
Selenium	ND	NA	2.50
Silver	ND	NA	0.250
Sodium	ND	NA	7.50
Tellurium	ND	NA	1.25
Thallium	ND	NA	1.25
Titanium	ND	NA	0.0750
Vanadium	ND	NA	0.0750
Yttrium	ND	NA	0.0750
Zinc	ND	NA	0.500
Zirconium	ND	NA	0.500

Quality Control Sample
Batch Report

Analysis Information

Workorder: **2218993**

Limits: Historical/Performance
Basis: ALS Laboratory Group

Preparation: IH Metals, MCE Prep
Batch: IIPX/31382 (HBN: 295900)
Prepared By: Phillip Rich

Analysis: IH Metals, MCE QC
Batch: IICP/18190 (HBN: 296040)
Analyzed By: Joanna C. Sanchez

Blank

LMB: 790483
Analyzed: 07/14/2022 11:05
Units: ug/sample

Analyte	Result	MDL	RL
Aluminum	ND	NA	5.00
Antimony	ND	NA	1.50
Arsenic	ND	NA	2.50
Barium	ND	NA	0.250
Beryllium	ND	NA	0.0125
Cadmium	ND	NA	0.0750
Calcium	ND	NA	15.0
Chromium	ND	NA	1.25
Cobalt	ND	NA	0.0750
Copper	ND	NA	0.500
Iron	ND	NA	5.00
Lead	ND	NA	0.500
Lithium	ND	NA	2.50
Magnesium	ND	NA	1.25
Manganese	ND	NA	0.125
Molybdenum	ND	NA	0.375
Nickel	ND	NA	0.125
Phosphorus	ND	NA	5.00
Potassium	ND	NA	12.5
Selenium	ND	NA	2.50
Silver	ND	NA	0.250
Sodium	ND	NA	7.50
Tellurium	ND	NA	1.25
Thallium	ND	NA	1.25
Titanium	ND	NA	0.0750
Vanadium	ND	NA	0.0750
Yttrium	ND	NA	0.0750
Zinc	ND	NA	0.500
Zirconium	ND	NA	0.500

LRB: 790487
Analyzed: 07/14/2022 11:55
Units: ug/sample

Analyte	Result	MDL	RL
Aluminum	ND	NA	5.00
Antimony	ND	NA	1.50
Arsenic	ND	NA	2.50
Barium	ND	NA	0.250

Quality Control Sample
Batch Report

Analysis Information

Workorder: **2218993**

Limits: Historical/Performance
Basis: ALS Laboratory Group

Preparation: IH Metals, MCE Prep
Batch: IIPX/31382 (HBN: 295900)
Prepared By: Phillip Rich

Analysis: IH Metals, MCE QC
Batch: IICP/18190 (HBN: 296040)
Analyzed By: Joanna C. Sanchez

Blank

LRB: 790487
Analyzed: 07/14/2022 11:55
Units: ug/sample

Analyte	Result	MDL	RL
Beryllium	ND	NA	0.0125
Cadmium	ND	NA	0.0750
Calcium	ND	NA	15.0
Chromium	ND	NA	1.25
Cobalt	ND	NA	0.0750
Copper	ND	NA	0.500
Iron	ND	NA	5.00
Lead	ND	NA	0.500
Lithium	ND	NA	2.50
Magnesium	ND	NA	1.25
Manganese	ND	NA	0.125
Molybdenum	ND	NA	0.375
Nickel	ND	NA	0.125
Phosphorus	ND	NA	5.00
Potassium	ND	NA	12.5
Selenium	ND	NA	2.50
Silver	ND	NA	0.250
Sodium	ND	NA	7.50
Tellurium	ND	NA	1.25
Thallium	ND	NA	1.25
Titanium	ND	NA	0.0750
Vanadium	ND	NA	0.0750
Yttrium	ND	NA	0.0750
Zinc	ND	NA	0.500
Zirconium	ND	NA	0.500

LMB: 790488
Analyzed: 07/14/2022 11:57
Units: ug/sample

Analyte	Result	MDL	RL
Aluminum	ND	NA	5.00
Antimony	ND	NA	1.50
Arsenic	ND	NA	2.50
Barium	ND	NA	0.250
Beryllium	ND	NA	0.0125
Cadmium	ND	NA	0.0750
Calcium	ND	NA	15.0
Chromium	ND	NA	1.25

Quality Control Sample
Batch Report

Analysis Information

Workorder: **2218993**

Limits: Historical/Performance
Basis: ALS Laboratory Group

Preparation: IH Metals, MCE Prep
Batch: IIPX/31382 (HBN: 295900)
Prepared By: Phillip Rich

Analysis: IH Metals, MCE QC
Batch: IICP/18190 (HBN: 296040)
Analyzed By: Joanna C. Sanchez

Blank

LMB: 790488
Analyzed: 07/14/2022 11:57
Units: ug/sample

Analyte	Result	MDL	RL
Cobalt	ND	NA	0.0750
Copper	ND	NA	0.500
Iron	ND	NA	5.00
Lead	ND	NA	0.500
Lithium	ND	NA	2.50
Magnesium	ND	NA	1.25
Manganese	ND	NA	0.125
Molybdenum	ND	NA	0.375
Nickel	ND	NA	0.125
Phosphorus	ND	NA	5.00
Potassium	ND	NA	12.5
Selenium	ND	NA	2.50
Silver	ND	NA	0.250
Sodium	ND	NA	7.50
Tellurium	ND	NA	1.25
Thallium	ND	NA	1.25
Titanium	ND	NA	0.0750
Vanadium	ND	NA	0.0750
Yttrium	ND	NA	0.0750
Zinc	ND	NA	0.500
Zirconium	ND	NA	0.500

Laboratory Control Sample - Laboratory Control Sample Duplicate

LCS: 790484
Analyzed: 07/14/2022 11:07
Dilution: 1
Units: ug/sample

LCSD: 790485
Analyzed: 07/14/2022 11:09
Dilution: 1
Units: ug/sample

Analyte	Result	Target	% Rec	QC Limits		Result	% Rec	RPD	QC Limits	
Aluminum	91.2	100	91.2	81.3	104.8	91.0	91.0	0.219	0.0	15.0
Arsenic	91.7	100	91.7	85.0	108.3	94.3	94.3	2.77	0.0	15.0
Beryllium	9.75	10.0	97.5	90.6	109.8	10.1	101	3.04	0.0	15.0
Calcium	99.8	100	99.8	73.0	132.0	103	103	3.23	0.0	15.0
Cadmium	9.55	10.0	95.5	89.8	111.0	9.94	99.4	4.02	0.0	15.0
Cobalt	9.83	10.0	98.3	91.6	116.5	10.2	102	3.29	0.0	15.0
Chromium	97.4	100	97.4	92.0	111.7	100	100	2.86	0.0	15.0
Copper	10.1	10.0	101	91.0	115.4	10.2	102	0.701	0.0	15.0
Iron	98.7	100	98.7	90.4	115.0	101	101	2.35	0.0	15.0
Lithium	92.3	100	92.3	83.7	112.5	90.3	90.3	2.17	0.0	15.0

Quality Control Sample
Batch Report

Analysis Information

Workorder: **2218993**

Limits: Historical/Performance
Basis: ALS Laboratory Group

Preparation: IH Metals, MCE Prep
Batch: IIPX/31382 (HBN: 295900)
Prepared By: Phillip Rich

Analysis: IH Metals, MCE QC
Batch: IICP/18190 (HBN: 296040)
Analyzed By: Joanna C. Sanchez

Laboratory Control Sample - Laboratory Control Sample Duplicate

LCS: 790484
Analyzed: 07/14/2022 11:07
Dilution: 1
Units: ug/sample

LCSD: 790485
Analyzed: 07/14/2022 11:09
Dilution: 1
Units: ug/sample

Analyte	Result	Target	% Rec	QC Limits		Result	% Rec	RPD	QC Limits	
Magnesium	92.1	100	92.1	82.5	112.4	94.5	94.5	2.60	0.0	15.0
Manganese	99.0	100	99.0	90.9	114.8	101	101	2.32	0.0	15.0
Molybdenum	10.2	10.0	102	90.3	117.2	10.4	104	2.19	0.0	15.0
Nickel	10.0	10.0	100	91.8	117.2	10.3	103	2.63	0.0	15.0
Lead	97.3	100	97.3	92.5	112.9	101	101	3.48	0.0	15.0
Phosphorus	95.3	100	95.3	84.9	109.8	96.2	96.2	0.944	0.0	15.0
Selenium	94.3	100	94.3	87.5	112.4	96.1	96.1	1.95	0.0	15.0
Silver	89.1	100	89.1	61.6	116.9	89.1	89.1	0.0078	0.0	15.0
Sodium	97.6	100	97.6	87.6	122.0	96.8	96.8	0.807	0.0	15.0
Tellurium	93.9	100	93.9	85.4	110.0	95.3	95.3	1.47	0.0	15.0
Thallium	98.0	100	98.0	89.2	114.8	100	100	2.28	0.0	15.0
Titanium	9.70	10.0	97.0	86.9	111.5	9.80	98.0	1.04	0.0	15.0
Vanadium	96.0	100	96.0	88.2	111.6	97.6	97.6	1.65	0.0	15.0
Yttrium	9.63	10.0	96.3	87.9	112.0	9.70	97.0	0.673	0.0	15.0
Zinc	95.5	100	95.5	87.4	113.4	102	102	6.12	0.0	15.0
Zirconium	94.8	100	94.8	85.4	109.8	95.9	95.9	1.09	0.0	15.0
Antimony	92.9	100	92.9	84.5	108.5	94.0	94.0	1.14	0.0	15.0
Potassium	93.1	100	93.1	85.6	107.8	88.6	88.6	4.87	0.0	15.0
Barium	97.4	100	97.4	88.3	111.9	99.5	99.5	2.09	0.0	15.0

LCS: 790489
Analyzed: 07/14/2022 11:59
Dilution: 1
Units: ug/sample

LCSD: 790490
Analyzed: 07/14/2022 12:01
Dilution: 1
Units: ug/sample

Analyte	Result	Target	% Rec	QC Limits		Result	% Rec	RPD	QC Limits	
Aluminum	88.8	100	88.8	81.3	104.8	89.6	89.6	0.905	0.0	15.0
Arsenic	92.1	100	92.1	85.0	108.3	93.2	93.2	1.25	0.0	15.0
Beryllium	9.87	10.0	98.7	90.6	109.8	9.99	99.9	1.25	0.0	15.0
Calcium	99.4	100	99.4	73.0	132.0	101	101	1.31	0.0	15.0
Cadmium	9.80	10.0	98.0	89.8	111.0	10.0	100	2.18	0.0	15.0
Cobalt	9.97	10.0	99.7	91.6	116.5	10.1	101	1.27	0.0	15.0
Chromium	98.5	100	98.5	92.0	111.7	99.7	99.7	1.23	0.0	15.0
Copper	10.1	10.0	101	91.0	115.4	10.1	101	0.308	0.0	15.0
Iron	99.4	100	99.4	90.4	115.0	101	101	1.41	0.0	15.0
Lithium	89.1	100	89.1	83.7	112.5	90.2	90.2	1.22	0.0	15.0
Magnesium	92.5	100	92.5	82.5	112.4	93.6	93.6	1.16	0.0	15.0
Manganese	99.7	100	99.7	90.9	114.8	101	101	1.35	0.0	15.0
Molybdenum	10.2	10.0	102	90.3	117.2	10.4	104	1.98	0.0	15.0

Quality Control Sample
Batch Report

Analysis Information

Workorder: **2218993**

Limits: Historical/Performance
Basis: ALS Laboratory Group

Preparation: IH Metals, MCE Prep
Batch: IIPX/31382 (HBN: 295900)
Prepared By: Phillip Rich

Analysis: IH Metals, MCE QC
Batch: IICP/18190 (HBN: 296040)
Analyzed By: Joanna C. Sanchez

Laboratory Control Sample - Laboratory Control Sample Duplicate

LCS: 790489
Analyzed: 07/14/2022 11:59
Dilution: 1
Units: ug/sample

LCSD: 790490
Analyzed: 07/14/2022 12:01
Dilution: 1
Units: ug/sample

Analyte	Result	Target	% Rec	QC Limits		Result	% Rec	RPD	QC Limits	
Nickel	10.2	10.0	102	91.8	117.2	10.3	103	0.957	0.0	15.0
Lead	98.9	100	98.9	92.5	112.9	100	100	1.28	0.0	15.0
Phosphorus	95.2	100	95.2	84.9	109.8	95.9	95.9	0.749	0.0	15.0
Selenium	93.7	100	93.7	87.5	112.4	94.7	94.7	0.995	0.0	15.0
Silver	89.4	100	89.4	61.6	116.9	90.0	90.0	0.697	0.0	15.0
Sodium	94.9	100	94.9	87.6	122.0	95.9	95.9	1.10	0.0	15.0
Tellurium	93.4	100	93.4	85.4	110.0	94.7	94.7	1.37	0.0	15.0
Thallium	98.6	100	98.6	89.2	114.8	99.6	99.6	0.994	0.0	15.0
Titanium	9.67	10.0	96.7	86.9	111.5	9.81	98.1	1.43	0.0	15.0
Vanadium	96.0	100	96.0	88.2	111.6	97.4	97.4	1.43	0.0	15.0
Yttrium	9.56	10.0	95.6	87.9	112.0	9.70	97.0	1.44	0.0	15.0
Zinc	98.6	100	98.6	87.4	113.4	101	101	1.92	0.0	15.0
Zirconium	94.2	100	94.2	85.4	109.8	95.8	95.8	1.66	0.0	15.0
Antimony	92.8	100	92.8	84.5	108.5	93.2	93.2	0.427	0.0	15.0
Potassium	87.1	100	87.1	85.6	107.8	89.1	89.1	2.19	0.0	15.0
Barium	97.7	100	97.7	88.3	111.9	99.1	99.1	1.50	0.0	15.0

Initial Calibration Verification

ICV: 790903
Analyzed: 07/14/2022 10:13
Units: ug/L
Criteria: ± 10%

Analyte	Result	Target	% Rec
Aluminum	9530	10000	95.3
Arsenic	1980	2000	99.2
Beryllium	498	500	99.7
Calcium	9960	10000	99.6
Cadmium	499	500	99.8
Cobalt	500	500	100
Chromium	508	500	102
Copper	506	500	101
Iron	10200	10000	102
Lithium	487	500	97.5
Magnesium	9670	10000	96.7
Manganese	516	500	103
Molybdenum	2020	2000	101
Nickel	501	500	100

Quality Control Sample
Batch Report

Analysis Information

Workorder: **2218993**

Limits: Historical/Performance
Basis: ALS Laboratory Group

Preparation: IH Metals, MCE Prep
Batch: IIPX/31382 (HBN: 295900)
Prepared By: Phillip Rich

Analysis: IH Metals, MCE QC
Batch: IICP/18190 (HBN: 296040)
Analyzed By: Joanna C. Sanchez

Initial Calibration Verification

ICV: 790903
Analyzed: 07/14/2022 10:13
Units: ug/L
Criteria: ± 10%

Analyte	Result	Target	% Rec
Lead	2030	2000	101
Phosphorus	1970	2000	98.6
Selenium	1980	2000	98.8
Silver	478	500	95.6
Sodium	9990	10000	99.9
Tellurium	1970	2000	98.3
Thallium	2010	2000	101
Titanium	499	500	99.7
Vanadium	490	500	98.0
Yttrium	975	1000	97.5
Zinc	511	500	102
Zirconium	968	1000	96.8
Antimony	1970	2000	98.3
Potassium	9280	10000	92.8
Barium	2010	2000	100

Continuing Calibration Verification

CCV: 790908
Analyzed: 07/14/2022 10:32
Units: ug/L
Criteria: ± 15%

CCV: 790910
Analyzed: 07/14/2022 10:52
Units: ug/L
Criteria: ± 15%

CCV: 790912
Analyzed: 07/14/2022 11:12
Units: ug/L
Criteria: ± 15%

Analyte	Result	Target	% Rec	Result	Target	% Rec	Result	Target	% Rec
Aluminum	49400	50000	98.7	49200	50000	98.3	49400	50000	98.8
Arsenic	5020	5000	100	5010	5000	100	5010	5000	100
Beryllium	1010	1000	101	1010	1000	101	1010	1000	101
Calcium	50700	50000	101	50800	50000	102	50800	50000	102
Cadmium	2570	2500	103	2580	2500	103	2580	2500	103
Cobalt	5040	5000	101	5040	5000	101	5050	5000	101
Chromium	5040	5000	101	5030	5000	101	5070	5000	101
Copper	4990	5000	99.8	4980	5000	99.7	4980	5000	99.7
Iron	50200	50000	100	50200	50000	100	50400	50000	101
Lithium	4860	5000	97.1	4810	5000	96.1	4830	5000	96.7
Magnesium	50200	50000	100	50000	50000	100	50100	50000	100
Manganese	5020	5000	100	5010	5000	100	5030	5000	101
Molybdenum	25200	25000	101	25200	25000	101	25200	25000	101
Nickel	5070	5000	101	5050	5000	101	5070	5000	101
Lead	5050	5000	101	5060	5000	101	5070	5000	101

Quality Control Sample
Batch Report

Analysis Information

Workorder: **2218993**

Limits: Historical/Performance
Basis: ALS Laboratory Group

Preparation: IH Metals, MCE Prep
Batch: IIPX/31382 (HBN: 295900)
Prepared By: Phillip Rich

Analysis: IH Metals, MCE QC
Batch: IICP/18190 (HBN: 296040)
Analyzed By: Joanna C. Sanchez

Continuing Calibration Verification

CCV: 790908 Analyzed: 07/14/2022 10:32 Units: ug/L Criteria: ± 15%				CCV: 790910 Analyzed: 07/14/2022 10:52 Units: ug/L Criteria: ± 15%			CCV: 790912 Analyzed: 07/14/2022 11:12 Units: ug/L Criteria: ± 15%		
Analyte	**Result**	**Target**	**% Rec**	**Result**	**Target**	**% Rec**	**Result**	**Target**	**% Rec**
Phosphorus	25300	25000	101	25100	25000	100	25200	25000	101
Selenium	4960	5000	99.3	4960	5000	99.1	4940	5000	98.9
Silver	1990	2000	99.5	1980	2000	99.0	1990	2000	99.3
Sodium	48100	50000	96.2	47500	50000	95.0	47800	50000	95.5
Tellurium	10000	10000	100	9950	10000	99.5	9980	10000	99.8
Thallium	2510	2500	100	2510	2500	100	2510	2500	100
Titanium	4950	5000	99.1	4940	5000	98.9	4970	5000	99.5
Vanadium	4990	5000	99.8	4990	5000	99.7	5010	5000	100
Yttrium	1980	2000	99.0	1980	2000	98.9	1990	2000	99.4
Zinc	5160	5000	103	5160	5000	103	5170	5000	103
Zirconium	4960	5000	99.2	4950	5000	98.9	4980	5000	99.6
Antimony	24700	25000	98.9	24700	25000	98.6	24700	25000	98.6
Potassium	48200	50000	96.4	47700	50000	95.5	48000	50000	95.9
Barium	5040	5000	101	5050	5000	101	5060	5000	101

CCV: 790914 Analyzed: 07/14/2022 11:32 Units: ug/L Criteria: ± 15%				CCV: 790916 Analyzed: 07/14/2022 11:52 Units: ug/L Criteria: ± 15%			CCV: 790918 Analyzed: 07/14/2022 12:12 Units: ug/L Criteria: ± 15%		
Analyte	**Result**	**Target**	**% Rec**	**Result**	**Target**	**% Rec**	**Result**	**Target**	**% Rec**
Aluminum	48800	50000	97.7	48700	50000	97.5	48500	50000	97.1
Arsenic	4920	5000	98.5	4900	5000	98.0	4870	5000	97.4
Beryllium	998	1000	99.8	993	1000	99.3	991	1000	99.1
Calcium	50000	50000	100	50000	50000	99.9	50000	50000	100
Cadmium	2540	2500	101	2530	2500	101	2520	2500	101
Cobalt	4980	5000	99.6	4960	5000	99.2	4940	5000	98.8
Chromium	4980	5000	99.7	4990	5000	99.8	4950	5000	98.9
Copper	4920	5000	98.4	4890	5000	97.9	4880	5000	97.5
Iron	49700	50000	99.4	49600	50000	99.2	49400	50000	98.9
Lithium	4800	5000	95.9	4780	5000	95.5	4750	5000	95.0
Magnesium	49400	50000	98.8	49200	50000	98.5	49000	50000	98.1
Manganese	4970	5000	99.4	4960	5000	99.2	4940	5000	98.8
Molybdenum	24900	25000	99.6	24900	25000	99.5	24800	25000	99.2
Nickel	5000	5000	100	4990	5000	99.7	4970	5000	99.5
Lead	4990	5000	99.8	4980	5000	99.7	4960	5000	99.2
Phosphorus	24800	25000	99.3	24700	25000	98.7	24600	25000	98.3
Selenium	4900	5000	97.9	4870	5000	97.4	4820	5000	96.4
Silver	1960	2000	98.2	1960	2000	97.8	1950	2000	97.4

Quality Control Sample
Batch Report

Analysis Information

Workorder: **2218993**

Limits: Historical/Performance
Basis: ALS Laboratory Group

Preparation: IH Metals, MCE Prep
Batch: IIPX/31382 (HBN: 295900)
Prepared By: Phillip Rich

Analysis: IH Metals, MCE QC
Batch: IICP/18190 (HBN: 296040)
Analyzed By: Joanna C. Sanchez

Continuing Calibration Verification

CCV: 790914 Analyzed: 07/14/2022 11:32 Units: ug/L Criteria: ± 15%				CCV: 790916 Analyzed: 07/14/2022 11:52 Units: ug/L Criteria: ± 15%			CCV: 790918 Analyzed: 07/14/2022 12:12 Units: ug/L Criteria: ± 15%		
Analyte	**Result**	**Target**	**% Rec**	**Result**	**Target**	**% Rec**	**Result**	**Target**	**% Rec**
Sodium	47500	50000	94.9	47200	50000	94.4	46900	50000	93.8
Tellurium	9880	10000	98.8	9810	10000	98.1	9760	10000	97.6
Thallium	2500	2500	99.9	2470	2500	98.9	2470	2500	98.7
Titanium	4910	5000	98.2	4910	5000	98.1	4890	5000	97.8
Vanadium	4940	5000	98.9	4930	5000	98.6	4920	5000	98.3
Yttrium	1970	2000	98.3	1960	2000	98.1	1960	2000	97.9
Zinc	5080	5000	102	5060	5000	101	5060	5000	101
Zirconium	4920	5000	98.4	4910	5000	98.3	4900	5000	98.0
Antimony	24400	25000	97.5	24300	25000	97.1	24100	25000	96.4
Potassium	47600	50000	95.1	47400	50000	94.8	47200	50000	94.4
Barium	4990	5000	99.9	4990	5000	99.8	4960	5000	99.2

CCV: 790920 Analyzed: 07/14/2022 12:32 Units: ug/L Criteria: ± 15%				CCV: 790924 Analyzed: 07/14/2022 12:47 Units: ug/L Criteria: ± 15%			CCV: 790928 Analyzed: 07/14/2022 13:27 Units: ug/L Criteria: ± 15%		
Analyte	**Result**	**Target**	**% Rec**	**Result**	**Target**	**% Rec**	**Result**	**Target**	**% Rec**
Aluminum	48900	50000	97.9	47900	50000	95.9	48600	50000	97.1
Arsenic	4850	5000	97.1	4770	5000	95.4	4790	5000	95.8
Beryllium	992	1000	99.2	972	1000	97.2	981	1000	98.1
Calcium	50200	50000	100	49500	50000	98.9	49800	50000	99.6
Cadmium	2540	2500	102	2500	2500	100	2520	2500	101
Cobalt	4970	5000	99.4	4880	5000	97.7	4930	5000	98.6
Chromium	5000	5000	100	4880	5000	97.7	4960	5000	99.3
Copper	4910	5000	98.2	4810	5000	96.1	4880	5000	97.5
Iron	49800	50000	99.6	48900	50000	97.9	49500	50000	99.0
Lithium	4790	5000	95.9	4680	5000	93.7	4770	5000	95.5
Magnesium	49100	50000	98.3	48200	50000	96.4	48700	50000	97.4
Manganese	4970	5000	99.5	4880	5000	97.6	4930	5000	98.7
Molybdenum	25000	25000	100	24500	25000	98.0	24700	25000	99.0
Nickel	5020	5000	100	4920	5000	98.4	4970	5000	99.4
Lead	4980	5000	99.6	4890	5000	97.9	4950	5000	99.0
Phosphorus	24600	25000	98.5	24200	25000	96.8	24400	25000	97.7
Selenium	4830	5000	96.7	4730	5000	94.6	4760	5000	95.3
Silver	1950	2000	97.4	1910	2000	95.7	1930	2000	96.5
Sodium	47700	50000	95.3	46100	50000	92.2	46800	50000	93.7
Tellurium	9790	10000	97.9	9610	10000	96.1	9690	10000	96.9
Thallium	2470	2500	98.9	2430	2500	97.3	2420	2500	97.0

Quality Control Sample
Batch Report

Analysis Information

Workorder: **2218993**

Limits: Historical/Performance
Basis: ALS Laboratory Group

Preparation: IH Metals, MCE Prep
Batch: IIPX/31382 (HBN: 295900)
Prepared By: Phillip Rich

Analysis: IH Metals, MCE QC
Batch: IICP/18190 (HBN: 296040)
Analyzed By: Joanna C. Sanchez

Continuing Calibration Verification

CCV: 790920				**CCV:** 790924			**CCV:** 790928		
Analyzed: 07/14/2022 12:32				**Analyzed:** 07/14/2022 12:47			**Analyzed:** 07/14/2022 13:27		
Units: ug/L				**Units:** ug/L			**Units:** ug/L		
Criteria: ± 15%				**Criteria:** ± 15%			**Criteria:** ± 15%		
Analyte	**Result**	**Target**	**% Rec**	**Result**	**Target**	**% Rec**	**Result**	**Target**	**% Rec**
Titanium	4910	5000	98.3	4810	5000	96.2	4860	5000	97.2
Vanadium	4940	5000	98.8	4840	5000	96.9	4900	5000	98.0
Yttrium	1980	2000	98.8	1930	2000	96.7	1960	2000	98.0
Zinc	5050	5000	101	4980	5000	99.7	5050	5000	101
Zirconium	4940	5000	98.7	4840	5000	96.9	4900	5000	98.0
Antimony	24100	25000	96.3	23500	25000	94.2	23900	25000	95.8
Potassium	47500	50000	95.0	46500	50000	93.0	47200	50000	94.5
Barium	5000	5000	100	4910	5000	98.2	4970	5000	99.4

CRDL Standard

LCCV: 790907
Analyzed: 07/14/2022 10:20
Units: ug/L
Criteria: ± 50%

Analyte	Result	Target	% Rec	MDL	RL
Aluminum	188	200	94.1	60	200
Arsenic	92.0	100	92.0	30	100
Beryllium	0.280	0.250	112	0.15	0.5
Calcium	607	600	101	180	600
Cadmium	3.27	3.00	109	0.9	6
Cobalt	3.23	3.00	108	0.9	6
Chromium	10.2	10.0	102	3	10
Copper	20.7	20.0	103	6	40
Iron	210	200	105	60	200
Lithium	111	100	111	6	100
Magnesium	52.3	50.0	105	15	50
Manganese	5.34	5.00	107	1.5	10
Molybdenum	15.6	15.0	104	4.5	30
Nickel	5.76	5.00	115	1.52	10
Lead	18.3	20.0	91.7	6	20
Phosphorus	185	200	92.7	60	200
Selenium	97.8	100	97.8	30	100
Silver	9.24	10.0	92.4	3	20
Sodium	169	300	56.2	45	300
Tellurium	47.0	50.0	93.9	15	50
Thallium	48.0	50.0	96.1	15	50
Titanium	3.02	3.00	101	0.9	6

Quality Control Sample
Batch Report

Analysis Information

Workorder: **2218993**

Limits: Historical/Performance
Basis: ALS Laboratory Group

Preparation: IH Metals, MCE Prep
Batch: IIPX/31382 (HBN: 295900)
Prepared By: Phillip Rich

Analysis: IH Metals, MCE QC
Batch: IICP/18190 (HBN: 296040)
Analyzed By: Joanna C. Sanchez

CRDL Standard

LCCV: 790907
Analyzed: 07/14/2022 10:20
Units: ug/L
Criteria: ± 50%

Analyte	Result	Target	% Rec	MDL	RL
Vanadium	3.05	3.00	102	0.9	6
Yttrium	3.03	3.00	101	0.9	6
Zinc	21.9	20.0	109	6	40
Zirconium	22.0	20.0	110	6	40
Antimony	59.1	60.0	98.4	18	60
Potassium	441	500	88.3	150	500
Barium	10.1	10.0	101	3.78	20

Initial Calibration Blank

ICB: 790904
Analyzed: 07/14/2022 10:15
Units: ug/L

Analyte	Result	Qual
Aluminum	ND	U
Antimony	ND	U
Arsenic	ND	U
Barium	ND	U
Beryllium	ND	U
Cadmium	ND	U
Calcium	ND	U
Chromium	ND	U
Cobalt	ND	U
Copper	ND	U
Iron	ND	U
Lead	ND	U
Lithium	12.2	J
Magnesium	ND	U
Manganese	ND	U
Molybdenum	ND	U
Nickel	ND	U
Phosphorus	ND	U
Potassium	ND	U
Selenium	ND	U
Silver	ND	U
Sodium	ND	U
Tellurium	ND	U
Thallium	ND	U

Quality Control Sample
Batch Report

Analysis Information

Workorder: **2218993**

Limits: Historical/Performance
Basis: ALS Laboratory Group

Preparation: IH Metals, MCE Prep
Batch: IIPX/31382 (HBN: 295900)
Prepared By: Phillip Rich

Analysis: IH Metals, MCE QC
Batch: IICP/18190 (HBN: 296040)
Analyzed By: Joanna C. Sanchez

Initial Calibration Blank

ICB: 790904
Analyzed: 07/14/2022 10:15
Units: ug/L

Analyte	Result	Qual
Titanium	ND	U
Vanadium	ND	U
Yttrium	ND	U
Zinc	ND	U
Zirconium	ND	U

Continuing Calibration Blank

	CCB: 790909 Analyzed: 07/14/2022 10:33 Units: ug/L		CCB: 790911 Analyzed: 07/14/2022 10:53 Units: ug/L		CCB: 790913 Analyzed: 07/14/2022 11:14 Units: ug/L	
Analyte	Result	Qual	Result	Qual	Result	Qual
Aluminum	ND	U	ND	U	ND	U
Antimony	ND	U	ND	U	ND	U
Arsenic	ND	U	ND	U	ND	U
Barium	ND	U	ND	U	ND	U
Beryllium	ND	U	ND	U	ND	U
Cadmium	ND	U	ND	U	ND	U
Calcium	ND	U	ND	U	ND	U
Chromium	ND	U	ND	U	ND	U
Cobalt	ND	U	ND	U	ND	U
Copper	ND	U	ND	U	ND	U
Iron	ND	U	ND	U	ND	U
Lead	ND	U	ND	U	ND	U
Lithium	9.39	J	ND	U	ND	U
Magnesium	ND	U	ND	U	ND	U
Manganese	ND	U	ND	U	ND	U
Molybdenum	ND	U	ND	U	ND	U
Nickel	ND	U	ND	U	ND	U
Phosphorus	ND	U	ND	U	ND	U
Potassium	ND	U	ND	U	ND	U
Selenium	ND	U	ND	U	ND	U
Silver	ND	U	ND	U	ND	U
Sodium	ND	U	ND	U	ND	U
Tellurium	ND	U	ND	U	ND	U
Thallium	ND	U	ND	U	ND	U
Titanium	ND	U	ND	U	ND	U
Vanadium	ND	U	ND	U	ND	U
Yttrium	ND	U	ND	U	ND	U

Quality Control Sample
Batch Report

Analysis Information

Workorder: **2218993**

Limits: Historical/Performance
Basis: ALS Laboratory Group

Preparation: IH Metals, MCE Prep
Batch: IIPX/31382 (HBN: 295900)
Prepared By: Phillip Rich

Analysis: IH Metals, MCE QC
Batch: IICP/18190 (HBN: 296040)
Analyzed By: Joanna C. Sanchez

Continuing Calibration Blank

CCB: 790909 Analyzed: 07/14/2022 10:33 Units: ug/L			CCB: 790911 Analyzed: 07/14/2022 10:53 Units: ug/L		CCB: 790913 Analyzed: 07/14/2022 11:14 Units: ug/L	
Analyte	**Result**	**Qual**	**Result**	**Qual**	**Result**	**Qual**
Zinc	ND	U	ND	U	ND	U
Zirconium	ND	U	ND	U	ND	U

CCB: 790915 Analyzed: 07/14/2022 11:34 Units: ug/L			CCB: 790917 Analyzed: 07/14/2022 11:54 Units: ug/L		CCB: 790919 Analyzed: 07/14/2022 12:14 Units: ug/L	
Analyte	**Result**	**Qual**	**Result**	**Qual**	**Result**	**Qual**
Aluminum	ND	U	ND	U	ND	U
Antimony	ND	U	ND	U	ND	U
Arsenic	ND	U	ND	U	ND	U
Barium	ND	U	ND	U	ND	U
Beryllium	ND	U	ND	U	ND	U
Cadmium	ND	U	ND	U	ND	U
Calcium	ND	U	ND	U	ND	U
Chromium	ND	U	ND	U	ND	U
Cobalt	ND	U	ND	U	ND	U
Copper	ND	U	ND	U	ND	U
Iron	ND	U	ND	U	ND	U
Lead	ND	U	ND	U	ND	U
Lithium	ND	U	ND	U	ND	U
Magnesium	ND	U	ND	U	ND	U
Manganese	ND	U	ND	U	ND	U
Molybdenum	ND	U	ND	U	ND	U
Nickel	ND	U	ND	U	ND	U
Phosphorus	ND	U	ND	U	ND	U
Potassium	ND	U	ND	U	ND	U
Selenium	ND	U	ND	U	ND	U
Silver	ND	U	ND	U	ND	U
Sodium	ND	U	ND	U	ND	U
Tellurium	ND	U	ND	U	ND	U
Thallium	ND	U	ND	U	ND	U
Titanium	ND	U	ND	U	ND	U
Vanadium	ND	U	ND	U	ND	U
Yttrium	ND	U	ND	U	ND	U
Zinc	ND	U	ND	U	ND	U
Zirconium	ND	U	ND	U	ND	U

Quality Control Sample
Batch Report

Analysis Information

Workorder: **2218993**

Limits: Historical/Performance
Basis: ALS Laboratory Group

Preparation: IH Metals, MCE Prep
Batch: IIPX/31382 (HBN: 295900)
Prepared By: Phillip Rich

Analysis: IH Metals, MCE QC
Batch: IICP/18190 (HBN: 296040)
Analyzed By: Joanna C. Sanchez

Continuing Calibration Blank

CCB: 790921 Analyzed: 07/14/2022 12:34 Units: ug/L			CCB: 790925 Analyzed: 07/14/2022 12:49 Units: ug/L		CCB: 790929 Analyzed: 07/14/2022 13:29 Units: ug/L	
Analyte	**Result**	**Qual**	**Result**	**Qual**	**Result**	**Qual**
Aluminum	ND	U	ND	U	ND	U
Antimony	ND	U	ND	U	ND	U
Arsenic	ND	U	ND	U	ND	U
Barium	ND	U	ND	U	ND	U
Beryllium	ND	U	ND	U	ND	U
Cadmium	ND	U	ND	U	ND	U
Calcium	ND	U	ND	U	ND	U
Chromium	ND	U	ND	U	ND	U
Cobalt	ND	U	ND	U	0.935	J
Copper	ND	U	ND	U	ND	U
Iron	ND	U	ND	U	ND	U
Lead	ND	U	ND	U	ND	U
Lithium	7.69	J	8.9	J	10.9	J
Magnesium	ND	U	ND	U	ND	U
Manganese	ND	U	ND	U	ND	U
Molybdenum	ND	U	ND	U	ND	U
Nickel	ND	U	ND	U	ND	U
Phosphorus	ND	U	ND	U	ND	U
Potassium	ND	U	ND	U	ND	U
Selenium	ND	U	ND	U	ND	U
Silver	ND	U	ND	U	ND	U
Sodium	ND	U	ND	U	ND	U
Tellurium	ND	U	ND	U	ND	U
Thallium	ND	U	ND	U	ND	U
Titanium	ND	U	ND	U	ND	U
Vanadium	ND	U	ND	U	ND	U
Yttrium	ND	U	ND	U	ND	U
Zinc	ND	U	ND	U	ND	U
Zirconium	ND	U	ND	U	ND	U

Interference Check Sample

ICSA: 790905 Analyzed: 07/14/2022 10:17 Units: ug/L Criteria: ± 50%				ICSAB: 790906 Analyzed: 07/14/2022 10:18 Units: ug/L Criteria: ± 50%		
Analyte	**Result**	**Target**	**% Rec**	**Result**	**Target**	**% Rec**
Aluminum	256000	250000	103	260000	250000	104
Arsenic				525	500	105

Quality Control Sample
Batch Report

Analysis Information

Workorder: **2218993**

Limits: Historical/Performance
Basis: ALS Laboratory Group

Preparation: IH Metals, MCE Prep
Batch: IIPX/31382 (HBN: 295900)
Prepared By: Phillip Rich

Analysis: IH Metals, MCE QC
Batch: IICP/18190 (HBN: 296040)
Analyzed By: Joanna C. Sanchez

Interference Check Sample

ICSA: 790905
Analyzed: 07/14/2022 10:17
Units: ug/L
Criteria: ± 50%

ICSAB: 790906
Analyzed: 07/14/2022 10:18
Units: ug/L
Criteria: ± 50%

Analyte	Result	Target	% Rec	Result	Target	% Rec
Beryllium				514	500	103
Calcium	248000	250000	99.3	243000	250000	97.1
Cadmium				492	500	98.4
Cobalt				488	500	97.6
Chromium				508	500	102
Copper				498	500	99.5
Iron	99000	100000	99.0	98100	100000	98.1
Lithium				509	500	102
Magnesium	265000	250000	106	262000	250000	105
Manganese				517	500	103
Molybdenum				1050	1000	105
Nickel				486	500	97.2
Lead				507	500	101
Phosphorus				549	500	110
Selenium				523	500	105
Silver				520	500	104
Tellurium				504	500	101
Thallium				508	500	102
Titanium				1020	1000	102
Vanadium				509	500	102
Yttrium				495	500	98.9
Zinc				488	500	97.5
Zirconium				496	500	99.1
Antimony				515	500	103
Barium				505	500	101

ICSA: 790922
Analyzed: 07/14/2022 12:44
Units: ug/L
Criteria: ± 50%

ICSAB: 790923
Analyzed: 07/14/2022 12:46
Units: ug/L
Criteria: ± 50%

Analyte	Result	Target	% Rec	Result	Target	% Rec
Aluminum	249000	250000	99.6	254000	250000	102
Arsenic				506	500	101
Beryllium				511	500	102
Calcium	240000	250000	96.0	244000	250000	97.8
Cadmium				499	500	99.7
Cobalt				478	500	95.6
Chromium				502	500	100

Quality Control Sample
Batch Report

Analysis Information

Workorder: **2218993**

Limits: Historical/Performance
Basis: ALS Laboratory Group

Preparation: IH Metals, MCE Prep
Batch: IIPX/31382 (HBN: 295900)
Prepared By: Phillip Rich

Analysis: IH Metals, MCE QC
Batch: IICP/18190 (HBN: 296040)
Analyzed By: Joanna C. Sanchez

Interference Check Sample

ICSA: 790922
Analyzed: 07/14/2022 12:44
Units: ug/L
Criteria: ± 50%

ICSAB: 790923
Analyzed: 07/14/2022 12:46
Units: ug/L
Criteria: ± 50%

Analyte	Result	Target	% Rec	Result	Target	% Rec
Copper				488	500	97.6
Iron	96100	100000	96.1	98000	100000	98.0
Lithium				515	500	103
Magnesium	253000	250000	101	258000	250000	103
Manganese				514	500	103
Molybdenum				1040	1000	104
Nickel				486	500	97.1
Lead				501	500	100
Phosphorus				512	500	102
Selenium				500	500	99.9
Silver				502	500	100
Tellurium				480	500	95.9
Thallium				494	500	98.7
Titanium				1010	1000	101
Vanadium				504	500	101
Yttrium				489	500	97.8
Zinc				500	500	100
Zirconium				493	500	98.6
Antimony				499	500	99.8
Barium				508	500	102

ICSA: 790926
Analyzed: 07/14/2022 13:24
Units: ug/L
Criteria: ± 50%

ICSAB: 790927
Analyzed: 07/14/2022 13:26
Units: ug/L
Criteria: ± 50%

Analyte	Result	Target	% Rec	Result	Target	% Rec
Aluminum	250000	250000	100	250000	250000	100
Arsenic				495	500	98.9
Beryllium				502	500	100
Calcium	240000	250000	95.9	241000	250000	96.5
Cadmium				487	500	97.4
Cobalt				473	500	94.7
Chromium				494	500	98.7
Copper				483	500	96.5
Iron	96200	100000	96.2	96400	100000	96.4
Lithium				506	500	101
Magnesium	252000	250000	101	253000	250000	101
Manganese				505	500	101

Quality Control Sample
Batch Report

Analysis Information

Workorder: **2218993**

Limits: Historical/Performance
Basis: ALS Laboratory Group

Preparation: IH Metals, MCE Prep
Batch: IIPX/31382 (HBN: 295900)
Prepared By: Phillip Rich

Analysis: IH Metals, MCE QC
Batch: IICP/18190 (HBN: 296040)
Analyzed By: Joanna C. Sanchez

Interference Check Sample

ICSA: 790926
Analyzed: 07/14/2022 13:24
Units: ug/L
Criteria: ± 50%

ICSAB: 790927
Analyzed: 07/14/2022 13:26
Units: ug/L
Criteria: ± 50%

Analyte	Result	Target	% Rec	Result	Target	% Rec
Molybdenum				1030	1000	103
Nickel				484	500	96.8
Lead				492	500	98.4
Phosphorus				526	500	105
Selenium				505	500	101
Silver				495	500	99.1
Tellurium				472	500	94.5
Thallium				489	500	97.9
Titanium				989	1000	98.9
Vanadium				495	500	99.1
Yttrium				481	500	96.2
Zinc				489	500	97.8
Zirconium				481	500	96.2
Antimony				488	500	97.6
Barium				497	500	99.4

Comments

Calibration STD1/CCV standard expired on 07/12/22. It was not caught that the standard was expired and it was used for this analysis. NC/CAR 2,255 was initiate due to this occurrence.

QC Report Authorization (/S/ is an electronic signature that complies with 21 CFR Part 11)

Workorder	Analyst	Peer Review
2218993	/S/ Joanna C. Sanchez 07/14/2022 16:25	/S/ Ethan Hamilton 07/15/2022 15:59

Symbols and Definitions

- ✱ - Analyte above reporting limit or outside of control limits
- ▲ - Sample result is greater than 4 times the spike added
- ◓ - Sample and Matrix Duplicate less than 5 times the reporting limit
- ✹ - Result is above the calibration range
- # - The Matrix Spike, Matrix Spike duplicate or Matrix Duplicate is reported for your information only. The sample matrix may be inappropriate for the method selected.

RPD - Relative % Difference (Spike / Spike Duplicate)
ND - Not Detected (U - Qualifier also flags analyte as not detected)
NA - Not Applicable
QC results are not adjusted for moisture correction, where applicable

2218993

ANALYTICAL REQUEST FORM

22842/1

1. X **REGULAR Status** 2218993

☐ **RUSH Status Requested - ADDITIONAL CHARGE**
RESULTS REQUIRED BY _____
DATE
CONTACT ALS SALT LAKE PRIOR TO SENDING SAMPLES

2. Date: 7/7/22 Purchase Order No. 1190604

3. Company Name : **Tetra Tech**

Address: 1 S Wacker Drive, Suite 3700 Chicago, IL 6060

Person to Contact: Erica Schmandt

Telephone (805) 896-6982

Fax Telephone ( )

E-mail Address: erica.schmandt@tetratech.com

Billing Address (if different from above)

4. Quote No.: 34-23727

ALS Project Manager: Pat Noteboom

5. **Sample Collection**

Sampling Site : Morris Lithium Battery Fire Site

Industrial Process:

Date of Collection: 6/28/22, 6/29/22, 7/6/22

Time Collected

Date of Shipment: 7/7/22

Chain of Custody No.:

6. How did you first learn about ALS?

7. **REQUEST FOR ANALYSES**

Client Sample Number	Matrix*	Sample/Area Volume	ANALYSES REQUESTED - Use method number if known	Date	Lab Comments
MIF-SE-01-220628	AIR	1332.69 L/Min	NIOSH 7300 plus Li (TAL Metals plus Li)	6/28/2022	
MIF-NW-01-220628	AIR	1373.26 L/Min	NIOSH 7300 plus Li (TAL Metals plus Li)	6/28/2022	
MIF-NW-02-220628	AIR	1360.24 L/Min	NIOSH 7300 plus Li (TAL Metals plus Li)	6/28/2022	
MIF-SW-01-220628	AIR	1355.69 L/Min	NIOSH 7300 plus Li (TAL Metals plus Li)	6/28/2022	
MIF-NE-01-220628	AIR	1328.15 L/Min	NIOSH 7300 plus Li (TAL Metals plus Li)	6/28/2022	
MIF-NE-01-220629	AIR	1260.44 L/Min	NIOSH 7300 plus Li (TAL Metals plus Li)	6/29/2022	
MIF-SE-01-220629	AIR	1296.86 L/Min	NIOSH 7300 plus Li (TAL Metals plus Li)	6/29/2022	
MIF-SW-01-220629	AIR	1240.53 L/Min	NIOSH 7300 plus Li (TAL Metals plus Li)	6/29/2022	
MIF-NW-01-220629	AIR	1258.04 L/Min	NIOSH 7300 plus Li (TAL Metals plus Li)	6/29/2022	
MIF-NE-01-220706	AIR	1016.35 L/Min	NIOSH 7300 plus Li (TAL Metals plus Li)	7/6/2022	
MIF-SE-01-220706	AIR	1023.86 L/Min	NIOSH 7300 plus Li (TAL Metals plus Li)	7/6/2022	
MIF-NW-01-220706	AIR	1027.32 L/min	NIOSH 7300 plus Li (TAL Metals plus Li)	7/6/2022	
MIF-SW-01-220706	AIR	1043.45L/Min	NIOSH 7300 plus Li (TAL Metals plus Li)	7/6/2022	
MIF-SW-02-220706	AIR	1057.53 L/Min	NIOSH 7300 plus Li (TAL Metals plus Li)	7/6/2022	
MIF-FB-220706	AIR		NIOSH 7300 plus Li (TAL Metals plus Li)	7/6/2022	
MIF-LB-220706	AIR		NIOSH 7300 plus Li (TAL Metals plus Li)	7/6/2022	

* Specify: Solid sorbent tube, e.g. Charcoal; Filter type; Impinger solution; Bulk sample; Blood; Urine; Tissue; Soil; Water; Other

** 1. µg/sample 2. mg/m^3 3. ppm 4. % 5. µg/m^3 6. _____ (other) Please indicate one or more units in the column entitled Units**

Comments

Possible Contamination and/or Chemical Hazards

7. **Chain of Custody (Optional)**

Relinquished by	[signature]	Date/Time	7/7/22 1530
Received by	[signature]	Date/Time	07/08/22 0920
Relinquished by		Date/Time	
Received by		Date/Time	

ORIGIN ID:ENLA (805) 886-6982
ERICA SCHMANDT

1 S WACKER DR FL 37

CHICAGO, IL 60606
UNITED STATES US

SHIP DATE: 07JUL22
ACTWGT: 1.10 LB
CAD: 6990914/SSF02321

BILL THIRD PARTY

TO ALS ENVIORMENTAL
ATTN: PAT NOTEBOOM
960 WEST LEVOY DRIVE
REF #: 103X903100320001CI103
SALT LAKE CITY UT 84123
(801) 904-4381
INV:
PO:
REF:
DEPT:

FedEx Express

TRK# 0201 2752 6554 0380

FRI - 08 JUL 10:30A
PRIORITY OVERNIGHT

S AY BTFA

84123
UT-US SLC

RT 907 5
ST 16 10:30 A
0380
07.08

Align bottom of peel-and-stick airbill or pouch here.

Batch Worklist

Batch: IICP/ 18190 **Created:** 7/14/2022 14:58 **Instrument:** **HBN:** 296040
Rule: IH Metals ICP Analysis **Analyst:** J. Sanchez **Status:** WP

Workorder: 2218833 [IH_LVL2]
Workorder: 2218993 [IH_LVL4]
Workorder: 2218994 [IH_LVL2]
Workorder: 2219240 [IH_LVL1]
Workorder: 2219244 [IH_LVL1]
Workorder: 2219256 [IH_LVL1]
Workorder: 2219262 [IH_LVL1]
Workorder: 2219263 [IH_LVL1]
Workorder: 2219266 [IH_LVL1]
Workorder: 2219304 [IH_LVL1]
Workorder: 2219313 [IH_LVL1]

Pos	Lab ID	Sample ID	Prep Initial	Prep Final	Dust Weight	Type	Mx	Container	Procedure	Mgr	Expire Date	Due Date	Run Date
1	790482	LRB for HBN 295900 [IIPX/31382	1 filter	25 mL		LRB	1		IH.METM.1Q	6248		7/14/2022	
2	790483	LMB for HBN 295900 [IIPX/31382	1 filter	25 mL		LMB	1		IH.METM.1Q	6248		7/14/2022	
3	790484	LCS for HBN 295900 [IIPX/31382	1 filter	25 mL		LCS	1		IH.METM.1Q	6248		7/14/2022	
4	790485	LCSD for HBN 295900 [IIPX/3138	1 filter	25 mL		LCSD	1		IH.METM.1Q	6248		7/14/2022	
5	790486	RLVS for HBN 295900 [IIPX/3138	1 filter	25 mL		RLVS	1		IH.METMR1Q	6248		7/14/2022	
6	2218833001	0628220029	1 filter	25 mL		SAMPLE	1	2218833001-A	N7300M...1	6261		7/14/2022	
7	2218833002	0628220032	1 filter	25 mL		SAMPLE	1	2218833002-A	N7300M...1	6261		7/14/2022	
8	2218833003	0628220035	1 filter	25 mL		SAMPLE	1	2218833003-A	N7300M...1	6261		7/14/2022	
9	2218833004	0628220036	1 filter	25 mL		SAMPLE	1	2218833004-A	N7300M...1	6261		7/14/2022	
10	2218993001	MIF-SE-01-220628	1 filter	25 mL		SAMPLE	1	2218993001-A	N7303M...1	6268		7/15/2022	
11	2218993002	MIF-NW-01-220628	1 filter	25 mL		SAMPLE	1	2218993002-A	N7303M...1	6268		7/15/2022	
12	2218993003	MIF-NW-02-220628	1 filter	25 mL		SAMPLE	1	2218993003-A	N7303M...1	6268		7/15/2022	
13	2218993004	MIF-SW-01-220628	1 filter	25 mL		SAMPLE	1	2218993004-A	N7303M...1	6268		7/15/2022	
14	2218993005	MIF-NE-01-220628	1 filter	25 mL		SAMPLE	1	2218993005-A	N7303M...1	6268		7/15/2022	
15	2218993006	MIF-NE-01-220629	1 filter	25 mL		SAMPLE	1	2218993006-A	N7303M...1	6268		7/15/2022	
16	2218993007	MIF-SE-01-220629	1 filter	25 mL		SAMPLE	1	2218993007-A	N7303M...1	6268		7/15/2022	
17	2218993008	MIF-SW-01-220629	1 filter	25 mL		SAMPLE	1	2218993008-A	N7303M...1	6268		7/15/2022	
18	2218993009	MIF-NW-01-220629	1 filter	25 mL		SAMPLE	1	2218993009-A	N7303M...1	6268		7/15/2022	
19	2218993010	MIF-NE-01-220706	1 filter	25 mL		SAMPLE	1	2218993010-A	N7303M...1	6268		7/15/2022	

Batch Worklist

Pos	Lab ID	Sample ID	Prep Initial	Prep Final	Dust Weight	Type	Mx	Container	Procedure	Mgr	Expire Date	Due Date	Run Date
20	2218993011	MIF-SE-01-220706	1 filter	25 mL		SAMPLE	1	2218993011-A	N7303M...1	6268		7/15/2022	
21	2218993012	MIF-NW-01-220706	1 filter	25 mL		SAMPLE	1	2218993012-A	N7303M...1	6268		7/15/2022	
22	2218993013	MIF-SW-01-220706	1 filter	25 mL		SAMPLE	1	2218993013-A	N7303M...1	6268		7/15/2022	
23	2218993014	MIF-SW-02-220706	1 filter	25 mL		SAMPLE	1	2218993014-A	N7303M...1	6268		7/15/2022	
24	2218993015	MIF-FB-220706	1 filter	25 mL		FLDBK	1	2218993015-A	N7303M...1	6268		7/15/2022	
25	2218993016	MIF-LB-220706	1 filter	25 mL		FLDBK	1	2218993016-A	N7303M...1	6268		7/15/2022	
26	790487	LRB for HBN 295900 [IIPX/31382	1 filter	25 mL		LRB	1		IH.METM.1Q	6248		7/14/2022	
27	790488	LMB for HBN 295900 [IIPX/31382	1 filter	25 mL		LMB	1		IH.METM.1Q	6248		7/14/2022	
28	790489	LCS for HBN 295900 [IIPX/31382	1 filter	25 mL		LCS	1		IH.METM.1Q	6248		7/14/2022	
29	790490	LCSD for HBN 295900 [IIPX/3138	1 filter	25 mL		LCSD	1		IH.METM.1Q	6248		7/14/2022	
30	790491	RLVS for HBN 295900 [IIPX/3138	1 filter	25 mL		RLVS	1		IH.METMR1Q	6248		7/14/2022	
31	2218994001	22-C-00005	1 filter	25 mL		SAMPLE	1	2218994001-A	N7300M...1	6261		7/15/2022	
32	2218994002	22-C-00031	1 filter	25 mL		SAMPLE	1	2218994002-A	N7300M...1	6261		7/15/2022	
33	2218994003	22-C-00032	1 filter	25 mL		SAMPLE	1	2218994003-A	N7300M...1	6261		7/15/2022	
34	2219240001	1	1 filter	25 mL		SAMPLE	1	2219240001-A	N7300M...1	6261		7/18/2022	
35	2219240002	2	1 filter	25 mL		SAMPLE	1	2219240002-A	N7300M...1	6261		7/18/2022	
36	2219240003	3	1 filter	25 mL		SAMPLE	1	2219240003-A	N7300M...1	6261		7/18/2022	
37	2219240004	4	1 filter	25 mL		SAMPLE	1	2219240004-A	N7300M...1	6261		7/18/2022	
38	2219240005	5	1 filter	25 mL		SAMPLE	1	2219240005-A	N7300M...1	6261		7/18/2022	
39	2219240006	6	1 filter	25 mL		SAMPLE	1	2219240006-A	N7300M...1	6261		7/18/2022	
40	2219244001	8	1 filter	25 mL		SAMPLE	1	2219244001-A	N7300M...1	6261		7/18/2022	
41	2219256001	MCE-202-67 A	1 filter	25 mL		SAMPLE	1	2219256001-A	N7300M...1	6261		7/18/2022	
42	2219256002	MCE-202-61 A	1 filter	25 mL		SAMPLE	1	2219256002-A	N7300M...1	6261		7/18/2022	
43	2219256003	MCE-202-66 A	1 filter	25 mL		SAMPLE	1	2219256003-A	N7300M...1	6261		7/18/2022	
44	2219262001	60	1 filter	25 mL		SAMPLE	1	2219262001-A	N7300M...1	6261		7/18/2022	
45	2219263001	25	1 filter	25 mL		SAMPLE	1	2219263001-A	N7300M...1	6261		7/18/2022	
46	2219266001	F20	1 filter	25 mL		SAMPLE	1	2219266001-A	N7300M...1	6261		7/18/2022	
47	2219266002	7A	1 filter	25 mL		SAMPLE	1	2219266002-A	N7300M...1	6261		7/18/2022	
48	2219304001	MCE-001	1 filter	25 mL		SAMPLE	1	2219304001-A	N7300M...1	6261		7/18/2022	
49	2219313001	9A	1 filter	25 mL		SAMPLE	1	2219313001-A	N7300M...1	6261		7/18/2022	

Analyst Write up

Raw Data File: Q22119

Workorder ID	Sample #'s	Media	Prep HBN #	Prep Date/Time	Analytes	Prep Method	Analysis HBN
2218876	001-004	MCE	295931	7/12/2022 14:00	Al	IH-AN-021	296026
2218902	001-006	MCE	295931	7/12/2022 14:00	Al, As, Ba, Be, Cd, Ca, Cr, Cu, Fe, Pb, Mn, Ni, P, Ag, Na, Ti, Zn	IH-AN-021	296026
2218903	001-006	MCE	295931	7/12/2022 14:00	Al, As, Ba, Be, Cd, Ca, Cr, Cu, Fe, Pb, Mn, Ni, P, Ag, Na, Ti, Zn	IH-AN-021	296026
2218833	001-004	MCE	295900	7/12/2022 10:40	U	IH-AN-021	296040
2218993	001-016	MCE	295900	7/12/2022 10:40	Panel B, Sb, K	IH-AN-021	296040
2218994	001-003	MCE	295900	7/12/2022 10:40	Panel B	IH-AN-021	296040
2219240	001-006	MCE	295900	7/12/2022 10:40	Cr, Cu, Fe, Mn, Ni	IH-AN-021	296040
2219244	001	MCE	295900	7/12/2022 10:40	Cr, Cu, Fe as Fe2O3, Mn, Ni	IH-AN-021	296040
2219256	001, 002	MCE	295900	7/12/2022 10:40	Cr, Cu, Fe, Mn, Ni	IH-AN-021	296040
2219256	003	MCE	295900	7/12/2022 10:40	Mn	IH-AN-021	296040
2219262	001	MCE	295900	7/12/2022 10:40	Cr, Cu, Fe, Mn, Ni	IH-AN-021	296040
2219263	001	MCE	295900	7/12/2022 10:40	Mn	IH-AN-021	296040
2219266	001, 002	MCE	295900	7/12/2022 10:40	Fe as Fe2O3	IH-AN-021	296040
2219304	001	MCE	295900	7/12/2022 10:40	Cr, Fe as Fe2O3, Mn, Ni	IH-AN-021	296040
2219313	001	MCE	295900	7/12/2022 10:40	Cr, Cu, Fe as Fe2O3, Mn, Ni	IH-AN-021	296040

Conversion Factor(s):

MCE: Instrument result in µg/L (0.025 L/sample)(Dilution Factor) = result in µg/sample

µg Fe/L to µg Fe_2O_3/sample: (µg Fe/L)(1 mol Fe_2O_3/2 mol Fe)(159.6922 µg Fe_2O_3/55.847 µg Fe)(0.025 L/sample)= µg Fe_2O_3/sample

Where, 159.6922 is the MW for iron (III) oxide [Fe_2O_3] and 55.847 is the MW for iron [Fe].

After conversion from iron the reporting limit for iron (III) oxide is 286 ug/L or 7.2 ug/sample.

Calibration and QC Standards used:

STD	Std ID#
STD0/ICB/CC8	60098
STD1/CCV	60099
STDPt/CCVPt	60413
STDW/CCVW	60328
ICV	60393
ICSA	60037
ICSAB	60038
LCCV	60036
Rinse	60425
Carrier Rinse	60327
Internal Standard	60157

Analysis Method: NIOSH 7300 Mod
Analysis Date: 7/14/2022
Instrument ID: ICP13
Analyst: Joanna Sanchez

ANALYSIS PARAMETERS:
Pump Rate = 12 rpm
RF Power = 1200 W
Auxiliary Gas = 1 L/min
Nebulizer Flow = 0.65 L/min
Plasma Flow = 10.5 L/min
AVS 6/7 = 1 mL Loop
Method Template: ICP13 7300 MOD SVDV V22.1.3

Dilutions: Sample 2219266002 was diluted 5x for iron due to a result above the linear range.

The 5x dilution was made by mixing 4.0 mL of STD0 and 1.0 mL of sample in a 12 mL tube.
Pipettes used: 280S1204, ICP-4

Comments: No problems during analysis for the requested analytes.

Sample 2219240001 was flagged for nickel for a %RSD above 5.0. I looked at the sample and it appeared to be a good injection, so the data is reported as is without further comment.

Sample 2219304001 was rerun at the end of the run due to possible carryover from the sample before it. The rerun was reported.

LCS 790579 was above historical limits for aluminum, arsenic, barium, beryllium, cadmium, chromium, iron, manganese, nickel, lead and zinc. The RPD between LCS 790579 and LCSD 790580 was above historical limits for aluminum, arsenic, barium, beryllium, calcium, lead and sodium. NC/CAR 2,253 was initiated due to this occurrence.
The LCS was rerun at the end of the run to confirm the results. The results confirmed, so the initial analysis was reported.

Oxide results are obtained by mathematical conversion of the elemental result using the molecular weight ratio and molar ratio of the element to the oxide. The reported result presumes that all of the element present is in the form of its reported oxide. Note that the preparation procedure utilized may not sufficiently break down the reported oxide compound into its elemental state.

Calibration STD1/CCV standard expired on 07/12/22. It was not caught that the standard was expired and it was used for this analysis. NC/CAR 2,255 was initiate due to this occurrence.

Panel B + k

Batch Worklist

Hood 20 10:40
13:20 90.8°C
HB-4 14:15 90.5°C
14:45

60473

Batch: IIPX/ 31382 **Created:** 7/11/2022 17:59 **Instrument:** **HBN:** 295900

Rule: IH Metals, MCE Prep **Analyst:** P. Rich **Status:** NA

Workorder: 2218833 [IH_LVL2] –V
Workorder: 2218993 [IH_LVL4] – Panel B, Sb, k 07/12/22 PR
Workorder: 2218994 [IH_LVL2] – ~~Cr, Cu, Fe, Mn, Ni~~ Panel B
Workorder: 2219240 [IH_LVL1] – Cr, Cu, Fe, Mn, Ni;
Workorder: 2219244 [IH_LVL1] – Cr, Cu, Fe_2O_3, Mn, Ni;
Workorder: 2219256 [IH_LVL1] (1-2) – Cr, Cu, Fe, Mn, Ni; (3) – Mn
Workorder: 2219262 [IH_LVL1] – Cr, Cu, Fe, Mn, Ni;
Workorder: 2219263 [IH_LVL1] – Mn
Workorder: 2219266 [IH_LVL1] – Fe_2O_3
Workorder: 2219304 [IH_LVL1] – Cr, Fe_2O_3, Mn, Ni;
Workorder: 2219313 [IH_LVL1] – Cr, Cu, Fe_2O_3, Mn, Ni;

Due: 07/14/22 Spike: 57408 57581 58304 RLVS: 60017

Pos	Lab ID	Sample ID	Prep Initial	Prep Final	Dust Weight	Type	Mx	Container	Procedure	Mgr	Expire Date	Due Date	Run Date
1	790482	LRB for HBN 295900 [IIPX/31382				LRB	1		IH.METM.1P	6248		7/8/2022	
2	790483	LMB for HBN 295900 [IIPX/31382				LMB	1		IH.METM.1P	6248		7/8/2022	
3	790484	LCS for HBN 295900 [IIPX/31382				LCS	1		IH.METM.1P	6248		7/8/2022	
4	790485	LCSD for HBN 295900 [IIPX/3138				LCSD	1		IH.METM.1P	6248		7/8/2022	
5	790486	RLVS for HBN 295900 [IIPX/3138				RLVS	1		IH.METM.1P	6248		7/8/2022	
6	2218833001	0628220029				SAMPLE	1	2218833001-A	N7300M..1P	6261		7/8/2022	
7	2218833002	0628220032				SAMPLE	1	2218833002-A	N7300M..1P	6261		7/8/2022	
8	2218833003	0628220035				SAMPLE	1	2218833003-A	N7300M..1P	6261		7/8/2022	
9	2218833004	0628220036				SAMPLE	1	2218833004-A	N7300M..1P	6261		7/8/2022	
10	2218993001	MIF-SE-01-220628				SAMPLE	1	2218993001-A	N7303M..1P	6268		7/11/2022	
11	2218993002	MIF-NW-01-220628				SAMPLE	1	2218993002-A	N7303M..1P	6268		7/11/2022	
12	2218993003	MIF-NW-02-220628				SAMPLE	1	2218993003-A	N7303M..1P	6268		7/11/2022	
13	2218993004	MIF-SW-01-220628				SAMPLE	1	2218993004-A	N7303M..1P	6268		7/11/2022	
14	2218993005	MIF-NE-01-220628				SAMPLE	1	2218993005-A	N7303M..1P	6268		7/11/2022	
15	2218993006	MIF-NE-01-220629				SAMPLE	1	2218993006-A	N7303M..1P	6268		7/11/2022	
16	2218993007	MIF-SE-01-220629				SAMPLE	1	2218993007-A	N7303M..1P	6268		7/11/2022	
17	2218993008	MIF-SW-01-220629				SAMPLE	1	2218993008-A	N7303M..1P	6268		7/11/2022	
18	2218993009	MIF-NW-01-220629				SAMPLE	1	2218993009-A	N7303M..1P	6268		7/11/2022	
19	2218993010	MIF-NE-01-220706				SAMPLE	1	2218993010-A	N7303M..1P	6268		7/11/2022	

Batch Worklist

Pos	Lab ID	Sample ID	Prep Initial	Prep Final	Dust Weight	Type	Mx	Container	Procedure	Mgr	Expire Date	Due Date	Run Date
20	2218993011	MIF-SE-01-220706				SAMPLE	1	2218993011-A	N7303M..1P	6268		7/11/2022	
21	2218993012	MIF-NW-01-220706				SAMPLE	1	2218993012-A	N7303M..1P	6268		7/11/2022	
22	2218993013	MIF-SW-01-220706				SAMPLE	1	2218993013-A	N7303M..1P	6268		7/11/2022	
23	2218993014	MIF-SW-02-220706				SAMPLE	1	2218993014-A	N7303M..1P	6268		7/11/2022	
24	2218993015	MIF-FB-220706				FLDBK	1	2218993015-A	N7303M..1P	6268		7/11/2022	
25	2218993016	MIF-LB-220706				FLDBK	1	2218993016-A	N7303M..1P	6268		7/11/2022	
26	790487	LRB for HBN 295900 [IIPX/31382				LRB	1		IH.METM.1P	6248		7/8/2022	
27	790488	LMB for HBN 295900 [IIPX/31382				LMB	1		IH.METM.1P	6248		7/8/2022	
28	790489	LCS for HBN 295900 [IIPX/31382				LCS	1		IH.METM.1P	6248		7/8/2022	
29	790490	LCSD for HBN 295900 [IIPX/3138				LCSD	1		IH.METM.1P	6248		7/8/2022	
30	790491	RLVS for HBN 295900 [IIPX/3138				RLVS	1		IH.METM.1P	6248		7/8/2022	
31	2218994001	22-C-00005				SAMPLE	1	2218994001-A	N7300M..1P	6261		7/11/2022	
32	2218994002	22-C-00031				SAMPLE	1	2218994002-A	N7300M..1P	6261		7/11/2022	
33	2218994003	22-C-00032				SAMPLE	1	2218994003-A	N7300M..1P	6261		7/11/2022	
34	2219240001	1				SAMPLE	1	2219240001-A	N7300M..1P	6261		7/12/2022	
35	2219240002	2				SAMPLE	1	2219240002-A	N7300M..1P	6261		7/12/2022	
36	2219240003	3				SAMPLE	1	2219240003-A	N7300M..1P	6261		7/12/2022	
37	2219240004	4				SAMPLE	1	2219240004-A	N7300M..1P	6261		7/12/2022	
38	2219240005	5				SAMPLE	1	2219240005-A	N7300M..1P	6261		7/12/2022	
39	2219240006	6				SAMPLE	1	2219240006-A	N7300M..1P	6261		7/12/2022	
40	2219244001	8				SAMPLE	1	2219244001-A	N7300M..1P	6261		7/12/2022	
41	2219256001	MCE-202-67 A				SAMPLE	1	2219256001-A	N7300M..1P	6261		7/12/2022	
42	2219256002	MCE-202-61 A				SAMPLE	1	2219256002-A	N7300M..1P	6261		7/12/2022	
43	2219256003	MCE-202-66 A				SAMPLE	1	2219256003-A	N7300M..1P	6261		7/12/2022	
44	2219262001	60				SAMPLE	1	2219262001-A	N7300M..1P	6261		7/12/2022	
45	2219263001	25				SAMPLE	1	2219263001-A	N7300M..1P	6261		7/12/2022	
46	2219266001	F20				SAMPLE	1	2219266001-A	N7300M..1P	6261		7/12/2022	
47	2219266002	7A				SAMPLE	1	2219266002-A	N7300M..1P	6261		7/12/2022	
48	2219304001	MCE-001				SAMPLE	1	2219304001-A	N7300M..1P	6261		7/12/2022	
49	2219313001	9A				SAMPLE	1	2219313001-A	N7300M..1P	6261		7/12/2022	

MCE Filters Sample Hot Block Preparation Electronic Log

ALS Set ID	Sample ID	Analyte(s)
2218833	001-004	U
2218993	001-016	Panel B, Sb, K
2218994	001-003	Panel B
2219240	001-006	Cr, Cu, Fe, Mn, Ni
2219244	001	Cr, Cu, Fe2O3, Mn,Ni
2219256	001-003	Cr, Cu, Fe, Mn, Ni
2219262	001	Cr, Cu, Fe, Mn, Ni
2219263	001	Mn
2219266	001-002	Fe2O3
2219304	001	Cr, Fe2O3, Mn,Ni
2219313	001	Cr, Cu, Fe2O3, Mn,Ni

Batch Information

Batch HBN:	295900
Matrix:	37mm MCE Filters
Start temp:	90.8°C
End temp:	90.5°C
Hood:	20
Hotblock ID:	HB-4

ALS QC ID	Matrix Source	Spike Source	Pipette ID	Spike Volume
Reagent Blank	Method Reagents	NA	NA	NA
Method Blank	37mm MCE Filters	NA	NA	NA
LCS and LCSD		57408, 57581, 58304	PL-3	100 µL
RLVS		60017	PL-3	100 µL
QCs spike by:	PR		Witness:	N/A

Method Reagents

37mm MCE Filter Lot # 21726-7E6-010 Exp: 02/27
1:1 HNO3: Horizon ID # 60473
ASTM Type II H_2O
Digestion Tube Lot # 07922008

Balance ID:	N/A
Measured With:	N/A
Digestion Vessel:	50 mL Centrifuge Tubes
Final Container:	50 mL Centrifuge Tubes
Amount of Sample:	Entire MCE Filter
Final Volume:	25 mL

Sample Preparation Description **METHOD: IH-AN-021**

Modified Method?	YES	NO X	If YES explain:

Phillip Rich 07/12/2022, 10:40. Samples transferred into 50 mL centrifuge tubes. QCs prepared as described above. 10 mL 1:1 HNO3 added to all samples. Samples put on hot block at 13:20 at 92°C ± 5°C for at least 40 minutes, ending at 14:15. Samples removed from heat and allowed to cool. Samples diluted to 25 mL w/ASTM Type II H2O. Samples were capped and shaken. Samples ready for analysis. Phillip Rich 07/12/2022, 14:45.

STANDARD REPORT

Working Standard - 1:1 HNO3

1:1 HNO3 — Description - 1:1 HNO3

Standard: 60473
MFG: PR
MFG Lot: Fisher Chemical 22020177
Pipette ID: Not Provided

Created By: Phillip Rich
Create Date: 07/12/2022 12:07PM

Amount: 2 L
Expires: 07/12/2023
Usable: Yes
Lab Lot: 1:1 HNO3

Pos.	Analyte	Name	Concentration
1	REAGENT	Solvent/Reagent	0 ug/L

Composition

Standard	Standard ID	Description	Lab Lot ID	Volume	Expires
109	ASTM H2O	ASTM Type II Water	LAB 109	1 L	11/07/2025
32254	REAGENT	Solvent/Reagent	REAGENT	0 L	01/01/2025
60435	HNO3	Concentrated Nitric Acid	HNO3 (22120177)	1 L	03/31/2024

STANDARD REPORT

Stock Standard - IHICPQCSpike

IHICPQCSpike — **Description - IH ICP QC Spike Solution**

Standard: 57408
MFG: Inorganic Ventures
MFG Lot: R2-MEB695752
Part ID: ALS-137

Created By: Emilee Johnson
Create Date: 07/23/2021 09:07AM

Amount: 500 mL
Expires: 07/23/2022
Usable: Yes
Lab Lot: IH ICP QC Spike A

Pos.	Analyte	Name	Concentration
1	7440-38-2	Arsenic	1000 ug/mL
2	7429-90-5	Aluminum	1000 ug/mL
3	7440-70-2	Calcium	1000 ug/mL
4	7440-47-3	Chromium	1000 ug/mL
5	7439-89-6	Iron	1000 ug/mL
6	7439-93-2	Lithium	1000 ug/mL
7	7439-92-1	Lead	1000 ug/mL
8	7439-95-4	Magnesium	1000 ug/mL
9	7439-96-5	Manganese	1000 ug/mL
10	7440-23-5	Sodium	1000 ug/mL
11	7440-28-0	Thallium	1000 ug/mL
12	7440-61-1	Uranium	1000 ug/mL
13	7782-49-2	Selenium	1000 ug/mL
14	7440-22-4	Silver	1000 ug/mL
15	7440-62-2	Vanadium	1000 ug/mL
16	7440-66-6	Zinc	1000 ug/mL
17	7440-48-4	Cobalt	100 ug/mL
18	7440-02-0	Nickel	100 ug/mL
19	7440-43-9	Cadmium	100 ug/mL
20	7440-50-8	Copper	100 ug/mL
21	7440-41-7	Beryllium	100 ug/mL
22	7440-65-5	Yttrium	100 ug/mL
23	7440-39-3	Barium	1000 ug/mL

STANDARD REPORT

Stock Standard - IHICPQC_B

IHICPQC_B	Description - IH ICP QC Spike Solution B

Standard: 57581
MFG: Inorganic Ventures
MFG Lot: S2-MEB706455
Part ID: ALS-11

Created By: Penny A. Foote
Create Date: 06/24/2021 10:06AM

Amount: 250 mL
Expires: 08/13/2022
Usable: Yes
Lab Lot: IH ICP QC Spike B

Pos.	Analyte	Name	Concentration
1	7723-14-0	Phosphorus	1000 ug/mL
2	7440-36-0	Antimony	1000 ug/mL
3	13494-80-9	Tellurium	1000 ug/mL
4	7440-67-7	Zirconium	1000 ug/mL
5	7439-98-7	Molybdenum	100 ug/mL
6	7440-32-6	Titanium	100 ug/mL

STANDARD REPORT

Working Standard - 1000 ug/mL K

1000 ug/mL K	Description - 1000 ug/mL K in 20% HN03

Standard: 58304
MFG: SPEX
MFG Lot: Not Provided
Pipette ID: Not Provided

Created By: Phillip Rich
Create Date: 11/08/2021 01:11PM

Amount: 10 mL
Expires: 09/15/2022
Usable: Yes
Lab Lot: 1000 ug/mL K

Pos.	Analyte	Name	Concentration
1	7440-09-7	Potassium	1000 ug/mL
2	REAGENT	Solvent/Reagent	0 ug/mL

Composition

Standard	Standard ID	Description	Lab Lot ID	Volume	Expires
57102	K Stock	10,000 ug/mL K Stock	CPI K 10,000 ug/mL	1 mL	09/15/2022
58037	20% HNO3 S0	20% HNO3 S0	S0	9 mL	10/08/2022

STANDARD REPORT

Stock Standard - RLVS

RLVS — **Description - IH ICP RLVS Spike Solution**

Standard: 60017
MFG: Inorganic Ventures
MFG Lot: T2-MEB719538
Part ID: ALS-302-REV2

Created By: Phillip Rich
Create Date: 05/19/2022 03:05PM

Amount: 250 mL
Expires: 06/02/2023
Usable: Yes
Lab Lot: IH ICP RLVS Spike A

Pos.	Analyte	Name	Concentration
1	7440-38-2	Arsenic	25 ug/mL
2	7440-69-9	Bismuth	25 ug/mL
3	7429-90-5	Aluminum	50 ug/mL
4	7440-36-0	Antimony	15 ug/mL
5	7440-70-2	Calcium	150 ug/mL
6	7440-47-3	Chromium	12.5 ug/mL
7	7439-89-6	Iron	50 ug/mL
8	7439-93-2	Lithium	25 ug/mL
9	7439-92-1	Lead	5 ug/mL
10	7439-95-4	Magnesium	12.5 ug/mL
11	7439-96-5	Manganese	1.25 ug/mL
12	7439-98-7	Molybdenum	3.75 ug/mL
13	7440-23-5	Sodium	75 ug/mL
14	7440-28-0	Thallium	12.5 ug/mL
15	7440-61-1	Uranium	25 ug/mL
16	7782-49-2	Selenium	25 ug/mL
17	7440-22-4	Silver	2.5 ug/mL
18	7440-62-2	Vanadium	0.75 ug/mL
19	7440-66-6	Zinc	5 ug/mL
20	7440-48-4	Cobalt	0.75 ug/mL
21	7440-02-0	Nickel	1.25 ug/mL
22	7440-43-9	Cadmium	0.75 ug/mL
23	7440-50-8	Copper	5 ug/mL
24	7440-41-7	Beryllium	0.125 ug/mL
25	7440-65-5	Yttrium	0.75 ug/mL
26	7440-39-3	Barium	2.5 ug/mL
27	7440-42-8	Boron	25 ug/mL
28	7723-14-0	Phosphorus	50 ug/mL
29	7440-06-4	Platinum	37.5 ug/mL
30	7440-09-7	Potassium	125 ug/mL
31	7440-21-3	Silicon	125 ug/mL
32	7440-24-6	Strontium	3.75 ug/mL
33	13494-80-9	Tellurium	12.5 ug/mL
34	7440-31-5	Tin	25 ug/mL
35	7440-32-6	Titanium	0.75 ug/mL
36	7440-67-7	Zirconium	5 ug/mL

STANDARD REPORT

Working Standard - 20% HNO3 S0

20% HNO3 S0 — Description - 20% HNO3 S0

Standard: 60098
MFG: PPS
MFG Lot: Not Provided
Pipette ID: Not Provided

Created By: Peter P. Steen
Create Date: 05/31/2022 09:05AM

Amount: 2000 mL
Expires: 05/31/2023
Usable: Yes
Lab Lot: S0

Pos.	Analyte	Name	Concentration
1	REAGENT	Solvent/Reagent	0 ug/L

Composition

Standard	Standard ID	Description	Lab Lot ID	Volume	Expires
109	ASTM H2O	ASTM Type II Water	LAB 109	1600 mL	11/07/2025
32254	REAGENT	Solvent/Reagent	REAGENT	0 mL	01/01/2025
59043	HNO3	Concentrated Nitric Acid	HNO3 (1120094)	400 mL	02/02/2025

STANDARD REPORT

Working Standard - 7300STD1

7300STD1 — **Description - 7300 CAL STD1**

Standard: 60099
MFG: PPS
MFG Lot: Not Provided
Pipette ID: ICP-4, 28051204

Created By: Peter P. Steen
Create Date: 05/31/2022 09:05AM

Amount: 2000 mL
Expires: 07/12/2022
Usable: No
Lab Lot: 7300STD1

Pos.	Analyte	Name	Concentration
1	7440-22-4	Silver	2000 ug/L
2	13494-80-9	Tellurium	10000 ug/L
3	7440-65-5	Yttrium	2000 ug/L
4	7440-42-8	Boron	12500 ug/L
5	7723-14-0	Phosphorus	25000 ug/L
6	7440-36-0	Antimony	25000 ug/L
7	7440-21-3	Silicon	12500 ug/L
8	7439-98-7	Molybdenum	25000 ug/L
9	7440-31-5	Tin	5000 ug/L
10	7440-32-6	Titanium	5000 ug/L
11	7440-67-7	Zirconium	5000 ug/L
12	7440-09-7	Potassium	50000 ug/L
13	7440-70-2	Calcium	50000 ug/L
14	7439-95-4	Magnesium	50000 ug/L
15	7429-90-5	Aluminum	50000 ug/L
16	7439-89-6	Iron	50000 ug/L
17	7440-61-1	Uranium	5000 ug/L
18	7440-23-5	Sodium	50000 ug/L
19	7440-66-6	Zinc	5000 ug/L
20	7440-02-0	Nickel	5000 ug/L
21	7440-39-3	Barium	5000 ug/L
22	7440-69-9	Bismuth	5000 ug/L
23	7440-48-4	Cobalt	5000 ug/L
24	7440-50-8	Copper	5000 ug/L
25	7439-93-2	Lithium	5000 ug/L
26	7782-49-2	Selenium	5000 ug/L
27	7440-24-6	Strontium	5000 ug/L
28	7440-28-0	Thallium	2500 ug/L
29	7440-62-2	Vanadium	5000 ug/L
30	7440-38-2	Arsenic	5000 ug/L
31	7440-47-3	Chromium	5000 ug/L
32	7439-96-5	Manganese	5000 ug/L
33	7439-92-1	Lead	5000 ug/L
34	7440-41-7	Beryllium	1000 ug/L
35	7440-43-9	Cadmium	2500 ug/L

Composition

Standard	Standard ID	Description	Lab Lot ID	Volume	Expires
109	ASTM H2O	ASTM Type II Water	LAB 109	1535.6 mL	11/07/2025
55949	Ag Stock	1,000 ug/mL Ag Stock	CPI Ag 1,000 ug/mL	4 mL	07/12/2022

STANDARD REPORT

Working Standard - 7300STD1

7300STD1		Description - 7300 CAL STD1
Standard: 60099	**Created By:** Peter P. Steen	**Amount:** 2000 mL
MFG: PPS	**Create Date:** 05/31/2022 09:05AM	**Expires:** 07/12/2022
MFG Lot: Not Provided		**Usable:** No
Pipette ID: ICP-4, 28051204		**Lab Lot:** 7300STD1

Composition

Standard	Standard ID	Description	Lab Lot ID	Volume	Expires
57170	Te Stock Low	1,000 ug/mL Te Stock	CPI Te 1,000 ug/mL	20 mL	12/18/2022
57171	Y Stock	10,000 ug/mL Y Stock	CPI Y 10,000 ug/mL	0.4 mL	12/18/2022
58298	ICP Stock B	ENV/IH ICP Stock Solution B	ICP Stock B	20 mL	11/08/2022
58451	ICP Stock A	IH ICP Stock Solution A	ICP Stock A	20 mL	11/18/2022
59890	HNO3	Concentrated Nitric Acid	HNO3 (22050043)	400 mL	01/31/2024

STANDARD REPORT

Working Standard - 7300STDPt

7300STDPt	Description - 7300 cal std Pt

Standard: 60413
MFG: PPS
MFG Lot: Not Provided
Pipette ID: P-28051204
Created By: Peter P. Steen
Create Date: 07/02/2022 12:07PM
Amount: 1000 mL
Expires: 07/02/2023
Usable: Yes
Lab Lot: 7300STDPt

Pos.	Analyte	Name	Concentration
1	7440-06-4	Platinum	10 ug/mL

Composition

Standard	Standard ID	Description	Lab Lot ID	Volume	Expires
109	ASTM H2O	ASTM Type II Water	LAB 109	790 mL	11/07/2025
60069	HNO3	Concentrated Nitric Acid	HNO3 (21410074)	200 mL	01/31/2024
60412	Pt low Stock	1,000 ug/mL Pt	CPI Pt 1,000 ug/mL	10 mL	12/15/2023

STANDARD REPORT

Working Standard - W_CCV

W_CCV	Description - 5000 ug/L W Standard

Standard: 60328
MFG: DEH
MFG Lot: Not Provided
Pipette ID: ICP-4

Created By: Ethan Hamilton
Create Date: 06/23/2022 09:06AM

Amount: 200 mL
Expires: 01/30/2023
Usable: Yes
Lab Lot: W_CCV

Pos.	Analyte	Name	Concentration
1	7440-33-7	Tungsten	5000 ug/L

Composition

Standard	Standard ID	Description	Lab Lot ID	Volume	Expires
109	ASTM H2O	ASTM Type II Water	LAB 109	159 mL	11/07/2025
58905	W Stock	1,000 ug/mL W Stock	SPEX W 1,000 ug/mL	1 mL	01/30/2023
60069	HNO3	Concentrated Nitric Acid	HNO3 (21410074)	40 mL	01/31/2024

STANDARD REPORT

Working Standard - 7300 ICV

7300 ICV — Description - NMAM 7300 ICV

Standard: 60393
MFG: DEH/JCS
MFG Lot: Not Provided
Pipette ID: 28051204, ICP-4

Created By: Joanna C. Sanchez
Create Date: 06/30/2022 06:06PM

Amount: 1000 mL
Expires: 08/25/2022
Usable: Yes
Lab Lot: 7300 ICV

Pos.	Analyte	Name	Concentration
1	7440-36-0	Antimony	2000 ug/L
2	7440-69-9	Bismuth	1000 ug/L
3	7439-98-7	Molybdenum	2000 ug/L
4	7440-21-3	Silicon	2000 ug/L
5	7440-31-5	Tin	2000 ug/L
6	7440-32-6	Titanium	500 ug/L
7	7440-61-1	Uranium	1000 ug/L
8	7440-67-7	Zirconium	1000 ug/L
9	13494-80-9	Tellurium	2000 ug/L
10	7440-65-5	Yttrium	1000 ug/L
11	7429-90-5	Aluminum	10000 ug/L
12	7440-38-2	Arsenic	2000 ug/L
13	7440-39-3	Barium	2000 ug/L
14	7440-41-7	Beryllium	500 ug/L
15	7440-42-8	Boron	2000 ug/L
16	7440-43-9	Cadmium	500 ug/L
17	7440-70-2	Calcium	10000 ug/L
18	7440-47-3	Chromium	500 ug/L
19	7440-48-4	Cobalt	500 ug/L
20	7440-50-8	Copper	500 ug/L
21	7439-89-6	Iron	10000 ug/L
22	7439-92-1	Lead	2000 ug/L
23	7439-93-2	Lithium	500 ug/L
24	7439-95-4	Magnesium	10000 ug/L
25	7439-96-5	Manganese	500 ug/L
26	7440-02-0	Nickel	500 ug/L
27	7723-14-0	Phosphorus	2000 ug/L
28	7440-09-7	Potassium	10000 ug/L
29	7782-49-2	Selenium	2000 ug/L
30	7440-22-4	Silver	500 ug/L
31	7440-23-5	Sodium	10000 ug/L
32	7440-24-6	Strontium	500 ug/L
33	7440-28-0	Thallium	2000 ug/L
34	7440-62-2	Vanadium	500 ug/L
35	7440-66-6	Zinc	500 ug/L

Composition

Standard	Standard ID	Description	Lab Lot ID	Volume	Expires
109	ASTM H2O	ASTM Type II Water	LAB 109	787 mL	11/07/2025
57675	Te Low Stock	1,000 ug/mL Te Stock	IV Te 1,000 ug/mL	2 mL	08/25/2022

STANDARD REPORT

Working Standard - 7300 ICV

7300 ICV — Description - NMAM 7300 ICV

Standard: 60393
MFG: DEH/JCS
MFG Lot: Not Provided
Pipette ID: 28051204, ICP-4

Created By: Joanna C. Sanchez
Create Date: 06/30/2022 06:06PM

Amount: 1000 mL
Expires: 08/25/2022
Usable: Yes
Lab Lot: 7300 ICV

Composition

Standard	Standard ID	Description	Lab Lot ID	Volume	Expires
57676	Y Low Stock	1,000 ug/mL Y Stock	IV Y 1,000 ug/mL	1 mL	08/25/2022
58792	LCS spike A	Soln A for ICP ICV	ICP	5 mL	01/31/2023
60069	HNO3	Concentrated Nitric Acid	HNO3 (21410074)	200 mL	01/31/2024
60391	LCS spike B	Soln B for ICP LCS/ICV	ICP	5 mL	06/30/2023

STANDARD REPORT

Working Standard - ICSA IH

ICSA IH — Description - IH ICP ICSA

Standard: 60037
MFG: PPS
MFG Lot: Not Provided
Pipette ID: 28051204

Created By: Peter P. Steen
Create Date: 05/22/2022 02:05PM

Amount: 1000 mL
Expires: 02/14/2023
Usable: Yes
Lab Lot: ICSA IH

Pos.	Analyte	Name	Concentration
1	7429-90-5	Aluminum	250 ug/mL
2	7440-70-2	Calcium	250 ug/mL
3	7439-89-6	Iron	100 ug/mL
4	7439-95-4	Magnesium	250 ug/mL

Composition

Standard	Standard ID	Description	Lab Lot ID	Volume	Expires
109	ASTM H2O	ASTM Type II Water	LAB 109	775 mL	11/07/2025
59043	HNO3	Concentrated Nitric Acid	HNO3 (1120094)	200 mL	02/02/2025
59137	ICSA Stock	ICSA Stock IH/ENV	ICSA Stock IH/ENV	25 mL	02/14/2023

STANDARD REPORT

Working Standard - 7300 ICSAB

7300 ICSAB — Description - NMAM 7300 IH ICSAB solution

Standard: 60038
MFG: PPS
MFG Lot: Not Provided
Pipette ID: 28051204, ICP-1

Created By: Peter P. Steen
Create Date: 05/22/2022 02:05PM

Amount: 1000 mL
Expires: 08/02/2022
Usable: Yes
Lab Lot: 7300 ICSAB

Pos.	Analyte	Name	Concentration
1	7440-06-4	Platinum	1000 ug/L
2	7440-33-7	Tungsten	1000 ug/L
3	13494-80-9	Tellurium	500 ug/L
4	7440-65-5	Yttrium	500 ug/L
5	7440-38-2	Arsenic	500 ug/L
6	7440-39-3	Barium	500 ug/L
7	7440-41-7	Beryllium	500 ug/L
8	7440-69-9	Bismuth	500 ug/L
9	7440-43-9	Cadmium	500 ug/L
10	7440-47-3	Chromium	500 ug/L
11	7440-48-4	Cobalt	500 ug/L
12	7440-50-8	Copper	500 ug/L
13	7439-92-1	Lead	500 ug/L
14	7439-93-2	Lithium	500 ug/L
15	7439-96-5	Manganese	500 ug/L
16	7440-02-0	Nickel	500 ug/L
17	7782-49-2	Selenium	500 ug/L
18	7440-22-4	Silver	500 ug/L
19	7440-24-6	Strontium	500 ug/L
20	7440-28-0	Thallium	500 ug/L
21	7440-61-1	Uranium	500 ug/L
22	7440-62-2	Vanadium	500 ug/L
23	7440-66-6	Zinc	500 ug/L
24	7440-36-0	Antimony	500 ug/L
25	7440-42-8	Boron	500 ug/L
26	7439-98-7	Molybdenum	1000 ug/L
27	7723-14-0	Phosphorus	500 ug/L
28	7440-21-3	Silicon	1000 ug/L
29	7440-31-5	Tin	500 ug/L
30	7440-32-6	Titanium	1000 ug/L
31	7440-67-7	Zirconium	500 ug/L
32	7429-90-5	Aluminum	250000 ug/L
33	7440-70-2	Calcium	250000 ug/L
34	7439-89-6	Iron	100000 ug/L
35	7439-95-4	Magnesium	250000 ug/L

Composition

Standard	Standard ID	Description	Lab Lot ID	Volume	Expires
109	ASTM H2O	ASTM Type II Water	LAB 109	744.95 mL	11/07/2025
57171	Y Stock	10,000 ug/mL Y Stock	CPI Y 10,000 ug/mL	0.05 mL	12/18/2022

STANDARD REPORT

Working Standard - 7300 ICSAB

7300 ICSAB — Description - NMAM 7300 IH ICSAB solution

Standard: 60038
MFG: PPS
MFG Lot: Not Provided
Pipette ID: 28051204, ICP-1

Created By: Peter P. Steen
Create Date: 05/22/2022 02:05PM

Amount: 1000 mL
Expires: 08/02/2022
Usable: Yes
Lab Lot: 7300 ICSAB

Composition

Standard	Standard ID	Description	Lab Lot ID	Volume	Expires
57484	ICSAB-A	IH/Env ICSAB Stock A Solution	IH/Env ICSAB-A Stock	10 mL	08/02/2022
57485	ICSAB-B	IH/Env ICSAB Stock B Solution	IH/Env ICSAB-B Stock	10 mL	08/02/2022
59137	ICSA Stock	ICSA Stock IH/ENV	ICSA Stock IH/ENV	25 mL	02/14/2023
59799	HNO3	Concentrated Nitric Acid	HNO3 (21440074)	200 mL	10/01/2023
60032	ICSAB-C	IH ICSAB Stock C Solution	IH ICSAB-C Stock	10 mL	05/22/2023

STANDARD REPORT

Working Standard - 7300 IH CRI

7300 IH CRI — Description - NMAM 7300 IH CRI solution

Standard: 60036
MFG: PPS
MFG Lot: Not Provided
Pipette ID: P-28051204

Created By: Peter P. Steen
Create Date: 05/22/2022 02:05PM

Amount: 1000 mL
Expires: 05/22/2023
Usable: Yes
Lab Lot: 7300 IH CRI

Pos.	Analyte	Name	Concentration
1	7440-39-3	Barium	10 ug/L
2	7440-41-7	Beryllium	0.25 ug/L
3	7440-69-9	Bismuth	100 ug/L
4	7440-43-9	Cadmium	3 ug/L
5	7440-48-4	Cobalt	3 ug/L
6	7440-47-3	Chromium	10 ug/L
7	7440-50-8	Copper	20 ug/L
8	7439-93-2	Lithium	100 ug/L
9	7439-96-5	Manganese	5 ug/L
10	7440-24-6	Strontium	15 ug/L
11	7440-62-2	Vanadium	3 ug/L
12	7440-65-5	Yttrium	3 ug/L
13	7440-66-6	Zinc	20 ug/L
14	7439-89-6	Iron	200 ug/L
15	7440-09-7	Potassium	500 ug/L
16	7439-95-4	Magnesium	50 ug/L
17	7440-02-0	Nickel	5 ug/L
18	7439-92-1	Lead	20 ug/L
19	7429-90-5	Aluminum	200 ug/L
20	7440-70-2	Calcium	600 ug/L
21	7440-06-4	Platinum	150 ug/L
22	7782-49-2	Selenium	100 ug/L
23	7440-28-0	Thallium	50 ug/L
24	7440-38-2	Arsenic	100 ug/L
25	7440-23-5	Sodium	300 ug/L
26	7440-61-1	Uranium	100 ug/L
27	7439-98-7	Molybdenum	15 ug/L
28	7440-32-6	Titanium	3 ug/L
29	7440-67-7	Zirconium	20 ug/L
30	7440-21-3	Silicon	500 ug/L
31	7440-42-8	Boron	100 ug/L
32	7440-36-0	Antimony	60 ug/L
33	7440-31-5	Tin	100 ug/L
34	13494-80-9	Tellurium	50 ug/L
35	7440-22-4	Silver	10 ug/L
36	7723-14-0	Phosphorus	200 ug/L

Composition

Standard	Standard ID	Description	Lab Lot ID	Volume	Expires
109	ASTM H2O	ASTM Type II Water	LAB 109	780 mL	11/07/2025

STANDARD REPORT

Working Standard - 7300 IH CRI

7300 IH CRI — Description - NMAM 7300 IH CRI solution

Standard: 60036
MFG: PPS
MFG Lot: Not Provided
Pipette ID: P-28051204

Created By: Peter P. Steen
Create Date: 05/22/2022 02:05PM

Amount: 1000 mL
Expires: 05/22/2023
Usable: Yes
Lab Lot: 7300 IH CRI

Composition

Standard	Standard ID	Description	Lab Lot ID	Volume	Expires
59799	HNO3	Concentrated Nitric Acid	HNO3 (21440074)	200 mL	10/01/2023
60033	IHCRIA stock	NMAM 7300 CRI-A stock	IHCRIA stock	10 mL	05/22/2023
60034	IHCRIB stock	NMAM 7300 CRI-B stock	IHCRIB stock	10 mL	05/22/2023

STANDARD REPORT

Working Standard - 20% Sc IS

20% Sc IS — **Description - 20% HNO3 Sc Internal Standard**

Standard: 60157
MFG: DEH
MFG Lot: Not Provided
Pipette ID: 28051204

Created By: Ethan Hamilton
Create Date: 06/06/2022 02:06PM

Amount: 2 L
Expires: 05/13/2023
Usable: Yes
Lab Lot: ICP

Pos.	Analyte	Name	Concentration
1	7440-20-2	Scandium	6 ug/mL

Composition

Standard	Standard ID	Description	Lab Lot ID	Volume	Expires
109	ASTM H2O	ASTM Type II Water	LAB 109	1598.8 mL	11/07/2025
59963	Sc Stock	10,000 ug/mL Sc Stock	IV Sc 10,000 ug/mL	1.2 mL	05/13/2023
60069	HNO3	Concentrated Nitric Acid	HNO3 (21410074)	400 mL	01/31/2024

STANDARD REPORT

Working Standard - RINSE 20%

RINSE 20% — **Description - 20% HNO3 Rinse**

Standard: 60327
MFG: DEH
MFG Lot: Not Provided
Pipette ID: Not Provided

Created By: Joanna C. Sanchez
Create Date: 06/22/2022 01:06PM

Amount: 12.5 L
Expires: 06/22/2023
Usable: Yes
Lab Lot: RINSE 20% ICP

Pos.	Analyte	Name	Concentration
1	REAGENT	Solvent/Reagent	ug/mL

Composition

Standard	Standard ID	Description	Lab Lot ID	Volume	Expires
109	ASTM H2O	ASTM Type II Water	LAB 109	10 L	11/07/2025
32254	REAGENT	Solvent/Reagent	REAGENT	0 mL	01/01/2025
59890	HNO3	Concentrated Nitric Acid	HNO3 (22050043)	2.5 L	01/31/2024

STANDARD REPORT

Working Standard - 10% HNO3

10% HNO3 — Description - 10% HNO3 Rinse Solution

Standard: 60425
MFG: DEH
MFG Lot: Not Provided
Pipette ID: Not Provided

Created By: Ethan Hamilton
Create Date: 07/05/2022 07:07PM

Amount: 25 L
Expires: 07/05/2023
Usable: Yes
Lab Lot: ICP-IH

Pos.	Analyte	Name	Concentration
1	REAGENT	Solvent/Reagent	ug/L

Composition

Standard	Standard ID	Description	Lab Lot ID	Volume	Expires
109	ASTM H2O	ASTM Type II Water	LAB 109	22.5 L	11/07/2025
32254	REAGENT	Solvent/Reagent	REAGENT	0 L	01/01/2025
59890	HNO3	Concentrated Nitric Acid	HNO3 (22050043)	2.5 L	01/31/2024

STANDARD REPORT

Constituent

Stock Standard - REAGENT

REAGENT			Description - Solvent/Reagent
Standard: 32254	**Created By:** Neil A. Edwards	**Amount:** 1 L	
MFG: NA	**Create Date:** 01/01/2016 12:01AM	**Expires:** 01/01/2025	
MFG Lot: NA		**Usable:** Yes	
Part ID: NA		**Lab Lot:** REAGENT	

Pos.	Analyte	Name	Concentration
1	REAGENT	Solvent/Reagent	1 mg/L

STANDARD REPORT

Constituent

Stock Standard - Ag Stock

Ag Stock	Description - 1,000 ug/mL Ag Stock

Standard:	55949	**Created By:**	Rex Bagley	**Amount:**	100 mL
MFG:	CPI International	**Create Date:**	02/12/2021 12:02AM	**Expires:**	07/12/2022
MFG Lot:	1026960-70			**Usable:**	No
Part ID:	S4400-1000511			**Lab Lot:**	CPI Ag 1,000 ug/mL

Pos.	Analyte	Name	Concentration
1	7440-22-4	Silver	1000 ug/mL

STANDARD REPORT

Constituent

Stock Standard - K Stock

K Stock	Description - 10,000 ug/mL K Stock

Standard:	57102	**Created By:**	Rex Bagley	**Amount:**	100 mL
MFG:	CPI International	**Create Date:**	06/14/2021 12:06AM	**Expires:**	09/15/2022
MFG Lot:	1053109-28	**Verified By:**	Joanna C. Sanchez	**Usable:**	Yes
Part ID:	S4400-10M411	**Verify Date:**	06/24/2021 02:06PM	**Lab Lot:**	CPI K 10,000 ug/mL

Pos.	Analyte	Name	Concentration
1	7440-09-7	Potassium	10000 ug/mL

STANDARD REPORT

Constituent

Stock Standard - Te Stock Low

Te Stock Low	Description - 1,000 ug/mL Te Stock

Standard:	57170	**Created By:**	Joanna C. Sanchez	**Amount:**	250 mL
MFG:	CPI International	**Create Date:**	06/25/2021 12:06AM	**Expires:**	12/18/2022
MFG Lot:	711417170-3	**Verified By:**	Rex Bagley	**Usable:**	Yes
Part ID:	4400-1000563	**Verify Date:**	06/29/2021 01:06PM	**Lab Lot:**	CPI Te 1,000 ug/mL

Pos.	Analyte	Name	Concentration
1	13494-80-9	Tellurium	1000 ug/mL

STANDARD REPORT

Constituent

Stock Standard - Y Stock

Y Stock	Description - 10,000 ug/mL Y Stock

Standard:	57171	**Created By:**	Joanna C. Sanchez	**Amount:**	100 mL
MFG:	CPI International	**Create Date:**	06/25/2021 12:06AM	**Expires:**	12/18/2022
MFG Lot:	1109477-18	**Verified By:**	Rex Bagley	**Usable:**	Yes
Part ID:	S4400-10M671	**Verify Date:**	06/29/2021 01:06PM	**Lab Lot:**	CPI Y 10,000 ug/mL

Pos.	Analyte	Name	Concentration
1	7440-65-5	Yttrium	10000 ug/mL

STANDARD REPORT

Constituent

Stock Standard - ICSAB-A

ICSAB-A — **Description - IH/Env ICSAB Stock A Solution**

Standard:	57484	**Created By:**	Rex Bagley	**Amount:**	250 mL
MFG:	Inorganic Ventures	**Create Date:**	08/25/2020 12:08AM	**Expires:**	08/02/2022
MFG Lot:	R2-MEB695753	**Verified By:**	Joanna C. Sanchez	**Usable:**	Yes
Part ID:	ALS-16	**Verify Date:**	08/03/2021 08:08AM	**Lab Lot:**	IH/Env ICSAB-A Stock

Pos.	Analyte	Name	Concentration
1	7440-38-2	Arsenic	50 ug/mL
2	7440-39-3	Barium	50 ug/mL
3	7440-41-7	Beryllium	50 ug/mL
4	7440-69-9	Bismuth	50 ug/mL
5	7440-43-9	Cadmium	50 ug/mL
6	7440-47-3	Chromium	50 ug/mL
7	7440-48-4	Cobalt	50 ug/mL
8	7440-50-8	Copper	50 ug/mL
9	7439-92-1	Lead	50 ug/mL
10	7439-93-2	Lithium	50 ug/mL
11	7439-96-5	Manganese	50 ug/mL
12	7440-02-0	Nickel	50 ug/mL
13	7782-49-2	Selenium	50 ug/mL
14	7440-22-4	Silver	50 ug/mL
15	7440-24-6	Strontium	50 ug/mL
16	7440-28-0	Thallium	50 ug/mL
17	7440-61-1	Uranium	50 ug/mL
18	7440-62-2	Vanadium	50 ug/mL
19	7440-66-6	Zinc	50 ug/mL

STANDARD REPORT

Constituent

Stock Standard - ICSAB-B

ICSAB-B	Description - IH/Env ICSAB Stock B Solution

Standard:	57485	**Created By:**	Rex Bagley	**Amount:**	250 mL
MFG:	Inorganic Ventures	**Create Date:**	08/25/2020 12:08AM	**Expires:**	08/02/2022
MFG Lot:	R2-MEB695751	**Verified By:**	Joanna C. Sanchez	**Usable:**	Yes
Part ID:	ALS-14	**Verify Date:**	08/03/2021 08:08AM	**Lab Lot:**	IH/Env ICSAB-B Stock

Pos.	Analyte	Name	Concentration
1	7440-36-0	Antimony	50 ug/mL
2	7440-42-8	Boron	50 ug/mL
3	7439-98-7	Molybdenum	100 ug/mL
4	7723-14-0	Phosphorus	50 ug/mL
5	7440-21-3	Silicon	100 ug/mL
6	7440-31-5	Tin	50 ug/mL
7	7440-32-6	Titanium	100 ug/mL
8	7440-67-7	Zirconium	50 ug/mL

STANDARD REPORT

Constituent

Stock Standard - Te Low Stock

Te Low Stock	Description - 1,000 ug/mL Te Stock

Standard:	57675	**Created By:**	Rex Bagley	**Amount:**	125 mL
MFG:	Inorganic Ventures	**Create Date:**	08/03/2021 12:08AM	**Expires:**	08/25/2022
MFG Lot:	P2-TE682322	**Verified By:**	Joanna C. Sanchez	**Usable:**	Yes
Part ID:	CGTEN1	**Verify Date:**	08/27/2021 01:08PM	**Lab Lot:**	IV Te 1,000 ug/mL

Pos.	Analyte	Name	Concentration
1	13494-80-9	Tellurium	1000 ug/mL

STANDARD REPORT

Constituent

Stock Standard - Y Low Stock

Y Low Stock	Description - 1,000 ug/mL Y Stock

Standard:	57676	**Created By:**	Rex Bagley	**Amount:**	125 mL
MFG:	Inorganic Ventures	**Create Date:**	08/03/2021 12:08AM	**Expires:**	08/25/2022
MFG Lot:	S2-Y700840	**Verified By:**	Joanna C. Sanchez	**Usable:**	Yes
Part ID:	CGY1	**Verify Date:**	08/27/2021 01:08PM	**Lab Lot:**	IV Y 1,000 ug/mL

Pos.	Analyte	Name	Concentration
1	7440-65-5	Yttrium	1000 ug/mL

STANDARD REPORT

Constituent

Working Standard - 20% HNO3 S0

20% HNO3 S0		Description - 20% HNO3 S0
Standard: 58037	**Created By:** Rex Bagley	**Amount:** 2000 mL
MFG: RB	**Create Date:** 10/08/2021 10:10AM	**Expires:** 10/08/2022
MFG Lot: Not Provided		**Usable:** Yes
Pipette ID: Not Provided		**Lab Lot:** S0

Pos.	Analyte	Name	Concentration
1	REAGENT	Solvent/Reagent	0 ug/L

Composition

Standard	Standard ID	Description	Lab Lot ID	Volume	Expires
109	ASTM H2O	ASTM Type II Water	LAB 109	1600 mL	11/07/2025
32254	REAGENT	Solvent/Reagent	REAGENT	0 mL	01/01/2025
57384	HNO3	Concentrated Nitric Acid	HNO3 (280251)	400 mL	07/08/2026

STANDARD REPORT

Constituent

Stock Standard - ICP Stock B

ICP Stock B	Description - ENV/IH ICP Stock Solution B

Standard:	58298	**Created By:**	Rex Bagley	**Amount:**	250 mL
MFG:	Inorganic Ventures	**Create Date:**	08/31/2021 12:08AM	**Expires:**	11/08/2022
MFG Lot:	S2-MEB708355	**Verified By:**	Joanna C. Sanchez	**Usable:**	Yes
Part ID:	ALS-23-REV1	**Verify Date:**	11/11/2021 11:11AM	**Lab Lot:**	ICP Stock B

Pos.	Analyte	Name	Concentration
1	7440-42-8	Boron	1250 ug/mL
2	7723-14-0	Phosphorus	2500 ug/mL
3	7440-36-0	Antimony	2500 ug/mL
4	7440-21-3	Silicon	1250 ug/mL
5	7439-98-7	Molybdenum	2500 ug/mL
6	7440-31-5	Tin	500 ug/mL
7	7440-32-6	Titanium	500 ug/mL
8	7440-67-7	Zirconium	500 ug/mL

STANDARD REPORT

Constituent

Stock Standard - ICP Stock A

ICP Stock A — **Description - IH ICP Stock Solution A**

Standard:	58451	**Created By:**	Rex Bagley	**Amount:**	250 mL
MFG:	CPI International	**Create Date:**	11/24/2021 12:11AM	**Expires:**	11/18/2022
MFG Lot:	10107108-3	**Verified By:**	Joanna C. Sanchez	**Usable:**	Yes
Part ID:	4400-191023AC02-250	**Verify Date:**	12/03/2021 09:12AM	**Lab Lot:**	ICP Stock A

Pos.	Analyte	Name	Concentration
1	7440-09-7	Potassium	5000 ug/mL
2	7440-70-2	Calcium	5000 ug/mL
3	7439-95-4	Magnesium	5000 ug/mL
4	7429-90-5	Aluminum	5000 ug/mL
5	7439-89-6	Iron	5000 ug/mL
6	7440-61-1	Uranium	500 ug/mL
7	7440-23-5	Sodium	5000 ug/mL
8	7440-66-6	Zinc	500 ug/mL
9	7440-02-0	Nickel	500 ug/mL
10	7440-39-3	Barium	500 ug/mL
11	7440-69-9	Bismuth	500 ug/mL
12	7440-48-4	Cobalt	500 ug/mL
13	7440-50-8	Copper	500 ug/mL
14	7439-93-2	Lithium	500 ug/mL
15	7782-49-2	Selenium	500 ug/mL
16	7440-24-6	Strontium	500 ug/mL
17	7440-28-0	Thallium	250 ug/mL
18	7440-62-2	Vanadium	500 ug/mL
19	7440-38-2	Arsenic	500 ug/mL
20	7440-47-3	Chromium	500 ug/mL
21	7439-96-5	Manganese	500 ug/mL
22	7439-92-1	Lead	500 ug/mL
23	7440-41-7	Beryllium	100 ug/mL
24	7440-43-9	Cadmium	250 ug/mL

STANDARD REPORT

Constituent

Stock Standard - LCS spike A

LCS spike A		Description - Soln A for ICP ICV
Standard: 58792	**Created By:** Rex Bagley	**Amount:** 500 mL
MFG: SCP Science	**Create Date:** 01/03/2022 12:01PM	**Expires:** 01/31/2023
MFG Lot: S211214008	**Verified By:** Joanna C. Sanchez	**Usable:** Yes
Part ID: AQ0-092-815	**Verify Date:** 01/07/2022 10:01AM	**Lab Lot:** ICP

Pos.	Analyte	Name	Concentration
1	7429-90-5	Aluminum	2000 ug/mL
2	7440-38-2	Arsenic	400 ug/mL
3	7440-39-3	Barium	400 ug/mL
4	7440-41-7	Beryllium	100 ug/mL
5	7440-42-8	Boron	400 ug/mL
6	7440-43-9	Cadmium	100 ug/mL
7	7440-70-2	Calcium	2000 ug/mL
8	7440-47-3	Chromium	100 ug/mL
9	7440-48-4	Cobalt	100 ug/mL
10	7440-50-8	Copper	100 ug/mL
11	7439-89-6	Iron	2000 ug/mL
12	7439-92-1	Lead	400 ug/mL
13	7439-93-2	Lithium	100 ug/mL
14	7439-95-4	Magnesium	2000 ug/mL
15	7439-96-5	Manganese	100 ug/mL
16	7440-02-0	Nickel	100 ug/mL
17	7723-14-0	Phosphorus	400 ug/mL
18	7440-09-7	Potassium	2000 ug/mL
19	7782-49-2	Selenium	400 ug/mL
20	7440-22-4	Silver	100 ug/mL
21	7440-23-5	Sodium	2000 ug/mL
22	7440-24-6	Strontium	100 ug/mL
23	7440-28-0	Thallium	400 ug/mL
24	7440-62-2	Vanadium	100 ug/mL
25	7440-66-6	Zinc	100 ug/mL

STANDARD REPORT

Constituent

Stock Standard - W Stock

W Stock			Description - 1,000 ug/mL W Stock
Standard: 58905	**Created By:** Rex Bagley	**Amount:** 500 mL	
MFG: SPEX CertiPrep	**Create Date:** 01/19/2022 12:01AM	**Expires:** 01/30/2023	
MFG Lot: 26-26WX	**Verified By:** Joanna C. Sanchez	**Usable:** Yes	
Part ID: PLW2-2X	**Verify Date:** 01/27/2022 11:01AM	**Lab Lot:** SPEX W 1,000 ug/mL	

Pos.	Analyte	Name	Concentration
1	7440-33-7	Tungsten	1000 ug/mL

STANDARD REPORT

Constituent

Stock Standard - ICSA Stock

ICSA Stock	Description - ICSA Stock IH/ENV

Standard: 59137
MFG: Inorganic Ventures
MFG Lot: S2-MEB708354
Part ID: ALS-15

Created By: Peter P. Steen
Create Date: 02/14/2022 03:02PM

Amount: 500 mL
Expires: 02/14/2023
Usable: Yes
Lab Lot: ICSA Stock IH/ENV

Pos.	Analyte	Name	Concentration
1	7429-90-5	Aluminum	10000 ug/mL
2	7440-70-2	Calcium	10000 ug/mL
3	7439-89-6	Iron	4000 ug/mL
4	7439-95-4	Magnesium	10000 ug/mL

STANDARD REPORT

Constituent

Stock Standard - Sc Stock

Sc Stock	Description - 10,000 ug/mL Sc Stock

Standard:	59963	**Created By:**	Ethan Hamilton	**Amount:**	125 mL
MFG:	Inorganic Ventures	**Create Date:**	06/03/2021 12:06AM	**Expires:**	05/13/2023
MFG Lot:	P2-SC687739	**Verified By:**	Joanna C. Sanchez	**Usable:**	Yes
Part ID:	CGSC10	**Verify Date:**	05/19/2022 04:05PM	**Lab Lot:**	IV Sc 10,000 ug/mL

Pos.	Analyte	Name	Concentration
1	7440-20-2	Scandium	10000 ug/mL

STANDARD REPORT

Constituent

Stock Standard - ICSAB-C

ICSAB-C	Description - IH ICSAB Stock C Solution

Standard:	60032	**Created By:**	Peter P. Steen	**Amount:**	125 mL
MFG:	Inorganic Ventures	**Create Date:**	08/31/2021 12:08AM	**Expires:**	05/22/2023
MFG Lot:	S2-MEB708353	**Verified By:**	Joanna C. Sanchez	**Usable:**	Yes
Part ID:	ALS-13	**Verify Date:**	05/23/2022 10:05AM	**Lab Lot:**	IH ICSAB-C Stock

Pos.	Analyte	Name	Concentration
1	7440-06-4	Platinum	100 ug/mL
2	7440-33-7	Tungsten	100 ug/mL
3	13494-80-9	Tellurium	50 ug/mL

STANDARD REPORT

Constituent

Stock Standard - IHCRIA stock

IHCRIA stock — **Description - NMAM 7300 CRI-A stock**

Standard:	60033	**Created By:**	Peter P. Steen	**Amount:**	125 mL
MFG:	Inorganic Ventures	**Create Date:**	04/28/2021 12:04AM	**Expires:**	05/22/2023
MFG Lot:	S2-MEB704399	**Verified By:**	Joanna C. Sanchez	**Usable:**	Yes
Part ID:	DATACHEM-CAL-7B-REV4	**Verify Date:**	05/23/2022 10:05AM	**Lab Lot:**	IHCRIA stock

Pos.	Analyte	Name	Concentration
1	7440-39-3	Barium	1 ug/mL
2	7440-41-7	Beryllium	0.025 ug/mL
3	7440-69-9	Bismuth	10 ug/mL
4	7440-43-9	Cadmium	0.3 ug/mL
5	7440-48-4	Cobalt	0.3 ug/mL
6	7440-47-3	Chromium	1 ug/mL
7	7440-50-8	Copper	2 ug/mL
8	7439-93-2	Lithium	10 ug/mL
9	7439-96-5	Manganese	0.5 ug/mL
10	7440-24-6	Strontium	1.5 ug/mL
11	7440-62-2	Vanadium	0.3 ug/mL
12	7440-65-5	Yttrium	0.3 ug/mL
13	7440-66-6	Zinc	2 ug/mL
14	7439-89-6	Iron	20 ug/mL
15	7440-09-7	Potassium	50 ug/mL
16	7439-95-4	Magnesium	5 ug/mL
17	7440-02-0	Nickel	0.5 ug/mL
18	7439-92-1	Lead	2 ug/mL
19	7429-90-5	Aluminum	20 ug/mL
20	7440-70-2	Calcium	60 ug/mL
21	7440-06-4	Platinum	15 ug/mL
22	7782-49-2	Selenium	10 ug/mL
23	7440-28-0	Thallium	5 ug/mL
24	7440-38-2	Arsenic	10 ug/mL
25	7440-23-5	Sodium	30 ug/mL
26	7440-61-1	Uranium	10 ug/mL

STANDARD REPORT

Constituent

Stock Standard - IHCRIB stock

IHCRIB stock — **Description - NMAM 7300 CRI-B stock**

Standard:	60034	**Created By:**	Peter P. Steen	**Amount:**	125 mL
MFG:	Inorganic Ventures	**Create Date:**	04/28/2021 12:04AM	**Expires:**	05/22/2023
MFG Lot:	S2-MEB704400	**Verified By:**	Joanna C. Sanchez	**Usable:**	Yes
Part ID:	DATACHEM-CAL-8B-REV1	**Verify Date:**	05/23/2022 10:05AM	**Lab Lot:**	IHCRIB stock

Pos.	Analyte	Name	Concentration
1	7439-98-7	Molybdenum	1.5 ug/mL
2	7440-32-6	Titanium	0.3 ug/mL
3	7440-67-7	Zirconium	2 ug/mL
4	7440-21-3	Silicon	50 ug/mL
5	7440-42-8	Boron	10 ug/mL
6	7440-36-0	Antimony	6 ug/mL
7	7440-31-5	Tin	10 ug/mL
8	13494-80-9	Tellurium	5 ug/mL
9	7440-22-4	Silver	1 ug/mL
10	7723-14-0	Phosphorus	20 ug/mL

STANDARD REPORT

Constituent

Stock Standard - LCS spike B

LCS spike B	Description - Soln B for ICP LCS/ICV

Standard:	60391	**Created By:**	Joanna C. Sanchez	**Amount:**	250 mL
MFG:	SCP Science	**Create Date:**	06/21/2022 12:06AM	**Expires:**	06/30/2023
MFG Lot:	S220524007	**Verified By:**	Ethan Hamilton	**Usable:**	Yes
Part ID:	AQ0-092-822	**Verify Date:**	07/06/2022 01:07PM	**Lab Lot:**	ICP

Pos.	Analyte	Name	Concentration
1	7440-36-0	Antimony	400 ug/mL
2	7440-69-9	Bismuth	200 ug/mL
3	7439-98-7	Molybdenum	400 ug/mL
4	7440-21-3	Silicon	400 ug/mL
5	7440-31-5	Tin	400 ug/mL
6	7440-32-6	Titanium	100 ug/mL
7	7440-61-1	Uranium	200 ug/mL
8	7440-67-7	Zirconium	200 ug/mL

STANDARD REPORT

Constituent

Stock Standard - Pt low Stock

Pt low Stock	Description - 1,000 ug/mL Pt

Standard:	60412	**Created By:**	Peter P. Steen	**Amount:**	100 mL
MFG:	CPI INTERNATIONAL	**Create Date:**	07/02/2022 12:07PM	**Expires:**	12/15/2023
MFG Lot:	1218503-15	**Verified By:**	Ethan Hamilton	**Usable:**	Yes
Part ID:	S4400-1000402	**Verify Date:**	07/06/2022 01:07PM	**Lab Lot:**	CPI Pt 1,000 ug/mL

Pos.	Analyte	Name	Concentration
1	7440-06-4	Platinum	1000 ug/mL

STANDARD REPORT

Constituent

Solvent Standard - ASTM H2O

ASTM H2O	Description - ASTM Type II Water

Standard:	**109**	**Created By:**	ALS Support (Lims)	**Amount:**	1000 L
MFG:	DCL In House	**Create Date:**	10/06/2005 09:10AM	**Expires:**	11/07/2025
MFG Lot:	Not Provided			**Usable:**	Yes
Part ID:	Not Provided			**Lab Lot:**	LAB 109

Pos.	Analyte	Name	Concentration
Solvent - Analyte(s) not applicable			

STANDARD REPORT

Constituent

Solvent Standard - HNO3

HNO3	Description - Concentrated Nitric Acid

Standard:	**57384**	**Created By:**	Joanna C. Sanchez	**Amount:**	2.5 L
MFG:	JT Baker	**Create Date:**	07/08/2021 12:07AM	**Expires:**	07/08/2026
MFG Lot:	0000280251			**Usable:**	Yes
Part ID:	Not Provided			**Lab Lot:**	HNO3 (280251)

Pos.	Analyte	Name	Concentration
Solvent - Analyte(s) not applicable			

STANDARD REPORT

Constituent

Solvent Standard - HNO3

HNO3	Description - Concentrated Nitric Acid

Standard:	59043	**Created By:**	Emilee Johnson	**Amount:**	2.5 L
MFG:	Fisher Chemical	**Create Date:**	02/02/2022 12:02AM	**Expires:**	02/02/2025
MFG Lot:	1120094			**Usable:**	Yes
Part ID:	A509P212			**Lab Lot:**	HNO3 (1120094)

Pos.	Analyte	Name	Concentration
Solvent - Analyte(s) not applicable			

STANDARD REPORT

Constituent

Solvent Standard - HNO3

HNO3	Description - Concentrated Nitric Acid

Standard:	59799	**Created By:**	Joanna C. Sanchez	**Amount:**	2.5 L
MFG:	Fisher Chemical	**Create Date:**	04/19/2022 04:04PM	**Expires:**	10/01/2023
MFG Lot:	21440074			**Usable:**	Yes
Part ID:	A509P212			**Lab Lot:**	HNO3 (21440074)

Pos.	Analyte	Name	Concentration
Solvent - Analyte(s) not applicable			

STANDARD REPORT

Constituent

Solvent Standard - HNO3

HNO3	Description - Concentrated Nitric Acid

Standard:	59890	**Created By:**	Joanna C. Sanchez	**Amount:**	2.5 L
MFG:	Fisher Chemical	**Create Date:**	05/04/2022 10:05AM	**Expires:**	01/31/2024
MFG Lot:	22050043			**Usable:**	Yes
Part ID:	A509P212			**Lab Lot:**	HNO3 (22050043)

Pos.	Analyte	Name	Concentration
Solvent - Analyte(s) not applicable			

STANDARD REPORT

Constituent

Solvent Standard - HNO3

HNO3	Description - Concentrated Nitric Acid

Standard:	60069	**Created By:**	Joanna C. Sanchez	**Amount:**	2.5 L
MFG:	Fisher Chemical	**Create Date:**	05/25/2022 02:05PM	**Expires:**	01/31/2024
MFG Lot:	21410074			**Usable:**	Yes
Part ID:	A509P212			**Lab Lot:**	HNO3 (21410074)

Pos.	Analyte	Name	Concentration
Solvent - Analyte(s) not applicable			

STANDARD REPORT

Constituent

Solvent Standard - HNO3

HNO3	Description - Concentrated Nitric Acid

Standard:	**60435**	**Created By:**	Peter P. Steen	**Amount:**	2.5 L
MFG:	Fisher Chemical	**Create Date:**	07/06/2022 03:07PM	**Expires:**	03/31/2024
MFG Lot:	22120177			**Usable:**	Yes
Part ID:	A509P212			**Lab Lot:**	HNO3 (22120177)

Pos.	Analyte	Name	Concentration
Solvent - Analyte(s) not applicable			

Run#	Q22119	Ag	Al	As	Ba	Be	Ca	Cd	Co	Cr	Cu
		ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
STD0	07/14/2022 10:06:59	0	0	0	0	0	0	0	0	0	0
STD1	07/14/2022 10:08:40	2000	50000	5000	5000	1000	50000	2500	5000	5000	5000
STDPt	07/14/2022 10:10:21										
STDW	07/14/2022 10:12:02										
ICV	07/14/2022 10:13:43	478.1358	9528.0094	1984.1498	2007.1322	498.4142	9964.0755	499.0803	500.2808	508.0718	506.0656
ICB	07/14/2022 10:15:24	-0.0589	-3.1572	-1.9262	-0.0585	0.0178	-0.8612	0.1471	0.8747	-0.0172	2.3772
ICSA	07/14/2022 10:17:05	-2.9418	256349.0919	8.2107	1.1971	-0.0640	248370.1787	-0.8254	-1.2638	0.7800	-0.2743
ICSAB	07/14/2022 10:18:45	520.3332	259780.7722	524.5049	504.8883	513.8350	242748.1282	492.0150	488.1948	507.6626	497.6229
LCCV	07/14/2022 10:20:26	9.2363	188.1667	92.0409	10.0991	0.2797	607.2825	3.2707	3.2322	10.1627	20.6658
790577 LRB	07/14/2022 10:22:07	0.1070	41.1287	-2.4937	0.2283	0.0193	88.4309	0.4807	0.2029	0.5665	1.2011
790578 LMB	07/14/2022 10:23:48	0.0652	40.7752	3.8470	0.5898	0.0081	150.4472	0.1714	0.1369	5.7699	1.9185
790579 LCS	07/14/2022 10:25:28	4247.8157 bo	4360.5048	4473.6713	4647.7246	468.6523	4753.9099	460.8476	472.7024	4662.2301	483.36188 b
790580 LCSD	07/14/2022 10:27:08	3698.55364 bo	3738.0679	3832.1208	3966.8984	402.8569	4078.9386	396.9230	406.5536	4039.9814	415.56291 b
790581 RLVS	07/14/2022 10:28:49	9.6133	184.3047	94.1745	10.3687	0.5253	681.2689	2.8735	3.3526	54.7730	20.3928
2218876001	07/14/2022 10:30:29	0.0292	4783.7674	4.0363	2.7463	0.0223	137.3679	0.0343	0.1972	6.6128	1.8778
CCV	07/14/2022 10:32:10	1990.7413	49353.1295	5018.2127	5037.9075	1010.3779	50735.4624	2568.0293	5043.7562	5037.5549	4987.7567
CCB	07/14/2022 10:33:50	-0.1411	-4.3491	3.0871	-0.0822	0.0145	-0.5377	0.3852	-0.5432	0.2196	1.0475
2218876002	07/14/2022 10:35:31	0.0648	3962.3570	7.4543	5.4387	0.0075	140.6052	0.0361	0.1830	11.9262	6.0979
2218876003	07/14/2022 10:37:12	-0.1296	26.7945	6.6806	0.7767	0.0165	93.6159	-0.0752	0.0347	14.1010	0.5250
2218876004	07/14/2022 10:38:53	0.0918	19.0414	5.6735	0.8610	0.0122	158.8031	-0.2938	0.3968	11.7259	3.4718
2218902001	07/14/2022 10:40:33	1.0118	386.0930	6.4524	25.2509	0.0271	841.3019	1.2534	0.9431	19.6850	13.7184
2218902002	07/14/2022 10:42:14	0.3197	155.7665	0.0967	7.0347	0.0063	397.1779	0.4547	0.5088	12.1717	4.6942
2218902003	07/14/2022 10:43:55	0.0984	18.4232	6.5926	2.0984	0.0059	394.4849	0.2119	0.2041	7.9318	2.8134
2218902004	07/14/2022 10:45:36	0.0238	7.9666	6.7397	1.0536	0.0125	150.7261	0.4306	0.2290	9.7409	3.1739
2218902005	07/14/2022 10:47:16	0.1253	32.7277	3.4253	1.4171	0.0122	162.3865	-0.1933	0.4220	8.1329	4.2462
2218902006	07/14/2022 10:48:56	0.2194	70.6592	5.4222	1.9961	0.0101	197.7589	0.2436	-0.0634	10.4111	4.7348
2218903001	07/14/2022 10:50:37	-0.0244	19.7111	4.7637	2.3687	0.0124	175.2548	0.1056	0.5113	9.0418	4.1451
CCV	07/14/2022 10:52:18	1980.7419	49153.0903	5007.2407	5046.7520	1009.1839	50793.8681	2575.9114	5037.0952	5033.3713	4983.1440
CCB	07/14/2022 10:53:58	-0.0989	-2.2760	2.6092	-0.0268	0.0199	0.5887	0.3260	0.2121	0.3440	4.2673
2218903002	07/14/2022 10:55:39	0.6868	91.1602	3.1232	7.1658	0.0183	322.8508	0.3855	0.1118	10.5308	11.6108
2218903003	07/14/2022 10:57:19	0.6077	21.3400	4.6794	1.4973	0.0139	280.6632	0.2885	0.5017	9.2049	0.2363
2218903004	07/14/2022 10:59:00	0.2237	62.7975	1.9172	1.7609	0.0107	173.2382	0.1225	0.0004	11.9538	1.3545
2218903005	07/14/2022 11:00:40	0.1181	24.6037	2.4480	1.5022	0.0190	150.8083	0.0126	0.1688	9.3752	-0.5216
2218903006	07/14/2022 11:02:21	0.1634	4.4911	6.6580	1.0271	0.0125	133.7710	-0.1053	0.2485	9.8774	4.8237
790482 LRB	07/14/2022 11:04:02	0.0409	134.5860	5.7379	0.9972	0.0233	378.0104	-0.1409	-0.6135	0.7417	0.7283
790483 LMB	07/14/2022 11:05:42	-0.0971	89.0114	3.7866	0.9919	0.0081	265.2986	0.3128	-0.4623	6.5586	0.7215
790484 LCS	07/14/2022 11:07:23	3565.65514 bo	3646.3605	3668.0228	3897.6124	390.0480	3992.2311	382.0077	393.2094	3896.0645	403.59038 b
790485 LCSD	07/14/2022 11:09:04	3565.36842 bo	3638.4061	3771.0579	3979.9902	402.0923	4123.1624	397.6802	406.3613	4009.0370	406.43367 b
790486 RLVS	07/14/2022 11:10:44	9.1671	197.7268	94.1946	10.5875	0.5152	718.4574	3.4073	2.8202	56.7712	23.5050
CCV	07/14/2022 11:12:25	1985.9422	49410.5528	5012.5108	5057.9177	1011.6677	50795.9510	2578.7194	5049.0117	5072.9742	4982.9432
CCB	07/14/2022 11:14:05	-0.0702	-3.8712	2.3065	0.0055	0.0121	0.0437	0.1462	0.4571	0.0004	2.6146
2218833001	07/14/2022 11:15:45	2.5079	5091.9266	34.7751	173.9681	0.2337	34586.2981	16.5470	8.6693	89.2949	966.5155
2218833002	07/14/2022 11:17:26	0.2314	118.2141	27.5643	11.6477	0.0074	1849.4073	0.2998	0.4144	14.7544	22.6235
2218833003	07/14/2022 11:19:06	0.2296	21.8746	25.8098	6.6663	0.0108	956.7993	-0.1561	0.6309	6.8262	7.6218
2218833004	07/14/2022 11:20:47	0.2955	24.5992	27.4126	8.1724	0.0002	1201.1963	-0.1882	0.0097	5.5006	7.0837
2218993001	07/14/2022 11:22:27	0.0948	16.2404	2.2203	0.7857	0.0068	177.6543	-0.1756	0.8968	2.4027	3.4852
2218993002	07/14/2022 11:24:08	0.2444	5.9542	1.3135	0.7351	0.0129	229.2053	-0.0037	0.1215	16.6090	3.6871
2218993003	07/14/2022 11:25:49	0.1629	7.2538	2.8065	0.8144	0.0122	240.0356	0.1638	0.3691	1.0884	2.2969
2218993004	07/14/2022 11:27:29	0.1402	7.1518	8.4785	0.5767	0.0062	173.0166	0.1224	0.6026	8.6900	3.6364

Run# Q22119		Fe	K	Li	Mg	Mn	Mo	Na	Ni	P	Pb
		ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
STD0	07/14/2022 10:06:59	0	0	0	0	0	0	0	0	0	0
STD1	07/14/2022 10:08:40	50000	50000	5000	50000	5000	25000	50000	5000	25000	5000
STDPt	07/14/2022 10:10:21										
STDW	07/14/2022 10:12:02										
ICV	07/14/2022 10:13:43	10153.9784	9282.5266	487.4605	9667.8642	516.2750	2017.0791	9986.7977	500.7714	1971.2502	2026.1781
ICB	07/14/2022 10:15:24	3.1250	-9.1158	12.2038	-1.6565	-0.0651	0.0896	-93.7373	-1.0257	6.6996	1.1534
ICSA	07/14/2022 10:17:05	99040.8749	-1.3828	-17.4601	264713.2841	4.8808	0.8328	86.4899	-2.6162	25.4132	-1.3030
ICSAB	07/14/2022 10:18:45	98058.8150	-15.3001	508.8717	261684.2529	516.6035	1044.9847	15.0647	486.1825	549.2319	507.2620
LCCV	07/14/2022 10:20:26	209.6248	441.4408	111.1324	52.2524	5.3350	15.6413	168.6262	5.7598	185.3782	18.3381
790577 LRB	07/14/2022 10:22:07	5.9948	-1.7453	15.7412	4.0177	0.2896	0.2160	-106.3161	0.9302	12.2434	0.1882
790578 LMB	07/14/2022 10:23:48	10.3159	-0.2232	16.3353	13.5800	0.5826	-0.4931	23.6676	-0.8544	30.0304	-0.6613
790579 LCS	07/14/2022 10:25:28	4729.9515	10.2079	4421.3377	4443.6304	4727.6460	406.0810	4688.6797	478.7232	3782.4189	4672.9296
790580 LCSD	07/14/2022 10:27:08	4075.6989	-2.1399	3793.3961	3814.4218	4082.2381	420.5782	4023.5772	412.2041	3921.8906	4009.7146
790581 RLVS	07/14/2022 10:28:49	208.5284	448.7113	110.8947	56.3785	5.8862	15.3417	263.1567	3.7654	203.6004	21.1507
2218876001	07/14/2022 10:30:29	29.9888	8.5476	18.9610	15.3606	1.0443	-0.0741	-13.5403	-0.9138	14.8203	-0.0801
CCV	07/14/2022 10:32:10	50196.6908	48178.9981	4856.1017	50175.8603	5023.8762	25177.2280	48084.6932	5066.5321	25278.6250	5053.2394
CCB	07/14/2022 10:33:50	3.8134	-5.7493	9.3867	-3.0442	0.2186	2.1171	-95.2359	-1.3700	4.6225	-0.8673
2218876002	07/14/2022 10:35:31	22.4978	19.9615	28.4969	11.8524	1.2490	0.1824	203.0757	-0.2925	40.8561	-3.6472
2218876003	07/14/2022 10:37:12	8.5734	31.9524	25.2426	5.9108	0.5101	0.0767	197.3452	-1.0363	43.0145	-0.4604
2218876004	07/14/2022 10:38:53	59.1891	12.5401	27.2467	22.2095	1.0102	-0.4113	161.7539	0.1218	25.7988	1.0861
2218902001	07/14/2022 10:40:33	685.9810	80.1539	26.1972	67.2977	14.9095	3.8541	282.1623	8.3419	59.5997	18.7410
2218902002	07/14/2022 10:42:14	191.5085	51.5354	25.6745	37.0554	6.3525	0.5148	210.2770	3.7641	55.7231	2.8619
2218902003	07/14/2022 10:43:55	23.6663	32.1791	16.4678	33.6074	1.2775	-0.1906	208.8082	0.0941	23.8969	0.1566
2218902004	07/14/2022 10:45:36	6.1480	18.5561	17.1717	21.6648	0.8586	-0.3966	230.8829	0.2973	28.6137	-0.2492
2218902005	07/14/2022 10:47:16	25.2082	21.0550	16.3611	25.1019	1.3880	-0.7612	238.0435	0.4712	74.4695	0.9170
2218902006	07/14/2022 10:48:56	73.8024	24.0943	17.0266	27.3979	2.7451	-0.1358	256.6428	0.5252	57.3284	2.4100
2218903001	07/14/2022 10:50:37	27.6038	13.5931	17.5325	26.3834	1.1690	0.5879	229.7775	0.9995	32.0331	-0.2739
CCV	07/14/2022 10:52:18	50156.9312	47729.0639	4805.2247	50002.8438	5012.1714	25150.2531	47523.7042	5051.1980	25120.6944	5056.5369
CCB	07/14/2022 10:53:58	0.6435	0.0795	-1.5505	3.6601	0.2126	2.4689	-16.3418	0.4488	8.2647	-2.0178
2218903002	07/14/2022 10:55:39	140.4165	48.7497	14.3914	32.8547	3.6886	0.9604	234.0551	1.7389	34.0913	5.1986
2218903003	07/14/2022 10:57:19	25.8190	34.1387	17.2853	26.1049	1.2704	0.2481	196.9413	-0.0960	46.2953	1.6729
2218903004	07/14/2022 10:59:00	48.6981	16.5108	23.2332	32.2726	2.9954	0.1627	210.0461	0.4949	45.0050	-0.1093
2218903005	07/14/2022 11:00:40	36.7359	32.2744	31.0255	32.4462	2.8361	-0.1101	162.9732	0.7703	46.2704	0.2029
2218903006	07/14/2022 11:02:21	12.5396	24.8370	23.0432	20.5001	0.6696	-0.5643	151.6435	0.4809	21.2173	1.1958
790482 LRB	07/14/2022 11:04:02	8.4963	10.7526	9.7101	18.9105	0.5342	-0.3184	-25.4634	-1.7019	11.8342	-0.4832
790483 LMB	07/14/2022 11:05:42	17.7368	17.5986	24.5906	14.2525	0.4559	-0.2544	-9.5500	-0.0404	1.6271	0.0584
790484 LCS	07/14/2022 11:07:23	3949.0440	3722.1261	3692.9841	3682.2544	3960.3026	408.3440	3903.0559	400.7636	3813.3293	3891.3045
790485 LCSD	07/14/2022 11:09:04	4042.7385	3545.2511	3613.7221	3779.1281	4053.2945	417.4006	3871.6679	411.4253	3849.4859	4029.3742
790486 RLVS	07/14/2022 11:10:44	236.9955	436.6878	105.1115	59.1111	5.5767	15.3221	335.8827	5.4732	215.4302	19.8605
CCV	07/14/2022 11:12:25	50375.0455	47953.4751	4834.5111	50147.6586	5032.2544	25246.2285	47754.3862	5067.5487	25156.9800	5065.7264
CCB	07/14/2022 11:14:05	3.0945	6.0912	2.6245	0.3287	0.2286	2.7122	-26.4846	-1.0197	-7.1608	-1.8733
2218833001	07/14/2022 11:15:45	18934.8639	1699.3402	65.5351	3542.8241	341.1221	9.7249	1353.0052	124.1037	4171.2476	95.2742
2218833002	07/14/2022 11:17:26	362.4051	60.2574	43.9238	287.2402	7.4845	-0.5843	148.6223	0.5722	231.6155	1.6079
2218833003	07/14/2022 11:19:06	26.0615	30.4932	39.0084	183.2770	0.7103	-0.5639	65.5318	-0.2213	138.8180	0.9570
2218833004	07/14/2022 11:20:47	39.9076	29.4001	49.0103	226.7543	0.6056	-0.6615	96.1460	-0.3990	170.5629	0.9409
2218993001	07/14/2022 11:22:27	48.0337	6.3683	21.1307	24.7209	1.2330	-0.0890	10.6906	-0.3792	25.4547	-0.7808
2218993002	07/14/2022 11:24:08	91.5112	24.4950	26.0426	26.5892	1.2127	-0.1275	7.4949	0.1360	26.6170	-0.7523
2218993003	07/14/2022 11:25:49	26.2870	23.3268	17.1426	27.3045	0.9825	-0.4541	87.8467	-0.4399	26.3379	0.7811
2218993004	07/14/2022 11:27:29	33.2357	17.7896	18.7069	22.3097	1.0219	0.1512	75.5147	-0.4457	35.1040	-2.6798

Run# Q22119		Sb	Se	Te	Ti	Tl	U	V	Y	Zn	Zr	Sc-A	Sc-R
		ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	Ratio	Ratio
STD0	07/14/2022 10:06:59	0	0	0	0	0	0	0	0	0	0	0	0
STD1	07/14/2022 10:08:40	25000	5000	10000	5000	2500	5000	5000	2000	5000	5000		
STDPt	07/14/2022 10:10:21												
STDW	07/14/2022 10:12:02												
ICV	07/14/2022 10:13:43	1966.8451	1975.4520	1966.8588	498.5917	2013.3390	987.0386	490.1724	974.7449	510.8973	967.7674	0.9700	0.9700
ICB	07/14/2022 10:15:24	1.2835	-4.2194	-3.7525	-0.0494	-4.4792	-3.0655	0.2441	0.0745	0.1881	0.7282	0.9600	0.9600
ICSA	07/14/2022 10:17:05	3.2162	-4.4539	-26.7336	0.5103	-14.9993	10.3629	2.0265	-0.1219	0.3603	1.5096	0.9200	0.9200
ICSAB	07/14/2022 10:18:45	515.3927	523.2316	504.1503	1020.8535	507.9211	526.6832	508.7111	494.7222	487.7216	495.6456	0.8900	0.8900
LCCV	07/14/2022 10:20:26	59.0644	97.8018	46.9621	3.0204	48.0477	93.7936	3.0515	3.0305	21.8522	21.9967	0.9800	0.9700
790577 LRB	07/14/2022 10:22:07	-4.0955	3.4107	2.1393	0.0551	-1.7764	-2.9785	0.2962	0.0730	-0.6899	0.0570	0.9800	0.9700
790578 LMB	07/14/2022 10:23:48	1.7282	4.7367	1.5130	0.1556	5.6634	-5.2875	0.2543	-0.0392	3.1544	0.0997	0.9800	0.9700
790579 LCS	07/14/2022 10:25:28	3764.6444	4558.47998 A3	3788.4831	385.2948	4677.9024	4667.5074	4592.0647	459.6908	4621.2037	3764.8599	0.9700	0.9700
790580 LCSD	07/14/2022 10:27:08	3864.3080	3914.66913 A3	3896.0802	400.4160	4026.7712	4021.4928	3953.8795	395.7426	3981.3922	3920.1103	0.9700	0.9700
790581 RLVS	07/14/2022 10:28:49	58.7830	100.6842	45.0615	3.0098	51.7588	96.1960	3.5709	2.9888	22.1687	27.3432	0.9800	0.9700
2218876001	07/14/2022 10:30:29	0.0847	9.4138	-3.8581	1.2597	20.4119	-0.5731	0.2886	0.0543	5.7651	0.5119	1.0100	1.0000
CCV	07/14/2022 10:32:10	24728.1579	4964.6461	10027.1791	4954.9347	2510.7115	4868.9399	4991.6340	1980.0377	5162.7668	4961.1631	0.9800	0.9800
CCB	07/14/2022 10:33:50	0.1765	4.1222	-0.8160	0.0820	0.8119	-2.0147	0.2367	0.0541	-0.7811	0.8554	0.9600	0.9600
2218876002	07/14/2022 10:35:31	5.1636	8.2520	4.6586	0.6754	24.0302	-2.4170	0.1257	0.0198	7.9652	1.6173	0.9900	0.9800
2218876003	07/14/2022 10:37:12	1.1428	10.0530	0.3249	0.1592	22.6025	-2.9155	0.2308	0.0035	1.5554	0.5077	0.9800	0.9800
2218876004	07/14/2022 10:38:53	2.4573	10.8866	2.0643	1.5410	19.0929	-0.7004	0.2364	0.0357	2.0728	0.2085	0.9900	0.9800
2218902001	07/14/2022 10:40:33	3.3884	7.7186	0.7392	16.4727	21.1817	-3.6167	0.8931	0.0688	647.3956	1.8668	0.9800	0.9800
2218902002	07/14/2022 10:42:14	-0.4832	4.4138	2.6740	7.2147	21.7387	0.0104	0.6872	0.0595	255.3480	0.4933	0.9800	0.9800
2218902003	07/14/2022 10:43:55	4.4658	6.9950	0.3046	0.5888	17.0295	-2.2990	0.2605	0.0468	7.2706	0.3175	1.0200	1.0100
2218902004	07/14/2022 10:45:36	6.2736	6.2085	0.0021	0.1397	13.5202	-2.1146	0.1521	0.0259	1.5002	0.1696	1.0200	1.0200
2218902005	07/14/2022 10:47:16	4.1642	7.3599	8.2821	3.6974	26.8710	2.2952	0.2381	0.0065	39.5543	0.2754	1.0100	1.0100
2218902006	07/14/2022 10:48:56	3.4221	2.9258	4.8653	4.5122	18.4461	-1.3070	0.2240	0.0106	103.7205	0.4367	1.0100	1.0100
2218903001	07/14/2022 10:50:37	2.4412	8.9469	3.9270	0.9439	28.1755	-0.2016	0.1682	0.0207	22.8366	0.0939	1.0200	1.0200
CCV	07/14/2022 10:52:18	24657.9291	4957.2960	9949.1545	4942.6689	2509.8777	4850.1522	4986.2066	1977.0311	5157.0559	4946.8020	0.9700	0.9800
CCB	07/14/2022 10:53:58	1.6415	1.6540	3.5880	0.1542	-2.4434	-0.7332	0.3300	0.0690	0.2427	0.8602	1.0000	1.0000
2218903002	07/14/2022 10:55:39	2.5512	8.4657	2.8368	4.0475	14.8059	-2.4037	0.3606	0.0675	141.7253	1.2824	1.0200	1.0100
2218903003	07/14/2022 10:57:19	-2.5101	10.2127	-1.8538	0.7331	19.5326	-3.8977	0.0365	0.0079	8.1369	0.5461	1.0200	1.0200
2218903004	07/14/2022 10:59:00	0.5002	5.6555	2.6987	6.2101	23.1822	-3.2295	0.2968	0.0248	98.2187	0.5067	1.0200	1.0200
2218903005	07/14/2022 11:00:40	2.8571	5.1340	4.3952	4.1579	14.1706	-2.5313	0.6877	-0.0242	99.9277	0.4464	0.9900	0.9800
2218903006	07/14/2022 11:02:21	-0.3619	13.7000	4.6913	0.0629	22.2561	-0.2830	0.2146	0.0541	2.7211	0.1147	0.9900	0.9800
790482 LRB	07/14/2022 11:04:02	-0.9200	6.6240	1.6310	0.2891	0.7358	-1.8846	-0.0270	0.0430	5.5262	0.1999	1.0100	1.0000
790483 LMB	07/14/2022 11:05:42	0.3463	2.4767	1.0949	0.1963	5.4730	-4.0390	0.0269	-0.0225	3.9378	0.0277	0.9900	0.9800
790484 LCS	07/14/2022 11:07:23	3717.8391	3771.6269 A3	3757.7105	388.0239	3918.1520	3921.2428	3839.8068	385.3415	3818.8395	3793.8892	0.9800	0.9700
790485 LCSD	07/14/2022 11:09:04	3760.4910	3845.95069 A3	3813.4952	392.0676	4008.5093	3880.1365	3903.7374	387.9427	4060.0019	3835.2949	1.0100	1.0000
790486 RLVS	07/14/2022 11:10:44	54.5254	96.6167	46.8870	3.0552	55.8651	93.6164	3.1772	2.9473	21.5681	27.4001	1.0200	1.0200
CCV	07/14/2022 11:12:25	24654.5981	4942.8135	9982.3872	4973.1434	2508.5594	4887.1633	5006.6112	1988.1104	5167.1308	4978.1030	0.9800	0.9800
CCB	07/14/2022 11:14:05	4.7730	0.2260	-0.2663	0.1207	-5.1725	-5.0204	0.3783	0.0167	-0.5935	0.8826	1.0000	1.0000
2218833001	07/14/2022 11:15:45	112.1220	54.2140	4.5570	182.2974	142.4415	70.6884	9.7107	4.1317	1515.7347	17.2929	1.0200	1.0100
2218833002	07/14/2022 11:17:26	9.4876	52.2192	8.6235	6.8578	134.5230	5.3115	0.5614	0.1496	37.7897	1.7745	1.0300	1.0200
2218833003	07/14/2022 11:19:06	5.9338	41.9193	6.2456	2.7909	106.4789	4.0956	0.2503	0.0234	7.5034	0.9674	1.0200	1.0200
2218833004	07/14/2022 11:20:47	6.2888	53.7988	10.5105	3.0488	145.9080	7.9645	0.3761	0.0705	7.5572	1.0509	1.0300	1.0200
2218993001	07/14/2022 11:22:27	0.5467	8.3998	1.6609	0.3285	12.0876	-2.9536	0.3289	-0.0412	6.7879	-0.0280	0.9800	0.9800
2218993002	07/14/2022 11:24:08	1.8598	4.1046	2.2944	0.3270	10.0325	-5.7023	0.1817	-0.0147	3.1393	-0.0831	0.9900	0.9800
2218993003	07/14/2022 11:25:49	3.6155	9.3329	-0.6893	0.4003	9.2554	-0.4866	-0.0686	0.0135	3.5959	-0.0341	1.0200	1.0100
2218993004	07/14/2022 11:27:29	0.2261	7.2119	4.3008	0.2967	12.4576	-1.6747	0.0193	0.0245	5.7205	0.0784	1.0300	1.0200

Run# Q22119		Ag	Al	As	Ba	Be	Ca	Cd	Co	Cr	Cu
		ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
2218993005	07/14/2022 11:29:10	0.1636	1.0536	2.0670	0.8765	0.0096	148.7317	-0.0310	0.4924	3.1685	3.5238
2218993006	07/14/2022 11:30:51	-0.0512	6.3585	1.5499	0.7517	-0.0005	165.3711	0.1865	-0.2379	11.4883	3.2262
CCV	07/14/2022 11:32:31	1963.5301	48846.7485	4922.5416	4992.9041	997.8525	50040.2926	2537.0318	4978.2942	4983.5116	4917.6472
CCB	07/14/2022 11:34:12	-0.0569	-7.6751	5.8632	-0.1338	0.0096	-0.3995	0.0929	0.3190	0.8361	0.9768
2218993007	07/14/2022 11:35:52	-0.0468	3.3419	-0.3220	0.6725	0.0281	179.2218	0.3300	0.5502	1.2200	2.4225
2218993008	07/14/2022 11:37:33	0.0156	8.2893	3.4363	0.7656	0.0255	194.0943	-0.2967	-0.1614	14.3144	1.6703
2218993009	07/14/2022 11:39:13	-0.0642	18.6094	6.1926	0.8178	0.0092	217.9143	0.0088	0.2821	1.5262	6.7283
2218993010	07/14/2022 11:40:54	0.0214	4.4476	0.9230	0.8944	0.0032	87.5251	0.0553	0.3518	4.7495	2.7717
2218993011	07/14/2022 11:42:34	-0.0593	-5.1161	1.4439	0.6432	0.0095	86.8587	0.3262	-0.2189	1.6857	3.4671
2218993012	07/14/2022 11:44:15	0.0505	-4.2819	3.2029	0.9211	0.0037	93.3545	0.3941	0.8607	14.6370	2.0659
2218993013	07/14/2022 11:45:55	0.0107	7.8363	0.9724	1.0216	0.0110	103.4580	0.4982	0.4806	1.6882	2.8987
2218993014	07/14/2022 11:47:36	0.0914	2.7630	7.8688	0.8783	0.0154	99.4346	0.0746	0.0301	1.6820	1.9482
2218993015	07/14/2022 11:49:16	0.1841	-2.6326	2.3174	0.5340	0.0170	64.6232	0.3617	0.2408	0.9796	2.7747
2218993016	07/14/2022 11:50:57	-0.0188	3.8064	3.0017	0.5628	0.0116	66.7980	0.5681	1.0609	1.1677	6.5447
CCV	07/14/2022 11:52:37	1956.6709	48728.5978	4901.3458	4991.1038	993.0472	49967.6366	2534.1741	4961.9051	4990.2401	4892.6850
CCB	07/14/2022 11:54:17	0.0547	-4.8866	0.8723	-0.0107	0.0186	-0.3930	0.2731	-0.1642	0.6245	-0.0944
790487 LRB	07/14/2022 11:55:58	0.1028	-9.9568	1.2747	-0.1510	0.0105	3.6675	0.3841	0.1856	0.1113	2.6774
790488 LMB	07/14/2022 11:57:39	-0.0523	3.9716	1.5706	0.4998	0.0064	63.9611	0.1509	0.2164	6.1668	2.5374
790489 LCS	07/14/2022 11:59:19	3575.10897 bo	3550.1854	3682.7122	3906.3449	394.6974	3977.8854	391.8453	398.7569	3940.7118	402.29788 b
790490 LCSD	07/14/2022 12:01:00	3600.13069 bo	3582.4709	3728.9015	3965.3670	399.6448	4030.5063	400.4768	403.8202	3989.6898	403.50454 b
790491 RLVS	07/14/2022 12:02:40	9.2809	175.7072	91.9223	10.6252	0.5138	657.3205	3.1519	3.9985	55.2778	22.3673
2218994001	07/14/2022 12:04:21	0.1119	82.8497	6.3949	8.6991	0.0213	152.7311	-0.1152	1.4698	17.9971	68.2469
2218994002	07/14/2022 12:06:01	-0.1015	-5.9827	3.8536	0.3452	-0.0015	34.5429	0.1407	0.4581	15.5330	3.1882
2218994003	07/14/2022 12:07:42	0.1005	2.1405	1.5057	0.0976	0.0150	78.8222	0.0264	0.0943	6.3217	2.0211
2219240001	07/14/2022 12:09:23	-0.0095	33043.5776	16.0042	2217.8728	0.0910	1550.1109	0.0572	3.7345	68.1903	287.2977
2219240002	07/14/2022 12:11:04	0.0001	24242.1374	22.9020	1550.1087	0.0845	1421.2682	0.3592	3.0394	57.1048	341.6225
CCV	07/14/2022 12:12:44	1947.0096	48545.2547	4868.6236	4957.9493	990.7396	49979.0674	2523.8221	4941.1961	4945.4970	4875.9787
CCB	07/14/2022 12:14:25	-0.1054	-8.7620	0.4968	0.0051	0.0231	-0.5655	0.3850	0.5453	0.2599	3.0050
2219240003	07/14/2022 12:16:06	0.0010	412.8406	0.7856	5.5229	0.0337	4230.8639	0.0715	1.4972	3.2165	36.4701
2219240004	07/14/2022 12:17:46	-0.0041	41.7762	3.4758	4.7990	0.0098	659.3141	0.1598	-0.0805	21.9986	22.6246
2219240005	07/14/2022 12:19:27	0.2020	64.3232	3.0464	36.7978	0.3604	975.5210	0.2052	1.3895	6.3922	21.6387
2219240006	07/14/2022 12:21:08	0.0941	406.4468	17.6736	83.4669	1.0839	5842.9152	0.0151	1.8541	30.0766	77.4617
2219244001	07/14/2022 12:22:48	0.0994	95.6469	2.9496	3.5045	0.1401	1054.0841	0.1770	0.6112	8.9282	15.2870
2219256001	07/14/2022 12:24:29	0.1232	210.6465	7.3234	47.9856	0.5362	927.3588	0.4102	0.8989	20.5237	48.1469
2219256002	07/14/2022 12:26:09	-0.0499	42.3579	1.9551	3.9701	0.0285	378.1695	0.1482	0.2708	6.3470	33.2598
2219256003	07/14/2022 12:27:50	0.0976	19.7455	8.0736	1.4352	0.0154	339.6209	-0.0178	0.4111	7.1595	5.1794
2219262001	07/14/2022 12:29:30	0.4958	297.6814	11.9910	10.7136	0.0766	5477.8220	0.1774	1.6855	37.1876	217.7574
2219263001	07/14/2022 12:31:11	0.0977	99.7288	4.8441	3.0554	0.0592	4764.8891	0.6247	0.7579	37.6156	488.3729
CCV	07/14/2022 12:32:51	1947.6236	48948.8666	4853.8919	5002.5737	991.9873	50177.8299	2541.7872	4969.6108	4998.2685	4909.9370
CCB	07/14/2022 12:34:32	0.0276	-11.7871	0.3005	0.0024	0.0238	-0.7974	0.2444	0.2567	-0.3272	3.7305
2219266001	07/14/2022 12:36:12	0.1660	15.3388	3.2760	30.1570	0.0068	138.5605	-0.1264	0.6012	13.1524	6.0549
2219266002	07/14/2022 12:37:53	-16.90476 A2	840.27152 b	98.61154 b	866.1204	-0.0071	2178.1469	-14.66301 A2bu	96.08021 b	4101.6779 b	2039.31653 b
2219304001	07/14/2022 12:39:33	1.3423	776.1593	77.6261	14.2466	0.0280	1854.7997	0.1451	25.9494	370.7839	1169.7198
2219313001	07/14/2022 12:41:14	-0.0993	35.0642	7.0876	3.0625	-0.0001	189.6766	0.1448	0.4936	20.8495	12.6341
790579 LCS RR	07/14/2022 12:42:55	4109.97481 bo	4293.2742	4359.7796	4657.8274	466.9729	4787.8162	465.8391	475.5308	4678.7815	478.97812 b
ICSA	07/14/2022 12:44:35	-2.6737	249107.9680	11.9790	0.9397	-0.0853	239970.7058	0.2190	-0.7132	0.8564	-5.5814
ICSAB	07/14/2022 12:46:15	502.0302	254345.6996	505.5171	508.3107	511.1096	244441.0927	498.7087	477.9748	502.0662	488.1772
CCV	07/14/2022 12:47:55	1913.6377	47943.8954	4772.4558	4911.3289	972.4792	49472.4056	2503.3691	4882.6874	4884.1054	4807.0714

Run# Q22119		Fe	K	Li	Mg	Mn	Mo	Na	Ni	P	Pb
		ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
2218993005	07/14/2022 11:29:10	52.8557	8.7597	16.9829	19.5189	0.8785	0.3321	90.1707	-0.5920	42.2116	0.0632
2218993006	07/14/2022 11:30:51	28.2042	20.4175	15.1813	17.0128	0.9176	0.1377	45.2599	1.1518	5.2279	-0.6160
CCV	07/14/2022 11:32:31	49716.9213	47570.5480	4796.6792	49412.7383	4968.3935	24897.8021	47462.5417	4999.2854	24828.4335	4990.0604
CCB	07/14/2022 11:34:12	1.7034	9.9034	5.9577	-1.5809	0.1342	1.8256	-50.8642	-0.6462	-6.2875	-2.1728
2218993007	07/14/2022 11:35:52	16.4638	22.1715	14.4895	19.2665	0.9139	0.2371	78.7132	-0.0463	31.8002	-0.6473
2218993008	07/14/2022 11:37:33	33.2579	12.1419	15.8660	21.9346	1.0194	0.6627	71.3567	0.8916	4.8761	1.6376
2218993009	07/14/2022 11:39:13	24.9141	11.2396	14.5217	23.3033	1.2747	0.4095	78.4126	0.3444	7.3354	1.9443
2218993010	07/14/2022 11:40:54	97.9453	17.0890	20.4181	14.1620	0.7955	0.1387	56.7531	-0.9955	15.1423	-2.0892
2218993011	07/14/2022 11:42:34	39.0541	22.5296	15.7528	16.0254	0.7853	-0.0777	72.2157	-0.1058	25.8666	-0.7375
2218993012	07/14/2022 11:44:15	12.7096	6.7323	13.5130	14.3456	0.6954	0.0065	82.2413	0.3771	16.4218	0.9640
2218993013	07/14/2022 11:45:55	15.2621	9.3248	18.2580	15.0851	0.6701	-0.2159	69.1659	1.2836	9.4759	-0.9685
2218993014	07/14/2022 11:47:36	17.5606	12.0199	15.5049	16.9324	0.6674	-0.1084	78.7993	1.4039	18.9424	0.6631
2218993015	07/14/2022 11:49:16	5.1153	17.1028	19.7052	10.0947	0.4713	-0.2516	68.4031	-0.2330	18.7765	-2.4366
2218993016	07/14/2022 11:50:57	6.4911	5.2001	19.4505	10.2541	0.3663	-0.2955	62.9832	-0.8176	19.2314	0.0734
CCV	07/14/2022 11:52:37	49589.9298	47420.4463	4775.2593	49243.1836	4960.2539	24886.3318	47186.2732	4985.3562	24676.0780	4983.7478
CCB	07/14/2022 11:54:17	-0.1561	14.7189	4.2306	-3.2764	0.0880	2.7877	-33.9474	-0.1096	-19.9611	-1.8953
790487 LRB	07/14/2022 11:55:58	0.2505	-1.6974	11.0662	-0.1937	0.0266	0.4461	-63.5503	-0.6456	7.5985	-1.8384
790488 LMB	07/14/2022 11:57:39	2.3382	0.8356	14.7410	9.5390	0.2837	0.2000	83.8667	-0.7890	34.3768	-2.3150
790489 LCS	07/14/2022 11:59:19	3974.1656	3484.9786	3562.3278	3701.9264	3988.9161	409.4439	3794.6826	407.8296	3807.5017	3955.5030
790490 LCSD	07/14/2022 12:01:00	4030.2309	3562.2417	3606.1491	3744.9789	4043.3004	417.6549	3836.7334	411.7692	3836.1646	4006.5813
790491 RLVS	07/14/2022 12:02:40	206.6558	430.2760	105.5491	55.4067	5.7507	15.1104	300.2472	3.9281	192.6960	20.2337
2218994001	07/14/2022 12:04:21	4342.6078	69.9946	14.8393	25.5290	327.7212	0.1921	-20.9806	6.7646	395.2976	2.1384
2218994002	07/14/2022 12:06:01	7.1049	12.5819	16.0741	4.2418	0.6381	0.0865	-59.7207	-0.4905	56.0043	-1.6792
2218994003	07/14/2022 12:07:42	6.2893	4.0617	11.0432	2.3364	0.3154	-0.1203	-61.3771	0.0613	40.1590	-0.7505
2219240001	07/14/2022 12:09:23	91648.5350	2113.2462	27543.25212 A2bo	50251.3705	8248.4946	8.2745	2239.4708	29.56465 A1	93.1841	28.5018
2219240002	07/14/2022 12:11:04	91641.6318	2159.6502	20279.89547 A2	41820.0402	6772.1531	11.8717	2044.5382	27.5491	72.3163	24.7273
CCV	07/14/2022 12:12:44	49425.8791	47192.2424	4747.4915	49044.5702	4941.2060	24791.7216	46898.4128	4972.9128	24574.2508	4957.9832
CCB	07/14/2022 12:14:25	0.5773	10.5203	4.9498	-2.4880	0.2942	2.5241	-40.9498	-0.9289	-21.8989	-3.0624
2219240003	07/14/2022 12:16:06	1084.4194	194.9872	16.2612	182.6428	90.2108	1.0529	105.3439	2.4236	25.4152	0.8918
2219240004	07/14/2022 12:17:46	1359.9391	435.1030	21.9199	58.7242	281.4926	0.7305	59.0712	0.4777	28.3820	0.1828
2219240005	07/14/2022 12:19:27	3462.4738	1125.5108	18.4160	69.0995	547.8537	0.8982	224.4088	3.3568	45.4393	0.7487
2219240006	07/14/2022 12:21:08	26469.7384	5631.8639	20.1490	431.9284	2934.1501	3.8465	862.2502	9.3352	98.9506	9.5272
2219244001	07/14/2022 12:22:48	1439.9387	590.4856	21.3685	57.6748	246.4621	0.3516	269.6256	0.7003	19.3903	4.6860
2219256001	07/14/2022 12:24:29	5488.4485	1095.7561	18.1228	66.5226	451.0968	1.1486	387.1266	5.5496	54.9001	21.6249
2219256002	07/14/2022 12:26:09	1621.4904	507.6973	19.2958	17.5718	267.6032	0.1656	295.0696	0.2497	26.9141	5.7495
2219256003	07/14/2022 12:27:50	408.1062	388.6778	17.5373	15.2963	144.1013	-0.3796	160.8711	0.3389	33.7847	-0.4870
2219262001	07/14/2022 12:29:30	13976.0685	8004.4402	20.4570	187.7784	2658.1568	48.4201	238.8481	19.6500	38.0351	14.0015
2219263001	07/14/2022 12:31:11	8759.6300	6745.6101	13.7701	67.3872	2305.2747	1.1477	197.2848	4.3296	29.4169	72.5296
CCV	07/14/2022 12:32:51	49807.7571	47511.0738	4794.7332	49143.3428	4972.6231	24990.8755	47662.5525	5016.9842	24632.2029	4977.7261
CCB	07/14/2022 12:34:32	0.4004	16.7486	7.6852	-3.5003	0.3650	2.7207	-52.5390	-0.6515	9.7209	-0.0524
2219266001	07/14/2022 12:36:12	2828.9282	22.0448	18.4338	50.9535	27.9128	1.4654	59.4260	1.5192	30.7232	-3.1108
2219266002	07/14/2022 12:37:53	1522045.86099 A2bo	190.7751	-38.1980	1690.27046 b	15991.8165 b	405.93651 b	166.7396	895.93247 b	622.2906	109.96481 b
2219304001	07/14/2022 12:39:33	32915.6589	589.4954	17.1357	550.0420	4954.1859	141.8271	164.4163	285.9280	247.8644	60.2952
2219313001	07/14/2022 12:41:14	1772.5455	27.8542	19.2916	30.4588	134.6506	0.8195	26.5514	2.3514	17.6318	1.3551
790579 LCS RR	07/14/2022 12:42:55	4757.4630	7.0117	4272.6973	4383.1764	4730.5653	405.9329	4495.8169	484.8756	3734.8997	4684.3639
ICSA	07/14/2022 12:44:35	96130.6842	16.8729	-0.1133	252616.4994	4.9784	1.9426	35.6423	0.3451	-33.6257	-5.6960
ICSAB	07/14/2022 12:46:15	98022.0077	8.4997	515.2785	257709.2744	514.4344	1043.2285	51.9411	485.6182	511.5624	501.3893
CCV	07/14/2022 12:47:55	48930.2464	46479.5097	4682.5774	48207.3223	4879.5677	24508.6917	46112.4775	4918.7587	24205.6284	4893.7812

Run#	Q22119	Sb	Se	Te	Ti	Tl	U	V	Y	Zn	Zr	Sc-A	Sc-R
		ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	Ratio	Ratio
2218993005	07/14/2022 11:29:10	1.1998	5.6248	1.6119	0.2666	12.1757	-4.2951	0.2518	0.0121	4.1928	-0.0659	1.0200	1.0100
2218993006	07/14/2022 11:30:51	3.2857	7.7308	2.9564	0.3334	7.1716	-0.6406	-0.1385	0.0323	4.3538	0.0690	1.0200	1.0100
CCV	07/14/2022 11:32:31	24376.6426	4896.5952	9883.5592	4911.6599	2496.7877	4827.5761	4944.1360	1965.8394	5078.7880	4921.3670	0.9800	0.9800
CCB	07/14/2022 11:34:12	-0.8193	-1.6886	5.3973	0.1640	-1.8785	-4.1091	0.0863	0.0111	-0.8555	0.7197	1.0200	1.0100
2218993007	07/14/2022 11:35:52	6.4878	4.7570	3.8487	0.4347	1.9880	-0.7567	0.4301	0.0203	2.5466	0.7390	1.0300	1.0100
2218993008	07/14/2022 11:37:33	1.5137	6.6488	8.1448	0.3487	8.1577	-0.2816	0.0962	0.0104	3.5525	0.4262	1.0300	1.0200
2218993009	07/14/2022 11:39:13	-0.3508	5.3334	7.6781	0.4611	11.2290	-2.5889	-0.0068	-0.0001	6.7647	0.2007	1.0200	1.0100
2218993010	07/14/2022 11:40:54	1.7755	5.5568	4.8450	0.3114	11.7183	-2.6006	0.3141	-0.0051	3.0979	0.2327	1.0300	1.0200
2218993011	07/14/2022 11:42:34	-2.8148	4.5267	3.4705	0.2453	7.5341	-5.3654	0.2350	0.0283	3.5038	0.0221	1.0300	1.0200
2218993012	07/14/2022 11:44:15	1.7860	10.0886	7.1265	0.2810	11.2907	0.2187	0.1694	-0.0138	3.4751	-0.0531	1.0200	1.0100
2218993013	07/14/2022 11:45:55	6.5646	3.0721	4.8937	0.2791	10.4514	-1.9379	0.0635	0.0216	3.5307	0.0812	1.0300	1.0200
2218993014	07/14/2022 11:47:36	0.8555	3.4012	-0.1202	0.2151	10.8441	-3.1363	0.1165	-0.0260	3.4261	0.0456	1.0200	1.0100
2218993015	07/14/2022 11:49:16	0.5307	3.9309	2.3812	0.1145	6.1101	-1.6771	-0.0292	0.0140	3.0378	0.0594	1.0300	1.0200
2218993016	07/14/2022 11:50:57	2.7363	3.5372	2.5676	0.1915	19.1664	-3.2201	0.3977	0.0323	3.0694	0.0501	1.0300	1.0200
CCV	07/14/2022 11:52:37	24264.1058	4868.3795	9805.5926	4905.8267	2473.5098	4820.1573	4931.4727	1962.5978	5061.0896	4913.3065	0.9800	0.9800
CCB	07/14/2022 11:54:17	0.7683	0.9611	1.1589	0.1536	-4.1686	-0.5937	0.1980	0.0087	-0.7923	0.8811	1.0100	1.0000
790487 LRB	07/14/2022 11:55:58	1.1285	-0.2789	-1.8090	0.1349	-5.3103	-5.0085	0.1645	-0.0035	-0.0784	0.4254	1.0200	1.0100
790488 LMB	07/14/2022 11:57:39	0.5589	3.6439	4.3398	0.1555	8.0573	-2.2001	0.1673	0.0194	0.2859	0.6000	1.0300	1.0200
790489 LCS	07/14/2022 11:59:19	3713.6042	3748.52681 A3	3736.1867	386.7431	3944.4336	3827.6081	3838.6356	382.3369	3944.3027	3769.9541	1.0200	1.0100
790490 LCSD	07/14/2022 12:01:00	3729.4799	3786.002 A3	3787.5619	392.3197	3983.8378	3894.5801	3894.0751	387.8674	4020.7774	3832.9415	1.0200	1.0100
790491 RLVS	07/14/2022 12:02:40	60.5650	100.1249	44.2733	3.0580	51.7219	90.8470	2.8596	2.8751	22.7735	26.3600	1.0300	1.0200
2218994001	07/14/2022 12:04:21	0.9073	2.3277	4.2678	22.7431	11.2294	15.3533	0.3339	0.0212	3265.9132	1.9624	1.0300	1.0200
2218994002	07/14/2022 12:06:01	1.0970	3.8731	-3.7536	0.2204	10.4541	-3.5144	0.3240	0.0142	0.5136	0.4682	1.0300	1.0100
2218994003	07/14/2022 12:07:42	2.5014	2.2626	-1.2263	0.2305	8.0675	-1.7545	-0.1000	-0.0260	2.2677	0.1038	1.0300	1.0200
2219240001	07/14/2022 12:09:23	-5.6798	10.9408	-8.3616	210.4313	2.0221	0.9544	11.5797	0.6933	278.9218	396.0695	1.0000	1.0000
2219240002	07/14/2022 12:11:04	-4.5617	5.9587	-9.9215	167.9184	0.6107	-1.7244	7.7993	0.7037	271.5163	244.8388	1.0100	1.0000
CCV	07/14/2022 12:12:44	24100.1741	4818.4833	9757.3480	4889.2447	2466.6353	4807.2693	4916.4877	1957.7739	5058.4701	4900.4204	0.9800	0.9900
CCB	07/14/2022 12:14:25	3.3116	-0.8125	8.3126	0.2117	-5.5044	0.3060	-0.0462	0.0709	-1.0072	0.9839	1.0100	1.0000
2219240003	07/14/2022 12:16:06	4.3486	0.2660	3.3483	43.9147	8.2548	-3.7868	2.7712	0.2827	599.8953	1.6856	1.0300	1.0200
2219240004	07/14/2022 12:17:46	1.0567	1.0912	4.9171	30.2502	7.3167	-4.0378	0.7165	0.0303	1888.5671	0.9015	1.0400	1.0300
2219240005	07/14/2022 12:19:27	1.9932	6.1085	9.0029	68.1939	10.3130	-1.9903	1.0102	0.0302	11.3537	1.1566	1.0300	1.0200
2219240006	07/14/2022 12:21:08	-0.3394	15.1235	1.7055	554.5568	16.1536	-0.0272	3.0792	0.3738	126.1971	9.2558	1.0300	1.0200
2219244001	07/14/2022 12:22:48	-0.7057	1.8134	7.7575	30.6712	5.9518	-3.7824	0.6649	0.0550	9.7502	0.5317	1.0400	1.0200
2219256001	07/14/2022 12:24:29	0.4453	1.6646	1.5789	77.9633	9.4978	-0.1171	0.6179	0.1433	128.7263	1.9981	1.0300	1.0200
2219256002	07/14/2022 12:26:09	1.5974	11.5876	6.9813	24.0530	3.9472	-0.0046	0.2539	0.0044	111.7807	0.3480	1.0400	1.0200
2219256003	07/14/2022 12:27:50	1.7578	5.1179	1.4094	11.8717	12.2487	-2.0657	0.0767	0.0134	4.6642	-0.0202	1.0300	1.0200
2219262001	07/14/2022 12:29:30	2.5985	7.6786	-2.6275	201.3226	2.4951	0.9510	5.0326	0.1469	187.6819	1.1386	1.0300	1.0200
2219263001	07/14/2022 12:31:11	-0.3735	10.0618	4.5266	179.1767	7.4372	-2.8724	3.2814	-0.0065	1279.1410	0.8923	1.0300	1.0100
CCV	07/14/2022 12:32:51	24064.2555	4834.3817	9789.1921	4914.6903	2473.1528	4847.2113	4942.1475	1975.2629	5052.1198	4935.8839	0.9900	0.9900
CCB	07/14/2022 12:34:32	1.8907	-1.6239	7.2974	0.1593	-4.6480	0.2580	0.3206	0.0411	0.7153	0.8031	1.0200	1.0000
2219266001	07/14/2022 12:36:12	2.3047	2.3915	12.7020	3.4945	3.8184	-1.7722	0.1948	-0.0060	19.8378	1.1478	1.0400	1.0200
2219266002	07/14/2022 12:37:53	-162.65279 A2	-92.44161 bu	-17.11988 bu	128.3567	-26.6356	94.07537 b	176.11525 b	-2.8168	1344.0128	9.76209 b	0.9700	0.9600
2219304001	07/14/2022 12:39:33	10.6589	6.7492	5.1444	45.6656	3.7605	-1.5177	6.9277	0.3627	157.9446	0.2622	1.0300	1.0200
2219313001	07/14/2022 12:41:14	1.6466	3.6087	3.8697	3.8966	5.5499	-4.7458	0.1692	-0.0051	107.3056	0.1056	1.0400	1.0200
790579 LCS RR	07/14/2022 12:42:55	3647.7890	4461.65165 A3	3710.0343	381.3449	4683.1602	4540.5207	4563.6732	455.8475	4699.0996	3735.3436	1.0300	1.0100
ICSA	07/14/2022 12:44:35	-4.6401	1.6459	-19.7557	0.6018	-4.9960	11.3461	1.2675	-0.1385	1.4860	3.1436	0.9400	0.9300
ICSAB	07/14/2022 12:46:15	499.0587	499.6089	479.5943	1006.0671	493.5614	508.9262	504.0026	489.2255	500.4099	492.9706	0.9400	0.9300
CCV	07/14/2022 12:47:55	23547.4870	4729.7488	9605.8969	4810.6873	2432.2960	4731.7189	4843.7364	1934.6653	4984.2998	4843.4049	0.9900	0.9900

Run# Q22119		Ag	Al	As	Ba	Be	Ca	Cd	Co	Cr	Cu
		ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
CCB	07/14/2022 12:49:36	-0.1368	4.0298	-0.7598	0.0189	0.0167	0.0814	0.2008	0.8887	0.1320	-0.1160
2219304001 RR	07/14/2022 13:21:11	1.5147	775.1363	71.9757	13.6757	0.0203	1840.6987	0.1393	25.6521	367.5845	1159.1702
2219266002-5x	07/14/2022 13:22:52	-3.1925	83.6232	22.2004	169.7606	-0.0001	442.4973	-1.4547	19.0472	826.6554	392.7994
ICSA	07/14/2022 13:24:32	-2.7098	249987.5739	7.4373	1.4036	-0.0720	239826.4543	-0.4801	0.1143	0.9927	-5.9165
ICSAB	07/14/2022 13:26:12	495.4889	250222.1792	494.6920	497.0268	501.5545	241302.3822	487.0130	473.3192	493.5678	482.5534
CCV	07/14/2022 13:27:52	1930.2405	48560.1990	4791.5417	4969.1516	981.0488	49822.8274	2519.6185	4928.0240	4964.0464	4875.6508
CCB	07/14/2022 13:29:33	-0.0395	-0.2661	-2.8560	0.0372	0.0214	-0.2331	0.2697	0.9354	0.1154	0.0518

Important Flag Definitions

- **A1** High RSD
- **A2** Result is < negative RL or > linear range
- **A3** Internal Check
- **Z** CCB out of range
- **Q** ICV/LCCV/CCV out of range
- **K** ICSA out of range
- **G** ICSAB out of range
- **####** Saturated
- **S, b, o, u, !** non-applicable software flags

Data not used

Not reported; see dilution

Reported from dilution

Run# Q22119		Fe	K	Li	Mg	Mn	Mo	Na	Ni	P	Pb
		ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
CCB	07/14/2022 12:49:36	3.3967	4.0733	8.9019	0.4150	0.3582	2.0658	-52.7614	0.2215	-16.5505	-2.2974
2219304001 RR	07/14/2022 13:21:11	32541.5079	595.4754	15.5235	546.4067	4908.0321	140.5248	182.6120	283.4837	224.0546	57.5985
2219266002-5x	07/14/2022 13:22:52	364866.9799	31.9397	6.0336	353.4503	3229.1931	80.1261	-36.8032	185.0769	140.5584	16.5481
ICSA	07/14/2022 13:24:32	96164.0458	18.1760	-1.1003	252486.6516	5.1334	0.2731	26.5140	-1.0983	10.2309	-3.4188
ICSAB	07/14/2022 13:26:12	96391.9193	13.4123	506.2125	253037.1847	505.1321	1026.2616	47.9054	483.7670	525.8075	491.8796
CCV	07/14/2022 13:27:52	49485.1309	47241.1161	4774.3593	48689.4669	4933.7170	24737.6582	46825.4384	4971.9526	24413.3150	4949.3885
CCB	07/14/2022 13:29:33	2.4082	12.5517	10.8708	-1.0414	0.1789	2.6766	-58.6545	-0.7159	-3.1055	0.3081

Important Flag Definitions

A1 High RSD
A2 Result is < negative RL or
A3 Internal Check
Z CCB out of range
Q ICV/LCCV/CCV out of ran
K ICSA out of range
G ICSAB out of range
Saturated
S, b, o, u, ! non-applicable software

Data not used
Not reported; see dilution
Reported from dilution

Run#	Q22119	Sb	Se	Te	Ti	Tl	U	V	Y	Zn	Zr	Sc-A	Sc-R
		ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	Ratio	Ratio
CCB	07/14/2022 12:49:36	3.0924	3.2060	5.6828	0.1990	-5.9264	0.8662	0.1058	0.0484	-0.9460	0.7941	1.0200	1.0100
2219304001 RR	07/14/2022 13:21:11	10.8242	13.7739	-1.2155	45.2250	3.3184	-1.6727	6.8802	0.3721	157.9079	0.6939	1.0400	1.0200
2219266002-5x	07/14/2022 13:22:52	-34.4681	6.2562	-20.8216	25.8044	2.1531	2.0375	39.3597	-0.5357	274.9767	0.3758	1.0300	1.0100
ICSA	07/14/2022 13:24:32	-8.8083	-3.8005	-8.0442	0.5743	-8.6765	10.1005	0.9535	-0.1489	-1.0133	1.1227	0.9500	0.9300
ICSAB	07/14/2022 13:26:12	487.8981	504.5048	472.3538	988.5005	489.4575	504.5950	495.3568	481.2271	488.7830	480.9373	0.9400	0.9300
CCV	07/14/2022 13:27:52	23940.4505	4764.1276	9690.4267	4860.3810	2424.2529	4811.7913	4898.2394	1960.8965	5046.5954	4902.0491	1.0000	0.9900
CCB	07/14/2022 13:29:33	1.8601	1.2452	-0.8527	0.1516	-5.5544	-2.1218	0.0014	0.0604	-0.0993	0.7370	1.0200	1.0100

Important Flag Definitions

A1 High RSD
A2 Result is < negative RL or
A3 Internal Check
Z CCB out of range
Q ICV/LCCV/CCV out of ran
K ICSA out of range
G ICSAB out of range
Saturated
S, b, o, u, ! non-applicable software

Data not used
Not reported; see dilution
Reported from dilution

Path: C:\Users\alslt.icp\Documents\Agilent\ICP Expert\My Results\Q22119.esws

Date created: 7/14/2022 09:00:54

Instrument used: MY19060004

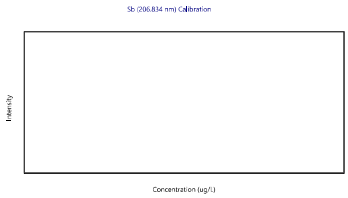
Software Version : 7.4.2.10790

Firmware Version : 3784

Notes:

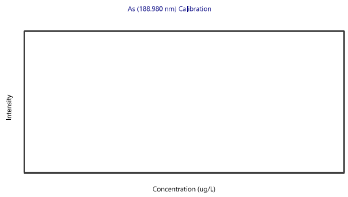
Calibration Curves:

Sb (206.834 nm)



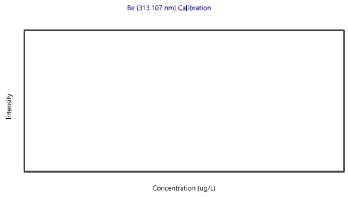
Standards	Intensity	Method Concentration	Calculated Concentration	% Error

As (188.980 nm)



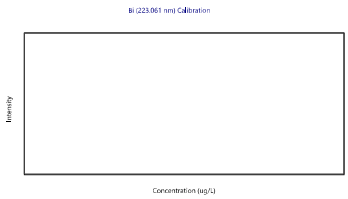
Standards	Intensity	Method Concentration	Calculated Concentration	% Error

Be (313.107 nm)



Standards	Intensity	Method Concentration	Calculated Concentration	% Error

Bi (223.061 nm)

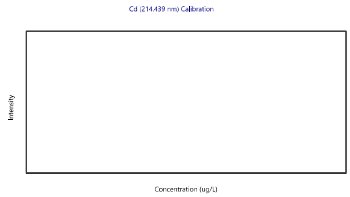


Standards	Intensity	Method Concentration	Calculated Concentration	% Error

B (249.772 nm)

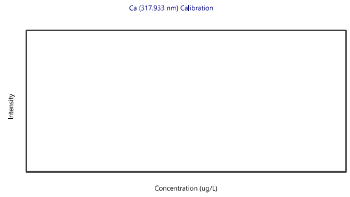
Standards	Intensity	Method Concentration	Calculated Concentration	% Error

Cd (214.439 nm)



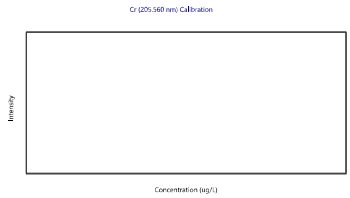
Standards	Intensity	Method Concentration	Calculated Concentration	% Error

Ca (317.933 nm)



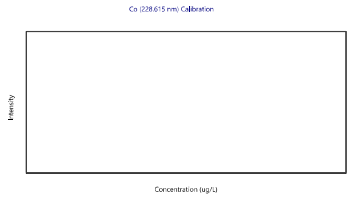
Standards	Intensity	Method Concentration	Calculated Concentration	% Error

Cr (205.560 nm)



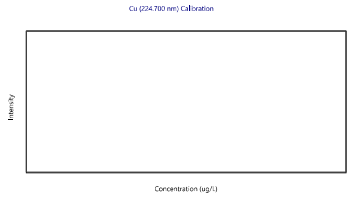
Standards	Intensity	Method Concentration	Calculated Concentration	% Error

Co (228.615 nm)



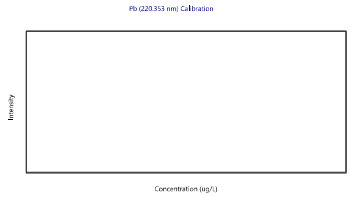
Standards	Intensity	Method Concentration	Calculated Concentration	% Error

Cu (224.700 nm)



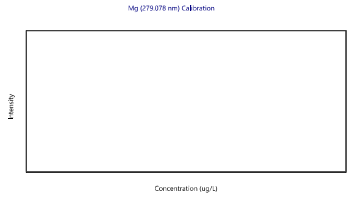
Standards	Intensity	Method Concentration	Calculated Concentration	% Error

Pb (220.353 nm)



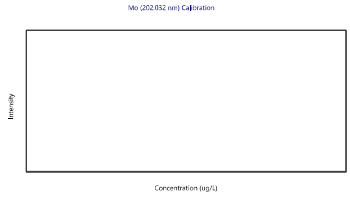
Standards	Intensity	Method Concentration	Calculated Concentration	% Error

Mg (279.078 nm)



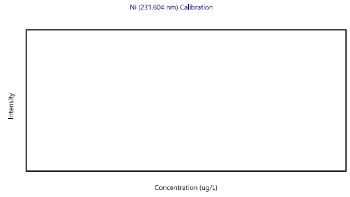
Standards	Intensity	Method Concentration	Calculated Concentration	% Error

Mo (202.032 nm)



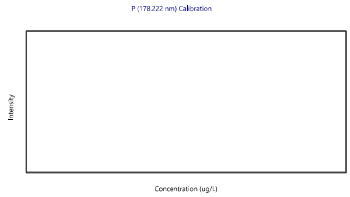
Standards	Intensity	Method Concentration	Calculated Concentration	% Error

Ni (231.604 nm)



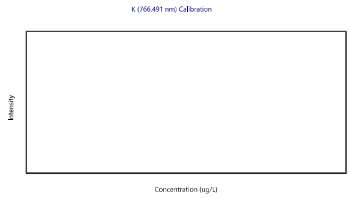
Standards	Intensity	Method Concentration	Calculated Concentration	% Error

P (178.222 nm)



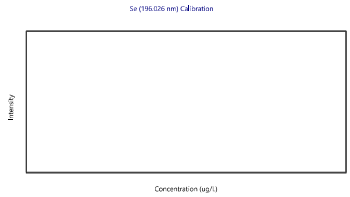
Standards	Intensity	Method Concentration	Calculated Concentration	% Error

K (766.491 nm)



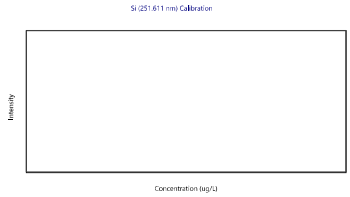
Standards	Intensity	Method Concentration	Calculated Concentration	% Error

Se (196.026 nm)



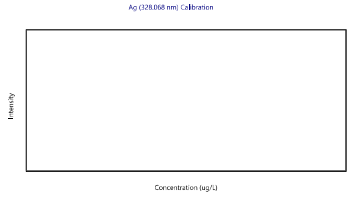
Standards	Intensity	Method Concentration	Calculated Concentration	% Error

Si (251.611 nm)



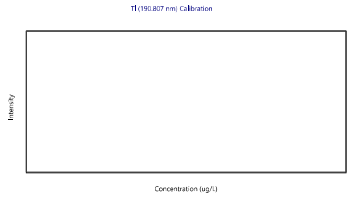
Standards	Intensity	Method Concentration	Calculated Concentration	% Error

Ag (328.068 nm)



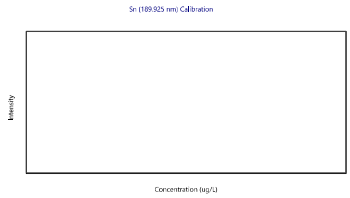
Standards	Intensity	Method Concentration	Calculated Concentration	% Error

Tl (190.807 nm)



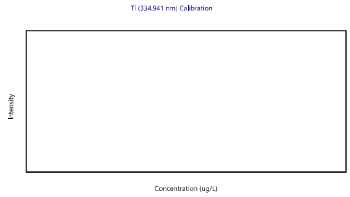
Standards	Intensity	Method Concentration	Calculated Concentration	% Error

Sn (189.925 nm)



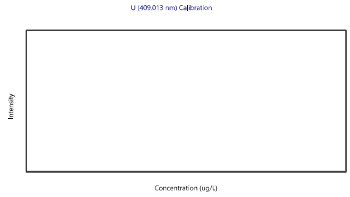
Standards	Intensity	Method Concentration	Calculated Concentration	% Error

Ti (334.941 nm)



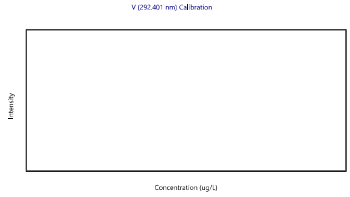
Standards	Intensity	Method Concentration	Calculated Concentration	% Error

U (409.013 nm)



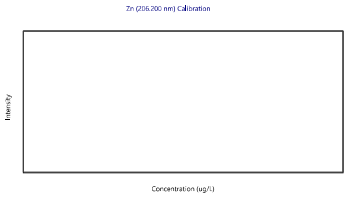
Standards	Intensity	Method Concentration	Calculated Concentration	% Error

V (292.401 nm)



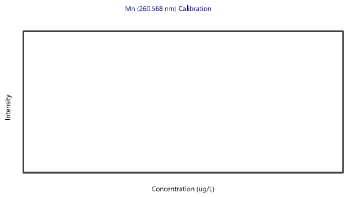
Standards	Intensity	Method Concentration	Calculated Concentration	% Error

Zn (206.200 nm)



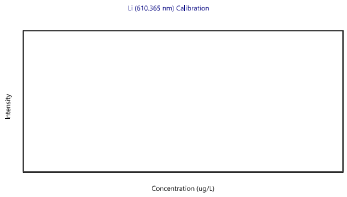
Standards	Intensity	Method Concentration	Calculated Concentration	% Error

Mn (260.568 nm)



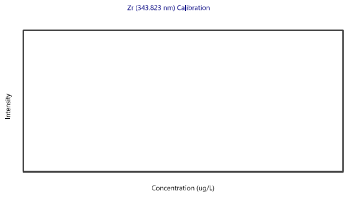
Standards	Intensity	Method Concentration	Calculated Concentration	% Error

Li (610.365 nm)



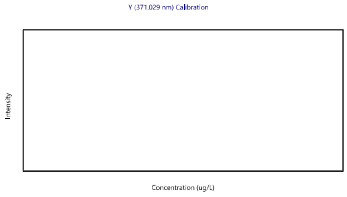
Standards	Intensity	Method Concentration	Calculated Concentration	% Error

Zr (343.823 nm)



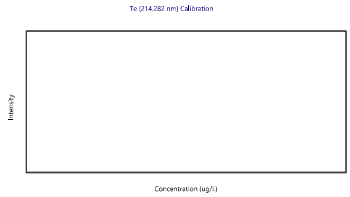
Standards	Intensity	Method Concentration	Calculated Concentration	% Error

Y (371.029 nm)



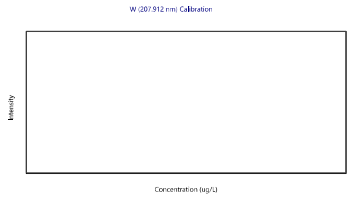
Standards	Intensity	Method Concentration	Calculated Concentration	% Error

Te (214.282 nm)



Standards	Intensity	Method Concentration	Calculated Concentration	% Error

W (207.912 nm)

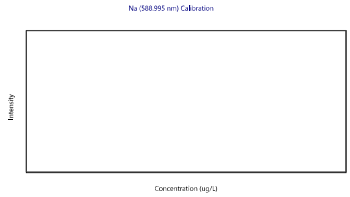


Standards	Intensity	Method Concentration	Calculated Concentration	% Error

Pt (203.646 nm)

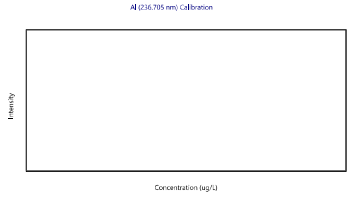
Standards	Intensity	Method Concentration	Calculated Concentration	% Error

Na (588.995 nm)



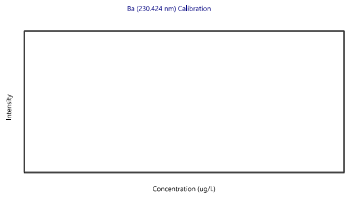
Standards	Intensity	Method Concentration	Calculated Concentration	% Error

Al (236.705 nm)



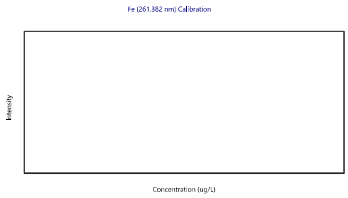
Standards	Intensity	Method Concentration	Calculated Concentration	% Error

Ba (230.424 nm)



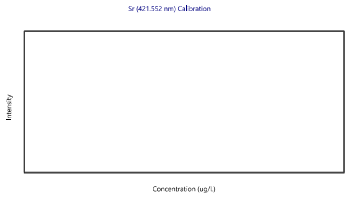
Standards	Intensity	Method Concentration	Calculated Concentration	% Error

Fe (261.382 nm)



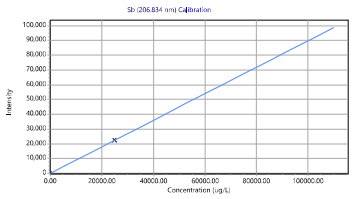
Standards	Intensity	Method Concentration	Calculated Concentration	% Error

Sr (421.552 nm)



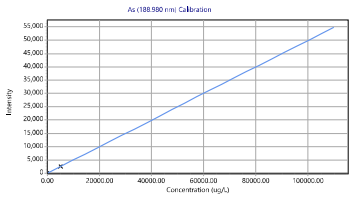
Standards	Intensity	Method Concentration	Calculated Concentration	% Error

Sb (206.834 nm)
Intensity = 0.89784960 * Concentration - 8.83897309
Correlation coefficient: 1.00000



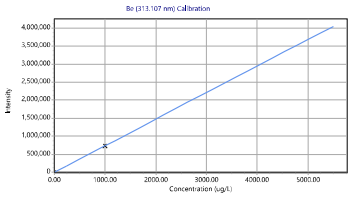
Standards	Intensity	Method Concentration	Calculated Concentration	% Error
STD0	-8.83897	0.00000	0.00000	N/A
STD1	22437.40114	25000.00000	25000.00000	0.00000

As (188.980 nm)
Intensity = 0.49917132 * Concentration - 7.85109121
Correlation coefficient: 1.00000



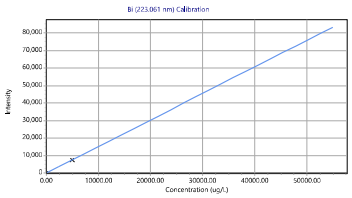
Standards	Intensity	Method Concentration	Calculated Concentration	% Error
STD0	-7.85109	0.00000	0.00000	N/A
STD1	2488.00553	5000.00000	5000.00000	0.00000

Be (313.107 nm)
Intensity = 736.16495580 * Concentration + 1.61325753
Correlation coefficient: 1.00000



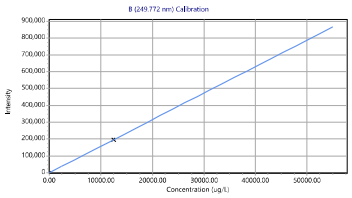
Standards	Intensity	Method Concentration	Calculated Concentration	% Error
STD0	1.61326	0.00000	0.00000	N/A
STD1	736166.56906	1000.00000	1000.00000	0.00000

Bi (223.061 nm)
Intensity = 1.51715448 * Concentration - 37.78124900
Correlation coefficient: 1.00000



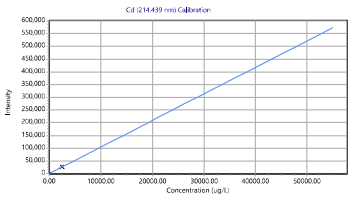
Standards	Intensity	Method Concentration	Calculated Concentration	% Error
STD0	-37.78125	0.00000	0.00000	N/A
STD1	7547.99114	5000.00000	5000.00000	0.00000

B (249.772 nm)
Intensity = 15.75310988 * Concentration + 54.01204017
Correlation coefficient: 1.00000



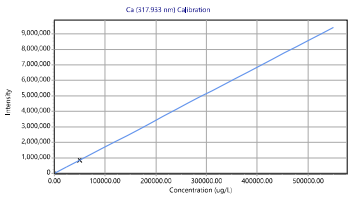
Standards	Intensity	Method Concentration	Calculated Concentration	% Error
STD0	54.01204	0.00000	0.00000	N/A
STD1	196967.88559	12500.00000	12500.00000	0.00000

Cd (214.439 nm)
Intensity = 10.43646884 * Concentration - 6.32216174
Correlation coefficient: 1.00000



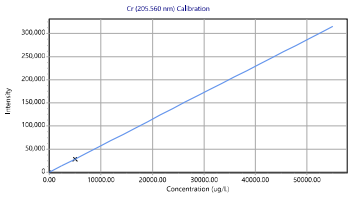
Standards	Intensity	Method Concentration	Calculated Concentration	% Error
STD0	-6.32216	0.00000	0.00000	N/A
STD1	26084.84993	2500.00000	2500.00000	0.00000

Ca (317.933 nm)
Intensity = 17.10006014 * Concentration - 34.52269671
Correlation coefficient: 1.00000



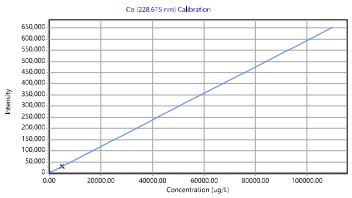
Standards	Intensity	Method Concentration	Calculated Concentration	% Error
STD0	-34.52270	0.00000	0.00000	N/A
STD1	854968.48424	50000.00000	50000.00000	0.00000

Cr (205.560 nm)
Intensity = 5.74121347 * Concentration - 3.20951677
Correlation coefficient: 1.00000



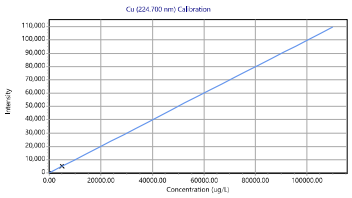
Standards	Intensity	Method Concentration	Calculated Concentration	% Error
STD0	-3.20952	0.00000	0.00000	N/A
STD1	28702.85783	5000.00000	5000.00000	0.00000

Co (228.615 nm)
Intensity = 5.94397685 * Concentration - 9.51883839
Correlation coefficient: 1.00000



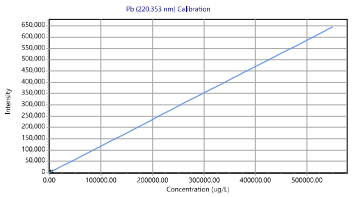
Standards	Intensity	Method Concentration	Calculated Concentration	% Error
STD0	-9.51884	0.00000	0.00000	N/A
STD1	29710.36539	5000.00000	5000.00000	0.00000

Cu (224.700 nm)
Intensity = 0.99827281 * Concentration - 10.87091782
Correlation coefficient: 1.00000



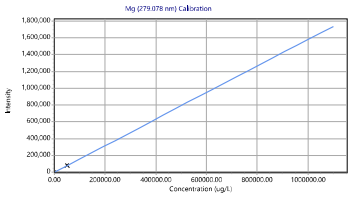
Standards	Intensity	Method Concentration	Calculated Concentration	% Error
STD0	-10.87092	0.00000	0.00000	N/A
STD1	4980.49311	5000.00000	5000.00000	0.00000

Pb (220.353 nm)
Intensity = 1.17558768 * Concentration + 2.12195102
Correlation coefficient: 1.00000



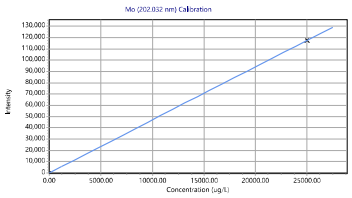
Standards	Intensity	Method Concentration	Calculated Concentration	% Error
STD0	2.12195	0.00000	0.00000	N/A
STD1	5880.06034	5000.00000	5000.00000	0.00000

Mg (279.078 nm)
Intensity = 1.58128502 * Concentration + 27.82509614
Correlation coefficient: 1.00000



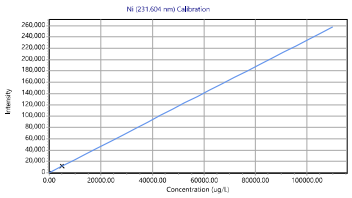
Standards	Intensity	Method Concentration	Calculated Concentration	% Error
STD0	27.82510	0.00000	0.00000	N/A
STD1	79092.07604	50000.00000	50000.00000	0.00000

Mo (202.032 nm)
Intensity = 4.70014738 * Concentration - 1.46082364
Correlation coefficient: 1.00000



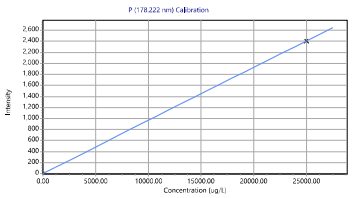
Standards	Intensity	Method Concentration	Calculated Concentration	% Error
STD0	-1.46082	0.00000	0.00000	N/A
STD1	117502.22372	25000.00000	25000.00000	0.00000

Ni (231.604 nm)
Intensity = 2.34382863 * Concentration - 3.86665924
Correlation coefficient: 1.00000



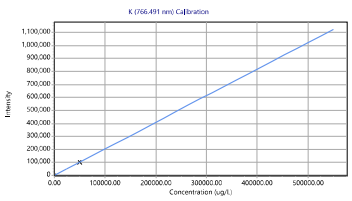
Standards	Intensity	Method Concentration	Calculated Concentration	% Error
STD0	-3.86666	0.00000	0.00000	N/A
STD1	11715.27647	5000.00000	5000.00000	0.00000

P (178.222 nm)
Intensity = 0.09616271 * Concentration + 2.52177045
Correlation coefficient: 1.00000



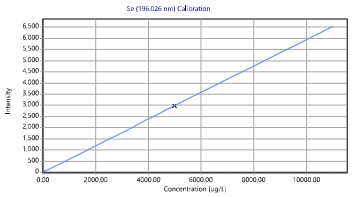
Standards	Intensity	Method Concentration	Calculated Concentration	% Error
STD0	2.52177	0.00000	0.00000	N/A
STD1	2406.58943	25000.00000	25000.00000	0.00000

K (766.491 nm)
Intensity = 2.04484165 * Concentration - 152.43711841
Correlation coefficient: 1.00000



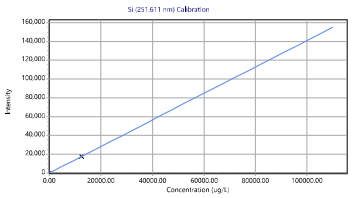
Standards	Intensity	Method Concentration	Calculated Concentration	% Error
STD0	-152.43712	0.00000	0.00000	N/A
STD1	102089.64523	50000.00000	50000.00000	0.00000

Se (196.026 nm)
Intensity = 0.59452257 * Concentration + 2.91122267
Correlation coefficient: 1.00000



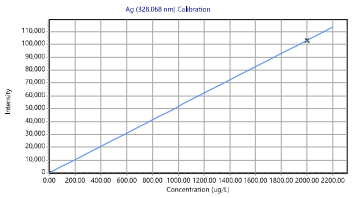
Standards	Intensity	Method Concentration	Calculated Concentration	% Error
STD0	2.91122	0.00000	0.00000	N/A
STD1	2975.52406	5000.00000	5000.00000	0.00000

Si (251.611 nm)
Intensity = 1.41139483 * Concentration + 19.82407796
Correlation coefficient: 1.00000



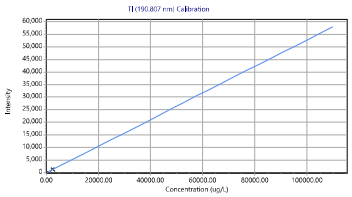
Standards	Intensity	Method Concentration	Calculated Concentration	% Error
STD0	19.82408	0.00000	0.00000	N/A
STD1	17662.25950	12500.00000	12500.00000	0.00000

Ag (328.068 nm)
Intensity = 51.70949873 * Concentration - 88.61888537
Correlation coefficient: 1.00000



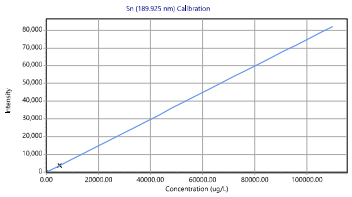
Standards	Intensity	Method Concentration	Calculated Concentration	% Error
STD0	-88.61889	0.00000	0.00000	N/A
STD1	103330.37858	2000.00000	2000.00000	0.00000

Tl (190.807 nm)
Intensity = 0.52735270 * Concentration - 2.41588892
Correlation coefficient: 1.00000



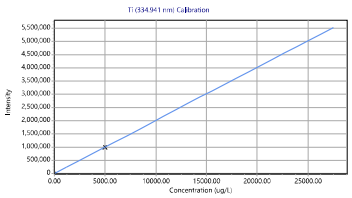
Standards	Intensity	Method Concentration	Calculated Concentration	% Error
STD0	-2.41589	0.00000	0.00000	N/A
STD1	1315.96585	2500.00000	2500.00000	0.00000

Sn (189.925 nm)
Intensity = 0.74758406 * Concentration - 5.04255649
Correlation coefficient: 1.00000



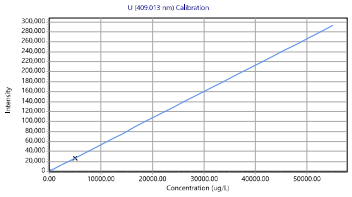
Standards	Intensity	Method Concentration	Calculated Concentration	% Error
STD0	-5.04256	0.00000	0.00000	N/A
STD1	3732.87776	5000.00000	5000.00000	0.00000

Ti (334.941 nm)
Intensity = 200.88597691 * Concentration - 62.67085664
Correlation coefficient: 1.00000



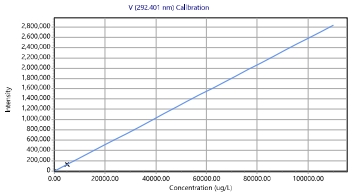
Standards	Intensity	Method Concentration	Calculated Concentration	% Error
STD0	-62.67086	0.00000	0.00000	N/A
STD1	1004367.21370	5000.00000	5000.00000	0.00000

U (409.013 nm)
Intensity = 5.32470745 * Concentration + 181.19974687
Correlation coefficient: 1.00000



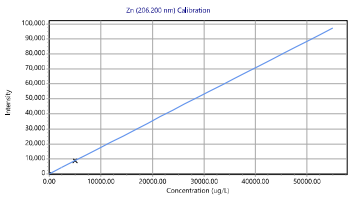
Standards	Intensity	Method Concentration	Calculated Concentration	% Error
STD0	181.19975	0.00000	0.00000	N/A
STD1	26804.73701	5000.00000	5000.00000	0.00000

V (292.401 nm)
Intensity = 25.76588164 * Concentration - 21.52781650
Correlation coefficient: 1.00000



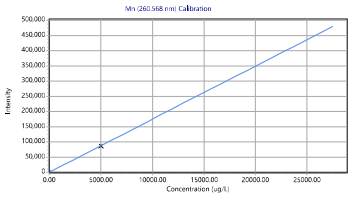
Standards	Intensity	Method Concentration	Calculated Concentration	% Error
STD0	-21.52782	0.00000	0.00000	N/A
STD1	128807.88038	5000.00000	5000.00000	0.00000

Zn (206.200 nm)
Intensity = 1.76865025 * Concentration - 1.46149967
Correlation coefficient: 1.00000



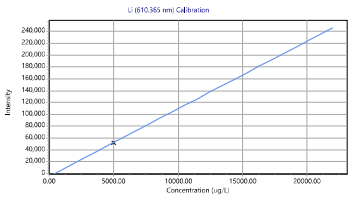
Standards	Intensity	Method Concentration	Calculated Concentration	% Error
STD0	-1.46150	0.00000	0.00000	N/A
STD1	8841.78973	5000.00000	5000.00000	0.00000

Mn (260.568 nm)
Intensity = 17.45730046 * Concentration + 1.03295950
Correlation coefficient: 1.00000



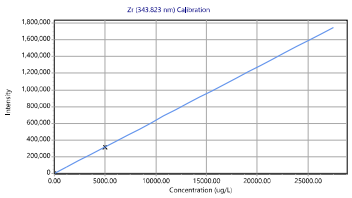
Standards	Intensity	Method Concentration	Calculated Concentration	% Error
STD0	1.03296	0.00000	0.00000	N/A
STD1	87287.53528	5000.00000	5000.00000	0.00000

Li (610.365 nm)
Intensity = 11.41699200 * Concentration - 4668.46308932
Correlation coefficient: 1.00000



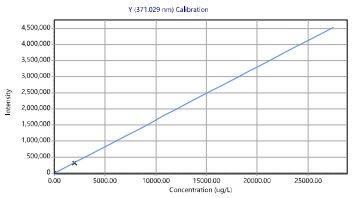
Standards	Intensity	Method Concentration	Calculated Concentration	% Error
STD0	-4668.46309	0.00000	0.00000	N/A
STD1	52416.49692	5000.00000	5000.00000	0.00000

Zr (343.823 nm)
Intensity = 63.55764456 * Concentration + 92.72308023
Correlation coefficient: 1.00000



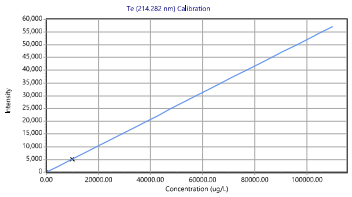
Standards	Intensity	Method Concentration	Calculated Concentration	% Error
STD0	92.72308	0.00000	0.00000	N/A
STD1	317880.94587	5000.00000	5000.00000	0.00000

Y (371.029 nm)
Intensity = 165.44612675 * Concentration + 0.46377237
Correlation coefficient: 1.00000



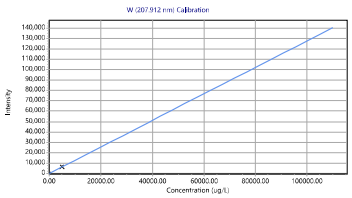
Standards	Intensity	Method Concentration	Calculated Concentration	% Error
STD0	0.46377	0.00000	0.00000	N/A
STD1	330892.71728	2000.00000	2000.00000	0.00000

Te (214.282 nm)
Intensity = 0.52065569 * Concentration - 5.33096500
Correlation coefficient: 1.00000



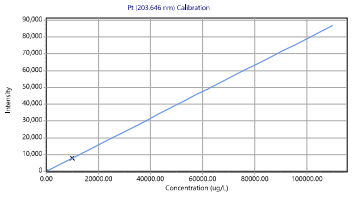
Standards	Intensity	Method Concentration	Calculated Concentration	% Error
STD0	-5.33096	0.00000	0.00000	N/A
STD1	5201.22598	10000.00000	10000.00000	0.00000

W (207.912 nm)
Intensity = 1.27762686 * Concentration + 6.15860961
Correlation coefficient: 1.00000



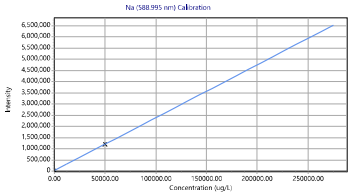
Standards	Intensity	Method Concentration	Calculated Concentration	% Error
STD0	6.15861	0.00000	0.00000	N/A
STDW	6394.29289	5000.00000	5000.00000	0.00000

Pt (203.646 nm)
Intensity = 0.79060683 * Concentration + 1.01476611
Correlation coefficient: 1.00000



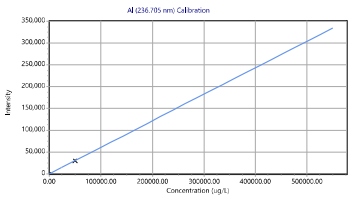
Standards	Intensity	Method Concentration	Calculated Concentration	% Error
STD0	1.01477	0.00000	0.00000	N/A
STDPt	7907.08311	10000.00000	10000.00000	0.00000

Na (588.995 nm)
Intensity = 23.65432448 * Concentration + 24149.45160231
Correlation coefficient: 1.00000



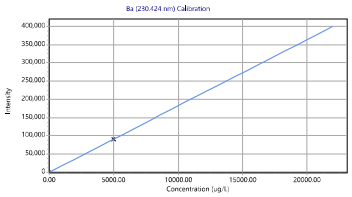
Standards	Intensity	Method Concentration	Calculated Concentration	% Error
STD0	24149.45160	0.00000	0.00000	N/A
STD1	1206865.67578	50000.00000	50000.00000	0.00000

Al (236.705 nm)
Intensity = 0.60744446 * Concentration + 63.02993727
Correlation coefficient: 1.00000



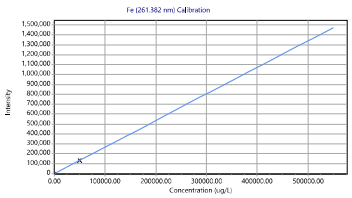
Standards	Intensity	Method Concentration	Calculated Concentration	% Error
STD0	63.02994	0.00000	0.00000	N/A
STD1	30435.25317	50000.00000	50000.00000	0.00000

Ba (230.424 nm)
Intensity = 18.18385029 * Concentration - 4.78220703
Correlation coefficient: 1.00000



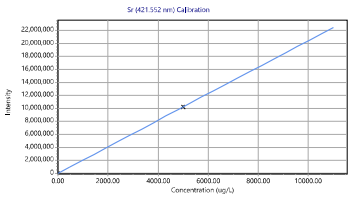
Standards	Intensity	Method Concentration	Calculated Concentration	% Error
STD0	-4.78221	0.00000	0.00000	N/A
STD1	90914.46923	5000.00000	5000.00000	0.00000

Fe (261.382 nm)
Intensity = 2.67723016 * Concentration + 47.17105201
Correlation coefficient: 1.00000



Standards	Intensity	Method Concentration	Calculated Concentration	% Error
STD0	47.17105	0.00000	0.00000	N/A
STD1	133908.67912	50000.00000	50000.00000	0.00000

Sr (421.552 nm)
Intensity = 2042.92934033 * Concentration + 18.78024512
Correlation coefficient: 1.00000



Standards	Intensity	Method Concentration	Calculated Concentration	% Error
STD0	18.78025	0.00000	0.00000	N/A
STD1	10214665.48187	5000.00000	5000.00000	0.00000

Sample Name: STD0

Date: 1/1/0001 00:00:00 Rack:Tube:

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD

Replicates Concentration

No reportable data for this solution.

Sample Name: STD1

Date: 1/1/0001 00:00:00 Rack:Tube:

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD

Replicates Concentration

No reportable data for this solution.

Sample Name: STDPt

Date: 1/1/0001 00:00:00 Rack:Tube:

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD

Replicates Concentration

No reportable data for this solution.

Sample Name: STDW

Date: 1/1/0001 00:00:00 Rack:Tube:

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD

Replicates Concentration

No reportable data for this solution.

Sample Name: LRS/IEC 1 Ag

Date: 1/1/0001 00:00:00 Rack:Tube:

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD

Replicates Concentration

No reportable data for this solution.

Sample Name: LRS/IEC 2 Al

Date: 1/1/0001 00:00:00 Rack:Tube:

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD

Replicates Concentration

No reportable data for this solution.

Sample Name: LRS/IEC 3 As

Date: 1/1/0001 00:00:00 Rack:Tube:

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD

Replicates Concentration

No reportable data for this solution.

Sample Name: LRS/IEC 4 B

Date: 1/1/0001 00:00:00 Rack:Tube:

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD

Replicates Concentration

No reportable data for this solution.

Sample Name: LRS/IEC 5 Ba

Date: 1/1/0001 00:00:00 Rack:Tube:

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD

Replicates Concentration

No reportable data for this solution.

Sample Name: LRS/IEC 6 Be

Date: 1/1/0001 00:00:00 Rack:Tube:

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD

Replicates Concentration

No reportable data for this solution.

Sample Name: LRS/IEC 7 Bi

Date: 1/1/0001 00:00:00 Rack:Tube:

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD

Replicates Concentration

No reportable data for this solution.

Sample Name: LRS/IEC 8 Ca

Date: 1/1/0001 00:00:00 Rack:Tube:

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD

Replicates Concentration

No reportable data for this solution.

Sample Name: LRS/IEC 9 Cd

Date: 1/1/0001 00:00:00 Rack:Tube:

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD

Replicates Concentration

No reportable data for this solution.

Sample Name: LRS/IEC 10 Co

Date: 1/1/0001 00:00:00 Rack:Tube:

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD

Replicates Concentration

No reportable data for this solution.

Sample Name: LRS/IEC 11 Cr

Date: 1/1/0001 00:00:00 Rack:Tube:

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD

Replicates Concentration

No reportable data for this solution.

Sample Name: LRS/IEC 12 Cu

Date: 1/1/0001 00:00:00 Rack:Tube:

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD

Replicates Concentration

No reportable data for this solution.

Sample Name: LRS/IEC 13 Fe

Date: 1/1/0001 00:00:00 Rack:Tube:

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD

Replicates Concentration

No reportable data for this solution.

Sample Name: LRS/IEC 14 K

Date: 1/1/0001 00:00:00 Rack:Tube:

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD

Replicates Concentration

No reportable data for this solution.

Sample Name: LRS/IEC 15 Li

Date: 1/1/0001 00:00:00 Rack:Tube:

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD

Replicates Concentration

No reportable data for this solution.

Sample Name: LRS/IEC 16 Mg

Date: 1/1/0001 00:00:00 Rack:Tube:

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD

Replicates Concentration

No reportable data for this solution.

Sample Name: LRS/IEC 17 Mn

Date: 1/1/0001 00:00:00 Rack:Tube:

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD

Replicates Concentration

No reportable data for this solution.

Sample Name: LRS/IEC 18 Mo

Date: 1/1/0001 00:00:00 Rack:Tube:

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD

Replicates Concentration

No reportable data for this solution.

Sample Name: LRS/IEC 19 Na

Date: 1/1/0001 00:00:00 Rack:Tube:

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD

Replicates Concentration

No reportable data for this solution.

Sample Name: LRS/IEC 20 Ni

Date: 1/1/0001 00:00:00 Rack:Tube:

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD

Replicates Concentration

No reportable data for this solution.

Sample Name: LRS/IEC 21 O

Date: 1/1/0001 00:00:00 Rack:Tube:

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD

Replicates Concentration

No reportable data for this solution.

Sample Name: LRS/IEC 22 Pb

Date: 1/1/0001 00:00:00 Rack:Tube:

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD

Replicates Concentration

No reportable data for this solution.

Sample Name: LRS/IEC 23 Pt

Date: 1/1/0001 00:00:00 Rack:Tube:

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD

Replicates Concentration

No reportable data for this solution.

Sample Name: LRS/IEC 24 Sb

Date: 1/1/0001 00:00:00 Rack:Tube:

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD

Replicates Concentration

No reportable data for this solution.

Sample Name: LRS/IEC 25 Se

Date: 1/1/0001 00:00:00 Rack:Tube:

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD

Replicates Concentration

No reportable data for this solution.

Sample Name: LRS/IEC 26 Si

Date: 1/1/0001 00:00:00 Rack:Tube:

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD

Replicates Concentration

No reportable data for this solution.

Sample Name: LRS/IEC 27 Sn

Date: 1/1/0001 00:00:00 Rack:Tube:

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD

Replicates Concentration

No reportable data for this solution.

Sample Name: LRS/IEC 28 Sr

Date: 1/1/0001 00:00:00 Rack:Tube:

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD

Replicates Concentration

No reportable data for this solution.

Sample Name: LRS/IEC 29 Te

Date: 1/1/0001 00:00:00 Rack:Tube:

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD

Replicates Concentration

No reportable data for this solution.

Sample Name: LRS/IEC 30 Ti

Date: 1/1/0001 00:00:00 Rack:Tube:

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD

Replicates Concentration

No reportable data for this solution.

Sample Name: LRS/IEC 31 Tl

Date: 1/1/0001 00:00:00 Rack:Tube:

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD

Replicates Concentration

No reportable data for this solution.

Sample Name: LRS/IEC 32 U

Date: 1/1/0001 00:00:00 Rack:Tube:

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD

Replicates Concentration

No reportable data for this solution.

Sample Name: LRS/IEC 33 V

Date: 1/1/0001 00:00:00 Rack:Tube:

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD

Replicates Concentration

No reportable data for this solution.

Sample Name: LRS/IEC 34 W

Date: 1/1/0001 00:00:00 Rack:Tube:

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD

Replicates Concentration

No reportable data for this solution.

Sample Name: LRS/IEC 35 Y

Date: 1/1/0001 00:00:00 Rack:Tube:

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD

Replicates Concentration

No reportable data for this solution.

Sample Name: LRS/IEC 36 Zn

Date: 1/1/0001 00:00:00 Rack:Tube:

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD

Replicates Concentration

No reportable data for this solution.

Sample Name: LRS/IEC 37 Zr

Date: 1/1/0001 00:00:00 Rack:Tube:

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD

Replicates Concentration

No reportable data for this solution.

Sample Name: STD0

Date: 7/14/2022 10:06:59 Rack:Tube: S1:1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Calculated Concentration
Ag (328.068 nm)	0.00000	ug/L	N/A	N/A	-88.61889	0.00000 (ug/L)
Al (236.705 nm)	0.00000	ug/L	N/A	N/A	63.02994	0.00000 (ug/L)
As (188.980 nm)	0.00000	ug/L	N/A	N/A	-7.85109	0.00000 (ug/L)
B (249.772 nm)	0.00000	ug/L	N/A	N/A	54.01204	0.00000 (ug/L)
Ba (230.424 nm)	0.00000	ug/L	N/A	N/A	-4.78221	0.00000 (ug/L)
Be (313.107 nm)	0.00000	ug/L	N/A	N/A	1.61326	0.00000 (ug/L)
Bi (223.061 nm)	0.00000	ug/L	N/A	N/A	-37.78125	0.00000 (ug/L)
Ca (317.933 nm)	0.00000	ug/L	N/A	N/A	-34.52270	0.00000 (ug/L)
Cd (214.439 nm)	0.00000	ug/L	N/A	N/A	-6.32216	0.00000 (ug/L)
Co (228.615 nm)	0.00000	ug/L	N/A	N/A	-9.51884	0.00000 (ug/L)
Cr (205.560 nm)	0.00000	ug/L	N/A	N/A	-3.20952	0.00000 (ug/L)
Cu (224.700 nm)	0.00000	ug/L	N/A	N/A	-10.87092	0.00000 (ug/L)
Fe (261.382 nm)	0.00000	ug/L	N/A	N/A	47.17105	0.00000 (ug/L)
K (766.491 nm)	0.00000	ug/L	N/A	N/A	-152.43712	0.00000 (ug/L)
Li (610.365 nm)	0.00000	ug/L	N/A	N/A	-4668.46309	0.00000 (ug/L)
Mg (279.078 nm)	0.00000	ug/L	N/A	N/A	27.82510	0.00000 (ug/L)
Mn (260.568 nm)	0.00000	ug/L	N/A	N/A	1.03296	0.00000 (ug/L)
Mo (202.032 nm)	0.00000	ug/L	N/A	N/A	-1.46082	0.00000 (ug/L)
Na (588.995 nm)	0.00000	ug/L	N/A	N/A	24149.45160	0.00000 (ug/L)
Ni (231.604 nm)	0.00000	ug/L	N/A	N/A	-3.86666	0.00000 (ug/L)
P (178.222 nm)	0.00000	ug/L	N/A	N/A	2.52177	0.00000 (ug/L)
Pb (220.353 nm)	0.00000	ug/L	N/A	N/A	2.12195	0.00000 (ug/L)
Pt (203.646 nm)	0.00000	ug/L	N/A	N/A	1.01477	0.00000 (ug/L)

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Calculated Concentration
Sb (206.834 nm)	0.00000	ug/L	N/A	N/A	-8.83897	0.00000 (ug/L)
Se (196.026 nm)	0.00000	ug/L	N/A	N/A	2.91122	0.00000 (ug/L)
Si (251.611 nm)	0.00000	ug/L	N/A	N/A	19.82408	0.00000 (ug/L)
Sn (189.925 nm)	0.00000	ug/L	N/A	N/A	-5.04256	0.00000 (ug/L)
Sr (421.552 nm)	0.00000	ug/L	N/A	N/A	18.78025	0.00000 (ug/L)
Te (214.282 nm)	0.00000	ug/L	N/A	N/A	-5.33096	0.00000 (ug/L)
Ti (334.941 nm)	0.00000	ug/L	N/A	N/A	-62.67086	0.00000 (ug/L)
Tl (190.807 nm)	0.00000	ug/L	N/A	N/A	-2.41589	0.00000 (ug/L)
U (409.013 nm)	0.00000	ug/L	N/A	N/A	181.19975	0.00000 (ug/L)
V (292.401 nm)	0.00000	ug/L	N/A	N/A	-21.52782	0.00000 (ug/L)
W (207.912 nm)	0.00000	ug/L	N/A	N/A	6.15861	0.00000 (ug/L)
Y (371.029 nm)	0.00000	ug/L	N/A	N/A	0.46377	0.00000 (ug/L)
Zn (206.200 nm)	0.00000	ug/L	N/A	N/A	-1.46150	0.00000 (ug/L)
Zr (343.823 nm)	0.00000	ug/L	N/A	N/A	92.72308	0.00000 (ug/L)

Label	Internal Standard
Ag (328.068 nm)	Sc-A
Al (236.705 nm)	Sc-A
As (188.980 nm)	Sc-A
B (249.772 nm)	Sc-A
Ba (230.424 nm)	Sc-A
Be (313.107 nm)	Sc-A
Bi (223.061 nm)	Sc-A
Ca (317.933 nm)	Sc-A
Cd (214.439 nm)	Sc-A
Co (228.615 nm)	Sc-A
Cr (205.560 nm)	Sc-A
Cu (224.700 nm)	Sc-A
Fe (261.382 nm)	Sc-A
K (766.491 nm)	Sc-R
Li (610.365 nm)	Sc-R
Mg (279.078 nm)	Sc-A
Mn (260.568 nm)	Sc-A
Mo (202.032 nm)	Sc-A
Na (588.995 nm)	Sc-R
Ni (231.604 nm)	Sc-A
P (178.222 nm)	Sc-A
Pb (220.353 nm)	Sc-A
Pt (203.646 nm)	Sc-A
Sb (206.834 nm)	Sc-A
Se (196.026 nm)	Sc-A
Si (251.611 nm)	Sc-A
Sn (189.925 nm)	Sc-A
Sr (421.552 nm)	Sc-A
Te (214.282 nm)	Sc-A
Ti (334.941 nm)	Sc-A
Tl (190.807 nm)	Sc-A
U (409.013 nm)	Sc-A

Label	Internal Standard
V (292.401 nm)	Sc-A
W (207.912 nm)	Sc-A
Y (371.029 nm)	Sc-A
Zn (206.200 nm)	Sc-A
Zr (343.823 nm)	Sc-A

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Sc-A	1.00	411389.12	0.00	0.00
Sc-R	1.00	46959.90	0.00	0.00

Replicates Concentration

Label	Replicate 1	Replicate 2	Replicate 3	Units
Ag (328.068 nm)	0.00000	0.00000	0.00000	ug/L
Al (236.705 nm)	0.00000	0.00000	0.00000	ug/L
As (188.980 nm)	0.00000	0.00000	0.00000	ug/L
B (249.772 nm)	0.00000	0.00000	0.00000	ug/L
Ba (230.424 nm)	0.00000	0.00000	0.00000	ug/L
Be (313.107 nm)	0.00000	0.00000	0.00000	ug/L
Bi (223.061 nm)	0.00000	0.00000	0.00000	ug/L
Ca (317.933 nm)	0.00000	0.00000	0.00000	ug/L
Cd (214.439 nm)	0.00000	0.00000	0.00000	ug/L
Co (228.615 nm)	0.00000	0.00000	0.00000	ug/L
Cr (205.560 nm)	0.00000	0.00000	0.00000	ug/L
Cu (224.700 nm)	0.00000	0.00000	0.00000	ug/L
Fe (261.382 nm)	0.00000	0.00000	0.00000	ug/L
K (766.491 nm)	0.00000	0.00000	0.00000	ug/L
Li (610.365 nm)	0.00000	0.00000	0.00000	ug/L
Mg (279.078 nm)	0.00000	0.00000	0.00000	ug/L
Mn (260.568 nm)	0.00000	0.00000	0.00000	ug/L
Mo (202.032 nm)	0.00000	0.00000	0.00000	ug/L
Na (588.995 nm)	0.00000	0.00000	0.00000	ug/L
Ni (231.604 nm)	0.00000	0.00000	0.00000	ug/L
P (178.222 nm)	0.00000	0.00000	0.00000	ug/L
Pb (220.353 nm)	0.00000	0.00000	0.00000	ug/L
Pt (203.646 nm)	0.00000	0.00000	0.00000	ug/L
Sb (206.834 nm)	0.00000	0.00000	0.00000	ug/L
Se (196.026 nm)	0.00000	0.00000	0.00000	ug/L
Si (251.611 nm)	0.00000	0.00000	0.00000	ug/L
Sn (189.925 nm)	0.00000	0.00000	0.00000	ug/L
Sr (421.552 nm)	0.00000	0.00000	0.00000	ug/L
Te (214.282 nm)	0.00000	0.00000	0.00000	ug/L
Ti (334.941 nm)	0.00000	0.00000	0.00000	ug/L
Tl (190.807 nm)	0.00000	0.00000	0.00000	ug/L
U (409.013 nm)	0.00000	0.00000	0.00000	ug/L
V (292.401 nm)	0.00000	0.00000	0.00000	ug/L
W (207.912 nm)	0.00000	0.00000	0.00000	ug/L

Label	Replicate 1	Replicate 2	Replicate 3	Units
Y (371.029 nm)	0.00000	0.00000	0.00000	ug/L
Zn (206.200 nm)	0.00000	0.00000	0.00000	ug/L
Zr (343.823 nm)	0.00000	0.00000	0.00000	ug/L
Sc-A (361.383 nm)	1.00	1.00	1.00	Ratio
Sc-R (503.102 nm)	1.00	1.00	1.00	Ratio

Sample Name: STD1

Date: 7/14/2022 10:08:40 Rack:Tube: S1:2

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Calculated Concentration
Ag (328.068 nm)	2000.00000	ug/L	N/A	N/A	103330.37858	2000.00000 (ug/L)
Al (236.705 nm)	50000.00000	ug/L	N/A	N/A	30435.25317	50000.00000 (ug/L)
As (188.980 nm)	5000.00000	ug/L	N/A	N/A	2488.00553	5000.00000 (ug/L)
B (249.772 nm)	12500.00000	ug/L	N/A	N/A	196967.88559	12500.00000 (ug/L)
Ba (230.424 nm)	5000.00000	ug/L	N/A	N/A	90914.46923	5000.00000 (ug/L)
Be (313.107 nm)	1000.00000	ug/L	N/A	N/A	736166.56906	1000.00000 (ug/L)
Bi (223.061 nm)	5000.00000	ug/L	N/A	N/A	7547.99114	5000.00000 (ug/L)
Ca (317.933 nm)	50000.00000	ug/L	N/A	N/A	854968.48424	50000.00000 (ug/L)
Cd (214.439 nm)	2500.00000	ug/L	N/A	N/A	26084.84993	2500.00000 (ug/L)
Co (228.615 nm)	5000.00000	ug/L	N/A	N/A	29710.36539	5000.00000 (ug/L)
Cr (205.560 nm)	5000.00000	ug/L	N/A	N/A	28702.85783	5000.00000 (ug/L)
Cu (224.700 nm)	5000.00000	ug/L	N/A	N/A	4980.49311	5000.00000 (ug/L)
Fe (261.382 nm)	50000.00000	ug/L	N/A	N/A	133908.67912	50000.00000 (ug/L)
K (766.491 nm)	50000.00000	ug/L	N/A	N/A	102089.64523	50000.00000 (ug/L)
Li (610.365 nm)	5000.00000	ug/L	N/A	N/A	52416.49692	5000.00000 (ug/L)
Mg (279.078 nm)	50000.00000	ug/L	N/A	N/A	79092.07604	50000.00000 (ug/L)
Mn (260.568 nm)	5000.00000	ug/L	N/A	N/A	87287.53528	5000.00000 (ug/L)
Mo (202.032 nm)	25000.00000	ug/L	N/A	N/A	117502.22372	25000.00000 (ug/L)
Na (588.995 nm)	50000.00000	ug/L	N/A	N/A	1206865.67578	50000.00000 (ug/L)
Ni (231.604 nm)	5000.00000	ug/L	N/A	N/A	11715.27647	5000.00000 (ug/L)
P (178.222 nm)	25000.00000	ug/L	N/A	N/A	2406.58943	25000.00000 (ug/L)
Pb (220.353 nm)	5000.00000	ug/L	N/A	N/A	5880.06034	5000.00000 (ug/L)
Pt (203.646 nm)		ug/L	N/A	N/A	285.61752	
Sb (206.834 nm)	25000.00000	ug/L	N/A	N/A	22437.40114	25000.00000 (ug/L)
Se (196.026 nm)	5000.00000	ug/L	N/A	N/A	2975.52406	5000.00000 (ug/L)
Si (251.611 nm)	12500.00000	ug/L	N/A	N/A	17662.25950	12500.00000 (ug/L)
Sn (189.925 nm)	5000.00000	ug/L	N/A	N/A	3732.87776	5000.00000 (ug/L)
Sr (421.552 nm)	5000.00000	ug/L	N/A	N/A	10214665.48187	5000.00000 (ug/L)
Te (214.282 nm)	10000.00000	ug/L	N/A	N/A	5201.22598	10000.00000 (ug/L)
Ti (334.941 nm)	5000.00000	ug/L	N/A	N/A	1004367.21370	5000.00000 (ug/L)
Tl (190.807 nm)	2500.00000	ug/L	N/A	N/A	1315.96585	2500.00000 (ug/L)
U (409.013 nm)	5000.00000	ug/L	N/A	N/A	26804.73701	5000.00000 (ug/L)
V (292.401 nm)	5000.00000	ug/L	N/A	N/A	128807.88038	5000.00000 (ug/L)
W (207.912 nm)		ug/L	N/A	N/A	59.97003	
Y (371.029 nm)	2000.00000	ug/L	N/A	N/A	330892.71728	2000.00000 (ug/L)
Zn (206.200 nm)	5000.00000	ug/L	N/A	N/A	8841.78973	5000.00000 (ug/L)
Zr (343.823 nm)	5000.00000	ug/L	N/A	N/A	317880.94587	5000.00000 (ug/L)

Label	Internal Standard
Ag (328.068 nm)	Sc-A
Al (236.705 nm)	Sc-A
As (188.980 nm)	Sc-A
B (249.772 nm)	Sc-A
Ba (230.424 nm)	Sc-A
Be (313.107 nm)	Sc-A
Bi (223.061 nm)	Sc-A
Ca (317.933 nm)	Sc-A
Cd (214.439 nm)	Sc-A
Co (228.615 nm)	Sc-A
Cr (205.560 nm)	Sc-A
Cu (224.700 nm)	Sc-A
Fe (261.382 nm)	Sc-A
K (766.491 nm)	Sc-R
Li (610.365 nm)	Sc-R
Mg (279.078 nm)	Sc-A
Mn (260.568 nm)	Sc-A
Mo (202.032 nm)	Sc-A
Na (588.995 nm)	Sc-R
Ni (231.604 nm)	Sc-A
P (178.222 nm)	Sc-A
Pb (220.353 nm)	Sc-A
Pt (203.646 nm)	Sc-A
Sb (206.834 nm)	Sc-A
Se (196.026 nm)	Sc-A
Si (251.611 nm)	Sc-A
Sn (189.925 nm)	Sc-A
Sr (421.552 nm)	Sc-A
Te (214.282 nm)	Sc-A
Ti (334.941 nm)	Sc-A
Tl (190.807 nm)	Sc-A
U (409.013 nm)	Sc-A
V (292.401 nm)	Sc-A
W (207.912 nm)	Sc-A
Y (371.029 nm)	Sc-A
Zn (206.200 nm)	Sc-A
Zr (343.823 nm)	Sc-A

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Sc-A	0.93	383770.72	0.00	0.32
Sc-R	0.94	44253.40	0.00	0.22

Replicates Concentration

Label	Replicate 1	Replicate 2	Replicate 3	Units
Ag (328.068 nm)	2000.00000	2000.00000	2000.00000	ug/L
Al (236.705 nm)	50000.00000	50000.00000	50000.00000	ug/L
As (188.980 nm)	5000.00000	5000.00000	5000.00000	ug/L
B (249.772 nm)	12500.00000	12500.00000	12500.00000	ug/L
Ba (230.424 nm)	5000.00000	5000.00000	5000.00000	ug/L
Be (313.107 nm)	1000.00000	1000.00000	1000.00000	ug/L
Bi (223.061 nm)	5000.00000	5000.00000	5000.00000	ug/L
Ca (317.933 nm)	50000.00000	50000.00000	50000.00000	ug/L
Cd (214.439 nm)	2500.00000	2500.00000	2500.00000	ug/L
Co (228.615 nm)	5000.00000	5000.00000	5000.00000	ug/L
Cr (205.560 nm)	5000.00000	5000.00000	5000.00000	ug/L
Cu (224.700 nm)	5000.00000	5000.00000	5000.00000	ug/L
Fe (261.382 nm)	50000.00000	50000.00000	50000.00000	ug/L
K (766.491 nm)	50000.00000	50000.00000	50000.00000	ug/L
Li (610.365 nm)	5000.00000	5000.00000	5000.00000	ug/L
Mg (279.078 nm)	50000.00000	50000.00000	50000.00000	ug/L
Mn (260.568 nm)	5000.00000	5000.00000	5000.00000	ug/L
Mo (202.032 nm)	25000.00000	25000.00000	25000.00000	ug/L
Na (588.995 nm)	50000.00000	50000.00000	50000.00000	ug/L
Ni (231.604 nm)	5000.00000	5000.00000	5000.00000	ug/L
P (178.222 nm)	25000.00000	25000.00000	25000.00000	ug/L
Pb (220.353 nm)	5000.00000	5000.00000	5000.00000	ug/L
Pt (203.646 nm)				ug/L
Sb (206.834 nm)	25000.00000	25000.00000	25000.00000	ug/L
Se (196.026 nm)	5000.00000	5000.00000	5000.00000	ug/L
Si (251.611 nm)	12500.00000	12500.00000	12500.00000	ug/L
Sn (189.925 nm)	5000.00000	5000.00000	5000.00000	ug/L
Sr (421.552 nm)	5000.00000	5000.00000	5000.00000	ug/L
Te (214.282 nm)	10000.00000	10000.00000	10000.00000	ug/L
Ti (334.941 nm)	5000.00000	5000.00000	5000.00000	ug/L
Tl (190.807 nm)	2500.00000	2500.00000	2500.00000	ug/L
U (409.013 nm)	5000.00000	5000.00000	5000.00000	ug/L
V (292.401 nm)	5000.00000	5000.00000	5000.00000	ug/L
W (207.912 nm)				ug/L
Y (371.029 nm)	2000.00000	2000.00000	2000.00000	ug/L
Zn (206.200 nm)	5000.00000	5000.00000	5000.00000	ug/L
Zr (343.823 nm)	5000.00000	5000.00000	5000.00000	ug/L
Sc-A (361.383 nm)	0.93	0.93	0.94	Ratio
Sc-R (503.102 nm)	0.94	0.94	0.94	Ratio

Sample Name: STDPt

Date: 7/14/2022 10:10:21 Rack:Tube: S1:3

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Calculated Concentration
Ag (328.068 nm)		ug/L	N/A	N/A	-93.31021	
Al (236.705 nm)		ug/L	N/A	N/A	59.68042	
As (188.980 nm)		ug/L	N/A	N/A	-9.96528	

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Calculated Concentration
B (249.772 nm)		ug/L	N/A	N/A	252.71866	
Ba (230.424 nm)		ug/L	N/A	N/A	-5.84506	
Be (313.107 nm)		ug/L	N/A	N/A	11.87811	
Bi (223.061 nm)		ug/L	N/A	N/A	-35.87078	
Ca (317.933 nm)		ug/L	N/A	N/A	140.81408	
Cd (214.439 nm)		ug/L	N/A	N/A	387.28063	
Co (228.615 nm)		ug/L	N/A	N/A	-11.84571	
Cr (205.560 nm)		ug/L	N/A	N/A	-0.55254	
Cu (224.700 nm)		ug/L	N/A	N/A	-7.08127	
Fe (261.382 nm)		ug/L	N/A	N/A	52.55663	
K (766.491 nm)		ug/L	N/A	N/A	-183.23068	
Li (610.365 nm)		ug/L	N/A	N/A	-4672.25923	
Mg (279.078 nm)		ug/L	N/A	N/A	25.60824	
Mn (260.568 nm)		ug/L	N/A	N/A	6.52823	
Mo (202.032 nm)		ug/L	N/A	N/A	4.80841	
Na (588.995 nm)		ug/L	N/A	N/A	23917.29864	
Ni (231.604 nm)		ug/L	N/A	N/A	-6.29675	
P (178.222 nm)		ug/L	N/A	N/A	2.97056	
Pb (220.353 nm)		ug/L	N/A	N/A	3.62145	
Pt (203.646 nm)	10000.00000	ug/L	N/A	N/A	7907.08311	10000.00000 (ug/L)
Sb (206.834 nm)		ug/L	N/A	N/A	-24.89167	
Se (196.026 nm)		ug/L	N/A	N/A	3.57842	
Si (251.611 nm)		ug/L	N/A	N/A	15.04961	
Sn (189.925 nm)		ug/L	N/A	N/A	-5.43305	
Sr (421.552 nm)		ug/L	N/A	N/A	461.24399	
Te (214.282 nm)		ug/L	N/A	N/A	-4.33898	
Ti (334.941 nm)		ug/L	N/A	N/A	-44.65624	
Tl (190.807 nm)		ug/L	N/A	N/A	-3.77494	
U (409.013 nm)		ug/L	N/A	N/A	200.60352	
V (292.401 nm)		ug/L	N/A	N/A	-23.15093	
W (207.912 nm)		ug/L	N/A	N/A	6.82150	
Y (371.029 nm)		ug/L	N/A	N/A	6.35421	
Zn (206.200 nm)		ug/L	N/A	N/A	-2.14957	
Zr (343.823 nm)		ug/L	N/A	N/A	167.57150	

Label	Internal Standard
Ag (328.068 nm)	Sc-A
Al (236.705 nm)	Sc-A
As (188.980 nm)	Sc-A
B (249.772 nm)	Sc-A
Ba (230.424 nm)	Sc-A
Be (313.107 nm)	Sc-A
Bi (223.061 nm)	Sc-A
Ca (317.933 nm)	Sc-A
Cd (214.439 nm)	Sc-A
Co (228.615 nm)	Sc-A
Cr (205.560 nm)	Sc-A
Cu (224.700 nm)	Sc-A

Label	Internal Standard
Fe (261.382 nm)	Sc-A
K (766.491 nm)	Sc-R
Li (610.365 nm)	Sc-R
Mg (279.078 nm)	Sc-A
Mn (260.568 nm)	Sc-A
Mo (202.032 nm)	Sc-A
Na (588.995 nm)	Sc-R
Ni (231.604 nm)	Sc-A
P (178.222 nm)	Sc-A
Pb (220.353 nm)	Sc-A
Pt (203.646 nm)	Sc-A
Sb (206.834 nm)	Sc-A
Se (196.026 nm)	Sc-A
Si (251.611 nm)	Sc-A
Sn (189.925 nm)	Sc-A
Sr (421.552 nm)	Sc-A
Te (214.282 nm)	Sc-A
Ti (334.941 nm)	Sc-A
Tl (190.807 nm)	Sc-A
U (409.013 nm)	Sc-A
V (292.401 nm)	Sc-A
W (207.912 nm)	Sc-A
Y (371.029 nm)	Sc-A
Zn (206.200 nm)	Sc-A
Zr (343.823 nm)	Sc-A

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Sc-A	1.00	409812.47	0.00	0.25
Sc-R	1.00	46784.18	0.00	0.26

Replicates Concentration

Label	Replicate 1	Replicate 2	Replicate 3	Units
Ag (328.068 nm)				ug/L
Al (236.705 nm)				ug/L
As (188.980 nm)				ug/L
B (249.772 nm)				ug/L
Ba (230.424 nm)				ug/L
Be (313.107 nm)				ug/L
Bi (223.061 nm)				ug/L
Ca (317.933 nm)				ug/L
Cd (214.439 nm)				ug/L
Co (228.615 nm)				ug/L
Cr (205.560 nm)				ug/L
Cu (224.700 nm)				ug/L
Fe (261.382 nm)				ug/L
K (766.491 nm)				ug/L

Label	Replicate 1	Replicate 2	Replicate 3	Units
Li (610.365 nm)				ug/L
Mg (279.078 nm)				ug/L
Mn (260.568 nm)				ug/L
Mo (202.032 nm)				ug/L
Na (588.995 nm)				ug/L
Ni (231.604 nm)				ug/L
P (178.222 nm)				ug/L
Pb (220.353 nm)				ug/L
Pt (203.646 nm)	10000.00000	10000.00000	10000.00000	ug/L
Sb (206.834 nm)				ug/L
Se (196.026 nm)				ug/L
Si (251.611 nm)				ug/L
Sn (189.925 nm)				ug/L
Sr (421.552 nm)				ug/L
Te (214.282 nm)				ug/L
Ti (334.941 nm)				ug/L
Tl (190.807 nm)				ug/L
U (409.013 nm)				ug/L
V (292.401 nm)				ug/L
W (207.912 nm)				ug/L
Y (371.029 nm)				ug/L
Zn (206.200 nm)				ug/L
Zr (343.823 nm)				ug/L
Sc-A (361.383 nm)	0.99	1.00	1.00	Ratio
Sc-R (503.102 nm)	0.99	1.00	1.00	Ratio

Sample Name: STDW

Date: 7/14/2022 10:12:02 Rack:Tube: S1:4

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Calculated Concentration
Ag (328.068 nm)		ug/L	N/A	N/A	-92.27716	
Al (236.705 nm)		ug/L	N/A	N/A	62.08310	
As (188.980 nm)		ug/L	N/A	N/A	-6.45799	
B (249.772 nm)		ug/L	N/A	N/A	163.31864	
Ba (230.424 nm)		ug/L	N/A	N/A	-23.97713	
Be (313.107 nm)		ug/L	N/A	N/A	29.94204	
Bi (223.061 nm)		ug/L	N/A	N/A	-46.24078	
Ca (317.933 nm)		ug/L	N/A	N/A	91.90975	
Cd (214.439 nm)		ug/L	N/A	N/A	-3.29267	
Co (228.615 nm)		ug/L	N/A	N/A	-6.56553	
Cr (205.560 nm)		ug/L	N/A	N/A	11.79584	
Cu (224.700 nm)		ug/L	N/A	N/A	-68.78513	
Fe (261.382 nm)		ug/L	N/A	N/A	254.26228	
K (766.491 nm)		ug/L	N/A	N/A	-163.98970	
Li (610.365 nm)		ug/L	N/A	N/A	-4534.53803	
Mg (279.078 nm)		ug/L	N/A	N/A	21.99753	
Mn (260.568 nm)		ug/L	N/A	N/A	-34.73507	

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Calculated Concentration
Mo (202.032 nm)		ug/L	N/A	N/A	-2.87255	
Na (588.995 nm)		ug/L	N/A	N/A	21980.51010	
Ni (231.604 nm)		ug/L	N/A	N/A	-7.56334	
P (178.222 nm)		ug/L	N/A	N/A	2.56737	
Pb (220.353 nm)		ug/L	N/A	N/A	-13.51705	
Pt (203.646 nm)		ug/L	N/A	N/A	0.94282	
Sb (206.834 nm)		ug/L	N/A	N/A	-6.63278	
Se (196.026 nm)		ug/L	N/A	N/A	26.52741	
Si (251.611 nm)		ug/L	N/A	N/A	205.74526	
Sn (189.925 nm)		ug/L	N/A	N/A	-6.73172	
Sr (421.552 nm)		ug/L	N/A	N/A	183.20725	
Te (214.282 nm)		ug/L	N/A	N/A	-8.11381	
Ti (334.941 nm)		ug/L	N/A	N/A	-8.28129	
Tl (190.807 nm)		ug/L	N/A	N/A	127.14641	
U (409.013 nm)		ug/L	N/A	N/A	173.71768	
V (292.401 nm)		ug/L	N/A	N/A	-2.58811	
W (207.912 nm)	5000.00000	ug/L	N/A	N/A	6394.29289	5000.00000 (ug/L)
Y (371.029 nm)		ug/L	N/A	N/A	9.16418	
Zn (206.200 nm)		ug/L	N/A	N/A	0.01321	
Zr (343.823 nm)		ug/L	N/A	N/A	409.25634	

Label	Internal Standard
Ag (328.068 nm)	Sc-A
Al (236.705 nm)	Sc-A
As (188.980 nm)	Sc-A
B (249.772 nm)	Sc-A
Ba (230.424 nm)	Sc-A
Be (313.107 nm)	Sc-A
Bi (223.061 nm)	Sc-A
Ca (317.933 nm)	Sc-A
Cd (214.439 nm)	Sc-A
Co (228.615 nm)	Sc-A
Cr (205.560 nm)	Sc-A
Cu (224.700 nm)	Sc-A
Fe (261.382 nm)	Sc-A
K (766.491 nm)	Sc-R
Li (610.365 nm)	Sc-R
Mg (279.078 nm)	Sc-A
Mn (260.568 nm)	Sc-A
Mo (202.032 nm)	Sc-A
Na (588.995 nm)	Sc-R
Ni (231.604 nm)	Sc-A
P (178.222 nm)	Sc-A
Pb (220.353 nm)	Sc-A
Pt (203.646 nm)	Sc-A
Sb (206.834 nm)	Sc-A
Se (196.026 nm)	Sc-A
Si (251.611 nm)	Sc-A

Label	Internal Standard
Sn (189.925 nm)	Sc-A
Sr (421.552 nm)	Sc-A
Te (214.282 nm)	Sc-A
Ti (334.941 nm)	Sc-A
Tl (190.807 nm)	Sc-A
U (409.013 nm)	Sc-A
V (292.401 nm)	Sc-A
W (207.912 nm)	Sc-A
Y (371.029 nm)	Sc-A
Zn (206.200 nm)	Sc-A
Zr (343.823 nm)	Sc-A

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Sc-A	0.97	401081.92	0.00	0.13
Sc-R	0.97	45644.82	0.00	0.13

Replicates Concentration

Label	Replicate 1	Replicate 2	Replicate 3	Units
Ag (328.068 nm)				ug/L
Al (236.705 nm)				ug/L
As (188.980 nm)				ug/L
B (249.772 nm)				ug/L
Ba (230.424 nm)				ug/L
Be (313.107 nm)				ug/L
Bi (223.061 nm)				ug/L
Ca (317.933 nm)				ug/L
Cd (214.439 nm)				ug/L
Co (228.615 nm)				ug/L
Cr (205.560 nm)				ug/L
Cu (224.700 nm)				ug/L
Fe (261.382 nm)				ug/L
K (766.491 nm)				ug/L
Li (610.365 nm)				ug/L
Mg (279.078 nm)				ug/L
Mn (260.568 nm)				ug/L
Mo (202.032 nm)				ug/L
Na (588.995 nm)				ug/L
Ni (231.604 nm)				ug/L
P (178.222 nm)				ug/L
Pb (220.353 nm)				ug/L
Pt (203.646 nm)				ug/L
Sb (206.834 nm)				ug/L
Se (196.026 nm)				ug/L
Si (251.611 nm)				ug/L
Sn (189.925 nm)				ug/L
Sr (421.552 nm)				ug/L

Label	Replicate 1	Replicate 2	Replicate 3	Units
Te (214.282 nm)				ug/L
Ti (334.941 nm)				ug/L
Tl (190.807 nm)				ug/L
U (409.013 nm)				ug/L
V (292.401 nm)				ug/L
W (207.912 nm)	5000.00000	5000.00000	5000.00000	ug/L
Y (371.029 nm)				ug/L
Zn (206.200 nm)				ug/L
Zr (343.823 nm)				ug/L
Sc-A (361.383 nm)	0.97	0.98	0.98	Ratio
Sc-R (503.102 nm)	0.97	0.97	0.97	Ratio

Sample Name: ICV

Date: 7/14/2022 10:13:43 Rack:Tube: S1:5

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Calculated Concentration
Ag (328.068 nm)	478.13578	ug/L	5.12631	1.07	24859.69980	478.13578 (ug/L)
Al (236.705 nm)	9528.00940	ug/L	132.23012	1.39	5864.36848	9528.00940 (ug/L)
As (188.980 nm)	1984.14976	ug/L	25.34187	1.28	982.65837	1984.14976 (ug/L)
B (249.772 nm)	1965.23667	ug/L	25.29149	1.29	31104.31533	1965.23667 (ug/L)
Ba (230.424 nm)	2007.13215	ug/L	42.92857	2.14	36605.33290	2007.13215 (ug/L)
Be (313.107 nm)	498.41419	ug/L	6.89722	1.38	366919.33614	498.41419 (ug/L)
Bi (223.061 nm)	971.23042	ug/L	8.73263	0.90	1424.69332	971.23042 (ug/L)
Ca (317.933 nm)	9964.07545	ug/L	136.74477	1.37	171411.38068	9964.07545 (ug/L)
Cd (214.439 nm)	499.08026	ug/L	6.77890	1.36	5199.82790	499.08026 (ug/L)
Co (228.615 nm)	500.28081	ug/L	5.37775	1.07	2946.05627	500.28081 (ug/L)
Cr (205.560 nm)	508.07176	ug/L	5.83459	1.15	2913.76898	508.07176 (ug/L)
Cu (224.700 nm)	506.06560	ug/L	4.80322	0.95	506.24874	506.06560 (ug/L)
Fe (261.382 nm)	10153.97838	ug/L	155.74460	1.53	27166.86327	10153.97838 (ug/L)
K (766.491 nm)	9282.52658	ug/L	113.06161	1.22	18812.12344	9282.52658 (ug/L)
Li (610.365 nm)	487.46054	ug/L	5.29721	1.09	732.44399	487.46054 (ug/L)
Mg (279.078 nm)	9667.86416	ug/L	128.88382	1.33	15299.93999	9667.86416 (ug/L)
Mn (260.568 nm)	516.27498	ug/L	7.02145	1.36	9001.73791	516.27498 (ug/L)
Mo (202.032 nm)	2017.07908	ug/L	27.44179	1.36	9478.25386	2017.07908 (ug/L)
Na (588.995 nm)	9986.79774	ug/L	105.24704	1.05	260380.40598	9986.79774 (ug/L)
Ni (231.604 nm)	500.77143	ug/L	8.63520	1.72	1170.05141	500.77143 (ug/L)
P (178.222 nm)	1971.25024	ug/L	17.29351	0.88	192.08253	1971.25024 (ug/L)
Pb (220.353 nm)	2026.17808	ug/L	21.95339	1.08	2381.61948	2026.17808 (ug/L)
Pt (203.646 nm)	3.14038 Q	ug/L	6.81096	> 100.00	63.82832 Q	3.14038 Q (ug/L)
Sb (206.834 nm)	1966.84509	ug/L	20.07227	1.02	1759.91292	1966.84509 (ug/L)
Se (196.026 nm)	1975.45204	ug/L	21.64864	1.10	1174.96484	1975.45204 (ug/L)
Si (251.611 nm)	2193.72604	ug/L	24.68268	1.13	3165.10883	2193.72604 (ug/L)
Sn (189.925 nm)	2021.40731	ug/L	26.05737	1.29	1506.12933	2021.40731 (ug/L)
Sr (421.552 nm)	524.05874	ug/L	6.45774	1.23	1070633.75252	524.05874 (ug/L)
Te (214.282 nm)	1966.85878	ug/L	29.22090	1.49	1021.45312	1966.85878 (ug/L)
Ti (334.941 nm)	498.59173	ug/L	6.68831	1.34	100153.55157	498.59173 (ug/L)
Tl (190.807 nm)	2013.33900	ug/L	33.40295	1.66	1069.43949	2013.33900 (ug/L)

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Calculated Concentration
U (409.013 nm)	987.03860	ug/L	13.47727	1.37	5480.38599	987.03860 (ug/L)
V (292.401 nm)	490.17241	ug/L	6.08989	1.24	12373.88320	490.17241 (ug/L)
W (207.912 nm)	0.93983 Q	ug/L	1.66912	> 100.00	12.34832 Q	0.93983 Q (ug/L)
Y (371.029 nm)	974.74490	ug/L	13.14669	1.35	161262.67749	974.74490 (ug/L)
Zn (206.200 nm)	510.89730	ug/L	7.45436	1.46	903.63213	510.89730 (ug/L)
Zr (343.823 nm)	967.76743	ug/L	13.52456	1.40	61595.40352	967.76743 (ug/L)

Label	Internal Standard
Ag (328.068 nm)	Sc-A
Al (236.705 nm)	Sc-A
As (188.980 nm)	Sc-A
B (249.772 nm)	Sc-A
Ba (230.424 nm)	Sc-A
Be (313.107 nm)	Sc-A
Bi (223.061 nm)	Sc-A
Ca (317.933 nm)	Sc-A
Cd (214.439 nm)	Sc-A
Co (228.615 nm)	Sc-A
Cr (205.560 nm)	Sc-A
Cu (224.700 nm)	Sc-A
Fe (261.382 nm)	Sc-A
K (766.491 nm)	Sc-R
Li (610.365 nm)	Sc-R
Mg (279.078 nm)	Sc-A
Mn (260.568 nm)	Sc-A
Mo (202.032 nm)	Sc-A
Na (588.995 nm)	Sc-R
Ni (231.604 nm)	Sc-A
P (178.222 nm)	Sc-A
Pb (220.353 nm)	Sc-A
Pt (203.646 nm)	Sc-A
Sb (206.834 nm)	Sc-A
Se (196.026 nm)	Sc-A
Si (251.611 nm)	Sc-A
Sn (189.925 nm)	Sc-A
Sr (421.552 nm)	Sc-A
Te (214.282 nm)	Sc-A
Ti (334.941 nm)	Sc-A
Tl (190.807 nm)	Sc-A
U (409.013 nm)	Sc-A
V (292.401 nm)	Sc-A
W (207.912 nm)	Sc-A
Y (371.029 nm)	Sc-A
Zn (206.200 nm)	Sc-A
Zr (343.823 nm)	Sc-A

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Sc-A	0.97	397354.54	0.00	0.26
Sc-R	0.97	45318.66	0.00	0.26

Replicates Concentration

Label	Replicate 1	Replicate 2	Replicate 3	Units
Ag (328.068 nm)	472.43565	479.60362	482.36805	ug/L
Al (236.705 nm)	9385.97498	9550.50371	9647.54952	ug/L
As (188.980 nm)	1955.05573	1995.98318	2001.41036	ug/L
B (249.772 nm)	1937.09144	1972.56067	1986.05790	ug/L
Ba (230.424 nm)	1959.61817	2018.65481	2043.12346	ug/L
Be (313.107 nm)	490.55661	501.21810	503.46787	ug/L
Bi (223.061 nm)	963.35338	969.71706	980.62083	ug/L
Ca (317.933 nm)	9814.67834	9994.50768	10083.04034	ug/L
Cd (214.439 nm)	491.52646	504.63440	501.07991	ug/L
Co (228.615 nm)	494.37442	501.57384	504.89418	ug/L
Cr (205.560 nm)	502.35115	507.85012	514.01401	ug/L
Cu (224.700 nm)	501.43319	505.74050	511.02312	ug/L
Fe (261.382 nm)	9982.96760	10191.28766	10287.67988	ug/L
K (766.491 nm)	9160.29976	9303.91116	9383.36883	ug/L
Li (610.365 nm)	481.37271	489.99055	491.01838	ug/L
Mg (279.078 nm)	9527.05306	9696.55383	9779.98559	ug/L
Mn (260.568 nm)	508.47240	518.26821	522.08432	ug/L
Mo (202.032 nm)	1986.02209	2027.16247	2038.05268	ug/L
Na (588.995 nm)	9869.74932	10017.00784	10073.63607	ug/L
Ni (231.604 nm)	492.55916	499.98005	509.77508	ug/L
P (178.222 nm)	1958.62920	1964.15936	1990.96216	ug/L
Pb (220.353 nm)	2002.36952	2030.54476	2045.61997	ug/L
Pt (203.646 nm)	10.07735	-3.53715 u	2.88096	ug/L
Sb (206.834 nm)	1943.86597	1975.71430	1980.95500	ug/L
Se (196.026 nm)	1953.13959	1976.84714	1996.36938	ug/L
Si (251.611 nm)	2166.58524	2199.76205	2214.83085	ug/L
Sn (189.925 nm)	1992.05015	2030.37586	2041.79591	ug/L
Sr (421.552 nm)	516.87080	525.93442	529.37099	ug/L
Te (214.282 nm)	1934.29666	1975.48200	1990.79768	ug/L
Ti (334.941 nm)	491.32356	499.96444	504.48718	ug/L
Tl (190.807 nm)	1978.89475	2015.52942	2045.59284	ug/L
U (409.013 nm)	972.32694	989.99987	998.78898	ug/L
V (292.401 nm)	483.39468	491.93846	495.18409	ug/L
W (207.912 nm)	-0.86123 u	1.24612	2.43459	ug/L
Y (371.029 nm)	960.64494	976.92363	986.66612	ug/L
Zn (206.200 nm)	503.12984	511.56896	517.99310	ug/L
Zr (343.823 nm)	953.06502	970.55868	979.67859	ug/L
Sc-A (361.383 nm)	0.96	0.97	0.97	Ratio
Sc-R (503.102 nm)	0.96	0.97	0.97	Ratio

Sample Name: ICB

Date: 7/14/2022 10:15:24 Rack:Tube: S1:6

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Calculated Concentration
Ag (328.068 nm)	-0.05889	ug/L	0.10009	> 100.00	-91.58868	-0.05889 (ug/L)
Al (236.705 nm)	-3.15723	ug/L	12.34569	> 100.00	61.11256	-3.15723 (ug/L)
As (188.980 nm)	-1.92616	ug/L	7.08055	> 100.00	-8.81231	-1.92616 (ug/L)
B (249.772 nm)	4.04721	ug/L	0.48817	12.06	117.79652	4.04721 (ug/L)
Ba (230.424 nm)	-0.05851	ug/L	0.15157	> 100.00	-5.83506	-0.05851 (ug/L)
Be (313.107 nm)	0.01784	ug/L	0.01534	85.96	15.13806	0.01784 (ug/L)
Bi (223.061 nm)	-0.49135	ug/L	1.39402	> 100.00	-38.50195	-0.49135 (ug/L)
Ca (317.933 nm)	-0.86123	ug/L	0.38209	44.37	-49.17064	-0.86123 (ug/L)
Cd (214.439 nm)	0.14709	ug/L	0.30386	> 100.00	-4.65132	0.14709 (ug/L)
Co (228.615 nm)	0.87470	ug/L	0.62522	71.48	-4.32391	0.87470 (ug/L)
Cr (205.560 nm)	-0.01715	ug/L	0.30650	> 100.00	-3.30691	-0.01715 (ug/L)
Cu (224.700 nm)	2.37723	ug/L	5.07579	> 100.00	-8.50391	2.37723 (ug/L)
Fe (261.382 nm)	3.12499	ug/L	1.93361	61.88	55.50886	3.12499 (ug/L)
K (766.491 nm)	-9.11575	ug/L	25.83445	> 100.00	-171.07690	-9.11575 (ug/L)
Li (610.365 nm)	12.20379	ug/L	2.30082	18.85	-4529.11873	12.20379 (ug/L)
Mg (279.078 nm)	-1.65645	ug/L	5.02256	> 100.00	25.24597	-1.65645 (ug/L)
Mn (260.568 nm)	-0.06512	ug/L	0.08405	> 100.00	-0.10951	-0.06512 (ug/L)
Mo (202.032 nm)	0.08964	ug/L	0.21727	> 100.00	-1.04284	0.08964 (ug/L)
Na (588.995 nm)	-93.73732	ug/L	0.54815	0.58	21932.15866	-93.73732 (ug/L)
Ni (231.604 nm)	-1.02569	ug/L	1.00358	97.85	-6.27522	-1.02569 (ug/L)
P (178.222 nm)	6.69960	ug/L	5.68117	84.80	3.16602	6.69960 (ug/L)
Pb (220.353 nm)	1.15339	ug/L	2.02004	> 100.00	3.47238	1.15339 (ug/L)
Pt (203.646 nm)	3.98883	ug/L	1.24160	31.13	4.17755	3.98883 (ug/L)
Sb (206.834 nm)	1.28349	ug/L	2.74984	> 100.00	-7.69013	1.28349 (ug/L)
Se (196.026 nm)	-4.21940	ug/L	3.75435	88.98	0.40853	-4.21940 (ug/L)
Si (251.611 nm)	15.78037	ug/L	1.97050	12.49	42.09836	15.78037 (ug/L)
Sn (189.925 nm)	-4.13219	ug/L	3.35344	81.15	-8.13172	-4.13219 (ug/L)
Sr (421.552 nm)	0.02274	ug/L	0.01674	73.59	65.24333	0.02274 (ug/L)
Te (214.282 nm)	-3.75248	ug/L	6.58600	> 100.00	-7.28404	-3.75248 (ug/L)
Ti (334.941 nm)	-0.04936	ug/L	0.03538	71.68	-72.73328	-0.04936 (ug/L)
Tl (190.807 nm)	-4.47921	ug/L	2.92475	65.30	-4.75031	-4.47921 (ug/L)
U (409.013 nm)	-3.06551	ug/L	1.84044	60.04	164.90421	-3.06551 (ug/L)
V (292.401 nm)	0.24407	ug/L	0.15443	63.27	-15.22252	0.24407 (ug/L)
W (207.912 nm)	0.91260	ug/L	1.80290	> 100.00	7.32738	0.91260 (ug/L)
Y (371.029 nm)	0.07449	ug/L	0.04886	65.59	12.78162	0.07449 (ug/L)
Zn (206.200 nm)	0.18812	ug/L	1.34153	> 100.00	-1.12815	0.18812 (ug/L)
Zr (343.823 nm)	0.72823	ug/L	0.12028	16.52	139.09431	0.72823 (ug/L)

Label	Internal Standard
Ag (328.068 nm)	Sc-A
Al (236.705 nm)	Sc-A
As (188.980 nm)	Sc-A
B (249.772 nm)	Sc-A
Ba (230.424 nm)	Sc-A
Be (313.107 nm)	Sc-A
Bi (223.061 nm)	Sc-A
Ca (317.933 nm)	Sc-A

Label	Internal Standard
Cd (214.439 nm)	Sc-A
Co (228.615 nm)	Sc-A
Cr (205.560 nm)	Sc-A
Cu (224.700 nm)	Sc-A
Fe (261.382 nm)	Sc-A
K (766.491 nm)	Sc-R
Li (610.365 nm)	Sc-R
Mg (279.078 nm)	Sc-A
Mn (260.568 nm)	Sc-A
Mo (202.032 nm)	Sc-A
Na (588.995 nm)	Sc-R
Ni (231.604 nm)	Sc-A
P (178.222 nm)	Sc-A
Pb (220.353 nm)	Sc-A
Pt (203.646 nm)	Sc-A
Sb (206.834 nm)	Sc-A
Se (196.026 nm)	Sc-A
Si (251.611 nm)	Sc-A
Sn (189.925 nm)	Sc-A
Sr (421.552 nm)	Sc-A
Te (214.282 nm)	Sc-A
Ti (334.941 nm)	Sc-A
Tl (190.807 nm)	Sc-A
U (409.013 nm)	Sc-A
V (292.401 nm)	Sc-A
W (207.912 nm)	Sc-A
Y (371.029 nm)	Sc-A
Zn (206.200 nm)	Sc-A
Zr (343.823 nm)	Sc-A

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Sc-A	0.96	396902.03	0.00	0.26
Sc-R	0.96	45225.98	0.00	0.33

Replicates Concentration

Label	Replicate 1	Replicate 2	Replicate 3	Units
Ag (328.068 nm)	-0.14827 u	-0.07764 u	0.04925	ug/L
Al (236.705 nm)	10.40177	-6.12476 u	-13.74871 u	ug/L
As (188.980 nm)	4.88955	-9.24473 u	-1.42329 u	ug/L
B (249.772 nm)	3.90720	4.59008	3.64434	ug/L
Ba (230.424 nm)	-0.20441 u	-0.06928 u	0.09816	ug/L
Be (313.107 nm)	0.02169	0.00095	0.03088	ug/L
Bi (223.061 nm)	1.11794	-1.26573 u	-1.32628 u	ug/L
Ca (317.933 nm)	-0.96693 u	-1.17934 u	-0.43742 u	ug/L
Cd (214.439 nm)	0.43883	-0.16760 u	0.17005	ug/L
Co (228.615 nm)	1.17359	0.15613	1.29438	ug/L

Label	Replicate 1	Replicate 2	Replicate 3	Units
Cr (205.560 nm)	0.24594	-0.35371 u	0.05632	ug/L
Cu (224.700 nm)	2.00202	-2.50054 u	7.63022	ug/L
Fe (261.382 nm)	4.14282	4.33707	0.89507	ug/L
K (766.491 nm)	19.08719	-31.63531 u	-14.79913 u	ug/L
Li (610.365 nm)	10.08319	11.87808	14.65011	ug/L
Mg (279.078 nm)	0.61421	-7.41338 u	1.82983	ug/L
Mn (260.568 nm)	0.03106	-0.12442 u	-0.10201 u	ug/L
Mo (202.032 nm)	0.26033	0.16352	-0.15493 u	ug/L
Na (588.995 nm)	-93.72899 u	-93.19338 u	-94.28959 u	ug/L
Ni (231.604 nm)	-2.17906 u	-0.35165 u	-0.54635 u	ug/L
P (178.222 nm)	12.77776	1.52331	5.79773	ug/L
Pb (220.353 nm)	-0.21311 u	0.19955	3.47373	ug/L
Pt (203.646 nm)	5.39305	3.03632	3.53711	ug/L
Sb (206.834 nm)	4.43192	-0.64730 u	0.06586	ug/L
Se (196.026 nm)	0.06151	-5.76786 u	-6.95187 u	ug/L
Si (251.611 nm)	15.73705	13.83188	17.77217	ug/L
Sn (189.925 nm)	-5.49975 u	-6.58576 u	-0.31107 u	ug/L
Sr (421.552 nm)	0.00758	0.01995	0.04070	ug/L
Te (214.282 nm)	2.20800	-10.82294 u	-2.64249 u	ug/L
Ti (334.941 nm)	-0.08227 u	-0.05388 u	-0.01194 u	ug/L
Tl (190.807 nm)	-2.18448 u	-7.77246 u	-3.48069 u	ug/L
U (409.013 nm)	-3.65424 u	-1.00273 u	-4.53955 u	ug/L
V (292.401 nm)	0.18406	0.12865	0.41949	ug/L
W (207.912 nm)	-1.10440 u	2.36749	1.47470	ug/L
Y (371.029 nm)	0.03692	0.05682	0.12972	ug/L
Zn (206.200 nm)	1.73714	-0.59690 u	-0.57589 u	ug/L
Zr (343.823 nm)	0.70612	0.62054	0.85803	ug/L
Sc-A (361.383 nm)	0.96	0.97	0.97	Ratio
Sc-R (503.102 nm)	0.96	0.97	0.96	Ratio

Sample Name: ICSA

Date: 7/14/2022 10:17:05 Rack:Tube: S1:7

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity
Ag (328.068 nm)	-2.94181	ug/L	0.27497	9.35	-239.43213
Al (236.705 nm)	256349.09189	ug/L	2174.45542	0.85	155766.23282
As (188.980 nm)	8.21065	ug/L	1.86396	22.70	-4.22186
B (249.772 nm)	0.24133	ug/L	1.46936	> 100.00	954.66065
Ba (230.424 nm)	1.19706	ug/L	0.22535	18.83	16.93411
Be (313.107 nm)	-0.06397	ug/L	0.00271	4.24	-48.12808
Bi (223.061 nm)	5.50021	ug/L	8.54693	> 100.00	-29.49300
Ca (317.933 nm)	248370.17874	ug/L	2535.98451	1.02	4247110.34377
Cd (214.439 nm)	-0.82544	ug/L	0.37205	45.07	-59.58379
Co (228.615 nm)	-1.26383	ug/L	0.91737	72.59	-22.60622
Cr (205.560 nm)	0.78001	ug/L	0.88215	> 100.00	-27.53190
Cu (224.700 nm)	-0.27430	ug/L	0.69374	> 100.00	27.50154
Fe (261.382 nm)	99040.87489	ug/L	913.95773	0.92	265202.70247

Label	Solution Concentration	Unit	SD	%RSD	Intensity
K (766.491 nm)	-1.38280	ug/L	9.26368	> 100.00	-155.27462
Li (610.365 nm)	-17.46005	ug/L	5.62835	32.24	-9061.97928
Mg (279.078 nm)	264713.28413	ug/L	2466.43902	0.93	418602.06169
Mn (260.568 nm)	4.88079	ug/L	0.41087	8.42	129.27068
Mo (202.032 nm)	0.83281	ug/L	1.71148	> 100.00	-5.87721
Na (588.995 nm)	86.48989	ug/L	4.08111	4.72	26195.31152
Ni (231.604 nm)	-2.61618	ug/L	1.06154	40.58	-17.86053
P (178.222 nm)	25.41317	ug/L	13.08080	51.47	4.96557
Pb (220.353 nm)	-1.30303	ug/L	4.54382	> 100.00	-12.69533
Pt (203.646 nm)	67.13727	ug/L	14.26758	21.25	703.73317
Sb (206.834 nm)	3.21624	ug/L	4.87720	> 100.00	-7.94553
Se (196.026 nm)	-4.45385	ug/L	3.72208	83.57	-15.75426
Si (251.611 nm)	6.12236	ug/L	3.75285	61.30	17.41118
Sn (189.925 nm)	-8.65225	ug/L	4.17007	48.20	-11.51084
Sr (421.552 nm)	2.13656	ug/L	0.01689	0.79	4383.62014
Te (214.282 nm)	-26.73358	ug/L	13.27108	49.64	-24.57731
Ti (334.941 nm)	0.51034	ug/L	0.06659	13.05	-356.81884
Tl (190.807 nm)	-14.99929	ug/L	1.07505	7.17	-10.52694
U (409.013 nm)	10.36294	ug/L	1.84860	17.84	331.46537
V (292.401 nm)	2.02653	ug/L	0.01711	0.84	-154.94743
W (207.912 nm)	-6.31322	ug/L	3.41342	54.07	-1.90128
Y (371.029 nm)	-0.12185	ug/L	0.10469	85.92	-19.60759
Zn (206.200 nm)	0.36034	ug/L	0.80385	> 100.00	-0.84167
Zr (343.823 nm)	1.50959	ug/L	0.07066	4.68	326.63826

Label	Calculated Concentration	Internal Standard
Ag (328.068 nm)	-2.94181 (ug/L)	Sc-A
Al (236.705 nm)	256349.09189 (ug/L)	Sc-A
As (188.980 nm)	8.21065 (ug/L)	Sc-A
B (249.772 nm)	0.24133 (ug/L)	Sc-A
Ba (230.424 nm)	1.19706 (ug/L)	Sc-A
Be (313.107 nm)	-0.06397 (ug/L)	Sc-A
Bi (223.061 nm)	5.50021 (ug/L)	Sc-A
Ca (317.933 nm)	248370.17874 (ug/L)	Sc-A
Cd (214.439 nm)	-0.82544 (ug/L)	Sc-A
Co (228.615 nm)	-1.26383 (ug/L)	Sc-A
Cr (205.560 nm)	0.78001 (ug/L)	Sc-A
Cu (224.700 nm)	-0.27430 (ug/L)	Sc-A
Fe (261.382 nm)	99040.87489 (ug/L)	Sc-A
K (766.491 nm)	-1.38280 (ug/L)	Sc-R
Li (610.365 nm)	-17.46005 (ug/L)	Sc-R
Mg (279.078 nm)	264713.28413 (ug/L)	Sc-A
Mn (260.568 nm)	4.88079 (ug/L)	Sc-A
Mo (202.032 nm)	0.83281 (ug/L)	Sc-A
Na (588.995 nm)	86.48989 (ug/L)	Sc-R
Ni (231.604 nm)	-2.61618 (ug/L)	Sc-A
P (178.222 nm)	25.41317 (ug/L)	Sc-A
Pb (220.353 nm)	-1.30303 (ug/L)	Sc-A

Label	Calculated Concentration	Internal Standard
Pt (203.646 nm)	67.13727 (ug/L)	Sc-A
Sb (206.834 nm)	3.21624 (ug/L)	Sc-A
Se (196.026 nm)	-4.45385 (ug/L)	Sc-A
Si (251.611 nm)	6.12236 (ug/L)	Sc-A
Sn (189.925 nm)	-8.65225 (ug/L)	Sc-A
Sr (421.552 nm)	2.13656 (ug/L)	Sc-A
Te (214.282 nm)	-26.73358 (ug/L)	Sc-A
Ti (334.941 nm)	0.51034 (ug/L)	Sc-A
Tl (190.807 nm)	-14.99929 (ug/L)	Sc-A
U (409.013 nm)	10.36294 (ug/L)	Sc-A
V (292.401 nm)	2.02653 (ug/L)	Sc-A
W (207.912 nm)	-6.31322 (ug/L)	Sc-A
Y (371.029 nm)	-0.12185 (ug/L)	Sc-A
Zn (206.200 nm)	0.36034 (ug/L)	Sc-A
Zr (343.823 nm)	1.50959 (ug/L)	Sc-A

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Sc-A	0.92	377343.23	0.00	0.19
Sc-R	0.92	43145.67	0.00	0.28

Replicates Concentration

Label	Replicate 1	Replicate 2	Replicate 3	Units
Ag (328.068 nm)	-2.76648 u	-3.25871 u	-2.80023 u	ug/L
Al (236.705 nm)	253996.07619	256766.82161	258284.37786	ug/L
As (188.980 nm)	9.48646	9.07394	6.07154	ug/L
B (249.772 nm)	-1.20064 u	0.18801	1.73663	ug/L
Ba (230.424 nm)	1.32236	1.33192	0.93691	ug/L
Be (313.107 nm)	-0.06133 u	-0.06675 u	-0.06383 u	ug/L
Bi (223.061 nm)	-3.99980 u	12.56592	7.93450	ug/L
Ca (317.933 nm)	245657.15350	248772.31303	250681.06968	ug/L
Cd (214.439 nm)	-1.23800 u	-0.72294 u	-0.51538 u	ug/L
Co (228.615 nm)	-2.04839 u	-1.48792 u	-0.25517 u	ug/L
Cr (205.560 nm)	1.79642	0.32986	0.21375	ug/L
Cu (224.700 nm)	0.50079	-0.83707 u	-0.48662 u	ug/L
Fe (261.382 nm)	98040.55817	99249.75404	99832.31245	ug/L
K (766.491 nm)	-6.86369 u	-6.59758 u	9.31288	ug/L
Li (610.365 nm)	-11.09613 u	-19.50016 u	-21.78385 u	ug/L
Mg (279.078 nm)	262061.88118	265138.50341	266939.46782	ug/L
Mn (260.568 nm)	4.70648	5.35008	4.58581	ug/L
Mo (202.032 nm)	1.02879	-0.96822 u	2.43786	ug/L
Na (588.995 nm)	88.68668	81.78095	89.00204	ug/L
Ni (231.604 nm)	-3.77718 u	-2.37616 u	-1.69521 u	ug/L
P (178.222 nm)	40.51702	17.97324	17.74925	ug/L
Pb (220.353 nm)	-0.20372 u	-6.29565 u	2.59028	ug/L
Pt (203.646 nm)	55.51082	62.84193	83.05907	ug/L
Sb (206.834 nm)	-2.41428 u	6.13165	5.93136	ug/L

Label	Replicate 1	Replicate 2	Replicate 3	Units
Se (196.026 nm)	-0.15613 u	-6.63579 u	-6.56963 u	ug/L
Si (251.611 nm)	2.49040	9.98541	5.89128	ug/L
Sn (189.925 nm)	-13.33185 u	-5.32986 u	-7.29503 u	ug/L
Sr (421.552 nm)	2.11785	2.14117	2.15067	ug/L
Te (214.282 nm)	-12.50013 u	-28.93316 u	-38.76744 u	ug/L
Ti (334.941 nm)	0.50450	0.57966	0.44685	ug/L
Tl (190.807 nm)	-16.23890 u	-14.32231 u	-14.43666 u	ug/L
U (409.013 nm)	10.72205	12.00564	8.36112	ug/L
V (292.401 nm)	2.04240	2.00840	2.02878	ug/L
W (207.912 nm)	-10.20249 u	-3.81481 u	-4.92237 u	ug/L
Y (371.029 nm)	-0.00099 u	-0.17983 u	-0.18471 u	ug/L
Zn (206.200 nm)	0.26111	-0.38929 u	1.20920	ug/L
Zr (343.823 nm)	1.46314	1.47473	1.59090	ug/L
Sc-A (361.383 nm)	0.92	0.92	0.92	Ratio
Sc-R (503.102 nm)	0.92	0.92	0.92	Ratio

Sample Name: ICSAB

Date: 7/14/2022 10:18:45 Rack:Tube: S1:8

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity
Ag (328.068 nm)	520.33319	ug/L	3.52918	0.68	26933.55096
Al (236.705 nm)	259780.77222	ug/L	1819.66670	0.70	157858.69337
As (188.980 nm)	524.50491	ug/L	13.16932	2.51	254.03947
B (249.772 nm)	536.05110	ug/L	7.58079	1.41	9386.54351
Ba (230.424 nm)	504.88828	ug/L	7.42744	1.47	9233.09469
Be (313.107 nm)	513.83495	ug/L	2.77848	0.54	378292.04431
Bi (223.061 nm)	516.81232	ug/L	8.14031	1.58	730.68549
Ca (317.933 nm)	242748.12823	ug/L	2239.13263	0.92	4151510.79674
Cd (214.439 nm)	492.01499	ug/L	7.78552	1.58	5115.24236
Co (228.615 nm)	488.19483	ug/L	5.77964	1.18	2885.52668
Cr (205.560 nm)	507.66261	ug/L	5.37683	1.06	2887.54665
Cu (224.700 nm)	497.62292	ug/L	3.16195	0.64	513.92587
Fe (261.382 nm)	98058.81499	ug/L	763.00180	0.78	262602.68689
K (766.491 nm)	-15.30006	ug/L	20.46401	> 100.00	-187.94645
Li (610.365 nm)	508.87169	ug/L	2.98395	0.59	-2948.50310
Mg (279.078 nm)	261684.25285	ug/L	2160.05535	0.83	413803.76280
Mn (260.568 nm)	516.60349	ug/L	4.86315	0.94	9046.21386
Mo (202.032 nm)	1044.98467	ug/L	9.45101	0.90	4899.95700
Na (588.995 nm)	15.06466	ug/L	6.12133	40.63	24505.79592
Ni (231.604 nm)	486.18253	ug/L	5.94943	1.22	1127.33062
P (178.222 nm)	549.23190	ug/L	53.45525	9.73	55.33740
Pb (220.353 nm)	507.26198	ug/L	2.09046	0.41	580.44594
Pt (203.646 nm)	997.20956	ug/L	18.95416	1.90	1425.83536
Sb (206.834 nm)	515.39265	ug/L	4.99779	0.97	454.23153
Se (196.026 nm)	523.23158	ug/L	13.81826	2.64	303.93071
Si (251.611 nm)	1588.79250 G	ug/L	20.21321	1.27	2277.27031 G
Sn (189.925 nm)	501.67548	ug/L	2.64919	0.53	370.00204

Label	Solution Concentration	Unit	SD	%RSD	Intensity
Sr (421.552 nm)	534.54100	ug/L	2.97478	0.56	1092048.26366
Te (214.282 nm)	504.15030	ug/L	10.81132	2.14	254.05346
Ti (334.941 nm)	1020.85351	ug/L	7.00779	0.69	204680.98886
Tl (190.807 nm)	507.92110	ug/L	9.83644	1.94	301.54061
U (409.013 nm)	526.68324	ug/L	5.31180	1.01	3099.05207
V (292.401 nm)	508.71113	ug/L	3.70080	0.73	12797.98866
W (207.912 nm)	1081.07765	ug/L	7.81466	0.72	1392.14218
Y (371.029 nm)	494.72222	ug/L	3.53785	0.72	81835.58374
Zn (206.200 nm)	487.72161	ug/L	4.93243	1.01	863.43669
Zr (343.823 nm)	495.64558	ug/L	2.95047	0.60	31743.62520

Label	Calculated Concentration	Internal Standard
Ag (328.068 nm)	520.33319 (ug/L)	Sc-A
Al (236.705 nm)	259780.77222 (ug/L)	Sc-A
As (188.980 nm)	524.50491 (ug/L)	Sc-A
B (249.772 nm)	536.05110 (ug/L)	Sc-A
Ba (230.424 nm)	504.88828 (ug/L)	Sc-A
Be (313.107 nm)	513.83495 (ug/L)	Sc-A
Bi (223.061 nm)	516.81232 (ug/L)	Sc-A
Ca (317.933 nm)	242748.12823 (ug/L)	Sc-A
Cd (214.439 nm)	492.01499 (ug/L)	Sc-A
Co (228.615 nm)	488.19483 (ug/L)	Sc-A
Cr (205.560 nm)	507.66261 (ug/L)	Sc-A
Cu (224.700 nm)	497.62292 (ug/L)	Sc-A
Fe (261.382 nm)	98058.81499 (ug/L)	Sc-A
K (766.491 nm)	-15.30006 (ug/L)	Sc-R
Li (610.365 nm)	508.87169 (ug/L)	Sc-R
Mg (279.078 nm)	261684.25285 (ug/L)	Sc-A
Mn (260.568 nm)	516.60349 (ug/L)	Sc-A
Mo (202.032 nm)	1044.98467 (ug/L)	Sc-A
Na (588.995 nm)	15.06466 (ug/L)	Sc-R
Ni (231.604 nm)	486.18253 (ug/L)	Sc-A
P (178.222 nm)	549.23190 (ug/L)	Sc-A
Pb (220.353 nm)	507.26198 (ug/L)	Sc-A
Pt (203.646 nm)	997.20956 (ug/L)	Sc-A
Sb (206.834 nm)	515.39265 (ug/L)	Sc-A
Se (196.026 nm)	523.23158 (ug/L)	Sc-A
Si (251.611 nm)	1588.79250 G (ug/L)	Sc-A
Sn (189.925 nm)	501.67548 (ug/L)	Sc-A
Sr (421.552 nm)	534.54100 (ug/L)	Sc-A
Te (214.282 nm)	504.15030 (ug/L)	Sc-A
Ti (334.941 nm)	1020.85351 (ug/L)	Sc-A
Tl (190.807 nm)	507.92110 (ug/L)	Sc-A
U (409.013 nm)	526.68324 (ug/L)	Sc-A
V (292.401 nm)	508.71113 (ug/L)	Sc-A
W (207.912 nm)	1081.07765 (ug/L)	Sc-A
Y (371.029 nm)	494.72222 (ug/L)	Sc-A
Zn (206.200 nm)	487.72161 (ug/L)	Sc-A

Label	Calculated Concentration	Internal Standard
Zr (343.823 nm)	495.64558 (ug/L)	Sc-A

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Sc-A	0.89	364620.41	0.00	0.02
Sc-R	0.89	41738.65	0.00	0.09

Replicates Concentration

Label	Replicate 1	Replicate 2	Replicate 3	Units
Ag (328.068 nm)	516.44870	521.20859	523.34228	ug/L
Al (236.705 nm)	257698.31521	260579.68590	261064.31555	ug/L
As (188.980 nm)	511.65076	523.89573	537.96825	ug/L
B (249.772 nm)	529.04307	535.01265	544.09758	ug/L
Ba (230.424 nm)	498.43530	503.22231	513.00723	ug/L
Be (313.107 nm)	510.70616	514.78456	516.01412	ug/L
Bi (223.061 nm)	508.73292	525.01220	516.69184	ug/L
Ca (317.933 nm)	240237.34934	243469.00208	244538.03328	ug/L
Cd (214.439 nm)	483.10249	495.45155	497.49095	ug/L
Co (228.615 nm)	482.50704	488.01532	494.06213	ug/L
Cr (205.560 nm)	501.73516	509.02652	512.22613	ug/L
Cu (224.700 nm)	493.97517	499.58228	499.31130	ug/L
Fe (261.382 nm)	97213.03294	98268.02100	98695.39104	ug/L
K (766.491 nm)	4.68263	-14.36919 u	-36.21362 u	ug/L
Li (610.365 nm)	512.31125	507.32801	506.97582	ug/L
Mg (279.078 nm)	259279.83758	262312.06556	263460.85540	ug/L
Mn (260.568 nm)	511.18125	518.04981	520.57942	ug/L
Mo (202.032 nm)	1034.13128	1051.39851	1049.42423	ug/L
Na (588.995 nm)	12.39925	10.72794	22.06679	ug/L
Ni (231.604 nm)	479.34893	488.98921	490.20944	ug/L
P (178.222 nm)	559.28097	491.46529	596.94944	ug/L
Pb (220.353 nm)	505.15553	509.33609	507.29431	ug/L
Pt (203.646 nm)	975.41861	1006.33695	1009.87311	ug/L
Sb (206.834 nm)	512.72343	521.15832	512.29619	ug/L
Se (196.026 nm)	527.44512	534.45255	507.79706	ug/L
Si (251.611 nm)	1565.87836	1604.09414	1596.40500	ug/L
Sn (189.925 nm)	504.50009	499.24613	501.28023	ug/L
Sr (421.552 nm)	531.17299	535.64048	536.80953	ug/L
Te (214.282 nm)	511.74460	491.77238	508.93391	ug/L
Ti (334.941 nm)	1012.86918	1023.70676	1025.98458	ug/L
Tl (190.807 nm)	496.65975	514.83325	512.27029	ug/L
U (409.013 nm)	522.99399	524.28436	532.77136	ug/L
V (292.401 nm)	504.70473	509.42690	512.00178	ug/L
W (207.912 nm)	1072.30758	1087.30209	1083.62328	ug/L
Y (371.029 nm)	490.69542	496.13973	497.33150	ug/L
Zn (206.200 nm)	484.85364	493.41705	484.89415	ug/L
Zr (343.823 nm)	492.24339	497.19145	497.50190	ug/L
Sc-A (361.383 nm)	0.89	0.89	0.89	Ratio

Label	Replicate 1	Replicate 2	Replicate 3	Units
Sc-R (503.102 nm)	0.89	0.89	0.89	Ratio

Sample Name: LCCV

Date: 7/14/2022 10:20:26 Rack:Tube: S1:9

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Calculated Concentration
Ag (328.068 nm)	9.23626	ug/L	0.06199	0.67	395.29800	9.23626 (ug/L)
Al (236.705 nm)	188.16674	ug/L	9.85731	5.24	177.41633	188.16674 (ug/L)
As (188.980 nm)	92.04088	ug/L	7.18521	7.81	38.09135	92.04088 (ug/L)
B (249.772 nm)	97.33473	ug/L	0.38851	0.40	1589.23485	97.33473 (ug/L)
Ba (230.424 nm)	10.09910	ug/L	0.09131	0.90	179.72092	10.09910 (ug/L)
Be (313.107 nm)	0.27973	ug/L	0.00638	2.28	199.74835	0.27973 (ug/L)
Bi (223.061 nm)	94.52444	ug/L	2.43978	2.58	105.05626	94.52444 (ug/L)
Ca (317.933 nm)	607.28246	ug/L	6.09345	1.00	10353.33974	607.28246 (ug/L)
Cd (214.439 nm)	3.27069	ug/L	0.40925	12.51	32.69059	3.27069 (ug/L)
Co (228.615 nm)	3.23222	ug/L	0.74043	22.91	9.56741	3.23222 (ug/L)
Cr (205.560 nm)	10.16269	ug/L	0.72128	7.10	55.09043	10.16269 (ug/L)
Cu (224.700 nm)	20.66575	ug/L	3.15027	15.24	9.91672	20.66575 (ug/L)
Fe (261.382 nm)	209.62483	ug/L	2.50843	1.20	608.38057	209.62483 (ug/L)
K (766.491 nm)	441.44076	ug/L	12.60248	2.85	750.15501	441.44076 (ug/L)
Li (610.365 nm)	111.13238	ug/L	3.56756	3.21	-3409.89581	111.13238 (ug/L)
Mg (279.078 nm)	52.25235	ug/L	3.33384	6.38	109.13647	52.25235 (ug/L)
Mn (260.568 nm)	5.33504	ug/L	0.21849	4.10	94.26188	5.33504 (ug/L)
Mo (202.032 nm)	15.64130	ug/L	0.47329	3.03	71.96897	15.64130 (ug/L)
Na (588.995 nm)	168.62617	ug/L	2.36563	1.40	28138.18971	168.62617 (ug/L)
Ni (231.604 nm)	5.75980	ug/L	0.48512	8.42	9.66214	5.75980 (ug/L)
P (178.222 nm)	185.37824	ug/L	17.85073	9.63	20.34824	185.37824 (ug/L)
Pb (220.353 nm)	18.33811	ug/L	2.07294	11.30	23.73284	18.33811 (ug/L)
Pt (203.646 nm)	142.27988	ug/L	3.84225	2.70	114.83693	142.27988 (ug/L)
Sb (206.834 nm)	59.06442	ug/L	7.68672	13.01	43.81993	59.06442 (ug/L)
Se (196.026 nm)	97.80184	ug/L	3.90896	4.00	60.97955	97.80184 (ug/L)
Si (251.611 nm)	515.45292	ug/L	6.76243	1.31	747.69710	515.45292 (ug/L)
Sn (189.925 nm)	100.20795	ug/L	1.39257	1.39	69.87131	100.20795 (ug/L)
Sr (421.552 nm)	15.40722	ug/L	0.06279	0.41	31494.64124	15.40722 (ug/L)
Te (214.282 nm)	46.96208	ug/L	3.14252	6.69	19.13910	46.96208 (ug/L)
Ti (334.941 nm)	3.02036	ug/L	0.01932	0.64	548.57542	3.02036 (ug/L)
Tl (190.807 nm)	48.04769	ug/L	6.74739	14.04	23.03237	48.04769 (ug/L)
U (409.013 nm)	93.79364	ug/L	1.32169	1.41	681.52897	93.79364 (ug/L)
V (292.401 nm)	3.05151	ug/L	0.24380	7.99	54.02953	3.05151 (ug/L)
W (207.912 nm)	0.93908 Q	ug/L	1.89711	> 100.00	7.57150 Q	0.93908 Q (ug/L)
Y (371.029 nm)	3.03053	ug/L	0.02834	0.94	502.02187	3.03053 (ug/L)
Zn (206.200 nm)	21.85219	ug/L	1.11800	5.12	37.21798	21.85219 (ug/L)
Zr (343.823 nm)	21.99667	ug/L	0.34777	1.58	1489.14935	21.99667 (ug/L)

Label	Internal Standard
Ag (328.068 nm)	Sc-A
Al (236.705 nm)	Sc-A

Label	Internal Standard
As (188.980 nm)	Sc-A
B (249.772 nm)	Sc-A
Ba (230.424 nm)	Sc-A
Be (313.107 nm)	Sc-A
Bi (223.061 nm)	Sc-A
Ca (317.933 nm)	Sc-A
Cd (214.439 nm)	Sc-A
Co (228.615 nm)	Sc-A
Cr (205.560 nm)	Sc-A
Cu (224.700 nm)	Sc-A
Fe (261.382 nm)	Sc-A
K (766.491 nm)	Sc-R
Li (610.365 nm)	Sc-R
Mg (279.078 nm)	Sc-A
Mn (260.568 nm)	Sc-A
Mo (202.032 nm)	Sc-A
Na (588.995 nm)	Sc-R
Ni (231.604 nm)	Sc-A
P (178.222 nm)	Sc-A
Pb (220.353 nm)	Sc-A
Pt (203.646 nm)	Sc-A
Sb (206.834 nm)	Sc-A
Se (196.026 nm)	Sc-A
Si (251.611 nm)	Sc-A
Sn (189.925 nm)	Sc-A
Sr (421.552 nm)	Sc-A
Te (214.282 nm)	Sc-A
Ti (334.941 nm)	Sc-A
Tl (190.807 nm)	Sc-A
U (409.013 nm)	Sc-A
V (292.401 nm)	Sc-A
W (207.912 nm)	Sc-A
Y (371.029 nm)	Sc-A
Zn (206.200 nm)	Sc-A
Zr (343.823 nm)	Sc-A

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Sc-A	0.98	401893.78	0.00	0.16
Sc-R	0.97	45779.15	0.00	0.21

Replicates Concentration

Label	Replicate 1	Replicate 2	Replicate 3	Units
Ag (328.068 nm)	9.23319	9.17587	9.29974	ug/L
Al (236.705 nm)	180.29918	184.97712	199.22391	ug/L
As (188.980 nm)	97.03396	83.80595	95.28273	ug/L
B (249.772 nm)	96.96990	97.29104	97.74323	ug/L

Label	Replicate 1	Replicate 2	Replicate 3	Units
Ba (230.424 nm)	10.14966	10.15395	9.99369	ug/L
Be (313.107 nm)	0.27286	0.28085	0.28547	ug/L
Bi (223.061 nm)	95.89436	91.70758	95.97138	ug/L
Ca (317.933 nm)	602.17815	605.64061	614.02862	ug/L
Cd (214.439 nm)	2.79864	3.52579	3.48765	ug/L
Co (228.615 nm)	3.27400	2.47178	3.95087	ug/L
Cr (205.560 nm)	9.33203	10.52556	10.63048	ug/L
Cu (224.700 nm)	20.34911	23.96237	17.68576	ug/L
Fe (261.382 nm)	208.00489	208.35537	212.51423	ug/L
K (766.491 nm)	448.45914	426.89167	448.97146	ug/L
Li (610.365 nm)	109.13315	115.25125	109.01273	ug/L
Mg (279.078 nm)	49.67026	51.07073	56.01606	ug/L
Mn (260.568 nm)	5.58142	5.16486	5.25885	ug/L
Mo (202.032 nm)	16.18067	15.29533	15.44790	ug/L
Na (588.995 nm)	168.86010	166.15227	170.86614	ug/L
Ni (231.604 nm)	5.73479	5.28767	6.25694	ug/L
P (178.222 nm)	197.44897	193.81255	164.87319	ug/L
Pb (220.353 nm)	15.95096	19.68406	19.37931	ug/L
Pt (203.646 nm)	145.41243	143.43449	137.99272	ug/L
Sb (206.834 nm)	65.72939	60.80829	50.65559	ug/L
Se (196.026 nm)	98.42989	93.61688	101.35876	ug/L
Si (251.611 nm)	507.90334	520.95496	517.50046	ug/L
Sn (189.925 nm)	99.53541	101.80914	99.27930	ug/L
Sr (421.552 nm)	15.34320	15.40976	15.46870	ug/L
Te (214.282 nm)	49.94137	47.26641	43.67847	ug/L
Ti (334.941 nm)	3.03490	3.02774	2.99843	ug/L
Tl (190.807 nm)	41.73596	55.15941	47.24771	ug/L
U (409.013 nm)	95.31890	92.98573	93.07629	ug/L
V (292.401 nm)	2.85621	2.97356	3.32475	ug/L
W (207.912 nm)	-0.47591 u	0.19834	3.09481	ug/L
Y (371.029 nm)	3.00154	3.05817	3.03188	ug/L
Zn (206.200 nm)	20.68252	22.91013	21.96392	ug/L
Zr (343.823 nm)	22.19935	22.19556	21.59511	ug/L
Sc-A (361.383 nm)	0.98	0.98	0.98	Ratio
Sc-R (503.102 nm)	0.97	0.98	0.98	Ratio

Sample Name: 790577 LRB

Date: 7/14/2022 10:22:07 Rack:Tube: 1:1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Calculated Concentration
Ag (328.068 nm)	0.10704	ug/L	0.12779	> 100.00	-83.13571	0.10704 (ug/L)
Al (236.705 nm)	41.12869	ug/L	3.03150	7.37	88.01395	41.12869 (ug/L)
As (188.980 nm)	-2.49366	ug/L	2.30500	92.43	-9.09425	-2.49366 (ug/L)
B (249.772 nm)	3.18435	ug/L	0.32560	10.22	104.23059	3.18435 (ug/L)
Ba (230.424 nm)	0.22828	ug/L	0.09681	42.41	-0.62987	0.22828 (ug/L)
Be (313.107 nm)	0.01932	ug/L	0.02633	> 100.00	16.15369	0.01932 (ug/L)
Bi (223.061 nm)	-1.00234	ug/L	1.61547	> 100.00	-39.28477	-1.00234 (ug/L)

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Calculated Concentration
Ca (317.933 nm)	88.43091	ug/L	5.60023	6.33	1477.72937	88.43091 (ug/L)
Cd (214.439 nm)	0.48066	ug/L	0.39756	82.71	-1.28395	0.48066 (ug/L)
Co (228.615 nm)	0.20287	ug/L	0.28425	> 100.00	-8.32098	0.20287 (ug/L)
Cr (205.560 nm)	0.56650	ug/L	0.95675	> 100.00	0.05142	0.56650 (ug/L)
Cu (224.700 nm)	1.20110	ug/L	1.95915	> 100.00	-9.71456	1.20110 (ug/L)
Fe (261.382 nm)	5.99475	ug/L	3.70090	61.74	63.36332	5.99475 (ug/L)
K (766.491 nm)	-1.74531	ug/L	9.62493	> 100.00	-156.00789	-1.74531 (ug/L)
Li (610.365 nm)	15.74117	ug/L	2.63401	16.73	-4490.23957	15.74117 (ug/L)
Mg (279.078 nm)	4.01766	ug/L	6.84739	> 100.00	34.21451	4.01766 (ug/L)
Mn (260.568 nm)	0.28955	ug/L	0.23091	79.75	6.05127	0.28955 (ug/L)
Mo (202.032 nm)	0.21597	ug/L	0.35784	> 100.00	-0.45181	0.21597 (ug/L)
Na (588.995 nm)	-106.31610	ug/L	6.47148	6.09	21634.61601	-106.31610 (ug/L)
Ni (231.604 nm)	0.93022	ug/L	0.45799	49.24	-1.68918	0.93022 (ug/L)
P (178.222 nm)	12.24339	ug/L	34.17731	> 100.00	3.69913	12.24339 (ug/L)
Pb (220.353 nm)	0.18819	ug/L	1.44083	> 100.00	2.32573	0.18819 (ug/L)
Pt (203.646 nm)	0.56799	ug/L	2.85391	> 100.00	1.49836	0.56799 (ug/L)
Sb (206.834 nm)	-4.09553	ug/L	1.54439	37.71	-12.50513	-4.09553 (ug/L)
Se (196.026 nm)	3.41067	ug/L	5.11312	> 100.00	4.96174	3.41067 (ug/L)
Si (251.611 nm)	-5.92388	ug/L	1.04086	17.57	11.46818	-5.92388 (ug/L)
Sn (189.925 nm)	-0.33692	ug/L	0.93275	> 100.00	-5.29443	-0.33692 (ug/L)
Sr (421.552 nm)	0.85160	ug/L	0.00696	0.82	1758.53959	0.85160 (ug/L)
Te (214.282 nm)	2.13927	ug/L	2.51317	> 100.00	-4.21958	2.13927 (ug/L)
Ti (334.941 nm)	0.05507	ug/L	0.08226	> 100.00	-51.85161	0.05507 (ug/L)
Tl (190.807 nm)	-1.77640	ug/L	6.92012	> 100.00	-3.23607	-1.77640 (ug/L)
U (409.013 nm)	-2.97854	ug/L	1.77469	59.58	165.34989	-2.97854 (ug/L)
V (292.401 nm)	0.29620	ug/L	0.12631	42.64	-13.90423	0.29620 (ug/L)
W (207.912 nm)	3.86303	ug/L	3.17259	82.13	11.08803	3.86303 (ug/L)
Y (371.029 nm)	0.07296	ug/L	0.05677	77.81	12.52688	0.07296 (ug/L)
Zn (206.200 nm)	-0.68991	ug/L	2.26706	> 100.00	-2.67719	-0.68991 (ug/L)
Zr (343.823 nm)	0.05704	ug/L	0.10766	> 100.00	96.49964	0.05704 (ug/L)

Label	Internal Standard
Ag (328.068 nm)	Sc-A
Al (236.705 nm)	Sc-A
As (188.980 nm)	Sc-A
B (249.772 nm)	Sc-A
Ba (230.424 nm)	Sc-A
Be (313.107 nm)	Sc-A
Bi (223.061 nm)	Sc-A
Ca (317.933 nm)	Sc-A
Cd (214.439 nm)	Sc-A
Co (228.615 nm)	Sc-A
Cr (205.560 nm)	Sc-A
Cu (224.700 nm)	Sc-A
Fe (261.382 nm)	Sc-A
K (766.491 nm)	Sc-R
Li (610.365 nm)	Sc-R
Mg (279.078 nm)	Sc-A

Label	Internal Standard
Mn (260.568 nm)	Sc-A
Mo (202.032 nm)	Sc-A
Na (588.995 nm)	Sc-R
Ni (231.604 nm)	Sc-A
P (178.222 nm)	Sc-A
Pb (220.353 nm)	Sc-A
Pt (203.646 nm)	Sc-A
Sb (206.834 nm)	Sc-A
Se (196.026 nm)	Sc-A
Si (251.611 nm)	Sc-A
Sn (189.925 nm)	Sc-A
Sr (421.552 nm)	Sc-A
Te (214.282 nm)	Sc-A
Ti (334.941 nm)	Sc-A
Tl (190.807 nm)	Sc-A
U (409.013 nm)	Sc-A
V (292.401 nm)	Sc-A
W (207.912 nm)	Sc-A
Y (371.029 nm)	Sc-A
Zn (206.200 nm)	Sc-A
Zr (343.823 nm)	Sc-A

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Sc-A	0.98	402104.89	0.01	0.53
Sc-R	0.97	45747.13	0.00	0.47

Replicates Concentration

Label	Replicate 1	Replicate 2	Replicate 3	Units
Ag (328.068 nm)	0.23514	0.10642	-0.02043 u	ug/L
Al (236.705 nm)	37.92425	43.95101	41.51079	ug/L
As (188.980 nm)	-1.82007 u	-0.60049 u	-5.06041 u	ug/L
B (249.772 nm)	3.43717	2.81695	3.29893	ug/L
Ba (230.424 nm)	0.33431	0.14458	0.20596	ug/L
Be (313.107 nm)	-0.01108 u	0.03501	0.03404	ug/L
Bi (223.061 nm)	-0.25045 u	0.10016	-2.85671 u	ug/L
Ca (317.933 nm)	84.60453	85.82949	94.85871	ug/L
Cd (214.439 nm)	0.87090	0.49493	0.07616	ug/L
Co (228.615 nm)	0.41816	-0.11934 u	0.30980	ug/L
Cr (205.560 nm)	-0.41117 u	1.50085	0.60984	ug/L
Cu (224.700 nm)	0.81416	-0.53570 u	3.32485	ug/L
Fe (261.382 nm)	3.39900	4.35268	10.23256	ug/L
K (766.491 nm)	8.54496	-10.52667 u	-3.25423 u	ug/L
Li (610.365 nm)	13.03326	18.29447	15.89577	ug/L
Mg (279.078 nm)	4.95833	-3.25144 u	10.34608	ug/L
Mn (260.568 nm)	0.02424	0.39918	0.44522	ug/L
Mo (202.032 nm)	-0.07804 u	0.11155	0.61441	ug/L

Label	Replicate 1	Replicate 2	Replicate 3	Units
Na (588.995 nm)	-99.24741 u	-111.94933 u	-107.75156 u	ug/L
Ni (231.604 nm)	0.76036	1.44888	0.58142	ug/L
P (178.222 nm)	-19.74206 u	8.21645	48.25577	ug/L
Pb (220.353 nm)	-1.22059 u	0.12611	1.65906	ug/L
Pt (203.646 nm)	0.37056	-2.18208 u	3.51549	ug/L
Sb (206.834 nm)	-3.70610 u	-2.78313 u	-5.79736 u	ug/L
Se (196.026 nm)	8.69884	3.04043	-1.50726 u	ug/L
Si (251.611 nm)	-7.03820 u	-5.75671 u	-4.97671 u	ug/L
Sn (189.925 nm)	0.18424	0.21878	-1.41378 u	ug/L
Sr (421.552 nm)	0.84785	0.84732	0.85963	ug/L
Te (214.282 nm)	3.85144	3.31232	-0.74596 u	ug/L
Ti (334.941 nm)	0.03942	-0.01823 u	0.14403	ug/L
Tl (190.807 nm)	-8.98078 u	4.81923	-1.16765 u	ug/L
U (409.013 nm)	-3.68208 u	-0.95995 u	-4.29359 u	ug/L
V (292.401 nm)	0.43089	0.18040	0.27730	ug/L
W (207.912 nm)	7.10882	0.76910	3.71118	ug/L
Y (371.029 nm)	0.03353	0.13803	0.04732	ug/L
Zn (206.200 nm)	1.50580	-3.02215 u	-0.55339 u	ug/L
Zr (343.823 nm)	0.01875	-0.02624 u	0.17861	ug/L
Sc-A (361.383 nm)	0.97	0.98	0.98	Ratio
Sc-R (503.102 nm)	0.97	0.98	0.98	Ratio

Sample Name: 790578 LMB

Date: 7/14/2022 10:23:48 Rack:Tube: 1:2

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Calculated Concentration
Ag (328.068 nm)	0.06521	ug/L	0.23219	> 100.00	-85.34205	0.06521 (ug/L)
Al (236.705 nm)	40.77517	ug/L	4.55790	11.18	87.79349	40.77517 (ug/L)
As (188.980 nm)	3.84696	ug/L	5.49486	> 100.00	-5.92913	3.84696 (ug/L)
B (249.772 nm)	2.67917	ug/L	0.29846	11.14	96.31121	2.67917 (ug/L)
Ba (230.424 nm)	0.58975	ug/L	0.18878	32.01	5.91056	0.58975 (ug/L)
Be (313.107 nm)	0.00812	ug/L	0.00795	97.80	8.11308	0.00812 (ug/L)
Bi (223.061 nm)	0.51394	ug/L	3.76285	> 100.00	-36.96746	0.51394 (ug/L)
Ca (317.933 nm)	150.44715	ug/L	3.08740	2.05	2538.08852	150.44715 (ug/L)
Cd (214.439 nm)	0.17141	ug/L	0.26829	> 100.00	-4.39832	0.17141 (ug/L)
Co (228.615 nm)	0.13689	ug/L	0.85697	> 100.00	-8.70263	0.13689 (ug/L)
Cr (205.560 nm)	5.76991	ug/L	0.40330	6.99	29.91762	5.76991 (ug/L)
Cu (224.700 nm)	1.91847	ug/L	3.05997	> 100.00	-8.97514	1.91847 (ug/L)
Fe (261.382 nm)	10.31587	ug/L	0.94997	9.21	74.85796	10.31587 (ug/L)
K (766.491 nm)	-0.22315	ug/L	7.20430	> 100.00	-152.89829	-0.22315 (ug/L)
Li (610.365 nm)	16.33528	ug/L	1.12987	6.92	-4484.50271	16.33528 (ug/L)
Mg (279.078 nm)	13.58000	ug/L	1.34621	9.91	49.36654	13.58000 (ug/L)
Mn (260.568 nm)	0.58263	ug/L	0.17649	30.29	11.19098	0.58263 (ug/L)
Mo (202.032 nm)	-0.49308	ug/L	0.39013	79.12	-3.78362	-0.49308 (ug/L)
Na (588.995 nm)	23.66755	ug/L	4.38083	18.51	24709.29145	23.66755 (ug/L)
Ni (231.604 nm)	-0.85440	ug/L	1.71704	> 100.00	-5.86710	-0.85440 (ug/L)
P (178.222 nm)	30.03035	ug/L	13.32514	44.37	5.40957	30.03035 (ug/L)

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Calculated Concentration
Pb (220.353 nm)	-0.66126	ug/L	1.36168	> 100.00	1.33261	-0.66126 (ug/L)
Pt (203.646 nm)	4.08945	ug/L	3.65225	89.31	4.31294	4.08945 (ug/L)
Sb (206.834 nm)	1.72817	ug/L	3.01579	> 100.00	-7.23888	1.72817 (ug/L)
Se (196.026 nm)	4.73673	ug/L	3.09378	65.31	5.73867	4.73673 (ug/L)
Si (251.611 nm)	2.82034	ug/L	3.89620	> 100.00	23.79113	2.82034 (ug/L)
Sn (189.925 nm)	-0.36884	ug/L	1.46639	> 100.00	-5.31830	-0.36884 (ug/L)
Sr (421.552 nm)	1.33846	ug/L	0.02615	1.95	2753.15586	1.33846 (ug/L)
Te (214.282 nm)	1.51299	ug/L	2.53662	> 100.00	-4.54435	1.51299 (ug/L)
Ti (334.941 nm)	0.15559	ug/L	0.06714	43.15	-31.72755	0.15559 (ug/L)
Tl (190.807 nm)	5.66343	ug/L	4.19033	73.99	0.62085	5.66343 (ug/L)
U (409.013 nm)	-5.28752	ug/L	2.14923	40.65	153.06034	-5.28752 (ug/L)
V (292.401 nm)	0.25431	ug/L	0.07731	30.40	-15.04284	0.25431 (ug/L)
W (207.912 nm)	1.77505	ug/L	2.19590	> 100.00	8.45817	1.77505 (ug/L)
Y (371.029 nm)	-0.03921	ug/L	0.03618	92.27	-6.03851	-0.03921 (ug/L)
Zn (206.200 nm)	3.15440	ug/L	1.71993	54.52	4.13574	3.15440 (ug/L)
Zr (343.823 nm)	0.09971	ug/L	0.07806	78.28	99.22223	0.09971 (ug/L)

Label	Internal Standard
Ag (328.068 nm)	Sc-A
Al (236.705 nm)	Sc-A
As (188.980 nm)	Sc-A
B (249.772 nm)	Sc-A
Ba (230.424 nm)	Sc-A
Be (313.107 nm)	Sc-A
Bi (223.061 nm)	Sc-A
Ca (317.933 nm)	Sc-A
Cd (214.439 nm)	Sc-A
Co (228.615 nm)	Sc-A
Cr (205.560 nm)	Sc-A
Cu (224.700 nm)	Sc-A
Fe (261.382 nm)	Sc-A
K (766.491 nm)	Sc-R
Li (610.365 nm)	Sc-R
Mg (279.078 nm)	Sc-A
Mn (260.568 nm)	Sc-A
Mo (202.032 nm)	Sc-A
Na (588.995 nm)	Sc-R
Ni (231.604 nm)	Sc-A
P (178.222 nm)	Sc-A
Pb (220.353 nm)	Sc-A
Pt (203.646 nm)	Sc-A
Sb (206.834 nm)	Sc-A
Se (196.026 nm)	Sc-A
Si (251.611 nm)	Sc-A
Sn (189.925 nm)	Sc-A
Sr (421.552 nm)	Sc-A
Te (214.282 nm)	Sc-A
Ti (334.941 nm)	Sc-A

Label	Internal Standard
Tl (190.807 nm)	Sc-A
U (409.013 nm)	Sc-A
V (292.401 nm)	Sc-A
W (207.912 nm)	Sc-A
Y (371.029 nm)	Sc-A
Zn (206.200 nm)	Sc-A
Zr (343.823 nm)	Sc-A

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Sc-A	0.98	401398.10	0.00	0.41
Sc-R	0.97	45718.21	0.00	0.33

Replicates Concentration

Label	Replicate 1	Replicate 2	Replicate 3	Units
Ag (328.068 nm)	0.19243	-0.20278 u	0.20597	ug/L
Al (236.705 nm)	40.48417	45.47159	36.36974	ug/L
As (188.980 nm)	-2.48911 u	6.72484	7.30514	ug/L
B (249.772 nm)	2.93586	2.74996	2.35167	ug/L
Ba (230.424 nm)	0.49761	0.80690	0.46475	ug/L
Be (313.107 nm)	0.00269	0.00443	0.01724	ug/L
Bi (223.061 nm)	-0.95484 u	4.78966	-2.29301 u	ug/L
Ca (317.933 nm)	147.21254	150.76637	153.36254	ug/L
Cd (214.439 nm)	-0.07762 u	0.45552	0.13634	ug/L
Co (228.615 nm)	1.03939	-0.66582 u	0.03711	ug/L
Cr (205.560 nm)	6.02184	5.30475	5.98314	ug/L
Cu (224.700 nm)	0.13995	0.16366	5.45179	ug/L
Fe (261.382 nm)	9.27660	11.13945	10.53157	ug/L
K (766.491 nm)	-8.03382 u	6.16150	1.20288	ug/L
Li (610.365 nm)	17.08909	16.88056	15.03619	ug/L
Mg (279.078 nm)	14.64226	12.06603	14.03172	ug/L
Mn (260.568 nm)	0.67812	0.69080	0.37897	ug/L
Mo (202.032 nm)	-0.61784 u	-0.80557 u	-0.05582 u	ug/L
Na (588.995 nm)	28.67781	21.76628	20.55856	ug/L
Ni (231.604 nm)	1.07932	-2.20043 u	-1.44211 u	ug/L
P (178.222 nm)	15.28541	33.59502	41.21062	ug/L
Pb (220.353 nm)	-2.23358 u	0.12146	0.12835	ug/L
Pt (203.646 nm)	4.11412	0.42492	7.72930	ug/L
Sb (206.834 nm)	5.17229	0.45160	-0.43939 u	ug/L
Se (196.026 nm)	1.16647	6.41507	6.62866	ug/L
Si (251.611 nm)	-1.66087 u	4.71528	5.40660	ug/L
Sn (189.925 nm)	-1.15740 u	1.32310	-1.27223 u	ug/L
Sr (421.552 nm)	1.31537	1.33316	1.36685	ug/L
Te (214.282 nm)	4.42776	0.30566	-0.19444 u	ug/L
Ti (334.941 nm)	0.21825	0.08472	0.16380	ug/L
Tl (190.807 nm)	4.99663	1.84648	10.14718	ug/L
U (409.013 nm)	-6.76317 u	-6.27771 u	-2.82168 u	ug/L

Label	Replicate 1	Replicate 2	Replicate 3	Units
V (292.401 nm)	0.23173	0.34040	0.19081	ug/L
W (207.912 nm)	-0.70408 u	2.55380	3.47544	ug/L
Y (371.029 nm)	-0.05159 u	0.00153	-0.06759 u	ug/L
Zn (206.200 nm)	1.92009	5.11896	2.42415	ug/L
Zr (343.823 nm)	0.11133	0.01650	0.17131	ug/L
Sc-A (361.383 nm)	0.97	0.98	0.98	Ratio
Sc-R (503.102 nm)	0.97	0.97	0.98	Ratio

Sample Name: 790579 LCS

Date: 7/14/2022 10:25:28 Rack:Tube: 1:3

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Calculated Concentration
Ag (328.068 nm)	4247.81570	ug/L	66.64001	1.57	220398.62468	4247.81570 (ug/L)
Al (236.705 nm)	4360.50480	ug/L	65.08394	1.49	2714.05658	4360.50480 (ug/L)
As (188.980 nm)	4473.67130	ug/L	71.78300	1.60	2226.42094	4473.67130 (ug/L)
B (249.772 nm)	3.29539	ug/L	0.21984	6.67	148.36053	3.29539 (ug/L)
Ba (230.424 nm)	4647.72460	ug/L	49.31742	1.06	84535.27566	4647.72460 (ug/L)
Be (313.107 nm)	468.65228	ug/L	8.48256	1.81	344854.68726	468.65228 (ug/L)
Bi (223.061 nm)	4.17672	ug/L	1.63626	39.18	-64.21285	4.17672 (ug/L)
Ca (317.933 nm)	4753.90987	ug/L	90.74715	1.91	81757.37918	4753.90987 (ug/L)
Cd (214.439 nm)	460.84762	ug/L	10.75510	2.33	4800.61421	460.84762 (ug/L)
Co (228.615 nm)	472.70240	ug/L	8.01069	1.69	2807.28143	472.70240 (ug/L)
Cr (205.560 nm)	4662.23005	ug/L	122.82126	2.63	26769.02754	4662.23005 (ug/L)
Cu (224.700 nm)	483.36188	ug/L	8.71700	1.80	481.75284	483.36188 (ug/L)
Fe (261.382 nm)	4729.95151	ug/L	88.39245	1.87	12598.61868	4729.95151 (ug/L)
K (766.491 nm)	10.20787	ug/L	8.82818	86.48	-170.21149	10.20787 (ug/L)
Li (610.365 nm)	4421.33773	ug/L	62.30654	1.41	45732.93465	4421.33773 (ug/L)
Mg (279.078 nm)	4443.63040	ug/L	48.45005	1.09	6985.36528	4443.63040 (ug/L)
Mn (260.568 nm)	4727.64598	ug/L	81.02845	1.71	82544.93326	4727.64598 (ug/L)
Mo (202.032 nm)	406.08099	ug/L	8.29801	2.04	1906.73506	406.08099 (ug/L)
Na (588.995 nm)	4688.67970	ug/L	64.91333	1.38	135057.00265	4688.67970 (ug/L)
Ni (231.604 nm)	478.72321	ug/L	9.98284	2.09	1121.05760	478.72321 (ug/L)
P (178.222 nm)	3782.41891	ug/L	74.52724	1.97	366.24941	3782.41891 (ug/L)
Pb (220.353 nm)	4672.92957	ug/L	79.15407	1.69	5498.98048	4672.92957 (ug/L)
Pt (203.646 nm)	3.66084	ug/L	3.13210	85.56	28.80641	3.66084 (ug/L)
Sb (206.834 nm)	3764.64440	ug/L	116.72900	3.10	3400.99868	3764.64440 (ug/L)
Se (196.026 nm)	4558.47998 A3	ug/L	64.69639	1.42	2709.31524 A3	4558.47998 A3 (ug/L)
Si (251.611 nm)	15.44633	ug/L	5.09802	33.00	51.20780	15.44633 (ug/L)
Sn (189.925 nm)	2.04650	ug/L	1.76256	86.13	-3.51263	2.04650 (ug/L)
Sr (421.552 nm)	1.44524	ug/L	0.02869	1.99	2971.29664	1.44524 (ug/L)
Te (214.282 nm)	3788.48313	ug/L	52.15777	1.38	1984.79128	3788.48313 (ug/L)
Ti (334.941 nm)	385.29482	ug/L	6.79274	1.76	77738.15412	385.29482 (ug/L)
Tl (190.807 nm)	4677.90242	ug/L	68.34835	1.46	2462.51151	4677.90242 (ug/L)
U (409.013 nm)	4667.50739	ug/L	80.67523	1.73	25191.38473	4667.50739 (ug/L)
V (292.401 nm)	4592.06465	ug/L	78.42553	1.71	118082.17970	4592.06465 (ug/L)
W (207.912 nm)	3.95413	ug/L	0.44719	11.31	56.33178	3.95413 (ug/L)
Y (371.029 nm)	459.69079	ug/L	7.98130	1.74	76059.22111	459.69079 (ug/L)

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Calculated Concentration
Zn (206.200 nm)	4621.20366	ug/L	106.91104	2.31	8185.54848	4621.20366 (ug/L)
Zr (343.823 nm)	3764.85993	ug/L	65.37275	1.74	239288.40939	3764.85993 (ug/L)

Label	Internal Standard
Ag (328.068 nm)	Sc-A
Al (236.705 nm)	Sc-A
As (188.980 nm)	Sc-A
B (249.772 nm)	Sc-A
Ba (230.424 nm)	Sc-A
Be (313.107 nm)	Sc-A
Bi (223.061 nm)	Sc-A
Ca (317.933 nm)	Sc-A
Cd (214.439 nm)	Sc-A
Co (228.615 nm)	Sc-A
Cr (205.560 nm)	Sc-A
Cu (224.700 nm)	Sc-A
Fe (261.382 nm)	Sc-A
K (766.491 nm)	Sc-R
Li (610.365 nm)	Sc-R
Mg (279.078 nm)	Sc-A
Mn (260.568 nm)	Sc-A
Mo (202.032 nm)	Sc-A
Na (588.995 nm)	Sc-R
Ni (231.604 nm)	Sc-A
P (178.222 nm)	Sc-A
Pb (220.353 nm)	Sc-A
Pt (203.646 nm)	Sc-A
Sb (206.834 nm)	Sc-A
Se (196.026 nm)	Sc-A
Si (251.611 nm)	Sc-A
Sn (189.925 nm)	Sc-A
Sr (421.552 nm)	Sc-A
Te (214.282 nm)	Sc-A
Ti (334.941 nm)	Sc-A
Tl (190.807 nm)	Sc-A
U (409.013 nm)	Sc-A
V (292.401 nm)	Sc-A
W (207.912 nm)	Sc-A
Y (371.029 nm)	Sc-A
Zn (206.200 nm)	Sc-A
Zr (343.823 nm)	Sc-A

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Sc-A	0.97	400179.45	0.00	0.25
Sc-R	0.97	45640.42	0.00	0.37

Replicates Concentration

Label	Replicate 1	Replicate 2	Replicate 3	Units
Ag (328.068 nm)	4175.68875 o	4260.65916 o	4307.09918 o	ug/L
Al (236.705 nm)	4290.98301	4370.54810	4419.98329	ug/L
As (188.980 nm)	4406.89708	4464.52956	4549.58724	ug/L
B (249.772 nm)	3.52629	3.27130	3.08860	ug/L
Ba (230.424 nm)	4593.01655	4661.38630	4688.77096	ug/L
Be (313.107 nm)	459.74505	469.57750	476.63430	ug/L
Bi (223.061 nm)	4.45203	5.65787	2.42028	ug/L
Ca (317.933 nm)	4661.88315	4756.52556	4843.32090	ug/L
Cd (214.439 nm)	449.76469	461.53640	471.24177	ug/L
Co (228.615 nm)	463.82603	474.88702	479.39415	ug/L
Cr (205.560 nm)	4549.58355	4643.93334	4793.17325	ug/L
Cu (224.700 nm)	473.30089	488.13089	488.65386	ug/L
Fe (261.382 nm)	4640.15130	4732.83774	4816.86551	ug/L
K (766.491 nm)	0.73879	11.67297	18.21184	ug/L
Li (610.365 nm)	4351.57875	4440.97356	4471.46087	ug/L
Mg (279.078 nm)	4396.24831	4441.56081	4493.08209	ug/L
Mn (260.568 nm)	4643.36321	4734.60327	4804.97147	ug/L
Mo (202.032 nm)	397.22371	407.34445	413.67481	ug/L
Na (588.995 nm)	4621.06524	4694.46991	4750.50395	ug/L
Ni (231.604 nm)	467.24751	483.51859	485.40354	ug/L
P (178.222 nm)	3722.56488	3758.79753	3865.89432	ug/L
Pb (220.353 nm)	4590.69960	4679.48967	4748.59945	ug/L
Pt (203.646 nm)	7.07241	0.91536	2.99474	ug/L
Sb (206.834 nm)	3632.87609	3805.96245	3855.09465	ug/L
Se (196.026 nm)	4494.46993	4557.12847	4623.84154	ug/L
Si (251.611 nm)	13.71679	11.43807	21.18412	ug/L
Sn (189.925 nm)	4.07078	0.85181	1.21691	ug/L
Sr (421.552 nm)	1.41626	1.44583	1.47363	ug/L
Te (214.282 nm)	3728.80178	3811.32130	3825.32631	ug/L
Ti (334.941 nm)	378.13116	386.11027	391.64303	ug/L
Tl (190.807 nm)	4607.51261	4682.18693	4744.00773	ug/L
U (409.013 nm)	4579.14123	4686.15503	4737.22591	ug/L
V (292.401 nm)	4510.80274	4598.08433	4667.30687	ug/L
W (207.912 nm)	3.47752	4.02033	4.36452	ug/L
Y (371.029 nm)	451.26285	460.67546	467.13407	ug/L
Zn (206.200 nm)	4509.88844	4630.63719	4723.08533	ug/L
Zr (343.823 nm)	3695.79748	3773.00216	3825.78015	ug/L
Sc-A (361.383 nm)	0.97	0.97	0.97	Ratio
Sc-R (503.102 nm)	0.97	0.98	0.97	Ratio

Sample Name: 790580 LCSD

Date: 7/14/2022 10:27:08 Rack:Tube: 1:4

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Calculated Concentration
Ag (328.068 nm)	3698.55364	ug/L	16.79405	0.45	192011.57011	3698.55364 (ug/L)
Al (236.705 nm)	3738.06793	ug/L	38.01252	1.02	2336.18085	3738.06793 (ug/L)

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Calculated Concentration
As (188.980 nm)	3832.12077	ug/L	29.47418	0.77	1906.02262	3832.12077 (ug/L)
B (249.772 nm)	1.54438	ug/L	0.46590	30.17	114.90817	1.54438 (ug/L)
Ba (230.424 nm)	3966.89836	ug/L	17.61068	0.44	72155.32678	3966.89836 (ug/L)
Be (313.107 nm)	402.85693	ug/L	3.03175	0.75	296506.92781	402.85693 (ug/L)
Bi (223.061 nm)	6.20489	ug/L	0.60862	9.81	-57.46687	6.20489 (ug/L)
Ca (317.933 nm)	4078.93855	ug/L	34.56922	0.85	70145.79767	4078.93855 (ug/L)
Cd (214.439 nm)	396.92301	ug/L	9.34606	2.35	4133.42896	396.92301 (ug/L)
Co (228.615 nm)	406.55364	ug/L	2.37993	0.59	2413.03711	406.55364 (ug/L)
Cr (205.560 nm)	4039.98138	ug/L	27.72650	0.69	23195.90902	4039.98138 (ug/L)
Cu (224.700 nm)	415.56291	ug/L	1.61097	0.39	412.76188	415.56291 (ug/L)
Fe (261.382 nm)	4075.69887	ug/L	21.94721	0.54	10862.98216	4075.69887 (ug/L)
K (766.491 nm)	-2.13985	ug/L	6.50393	> 100.00	-189.80016	-2.13985 (ug/L)
Li (610.365 nm)	3793.39612	ug/L	7.31483	0.19	38575.34260	3793.39612 (ug/L)
Mg (279.078 nm)	3814.42180	ug/L	22.49224	0.59	6000.00099	3814.42180 (ug/L)
Mn (260.568 nm)	4082.23810	ug/L	29.21605	0.72	71275.43053	4082.23810 (ug/L)
Mo (202.032 nm)	420.57817	ug/L	5.21396	1.24	1974.93849	420.57817 (ug/L)
Na (588.995 nm)	4023.57717	ug/L	16.53403	0.41	119324.45149	4023.57717 (ug/L)
Ni (231.604 nm)	412.20414	ug/L	3.83396	0.93	964.57807	412.20414 (ug/L)
P (178.222 nm)	3921.89062	ug/L	34.17312	0.87	379.66139	3921.89062 (ug/L)
Pb (220.353 nm)	4009.71455	ug/L	31.58567	0.79	4718.74263	4009.71455 (ug/L)
Pt (203.646 nm)	1.54246	ug/L	2.53222	> 100.00	23.69922	1.54246 (ug/L)
Sb (206.834 nm)	3864.30800	ug/L	14.42557	0.37	3486.55217	3864.30800 (ug/L)
Se (196.026 nm)	3914.66913 A3	ug/L	28.65043	0.73	2327.05820 A3	3914.66913 A3 (ug/L)
Si (251.611 nm)	21.08698	ug/L	4.26234	20.21	59.60240	21.08698 (ug/L)
Sn (189.925 nm)	-0.00783	ug/L	1.22087	> 100.00	-5.04841	-0.00783 (ug/L)
Sr (421.552 nm)	1.13116	ug/L	0.01566	1.38	2329.65690	1.13116 (ug/L)
Te (214.282 nm)	3896.08020	ug/L	21.50596	0.55	2038.42665	3896.08020 (ug/L)
Ti (334.941 nm)	400.41598	ug/L	2.35413	0.59	80721.32946	400.41598 (ug/L)
Tl (190.807 nm)	4026.77118	ug/L	29.32838	0.73	2119.61742	4026.77118 (ug/L)
U (409.013 nm)	4021.49279	ug/L	16.33883	0.41	21750.76226	4021.49279 (ug/L)
V (292.401 nm)	3953.87951	ug/L	25.36163	0.64	101661.83992	3953.87951 (ug/L)
W (207.912 nm)	1.71515	ug/L	0.99014	57.73	47.23369	1.71515 (ug/L)
Y (371.029 nm)	395.74263	ug/L	2.07172	0.52	65477.52908	395.74263 (ug/L)
Zn (206.200 nm)	3981.39216	ug/L	43.33060	1.09	7052.11345	3981.39216 (ug/L)
Zr (343.823 nm)	3920.11025	ug/L	20.68814	0.53	249168.08709	3920.11025 (ug/L)

Label	Internal Standard
Ag (328.068 nm)	Sc-A
Al (236.705 nm)	Sc-A
As (188.980 nm)	Sc-A
B (249.772 nm)	Sc-A
Ba (230.424 nm)	Sc-A
Be (313.107 nm)	Sc-A
Bi (223.061 nm)	Sc-A
Ca (317.933 nm)	Sc-A
Cd (214.439 nm)	Sc-A
Co (228.615 nm)	Sc-A
Cr (205.560 nm)	Sc-A

Label	Internal Standard
Cu (224.700 nm)	Sc-A
Fe (261.382 nm)	Sc-A
K (766.491 nm)	Sc-R
Li (610.365 nm)	Sc-R
Mg (279.078 nm)	Sc-A
Mn (260.568 nm)	Sc-A
Mo (202.032 nm)	Sc-A
Na (588.995 nm)	Sc-R
Ni (231.604 nm)	Sc-A
P (178.222 nm)	Sc-A
Pb (220.353 nm)	Sc-A
Pt (203.646 nm)	Sc-A
Sb (206.834 nm)	Sc-A
Se (196.026 nm)	Sc-A
Si (251.611 nm)	Sc-A
Sn (189.925 nm)	Sc-A
Sr (421.552 nm)	Sc-A
Te (214.282 nm)	Sc-A
Ti (334.941 nm)	Sc-A
Tl (190.807 nm)	Sc-A
U (409.013 nm)	Sc-A
V (292.401 nm)	Sc-A
W (207.912 nm)	Sc-A
Y (371.029 nm)	Sc-A
Zn (206.200 nm)	Sc-A
Zr (343.823 nm)	Sc-A

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Sc-A	0.97	399655.01	0.00	0.23
Sc-R	0.97	45600.07	0.00	0.18

Replicates Concentration

Label	Replicate 1	Replicate 2	Replicate 3	Units
Ag (328.068 nm)	3679.81855 o	3703.58673 o	3712.25564 o	ug/L
Al (236.705 nm)	3694.32397	3756.80919	3763.07061	ug/L
As (188.980 nm)	3800.16992	3858.24925	3837.94314	ug/L
B (249.772 nm)	1.13723	1.44344	2.05248	ug/L
Ba (230.424 nm)	3964.82056	3950.41876	3985.45578	ug/L
Be (313.107 nm)	399.53335	403.56641	405.47103	ug/L
Bi (223.061 nm)	6.35320	5.53582	6.72564	ug/L
Ca (317.933 nm)	4041.23339	4086.44334	4109.13891	ug/L
Cd (214.439 nm)	386.83528	398.64615	405.28759	ug/L
Co (228.615 nm)	404.36667	409.08828	406.20597	ug/L
Cr (205.560 nm)	4008.13803	4053.02909	4058.77701	ug/L
Cu (224.700 nm)	414.48135	417.41438	414.79301	ug/L
Fe (261.382 nm)	4052.99130	4077.30819	4096.79713	ug/L

Label	Replicate 1	Replicate 2	Replicate 3	Units
K (766.491 nm)	5.14754	-4.21139 u	-7.35569 u	ug/L
Li (610.365 nm)	3784.96834	3797.12393	3798.09607	ug/L
Mg (279.078 nm)	3792.36424	3813.57630	3837.32487	ug/L
Mn (260.568 nm)	4051.72696	4085.02849	4109.95884	ug/L
Mo (202.032 nm)	414.92962	421.59806	425.20683	ug/L
Na (588.995 nm)	4005.40246	4027.60153	4037.72752	ug/L
Ni (231.604 nm)	407.79024	414.11558	414.70660	ug/L
P (178.222 nm)	3882.60791	3944.76521	3938.29874	ug/L
Pb (220.353 nm)	3973.24496	4027.58698	4028.31172	ug/L
Pt (203.646 nm)	4.38638	0.70891	-0.46791 u	ug/L
Sb (206.834 nm)	3853.77051	3880.74894	3858.40454	ug/L
Se (196.026 nm)	3888.21552	3910.69122	3945.10064	ug/L
Si (251.611 nm)	16.47585	21.90237	24.88272	ug/L
Sn (189.925 nm)	-0.76458 u	-0.65951 u	1.40060	ug/L
Sr (421.552 nm)	1.11982	1.12463	1.14902	ug/L
Te (214.282 nm)	3872.38302	3914.35833	3901.49926	ug/L
Ti (334.941 nm)	397.88397	400.82548	402.53849	ug/L
Tl (190.807 nm)	3996.83148	4028.03465	4055.44740	ug/L
U (409.013 nm)	4002.65675	4029.98345	4031.83819	ug/L
V (292.401 nm)	3925.82538	3960.63085	3975.18231	ug/L
W (207.912 nm)	2.78509	1.52917	0.83119	ug/L
Y (371.029 nm)	393.45852	396.26893	397.50045	ug/L
Zn (206.200 nm)	3943.70378	3971.73670	4028.73601	ug/L
Zr (343.823 nm)	3896.80140	3927.23456	3936.29480	ug/L
Sc-A (361.383 nm)	0.97	0.97	0.97	Ratio
Sc-R (503.102 nm)	0.97	0.97	0.97	Ratio

Sample Name: 790581 RLVS

Date: 7/14/2022 10:28:49 Rack:Tube: 1:5

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Calculated Concentration
Ag (328.068 nm)	9.61332	ug/L	0.20723	2.16	415.87766	9.61332 (ug/L)
Al (236.705 nm)	184.30470	ug/L	9.86803	5.35	175.06878	184.30470 (ug/L)
As (188.980 nm)	94.17448	ug/L	5.38575	5.72	39.16567	94.17448 (ug/L)
B (249.772 nm)	93.58193	ug/L	1.33020	1.42	1530.10709	93.58193 (ug/L)
Ba (230.424 nm)	10.36870	ug/L	0.18010	1.74	184.60257	10.36870 (ug/L)
Be (313.107 nm)	0.52533	ug/L	0.01019	1.94	380.38985	0.52533 (ug/L)
Bi (223.061 nm)	92.47433	ug/L	4.74934	5.14	101.92826	92.47433 (ug/L)
Ca (317.933 nm)	681.26893	ug/L	11.88673	1.74	11618.46628	681.26893 (ug/L)
Cd (214.439 nm)	2.87351	ug/L	0.16714	5.82	28.54675	2.87351 (ug/L)
Co (228.615 nm)	3.35261	ug/L	0.35301	10.53	10.29495	3.35261 (ug/L)
Cr (205.560 nm)	54.77298	ug/L	1.00015	1.83	311.21461	54.77298 (ug/L)
Cu (224.700 nm)	20.39279	ug/L	2.50353	12.28	9.62609	20.39279 (ug/L)
Fe (261.382 nm)	208.52844	ug/L	4.04136	1.94	605.45630	208.52844 (ug/L)
K (766.491 nm)	448.71126	ug/L	15.08664	3.36	765.01978	448.71126 (ug/L)
Li (610.365 nm)	110.89471	ug/L	3.11182	2.81	-3413.85891	110.89471 (ug/L)
Mg (279.078 nm)	56.37850	ug/L	3.95632	7.02	115.61726	56.37850 (ug/L)

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Calculated Concentration
Mn (260.568 nm)	5.88618	ug/L	0.35414	6.02	103.87430	5.88618 (ug/L)
Mo (202.032 nm)	15.34169	ug/L	1.20041	7.82	70.55818	15.34169 (ug/L)
Na (588.995 nm)	263.15671	ug/L	9.07044	3.45	30374.24584	263.15671 (ug/L)
Ni (231.604 nm)	3.76538	ug/L	1.37204	36.44	4.98931	3.76538 (ug/L)
P (178.222 nm)	203.60040	ug/L	4.14423	2.04	22.10054	203.60040 (ug/L)
Pb (220.353 nm)	21.15071	ug/L	0.85130	4.02	27.03592	21.15071 (ug/L)
Pt (203.646 nm)	142.34267	ug/L	4.57187	3.21	114.87641	142.34267 (ug/L)
Sb (206.834 nm)	58.78295	ug/L	4.82296	8.20	43.92684	58.78295 (ug/L)
Se (196.026 nm)	100.68415	ug/L	1.93554	1.92	62.70348	100.68415 (ug/L)
Si (251.611 nm)	476.03896	ug/L	6.53321	1.37	692.06136	476.03896 (ug/L)
Sn (189.925 nm)	98.90005	ug/L	4.10842	4.15	68.89355	98.90005 (ug/L)
Sr (421.552 nm)	15.77441	ug/L	0.26344	1.67	32244.77744	15.77441 (ug/L)
Te (214.282 nm)	45.06150	ug/L	5.77521	12.82	18.14983	45.06150 (ug/L)
Ti (334.941 nm)	3.00977	ug/L	0.06825	2.27	547.94639	3.00977 (ug/L)
Tl (190.807 nm)	51.75877	ug/L	3.87111	7.48	25.04678	51.75877 (ug/L)
U (409.013 nm)	96.19597	ug/L	1.81819	1.89	694.48910	96.19597 (ug/L)
V (292.401 nm)	3.57091	ug/L	0.22865	6.40	66.21598	3.57091 (ug/L)
W (207.912 nm)	2.92112	ug/L	0.24348	8.34	10.10888	2.92112 (ug/L)
Y (371.029 nm)	2.98884	ug/L	0.04817	1.61	495.12895	2.98884 (ug/L)
Zn (206.200 nm)	22.16872	ug/L	1.80107	8.12	37.91023	22.16872 (ug/L)
Zr (343.823 nm)	27.34316	ug/L	0.62853	2.30	1828.94891	27.34316 (ug/L)

Label	Internal Standard
Ag (328.068 nm)	Sc-A
Al (236.705 nm)	Sc-A
As (188.980 nm)	Sc-A
B (249.772 nm)	Sc-A
Ba (230.424 nm)	Sc-A
Be (313.107 nm)	Sc-A
Bi (223.061 nm)	Sc-A
Ca (317.933 nm)	Sc-A
Cd (214.439 nm)	Sc-A
Co (228.615 nm)	Sc-A
Cr (205.560 nm)	Sc-A
Cu (224.700 nm)	Sc-A
Fe (261.382 nm)	Sc-A
K (766.491 nm)	Sc-R
Li (610.365 nm)	Sc-R
Mg (279.078 nm)	Sc-A
Mn (260.568 nm)	Sc-A
Mo (202.032 nm)	Sc-A
Na (588.995 nm)	Sc-R
Ni (231.604 nm)	Sc-A
P (178.222 nm)	Sc-A
Pb (220.353 nm)	Sc-A
Pt (203.646 nm)	Sc-A
Sb (206.834 nm)	Sc-A
Se (196.026 nm)	Sc-A

Label	Internal Standard
Si (251.611 nm)	Sc-A
Sn (189.925 nm)	Sc-A
Sr (421.552 nm)	Sc-A
Te (214.282 nm)	Sc-A
Ti (334.941 nm)	Sc-A
Tl (190.807 nm)	Sc-A
U (409.013 nm)	Sc-A
V (292.401 nm)	Sc-A
W (207.912 nm)	Sc-A
Y (371.029 nm)	Sc-A
Zn (206.200 nm)	Sc-A
Zr (343.823 nm)	Sc-A

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Sc-A	0.98	402796.34	0.00	0.11
Sc-R	0.97	45784.78	0.00	0.15

Replicates Concentration

Label	Replicate 1	Replicate 2	Replicate 3	Units
Ag (328.068 nm)	9.58751	9.42021	9.83225	ug/L
Al (236.705 nm)	173.30014	187.24713	192.36684	ug/L
As (188.980 nm)	90.76725	91.37261	100.38358	ug/L
B (249.772 nm)	92.56456	93.09406	95.08719	ug/L
Ba (230.424 nm)	10.24485	10.28594	10.57530	ug/L
Be (313.107 nm)	0.51503	0.52556	0.53540	ug/L
Bi (223.061 nm)	97.95129	89.97757	89.49413	ug/L
Ca (317.933 nm)	669.18711	681.66923	692.95046	ug/L
Cd (214.439 nm)	2.82754	2.73417	3.05883	ug/L
Co (228.615 nm)	3.67319	2.97430	3.41035	ug/L
Cr (205.560 nm)	53.64340	55.54592	55.12963	ug/L
Cu (224.700 nm)	17.60407	21.12762	22.44668	ug/L
Fe (261.382 nm)	204.33727	208.84689	212.40115	ug/L
K (766.491 nm)	433.52470	448.91313	463.69596	ug/L
Li (610.365 nm)	113.06794	112.28623	107.32994	ug/L
Mg (279.078 nm)	54.22912	53.96212	60.94426	ug/L
Mn (260.568 nm)	5.51543	5.92214	6.22097	ug/L
Mo (202.032 nm)	15.53863	14.05499	16.43145	ug/L
Na (588.995 nm)	252.94675	266.23924	270.28414	ug/L
Ni (231.604 nm)	2.42681	5.16860	3.70071	ug/L
P (178.222 nm)	206.44526	198.84560	205.51034	ug/L
Pb (220.353 nm)	20.19612	21.42480	21.83121	ug/L
Pt (203.646 nm)	141.60093	147.24005	138.18702	ug/L
Sb (206.834 nm)	55.90689	56.09096	64.35102	ug/L
Se (196.026 nm)	98.94302	100.34120	102.76825	ug/L
Si (251.611 nm)	470.07450	475.02095	483.02142	ug/L
Sn (189.925 nm)	96.54879	96.50738	103.64399	ug/L

Label	Replicate 1	Replicate 2	Replicate 3	Units
Sr (421.552 nm)	15.50884	15.77872	16.03566	ug/L
Te (214.282 nm)	40.32123	51.49371	43.36955	ug/L
Ti (334.941 nm)	2.93835	3.01664	3.07433	ug/L
Tl (190.807 nm)	47.66121	55.35447	52.26063	ug/L
U (409.013 nm)	97.55194	94.12989	96.90610	ug/L
V (292.401 nm)	3.35695	3.81185	3.54393	ug/L
W (207.912 nm)	3.19309	2.84686	2.72342	ug/L
Y (371.029 nm)	2.98136	2.94484	3.04031	ug/L
Zn (206.200 nm)	20.28085	22.35711	23.86819	ug/L
Zr (343.823 nm)	27.89800	27.47090	26.66057	ug/L
Sc-A (361.383 nm)	0.98	0.98	0.98	Ratio
Sc-R (503.102 nm)	0.97	0.98	0.97	Ratio

Sample Name: 2218876001

Date: 7/14/2022 10:30:29 Rack:Tube: 1:6

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Calculated Concentration
Ag (328.068 nm)	0.02920	ug/L	0.21477	> 100.00	-87.02154	0.02920 (ug/L)
Al (236.705 nm)	4783.76741	ug/L	24.94937	0.52	2968.89826	4783.76741 (ug/L)
As (188.980 nm)	4.03632	ug/L	5.52213	> 100.00	-5.83468	4.03632 (ug/L)
B (249.772 nm)	1.14537	ug/L	0.08608	7.52	72.32697	1.14537 (ug/L)
Ba (230.424 nm)	2.74629	ug/L	0.19996	7.28	45.15015	2.74629 (ug/L)
Be (313.107 nm)	0.02228	ug/L	0.02137	95.94	18.10433	0.02228 (ug/L)
Bi (223.061 nm)	1.50749	ug/L	1.43291	95.05	-35.50268	1.50749 (ug/L)
Ca (317.933 nm)	137.36788	ug/L	3.68683	2.68	2314.53343	137.36788 (ug/L)
Cd (214.439 nm)	0.03430	ug/L	0.17672	> 100.00	-6.80623	0.03430 (ug/L)
Co (228.615 nm)	0.19715	ug/L	0.52982	> 100.00	-8.33273	0.19715 (ug/L)
Cr (205.560 nm)	6.61281	ug/L	0.42000	6.35	34.75064	6.61281 (ug/L)
Cu (224.700 nm)	1.87781	ug/L	0.99182	52.82	-9.00122	1.87781 (ug/L)
Fe (261.382 nm)	29.98878	ug/L	1.30731	4.36	127.52253	29.98878 (ug/L)
K (766.491 nm)	8.54764	ug/L	6.39392	74.80	-134.98135	8.54764 (ug/L)
Li (610.365 nm)	18.96104	ug/L	3.68018	19.41	-4454.29276	18.96104 (ug/L)
Mg (279.078 nm)	15.36056	ug/L	1.61570	10.52	52.11513	15.36056 (ug/L)
Mn (260.568 nm)	1.04429	ug/L	0.19179	18.37	19.26635	1.04429 (ug/L)
Mo (202.032 nm)	-0.07406	ug/L	0.59514	> 100.00	-1.81462	-0.07406 (ug/L)
Na (588.995 nm)	-13.54025	ug/L	33.46219	> 100.00	23829.16608	-13.54025 (ug/L)
Ni (231.604 nm)	-0.91384	ug/L	0.45996	50.33	-5.99486	-0.91384 (ug/L)
P (178.222 nm)	14.82034	ug/L	4.44369	29.98	3.94693	14.82034 (ug/L)
Pb (220.353 nm)	-0.08009	ug/L	3.10835	> 100.00	1.72053	-0.08009 (ug/L)
Pt (203.646 nm)	2.64918	ug/L	3.03972	> 100.00	3.30255	2.64918 (ug/L)
Sb (206.834 nm)	0.08473	ug/L	1.09110	> 100.00	-8.71328	0.08473 (ug/L)
Se (196.026 nm)	9.41379	ug/L	1.97181	20.95	8.51109	9.41379 (ug/L)
Si (251.611 nm)	71.69791	ug/L	2.16230	3.02	121.01320	71.69791 (ug/L)
Sn (189.925 nm)	1.61166	ug/L	2.07966	> 100.00	-3.83770	1.61166 (ug/L)
Sr (421.552 nm)	0.85291	ug/L	0.02045	2.40	1761.21149	0.85291 (ug/L)
Te (214.282 nm)	-3.85813	ug/L	3.92801	> 100.00	-7.53612	-3.85813 (ug/L)
Ti (334.941 nm)	1.25966	ug/L	0.09731	7.73	190.36324	1.25966 (ug/L)

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Calculated Concentration
Tl (190.807 nm)	20.41188	ug/L	6.42294	31.47	8.38486	20.41188 (ug/L)
U (409.013 nm)	-0.57313	ug/L	3.27192	> 100.00	178.19481	-0.57313 (ug/L)
V (292.401 nm)	0.28860	ug/L	0.14667	50.82	-14.29335	0.28860 (ug/L)
W (207.912 nm)	1.30258	ug/L	3.23492	> 100.00	7.88021	1.30258 (ug/L)
Y (371.029 nm)	0.05425	ug/L	0.01606	29.61	9.41788	0.05425 (ug/L)
Zn (206.200 nm)	5.76511	ug/L	0.69527	12.06	8.75536	5.76511 (ug/L)
Zr (343.823 nm)	0.51186	ug/L	0.11807	23.07	125.33749	0.51186 (ug/L)

Label	Internal Standard
Ag (328.068 nm)	Sc-A
Al (236.705 nm)	Sc-A
As (188.980 nm)	Sc-A
B (249.772 nm)	Sc-A
Ba (230.424 nm)	Sc-A
Be (313.107 nm)	Sc-A
Bi (223.061 nm)	Sc-A
Ca (317.933 nm)	Sc-A
Cd (214.439 nm)	Sc-A
Co (228.615 nm)	Sc-A
Cr (205.560 nm)	Sc-A
Cu (224.700 nm)	Sc-A
Fe (261.382 nm)	Sc-A
K (766.491 nm)	Sc-R
Li (610.365 nm)	Sc-R
Mg (279.078 nm)	Sc-A
Mn (260.568 nm)	Sc-A
Mo (202.032 nm)	Sc-A
Na (588.995 nm)	Sc-R
Ni (231.604 nm)	Sc-A
P (178.222 nm)	Sc-A
Pb (220.353 nm)	Sc-A
Pt (203.646 nm)	Sc-A
Sb (206.834 nm)	Sc-A
Se (196.026 nm)	Sc-A
Si (251.611 nm)	Sc-A
Sn (189.925 nm)	Sc-A
Sr (421.552 nm)	Sc-A
Te (214.282 nm)	Sc-A
Ti (334.941 nm)	Sc-A
Tl (190.807 nm)	Sc-A
U (409.013 nm)	Sc-A
V (292.401 nm)	Sc-A
W (207.912 nm)	Sc-A
Y (371.029 nm)	Sc-A
Zn (206.200 nm)	Sc-A
Zr (343.823 nm)	Sc-A

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Sc-A	1.01	413847.74	0.02	1.84
Sc-R	1.00	47088.40	0.02	1.78

Replicates Concentration

Label	Replicate 1	Replicate 2	Replicate 3	Units
Ag (328.068 nm)	-0.01376 u	0.26221	-0.16084 u	ug/L
Al (236.705 nm)	4761.19387	4779.55266	4810.55572	ug/L
As (188.980 nm)	-2.33962 u	7.29054	7.15805	ug/L
B (249.772 nm)	1.18267	1.20652	1.04693	ug/L
Ba (230.424 nm)	2.54598	2.74700	2.94590	ug/L
Be (313.107 nm)	0.00803	0.04685	0.01195	ug/L
Bi (223.061 nm)	0.03495	2.89716	1.59036	ug/L
Ca (317.933 nm)	133.25766	138.46264	140.38333	ug/L
Cd (214.439 nm)	0.20820	-0.14512 u	0.03981	ug/L
Co (228.615 nm)	-0.26418 u	0.07985	0.77579	ug/L
Cr (205.560 nm)	6.32088	7.09416	6.42339	ug/L
Cu (224.700 nm)	2.87287	0.88927	1.87128	ug/L
Fe (261.382 nm)	28.89415	29.63586	31.43632	ug/L
K (766.491 nm)	11.44541	12.97961	1.21791	ug/L
Li (610.365 nm)	23.02433	15.85191	18.00686	ug/L
Mg (279.078 nm)	14.83001	17.17482	14.07684	ug/L
Mn (260.568 nm)	0.94705	0.92059	1.26522	ug/L
Mo (202.032 nm)	-0.75786 u	0.20865	0.32703	ug/L
Na (588.995 nm)	-51.84494 u	1.22102	10.00316	ug/L
Ni (231.604 nm)	-1.03810 u	-0.40452 u	-1.29890 u	ug/L
P (178.222 nm)	17.10691	9.69898	17.65514	ug/L
Pb (220.353 nm)	2.40496	-3.56543 u	0.92021	ug/L
Pt (203.646 nm)	6.03127	0.14511	1.77115	ug/L
Sb (206.834 nm)	-0.34601 u	1.32544	-0.72526 u	ug/L
Se (196.026 nm)	7.21284	10.00938	11.01915	ug/L
Si (251.611 nm)	69.65926	71.46884	73.96563	ug/L
Sn (189.925 nm)	3.59213	-0.55470 u	1.79756	ug/L
Sr (421.552 nm)	0.82941	0.86669	0.86263	ug/L
Te (214.282 nm)	-8.20605 u	-2.80265 u	-0.56571 u	ug/L
Ti (334.941 nm)	1.18596	1.36996	1.22306	ug/L
Tl (190.807 nm)	25.94458	21.92292	13.36814	ug/L
U (409.013 nm)	3.19941	-2.63676 u	-2.28204 u	ug/L
V (292.401 nm)	0.40390	0.12352	0.33840	ug/L
W (207.912 nm)	4.83660	0.58330	-1.51215 u	ug/L
Y (371.029 nm)	0.05646	0.06909	0.03720	ug/L
Zn (206.200 nm)	4.99725	5.94609	6.35198	ug/L
Zr (343.823 nm)	0.57827	0.37553	0.58177	ug/L
Sc-A (361.383 nm)	0.98	1.02	1.02	Ratio
Sc-R (503.102 nm)	0.98	1.01	1.01	Ratio

Sample Name: CCV

Date: 7/14/2022 10:32:10 Rack:Tube: S1:10

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity
Ag (328.068 nm)	1990.74129	ug/L	17.82755	0.90	103947.05415
Al (236.705 nm)	49353.12949	ug/L	595.05027	1.21	30223.64036
As (188.980 nm)	5018.21268	ug/L	58.23385	1.16	2498.11963
B (249.772 nm)	12404.09732	ug/L	115.14408	0.93	195911.01550
Ba (230.424 nm)	5037.90753	ug/L	47.69407	0.95	92998.14175
Be (313.107 nm)	1010.37786	ug/L	10.04838	0.99	743908.02407
Bi (223.061 nm)	4947.14475	ug/L	51.49397	1.04	7388.91229
Ca (317.933 nm)	50735.46242	ug/L	651.19305	1.28	869696.97681
Cd (214.439 nm)	2568.02933	ug/L	28.47247	1.11	26774.05593
Co (228.615 nm)	5043.75620	ug/L	57.43869	1.14	29723.48224
Cr (205.560 nm)	5037.55493	ug/L	67.91883	1.35	28940.59943
Cu (224.700 nm)	4987.75672	ug/L	53.37009	1.07	5042.47726
Fe (261.382 nm)	50196.69077	ug/L	592.99819	1.18	134245.73888
K (766.491 nm)	48178.99806	ug/L	399.69331	0.83	98323.46825
Li (610.365 nm)	4856.10166	ug/L	45.02939	0.93	49963.30223
Mg (279.078 nm)	50175.86030	ug/L	605.46184	1.21	79289.48157
Mn (260.568 nm)	5023.87620	ug/L	56.71066	1.13	87498.07881
Mo (202.032 nm)	25177.22796	ug/L	317.52619	1.26	118330.97988
Na (588.995 nm)	48084.69317	ug/L	375.48819	0.78	1161560.38664
Ni (231.604 nm)	5066.53211	ug/L	47.74871	0.94	11859.27347
P (178.222 nm)	25278.62496	ug/L	271.48492	1.07	2433.38276
Pb (220.353 nm)	5053.23940	ug/L	49.43593	0.98	5907.35730
Pt (203.646 nm)	25.26474	ug/L	5.55162	21.97	288.40188
Sb (206.834 nm)	24728.15789	ug/L	326.33140	1.32	22226.99354
Se (196.026 nm)	4964.64608	ug/L	33.29874	0.67	2941.29557
Si (251.611 nm)	12319.79570	ug/L	272.72703	2.21	18028.95753
Sn (189.925 nm)	5067.34232	ug/L	65.41744	1.29	3783.22181
Sr (421.552 nm)	4902.19000	ug/L	46.32814	0.95	10014846.56075
Te (214.282 nm)	10027.17912	ug/L	137.85464	1.37	5240.34244
Ti (334.941 nm)	4954.93471	ug/L	56.00732	1.13	995682.20702
Tl (190.807 nm)	2510.71152	ug/L	34.70653	1.38	1450.70589
U (409.013 nm)	4868.93989	ug/L	57.22039	1.18	26347.06754
V (292.401 nm)	4991.63398	ug/L	54.55636	1.09	125899.95899
W (207.912 nm)	4.00980	ug/L	2.75476	68.70	61.68845
Y (371.029 nm)	1980.03765	ug/L	22.11519	1.12	327523.42929
Zn (206.200 nm)	5162.76680	ug/L	99.84965	1.93	9144.49784
Zr (343.823 nm)	4961.16314	ug/L	49.41675	1.00	315381.84351

Label	Calculated Concentration	Internal Standard
Ag (328.068 nm)	1990.74129 (ug/L)	Sc-A
Al (236.705 nm)	49353.12949 (ug/L)	Sc-A
As (188.980 nm)	5018.21268 (ug/L)	Sc-A
B (249.772 nm)	12404.09732 (ug/L)	Sc-A
Ba (230.424 nm)	5037.90753 (ug/L)	Sc-A
Be (313.107 nm)	1010.37786 (ug/L)	Sc-A
Bi (223.061 nm)	4947.14475 (ug/L)	Sc-A
Ca (317.933 nm)	50735.46242 (ug/L)	Sc-A

Label	Calculated Concentration	Internal Standard
Cd (214.439 nm)	2568.02933 (ug/L)	Sc-A
Co (228.615 nm)	5043.75620 (ug/L)	Sc-A
Cr (205.560 nm)	5037.55493 (ug/L)	Sc-A
Cu (224.700 nm)	4987.75672 (ug/L)	Sc-A
Fe (261.382 nm)	50196.69077 (ug/L)	Sc-A
K (766.491 nm)	48178.99806 (ug/L)	Sc-R
Li (610.365 nm)	4856.10166 (ug/L)	Sc-R
Mg (279.078 nm)	50175.86030 (ug/L)	Sc-A
Mn (260.568 nm)	5023.87620 (ug/L)	Sc-A
Mo (202.032 nm)	25177.22796 (ug/L)	Sc-A
Na (588.995 nm)	48084.69317 (ug/L)	Sc-R
Ni (231.604 nm)	5066.53211 (ug/L)	Sc-A
P (178.222 nm)	25278.62496 (ug/L)	Sc-A
Pb (220.353 nm)	5053.23940 (ug/L)	Sc-A
Pt (203.646 nm)	25.26474 (ug/L)	Sc-A
Sb (206.834 nm)	24728.15789 (ug/L)	Sc-A
Se (196.026 nm)	4964.64608 (ug/L)	Sc-A
Si (251.611 nm)	12319.79570 (ug/L)	Sc-A
Sn (189.925 nm)	5067.34232 (ug/L)	Sc-A
Sr (421.552 nm)	4902.19000 (ug/L)	Sc-A
Te (214.282 nm)	10027.17912 (ug/L)	Sc-A
Ti (334.941 nm)	4954.93471 (ug/L)	Sc-A
Tl (190.807 nm)	2510.71152 (ug/L)	Sc-A
U (409.013 nm)	4868.93989 (ug/L)	Sc-A
V (292.401 nm)	4991.63398 (ug/L)	Sc-A
W (207.912 nm)	4.00980 (ug/L)	Sc-A
Y (371.029 nm)	1980.03765 (ug/L)	Sc-A
Zn (206.200 nm)	5162.76680 (ug/L)	Sc-A
Zr (343.823 nm)	4961.16314 (ug/L)	Sc-A

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Sc-A	0.98	401315.60	0.00	0.14
Sc-R	0.98	46066.98	0.00	0.13

Replicates Concentration

Label	Replicate 1	Replicate 2	Replicate 3	Units
Ag (328.068 nm)	1970.74292	1996.51318	2004.96779	ug/L
Al (236.705 nm)	48714.29059	49453.46341	49891.63447	ug/L
As (188.980 nm)	4953.94025	5033.23247	5067.46532	ug/L
B (249.772 nm)	12279.40261	12426.48747	12506.40190	ug/L
Ba (230.424 nm)	4993.05627	5032.65650	5088.00982	ug/L
Be (313.107 nm)	999.96825	1011.14421	1020.02113	ug/L
Bi (223.061 nm)	4898.51697	4941.82532	5001.09195	ug/L
Ca (317.933 nm)	50096.71575	50711.24529	51398.42621	ug/L
Cd (214.439 nm)	2539.17196	2568.81541	2596.10062	ug/L
Co (228.615 nm)	4980.58024	5057.85702	5092.83135	ug/L

Label	Replicate 1	Replicate 2	Replicate 3	Units
Cr (205.560 nm)	4970.62433	5035.61984	5106.42063	ug/L
Cu (224.700 nm)	4930.47416	4996.71559	5036.08041	ug/L
Fe (261.382 nm)	49542.15950	50349.77699	50698.13581	ug/L
K (766.491 nm)	47736.14111	48287.89637	48512.95670	ug/L
Li (610.365 nm)	4805.27840	4872.00576	4891.02083	ug/L
Mg (279.078 nm)	49523.89601	50283.23100	50720.45388	ug/L
Mn (260.568 nm)	4963.30517	5032.61034	5075.71308	ug/L
Mo (202.032 nm)	24842.94521	25213.93098	25474.80769	ug/L
Na (588.995 nm)	47651.52636	48284.95896	48317.59420	ug/L
Ni (231.604 nm)	5016.44191	5071.62302	5111.53138	ug/L
P (178.222 nm)	25003.80144	25285.43011	25546.64333	ug/L
Pb (220.353 nm)	5005.83812	5049.39460	5104.48547	ug/L
Pt (203.646 nm)	23.36343	20.91359	31.51721	ug/L
Sb (206.834 nm)	24407.74787	24716.62109	25060.10470	ug/L
Se (196.026 nm)	4926.97609	4976.80757	4990.15456	ug/L
Si (251.611 nm)	12027.38854	12364.73936	12567.25921	ug/L
Sn (189.925 nm)	4991.93930	5101.14122	5108.94644	ug/L
Sr (421.552 nm)	4850.48824	4916.14579	4939.93597	ug/L
Te (214.282 nm)	9875.82138	10060.17279	10145.54319	ug/L
Ti (334.941 nm)	4893.30390	4968.77797	5002.72224	ug/L
Tl (190.807 nm)	2471.69268	2522.30320	2538.13869	ug/L
U (409.013 nm)	4807.91137	4877.52671	4921.38160	ug/L
V (292.401 nm)	4932.06092	5003.68116	5039.15987	ug/L
W (207.912 nm)	1.17642	4.17442	6.67856	ug/L
Y (371.029 nm)	1956.49487	1983.24259	2000.37551	ug/L
Zn (206.200 nm)	5072.54778	5145.70438	5270.04824	ug/L
Zr (343.823 nm)	4907.73114	4970.53609	5005.22218	ug/L
Sc-A (361.383 nm)	0.97	0.98	0.98	Ratio
Sc-R (503.102 nm)	0.98	0.98	0.98	Ratio

Sample Name: CCB

Date: 7/14/2022 10:33:50 Rack:Tube: S1:11

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Calculated Concentration
Ag (328.068 nm)	-0.14111	ug/L	0.26387	> 100.00	-95.79267	-0.14111 (ug/L)
Al (236.705 nm)	-4.34908	ug/L	6.37441	> 100.00	60.40390	-4.34908 (ug/L)
As (188.980 nm)	3.08705	ug/L	4.33964	> 100.00	-6.30901	3.08705 (ug/L)
B (249.772 nm)	13.06158	ug/L	2.24069	17.15	259.80790	13.06158 (ug/L)
Ba (230.424 nm)	-0.08216	ug/L	0.04170	50.75	-6.17870	-0.08216 (ug/L)
Be (313.107 nm)	0.01454	ug/L	0.00826	56.84	12.61182	0.01454 (ug/L)
Bi (223.061 nm)	-0.59543	ug/L	2.86468	> 100.00	-38.67339	-0.59543 (ug/L)
Ca (317.933 nm)	-0.53768	ug/L	0.39117	72.75	-43.65884	-0.53768 (ug/L)
Cd (214.439 nm)	0.38517	ug/L	0.26921	69.90	-2.13014	0.38517 (ug/L)
Co (228.615 nm)	-0.54323	ug/L	0.29173	53.70	-12.77812	-0.54323 (ug/L)
Cr (205.560 nm)	0.21959	ug/L	0.15437	70.30	-1.93855	0.21959 (ug/L)
Cu (224.700 nm)	1.04750	ug/L	4.05048	> 100.00	-9.85669	1.04750 (ug/L)
Fe (261.382 nm)	3.81336	ug/L	3.17929	83.37	57.53859	3.81336 (ug/L)

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Calculated Concentration
K (766.491 nm)	-5.74932	ug/L	9.88530	> 100.00	-164.19292	-5.74932 (ug/L)
Li (610.365 nm)	9.38669	ug/L	1.60083	17.05	-4561.28558	9.38669 (ug/L)
Mg (279.078 nm)	-3.04421	ug/L	4.54923	> 100.00	23.03608	-3.04421 (ug/L)
Mn (260.568 nm)	0.21855	ug/L	0.22311	> 100.00	4.79311	0.21855 (ug/L)
Mo (202.032 nm)	2.11714	ug/L	0.53488	25.26	8.48333	2.11714 (ug/L)
Na (588.995 nm)	-95.23594	ug/L	6.57466	6.90	21896.70983	-95.23594 (ug/L)
Ni (231.604 nm)	-1.36997	ug/L	0.81410	59.42	-7.07902	-1.36997 (ug/L)
P (178.222 nm)	4.62250	ug/L	21.46257	> 100.00	2.96628	4.62250 (ug/L)
Pb (220.353 nm)	-0.86729	ug/L	1.66840	> 100.00	1.08855	-0.86729 (ug/L)
Pt (203.646 nm)	4.79951	ug/L	3.78069	78.77	4.83918	4.79951 (ug/L)
Sb (206.834 nm)	0.17649	ug/L	0.95471	> 100.00	-8.68407	0.17649 (ug/L)
Se (196.026 nm)	4.12218	ug/L	2.31670	56.20	5.38001	4.12218 (ug/L)
Si (251.611 nm)	-10.52671	ug/L	3.62711	34.46	5.01927	-10.52671 (ug/L)
Sn (189.925 nm)	-1.81778	ug/L	0.85343	46.95	-6.40150	-1.81778 (ug/L)
Sr (421.552 nm)	0.06087	ug/L	0.04167	68.46	143.12935	0.06087 (ug/L)
Te (214.282 nm)	-0.81597	ug/L	11.03720	> 100.00	-5.75608	-0.81597 (ug/L)
Ti (334.941 nm)	0.08199	ug/L	0.06015	73.36	-46.26837	0.08199 (ug/L)
Tl (190.807 nm)	0.81186	ug/L	3.83340	> 100.00	-1.88601	0.81186 (ug/L)
U (409.013 nm)	-2.01465	ug/L	1.86227	92.44	170.50428	-2.01465 (ug/L)
V (292.401 nm)	0.23671	ug/L	0.31370	> 100.00	-15.62262	0.23671 (ug/L)
W (207.912 nm)	3.00151	ug/L	2.07084	68.99	9.98686	3.00151 (ug/L)
Y (371.029 nm)	0.05406	ug/L	0.02985	55.21	9.40123	0.05406 (ug/L)
Zn (206.200 nm)	-0.78106	ug/L	1.00964	> 100.00	-2.84003	-0.78106 (ug/L)
Zr (343.823 nm)	0.85539	ug/L	0.06095	7.13	147.19944	0.85539 (ug/L)

Label	Internal Standard
Ag (328.068 nm)	Sc-A
Al (236.705 nm)	Sc-A
As (188.980 nm)	Sc-A
B (249.772 nm)	Sc-A
Ba (230.424 nm)	Sc-A
Be (313.107 nm)	Sc-A
Bi (223.061 nm)	Sc-A
Ca (317.933 nm)	Sc-A
Cd (214.439 nm)	Sc-A
Co (228.615 nm)	Sc-A
Cr (205.560 nm)	Sc-A
Cu (224.700 nm)	Sc-A
Fe (261.382 nm)	Sc-A
K (766.491 nm)	Sc-R
Li (610.365 nm)	Sc-R
Mg (279.078 nm)	Sc-A
Mn (260.568 nm)	Sc-A
Mo (202.032 nm)	Sc-A
Na (588.995 nm)	Sc-R
Ni (231.604 nm)	Sc-A
P (178.222 nm)	Sc-A
Pb (220.353 nm)	Sc-A

Label	Internal Standard
Pt (203.646 nm)	Sc-A
Sb (206.834 nm)	Sc-A
Se (196.026 nm)	Sc-A
Si (251.611 nm)	Sc-A
Sn (189.925 nm)	Sc-A
Sr (421.552 nm)	Sc-A
Te (214.282 nm)	Sc-A
Ti (334.941 nm)	Sc-A
Tl (190.807 nm)	Sc-A
U (409.013 nm)	Sc-A
V (292.401 nm)	Sc-A
W (207.912 nm)	Sc-A
Y (371.029 nm)	Sc-A
Zn (206.200 nm)	Sc-A
Zr (343.823 nm)	Sc-A

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Sc-A	0.96	396249.95	0.00	0.22
Sc-R	0.96	45097.09	0.00	0.21

Replicates Concentration

Label	Replicate 1	Replicate 2	Replicate 3	Units
Ag (328.068 nm)	0.15984	-0.25031 u	-0.33285 u	ug/L
Al (236.705 nm)	0.75469	-2.30784 u	-11.49408 u	ug/L
As (188.980 nm)	4.82337	6.28969	-1.85190 u	ug/L
B (249.772 nm)	15.44547	12.74057	10.99871	ug/L
Ba (230.424 nm)	-0.11088 u	-0.10127 u	-0.03433 u	ug/L
Be (313.107 nm)	0.02358	0.00737	0.01266	ug/L
Bi (223.061 nm)	-3.18877 u	2.47954	-1.07705 u	ug/L
Ca (317.933 nm)	-0.92656 u	-0.54222 u	-0.14427 u	ug/L
Cd (214.439 nm)	0.54423	0.07433	0.53694	ug/L
Co (228.615 nm)	-0.80621 u	-0.22943 u	-0.59405 u	ug/L
Cr (205.560 nm)	0.31840	0.04171	0.29866	ug/L
Cu (224.700 nm)	-3.22285 u	1.53055	4.83479	ug/L
Fe (261.382 nm)	4.39968	0.38172	6.65867	ug/L
K (766.491 nm)	5.53829	-12.86336 u	-9.92289 u	ug/L
Li (610.365 nm)	7.59961	9.87104	10.68941	ug/L
Mg (279.078 nm)	1.47505	-7.62283 u	-2.98486 u	ug/L
Mn (260.568 nm)	0.13438	0.04977	0.47150	ug/L
Mo (202.032 nm)	1.63097	2.03034	2.69012	ug/L
Na (588.995 nm)	-97.08040 u	-87.93604 u	-100.69137 u	ug/L
Ni (231.604 nm)	-2.30174 u	-0.79630 u	-1.01188 u	ug/L
P (178.222 nm)	-5.83513 u	29.30949	-9.60685 u	ug/L
Pb (220.353 nm)	0.41494	-0.26322 u	-2.75359 u	ug/L
Pt (203.646 nm)	6.77104	7.18693	0.44055	ug/L
Sb (206.834 nm)	1.25590	-0.55716 u	-0.16928 u	ug/L

Label	Replicate 1	Replicate 2	Replicate 3	Units
Se (196.026 nm)	2.90441	6.79381	2.66833	ug/L
Si (251.611 nm)	-7.55249 u	-9.46012 u	-14.56753 u	ug/L
Sn (189.925 nm)	-2.64100 u	-0.93704 u	-1.87530 u	ug/L
Sr (421.552 nm)	0.03564	0.03800	0.10896	ug/L
Te (214.282 nm)	11.89216	-8.00506 u	-6.33500 u	ug/L
Ti (334.941 nm)	0.01844	0.08951	0.13803	ug/L
Tl (190.807 nm)	0.10024	4.95121	-2.61586 u	ug/L
U (409.013 nm)	-4.10034 u	-1.42509 u	-0.51852 u	ug/L
V (292.401 nm)	-0.10559 u	0.30521	0.51050	ug/L
W (207.912 nm)	2.75915	1.06252	5.18287	ug/L
Y (371.029 nm)	0.01966	0.07308	0.06942	ug/L
Zn (206.200 nm)	-1.59491 u	-1.09703 u	0.34878	ug/L
Zr (343.823 nm)	0.81009	0.83139	0.92468	ug/L
Sc-A (361.383 nm)	0.96	0.96	0.97	Ratio
Sc-R (503.102 nm)	0.96	0.96	0.96	Ratio

Sample Name: 2218876002

Date: 7/14/2022 10:35:31 Rack:Tube: 1:7

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Calculated Concentration
Ag (328.068 nm)	0.06480	ug/L	0.22026	> 100.00	-85.00785	0.06480 (ug/L)
Al (236.705 nm)	3962.35700	ug/L	56.97143	1.44	2469.93995	3962.35700 (ug/L)
As (188.980 nm)	7.45434	ug/L	4.13938	55.53	-4.12747	7.45434 (ug/L)
B (249.772 nm)	7.31933	ug/L	0.50034	6.84	169.51845	7.31933 (ug/L)
Ba (230.424 nm)	5.43868	ug/L	0.24105	4.43	94.12090	5.43868 (ug/L)
Be (313.107 nm)	0.00754	ug/L	0.00946	> 100.00	7.48432	0.00754 (ug/L)
Bi (223.061 nm)	-0.27480	ug/L	1.11174	> 100.00	-38.17789	-0.27480 (ug/L)
Ca (317.933 nm)	140.60522	ug/L	2.30654	1.64	2369.85628	140.60522 (ug/L)
Cd (214.439 nm)	0.03611	ug/L	0.15712	> 100.00	-6.46537	0.03611 (ug/L)
Co (228.615 nm)	0.18304	ug/L	0.87583	> 100.00	-8.42485	0.18304 (ug/L)
Cr (205.560 nm)	11.92619	ug/L	0.81468	6.83	65.25624	11.92619 (ug/L)
Cu (224.700 nm)	6.09790	ug/L	2.37689	38.98	-4.80137	6.09790 (ug/L)
Fe (261.382 nm)	22.49783	ug/L	0.86696	3.85	107.58031	22.49783 (ug/L)
K (766.491 nm)	19.96146	ug/L	12.54750	62.86	-111.66431	19.96146 (ug/L)
Li (610.365 nm)	28.49693	ug/L	1.98918	6.98	-4345.48199	28.49693 (ug/L)
Mg (279.078 nm)	11.85236	ug/L	3.32741	28.07	46.59223	11.85236 (ug/L)
Mn (260.568 nm)	1.24898	ug/L	0.03090	2.47	22.82812	1.24898 (ug/L)
Mo (202.032 nm)	0.18242	ug/L	0.58714	> 100.00	-0.61108	0.18242 (ug/L)
Na (588.995 nm)	203.07565	ug/L	3.06144	1.51	28953.06896	203.07565 (ug/L)
Ni (231.604 nm)	-0.29254	ug/L	0.65709	> 100.00	-4.53742	-0.29254 (ug/L)
P (178.222 nm)	40.85611	ug/L	10.84068	26.53	6.45060	40.85611 (ug/L)
Pb (220.353 nm)	-3.64723	ug/L	2.79585	76.66	-2.42385	-3.64723 (ug/L)
Pt (203.646 nm)	7.42529	ug/L	4.44170	59.82	7.02962	7.42529 (ug/L)
Sb (206.834 nm)	5.16361	ug/L	4.89508	94.80	-4.11646	5.16361 (ug/L)
Se (196.026 nm)	8.25201	ug/L	2.62039	31.75	7.82398	8.25201 (ug/L)
Si (251.611 nm)	98.41569	ug/L	3.41793	3.47	158.72976	98.41569 (ug/L)
Sn (189.925 nm)	1.99455	ug/L	0.25541	12.81	-3.55147	1.99455 (ug/L)

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Calculated Concentration
Sr (421.552 nm)	1.01279	ug/L	0.02662	2.63	2087.84281	1.01279 (ug/L)
Te (214.282 nm)	4.65859	ug/L	6.97190	> 100.00	-3.06933	4.65859 (ug/L)
Ti (334.941 nm)	0.67544	ug/L	0.01968	2.91	73.09133	0.67544 (ug/L)
Tl (190.807 nm)	24.03024	ug/L	3.65999	15.23	10.30264	24.03024 (ug/L)
U (409.013 nm)	-2.41702	ug/L	3.05735	> 100.00	168.40242	-2.41702 (ug/L)
V (292.401 nm)	0.12565	ug/L	0.34868	> 100.00	-18.63770	0.12565 (ug/L)
W (207.912 nm)	1.52249	ug/L	2.90123	> 100.00	8.18185	1.52249 (ug/L)
Y (371.029 nm)	0.01984	ug/L	0.03786	> 100.00	3.72968	0.01984 (ug/L)
Zn (206.200 nm)	7.96517	ug/L	0.28821	3.62	12.66230	7.96517 (ug/L)
Zr (343.823 nm)	1.61732	ug/L	0.23649	14.62	195.63093	1.61732 (ug/L)

Label	Internal Standard
Ag (328.068 nm)	Sc-A
Al (236.705 nm)	Sc-A
As (188.980 nm)	Sc-A
B (249.772 nm)	Sc-A
Ba (230.424 nm)	Sc-A
Be (313.107 nm)	Sc-A
Bi (223.061 nm)	Sc-A
Ca (317.933 nm)	Sc-A
Cd (214.439 nm)	Sc-A
Co (228.615 nm)	Sc-A
Cr (205.560 nm)	Sc-A
Cu (224.700 nm)	Sc-A
Fe (261.382 nm)	Sc-A
K (766.491 nm)	Sc-R
Li (610.365 nm)	Sc-R
Mg (279.078 nm)	Sc-A
Mn (260.568 nm)	Sc-A
Mo (202.032 nm)	Sc-A
Na (588.995 nm)	Sc-R
Ni (231.604 nm)	Sc-A
P (178.222 nm)	Sc-A
Pb (220.353 nm)	Sc-A
Pt (203.646 nm)	Sc-A
Sb (206.834 nm)	Sc-A
Se (196.026 nm)	Sc-A
Si (251.611 nm)	Sc-A
Sn (189.925 nm)	Sc-A
Sr (421.552 nm)	Sc-A
Te (214.282 nm)	Sc-A
Ti (334.941 nm)	Sc-A
Tl (190.807 nm)	Sc-A
U (409.013 nm)	Sc-A
V (292.401 nm)	Sc-A
W (207.912 nm)	Sc-A
Y (371.029 nm)	Sc-A
Zn (206.200 nm)	Sc-A

Label	Internal Standard
Zr (343.823 nm)	Sc-A

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Sc-A	0.99	405487.15	0.00	0.43
Sc-R	0.98	46115.11	0.00	0.39

Replicates Concentration

Label	Replicate 1	Replicate 2	Replicate 3	Units
Ag (328.068 nm)	-0.18899 u	0.20618	0.17720	ug/L
Al (236.705 nm)	3902.20992	3969.35480	4015.50628	ug/L
As (188.980 nm)	3.67910	6.80323	11.88069	ug/L
B (249.772 nm)	7.82626	7.30587	6.82586	ug/L
Ba (230.424 nm)	5.21271	5.41093	5.69240	ug/L
Be (313.107 nm)	-0.00121 u	0.00625	0.01758	ug/L
Bi (223.061 nm)	-1.10296 u	0.98874	-0.71020 u	ug/L
Ca (317.933 nm)	138.38800	140.43591	142.99176	ug/L
Cd (214.439 nm)	-0.14032 u	0.16096	0.08770	ug/L
Co (228.615 nm)	0.43600	0.90455	-0.79144 u	ug/L
Cr (205.560 nm)	10.99454	12.27923	12.50481	ug/L
Cu (224.700 nm)	5.16542	4.32864	8.79965	ug/L
Fe (261.382 nm)	21.62900	22.50161	23.36290	ug/L
K (766.491 nm)	31.57451	21.65777	6.65211	ug/L
Li (610.365 nm)	27.60565	30.77588	27.10926	ug/L
Mg (279.078 nm)	8.72932	11.47569	15.35208	ug/L
Mn (260.568 nm)	1.26037	1.21399	1.27256	ug/L
Mo (202.032 nm)	-0.07109 u	-0.23538 u	0.85372	ug/L
Na (588.995 nm)	199.71601	205.70783	203.80311	ug/L
Ni (231.604 nm)	-0.54415 u	0.45317	-0.78665 u	ug/L
P (178.222 nm)	52.08665	30.45268	40.02899	ug/L
Pb (220.353 nm)	-5.35220 u	-5.16889 u	-0.42060 u	ug/L
Pt (203.646 nm)	3.40396	12.19283	6.67908	ug/L
Sb (206.834 nm)	10.79905	2.72422	1.96755	ug/L
Se (196.026 nm)	5.24066	9.50225	10.01313	ug/L
Si (251.611 nm)	94.60084	99.44706	101.19916	ug/L
Sn (189.925 nm)	2.27254	1.77028	1.94082	ug/L
Sr (421.552 nm)	0.98958	1.00695	1.04185	ug/L
Te (214.282 nm)	-1.70684 u	3.57301	12.10961	ug/L
Ti (334.941 nm)	0.69528	0.65593	0.67510	ug/L
Tl (190.807 nm)	20.71274	23.42159	27.95640	ug/L
U (409.013 nm)	-5.94222 u	-0.48971 u	-0.81912 u	ug/L
V (292.401 nm)	0.52826	-0.07331 u	-0.07800 u	ug/L
W (207.912 nm)	4.57001	-1.20609 u	1.20356	ug/L
Y (371.029 nm)	0.02084	0.05719	-0.01851 u	ug/L
Zn (206.200 nm)	8.29086	7.74310	7.86154	ug/L
Zr (343.823 nm)	1.88721	1.51839	1.44636	ug/L
Sc-A (361.383 nm)	0.98	0.99	0.99	Ratio

Label	Replicate 1	Replicate 2	Replicate 3	Units
Sc-R (503.102 nm)	0.98	0.98	0.98	Ratio

Sample Name: 2218876003

Date: 7/14/2022 10:37:12 Rack:Tube: 1:8

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Calculated Concentration
Ag (328.068 nm)	-0.12956	ug/L	0.13117	> 100.00	-95.28301	-0.12956 (ug/L)
Al (236.705 nm)	26.79445	ug/L	5.80442	21.66	79.30565	26.79445 (ug/L)
As (188.980 nm)	6.68058	ug/L	2.10013	31.44	-4.51353	6.68058 (ug/L)
B (249.772 nm)	2.43718	ug/L	0.44047	18.07	92.48327	2.43718 (ug/L)
Ba (230.424 nm)	0.77666	ug/L	0.19698	25.36	9.34318	0.77666 (ug/L)
Be (313.107 nm)	0.01654	ug/L	0.00536	32.42	14.01788	0.01654 (ug/L)
Bi (223.061 nm)	0.24928	ug/L	0.80575	> 100.00	-37.38617	0.24928 (ug/L)
Ca (317.933 nm)	93.61588	ug/L	0.73531	0.79	1566.31662	93.61588 (ug/L)
Cd (214.439 nm)	-0.07522	ug/L	0.46148	> 100.00	-7.00562	-0.07522 (ug/L)
Co (228.615 nm)	0.03472	ug/L	0.28637	> 100.00	-9.31186	0.03472 (ug/L)
Cr (205.560 nm)	14.10096	ug/L	0.34876	2.47	77.74673	14.10096 (ug/L)
Cu (224.700 nm)	0.52502	ug/L	2.78552	> 100.00	-10.35084	0.52502 (ug/L)
Fe (261.382 nm)	8.57340	ug/L	1.00268	11.70	70.14732	8.57340 (ug/L)
K (766.491 nm)	31.95244	ug/L	17.66818	55.30	-87.10590	31.95244 (ug/L)
Li (610.365 nm)	25.24262	ug/L	5.05233	20.02	-4381.84788	25.24262 (ug/L)
Mg (279.078 nm)	5.91080	ug/L	2.76154	46.72	37.20651	5.91080 (ug/L)
Mn (260.568 nm)	0.51014	ug/L	0.24790	48.59	9.93197	0.51014 (ug/L)
Mo (202.032 nm)	0.07666	ug/L	0.49780	> 100.00	-1.10352	0.07666 (ug/L)
Na (588.995 nm)	197.34522	ug/L	7.06763	3.58	28817.51956	197.34522 (ug/L)
Ni (231.604 nm)	-1.03627	ug/L	0.94394	91.09	-6.28032	-1.03627 (ug/L)
P (178.222 nm)	43.01452	ug/L	38.10266	88.58	6.65816	43.01452 (ug/L)
Pb (220.353 nm)	-0.46040	ug/L	1.37130	> 100.00	1.57447	-0.46040 (ug/L)
Pt (203.646 nm)	3.10589	ug/L	3.75165	> 100.00	3.52589	3.10589 (ug/L)
Sb (206.834 nm)	1.14283	ug/L	1.75877	> 100.00	-7.69967	1.14283 (ug/L)
Se (196.026 nm)	10.05304	ug/L	4.96635	49.40	8.89145	10.05304 (ug/L)
Si (251.611 nm)	31.30291	ug/L	1.35997	4.34	64.00590	31.30291 (ug/L)
Sn (189.925 nm)	-0.98430	ug/L	1.30561	> 100.00	-5.77840	-0.98430 (ug/L)
Sr (421.552 nm)	0.82350	ug/L	0.01041	1.26	1701.13860	0.82350 (ug/L)
Te (214.282 nm)	0.32485	ug/L	7.30569	> 100.00	-5.16210	0.32485 (ug/L)
Ti (334.941 nm)	0.15920	ug/L	0.08677	54.51	-30.52574	0.15920 (ug/L)
Tl (190.807 nm)	22.60247	ug/L	7.08040	31.33	9.52082	22.60247 (ug/L)
U (409.013 nm)	-2.91552	ug/L	2.45599	84.24	165.70113	-2.91552 (ug/L)
V (292.401 nm)	0.23076	ug/L	0.04519	19.58	-15.95616	0.23076 (ug/L)
W (207.912 nm)	0.57951	ug/L	1.54821	> 100.00	6.91448	0.57951 (ug/L)
Y (371.029 nm)	0.00353	ug/L	0.01304	> 100.00	1.03903	0.00353 (ug/L)
Zn (206.200 nm)	1.55542	ug/L	1.56333	> 100.00	1.33130	1.55542 (ug/L)
Zr (343.823 nm)	0.50767	ug/L	0.03634	7.16	125.07423	0.50767 (ug/L)

Label	Internal Standard
Ag (328.068 nm)	Sc-A
Al (236.705 nm)	Sc-A
As (188.980 nm)	Sc-A
B (249.772 nm)	Sc-A
Ba (230.424 nm)	Sc-A
Be (313.107 nm)	Sc-A
Bi (223.061 nm)	Sc-A
Ca (317.933 nm)	Sc-A
Cd (214.439 nm)	Sc-A
Co (228.615 nm)	Sc-A
Cr (205.560 nm)	Sc-A
Cu (224.700 nm)	Sc-A
Fe (261.382 nm)	Sc-A
K (766.491 nm)	Sc-R
Li (610.365 nm)	Sc-R
Mg (279.078 nm)	Sc-A
Mn (260.568 nm)	Sc-A
Mo (202.032 nm)	Sc-A
Na (588.995 nm)	Sc-R
Ni (231.604 nm)	Sc-A
P (178.222 nm)	Sc-A
Pb (220.353 nm)	Sc-A
Pt (203.646 nm)	Sc-A
Sb (206.834 nm)	Sc-A
Se (196.026 nm)	Sc-A
Si (251.611 nm)	Sc-A
Sn (189.925 nm)	Sc-A
Sr (421.552 nm)	Sc-A
Te (214.282 nm)	Sc-A
Ti (334.941 nm)	Sc-A
Tl (190.807 nm)	Sc-A
U (409.013 nm)	Sc-A
V (292.401 nm)	Sc-A
W (207.912 nm)	Sc-A
Y (371.029 nm)	Sc-A
Zn (206.200 nm)	Sc-A
Zr (343.823 nm)	Sc-A

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Sc-A	0.98	403376.07	0.01	0.67
Sc-R	0.98	45885.04	0.01	0.69

Replicates Concentration

Label	Replicate 1	Replicate 2	Replicate 3	Units
Ag (328.068 nm)	0.01955	-0.22710 u	-0.18113 u	ug/L
Al (236.705 nm)	28.70330	20.27599	31.40406	ug/L

Label	Replicate 1	Replicate 2	Replicate 3	Units
As (188.980 nm)	4.30857	8.30334	7.42982	ug/L
B (249.772 nm)	2.91539	2.34812	2.04805	ug/L
Ba (230.424 nm)	0.75496	0.98359	0.59142	ug/L
Be (313.107 nm)	0.01249	0.01452	0.02262	ug/L
Bi (223.061 nm)	-0.54837 u	0.23332	1.06290	ug/L
Ca (317.933 nm)	92.85295	93.67467	94.32003	ug/L
Cd (214.439 nm)	-0.57497 u	0.01449	0.33483	ug/L
Co (228.615 nm)	-0.16438 u	0.36291	-0.09438 u	ug/L
Cr (205.560 nm)	13.69959	14.27314	14.33015	ug/L
Cu (224.700 nm)	-2.69122 u	2.10252	2.16376	ug/L
Fe (261.382 nm)	7.61752	8.48558	9.61709	ug/L
K (766.491 nm)	45.89581	12.08303	37.87850	ug/L
Li (610.365 nm)	19.41036	28.03807	28.27944	ug/L
Mg (279.078 nm)	8.86365	3.39197	5.47677	ug/L
Mn (260.568 nm)	0.54100	0.24826	0.74117	ug/L
Mo (202.032 nm)	-0.07754 u	0.63331	-0.32580 u	ug/L
Na (588.995 nm)	205.27286	191.70336	195.05945	ug/L
Ni (231.604 nm)	-1.83621 u	0.00486	-1.27746 u	ug/L
P (178.222 nm)	77.64617	49.19973	2.19764	ug/L
Pb (220.353 nm)	-0.62229 u	0.98466	-1.74357 u	ug/L
Pt (203.646 nm)	2.06648	7.26765	-0.01646 u	ug/L
Sb (206.834 nm)	3.17073	0.22368	0.03407	ug/L
Se (196.026 nm)	6.83977	15.77316	7.54617	ug/L
Si (251.611 nm)	31.11365	30.04747	32.74759	ug/L
Sn (189.925 nm)	-1.66433 u	0.52096	-1.80952 u	ug/L
Sr (421.552 nm)	0.81433	0.82135	0.83482	ug/L
Te (214.282 nm)	-6.96793 u	7.64338	0.29909	ug/L
Ti (334.941 nm)	0.16762	0.06852	0.24145	ug/L
Tl (190.807 nm)	25.24092	27.98481	14.58167	ug/L
U (409.013 nm)	-0.08371 u	-4.46382 u	-4.19902 u	ug/L
V (292.401 nm)	0.22889	0.27686	0.18655	ug/L
W (207.912 nm)	1.21892	1.70561	-1.18599 u	ug/L
Y (371.029 nm)	-0.01152 u	0.01067	0.01145	ug/L
Zn (206.200 nm)	3.19454	0.08091	1.39081	ug/L
Zr (343.823 nm)	0.54318	0.47056	0.50929	ug/L
Sc-A (361.383 nm)	0.97	0.98	0.99	Ratio
Sc-R (503.102 nm)	0.97	0.98	0.98	Ratio

Sample Name: 2218876004

Date: 7/14/2022 10:38:53 Rack:Tube: 1:9

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Calculated Concentration
Ag (328.068 nm)	0.09180	ug/L	0.17863	> 100.00	-83.84626	0.09180 (ug/L)
Al (236.705 nm)	19.04140	ug/L	5.67954	29.83	74.58459	19.04140 (ug/L)
As (188.980 nm)	5.67353	ug/L	6.13977	> 100.00	-5.01672	5.67353 (ug/L)
B (249.772 nm)	1.12511	ug/L	0.21634	19.23	72.27197	1.12511 (ug/L)
Ba (230.424 nm)	0.86104	ug/L	0.31570	36.66	10.85326	0.86104 (ug/L)

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Calculated Concentration
Be (313.107 nm)	0.01215	ug/L	0.02054	> 100.00	10.59667	0.01215 (ug/L)
Bi (223.061 nm)	1.32353	ug/L	1.63852	> 100.00	-35.78018	1.32353 (ug/L)
Ca (317.933 nm)	158.80312	ug/L	2.30496	1.45	2681.05887	158.80312 (ug/L)
Cd (214.439 nm)	-0.29384	ug/L	0.48900	> 100.00	-9.32266	-0.29384 (ug/L)
Co (228.615 nm)	0.39680	ug/L	1.03815	> 100.00	-7.13928	0.39680 (ug/L)
Cr (205.560 nm)	11.72593	ug/L	0.29931	2.55	64.09480	11.72593 (ug/L)
Cu (224.700 nm)	3.47180	ug/L	1.00637	28.99	-7.39196	3.47180 (ug/L)
Fe (261.382 nm)	59.18909	ug/L	1.76366	2.98	205.63349	59.18909 (ug/L)
K (766.491 nm)	12.54012	ug/L	22.02029	> 100.00	-126.80168	12.54012 (ug/L)
Li (610.365 nm)	27.24671	ug/L	0.85063	3.12	-4360.05445	27.24671 (ug/L)
Mg (279.078 nm)	22.20952	ug/L	3.88645	17.50	62.94223	22.20952 (ug/L)
Mn (260.568 nm)	1.01021	ug/L	0.07821	7.74	18.69234	1.01021 (ug/L)
Mo (202.032 nm)	-0.41130	ug/L	1.01715	> 100.00	-3.40126	-0.41130 (ug/L)
Na (588.995 nm)	161.75392	ug/L	3.00667	1.86	27975.63140	161.75392 (ug/L)
Ni (231.604 nm)	0.12184	ug/L	0.70409	> 100.00	-3.56879	0.12184 (ug/L)
P (178.222 nm)	25.79880	ug/L	9.28399	35.99	5.00265	25.79880 (ug/L)
Pb (220.353 nm)	1.08611	ug/L	1.27361	> 100.00	3.39622	1.08611 (ug/L)
Pt (203.646 nm)	1.88279	ug/L	6.45018	> 100.00	2.88584	1.88279 (ug/L)
Sb (206.834 nm)	2.45734	ug/L	1.20066	48.86	-6.54010	2.45734 (ug/L)
Se (196.026 nm)	10.88663	ug/L	4.17744	38.37	9.37994	10.88663 (ug/L)
Si (251.611 nm)	19.35815	ug/L	2.47004	12.76	47.12903	19.35815 (ug/L)
Sn (189.925 nm)	1.62801	ug/L	2.51625	> 100.00	-3.82548	1.62801 (ug/L)
Sr (421.552 nm)	1.21024	ug/L	0.01341	1.11	2491.21133	1.21024 (ug/L)
Te (214.282 nm)	2.06432	ug/L	8.24117	> 100.00	-4.25241	2.06432 (ug/L)
Ti (334.941 nm)	1.54101	ug/L	0.30789	19.98	247.01246	1.54101 (ug/L)
Tl (190.807 nm)	19.09289	ug/L	6.28782	32.93	7.67617	19.09289 (ug/L)
U (409.013 nm)	-0.70035	ug/L	2.20031	> 100.00	177.53545	-0.70035 (ug/L)
V (292.401 nm)	0.23636	ug/L	0.07032	29.75	-15.79333	0.23636 (ug/L)
W (207.912 nm)	1.01234	ug/L	0.95061	93.90	7.47245	1.01234 (ug/L)
Y (371.029 nm)	0.03570	ug/L	0.03266	91.48	6.34496	0.03570 (ug/L)
Zn (206.200 nm)	2.07284	ug/L	1.57182	75.83	2.23976	2.07284 (ug/L)
Zr (343.823 nm)	0.20854	ug/L	0.08131	38.99	106.09554	0.20854 (ug/L)

Label	Internal Standard
Ag (328.068 nm)	Sc-A
Al (236.705 nm)	Sc-A
As (188.980 nm)	Sc-A
B (249.772 nm)	Sc-A
Ba (230.424 nm)	Sc-A
Be (313.107 nm)	Sc-A
Bi (223.061 nm)	Sc-A
Ca (317.933 nm)	Sc-A
Cd (214.439 nm)	Sc-A
Co (228.615 nm)	Sc-A
Cr (205.560 nm)	Sc-A
Cu (224.700 nm)	Sc-A
Fe (261.382 nm)	Sc-A
K (766.491 nm)	Sc-R

Label	Internal Standard
Li (610.365 nm)	Sc-R
Mg (279.078 nm)	Sc-A
Mn (260.568 nm)	Sc-A
Mo (202.032 nm)	Sc-A
Na (588.995 nm)	Sc-R
Ni (231.604 nm)	Sc-A
P (178.222 nm)	Sc-A
Pb (220.353 nm)	Sc-A
Pt (203.646 nm)	Sc-A
Sb (206.834 nm)	Sc-A
Se (196.026 nm)	Sc-A
Si (251.611 nm)	Sc-A
Sn (189.925 nm)	Sc-A
Sr (421.552 nm)	Sc-A
Te (214.282 nm)	Sc-A
Ti (334.941 nm)	Sc-A
Tl (190.807 nm)	Sc-A
U (409.013 nm)	Sc-A
V (292.401 nm)	Sc-A
W (207.912 nm)	Sc-A
Y (371.029 nm)	Sc-A
Zn (206.200 nm)	Sc-A
Zr (343.823 nm)	Sc-A

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Sc-A	0.99	405563.53	0.00	0.25
Sc-R	0.98	46073.64	0.00	0.24

Replicates Concentration

Label	Replicate 1	Replicate 2	Replicate 3	Units
Ag (328.068 nm)	0.14856	-0.10831 u	0.23516	ug/L
Al (236.705 nm)	22.47324	22.16532	12.48565	ug/L
As (188.980 nm)	3.43897	0.96398	12.61763	ug/L
B (249.772 nm)	1.06209	1.36597	0.94728	ug/L
Ba (230.424 nm)	0.54293	0.86591	1.17427	ug/L
Be (313.107 nm)	0.02947	0.01754	-0.01054 u	ug/L
Bi (223.061 nm)	-0.52651 u	2.59171	1.90540	ug/L
Ca (317.933 nm)	156.23247	159.49123	160.68566	ug/L
Cd (214.439 nm)	-0.81339 u	-0.22556 u	0.15743	ug/L
Co (228.615 nm)	1.18873	-0.77851 u	0.78019	ug/L
Cr (205.560 nm)	11.99103	11.40135	11.78540	ug/L
Cu (224.700 nm)	3.22238	4.57943	2.61359	ug/L
Fe (261.382 nm)	59.29269	57.37592	60.89867	ug/L
K (766.491 nm)	17.28771	-11.46672 u	31.79937	ug/L
Li (610.365 nm)	26.79814	28.22774	26.71427	ug/L
Mg (279.078 nm)	19.84669	26.69506	20.08681	ug/L

Label	Replicate 1	Replicate 2	Replicate 3	Units
Mn (260.568 nm)	1.00020	0.93749	1.09294	ug/L
Mo (202.032 nm)	-0.22402 u	0.49919	-1.50908 u	ug/L
Na (588.995 nm)	160.00904	165.22572	160.02701	ug/L
Ni (231.604 nm)	-0.58995 u	0.13750	0.81797	ug/L
P (178.222 nm)	34.62905	16.11941	26.64793	ug/L
Pb (220.353 nm)	2.43701	-0.09271 u	0.91403	ug/L
Pt (203.646 nm)	-1.80566 u	-1.87668 u	9.33069	ug/L
Sb (206.834 nm)	2.91229	3.36403	1.09569	ug/L
Se (196.026 nm)	11.98796	6.26886	14.40307	ug/L
Si (251.611 nm)	16.81448	19.51268	21.74730	ug/L
Sn (189.925 nm)	-0.81425 u	4.21224	1.48606	ug/L
Sr (421.552 nm)	1.20152	1.20352	1.22567	ug/L
Te (214.282 nm)	11.13018	-4.97352 u	0.03631	ug/L
Ti (334.941 nm)	1.82458	1.58492	1.21352	ug/L
Tl (190.807 nm)	22.89516	11.83510	22.54840	ug/L
U (409.013 nm)	-2.33350 u	-1.56929 u	1.80175	ug/L
V (292.401 nm)	0.16388	0.30431	0.24091	ug/L
W (207.912 nm)	0.00652	1.89592	1.13457	ug/L
Y (371.029 nm)	0.01678	0.07342	0.01691	ug/L
Zn (206.200 nm)	2.48794	0.33513	3.39545	ug/L
Zr (343.823 nm)	0.28652	0.21484	0.12427	ug/L
Sc-A (361.383 nm)	0.98	0.99	0.99	Ratio
Sc-R (503.102 nm)	0.98	0.98	0.98	Ratio

Sample Name: 2218902001

Date: 7/14/2022 10:40:33 Rack:Tube: 1:10

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Calculated Concentration
Ag (328.068 nm)	1.01179	ug/L	0.08669	8.57	-36.00970	1.01179 (ug/L)
Al (236.705 nm)	386.09301	ug/L	9.37406	2.43	297.48580	386.09301 (ug/L)
As (188.980 nm)	6.45236	ug/L	3.64738	56.53	-4.62187	6.45236 (ug/L)
B (249.772 nm)	8.19423	ug/L	0.06583	0.80	189.30878	8.19423 (ug/L)
Ba (230.424 nm)	25.25088	ug/L	0.15807	0.63	454.52400	25.25088 (ug/L)
Be (313.107 nm)	0.02709	ug/L	0.00941	34.74	22.50849	0.02709 (ug/L)
Bi (223.061 nm)	4.93787	ug/L	3.16303	64.06	-30.45435	4.93787 (ug/L)
Ca (317.933 nm)	841.30185	ug/L	8.49221	1.01	14351.86041	841.30185 (ug/L)
Cd (214.439 nm)	1.25340	ug/L	0.12753	10.17	6.77833	1.25340 (ug/L)
Co (228.615 nm)	0.94307	ug/L	0.40937	43.41	-3.80290	0.94307 (ug/L)
Cr (205.560 nm)	19.68495	ug/L	0.80377	4.08	109.65670	19.68495 (ug/L)
Cu (224.700 nm)	13.71838	ug/L	3.43767	25.06	2.90477	13.71838 (ug/L)
Fe (261.382 nm)	685.98096	ug/L	8.04177	1.17	1883.93793	685.98096 (ug/L)
K (766.491 nm)	80.15390	ug/L	19.40997	24.22	11.25498	80.15390 (ug/L)
Li (610.365 nm)	26.19715	ug/L	1.73271	6.61	-4383.41820	26.19715 (ug/L)
Mg (279.078 nm)	67.29766	ug/L	1.88109	2.80	134.17119	67.29766 (ug/L)
Mn (260.568 nm)	14.90949	ug/L	0.50416	3.38	261.39832	14.90949 (ug/L)
Mo (202.032 nm)	3.85413	ug/L	0.50485	13.10	16.56880	3.85413 (ug/L)
Na (588.995 nm)	282.16225	ug/L	3.69519	1.31	30823.80898	282.16225 (ug/L)

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Calculated Concentration
Ni (231.604 nm)	8.34193	ug/L	0.95270	11.42	15.69180	8.34193 (ug/L)
P (178.222 nm)	59.59971	ug/L	6.79599	11.40	8.25304	59.59971 (ug/L)
Pb (220.353 nm)	18.74102	ug/L	1.02891	5.49	24.07926	18.74102 (ug/L)
Pt (203.646 nm)	2.06715	ug/L	5.31388	> 100.00	7.12131	2.06715 (ug/L)
Sb (206.834 nm)	3.38841	ug/L	5.00810	> 100.00	-5.62967	3.38841 (ug/L)
Se (196.026 nm)	7.71862	ug/L	6.05681	78.47	7.50628	7.71862 (ug/L)
Si (251.611 nm)	133.39050	ug/L	4.92516	3.69	208.11001	133.39050 (ug/L)
Sn (189.925 nm)	2.69120	ug/L	5.54598	> 100.00	-3.03066	2.69120 (ug/L)
Sr (421.552 nm)	4.85659	ug/L	0.05418	1.12	9940.45107	4.85659 (ug/L)
Te (214.282 nm)	0.73915	ug/L	6.77550	> 100.00	-4.91913	0.73915 (ug/L)
Ti (334.941 nm)	16.47267	ug/L	0.24312	1.48	3245.79682	16.47267 (ug/L)
Tl (190.807 nm)	21.18174	ug/L	3.65955	17.28	9.32474	21.18174 (ug/L)
U (409.013 nm)	-3.61666	ug/L	2.98337	82.49	162.66516	-3.61666 (ug/L)
V (292.401 nm)	0.89308	ug/L	0.30272	33.90	-0.38736	0.89308 (ug/L)
W (207.912 nm)	14.92672	ug/L	1.49110	9.99	31.54167	14.92672 (ug/L)
Y (371.029 nm)	0.06882	ug/L	0.06642	96.52	11.58230	0.06882 (ug/L)
Zn (206.200 nm)	647.39559	ug/L	7.97141	1.23	1143.62734	647.39559 (ug/L)
Zr (343.823 nm)	1.86684	ug/L	0.06723	3.60	212.82593	1.86684 (ug/L)

Label	Internal Standard
Ag (328.068 nm)	Sc-A
Al (236.705 nm)	Sc-A
As (188.980 nm)	Sc-A
B (249.772 nm)	Sc-A
Ba (230.424 nm)	Sc-A
Be (313.107 nm)	Sc-A
Bi (223.061 nm)	Sc-A
Ca (317.933 nm)	Sc-A
Cd (214.439 nm)	Sc-A
Co (228.615 nm)	Sc-A
Cr (205.560 nm)	Sc-A
Cu (224.700 nm)	Sc-A
Fe (261.382 nm)	Sc-A
K (766.491 nm)	Sc-R
Li (610.365 nm)	Sc-R
Mg (279.078 nm)	Sc-A
Mn (260.568 nm)	Sc-A
Mo (202.032 nm)	Sc-A
Na (588.995 nm)	Sc-R
Ni (231.604 nm)	Sc-A
P (178.222 nm)	Sc-A
Pb (220.353 nm)	Sc-A
Pt (203.646 nm)	Sc-A
Sb (206.834 nm)	Sc-A
Se (196.026 nm)	Sc-A
Si (251.611 nm)	Sc-A
Sn (189.925 nm)	Sc-A
Sr (421.552 nm)	Sc-A

Label	Internal Standard
Te (214.282 nm)	Sc-A
Ti (334.941 nm)	Sc-A
Tl (190.807 nm)	Sc-A
U (409.013 nm)	Sc-A
V (292.401 nm)	Sc-A
W (207.912 nm)	Sc-A
Y (371.029 nm)	Sc-A
Zn (206.200 nm)	Sc-A
Zr (343.823 nm)	Sc-A

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Sc-A	0.98	404317.26	0.00	0.30
Sc-R	0.98	45927.07	0.00	0.33

Replicates Concentration

Label	Replicate 1	Replicate 2	Replicate 3	Units
Ag (328.068 nm)	1.07870	0.91386	1.04280	ug/L
Al (236.705 nm)	389.09905	393.59531	375.58467	ug/L
As (188.980 nm)	2.50187	7.16325	9.69196	ug/L
B (249.772 nm)	8.11838	8.22772	8.23658	ug/L
Ba (230.424 nm)	25.15122	25.16830	25.43313	ug/L
Be (313.107 nm)	0.01703	0.02855	0.03568	ug/L
Bi (223.061 nm)	1.83618	4.81858	8.15886	ug/L
Ca (317.933 nm)	831.84271	843.79286	848.26998	ug/L
Cd (214.439 nm)	1.17308	1.40045	1.18667	ug/L
Co (228.615 nm)	0.93433	0.53814	1.35674	ug/L
Cr (205.560 nm)	18.95131	20.54408	19.55946	ug/L
Cu (224.700 nm)	11.52720	17.68043	11.94750	ug/L
Fe (261.382 nm)	677.80848	686.24910	693.88531	ug/L
K (766.491 nm)	77.14563	100.89237	62.42370	ug/L
Li (610.365 nm)	24.33303	27.75857	26.49985	ug/L
Mg (279.078 nm)	65.26386	67.65407	68.97506	ug/L
Mn (260.568 nm)	14.34505	15.06830	15.31513	ug/L
Mo (202.032 nm)	3.28501	4.02940	4.24799	ug/L
Na (588.995 nm)	278.56201	285.94558	281.97916	ug/L
Ni (231.604 nm)	7.44446	8.23972	9.34162	ug/L
P (178.222 nm)	52.92152	66.50767	59.36992	ug/L
Pb (220.353 nm)	17.57918	19.10690	19.53700	ug/L
Pt (203.646 nm)	-3.11881 u	1.81993	7.50032	ug/L
Sb (206.834 nm)	-0.63372 u	8.99779	1.80116	ug/L
Se (196.026 nm)	13.60393	8.04817	1.50376	ug/L
Si (251.611 nm)	127.72018	136.60354	135.84779	ug/L
Sn (189.925 nm)	-0.92686 u	9.07627	-0.07582 u	ug/L
Sr (421.552 nm)	4.80287	4.85568	4.91122	ug/L
Te (214.282 nm)	-0.58299 u	8.07828	-5.27782 u	ug/L
Ti (334.941 nm)	16.23809	16.45640	16.72352	ug/L

Label	Replicate 1	Replicate 2	Replicate 3	Units
Tl (190.807 nm)	16.96330	23.50507	23.07687	ug/L
U (409.013 nm)	-0.52646 u	-6.48029 u	-3.84322 u	ug/L
V (292.401 nm)	0.66818	0.77379	1.23728	ug/L
W (207.912 nm)	16.58065	13.68532	14.51418	ug/L
Y (371.029 nm)	0.12091	0.09152	-0.00598 u	ug/L
Zn (206.200 nm)	640.02092	646.31282	655.85304	ug/L
Zr (343.823 nm)	1.90360	1.78925	1.90769	ug/L
Sc-A (361.383 nm)	0.98	0.98	0.99	Ratio
Sc-R (503.102 nm)	0.98	0.98	0.98	Ratio

Sample Name: 2218902002

Date: 7/14/2022 10:42:14 Rack:Tube: 1:11

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Calculated Concentration
Ag (328.068 nm)	0.31974	ug/L	0.22312	69.78	-71.98720	0.31974 (ug/L)
Al (236.705 nm)	155.76648	ug/L	6.74241	4.33	157.62423	155.76648 (ug/L)
As (188.980 nm)	0.09674	ug/L	2.61390	> 100.00	-7.79807	0.09674 (ug/L)
B (249.772 nm)	4.89236	ug/L	0.14189	2.90	132.81704	4.89236 (ug/L)
Ba (230.424 nm)	7.03470	ug/L	0.34157	4.86	123.14044	7.03470 (ug/L)
Be (313.107 nm)	0.00633	ug/L	0.00546	86.16	6.46235	0.00633 (ug/L)
Bi (223.061 nm)	0.92558	ug/L	2.05550	> 100.00	-36.46210	0.92558 (ug/L)
Ca (317.933 nm)	397.17794	ug/L	8.81518	2.22	6757.30720	397.17794 (ug/L)
Cd (214.439 nm)	0.45465	ug/L	0.29157	64.13	-1.49059	0.45465 (ug/L)
Co (228.615 nm)	0.50875	ug/L	0.66176	> 100.00	-6.42732	0.50875 (ug/L)
Cr (205.560 nm)	12.17166	ug/L	1.48451	12.20	66.63573	12.17166 (ug/L)
Cu (224.700 nm)	4.69421	ug/L	1.84080	39.21	-6.20336	4.69421 (ug/L)
Fe (261.382 nm)	191.50846	ug/L	2.69912	1.41	560.15897	191.50846 (ug/L)
K (766.491 nm)	51.53544	ug/L	10.53001	20.43	-47.11376	51.53544 (ug/L)
Li (610.365 nm)	25.67451	ug/L	2.46399	9.60	-4381.97494	25.67451 (ug/L)
Mg (279.078 nm)	37.05536	ug/L	1.95915	5.29	86.38094	37.05536 (ug/L)
Mn (260.568 nm)	6.35245	ug/L	0.57999	9.13	111.93835	6.35245 (ug/L)
Mo (202.032 nm)	0.51481	ug/L	0.42363	82.29	0.92985	0.51481 (ug/L)
Na (588.995 nm)	210.27703	ug/L	13.05027	6.21	29123.41269	210.27703 (ug/L)
Ni (231.604 nm)	3.76413	ug/L	0.62135	16.51	4.96776	3.76413 (ug/L)
P (178.222 nm)	55.72311	ug/L	28.37236	50.92	7.88026	55.72311 (ug/L)
Pb (220.353 nm)	2.86189	ug/L	2.03737	71.19	5.45531	2.86189 (ug/L)
Pt (203.646 nm)	2.79351	ug/L	3.36830	> 100.00	4.46722	2.79351 (ug/L)
Sb (206.834 nm)	-0.48318	ug/L	1.47159	> 100.00	-9.17624	-0.48318 (ug/L)
Se (196.026 nm)	4.41379	ug/L	4.05327	91.83	5.55333	4.41379 (ug/L)
Si (251.611 nm)	47.62337	ug/L	1.57299	3.30	87.03115	47.62337 (ug/L)
Sn (189.925 nm)	2.92071	ug/L	1.43866	49.26	-2.85908	2.92071 (ug/L)
Sr (421.552 nm)	2.30851	ug/L	0.03897	1.69	4734.89821	2.30851 (ug/L)
Te (214.282 nm)	2.67403	ug/L	8.69020	> 100.00	-3.93104	2.67403 (ug/L)
Ti (334.941 nm)	7.21468	ug/L	0.17499	2.43	1386.51543	7.21468 (ug/L)
Tl (190.807 nm)	21.73872	ug/L	5.46590	25.14	9.28442	21.73872 (ug/L)
U (409.013 nm)	0.01037	ug/L	1.61216	> 100.00	181.45939	0.01037 (ug/L)
V (292.401 nm)	0.68720	ug/L	0.20869	30.37	-4.43456	0.68720 (ug/L)

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Calculated Concentration
W (207.912 nm)	6.51856	ug/L	1.10643	16.97	16.97546	6.51856 (ug/L)
Y (371.029 nm)	0.05946	ug/L	0.03145	52.89	10.18875	0.05946 (ug/L)
Zn (206.200 nm)	255.34801	ug/L	5.75559	2.25	450.20181	255.34801 (ug/L)
Zr (343.823 nm)	0.49333	ug/L	0.19558	39.65	124.52298	0.49333 (ug/L)

Label	Internal Standard
Ag (328.068 nm)	Sc-A
Al (236.705 nm)	Sc-A
As (188.980 nm)	Sc-A
B (249.772 nm)	Sc-A
Ba (230.424 nm)	Sc-A
Be (313.107 nm)	Sc-A
Bi (223.061 nm)	Sc-A
Ca (317.933 nm)	Sc-A
Cd (214.439 nm)	Sc-A
Co (228.615 nm)	Sc-A
Cr (205.560 nm)	Sc-A
Cu (224.700 nm)	Sc-A
Fe (261.382 nm)	Sc-A
K (766.491 nm)	Sc-R
Li (610.365 nm)	Sc-R
Mg (279.078 nm)	Sc-A
Mn (260.568 nm)	Sc-A
Mo (202.032 nm)	Sc-A
Na (588.995 nm)	Sc-R
Ni (231.604 nm)	Sc-A
P (178.222 nm)	Sc-A
Pb (220.353 nm)	Sc-A
Pt (203.646 nm)	Sc-A
Sb (206.834 nm)	Sc-A
Se (196.026 nm)	Sc-A
Si (251.611 nm)	Sc-A
Sn (189.925 nm)	Sc-A
Sr (421.552 nm)	Sc-A
Te (214.282 nm)	Sc-A
Ti (334.941 nm)	Sc-A
Tl (190.807 nm)	Sc-A
U (409.013 nm)	Sc-A
V (292.401 nm)	Sc-A
W (207.912 nm)	Sc-A
Y (371.029 nm)	Sc-A
Zn (206.200 nm)	Sc-A
Zr (343.823 nm)	Sc-A

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Sc-A	0.98	404151.30	0.00	0.06
Sc-R	0.98	45886.79	0.00	0.02

Replicates Concentration

Label	Replicate 1	Replicate 2	Replicate 3	Units
Ag (328.068 nm)	0.27684	0.56119	0.12117	ug/L
Al (236.705 nm)	148.73282	156.39266	162.17396	ug/L
As (188.980 nm)	1.45671	-2.91677 u	1.75029	ug/L
B (249.772 nm)	4.74797	4.89748	5.03162	ug/L
Ba (230.424 nm)	6.82559	6.84964	7.42887	ug/L
Be (313.107 nm)	0.01240	0.00478	0.00182	ug/L
Bi (223.061 nm)	-0.25776 u	3.29906	-0.26456 u	ug/L
Ca (317.933 nm)	387.29279	400.01809	404.22294	ug/L
Cd (214.439 nm)	0.76593	0.18792	0.41012	ug/L
Co (228.615 nm)	-0.22696 u	0.69775	1.05544	ug/L
Cr (205.560 nm)	10.53966	12.53359	13.44174	ug/L
Cu (224.700 nm)	4.43511	2.99668	6.65083	ug/L
Fe (261.382 nm)	188.47409	193.64181	192.40949	ug/L
K (766.491 nm)	59.73750	55.20783	39.66101	ug/L
Li (610.365 nm)	28.33517	23.47132	25.21703	ug/L
Mg (279.078 nm)	36.33420	35.55901	39.27287	ug/L
Mn (260.568 nm)	5.81126	6.28141	6.96468	ug/L
Mo (202.032 nm)	0.81546	0.03032	0.69865	ug/L
Na (588.995 nm)	195.85180	213.71549	221.26380	ug/L
Ni (231.604 nm)	3.06938	3.95640	4.26662	ug/L
P (178.222 nm)	23.91219	78.41384	64.84331	ug/L
Pb (220.353 nm)	1.97658	5.19215	1.41694	ug/L
Pt (203.646 nm)	5.70466	3.57162	-0.89575 u	ug/L
Sb (206.834 nm)	0.50326	-2.17464 u	0.22184	ug/L
Se (196.026 nm)	4.18695	0.47871	8.57572	ug/L
Si (251.611 nm)	47.79145	45.97309	49.10557	ug/L
Sn (189.925 nm)	3.10932	1.39706	4.25577	ug/L
Sr (421.552 nm)	2.27181	2.30431	2.34941	ug/L
Te (214.282 nm)	1.52043	-5.38175 u	11.88341	ug/L
Ti (334.941 nm)	7.01404	7.33578	7.29420	ug/L
Tl (190.807 nm)	16.11343	27.02990	22.07283	ug/L
U (409.013 nm)	-1.63274 u	1.58968	0.07417	ug/L
V (292.401 nm)	0.49325	0.90802	0.66034	ug/L
W (207.912 nm)	5.44767	6.45060	7.65741	ug/L
Y (371.029 nm)	0.03731	0.09546	0.04562	ug/L
Zn (206.200 nm)	249.83586	254.88865	261.31951	ug/L
Zr (343.823 nm)	0.70785	0.32493	0.44720	ug/L
Sc-A (361.383 nm)	0.98	0.98	0.98	Ratio
Sc-R (503.102 nm)	0.98	0.98	0.98	Ratio

Sample Name: 2218902003

Date: 7/14/2022 10:43:55 Rack:Tube: 1:12

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Calculated Concentration
Ag (328.068 nm)	0.09841	ug/L	0.16216	> 100.00	-83.51758	0.09841 (ug/L)
Al (236.705 nm)	18.42323	ug/L	3.04692	16.54	74.21610	18.42323 (ug/L)
As (188.980 nm)	6.59263	ug/L	0.45002	6.83	-4.55896	6.59263 (ug/L)
B (249.772 nm)	2.95876	ug/L	0.17965	6.07	100.83624	2.95876 (ug/L)
Ba (230.424 nm)	2.09839	ug/L	0.37882	18.05	33.36698	2.09839 (ug/L)
Be (313.107 nm)	0.00588	ug/L	0.01300	> 100.00	6.16227	0.00588 (ug/L)
Bi (223.061 nm)	-0.21177	ug/L	1.84027	> 100.00	-38.08847	-0.21177 (ug/L)
Ca (317.933 nm)	394.48491	ug/L	5.99307	1.52	6711.24353	394.48491 (ug/L)
Cd (214.439 nm)	0.21194	ug/L	0.22309	> 100.00	-3.91570	0.21194 (ug/L)
Co (228.615 nm)	0.20407	ug/L	0.27396	> 100.00	-8.29710	0.20407 (ug/L)
Cr (205.560 nm)	7.93184	ug/L	0.31752	4.00	42.32050	7.93184 (ug/L)
Cu (224.700 nm)	2.81340	ug/L	1.23680	43.96	-8.05242	2.81340 (ug/L)
Fe (261.382 nm)	23.66628	ug/L	1.06461	4.50	110.51172	23.66628 (ug/L)
K (766.491 nm)	32.17905	ug/L	14.90172	46.31	-86.65349	32.17905 (ug/L)
Li (610.365 nm)	16.46775	ug/L	4.51860	27.44	-4487.10757	16.46775 (ug/L)
Mg (279.078 nm)	33.60742	ug/L	1.10727	3.29	80.99348	33.60742 (ug/L)
Mn (260.568 nm)	1.27750	ug/L	0.31252	24.46	23.34495	1.27750 (ug/L)
Mo (202.032 nm)	-0.19057	ug/L	0.11143	58.47	-2.36124	-0.19057 (ug/L)
Na (588.995 nm)	208.80818	ug/L	1.63335	0.78	29088.66799	208.80818 (ug/L)
Ni (231.604 nm)	0.09408	ug/L	0.30907	> 100.00	-3.63579	0.09408 (ug/L)
P (178.222 nm)	23.89691	ug/L	23.72533	99.28	4.81976	23.89691 (ug/L)
Pb (220.353 nm)	0.15664	ug/L	3.13878	> 100.00	2.30386	0.15664 (ug/L)
Pt (203.646 nm)	5.62655	ug/L	4.61087	81.95	5.61600	5.62655 (ug/L)
Sb (206.834 nm)	4.46579	ug/L	3.93782	88.18	-4.77349	4.46579 (ug/L)
Se (196.026 nm)	6.99499	ug/L	4.83987	69.19	7.06709	6.99499 (ug/L)
Si (251.611 nm)	33.21794	ug/L	1.20683	3.63	66.70045	33.21794 (ug/L)
Sn (189.925 nm)	0.61852	ug/L	3.11884	> 100.00	-4.58016	0.61852 (ug/L)
Sr (421.552 nm)	1.82807	ug/L	0.03726	2.04	3753.39753	1.82807 (ug/L)
Te (214.282 nm)	0.30461	ug/L	6.67088	> 100.00	-5.17015	0.30461 (ug/L)
Ti (334.941 nm)	0.58881	ug/L	0.04546	7.72	55.12779	0.58881 (ug/L)
Tl (190.807 nm)	17.02947	ug/L	9.25135	54.33	6.56088	17.02947 (ug/L)
U (409.013 nm)	-2.29898	ug/L	1.22112	53.12	168.99303	-2.29898 (ug/L)
V (292.401 nm)	0.26046	ug/L	0.15130	58.09	-15.02719	0.26046 (ug/L)
W (207.912 nm)	-0.04088	ug/L	3.09132	> 100.00	6.17863	-0.04088 (ug/L)
Y (371.029 nm)	0.04677	ug/L	0.03551	75.92	8.18689	0.04677 (ug/L)
Zn (206.200 nm)	7.27061	ug/L	1.34735	18.53	11.42090	7.27061 (ug/L)
Zr (343.823 nm)	0.31745	ug/L	0.03538	11.15	112.97966	0.31745 (ug/L)

Label	Internal Standard
Ag (328.068 nm)	Sc-A
Al (236.705 nm)	Sc-A
As (188.980 nm)	Sc-A
B (249.772 nm)	Sc-A
Ba (230.424 nm)	Sc-A
Be (313.107 nm)	Sc-A
Bi (223.061 nm)	Sc-A
Ca (317.933 nm)	Sc-A

Label	Internal Standard
Cd (214.439 nm)	Sc-A
Co (228.615 nm)	Sc-A
Cr (205.560 nm)	Sc-A
Cu (224.700 nm)	Sc-A
Fe (261.382 nm)	Sc-A
K (766.491 nm)	Sc-R
Li (610.365 nm)	Sc-R
Mg (279.078 nm)	Sc-A
Mn (260.568 nm)	Sc-A
Mo (202.032 nm)	Sc-A
Na (588.995 nm)	Sc-R
Ni (231.604 nm)	Sc-A
P (178.222 nm)	Sc-A
Pb (220.353 nm)	Sc-A
Pt (203.646 nm)	Sc-A
Sb (206.834 nm)	Sc-A
Se (196.026 nm)	Sc-A
Si (251.611 nm)	Sc-A
Sn (189.925 nm)	Sc-A
Sr (421.552 nm)	Sc-A
Te (214.282 nm)	Sc-A
Ti (334.941 nm)	Sc-A
Tl (190.807 nm)	Sc-A
U (409.013 nm)	Sc-A
V (292.401 nm)	Sc-A
W (207.912 nm)	Sc-A
Y (371.029 nm)	Sc-A
Zn (206.200 nm)	Sc-A
Zr (343.823 nm)	Sc-A

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Sc-A	1.02	419024.40	0.00	0.33
Sc-R	1.01	47604.54	0.00	0.34

Replicates Concentration

Label	Replicate 1	Replicate 2	Replicate 3	Units
Ag (328.068 nm)	-0.08866 u	0.18497	0.19892	ug/L
Al (236.705 nm)	15.95729	21.82947	17.48295	ug/L
As (188.980 nm)	6.07969	6.77711	6.92111	ug/L
B (249.772 nm)	2.96493	3.13525	2.77610	ug/L
Ba (230.424 nm)	1.67975	2.41752	2.19791	ug/L
Be (313.107 nm)	0.01230	0.01443	-0.00908 u	ug/L
Bi (223.061 nm)	1.30209	-2.26012 u	0.32271	ug/L
Ca (317.933 nm)	388.53521	394.39909	400.52043	ug/L
Cd (214.439 nm)	0.41566	-0.02645 u	0.24661	ug/L
Co (228.615 nm)	0.33527	0.38775	-0.11082 u	ug/L

Label	Replicate 1	Replicate 2	Replicate 3	Units
Cr (205.560 nm)	7.56522	8.11166	8.11864	ug/L
Cu (224.700 nm)	1.92087	2.29415	4.22518	ug/L
Fe (261.382 nm)	22.55148	23.77500	24.67236	ug/L
K (766.491 nm)	34.72236	45.64544	16.16936	ug/L
Li (610.365 nm)	15.12884	12.76991	21.50450	ug/L
Mg (279.078 nm)	32.33520	34.35370	34.13336	ug/L
Mn (260.568 nm)	1.09472	1.63836	1.09942	ug/L
Mo (202.032 nm)	-0.18418 u	-0.08248 u	-0.30505 u	ug/L
Na (588.995 nm)	210.68150	207.68221	208.06081	ug/L
Ni (231.604 nm)	0.30712	0.23551	-0.26040 u	ug/L
P (178.222 nm)	4.81983	50.46308	16.40781	ug/L
Pb (220.353 nm)	2.62944	-3.37451 u	1.21498	ug/L
Pt (203.646 nm)	7.12500	9.30182	0.45285	ug/L
Sb (206.834 nm)	-0.07726 u	6.57337	6.90126	ug/L
Se (196.026 nm)	12.15593	2.55768	6.27135	ug/L
Si (251.611 nm)	31.82592	33.97010	33.85780	ug/L
Sn (189.925 nm)	0.85684	-2.61264 u	3.61137	ug/L
Sr (421.552 nm)	1.78680	1.83816	1.85925	ug/L
Te (214.282 nm)	-3.19145 u	7.99687	-3.89159 u	ug/L
Ti (334.941 nm)	0.56645	0.55886	0.64111	ug/L
Tl (190.807 nm)	12.63876	10.79104	27.65860	ug/L
U (409.013 nm)	-3.41360 u	-0.99377 u	-2.48956 u	ug/L
V (292.401 nm)	0.33210	0.36264	0.08664	ug/L
W (207.912 nm)	2.69297	0.57985	-3.39546 u	ug/L
Y (371.029 nm)	0.03327	0.08705	0.01999	ug/L
Zn (206.200 nm)	6.50192	8.82636	6.48356	ug/L
Zr (343.823 nm)	0.35461	0.31356	0.28416	ug/L
Sc-A (361.383 nm)	1.01	1.02	1.02	Ratio
Sc-R (503.102 nm)	1.01	1.02	1.02	Ratio

Sample Name: 2218902004

Date: 7/14/2022 10:45:36 Rack:Tube: 1:13

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Calculated Concentration
Ag (328.068 nm)	0.02377	ug/L	0.30187	> 100.00	-87.40170	0.02377 (ug/L)
Al (236.705 nm)	7.96661	ug/L	4.78728	60.09	67.86523	7.96661 (ug/L)
As (188.980 nm)	6.73969	ug/L	2.81491	41.77	-4.48500	6.73969 (ug/L)
B (249.772 nm)	-0.20284	ug/L	0.29639	> 100.00	50.87229	-0.20284 (ug/L)
Ba (230.424 nm)	1.05364	ug/L	0.03741	3.55	14.35682	1.05364 (ug/L)
Be (313.107 nm)	0.01245	ug/L	0.00637	51.18	10.92973	0.01245 (ug/L)
Bi (223.061 nm)	-0.68078	ug/L	0.46747	68.67	-38.79518	-0.68078 (ug/L)
Ca (317.933 nm)	150.72607	ug/L	2.20917	1.47	2542.92983	150.72607 (ug/L)
Cd (214.439 nm)	0.43056	ug/L	0.25892	60.14	-1.59217	0.43056 (ug/L)
Co (228.615 nm)	0.22895	ug/L	0.29803	> 100.00	-8.15173	0.22895 (ug/L)
Cr (205.560 nm)	9.74085	ug/L	0.38236	3.93	52.71189	9.74085 (ug/L)
Cu (224.700 nm)	3.17390	ug/L	2.35299	74.14	-7.70528	3.17390 (ug/L)
Fe (261.382 nm)	6.14802	ug/L	1.81208	29.47	63.64146	6.14802 (ug/L)

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Calculated Concentration
K (766.491 nm)	18.55610	ug/L	12.10144	65.22	-114.50156	18.55610 (ug/L)
Li (610.365 nm)	17.17169	ug/L	0.29435	1.71	-4474.95808	17.17169 (ug/L)
Mg (279.078 nm)	21.66476	ug/L	3.79646	17.52	62.10806	21.66476 (ug/L)
Mn (260.568 nm)	0.85864	ug/L	0.06250	7.28	16.02435	0.85864 (ug/L)
Mo (202.032 nm)	-0.39660	ug/L	0.59668	> 100.00	-3.32928	-0.39660 (ug/L)
Na (588.995 nm)	230.88286	ug/L	5.68849	2.46	29610.82976	230.88286 (ug/L)
Ni (231.604 nm)	0.29730	ug/L	1.39633	> 100.00	-3.16227	0.29730 (ug/L)
P (178.222 nm)	28.61374	ug/L	16.44615	57.48	5.27335	28.61374 (ug/L)
Pb (220.353 nm)	-0.24919	ug/L	1.91160	> 100.00	1.82606	-0.24919 (ug/L)
Pt (203.646 nm)	6.85072	ug/L	3.61847	52.82	6.46813	6.85072 (ug/L)
Sb (206.834 nm)	6.27356	ug/L	3.90107	62.18	-3.13798	6.27356 (ug/L)
Se (196.026 nm)	6.20847	ug/L	3.29010	52.99	6.60462	6.20847 (ug/L)
Si (251.611 nm)	10.85616	ug/L	0.64700	5.96	35.13581	10.85616 (ug/L)
Sn (189.925 nm)	1.14563	ug/L	2.01672	> 100.00	-4.18610	1.14563 (ug/L)
Sr (421.552 nm)	1.12370	ug/L	0.01515	1.35	2314.42491	1.12370 (ug/L)
Te (214.282 nm)	0.00214	ug/L	9.61651	> 100.00	-5.32917	0.00214 (ug/L)
Ti (334.941 nm)	0.13971	ug/L	0.05906	42.28	-34.62491	0.13971 (ug/L)
Tl (190.807 nm)	13.52018	ug/L	5.26923	38.97	4.72273	13.52018 (ug/L)
U (409.013 nm)	-2.11459	ug/L	3.18094	> 100.00	169.95250	-2.11459 (ug/L)
V (292.401 nm)	0.15208	ug/L	0.16751	> 100.00	-17.82137	0.15208 (ug/L)
W (207.912 nm)	0.40111	ug/L	1.37877	> 100.00	6.68665	0.40111 (ug/L)
Y (371.029 nm)	0.02593	ug/L	0.01269	48.94	4.74731	0.02593 (ug/L)
Zn (206.200 nm)	1.50018	ug/L	0.50767	33.84	1.22061	1.50018 (ug/L)
Zr (343.823 nm)	0.16959	ug/L	0.15730	92.75	103.56280	0.16959 (ug/L)

Label	Internal Standard
Ag (328.068 nm)	Sc-A
Al (236.705 nm)	Sc-A
As (188.980 nm)	Sc-A
B (249.772 nm)	Sc-A
Ba (230.424 nm)	Sc-A
Be (313.107 nm)	Sc-A
Bi (223.061 nm)	Sc-A
Ca (317.933 nm)	Sc-A
Cd (214.439 nm)	Sc-A
Co (228.615 nm)	Sc-A
Cr (205.560 nm)	Sc-A
Cu (224.700 nm)	Sc-A
Fe (261.382 nm)	Sc-A
K (766.491 nm)	Sc-R
Li (610.365 nm)	Sc-R
Mg (279.078 nm)	Sc-A
Mn (260.568 nm)	Sc-A
Mo (202.032 nm)	Sc-A
Na (588.995 nm)	Sc-R
Ni (231.604 nm)	Sc-A
P (178.222 nm)	Sc-A
Pb (220.353 nm)	Sc-A

Label	Internal Standard
Pt (203.646 nm)	Sc-A
Sb (206.834 nm)	Sc-A
Se (196.026 nm)	Sc-A
Si (251.611 nm)	Sc-A
Sn (189.925 nm)	Sc-A
Sr (421.552 nm)	Sc-A
Te (214.282 nm)	Sc-A
Ti (334.941 nm)	Sc-A
Tl (190.807 nm)	Sc-A
U (409.013 nm)	Sc-A
V (292.401 nm)	Sc-A
W (207.912 nm)	Sc-A
Y (371.029 nm)	Sc-A
Zn (206.200 nm)	Sc-A
Zr (343.823 nm)	Sc-A

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Sc-A	1.02	419945.01	0.00	0.22
Sc-R	1.02	47718.07	0.00	0.23

Replicates Concentration

Label	Replicate 1	Replicate 2	Replicate 3	Units
Ag (328.068 nm)	0.35379	-0.23843 u	-0.04404 u	ug/L
Al (236.705 nm)	3.77722	6.93804	13.18457	ug/L
As (188.980 nm)	6.96148	3.82045	9.43714	ug/L
B (249.772 nm)	0.03743	-0.11192 u	-0.53404 u	ug/L
Ba (230.424 nm)	1.01837	1.09287	1.04966	ug/L
Be (313.107 nm)	0.01760	0.00532	0.01442	ug/L
Bi (223.061 nm)	-0.77861 u	-1.09158 u	-0.17213 u	ug/L
Ca (317.933 nm)	148.51019	150.73955	152.92846	ug/L
Cd (214.439 nm)	0.72325	0.23141	0.33700	ug/L
Co (228.615 nm)	0.57095	0.02474	0.09118	ug/L
Cr (205.560 nm)	9.36707	10.13124	9.72425	ug/L
Cu (224.700 nm)	4.66207	0.46117	4.39847	ug/L
Fe (261.382 nm)	6.01863	8.02133	4.40411	ug/L
K (766.491 nm)	9.60256	13.74200	32.32375	ug/L
Li (610.365 nm)	17.47708	17.14822	16.88978	ug/L
Mg (279.078 nm)	17.57592	22.34017	25.07818	ug/L
Mn (260.568 nm)	0.88723	0.90173	0.78695	ug/L
Mo (202.032 nm)	0.26645	-0.89030 u	-0.56597 u	ug/L
Na (588.995 nm)	224.75329	231.90308	235.99221	ug/L
Ni (231.604 nm)	0.85078	-1.29092 u	1.33204	ug/L
P (178.222 nm)	15.34775	47.01474	23.47874	ug/L
Pb (220.353 nm)	-2.31138 u	0.10022	1.46361	ug/L
Pt (203.646 nm)	10.46665	6.85580	3.22971	ug/L
Sb (206.834 nm)	2.97344	10.57885	5.26838	ug/L

Label	Replicate 1	Replicate 2	Replicate 3	Units
Se (196.026 nm)	6.92762	9.07951	2.61828	ug/L
Si (251.611 nm)	10.33868	10.64824	11.58156	ug/L
Sn (189.925 nm)	-1.10577 u	2.78664	1.75604	ug/L
Sr (421.552 nm)	1.10739	1.12638	1.13733	ug/L
Te (214.282 nm)	-8.52985 u	10.42290	-1.88665 u	ug/L
Ti (334.941 nm)	0.07612	0.19285	0.15016	ug/L
Tl (190.807 nm)	15.96172	17.12579	7.47303	ug/L
U (409.013 nm)	-1.48053 u	-5.56481 u	0.70156	ug/L
V (292.401 nm)	0.01480	0.33874	0.10271	ug/L
W (207.912 nm)	1.23803	-1.19025 u	1.15554	ug/L
Y (371.029 nm)	0.03068	0.01155	0.03557	ug/L
Zn (206.200 nm)	2.07492	1.31273	1.11288	ug/L
Zr (343.823 nm)	0.00978	0.32426	0.17474	ug/L
Sc-A (361.383 nm)	1.02	1.02	1.02	Ratio
Sc-R (503.102 nm)	1.01	1.02	1.02	Ratio

Sample Name: 2218902005

Date: 7/14/2022 10:47:16 Rack:Tube: 1:14

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Calculated Concentration
Ag (328.068 nm)	0.12530	ug/L	0.27753	> 100.00	-82.03677	0.12530 (ug/L)
Al (236.705 nm)	32.72767	ug/L	3.79215	11.59	82.90056	32.72767 (ug/L)
As (188.980 nm)	3.42534	ug/L	5.55937	> 100.00	-6.13842	3.42534 (ug/L)
B (249.772 nm)	3.25573	ug/L	0.38092	11.70	105.52864	3.25573 (ug/L)
Ba (230.424 nm)	1.41714	ug/L	0.26803	18.91	20.93721	1.41714 (ug/L)
Be (313.107 nm)	0.01222	ug/L	0.00790	64.67	10.44795	0.01222 (ug/L)
Bi (223.061 nm)	0.06440	ug/L	3.73411	> 100.00	-37.73645	0.06440 (ug/L)
Ca (317.933 nm)	162.38649	ug/L	2.53152	1.56	2742.30188	162.38649 (ug/L)
Cd (214.439 nm)	-0.19327	ug/L	0.16546	85.61	-8.10219	-0.19327 (ug/L)
Co (228.615 nm)	0.42203	ug/L	0.27331	64.76	-6.95810	0.42203 (ug/L)
Cr (205.560 nm)	8.13285	ug/L	0.15793	1.94	43.48315	8.13285 (ug/L)
Cu (224.700 nm)	4.24618	ug/L	2.21437	52.15	-6.66765	4.24618 (ug/L)
Fe (261.382 nm)	25.20816	ug/L	1.12173	4.45	114.81155	25.20816 (ug/L)
K (766.491 nm)	21.05502	ug/L	8.79090	41.75	-109.39467	21.05502 (ug/L)
Li (610.365 nm)	16.36113	ug/L	0.59395	3.63	-4484.37435	16.36113 (ug/L)
Mg (279.078 nm)	25.10191	ug/L	0.92561	3.69	67.47764	25.10191 (ug/L)
Mn (260.568 nm)	1.38803	ug/L	0.18006	12.97	25.25691	1.38803 (ug/L)
Mo (202.032 nm)	-0.76117	ug/L	0.15922	20.92	-5.04923	-0.76117 (ug/L)
Na (588.995 nm)	238.04351	ug/L	13.36863	5.62	29780.20998	238.04351 (ug/L)
Ni (231.604 nm)	0.47118	ug/L	0.44585	94.62	-2.74561	0.47118 (ug/L)
P (178.222 nm)	74.46950	ug/L	27.34540	36.72	9.68296	74.46950 (ug/L)
Pb (220.353 nm)	0.91702	ug/L	2.77462	> 100.00	3.18957	0.91702 (ug/L)
Pt (203.646 nm)	6.78987	ug/L	2.96847	43.72	6.54014	6.78987 (ug/L)
Sb (206.834 nm)	4.16415	ug/L	4.30370	> 100.00	-5.05062	4.16415 (ug/L)
Se (196.026 nm)	7.35986	ug/L	5.93079	80.58	7.30437	7.35986 (ug/L)
Si (251.611 nm)	23.36582	ug/L	2.84016	12.16	52.78061	23.36582 (ug/L)
Sn (189.925 nm)	0.78616	ug/L	2.96436	> 100.00	-4.45483	0.78616 (ug/L)

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Calculated Concentration
Sr (421.552 nm)	1.18780	ug/L	0.01248	1.05	2445.37041	1.18780 (ug/L)
Te (214.282 nm)	8.28207	ug/L	1.81274	21.89	-1.01744	8.28207 (ug/L)
Ti (334.941 nm)	3.69741	ug/L	0.03310	0.90	680.26837	3.69741 (ug/L)
Tl (190.807 nm)	26.87104	ug/L	5.17983	19.28	11.86062	26.87104 (ug/L)
U (409.013 nm)	2.29517	ug/L	2.83137	> 100.00	193.45532	2.29517 (ug/L)
V (292.401 nm)	0.23808	ug/L	0.40660	> 100.00	-15.54282	0.23808 (ug/L)
W (207.912 nm)	3.65914	ug/L	3.30822	90.41	11.22087	3.65914 (ug/L)
Y (371.029 nm)	0.00647	ug/L	0.05629	> 100.00	1.48183	0.00647 (ug/L)
Zn (206.200 nm)	39.55425	ug/L	0.41945	1.06	68.52288	39.55425 (ug/L)
Zr (343.823 nm)	0.27544	ug/L	0.04764	17.30	110.30022	0.27544 (ug/L)

Label	Internal Standard
Ag (328.068 nm)	Sc-A
Al (236.705 nm)	Sc-A
As (188.980 nm)	Sc-A
B (249.772 nm)	Sc-A
Ba (230.424 nm)	Sc-A
Be (313.107 nm)	Sc-A
Bi (223.061 nm)	Sc-A
Ca (317.933 nm)	Sc-A
Cd (214.439 nm)	Sc-A
Co (228.615 nm)	Sc-A
Cr (205.560 nm)	Sc-A
Cu (224.700 nm)	Sc-A
Fe (261.382 nm)	Sc-A
K (766.491 nm)	Sc-R
Li (610.365 nm)	Sc-R
Mg (279.078 nm)	Sc-A
Mn (260.568 nm)	Sc-A
Mo (202.032 nm)	Sc-A
Na (588.995 nm)	Sc-R
Ni (231.604 nm)	Sc-A
P (178.222 nm)	Sc-A
Pb (220.353 nm)	Sc-A
Pt (203.646 nm)	Sc-A
Sb (206.834 nm)	Sc-A
Se (196.026 nm)	Sc-A
Si (251.611 nm)	Sc-A
Sn (189.925 nm)	Sc-A
Sr (421.552 nm)	Sc-A
Te (214.282 nm)	Sc-A
Ti (334.941 nm)	Sc-A
Tl (190.807 nm)	Sc-A
U (409.013 nm)	Sc-A
V (292.401 nm)	Sc-A
W (207.912 nm)	Sc-A
Y (371.029 nm)	Sc-A
Zn (206.200 nm)	Sc-A

Label	Internal Standard
Zr (343.823 nm)	Sc-A

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Sc-A	1.01	417075.86	0.01	0.96
Sc-R	1.01	47383.21	0.01	0.91

Replicates Concentration

Label	Replicate 1	Replicate 2	Replicate 3	Units
Ag (328.068 nm)	-0.14734 u	0.40748	0.11578	ug/L
Al (236.705 nm)	28.44422	35.65646	34.08232	ug/L
As (188.980 nm)	-1.62261 u	9.38374	2.51488	ug/L
B (249.772 nm)	3.65137	2.89148	3.22436	ug/L
Ba (230.424 nm)	1.72645	1.27157	1.25339	ug/L
Be (313.107 nm)	0.00447	0.02027	0.01193	ug/L
Bi (223.061 nm)	-2.98501 u	4.22906	-1.05085 u	ug/L
Ca (317.933 nm)	159.86110	162.37428	164.92409	ug/L
Cd (214.439 nm)	-0.24853 u	-0.32403 u	-0.00724 u	ug/L
Co (228.615 nm)	0.10810	0.55108	0.60692	ug/L
Cr (205.560 nm)	7.95272	8.24752	8.19831	ug/L
Cu (224.700 nm)	3.98713	2.17273	6.57868	ug/L
Fe (261.382 nm)	25.84803	23.91294	25.86353	ug/L
K (766.491 nm)	21.25743	12.16467	29.74297	ug/L
Li (610.365 nm)	17.02500	16.17830	15.88010	ug/L
Mg (279.078 nm)	24.16631	26.01720	25.12222	ug/L
Mn (260.568 nm)	1.22054	1.36509	1.57846	ug/L
Mo (202.032 nm)	-0.88240 u	-0.58085 u	-0.82025 u	ug/L
Na (588.995 nm)	222.76248	243.78982	247.57822	ug/L
Ni (231.604 nm)	0.12506	0.97429	0.31420	ug/L
P (178.222 nm)	88.68904	42.94407	91.77539	ug/L
Pb (220.353 nm)	3.43163	-2.05960 u	1.37903	ug/L
Pt (203.646 nm)	9.82592	3.89394	6.64973	ug/L
Sb (206.834 nm)	8.63135	0.04509	3.81602	ug/L
Se (196.026 nm)	2.75828	14.05308	5.26822	ug/L
Si (251.611 nm)	25.74863	24.12588	20.22296	ug/L
Sn (189.925 nm)	-1.22131 u	4.19093	-0.61114 u	ug/L
Sr (421.552 nm)	1.17903	1.18228	1.20209	ug/L
Te (214.282 nm)	9.78514	6.26895	8.79212	ug/L
Ti (334.941 nm)	3.66621	3.69389	3.73213	ug/L
Tl (190.807 nm)	30.70361	20.97804	28.93147	ug/L
U (409.013 nm)	5.31005	-0.30749 u	1.88295	ug/L
V (292.401 nm)	0.30377	0.60784	-0.19735 u	ug/L
W (207.912 nm)	7.02344	0.41001	3.54397	ug/L
Y (371.029 nm)	0.01309	-0.05283 u	0.05916	ug/L
Zn (206.200 nm)	39.14273	39.98120	39.53882	ug/L
Zr (343.823 nm)	0.29845	0.22066	0.30721	ug/L
Sc-A (361.383 nm)	1.00	1.02	1.02	Ratio

Label	Replicate 1	Replicate 2	Replicate 3	Units
Sc-R (503.102 nm)	1.00	1.01	1.02	Ratio

Sample Name: 2218902006

Date: 7/14/2022 10:48:56 Rack:Tube: 1:15

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Calculated Concentration
Ag (328.068 nm)	0.21944	ug/L	0.04735	21.58	-77.21499	0.21944 (ug/L)
Al (236.705 nm)	70.65920	ug/L	8.80216	12.46	105.93948	70.65920 (ug/L)
As (188.980 nm)	5.42222	ug/L	11.21242	> 100.00	-5.14212	5.42222 (ug/L)
B (249.772 nm)	0.78868	ug/L	0.38587	48.93	67.10478	0.78868 (ug/L)
Ba (230.424 nm)	1.99612	ug/L	0.18635	9.34	31.50041	1.99612 (ug/L)
Be (313.107 nm)	0.01014	ug/L	0.02294	> 100.00	9.32067	0.01014 (ug/L)
Bi (223.061 nm)	0.06510	ug/L	1.00954	> 100.00	-37.72004	0.06510 (ug/L)
Ca (317.933 nm)	197.75889	ug/L	2.62111	1.33	3347.17632	197.75889 (ug/L)
Cd (214.439 nm)	0.24361	ug/L	0.13496	55.40	-3.60673	0.24361 (ug/L)
Co (228.615 nm)	-0.06340	ug/L	1.07644	> 100.00	-9.84563	-0.06340 (ug/L)
Cr (205.560 nm)	10.41110	ug/L	0.55513	5.33	56.54441	10.41110 (ug/L)
Cu (224.700 nm)	4.73480	ug/L	2.03592	43.00	-6.13451	4.73480 (ug/L)
Fe (261.382 nm)	73.80240	ug/L	2.69246	3.65	244.76668	73.80240 (ug/L)
K (766.491 nm)	24.09426	ug/L	17.42222	72.31	-103.18472	24.09426 (ug/L)
Li (610.365 nm)	17.02661	ug/L	1.69386	9.95	-4477.36593	17.02661 (ug/L)
Mg (279.078 nm)	27.39792	ug/L	2.15818	7.88	71.15134	27.39792 (ug/L)
Mn (260.568 nm)	2.74513	ug/L	0.14795	5.39	48.96836	2.74513 (ug/L)
Mo (202.032 nm)	-0.13580	ug/L	0.29781	> 100.00	-2.11070	-0.13580 (ug/L)
Na (588.995 nm)	256.64276	ug/L	2.50131	0.97	30220.16279	256.64276 (ug/L)
Ni (231.604 nm)	0.52524	ug/L	0.93943	> 100.00	-2.62429	0.52524 (ug/L)
P (178.222 nm)	57.32841	ug/L	16.60000	28.96	8.03463	57.32841 (ug/L)
Pb (220.353 nm)	2.41001	ug/L	2.97459	> 100.00	4.94528	2.41001 (ug/L)
Pt (203.646 nm)	5.15692	ug/L	0.85904	16.66	5.57508	5.15692 (ug/L)
Sb (206.834 nm)	3.42211	ug/L	4.20866	> 100.00	-5.68952	3.42211 (ug/L)
Se (196.026 nm)	2.92579	ug/L	4.98953	> 100.00	4.65166	2.92579 (ug/L)
Si (251.611 nm)	42.09931	ug/L	1.86536	4.43	79.23139	42.09931 (ug/L)
Sn (189.925 nm)	2.88081	ug/L	3.84730	> 100.00	-2.88891	2.88081 (ug/L)
Sr (421.552 nm)	1.28752	ug/L	0.02122	1.65	2649.10238	1.28752 (ug/L)
Te (214.282 nm)	4.86526	ug/L	8.31236	> 100.00	-2.79314	4.86526 (ug/L)
Ti (334.941 nm)	4.51223	ug/L	0.03653	0.81	843.76674	4.51223 (ug/L)
Tl (190.807 nm)	18.44612	ug/L	8.21472	44.53	7.36251	18.44612 (ug/L)
U (409.013 nm)	-1.30696	ug/L	3.07176	> 100.00	174.32665	-1.30696 (ug/L)
V (292.401 nm)	0.22396	ug/L	0.32015	> 100.00	-16.08255	0.22396 (ug/L)
W (207.912 nm)	1.33869	ug/L	1.25468	93.72	8.88052	1.33869 (ug/L)
Y (371.029 nm)	0.01062	ug/L	0.05952	> 100.00	2.14630	0.01062 (ug/L)
Zn (206.200 nm)	103.72051	ug/L	0.90482	0.87	182.01594	103.72051 (ug/L)
Zr (343.823 nm)	0.43669	ug/L	0.19341	44.29	120.65260	0.43669 (ug/L)

Label	Internal Standard
Ag (328.068 nm)	Sc-A
Al (236.705 nm)	Sc-A
As (188.980 nm)	Sc-A
B (249.772 nm)	Sc-A
Ba (230.424 nm)	Sc-A
Be (313.107 nm)	Sc-A
Bi (223.061 nm)	Sc-A
Ca (317.933 nm)	Sc-A
Cd (214.439 nm)	Sc-A
Co (228.615 nm)	Sc-A
Cr (205.560 nm)	Sc-A
Cu (224.700 nm)	Sc-A
Fe (261.382 nm)	Sc-A
K (766.491 nm)	Sc-R
Li (610.365 nm)	Sc-R
Mg (279.078 nm)	Sc-A
Mn (260.568 nm)	Sc-A
Mo (202.032 nm)	Sc-A
Na (588.995 nm)	Sc-R
Ni (231.604 nm)	Sc-A
P (178.222 nm)	Sc-A
Pb (220.353 nm)	Sc-A
Pt (203.646 nm)	Sc-A
Sb (206.834 nm)	Sc-A
Se (196.026 nm)	Sc-A
Si (251.611 nm)	Sc-A
Sn (189.925 nm)	Sc-A
Sr (421.552 nm)	Sc-A
Te (214.282 nm)	Sc-A
Ti (334.941 nm)	Sc-A
Tl (190.807 nm)	Sc-A
U (409.013 nm)	Sc-A
V (292.401 nm)	Sc-A
W (207.912 nm)	Sc-A
Y (371.029 nm)	Sc-A
Zn (206.200 nm)	Sc-A
Zr (343.823 nm)	Sc-A

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Sc-A	1.01	417071.96	0.01	0.50
Sc-R	1.01	47386.16	0.00	0.45

Replicates Concentration

Label	Replicate 1	Replicate 2	Replicate 3	Units
Ag (328.068 nm)	0.25748	0.16640	0.23443	ug/L
Al (236.705 nm)	77.73602	73.43878	60.80281	ug/L

Label	Replicate 1	Replicate 2	Replicate 3	Units
As (188.980 nm)	3.18128	17.58588	-4.50049 u	ug/L
B (249.772 nm)	0.34528	1.04839	0.97238	ug/L
Ba (230.424 nm)	1.85693	1.92361	2.20782	ug/L
Be (313.107 nm)	0.00758	0.03426	-0.01141 u	ug/L
Bi (223.061 nm)	1.04098	0.12936	-0.97504 u	ug/L
Ca (317.933 nm)	194.81413	198.62585	199.83668	ug/L
Cd (214.439 nm)	0.26926	0.36391	0.09768	ug/L
Co (228.615 nm)	-0.77836 u	1.17462	-0.58644 u	ug/L
Cr (205.560 nm)	10.80646	10.65038	9.77646	ug/L
Cu (224.700 nm)	2.52177	6.52823	5.15439	ug/L
Fe (261.382 nm)	70.77501	75.92888	74.70333	ug/L
K (766.491 nm)	4.91246	38.93660	28.43371	ug/L
Li (610.365 nm)	15.30603	17.08138	18.69242	ug/L
Mg (279.078 nm)	25.78108	26.56406	29.84862	ug/L
Mn (260.568 nm)	2.62161	2.70468	2.90910	ug/L
Mo (202.032 nm)	0.20498	-0.34609 u	-0.26630 u	ug/L
Na (588.995 nm)	257.56079	258.55535	253.81215	ug/L
Ni (231.604 nm)	0.67621	-0.48053 u	1.38004	ug/L
P (178.222 nm)	75.99982	51.74687	44.23853	ug/L
Pb (220.353 nm)	0.02356	1.46389	5.74258	ug/L
Pt (203.646 nm)	5.94862	5.27862	4.24353	ug/L
Sb (206.834 nm)	1.62911	0.40686	8.23035	ug/L
Se (196.026 nm)	-2.62569 u	4.36693	7.03614	ug/L
Si (251.611 nm)	39.94767	43.08925	43.26102	ug/L
Sn (189.925 nm)	0.85048	7.31796	0.47397	ug/L
Sr (421.552 nm)	1.26325	1.30258	1.29674	ug/L
Te (214.282 nm)	7.49820	11.54229	-4.44471 u	ug/L
Ti (334.941 nm)	4.49351	4.55433	4.48886	ug/L
Tl (190.807 nm)	21.38062	24.79060	9.16713	ug/L
U (409.013 nm)	0.16883	-4.83810 u	0.74840	ug/L
V (292.401 nm)	0.06446	0.59253	0.01489	ug/L
W (207.912 nm)	-0.01280 u	2.46648	1.56240	ug/L
Y (371.029 nm)	-0.03185 u	-0.01496 u	0.07865	ug/L
Zn (206.200 nm)	102.97400	104.72680	103.46073	ug/L
Zr (343.823 nm)	0.52021	0.57432	0.21556	ug/L
Sc-A (361.383 nm)	1.01	1.01	1.02	Ratio
Sc-R (503.102 nm)	1.00	1.01	1.01	Ratio

Sample Name: 2218903001

Date: 7/14/2022 10:50:37 Rack:Tube: 1:16

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Calculated Concentration
Ag (328.068 nm)	-0.02439	ug/L	0.10917	> 100.00	-89.86604	-0.02439 (ug/L)
Al (236.705 nm)	19.71112	ug/L	1.72832	8.77	75.00350	19.71112 (ug/L)
As (188.980 nm)	4.76365	ug/L	4.48994	94.25	-5.47108	4.76365 (ug/L)
B (249.772 nm)	0.16831	ug/L	0.03260	19.37	56.91383	0.16831 (ug/L)
Ba (230.424 nm)	2.36872	ug/L	0.06940	2.93	38.32219	2.36872 (ug/L)

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Calculated Concentration
Be (313.107 nm)	0.01242	ug/L	0.01475	> 100.00	10.73505	0.01242 (ug/L)
Bi (223.061 nm)	-1.15132	ug/L	1.49281	> 100.00	-39.52939	-1.15132 (ug/L)
Ca (317.933 nm)	175.25480	ug/L	3.09680	1.77	2962.36545	175.25480 (ug/L)
Cd (214.439 nm)	0.10559	ug/L	0.35532	> 100.00	-5.13585	0.10559 (ug/L)
Co (228.615 nm)	0.51128	ug/L	0.57559	> 100.00	-6.47579	0.51128 (ug/L)
Cr (205.560 nm)	9.04179	ug/L	0.98293	10.87	48.69574	9.04179 (ug/L)
Cu (224.700 nm)	4.14508	ug/L	3.15712	76.17	-6.73956	4.14508 (ug/L)
Fe (261.382 nm)	27.60381	ug/L	2.72547	9.87	121.14082	27.60381 (ug/L)
K (766.491 nm)	13.59311	ug/L	27.56126	> 100.00	-124.66107	13.59311 (ug/L)
Li (610.365 nm)	17.53250	ug/L	3.31719	18.92	-4471.24532	17.53250 (ug/L)
Mg (279.078 nm)	26.38339	ug/L	3.67024	13.91	69.53974	26.38339 (ug/L)
Mn (260.568 nm)	1.16903	ug/L	0.15942	13.64	21.43742	1.16903 (ug/L)
Mo (202.032 nm)	0.58794	ug/L	0.86356	> 100.00	1.29703	0.58794 (ug/L)
Na (588.995 nm)	229.77749	ug/L	4.40322	1.92	29584.68280	229.77749 (ug/L)
Ni (231.604 nm)	0.99947	ug/L	1.10972	> 100.00	-1.50583	0.99947 (ug/L)
P (178.222 nm)	32.03314	ug/L	17.84371	55.70	5.60216	32.03314 (ug/L)
Pb (220.353 nm)	-0.27394	ug/L	0.95158	> 100.00	1.79372	-0.27394 (ug/L)
Pt (203.646 nm)	2.32571	ug/L	2.48718	> 100.00	3.02739	2.32571 (ug/L)
Sb (206.834 nm)	2.44120	ug/L	2.16521	88.69	-6.57775	2.44120 (ug/L)
Se (196.026 nm)	8.94686	ug/L	6.64374	74.26	8.23447	8.94686 (ug/L)
Si (251.611 nm)	22.53976	ug/L	1.65152	7.33	51.64821	22.53976 (ug/L)
Sn (189.925 nm)	1.42908	ug/L	3.03327	> 100.00	-3.97420	1.42908 (ug/L)
Sr (421.552 nm)	1.19071	ug/L	0.02732	2.29	2451.32151	1.19071 (ug/L)
Te (214.282 nm)	3.92698	ug/L	4.18522	> 100.00	-3.28518	3.92698 (ug/L)
Ti (334.941 nm)	0.94388	ug/L	0.09889	10.48	126.97540	0.94388 (ug/L)
Tl (190.807 nm)	28.17550	ug/L	2.53841	9.01	12.48791	28.17550 (ug/L)
U (409.013 nm)	-0.20163	ug/L	0.29292	> 100.00	180.15677	-0.20163 (ug/L)
V (292.401 nm)	0.16824	ug/L	0.34137	> 100.00	-17.52790	0.16824 (ug/L)
W (207.912 nm)	1.34321	ug/L	2.32143	> 100.00	8.09889	1.34321 (ug/L)
Y (371.029 nm)	0.02066	ug/L	0.04414	> 100.00	3.86712	0.02066 (ug/L)
Zn (206.200 nm)	22.83655	ug/L	1.59399	6.98	38.95598	22.83655 (ug/L)
Zr (343.823 nm)	0.09390	ug/L	0.12056	> 100.00	98.76560	0.09390 (ug/L)

Label	Internal Standard
Ag (328.068 nm)	Sc-A
Al (236.705 nm)	Sc-A
As (188.980 nm)	Sc-A
B (249.772 nm)	Sc-A
Ba (230.424 nm)	Sc-A
Be (313.107 nm)	Sc-A
Bi (223.061 nm)	Sc-A
Ca (317.933 nm)	Sc-A
Cd (214.439 nm)	Sc-A
Co (228.615 nm)	Sc-A
Cr (205.560 nm)	Sc-A
Cu (224.700 nm)	Sc-A
Fe (261.382 nm)	Sc-A
K (766.491 nm)	Sc-R

Label	Internal Standard
Li (610.365 nm)	Sc-R
Mg (279.078 nm)	Sc-A
Mn (260.568 nm)	Sc-A
Mo (202.032 nm)	Sc-A
Na (588.995 nm)	Sc-R
Ni (231.604 nm)	Sc-A
P (178.222 nm)	Sc-A
Pb (220.353 nm)	Sc-A
Pt (203.646 nm)	Sc-A
Sb (206.834 nm)	Sc-A
Se (196.026 nm)	Sc-A
Si (251.611 nm)	Sc-A
Sn (189.925 nm)	Sc-A
Sr (421.552 nm)	Sc-A
Te (214.282 nm)	Sc-A
Ti (334.941 nm)	Sc-A
Tl (190.807 nm)	Sc-A
U (409.013 nm)	Sc-A
V (292.401 nm)	Sc-A
W (207.912 nm)	Sc-A
Y (371.029 nm)	Sc-A
Zn (206.200 nm)	Sc-A
Zr (343.823 nm)	Sc-A

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Sc-A	1.02	419794.25	0.00	0.44
Sc-R	1.02	47733.09	0.00	0.36

Replicates Concentration

Label	Replicate 1	Replicate 2	Replicate 3	Units
Ag (328.068 nm)	-0.14861 u	0.05628	0.01916	ug/L
Al (236.705 nm)	20.89791	20.50724	17.72822	ug/L
As (188.980 nm)	2.04055	2.30444	9.94595	ug/L
B (249.772 nm)	0.15327	0.20571	0.14593	ug/L
Ba (230.424 nm)	2.41492	2.40233	2.28892	ug/L
Be (313.107 nm)	-0.00454 u	0.02221	0.01959	ug/L
Bi (223.061 nm)	-2.82081 u	-0.68815 u	0.05501	ug/L
Ca (317.933 nm)	172.00464	175.58854	178.17120	ug/L
Cd (214.439 nm)	0.41467	-0.28262 u	0.18473	ug/L
Co (228.615 nm)	-0.06753 u	0.51779	1.08360	ug/L
Cr (205.560 nm)	8.34467	10.16602	8.61467	ug/L
Cu (224.700 nm)	1.96591	2.70370	7.76564	ug/L
Fe (261.382 nm)	26.46140	30.71457	25.63546	ug/L
K (766.491 nm)	42.44480	10.79946	-12.46493 u	ug/L
Li (610.365 nm)	13.72775	19.05189	19.81786	ug/L
Mg (279.078 nm)	23.47002	25.17457	30.50557	ug/L

Label	Replicate 1	Replicate 2	Replicate 3	Units
Mn (260.568 nm)	1.02658	1.13930	1.34123	ug/L
Mo (202.032 nm)	1.03428	-0.40745 u	1.13700	ug/L
Na (588.995 nm)	227.97236	226.56368	234.79642	ug/L
Ni (231.604 nm)	1.00682	-0.11391 u	2.10550	ug/L
P (178.222 nm)	12.28193	46.98960	36.82791	ug/L
Pb (220.353 nm)	-1.35953 u	0.41587	0.12183	ug/L
Pt (203.646 nm)	5.17350	0.57993	1.22368	ug/L
Sb (206.834 nm)	1.89219	4.82807	0.60333	ug/L
Se (196.026 nm)	1.27535	12.76956	12.79567	ug/L
Si (251.611 nm)	24.30107	22.29226	21.02597	ug/L
Sn (189.925 nm)	0.73274	4.74997	-1.19546 u	ug/L
Sr (421.552 nm)	1.16417	1.18922	1.21875	ug/L
Te (214.282 nm)	5.08400	-0.71503 u	7.41198	ug/L
Ti (334.941 nm)	1.05798	0.88298	0.89067	ug/L
Tl (190.807 nm)	30.33240	28.81588	25.37822	ug/L
U (409.013 nm)	0.05483	-0.52084 u	-0.13889 u	ug/L
V (292.401 nm)	0.51870	-0.16325 u	0.14927	ug/L
W (207.912 nm)	2.36835	-1.31431 u	2.97560	ug/L
Y (371.029 nm)	-0.02685 u	0.06039	0.02845	ug/L
Zn (206.200 nm)	22.41068	21.49876	24.60022	ug/L
Zr (343.823 nm)	0.19169	-0.04079 u	0.13080	ug/L
Sc-A (361.383 nm)	1.02	1.02	1.02	Ratio
Sc-R (503.102 nm)	1.01	1.02	1.02	Ratio

Sample Name: CCV

Date: 7/14/2022 10:52:18 Rack:Tube: S1:10

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity
Ag (328.068 nm)	1980.74190	ug/L	18.78699	0.95	103426.77292
Al (236.705 nm)	49153.09025	ug/L	598.02874	1.22	30101.93261
As (188.980 nm)	5007.24067	ug/L	66.96218	1.34	2492.64236
B (249.772 nm)	12362.45024	ug/L	168.07785	1.36	195254.59465
Ba (230.424 nm)	5046.75196	ug/L	64.93297	1.29	93157.45096
Be (313.107 nm)	1009.18389	ug/L	10.76522	1.07	743029.26129
Bi (223.061 nm)	4921.69396	ug/L	55.35825	1.12	7350.55424
Ca (317.933 nm)	50793.86811	ug/L	804.14223	1.58	870692.44216
Cd (214.439 nm)	2575.91142	ug/L	33.05026	1.28	26856.24156
Co (228.615 nm)	5037.09521	ug/L	60.52488	1.20	29684.05278
Cr (205.560 nm)	5033.37129	ug/L	87.47221	1.74	28916.55838
Cu (224.700 nm)	4983.14400	ug/L	68.55797	1.38	5037.80858
Fe (261.382 nm)	50156.93122	ug/L	623.13464	1.24	134139.20810
K (766.491 nm)	47729.06391	ug/L	412.04785	0.86	97403.35146
Li (610.365 nm)	4805.22473	ug/L	39.79545	0.83	49381.35831
Mg (279.078 nm)	50002.84384	ug/L	634.13054	1.27	79016.16676
Mn (260.568 nm)	5012.17143	ug/L	64.81614	1.29	87293.93026
Mo (202.032 nm)	25150.25309	ug/L	360.96241	1.44	118204.19771
Na (588.995 nm)	47523.70417	ug/L	251.66973	0.53	1148290.57079

Label	Solution Concentration	Unit	SD	%RSD	Intensity
Ni (231.604 nm)	5051.19800	ug/L	71.16141	1.41	11823.35679
P (178.222 nm)	25120.69436	ug/L	231.37040	0.92	2418.19573
Pb (220.353 nm)	5056.53687	ug/L	68.64999	1.36	5911.26478
Pt (203.646 nm)	20.88770	ug/L	9.59146	45.92	284.76826
Sb (206.834 nm)	24657.92908	ug/L	387.12227	1.57	22163.95165
Se (196.026 nm)	4957.29598	ug/L	34.76548	0.70	2936.95226
Si (251.611 nm)	12213.46295	ug/L	270.50784	2.21	17878.21057
Sn (189.925 nm)	5078.49791	ug/L	58.46083	1.15	3791.56155
Sr (421.552 nm)	4900.34633	ug/L	42.62382	0.87	10011080.07396
Te (214.282 nm)	9949.15447	ug/L	112.58587	1.13	5199.69800
Ti (334.941 nm)	4942.66889	ug/L	58.27298	1.18	993216.92610
Tl (190.807 nm)	2509.87765	ug/L	24.45280	0.97	1450.18535
U (409.013 nm)	4850.15224	ug/L	52.34944	1.08	26246.50456
V (292.401 nm)	4986.20662	ug/L	59.06501	1.18	125762.98794
W (207.912 nm)	5.25125	ug/L	1.84175	35.07	63.22038
Y (371.029 nm)	1977.03112	ug/L	23.10665	1.17	327026.15828
Zn (206.200 nm)	5157.05590	ug/L	87.45629	1.70	9134.38594
Zr (343.823 nm)	4946.80196	ug/L	57.11334	1.15	314469.44314

Label	Calculated Concentration	Internal Standard
Ag (328.068 nm)	1980.74190 (ug/L)	Sc-A
Al (236.705 nm)	49153.09025 (ug/L)	Sc-A
As (188.980 nm)	5007.24067 (ug/L)	Sc-A
B (249.772 nm)	12362.45024 (ug/L)	Sc-A
Ba (230.424 nm)	5046.75196 (ug/L)	Sc-A
Be (313.107 nm)	1009.18389 (ug/L)	Sc-A
Bi (223.061 nm)	4921.69396 (ug/L)	Sc-A
Ca (317.933 nm)	50793.86811 (ug/L)	Sc-A
Cd (214.439 nm)	2575.91142 (ug/L)	Sc-A
Co (228.615 nm)	5037.09521 (ug/L)	Sc-A
Cr (205.560 nm)	5033.37129 (ug/L)	Sc-A
Cu (224.700 nm)	4983.14400 (ug/L)	Sc-A
Fe (261.382 nm)	50156.93122 (ug/L)	Sc-A
K (766.491 nm)	47729.06391 (ug/L)	Sc-R
Li (610.365 nm)	4805.22473 (ug/L)	Sc-R
Mg (279.078 nm)	50002.84384 (ug/L)	Sc-A
Mn (260.568 nm)	5012.17143 (ug/L)	Sc-A
Mo (202.032 nm)	25150.25309 (ug/L)	Sc-A
Na (588.995 nm)	47523.70417 (ug/L)	Sc-R
Ni (231.604 nm)	5051.19800 (ug/L)	Sc-A
P (178.222 nm)	25120.69436 (ug/L)	Sc-A
Pb (220.353 nm)	5056.53687 (ug/L)	Sc-A
Pt (203.646 nm)	20.88770 (ug/L)	Sc-A
Sb (206.834 nm)	24657.92908 (ug/L)	Sc-A
Se (196.026 nm)	4957.29598 (ug/L)	Sc-A
Si (251.611 nm)	12213.46295 (ug/L)	Sc-A
Sn (189.925 nm)	5078.49791 (ug/L)	Sc-A
Sr (421.552 nm)	4900.34633 (ug/L)	Sc-A

Label	Calculated Concentration	Internal Standard
Te (214.282 nm)	9949.15447 (ug/L)	Sc-A
Ti (334.941 nm)	4942.66889 (ug/L)	Sc-A
Tl (190.807 nm)	2509.87765 (ug/L)	Sc-A
U (409.013 nm)	4850.15224 (ug/L)	Sc-A
V (292.401 nm)	4986.20662 (ug/L)	Sc-A
W (207.912 nm)	5.25125 (ug/L)	Sc-A
Y (371.029 nm)	1977.03112 (ug/L)	Sc-A
Zn (206.200 nm)	5157.05590 (ug/L)	Sc-A
Zr (343.823 nm)	4946.80196 (ug/L)	Sc-A

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Sc-A	0.97	399788.86	0.00	0.28
Sc-R	0.98	45880.26	0.00	0.24

Replicates Concentration

Label	Replicate 1	Replicate 2	Replicate 3	Units
Ag (328.068 nm)	1960.29901	1984.67707	1997.24963	ug/L
Al (236.705 nm)	48532.19741	49201.79743	49725.27591	ug/L
As (188.980 nm)	4931.92857	5029.73097	5060.06247	ug/L
B (249.772 nm)	12168.92757	12446.48771	12471.93544	ug/L
Ba (230.424 nm)	4972.35674	5075.86854	5092.03062	ug/L
Be (313.107 nm)	997.70534	1010.79132	1019.05501	ug/L
Bi (223.061 nm)	4863.44713	4928.01350	4973.62124	ug/L
Ca (317.933 nm)	49916.28294	50969.92903	51495.39235	ug/L
Cd (214.439 nm)	2539.49592	2584.23217	2604.00618	ug/L
Co (228.615 nm)	4973.08717	5044.79922	5093.39923	ug/L
Cr (205.560 nm)	4943.76046	5037.81814	5118.53526	ug/L
Cu (224.700 nm)	4914.17822	4983.96705	5051.28674	ug/L
Fe (261.382 nm)	49496.27744	50240.37914	50734.13707	ug/L
K (766.491 nm)	47280.70200	47815.36039	48091.12933	ug/L
Li (610.365 nm)	4763.31688	4809.85454	4842.50279	ug/L
Mg (279.078 nm)	49312.45806	50136.73805	50559.33543	ug/L
Mn (260.568 nm)	4943.54682	5020.61621	5072.35127	ug/L
Mo (202.032 nm)	24763.76903	25208.34180	25478.64844	ug/L
Na (588.995 nm)	47281.50628	47505.72475	47783.88148	ug/L
Ni (231.604 nm)	4980.99317	5049.32194	5123.27888	ug/L
P (178.222 nm)	24868.08080	25171.68810	25322.31417	ug/L
Pb (220.353 nm)	4983.56142	5066.21490	5119.83428	ug/L
Pt (203.646 nm)	15.86337	14.85217	31.94756	ug/L
Sb (206.834 nm)	24265.54500	24668.67653	25039.56572	ug/L
Se (196.026 nm)	4917.35568	4973.77069	4980.76157	ug/L
Si (251.611 nm)	11935.26610	12229.55983	12475.56292	ug/L
Sn (189.925 nm)	5011.04774	5109.87250	5114.57349	ug/L
Sr (421.552 nm)	4852.95565	4912.53589	4935.54744	ug/L
Te (214.282 nm)	9825.47687	9976.30226	10045.68427	ug/L
Ti (334.941 nm)	4883.39254	4944.73033	4999.88380	ug/L

Label	Replicate 1	Replicate 2	Replicate 3	Units
Tl (190.807 nm)	2481.80293	2526.52214	2521.30787	ug/L
U (409.013 nm)	4793.73029	4859.57795	4897.14848	ug/L
V (292.401 nm)	4924.02886	4993.02371	5041.56730	ug/L
W (207.912 nm)	5.04276	7.18838	3.52263	ug/L
Y (371.029 nm)	1952.70069	1979.71268	1998.67999	ug/L
Zn (206.200 nm)	5056.98972	5218.86495	5195.31301	ug/L
Zr (343.823 nm)	4886.05546	4954.94167	4999.40876	ug/L
Sc-A (361.383 nm)	0.97	0.97	0.97	Ratio
Sc-R (503.102 nm)	0.98	0.98	0.98	Ratio

Sample Name: CCB

Date: 7/14/2022 10:53:58 Rack:Tube: S1:11

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Calculated Concentration
Ag (328.068 nm)	-0.09891	ug/L	0.11715	> 100.00	-93.58171	-0.09891 (ug/L)
Al (236.705 nm)	-2.27603	ug/L	6.89925	> 100.00	61.66579	-2.27603 (ug/L)
As (188.980 nm)	2.60915	ug/L	5.81102	> 100.00	-6.54789	2.60915 (ug/L)
B (249.772 nm)	13.54035	ug/L	2.52466	18.65	267.32152	13.54035 (ug/L)
Ba (230.424 nm)	-0.02675	ug/L	0.38949	> 100.00	-5.14058	-0.02675 (ug/L)
Be (313.107 nm)	0.01990	ug/L	0.02113	> 100.00	16.42405	0.01990 (ug/L)
Bi (223.061 nm)	2.13855	ug/L	2.79110	> 100.00	-34.52510	2.13855 (ug/L)
Ca (317.933 nm)	0.58869	ug/L	0.85036	> 100.00	-24.38247	0.58869 (ug/L)
Cd (214.439 nm)	0.32598	ug/L	0.08317	25.52	-2.97506	0.32598 (ug/L)
Co (228.615 nm)	0.21205	ug/L	0.59934	> 100.00	-8.28867	0.21205 (ug/L)
Cr (205.560 nm)	0.34399	ug/L	0.74484	> 100.00	-1.22885	0.34399 (ug/L)
Cu (224.700 nm)	4.26727	ug/L	2.20139	51.59	-6.63143	4.26727 (ug/L)
Fe (261.382 nm)	0.64354	ug/L	1.47897	> 100.00	49.02711	0.64354 (ug/L)
K (766.491 nm)	0.07954	ug/L	11.22183	> 100.00	-152.27426	0.07954 (ug/L)
Li (610.365 nm)	-1.55050	ug/L	1.04286	67.26	-4686.17356	-1.55050 (ug/L)
Mg (279.078 nm)	3.66012	ug/L	3.17724	86.81	33.62107	3.66012 (ug/L)
Mn (260.568 nm)	0.21255	ug/L	0.18784	88.38	4.70250	0.21255 (ug/L)
Mo (202.032 nm)	2.46890	ug/L	0.57457	23.27	10.14174	2.46890 (ug/L)
Na (588.995 nm)	-16.34176	ug/L	1.41796	8.68	23762.89833	-16.34176 (ug/L)
Ni (231.604 nm)	0.44881	ug/L	0.83474	> 100.00	-2.81845	0.44881 (ug/L)
P (178.222 nm)	8.26465	ug/L	9.97545	> 100.00	3.31652	8.26465 (ug/L)
Pb (220.353 nm)	-2.01782	ug/L	1.73516	85.99	-0.25983	-2.01782 (ug/L)
Pt (203.646 nm)	-1.66024	ug/L	3.70371	> 100.00	-0.29667	-1.66024 (ug/L)
Sb (206.834 nm)	1.64152	ug/L	2.61408	> 100.00	-7.35677	1.64152 (ug/L)
Se (196.026 nm)	1.65397	ug/L	1.88147	> 100.00	3.90450	1.65397 (ug/L)
Si (251.611 nm)	-5.75874	ug/L	1.42067	24.67	11.75761	-5.75874 (ug/L)
Sn (189.925 nm)	-1.42622	ug/L	0.38590	27.06	-6.10878	-1.42622 (ug/L)
Sr (421.552 nm)	0.07364	ug/L	0.06545	88.88	169.21690	0.07364 (ug/L)
Te (214.282 nm)	3.58796	ug/L	3.23286	90.10	-3.46232	3.58796 (ug/L)
Ti (334.941 nm)	0.15421	ug/L	0.11132	72.19	-31.68960	0.15421 (ug/L)
Tl (190.807 nm)	-2.44343	ug/L	5.34310	> 100.00	-3.64016	-2.44343 (ug/L)
U (409.013 nm)	-0.73320	ug/L	3.21688	> 100.00	177.32583	-0.73320 (ug/L)
V (292.401 nm)	0.32996	ug/L	0.52027	> 100.00	-13.26602	0.32996 (ug/L)

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Calculated Concentration
W (207.912 nm)	1.69891	ug/L	1.35117	79.53	8.33253	1.69891 (ug/L)
Y (371.029 nm)	0.06898	ug/L	0.03758	54.48	11.87239	0.06898 (ug/L)
Zn (206.200 nm)	0.24270	ug/L	0.27669	> 100.00	-1.03000	0.24270 (ug/L)
Zr (343.823 nm)	0.86017	ug/L	0.09312	10.83	147.44491	0.86017 (ug/L)

Label	Internal Standard
Ag (328.068 nm)	Sc-A
Al (236.705 nm)	Sc-A
As (188.980 nm)	Sc-A
B (249.772 nm)	Sc-A
Ba (230.424 nm)	Sc-A
Be (313.107 nm)	Sc-A
Bi (223.061 nm)	Sc-A
Ca (317.933 nm)	Sc-A
Cd (214.439 nm)	Sc-A
Co (228.615 nm)	Sc-A
Cr (205.560 nm)	Sc-A
Cu (224.700 nm)	Sc-A
Fe (261.382 nm)	Sc-A
K (766.491 nm)	Sc-R
Li (610.365 nm)	Sc-R
Mg (279.078 nm)	Sc-A
Mn (260.568 nm)	Sc-A
Mo (202.032 nm)	Sc-A
Na (588.995 nm)	Sc-R
Ni (231.604 nm)	Sc-A
P (178.222 nm)	Sc-A
Pb (220.353 nm)	Sc-A
Pt (203.646 nm)	Sc-A
Sb (206.834 nm)	Sc-A
Se (196.026 nm)	Sc-A
Si (251.611 nm)	Sc-A
Sn (189.925 nm)	Sc-A
Sr (421.552 nm)	Sc-A
Te (214.282 nm)	Sc-A
Ti (334.941 nm)	Sc-A
Tl (190.807 nm)	Sc-A
U (409.013 nm)	Sc-A
V (292.401 nm)	Sc-A
W (207.912 nm)	Sc-A
Y (371.029 nm)	Sc-A
Zn (206.200 nm)	Sc-A
Zr (343.823 nm)	Sc-A

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Sc-A	1.00	411455.81	0.00	0.08
Sc-R	1.00	46781.54	0.00	0.11

Replicates Concentration

Label	Replicate 1	Replicate 2	Replicate 3	Units
Ag (328.068 nm)	-0.15178 u	-0.18029 u	0.03536	ug/L
Al (236.705 nm)	-10.13695 u	0.53455	2.77432	ug/L
As (188.980 nm)	8.80499	-2.71961 u	1.74206	ug/L
B (249.772 nm)	16.12415	13.41758	11.07931	ug/L
Ba (230.424 nm)	-0.46702 u	0.11390	0.27287	ug/L
Be (313.107 nm)	0.02534	-0.00342 u	0.03777	ug/L
Bi (223.061 nm)	0.47379	5.36084	0.58102	ug/L
Ca (317.933 nm)	0.19901	0.00300	1.56406	ug/L
Cd (214.439 nm)	0.32631	0.40899	0.24264	ug/L
Co (228.615 nm)	-0.09499 u	-0.17156 u	0.90269	ug/L
Cr (205.560 nm)	0.95805	-0.48456 u	0.55848	ug/L
Cu (224.700 nm)	3.08592	2.90875	6.80716	ug/L
Fe (261.382 nm)	-0.70510 u	0.41054	2.22518	ug/L
K (766.491 nm)	7.08965	6.01236	-12.86338 u	ug/L
Li (610.365 nm)	-0.35399 u	-2.03117 u	-2.26633 u	ug/L
Mg (279.078 nm)	0.52380	6.87676	3.57981	ug/L
Mn (260.568 nm)	0.15331	0.06147	0.42287	ug/L
Mo (202.032 nm)	1.97258	3.09834	2.33576	ug/L
Na (588.995 nm)	-17.61365 u	-14.81287 u	-16.59876 u	ug/L
Ni (231.604 nm)	1.40997	0.03085	-0.09439 u	ug/L
P (178.222 nm)	18.97280	6.58631	-0.76518 u	ug/L
Pb (220.353 nm)	-0.22424 u	-2.14126 u	-3.68797 u	ug/L
Pt (203.646 nm)	-2.37068 u	-4.95727 u	2.34722	ug/L
Sb (206.834 nm)	0.92002	-0.53604 u	4.54058	ug/L
Se (196.026 nm)	1.91181	-0.34312 u	3.39322	ug/L
Si (251.611 nm)	-7.28338 u	-4.47211 u	-5.52074 u	ug/L
Sn (189.925 nm)	-1.71936 u	-0.98902 u	-1.57028 u	ug/L
Sr (421.552 nm)	0.03981	0.03202	0.14908	ug/L
Te (214.282 nm)	7.31105	1.96171	1.49112	ug/L
Ti (334.941 nm)	0.07113	0.11081	0.28070	ug/L
Tl (190.807 nm)	-8.61145 u	0.51645	0.76470	ug/L
U (409.013 nm)	-0.65301 u	2.44284	-3.98941 u	ug/L
V (292.401 nm)	0.11866	-0.05141 u	0.92264	ug/L
W (207.912 nm)	1.26233	0.62001	3.21439	ug/L
Y (371.029 nm)	0.10112	0.02766	0.07817	ug/L
Zn (206.200 nm)	0.19874	0.53873	-0.00938 u	ug/L
Zr (343.823 nm)	0.81487	0.79836	0.96727	ug/L
Sc-A (361.383 nm)	1.00	1.00	1.00	Ratio
Sc-R (503.102 nm)	1.00	1.00	1.00	Ratio

Sample Name: 2218903002

Date: 7/14/2022 10:55:39 Rack:Tube: 1:17

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Calculated Concentration
Ag (328.068 nm)	0.68680	ug/L	0.28073	40.87	-52.90624	0.68680 (ug/L)
Al (236.705 nm)	91.16023	ug/L	4.18447	4.59	118.39079	91.16023 (ug/L)
As (188.980 nm)	3.12316	ug/L	4.46970	> 100.00	-6.28924	3.12316 (ug/L)
B (249.772 nm)	6.95094	ug/L	0.53775	7.74	164.78257	6.95094 (ug/L)
Ba (230.424 nm)	7.16576	ug/L	0.29691	4.14	125.55764	7.16576 (ug/L)
Be (313.107 nm)	0.01831	ug/L	0.01073	58.62	15.51157	0.01831 (ug/L)
Bi (223.061 nm)	-1.33295	ug/L	2.15807	> 100.00	-39.81316	-1.33295 (ug/L)
Ca (317.933 nm)	322.85079	ug/L	3.63428	1.13	5486.31751	322.85079 (ug/L)
Cd (214.439 nm)	0.38545	ug/L	0.34532	89.59	-2.18625	0.38545 (ug/L)
Co (228.615 nm)	0.11179	ug/L	0.57883	> 100.00	-8.82546	0.11179 (ug/L)
Cr (205.560 nm)	10.53081	ug/L	0.21789	2.07	57.21485	10.53081 (ug/L)
Cu (224.700 nm)	11.61084	ug/L	1.84614	15.90	0.74108	11.61084 (ug/L)
Fe (261.382 nm)	140.41653	ug/L	3.16628	2.25	423.09322	140.41653 (ug/L)
K (766.491 nm)	48.74968	ug/L	7.12642	14.62	-52.81133	48.74968 (ug/L)
Li (610.365 nm)	14.39141	ug/L	2.68032	18.62	-4509.56916	14.39141 (ug/L)
Mg (279.078 nm)	32.85470	ug/L	2.08953	6.36	79.78425	32.85470 (ug/L)
Mn (260.568 nm)	3.68858	ug/L	0.17659	4.79	65.43874	3.68858 (ug/L)
Mo (202.032 nm)	0.96037	ug/L	0.96690	> 100.00	3.03414	0.96037 (ug/L)
Na (588.995 nm)	234.05509	ug/L	5.58912	2.39	29685.86659	234.05509 (ug/L)
Ni (231.604 nm)	1.73893	ug/L	0.54169	31.15	0.21679	1.73893 (ug/L)
P (178.222 nm)	34.09129	ug/L	15.81782	46.40	5.80008	34.09129 (ug/L)
Pb (220.353 nm)	5.19864	ug/L	1.02226	19.66	8.21589	5.19864 (ug/L)
Pt (203.646 nm)	3.48036	ug/L	0.18079	5.19	4.68277	3.48036 (ug/L)
Sb (206.834 nm)	2.55117	ug/L	1.92813	75.58	-6.46475	2.55117 (ug/L)
Se (196.026 nm)	8.46572	ug/L	2.83655	33.51	7.94592	8.46572 (ug/L)
Si (251.611 nm)	45.05622	ug/L	1.74753	3.88	83.42434	45.05622 (ug/L)
Sn (189.925 nm)	2.90881	ug/L	3.10657	> 100.00	-2.86797	2.90881 (ug/L)
Sr (421.552 nm)	2.08096	ug/L	0.05507	2.65	4270.02843	2.08096 (ug/L)
Te (214.282 nm)	2.83679	ug/L	10.99378	> 100.00	-3.84756	2.83679 (ug/L)
Ti (334.941 nm)	4.04751	ug/L	0.18565	4.59	750.19730	4.04751 (ug/L)
Tl (190.807 nm)	14.80591	ug/L	1.48768	10.05	5.50530	14.80591 (ug/L)
U (409.013 nm)	-2.40366	ug/L	1.41219	58.75	168.57827	-2.40366 (ug/L)
V (292.401 nm)	0.36060	ug/L	0.13372	37.08	-12.78696	0.36060 (ug/L)
W (207.912 nm)	2.90499	ug/L	1.08876	37.48	11.25237	2.90499 (ug/L)
Y (371.029 nm)	0.06746	ug/L	0.03225	47.80	11.55633	0.06746 (ug/L)
Zn (206.200 nm)	141.72533	ug/L	2.19669	1.55	249.23488	141.72533 (ug/L)
Zr (343.823 nm)	1.28235	ug/L	0.12824	10.00	174.55581	1.28235 (ug/L)

Label	Internal Standard
Ag (328.068 nm)	Sc-A
Al (236.705 nm)	Sc-A
As (188.980 nm)	Sc-A
B (249.772 nm)	Sc-A
Ba (230.424 nm)	Sc-A
Be (313.107 nm)	Sc-A
Bi (223.061 nm)	Sc-A
Ca (317.933 nm)	Sc-A

Label	Internal Standard
Cd (214.439 nm)	Sc-A
Co (228.615 nm)	Sc-A
Cr (205.560 nm)	Sc-A
Cu (224.700 nm)	Sc-A
Fe (261.382 nm)	Sc-A
K (766.491 nm)	Sc-R
Li (610.365 nm)	Sc-R
Mg (279.078 nm)	Sc-A
Mn (260.568 nm)	Sc-A
Mo (202.032 nm)	Sc-A
Na (588.995 nm)	Sc-R
Ni (231.604 nm)	Sc-A
P (178.222 nm)	Sc-A
Pb (220.353 nm)	Sc-A
Pt (203.646 nm)	Sc-A
Sb (206.834 nm)	Sc-A
Se (196.026 nm)	Sc-A
Si (251.611 nm)	Sc-A
Sn (189.925 nm)	Sc-A
Sr (421.552 nm)	Sc-A
Te (214.282 nm)	Sc-A
Ti (334.941 nm)	Sc-A
Tl (190.807 nm)	Sc-A
U (409.013 nm)	Sc-A
V (292.401 nm)	Sc-A
W (207.912 nm)	Sc-A
Y (371.029 nm)	Sc-A
Zn (206.200 nm)	Sc-A
Zr (343.823 nm)	Sc-A

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Sc-A	1.02	419271.03	0.01	0.60
Sc-R	1.01	47580.06	0.00	0.46

Replicates Concentration

Label	Replicate 1	Replicate 2	Replicate 3	Units
Ag (328.068 nm)	0.36799	0.79542	0.89699	ug/L
Al (236.705 nm)	87.64637	90.04499	95.78933	ug/L
As (188.980 nm)	-1.51346 u	3.47817	7.40477	ug/L
B (249.772 nm)	7.47435	6.97856	6.39992	ug/L
Ba (230.424 nm)	6.83305	7.26044	7.40378	ug/L
Be (313.107 nm)	0.02332	0.02562	0.00599	ug/L
Bi (223.061 nm)	0.20979	-0.40955 u	-3.79908 u	ug/L
Ca (317.933 nm)	319.11323	323.06698	326.37215	ug/L
Cd (214.439 nm)	0.77681	0.12367	0.25586	ug/L
Co (228.615 nm)	-0.34871 u	0.76156	-0.07749 u	ug/L

Label	Replicate 1	Replicate 2	Replicate 3	Units
Cr (205.560 nm)	10.78133	10.38542	10.42568	ug/L
Cu (224.700 nm)	13.72372	10.30936	10.79945	ug/L
Fe (261.382 nm)	136.76260	142.35301	142.13396	ug/L
K (766.491 nm)	56.21094	42.01353	48.02457	ug/L
Li (610.365 nm)	13.89633	11.99314	17.28476	ug/L
Mg (279.078 nm)	34.65731	33.34231	30.56447	ug/L
Mn (260.568 nm)	3.49128	3.83183	3.74263	ug/L
Mo (202.032 nm)	0.78967	0.09018	2.00125	ug/L
Na (588.995 nm)	234.72652	239.27816	228.16058	ug/L
Ni (231.604 nm)	1.21274	2.29490	1.70915	ug/L
P (178.222 nm)	40.02906	16.16378	46.08103	ug/L
Pb (220.353 nm)	4.06317	6.04576	5.48699	ug/L
Pt (203.646 nm)	3.67932	3.32614	3.43562	ug/L
Sb (206.834 nm)	3.32568	0.35621	3.97162	ug/L
Se (196.026 nm)	9.56526	10.58789	5.24400	ug/L
Si (251.611 nm)	44.06447	44.03019	47.07400	ug/L
Sn (189.925 nm)	0.55843	6.43083	1.73718	ug/L
Sr (421.552 nm)	2.03550	2.06518	2.14219	ug/L
Te (214.282 nm)	-2.61321 u	-4.36727 u	15.49086	ug/L
Ti (334.941 nm)	3.90537	3.97961	4.25754	ug/L
Tl (190.807 nm)	14.86847	16.26133	13.28793	ug/L
U (409.013 nm)	-2.00712 u	-3.97174 u	-1.23214 u	ug/L
V (292.401 nm)	0.33981	0.50350	0.23849	ug/L
W (207.912 nm)	3.54705	1.64789	3.52003	ug/L
Y (371.029 nm)	0.03385	0.09814	0.07041	ug/L
Zn (206.200 nm)	139.19891	142.79276	143.18433	ug/L
Zr (343.823 nm)	1.16322	1.26574	1.41809	ug/L
Sc-A (361.383 nm)	1.01	1.02	1.03	Ratio
Sc-R (503.102 nm)	1.01	1.01	1.02	Ratio

Sample Name: 2218903003

Date: 7/14/2022 10:57:19 Rack:Tube: 1:18

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Calculated Concentration
Ag (328.068 nm)	0.60767	ug/L	0.01099	1.81	-57.17478	0.60767 (ug/L)
Al (236.705 nm)	21.34004	ug/L	1.28921	6.04	75.99097	21.34004 (ug/L)
As (188.980 nm)	4.67942	ug/L	1.93970	41.45	-5.51304	4.67942 (ug/L)
B (249.772 nm)	3.43333	ug/L	0.09171	2.67	108.33184	3.43333 (ug/L)
Ba (230.424 nm)	1.49734	ug/L	0.12317	8.23	22.45902	1.49734 (ug/L)
Be (313.107 nm)	0.01388	ug/L	0.00537	38.72	12.23563	0.01388 (ug/L)
Bi (223.061 nm)	-0.60522	ug/L	1.27122	> 100.00	-38.68513	-0.60522 (ug/L)
Ca (317.933 nm)	280.66322	ug/L	5.35674	1.91	4764.84329	280.66322 (ug/L)
Cd (214.439 nm)	0.28853	ug/L	0.32277	> 100.00	-3.29995	0.28853 (ug/L)
Co (228.615 nm)	0.50166	ug/L	0.69101	> 100.00	-6.53495	0.50166 (ug/L)
Cr (205.560 nm)	9.20486	ug/L	0.22914	2.49	49.63447	9.20486 (ug/L)
Cu (224.700 nm)	0.23628	ug/L	4.77769	> 100.00	-10.63914	0.23628 (ug/L)
Fe (261.382 nm)	25.81900	ug/L	0.88887	3.44	116.27733	25.81900 (ug/L)

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Calculated Concentration
K (766.491 nm)	34.13873	ug/L	12.85835	37.67	-82.64124	34.13873 (ug/L)
Li (610.365 nm)	17.28533	ug/L	2.13053	12.33	-4475.84912	17.28533 (ug/L)
Mg (279.078 nm)	26.10489	ug/L	2.60304	9.97	69.14979	26.10489 (ug/L)
Mn (260.568 nm)	1.27035	ug/L	0.23057	18.15	23.20243	1.27035 (ug/L)
Mo (202.032 nm)	0.24813	ug/L	0.50097	> 100.00	-0.29895	0.24813 (ug/L)
Na (588.995 nm)	196.94129	ug/L	6.39573	3.25	28807.96481	196.94129 (ug/L)
Ni (231.604 nm)	-0.09595	ug/L	0.47651	> 100.00	-4.07924	-0.09595 (ug/L)
P (178.222 nm)	46.29531	ug/L	15.01849	32.44	6.97365	46.29531 (ug/L)
Pb (220.353 nm)	1.67290	ug/L	4.16439	> 100.00	4.07942	1.67290 (ug/L)
Pt (203.646 nm)	0.12963	ug/L	2.61041	> 100.00	1.27963	0.12963 (ug/L)
Sb (206.834 nm)	-2.51011	ug/L	4.53181	> 100.00	-11.01091	-2.51011 (ug/L)
Se (196.026 nm)	10.21271	ug/L	5.28974	51.80	8.98934	10.21271 (ug/L)
Si (251.611 nm)	42.60565	ug/L	0.54201	1.27	79.96102	42.60565 (ug/L)
Sn (189.925 nm)	0.11226	ug/L	2.89315	> 100.00	-4.95864	0.11226 (ug/L)
Sr (421.552 nm)	1.44856	ug/L	0.02070	1.43	2978.09478	1.44856 (ug/L)
Te (214.282 nm)	-1.85375	ug/L	4.10914	> 100.00	-6.29560	-1.85375 (ug/L)
Ti (334.941 nm)	0.73312	ug/L	0.04953	6.76	84.26034	0.73312 (ug/L)
Tl (190.807 nm)	19.53257	ug/L	3.19324	16.35	7.92894	19.53257 (ug/L)
U (409.013 nm)	-3.89771	ug/L	3.03253	77.80	160.48752	-3.89771 (ug/L)
V (292.401 nm)	0.03648	ug/L	0.26109	> 100.00	-20.85824	0.03648 (ug/L)
W (207.912 nm)	1.46907	ug/L	2.89615	> 100.00	8.11602	1.46907 (ug/L)
Y (371.029 nm)	0.00789	ug/L	0.02396	> 100.00	1.74855	0.00789 (ug/L)
Zn (206.200 nm)	8.13686	ug/L	1.48582	18.26	12.95783	8.13686 (ug/L)
Zr (343.823 nm)	0.54606	ug/L	0.14760	27.03	127.57795	0.54606 (ug/L)

Label	Internal Standard
Ag (328.068 nm)	Sc-A
Al (236.705 nm)	Sc-A
As (188.980 nm)	Sc-A
B (249.772 nm)	Sc-A
Ba (230.424 nm)	Sc-A
Be (313.107 nm)	Sc-A
Bi (223.061 nm)	Sc-A
Ca (317.933 nm)	Sc-A
Cd (214.439 nm)	Sc-A
Co (228.615 nm)	Sc-A
Cr (205.560 nm)	Sc-A
Cu (224.700 nm)	Sc-A
Fe (261.382 nm)	Sc-A
K (766.491 nm)	Sc-R
Li (610.365 nm)	Sc-R
Mg (279.078 nm)	Sc-A
Mn (260.568 nm)	Sc-A
Mo (202.032 nm)	Sc-A
Na (588.995 nm)	Sc-R
Ni (231.604 nm)	Sc-A
P (178.222 nm)	Sc-A
Pb (220.353 nm)	Sc-A

Label	Internal Standard
Pt (203.646 nm)	Sc-A
Sb (206.834 nm)	Sc-A
Se (196.026 nm)	Sc-A
Si (251.611 nm)	Sc-A
Sn (189.925 nm)	Sc-A
Sr (421.552 nm)	Sc-A
Te (214.282 nm)	Sc-A
Ti (334.941 nm)	Sc-A
Tl (190.807 nm)	Sc-A
U (409.013 nm)	Sc-A
V (292.401 nm)	Sc-A
W (207.912 nm)	Sc-A
Y (371.029 nm)	Sc-A
Zn (206.200 nm)	Sc-A
Zr (343.823 nm)	Sc-A

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Sc-A	1.02	420230.34	0.00	0.10
Sc-R	1.02	47665.27	0.00	0.24

Replicates Concentration

Label	Replicate 1	Replicate 2	Replicate 3	Units
Ag (328.068 nm)	0.59537	0.61116	0.61650	ug/L
Al (236.705 nm)	22.51473	19.96078	21.54460	ug/L
As (188.980 nm)	6.67251	4.56782	2.79793	ug/L
B (249.772 nm)	3.33640	3.51873	3.44487	ug/L
Ba (230.424 nm)	1.41941	1.43326	1.63934	ug/L
Be (313.107 nm)	0.00898	0.01304	0.01963	ug/L
Bi (223.061 nm)	-0.89068 u	-1.70945 u	0.78446	ug/L
Ca (317.933 nm)	275.14378	281.00498	285.84089	ug/L
Cd (214.439 nm)	-0.05790 u	0.34272	0.58078	ug/L
Co (228.615 nm)	1.15217	0.57658	-0.22376 u	ug/L
Cr (205.560 nm)	9.35054	8.94073	9.32329	ug/L
Cu (224.700 nm)	2.05800	-5.18427 u	3.83512	ug/L
Fe (261.382 nm)	25.85035	26.69179	24.91487	ug/L
K (766.491 nm)	25.30492	48.89053	28.22075	ug/L
Li (610.365 nm)	19.12671	17.77750	14.95178	ug/L
Mg (279.078 nm)	24.86237	29.09637	24.35594	ug/L
Mn (260.568 nm)	1.52757	1.08223	1.20126	ug/L
Mo (202.032 nm)	-0.28694 u	0.70603	0.32532	ug/L
Na (588.995 nm)	190.49647	197.04062	203.28678	ug/L
Ni (231.604 nm)	-0.26949 u	-0.46137 u	0.44301	ug/L
P (178.222 nm)	59.10060	29.76480	50.02051	ug/L
Pb (220.353 nm)	5.16018	2.79654	-2.93803 u	ug/L
Pt (203.646 nm)	-2.74023 u	0.76635	2.36277	ug/L
Sb (206.834 nm)	-4.54344 u	2.68227	-5.66914 u	ug/L

Label	Replicate 1	Replicate 2	Replicate 3	Units
Se (196.026 nm)	10.16842	4.94526	15.52447	ug/L
Si (251.611 nm)	42.03134	43.10822	42.67739	ug/L
Sn (189.925 nm)	-3.15530 u	1.14386	2.34821	ug/L
Sr (421.552 nm)	1.42641	1.45188	1.46740	ug/L
Te (214.282 nm)	1.76803	-6.31926 u	-1.01001 u	ug/L
Ti (334.941 nm)	0.68522	0.78413	0.73001	ug/L
Tl (190.807 nm)	18.46689	17.00844	23.12237	ug/L
U (409.013 nm)	-2.13344 u	-2.16034 u	-7.39934 u	ug/L
V (292.401 nm)	-0.26172 u	0.22403	0.14712	ug/L
W (207.912 nm)	2.23974	3.90193	-1.73446 u	ug/L
Y (371.029 nm)	0.03010	-0.01750 u	0.01107	ug/L
Zn (206.200 nm)	6.51359	9.42955	8.46744	ug/L
Zr (343.823 nm)	0.41698	0.51421	0.70698	ug/L
Sc-A (361.383 nm)	1.02	1.02	1.02	Ratio
Sc-R (503.102 nm)	1.01	1.01	1.02	Ratio

Sample Name: 2218903004

Date: 7/14/2022 10:59:00 Rack:Tube: 1:19

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Calculated Concentration
Ag (328.068 nm)	0.22372	ug/L	0.14504	64.83	-77.02133	0.22372 (ug/L)
Al (236.705 nm)	62.79747	ug/L	3.33187	5.31	101.16982	62.79747 (ug/L)
As (188.980 nm)	1.91722	ug/L	4.71928	> 100.00	-6.89178	1.91722 (ug/L)
B (249.772 nm)	3.17276	ug/L	0.21713	6.84	104.43414	3.17276 (ug/L)
Ba (230.424 nm)	1.76088	ug/L	0.23596	13.40	27.24331	1.76088 (ug/L)
Be (313.107 nm)	0.01069	ug/L	0.00573	53.56	9.98240	0.01069 (ug/L)
Bi (223.061 nm)	0.12424	ug/L	0.76277	> 100.00	-37.64644	0.12424 (ug/L)
Ca (317.933 nm)	173.23823	ug/L	3.38904	1.96	2927.88698	173.23823 (ug/L)
Cd (214.439 nm)	0.12254	ug/L	0.27723	> 100.00	-4.94021	0.12254 (ug/L)
Co (228.615 nm)	0.00043	ug/L	0.56903	> 100.00	-9.44787	0.00043 (ug/L)
Cr (205.560 nm)	11.95379	ug/L	0.34157	2.86	65.40736	11.95379 (ug/L)
Cu (224.700 nm)	1.35450	ug/L	2.69587	> 100.00	-9.50859	1.35450 (ug/L)
Fe (261.382 nm)	48.69812	ug/L	1.16601	2.39	177.56569	48.69812 (ug/L)
K (766.491 nm)	16.51078	ug/L	9.86663	59.76	-118.68981	16.51078 (ug/L)
Li (610.365 nm)	23.23323	ug/L	4.68939	20.18	-4406.07454	23.23323 (ug/L)
Mg (279.078 nm)	32.27256	ug/L	4.02273	12.46	78.88949	32.27256 (ug/L)
Mn (260.568 nm)	2.99540	ug/L	0.12886	4.30	53.33195	2.99540 (ug/L)
Mo (202.032 nm)	0.16274	ug/L	0.36843	> 100.00	-0.70263	0.16274 (ug/L)
Na (588.995 nm)	210.04605	ug/L	10.88191	5.18	29117.94905	210.04605 (ug/L)
Ni (231.604 nm)	0.49485	ug/L	0.91422	> 100.00	-2.69171	0.49485 (ug/L)
P (178.222 nm)	45.00501	ug/L	24.32386	54.05	6.84957	45.00501 (ug/L)
Pb (220.353 nm)	-0.10926	ug/L	1.24091	> 100.00	1.98538	-0.10926 (ug/L)
Pt (203.646 nm)	3.34049	ug/L	0.87052	26.06	3.97480	3.34049 (ug/L)
Sb (206.834 nm)	0.50024	ug/L	3.16746	> 100.00	-8.29307	0.50024 (ug/L)
Se (196.026 nm)	5.65547	ug/L	1.93897	34.28	6.27178	5.65547 (ug/L)
Si (251.611 nm)	25.67998	ug/L	2.27512	8.86	56.06726	25.67998 (ug/L)
Sn (189.925 nm)	1.78377	ug/L	0.70367	39.45	-3.70904	1.78377 (ug/L)

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Calculated Concentration
Sr (421.552 nm)	1.16576	ug/L	0.02134	1.83	2400.34605	1.16576 (ug/L)
Te (214.282 nm)	2.69866	ug/L	3.13186	> 100.00	-3.91964	2.69866 (ug/L)
Ti (334.941 nm)	6.21013	ug/L	0.09586	1.54	1184.81281	6.21013 (ug/L)
Tl (190.807 nm)	23.18217	ug/L	11.09053	47.84	9.81821	23.18217 (ug/L)
U (409.013 nm)	-3.22949	ug/L	0.69533	21.53	164.06830	-3.22949 (ug/L)
V (292.401 nm)	0.29684	ug/L	0.12775	43.04	-14.18972	0.29684 (ug/L)
W (207.912 nm)	0.03232	ug/L	1.07441	> 100.00	7.15765	0.03232 (ug/L)
Y (371.029 nm)	0.02481	ug/L	0.02172	87.56	4.46297	0.02481 (ug/L)
Zn (206.200 nm)	98.21869	ug/L	1.90163	1.94	172.28866	98.21869 (ug/L)
Zr (343.823 nm)	0.50665	ug/L	0.05381	10.62	125.07581	0.50665 (ug/L)

Label	Internal Standard
Ag (328.068 nm)	Sc-A
Al (236.705 nm)	Sc-A
As (188.980 nm)	Sc-A
B (249.772 nm)	Sc-A
Ba (230.424 nm)	Sc-A
Be (313.107 nm)	Sc-A
Bi (223.061 nm)	Sc-A
Ca (317.933 nm)	Sc-A
Cd (214.439 nm)	Sc-A
Co (228.615 nm)	Sc-A
Cr (205.560 nm)	Sc-A
Cu (224.700 nm)	Sc-A
Fe (261.382 nm)	Sc-A
K (766.491 nm)	Sc-R
Li (610.365 nm)	Sc-R
Mg (279.078 nm)	Sc-A
Mn (260.568 nm)	Sc-A
Mo (202.032 nm)	Sc-A
Na (588.995 nm)	Sc-R
Ni (231.604 nm)	Sc-A
P (178.222 nm)	Sc-A
Pb (220.353 nm)	Sc-A
Pt (203.646 nm)	Sc-A
Sb (206.834 nm)	Sc-A
Se (196.026 nm)	Sc-A
Si (251.611 nm)	Sc-A
Sn (189.925 nm)	Sc-A
Sr (421.552 nm)	Sc-A
Te (214.282 nm)	Sc-A
Ti (334.941 nm)	Sc-A
Tl (190.807 nm)	Sc-A
U (409.013 nm)	Sc-A
V (292.401 nm)	Sc-A
W (207.912 nm)	Sc-A
Y (371.029 nm)	Sc-A
Zn (206.200 nm)	Sc-A

Label	Internal Standard
Zr (343.823 nm)	Sc-A

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Sc-A	1.02	421352.11	0.00	0.17
Sc-R	1.02	47816.48	0.00	0.17

Replicates Concentration

Label	Replicate 1	Replicate 2	Replicate 3	Units
Ag (328.068 nm)	0.34354	0.26515	0.06247	ug/L
Al (236.705 nm)	59.11420	63.67655	65.60166	ug/L
As (188.980 nm)	-3.42953 u	5.50209	3.67909	ug/L
B (249.772 nm)	3.39104	3.17042	2.95681	ug/L
Ba (230.424 nm)	1.94028	1.49359	1.84876	ug/L
Be (313.107 nm)	0.00559	0.01689	0.00960	ug/L
Bi (223.061 nm)	-0.48616 u	-0.12044 u	0.97933	ug/L
Ca (317.933 nm)	169.67224	173.62538	176.41706	ug/L
Cd (214.439 nm)	0.33444	0.22438	-0.19122 u	ug/L
Co (228.615 nm)	0.15404	0.47689	-0.62963 u	ug/L
Cr (205.560 nm)	11.78617	12.34678	11.72841	ug/L
Cu (224.700 nm)	2.64742	-1.74430 u	3.16038	ug/L
Fe (261.382 nm)	47.41404	49.69077	48.98954	ug/L
K (766.491 nm)	23.75764	20.50066	5.27403	ug/L
Li (610.365 nm)	27.80874	18.43771	23.45325	ug/L
Mg (279.078 nm)	27.64623	34.94641	34.22505	ug/L
Mn (260.568 nm)	2.94062	2.90297	3.14260	ug/L
Mo (202.032 nm)	-0.00551 u	-0.09153 u	0.58525	ug/L
Na (588.995 nm)	198.44965	211.65396	220.03454	ug/L
Ni (231.604 nm)	0.58341	-0.46042 u	1.36157	ug/L
P (178.222 nm)	63.56480	53.98164	17.46859	ug/L
Pb (220.353 nm)	-0.70698 u	1.31740	-0.93819 u	ug/L
Pt (203.646 nm)	4.34339	2.89773	2.78035	ug/L
Sb (206.834 nm)	4.02320	-0.41014 u	-2.11233 u	ug/L
Se (196.026 nm)	3.69220	7.56918	5.70504	ug/L
Si (251.611 nm)	24.03065	28.27551	24.73378	ug/L
Sn (189.925 nm)	1.83253	2.46180	1.05700	ug/L
Sr (421.552 nm)	1.14324	1.16835	1.18569	ug/L
Te (214.282 nm)	2.21607	-0.16389 u	6.04380	ug/L
Ti (334.941 nm)	6.09955	6.26136	6.26949	ug/L
Tl (190.807 nm)	32.14752	10.78011	26.61887	ug/L
U (409.013 nm)	-3.76285 u	-3.48255 u	-2.44308 u	ug/L
V (292.401 nm)	0.14935	0.37278	0.36838	ug/L
W (207.912 nm)	0.12268	-1.08441 u	1.05870	ug/L
Y (371.029 nm)	-0.00017 u	0.03536	0.03924	ug/L
Zn (206.200 nm)	96.67556	97.63739	100.34313	ug/L
Zr (343.823 nm)	0.47665	0.47453	0.56877	ug/L
Sc-A (361.383 nm)	1.02	1.02	1.03	Ratio

Label	Replicate 1	Replicate 2	Replicate 3	Units
Sc-R (503.102 nm)	1.02	1.02	1.02	Ratio

Sample Name: 2218903005

Date: 7/14/2022 11:00:40 Rack:Tube: 1:20

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Calculated Concentration
Ag (328.068 nm)	0.11811	ug/L	0.17978	> 100.00	-82.47920	0.11811 (ug/L)
Al (236.705 nm)	24.60367	ug/L	5.60529	22.78	77.96886	24.60367 (ug/L)
As (188.980 nm)	2.44797	ug/L	4.67301	> 100.00	-6.62684	2.44797 (ug/L)
B (249.772 nm)	1.22022	ug/L	0.10019	8.21	73.56720	1.22022 (ug/L)
Ba (230.424 nm)	1.50220	ug/L	0.11308	7.53	22.52311	1.50220 (ug/L)
Be (313.107 nm)	0.01897	ug/L	0.00793	41.80	15.94512	0.01897 (ug/L)
Bi (223.061 nm)	-0.16729	ug/L	3.50555	> 100.00	-38.07357	-0.16729 (ug/L)
Ca (317.933 nm)	150.80827	ug/L	3.41368	2.26	2544.28031	150.80827 (ug/L)
Cd (214.439 nm)	0.01264	ug/L	0.05198	> 100.00	-6.05945	0.01264 (ug/L)
Co (228.615 nm)	0.16884	ug/L	0.37542	> 100.00	-8.46899	0.16884 (ug/L)
Cr (205.560 nm)	9.37518	ug/L	0.54638	5.83	50.61064	9.37518 (ug/L)
Cu (224.700 nm)	-0.52160	ug/L	0.90421	> 100.00	-11.39880	-0.52160 (ug/L)
Fe (261.382 nm)	36.73585	ug/L	1.84689	5.03	145.58176	36.73585 (ug/L)
K (766.491 nm)	32.27439	ug/L	3.97114	12.30	-86.45360	32.27439 (ug/L)
Li (610.365 nm)	31.02554	ug/L	3.83337	12.36	-4316.75121	31.02554 (ug/L)
Mg (279.078 nm)	32.44618	ug/L	2.42123	7.46	79.15572	32.44618 (ug/L)
Mn (260.568 nm)	2.83606	ug/L	0.16610	5.86	50.54168	2.83606 (ug/L)
Mo (202.032 nm)	-0.11012	ug/L	0.94808	> 100.00	-1.98587	-0.11012 (ug/L)
Na (588.995 nm)	162.97319	ug/L	2.11700	1.30	28004.47222	162.97319 (ug/L)
Ni (231.604 nm)	0.77030	ug/L	1.21890	> 100.00	-2.05342	0.77030 (ug/L)
P (178.222 nm)	46.27040	ug/L	10.42868	22.54	6.97126	46.27040 (ug/L)
Pb (220.353 nm)	0.20293	ug/L	2.22810	> 100.00	2.35212	0.20293 (ug/L)
Pt (203.646 nm)	3.70934	ug/L	3.73033	> 100.00	4.18503	3.70934 (ug/L)
Sb (206.834 nm)	2.85707	ug/L	1.82099	63.74	-6.19897	2.85707 (ug/L)
Se (196.026 nm)	5.13404	ug/L	2.52739	49.23	5.96953	5.13404 (ug/L)
Si (251.611 nm)	21.50659	ug/L	1.02782	4.78	50.17149	21.50659 (ug/L)
Sn (189.925 nm)	4.14241	ug/L	4.36829	> 100.00	-1.94576	4.14241 (ug/L)
Sr (421.552 nm)	1.13092	ug/L	0.02411	2.13	2329.17061	1.13092 (ug/L)
Te (214.282 nm)	4.39520	ug/L	1.64978	37.54	-3.03658	4.39520 (ug/L)
Ti (334.941 nm)	4.15785	ug/L	0.09393	2.26	772.53021	4.15785 (ug/L)
Tl (190.807 nm)	14.17056	ug/L	11.91519	84.08	5.10108	14.17056 (ug/L)
U (409.013 nm)	-2.53125	ug/L	1.16706	46.11	167.77610	-2.53125 (ug/L)
V (292.401 nm)	0.68772	ug/L	0.22319	32.45	-4.03189	0.68772 (ug/L)
W (207.912 nm)	1.11213	ug/L	0.81949	73.69	8.55459	1.11213 (ug/L)
Y (371.029 nm)	-0.02418	ug/L	0.01649	68.19	-3.60758	-0.02418 (ug/L)
Zn (206.200 nm)	99.92767	ug/L	3.89166	3.89	175.30453	99.92767 (ug/L)
Zr (343.823 nm)	0.44637	ug/L	0.10051	22.52	121.23576	0.44637 (ug/L)

Label	Internal Standard
Ag (328.068 nm)	Sc-A
Al (236.705 nm)	Sc-A

Label	Internal Standard
As (188.980 nm)	Sc-A
B (249.772 nm)	Sc-A
Ba (230.424 nm)	Sc-A
Be (313.107 nm)	Sc-A
Bi (223.061 nm)	Sc-A
Ca (317.933 nm)	Sc-A
Cd (214.439 nm)	Sc-A
Co (228.615 nm)	Sc-A
Cr (205.560 nm)	Sc-A
Cu (224.700 nm)	Sc-A
Fe (261.382 nm)	Sc-A
K (766.491 nm)	Sc-R
Li (610.365 nm)	Sc-R
Mg (279.078 nm)	Sc-A
Mn (260.568 nm)	Sc-A
Mo (202.032 nm)	Sc-A
Na (588.995 nm)	Sc-R
Ni (231.604 nm)	Sc-A
P (178.222 nm)	Sc-A
Pb (220.353 nm)	Sc-A
Pt (203.646 nm)	Sc-A
Sb (206.834 nm)	Sc-A
Se (196.026 nm)	Sc-A
Si (251.611 nm)	Sc-A
Sn (189.925 nm)	Sc-A
Sr (421.552 nm)	Sc-A
Te (214.282 nm)	Sc-A
Ti (334.941 nm)	Sc-A
Tl (190.807 nm)	Sc-A
U (409.013 nm)	Sc-A
V (292.401 nm)	Sc-A
W (207.912 nm)	Sc-A
Y (371.029 nm)	Sc-A
Zn (206.200 nm)	Sc-A
Zr (343.823 nm)	Sc-A

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Sc-A	0.99	406582.59	0.00	0.33
Sc-R	0.98	46130.68	0.00	0.17

Replicates Concentration

Label	Replicate 1	Replicate 2	Replicate 3	Units
Ag (328.068 nm)	0.20076	-0.08813 u	0.24171	ug/L
Al (236.705 nm)	23.32687	19.74694	30.73722	ug/L
As (188.980 nm)	-2.03216 u	2.08356	7.29252	ug/L
B (249.772 nm)	1.32555	1.20898	1.12611	ug/L

Label	Replicate 1	Replicate 2	Replicate 3	Units
Ba (230.424 nm)	1.39850	1.48533	1.62276	ug/L
Be (313.107 nm)	0.02807	0.01364	0.01518	ug/L
Bi (223.061 nm)	-2.91932 u	-1.36200 u	3.77944	ug/L
Ca (317.933 nm)	146.86831	152.67453	152.88198	ug/L
Cd (214.439 nm)	0.05723	0.02513	-0.04445 u	ug/L
Co (228.615 nm)	0.37700	-0.26454 u	0.39407	ug/L
Cr (205.560 nm)	9.10889	9.01301	10.00365	ug/L
Cu (224.700 nm)	0.29783	-0.37095 u	-1.49167 u	ug/L
Fe (261.382 nm)	38.10977	37.46142	34.63636	ug/L
K (766.491 nm)	32.09446	36.33243	28.39627	ug/L
Li (610.365 nm)	32.02319	26.79198	34.26145	ug/L
Mg (279.078 nm)	33.13961	34.44504	29.75389	ug/L
Mn (260.568 nm)	2.65390	2.97912	2.87517	ug/L
Mo (202.032 nm)	0.85799	-1.03680 u	-0.15156 u	ug/L
Na (588.995 nm)	161.34852	162.20373	165.36731	ug/L
Ni (231.604 nm)	2.16953	-0.06096 u	0.20232	ug/L
P (178.222 nm)	35.19541	47.71329	55.90250	ug/L
Pb (220.353 nm)	2.62844	-1.75285 u	-0.26681 u	ug/L
Pt (203.646 nm)	3.02043	0.37148	7.73611	ug/L
Sb (206.834 nm)	4.72787	1.09034	2.75301	ug/L
Se (196.026 nm)	3.74917	3.60179	8.05118	ug/L
Si (251.611 nm)	20.32156	22.04268	22.15553	ug/L
Sn (189.925 nm)	5.04319	7.99008	-0.60606 u	ug/L
Sr (421.552 nm)	1.10543	1.13399	1.15335	ug/L
Te (214.282 nm)	2.79183	6.08777	4.30600	ug/L
Ti (334.941 nm)	4.09957	4.10777	4.26622	ug/L
Tl (190.807 nm)	0.41485	20.80924	21.28759	ug/L
U (409.013 nm)	-1.94407 u	-3.87529 u	-1.77438 u	ug/L
V (292.401 nm)	0.43178	0.84188	0.78949	ug/L
W (207.912 nm)	1.81162	0.21048	1.31429	ug/L
Y (371.029 nm)	-0.03780 u	-0.00585 u	-0.02888 u	ug/L
Zn (206.200 nm)	95.84228	100.34949	103.59124	ug/L
Zr (343.823 nm)	0.37518	0.56135	0.40258	ug/L
Sc-A (361.383 nm)	0.99	0.99	0.99	Ratio
Sc-R (503.102 nm)	0.98	0.98	0.98	Ratio

Sample Name: 2218903006

Date: 7/14/2022 11:02:21 Rack:Tube: 1:21

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Calculated Concentration
Ag (328.068 nm)	0.16342	ug/L	0.02487	15.22	-80.15141	0.16342 (ug/L)
Al (236.705 nm)	4.49108	ug/L	4.08320	90.92	65.75202	4.49108 (ug/L)
As (188.980 nm)	6.65799	ug/L	6.50790	97.75	-4.52554	6.65799 (ug/L)
B (249.772 nm)	-0.42953	ug/L	0.19678	45.81	47.35954	-0.42953 (ug/L)
Ba (230.424 nm)	1.02706	ug/L	0.17050	16.60	13.86519	1.02706 (ug/L)
Be (313.107 nm)	0.01252	ug/L	0.01112	88.86	10.77488	0.01252 (ug/L)
Bi (223.061 nm)	1.11819	ug/L	1.49158	> 100.00	-36.07258	1.11819 (ug/L)

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Calculated Concentration
Ca (317.933 nm)	133.77103	ug/L	2.44557	1.83	2253.02918	133.77103 (ug/L)
Cd (214.439 nm)	-0.10530	ug/L	0.19091	> 100.00	-7.32114	-0.10530 (ug/L)
Co (228.615 nm)	0.24847	ug/L	0.49292	> 100.00	-8.03309	0.24847 (ug/L)
Cr (205.560 nm)	9.87735	ug/L	0.40517	4.10	53.49365	9.87735 (ug/L)
Cu (224.700 nm)	4.82368	ug/L	3.18737	66.08	-6.05794	4.82368 (ug/L)
Fe (261.382 nm)	12.53963	ug/L	1.15473	9.21	80.73475	12.53963 (ug/L)
K (766.491 nm)	24.83701	ug/L	5.05137	20.34	-101.65788	24.83701 (ug/L)
Li (610.365 nm)	23.04322	ug/L	2.47482	10.74	-4407.63775	23.04322 (ug/L)
Mg (279.078 nm)	20.50009	ug/L	2.49619	12.18	60.24031	20.50009 (ug/L)
Mn (260.568 nm)	0.66959	ug/L	0.13326	19.90	12.72843	0.66959 (ug/L)
Mo (202.032 nm)	-0.56431	ug/L	0.74078	> 100.00	-4.11667	-0.56431 (ug/L)
Na (588.995 nm)	151.64352	ug/L	3.46001	2.28	27736.47672	151.64352 (ug/L)
Ni (231.604 nm)	0.48094	ug/L	1.90998	> 100.00	-2.72428	0.48094 (ug/L)
P (178.222 nm)	21.21727	ug/L	19.66207	92.67	4.56208	21.21727 (ug/L)
Pb (220.353 nm)	1.19576	ug/L	3.72928	> 100.00	3.52574	1.19576 (ug/L)
Pt (203.646 nm)	2.80462	ug/L	6.58569	> 100.00	3.31098	2.80462 (ug/L)
Sb (206.834 nm)	-0.36188	ug/L	2.77623	> 100.00	-9.08908	-0.36188 (ug/L)
Se (196.026 nm)	13.69998	ug/L	4.78690	34.94	11.05869	13.69998 (ug/L)
Si (251.611 nm)	18.51681	ug/L	1.77089	9.56	45.94390	18.51681 (ug/L)
Sn (189.925 nm)	-0.61490	ug/L	3.70745	> 100.00	-5.50224	-0.61490 (ug/L)
Sr (421.552 nm)	1.02708	ug/L	0.02262	2.20	2117.03648	1.02708 (ug/L)
Te (214.282 nm)	4.69131	ug/L	2.64817	56.45	-2.88777	4.69131 (ug/L)
Ti (334.941 nm)	0.06287	ug/L	0.04694	74.66	-49.92043	0.06287 (ug/L)
Tl (190.807 nm)	22.25612	ug/L	3.84757	17.29	9.34059	22.25612 (ug/L)
U (409.013 nm)	-0.28304	ug/L	3.47490	> 100.00	179.70992	-0.28304 (ug/L)
V (292.401 nm)	0.21455	ug/L	0.21628	> 100.00	-16.23271	0.21455 (ug/L)
W (207.912 nm)	0.76460	ug/L	2.78022	> 100.00	7.16253	0.76460 (ug/L)
Y (371.029 nm)	0.05407	ug/L	0.07885	> 100.00	9.40839	0.05407 (ug/L)
Zn (206.200 nm)	2.72110	ug/L	0.62315	22.90	3.38077	2.72110 (ug/L)
Zr (343.823 nm)	0.11471	ug/L	0.05142	44.83	100.05322	0.11471 (ug/L)

Label	Internal Standard
Ag (328.068 nm)	Sc-A
Al (236.705 nm)	Sc-A
As (188.980 nm)	Sc-A
B (249.772 nm)	Sc-A
Ba (230.424 nm)	Sc-A
Be (313.107 nm)	Sc-A
Bi (223.061 nm)	Sc-A
Ca (317.933 nm)	Sc-A
Cd (214.439 nm)	Sc-A
Co (228.615 nm)	Sc-A
Cr (205.560 nm)	Sc-A
Cu (224.700 nm)	Sc-A
Fe (261.382 nm)	Sc-A
K (766.491 nm)	Sc-R
Li (610.365 nm)	Sc-R
Mg (279.078 nm)	Sc-A

Label	Internal Standard
Mn (260.568 nm)	Sc-A
Mo (202.032 nm)	Sc-A
Na (588.995 nm)	Sc-R
Ni (231.604 nm)	Sc-A
P (178.222 nm)	Sc-A
Pb (220.353 nm)	Sc-A
Pt (203.646 nm)	Sc-A
Sb (206.834 nm)	Sc-A
Se (196.026 nm)	Sc-A
Si (251.611 nm)	Sc-A
Sn (189.925 nm)	Sc-A
Sr (421.552 nm)	Sc-A
Te (214.282 nm)	Sc-A
Ti (334.941 nm)	Sc-A
Tl (190.807 nm)	Sc-A
U (409.013 nm)	Sc-A
V (292.401 nm)	Sc-A
W (207.912 nm)	Sc-A
Y (371.029 nm)	Sc-A
Zn (206.200 nm)	Sc-A
Zr (343.823 nm)	Sc-A

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Sc-A	0.99	405298.92	0.01	0.55
Sc-R	0.98	45974.97	0.01	0.52

Replicates Concentration

Label	Replicate 1	Replicate 2	Replicate 3	Units
Ag (328.068 nm)	0.17170	0.13546	0.18309	ug/L
Al (236.705 nm)	7.80698	-0.06965 u	5.73590	ug/L
As (188.980 nm)	1.27891	4.80310	13.89197	ug/L
B (249.772 nm)	-0.29109 u	-0.65479 u	-0.34272 u	ug/L
Ba (230.424 nm)	1.22349	0.94024	0.91744	ug/L
Be (313.107 nm)	0.00917	0.00345	0.02493	ug/L
Bi (223.061 nm)	2.82827	0.44072	0.08558	ug/L
Ca (317.933 nm)	131.06281	134.43237	135.81792	ug/L
Cd (214.439 nm)	0.07292	-0.08204 u	-0.30678 u	ug/L
Co (228.615 nm)	0.43907	0.61764	-0.31129 u	ug/L
Cr (205.560 nm)	10.27255	9.89661	9.46289	ug/L
Cu (224.700 nm)	1.45632	7.79383	5.22091	ug/L
Fe (261.382 nm)	13.86218	12.02506	11.73164	ug/L
K (766.491 nm)	28.27997	27.19302	19.03805	ug/L
Li (610.365 nm)	20.31648	25.14712	23.66606	ug/L
Mg (279.078 nm)	17.63108	22.17444	21.69475	ug/L
Mn (260.568 nm)	0.57004	0.82098	0.61775	ug/L
Mo (202.032 nm)	-1.34052 u	0.13504	-0.48746 u	ug/L

Label	Replicate 1	Replicate 2	Replicate 3	Units
Na (588.995 nm)	155.43049	148.64739	150.85269	ug/L
Ni (231.604 nm)	2.48853	-1.31357 u	0.26785	ug/L
P (178.222 nm)	24.58342	38.97896	0.08943	ug/L
Pb (220.353 nm)	1.72798	-2.77104 u	4.63033	ug/L
Pt (203.646 nm)	10.35244	-1.77185 u	-0.16672 u	ug/L
Sb (206.834 nm)	1.74521	0.67685	-3.50769 u	ug/L
Se (196.026 nm)	8.18536	16.78312	16.13145	ug/L
Si (251.611 nm)	16.65429	18.71712	20.17903	ug/L
Sn (189.925 nm)	1.59051	1.46004	-4.89523 u	ug/L
Sr (421.552 nm)	1.00222	1.03259	1.04644	ug/L
Te (214.282 nm)	4.65829	2.05980	7.35584	ug/L
Ti (334.941 nm)	0.02890	0.11643	0.04327	ug/L
Tl (190.807 nm)	17.95276	23.45145	25.36415	ug/L
U (409.013 nm)	3.56887	-1.23585 u	-3.18215 u	ug/L
V (292.401 nm)	-0.03170 u	0.37371	0.30163	ug/L
W (207.912 nm)	2.80024	-2.40305 u	1.89660	ug/L
Y (371.029 nm)	-0.01316 u	0.03452	0.14086	ug/L
Zn (206.200 nm)	2.93768	3.20707	2.01856	ug/L
Zr (343.823 nm)	0.07758	0.17340	0.09314	ug/L
Sc-A (361.383 nm)	0.98	0.99	0.99	Ratio
Sc-R (503.102 nm)	0.97	0.98	0.98	Ratio

Sample Name: 790482 LRB

Date: 7/14/2022 11:04:02 Rack:Tube: 1:22

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Calculated Concentration
Ag (328.068 nm)	0.04090	ug/L	0.13539	> 100.00	-86.50530	0.04090 (ug/L)
Al (236.705 nm)	134.58604	ug/L	4.54211	3.37	144.78032	134.58604 (ug/L)
As (188.980 nm)	5.73787	ug/L	3.52683	61.47	-4.98596	5.73787 (ug/L)
B (249.772 nm)	16.29185	ug/L	0.19886	1.22	310.73687	16.29185 (ug/L)
Ba (230.424 nm)	0.99717	ug/L	0.29819	29.90	13.31959	0.99717 (ug/L)
Be (313.107 nm)	0.02328	ug/L	0.00661	28.39	18.96979	0.02328 (ug/L)
Bi (223.061 nm)	-2.70697	ug/L	1.42445	52.62	-41.88038	-2.70697 (ug/L)
Ca (317.933 nm)	378.01037	ug/L	7.77675	2.06	6429.52357	378.01037 (ug/L)
Cd (214.439 nm)	-0.14093	ug/L	0.21756	> 100.00	-7.68478	-0.14093 (ug/L)
Co (228.615 nm)	-0.61345	ug/L	0.34099	55.59	-13.16191	-0.61345 (ug/L)
Cr (205.560 nm)	0.74169	ug/L	0.37852	51.04	1.05251	0.74169 (ug/L)
Cu (224.700 nm)	0.72834	ug/L	5.05862	> 100.00	-10.16975	0.72834 (ug/L)
Fe (261.382 nm)	8.49630	ug/L	2.02898	23.88	70.03569	8.49630 (ug/L)
K (766.491 nm)	10.75263	ug/L	4.00787	37.27	-130.45796	10.75263 (ug/L)
Li (610.365 nm)	9.71007	ug/L	1.39676	14.38	-4563.98479	9.71007 (ug/L)
Mg (279.078 nm)	18.91046	ug/L	1.87485	9.91	57.75047	18.91046 (ug/L)
Mn (260.568 nm)	0.53417	ug/L	0.28996	54.28	10.33668	0.53417 (ug/L)
Mo (202.032 nm)	-0.31843	ug/L	0.72725	> 100.00	-2.96325	-0.31843 (ug/L)
Na (588.995 nm)	-25.46343	ug/L	5.59200	21.96	23547.13126	-25.46343 (ug/L)
Ni (231.604 nm)	-1.70186	ug/L	0.77350	45.45	-7.85624	-1.70186 (ug/L)
P (178.222 nm)	11.83417	ug/L	23.59825	> 100.00	3.65978	11.83417 (ug/L)

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Calculated Concentration
Pb (220.353 nm)	-0.48324	ug/L	1.65963	> 100.00	1.53679	-0.48324 (ug/L)
Pt (203.646 nm)	4.00133	ug/L	5.34805	> 100.00	4.23999	4.00133 (ug/L)
Sb (206.834 nm)	-0.92000	ug/L	4.81225	> 100.00	-9.66269	-0.92000 (ug/L)
Se (196.026 nm)	6.62403	ug/L	2.59125	39.12	6.86304	6.62403 (ug/L)
Si (251.611 nm)	-2.03562	ug/L	2.78844	> 100.00	16.94252	-2.03562 (ug/L)
Sn (189.925 nm)	-1.30937	ug/L	2.70398	> 100.00	-6.02142	-1.30937 (ug/L)
Sr (421.552 nm)	3.38703	ug/L	0.04986	1.47	6938.24325	3.38703 (ug/L)
Te (214.282 nm)	1.63102	ug/L	5.58382	> 100.00	-4.48846	1.63102 (ug/L)
Ti (334.941 nm)	0.28913	ug/L	0.01118	3.87	-5.24844	0.28913 (ug/L)
Tl (190.807 nm)	0.73578	ug/L	7.01757	> 100.00	-1.95935	0.73578 (ug/L)
U (409.013 nm)	-1.88462	ug/L	3.71639	> 100.00	171.17882	-1.88462 (ug/L)
V (292.401 nm)	-0.02704	ug/L	0.14633	> 100.00	-22.20136	-0.02704 (ug/L)
W (207.912 nm)	2.33231	ug/L	0.84182	36.09	9.19342	2.33231 (ug/L)
Y (371.029 nm)	0.04300	ug/L	0.03330	77.42	7.56983	0.04300 (ug/L)
Zn (206.200 nm)	5.52623	ug/L	1.74086	31.50	8.31640	5.52623 (ug/L)
Zr (343.823 nm)	0.19987	ug/L	0.00656	3.28	105.52737	0.19987 (ug/L)

Label	Internal Standard
Ag (328.068 nm)	Sc-A
Al (236.705 nm)	Sc-A
As (188.980 nm)	Sc-A
B (249.772 nm)	Sc-A
Ba (230.424 nm)	Sc-A
Be (313.107 nm)	Sc-A
Bi (223.061 nm)	Sc-A
Ca (317.933 nm)	Sc-A
Cd (214.439 nm)	Sc-A
Co (228.615 nm)	Sc-A
Cr (205.560 nm)	Sc-A
Cu (224.700 nm)	Sc-A
Fe (261.382 nm)	Sc-A
K (766.491 nm)	Sc-R
Li (610.365 nm)	Sc-R
Mg (279.078 nm)	Sc-A
Mn (260.568 nm)	Sc-A
Mo (202.032 nm)	Sc-A
Na (588.995 nm)	Sc-R
Ni (231.604 nm)	Sc-A
P (178.222 nm)	Sc-A
Pb (220.353 nm)	Sc-A
Pt (203.646 nm)	Sc-A
Sb (206.834 nm)	Sc-A
Se (196.026 nm)	Sc-A
Si (251.611 nm)	Sc-A
Sn (189.925 nm)	Sc-A
Sr (421.552 nm)	Sc-A
Te (214.282 nm)	Sc-A
Ti (334.941 nm)	Sc-A

Label	Internal Standard
Tl (190.807 nm)	Sc-A
U (409.013 nm)	Sc-A
V (292.401 nm)	Sc-A
W (207.912 nm)	Sc-A
Y (371.029 nm)	Sc-A
Zn (206.200 nm)	Sc-A
Zr (343.823 nm)	Sc-A

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Sc-A	1.01	415296.95	0.00	0.11
Sc-R	1.00	47181.76	0.00	0.26

Replicates Concentration

Label	Replicate 1	Replicate 2	Replicate 3	Units
Ag (328.068 nm)	0.19720	-0.04005 u	-0.03444 u	ug/L
Al (236.705 nm)	130.41075	133.92488	139.42250	ug/L
As (188.980 nm)	9.48742	5.23938	2.48679	ug/L
B (249.772 nm)	16.45840	16.34547	16.07168	ug/L
Ba (230.424 nm)	0.77316	0.88273	1.33563	ug/L
Be (313.107 nm)	0.01758	0.02172	0.03052	ug/L
Bi (223.061 nm)	-3.78128 u	-1.09118 u	-3.24844 u	ug/L
Ca (317.933 nm)	369.68448	379.25999	385.08665	ug/L
Cd (214.439 nm)	-0.38920 u	-0.05003 u	0.01645	ug/L
Co (228.615 nm)	-0.28138 u	-0.59626 u	-0.96270 u	ug/L
Cr (205.560 nm)	0.43377	0.62700	1.16429	ug/L
Cu (224.700 nm)	5.47469	1.30368	-4.59336 u	ug/L
Fe (261.382 nm)	10.71343	8.04348	6.73198	ug/L
K (766.491 nm)	14.96434	6.98569	10.30786	ug/L
Li (610.365 nm)	8.83336	11.32081	8.97605	ug/L
Mg (279.078 nm)	17.05805	20.80697	18.86636	ug/L
Mn (260.568 nm)	0.81948	0.54325	0.23977	ug/L
Mo (202.032 nm)	-1.05122 u	0.40315	-0.30721 u	ug/L
Na (588.995 nm)	-30.62545 u	-26.24184 u	-19.52301 u	ug/L
Ni (231.604 nm)	-1.17407 u	-1.34174 u	-2.58976 u	ug/L
P (178.222 nm)	-12.89797 u	34.10571	14.29476	ug/L
Pb (220.353 nm)	1.37067	-1.83048 u	-0.98990 u	ug/L
Pt (203.646 nm)	8.75412	-1.78972 u	5.03959	ug/L
Sb (206.834 nm)	-4.50903 u	-2.79931 u	4.54833	ug/L
Se (196.026 nm)	3.83521	8.95728	7.07959	ug/L
Si (251.611 nm)	-5.03764 u	-1.54274 u	0.47352	ug/L
Sn (189.925 nm)	-4.29884 u	0.96564	-0.59490 u	ug/L
Sr (421.552 nm)	3.33389	3.39443	3.43277	ug/L
Te (214.282 nm)	7.83865	-2.98210 u	0.03650	ug/L
Ti (334.941 nm)	0.29166	0.27690	0.29883	ug/L
Tl (190.807 nm)	-7.36726 u	4.74583	4.82879	ug/L
U (409.013 nm)	-6.17398 u	0.37267	0.14744	ug/L

Label	Replicate 1	Replicate 2	Replicate 3	Units
V (292.401 nm)	-0.15493 u	-0.05873 u	0.13253	ug/L
W (207.912 nm)	1.55190	3.22439	2.22064	ug/L
Y (371.029 nm)	0.04362	0.07599	0.00941	ug/L
Zn (206.200 nm)	6.85058	6.17369	3.55441	ug/L
Zr (343.823 nm)	0.19882	0.19390	0.20689	ug/L
Sc-A (361.383 nm)	1.01	1.01	1.01	Ratio
Sc-R (503.102 nm)	1.00	1.01	1.01	Ratio

Sample Name: 790483 LMB

Date: 7/14/2022 11:05:42 Rack:Tube: 1:23

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Calculated Concentration
Ag (328.068 nm)	-0.09708	ug/L	0.25622	> 100.00	-93.72052	-0.09708 (ug/L)
Al (236.705 nm)	89.01138	ug/L	1.38337	1.55	117.09498	89.01138 (ug/L)
As (188.980 nm)	3.78658	ug/L	3.60852	95.30	-5.95931	3.78658 (ug/L)
B (249.772 nm)	7.80590	ug/L	0.25780	3.30	177.13978	7.80590 (ug/L)
Ba (230.424 nm)	0.99189	ug/L	0.10790	10.88	13.23190	0.99189 (ug/L)
Be (313.107 nm)	0.00808	ug/L	0.01018	> 100.00	7.93367	0.00808 (ug/L)
Bi (223.061 nm)	0.35539	ug/L	1.55447	> 100.00	-37.21882	0.35539 (ug/L)
Ca (317.933 nm)	265.29863	ug/L	2.93135	1.10	4502.07522	265.29863 (ug/L)
Cd (214.439 nm)	0.31277	ug/L	0.17137	54.79	-2.99565	0.31277 (ug/L)
Co (228.615 nm)	-0.46227	ug/L	0.53732	> 100.00	-12.26513	-0.46227 (ug/L)
Cr (205.560 nm)	6.55855	ug/L	0.12285	1.87	34.44231	6.55855 (ug/L)
Cu (224.700 nm)	0.72153	ug/L	2.12891	> 100.00	-10.15927	0.72153 (ug/L)
Fe (261.382 nm)	17.73675	ug/L	1.53891	8.68	94.69529	17.73675 (ug/L)
K (766.491 nm)	17.59860	ug/L	7.58788	43.12	-116.45898	17.59860 (ug/L)
Li (610.365 nm)	24.59060	ug/L	4.31803	17.56	-4392.19117	24.59060 (ug/L)
Mg (279.078 nm)	14.25249	ug/L	2.55616	17.93	50.41268	14.25249 (ug/L)
Mn (260.568 nm)	0.45591	ug/L	0.06708	14.71	8.98044	0.45591 (ug/L)
Mo (202.032 nm)	-0.25441	ug/L	0.28495	> 100.00	-2.66094	-0.25441 (ug/L)
Na (588.995 nm)	-9.54998	ug/L	1.00166	10.49	23923.55327	-9.54998 (ug/L)
Ni (231.604 nm)	-0.04038	ug/L	0.69093	> 100.00	-3.95861	-0.04038 (ug/L)
P (178.222 nm)	1.62713	ug/L	13.75877	> 100.00	2.67824	1.62713 (ug/L)
Pb (220.353 nm)	0.05839	ug/L	0.55537	> 100.00	2.17801	0.05839 (ug/L)
Pt (203.646 nm)	2.24077	ug/L	4.70526	> 100.00	2.90732	2.24077 (ug/L)
Sb (206.834 nm)	0.34625	ug/L	4.66773	> 100.00	-8.47171	0.34625 (ug/L)
Se (196.026 nm)	2.47669	ug/L	3.07052	> 100.00	4.39077	2.47669 (ug/L)
Si (251.611 nm)	-2.12251	ug/L	2.16950	> 100.00	16.82041	-2.12251 (ug/L)
Sn (189.925 nm)	0.35844	ug/L	2.51077	> 100.00	-4.77459	0.35844 (ug/L)
Sr (421.552 nm)	2.51845	ug/L	0.04200	1.67	5163.79821	2.51845 (ug/L)
Te (214.282 nm)	1.09491	ug/L	5.52560	> 100.00	-4.76411	1.09491 (ug/L)
Ti (334.941 nm)	0.19630	ug/L	0.08030	40.91	-23.64982	0.19630 (ug/L)
Tl (190.807 nm)	5.47303	ug/L	7.35555	> 100.00	0.50777	5.47303 (ug/L)
U (409.013 nm)	-4.03901	ug/L	2.12744	52.67	159.71113	-4.03901 (ug/L)
V (292.401 nm)	0.02691	ug/L	0.03379	> 100.00	-20.97580	0.02691 (ug/L)
W (207.912 nm)	1.30009	ug/L	0.90327	69.48	7.85772	1.30009 (ug/L)
Y (371.029 nm)	-0.02253	ug/L	0.02714	> 100.00	-3.27649	-0.02253 (ug/L)

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Calculated Concentration
Zn (206.200 nm)	3.93783	ug/L	0.64361	16.34	5.52333	3.93783 (ug/L)
Zr (343.823 nm)	0.02774	ug/L	0.05891	> 100.00	94.62239	0.02774 (ug/L)

Label	Internal Standard
Ag (328.068 nm)	Sc-A
Al (236.705 nm)	Sc-A
As (188.980 nm)	Sc-A
B (249.772 nm)	Sc-A
Ba (230.424 nm)	Sc-A
Be (313.107 nm)	Sc-A
Bi (223.061 nm)	Sc-A
Ca (317.933 nm)	Sc-A
Cd (214.439 nm)	Sc-A
Co (228.615 nm)	Sc-A
Cr (205.560 nm)	Sc-A
Cu (224.700 nm)	Sc-A
Fe (261.382 nm)	Sc-A
K (766.491 nm)	Sc-R
Li (610.365 nm)	Sc-R
Mg (279.078 nm)	Sc-A
Mn (260.568 nm)	Sc-A
Mo (202.032 nm)	Sc-A
Na (588.995 nm)	Sc-R
Ni (231.604 nm)	Sc-A
P (178.222 nm)	Sc-A
Pb (220.353 nm)	Sc-A
Pt (203.646 nm)	Sc-A
Sb (206.834 nm)	Sc-A
Se (196.026 nm)	Sc-A
Si (251.611 nm)	Sc-A
Sn (189.925 nm)	Sc-A
Sr (421.552 nm)	Sc-A
Te (214.282 nm)	Sc-A
Ti (334.941 nm)	Sc-A
Tl (190.807 nm)	Sc-A
U (409.013 nm)	Sc-A
V (292.401 nm)	Sc-A
W (207.912 nm)	Sc-A
Y (371.029 nm)	Sc-A
Zn (206.200 nm)	Sc-A
Zr (343.823 nm)	Sc-A

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Sc-A	0.99	406106.46	0.00	0.45
Sc-R	0.98	46055.47	0.00	0.36

Replicates Concentration

Label	Replicate 1	Replicate 2	Replicate 3	Units
Ag (328.068 nm)	0.19676	-0.27388 u	-0.21411 u	ug/L
Al (236.705 nm)	90.15705	87.47455	89.40253	ug/L
As (188.980 nm)	7.53226	3.49450	0.33297	ug/L
B (249.772 nm)	8.08793	7.58240	7.74737	ug/L
Ba (230.424 nm)	0.89357	0.97477	1.10733	ug/L
Be (313.107 nm)	-0.00014 u	0.01946	0.00491	ug/L
Bi (223.061 nm)	2.00482	-1.08243 u	0.14378	ug/L
Ca (317.933 nm)	261.97257	266.41781	267.50552	ug/L
Cd (214.439 nm)	0.20370	0.51029	0.22432	ug/L
Co (228.615 nm)	-1.02860 u	-0.39856 u	0.04036	ug/L
Cr (205.560 nm)	6.41989	6.60198	6.65379	ug/L
Cu (224.700 nm)	-1.64775 u	1.33861	2.47372	ug/L
Fe (261.382 nm)	16.31520	19.37090	17.52416	ug/L
K (766.491 nm)	11.11021	25.94196	15.74364	ug/L
Li (610.365 nm)	19.67675	27.77965	26.31539	ug/L
Mg (279.078 nm)	16.11679	15.30208	11.33861	ug/L
Mn (260.568 nm)	0.38263	0.51428	0.47082	ug/L
Mo (202.032 nm)	-0.58322 u	-0.10036 u	-0.07964 u	ug/L
Na (588.995 nm)	-8.39345 u	-10.14102 u	-10.11547 u	ug/L
Ni (231.604 nm)	-0.00621 u	-0.74777 u	0.63283	ug/L
P (178.222 nm)	0.02359	16.11742	-11.25960 u	ug/L
Pb (220.353 nm)	0.69184	-0.34492 u	-0.17175 u	ug/L
Pt (203.646 nm)	2.05710	-2.36997 u	7.03517	ug/L
Sb (206.834 nm)	0.73752	-4.50481 u	4.80602	ug/L
Se (196.026 nm)	0.70319	0.70467	6.02222	ug/L
Si (251.611 nm)	-0.72250 u	-1.02344 u	-4.62161 u	ug/L
Sn (189.925 nm)	-1.65843 u	3.17053	-0.43677 u	ug/L
Sr (421.552 nm)	2.47503	2.52146	2.55886	ug/L
Te (214.282 nm)	-5.16647 u	5.28795	3.16324	ug/L
Ti (334.941 nm)	0.14221	0.15812	0.28857	ug/L
Tl (190.807 nm)	-2.69745 u	11.56740	7.54913	ug/L
U (409.013 nm)	-4.33148 u	-6.00509 u	-1.78047 u	ug/L
V (292.401 nm)	0.01786	-0.00144 u	0.06430	ug/L
W (207.912 nm)	1.35273	0.37166	2.17589	ug/L
Y (371.029 nm)	-0.00181 u	-0.01254 u	-0.05325 u	ug/L
Zn (206.200 nm)	3.47577	4.67295	3.66477	ug/L
Zr (343.823 nm)	0.09489	-0.01522 u	0.00355	ug/L
Sc-A (361.383 nm)	0.98	0.99	0.99	Ratio
Sc-R (503.102 nm)	0.98	0.98	0.98	Ratio

Sample Name: 790484 LCS

Date: 7/14/2022 11:07:23 Rack:Tube: 1:24

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Calculated Concentration
Ag (328.068 nm)	3565.65514	ug/L	71.70012	2.01	185112.80727	3565.65514 (ug/L)
Al (236.705 nm)	3646.36054	ug/L	74.24098	2.04	2280.40254	3646.36054 (ug/L)

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Calculated Concentration
As (188.980 nm)	3668.02279	ug/L	78.66667	2.14	1824.07623	3668.02279 (ug/L)
B (249.772 nm)	3.11978	ug/L	0.30677	9.83	138.58913	3.11978 (ug/L)
Ba (230.424 nm)	3897.61236	ug/L	91.37093	2.34	70894.64717	3897.61236 (ug/L)
Be (313.107 nm)	390.04796	ug/L	8.18112	2.10	287076.57588	390.04796 (ug/L)
Bi (223.061 nm)	5.19188	ug/L	1.94001	37.37	-58.25250	5.19188 (ug/L)
Ca (317.933 nm)	3992.23106	ug/L	84.17905	2.11	68651.75537	3992.23106 (ug/L)
Cd (214.439 nm)	382.00770	ug/L	12.38138	3.24	3977.96968	382.00770 (ug/L)
Co (228.615 nm)	393.20942	ug/L	6.06471	1.54	2333.57753	393.20942 (ug/L)
Cr (205.560 nm)	3896.06452	ug/L	92.00203	2.36	22369.51961	3896.06452 (ug/L)
Cu (224.700 nm)	403.59038	ug/L	11.27231	2.79	400.55370	403.59038 (ug/L)
Fe (261.382 nm)	3949.04401	ug/L	84.82181	2.15	10526.89959	3949.04401 (ug/L)
K (766.491 nm)	3722.12611	ug/L	81.33509	2.19	7426.31265	3722.12611 (ug/L)
Li (610.365 nm)	3692.98410	ug/L	76.75477	2.08	37430.29164	3692.98410 (ug/L)
Mg (279.078 nm)	3682.25442	ug/L	81.75323	2.22	5792.51803	3682.25442 (ug/L)
Mn (260.568 nm)	3960.30263	ug/L	86.16806	2.18	69146.49616	3960.30263 (ug/L)
Mo (202.032 nm)	408.34396	ug/L	8.38347	2.05	1917.44514	408.34396 (ug/L)
Na (588.995 nm)	3903.05594	ug/L	77.88729	2.00	116473.60330	3903.05594 (ug/L)
Ni (231.604 nm)	400.76358	ug/L	7.50033	1.87	937.71208	400.76358 (ug/L)
P (178.222 nm)	3813.32927	ug/L	75.26207	1.97	369.22183	3813.32927 (ug/L)
Pb (220.353 nm)	3891.30450	ug/L	69.27714	1.78	4579.46964	3891.30450 (ug/L)
Pt (203.646 nm)	4.77870	ug/L	3.14395	65.79	25.59896	4.77870 (ug/L)
Sb (206.834 nm)	3717.83909	ug/L	87.89237	2.36	3354.04734	3717.83909 (ug/L)
Se (196.026 nm)	3771.62690 A3	ug/L	76.17370	2.02	2242.10726 A3	3771.62690 A3 (ug/L)
Si (251.611 nm)	73.21160	ug/L	11.91008	16.27	132.88027	73.21160 (ug/L)
Sn (189.925 nm)	1.58404	ug/L	5.02354	> 100.00	-3.85836	1.58404 (ug/L)
Sr (421.552 nm)	1.56574	ug/L	0.03339	2.13	3217.47229	1.56574 (ug/L)
Te (214.282 nm)	3757.71045	ug/L	60.24985	1.60	1965.93907	3757.71045 (ug/L)
Ti (334.941 nm)	388.02388	ug/L	8.26929	2.13	78221.86296	388.02388 (ug/L)
Tl (190.807 nm)	3918.15204	ug/L	96.86940	2.47	2062.40626	3918.15204 (ug/L)
U (409.013 nm)	3921.24283	ug/L	89.59526	2.28	21212.04383	3921.24283 (ug/L)
V (292.401 nm)	3839.80675	ug/L	82.26011	2.14	98728.78319	3839.80675 (ug/L)
W (207.912 nm)	2.72005	ug/L	1.84459	67.81	46.91783	2.72005 (ug/L)
Y (371.029 nm)	385.34153	ug/L	8.15733	2.12	63756.67033	385.34153 (ug/L)
Zn (206.200 nm)	3818.83947	ug/L	97.66249	2.56	6764.19344	3818.83947 (ug/L)
Zr (343.823 nm)	3793.88920	ug/L	81.22166	2.14	241147.68981	3793.88920 (ug/L)

Label	Internal Standard
Ag (328.068 nm)	Sc-A
Al (236.705 nm)	Sc-A
As (188.980 nm)	Sc-A
B (249.772 nm)	Sc-A
Ba (230.424 nm)	Sc-A
Be (313.107 nm)	Sc-A
Bi (223.061 nm)	Sc-A
Ca (317.933 nm)	Sc-A
Cd (214.439 nm)	Sc-A
Co (228.615 nm)	Sc-A
Cr (205.560 nm)	Sc-A

Label	Internal Standard
Cu (224.700 nm)	Sc-A
Fe (261.382 nm)	Sc-A
K (766.491 nm)	Sc-R
Li (610.365 nm)	Sc-R
Mg (279.078 nm)	Sc-A
Mn (260.568 nm)	Sc-A
Mo (202.032 nm)	Sc-A
Na (588.995 nm)	Sc-R
Ni (231.604 nm)	Sc-A
P (178.222 nm)	Sc-A
Pb (220.353 nm)	Sc-A
Pt (203.646 nm)	Sc-A
Sb (206.834 nm)	Sc-A
Se (196.026 nm)	Sc-A
Si (251.611 nm)	Sc-A
Sn (189.925 nm)	Sc-A
Sr (421.552 nm)	Sc-A
Te (214.282 nm)	Sc-A
Ti (334.941 nm)	Sc-A
Tl (190.807 nm)	Sc-A
U (409.013 nm)	Sc-A
V (292.401 nm)	Sc-A
W (207.912 nm)	Sc-A
Y (371.029 nm)	Sc-A
Zn (206.200 nm)	Sc-A
Zr (343.823 nm)	Sc-A

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Sc-A	0.98	401146.03	0.00	0.34
Sc-R	0.97	45596.95	0.00	0.45

Replicates Concentration

Label	Replicate 1	Replicate 2	Replicate 3	Units
Ag (328.068 nm)	3488.81831 o	3577.37181 o	3630.77530 o	ug/L
Al (236.705 nm)	3574.69172	3641.45910	3722.93079	ug/L
As (188.980 nm)	3585.63351	3676.08966	3742.34521	ug/L
B (249.772 nm)	3.41597	3.13993	2.80342	ug/L
Ba (230.424 nm)	3798.88059	3914.76527	3979.19121	ug/L
Be (313.107 nm)	381.52957	390.77042	397.84390	ug/L
Bi (223.061 nm)	7.31032	3.50196	4.76336	ug/L
Ca (317.933 nm)	3904.82010	3999.11801	4072.75508	ug/L
Cd (214.439 nm)	371.94259	378.24713	395.83337	ug/L
Co (228.615 nm)	387.57635	392.42289	399.62901	ug/L
Cr (205.560 nm)	3808.80410	3887.22008	3992.16937	ug/L
Cu (224.700 nm)	393.61668	401.33437	415.82008	ug/L
Fe (261.382 nm)	3866.02266	3945.55100	4035.55838	ug/L

Label	Replicate 1	Replicate 2	Replicate 3	Units
K (766.491 nm)	3629.94347	3752.65573	3783.77913	ug/L
Li (610.365 nm)	3612.50276	3701.07885	3765.37069	ug/L
Mg (279.078 nm)	3595.20718	3694.14461	3757.41148	ug/L
Mn (260.568 nm)	3869.52004	3970.42604	4040.96182	ug/L
Mo (202.032 nm)	399.09676	410.48773	415.44738	ug/L
Na (588.995 nm)	3821.74843	3910.41935	3977.00004	ug/L
Ni (231.604 nm)	393.51838	400.27702	408.49535	ug/L
P (178.222 nm)	3732.59083	3825.85326	3881.54373	ug/L
Pb (220.353 nm)	3816.80397	3903.32432	3953.78522	ug/L
Pt (203.646 nm)	1.54642	4.96350	7.82616	ug/L
Sb (206.834 nm)	3623.60342	3732.32568	3797.58817	ug/L
Se (196.026 nm)	3688.04421	3789.69309	3837.14340	ug/L
Si (251.611 nm)	59.73824	77.56053	82.33604	ug/L
Sn (189.925 nm)	-3.87750 u	6.00733	2.62228	ug/L
Sr (421.552 nm)	1.53468	1.56149	1.60105	ug/L
Te (214.282 nm)	3702.48469	3748.68139	3821.96526	ug/L
Ti (334.941 nm)	379.41149	388.75919	395.90096	ug/L
Tl (190.807 nm)	3815.29439	3931.51631	4007.64540	ug/L
U (409.013 nm)	3825.68350	3934.69144	4003.35356	ug/L
V (292.401 nm)	3753.74395	3848.02980	3917.64651	ug/L
W (207.912 nm)	4.73732	2.30342	1.11940	ug/L
Y (371.029 nm)	376.88662	385.97347	393.16451	ug/L
Zn (206.200 nm)	3724.96555	3811.65870	3919.89414	ug/L
Zr (343.823 nm)	3709.50911	3800.62561	3871.53286	ug/L
Sc-A (361.383 nm)	0.97	0.98	0.98	Ratio
Sc-R (503.102 nm)	0.97	0.97	0.97	Ratio

Sample Name: 790485 LCSD

Date: 7/14/2022 11:09:04 Rack:Tube: 1:25

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Calculated Concentration
Ag (328.068 nm)	3565.36842	ug/L	45.00133	1.26	185105.14757	3565.36842 (ug/L)
Al (236.705 nm)	3638.40607	ug/L	55.17747	1.52	2275.62296	3638.40607 (ug/L)
As (188.980 nm)	3771.05792	ug/L	50.69224	1.34	1875.53334	3771.05792 (ug/L)
B (249.772 nm)	2.58926	ug/L	0.08927	3.45	131.06413	2.58926 (ug/L)
Ba (230.424 nm)	3979.99018	ug/L	61.11052	1.54	72393.21313	3979.99018 (ug/L)
Be (313.107 nm)	402.09226	ug/L	7.20477	1.79	295950.70899	402.09226 (ug/L)
Bi (223.061 nm)	5.63078	ug/L	3.69662	65.65	-57.37552	5.63078 (ug/L)
Ca (317.933 nm)	4123.16236	ug/L	68.95735	1.67	70893.51394	4123.16236 (ug/L)
Cd (214.439 nm)	397.68020	ug/L	6.56652	1.65	4141.47252	397.68020 (ug/L)
Co (228.615 nm)	406.36131	ug/L	6.55111	1.61	2411.72642	406.36131 (ug/L)
Cr (205.560 nm)	4009.03698	ug/L	70.81669	1.77	23018.19098	4009.03698 (ug/L)
Cu (224.700 nm)	406.43367	ug/L	10.04500	2.47	403.75293	406.43367 (ug/L)
Fe (261.382 nm)	4042.73853	ug/L	60.95197	1.51	10773.08170	4042.73853 (ug/L)
K (766.491 nm)	3545.25110	ug/L	22.87654	0.65	7063.94392	3545.25110 (ug/L)
Li (610.365 nm)	3613.72207	ug/L	43.72543	1.21	36523.18415	3613.72207 (ug/L)
Mg (279.078 nm)	3779.12812	ug/L	62.72975	1.66	5946.14909	3779.12812 (ug/L)

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Calculated Concentration
Mn (260.568 nm)	4053.29451	ug/L	59.51080	1.47	70769.89635	4053.29451 (ug/L)
Mo (202.032 nm)	417.40060	ug/L	7.13132	1.71	1960.00493	417.40060 (ug/L)
Na (588.995 nm)	3871.66794	ug/L	48.88271	1.26	115731.14139	3871.66794 (ug/L)
Ni (231.604 nm)	411.42534	ug/L	8.60772	2.09	962.74488	411.42534 (ug/L)
P (178.222 nm)	3849.48591	ug/L	61.39738	1.59	372.69875	3849.48591 (ug/L)
Pb (220.353 nm)	4029.37421	ug/L	62.13041	1.54	4741.73388	4029.37421 (ug/L)
Pt (203.646 nm)	3.27185	ug/L	4.70633	> 100.00	24.84893	3.27185 (ug/L)
Sb (206.834 nm)	3760.49099	ug/L	90.88353	2.42	3393.34185	3760.49099 (ug/L)
Se (196.026 nm)	3845.95069 A3	ug/L	48.73421	1.27	2286.28968 A3	3845.95069 A3 (ug/L)
Si (251.611 nm)	36.97768	ug/L	4.38004	11.85	81.95504	36.97768 (ug/L)
Sn (189.925 nm)	2.85784	ug/L	3.73956	> 100.00	-2.90608	2.85784 (ug/L)
Sr (421.552 nm)	1.43189	ug/L	0.01896	1.32	2944.02565	1.43189 (ug/L)
Te (214.282 nm)	3813.49518	ug/L	66.91446	1.75	1995.23857	3813.49518 (ug/L)
Ti (334.941 nm)	392.06758	ug/L	6.35150	1.62	79035.51378	392.06758 (ug/L)
Tl (190.807 nm)	4008.50933	ug/L	60.57502	1.51	2110.02096	4008.50933 (ug/L)
U (409.013 nm)	3880.13647	ug/L	60.94302	1.57	20995.03808	3880.13647 (ug/L)
V (292.401 nm)	3903.73740	ug/L	62.48924	1.60	100372.34057	3903.73740 (ug/L)
W (207.912 nm)	1.45102	ug/L	1.83867	> 100.00	47.65877	1.45102 (ug/L)
Y (371.029 nm)	387.94270	ug/L	5.54695	1.43	64186.86629	387.94270 (ug/L)
Zn (206.200 nm)	4060.00194	ug/L	74.53117	1.84	7191.05702	4060.00194 (ug/L)
Zr (343.823 nm)	3835.29488	ug/L	55.55066	1.45	243780.32318	3835.29488 (ug/L)

Label	Internal Standard
Ag (328.068 nm)	Sc-A
Al (236.705 nm)	Sc-A
As (188.980 nm)	Sc-A
B (249.772 nm)	Sc-A
Ba (230.424 nm)	Sc-A
Be (313.107 nm)	Sc-A
Bi (223.061 nm)	Sc-A
Ca (317.933 nm)	Sc-A
Cd (214.439 nm)	Sc-A
Co (228.615 nm)	Sc-A
Cr (205.560 nm)	Sc-A
Cu (224.700 nm)	Sc-A
Fe (261.382 nm)	Sc-A
K (766.491 nm)	Sc-R
Li (610.365 nm)	Sc-R
Mg (279.078 nm)	Sc-A
Mn (260.568 nm)	Sc-A
Mo (202.032 nm)	Sc-A
Na (588.995 nm)	Sc-R
Ni (231.604 nm)	Sc-A
P (178.222 nm)	Sc-A
Pb (220.353 nm)	Sc-A
Pt (203.646 nm)	Sc-A
Sb (206.834 nm)	Sc-A
Se (196.026 nm)	Sc-A

Label	Internal Standard
Si (251.611 nm)	Sc-A
Sn (189.925 nm)	Sc-A
Sr (421.552 nm)	Sc-A
Te (214.282 nm)	Sc-A
Ti (334.941 nm)	Sc-A
Tl (190.807 nm)	Sc-A
U (409.013 nm)	Sc-A
V (292.401 nm)	Sc-A
W (207.912 nm)	Sc-A
Y (371.029 nm)	Sc-A
Zn (206.200 nm)	Sc-A
Zr (343.823 nm)	Sc-A

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Sc-A	1.01	414824.01	0.00	0.20
Sc-R	1.00	47120.04	0.00	0.22

Replicates Concentration

Label	Replicate 1	Replicate 2	Replicate 3	Units
Ag (328.068 nm)	3517.55202 o	3571.66091 o	3606.89234 o	ug/L
Al (236.705 nm)	3582.29326	3640.32694	3692.59803	ug/L
As (188.980 nm)	3724.19316	3764.11803	3824.86256	ug/L
B (249.772 nm)	2.51606	2.56301	2.68872	ug/L
Ba (230.424 nm)	3913.39084	3993.09352	4033.48618	ug/L
Be (313.107 nm)	394.33000	403.38126	408.56552	ug/L
Bi (223.061 nm)	8.38319	7.08004	1.42912	ug/L
Ca (317.933 nm)	4051.85705	4128.12656	4189.50347	ug/L
Cd (214.439 nm)	390.10292	401.70933	401.22834	ug/L
Co (228.615 nm)	399.37299	407.34755	412.36337	ug/L
Cr (205.560 nm)	3930.69642	4027.90771	4068.50682	ug/L
Cu (224.700 nm)	394.91272	411.03107	413.35723	ug/L
Fe (261.382 nm)	3980.12480	4046.21046	4101.88033	ug/L
K (766.491 nm)	3532.76002	3531.33936	3571.65391	ug/L
Li (610.365 nm)	3564.81437	3627.31584	3649.03599	ug/L
Mg (279.078 nm)	3712.85473	3786.94880	3837.58082	ug/L
Mn (260.568 nm)	3993.58872	4053.68642	4112.60839	ug/L
Mo (202.032 nm)	410.78904	416.45536	424.95741	ug/L
Na (588.995 nm)	3819.80413	3878.30923	3916.89047	ug/L
Ni (231.604 nm)	402.13081	413.02275	419.12247	ug/L
P (178.222 nm)	3788.83304	3848.02303	3911.60167	ug/L
Pb (220.353 nm)	3963.23186	4038.38130	4086.50947	ug/L
Pt (203.646 nm)	0.68513	0.42623	8.70419	ug/L
Sb (206.834 nm)	3685.47250	3734.44723	3861.55325	ug/L
Se (196.026 nm)	3789.86879	3869.97423	3878.00903	ug/L
Si (251.611 nm)	31.92333	39.66262	39.34709	ug/L
Sn (189.925 nm)	7.16989	0.50437	0.89928	ug/L

Label	Replicate 1	Replicate 2	Replicate 3	Units
Sr (421.552 nm)	1.41636	1.42628	1.45302	ug/L
Te (214.282 nm)	3739.35062	3831.73976	3869.39517	ug/L
Ti (334.941 nm)	385.39387	392.77046	398.03840	ug/L
Tl (190.807 nm)	3942.31370	4022.03839	4061.17590	ug/L
U (409.013 nm)	3817.48493	3883.71085	3939.21364	ug/L
V (292.401 nm)	3838.42616	3909.82734	3962.95872	ug/L
W (207.912 nm)	1.97477	-0.59271 u	2.97099	ug/L
Y (371.029 nm)	382.02543	388.77810	393.02457	ug/L
Zn (206.200 nm)	3999.13295	4037.74754	4143.12533	ug/L
Zr (343.823 nm)	3777.71856	3839.59630	3888.56979	ug/L
Sc-A (361.383 nm)	1.01	1.01	1.01	Ratio
Sc-R (503.102 nm)	1.00	1.00	1.00	Ratio

Sample Name: 790486 RLVS

Date: 7/14/2022 11:10:44 Rack:Tube: 1:26

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Calculated Concentration
Ag (328.068 nm)	9.16708	ug/L	0.21735	2.37	392.75824	9.16708 (ug/L)
Al (236.705 nm)	197.72680	ug/L	8.82083	4.46	183.21722	197.72680 (ug/L)
As (188.980 nm)	94.19458	ug/L	5.38266	5.71	39.17514	94.19458 (ug/L)
B (249.772 nm)	94.11473	ug/L	1.60521	1.71	1538.75753	94.11473 (ug/L)
Ba (230.424 nm)	10.58749	ug/L	0.22756	2.15	188.58108	10.58749 (ug/L)
Be (313.107 nm)	0.51518	ug/L	0.01337	2.60	373.17804	0.51518 (ug/L)
Bi (223.061 nm)	89.88536	ug/L	2.31193	2.57	98.02559	89.88536 (ug/L)
Ca (317.933 nm)	718.45735	ug/L	11.65323	1.62	12254.34528	718.45735 (ug/L)
Cd (214.439 nm)	3.40725	ug/L	0.43921	12.89	34.08652	3.40725 (ug/L)
Co (228.615 nm)	2.82020	ug/L	1.27976	45.38	7.13068	2.82020 (ug/L)
Cr (205.560 nm)	56.77120	ug/L	1.16669	2.06	322.66990	56.77120 (ug/L)
Cu (224.700 nm)	23.50499	ug/L	2.45769	10.46	12.76543	23.50499 (ug/L)
Fe (261.382 nm)	236.99548	ug/L	2.65466	1.12	681.61203	236.99548 (ug/L)
K (766.491 nm)	436.68780	ug/L	17.92927	4.11	740.43189	436.68780 (ug/L)
Li (610.365 nm)	105.11153	ug/L	4.67033	4.44	-3480.51287	105.11153 (ug/L)
Mg (279.078 nm)	59.11111	ug/L	2.17020	3.67	119.97159	59.11111 (ug/L)
Mn (260.568 nm)	5.57666	ug/L	0.18284	3.28	98.49245	5.57666 (ug/L)
Mo (202.032 nm)	15.32206	ug/L	0.82581	5.39	70.46669	15.32206 (ug/L)
Na (588.995 nm)	335.88273	ug/L	4.65754	1.39	32094.53080	335.88273 (ug/L)
Ni (231.604 nm)	5.47315	ug/L	1.49042	27.23	8.99634	5.47315 (ug/L)
P (178.222 nm)	215.43024	ug/L	14.30220	6.64	23.23813	215.43024 (ug/L)
Pb (220.353 nm)	19.86047	ug/L	2.26830	11.42	25.52319	19.86047 (ug/L)
Pt (203.646 nm)	141.17509	ug/L	2.55523	1.81	114.14776	141.17509 (ug/L)
Sb (206.834 nm)	54.52539	ug/L	5.86190	10.75	40.12513	54.52539 (ug/L)
Se (196.026 nm)	96.61674	ug/L	4.58977	4.75	60.27045	96.61674 (ug/L)
Si (251.611 nm)	476.27917	ug/L	7.85976	1.65	692.39670	476.27917 (ug/L)
Sn (189.925 nm)	99.07764	ug/L	2.85228	2.88	69.02631	99.07764 (ug/L)
Sr (421.552 nm)	15.87057	ug/L	0.26797	1.69	32441.22989	15.87057 (ug/L)
Te (214.282 nm)	46.88704	ug/L	3.51665	7.50	19.10153	46.88704 (ug/L)
Ti (334.941 nm)	3.05522	ug/L	0.05719	1.87	556.93753	3.05522 (ug/L)

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Calculated Concentration
Tl (190.807 nm)	55.86506	ug/L	6.94874	12.44	27.15092	55.86506 (ug/L)
U (409.013 nm)	93.61636	ug/L	2.41367	2.58	680.77939	93.61636 (ug/L)
V (292.401 nm)	3.17721	ug/L	0.38653	12.17	55.98570	3.17721 (ug/L)
W (207.912 nm)	0.89981	ug/L	0.71290	79.23	7.51998	0.89981 (ug/L)
Y (371.029 nm)	2.94729	ug/L	0.09312	3.16	488.24901	2.94729 (ug/L)
Zn (206.200 nm)	21.56805	ug/L	2.44681	11.34	36.85223	21.56805 (ug/L)
Zr (343.823 nm)	27.40013	ug/L	0.80466	2.94	1832.62043	27.40013 (ug/L)

Label	Internal Standard
Ag (328.068 nm)	Sc-A
Al (236.705 nm)	Sc-A
As (188.980 nm)	Sc-A
B (249.772 nm)	Sc-A
Ba (230.424 nm)	Sc-A
Be (313.107 nm)	Sc-A
Bi (223.061 nm)	Sc-A
Ca (317.933 nm)	Sc-A
Cd (214.439 nm)	Sc-A
Co (228.615 nm)	Sc-A
Cr (205.560 nm)	Sc-A
Cu (224.700 nm)	Sc-A
Fe (261.382 nm)	Sc-A
K (766.491 nm)	Sc-R
Li (610.365 nm)	Sc-R
Mg (279.078 nm)	Sc-A
Mn (260.568 nm)	Sc-A
Mo (202.032 nm)	Sc-A
Na (588.995 nm)	Sc-R
Ni (231.604 nm)	Sc-A
P (178.222 nm)	Sc-A
Pb (220.353 nm)	Sc-A
Pt (203.646 nm)	Sc-A
Sb (206.834 nm)	Sc-A
Se (196.026 nm)	Sc-A
Si (251.611 nm)	Sc-A
Sn (189.925 nm)	Sc-A
Sr (421.552 nm)	Sc-A
Te (214.282 nm)	Sc-A
Ti (334.941 nm)	Sc-A
Tl (190.807 nm)	Sc-A
U (409.013 nm)	Sc-A
V (292.401 nm)	Sc-A
W (207.912 nm)	Sc-A
Y (371.029 nm)	Sc-A
Zn (206.200 nm)	Sc-A
Zr (343.823 nm)	Sc-A

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Sc-A	1.02	420275.34	0.00	0.41
Sc-R	1.02	47699.06	0.00	0.39

Replicates Concentration

Label	Replicate 1	Replicate 2	Replicate 3	Units
Ag (328.068 nm)	8.96806	9.39900	9.13418	ug/L
Al (236.705 nm)	188.35639	198.95462	205.86940	ug/L
As (188.980 nm)	88.33024	95.34343	98.91006	ug/L
B (249.772 nm)	92.61180	93.92673	95.80567	ug/L
Ba (230.424 nm)	10.34577	10.61911	10.79758	ug/L
Be (313.107 nm)	0.50723	0.50770	0.53062	ug/L
Bi (223.061 nm)	87.48771	90.06757	92.10078	ug/L
Ca (317.933 nm)	705.70939	721.10106	728.56160	ug/L
Cd (214.439 nm)	3.74670	3.56385	2.91120	ug/L
Co (228.615 nm)	1.52297	2.85590	4.08175	ug/L
Cr (205.560 nm)	56.56519	55.72123	58.02717	ug/L
Cu (224.700 nm)	21.30982	23.04495	26.16019	ug/L
Fe (261.382 nm)	234.04766	237.74136	239.19741	ug/L
K (766.491 nm)	416.10938	448.94046	445.01356	ug/L
Li (610.365 nm)	100.23380	105.55845	109.54233	ug/L
Mg (279.078 nm)	61.23875	56.90072	59.19387	ug/L
Mn (260.568 nm)	5.56060	5.40238	5.76701	ug/L
Mo (202.032 nm)	14.43841	15.45351	16.07426	ug/L
Na (588.995 nm)	331.78643	340.94881	334.91297	ug/L
Ni (231.604 nm)	4.89863	4.35550	7.16533	ug/L
P (178.222 nm)	227.20092	219.57690	199.51289	ug/L
Pb (220.353 nm)	17.65963	22.19069	19.73110	ug/L
Pt (203.646 nm)	139.82251	139.58046	144.12230	ug/L
Sb (206.834 nm)	60.47846	48.75913	54.33859	ug/L
Se (196.026 nm)	91.58491	100.57366	97.69164	ug/L
Si (251.611 nm)	467.21392	481.18842	480.43517	ug/L
Sn (189.925 nm)	96.04151	99.49032	101.70111	ug/L
Sr (421.552 nm)	15.58997	15.89791	16.12382	ug/L
Te (214.282 nm)	49.68216	42.93853	48.04042	ug/L
Ti (334.941 nm)	3.00274	3.04674	3.11618	ug/L
Tl (190.807 nm)	54.93299	63.23279	49.42939	ug/L
U (409.013 nm)	95.89026	93.87508	91.08375	ug/L
V (292.401 nm)	2.88737	3.02819	3.61607	ug/L
W (207.912 nm)	1.56073	0.99434	0.14436	ug/L
Y (371.029 nm)	2.85166	2.95256	3.03767	ug/L
Zn (206.200 nm)	21.64859	19.08195	23.97359	ug/L
Zr (343.823 nm)	28.10223	27.57612	26.52205	ug/L
Sc-A (361.383 nm)	1.02	1.02	1.03	Ratio
Sc-R (503.102 nm)	1.01	1.02	1.02	Ratio

Sample Name: CCV

Date: 7/14/2022 11:12:25 Rack:Tube: S1:10

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity
Ag (328.068 nm)	1985.94219	ug/L	7.64337	0.38	103702.76734
Al (236.705 nm)	49410.55277	ug/L	269.75130	0.55	30259.01422
As (188.980 nm)	5012.51080	ug/L	30.36939	0.61	2495.27978
B (249.772 nm)	12368.68163	ug/L	62.61168	0.51	195354.71847
Ba (230.424 nm)	5057.91766	ug/L	16.07593	0.32	93365.73030
Be (313.107 nm)	1011.66773	ug/L	3.18476	0.31	744857.68275
Bi (223.061 nm)	4929.79956	ug/L	26.05364	0.53	7362.24210
Ca (317.933 nm)	50795.95096	ug/L	355.49871	0.70	870739.94751
Cd (214.439 nm)	2578.71939	ug/L	17.48023	0.68	26885.75827
Co (228.615 nm)	5049.01170	ug/L	24.82411	0.49	29754.09143
Cr (205.560 nm)	5072.97418	ug/L	34.66480	0.68	29144.01220
Cu (224.700 nm)	4982.94323	ug/L	17.72032	0.36	5037.90942
Fe (261.382 nm)	50375.04554	ug/L	318.28123	0.63	134722.87052
K (766.491 nm)	47953.47512	ug/L	151.02307	0.31	97862.14331
Li (610.365 nm)	4834.51108	ug/L	13.34033	0.28	49715.93838
Mg (279.078 nm)	50147.65863	ug/L	314.11121	0.63	79244.59911
Mn (260.568 nm)	5032.25440	ug/L	32.00547	0.64	87643.74873
Mo (202.032 nm)	25246.22849	ug/L	157.09587	0.62	118655.27763
Na (588.995 nm)	47754.38624	ug/L	85.15871	0.18	1153747.19917
Ni (231.604 nm)	5067.54870	ug/L	28.89701	0.57	11861.64944
P (178.222 nm)	25156.97996	ug/L	94.59409	0.38	2421.68505
Pb (220.353 nm)	5065.72639	ug/L	28.34348	0.56	5921.95269
Pt (203.646 nm)	28.37943	ug/L	1.02508	3.61	291.96472
Sb (206.834 nm)	24654.59813	ug/L	120.30911	0.49	22161.21444
Se (196.026 nm)	4942.81345	ug/L	35.43492	0.72	2928.26734
Si (251.611 nm)	12271.44417	ug/L	207.61325	1.69	17962.40719
Sn (189.925 nm)	5124.12798	ug/L	44.83137	0.87	3825.67386
Sr (421.552 nm)	4921.94489	ug/L	19.51637	0.40	10055204.39808
Te (214.282 nm)	9982.38722	ug/L	58.07532	0.58	5217.10861
Ti (334.941 nm)	4973.14343	ug/L	33.05102	0.66	999342.12280
Tl (190.807 nm)	2508.55938	ug/L	21.47453	0.86	1449.88661
U (409.013 nm)	4887.16325	ug/L	27.36363	0.56	26444.92822
V (292.401 nm)	5006.61121	ug/L	27.84817	0.56	126277.85199
W (207.912 nm)	2.98836	ug/L	3.25402	> 100.00	60.41622
Y (371.029 nm)	1988.11039	ug/L	12.28565	0.62	328858.78073
Zn (206.200 nm)	5167.13083	ug/L	44.26453	0.86	9152.32045
Zr (343.823 nm)	4978.10295	ug/L	27.91835	0.56	316458.34521

Label	Calculated Concentration	Internal Standard
Ag (328.068 nm)	1985.94219 (ug/L)	Sc-A
Al (236.705 nm)	49410.55277 (ug/L)	Sc-A
As (188.980 nm)	5012.51080 (ug/L)	Sc-A
B (249.772 nm)	12368.68163 (ug/L)	Sc-A
Ba (230.424 nm)	5057.91766 (ug/L)	Sc-A
Be (313.107 nm)	1011.66773 (ug/L)	Sc-A
Bi (223.061 nm)	4929.79956 (ug/L)	Sc-A
Ca (317.933 nm)	50795.95096 (ug/L)	Sc-A

Label	Calculated Concentration	Internal Standard
Cd (214.439 nm)	2578.71939 (ug/L)	Sc-A
Co (228.615 nm)	5049.01170 (ug/L)	Sc-A
Cr (205.560 nm)	5072.97418 (ug/L)	Sc-A
Cu (224.700 nm)	4982.94323 (ug/L)	Sc-A
Fe (261.382 nm)	50375.04554 (ug/L)	Sc-A
K (766.491 nm)	47953.47512 (ug/L)	Sc-R
Li (610.365 nm)	4834.51108 (ug/L)	Sc-R
Mg (279.078 nm)	50147.65863 (ug/L)	Sc-A
Mn (260.568 nm)	5032.25440 (ug/L)	Sc-A
Mo (202.032 nm)	25246.22849 (ug/L)	Sc-A
Na (588.995 nm)	47754.38624 (ug/L)	Sc-R
Ni (231.604 nm)	5067.54870 (ug/L)	Sc-A
P (178.222 nm)	25156.97996 (ug/L)	Sc-A
Pb (220.353 nm)	5065.72639 (ug/L)	Sc-A
Pt (203.646 nm)	28.37943 (ug/L)	Sc-A
Sb (206.834 nm)	24654.59813 (ug/L)	Sc-A
Se (196.026 nm)	4942.81345 (ug/L)	Sc-A
Si (251.611 nm)	12271.44417 (ug/L)	Sc-A
Sn (189.925 nm)	5124.12798 (ug/L)	Sc-A
Sr (421.552 nm)	4921.94489 (ug/L)	Sc-A
Te (214.282 nm)	9982.38722 (ug/L)	Sc-A
Ti (334.941 nm)	4973.14343 (ug/L)	Sc-A
Tl (190.807 nm)	2508.55938 (ug/L)	Sc-A
U (409.013 nm)	4887.16325 (ug/L)	Sc-A
V (292.401 nm)	5006.61121 (ug/L)	Sc-A
W (207.912 nm)	2.98836 (ug/L)	Sc-A
Y (371.029 nm)	1988.11039 (ug/L)	Sc-A
Zn (206.200 nm)	5167.13083 (ug/L)	Sc-A
Zr (343.823 nm)	4978.10295 (ug/L)	Sc-A

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Sc-A	0.98	401464.46	0.00	0.11
Sc-R	0.98	46055.95	0.00	0.20

Replicates Concentration

Label	Replicate 1	Replicate 2	Replicate 3	Units
Ag (328.068 nm)	1977.12641	1989.98613	1990.71405	ug/L
Al (236.705 nm)	49127.41985	49439.68003	49664.55844	ug/L
As (188.980 nm)	4979.17949	5019.73890	5038.61402	ug/L
B (249.772 nm)	12313.83416	12436.89800	12355.31273	ug/L
Ba (230.424 nm)	5040.26666	5061.76652	5071.71980	ug/L
Be (313.107 nm)	1008.11267	1014.26002	1012.63051	ug/L
Bi (223.061 nm)	4903.35962	4930.59017	4955.44891	ug/L
Ca (317.933 nm)	50403.45272	50888.09348	51096.30667	ug/L
Cd (214.439 nm)	2559.10507	2584.40135	2592.65174	ug/L
Co (228.615 nm)	5021.35942	5056.29950	5069.37618	ug/L

Label	Replicate 1	Replicate 2	Replicate 3	Units
Cr (205.560 nm)	5033.15602	5089.34293	5096.42359	ug/L
Cu (224.700 nm)	4962.72907	4990.30246	4995.79816	ug/L
Fe (261.382 nm)	50017.16036	50481.58929	50626.38696	ug/L
K (766.491 nm)	47788.41223	47987.28645	48084.72667	ug/L
Li (610.365 nm)	4825.70839	4827.96486	4849.85998	ug/L
Mg (279.078 nm)	49791.19247	50267.88519	50383.89824	ug/L
Mn (260.568 nm)	4996.15614	5043.44518	5057.16187	ug/L
Mo (202.032 nm)	25067.63802	25307.98838	25363.05907	ug/L
Na (588.995 nm)	47658.12036	47785.15065	47819.88771	ug/L
Ni (231.604 nm)	5034.47015	5080.29397	5087.88197	ug/L
P (178.222 nm)	25106.41068	25266.11031	25098.41889	ug/L
Pb (220.353 nm)	5033.29901	5085.77431	5078.10587	ug/L
Pt (203.646 nm)	27.95367	29.54878	27.63584	ug/L
Sb (206.834 nm)	24729.98225	24515.85060	24717.96154	ug/L
Se (196.026 nm)	4902.42677	4968.69187	4957.32173	ug/L
Si (251.611 nm)	12044.99696	12316.51714	12452.81840	ug/L
Sn (189.925 nm)	5082.02281	5119.09960	5171.26154	ug/L
Sr (421.552 nm)	4909.43080	4911.97119	4944.43267	ug/L
Te (214.282 nm)	9917.81596	9998.99941	10030.34630	ug/L
Ti (334.941 nm)	4935.88405	4984.61951	4998.92673	ug/L
Tl (190.807 nm)	2499.88218	2492.78120	2533.01476	ug/L
U (409.013 nm)	4858.63720	4889.65911	4913.19345	ug/L
V (292.401 nm)	4976.19633	5012.77865	5030.85865	ug/L
W (207.912 nm)	2.78692	-0.16025 u	6.33842	ug/L
Y (371.029 nm)	1975.16292	1989.56322	1999.60504	ug/L
Zn (206.200 nm)	5119.25245	5175.57503	5206.56500	ug/L
Zr (343.823 nm)	4948.64972	4981.47993	5004.17921	ug/L
Sc-A (361.383 nm)	0.98	0.97	0.98	Ratio
Sc-R (503.102 nm)	0.98	0.98	0.98	Ratio

Sample Name: CCB

Date: 7/14/2022 11:14:05 Rack:Tube: S1:11

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Calculated Concentration
Ag (328.068 nm)	-0.07016	ug/L	0.23173	> 100.00	-92.18394	-0.07016 (ug/L)
Al (236.705 nm)	-3.87119	ug/L	1.50598	38.90	60.69860	-3.87119 (ug/L)
As (188.980 nm)	2.30650	ug/L	3.52686	> 100.00	-6.69917	2.30650 (ug/L)
B (249.772 nm)	13.44769	ug/L	2.81230	20.91	265.88359	13.44769 (ug/L)
Ba (230.424 nm)	0.00552	ug/L	0.10809	> 100.00	-4.53834	0.00552 (ug/L)
Be (313.107 nm)	0.01211	ug/L	0.00378	31.21	11.14851	0.01211 (ug/L)
Bi (223.061 nm)	2.61806	ug/L	4.73627	> 100.00	-33.77457	2.61806 (ug/L)
Ca (317.933 nm)	0.04367	ug/L	0.86880	> 100.00	-33.76018	0.04367 (ug/L)
Cd (214.439 nm)	0.14617	ug/L	0.08364	57.22	-4.68958	0.14617 (ug/L)
Co (228.615 nm)	0.45710	ug/L	0.84217	> 100.00	-6.83924	0.45710 (ug/L)
Cr (205.560 nm)	0.00038	ug/L	0.35319	> 100.00	-3.20059	0.00038 (ug/L)
Cu (224.700 nm)	2.61462	ug/L	1.98430	75.89	-8.27812	2.61462 (ug/L)
Fe (261.382 nm)	3.09448	ug/L	1.32547	42.83	55.55223	3.09448 (ug/L)

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Calculated Concentration
K (766.491 nm)	6.09124	ug/L	11.13755	> 100.00	-139.98162	6.09124 (ug/L)
Li (610.365 nm)	2.62450	ug/L	1.03409	39.40	-4638.49874	2.62450 (ug/L)
Mg (279.078 nm)	0.32865	ug/L	2.59239	> 100.00	28.41118	0.32865 (ug/L)
Mn (260.568 nm)	0.22862	ug/L	0.26267	> 100.00	4.97680	0.22862 (ug/L)
Mo (202.032 nm)	2.71221	ug/L	0.21909	8.08	11.28298	2.71221 (ug/L)
Na (588.995 nm)	-26.48459	ug/L	2.32346	8.77	23522.97660	-26.48459 (ug/L)
Ni (231.604 nm)	-1.01968	ug/L	0.32576	31.95	-6.26339	-1.01968 (ug/L)
P (178.222 nm)	-7.16076	ug/L	6.04979	84.49	1.83317	-7.16076 (ug/L)
Pb (220.353 nm)	-1.87332	ug/L	2.41681	> 100.00	-0.09377	-1.87332 (ug/L)
Pt (203.646 nm)	3.01270	ug/L	2.01845	67.00	3.41055	3.01270 (ug/L)
Sb (206.834 nm)	4.77299	ug/L	4.93781	> 100.00	-4.55071	4.77299 (ug/L)
Se (196.026 nm)	0.22599	ug/L	2.05071	> 100.00	3.05689	0.22599 (ug/L)
Si (251.611 nm)	-6.50696	ug/L	1.11733	17.17	10.70726	-6.50696 (ug/L)
Sn (189.925 nm)	-2.37505	ug/L	2.25004	94.74	-6.81811	-2.37505 (ug/L)
Sr (421.552 nm)	0.06099	ug/L	0.05094	83.53	143.37155	0.06099 (ug/L)
Te (214.282 nm)	-0.26633	ug/L	7.59681	> 100.00	-5.46878	-0.26633 (ug/L)
Ti (334.941 nm)	0.12068	ug/L	0.07860	65.13	-38.67321	0.12068 (ug/L)
Tl (190.807 nm)	-5.17247	ug/L	2.41860	46.76	-5.07966	-5.17247 (ug/L)
U (409.013 nm)	-5.02035	ug/L	4.33839	86.42	154.50121	-5.02035 (ug/L)
V (292.401 nm)	0.37829	ug/L	0.15387	40.67	-11.99897	0.37829 (ug/L)
W (207.912 nm)	1.65905	ug/L	2.78637	> 100.00	8.27368	1.65905 (ug/L)
Y (371.029 nm)	0.01671	ug/L	0.01037	62.06	3.21529	0.01671 (ug/L)
Zn (206.200 nm)	-0.59348	ug/L	0.74187	> 100.00	-2.50994	-0.59348 (ug/L)
Zr (343.823 nm)	0.88259	ug/L	0.18855	21.36	148.96133	0.88259 (ug/L)

Label	Internal Standard
Ag (328.068 nm)	Sc-A
Al (236.705 nm)	Sc-A
As (188.980 nm)	Sc-A
B (249.772 nm)	Sc-A
Ba (230.424 nm)	Sc-A
Be (313.107 nm)	Sc-A
Bi (223.061 nm)	Sc-A
Ca (317.933 nm)	Sc-A
Cd (214.439 nm)	Sc-A
Co (228.615 nm)	Sc-A
Cr (205.560 nm)	Sc-A
Cu (224.700 nm)	Sc-A
Fe (261.382 nm)	Sc-A
K (766.491 nm)	Sc-R
Li (610.365 nm)	Sc-R
Mg (279.078 nm)	Sc-A
Mn (260.568 nm)	Sc-A
Mo (202.032 nm)	Sc-A
Na (588.995 nm)	Sc-R
Ni (231.604 nm)	Sc-A
P (178.222 nm)	Sc-A
Pb (220.353 nm)	Sc-A

Label	Internal Standard
Pt (203.646 nm)	Sc-A
Sb (206.834 nm)	Sc-A
Se (196.026 nm)	Sc-A
Si (251.611 nm)	Sc-A
Sn (189.925 nm)	Sc-A
Sr (421.552 nm)	Sc-A
Te (214.282 nm)	Sc-A
Ti (334.941 nm)	Sc-A
Tl (190.807 nm)	Sc-A
U (409.013 nm)	Sc-A
V (292.401 nm)	Sc-A
W (207.912 nm)	Sc-A
Y (371.029 nm)	Sc-A
Zn (206.200 nm)	Sc-A
Zr (343.823 nm)	Sc-A

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Sc-A	1.00	412821.35	0.00	0.09
Sc-R	1.00	46809.18	0.00	0.13

Replicates Concentration

Label	Replicate 1	Replicate 2	Replicate 3	Units
Ag (328.068 nm)	-0.18218 u	-0.22459 u	0.19630	ug/L
Al (236.705 nm)	-5.01072 u	-4.43900 u	-2.16385 u	ug/L
As (188.980 nm)	6.02001	-0.99807 u	1.89757	ug/L
B (249.772 nm)	16.43257	13.06289	10.84761	ug/L
Ba (230.424 nm)	0.12208	-0.09142 u	-0.01411 u	ug/L
Be (313.107 nm)	0.00818	0.01572	0.01242	ug/L
Bi (223.061 nm)	-0.27267 u	8.08400	0.04285	ug/L
Ca (317.933 nm)	0.17330	-0.88266 u	0.84038	ug/L
Cd (214.439 nm)	0.18621	0.20226	0.05003	ug/L
Co (228.615 nm)	-0.32414 u	0.34623	1.34922	ug/L
Cr (205.560 nm)	0.17990	-0.40650 u	0.22776	ug/L
Cu (224.700 nm)	4.90014	1.33137	1.61235	ug/L
Fe (261.382 nm)	3.06082	4.43646	1.78617	ug/L
K (766.491 nm)	16.78853	6.92491	-5.43973 u	ug/L
Li (610.365 nm)	3.71468	2.50126	1.65755	ug/L
Mg (279.078 nm)	1.87343	-2.66426 u	1.77678	ug/L
Mn (260.568 nm)	0.52462	0.02331	0.13794	ug/L
Mo (202.032 nm)	2.46263	2.87283	2.80116	ug/L
Na (588.995 nm)	-25.83406 u	-29.06397 u	-24.55573 u	ug/L
Ni (231.604 nm)	-1.12535 u	-0.65420 u	-1.27948 u	ug/L
P (178.222 nm)	-12.27785 u	-8.72064 u	-0.48378 u	ug/L
Pb (220.353 nm)	-0.11475 u	-4.62918 u	-0.87605 u	ug/L
Pt (203.646 nm)	3.18114	0.91531	4.94166	ug/L
Sb (206.834 nm)	2.82034	1.11011	10.38854	ug/L

Label	Replicate 1	Replicate 2	Replicate 3	Units
Se (196.026 nm)	2.20108	0.36969	-1.89279 u	ug/L
Si (251.611 nm)	-7.27042 u	-5.22452 u	-7.02593 u	ug/L
Sn (189.925 nm)	-4.80141 u	-0.35734 u	-1.96641 u	ug/L
Sr (421.552 nm)	0.03404	0.02918	0.11974	ug/L
Te (214.282 nm)	-7.83470 u	-0.32289 u	7.35860	ug/L
Ti (334.941 nm)	0.10677	0.04996	0.20531	ug/L
Tl (190.807 nm)	-5.05872 u	-7.64594 u	-2.81275 u	ug/L
U (409.013 nm)	-9.83914 u	-3.79671 u	-1.42519 u	ug/L
V (292.401 nm)	0.55090	0.32849	0.25549	ug/L
W (207.912 nm)	2.75161	-1.50803 u	3.73358	ug/L
Y (371.029 nm)	0.00482	0.02145	0.02387	ug/L
Zn (206.200 nm)	0.12281	-1.35852 u	-0.54473 u	ug/L
Zr (343.823 nm)	0.86403	0.70401	1.07974	ug/L
Sc-A (361.383 nm)	1.00	1.00	1.00	Ratio
Sc-R (503.102 nm)	1.00	1.00	1.00	Ratio

Sample Name: 2218833001

Date: 7/14/2022 11:15:45 Rack:Tube: 1:27

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Calculated Concentration
Ag (328.068 nm)	2.50787	ug/L	0.06135	2.45	46.14032	2.50787 (ug/L)
Al (236.705 nm)	5091.92657	ug/L	44.68700	0.88	3153.33906	5091.92657 (ug/L)
As (188.980 nm)	34.77513	ug/L	9.57371	27.53	9.44273	34.77513 (ug/L)
B (249.772 nm)	110.87188	ug/L	0.43815	0.40	1972.03085	110.87188 (ug/L)
Ba (230.424 nm)	173.96805	ug/L	0.13864	0.08	3159.16178	173.96805 (ug/L)
Be (313.107 nm)	0.23365	ug/L	0.00767	3.28	173.18222	0.23365 (ug/L)
Bi (223.061 nm)	-5.02751	ug/L	4.85135	96.50	-45.69477	-5.02751 (ug/L)
Ca (317.933 nm)	34586.29808	ug/L	222.38136	0.64	591397.72836	34586.29808 (ug/L)
Cd (214.439 nm)	16.54695	ug/L	0.41267	2.49	166.35483	16.54695 (ug/L)
Co (228.615 nm)	8.66933	ug/L	0.80815	9.32	43.20397	8.66933 (ug/L)
Cr (205.560 nm)	89.29488	ug/L	1.41079	1.58	503.43289	89.29488 (ug/L)
Cu (224.700 nm)	966.51553	ug/L	4.20144	0.43	961.38337	966.51553 (ug/L)
Fe (261.382 nm)	18934.86390	ug/L	127.98595	0.68	50738.18665	18934.86390 (ug/L)
K (766.491 nm)	1699.34016	ug/L	13.35873	0.79	3320.99806	1699.34016 (ug/L)
Li (610.365 nm)	65.53510	ug/L	5.64060	8.61	-4502.59469	65.53510 (ug/L)
Mg (279.078 nm)	3542.82414	ug/L	13.94836	0.39	5626.33364	3542.82414 (ug/L)
Mn (260.568 nm)	341.12210	ug/L	1.58122	0.46	5964.26003	341.12210 (ug/L)
Mo (202.032 nm)	9.72493	ug/L	0.97429	10.02	42.63141	9.72493 (ug/L)
Na (588.995 nm)	1353.00523	ug/L	4.48952	0.33	56153.87633	1353.00523 (ug/L)
Ni (231.604 nm)	124.10365	ug/L	1.77088	1.43	287.08514	124.10365 (ug/L)
P (178.222 nm)	4171.24759	ug/L	56.45343	1.35	403.64023	4171.24759 (ug/L)
Pb (220.353 nm)	95.27420	ug/L	1.61651	1.70	114.36810	95.27420 (ug/L)
Pt (203.646 nm)	10.39237	ug/L	3.15900	30.40	133.28853	10.39237 (ug/L)
Sb (206.834 nm)	112.12196	ug/L	0.66110	0.59	92.09473	112.12196 (ug/L)
Se (196.026 nm)	54.21396	ug/L	6.20436	11.44	32.14727	54.21396 (ug/L)
Si (251.611 nm)	8554.29506	ug/L	49.00707	0.57	12091.43640	8554.29506 (ug/L)
Sn (189.925 nm)	31.80314	ug/L	1.59161	5.00	18.73296	31.80314 (ug/L)

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Calculated Concentration
Sr (421.552 nm)	93.34154	ug/L	0.70718	0.76	190708.95639	93.34154 (ug/L)
Te (214.282 nm)	4.55698	ug/L	5.85257	> 100.00	-1.94762	4.55698 (ug/L)
Ti (334.941 nm)	182.29740	ug/L	1.24356	0.68	36513.57936	182.29740 (ug/L)
Tl (190.807 nm)	142.44149	ug/L	4.80767	3.38	72.52125	142.44149 (ug/L)
U (409.013 nm)	70.68841	ug/L	1.49616	2.12	576.37097	70.68841 (ug/L)
V (292.401 nm)	9.71069	ug/L	0.29092	3.00	191.80410	9.71069 (ug/L)
W (207.912 nm)	5.68698	ug/L	1.12847	19.84	28.20214	5.68698 (ug/L)
Y (371.029 nm)	4.13167	ug/L	0.06543	1.58	681.34259	4.13167 (ug/L)
Zn (206.200 nm)	1515.73472	ug/L	6.34449	0.42	2679.61460	1515.73472 (ug/L)
Zr (343.823 nm)	17.29290	ug/L	0.07528	0.44	1217.15423	17.29290 (ug/L)

Label	Internal Standard
Ag (328.068 nm)	Sc-A
Al (236.705 nm)	Sc-A
As (188.980 nm)	Sc-A
B (249.772 nm)	Sc-A
Ba (230.424 nm)	Sc-A
Be (313.107 nm)	Sc-A
Bi (223.061 nm)	Sc-A
Ca (317.933 nm)	Sc-A
Cd (214.439 nm)	Sc-A
Co (228.615 nm)	Sc-A
Cr (205.560 nm)	Sc-A
Cu (224.700 nm)	Sc-A
Fe (261.382 nm)	Sc-A
K (766.491 nm)	Sc-R
Li (610.365 nm)	Sc-R
Mg (279.078 nm)	Sc-A
Mn (260.568 nm)	Sc-A
Mo (202.032 nm)	Sc-A
Na (588.995 nm)	Sc-R
Ni (231.604 nm)	Sc-A
P (178.222 nm)	Sc-A
Pb (220.353 nm)	Sc-A
Pt (203.646 nm)	Sc-A
Sb (206.834 nm)	Sc-A
Se (196.026 nm)	Sc-A
Si (251.611 nm)	Sc-A
Sn (189.925 nm)	Sc-A
Sr (421.552 nm)	Sc-A
Te (214.282 nm)	Sc-A
Ti (334.941 nm)	Sc-A
Tl (190.807 nm)	Sc-A
U (409.013 nm)	Sc-A
V (292.401 nm)	Sc-A
W (207.912 nm)	Sc-A
Y (371.029 nm)	Sc-A
Zn (206.200 nm)	Sc-A

Label	Internal Standard
Zr (343.823 nm)	Sc-A

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Sc-A	1.02	421311.34	0.00	0.41
Sc-R	1.01	47628.26	0.00	0.40

Replicates Concentration

Label	Replicate 1	Replicate 2	Replicate 3	Units
Ag (328.068 nm)	2.44201	2.51819	2.56340	ug/L
Al (236.705 nm)	5055.13234	5078.99372	5141.65364	ug/L
As (188.980 nm)	35.95617	24.66570	43.70353	ug/L
B (249.772 nm)	111.36067	110.74055	110.51441	ug/L
Ba (230.424 nm)	173.81451	174.08407	174.00556	ug/L
Be (313.107 nm)	0.23188	0.22701	0.24205	ug/L
Bi (223.061 nm)	-10.48359 u	-1.19992 u	-3.39903 u	ug/L
Ca (317.933 nm)	34439.96756	34476.72308	34842.20361	ug/L
Cd (214.439 nm)	16.09706	16.63591	16.90788	ug/L
Co (228.615 nm)	8.16544	9.60148	8.24107	ug/L
Cr (205.560 nm)	88.26242	88.71986	90.90237	ug/L
Cu (224.700 nm)	961.74836	969.67863	968.11959	ug/L
Fe (261.382 nm)	18816.43832	18917.51339	19070.64000	ug/L
K (766.491 nm)	1709.20883	1684.13875	1704.67289	ug/L
Li (610.365 nm)	60.16555	71.41241	65.02735	ug/L
Mg (279.078 nm)	3540.27495	3530.32619	3557.87127	ug/L
Mn (260.568 nm)	339.46699	341.28204	342.61727	ug/L
Mo (202.032 nm)	8.77502	9.67788	10.72188	ug/L
Na (588.995 nm)	1352.21104	1348.96580	1357.83885	ug/L
Ni (231.604 nm)	125.54437	124.63998	122.12660	ug/L
P (178.222 nm)	4189.73271	4216.14111	4107.86895	ug/L
Pb (220.353 nm)	93.76616	95.07560	96.98083	ug/L
Pt (203.646 nm)	7.83215	9.42233	13.92264	ug/L
Sb (206.834 nm)	111.36191	112.44040	112.56358	ug/L
Se (196.026 nm)	59.39999	47.34042	55.90146	ug/L
Si (251.611 nm)	8527.16848	8610.86770	8524.84898	ug/L
Sn (189.925 nm)	31.79663	33.39800	30.21479	ug/L
Sr (421.552 nm)	92.64630	93.31823	94.06009	ug/L
Te (214.282 nm)	3.28089	10.94231	-0.55225 u	ug/L
Ti (334.941 nm)	183.21304	182.79753	180.88164	ug/L
Tl (190.807 nm)	142.17122	147.37859	137.77466	ug/L
U (409.013 nm)	70.62419	69.22540	72.21565	ug/L
V (292.401 nm)	10.04594	9.56137	9.52475	ug/L
W (207.912 nm)	5.20042	6.97711	4.88341	ug/L
Y (371.029 nm)	4.06957	4.12546	4.19999	ug/L
Zn (206.200 nm)	1511.88591	1512.26074	1523.05751	ug/L
Zr (343.823 nm)	17.33533	17.33739	17.20598	ug/L
Sc-A (361.383 nm)	1.02	1.03	1.03	Ratio

Label	Replicate 1	Replicate 2	Replicate 3	Units
Sc-R (503.102 nm)	1.01	1.02	1.02	Ratio

Sample Name: 2218833002

Date: 7/14/2022 11:17:26 Rack:Tube: 1:28

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Calculated Concentration
Ag (328.068 nm)	0.23141	ug/L	0.23743	> 100.00	-76.19120	0.23141 (ug/L)
Al (236.705 nm)	118.21413	ug/L	2.52926	2.14	134.78035	118.21413 (ug/L)
As (188.980 nm)	27.56428	ug/L	5.83325	21.16	5.90632	27.56428 (ug/L)
B (249.772 nm)	4.50854	ug/L	0.22775	5.05	128.31631	4.50854 (ug/L)
Ba (230.424 nm)	11.64771	ug/L	0.41106	3.53	207.01443	11.64771 (ug/L)
Be (313.107 nm)	0.00739	ug/L	0.00744	> 100.00	6.76489	0.00739 (ug/L)
Bi (223.061 nm)	-0.25773	ug/L	2.88775	> 100.00	-38.22667	-0.25773 (ug/L)
Ca (317.933 nm)	1849.40731	ug/L	23.06690	1.25	31590.61394	1849.40731 (ug/L)
Cd (214.439 nm)	0.29979	ug/L	0.20645	68.86	-2.80231	0.29979 (ug/L)
Co (228.615 nm)	0.41443	ug/L	0.22725	54.83	-6.97350	0.41443 (ug/L)
Cr (205.560 nm)	14.75436	ug/L	0.36257	2.46	81.36116	14.75436 (ug/L)
Cu (224.700 nm)	22.62348	ug/L	1.82980	8.09	11.94138	22.62348 (ug/L)
Fe (261.382 nm)	362.40508	ug/L	5.83702	1.61	1017.08471	362.40508 (ug/L)
K (766.491 nm)	60.25737	ug/L	9.56801	15.88	-29.31716	60.25737 (ug/L)
Li (610.365 nm)	43.92380	ug/L	4.68801	10.67	-4198.15331	43.92380 (ug/L)
Mg (279.078 nm)	287.24018	ug/L	3.58383	1.25	481.91064	287.24018 (ug/L)
Mn (260.568 nm)	7.48448	ug/L	0.22971	3.07	131.92771	7.48448 (ug/L)
Mo (202.032 nm)	-0.58434	ug/L	0.27572	47.19	-4.23390	-0.58434 (ug/L)
Na (588.995 nm)	148.62233	ug/L	5.90539	3.97	27665.01240	148.62233 (ug/L)
Ni (231.604 nm)	0.57215	ug/L	0.40674	71.09	-2.43441	0.57215 (ug/L)
P (178.222 nm)	231.61546	ug/L	12.97811	5.60	24.79454	231.61546 (ug/L)
Pb (220.353 nm)	1.60785	ug/L	0.70850	44.07	4.04249	1.60785 (ug/L)
Pt (203.646 nm)	11.05091	ug/L	2.22013	20.09	12.12818	11.05091 (ug/L)
Sb (206.834 nm)	9.48757	ug/L	2.59475	27.35	-0.24189	9.48757 (ug/L)
Se (196.026 nm)	52.21919	ug/L	0.09355	0.18	33.85510	52.21919 (ug/L)
Si (251.611 nm)	3617.24264	ug/L	81.44522	2.25	5125.12659	3617.24264 (ug/L)
Sn (189.925 nm)	19.87020	ug/L	3.47026	17.46	9.81209	19.87020 (ug/L)
Sr (421.552 nm)	6.70297	ug/L	0.12047	1.80	13712.47562	6.70297 (ug/L)
Te (214.282 nm)	8.62350	ug/L	5.72812	66.42	-0.81359	8.62350 (ug/L)
Ti (334.941 nm)	6.85781	ug/L	0.16990	2.48	1312.79920	6.85781 (ug/L)
Tl (190.807 nm)	134.52298	ug/L	10.60211	7.88	68.29239	134.52298 (ug/L)
U (409.013 nm)	5.31149	ug/L	4.35923	82.07	209.88856	5.31149 (ug/L)
V (292.401 nm)	0.56139	ug/L	0.07179	12.79	-8.05719	0.56139 (ug/L)
W (207.912 nm)	-7.14045	ug/L	1.48379	20.78	-2.59502	-7.14045 (ug/L)
Y (371.029 nm)	0.14960	ug/L	0.05124	34.25	25.11928	0.14960 (ug/L)
Zn (206.200 nm)	37.78965	ug/L	0.85705	2.27	65.41305	37.78965 (ug/L)
Zr (343.823 nm)	1.77450	ug/L	0.05368	3.03	205.75599	1.77450 (ug/L)

Label	Internal Standard
Ag (328.068 nm)	Sc-A
Al (236.705 nm)	Sc-A
As (188.980 nm)	Sc-A
B (249.772 nm)	Sc-A
Ba (230.424 nm)	Sc-A
Be (313.107 nm)	Sc-A
Bi (223.061 nm)	Sc-A
Ca (317.933 nm)	Sc-A
Cd (214.439 nm)	Sc-A
Co (228.615 nm)	Sc-A
Cr (205.560 nm)	Sc-A
Cu (224.700 nm)	Sc-A
Fe (261.382 nm)	Sc-A
K (766.491 nm)	Sc-R
Li (610.365 nm)	Sc-R
Mg (279.078 nm)	Sc-A
Mn (260.568 nm)	Sc-A
Mo (202.032 nm)	Sc-A
Na (588.995 nm)	Sc-R
Ni (231.604 nm)	Sc-A
P (178.222 nm)	Sc-A
Pb (220.353 nm)	Sc-A
Pt (203.646 nm)	Sc-A
Sb (206.834 nm)	Sc-A
Se (196.026 nm)	Sc-A
Si (251.611 nm)	Sc-A
Sn (189.925 nm)	Sc-A
Sr (421.552 nm)	Sc-A
Te (214.282 nm)	Sc-A
Ti (334.941 nm)	Sc-A
Tl (190.807 nm)	Sc-A
U (409.013 nm)	Sc-A
V (292.401 nm)	Sc-A
W (207.912 nm)	Sc-A
Y (371.029 nm)	Sc-A
Zn (206.200 nm)	Sc-A
Zr (343.823 nm)	Sc-A

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Sc-A	1.03	423587.69	0.00	0.36
Sc-R	1.02	47910.70	0.00	0.40

Replicates Concentration

Label	Replicate 1	Replicate 2	Replicate 3	Units
Ag (328.068 nm)	0.08346	0.10550	0.50527	ug/L
Al (236.705 nm)	116.13546	121.03012	117.47682	ug/L

Label	Replicate 1	Replicate 2	Replicate 3	Units
As (188.980 nm)	20.84877	30.47126	31.37282	ug/L
B (249.772 nm)	4.76678	4.42247	4.33638	ug/L
Ba (230.424 nm)	11.36684	11.45679	12.11951	ug/L
Be (313.107 nm)	0.01457	-0.00029 u	0.00790	ug/L
Bi (223.061 nm)	-0.50109 u	2.74399	-3.01610 u	ug/L
Ca (317.933 nm)	1824.90464	1852.61454	1870.70277	ug/L
Cd (214.439 nm)	0.45594	0.06572	0.37771	ug/L
Co (228.615 nm)	0.60666	0.47302	0.16363	ug/L
Cr (205.560 nm)	14.33581	14.97197	14.95529	ug/L
Cu (224.700 nm)	24.32860	20.69038	22.85145	ug/L
Fe (261.382 nm)	356.11193	363.46169	367.64163	ug/L
K (766.491 nm)	66.51316	49.24305	65.01590	ug/L
Li (610.365 nm)	38.79224	47.98216	44.99702	ug/L
Mg (279.078 nm)	283.70855	290.87402	287.13796	ug/L
Mn (260.568 nm)	7.22341	7.57443	7.65560	ug/L
Mo (202.032 nm)	-0.67060 u	-0.80661 u	-0.27579 u	ug/L
Na (588.995 nm)	154.58503	142.77597	148.50599	ug/L
Ni (231.604 nm)	0.14969	0.96109	0.60567	ug/L
P (178.222 nm)	218.53399	244.48767	231.82472	ug/L
Pb (220.353 nm)	2.42558	1.22070	1.17727	ug/L
Pt (203.646 nm)	8.58477	12.89025	11.67770	ug/L
Sb (206.834 nm)	6.49731	10.81979	11.14559	ug/L
Se (196.026 nm)	52.31150	52.12445	52.22161	ug/L
Si (251.611 nm)	3537.38805	3614.14950	3700.19036	ug/L
Sn (189.925 nm)	17.75795	17.97733	23.87531	ug/L
Sr (421.552 nm)	6.56968	6.73513	6.80410	ug/L
Te (214.282 nm)	12.76008	11.02488	2.08554	ug/L
Ti (334.941 nm)	6.66403	6.92822	6.98118	ug/L
Tl (190.807 nm)	132.00141	125.40898	146.15854	ug/L
U (409.013 nm)	0.41512	8.77066	6.74870	ug/L
V (292.401 nm)	0.62204	0.58001	0.48212	ug/L
W (207.912 nm)	-8.46478 u	-5.53688 u	-7.41970 u	ug/L
Y (371.029 nm)	0.10484	0.13848	0.20548	ug/L
Zn (206.200 nm)	38.76664	37.43773	37.16457	ug/L
Zr (343.823 nm)	1.73567	1.75206	1.83576	ug/L
Sc-A (361.383 nm)	1.03	1.03	1.03	Ratio
Sc-R (503.102 nm)	1.02	1.02	1.02	Ratio

Sample Name: 2218833003

Date: 7/14/2022 11:19:06 Rack:Tube: 1:29

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Calculated Concentration
Ag (328.068 nm)	0.22959	ug/L	0.16393	71.40	-76.47137	0.22959 (ug/L)
Al (236.705 nm)	21.87458	ug/L	3.89852	17.82	76.30947	21.87458 (ug/L)
As (188.980 nm)	25.80977	ug/L	6.03951	23.40	5.03165	25.80977 (ug/L)
B (249.772 nm)	1.90087	ug/L	0.20571	10.82	84.19214	1.90087 (ug/L)
Ba (230.424 nm)	6.66631	ug/L	0.42710	6.41	116.42706	6.66631 (ug/L)

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Calculated Concentration
Be (313.107 nm)	0.01080	ug/L	0.01008	93.32	9.25850	0.01080 (ug/L)
Bi (223.061 nm)	-2.64897	ug/L	3.00112	> 100.00	-41.83711	-2.64897 (ug/L)
Ca (317.933 nm)	956.79926	ug/L	10.39370	1.09	16326.82716	956.79926 (ug/L)
Cd (214.439 nm)	-0.15606	ug/L	0.25232	> 100.00	-7.41891	-0.15606 (ug/L)
Co (228.615 nm)	0.63086	ug/L	0.39730	62.98	-5.72354	0.63086 (ug/L)
Cr (205.560 nm)	6.82620	ug/L	0.49227	7.21	35.95804	6.82620 (ug/L)
Cu (224.700 nm)	7.62177	ug/L	2.07864	27.27	-3.20129	7.62177 (ug/L)
Fe (261.382 nm)	26.06153	ug/L	1.74502	6.70	116.75369	26.06153 (ug/L)
K (766.491 nm)	30.49323	ug/L	11.49772	37.71	-90.13871	30.49323 (ug/L)
Li (610.365 nm)	39.00843	ug/L	2.18167	5.59	-4239.23641	39.00843 (ug/L)
Mg (279.078 nm)	183.27696	ug/L	1.95281	1.07	317.57970	183.27696 (ug/L)
Mn (260.568 nm)	0.71027	ug/L	0.16498	23.23	13.49607	0.71027 (ug/L)
Mo (202.032 nm)	-0.56388	ug/L	0.52368	92.87	-4.11532	-0.56388 (ug/L)
Na (588.995 nm)	65.53184	ug/L	6.84941	10.45	25699.56302	65.53184 (ug/L)
Ni (231.604 nm)	-0.22125	ug/L	0.58153	> 100.00	-4.31350	-0.22125 (ug/L)
P (178.222 nm)	138.81796	ug/L	13.75654	9.91	15.87088	138.81796 (ug/L)
Pb (220.353 nm)	0.95699	ug/L	2.78251	> 100.00	3.26308	0.95699 (ug/L)
Pt (203.646 nm)	14.90645	ug/L	2.12957	14.29	12.96584	14.90645 (ug/L)
Sb (206.834 nm)	5.93375	ug/L	5.56570	93.80	-3.49667	5.93375 (ug/L)
Se (196.026 nm)	41.91930	ug/L	0.20157	0.48	27.80349	41.91930 (ug/L)
Si (251.611 nm)	2793.11438	ug/L	45.99281	1.65	3961.99432	2793.11438 (ug/L)
Sn (189.925 nm)	14.95601	ug/L	7.18030	48.01	6.13832	14.95601 (ug/L)
Sr (421.552 nm)	3.82976	ug/L	0.05877	1.53	7842.71163	3.82976 (ug/L)
Te (214.282 nm)	6.24562	ug/L	3.00807	48.16	-2.07285	6.24562 (ug/L)
Ti (334.941 nm)	2.79094	ug/L	0.07669	2.75	496.89331	2.79094 (ug/L)
Tl (190.807 nm)	106.47893	ug/L	6.17319	5.80	53.60746	106.47893 (ug/L)
U (409.013 nm)	4.09560	ug/L	2.51974	61.52	203.06440	4.09560 (ug/L)
V (292.401 nm)	0.25033	ug/L	0.08974	35.85	-15.26582	0.25033 (ug/L)
W (207.912 nm)	-3.98583	ug/L	2.28797	57.40	1.13925	-3.98583 (ug/L)
Y (371.029 nm)	0.02339	ug/L	0.02404	> 100.00	4.29959	0.02339 (ug/L)
Zn (206.200 nm)	7.50344	ug/L	0.96173	12.82	11.82630	7.50344 (ug/L)
Zr (343.823 nm)	0.96736	ug/L	0.05457	5.64	154.07386	0.96736 (ug/L)

Label	Internal Standard
Ag (328.068 nm)	Sc-A
Al (236.705 nm)	Sc-A
As (188.980 nm)	Sc-A
B (249.772 nm)	Sc-A
Ba (230.424 nm)	Sc-A
Be (313.107 nm)	Sc-A
Bi (223.061 nm)	Sc-A
Ca (317.933 nm)	Sc-A
Cd (214.439 nm)	Sc-A
Co (228.615 nm)	Sc-A
Cr (205.560 nm)	Sc-A
Cu (224.700 nm)	Sc-A
Fe (261.382 nm)	Sc-A
K (766.491 nm)	Sc-R

Label	Internal Standard
Li (610.365 nm)	Sc-R
Mg (279.078 nm)	Sc-A
Mn (260.568 nm)	Sc-A
Mo (202.032 nm)	Sc-A
Na (588.995 nm)	Sc-R
Ni (231.604 nm)	Sc-A
P (178.222 nm)	Sc-A
Pb (220.353 nm)	Sc-A
Pt (203.646 nm)	Sc-A
Sb (206.834 nm)	Sc-A
Se (196.026 nm)	Sc-A
Si (251.611 nm)	Sc-A
Sn (189.925 nm)	Sc-A
Sr (421.552 nm)	Sc-A
Te (214.282 nm)	Sc-A
Ti (334.941 nm)	Sc-A
Tl (190.807 nm)	Sc-A
U (409.013 nm)	Sc-A
V (292.401 nm)	Sc-A
W (207.912 nm)	Sc-A
Y (371.029 nm)	Sc-A
Zn (206.200 nm)	Sc-A
Zr (343.823 nm)	Sc-A

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Sc-A	1.02	421635.06	0.00	0.21
Sc-R	1.02	47742.40	0.00	0.18

Replicates Concentration

Label	Replicate 1	Replicate 2	Replicate 3	Units
Ag (328.068 nm)	0.25098	0.05602	0.38178	ug/L
Al (236.705 nm)	17.45552	23.34086	24.82736	ug/L
As (188.980 nm)	30.54436	27.87683	19.00812	ug/L
B (249.772 nm)	2.13228	1.73876	1.83157	ug/L
Ba (230.424 nm)	6.38582	7.15786	6.45526	ug/L
Be (313.107 nm)	0.00927	0.00157	0.02155	ug/L
Bi (223.061 nm)	-5.82436 u	0.14055	-2.26310 u	ug/L
Ca (317.933 nm)	946.31719	956.97830	967.10228	ug/L
Cd (214.439 nm)	0.08627	-0.13714 u	-0.41730 u	ug/L
Co (228.615 nm)	0.92955	0.17996	0.78307	ug/L
Cr (205.560 nm)	6.27181	6.99465	7.21213	ug/L
Cu (224.700 nm)	10.01179	6.23544	6.61808	ug/L
Fe (261.382 nm)	25.61396	24.58389	27.98675	ug/L
K (766.491 nm)	43.39324	21.32479	26.76167	ug/L
Li (610.365 nm)	36.53288	39.84192	40.65048	ug/L
Mg (279.078 nm)	184.04014	181.05781	184.73293	ug/L

Label	Replicate 1	Replicate 2	Replicate 3	Units
Mn (260.568 nm)	0.88623	0.55908	0.68549	ug/L
Mo (202.032 nm)	-0.20286 u	-0.32428 u	-1.16449 u	ug/L
Na (588.995 nm)	73.27359	63.06217	60.25976	ug/L
Ni (231.604 nm)	-0.07326 u	0.27199	-0.86247 u	ug/L
P (178.222 nm)	149.82905	123.39731	143.22752	ug/L
Pb (220.353 nm)	2.93604	-2.22455 u	2.15947	ug/L
Pt (203.646 nm)	12.48596	16.49221	15.74118	ug/L
Sb (206.834 nm)	0.08412	11.16363	6.55349	ug/L
Se (196.026 nm)	41.70757	42.10889	41.94142	ug/L
Si (251.611 nm)	2741.51536	2829.79940	2808.02837	ug/L
Sn (189.925 nm)	20.47898	17.54984	6.83922	ug/L
Sr (421.552 nm)	3.76836	3.83544	3.88549	ug/L
Te (214.282 nm)	3.36860	9.36952	5.99873	ug/L
Ti (334.941 nm)	2.80945	2.70669	2.85669	ug/L
Tl (190.807 nm)	99.48766	108.77048	111.17866	ug/L
U (409.013 nm)	7.00496	2.61264	2.66920	ug/L
V (292.401 nm)	0.33313	0.15497	0.26290	ug/L
W (207.912 nm)	-5.68643 u	-1.38459 u	-4.88646 u	ug/L
Y (371.029 nm)	0.02186	0.00016	0.04816	ug/L
Zn (206.200 nm)	6.50914	8.42889	7.57230	ug/L
Zr (343.823 nm)	0.98130	1.01361	0.90717	ug/L
Sc-A (361.383 nm)	1.02	1.03	1.03	Ratio
Sc-R (503.102 nm)	1.01	1.02	1.02	Ratio

Sample Name: 2218833004

Date: 7/14/2022 11:20:47 Rack:Tube: 1:30

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Calculated Concentration
Ag (328.068 nm)	0.29553	ug/L	0.07704	26.07	-72.96274	0.29553 (ug/L)
Al (236.705 nm)	24.59916	ug/L	5.13150	20.86	77.96169	24.59916 (ug/L)
As (188.980 nm)	27.41263	ug/L	4.75415	17.34	5.83087	27.41263 (ug/L)
B (249.772 nm)	3.25030	ug/L	0.19318	5.94	105.57513	3.25030 (ug/L)
Ba (230.424 nm)	8.17236	ug/L	0.38512	4.71	143.80475	8.17236 (ug/L)
Be (313.107 nm)	0.00017	ug/L	0.00410	> 100.00	1.05391	0.00017 (ug/L)
Bi (223.061 nm)	-4.12641	ug/L	3.58443	86.87	-44.10604	-4.12641 (ug/L)
Ca (317.933 nm)	1201.19631	ug/L	19.13533	1.59	20506.08191	1201.19631 (ug/L)
Cd (214.439 nm)	-0.18824	ug/L	0.09545	50.70	-7.62646	-0.18824 (ug/L)
Co (228.615 nm)	0.00969	ug/L	0.23506	> 100.00	-9.41013	0.00969 (ug/L)
Cr (205.560 nm)	5.50059	ug/L	0.44808	8.15	28.34047	5.50059 (ug/L)
Cu (224.700 nm)	7.08372	ug/L	1.56622	22.11	-3.71798	7.08372 (ug/L)
Fe (261.382 nm)	39.90760	ug/L	1.79781	4.50	153.80318	39.90760 (ug/L)
K (766.491 nm)	29.40006	ug/L	9.23617	31.42	-92.38658	29.40006 (ug/L)
Li (610.365 nm)	49.01034	ug/L	2.36161	4.82	-4129.17021	49.01034 (ug/L)
Mg (279.078 nm)	226.75425	ug/L	5.47119	2.41	386.27671	226.75425 (ug/L)
Mn (260.568 nm)	0.60561	ug/L	0.13919	22.98	11.68859	0.60561 (ug/L)
Mo (202.032 nm)	-0.66152	ug/L	0.28111	42.50	-4.57553	-0.66152 (ug/L)
Na (588.995 nm)	96.14596	ug/L	2.79520	2.91	26423.71934	96.14596 (ug/L)

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Calculated Concentration
Ni (231.604 nm)	-0.39901	ug/L	1.14790	> 100.00	-4.70208	-0.39901 (ug/L)
P (178.222 nm)	170.56289	ug/L	39.55961	23.19	18.92356	170.56289 (ug/L)
Pb (220.353 nm)	0.94094	ug/L	0.93760	99.65	3.25194	0.94094 (ug/L)
Pt (203.646 nm)	18.53721	ug/L	2.81724	15.20	15.93548	18.53721 (ug/L)
Sb (206.834 nm)	6.28879	ug/L	4.13965	65.83	-3.20283	6.28879 (ug/L)
Se (196.026 nm)	53.79875	ug/L	8.84022	16.43	34.85502	53.79875 (ug/L)
Si (251.611 nm)	3094.44985	ug/L	84.37073	2.73	4387.29343	3094.44985 (ug/L)
Sn (189.925 nm)	22.29150	ug/L	2.41175	10.82	11.62221	22.29150 (ug/L)
Sr (421.552 nm)	4.82193	ug/L	0.08953	1.86	9869.63728	4.82193 (ug/L)
Te (214.282 nm)	10.51046	ug/L	13.12314	> 100.00	0.14976	10.51046 (ug/L)
Ti (334.941 nm)	3.04883	ug/L	0.01815	0.60	548.45913	3.04883 (ug/L)
Tl (190.807 nm)	145.90795	ug/L	14.93700	10.24	74.36272	145.90795 (ug/L)
U (409.013 nm)	7.96449	ug/L	1.80270	22.63	223.68166	7.96449 (ug/L)
V (292.401 nm)	0.37605	ug/L	0.16577	44.08	-12.04366	0.37605 (ug/L)
W (207.912 nm)	-5.20627	ug/L	2.09640	40.27	-0.41968	-5.20627 (ug/L)
Y (371.029 nm)	0.07054	ug/L	0.01275	18.07	12.10519	0.07054 (ug/L)
Zn (206.200 nm)	7.55715	ug/L	1.55847	20.62	11.91651	7.55715 (ug/L)
Zr (343.823 nm)	1.05087	ug/L	0.04113	3.91	159.29502	1.05087 (ug/L)

Label	Internal Standard
Ag (328.068 nm)	Sc-A
Al (236.705 nm)	Sc-A
As (188.980 nm)	Sc-A
B (249.772 nm)	Sc-A
Ba (230.424 nm)	Sc-A
Be (313.107 nm)	Sc-A
Bi (223.061 nm)	Sc-A
Ca (317.933 nm)	Sc-A
Cd (214.439 nm)	Sc-A
Co (228.615 nm)	Sc-A
Cr (205.560 nm)	Sc-A
Cu (224.700 nm)	Sc-A
Fe (261.382 nm)	Sc-A
K (766.491 nm)	Sc-R
Li (610.365 nm)	Sc-R
Mg (279.078 nm)	Sc-A
Mn (260.568 nm)	Sc-A
Mo (202.032 nm)	Sc-A
Na (588.995 nm)	Sc-R
Ni (231.604 nm)	Sc-A
P (178.222 nm)	Sc-A
Pb (220.353 nm)	Sc-A
Pt (203.646 nm)	Sc-A
Sb (206.834 nm)	Sc-A
Se (196.026 nm)	Sc-A
Si (251.611 nm)	Sc-A
Sn (189.925 nm)	Sc-A
Sr (421.552 nm)	Sc-A

Label	Internal Standard
Te (214.282 nm)	Sc-A
Ti (334.941 nm)	Sc-A
Tl (190.807 nm)	Sc-A
U (409.013 nm)	Sc-A
V (292.401 nm)	Sc-A
W (207.912 nm)	Sc-A
Y (371.029 nm)	Sc-A
Zn (206.200 nm)	Sc-A
Zr (343.823 nm)	Sc-A

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Sc-A	1.03	423633.70	0.00	0.47
Sc-R	1.02	47928.26	0.00	0.48

Replicates Concentration

Label	Replicate 1	Replicate 2	Replicate 3	Units
Ag (328.068 nm)	0.20764	0.35133	0.32762	ug/L
Al (236.705 nm)	19.67258	24.21134	29.91358	ug/L
As (188.980 nm)	24.73168	32.90176	24.60446	ug/L
B (249.772 nm)	3.22225	3.45598	3.07269	ug/L
Ba (230.424 nm)	8.06324	8.60027	7.85358	ug/L
Be (313.107 nm)	0.00014	0.00429	-0.00391 u	ug/L
Bi (223.061 nm)	-1.89822 u	-2.21982 u	-8.26120 u	ug/L
Ca (317.933 nm)	1180.50375	1204.83257	1218.25260	ug/L
Cd (214.439 nm)	-0.08884 u	-0.19671 u	-0.27917 u	ug/L
Co (228.615 nm)	-0.12082 u	-0.13115 u	0.28105	ug/L
Cr (205.560 nm)	5.99374	5.11843	5.38961	ug/L
Cu (224.700 nm)	5.34424	7.52487	8.38206	ug/L
Fe (261.382 nm)	38.00989	40.12764	41.58526	ug/L
K (766.491 nm)	18.79032	33.76589	35.64398	ug/L
Li (610.365 nm)	46.29815	50.12102	50.61185	ug/L
Mg (279.078 nm)	221.18000	232.11621	226.96655	ug/L
Mn (260.568 nm)	0.55128	0.76377	0.50177	ug/L
Mo (202.032 nm)	-0.58199 u	-0.97384 u	-0.42875 u	ug/L
Na (588.995 nm)	99.32412	95.04438	94.06938	ug/L
Ni (231.604 nm)	0.63483	-1.63431 u	-0.19757 u	ug/L
P (178.222 nm)	151.39549	144.23809	216.05510	ug/L
Pb (220.353 nm)	-0.10273 u	1.71210	1.21346	ug/L
Pt (203.646 nm)	21.49386	18.23383	15.88394	ug/L
Sb (206.834 nm)	1.52901	8.28778	9.04957	ug/L
Se (196.026 nm)	60.10248	43.69370	57.60007	ug/L
Si (251.611 nm)	2997.14485	3147.25233	3138.95236	ug/L
Sn (189.925 nm)	24.76582	19.94761	22.16106	ug/L
Sr (421.552 nm)	4.72351	4.84371	4.89856	ug/L
Te (214.282 nm)	-3.53261 u	22.46260	12.60138	ug/L
Ti (334.941 nm)	3.03403	3.06908	3.04339	ug/L

Label	Replicate 1	Replicate 2	Replicate 3	Units
Tl (190.807 nm)	137.60012	163.15190	136.97182	ug/L
U (409.013 nm)	6.01942	8.29497	9.57909	ug/L
V (292.401 nm)	0.55071	0.35651	0.22091	ug/L
W (207.912 nm)	-4.06120 u	-7.62584 u	-3.93178 u	ug/L
Y (371.029 nm)	0.07171	0.05725	0.08267	ug/L
Zn (206.200 nm)	8.74022	5.79127	8.13997	ug/L
Zr (343.823 nm)	1.06921	1.00377	1.07964	ug/L
Sc-A (361.383 nm)	1.03	1.03	1.03	Ratio
Sc-R (503.102 nm)	1.02	1.02	1.03	Ratio

Sample Name: 2218993001

Date: 7/14/2022 11:22:27 Rack:Tube: 1:31

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Calculated Concentration
Ag (328.068 nm)	0.09484	ug/L	0.15530	> 100.00	-83.78433	0.09484 (ug/L)
Al (236.705 nm)	16.24036	ug/L	4.03658	24.86	72.88751	16.24036 (ug/L)
As (188.980 nm)	2.22034	ug/L	4.09027	> 100.00	-6.74192	2.22034 (ug/L)
B (249.772 nm)	-0.02673	ug/L	0.12563	> 100.00	54.02655	-0.02673 (ug/L)
Ba (230.424 nm)	0.78566	ug/L	0.05040	6.42	9.50418	0.78566 (ug/L)
Be (313.107 nm)	0.00680	ug/L	0.00554	81.55	6.91541	0.00680 (ug/L)
Bi (223.061 nm)	-1.20471	ug/L	2.20928	> 100.00	-39.58759	-1.20471 (ug/L)
Ca (317.933 nm)	177.65432	ug/L	2.60096	1.46	3003.33044	177.65432 (ug/L)
Cd (214.439 nm)	-0.17564	ug/L	0.26741	> 100.00	-8.00199	-0.17564 (ug/L)
Co (228.615 nm)	0.89679	ug/L	0.19741	22.01	-4.19032	0.89679 (ug/L)
Cr (205.560 nm)	2.40274	ug/L	0.46773	19.47	10.57445	2.40274 (ug/L)
Cu (224.700 nm)	3.48517	ug/L	1.66143	47.67	-7.39529	3.48517 (ug/L)
Fe (261.382 nm)	48.03365	ug/L	0.52554	1.09	175.83975	48.03365 (ug/L)
K (766.491 nm)	6.36831	ug/L	10.73141	> 100.00	-139.42146	6.36831 (ug/L)
Li (610.365 nm)	21.13073	ug/L	3.06078	14.49	-4430.21108	21.13073 (ug/L)
Mg (279.078 nm)	24.72091	ug/L	2.22692	9.01	66.94662	24.72091 (ug/L)
Mn (260.568 nm)	1.23302	ug/L	0.27152	22.02	22.56711	1.23302 (ug/L)
Mo (202.032 nm)	-0.08904	ug/L	0.96343	> 100.00	-1.88781	-0.08904 (ug/L)
Na (588.995 nm)	10.69061	ug/L	7.16365	67.01	24402.33077	10.69061 (ug/L)
Ni (231.604 nm)	-0.37924	ug/L	2.11000	> 100.00	-4.74878	-0.37924 (ug/L)
P (178.222 nm)	25.45468	ug/L	13.68945	53.78	4.96956	25.45468 (ug/L)
Pb (220.353 nm)	-0.78076	ug/L	2.56576	> 100.00	1.19644	-0.78076 (ug/L)
Pt (203.646 nm)	4.30591	ug/L	4.17038	96.85	4.72211	4.30591 (ug/L)
Sb (206.834 nm)	0.54669	ug/L	0.93711	> 100.00	-8.33176	0.54669 (ug/L)
Se (196.026 nm)	8.39980	ug/L	2.99649	35.67	7.90848	8.39980 (ug/L)
Si (251.611 nm)	15.45355	ug/L	0.99075	6.41	41.62807	15.45355 (ug/L)
Sn (189.925 nm)	2.23758	ug/L	1.65325	73.89	-3.36978	2.23758 (ug/L)
Sr (421.552 nm)	0.70310	ug/L	0.01281	1.82	1455.17258	0.70310 (ug/L)
Te (214.282 nm)	1.66092	ug/L	2.48167	> 100.00	-4.46410	1.66092 (ug/L)
Ti (334.941 nm)	0.32854	ug/L	0.07377	22.45	2.99300	0.32854 (ug/L)
Tl (190.807 nm)	12.08764	ug/L	8.22680	68.06	4.00824	12.08764 (ug/L)
U (409.013 nm)	-2.95355	ug/L	1.40708	47.64	165.52071	-2.95355 (ug/L)
V (292.401 nm)	0.32891	ug/L	0.13876	42.19	-13.16340	0.32891 (ug/L)

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Calculated Concentration
W (207.912 nm)	1.69920	ug/L	3.83033	> 100.00	8.39677	1.69920 (ug/L)
Y (371.029 nm)	-0.04119	ug/L	0.06466	> 100.00	-6.36299	-0.04119 (ug/L)
Zn (206.200 nm)	6.78788	ug/L	0.36395	5.36	10.55223	6.78788 (ug/L)
Zr (343.823 nm)	-0.02800	ug/L	0.04202	> 100.00	91.10809	-0.02800 (ug/L)

Label	Internal Standard
Ag (328.068 nm)	Sc-A
Al (236.705 nm)	Sc-A
As (188.980 nm)	Sc-A
B (249.772 nm)	Sc-A
Ba (230.424 nm)	Sc-A
Be (313.107 nm)	Sc-A
Bi (223.061 nm)	Sc-A
Ca (317.933 nm)	Sc-A
Cd (214.439 nm)	Sc-A
Co (228.615 nm)	Sc-A
Cr (205.560 nm)	Sc-A
Cu (224.700 nm)	Sc-A
Fe (261.382 nm)	Sc-A
K (766.491 nm)	Sc-R
Li (610.365 nm)	Sc-R
Mg (279.078 nm)	Sc-A
Mn (260.568 nm)	Sc-A
Mo (202.032 nm)	Sc-A
Na (588.995 nm)	Sc-R
Ni (231.604 nm)	Sc-A
P (178.222 nm)	Sc-A
Pb (220.353 nm)	Sc-A
Pt (203.646 nm)	Sc-A
Sb (206.834 nm)	Sc-A
Se (196.026 nm)	Sc-A
Si (251.611 nm)	Sc-A
Sn (189.925 nm)	Sc-A
Sr (421.552 nm)	Sc-A
Te (214.282 nm)	Sc-A
Ti (334.941 nm)	Sc-A
Tl (190.807 nm)	Sc-A
U (409.013 nm)	Sc-A
V (292.401 nm)	Sc-A
W (207.912 nm)	Sc-A
Y (371.029 nm)	Sc-A
Zn (206.200 nm)	Sc-A
Zr (343.823 nm)	Sc-A

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Sc-A	0.98	404655.36	0.01	0.66
Sc-R	0.98	45860.81	0.01	0.57

Replicates Concentration

Label	Replicate 1	Replicate 2	Replicate 3	Units
Ag (328.068 nm)	-0.07378 u	0.23202	0.12628	ug/L
Al (236.705 nm)	18.52445	18.61701	11.57962	ug/L
As (188.980 nm)	6.13194	2.55690	-2.02780 u	ug/L
B (249.772 nm)	-0.11539 u	0.11703	-0.08184 u	ug/L
Ba (230.424 nm)	0.77916	0.83900	0.73882	ug/L
Be (313.107 nm)	0.00800	0.01164	0.00075	ug/L
Bi (223.061 nm)	-0.57175 u	0.61902	-3.66138 u	ug/L
Ca (317.933 nm)	174.98770	177.79104	180.18422	ug/L
Cd (214.439 nm)	-0.48269 u	0.00617	-0.05041 u	ug/L
Co (228.615 nm)	0.68745	1.07958	0.92336	ug/L
Cr (205.560 nm)	2.85497	1.92092	2.43233	ug/L
Cu (224.700 nm)	5.15237	1.82958	3.47355	ug/L
Fe (261.382 nm)	48.21627	47.44116	48.44352	ug/L
K (766.491 nm)	18.60554	1.93816	-1.43877 u	ug/L
Li (610.365 nm)	18.19664	20.89143	24.30414	ug/L
Mg (279.078 nm)	25.10504	26.73078	22.32691	ug/L
Mn (260.568 nm)	0.92820	1.32188	1.44897	ug/L
Mo (202.032 nm)	-0.91979 u	0.96710	-0.31442 u	ug/L
Na (588.995 nm)	18.56063	8.96128	4.54992	ug/L
Ni (231.604 nm)	0.97120	-2.81069 u	0.70177	ug/L
P (178.222 nm)	13.78382	40.52289	22.05732	ug/L
Pb (220.353 nm)	1.25876	-3.66154 u	0.06050	ug/L
Pt (203.646 nm)	8.77937	3.61292	0.52543	ug/L
Sb (206.834 nm)	1.08854	-0.53539 u	1.08693	ug/L
Se (196.026 nm)	9.69240	10.53304	4.97396	ug/L
Si (251.611 nm)	15.46163	14.45879	16.44024	ug/L
Sn (189.925 nm)	0.46549	2.50881	3.73844	ug/L
Sr (421.552 nm)	0.69178	0.70053	0.71700	ug/L
Te (214.282 nm)	-0.36500 u	4.42899	0.91876	ug/L
Ti (334.941 nm)	0.39357	0.34367	0.24838	ug/L
Tl (190.807 nm)	19.66242	13.26487	3.33564	ug/L
U (409.013 nm)	-4.17128 u	-1.41318 u	-3.27621 u	ug/L
V (292.401 nm)	0.21278	0.29138	0.48258	ug/L
W (207.912 nm)	-2.58434 u	4.79487	2.88707	ug/L
Y (371.029 nm)	-0.06059 u	0.03095	-0.09393 u	ug/L
Zn (206.200 nm)	6.41175	7.13829	6.81359	ug/L
Zr (343.823 nm)	0.00580	-0.01475 u	-0.07506 u	ug/L
Sc-A (361.383 nm)	0.98	0.99	0.99	Ratio
Sc-R (503.102 nm)	0.97	0.98	0.98	Ratio

Sample Name: 2218993002

Date: 7/14/2022 11:24:08 Rack:Tube: 1:32

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Calculated Concentration
Ag (328.068 nm)	0.24442	ug/L	0.09461	38.71	-76.11801	0.24442 (ug/L)
Al (236.705 nm)	5.95416	ug/L	9.96007	> 100.00	66.63229	5.95416 (ug/L)
As (188.980 nm)	1.31350	ug/L	5.59047	> 100.00	-7.19242	1.31350 (ug/L)
B (249.772 nm)	-0.89584	ug/L	0.30532	34.08	40.72879	-0.89584 (ug/L)
Ba (230.424 nm)	0.73506	ug/L	0.19345	26.32	8.57639	0.73506 (ug/L)
Be (313.107 nm)	0.01294	ug/L	0.00150	11.57	11.58646	0.01294 (ug/L)
Bi (223.061 nm)	-1.08077	ug/L	2.53923	> 100.00	-39.38108	-1.08077 (ug/L)
Ca (317.933 nm)	229.20534	ug/L	4.43221	1.93	3884.88552	229.20534 (ug/L)
Cd (214.439 nm)	-0.00370	ug/L	0.15679	> 100.00	-6.33182	-0.00370 (ug/L)
Co (228.615 nm)	0.12152	ug/L	0.87073	> 100.00	-8.79859	0.12152 (ug/L)
Cr (205.560 nm)	16.60901	ug/L	0.35747	2.15	92.11976	16.60901 (ug/L)
Cu (224.700 nm)	3.68708	ug/L	1.60784	43.61	-7.16559	3.68708 (ug/L)
Fe (261.382 nm)	91.51115	ug/L	3.61187	3.95	292.18876	91.51115 (ug/L)
K (766.491 nm)	24.49497	ug/L	10.05253	41.04	-102.35488	24.49497 (ug/L)
Li (610.365 nm)	26.04263	ug/L	2.11001	8.10	-4375.00248	26.04263 (ug/L)
Mg (279.078 nm)	26.58920	ug/L	0.79571	2.99	69.93098	26.58920 (ug/L)
Mn (260.568 nm)	1.21273	ug/L	0.30327	25.01	22.22996	1.21273 (ug/L)
Mo (202.032 nm)	-0.12753	ug/L	0.37866	> 100.00	-2.06929	-0.12753 (ug/L)
Na (588.995 nm)	7.49494	ug/L	7.19768	96.03	24326.73944	7.49494 (ug/L)
Ni (231.604 nm)	0.13595	ug/L	0.74629	> 100.00	-3.54248	0.13595 (ug/L)
P (178.222 nm)	26.61698	ug/L	8.61030	32.35	5.08133	26.61698 (ug/L)
Pb (220.353 nm)	-0.75226	ug/L	1.26321	> 100.00	1.23269	-0.75226 (ug/L)
Pt (203.646 nm)	0.57052	ug/L	6.52985	> 100.00	2.06416	0.57052 (ug/L)
Sb (206.834 nm)	1.85975	ug/L	3.21780	> 100.00	-7.02600	1.85975 (ug/L)
Se (196.026 nm)	4.10458	ug/L	4.22075	> 100.00	5.34392	4.10458 (ug/L)
Si (251.611 nm)	17.12132	ug/L	2.39068	13.96	43.97581	17.12132 (ug/L)
Sn (189.925 nm)	2.04379	ug/L	2.62477	> 100.00	-3.51465	2.04379 (ug/L)
Sr (421.552 nm)	0.66500	ug/L	0.01415	2.13	1377.32471	0.66500 (ug/L)
Te (214.282 nm)	2.29436	ug/L	7.25635	> 100.00	-4.13124	2.29436 (ug/L)
Ti (334.941 nm)	0.32696	ug/L	0.06202	18.97	2.90477	0.32696 (ug/L)
Tl (190.807 nm)	10.03251	ug/L	13.86746	> 100.00	2.89467	10.03251 (ug/L)
U (409.013 nm)	-5.70226	ug/L	5.28179	92.63	150.92351	-5.70226 (ug/L)
V (292.401 nm)	0.18172	ug/L	0.11726	64.53	-17.39359	0.18172 (ug/L)
W (207.912 nm)	0.74728	ug/L	0.39793	53.25	7.14447	0.74728 (ug/L)
Y (371.029 nm)	-0.01474	ug/L	0.03600	> 100.00	-1.99311	-0.01474 (ug/L)
Zn (206.200 nm)	3.13929	ug/L	1.73973	55.42	4.14010	3.13929 (ug/L)
Zr (343.823 nm)	-0.08306	ug/L	0.05950	71.64	87.70581	-0.08306 (ug/L)

Label	Internal Standard
Ag (328.068 nm)	Sc-A
Al (236.705 nm)	Sc-A
As (188.980 nm)	Sc-A
B (249.772 nm)	Sc-A
Ba (230.424 nm)	Sc-A
Be (313.107 nm)	Sc-A
Bi (223.061 nm)	Sc-A
Ca (317.933 nm)	Sc-A

Label	Internal Standard
Cd (214.439 nm)	Sc-A
Co (228.615 nm)	Sc-A
Cr (205.560 nm)	Sc-A
Cu (224.700 nm)	Sc-A
Fe (261.382 nm)	Sc-A
K (766.491 nm)	Sc-R
Li (610.365 nm)	Sc-R
Mg (279.078 nm)	Sc-A
Mn (260.568 nm)	Sc-A
Mo (202.032 nm)	Sc-A
Na (588.995 nm)	Sc-R
Ni (231.604 nm)	Sc-A
P (178.222 nm)	Sc-A
Pb (220.353 nm)	Sc-A
Pt (203.646 nm)	Sc-A
Sb (206.834 nm)	Sc-A
Se (196.026 nm)	Sc-A
Si (251.611 nm)	Sc-A
Sn (189.925 nm)	Sc-A
Sr (421.552 nm)	Sc-A
Te (214.282 nm)	Sc-A
Ti (334.941 nm)	Sc-A
Tl (190.807 nm)	Sc-A
U (409.013 nm)	Sc-A
V (292.401 nm)	Sc-A
W (207.912 nm)	Sc-A
Y (371.029 nm)	Sc-A
Zn (206.200 nm)	Sc-A
Zr (343.823 nm)	Sc-A

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Sc-A	0.99	407048.77	0.00	0.10
Sc-R	0.98	46098.97	0.00	0.05

Replicates Concentration

Label	Replicate 1	Replicate 2	Replicate 3	Units
Ag (328.068 nm)	0.28755	0.13592	0.30978	ug/L
Al (236.705 nm)	17.33107	1.72426	-1.19286 u	ug/L
As (188.980 nm)	-5.03146 u	5.51527	3.45670	ug/L
B (249.772 nm)	-1.11983 u	-1.01962 u	-0.54806 u	ug/L
Ba (230.424 nm)	0.54511	0.93183	0.72825	ug/L
Be (313.107 nm)	0.01414	0.01342	0.01126	ug/L
Bi (223.061 nm)	-3.95251 u	0.86747	-0.15727 u	ug/L
Ca (317.933 nm)	224.25326	230.56234	232.80040	ug/L
Cd (214.439 nm)	-0.16601 u	0.00801	0.14691	ug/L
Co (228.615 nm)	0.36245	-0.84432 u	0.84641	ug/L

Label	Replicate 1	Replicate 2	Replicate 3	Units
Cr (205.560 nm)	16.27348	16.98498	16.56856	ug/L
Cu (224.700 nm)	2.51633	3.02460	5.52031	ug/L
Fe (261.382 nm)	87.43385	92.78999	94.30963	ug/L
K (766.491 nm)	36.02093	19.92258	17.54140	ug/L
Li (610.365 nm)	27.96360	26.38004	23.78425	ug/L
Mg (279.078 nm)	25.76714	26.64483	27.35564	ug/L
Mn (260.568 nm)	1.20322	1.52064	0.91431	ug/L
Mo (202.032 nm)	-0.19807 u	-0.46596 u	0.28145	ug/L
Na (588.995 nm)	-0.62629 u	13.08551	10.02561	ug/L
Ni (231.604 nm)	-0.58507 u	0.90517	0.08776	ug/L
P (178.222 nm)	21.26898	36.54952	22.03243	ug/L
Pb (220.353 nm)	0.15934	-0.22193 u	-2.19418 u	ug/L
Pt (203.646 nm)	3.66186	-6.93096 u	4.98067	ug/L
Sb (206.834 nm)	1.35731	-1.07727 u	5.29922	ug/L
Se (196.026 nm)	-0.08892 u	8.35206	4.05059	ug/L
Si (251.611 nm)	14.70299	19.48336	17.17763	ug/L
Sn (189.925 nm)	2.67974	4.29216	-0.84051 u	ug/L
Sr (421.552 nm)	0.64868	0.67248	0.67383	ug/L
Te (214.282 nm)	2.49733	-5.06135 u	9.44709	ug/L
Ti (334.941 nm)	0.38102	0.34060	0.25925	ug/L
Tl (190.807 nm)	-1.17953 u	25.53924	5.73782	ug/L
U (409.013 nm)	-11.07993 u	-5.50498 u	-0.52188 u	ug/L
V (292.401 nm)	0.23564	0.04720	0.26232	ug/L
W (207.912 nm)	1.00079	0.28863	0.95242	ug/L
Y (371.029 nm)	0.00967	-0.05609 u	0.00219	ug/L
Zn (206.200 nm)	1.16352	3.81268	4.44167	ug/L
Zr (343.823 nm)	-0.01632 u	-0.13057 u	-0.10229 u	ug/L
Sc-A (361.383 nm)	0.99	0.99	0.99	Ratio
Sc-R (503.102 nm)	0.98	0.98	0.98	Ratio

Sample Name: 2218993003

Date: 7/14/2022 11:25:49 Rack:Tube: 1:33

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Calculated Concentration
Ag (328.068 nm)	0.16287	ug/L	0.22656	> 100.00	-80.21381	0.16287 (ug/L)
Al (236.705 nm)	7.25380	ug/L	4.59901	63.40	67.42900	7.25380 (ug/L)
As (188.980 nm)	2.80652	ug/L	4.23400	> 100.00	-6.44903	2.80652 (ug/L)
B (249.772 nm)	-0.61618	ug/L	0.19985	32.43	44.54339	-0.61618 (ug/L)
Ba (230.424 nm)	0.81442	ug/L	0.14462	17.76	9.99689	0.81442 (ug/L)
Be (313.107 nm)	0.01221	ug/L	0.00284	23.23	10.65161	0.01221 (ug/L)
Bi (223.061 nm)	1.55438	ug/L	4.42961	> 100.00	-35.42192	1.55438 (ug/L)
Ca (317.933 nm)	240.03559	ug/L	4.42524	1.84	4070.11339	240.03559 (ug/L)
Cd (214.439 nm)	0.16378	ug/L	0.52913	> 100.00	-4.44856	0.16378 (ug/L)
Co (228.615 nm)	0.36906	ug/L	0.34233	92.76	-7.31891	0.36906 (ug/L)
Cr (205.560 nm)	1.08841	ug/L	0.18799	17.27	3.03784	1.08841 (ug/L)
Cu (224.700 nm)	2.29691	ug/L	1.65427	72.02	-8.60101	2.29691 (ug/L)
Fe (261.382 nm)	26.28698	ug/L	3.79898	14.45	117.64287	26.28698 (ug/L)

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Calculated Concentration
K (766.491 nm)	23.32678	ug/L	11.48545	49.24	-104.74431	23.32678 (ug/L)
Li (610.365 nm)	17.14263	ug/L	4.37931	25.55	-4476.79595	17.14263 (ug/L)
Mg (279.078 nm)	27.30451	ug/L	2.16866	7.94	71.00106	27.30451 (ug/L)
Mn (260.568 nm)	0.98254	ug/L	0.15321	15.59	18.17865	0.98254 (ug/L)
Mo (202.032 nm)	-0.45414	ug/L	0.88869	> 100.00	-3.60381	-0.45414 (ug/L)
Na (588.995 nm)	87.84673	ug/L	4.34326	4.94	26227.40677	87.84673 (ug/L)
Ni (231.604 nm)	-0.43993	ug/L	0.90775	> 100.00	-4.89373	-0.43993 (ug/L)
P (178.222 nm)	26.33790	ug/L	26.28825	99.81	5.05449	26.33790 (ug/L)
Pb (220.353 nm)	0.78105	ug/L	3.24077	> 100.00	3.03157	0.78105 (ug/L)
Pt (203.646 nm)	4.82102	ug/L	3.95017	81.94	4.99199	4.82102 (ug/L)
Sb (206.834 nm)	3.61552	ug/L	3.56558	98.62	-5.59197	3.61552 (ug/L)
Se (196.026 nm)	9.33289	ug/L	4.58507	49.13	8.47270	9.33289 (ug/L)
Si (251.611 nm)	18.84476	ug/L	1.98454	10.53	46.40722	18.84476 (ug/L)
Sn (189.925 nm)	-0.65152	ug/L	0.50287	77.19	-5.52962	-0.65152 (ug/L)
Sr (421.552 nm)	0.65624	ug/L	0.00221	0.34	1359.42826	0.65624 (ug/L)
Te (214.282 nm)	-0.68925	ug/L	6.39731	> 100.00	-5.69041	-0.68925 (ug/L)
Ti (334.941 nm)	0.40029	ug/L	0.02650	6.62	17.40211	0.40029 (ug/L)
Tl (190.807 nm)	9.25536	ug/L	7.72823	83.50	2.54837	9.25536 (ug/L)
U (409.013 nm)	-0.48656	ug/L	2.59081	> 100.00	178.63257	-0.48656 (ug/L)
V (292.401 nm)	-0.06862	ug/L	0.19137	> 100.00	-23.31028	-0.06862 (ug/L)
W (207.912 nm)	2.89022	ug/L	0.79988	27.68	9.88790	2.89022 (ug/L)
Y (371.029 nm)	0.01346	ug/L	0.03044	> 100.00	2.68264	0.01346 (ug/L)
Zn (206.200 nm)	3.59588	ug/L	1.49233	41.50	4.90371	3.59588 (ug/L)
Zr (343.823 nm)	-0.03407	ug/L	0.12163	> 100.00	90.66601	-0.03407 (ug/L)

Label	Internal Standard
Ag (328.068 nm)	Sc-A
Al (236.705 nm)	Sc-A
As (188.980 nm)	Sc-A
B (249.772 nm)	Sc-A
Ba (230.424 nm)	Sc-A
Be (313.107 nm)	Sc-A
Bi (223.061 nm)	Sc-A
Ca (317.933 nm)	Sc-A
Cd (214.439 nm)	Sc-A
Co (228.615 nm)	Sc-A
Cr (205.560 nm)	Sc-A
Cu (224.700 nm)	Sc-A
Fe (261.382 nm)	Sc-A
K (766.491 nm)	Sc-R
Li (610.365 nm)	Sc-R
Mg (279.078 nm)	Sc-A
Mn (260.568 nm)	Sc-A
Mo (202.032 nm)	Sc-A
Na (588.995 nm)	Sc-R
Ni (231.604 nm)	Sc-A
P (178.222 nm)	Sc-A
Pb (220.353 nm)	Sc-A

Label	Internal Standard
Pt (203.646 nm)	Sc-A
Sb (206.834 nm)	Sc-A
Se (196.026 nm)	Sc-A
Si (251.611 nm)	Sc-A
Sn (189.925 nm)	Sc-A
Sr (421.552 nm)	Sc-A
Te (214.282 nm)	Sc-A
Ti (334.941 nm)	Sc-A
Tl (190.807 nm)	Sc-A
U (409.013 nm)	Sc-A
V (292.401 nm)	Sc-A
W (207.912 nm)	Sc-A
Y (371.029 nm)	Sc-A
Zn (206.200 nm)	Sc-A
Zr (343.823 nm)	Sc-A

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Sc-A	1.02	419196.73	0.00	0.27
Sc-R	1.01	47476.22	0.00	0.33

Replicates Concentration

Label	Replicate 1	Replicate 2	Replicate 3	Units
Ag (328.068 nm)	0.39109	0.15951	-0.06199 u	ug/L
Al (236.705 nm)	3.91794	12.50013	5.34332	ug/L
As (188.980 nm)	-1.75096 u	6.61783	3.55270	ug/L
B (249.772 nm)	-0.43534 u	-0.83074 u	-0.58246 u	ug/L
Ba (230.424 nm)	0.91692	0.87735	0.64900	ug/L
Be (313.107 nm)	0.01531	0.01157	0.00975	ug/L
Bi (223.061 nm)	-3.38490 u	2.87334	5.17469	ug/L
Ca (317.933 nm)	235.24595	240.88858	243.97225	ug/L
Cd (214.439 nm)	-0.17448 u	0.77355	-0.10773 u	ug/L
Co (228.615 nm)	0.46218	0.65519	-0.01019 u	ug/L
Cr (205.560 nm)	1.29951	1.02667	0.93906	ug/L
Cu (224.700 nm)	3.39100	0.39383	3.10590	ug/L
Fe (261.382 nm)	27.65610	21.99321	29.21163	ug/L
K (766.491 nm)	10.51792	32.70867	26.75375	ug/L
Li (610.365 nm)	12.99474	21.72149	16.71167	ug/L
Mg (279.078 nm)	28.58377	28.52920	24.80055	ug/L
Mn (260.568 nm)	0.82920	1.13563	0.98279	ug/L
Mo (202.032 nm)	-1.29300 u	0.47716	-0.54659 u	ug/L
Na (588.995 nm)	91.74383	83.16443	88.63194	ug/L
Ni (231.604 nm)	0.16738	-0.00374 u	-1.48344 u	ug/L
P (178.222 nm)	5.34819	55.82344	17.84207	ug/L
Pb (220.353 nm)	4.48228	-1.54732 u	-0.59180 u	ug/L
Pt (203.646 nm)	3.21048	1.93055	9.32203	ug/L
Sb (206.834 nm)	7.71814	1.86381	1.26462	ug/L

Label	Replicate 1	Replicate 2	Replicate 3	Units
Se (196.026 nm)	10.30155	4.34088	13.35624	ug/L
Si (251.611 nm)	20.23252	19.73012	16.57165	ug/L
Sn (189.925 nm)	-1.02048 u	-0.07873 u	-0.85534 u	ug/L
Sr (421.552 nm)	0.65369	0.65758	0.65744	ug/L
Te (214.282 nm)	-7.22225 u	5.56314	-0.40863 u	ug/L
Ti (334.941 nm)	0.42743	0.39897	0.37448	ug/L
Tl (190.807 nm)	11.20852	0.73793	15.81964	ug/L
U (409.013 nm)	-3.46829 u	0.79391	1.21470	ug/L
V (292.401 nm)	0.03575	0.04788	-0.28949 u	ug/L
W (207.912 nm)	2.04014	3.00248	3.62804	ug/L
Y (371.029 nm)	0.01296	0.04414	-0.01673 u	ug/L
Zn (206.200 nm)	3.94043	4.88581	1.96141	ug/L
Zr (343.823 nm)	-0.12707 u	-0.07871 u	0.10357	ug/L
Sc-A (361.383 nm)	1.02	1.02	1.02	Ratio
Sc-R (503.102 nm)	1.01	1.01	1.01	Ratio

Sample Name: 2218993004

Date: 7/14/2022 11:27:29 Rack:Tube: 1:34

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Calculated Concentration
Ag (328.068 nm)	0.14022	ug/L	0.22480	> 100.00	-81.38884	0.14022 (ug/L)
Al (236.705 nm)	7.15183	ug/L	6.84297	95.68	67.37060	7.15183 (ug/L)
As (188.980 nm)	8.47851	ug/L	2.51630	29.68	-3.61776	8.47851 (ug/L)
B (249.772 nm)	-0.62558	ug/L	0.14575	23.30	44.45816	-0.62558 (ug/L)
Ba (230.424 nm)	0.57672	ug/L	0.18839	32.67	5.72222	0.57672 (ug/L)
Be (313.107 nm)	0.00618	ug/L	0.01047	> 100.00	6.27391	0.00618 (ug/L)
Bi (223.061 nm)	0.35209	ug/L	2.08774	> 100.00	-37.23044	0.35209 (ug/L)
Ca (317.933 nm)	173.01659	ug/L	2.59359	1.50	2924.09736	173.01659 (ug/L)
Cd (214.439 nm)	0.12238	ug/L	0.32366	> 100.00	-4.97780	0.12238 (ug/L)
Co (228.615 nm)	0.60264	ug/L	0.64540	> 100.00	-5.93512	0.60264 (ug/L)
Cr (205.560 nm)	8.69003	ug/L	0.36178	4.16	46.66803	8.69003 (ug/L)
Cu (224.700 nm)	3.63644	ug/L	3.59424	98.84	-7.22329	3.63644 (ug/L)
Fe (261.382 nm)	33.23567	ug/L	2.48698	7.48	136.18005	33.23567 (ug/L)
K (766.491 nm)	17.78960	ug/L	13.48983	75.83	-116.06499	17.78960 (ug/L)
Li (610.365 nm)	18.70694	ug/L	5.03177	26.90	-4457.80555	18.70694 (ug/L)
Mg (279.078 nm)	22.30965	ug/L	0.86430	3.87	63.11922	22.30965 (ug/L)
Mn (260.568 nm)	1.02188	ug/L	0.25955	25.40	18.89452	1.02188 (ug/L)
Mo (202.032 nm)	0.15119	ug/L	0.61444	> 100.00	-0.75272	0.15119 (ug/L)
Na (588.995 nm)	75.51473	ug/L	5.95821	7.89	25935.70161	75.51473 (ug/L)
Ni (231.604 nm)	-0.44573	ug/L	0.60163	> 100.00	-4.90312	-0.44573 (ug/L)
P (178.222 nm)	35.10401	ug/L	25.54350	72.77	5.89747	35.10401 (ug/L)
Pb (220.353 nm)	-2.67982	ug/L	0.37734	14.08	-1.02680	-2.67982 (ug/L)
Pt (203.646 nm)	1.99030	ug/L	4.64420	> 100.00	2.79967	1.99030 (ug/L)
Sb (206.834 nm)	0.22613	ug/L	1.56118	> 100.00	-8.56812	0.22613 (ug/L)
Se (196.026 nm)	7.21188	ug/L	8.04573	> 100.00	7.18891	7.21188 (ug/L)
Si (251.611 nm)	13.06720	ug/L	0.57387	4.39	38.26709	13.06720 (ug/L)
Sn (189.925 nm)	-1.39538	ug/L	2.57466	> 100.00	-6.08572	-1.39538 (ug/L)

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Calculated Concentration
Sr (421.552 nm)	0.61889	ug/L	0.00788	1.27	1283.12622	0.61889 (ug/L)
Te (214.282 nm)	4.30075	ug/L	3.97131	92.34	-3.08924	4.30075 (ug/L)
Ti (334.941 nm)	0.29665	ug/L	0.05422	18.28	-3.15413	0.29665 (ug/L)
Tl (190.807 nm)	12.45757	ug/L	4.59357	36.87	4.12598	12.45757 (ug/L)
U (409.013 nm)	-1.67466	ug/L	1.79962	> 100.00	172.31702	-1.67466 (ug/L)
V (292.401 nm)	0.01925	ug/L	0.26614	> 100.00	-21.32659	0.01925 (ug/L)
W (207.912 nm)	-0.92282	ug/L	2.01976	> 100.00	5.03560	-0.92282 (ug/L)
Y (371.029 nm)	0.02447	ug/L	0.05765	> 100.00	4.50455	0.02447 (ug/L)
Zn (206.200 nm)	5.72050	ug/L	1.37126	23.97	8.68088	5.72050 (ug/L)
Zr (343.823 nm)	0.07841	ug/L	0.09837	> 100.00	97.76902	0.07841 (ug/L)

Label	Internal Standard
Ag (328.068 nm)	Sc-A
Al (236.705 nm)	Sc-A
As (188.980 nm)	Sc-A
B (249.772 nm)	Sc-A
Ba (230.424 nm)	Sc-A
Be (313.107 nm)	Sc-A
Bi (223.061 nm)	Sc-A
Ca (317.933 nm)	Sc-A
Cd (214.439 nm)	Sc-A
Co (228.615 nm)	Sc-A
Cr (205.560 nm)	Sc-A
Cu (224.700 nm)	Sc-A
Fe (261.382 nm)	Sc-A
K (766.491 nm)	Sc-R
Li (610.365 nm)	Sc-R
Mg (279.078 nm)	Sc-A
Mn (260.568 nm)	Sc-A
Mo (202.032 nm)	Sc-A
Na (588.995 nm)	Sc-R
Ni (231.604 nm)	Sc-A
P (178.222 nm)	Sc-A
Pb (220.353 nm)	Sc-A
Pt (203.646 nm)	Sc-A
Sb (206.834 nm)	Sc-A
Se (196.026 nm)	Sc-A
Si (251.611 nm)	Sc-A
Sn (189.925 nm)	Sc-A
Sr (421.552 nm)	Sc-A
Te (214.282 nm)	Sc-A
Ti (334.941 nm)	Sc-A
Tl (190.807 nm)	Sc-A
U (409.013 nm)	Sc-A
V (292.401 nm)	Sc-A
W (207.912 nm)	Sc-A
Y (371.029 nm)	Sc-A
Zn (206.200 nm)	Sc-A

Label	Internal Standard
Zr (343.823 nm)	Sc-A

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Sc-A	1.03	423088.07	0.00	0.40
Sc-R	1.02	47828.71	0.00	0.44

Replicates Concentration

Label	Replicate 1	Replicate 2	Replicate 3	Units
Ag (328.068 nm)	-0.05845 u	0.38423	0.09487	ug/L
Al (236.705 nm)	12.39323	9.65189	-0.58962 u	ug/L
As (188.980 nm)	5.71989	9.06772	10.64793	ug/L
B (249.772 nm)	-0.77558 u	-0.48448 u	-0.61669 u	ug/L
Ba (230.424 nm)	0.64057	0.36471	0.72490	ug/L
Be (313.107 nm)	0.01020	-0.00570 u	0.01404	ug/L
Bi (223.061 nm)	-1.80266 u	2.36565	0.49330	ug/L
Ca (317.933 nm)	170.66909	172.57985	175.80083	ug/L
Cd (214.439 nm)	0.25587	-0.24667 u	0.35794	ug/L
Co (228.615 nm)	1.33734	0.12711	0.34347	ug/L
Cr (205.560 nm)	9.04239	8.31952	8.70817	ug/L
Cu (224.700 nm)	3.88015	7.10263	-0.07344 u	ug/L
Fe (261.382 nm)	30.78663	33.16144	35.75893	ug/L
K (766.491 nm)	6.58797	32.76422	14.01662	ug/L
Li (610.365 nm)	14.62328	17.16946	24.32808	ug/L
Mg (279.078 nm)	22.32909	21.43580	23.16407	ug/L
Mn (260.568 nm)	1.30531	0.96453	0.79581	ug/L
Mo (202.032 nm)	0.85625	-0.26990 u	-0.13279 u	ug/L
Na (588.995 nm)	74.58034	81.88494	70.07893	ug/L
Ni (231.604 nm)	-1.02960 u	-0.47981 u	0.17221	ug/L
P (178.222 nm)	38.89241	7.87789	58.54174	ug/L
Pb (220.353 nm)	-2.24694 u	-2.93925 u	-2.85328 u	ug/L
Pt (203.646 nm)	-2.89978 u	6.34163	2.52905	ug/L
Sb (206.834 nm)	-1.47038 u	1.60228	0.54650	ug/L
Se (196.026 nm)	15.99993	0.20798	5.42773	ug/L
Si (251.611 nm)	12.92329	12.57898	13.69933	ug/L
Sn (189.925 nm)	-0.78989 u	-4.21882 u	0.82258	ug/L
Sr (421.552 nm)	0.61008	0.62131	0.62527	ug/L
Te (214.282 nm)	-0.28343 u	6.49152	6.69416	ug/L
Ti (334.941 nm)	0.34054	0.23604	0.31336	ug/L
Tl (190.807 nm)	9.55414	17.75356	10.06502	ug/L
U (409.013 nm)	-2.99135 u	0.37595	-2.40857 u	ug/L
V (292.401 nm)	-0.09498 u	0.32344	-0.17070 u	ug/L
W (207.912 nm)	0.79986	-0.42264 u	-3.14567 u	ug/L
Y (371.029 nm)	-0.00704 u	0.09101	-0.01054 u	ug/L
Zn (206.200 nm)	4.21684	6.90200	6.04265	ug/L
Zr (343.823 nm)	-0.01927 u	0.17745	0.07705	ug/L
Sc-A (361.383 nm)	1.03	1.03	1.03	Ratio

Label	Replicate 1	Replicate 2	Replicate 3	Units
Sc-R (503.102 nm)	1.02	1.02	1.02	Ratio

Sample Name: 2218993005

Date: 7/14/2022 11:29:10 Rack:Tube: 1:35

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Calculated Concentration
Ag (328.068 nm)	0.16363	ug/L	0.15812	96.63	-80.26238	0.16363 (ug/L)
Al (236.705 nm)	1.05360	ug/L	7.26480	> 100.00	63.66478	1.05360 (ug/L)
As (188.980 nm)	2.06698	ug/L	6.00404	> 100.00	-6.81901	2.06698 (ug/L)
B (249.772 nm)	-0.81671	ug/L	0.17197	21.06	41.62467	-0.81671 (ug/L)
Ba (230.424 nm)	0.87646	ug/L	0.27288	31.13	11.17789	0.87646 (ug/L)
Be (313.107 nm)	0.00959	ug/L	0.00019	1.96	9.10334	0.00959 (ug/L)
Bi (223.061 nm)	1.49100	ug/L	3.33707	> 100.00	-35.48707	1.49100 (ug/L)
Ca (317.933 nm)	148.73167	ug/L	1.97188	1.33	2508.81042	148.73167 (ug/L)
Cd (214.439 nm)	-0.03096	ug/L	0.12974	> 100.00	-6.47861	-0.03096 (ug/L)
Co (228.615 nm)	0.49244	ug/L	0.05239	10.64	-6.59860	0.49244 (ug/L)
Cr (205.560 nm)	3.16847	ug/L	0.67429	21.28	14.96538	3.16847 (ug/L)
Cu (224.700 nm)	3.52375	ug/L	1.41838	40.25	-7.33281	3.52375 (ug/L)
Fe (261.382 nm)	52.85567	ug/L	2.21104	4.18	188.64893	52.85567 (ug/L)
K (766.491 nm)	8.75973	ug/L	18.03028	> 100.00	-134.53213	8.75973 (ug/L)
Li (610.365 nm)	16.98285	ug/L	2.58092	15.20	-4477.07930	16.98285 (ug/L)
Mg (279.078 nm)	19.51893	ug/L	2.88948	14.80	58.74009	19.51893 (ug/L)
Mn (260.568 nm)	0.87845	ug/L	0.18214	20.73	16.38341	0.87845 (ug/L)
Mo (202.032 nm)	0.33210	ug/L	0.62642	> 100.00	0.09327	0.33210 (ug/L)
Na (588.995 nm)	90.17065	ug/L	6.31262	7.00	26282.37745	90.17065 (ug/L)
Ni (231.604 nm)	-0.59199	ug/L	0.11127	18.80	-5.24673	-0.59199 (ug/L)
P (178.222 nm)	42.21162	ug/L	14.02296	33.22	6.58095	42.21162 (ug/L)
Pb (220.353 nm)	0.06322	ug/L	3.36450	> 100.00	2.19296	0.06322 (ug/L)
Pt (203.646 nm)	4.82976	ug/L	0.76238	15.79	5.17354	4.82976 (ug/L)
Sb (206.834 nm)	1.19983	ug/L	3.83861	> 100.00	-7.73929	1.19983 (ug/L)
Se (196.026 nm)	5.62483	ug/L	4.63917	82.48	6.24940	5.62483 (ug/L)
Si (251.611 nm)	13.65886	ug/L	1.00299	7.34	39.10455	13.65886 (ug/L)
Sn (189.925 nm)	0.77882	ug/L	1.45281	> 100.00	-4.46032	0.77882 (ug/L)
Sr (421.552 nm)	0.59431	ug/L	0.00622	1.05	1232.90559	0.59431 (ug/L)
Te (214.282 nm)	1.61192	ug/L	7.44185	> 100.00	-4.48783	1.61192 (ug/L)
Ti (334.941 nm)	0.26656	ug/L	0.03765	14.12	-9.47281	0.26656 (ug/L)
Tl (190.807 nm)	12.17574	ug/L	7.54507	61.97	4.00889	12.17574 (ug/L)
U (409.013 nm)	-4.29505	ug/L	2.13404	49.69	158.38044	-4.29505 (ug/L)
V (292.401 nm)	0.25180	ug/L	0.27290	> 100.00	-15.21179	0.25180 (ug/L)
W (207.912 nm)	0.10108	ug/L	0.62894	> 100.00	6.32932	0.10108 (ug/L)
Y (371.029 nm)	0.01210	ug/L	0.02432	> 100.00	2.45112	0.01210 (ug/L)
Zn (206.200 nm)	4.19284	ug/L	0.82489	19.67	5.96349	4.19284 (ug/L)
Zr (343.823 nm)	-0.06585	ug/L	0.15933	> 100.00	88.70273	-0.06585 (ug/L)

Label	Internal Standard
Ag (328.068 nm)	Sc-A
Al (236.705 nm)	Sc-A
As (188.980 nm)	Sc-A
B (249.772 nm)	Sc-A
Ba (230.424 nm)	Sc-A
Be (313.107 nm)	Sc-A
Bi (223.061 nm)	Sc-A
Ca (317.933 nm)	Sc-A
Cd (214.439 nm)	Sc-A
Co (228.615 nm)	Sc-A
Cr (205.560 nm)	Sc-A
Cu (224.700 nm)	Sc-A
Fe (261.382 nm)	Sc-A
K (766.491 nm)	Sc-R
Li (610.365 nm)	Sc-R
Mg (279.078 nm)	Sc-A
Mn (260.568 nm)	Sc-A
Mo (202.032 nm)	Sc-A
Na (588.995 nm)	Sc-R
Ni (231.604 nm)	Sc-A
P (178.222 nm)	Sc-A
Pb (220.353 nm)	Sc-A
Pt (203.646 nm)	Sc-A
Sb (206.834 nm)	Sc-A
Se (196.026 nm)	Sc-A
Si (251.611 nm)	Sc-A
Sn (189.925 nm)	Sc-A
Sr (421.552 nm)	Sc-A
Te (214.282 nm)	Sc-A
Ti (334.941 nm)	Sc-A
Tl (190.807 nm)	Sc-A
U (409.013 nm)	Sc-A
V (292.401 nm)	Sc-A
W (207.912 nm)	Sc-A
Y (371.029 nm)	Sc-A
Zn (206.200 nm)	Sc-A
Zr (343.823 nm)	Sc-A

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Sc-A	1.02	420807.96	0.01	0.60
Sc-R	1.01	47612.10	0.01	0.66

Replicates Concentration

Label	Replicate 1	Replicate 2	Replicate 3	Units
Ag (328.068 nm)	0.10848	0.34194	0.04047	ug/L
Al (236.705 nm)	0.07525	-5.67245 u	8.75799	ug/L

Label	Replicate 1	Replicate 2	Replicate 3	Units
As (188.980 nm)	8.68015	0.56263	-3.04183 u	ug/L
B (249.772 nm)	-0.92008 u	-0.61820 u	-0.91185 u	ug/L
Ba (230.424 nm)	0.96128	1.09686	0.57124	ug/L
Be (313.107 nm)	0.00980	0.00955	0.00944	ug/L
Bi (223.061 nm)	5.21194	0.49771	-1.23665 u	ug/L
Ca (317.933 nm)	146.88926	148.49423	150.81151	ug/L
Cd (214.439 nm)	0.09912	-0.03164 u	-0.16036 u	ug/L
Co (228.615 nm)	0.43224	0.51736	0.52773	ug/L
Cr (205.560 nm)	2.64014	3.92793	2.93734	ug/L
Cu (224.700 nm)	5.01194	3.37189	2.18740	ug/L
Fe (261.382 nm)	50.75976	52.64107	55.16619	ug/L
K (766.491 nm)	-6.57092 u	28.62420	4.22590	ug/L
Li (610.365 nm)	14.00301	18.51238	18.43316	ug/L
Mg (279.078 nm)	16.50183	22.26114	19.79382	ug/L
Mn (260.568 nm)	1.07984	0.83027	0.72525	ug/L
Mo (202.032 nm)	0.42674	-0.33625 u	0.90583	ug/L
Na (588.995 nm)	97.05277	88.80963	84.64956	ug/L
Ni (231.604 nm)	-0.47660 u	-0.60076 u	-0.69862 u	ug/L
P (178.222 nm)	49.13009	51.43090	26.07388	ug/L
Pb (220.353 nm)	0.59413	3.13071	-3.53517 u	ug/L
Pt (203.646 nm)	4.86472	5.57406	4.05050	ug/L
Sb (206.834 nm)	1.37802	4.94624	-2.72478 u	ug/L
Se (196.026 nm)	10.95922	3.38199	2.53328	ug/L
Si (251.611 nm)	14.39774	14.06179	12.51707	ug/L
Sn (189.925 nm)	0.91902	-0.73900 u	2.15645	ug/L
Sr (421.552 nm)	0.58716	0.59722	0.59853	ug/L
Te (214.282 nm)	9.36935	0.93444	-5.46802 u	ug/L
Ti (334.941 nm)	0.22506	0.29853	0.27610	ug/L
Tl (190.807 nm)	4.50247	19.58572	12.43904	ug/L
U (409.013 nm)	-3.20153 u	-6.75421 u	-2.92941 u	ug/L
V (292.401 nm)	0.03540	0.16163	0.55837	ug/L
W (207.912 nm)	0.82147	-0.33879 u	-0.17944 u	ug/L
Y (371.029 nm)	0.03777	0.00910	-0.01058 u	ug/L
Zn (206.200 nm)	5.01807	4.19216	3.36829	ug/L
Zr (343.823 nm)	0.11591	-0.18138 u	-0.13210 u	ug/L
Sc-A (361.383 nm)	1.02	1.02	1.03	Ratio
Sc-R (503.102 nm)	1.01	1.01	1.02	Ratio

Sample Name: 2218993006

Date: 7/14/2022 11:30:51 Rack:Tube: 1:36

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Calculated Concentration
Ag (328.068 nm)	-0.05120	ug/L	0.11799	> 100.00	-91.26671	-0.05120 (ug/L)
Al (236.705 nm)	6.35851	ug/L	9.27011	> 100.00	66.88905	6.35851 (ug/L)
As (188.980 nm)	1.54986	ug/L	4.63254	> 100.00	-7.07526	1.54986 (ug/L)
B (249.772 nm)	-0.98132	ug/L	0.14199	14.47	38.80882	-0.98132 (ug/L)
Ba (230.424 nm)	0.75174	ug/L	0.17845	23.74	8.89076	0.75174 (ug/L)

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Calculated Concentration
Be (313.107 nm)	-0.00053	ug/L	0.01357	> 100.00	1.19977	-0.00053 (ug/L)
Bi (223.061 nm)	-1.53571	ug/L	1.81819	> 100.00	-40.10376	-1.53571 (ug/L)
Ca (317.933 nm)	165.37110	ug/L	3.05221	1.85	2793.36829	165.37110 (ug/L)
Cd (214.439 nm)	0.18654	ug/L	0.22467	> 100.00	-4.28267	0.18654 (ug/L)
Co (228.615 nm)	-0.23790	ug/L	0.37386	> 100.00	-10.93047	-0.23790 (ug/L)
Cr (205.560 nm)	11.48831	ug/L	0.31498	2.74	62.73833	11.48831 (ug/L)
Cu (224.700 nm)	3.22618	ug/L	2.00865	62.26	-7.64634	3.22618 (ug/L)
Fe (261.382 nm)	28.20417	ug/L	1.44854	5.14	122.72217	28.20417 (ug/L)
K (766.491 nm)	20.41746	ug/L	10.58277	51.83	-110.69286	20.41746 (ug/L)
Li (610.365 nm)	15.18130	ug/L	0.82272	5.42	-4497.92810	15.18130 (ug/L)
Mg (279.078 nm)	17.01278	ug/L	2.53263	14.89	54.72881	17.01278 (ug/L)
Mn (260.568 nm)	0.91756	ug/L	0.20865	22.74	17.05398	0.91756 (ug/L)
Mo (202.032 nm)	0.13767	ug/L	0.46124	> 100.00	-0.81814	0.13767 (ug/L)
Na (588.995 nm)	45.25989	ug/L	0.94573	2.09	25220.04382	45.25989 (ug/L)
Ni (231.604 nm)	1.15176	ug/L	1.08071	93.83	-1.16308	1.15176 (ug/L)
P (178.222 nm)	5.22794	ug/L	36.59527	> 100.00	3.02450	5.22794 (ug/L)
Pb (220.353 nm)	-0.61603	ug/L	3.33800	> 100.00	1.39570	-0.61603 (ug/L)
Pt (203.646 nm)	2.52526	ug/L	4.18676	> 100.00	3.19894	2.52526 (ug/L)
Sb (206.834 nm)	3.28572	ug/L	3.26428	99.35	-5.80001	3.28572 (ug/L)
Se (196.026 nm)	7.73084	ug/L	3.96608	51.30	7.50640	7.73084 (ug/L)
Si (251.611 nm)	14.01426	ug/L	3.77599	26.94	39.60423	14.01426 (ug/L)
Sn (189.925 nm)	0.94275	ug/L	5.35138	> 100.00	-4.33777	0.94275 (ug/L)
Sr (421.552 nm)	0.66593	ug/L	0.01143	1.72	1379.22874	0.66593 (ug/L)
Te (214.282 nm)	2.95639	ug/L	4.96339	> 100.00	-3.79098	2.95639 (ug/L)
Ti (334.941 nm)	0.33343	ug/L	0.07933	23.79	4.40648	0.33343 (ug/L)
Tl (190.807 nm)	7.17162	ug/L	1.79895	25.08	1.38127	7.17162 (ug/L)
U (409.013 nm)	-0.64059	ug/L	0.82886	> 100.00	177.81669	-0.64059 (ug/L)
V (292.401 nm)	-0.13846	ug/L	0.23250	> 100.00	-25.46186	-0.13846 (ug/L)
W (207.912 nm)	0.52400	ug/L	0.29134	55.60	6.87214	0.52400 (ug/L)
Y (371.029 nm)	0.03225	ug/L	0.03746	> 100.00	5.79209	0.03225 (ug/L)
Zn (206.200 nm)	4.35383	ug/L	1.35746	31.18	6.27304	4.35383 (ug/L)
Zr (343.823 nm)	0.06898	ug/L	0.11633	> 100.00	97.17132	0.06898 (ug/L)

Label	Internal Standard
Ag (328.068 nm)	Sc-A
Al (236.705 nm)	Sc-A
As (188.980 nm)	Sc-A
B (249.772 nm)	Sc-A
Ba (230.424 nm)	Sc-A
Be (313.107 nm)	Sc-A
Bi (223.061 nm)	Sc-A
Ca (317.933 nm)	Sc-A
Cd (214.439 nm)	Sc-A
Co (228.615 nm)	Sc-A
Cr (205.560 nm)	Sc-A
Cu (224.700 nm)	Sc-A
Fe (261.382 nm)	Sc-A
K (766.491 nm)	Sc-R

Label	Internal Standard
Li (610.365 nm)	Sc-R
Mg (279.078 nm)	Sc-A
Mn (260.568 nm)	Sc-A
Mo (202.032 nm)	Sc-A
Na (588.995 nm)	Sc-R
Ni (231.604 nm)	Sc-A
P (178.222 nm)	Sc-A
Pb (220.353 nm)	Sc-A
Pt (203.646 nm)	Sc-A
Sb (206.834 nm)	Sc-A
Se (196.026 nm)	Sc-A
Si (251.611 nm)	Sc-A
Sn (189.925 nm)	Sc-A
Sr (421.552 nm)	Sc-A
Te (214.282 nm)	Sc-A
Ti (334.941 nm)	Sc-A
Tl (190.807 nm)	Sc-A
U (409.013 nm)	Sc-A
V (292.401 nm)	Sc-A
W (207.912 nm)	Sc-A
Y (371.029 nm)	Sc-A
Zn (206.200 nm)	Sc-A
Zr (343.823 nm)	Sc-A

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Sc-A	1.02	420350.98	0.00	0.35
Sc-R	1.01	47566.55	0.00	0.36

Replicates Concentration

Label	Replicate 1	Replicate 2	Replicate 3	Units
Ag (328.068 nm)	-0.18715 u	0.02442	0.00913	ug/L
Al (236.705 nm)	-0.40858 u	16.92466	2.55944	ug/L
As (188.980 nm)	-1.01221 u	-1.23571 u	6.89749	ug/L
B (249.772 nm)	-0.81856 u	-1.07980 u	-1.04560 u	ug/L
Ba (230.424 nm)	0.91241	0.78313	0.55968	ug/L
Be (313.107 nm)	0.01495	-0.01036 u	-0.00618 u	ug/L
Bi (223.061 nm)	-1.99508 u	-3.08015 u	0.46811	ug/L
Ca (317.933 nm)	162.68274	164.74157	168.68899	ug/L
Cd (214.439 nm)	-0.02820 u	0.41997	0.16785	ug/L
Co (228.615 nm)	-0.52238 u	0.18555	-0.37687 u	ug/L
Cr (205.560 nm)	11.39029	11.84065	11.23400	ug/L
Cu (224.700 nm)	5.31256	3.06045	1.30552	ug/L
Fe (261.382 nm)	28.21485	26.75032	29.64734	ug/L
K (766.491 nm)	11.71892	32.19953	17.33393	ug/L
Li (610.365 nm)	16.11350	14.87370	14.55670	ug/L
Mg (279.078 nm)	16.70194	14.64991	19.68647	ug/L

Label	Replicate 1	Replicate 2	Replicate 3	Units
Mn (260.568 nm)	1.12783	0.91427	0.71057	ug/L
Mo (202.032 nm)	-0.03900 u	-0.20912 u	0.66113	ug/L
Na (588.995 nm)	44.58159	46.34022	44.85788	ug/L
Ni (231.604 nm)	2.26011	1.09417	0.10099	ug/L
P (178.222 nm)	46.87502	-21.78866 u	-9.40254 u	ug/L
Pb (220.353 nm)	-0.97081 u	2.88519	-3.76246 u	ug/L
Pt (203.646 nm)	6.83805	2.26064	-1.52292 u	ug/L
Sb (206.834 nm)	4.81469	-0.46241 u	5.50490	ug/L
Se (196.026 nm)	6.33838	12.20537	4.64877	ug/L
Si (251.611 nm)	17.85181	10.30299	13.88799	ug/L
Sn (189.925 nm)	-4.14226 u	6.52569	0.44482	ug/L
Sr (421.552 nm)	0.65423	0.66649	0.67706	ug/L
Te (214.282 nm)	6.97053	-2.59331 u	4.49194	ug/L
Ti (334.941 nm)	0.28049	0.29516	0.42464	ug/L
Tl (190.807 nm)	5.28092	7.37186	8.86207	ug/L
U (409.013 nm)	-0.13273 u	-0.19198 u	-1.59706 u	ug/L
V (292.401 nm)	0.09523	-0.14088 u	-0.36974 u	ug/L
W (207.912 nm)	0.85120	0.29267	0.42813	ug/L
Y (371.029 nm)	0.07546	0.01226	0.00902	ug/L
Zn (206.200 nm)	3.72401	5.91179	3.42568	ug/L
Zr (343.823 nm)	-0.05109 u	0.18117	0.07686	ug/L
Sc-A (361.383 nm)	1.02	1.02	1.03	Ratio
Sc-R (503.102 nm)	1.01	1.01	1.02	Ratio

Sample Name: CCV

Date: 7/14/2022 11:32:31 Rack:Tube: S1:10

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Calculated Concentration
Ag (328.068 nm)	1963.53011	ug/L	19.99650	1.02	102531.25201	1963.53011 (ug/L)
Al (236.705 nm)	48846.74849	ug/L	621.78144	1.27	29914.01960	48846.74849 (ug/L)
As (188.980 nm)	4922.54162	ug/L	55.94171	1.14	2450.35134	4922.54162 (ug/L)
B (249.772 nm)	12176.20835	ug/L	239.24348	1.96	192316.71522	12176.20835 (ug/L)
Ba (230.424 nm)	4992.90413	ug/L	62.09939	1.24	92164.23617	4992.90413 (ug/L)
Be (313.107 nm)	997.85246	ug/L	13.21380	1.32	734686.73459	997.85246 (ug/L)
Bi (223.061 nm)	4873.85766	ug/L	53.43823	1.10	7278.33588	4873.85766 (ug/L)
Ca (317.933 nm)	50040.29262	ug/L	581.92111	1.16	857793.90463	50040.29262 (ug/L)
Cd (214.439 nm)	2537.03182	ug/L	27.20733	1.07	26450.79308	2537.03182 (ug/L)
Co (228.615 nm)	4978.29423	ug/L	52.28085	1.05	29337.27427	4978.29423 (ug/L)
Cr (205.560 nm)	4983.51158	ug/L	117.67505	2.36	28630.07212	4983.51158 (ug/L)
Cu (224.700 nm)	4917.64722	ug/L	70.54459	1.43	4971.72080	4917.64722 (ug/L)
Fe (261.382 nm)	49716.92126	ug/L	607.37216	1.22	132963.72211	49716.92126 (ug/L)
K (766.491 nm)	47570.54797	ug/L	467.96888	0.98	97079.66710	47570.54797 (ug/L)
Li (610.365 nm)	4796.67920	ug/L	54.51336	1.14	49296.19704	4796.67920 (ug/L)
Mg (279.078 nm)	49412.73831	ug/L	554.03871	1.12	78083.48846	49412.73831 (ug/L)
Mn (260.568 nm)	4968.39352	ug/L	58.14017	1.17	86531.80805	4968.39352 (ug/L)
Mo (202.032 nm)	24897.80213	ug/L	300.77326	1.21	117017.68260	24897.80213 (ug/L)
Na (588.995 nm)	47462.54166	ug/L	429.60399	0.91	1146843.81286	47462.54166 (ug/L)

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Calculated Concentration
Ni (231.604 nm)	4999.28536	ug/L	60.02752	1.20	11701.82640	4999.28536 (ug/L)
P (178.222 nm)	24828.43351	ug/L	253.94723	1.02	2390.09113	24828.43351 (ug/L)
Pb (220.353 nm)	4990.06043	ug/L	44.09465	0.88	5833.49876	4990.06043 (ug/L)
Pt (203.646 nm)	23.81009	ug/L	4.14634	17.41	284.90517	23.81009 (ug/L)
Sb (206.834 nm)	24376.64259	ug/L	372.04182	1.53	21911.01062	24376.64259 (ug/L)
Se (196.026 nm)	4896.59524	ug/L	32.98903	0.67	2900.94994	4896.59524 (ug/L)
Si (251.611 nm)	12152.27644	ug/L	237.58392	1.96	17785.61702	12152.27644 (ug/L)
Sn (189.925 nm)	5019.03568	ug/L	28.51550	0.57	3747.10853	5019.03568 (ug/L)
Sr (421.552 nm)	4867.02304	ug/L	53.46160	1.10	9943002.94748	4867.02304 (ug/L)
Te (214.282 nm)	9883.55922	ug/L	75.47133	0.76	5165.33356	9883.55922 (ug/L)
Ti (334.941 nm)	4911.65988	ug/L	60.65275	1.23	986985.71145	4911.65988 (ug/L)
Tl (190.807 nm)	2496.78767	ug/L	42.02032	1.68	1441.81024	2496.78767 (ug/L)
U (409.013 nm)	4827.57606	ug/L	71.20237	1.47	26124.77624	4827.57606 (ug/L)
V (292.401 nm)	4944.13602	ug/L	55.46797	1.12	124705.85713	4944.13602 (ug/L)
W (207.912 nm)	0.95248	ug/L	3.73648	> 100.00	56.95491	0.95248 (ug/L)
Y (371.029 nm)	1965.83938	ug/L	24.87485	1.27	325174.95488	1965.83938 (ug/L)
Zn (206.200 nm)	5078.78797	ug/L	96.07189	1.89	8995.80882	5078.78797 (ug/L)
Zr (343.823 nm)	4921.36698	ug/L	55.96530	1.14	312852.60937	4921.36698 (ug/L)

Label	Internal Standard
Ag (328.068 nm)	Sc-A
Al (236.705 nm)	Sc-A
As (188.980 nm)	Sc-A
B (249.772 nm)	Sc-A
Ba (230.424 nm)	Sc-A
Be (313.107 nm)	Sc-A
Bi (223.061 nm)	Sc-A
Ca (317.933 nm)	Sc-A
Cd (214.439 nm)	Sc-A
Co (228.615 nm)	Sc-A
Cr (205.560 nm)	Sc-A
Cu (224.700 nm)	Sc-A
Fe (261.382 nm)	Sc-A
K (766.491 nm)	Sc-R
Li (610.365 nm)	Sc-R
Mg (279.078 nm)	Sc-A
Mn (260.568 nm)	Sc-A
Mo (202.032 nm)	Sc-A
Na (588.995 nm)	Sc-R
Ni (231.604 nm)	Sc-A
P (178.222 nm)	Sc-A
Pb (220.353 nm)	Sc-A
Pt (203.646 nm)	Sc-A
Sb (206.834 nm)	Sc-A
Se (196.026 nm)	Sc-A
Si (251.611 nm)	Sc-A
Sn (189.925 nm)	Sc-A
Sr (421.552 nm)	Sc-A

Label	Internal Standard
Te (214.282 nm)	Sc-A
Ti (334.941 nm)	Sc-A
Tl (190.807 nm)	Sc-A
U (409.013 nm)	Sc-A
V (292.401 nm)	Sc-A
W (207.912 nm)	Sc-A
Y (371.029 nm)	Sc-A
Zn (206.200 nm)	Sc-A
Zr (343.823 nm)	Sc-A

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Sc-A	0.98	402817.01	0.00	0.25
Sc-R	0.98	46044.27	0.00	0.45

Replicates Concentration

Label	Replicate 1	Replicate 2	Replicate 3	Units
Ag (328.068 nm)	1941.67530	1968.00498	1980.91006	ug/L
Al (236.705 nm)	48218.50730	48859.87587	49461.86229	ug/L
As (188.980 nm)	4858.66209	4946.17304	4962.78974	ug/L
B (249.772 nm)	11935.43971	12179.28841	12413.89693	ug/L
Ba (230.424 nm)	4931.23021	4992.06176	5055.42041	ug/L
Be (313.107 nm)	984.26907	998.62559	1010.66271	ug/L
Bi (223.061 nm)	4817.90364	4879.30682	4924.36254	ug/L
Ca (317.933 nm)	49541.78629	49899.35255	50679.73902	ug/L
Cd (214.439 nm)	2510.94537	2534.91384	2565.23623	ug/L
Co (228.615 nm)	4927.28024	4975.84650	5031.75595	ug/L
Cr (205.560 nm)	4873.49898	4969.45026	5107.58551	ug/L
Cu (224.700 nm)	4845.32539	4921.34733	4986.26893	ug/L
Fe (261.382 nm)	49081.18898	49778.30292	50291.27189	ug/L
K (766.491 nm)	47105.54063	47564.68006	48041.42321	ug/L
Li (610.365 nm)	4737.49253	4807.71424	4844.83083	ug/L
Mg (279.078 nm)	48831.53383	49471.80243	49934.87867	ug/L
Mn (260.568 nm)	4907.55291	4974.23550	5023.39216	ug/L
Mo (202.032 nm)	24588.20078	24916.31337	25188.89223	ug/L
Na (588.995 nm)	46981.51251	47598.09050	47808.02197	ug/L
Ni (231.604 nm)	4940.27945	4997.29180	5060.28484	ug/L
P (178.222 nm)	24572.78357	24831.87390	25080.64307	ug/L
Pb (220.353 nm)	4940.85811	5003.31760	5026.00560	ug/L
Pt (203.646 nm)	22.18920	20.71905	28.52204	ug/L
Sb (206.834 nm)	24123.90410	24202.16709	24803.85657	ug/L
Se (196.026 nm)	4863.20149	4897.42014	4929.16408	ug/L
Si (251.611 nm)	11912.25241	12157.23426	12387.34266	ug/L
Sn (189.925 nm)	4986.13592	5034.32870	5036.64242	ug/L
Sr (421.552 nm)	4810.49672	4873.79843	4916.77397	ug/L
Te (214.282 nm)	9803.09250	9894.81412	9952.77105	ug/L
Ti (334.941 nm)	4847.97350	4918.26839	4968.73776	ug/L

Label	Replicate 1	Replicate 2	Replicate 3	Units
Tl (190.807 nm)	2456.87041	2492.85769	2540.63492	ug/L
U (409.013 nm)	4751.87145	4837.65454	4893.20220	ug/L
V (292.401 nm)	4885.02409	4952.33712	4995.04685	ug/L
W (207.912 nm)	-3.35312 u	2.86530	3.34526	ug/L
Y (371.029 nm)	1939.47285	1969.15538	1988.88989	ug/L
Zn (206.200 nm)	4977.43986	5090.39503	5168.52900	ug/L
Zr (343.823 nm)	4860.75130	4932.27331	4971.07633	ug/L
Sc-A (361.383 nm)	0.98	0.98	0.98	Ratio
Sc-R (503.102 nm)	0.98	0.98	0.98	Ratio

Sample Name: CCB

Date: 7/14/2022 11:34:12 Rack:Tube: S1:11

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Calculated Concentration
Ag (328.068 nm)	-0.05691	ug/L	0.17777	> 100.00	-91.51136	-0.05691 (ug/L)
Al (236.705 nm)	-7.67511	ug/L	4.96600	64.70	58.38150	-7.67511 (ug/L)
As (188.980 nm)	5.86318	ug/L	3.58986	61.23	-4.92379	5.86318 (ug/L)
B (249.772 nm)	23.26174	ug/L	4.18529	17.99	420.47339	23.26174 (ug/L)
Ba (230.424 nm)	-0.13383	ug/L	0.25347	> 100.00	-7.11851	-0.13383 (ug/L)
Be (313.107 nm)	0.00961	ug/L	0.00431	44.81	9.19071	0.00961 (ug/L)
Bi (223.061 nm)	1.50932	ug/L	3.86282	> 100.00	-35.46661	1.50932 (ug/L)
Ca (317.933 nm)	-0.39954	ug/L	0.40089	> 100.00	-41.34217	-0.39954 (ug/L)
Cd (214.439 nm)	0.09285	ug/L	0.26311	> 100.00	-5.24616	0.09285 (ug/L)
Co (228.615 nm)	0.31899	ug/L	0.57661	> 100.00	-7.64798	0.31899 (ug/L)
Cr (205.560 nm)	0.83612	ug/L	0.33588	40.17	1.59600	0.83612 (ug/L)
Cu (224.700 nm)	0.97682	ug/L	4.74965	> 100.00	-9.91102	0.97682 (ug/L)
Fe (261.382 nm)	1.70342	ug/L	2.13554	> 100.00	51.82586	1.70342 (ug/L)
K (766.491 nm)	9.90341	ug/L	10.69426	> 100.00	-132.18513	9.90341 (ug/L)
Li (610.365 nm)	5.95766	ug/L	2.71368	45.55	-4600.43617	5.95766 (ug/L)
Mg (279.078 nm)	-1.58085	ug/L	0.42008	26.57	25.37979	-1.58085 (ug/L)
Mn (260.568 nm)	0.13419	ug/L	0.27635	> 100.00	3.34089	0.13419 (ug/L)
Mo (202.032 nm)	1.82555	ug/L	0.58157	31.86	7.11629	1.82555 (ug/L)
Na (588.995 nm)	-50.86419	ug/L	4.95374	9.74	22946.29363	-50.86419 (ug/L)
Ni (231.604 nm)	-0.64618	ug/L	0.47934	74.18	-5.38405	-0.64618 (ug/L)
P (178.222 nm)	-6.28751	ug/L	16.42171	> 100.00	1.91715	-6.28751 (ug/L)
Pb (220.353 nm)	-2.17278	ug/L	3.41408	> 100.00	-0.44227	-2.17278 (ug/L)
Pt (203.646 nm)	2.89361	ug/L	3.15129	> 100.00	3.30981	2.89361 (ug/L)
Sb (206.834 nm)	-0.81930	ug/L	2.88991	> 100.00	-9.56636	-0.81930 (ug/L)
Se (196.026 nm)	-1.68856	ug/L	4.13050	> 100.00	1.91616	-1.68856 (ug/L)
Si (251.611 nm)	-6.17235	ug/L	1.27288	20.62	11.15810	-6.17235 (ug/L)
Sn (189.925 nm)	-1.09211	ug/L	1.82505	> 100.00	-5.85900	-1.09211 (ug/L)
Sr (421.552 nm)	0.05206	ug/L	0.01615	31.03	125.13951	0.05206 (ug/L)
Te (214.282 nm)	5.39727	ug/L	8.00216	> 100.00	-2.52078	5.39727 (ug/L)
Ti (334.941 nm)	0.16401	ug/L	0.04852	29.59	-29.90259	0.16401 (ug/L)
Tl (190.807 nm)	-1.87848	ug/L	2.86996	> 100.00	-3.35958	-1.87848 (ug/L)
U (409.013 nm)	-4.10913	ug/L	0.77767	18.93	159.34449	-4.10913 (ug/L)
V (292.401 nm)	0.08632	ug/L	0.20950	> 100.00	-19.46578	0.08632 (ug/L)

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Calculated Concentration
W (207.912 nm)	1.23688	ug/L	0.95865	77.51	7.73114	1.23688 (ug/L)
Y (371.029 nm)	0.01107	ug/L	0.03019	> 100.00	2.28357	0.01107 (ug/L)
Zn (206.200 nm)	-0.85545	ug/L	0.65788	76.90	-2.97116	-0.85545 (ug/L)
Zr (343.823 nm)	0.71965	ug/L	0.11755	16.33	138.57591	0.71965 (ug/L)

Label	Internal Standard
Ag (328.068 nm)	Sc-A
Al (236.705 nm)	Sc-A
As (188.980 nm)	Sc-A
B (249.772 nm)	Sc-A
Ba (230.424 nm)	Sc-A
Be (313.107 nm)	Sc-A
Bi (223.061 nm)	Sc-A
Ca (317.933 nm)	Sc-A
Cd (214.439 nm)	Sc-A
Co (228.615 nm)	Sc-A
Cr (205.560 nm)	Sc-A
Cu (224.700 nm)	Sc-A
Fe (261.382 nm)	Sc-A
K (766.491 nm)	Sc-R
Li (610.365 nm)	Sc-R
Mg (279.078 nm)	Sc-A
Mn (260.568 nm)	Sc-A
Mo (202.032 nm)	Sc-A
Na (588.995 nm)	Sc-R
Ni (231.604 nm)	Sc-A
P (178.222 nm)	Sc-A
Pb (220.353 nm)	Sc-A
Pt (203.646 nm)	Sc-A
Sb (206.834 nm)	Sc-A
Se (196.026 nm)	Sc-A
Si (251.611 nm)	Sc-A
Sn (189.925 nm)	Sc-A
Sr (421.552 nm)	Sc-A
Te (214.282 nm)	Sc-A
Ti (334.941 nm)	Sc-A
Tl (190.807 nm)	Sc-A
U (409.013 nm)	Sc-A
V (292.401 nm)	Sc-A
W (207.912 nm)	Sc-A
Y (371.029 nm)	Sc-A
Zn (206.200 nm)	Sc-A
Zr (343.823 nm)	Sc-A

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Sc-A	1.02	418153.36	0.00	0.21
Sc-R	1.01	47265.62	0.00	0.26

Replicates Concentration

Label	Replicate 1	Replicate 2	Replicate 3	Units
Ag (328.068 nm)	0.11363	-0.24112 u	-0.04325 u	ug/L
Al (236.705 nm)	-6.60892 u	-13.08760 u	-3.32880 u	ug/L
As (188.980 nm)	3.05043	4.63263	9.90648	ug/L
B (249.772 nm)	27.63401	22.85860	19.29261	ug/L
Ba (230.424 nm)	-0.36874 u	0.13482	-0.16757 u	ug/L
Be (313.107 nm)	0.01246	0.00466	0.01172	ug/L
Bi (223.061 nm)	3.18542	4.25099	-2.90844 u	ug/L
Ca (317.933 nm)	-0.56681 u	-0.68971 u	0.05791	ug/L
Cd (214.439 nm)	0.21636	0.27148	-0.20928 u	ug/L
Co (228.615 nm)	-0.24997 u	0.30398	0.90296	ug/L
Cr (205.560 nm)	0.65589	0.62882	1.22364	ug/L
Cu (224.700 nm)	-1.37885 u	-2.13455 u	6.44387	ug/L
Fe (261.382 nm)	-0.08145 u	1.12235	4.06935	ug/L
K (766.491 nm)	7.41489	0.67281	21.62253	ug/L
Li (610.365 nm)	8.11058	2.90947	6.85294	ug/L
Mg (279.078 nm)	-1.94196 u	-1.68076 u	-1.11982 u	ug/L
Mn (260.568 nm)	-0.00002 u	-0.04942 u	0.45201	ug/L
Mo (202.032 nm)	1.33363	1.67562	2.46741	ug/L
Na (588.995 nm)	-55.17283 u	-45.45161 u	-51.96812 u	ug/L
Ni (231.604 nm)	-1.19876 u	-0.39743 u	-0.34234 u	ug/L
P (178.222 nm)	-22.41988 u	10.40901	-6.85164 u	ug/L
Pb (220.353 nm)	1.20937	-5.61792 u	-2.10980 u	ug/L
Pt (203.646 nm)	0.41696	6.44067	1.82318	ug/L
Sb (206.834 nm)	-3.84644 u	1.91038	-0.52184 u	ug/L
Se (196.026 nm)	-0.59880 u	1.78780	-6.25468 u	ug/L
Si (251.611 nm)	-5.66390 u	-5.23228 u	-7.62086 u	ug/L
Sn (189.925 nm)	-3.19915 u	-0.00623 u	-0.07093 u	ug/L
Sr (421.552 nm)	0.04043	0.04525	0.07051	ug/L
Te (214.282 nm)	-3.74584 u	11.12519	8.81248	ug/L
Ti (334.941 nm)	0.14780	0.12566	0.21856	ug/L
Tl (190.807 nm)	0.05078	-5.17659 u	-0.50964 u	ug/L
U (409.013 nm)	-4.46456 u	-3.21725 u	-4.64557 u	ug/L
V (292.401 nm)	-0.15336 u	0.23455	0.17775	ug/L
W (207.912 nm)	0.20735	2.10386	1.39944	ug/L
Y (371.029 nm)	0.01258	-0.01984 u	0.04047	ug/L
Zn (206.200 nm)	-1.46639 u	-0.15899 u	-0.94098 u	ug/L
Zr (343.823 nm)	0.76173	0.81037	0.58685	ug/L
Sc-A (361.383 nm)	1.02	1.02	1.02	Ratio
Sc-R (503.102 nm)	1.00	1.01	1.01	Ratio

Sample Name: 2218993007

Date: 7/14/2022 11:35:52 Rack:Tube: 1:37

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Calculated Concentration
Ag (328.068 nm)	-0.04675	ug/L	0.17949	> 100.00	-90.91001	-0.04675 (ug/L)
Al (236.705 nm)	3.34193	ug/L	3.94452	> 100.00	65.05941	3.34193 (ug/L)
As (188.980 nm)	-0.32200	ug/L	0.81370	> 100.00	-8.01161	-0.32200 (ug/L)
B (249.772 nm)	7.25834	ug/L	1.25312	17.26	168.50291	7.25834 (ug/L)
Ba (230.424 nm)	0.67247	ug/L	0.07725	11.49	7.46342	0.67247 (ug/L)
Be (313.107 nm)	0.02809	ug/L	0.01919	68.31	22.44862	0.02809 (ug/L)
Bi (223.061 nm)	1.40547	ug/L	2.96435	> 100.00	-35.64408	1.40547 (ug/L)
Ca (317.933 nm)	179.22183	ug/L	2.11486	1.18	3030.20265	179.22183 (ug/L)
Cd (214.439 nm)	0.32996	ug/L	0.31884	96.63	-2.65144	0.32996 (ug/L)
Co (228.615 nm)	0.55018	ug/L	0.21252	38.63	-6.24849	0.55018 (ug/L)
Cr (205.560 nm)	1.22003	ug/L	0.63757	52.26	3.79103	1.22003 (ug/L)
Cu (224.700 nm)	2.42246	ug/L	2.87233	> 100.00	-8.45199	2.42246 (ug/L)
Fe (261.382 nm)	16.46378	ug/L	1.41323	8.58	91.27903	16.46378 (ug/L)
K (766.491 nm)	22.17146	ug/L	3.69339	16.66	-107.10555	22.17146 (ug/L)
Li (610.365 nm)	14.48950	ug/L	3.30904	22.84	-4506.05916	14.48950 (ug/L)
Mg (279.078 nm)	19.26649	ug/L	4.21539	21.88	58.29741	19.26649 (ug/L)
Mn (260.568 nm)	0.91392	ug/L	0.11869	12.99	16.99128	0.91392 (ug/L)
Mo (202.032 nm)	0.23708	ug/L	1.28061	> 100.00	-0.35169	0.23708 (ug/L)
Na (588.995 nm)	78.71321	ug/L	3.40423	4.32	26011.35939	78.71321 (ug/L)
Ni (231.604 nm)	-0.04628	ug/L	0.41658	> 100.00	-3.97587	-0.04628 (ug/L)
P (178.222 nm)	31.80020	ug/L	27.19723	85.53	5.57976	31.80020 (ug/L)
Pb (220.353 nm)	-0.64727	ug/L	4.12139	> 100.00	1.35875	-0.64727 (ug/L)
Pt (203.646 nm)	6.50162	ug/L	1.06411	16.37	6.25603	6.50162 (ug/L)
Sb (206.834 nm)	6.48780	ug/L	2.42853	37.43	-3.01655	6.48780 (ug/L)
Se (196.026 nm)	4.75695	ug/L	5.32114	> 100.00	5.73948	4.75695 (ug/L)
Si (251.611 nm)	18.37066	ug/L	0.80239	4.37	45.75663	18.37066 (ug/L)
Sn (189.925 nm)	1.17545	ug/L	1.97005	> 100.00	-4.16381	1.17545 (ug/L)
Sr (421.552 nm)	0.74550	ug/L	0.07919	10.62	1541.79284	0.74550 (ug/L)
Te (214.282 nm)	3.84868	ug/L	5.18631	> 100.00	-3.32453	3.84868 (ug/L)
Ti (334.941 nm)	0.43473	ug/L	0.06953	15.99	24.38679	0.43473 (ug/L)
Tl (190.807 nm)	1.98798	ug/L	5.03476	> 100.00	-1.35388	1.98798 (ug/L)
U (409.013 nm)	-0.75666	ug/L	3.06029	> 100.00	177.21268	-0.75666 (ug/L)
V (292.401 nm)	0.43014	ug/L	0.36313	84.42	-10.51864	0.43014 (ug/L)
W (207.912 nm)	0.45627	ug/L	0.56193	> 100.00	6.76712	0.45627 (ug/L)
Y (371.029 nm)	0.02025	ug/L	0.02652	> 100.00	3.80485	0.02025 (ug/L)
Zn (206.200 nm)	2.54658	ug/L	0.85548	33.59	3.04646	2.54658 (ug/L)
Zr (343.823 nm)	0.73903	ug/L	0.13383	18.11	139.74245	0.73903 (ug/L)

Label	Internal Standard
Ag (328.068 nm)	Sc-A
Al (236.705 nm)	Sc-A
As (188.980 nm)	Sc-A
B (249.772 nm)	Sc-A
Ba (230.424 nm)	Sc-A
Be (313.107 nm)	Sc-A
Bi (223.061 nm)	Sc-A
Ca (317.933 nm)	Sc-A

Label	Internal Standard
Cd (214.439 nm)	Sc-A
Co (228.615 nm)	Sc-A
Cr (205.560 nm)	Sc-A
Cu (224.700 nm)	Sc-A
Fe (261.382 nm)	Sc-A
K (766.491 nm)	Sc-R
Li (610.365 nm)	Sc-R
Mg (279.078 nm)	Sc-A
Mn (260.568 nm)	Sc-A
Mo (202.032 nm)	Sc-A
Na (588.995 nm)	Sc-R
Ni (231.604 nm)	Sc-A
P (178.222 nm)	Sc-A
Pb (220.353 nm)	Sc-A
Pt (203.646 nm)	Sc-A
Sb (206.834 nm)	Sc-A
Se (196.026 nm)	Sc-A
Si (251.611 nm)	Sc-A
Sn (189.925 nm)	Sc-A
Sr (421.552 nm)	Sc-A
Te (214.282 nm)	Sc-A
Ti (334.941 nm)	Sc-A
Tl (190.807 nm)	Sc-A
U (409.013 nm)	Sc-A
V (292.401 nm)	Sc-A
W (207.912 nm)	Sc-A
Y (371.029 nm)	Sc-A
Zn (206.200 nm)	Sc-A
Zr (343.823 nm)	Sc-A

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Sc-A	1.03	421812.08	0.00	0.45
Sc-R	1.01	47649.29	0.00	0.42

Replicates Concentration

Label	Replicate 1	Replicate 2	Replicate 3	Units
Ag (328.068 nm)	-0.11421 u	0.15670	-0.18273 u	ug/L
Al (236.705 nm)	-0.85916 u	3.91853	6.96641	ug/L
As (188.980 nm)	-0.05923 u	0.32785	-1.23462 u	ug/L
B (249.772 nm)	8.53250	7.21514	6.02737	ug/L
Ba (230.424 nm)	0.64627	0.75942	0.61173	ug/L
Be (313.107 nm)	0.01230	0.02253	0.04945	ug/L
Bi (223.061 nm)	-0.30772 u	4.82841	-0.30429 u	ug/L
Ca (317.933 nm)	177.41479	178.70283	181.54788	ug/L
Cd (214.439 nm)	0.32862	0.01179	0.64947	ug/L
Co (228.615 nm)	0.60715	0.72840	0.31498	ug/L

Label	Replicate 1	Replicate 2	Replicate 3	Units
Cr (205.560 nm)	1.70537	0.49795	1.45677	ug/L
Cu (224.700 nm)	5.72891	0.99466	0.54381	ug/L
Fe (261.382 nm)	16.47194	15.04648	17.87292	ug/L
K (766.491 nm)	26.39942	19.57334	20.54162	ug/L
Li (610.365 nm)	10.67086	16.28363	16.51401	ug/L
Mg (279.078 nm)	15.31328	18.78372	23.70249	ug/L
Mn (260.568 nm)	0.85291	0.83814	1.05070	ug/L
Mo (202.032 nm)	-0.54113 u	-0.46274 u	1.71511	ug/L
Na (588.995 nm)	82.21887	78.50034	75.42041	ug/L
Ni (231.604 nm)	0.00763	0.34072	-0.48720 u	ug/L
P (178.222 nm)	42.30496	52.17840	0.91723	ug/L
Pb (220.353 nm)	0.85295	2.51387	-5.30863 u	ug/L
Pt (203.646 nm)	7.72141	6.01984	5.76361	ug/L
Sb (206.834 nm)	4.41453	5.88922	9.15964	ug/L
Se (196.026 nm)	8.99173	6.49500	-1.21589 u	ug/L
Si (251.611 nm)	19.29712	17.89899	17.91586	ug/L
Sn (189.925 nm)	-0.68562 u	0.97312	3.23886	ug/L
Sr (421.552 nm)	0.69337	0.70652	0.83663	ug/L
Te (214.282 nm)	9.83722	0.82475	0.88407	ug/L
Ti (334.941 nm)	0.38223	0.40838	0.51359	ug/L
Tl (190.807 nm)	-3.40464 u	6.56539	2.80321	ug/L
U (409.013 nm)	-3.29726 u	-1.61341 u	2.64070	ug/L
V (292.401 nm)	0.02031	0.55833	0.71179	ug/L
W (207.912 nm)	0.05605	1.09868	0.21407	ug/L
Y (371.029 nm)	-0.00223 u	0.01348	0.04949	ug/L
Zn (206.200 nm)	3.15064	2.92143	1.56766	ug/L
Zr (343.823 nm)	0.58829	0.78493	0.84387	ug/L
Sc-A (361.383 nm)	1.02	1.03	1.03	Ratio
Sc-R (503.102 nm)	1.01	1.01	1.02	Ratio

Sample Name: 2218993008

Date: 7/14/2022 11:37:33 Rack:Tube: 1:38

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Calculated Concentration
Ag (328.068 nm)	0.01562	ug/L	0.19702	> 100.00	-87.73509	0.01562 (ug/L)
Al (236.705 nm)	8.28933	ug/L	4.08172	49.24	68.06525	8.28933 (ug/L)
As (188.980 nm)	3.43627	ug/L	2.11085	61.43	-6.13234	3.43627 (ug/L)
B (249.772 nm)	2.80541	ug/L	0.34849	12.42	98.50703	2.80541 (ug/L)
Ba (230.424 nm)	0.76560	ug/L	0.23081	30.15	9.16595	0.76560 (ug/L)
Be (313.107 nm)	0.02552	ug/L	0.00552	21.62	20.34764	0.02552 (ug/L)
Bi (223.061 nm)	1.44600	ug/L	1.26670	87.60	-35.58810	1.44600 (ug/L)
Ca (317.933 nm)	194.09430	ug/L	2.75787	1.42	3284.51314	194.09430 (ug/L)
Cd (214.439 nm)	-0.29671	ug/L	0.24340	82.03	-9.38052	-0.29671 (ug/L)
Co (228.615 nm)	-0.16138	ug/L	0.72865	> 100.00	-10.48317	-0.16138 (ug/L)
Cr (205.560 nm)	14.31441	ug/L	0.35095	2.45	78.96899	14.31441 (ug/L)
Cu (224.700 nm)	1.67027	ug/L	2.09362	> 100.00	-9.21292	1.67027 (ug/L)
Fe (261.382 nm)	33.25792	ug/L	0.60510	1.82	136.26134	33.25792 (ug/L)

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Calculated Concentration
K (766.491 nm)	12.14188	ug/L	7.26106	59.80	-127.61522	12.14188 (ug/L)
Li (610.365 nm)	15.86603	ug/L	1.55017	9.77	-4490.59568	15.86603 (ug/L)
Mg (279.078 nm)	21.93456	ug/L	2.93101	13.36	62.50382	21.93456 (ug/L)
Mn (260.568 nm)	1.01943	ug/L	0.14565	14.29	18.81479	1.01943 (ug/L)
Mo (202.032 nm)	0.66273	ug/L	0.22226	33.54	1.64764	0.66273 (ug/L)
Na (588.995 nm)	71.35668	ug/L	5.80104	8.13	25837.34559	71.35668 (ug/L)
Ni (231.604 nm)	0.89159	ug/L	0.68567	76.90	-1.77297	0.89159 (ug/L)
P (178.222 nm)	4.87612	ug/L	41.49144	> 100.00	2.99067	4.87612 (ug/L)
Pb (220.353 nm)	1.63755	ug/L	1.17009	71.45	4.03906	1.63755 (ug/L)
Pt (203.646 nm)	1.00150	ug/L	7.54781	> 100.00	2.02478	1.00150 (ug/L)
Sb (206.834 nm)	1.51369	ug/L	3.47720	> 100.00	-7.36395	1.51369 (ug/L)
Se (196.026 nm)	6.64875	ug/L	2.94661	44.32	6.87234	6.64875 (ug/L)
Si (251.611 nm)	11.34708	ug/L	0.55469	4.89	35.85247	11.34708 (ug/L)
Sn (189.925 nm)	1.26651	ug/L	1.95086	> 100.00	-4.09574	1.26651 (ug/L)
Sr (421.552 nm)	0.71856	ug/L	0.01814	2.52	1486.74983	0.71856 (ug/L)
Te (214.282 nm)	8.14476	ug/L	4.16930	51.19	-1.09005	8.14476 (ug/L)
Ti (334.941 nm)	0.34866	ug/L	0.08027	23.02	7.54271	0.34866 (ug/L)
Tl (190.807 nm)	8.15774	ug/L	1.57428	19.30	1.95758	8.15774 (ug/L)
U (409.013 nm)	-0.28159	ug/L	4.77050	> 100.00	179.74599	-0.28159 (ug/L)
V (292.401 nm)	0.09624	ug/L	0.23601	> 100.00	-19.55068	0.09624 (ug/L)
W (207.912 nm)	2.27717	ug/L	1.28057	56.24	9.10342	2.27717 (ug/L)
Y (371.029 nm)	0.01038	ug/L	0.03173	> 100.00	2.17417	0.01038 (ug/L)
Zn (206.200 nm)	3.55245	ug/L	1.72766	48.63	4.86528	3.55245 (ug/L)
Zr (343.823 nm)	0.42620	ug/L	0.09955	23.36	119.91200	0.42620 (ug/L)

Label	Internal Standard
Ag (328.068 nm)	Sc-A
Al (236.705 nm)	Sc-A
As (188.980 nm)	Sc-A
B (249.772 nm)	Sc-A
Ba (230.424 nm)	Sc-A
Be (313.107 nm)	Sc-A
Bi (223.061 nm)	Sc-A
Ca (317.933 nm)	Sc-A
Cd (214.439 nm)	Sc-A
Co (228.615 nm)	Sc-A
Cr (205.560 nm)	Sc-A
Cu (224.700 nm)	Sc-A
Fe (261.382 nm)	Sc-A
K (766.491 nm)	Sc-R
Li (610.365 nm)	Sc-R
Mg (279.078 nm)	Sc-A
Mn (260.568 nm)	Sc-A
Mo (202.032 nm)	Sc-A
Na (588.995 nm)	Sc-R
Ni (231.604 nm)	Sc-A
P (178.222 nm)	Sc-A
Pb (220.353 nm)	Sc-A

Label	Internal Standard
Pt (203.646 nm)	Sc-A
Sb (206.834 nm)	Sc-A
Se (196.026 nm)	Sc-A
Si (251.611 nm)	Sc-A
Sn (189.925 nm)	Sc-A
Sr (421.552 nm)	Sc-A
Te (214.282 nm)	Sc-A
Ti (334.941 nm)	Sc-A
Tl (190.807 nm)	Sc-A
U (409.013 nm)	Sc-A
V (292.401 nm)	Sc-A
W (207.912 nm)	Sc-A
Y (371.029 nm)	Sc-A
Zn (206.200 nm)	Sc-A
Zr (343.823 nm)	Sc-A

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Sc-A	1.03	422281.89	0.00	0.29
Sc-R	1.02	47712.68	0.00	0.15

Replicates Concentration

Label	Replicate 1	Replicate 2	Replicate 3	Units
Ag (328.068 nm)	0.06716	-0.20205 u	0.18174	ug/L
Al (236.705 nm)	6.37331	12.97657	5.51812	ug/L
As (188.980 nm)	1.50357	5.68878	3.11647	ug/L
B (249.772 nm)	3.20569	2.56954	2.64100	ug/L
Ba (230.424 nm)	1.00081	0.53946	0.75652	ug/L
Be (313.107 nm)	0.02939	0.01920	0.02798	ug/L
Bi (223.061 nm)	1.81341	2.48838	0.03620	ug/L
Ca (317.933 nm)	191.37999	194.00913	196.89376	ug/L
Cd (214.439 nm)	-0.39996 u	-0.47147 u	-0.01870 u	ug/L
Co (228.615 nm)	0.03345	0.45006	-0.96764 u	ug/L
Cr (205.560 nm)	14.70706	14.03126	14.20491	ug/L
Cu (224.700 nm)	3.84091	1.50665	-0.33673 u	ug/L
Fe (261.382 nm)	32.74541	33.92545	33.10289	ug/L
K (766.491 nm)	14.74336	3.93844	17.74384	ug/L
Li (610.365 nm)	16.74218	14.07617	16.77972	ug/L
Mg (279.078 nm)	18.93688	22.07279	24.79401	ug/L
Mn (260.568 nm)	0.86432	1.04066	1.15330	ug/L
Mo (202.032 nm)	0.41576	0.84667	0.72576	ug/L
Na (588.995 nm)	66.39737	69.93684	77.73582	ug/L
Ni (231.604 nm)	0.40824	0.59020	1.67633	ug/L
P (178.222 nm)	17.97079	38.24040	-41.58282 u	ug/L
Pb (220.353 nm)	0.31497	2.53801	2.05967	ug/L
Pt (203.646 nm)	-3.82589 u	9.69944	-2.86905 u	ug/L
Sb (206.834 nm)	-2.21242 u	2.08135	4.67212	ug/L

Label	Replicate 1	Replicate 2	Replicate 3	Units
Se (196.026 nm)	9.43447	3.56404	6.94775	ug/L
Si (251.611 nm)	11.76169	10.71699	11.56258	ug/L
Sn (189.925 nm)	-0.19274 u	3.48233	0.50993	ug/L
Sr (421.552 nm)	0.70172	0.71620	0.73776	ug/L
Te (214.282 nm)	12.92432	6.25489	5.25507	ug/L
Ti (334.941 nm)	0.25632	0.40178	0.38788	ug/L
Tl (190.807 nm)	6.43869	9.52913	8.50541	ug/L
U (409.013 nm)	4.79736	-0.97421 u	-4.66792 u	ug/L
V (292.401 nm)	-0.10510 u	0.35595	0.03787	ug/L
W (207.912 nm)	3.72404	1.81793	1.28954	ug/L
Y (371.029 nm)	-0.01653 u	0.00229	0.04536	ug/L
Zn (206.200 nm)	4.66028	1.56175	4.43533	ug/L
Zr (343.823 nm)	0.53810	0.34750	0.39300	ug/L
Sc-A (361.383 nm)	1.02	1.03	1.03	Ratio
Sc-R (503.102 nm)	1.01	1.02	1.02	Ratio

Sample Name: 2218993009

Date: 7/14/2022 11:39:13 Rack:Tube: 1:39

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Calculated Concentration
Ag (328.068 nm)	-0.06424	ug/L	0.18407	> 100.00	-91.95806	-0.06424 (ug/L)
Al (236.705 nm)	18.60936	ug/L	9.19386	49.40	74.33349	18.60936 (ug/L)
As (188.980 nm)	6.19264	ug/L	1.67775	27.09	-4.75923	6.19264 (ug/L)
B (249.772 nm)	0.85508	ug/L	0.37574	43.94	67.70747	0.85508 (ug/L)
Ba (230.424 nm)	0.81777	ug/L	0.15329	18.74	10.10897	0.81777 (ug/L)
Be (313.107 nm)	0.00921	ug/L	0.00894	97.12	8.68399	0.00921 (ug/L)
Bi (223.061 nm)	-0.27997	ug/L	4.38537	> 100.00	-38.18001	-0.27997 (ug/L)
Ca (317.933 nm)	217.91429	ug/L	3.99781	1.83	3691.82507	217.91429 (ug/L)
Cd (214.439 nm)	0.00876	ug/L	0.36107	> 100.00	-6.24465	0.00876 (ug/L)
Co (228.615 nm)	0.28206	ug/L	0.86376	> 100.00	-7.84717	0.28206 (ug/L)
Cr (205.560 nm)	1.52617	ug/L	0.17366	11.38	5.54540	1.52617 (ug/L)
Cu (224.700 nm)	6.72833	ug/L	2.10264	31.25	-4.15416	6.72833 (ug/L)
Fe (261.382 nm)	24.91407	ug/L	1.27914	5.13	113.84439	24.91407 (ug/L)
K (766.491 nm)	11.23957	ug/L	5.75426	51.20	-129.46079	11.23957 (ug/L)
Li (610.365 nm)	14.52167	ug/L	1.42219	9.79	-4506.34547	14.52167 (ug/L)
Mg (279.078 nm)	23.30329	ug/L	1.98181	8.50	64.70386	23.30329 (ug/L)
Mn (260.568 nm)	1.27467	ug/L	0.13008	10.21	23.27846	1.27467 (ug/L)
Mo (202.032 nm)	0.40947	ug/L	0.65054	> 100.00	0.46012	0.40947 (ug/L)
Na (588.995 nm)	78.41258	ug/L	5.86313	7.48	26004.24830	78.41258 (ug/L)
Ni (231.604 nm)	0.34441	ug/L	0.55186	> 100.00	-3.05284	0.34441 (ug/L)
P (178.222 nm)	7.33542	ug/L	2.93133	39.96	3.22716	7.33542 (ug/L)
Pb (220.353 nm)	1.94426	ug/L	0.47070	24.21	4.40043	1.94426 (ug/L)
Pt (203.646 nm)	-0.61664	ug/L	1.05294	> 100.00	0.68607	-0.61664 (ug/L)
Sb (206.834 nm)	-0.35080	ug/L	4.57796	> 100.00	-9.13442	-0.35080 (ug/L)
Se (196.026 nm)	5.33342	ug/L	6.41974	> 100.00	6.08651	5.33342 (ug/L)
Si (251.611 nm)	18.60654	ug/L	0.85844	4.61	46.09288	18.60654 (ug/L)
Sn (189.925 nm)	3.96304	ug/L	2.96260	74.76	-2.07985	3.96304 (ug/L)

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Calculated Concentration
Sr (421.552 nm)	0.73545	ug/L	0.01494	2.03	1521.26209	0.73545 (ug/L)
Te (214.282 nm)	7.67809	ug/L	0.43966	5.73	-1.33307	7.67809 (ug/L)
Ti (334.941 nm)	0.46110	ug/L	0.02946	6.39	29.55698	0.46110 (ug/L)
Tl (190.807 nm)	11.22898	ug/L	6.36184	56.66	3.54330	11.22898 (ug/L)
U (409.013 nm)	-2.58890	ug/L	0.96339	37.21	167.44462	-2.58890 (ug/L)
V (292.401 nm)	-0.00684	ug/L	0.38335	> 100.00	-21.79814	-0.00684 (ug/L)
W (207.912 nm)	1.20199	ug/L	1.52923	> 100.00	7.76136	1.20199 (ug/L)
Y (371.029 nm)	-0.00009	ug/L	0.02769	> 100.00	0.43554	-0.00009 (ug/L)
Zn (206.200 nm)	6.76470	ug/L	0.25942	3.83	10.50830	6.76470 (ug/L)
Zr (343.823 nm)	0.20072	ug/L	0.04067	20.26	105.59497	0.20072 (ug/L)

Label	Internal Standard
Ag (328.068 nm)	Sc-A
Al (236.705 nm)	Sc-A
As (188.980 nm)	Sc-A
B (249.772 nm)	Sc-A
Ba (230.424 nm)	Sc-A
Be (313.107 nm)	Sc-A
Bi (223.061 nm)	Sc-A
Ca (317.933 nm)	Sc-A
Cd (214.439 nm)	Sc-A
Co (228.615 nm)	Sc-A
Cr (205.560 nm)	Sc-A
Cu (224.700 nm)	Sc-A
Fe (261.382 nm)	Sc-A
K (766.491 nm)	Sc-R
Li (610.365 nm)	Sc-R
Mg (279.078 nm)	Sc-A
Mn (260.568 nm)	Sc-A
Mo (202.032 nm)	Sc-A
Na (588.995 nm)	Sc-R
Ni (231.604 nm)	Sc-A
P (178.222 nm)	Sc-A
Pb (220.353 nm)	Sc-A
Pt (203.646 nm)	Sc-A
Sb (206.834 nm)	Sc-A
Se (196.026 nm)	Sc-A
Si (251.611 nm)	Sc-A
Sn (189.925 nm)	Sc-A
Sr (421.552 nm)	Sc-A
Te (214.282 nm)	Sc-A
Ti (334.941 nm)	Sc-A
Tl (190.807 nm)	Sc-A
U (409.013 nm)	Sc-A
V (292.401 nm)	Sc-A
W (207.912 nm)	Sc-A
Y (371.029 nm)	Sc-A
Zn (206.200 nm)	Sc-A

Label	Internal Standard
Zr (343.823 nm)	Sc-A

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Sc-A	1.02	420503.69	0.00	0.36
Sc-R	1.01	47537.35	0.00	0.44

Replicates Concentration

Label	Replicate 1	Replicate 2	Replicate 3	Units
Ag (328.068 nm)	-0.21614 u	-0.11705 u	0.14046	ug/L
Al (236.705 nm)	8.40929	21.16071	26.25809	ug/L
As (188.980 nm)	4.70759	5.85775	8.01258	ug/L
B (249.772 nm)	1.15300	0.97927	0.43297	ug/L
Ba (230.424 nm)	0.68375	0.78466	0.98491	ug/L
Be (313.107 nm)	0.00246	0.01935	0.00581	ug/L
Bi (223.061 nm)	3.67338	-4.99704 u	0.48373	ug/L
Ca (317.933 nm)	213.73548	218.30497	221.70241	ug/L
Cd (214.439 nm)	-0.39885 u	0.28847	0.13665	ug/L
Co (228.615 nm)	1.03017	0.47926	-0.66325 u	ug/L
Cr (205.560 nm)	1.32572	1.62154	1.63124	ug/L
Cu (224.700 nm)	6.05677	9.08472	5.04351	ug/L
Fe (261.382 nm)	23.43761	25.68761	25.61700	ug/L
K (766.491 nm)	12.45596	16.28838	4.97436	ug/L
Li (610.365 nm)	12.95390	15.72888	14.88222	ug/L
Mg (279.078 nm)	25.53419	22.62928	21.74639	ug/L
Mn (260.568 nm)	1.12589	1.33115	1.36697	ug/L
Mo (202.032 nm)	0.56161	0.97045	-0.30367 u	ug/L
Na (588.995 nm)	80.95301	71.70767	82.57707	ug/L
Ni (231.604 nm)	0.30857	-0.18866 u	0.91331	ug/L
P (178.222 nm)	10.52636	4.76213	6.71777	ug/L
Pb (220.353 nm)	1.96400	2.40478	1.46400	ug/L
Pt (203.646 nm)	-0.86270 u	0.53755	-1.52475 u	ug/L
Sb (206.834 nm)	-3.63061 u	4.87935	-2.30114 u	ug/L
Se (196.026 nm)	0.45555	2.93833	12.60639	ug/L
Si (251.611 nm)	19.56546	18.34449	17.90966	ug/L
Sn (189.925 nm)	5.41505	0.55455	5.91953	ug/L
Sr (421.552 nm)	0.71870	0.74739	0.74028	ug/L
Te (214.282 nm)	7.17061	7.91963	7.94404	ug/L
Ti (334.941 nm)	0.43868	0.49447	0.45016	ug/L
Tl (190.807 nm)	15.06173	3.88530	14.73990	ug/L
U (409.013 nm)	-3.65420 u	-1.77880 u	-2.33370 u	ug/L
V (292.401 nm)	0.33859	-0.41927 u	0.06016	ug/L
W (207.912 nm)	2.91760	0.70624	-0.01785 u	ug/L
Y (371.029 nm)	0.01309	0.01855	-0.03191 u	ug/L
Zn (206.200 nm)	6.62057	6.60935	7.06418	ug/L
Zr (343.823 nm)	0.17314	0.18159	0.24743	ug/L
Sc-A (361.383 nm)	1.02	1.02	1.03	Ratio

Label	Replicate 1	Replicate 2	Replicate 3	Units
Sc-R (503.102 nm)	1.01	1.01	1.02	Ratio

Sample Name: 2218993010

Date: 7/14/2022 11:40:54 Rack:Tube: 1:40

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Calculated Concentration
Ag (328.068 nm)	0.02136	ug/L	0.30822	> 100.00	-87.52494	0.02136 (ug/L)
Al (236.705 nm)	4.44758	ug/L	7.14486	> 100.00	65.71849	4.44758 (ug/L)
As (188.980 nm)	0.92301	ug/L	3.36123	> 100.00	-7.39036	0.92301 (ug/L)
B (249.772 nm)	-0.04482	ug/L	0.35192	> 100.00	54.19300	-0.04482 (ug/L)
Ba (230.424 nm)	0.89444	ug/L	0.08338	9.32	11.49748	0.89444 (ug/L)
Be (313.107 nm)	0.00316	ug/L	0.00079	25.05	4.19862	0.00316 (ug/L)
Bi (223.061 nm)	-0.68590	ug/L	0.70730	> 100.00	-38.80170	-0.68590 (ug/L)
Ca (317.933 nm)	87.52510	ug/L	1.39887	1.60	1462.15453	87.52510 (ug/L)
Cd (214.439 nm)	0.05528	ug/L	0.37929	> 100.00	-5.67707	0.05528 (ug/L)
Co (228.615 nm)	0.35183	ug/L	0.75279	> 100.00	-7.43133	0.35183 (ug/L)
Cr (205.560 nm)	4.74954	ug/L	0.88125	18.55	24.02668	4.74954 (ug/L)
Cu (224.700 nm)	2.77174	ug/L	3.13334	> 100.00	-8.05757	2.77174 (ug/L)
Fe (261.382 nm)	97.94531	ug/L	2.55513	2.61	309.39442	97.94531 (ug/L)
K (766.491 nm)	17.08895	ug/L	6.52735	38.20	-117.50035	17.08895 (ug/L)
Li (610.365 nm)	20.41808	ug/L	4.11000	20.13	-4436.82505	20.41808 (ug/L)
Mg (279.078 nm)	14.16204	ug/L	2.68449	18.96	50.24104	14.16204 (ug/L)
Mn (260.568 nm)	0.79548	ug/L	0.10127	12.73	14.96851	0.79548 (ug/L)
Mo (202.032 nm)	0.13865	ug/L	0.39916	> 100.00	-0.81684	0.13865 (ug/L)
Na (588.995 nm)	56.75312	ug/L	9.30727	16.40	25491.90829	56.75312 (ug/L)
Ni (231.604 nm)	-0.99549	ug/L	1.98361	> 100.00	-6.19177	-0.99549 (ug/L)
P (178.222 nm)	15.14230	ug/L	14.81302	97.83	3.97790	15.14230 (ug/L)
Pb (220.353 nm)	-2.08924	ug/L	0.87215	41.74	-0.33090	-2.08924 (ug/L)
Pt (203.646 nm)	1.67377	ug/L	6.81486	> 100.00	2.97720	1.67377 (ug/L)
Sb (206.834 nm)	1.77553	ug/L	4.61148	> 100.00	-7.20820	1.77553 (ug/L)
Se (196.026 nm)	5.55680	ug/L	1.52274	27.40	6.19397	5.55680 (ug/L)
Si (251.611 nm)	8.32641	ug/L	2.10324	25.26	31.56878	8.32641 (ug/L)
Sn (189.925 nm)	0.11128	ug/L	1.61168	> 100.00	-4.95936	0.11128 (ug/L)
Sr (421.552 nm)	0.55136	ug/L	0.00500	0.91	1145.16870	0.55136 (ug/L)
Te (214.282 nm)	4.84495	ug/L	5.52652	> 100.00	-2.80118	4.84495 (ug/L)
Ti (334.941 nm)	0.31143	ug/L	0.08968	28.80	-0.23094	0.31143 (ug/L)
Tl (190.807 nm)	11.71832	ug/L	7.53111	64.27	3.73097	11.71832 (ug/L)
U (409.013 nm)	-2.60058	ug/L	2.87071	> 100.00	167.45607	-2.60058 (ug/L)
V (292.401 nm)	0.31407	ug/L	0.14710	46.84	-13.73650	0.31407 (ug/L)
W (207.912 nm)	-1.06976	ug/L	1.88643	> 100.00	4.82334	-1.06976 (ug/L)
Y (371.029 nm)	-0.00510	ug/L	0.03956	> 100.00	-0.39051	-0.00510 (ug/L)
Zn (206.200 nm)	3.09789	ug/L	1.45391	46.93	4.03071	3.09789 (ug/L)
Zr (343.823 nm)	0.23270	ug/L	0.00900	3.87	107.68120	0.23270 (ug/L)

Label	Internal Standard
Ag (328.068 nm)	Sc-A
Al (236.705 nm)	Sc-A
As (188.980 nm)	Sc-A
B (249.772 nm)	Sc-A
Ba (230.424 nm)	Sc-A
Be (313.107 nm)	Sc-A
Bi (223.061 nm)	Sc-A
Ca (317.933 nm)	Sc-A
Cd (214.439 nm)	Sc-A
Co (228.615 nm)	Sc-A
Cr (205.560 nm)	Sc-A
Cu (224.700 nm)	Sc-A
Fe (261.382 nm)	Sc-A
K (766.491 nm)	Sc-R
Li (610.365 nm)	Sc-R
Mg (279.078 nm)	Sc-A
Mn (260.568 nm)	Sc-A
Mo (202.032 nm)	Sc-A
Na (588.995 nm)	Sc-R
Ni (231.604 nm)	Sc-A
P (178.222 nm)	Sc-A
Pb (220.353 nm)	Sc-A
Pt (203.646 nm)	Sc-A
Sb (206.834 nm)	Sc-A
Se (196.026 nm)	Sc-A
Si (251.611 nm)	Sc-A
Sn (189.925 nm)	Sc-A
Sr (421.552 nm)	Sc-A
Te (214.282 nm)	Sc-A
Ti (334.941 nm)	Sc-A
Tl (190.807 nm)	Sc-A
U (409.013 nm)	Sc-A
V (292.401 nm)	Sc-A
W (207.912 nm)	Sc-A
Y (371.029 nm)	Sc-A
Zn (206.200 nm)	Sc-A
Zr (343.823 nm)	Sc-A

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Sc-A	1.03	424832.92	0.00	0.42
Sc-R	1.02	47969.18	0.00	0.47

Replicates Concentration

Label	Replicate 1	Replicate 2	Replicate 3	Units
Ag (328.068 nm)	-0.18875 u	0.37519	-0.12237 u	ug/L
Al (236.705 nm)	10.11497	6.80614	-3.57838 u	ug/L

Label	Replicate 1	Replicate 2	Replicate 3	Units
As (188.980 nm)	-2.73194 u	3.88137	1.61961	ug/L
B (249.772 nm)	0.04336	0.25462	-0.43245 u	ug/L
Ba (230.424 nm)	0.80312	0.91368	0.96652	ug/L
Be (313.107 nm)	0.00404	0.00252	0.00291	ug/L
Bi (223.061 nm)	-0.64660 u	0.00094	-1.41202 u	ug/L
Ca (317.933 nm)	85.99048	87.85588	88.72893	ug/L
Cd (214.439 nm)	-0.01781 u	-0.28215 u	0.46579	ug/L
Co (228.615 nm)	0.75530	-0.51668 u	0.81688	ug/L
Cr (205.560 nm)	3.73523	5.32722	5.18617	ug/L
Cu (224.700 nm)	3.22078	-0.56190 u	5.65633	ug/L
Fe (261.382 nm)	96.45033	96.48999	100.89563	ug/L
K (766.491 nm)	21.11797	20.59091	9.55796	ug/L
Li (610.365 nm)	16.71515	19.69888	24.84022	ug/L
Mg (279.078 nm)	11.64401	13.85544	16.98666	ug/L
Mn (260.568 nm)	0.79300	0.89797	0.69548	ug/L
Mo (202.032 nm)	-0.23558 u	0.09275	0.55878	ug/L
Na (588.995 nm)	55.89664	66.45903	47.90369	ug/L
Ni (231.604 nm)	-3.24391 u	-0.24967 u	0.50710	ug/L
P (178.222 nm)	32.18204	7.91131	5.33355	ug/L
Pb (220.353 nm)	-2.69228 u	-1.08922 u	-2.48623 u	ug/L
Pt (203.646 nm)	9.54059	-2.42453 u	-2.09476 u	ug/L
Sb (206.834 nm)	6.55853	-2.64278 u	1.41084	ug/L
Se (196.026 nm)	5.21207	4.23598	7.22236	ug/L
Si (251.611 nm)	10.42313	6.21670	8.33940	ug/L
Sn (189.925 nm)	1.97201	-0.84709 u	-0.79106 u	ug/L
Sr (421.552 nm)	0.54801	0.55711	0.54895	ug/L
Te (214.282 nm)	-0.54825 u	4.58733	10.49578	ug/L
Ti (334.941 nm)	0.40245	0.22316	0.30867	ug/L
Tl (190.807 nm)	16.81262	15.27477	3.06759	ug/L
U (409.013 nm)	0.58969	-3.41622 u	-4.97520 u	ug/L
V (292.401 nm)	0.22030	0.23830	0.48361	ug/L
W (207.912 nm)	-1.90739 u	-2.39232 u	1.09043	ug/L
Y (371.029 nm)	-0.04390 u	-0.00657 u	0.03518	ug/L
Zn (206.200 nm)	1.48979	3.48440	4.31950	ug/L
Zr (343.823 nm)	0.23078	0.22483	0.24251	ug/L
Sc-A (361.383 nm)	1.03	1.03	1.04	Ratio
Sc-R (503.102 nm)	1.02	1.02	1.03	Ratio

Sample Name: 2218993011

Date: 7/14/2022 11:42:34 Rack:Tube: 1:41

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Calculated Concentration
Ag (328.068 nm)	-0.05928	ug/L	0.04963	83.72	-91.79464	-0.05928 (ug/L)
Al (236.705 nm)	-5.11609	ug/L	9.43728	> 100.00	59.91592	-5.11609 (ug/L)
As (188.980 nm)	1.44385	ug/L	2.41170	> 100.00	-7.12972	1.44385 (ug/L)
B (249.772 nm)	-0.37775	ug/L	0.32261	85.40	48.41521	-0.37775 (ug/L)
Ba (230.424 nm)	0.64322	ug/L	0.05447	8.47	6.90262	0.64322 (ug/L)

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Calculated Concentration
Be (313.107 nm)	0.00947	ug/L	0.01223	> 100.00	9.14679	0.00947 (ug/L)
Bi (223.061 nm)	-1.58044	ug/L	2.31632	> 100.00	-40.14148	-1.58044 (ug/L)
Ca (317.933 nm)	86.85865	ug/L	1.50840	1.74	1450.79519	86.85865 (ug/L)
Cd (214.439 nm)	0.32616	ug/L	0.51099	> 100.00	-2.74751	0.32616 (ug/L)
Co (228.615 nm)	-0.21892	ug/L	0.41960	> 100.00	-10.82414	-0.21892 (ug/L)
Cr (205.560 nm)	1.68566	ug/L	0.38342	22.75	6.45937	1.68566 (ug/L)
Cu (224.700 nm)	3.46707	ug/L	1.51621	43.73	-7.41385	3.46707 (ug/L)
Fe (261.382 nm)	39.05405	ug/L	1.26190	3.23	151.79083	39.05405 (ug/L)
K (766.491 nm)	22.52964	ug/L	13.80841	61.29	-106.37289	22.52964 (ug/L)
Li (610.365 nm)	15.75284	ug/L	1.02145	6.48	-4490.07769	15.75284 (ug/L)
Mg (279.078 nm)	16.02541	ug/L	0.71962	4.49	53.23192	16.02541 (ug/L)
Mn (260.568 nm)	0.78529	ug/L	0.23504	29.93	14.73606	0.78529 (ug/L)
Mo (202.032 nm)	-0.07768	ug/L	0.13922	> 100.00	-1.83353	-0.07768 (ug/L)
Na (588.995 nm)	72.21570	ug/L	6.99211	9.68	25857.66529	72.21570 (ug/L)
Ni (231.604 nm)	-0.10579	ug/L	0.75318	> 100.00	-4.11027	-0.10579 (ug/L)
P (178.222 nm)	25.86656	ug/L	22.62863	87.48	5.00917	25.86656 (ug/L)
Pb (220.353 nm)	-0.73752	ug/L	0.95663	> 100.00	1.24685	-0.73752 (ug/L)
Pt (203.646 nm)	4.61611	ug/L	4.02506	87.20	4.92222	4.61611 (ug/L)
Sb (206.834 nm)	-2.81476	ug/L	4.20175	> 100.00	-11.35235	-2.81476 (ug/L)
Se (196.026 nm)	4.52669	ug/L	3.80631	84.09	5.60780	4.52669 (ug/L)
Si (251.611 nm)	37.07833	ug/L	1.08589	2.93	72.15013	37.07833 (ug/L)
Sn (189.925 nm)	1.12121	ug/L	4.66488	> 100.00	-4.20436	1.12121 (ug/L)
Sr (421.552 nm)	0.53674	ug/L	0.00457	0.85	1115.30145	0.53674 (ug/L)
Te (214.282 nm)	3.47049	ug/L	4.09298	> 100.00	-3.52141	3.47049 (ug/L)
Ti (334.941 nm)	0.24529	ug/L	0.03379	13.78	-13.74053	0.24529 (ug/L)
Tl (190.807 nm)	7.53409	ug/L	9.94230	> 100.00	1.60122	7.53409 (ug/L)
U (409.013 nm)	-5.36536	ug/L	1.67950	31.30	152.67085	-5.36536 (ug/L)
V (292.401 nm)	0.23498	ug/L	0.15163	64.53	-15.52578	0.23498 (ug/L)
W (207.912 nm)	1.50465	ug/L	2.87173	> 100.00	8.11621	1.50465 (ug/L)
Y (371.029 nm)	0.02832	ug/L	0.03853	> 100.00	5.13316	0.02832 (ug/L)
Zn (206.200 nm)	3.50379	ug/L	0.88394	25.23	4.74158	3.50379 (ug/L)
Zr (343.823 nm)	0.02214	ug/L	0.14387	> 100.00	94.32796	0.02214 (ug/L)

Label	Internal Standard
Ag (328.068 nm)	Sc-A
Al (236.705 nm)	Sc-A
As (188.980 nm)	Sc-A
B (249.772 nm)	Sc-A
Ba (230.424 nm)	Sc-A
Be (313.107 nm)	Sc-A
Bi (223.061 nm)	Sc-A
Ca (317.933 nm)	Sc-A
Cd (214.439 nm)	Sc-A
Co (228.615 nm)	Sc-A
Cr (205.560 nm)	Sc-A
Cu (224.700 nm)	Sc-A
Fe (261.382 nm)	Sc-A
K (766.491 nm)	Sc-R

Label	Internal Standard
Li (610.365 nm)	Sc-R
Mg (279.078 nm)	Sc-A
Mn (260.568 nm)	Sc-A
Mo (202.032 nm)	Sc-A
Na (588.995 nm)	Sc-R
Ni (231.604 nm)	Sc-A
P (178.222 nm)	Sc-A
Pb (220.353 nm)	Sc-A
Pt (203.646 nm)	Sc-A
Sb (206.834 nm)	Sc-A
Se (196.026 nm)	Sc-A
Si (251.611 nm)	Sc-A
Sn (189.925 nm)	Sc-A
Sr (421.552 nm)	Sc-A
Te (214.282 nm)	Sc-A
Ti (334.941 nm)	Sc-A
Tl (190.807 nm)	Sc-A
U (409.013 nm)	Sc-A
V (292.401 nm)	Sc-A
W (207.912 nm)	Sc-A
Y (371.029 nm)	Sc-A
Zn (206.200 nm)	Sc-A
Zr (343.823 nm)	Sc-A

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Sc-A	1.03	422604.02	0.00	0.48
Sc-R	1.02	47732.05	0.00	0.47

Replicates Concentration

Label	Replicate 1	Replicate 2	Replicate 3	Units
Ag (328.068 nm)	-0.11595 u	-0.02352 u	-0.03838 u	ug/L
Al (236.705 nm)	-12.06105 u	5.62879	-8.91602 u	ug/L
As (188.980 nm)	1.24057	-0.85978 u	3.95075	ug/L
B (249.772 nm)	-0.28802 u	-0.10950 u	-0.73572 u	ug/L
Ba (230.424 nm)	0.69768	0.64322	0.58874	ug/L
Be (313.107 nm)	0.01387	-0.00435 u	0.01889	ug/L
Bi (223.061 nm)	-1.70109 u	-3.83407 u	0.79385	ug/L
Ca (317.933 nm)	85.37859	86.80350	88.39387	ug/L
Cd (214.439 nm)	-0.22686 u	0.78083	0.42450	ug/L
Co (228.615 nm)	-0.41367 u	-0.50574 u	0.26267	ug/L
Cr (205.560 nm)	1.35419	2.10557	1.59721	ug/L
Cu (224.700 nm)	3.11604	2.15717	5.12801	ug/L
Fe (261.382 nm)	37.66147	40.12173	39.37895	ug/L
K (766.491 nm)	28.16033	32.63303	6.79557	ug/L
Li (610.365 nm)	14.93267	15.42886	16.89699	ug/L
Mg (279.078 nm)	16.24228	15.22230	16.61166	ug/L

Label	Replicate 1	Replicate 2	Replicate 3	Units
Mn (260.568 nm)	1.05385	0.68495	0.61709	ug/L
Mo (202.032 nm)	-0.03598 u	0.03594	-0.23298 u	ug/L
Na (588.995 nm)	78.69503	73.14778	64.80430	ug/L
Ni (231.604 nm)	0.76332	-0.56787 u	-0.51283 u	ug/L
P (178.222 nm)	-0.25672 u	38.44303	39.41337	ug/L
Pb (220.353 nm)	-0.74893 u	0.22477	-1.68839 u	ug/L
Pt (203.646 nm)	0.17590	8.02556	5.64687	ug/L
Sb (206.834 nm)	-7.37962 u	-1.95580 u	0.89113	ug/L
Se (196.026 nm)	0.17343	6.17910	7.22755	ug/L
Si (251.611 nm)	36.20403	38.29385	36.73709	ug/L
Sn (189.925 nm)	6.48763	-1.15919 u	-1.96481 u	ug/L
Sr (421.552 nm)	0.53254	0.54160	0.53609	ug/L
Te (214.282 nm)	-0.92430 u	4.16228	7.17349	ug/L
Ti (334.941 nm)	0.24500	0.27923	0.21164	ug/L
Tl (190.807 nm)	14.11423	-3.90310 u	12.39115	ug/L
U (409.013 nm)	-3.68212 u	-7.04110 u	-5.37287 u	ug/L
V (292.401 nm)	0.16192	0.40932	0.13371	ug/L
W (207.912 nm)	-0.70328 u	0.46603	4.75119	ug/L
Y (371.029 nm)	0.04637	-0.01592 u	0.05451	ug/L
Zn (206.200 nm)	2.49020	3.90654	4.11463	ug/L
Zr (343.823 nm)	0.10289	0.10750	-0.14396 u	ug/L
Sc-A (361.383 nm)	1.02	1.03	1.03	Ratio
Sc-R (503.102 nm)	1.01	1.02	1.02	Ratio

Sample Name: 2218993012

Date: 7/14/2022 11:44:15 Rack:Tube: 1:42

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Calculated Concentration
Ag (328.068 nm)	0.05048	ug/L	0.16630	> 100.00	-86.01433	0.05048 (ug/L)
Al (236.705 nm)	-4.28192	ug/L	5.17861	> 100.00	60.42693	-4.28192 (ug/L)
As (188.980 nm)	3.20286	ug/L	3.33596	> 100.00	-6.25024	3.20286 (ug/L)
B (249.772 nm)	-0.57623	ug/L	0.30301	52.58	45.04950	-0.57623 (ug/L)
Ba (230.424 nm)	0.92106	ug/L	0.19805	21.50	11.98127	0.92106 (ug/L)
Be (313.107 nm)	0.00368	ug/L	0.01651	> 100.00	4.16609	0.00368 (ug/L)
Bi (223.061 nm)	2.17517	ug/L	1.70677	78.47	-34.47921	2.17517 (ug/L)
Ca (317.933 nm)	93.35446	ug/L	1.31216	1.41	1561.82799	93.35446 (ug/L)
Cd (214.439 nm)	0.39410	ug/L	0.63679	> 100.00	-2.28541	0.39410 (ug/L)
Co (228.615 nm)	0.86065	ug/L	0.44088	51.23	-4.39526	0.86065 (ug/L)
Cr (205.560 nm)	14.63703	ug/L	0.54148	3.70	80.81514	14.63703 (ug/L)
Cu (224.700 nm)	2.06593	ug/L	3.68010	> 100.00	-8.78064	2.06593 (ug/L)
Fe (261.382 nm)	12.70957	ug/L	0.64677	5.09	81.07653	12.70957 (ug/L)
K (766.491 nm)	6.73225	ug/L	14.04122	> 100.00	-138.67837	6.73225 (ug/L)
Li (610.365 nm)	13.51300	ug/L	1.52135	11.26	-4515.75908	13.51300 (ug/L)
Mg (279.078 nm)	14.34563	ug/L	1.74022	12.13	50.50214	14.34563 (ug/L)
Mn (260.568 nm)	0.69540	ug/L	0.16070	23.11	13.20103	0.69540 (ug/L)
Mo (202.032 nm)	0.00648	ug/L	0.14410	> 100.00	-1.42797	0.00648 (ug/L)
Na (588.995 nm)	82.24128	ug/L	4.34173	5.28	26094.81348	82.24128 (ug/L)

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Calculated Concentration
Ni (231.604 nm)	0.37705	ug/L	0.49515	> 100.00	-2.97487	0.37705 (ug/L)
P (178.222 nm)	16.42182	ug/L	20.28633	> 100.00	4.10094	16.42182 (ug/L)
Pb (220.353 nm)	0.96399	ug/L	1.96215	> 100.00	3.26152	0.96399 (ug/L)
Pt (203.646 nm)	-2.41504	ug/L	6.12076	> 100.00	-0.82054	-2.41504 (ug/L)
Sb (206.834 nm)	1.78597	ug/L	5.07134	> 100.00	-7.11335	1.78597 (ug/L)
Se (196.026 nm)	10.08862	ug/L	4.05963	40.24	8.89616	10.08862 (ug/L)
Si (251.611 nm)	28.68090	ug/L	1.92724	6.72	60.30265	28.68090 (ug/L)
Sn (189.925 nm)	0.38530	ug/L	1.70613	> 100.00	-4.75451	0.38530 (ug/L)
Sr (421.552 nm)	0.54021	ug/L	0.01398	2.59	1122.38520	0.54021 (ug/L)
Te (214.282 nm)	7.12649	ug/L	4.91262	68.93	-1.61745	7.12649 (ug/L)
Ti (334.941 nm)	0.28099	ug/L	0.02994	10.65	-5.88644	0.28099 (ug/L)
Tl (190.807 nm)	11.29069	ug/L	12.22181	> 100.00	3.48319	11.29069 (ug/L)
U (409.013 nm)	0.21871	ug/L	3.58655	> 100.00	182.37601	0.21871 (ug/L)
V (292.401 nm)	0.16937	ug/L	0.26001	> 100.00	-17.58776	0.16937 (ug/L)
W (207.912 nm)	-1.78915	ug/L	1.58184	88.41	3.90716	-1.78915 (ug/L)
Y (371.029 nm)	-0.01383	ug/L	0.02801	> 100.00	-1.82784	-0.01383 (ug/L)
Zn (206.200 nm)	3.47508	ug/L	1.91321	55.06	4.72636	3.47508 (ug/L)
Zr (343.823 nm)	-0.05311	ug/L	0.10928	> 100.00	89.32321	-0.05311 (ug/L)

Label	Internal Standard
Ag (328.068 nm)	Sc-A
Al (236.705 nm)	Sc-A
As (188.980 nm)	Sc-A
B (249.772 nm)	Sc-A
Ba (230.424 nm)	Sc-A
Be (313.107 nm)	Sc-A
Bi (223.061 nm)	Sc-A
Ca (317.933 nm)	Sc-A
Cd (214.439 nm)	Sc-A
Co (228.615 nm)	Sc-A
Cr (205.560 nm)	Sc-A
Cu (224.700 nm)	Sc-A
Fe (261.382 nm)	Sc-A
K (766.491 nm)	Sc-R
Li (610.365 nm)	Sc-R
Mg (279.078 nm)	Sc-A
Mn (260.568 nm)	Sc-A
Mo (202.032 nm)	Sc-A
Na (588.995 nm)	Sc-R
Ni (231.604 nm)	Sc-A
P (178.222 nm)	Sc-A
Pb (220.353 nm)	Sc-A
Pt (203.646 nm)	Sc-A
Sb (206.834 nm)	Sc-A
Se (196.026 nm)	Sc-A
Si (251.611 nm)	Sc-A
Sn (189.925 nm)	Sc-A
Sr (421.552 nm)	Sc-A

Label	Internal Standard
Te (214.282 nm)	Sc-A
Ti (334.941 nm)	Sc-A
Tl (190.807 nm)	Sc-A
U (409.013 nm)	Sc-A
V (292.401 nm)	Sc-A
W (207.912 nm)	Sc-A
Y (371.029 nm)	Sc-A
Zn (206.200 nm)	Sc-A
Zr (343.823 nm)	Sc-A

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Sc-A	1.02	421350.03	0.00	0.47
Sc-R	1.01	47634.39	0.00	0.39

Replicates Concentration

Label	Replicate 1	Replicate 2	Replicate 3	Units
Ag (328.068 nm)	0.15662	-0.14118 u	0.13601	ug/L
Al (236.705 nm)	-8.92902 u	-5.21739 u	1.30067	ug/L
As (188.980 nm)	1.28475	1.26895	7.05488	ug/L
B (249.772 nm)	-0.33291 u	-0.48014 u	-0.91563 u	ug/L
Ba (230.424 nm)	0.90695	0.73045	1.12579	ug/L
Be (313.107 nm)	0.00402	0.02002	-0.01300 u	ug/L
Bi (223.061 nm)	3.16619	3.15495	0.20438	ug/L
Ca (317.933 nm)	92.30257	92.93600	94.82482	ug/L
Cd (214.439 nm)	-0.06750 u	0.12922	1.12057	ug/L
Co (228.615 nm)	1.15069	0.35330	1.07796	ug/L
Cr (205.560 nm)	15.26226	14.32844	14.32040	ug/L
Cu (224.700 nm)	-1.94166 u	2.84597	5.29347	ug/L
Fe (261.382 nm)	13.42700	12.53053	12.17119	ug/L
K (766.491 nm)	22.89454	-0.23490 u	-2.46290 u	ug/L
Li (610.365 nm)	11.82385	14.77541	13.93976	ug/L
Mg (279.078 nm)	16.34271	13.15451	13.53966	ug/L
Mn (260.568 nm)	0.76770	0.51125	0.80727	ug/L
Mo (202.032 nm)	-0.15956 u	0.08013	0.09887	ug/L
Na (588.995 nm)	87.10633	80.85715	78.76036	ug/L
Ni (231.604 nm)	0.29208	-0.07011 u	0.90919	ug/L
P (178.222 nm)	28.63646	-6.99553 u	27.62452	ug/L
Pb (220.353 nm)	2.98686	0.83633	-0.93121 u	ug/L
Pt (203.646 nm)	0.16669	-9.40369 u	1.99188	ug/L
Sb (206.834 nm)	3.00635	-3.78421 u	6.13577	ug/L
Se (196.026 nm)	8.40478	14.71923	7.14186	ug/L
Si (251.611 nm)	26.87770	28.45307	30.71194	ug/L
Sn (189.925 nm)	2.03686	0.48966	-1.37061 u	ug/L
Sr (421.552 nm)	0.52407	0.54866	0.54789	ug/L
Te (214.282 nm)	4.84283	3.77138	12.76527	ug/L
Ti (334.941 nm)	0.31219	0.27829	0.25250	ug/L

Label	Replicate 1	Replicate 2	Replicate 3	Units
Tl (190.807 nm)	13.20105	22.44483	-1.77380 u	ug/L
U (409.013 nm)	4.33748	-1.46628 u	-2.21507 u	ug/L
V (292.401 nm)	0.33751	0.30072	-0.13011 u	ug/L
W (207.912 nm)	-2.51588 u	-2.87704 u	0.02546	ug/L
Y (371.029 nm)	0.00931	-0.00583 u	-0.04497 u	ug/L
Zn (206.200 nm)	2.57964	5.67181	2.17380	ug/L
Zr (343.823 nm)	0.07119	-0.13410 u	-0.09641 u	ug/L
Sc-A (361.383 nm)	1.02	1.03	1.03	Ratio
Sc-R (503.102 nm)	1.01	1.02	1.02	Ratio

Sample Name: 2218993013

Date: 7/14/2022 11:45:55 Rack:Tube: 1:43

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Calculated Concentration
Ag (328.068 nm)	0.01069	ug/L	0.13520	> 100.00	-88.09180	0.01069 (ug/L)
Al (236.705 nm)	7.83627	ug/L	11.38866	> 100.00	67.78586	7.83627 (ug/L)
As (188.980 nm)	0.97244	ug/L	7.15356	> 100.00	-7.36491	0.97244 (ug/L)
B (249.772 nm)	-0.83523	ug/L	0.16299	19.51	40.99291	-0.83523 (ug/L)
Ba (230.424 nm)	1.02162	ug/L	0.11801	11.55	13.78380	1.02162 (ug/L)
Be (313.107 nm)	0.01095	ug/L	0.01404	> 100.00	9.87996	0.01095 (ug/L)
Bi (223.061 nm)	0.71427	ug/L	2.19994	> 100.00	-36.68308	0.71427 (ug/L)
Ca (317.933 nm)	103.45798	ug/L	1.26392	1.22	1734.63567	103.45798 (ug/L)
Cd (214.439 nm)	0.49816	ug/L	0.12098	24.29	-1.09597	0.49816 (ug/L)
Co (228.615 nm)	0.48056	ug/L	0.07400	15.40	-6.65900	0.48056 (ug/L)
Cr (205.560 nm)	1.68823	ug/L	0.40580	24.04	6.47990	1.68823 (ug/L)
Cu (224.700 nm)	2.89873	ug/L	1.52269	52.53	-7.99012	2.89873 (ug/L)
Fe (261.382 nm)	15.26213	ug/L	1.50006	9.83	88.10308	15.26213 (ug/L)
K (766.491 nm)	9.32484	ug/L	16.09586	> 100.00	-133.37777	9.32484 (ug/L)
Li (610.365 nm)	18.25801	ug/L	3.33043	18.24	-4461.75625	18.25801 (ug/L)
Mg (279.078 nm)	15.08510	ug/L	1.62830	10.79	51.70111	15.08510 (ug/L)
Mn (260.568 nm)	0.67005	ug/L	0.29231	43.63	12.72819	0.67005 (ug/L)
Mo (202.032 nm)	-0.21590	ug/L	0.48718	> 100.00	-2.47912	-0.21590 (ug/L)
Na (588.995 nm)	69.16590	ug/L	4.69760	6.79	25785.52431	69.16590 (ug/L)
Ni (231.604 nm)	1.28358	ug/L	0.88022	68.58	-0.85312	1.28358 (ug/L)
P (178.222 nm)	9.47592	ug/L	21.59282	> 100.00	3.43300	9.47592 (ug/L)
Pb (220.353 nm)	-0.96846	ug/L	2.50777	> 100.00	0.97785	-0.96846 (ug/L)
Pt (203.646 nm)	0.81392	ug/L	6.05002	> 100.00	1.75146	0.81392 (ug/L)
Sb (206.834 nm)	6.56459	ug/L	3.38501	51.56	-2.92870	6.56459 (ug/L)
Se (196.026 nm)	3.07213	ug/L	0.53157	17.30	4.74386	3.07213 (ug/L)
Si (251.611 nm)	8.24658	ug/L	3.84416	46.62	31.45615	8.24658 (ug/L)
Sn (189.925 nm)	0.90692	ug/L	2.45671	> 100.00	-4.36455	0.90692 (ug/L)
Sr (421.552 nm)	0.55570	ug/L	0.01159	2.09	1154.03968	0.55570 (ug/L)
Te (214.282 nm)	4.89367	ug/L	15.37921	> 100.00	-2.78261	4.89367 (ug/L)
Ti (334.941 nm)	0.27911	ug/L	0.03028	10.85	-6.79308	0.27911 (ug/L)
Tl (190.807 nm)	10.45140	ug/L	11.77020	> 100.00	3.13390	10.45140 (ug/L)
U (409.013 nm)	-1.93788	ug/L	2.64292	> 100.00	170.89866	-1.93788 (ug/L)
V (292.401 nm)	0.06352	ug/L	0.16190	> 100.00	-19.91745	0.06352 (ug/L)

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Calculated Concentration
W (207.912 nm)	1.35484	ug/L	2.44362	> 100.00	7.92343	1.35484 (ug/L)
Y (371.029 nm)	0.02159	ug/L	0.06518	> 100.00	4.02701	0.02159 (ug/L)
Zn (206.200 nm)	3.53073	ug/L	1.16326	32.95	4.78908	3.53073 (ug/L)
Zr (343.823 nm)	0.08117	ug/L	0.04548	56.03	97.97169	0.08117 (ug/L)

Label	Internal Standard
Ag (328.068 nm)	Sc-A
Al (236.705 nm)	Sc-A
As (188.980 nm)	Sc-A
B (249.772 nm)	Sc-A
Ba (230.424 nm)	Sc-A
Be (313.107 nm)	Sc-A
Bi (223.061 nm)	Sc-A
Ca (317.933 nm)	Sc-A
Cd (214.439 nm)	Sc-A
Co (228.615 nm)	Sc-A
Cr (205.560 nm)	Sc-A
Cu (224.700 nm)	Sc-A
Fe (261.382 nm)	Sc-A
K (766.491 nm)	Sc-R
Li (610.365 nm)	Sc-R
Mg (279.078 nm)	Sc-A
Mn (260.568 nm)	Sc-A
Mo (202.032 nm)	Sc-A
Na (588.995 nm)	Sc-R
Ni (231.604 nm)	Sc-A
P (178.222 nm)	Sc-A
Pb (220.353 nm)	Sc-A
Pt (203.646 nm)	Sc-A
Sb (206.834 nm)	Sc-A
Se (196.026 nm)	Sc-A
Si (251.611 nm)	Sc-A
Sn (189.925 nm)	Sc-A
Sr (421.552 nm)	Sc-A
Te (214.282 nm)	Sc-A
Ti (334.941 nm)	Sc-A
Tl (190.807 nm)	Sc-A
U (409.013 nm)	Sc-A
V (292.401 nm)	Sc-A
W (207.912 nm)	Sc-A
Y (371.029 nm)	Sc-A
Zn (206.200 nm)	Sc-A
Zr (343.823 nm)	Sc-A

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Sc-A	1.03	423112.39	0.00	0.14
Sc-R	1.02	47777.77	0.00	0.19

Replicates Concentration

Label	Replicate 1	Replicate 2	Replicate 3	Units
Ag (328.068 nm)	-0.10344 u	0.16000	-0.02448 u	ug/L
Al (236.705 nm)	6.63438	19.77820	-2.90378 u	ug/L
As (188.980 nm)	-3.27107 u	-3.04322 u	9.23161	ug/L
B (249.772 nm)	-1.01321 u	-0.69326 u	-0.79923 u	ug/L
Ba (230.424 nm)	0.88643	1.10398	1.07446	ug/L
Be (313.107 nm)	-0.00229 u	0.00947	0.02567	ug/L
Bi (223.061 nm)	3.01416	0.49849	-1.36983 u	ug/L
Ca (317.933 nm)	102.33249	103.21607	104.82537	ug/L
Cd (214.439 nm)	0.45094	0.40791	0.63563	ug/L
Co (228.615 nm)	0.43874	0.56601	0.43694	ug/L
Cr (205.560 nm)	1.32749	1.60961	2.12758	ug/L
Cu (224.700 nm)	2.33052	1.74185	4.62381	ug/L
Fe (261.382 nm)	16.75304	13.75308	15.28028	ug/L
K (766.491 nm)	17.35533	-9.20626 u	19.82545	ug/L
Li (610.365 nm)	18.17007	21.63155	14.97242	ug/L
Mg (279.078 nm)	13.74946	16.89896	14.60688	ug/L
Mn (260.568 nm)	0.48275	0.52053	1.00688	ug/L
Mo (202.032 nm)	0.08366	-0.77804 u	0.04669	ug/L
Na (588.995 nm)	67.25622	65.72390	74.51759	ug/L
Ni (231.604 nm)	2.18546	0.42675	1.23854	ug/L
P (178.222 nm)	31.39973	-11.76995 u	8.79798	ug/L
Pb (220.353 nm)	0.62931	0.32413	-3.85882 u	ug/L
Pt (203.646 nm)	1.29543	-5.46246 u	6.60881	ug/L
Sb (206.834 nm)	10.38045	3.92337	5.38995	ug/L
Se (196.026 nm)	3.68344	2.81433	2.71862	ug/L
Si (251.611 nm)	11.87242	4.21611	8.65120	ug/L
Sn (189.925 nm)	-1.87982 u	2.75962	1.84097	ug/L
Sr (421.552 nm)	0.54460	0.55479	0.56772	ug/L
Te (214.282 nm)	-12.85364 u	13.22434	14.31031	ug/L
Ti (334.941 nm)	0.29725	0.24416	0.29592	ug/L
Tl (190.807 nm)	3.95951	3.35668	24.03800	ug/L
U (409.013 nm)	0.65418	-4.62889 u	-1.83892 u	ug/L
V (292.401 nm)	0.05244	0.23067	-0.09256 u	ug/L
W (207.912 nm)	-0.33887 u	4.15613	0.24727	ug/L
Y (371.029 nm)	0.06638	0.05158	-0.05319 u	ug/L
Zn (206.200 nm)	2.49890	4.79141	3.30188	ug/L
Zr (343.823 nm)	0.13365	0.05644	0.05341	ug/L
Sc-A (361.383 nm)	1.03	1.03	1.03	Ratio
Sc-R (503.102 nm)	1.02	1.02	1.02	Ratio

Sample Name: 2218993014

Date: 7/14/2022 11:47:36 Rack:Tube: 1:44

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Calculated Concentration
Ag (328.068 nm)	0.09138	ug/L	0.10791	> 100.00	-83.95263	0.09138 (ug/L)
Al (236.705 nm)	2.76298	ug/L	7.37380	> 100.00	64.70446	2.76298 (ug/L)
As (188.980 nm)	7.86878	ug/L	1.35374	17.20	-3.92262	7.86878 (ug/L)
B (249.772 nm)	-0.89003	ug/L	0.06452	7.25	40.15053	-0.89003 (ug/L)
Ba (230.424 nm)	0.87828	ug/L	0.03454	3.93	11.17792	0.87828 (ug/L)
Be (313.107 nm)	0.01539	ug/L	0.01608	> 100.00	13.26856	0.01539 (ug/L)
Bi (223.061 nm)	-0.53714	ug/L	0.74145	> 100.00	-38.57563	-0.53714 (ug/L)
Ca (317.933 nm)	99.43464	ug/L	2.63370	2.65	1665.78716	99.43464 (ug/L)
Cd (214.439 nm)	0.07462	ug/L	0.22116	> 100.00	-5.35274	0.07462 (ug/L)
Co (228.615 nm)	0.03006	ug/L	0.66184	> 100.00	-9.34085	0.03006 (ug/L)
Cr (205.560 nm)	1.68203	ug/L	0.42073	25.01	6.44403	1.68203 (ug/L)
Cu (224.700 nm)	1.94820	ug/L	1.01617	52.16	-8.93188	1.94820 (ug/L)
Fe (261.382 nm)	17.56060	ug/L	0.36590	2.08	94.19900	17.56060 (ug/L)
K (766.491 nm)	12.01992	ug/L	10.00483	83.24	-127.86557	12.01992 (ug/L)
Li (610.365 nm)	15.50491	ug/L	3.00947	19.41	-4493.12082	15.50491 (ug/L)
Mg (279.078 nm)	16.93239	ug/L	2.26288	13.36	54.63867	16.93239 (ug/L)
Mn (260.568 nm)	0.66743	ug/L	0.24413	36.58	12.67785	0.66743 (ug/L)
Mo (202.032 nm)	-0.10841	ug/L	0.80192	> 100.00	-1.97612	-0.10841 (ug/L)
Na (588.995 nm)	78.79931	ug/L	10.61343	13.47	26013.39604	78.79931 (ug/L)
Ni (231.604 nm)	1.40392	ug/L	2.07479	> 100.00	-0.56971	1.40392 (ug/L)
P (178.222 nm)	18.94242	ug/L	40.90527	> 100.00	4.34333	18.94242 (ug/L)
Pb (220.353 nm)	0.66308	ug/L	1.36157	> 100.00	2.89530	0.66308 (ug/L)
Pt (203.646 nm)	5.37458	ug/L	1.49976	27.90	5.37785	5.37458 (ug/L)
Sb (206.834 nm)	0.85551	ug/L	2.72932	> 100.00	-8.06172	0.85551 (ug/L)
Se (196.026 nm)	3.40116	ug/L	3.22345	94.77	4.93921	3.40116 (ug/L)
Si (251.611 nm)	-0.78607	ug/L	1.17217	> 100.00	18.70963	-0.78607 (ug/L)
Sn (189.925 nm)	4.45387	ug/L	2.22841	50.03	-1.71291	4.45387 (ug/L)
Sr (421.552 nm)	0.53236	ug/L	0.01274	2.39	1106.34796	0.53236 (ug/L)
Te (214.282 nm)	-0.12021	ug/L	5.15670	> 100.00	-5.39283	-0.12021 (ug/L)
Ti (334.941 nm)	0.21505	ug/L	0.01009	4.69	-19.72590	0.21505 (ug/L)
Tl (190.807 nm)	10.84414	ug/L	3.45498	31.86	3.33813	10.84414 (ug/L)
U (409.013 nm)	-3.13625	ug/L	1.81978	58.02	164.51947	-3.13625 (ug/L)
V (292.401 nm)	0.11653	ug/L	0.34222	> 100.00	-18.55432	0.11653 (ug/L)
W (207.912 nm)	1.22202	ug/L	2.69664	> 100.00	7.75373	1.22202 (ug/L)
Y (371.029 nm)	-0.02601	ug/L	0.04308	> 100.00	-3.85017	-0.02601 (ug/L)
Zn (206.200 nm)	3.42614	ug/L	0.57612	16.82	4.60393	3.42614 (ug/L)
Zr (343.823 nm)	0.04556	ug/L	0.01006	22.07	95.73457	0.04556 (ug/L)

Label	Internal Standard
Ag (328.068 nm)	Sc-A
Al (236.705 nm)	Sc-A
As (188.980 nm)	Sc-A
B (249.772 nm)	Sc-A
Ba (230.424 nm)	Sc-A
Be (313.107 nm)	Sc-A
Bi (223.061 nm)	Sc-A
Ca (317.933 nm)	Sc-A

Label	Internal Standard
Cd (214.439 nm)	Sc-A
Co (228.615 nm)	Sc-A
Cr (205.560 nm)	Sc-A
Cu (224.700 nm)	Sc-A
Fe (261.382 nm)	Sc-A
K (766.491 nm)	Sc-R
Li (610.365 nm)	Sc-R
Mg (279.078 nm)	Sc-A
Mn (260.568 nm)	Sc-A
Mo (202.032 nm)	Sc-A
Na (588.995 nm)	Sc-R
Ni (231.604 nm)	Sc-A
P (178.222 nm)	Sc-A
Pb (220.353 nm)	Sc-A
Pt (203.646 nm)	Sc-A
Sb (206.834 nm)	Sc-A
Se (196.026 nm)	Sc-A
Si (251.611 nm)	Sc-A
Sn (189.925 nm)	Sc-A
Sr (421.552 nm)	Sc-A
Te (214.282 nm)	Sc-A
Ti (334.941 nm)	Sc-A
Tl (190.807 nm)	Sc-A
U (409.013 nm)	Sc-A
V (292.401 nm)	Sc-A
W (207.912 nm)	Sc-A
Y (371.029 nm)	Sc-A
Zn (206.200 nm)	Sc-A
Zr (343.823 nm)	Sc-A

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Sc-A	1.02	421418.58	0.01	0.62
Sc-R	1.01	47648.91	0.01	0.65

Replicates Concentration

Label	Replicate 1	Replicate 2	Replicate 3	Units
Ag (328.068 nm)	-0.03047 u	0.12976	0.17486	ug/L
Al (236.705 nm)	10.86775	0.97055	-3.54937 u	ug/L
As (188.980 nm)	7.61734	9.33060	6.65839	ug/L
B (249.772 nm)	-0.85429 u	-0.85128 u	-0.96451 u	ug/L
Ba (230.424 nm)	0.84776	0.87128	0.91578	ug/L
Be (313.107 nm)	0.03280	0.01227	0.00109	ug/L
Bi (223.061 nm)	-1.07825 u	0.30800	-0.84117 u	ug/L
Ca (317.933 nm)	96.49041	100.24722	101.56631	ug/L
Cd (214.439 nm)	0.29778	-0.14449 u	0.07056	ug/L
Co (228.615 nm)	0.55845	-0.71229 u	0.24403	ug/L

Label	Replicate 1	Replicate 2	Replicate 3	Units
Cr (205.560 nm)	1.33685	2.15067	1.55856	ug/L
Cu (224.700 nm)	0.78259	2.64766	2.41435	ug/L
Fe (261.382 nm)	17.15046	17.67779	17.85356	ug/L
K (766.491 nm)	10.20571	3.04634	22.80772	ug/L
Li (610.365 nm)	12.58961	18.60045	15.32466	ug/L
Mg (279.078 nm)	14.49077	17.34730	18.95910	ug/L
Mn (260.568 nm)	0.72774	0.87575	0.39879	ug/L
Mo (202.032 nm)	-1.01650 u	0.50248	0.18879	ug/L
Na (588.995 nm)	90.96678	73.98422	71.44693	ug/L
Ni (231.604 nm)	0.23019	3.79951	0.18205	ug/L
P (178.222 nm)	16.49918	61.01456	-20.68646 u	ug/L
Pb (220.353 nm)	-0.07533 u	2.23434	-0.16977 u	ug/L
Pt (203.646 nm)	7.04876	4.15392	4.92108	ug/L
Sb (206.834 nm)	3.89840	0.04458	-1.37644 u	ug/L
Se (196.026 nm)	7.10578	1.23668	1.86102	ug/L
Si (251.611 nm)	-1.81822 u	0.48828	-1.02827 u	ug/L
Sn (189.925 nm)	3.42901	7.01033	2.92228	ug/L
Sr (421.552 nm)	0.51783	0.53758	0.54166	ug/L
Te (214.282 nm)	-6.05983 u	3.21329	2.48590	ug/L
Ti (334.941 nm)	0.22668	0.20864	0.20982	ug/L
Tl (190.807 nm)	7.29396	14.19533	11.04312	ug/L
U (409.013 nm)	-1.04107 u	-4.04492 u	-4.32274 u	ug/L
V (292.401 nm)	-0.27526 u	0.26783	0.35702	ug/L
W (207.912 nm)	1.73749	-1.69514 u	3.62372	ug/L
Y (371.029 nm)	-0.04845 u	0.02366	-0.05324 u	ug/L
Zn (206.200 nm)	3.96437	2.81842	3.49561	ug/L
Zr (343.823 nm)	0.04122	0.03841	0.05706	ug/L
Sc-A (361.383 nm)	1.02	1.03	1.03	Ratio
Sc-R (503.102 nm)	1.01	1.02	1.02	Ratio

Sample Name: 2218993015

Date: 7/14/2022 11:49:16 Rack:Tube: 1:45

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Calculated Concentration
Ag (328.068 nm)	0.18414	ug/L	0.17884	97.12	-79.12219	0.18414 (ug/L)
Al (236.705 nm)	-2.63258	ug/L	9.99759	> 100.00	61.42828	-2.63258 (ug/L)
As (188.980 nm)	2.31738	ug/L	6.36959	> 100.00	-6.69430	2.31738 (ug/L)
B (249.772 nm)	-1.37842	ug/L	0.31515	22.86	32.34453	-1.37842 (ug/L)
Ba (230.424 nm)	0.53400	ug/L	0.15841	29.67	4.91696	0.53400 (ug/L)
Be (313.107 nm)	0.01700	ug/L	0.01037	60.98	14.30529	0.01700 (ug/L)
Bi (223.061 nm)	0.22691	ug/L	2.64462	> 100.00	-37.42132	0.22691 (ug/L)
Ca (317.933 nm)	64.62323	ug/L	1.46861	2.27	1070.55360	64.62323 (ug/L)
Cd (214.439 nm)	0.36170	ug/L	0.27673	76.51	-2.19529	0.36170 (ug/L)
Co (228.615 nm)	0.24080	ug/L	0.63749	> 100.00	-8.08498	0.24080 (ug/L)
Cr (205.560 nm)	0.97956	ug/L	0.50261	51.31	2.41168	0.97956 (ug/L)
Cu (224.700 nm)	2.77474	ug/L	2.08748	75.23	-8.10648	2.77474 (ug/L)
Fe (261.382 nm)	5.11532	ug/L	2.31310	45.22	60.94120	5.11532 (ug/L)

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Calculated Concentration
K (766.491 nm)	17.10284	ug/L	4.73562	27.69	-117.46899	17.10284 (ug/L)
Li (610.365 nm)	19.70523	ug/L	2.26949	11.52	-4444.57890	19.70523 (ug/L)
Mg (279.078 nm)	10.09469	ug/L	1.86440	18.47	43.80893	10.09469 (ug/L)
Mn (260.568 nm)	0.47128	ug/L	0.33922	71.98	9.26209	0.47128 (ug/L)
Mo (202.032 nm)	-0.25164	ug/L	0.48908	> 100.00	-2.64913	-0.25164 (ug/L)
Na (588.995 nm)	68.40312	ug/L	4.33719	6.34	25767.48115	68.40312 (ug/L)
Ni (231.604 nm)	-0.23300	ug/L	0.63312	> 100.00	-4.40899	-0.23300 (ug/L)
P (178.222 nm)	18.77653	ug/L	8.24479	43.91	4.32737	18.77653 (ug/L)
Pb (220.353 nm)	-2.43663	ug/L	1.97467	81.04	-0.74423	-2.43663 (ug/L)
Pt (203.646 nm)	10.16429	ug/L	0.38210	3.76	9.08155	10.16429 (ug/L)
Sb (206.834 nm)	0.53069	ug/L	2.32683	> 100.00	-8.37342	0.53069 (ug/L)
Se (196.026 nm)	3.93094	ug/L	1.98388	50.47	5.24955	3.93094 (ug/L)
Si (251.611 nm)	0.98268	ug/L	0.40455	41.17	21.20452	0.98268 (ug/L)
Sn (189.925 nm)	0.32988	ug/L	0.85591	> 100.00	-4.79595	0.32988 (ug/L)
Sr (421.552 nm)	0.47248	ug/L	0.00692	1.46	984.02604	0.47248 (ug/L)
Te (214.282 nm)	2.38117	ug/L	3.07912	> 100.00	-4.09077	2.38117 (ug/L)
Ti (334.941 nm)	0.11450	ug/L	0.00400	3.49	-39.81804	0.11450 (ug/L)
Tl (190.807 nm)	6.11010	ug/L	6.75646	> 100.00	0.81120	6.11010 (ug/L)
U (409.013 nm)	-1.67713	ug/L	2.69344	> 100.00	172.27597	-1.67713 (ug/L)
V (292.401 nm)	-0.02920	ug/L	0.19264	> 100.00	-22.27417	-0.02920 (ug/L)
W (207.912 nm)	0.21508	ug/L	2.23253	> 100.00	6.46468	0.21508 (ug/L)
Y (371.029 nm)	0.01396	ug/L	0.06630	> 100.00	2.76818	0.01396 (ug/L)
Zn (206.200 nm)	3.03778	ug/L	1.84134	60.61	3.91429	3.03778 (ug/L)
Zr (343.823 nm)	0.05940	ug/L	0.04546	76.54	96.54507	0.05940 (ug/L)

Label	Internal Standard
Ag (328.068 nm)	Sc-A
Al (236.705 nm)	Sc-A
As (188.980 nm)	Sc-A
B (249.772 nm)	Sc-A
Ba (230.424 nm)	Sc-A
Be (313.107 nm)	Sc-A
Bi (223.061 nm)	Sc-A
Ca (317.933 nm)	Sc-A
Cd (214.439 nm)	Sc-A
Co (228.615 nm)	Sc-A
Cr (205.560 nm)	Sc-A
Cu (224.700 nm)	Sc-A
Fe (261.382 nm)	Sc-A
K (766.491 nm)	Sc-R
Li (610.365 nm)	Sc-R
Mg (279.078 nm)	Sc-A
Mn (260.568 nm)	Sc-A
Mo (202.032 nm)	Sc-A
Na (588.995 nm)	Sc-R
Ni (231.604 nm)	Sc-A
P (178.222 nm)	Sc-A
Pb (220.353 nm)	Sc-A

Label	Internal Standard
Pt (203.646 nm)	Sc-A
Sb (206.834 nm)	Sc-A
Se (196.026 nm)	Sc-A
Si (251.611 nm)	Sc-A
Sn (189.925 nm)	Sc-A
Sr (421.552 nm)	Sc-A
Te (214.282 nm)	Sc-A
Ti (334.941 nm)	Sc-A
Tl (190.807 nm)	Sc-A
U (409.013 nm)	Sc-A
V (292.401 nm)	Sc-A
W (207.912 nm)	Sc-A
Y (371.029 nm)	Sc-A
Zn (206.200 nm)	Sc-A
Zr (343.823 nm)	Sc-A

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Sc-A	1.03	422863.66	0.00	0.32
Sc-R	1.02	47803.50	0.00	0.35

Replicates Concentration

Label	Replicate 1	Replicate 2	Replicate 3	Units
Ag (328.068 nm)	-0.00167 u	0.19900	0.35508	ug/L
Al (236.705 nm)	8.29747	-4.88013 u	-11.31510 u	ug/L
As (188.980 nm)	9.18824	-3.39072 u	1.15462	ug/L
B (249.772 nm)	-1.01965 u	-1.50503 u	-1.61058 u	ug/L
Ba (230.424 nm)	0.47501	0.71344	0.41354	ug/L
Be (313.107 nm)	0.02127	0.02455	0.00518	ug/L
Bi (223.061 nm)	-2.61330 u	0.67546	2.61858	ug/L
Ca (317.933 nm)	63.02213	64.93982	65.90772	ug/L
Cd (214.439 nm)	0.64500	0.34805	0.09205	ug/L
Co (228.615 nm)	-0.45129 u	0.36971	0.80399	ug/L
Cr (205.560 nm)	0.50895	0.92075	1.50899	ug/L
Cu (224.700 nm)	5.17474	1.38090	1.76858	ug/L
Fe (261.382 nm)	7.68249	4.47018	3.19328	ug/L
K (766.491 nm)	15.12798	13.67427	22.50627	ug/L
Li (610.365 nm)	21.55645	20.38596	17.17328	ug/L
Mg (279.078 nm)	9.55998	12.16802	8.55608	ug/L
Mn (260.568 nm)	0.48522	0.12531	0.80331	ug/L
Mo (202.032 nm)	-0.68395 u	0.27921	-0.35017 u	ug/L
Na (588.995 nm)	68.20218	64.16989	72.83728	ug/L
Ni (231.604 nm)	-0.36303 u	-0.79100 u	0.45505	ug/L
P (178.222 nm)	27.58320	11.24135	17.50503	ug/L
Pb (220.353 nm)	-4.70318 u	-1.51878 u	-1.08794 u	ug/L
Pt (203.646 nm)	9.81467	10.57218	10.10603	ug/L
Sb (206.834 nm)	1.74771	-2.15225 u	1.99662	ug/L

Label	Replicate 1	Replicate 2	Replicate 3	Units
Se (196.026 nm)	4.31574	1.78286	5.69423	ug/L
Si (251.611 nm)	1.44386	0.81648	0.68770	ug/L
Sn (189.925 nm)	0.39999	-0.55893 u	1.14857	ug/L
Sr (421.552 nm)	0.48043	0.46920	0.46781	ug/L
Te (214.282 nm)	2.92525	-0.93372 u	5.15200	ug/L
Ti (334.941 nm)	0.11595	0.11757	0.10998	ug/L
Tl (190.807 nm)	13.75196	0.92853	3.64982	ug/L
U (409.013 nm)	-3.33335 u	1.43075	-3.12878 u	ug/L
V (292.401 nm)	0.18694	-0.18279 u	-0.09175 u	ug/L
W (207.912 nm)	-2.09846 u	0.38703	2.35665	ug/L
Y (371.029 nm)	0.09030	-0.01917 u	-0.02924 u	ug/L
Zn (206.200 nm)	1.08894	3.27596	4.74843	ug/L
Zr (343.823 nm)	0.00815	0.07517	0.09488	ug/L
Sc-A (361.383 nm)	1.02	1.03	1.03	Ratio
Sc-R (503.102 nm)	1.01	1.02	1.02	Ratio

Sample Name: 2218993016

Date: 7/14/2022 11:50:57 Rack:Tube: 1:46

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Calculated Concentration
Ag (328.068 nm)	-0.01882	ug/L	0.04853	> 100.00	-89.65101	-0.01882 (ug/L)
Al (236.705 nm)	3.80641	ug/L	4.93255	> 100.00	65.33910	3.80641 (ug/L)
As (188.980 nm)	3.00169	ug/L	6.14062	> 100.00	-6.35166	3.00169 (ug/L)
B (249.772 nm)	-1.26530	ug/L	0.12963	10.25	34.13829	-1.26530 (ug/L)
Ba (230.424 nm)	0.56280	ug/L	0.02655	4.72	5.43934	0.56280 (ug/L)
Be (313.107 nm)	0.01162	ug/L	0.00477	41.02	10.50939	0.01162 (ug/L)
Bi (223.061 nm)	1.42369	ug/L	1.35397	95.10	-35.58953	1.42369 (ug/L)
Ca (317.933 nm)	66.79796	ug/L	1.02662	1.54	1107.76045	66.79796 (ug/L)
Cd (214.439 nm)	0.56811	ug/L	0.29108	51.24	-0.32135	0.56811 (ug/L)
Co (228.615 nm)	1.06090	ug/L	0.47966	45.21	-3.21236	1.06090 (ug/L)
Cr (205.560 nm)	1.16771	ug/L	0.03798	3.25	3.49578	1.16771 (ug/L)
Cu (224.700 nm)	6.54466	ug/L	1.48110	22.63	-4.36265	6.54466 (ug/L)
Fe (261.382 nm)	6.49110	ug/L	1.86420	28.72	64.61336	6.49110 (ug/L)
K (766.491 nm)	5.20005	ug/L	15.55624	> 100.00	-141.80849	5.20005 (ug/L)
Li (610.365 nm)	19.45045	ug/L	3.73716	19.21	-4447.52372	19.45045 (ug/L)
Mg (279.078 nm)	10.25409	ug/L	2.43553	23.75	44.07980	10.25409 (ug/L)
Mn (260.568 nm)	0.36629	ug/L	0.31236	85.28	7.41695	0.36629 (ug/L)
Mo (202.032 nm)	-0.29554	ug/L	0.20972	70.96	-2.85453	-0.29554 (ug/L)
Na (588.995 nm)	62.98318	ug/L	8.15875	12.95	25639.27614	62.98318 (ug/L)
Ni (231.604 nm)	-0.81759	ug/L	1.01404	> 100.00	-5.77143	-0.81759 (ug/L)
P (178.222 nm)	19.23135	ug/L	20.86876	> 100.00	4.37111	19.23135 (ug/L)
Pb (220.353 nm)	0.07338	ug/L	1.65187	> 100.00	2.19844	0.07338 (ug/L)
Pt (203.646 nm)	1.82614	ug/L	3.53406	> 100.00	2.48608	1.82614 (ug/L)
Sb (206.834 nm)	2.73631	ug/L	4.39112	> 100.00	-6.36972	2.73631 (ug/L)
Se (196.026 nm)	3.53721	ug/L	6.26594	> 100.00	5.02756	3.53721 (ug/L)
Si (251.611 nm)	16.32748	ug/L	1.29617	7.94	42.86047	16.32748 (ug/L)
Sn (189.925 nm)	0.25197	ug/L	3.67683	> 100.00	-4.85419	0.25197 (ug/L)

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Calculated Concentration
Sr (421.552 nm)	0.48229	ug/L	0.00836	1.73	1004.05896	0.48229 (ug/L)
Te (214.282 nm)	2.56762	ug/L	11.28128	> 100.00	-3.99344	2.56762 (ug/L)
Ti (334.941 nm)	0.19147	ug/L	0.03936	20.55	-24.40339	0.19147 (ug/L)
Tl (190.807 nm)	19.16641	ug/L	3.48541	18.19	7.75802	19.16641 (ug/L)
U (409.013 nm)	-3.22014	ug/L	2.41916	75.13	164.06435	-3.22014 (ug/L)
V (292.401 nm)	0.39774	ug/L	0.41820	> 100.00	-11.25345	0.39774 (ug/L)
W (207.912 nm)	2.27942	ug/L	1.94595	85.37	9.10017	2.27942 (ug/L)
Y (371.029 nm)	0.03232	ug/L	0.03120	96.54	5.80131	0.03232 (ug/L)
Zn (206.200 nm)	3.06942	ug/L	0.55044	17.93	3.97235	3.06942 (ug/L)
Zr (343.823 nm)	0.05006	ug/L	0.05919	> 100.00	96.02829	0.05006 (ug/L)

Label	Internal Standard
Ag (328.068 nm)	Sc-A
Al (236.705 nm)	Sc-A
As (188.980 nm)	Sc-A
B (249.772 nm)	Sc-A
Ba (230.424 nm)	Sc-A
Be (313.107 nm)	Sc-A
Bi (223.061 nm)	Sc-A
Ca (317.933 nm)	Sc-A
Cd (214.439 nm)	Sc-A
Co (228.615 nm)	Sc-A
Cr (205.560 nm)	Sc-A
Cu (224.700 nm)	Sc-A
Fe (261.382 nm)	Sc-A
K (766.491 nm)	Sc-R
Li (610.365 nm)	Sc-R
Mg (279.078 nm)	Sc-A
Mn (260.568 nm)	Sc-A
Mo (202.032 nm)	Sc-A
Na (588.995 nm)	Sc-R
Ni (231.604 nm)	Sc-A
P (178.222 nm)	Sc-A
Pb (220.353 nm)	Sc-A
Pt (203.646 nm)	Sc-A
Sb (206.834 nm)	Sc-A
Se (196.026 nm)	Sc-A
Si (251.611 nm)	Sc-A
Sn (189.925 nm)	Sc-A
Sr (421.552 nm)	Sc-A
Te (214.282 nm)	Sc-A
Ti (334.941 nm)	Sc-A
Tl (190.807 nm)	Sc-A
U (409.013 nm)	Sc-A
V (292.401 nm)	Sc-A
W (207.912 nm)	Sc-A
Y (371.029 nm)	Sc-A
Zn (206.200 nm)	Sc-A

Label	Internal Standard
Zr (343.823 nm)	Sc-A

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Sc-A	1.03	424448.08	0.01	0.52
Sc-R	1.02	47905.55	0.01	0.58

Replicates Concentration

Label	Replicate 1	Replicate 2	Replicate 3	Units
Ag (328.068 nm)	0.01583	0.00200	-0.07429 u	ug/L
Al (236.705 nm)	-1.16568 u	3.88648	8.69844	ug/L
As (188.980 nm)	5.95350	-4.05743 u	7.10902	ug/L
B (249.772 nm)	-1.16047 u	-1.41025 u	-1.22517 u	ug/L
Ba (230.424 nm)	0.55644	0.54000	0.59195	ug/L
Be (313.107 nm)	0.01670	0.00725	0.01091	ug/L
Bi (223.061 nm)	-0.11155 u	1.93533	2.44728	ug/L
Ca (317.933 nm)	65.65621	67.09271	67.64497	ug/L
Cd (214.439 nm)	0.82844	0.62206	0.25383	ug/L
Co (228.615 nm)	1.15153	0.54239	1.48878	ug/L
Cr (205.560 nm)	1.16917	1.20494	1.12903	ug/L
Cu (224.700 nm)	8.25197	5.60447	5.77755	ug/L
Fe (261.382 nm)	6.27885	8.45234	4.74212	ug/L
K (766.491 nm)	-10.08116 u	4.66384	21.01746	ug/L
Li (610.365 nm)	17.09392	17.49799	23.75945	ug/L
Mg (279.078 nm)	10.31874	12.65665	7.78688	ug/L
Mn (260.568 nm)	0.19621	0.17588	0.72678	ug/L
Mo (202.032 nm)	-0.07091 u	-0.48620 u	-0.32950 u	ug/L
Na (588.995 nm)	71.61207	61.94316	55.39431	ug/L
Ni (231.604 nm)	-1.98496 u	-0.31273 u	-0.15508 u	ug/L
P (178.222 nm)	34.39829	27.86448	-4.56872 u	ug/L
Pb (220.353 nm)	1.76547	-0.01025 u	-1.53509 u	ug/L
Pt (203.646 nm)	-0.93088 u	5.81016	0.59915	ug/L
Sb (206.834 nm)	7.80664	0.22749	0.17479	ug/L
Se (196.026 nm)	2.16279	-1.92742 u	10.37627	ug/L
Si (251.611 nm)	17.79924	15.82724	15.35597	ug/L
Sn (189.925 nm)	4.31493	-2.84645 u	-0.71257 u	ug/L
Sr (421.552 nm)	0.47657	0.47841	0.49188	ug/L
Te (214.282 nm)	1.50539	14.34244	-8.14498 u	ug/L
Ti (334.941 nm)	0.23430	0.15690	0.18321	ug/L
Tl (190.807 nm)	22.90562	18.58589	16.00771	ug/L
U (409.013 nm)	-2.40240 u	-5.94219 u	-1.31583 u	ug/L
V (292.401 nm)	-0.01186 u	0.38103	0.82404	ug/L
W (207.912 nm)	0.83586	4.49245	1.50994	ug/L
Y (371.029 nm)	0.06098	-0.00092 u	0.03691	ug/L
Zn (206.200 nm)	2.68490	2.82338	3.69996	ug/L
Zr (343.823 nm)	0.07628	0.09160	-0.01771 u	ug/L
Sc-A (361.383 nm)	1.03	1.03	1.04	Ratio

Label	Replicate 1	Replicate 2	Replicate 3	Units
Sc-R (503.102 nm)	1.01	1.02	1.03	Ratio

Sample Name: CCV

Date: 7/14/2022 11:52:37 Rack:Tube: S1:10

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Calculated Concentration
Ag (328.068 nm)	1956.67088	ug/L	20.11690	1.03	102174.85358	1956.67088 (ug/L)
Al (236.705 nm)	48728.59782	ug/L	520.96525	1.07	29842.18560	48728.59782 (ug/L)
As (188.980 nm)	4901.34582	ug/L	45.85625	0.94	2439.77207	4901.34582 (ug/L)
B (249.772 nm)	12156.61589	ug/L	149.70025	1.23	192006.91492	12156.61589 (ug/L)
Ba (230.424 nm)	4991.10383	ug/L	64.24253	1.29	92130.72139	4991.10383 (ug/L)
Be (313.107 nm)	993.04717	ug/L	11.97618	1.21	731149.00599	993.04717 (ug/L)
Bi (223.061 nm)	4856.59975	ug/L	55.02255	1.13	7252.20412	4856.59975 (ug/L)
Ca (317.933 nm)	49967.63657	ug/L	710.21267	1.42	856547.83165	49967.63657 (ug/L)
Cd (214.439 nm)	2534.17413	ug/L	31.44577	1.24	26421.11644	2534.17413 (ug/L)
Co (228.615 nm)	4961.90506	ug/L	61.88805	1.25	29239.92596	4961.90506 (ug/L)
Cr (205.560 nm)	4990.24013	ug/L	66.75972	1.34	28668.72483	4990.24013 (ug/L)
Cu (224.700 nm)	4892.68496	ug/L	67.06569	1.37	4946.72952	4892.68496 (ug/L)
Fe (261.382 nm)	49589.92984	ug/L	626.61780	1.26	132624.08252	49589.92984 (ug/L)
K (766.491 nm)	47420.44629	ug/L	489.66168	1.03	96772.74947	47420.44629 (ug/L)
Li (610.365 nm)	4775.25925	ug/L	52.28599	1.09	49052.79132	4775.25925 (ug/L)
Mg (279.078 nm)	49243.18359	ug/L	624.51694	1.27	77815.50630	49243.18359 (ug/L)
Mn (260.568 nm)	4960.25387	ug/L	59.54825	1.20	86389.63811	4960.25387 (ug/L)
Mo (202.032 nm)	24886.33182	ug/L	310.63966	1.25	116963.78049	24886.33182 (ug/L)
Na (588.995 nm)	47186.27319	ug/L	527.15754	1.12	1140308.86871	47186.27319 (ug/L)
Ni (231.604 nm)	4985.35617	ug/L	67.11804	1.35	11669.19378	4985.35617 (ug/L)
P (178.222 nm)	24676.07798	ug/L	262.49147	1.06	2375.44021	24676.07798 (ug/L)
Pb (220.353 nm)	4983.74779	ug/L	54.00876	1.08	5826.08999	4983.74779 (ug/L)
Pt (203.646 nm)	26.35861	ug/L	8.27702	31.40	286.27942	26.35861 (ug/L)
Sb (206.834 nm)	24264.10583	ug/L	327.76867	1.35	21810.03869	24264.10583 (ug/L)
Se (196.026 nm)	4868.37952	ug/L	36.09004	0.74	2884.20658	4868.37952 (ug/L)
Si (251.611 nm)	12035.36406	ug/L	251.34966	2.09	17620.33777	12035.36406 (ug/L)
Sn (189.925 nm)	5027.29579	ug/L	67.62609	1.35	3753.28366	5027.29579 (ug/L)
Sr (421.552 nm)	4859.84978	ug/L	62.14615	1.28	9928348.47903	4859.84978 (ug/L)
Te (214.282 nm)	9805.59258	ug/L	93.99053	0.96	5124.68452	9805.59258 (ug/L)
Ti (334.941 nm)	4905.82666	ug/L	62.51491	1.27	985813.74457	4905.82666 (ug/L)
Tl (190.807 nm)	2473.50979	ug/L	28.61869	1.16	1429.47833	2473.50979 (ug/L)
U (409.013 nm)	4820.15733	ug/L	60.39327	1.25	26084.81518	4820.15733 (ug/L)
V (292.401 nm)	4931.47273	ug/L	57.89975	1.17	124380.74416	4931.47273 (ug/L)
W (207.912 nm)	0.79560	ug/L	1.68896	> 100.00	56.57428	0.79560 (ug/L)
Y (371.029 nm)	1962.59775	ug/L	24.62838	1.25	324638.70893	1962.59775 (ug/L)
Zn (206.200 nm)	5061.08963	ug/L	81.28814	1.61	8964.52727	5061.08963 (ug/L)
Zr (343.823 nm)	4913.30651	ug/L	61.10690	1.24	312340.27495	4913.30651 (ug/L)

Label	Internal Standard
Ag (328.068 nm)	Sc-A
Al (236.705 nm)	Sc-A
As (188.980 nm)	Sc-A
B (249.772 nm)	Sc-A
Ba (230.424 nm)	Sc-A
Be (313.107 nm)	Sc-A
Bi (223.061 nm)	Sc-A
Ca (317.933 nm)	Sc-A
Cd (214.439 nm)	Sc-A
Co (228.615 nm)	Sc-A
Cr (205.560 nm)	Sc-A
Cu (224.700 nm)	Sc-A
Fe (261.382 nm)	Sc-A
K (766.491 nm)	Sc-R
Li (610.365 nm)	Sc-R
Mg (279.078 nm)	Sc-A
Mn (260.568 nm)	Sc-A
Mo (202.032 nm)	Sc-A
Na (588.995 nm)	Sc-R
Ni (231.604 nm)	Sc-A
P (178.222 nm)	Sc-A
Pb (220.353 nm)	Sc-A
Pt (203.646 nm)	Sc-A
Sb (206.834 nm)	Sc-A
Se (196.026 nm)	Sc-A
Si (251.611 nm)	Sc-A
Sn (189.925 nm)	Sc-A
Sr (421.552 nm)	Sc-A
Te (214.282 nm)	Sc-A
Ti (334.941 nm)	Sc-A
Tl (190.807 nm)	Sc-A
U (409.013 nm)	Sc-A
V (292.401 nm)	Sc-A
W (207.912 nm)	Sc-A
Y (371.029 nm)	Sc-A
Zn (206.200 nm)	Sc-A
Zr (343.823 nm)	Sc-A

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Sc-A	0.98	404673.78	0.00	0.17
Sc-R	0.98	46205.85	0.00	0.24

Replicates Concentration

Label	Replicate 1	Replicate 2	Replicate 3	Units
Ag (328.068 nm)	1934.72118	1961.06183	1974.22963	ug/L
Al (236.705 nm)	48189.95298	48765.96961	49229.87086	ug/L

Label	Replicate 1	Replicate 2	Replicate 3	Units
As (188.980 nm)	4853.30092	4906.09234	4944.64420	ug/L
B (249.772 nm)	12006.59435	12157.26057	12305.99276	ug/L
Ba (230.424 nm)	4922.69052	5000.47467	5050.14629	ug/L
Be (313.107 nm)	981.66242	991.94106	1005.53804	ug/L
Bi (223.061 nm)	4800.70637	4858.38484	4910.70802	ug/L
Ca (317.933 nm)	49261.90558	49958.75649	50682.24764	ug/L
Cd (214.439 nm)	2501.67021	2536.40976	2564.44243	ug/L
Co (228.615 nm)	4895.87504	4971.25242	5018.58772	ug/L
Cr (205.560 nm)	4919.83840	4998.24620	5052.63579	ug/L
Cu (224.700 nm)	4824.61520	4894.74035	4958.69934	ug/L
Fe (261.382 nm)	48927.82033	49668.28293	50173.68624	ug/L
K (766.491 nm)	46891.24063	47512.64092	47857.45732	ug/L
Li (610.365 nm)	4718.73836	4785.13856	4821.90084	ug/L
Mg (279.078 nm)	48584.55125	49318.18895	49826.81057	ug/L
Mn (260.568 nm)	4898.63237	4964.64330	5017.48595	ug/L
Mo (202.032 nm)	24570.47716	24897.03865	25191.47964	ug/L
Na (588.995 nm)	46585.89112	47399.56714	47573.36130	ug/L
Ni (231.604 nm)	4913.87506	4995.16083	5047.03261	ug/L
P (178.222 nm)	24386.10360	24744.65889	24897.47144	ug/L
Pb (220.353 nm)	4924.39085	4996.85786	5029.99467	ug/L
Pt (203.646 nm)	18.02882	34.58183	26.46517	ug/L
Sb (206.834 nm)	23910.07536	24325.23697	24557.00515	ug/L
Se (196.026 nm)	4830.57420	4872.09798	4902.46638	ug/L
Si (251.611 nm)	11765.55620	12077.64273	12262.89326	ug/L
Sn (189.925 nm)	4949.64012	5059.01832	5073.22893	ug/L
Sr (421.552 nm)	4792.06007	4873.35932	4914.12993	ug/L
Te (214.282 nm)	9708.36635	9812.43830	9895.97308	ug/L
Ti (334.941 nm)	4837.44519	4919.99002	4960.04475	ug/L
Tl (190.807 nm)	2440.46778	2490.47679	2489.58478	ug/L
U (409.013 nm)	4756.67180	4826.90937	4876.89083	ug/L
V (292.401 nm)	4870.42847	4938.38172	4985.60800	ug/L
W (207.912 nm)	0.17397	-0.49445 u	2.70728	ug/L
Y (371.029 nm)	1937.02216	1964.61641	1986.15468	ug/L
Zn (206.200 nm)	4971.17390	5082.72085	5129.37415	ug/L
Zr (343.823 nm)	4847.99485	4922.83564	4969.08903	ug/L
Sc-A (361.383 nm)	0.98	0.98	0.98	Ratio
Sc-R (503.102 nm)	0.98	0.99	0.99	Ratio

Sample Name: CCB

Date: 7/14/2022 11:54:17 Rack:Tube: S1:11

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Calculated Concentration
Ag (328.068 nm)	0.05467	ug/L	0.04083	74.68	-85.63531	0.05467 (ug/L)
Al (236.705 nm)	-4.88656	ug/L	5.99193	> 100.00	60.08279	-4.88656 (ug/L)
As (188.980 nm)	0.87229	ug/L	5.00330	> 100.00	-7.41578	0.87229 (ug/L)
B (249.772 nm)	19.27594	ug/L	2.81715	14.61	357.66669	19.27594 (ug/L)
Ba (230.424 nm)	-0.01067	ug/L	0.00571	53.50	-4.82666	-0.01067 (ug/L)

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Calculated Concentration
Be (313.107 nm)	0.01855	ug/L	0.00751	40.48	15.41844	0.01855 (ug/L)
Bi (223.061 nm)	2.51252	ug/L	2.59104	> 100.00	-33.96724	2.51252 (ug/L)
Ca (317.933 nm)	-0.39302	ug/L	0.20573	52.35	-41.23576	-0.39302 (ug/L)
Cd (214.439 nm)	0.27306	ug/L	0.20337	74.48	-3.48832	0.27306 (ug/L)
Co (228.615 nm)	-0.16415	ug/L	0.18092	> 100.00	-10.52648	-0.16415 (ug/L)
Cr (205.560 nm)	0.62446	ug/L	0.55023	88.11	0.37813	0.62446 (ug/L)
Cu (224.700 nm)	-0.09441	ug/L	3.37224	> 100.00	-10.95698	-0.09441 (ug/L)
Fe (261.382 nm)	-0.15611	ug/L	0.65057	> 100.00	46.78467	-0.15611 (ug/L)
K (766.491 nm)	14.71890	ug/L	23.14542	> 100.00	-122.33927	14.71890 (ug/L)
Li (610.365 nm)	4.23055	ug/L	4.15546	98.23	-4620.15478	4.23055 (ug/L)
Mg (279.078 nm)	-3.27643	ug/L	0.98644	30.11	22.65269	-3.27643 (ug/L)
Mn (260.568 nm)	0.08803	ug/L	0.27819	> 100.00	2.54210	0.08803 (ug/L)
Mo (202.032 nm)	2.78770	ug/L	0.72216	25.91	11.64285	2.78770 (ug/L)
Na (588.995 nm)	-33.94744	ug/L	4.49317	13.24	23346.44784	-33.94744 (ug/L)
Ni (231.604 nm)	-0.10962	ug/L	1.10229	> 100.00	-4.12711	-0.10962 (ug/L)
P (178.222 nm)	-19.96110	ug/L	14.86767	74.48	0.60226	-19.96110 (ug/L)
Pb (220.353 nm)	-1.89526	ug/L	4.26547	> 100.00	-0.10868	-1.89526 (ug/L)
Pt (203.646 nm)	-0.72713	ug/L	7.60802	> 100.00	0.44145	-0.72713 (ug/L)
Sb (206.834 nm)	0.76831	ug/L	3.40969	> 100.00	-8.14289	0.76831 (ug/L)
Se (196.026 nm)	0.96106	ug/L	7.96603	> 100.00	3.47927	0.96106 (ug/L)
Si (251.611 nm)	-7.57998	ug/L	2.08695	27.53	9.19543	-7.57998 (ug/L)
Sn (189.925 nm)	-1.77628	ug/L	0.87559	49.29	-6.37048	-1.77628 (ug/L)
Sr (421.552 nm)	0.05529	ug/L	0.01925	34.82	131.74253	0.05529 (ug/L)
Te (214.282 nm)	1.15885	ug/L	5.08296	> 100.00	-4.72607	1.15885 (ug/L)
Ti (334.941 nm)	0.15357	ug/L	0.07260	47.27	-31.83668	0.15357 (ug/L)
Tl (190.807 nm)	-4.16855	ug/L	5.93225	> 100.00	-4.61792	-4.16855 (ug/L)
U (409.013 nm)	-0.59367	ug/L	3.57335	> 100.00	178.06709	-0.59367 (ug/L)
V (292.401 nm)	0.19803	ug/L	0.27079	> 100.00	-16.71264	0.19803 (ug/L)
W (207.912 nm)	-0.62778	ug/L	1.18561	> 100.00	5.34897	-0.62778 (ug/L)
Y (371.029 nm)	0.00872	ug/L	0.02607	> 100.00	1.90343	0.00872 (ug/L)
Zn (206.200 nm)	-0.79228	ug/L	0.78063	98.53	-2.86139	-0.79228 (ug/L)
Zr (343.823 nm)	0.88108	ug/L	0.14427	16.37	148.72077	0.88108 (ug/L)

Label	Internal Standard
Ag (328.068 nm)	Sc-A
Al (236.705 nm)	Sc-A
As (188.980 nm)	Sc-A
B (249.772 nm)	Sc-A
Ba (230.424 nm)	Sc-A
Be (313.107 nm)	Sc-A
Bi (223.061 nm)	Sc-A
Ca (317.933 nm)	Sc-A
Cd (214.439 nm)	Sc-A
Co (228.615 nm)	Sc-A
Cr (205.560 nm)	Sc-A
Cu (224.700 nm)	Sc-A
Fe (261.382 nm)	Sc-A
K (766.491 nm)	Sc-R

Label	Internal Standard
Li (610.365 nm)	Sc-R
Mg (279.078 nm)	Sc-A
Mn (260.568 nm)	Sc-A
Mo (202.032 nm)	Sc-A
Na (588.995 nm)	Sc-R
Ni (231.604 nm)	Sc-A
P (178.222 nm)	Sc-A
Pb (220.353 nm)	Sc-A
Pt (203.646 nm)	Sc-A
Sb (206.834 nm)	Sc-A
Se (196.026 nm)	Sc-A
Si (251.611 nm)	Sc-A
Sn (189.925 nm)	Sc-A
Sr (421.552 nm)	Sc-A
Te (214.282 nm)	Sc-A
Ti (334.941 nm)	Sc-A
Tl (190.807 nm)	Sc-A
U (409.013 nm)	Sc-A
V (292.401 nm)	Sc-A
W (207.912 nm)	Sc-A
Y (371.029 nm)	Sc-A
Zn (206.200 nm)	Sc-A
Zr (343.823 nm)	Sc-A

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Sc-A	1.01	416890.57	0.00	0.16
Sc-R	1.00	47102.68	0.00	0.10

Replicates Concentration

Label	Replicate 1	Replicate 2	Replicate 3	Units
Ag (328.068 nm)	0.01592	0.05077	0.09730	ug/L
Al (236.705 nm)	-4.56555 u	0.93842	-11.03253 u	ug/L
As (188.980 nm)	6.45999	-3.19288 u	-0.65024 u	ug/L
B (249.772 nm)	22.18842	19.07447	16.56493	ug/L
Ba (230.424 nm)	-0.00411 u	-0.01453 u	-0.01336 u	ug/L
Be (313.107 nm)	0.02272	0.02305	0.00988	ug/L
Bi (223.061 nm)	2.80613	4.94424	-0.21282 u	ug/L
Ca (317.933 nm)	-0.15606 u	-0.49705 u	-0.52597 u	ug/L
Cd (214.439 nm)	0.03827	0.38675	0.39416	ug/L
Co (228.615 nm)	-0.32302 u	0.03276	-0.20220 u	ug/L
Cr (205.560 nm)	0.07778	0.61744	1.17817	ug/L
Cu (224.700 nm)	-1.55507 u	-2.49007 u	3.76193	ug/L
Fe (261.382 nm)	0.27934	-0.90396 u	0.15629	ug/L
K (766.491 nm)	-11.88459 u	30.23457	25.80672	ug/L
Li (610.365 nm)	-0.17925 u	4.79745	8.07345	ug/L
Mg (279.078 nm)	-2.61337 u	-2.80587 u	-4.41004 u	ug/L

Label	Replicate 1	Replicate 2	Replicate 3	Units
Mn (260.568 nm)	0.14899	-0.21559 u	0.33069	ug/L
Mo (202.032 nm)	1.96030	3.11152	3.29126	ug/L
Na (588.995 nm)	-35.35471 u	-28.91907 u	-37.56853 u	ug/L
Ni (231.604 nm)	0.06091	-1.28724 u	0.89745	ug/L
P (178.222 nm)	-25.69700 u	-31.10645 u	-3.07987 u	ug/L
Pb (220.353 nm)	1.51185	-0.51859 u	-6.67906 u	ug/L
Pt (203.646 nm)	-6.24049 u	-3.89362 u	7.95274	ug/L
Sb (206.834 nm)	2.03423	-3.09328 u	3.36399	ug/L
Se (196.026 nm)	3.21704	-7.88967 u	7.55580	ug/L
Si (251.611 nm)	-9.86392 u	-5.77238 u	-7.10364 u	ug/L
Sn (189.925 nm)	-2.77917 u	-1.38587 u	-1.16381 u	ug/L
Sr (421.552 nm)	0.03666	0.05411	0.07511	ug/L
Te (214.282 nm)	-1.62729 u	-1.92185 u	7.02568	ug/L
Ti (334.941 nm)	0.08557	0.14511	0.23003	ug/L
Tl (190.807 nm)	-0.20597 u	-10.98875 u	-1.31094 u	ug/L
U (409.013 nm)	3.49161	-2.13458 u	-3.13802 u	ug/L
V (292.401 nm)	-0.06446 u	0.47642	0.18212	ug/L
W (207.912 nm)	0.72830	-1.14319 u	-1.46846 u	ug/L
Y (371.029 nm)	0.03762	-0.01306 u	0.00162	ug/L
Zn (206.200 nm)	0.01332	-1.54527 u	-0.84488 u	ug/L
Zr (343.823 nm)	0.72175	0.91860	1.00288	ug/L
Sc-A (361.383 nm)	1.01	1.01	1.02	Ratio
Sc-R (503.102 nm)	1.00	1.00	1.00	Ratio

Sample Name: 790487 LRB

Date: 7/14/2022 11:55:58 Rack:Tube: 1:47

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Calculated Concentration
Ag (328.068 nm)	0.10279	ug/L	0.25466	> 100.00	-83.32960	0.10279 (ug/L)
Al (236.705 nm)	-9.95675	ug/L	1.63360	16.41	56.98517	-9.95675 (ug/L)
As (188.980 nm)	1.27468	ug/L	5.68604	> 100.00	-7.21306	1.27468 (ug/L)
B (249.772 nm)	6.10322	ug/L	0.71019	11.64	150.15993	6.10322 (ug/L)
Ba (230.424 nm)	-0.15104	ug/L	0.16128	> 100.00	-7.51821	-0.15104 (ug/L)
Be (313.107 nm)	0.01047	ug/L	0.02825	> 100.00	9.89419	0.01047 (ug/L)
Bi (223.061 nm)	1.65905	ug/L	1.57796	95.11	-35.23221	1.65905 (ug/L)
Ca (317.933 nm)	3.66749	ug/L	0.79837	21.77	28.18562	3.66749 (ug/L)
Cd (214.439 nm)	0.38410	ug/L	0.12967	33.76	-2.27926	0.38410 (ug/L)
Co (228.615 nm)	0.18563	ug/L	0.19619	> 100.00	-8.42785	0.18563 (ug/L)
Cr (205.560 nm)	0.11131	ug/L	0.51608	> 100.00	-2.55894	0.11131 (ug/L)
Cu (224.700 nm)	2.67735	ug/L	0.67825	25.33	-8.25406	2.67735 (ug/L)
Fe (261.382 nm)	0.25047	ug/L	0.50789	> 100.00	48.06322	0.25047 (ug/L)
K (766.491 nm)	-1.69740	ug/L	9.35154	> 100.00	-155.90679	-1.69740 (ug/L)
Li (610.365 nm)	11.06615	ug/L	0.82479	7.45	-4542.18141	11.06615 (ug/L)
Mg (279.078 nm)	-0.19365	ug/L	0.63719	> 100.00	27.58367	-0.19365 (ug/L)
Mn (260.568 nm)	0.02662	ug/L	0.08020	> 100.00	1.44819	0.02662 (ug/L)
Mo (202.032 nm)	0.44611	ug/L	0.74692	> 100.00	0.62955	0.44611 (ug/L)
Na (588.995 nm)	-63.55027	ug/L	4.78623	7.53	22646.21279	-63.55027 (ug/L)

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Calculated Concentration
Ni (231.604 nm)	-0.64560	ug/L	0.99895	> 100.00	-5.38654	-0.64560 (ug/L)
P (178.222 nm)	7.59853	ug/L	5.06257	66.63	3.25247	7.59853 (ug/L)
Pb (220.353 nm)	-1.83839	ug/L	1.47536	80.25	-0.05755	-1.83839 (ug/L)
Pt (203.646 nm)	0.88988	ug/L	4.85229	> 100.00	1.71495	0.88988 (ug/L)
Sb (206.834 nm)	1.12845	ug/L	1.84122	> 100.00	-7.81472	1.12845 (ug/L)
Se (196.026 nm)	-0.27894	ug/L	7.31174	> 100.00	2.77334	-0.27894 (ug/L)
Si (251.611 nm)	7.17730	ug/L	1.78698	24.90	29.96500	7.17730 (ug/L)
Sn (189.925 nm)	-1.01980	ug/L	1.87323	> 100.00	-5.80494	-1.01980 (ug/L)
Sr (421.552 nm)	0.02715	ug/L	0.02550	93.94	74.23731	0.02715 (ug/L)
Te (214.282 nm)	-1.80897	ug/L	3.02869	> 100.00	-6.27428	-1.80897 (ug/L)
Ti (334.941 nm)	0.13492	ug/L	0.07917	58.67	-35.78843	0.13492 (ug/L)
Tl (190.807 nm)	-5.31031	ug/L	5.84930	> 100.00	-5.08203	-5.31031 (ug/L)
U (409.013 nm)	-5.00848	ug/L	0.99657	19.90	154.54591	-5.00848 (ug/L)
V (292.401 nm)	0.16451	ug/L	0.21731	> 100.00	-17.27279	0.16451 (ug/L)
W (207.912 nm)	4.41223	ug/L	0.70749	16.03	11.79658	4.41223 (ug/L)
Y (371.029 nm)	-0.00350	ug/L	0.05224	> 100.00	-0.12882	-0.00350 (ug/L)
Zn (206.200 nm)	-0.07839	ug/L	0.35019	> 100.00	-1.59652	-0.07839 (ug/L)
Zr (343.823 nm)	0.42543	ug/L	0.17023	40.01	119.95890	0.42543 (ug/L)

Label	Internal Standard
Ag (328.068 nm)	Sc-A
Al (236.705 nm)	Sc-A
As (188.980 nm)	Sc-A
B (249.772 nm)	Sc-A
Ba (230.424 nm)	Sc-A
Be (313.107 nm)	Sc-A
Bi (223.061 nm)	Sc-A
Ca (317.933 nm)	Sc-A
Cd (214.439 nm)	Sc-A
Co (228.615 nm)	Sc-A
Cr (205.560 nm)	Sc-A
Cu (224.700 nm)	Sc-A
Fe (261.382 nm)	Sc-A
K (766.491 nm)	Sc-R
Li (610.365 nm)	Sc-R
Mg (279.078 nm)	Sc-A
Mn (260.568 nm)	Sc-A
Mo (202.032 nm)	Sc-A
Na (588.995 nm)	Sc-R
Ni (231.604 nm)	Sc-A
P (178.222 nm)	Sc-A
Pb (220.353 nm)	Sc-A
Pt (203.646 nm)	Sc-A
Sb (206.834 nm)	Sc-A
Se (196.026 nm)	Sc-A
Si (251.611 nm)	Sc-A
Sn (189.925 nm)	Sc-A
Sr (421.552 nm)	Sc-A

Label	Internal Standard
Te (214.282 nm)	Sc-A
Ti (334.941 nm)	Sc-A
Tl (190.807 nm)	Sc-A
U (409.013 nm)	Sc-A
V (292.401 nm)	Sc-A
W (207.912 nm)	Sc-A
Y (371.029 nm)	Sc-A
Zn (206.200 nm)	Sc-A
Zr (343.823 nm)	Sc-A

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Sc-A	1.02	421173.87	0.00	0.39
Sc-R	1.01	47578.98	0.00	0.42

Replicates Concentration

Label	Replicate 1	Replicate 2	Replicate 3	Units
Ag (328.068 nm)	-0.19013 u	0.22687	0.27162	ug/L
Al (236.705 nm)	-11.81543 u	-8.74879 u	-9.30604 u	ug/L
As (188.980 nm)	3.18902	5.75650	-5.12147 u	ug/L
B (249.772 nm)	6.85275	6.01660	5.44032	ug/L
Ba (230.424 nm)	-0.07424 u	-0.33637 u	-0.04251 u	ug/L
Be (313.107 nm)	-0.01339 u	0.00312	0.04167	ug/L
Bi (223.061 nm)	0.31239	1.26944	3.39532	ug/L
Ca (317.933 nm)	2.75134	4.03667	4.21446	ug/L
Cd (214.439 nm)	0.27952	0.52918	0.34359	ug/L
Co (228.615 nm)	0.35859	-0.02756 u	0.22586	ug/L
Cr (205.560 nm)	-0.07653 u	0.69499	-0.28455 u	ug/L
Cu (224.700 nm)	2.28323	2.28830	3.46052	ug/L
Fe (261.382 nm)	-0.10049 u	0.83286	0.01904	ug/L
K (766.491 nm)	-4.83843 u	-9.07406 u	8.82028	ug/L
Li (610.365 nm)	10.40657	10.80097	11.99091	ug/L
Mg (279.078 nm)	-0.88926 u	-0.05346 u	0.36178	ug/L
Mn (260.568 nm)	0.11492	-0.04170 u	0.00664	ug/L
Mo (202.032 nm)	-0.34286 u	0.53887	1.14233	ug/L
Na (588.995 nm)	-59.33154 u	-62.56777 u	-68.75152 u	ug/L
Ni (231.604 nm)	-1.20712 u	0.50775	-1.23744 u	ug/L
P (178.222 nm)	6.30272	13.18305	3.30981	ug/L
Pb (220.353 nm)	-0.37806 u	-3.32834 u	-1.80879 u	ug/L
Pt (203.646 nm)	1.99982	5.09104	-4.42121 u	ug/L
Sb (206.834 nm)	1.25476	2.90327	-0.77267 u	ug/L
Se (196.026 nm)	6.96818	-0.15135 u	-7.65363 u	ug/L
Si (251.611 nm)	8.29968	5.11662	8.11561	ug/L
Sn (189.925 nm)	-2.01361 u	1.14091	-2.18668 u	ug/L
Sr (421.552 nm)	0.01300	0.01186	0.05658	ug/L
Te (214.282 nm)	-4.94008 u	1.10570	-1.59252 u	ug/L
Ti (334.941 nm)	0.14261	0.05220	0.20997	ug/L

Label	Replicate 1	Replicate 2	Replicate 3	Units
Tl (190.807 nm)	-11.97184 u	-2.94515 u	-1.01394 u	ug/L
U (409.013 nm)	-4.46860 u	-4.39834 u	-6.15851 u	ug/L
V (292.401 nm)	0.17316	-0.05699 u	0.37737	ug/L
W (207.912 nm)	3.87211	4.15149	5.21308	ug/L
Y (371.029 nm)	-0.01546 u	-0.04872 u	0.05368	ug/L
Zn (206.200 nm)	-0.04315 u	0.25284	-0.44487 u	ug/L
Zr (343.823 nm)	0.58335	0.24511	0.44782	ug/L
Sc-A (361.383 nm)	1.02	1.02	1.03	Ratio
Sc-R (503.102 nm)	1.01	1.01	1.02	Ratio

Sample Name: 790488 LMB

Date: 7/14/2022 11:57:39 Rack:Tube: 1:48

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Calculated Concentration
Ag (328.068 nm)	-0.05230	ug/L	0.28577	> 100.00	-91.25410	-0.05230 (ug/L)
Al (236.705 nm)	3.97164	ug/L	6.83183	> 100.00	65.44375	3.97164 (ug/L)
As (188.980 nm)	1.57064	ug/L	0.93396	59.46	-7.06554	1.57064 (ug/L)
B (249.772 nm)	2.46822	ug/L	0.67652	27.41	92.91594	2.46822 (ug/L)
Ba (230.424 nm)	0.49978	ug/L	0.12998	26.01	4.31456	0.49978 (ug/L)
Be (313.107 nm)	0.00642	ug/L	0.01933	> 100.00	6.57829	0.00642 (ug/L)
Bi (223.061 nm)	0.48948	ug/L	4.72430	> 100.00	-37.02160	0.48948 (ug/L)
Ca (317.933 nm)	63.96113	ug/L	1.00372	1.57	1059.23746	63.96113 (ug/L)
Cd (214.439 nm)	0.15086	ug/L	0.12002	79.56	-4.65787	0.15086 (ug/L)
Co (228.615 nm)	0.21643	ug/L	0.54814	> 100.00	-8.23467	0.21643 (ug/L)
Cr (205.560 nm)	6.16675	ug/L	0.24514	3.98	32.19672	6.16675 (ug/L)
Cu (224.700 nm)	2.53742	ug/L	1.35529	53.41	-8.35444	2.53742 (ug/L)
Fe (261.382 nm)	2.33824	ug/L	1.28662	55.03	53.53813	2.33824 (ug/L)
K (766.491 nm)	0.83564	ug/L	6.27953	> 100.00	-150.73248	0.83564 (ug/L)
Li (610.365 nm)	14.74097	ug/L	3.62149	24.57	-4501.24452	14.74097 (ug/L)
Mg (279.078 nm)	9.53898	ug/L	0.70276	7.37	42.93617	9.53898 (ug/L)
Mn (260.568 nm)	0.28370	ug/L	0.17667	62.27	5.97350	0.28370 (ug/L)
Mo (202.032 nm)	0.19996	ug/L	0.06613	33.07	-0.52386	0.19996 (ug/L)
Na (588.995 nm)	83.86666	ug/L	10.65814	12.71	26133.26067	83.86666 (ug/L)
Ni (231.604 nm)	-0.78903	ug/L	1.31782	> 100.00	-5.71146	-0.78903 (ug/L)
P (178.222 nm)	34.37683	ug/L	17.73453	51.59	5.82754	34.37683 (ug/L)
Pb (220.353 nm)	-2.31500	ug/L	2.96850	> 100.00	-0.60516	-2.31500 (ug/L)
Pt (203.646 nm)	2.34414	ug/L	3.08688	> 100.00	2.88032	2.34414 (ug/L)
Sb (206.834 nm)	0.55891	ug/L	2.09689	> 100.00	-8.28792	0.55891 (ug/L)
Se (196.026 nm)	3.64392	ug/L	0.96751	26.55	5.08440	3.64392 (ug/L)
Si (251.611 nm)	3.18384	ug/L	2.55196	80.15	24.32221	3.18384 (ug/L)
Sn (189.925 nm)	-0.30560	ug/L	0.35378	> 100.00	-5.27102	-0.30560 (ug/L)
Sr (421.552 nm)	0.48172	ug/L	0.00634	1.32	1002.89542	0.48172 (ug/L)
Te (214.282 nm)	4.33982	ug/L	6.99430	> 100.00	-3.07119	4.33982 (ug/L)
Ti (334.941 nm)	0.15553	ug/L	0.03212	20.65	-31.42511	0.15553 (ug/L)
Tl (190.807 nm)	8.05728	ug/L	9.88613	> 100.00	1.86541	8.05728 (ug/L)
U (409.013 nm)	-2.20012	ug/L	2.15947	98.15	169.50696	-2.20012 (ug/L)
V (292.401 nm)	0.16728	ug/L	0.09748	58.28	-17.38175	0.16728 (ug/L)

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Calculated Concentration
W (207.912 nm)	1.06179	ug/L	2.79331	> 100.00	7.51826	1.06179 (ug/L)
Y (371.029 nm)	0.01935	ug/L	0.06317	> 100.00	3.65686	0.01935 (ug/L)
Zn (206.200 nm)	0.28587	ug/L	1.38202	> 100.00	-0.93699	0.28587 (ug/L)
Zr (343.823 nm)	0.60002	ug/L	0.00677	1.13	130.93010	0.60002 (ug/L)

Label	Internal Standard
Ag (328.068 nm)	Sc-A
Al (236.705 nm)	Sc-A
As (188.980 nm)	Sc-A
B (249.772 nm)	Sc-A
Ba (230.424 nm)	Sc-A
Be (313.107 nm)	Sc-A
Bi (223.061 nm)	Sc-A
Ca (317.933 nm)	Sc-A
Cd (214.439 nm)	Sc-A
Co (228.615 nm)	Sc-A
Cr (205.560 nm)	Sc-A
Cu (224.700 nm)	Sc-A
Fe (261.382 nm)	Sc-A
K (766.491 nm)	Sc-R
Li (610.365 nm)	Sc-R
Mg (279.078 nm)	Sc-A
Mn (260.568 nm)	Sc-A
Mo (202.032 nm)	Sc-A
Na (588.995 nm)	Sc-R
Ni (231.604 nm)	Sc-A
P (178.222 nm)	Sc-A
Pb (220.353 nm)	Sc-A
Pt (203.646 nm)	Sc-A
Sb (206.834 nm)	Sc-A
Se (196.026 nm)	Sc-A
Si (251.611 nm)	Sc-A
Sn (189.925 nm)	Sc-A
Sr (421.552 nm)	Sc-A
Te (214.282 nm)	Sc-A
Ti (334.941 nm)	Sc-A
Tl (190.807 nm)	Sc-A
U (409.013 nm)	Sc-A
V (292.401 nm)	Sc-A
W (207.912 nm)	Sc-A
Y (371.029 nm)	Sc-A
Zn (206.200 nm)	Sc-A
Zr (343.823 nm)	Sc-A

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Sc-A	1.03	422286.81	0.01	0.68
Sc-R	1.02	47749.05	0.01	0.57

Replicates Concentration

Label	Replicate 1	Replicate 2	Replicate 3	Units
Ag (328.068 nm)	0.19949	-0.36291 u	0.00652	ug/L
Al (236.705 nm)	-3.75477 u	9.21356	6.45614	ug/L
As (188.980 nm)	1.60771	0.61869	2.48551	ug/L
B (249.772 nm)	3.12652	2.50331	1.77484	ug/L
Ba (230.424 nm)	0.34969	0.57373	0.57591	ug/L
Be (313.107 nm)	-0.00611 u	0.02869	-0.00331 u	ug/L
Bi (223.061 nm)	-4.82331 u	4.21811	2.07365	ug/L
Ca (317.933 nm)	63.10147	63.71776	65.06416	ug/L
Cd (214.439 nm)	0.07393	0.08948	0.28915	ug/L
Co (228.615 nm)	0.69831	-0.37990 u	0.33088	ug/L
Cr (205.560 nm)	6.16304	5.92349	6.41373	ug/L
Cu (224.700 nm)	1.08036	2.77145	3.76045	ug/L
Fe (261.382 nm)	3.31510	0.88043	2.81921	ug/L
K (766.491 nm)	6.48755	1.94343	-5.92407 u	ug/L
Li (610.365 nm)	11.35763	14.30428	18.56101	ug/L
Mg (279.078 nm)	8.78598	9.65355	10.17741	ug/L
Mn (260.568 nm)	0.13153	0.47746	0.24211	ug/L
Mo (202.032 nm)	0.27381	0.17985	0.14622	ug/L
Na (588.995 nm)	95.98609	75.95344	79.66043	ug/L
Ni (231.604 nm)	-1.90782 u	0.66361	-1.12288 u	ug/L
P (178.222 nm)	36.70290	50.83355	15.59405	ug/L
Pb (220.353 nm)	-1.38707 u	0.07869	-5.63662 u	ug/L
Pt (203.646 nm)	-0.83290 u	2.53313	5.33217	ug/L
Sb (206.834 nm)	0.15577	-1.30714 u	2.82810	ug/L
Se (196.026 nm)	4.14644	2.52856	4.25678	ug/L
Si (251.611 nm)	0.57155	3.30912	5.67086	ug/L
Sn (189.925 nm)	0.09646	-0.56924 u	-0.44403 u	ug/L
Sr (421.552 nm)	0.47623	0.48865	0.48027	ug/L
Te (214.282 nm)	-3.30230 u	10.42335	5.89841	ug/L
Ti (334.941 nm)	0.13660	0.19262	0.13738	ug/L
Tl (190.807 nm)	18.03221	7.87723	-1.73760 u	ug/L
U (409.013 nm)	-0.25730 u	-4.52519 u	-1.81788 u	ug/L
V (292.401 nm)	0.10780	0.27978	0.11426	ug/L
W (207.912 nm)	2.66718	-2.16364 u	2.68183	ug/L
Y (371.029 nm)	0.09202	-0.01160 u	-0.02238 u	ug/L
Zn (206.200 nm)	-1.18658 u	0.48928	1.55491	ug/L
Zr (343.823 nm)	0.60761	0.59460	0.59785	ug/L
Sc-A (361.383 nm)	1.02	1.03	1.03	Ratio
Sc-R (503.102 nm)	1.01	1.02	1.02	Ratio

Sample Name: 790489 LCS

Date: 7/14/2022 11:59:19 Rack:Tube: 1:49

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Calculated Concentration
Ag (328.068 nm)	3575.10897	ug/L	64.34245	1.80	185595.04600	3575.10897 (ug/L)
Al (236.705 nm)	3550.18541	ug/L	70.37859	1.98	2221.98468	3550.18541 (ug/L)
As (188.980 nm)	3682.71215	ug/L	62.49530	1.70	1831.41705	3682.71215 (ug/L)
B (249.772 nm)	1.18821	ug/L	0.35926	30.24	108.37848	1.18821 (ug/L)
Ba (230.424 nm)	3906.34486	ug/L	86.92189	2.23	71053.55568	3906.34486 (ug/L)
Be (313.107 nm)	394.69736	ug/L	7.18707	1.82	290506.46052	394.69736 (ug/L)
Bi (223.061 nm)	6.05632	ug/L	4.26856	70.48	-56.34519	6.05632 (ug/L)
Ca (317.933 nm)	3977.88537	ug/L	73.99804	1.86	68403.13478	3977.88537 (ug/L)
Cd (214.439 nm)	391.84533	ug/L	14.39062	3.67	4080.63381	391.84533 (ug/L)
Co (228.615 nm)	398.75685	ug/L	6.86084	1.72	2366.46107	398.75685 (ug/L)
Cr (205.560 nm)	3940.71179	ug/L	93.51950	2.37	22625.83972	3940.71179 (ug/L)
Cu (224.700 nm)	402.29788	ug/L	10.21082	2.54	399.42171	402.29788 (ug/L)
Fe (261.382 nm)	3974.16561	ug/L	74.45545	1.87	10591.41443	3974.16561 (ug/L)
K (766.491 nm)	3484.97862	ug/L	70.90255	2.03	6941.31107	3484.97862 (ug/L)
Li (610.365 nm)	3562.32781	ug/L	72.36770	2.03	35938.82345	3562.32781 (ug/L)
Mg (279.078 nm)	3701.92640	ug/L	61.58018	1.66	5824.86291	3701.92640 (ug/L)
Mn (260.568 nm)	3988.91610	ug/L	78.29721	1.96	69645.89452	3988.91610 (ug/L)
Mo (202.032 nm)	409.44387	ug/L	7.94091	1.94	1922.61350	409.44387 (ug/L)
Na (588.995 nm)	3794.68257	ug/L	64.69228	1.70	113910.10439	3794.68257 (ug/L)
Ni (231.604 nm)	407.82957	ug/L	7.78920	1.91	954.28139	407.82957 (ug/L)
P (178.222 nm)	3807.50169	ug/L	83.96243	2.21	368.66144	3807.50169 (ug/L)
Pb (220.353 nm)	3955.50298	ug/L	48.09069	1.22	4654.86110	3955.50298 (ug/L)
Pt (203.646 nm)	3.70134	ug/L	3.83354	> 100.00	24.83710	3.70134 (ug/L)
Sb (206.834 nm)	3713.60420	ug/L	79.89561	2.15	3350.78177	3713.60420 (ug/L)
Se (196.026 nm)	3748.52681 A3	ug/L	66.60729	1.78	2228.41443 A3	3748.52681 A3 (ug/L)
Si (251.611 nm)	25.29488	ug/L	5.55260	21.95	65.27563	25.29488 (ug/L)
Sn (189.925 nm)	2.38210	ug/L	2.16961	91.08	-3.26174	2.38210 (ug/L)
Sr (421.552 nm)	0.64641	ug/L	0.02130	3.29	1339.34868	0.64641 (ug/L)
Te (214.282 nm)	3736.18667	ug/L	67.64227	1.81	1954.73986	3736.18667 (ug/L)
Ti (334.941 nm)	386.74308	ug/L	7.70038	1.99	77961.02198	386.74308 (ug/L)
Tl (190.807 nm)	3944.43359	ug/L	75.35158	1.91	2076.23713	3944.43359 (ug/L)
U (409.013 nm)	3827.60814	ug/L	86.81427	2.27	20712.75106	3827.60814 (ug/L)
V (292.401 nm)	3838.63560	ug/L	75.98668	1.98	98698.12216	3838.63560 (ug/L)
W (207.912 nm)	1.62951	ug/L	2.98797	> 100.00	46.75046	1.62951 (ug/L)
Y (371.029 nm)	382.33692	ug/L	7.62394	1.99	63259.37298	382.33692 (ug/L)
Zn (206.200 nm)	3944.30273	ug/L	90.39249	2.29	6986.22559	3944.30273 (ug/L)
Zr (343.823 nm)	3769.95410	ug/L	75.97169	2.02	239628.40520	3769.95410 (ug/L)

Label	Internal Standard
Ag (328.068 nm)	Sc-A
Al (236.705 nm)	Sc-A
As (188.980 nm)	Sc-A
B (249.772 nm)	Sc-A
Ba (230.424 nm)	Sc-A
Be (313.107 nm)	Sc-A
Bi (223.061 nm)	Sc-A
Ca (317.933 nm)	Sc-A

Label	Internal Standard
Cd (214.439 nm)	Sc-A
Co (228.615 nm)	Sc-A
Cr (205.560 nm)	Sc-A
Cu (224.700 nm)	Sc-A
Fe (261.382 nm)	Sc-A
K (766.491 nm)	Sc-R
Li (610.365 nm)	Sc-R
Mg (279.078 nm)	Sc-A
Mn (260.568 nm)	Sc-A
Mo (202.032 nm)	Sc-A
Na (588.995 nm)	Sc-R
Ni (231.604 nm)	Sc-A
P (178.222 nm)	Sc-A
Pb (220.353 nm)	Sc-A
Pt (203.646 nm)	Sc-A
Sb (206.834 nm)	Sc-A
Se (196.026 nm)	Sc-A
Si (251.611 nm)	Sc-A
Sn (189.925 nm)	Sc-A
Sr (421.552 nm)	Sc-A
Te (214.282 nm)	Sc-A
Ti (334.941 nm)	Sc-A
Tl (190.807 nm)	Sc-A
U (409.013 nm)	Sc-A
V (292.401 nm)	Sc-A
W (207.912 nm)	Sc-A
Y (371.029 nm)	Sc-A
Zn (206.200 nm)	Sc-A
Zr (343.823 nm)	Sc-A

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Sc-A	1.02	418663.36	0.01	0.56
Sc-R	1.01	47401.99	0.01	0.51

Replicates Concentration

Label	Replicate 1	Replicate 2	Replicate 3	Units
Ag (328.068 nm)	3505.21755 o	3588.22939 o	3631.87997 o	ug/L
Al (236.705 nm)	3478.98176	3551.86562	3619.70886	ug/L
As (188.980 nm)	3621.47816	3680.26159	3746.39668	ug/L
B (249.772 nm)	0.94280	1.60057	1.02126	ug/L
Ba (230.424 nm)	3817.10567	3911.18143	3990.74748	ug/L
Be (313.107 nm)	387.04994	395.72972	401.31243	ug/L
Bi (223.061 nm)	8.03678	1.15727	8.97493	ug/L
Ca (317.933 nm)	3900.55214	3985.08154	4048.02242	ug/L
Cd (214.439 nm)	377.90338	390.98647	406.64615	ug/L
Co (228.615 nm)	391.65928	399.25777	405.35349	ug/L

Label	Replicate 1	Replicate 2	Replicate 3	Units
Cr (205.560 nm)	3848.66672	3937.82957	4035.63908	ug/L
Cu (224.700 nm)	393.29407	400.20740	413.39216	ug/L
Fe (261.382 nm)	3895.72140	3982.91651	4043.85892	ug/L
K (766.491 nm)	3412.52135	3488.19772	3554.21679	ug/L
Li (610.365 nm)	3484.77479	3574.15566	3628.05298	ug/L
Mg (279.078 nm)	3642.55515	3697.72382	3765.50022	ug/L
Mn (260.568 nm)	3908.88063	3992.51687	4065.35080	ug/L
Mo (202.032 nm)	400.59714	411.77928	415.95519	ug/L
Na (588.995 nm)	3723.71149	3809.98345	3850.35277	ug/L
Ni (231.604 nm)	399.90458	408.10864	415.47548	ug/L
P (178.222 nm)	3736.66541	3900.24657	3785.59308	ug/L
Pb (220.353 nm)	3903.22215	3965.43379	3997.85299	ug/L
Pt (203.646 nm)	3.84724	7.45985	-0.20306 u	ug/L
Sb (206.834 nm)	3622.80441	3744.86696	3773.14122	ug/L
Se (196.026 nm)	3679.59814	3753.44185	3812.54044	ug/L
Si (251.611 nm)	19.32305	26.25981	30.30177	ug/L
Sn (189.925 nm)	2.97176	4.19592	-0.02139 u	ug/L
Sr (421.552 nm)	0.62293	0.65182	0.66448	ug/L
Te (214.282 nm)	3666.63873	3740.17443	3801.74684	ug/L
Ti (334.941 nm)	378.68156	387.52503	394.02265	ug/L
Tl (190.807 nm)	3865.77085	3951.56261	4015.96731	ug/L
U (409.013 nm)	3736.90760	3835.98845	3909.92835	ug/L
V (292.401 nm)	3759.86339	3844.55264	3911.49078	ug/L
W (207.912 nm)	-1.54716 u	2.05188	4.38382	ug/L
Y (371.029 nm)	374.39036	383.02939	389.59099	ug/L
Zn (206.200 nm)	3855.62579	3940.96412	4036.31827	ug/L
Zr (343.823 nm)	3690.73116	3776.93900	3842.19214	ug/L
Sc-A (361.383 nm)	1.01	1.02	1.02	Ratio
Sc-R (503.102 nm)	1.00	1.01	1.01	Ratio

Sample Name: 790490 LCSD

Date: 7/14/2022 12:01:00 Rack:Tube: 1:50

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Calculated Concentration
Ag (328.068 nm)	3600.13069	ug/L	36.95016	1.03	186902.59991	3600.13069 (ug/L)
Al (236.705 nm)	3582.47089	ug/L	24.21922	0.68	2241.64908	3582.47089 (ug/L)
As (188.980 nm)	3728.90151	ug/L	38.34963	1.03	1854.48584	3728.90151 (ug/L)
B (249.772 nm)	0.53696	ug/L	0.29113	54.22	98.62338	0.53696 (ug/L)
Ba (230.424 nm)	3965.36695	ug/L	39.42262	0.99	72127.29412	3965.36695 (ug/L)
Be (313.107 nm)	399.64483	ug/L	5.19314	1.30	294147.44494	399.64483 (ug/L)
Bi (223.061 nm)	5.43435	ug/L	2.38734	43.93	-57.77403	5.43435 (ug/L)
Ca (317.933 nm)	4030.50630	ug/L	50.40468	1.25	69308.96080	4030.50630 (ug/L)
Cd (214.439 nm)	400.47677	ug/L	3.53049	0.88	4170.76944	400.47677 (ug/L)
Co (228.615 nm)	403.82022	ug/L	4.36327	1.08	2396.62075	403.82022 (ug/L)
Cr (205.560 nm)	3989.68977	ug/L	57.05831	1.43	22907.10577	3989.68977 (ug/L)
Cu (224.700 nm)	403.50454	ug/L	7.39357	1.83	400.75654	403.50454 (ug/L)
Fe (261.382 nm)	4030.23091	ug/L	48.80476	1.21	10740.41300	4030.23091 (ug/L)

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Calculated Concentration
K (766.491 nm)	3562.24172	ug/L	41.56958	1.17	7098.81059	3562.24172 (ug/L)
Li (610.365 nm)	3606.14914	ug/L	34.85773	0.97	36438.29163	3606.14914 (ug/L)
Mg (279.078 nm)	3744.97890	ug/L	47.58252	1.27	5891.96705	3744.97890 (ug/L)
Mn (260.568 nm)	4043.30037	ug/L	51.34595	1.27	70595.41772	4043.30037 (ug/L)
Mo (202.032 nm)	417.65492	ug/L	5.12159	1.23	1961.20048	417.65492 (ug/L)
Na (588.995 nm)	3836.73336	ug/L	37.83324	0.99	114904.78748	3836.73336 (ug/L)
Ni (231.604 nm)	411.76923	ug/L	5.88077	1.43	963.54242	411.76923 (ug/L)
P (178.222 nm)	3836.16463	ug/L	46.27363	1.21	371.41774	3836.16463 (ug/L)
Pb (220.353 nm)	4006.58126	ug/L	53.29212	1.33	4714.95543	4006.58126 (ug/L)
Pt (203.646 nm)	5.70115	ug/L	6.64608	> 100.00	26.72069	5.70115 (ug/L)
Sb (206.834 nm)	3729.47994	ug/L	49.32090	1.32	3365.31186	3729.47994 (ug/L)
Se (196.026 nm)	3786.00200 A3	ug/L	49.32378	1.30	2250.64432 A3	3786.00200 A3 (ug/L)
Si (251.611 nm)	56.18071	ug/L	6.93684	12.35	109.06576	56.18071 (ug/L)
Sn (189.925 nm)	-0.76141	ug/L	2.14287	> 100.00	-5.61177	-0.76141 (ug/L)
Sr (421.552 nm)	0.65530	ug/L	0.00563	0.86	1357.51774	0.65530 (ug/L)
Te (214.282 nm)	3787.56188	ug/L	57.09838	1.51	1981.70546	3787.56188 (ug/L)
Ti (334.941 nm)	392.31970	ug/L	5.04295	1.29	79086.45186	392.31970 (ug/L)
Tl (190.807 nm)	3983.83777	ug/L	37.65117	0.95	2097.01272	3983.83777 (ug/L)
U (409.013 nm)	3894.58010	ug/L	55.42192	1.42	21071.79696	3894.58010 (ug/L)
V (292.401 nm)	3894.07505	ug/L	50.22469	1.29	100123.75552	3894.07505 (ug/L)
W (207.912 nm)	1.50359	ug/L	2.76061	> 100.00	47.32949	1.50359 (ug/L)
Y (371.029 nm)	387.86742	ug/L	4.97738	1.28	64174.43950	387.86742 (ug/L)
Zn (206.200 nm)	4020.77742	ug/L	62.20689	1.55	7121.62697	4020.77742 (ug/L)
Zr (343.823 nm)	3832.94147	ug/L	47.36113	1.24	243630.42431	3832.94147 (ug/L)

Label	Internal Standard
Ag (328.068 nm)	Sc-A
Al (236.705 nm)	Sc-A
As (188.980 nm)	Sc-A
B (249.772 nm)	Sc-A
Ba (230.424 nm)	Sc-A
Be (313.107 nm)	Sc-A
Bi (223.061 nm)	Sc-A
Ca (317.933 nm)	Sc-A
Cd (214.439 nm)	Sc-A
Co (228.615 nm)	Sc-A
Cr (205.560 nm)	Sc-A
Cu (224.700 nm)	Sc-A
Fe (261.382 nm)	Sc-A
K (766.491 nm)	Sc-R
Li (610.365 nm)	Sc-R
Mg (279.078 nm)	Sc-A
Mn (260.568 nm)	Sc-A
Mo (202.032 nm)	Sc-A
Na (588.995 nm)	Sc-R
Ni (231.604 nm)	Sc-A
P (178.222 nm)	Sc-A
Pb (220.353 nm)	Sc-A

Label	Internal Standard
Pt (203.646 nm)	Sc-A
Sb (206.834 nm)	Sc-A
Se (196.026 nm)	Sc-A
Si (251.611 nm)	Sc-A
Sn (189.925 nm)	Sc-A
Sr (421.552 nm)	Sc-A
Te (214.282 nm)	Sc-A
Ti (334.941 nm)	Sc-A
Tl (190.807 nm)	Sc-A
U (409.013 nm)	Sc-A
V (292.401 nm)	Sc-A
W (207.912 nm)	Sc-A
Y (371.029 nm)	Sc-A
Zn (206.200 nm)	Sc-A
Zr (343.823 nm)	Sc-A

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Sc-A	1.02	419827.97	0.00	0.17
Sc-R	1.01	47533.21	0.00	0.31

Replicates Concentration

Label	Replicate 1	Replicate 2	Replicate 3	Units
Ag (328.068 nm)	3559.36892 o	3609.59493 o	3631.42821 o	ug/L
Al (236.705 nm)	3564.18044	3573.29495	3609.93728	ug/L
As (188.980 nm)	3685.52003	3742.89616	3758.28833	ug/L
B (249.772 nm)	0.20081	0.70740	0.70267	ug/L
Ba (230.424 nm)	3950.04183	3935.90812	4010.15092	ug/L
Be (313.107 nm)	394.02933	400.63095	404.27422	ug/L
Bi (223.061 nm)	8.06927	4.81853	3.41525	ug/L
Ca (317.933 nm)	3976.81347	4037.89914	4076.80629	ug/L
Cd (214.439 nm)	396.46115	403.09322	401.87593	ug/L
Co (228.615 nm)	399.90580	403.03042	408.52444	ug/L
Cr (205.560 nm)	3927.32445	4002.47202	4039.27285	ug/L
Cu (224.700 nm)	397.17788	401.70352	411.63223	ug/L
Fe (261.382 nm)	3979.10522	4035.26260	4076.32490	ug/L
K (766.491 nm)	3515.88774	3574.62468	3596.21275	ug/L
Li (610.365 nm)	3570.92782	3606.88805	3640.63154	ug/L
Mg (279.078 nm)	3698.39628	3743.03846	3793.50196	ug/L
Mn (260.568 nm)	3986.57520	4056.72651	4086.59941	ug/L
Mo (202.032 nm)	412.51330	417.69522	422.75625	ug/L
Na (588.995 nm)	3794.53746	3848.03420	3867.62843	ug/L
Ni (231.604 nm)	404.98734	414.86361	415.45673	ug/L
P (178.222 nm)	3800.15052	3819.98855	3888.35482	ug/L
Pb (220.353 nm)	3945.59500	4029.96400	4044.18476	ug/L
Pt (203.646 nm)	10.42802	-1.89801 u	8.57345	ug/L
Sb (206.834 nm)	3680.73269	3728.35200	3779.35513	ug/L

Label	Replicate 1	Replicate 2	Replicate 3	Units
Se (196.026 nm)	3735.57487	3788.28821	3834.14293	ug/L
Si (251.611 nm)	49.36991	55.93516	63.23707	ug/L
Sn (189.925 nm)	1.63652	-1.43184 u	-2.48891 u	ug/L
Sr (421.552 nm)	0.65030	0.65421	0.66140	ug/L
Te (214.282 nm)	3735.53302	3778.50532	3848.64729	ug/L
Ti (334.941 nm)	386.97714	392.98498	396.99699	ug/L
Tl (190.807 nm)	3948.56676	3979.46015	4023.48640	ug/L
U (409.013 nm)	3837.92302	3897.13909	3948.67821	ug/L
V (292.401 nm)	3840.03268	3902.87300	3939.31947	ug/L
W (207.912 nm)	4.65053	0.37005	-0.50981 u	ug/L
Y (371.029 nm)	382.70419	388.26268	392.63538	ug/L
Zn (206.200 nm)	3949.06716	4053.03733	4060.22777	ug/L
Zr (343.823 nm)	3783.66639	3837.03513	3878.12289	ug/L
Sc-A (361.383 nm)	1.02	1.02	1.02	Ratio
Sc-R (503.102 nm)	1.01	1.01	1.02	Ratio

Sample Name: 790491 RLVS

Date: 7/14/2022 12:02:40 Rack:Tube: 1:51

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Calculated Concentration
Ag (328.068 nm)	9.28089	ug/L	0.15671	1.69	398.38202	9.28089 (ug/L)
Al (236.705 nm)	175.70715	ug/L	1.38249	0.79	169.84483	175.70715 (ug/L)
As (188.980 nm)	91.92233	ug/L	4.59777	5.00	38.04013	91.92233 (ug/L)
B (249.772 nm)	90.30197	ug/L	0.76146	0.84	1478.41927	90.30197 (ug/L)
Ba (230.424 nm)	10.62517	ug/L	0.15842	1.49	189.27356	10.62517 (ug/L)
Be (313.107 nm)	0.51377	ug/L	0.01481	2.88	372.34457	0.51377 (ug/L)
Bi (223.061 nm)	91.45724	ug/L	1.73730	1.90	100.42622	91.45724 (ug/L)
Ca (317.933 nm)	657.32053	ug/L	4.10160	0.62	11208.82333	657.32053 (ug/L)
Cd (214.439 nm)	3.15187	ug/L	0.35635	11.31	31.39499	3.15187 (ug/L)
Co (228.615 nm)	3.99853	ug/L	0.45390	11.35	14.13799	3.99853 (ug/L)
Cr (205.560 nm)	55.27784	ug/L	0.38584	0.70	314.10116	55.27784 (ug/L)
Cu (224.700 nm)	22.36729	ug/L	2.23204	9.98	11.63716	22.36729 (ug/L)
Fe (261.382 nm)	206.65577	ug/L	0.85416	0.41	600.26698	206.65577 (ug/L)
K (766.491 nm)	430.27603	ug/L	4.23611	0.98	727.32053	430.27603 (ug/L)
Li (610.365 nm)	105.54913	ug/L	3.75554	3.56	-3474.48445	105.54913 (ug/L)
Mg (279.078 nm)	55.40672	ug/L	2.05827	3.71	114.15614	55.40672 (ug/L)
Mn (260.568 nm)	5.75072	ug/L	0.10422	1.81	101.53808	5.75072 (ug/L)
Mo (202.032 nm)	15.11037	ug/L	0.59413	3.93	69.47680	15.11037 (ug/L)
Na (588.995 nm)	300.24723	ug/L	4.28295	1.43	31251.59706	300.24723 (ug/L)
Ni (231.604 nm)	3.92806	ug/L	0.46720	11.89	5.37109	3.92806 (ug/L)
P (178.222 nm)	192.69597	ug/L	18.31643	9.51	21.05194	192.69597 (ug/L)
Pb (220.353 nm)	20.23365	ug/L	3.94594	19.50	25.96510	20.23365 (ug/L)
Pt (203.646 nm)	140.29581	ug/L	3.53324	2.52	113.24008	140.29581 (ug/L)
Sb (206.834 nm)	60.56497	ug/L	4.83856	7.99	45.54120	60.56497 (ug/L)
Se (196.026 nm)	100.12488	ug/L	5.14135	5.13	62.35261	100.12488 (ug/L)
Si (251.611 nm)	463.94227	ug/L	4.47088	0.96	674.98288	463.94227 (ug/L)
Sn (189.925 nm)	97.26491	ug/L	1.23709	1.27	67.67114	97.26491 (ug/L)

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Calculated Concentration
Sr (421.552 nm)	15.17081	ug/L	0.13417	0.88	31011.66893	15.17081 (ug/L)
Te (214.282 nm)	44.27332	ug/L	3.68852	8.33	17.73967	44.27332 (ug/L)
Ti (334.941 nm)	3.05797	ug/L	0.10112	3.31	557.37204	3.05797 (ug/L)
Tl (190.807 nm)	51.72187	ug/L	2.98622	5.77	24.91634	51.72187 (ug/L)
U (409.013 nm)	90.84701	ug/L	3.29724	3.63	665.96955	90.84701 (ug/L)
V (292.401 nm)	2.85955	ug/L	0.30082	10.52	47.93975	2.85955 (ug/L)
W (207.912 nm)	-0.75754	ug/L	2.02449	> 100.00	5.41392	-0.75754 (ug/L)
Y (371.029 nm)	2.87513	ug/L	0.05167	1.80	476.30365	2.87513 (ug/L)
Zn (206.200 nm)	22.77352	ug/L	1.63474	7.18	38.97874	22.77352 (ug/L)
Zr (343.823 nm)	26.35995	ug/L	0.80542	3.06	1766.49005	26.35995 (ug/L)

Label	Internal Standard
Ag (328.068 nm)	Sc-A
Al (236.705 nm)	Sc-A
As (188.980 nm)	Sc-A
B (249.772 nm)	Sc-A
Ba (230.424 nm)	Sc-A
Be (313.107 nm)	Sc-A
Bi (223.061 nm)	Sc-A
Ca (317.933 nm)	Sc-A
Cd (214.439 nm)	Sc-A
Co (228.615 nm)	Sc-A
Cr (205.560 nm)	Sc-A
Cu (224.700 nm)	Sc-A
Fe (261.382 nm)	Sc-A
K (766.491 nm)	Sc-R
Li (610.365 nm)	Sc-R
Mg (279.078 nm)	Sc-A
Mn (260.568 nm)	Sc-A
Mo (202.032 nm)	Sc-A
Na (588.995 nm)	Sc-R
Ni (231.604 nm)	Sc-A
P (178.222 nm)	Sc-A
Pb (220.353 nm)	Sc-A
Pt (203.646 nm)	Sc-A
Sb (206.834 nm)	Sc-A
Se (196.026 nm)	Sc-A
Si (251.611 nm)	Sc-A
Sn (189.925 nm)	Sc-A
Sr (421.552 nm)	Sc-A
Te (214.282 nm)	Sc-A
Ti (334.941 nm)	Sc-A
Tl (190.807 nm)	Sc-A
U (409.013 nm)	Sc-A
V (292.401 nm)	Sc-A
W (207.912 nm)	Sc-A
Y (371.029 nm)	Sc-A
Zn (206.200 nm)	Sc-A

Label	Internal Standard
Zr (343.823 nm)	Sc-A

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Sc-A	1.03	422712.08	0.00	0.47
Sc-R	1.02	47728.30	0.00	0.38

Replicates Concentration

Label	Replicate 1	Replicate 2	Replicate 3	Units
Ag (328.068 nm)	9.37119	9.37155	9.09994	ug/L
Al (236.705 nm)	177.30350	174.91406	174.90389	ug/L
As (188.980 nm)	97.13536	90.18629	88.44535	ug/L
B (249.772 nm)	89.64525	91.13664	90.12400	ug/L
Ba (230.424 nm)	10.72944	10.70320	10.44288	ug/L
Be (313.107 nm)	0.50472	0.50574	0.53086	ug/L
Bi (223.061 nm)	90.93532	93.39568	90.04073	ug/L
Ca (317.933 nm)	652.76559	658.47439	660.72161	ug/L
Cd (214.439 nm)	3.42446	2.74864	3.28251	ug/L
Co (228.615 nm)	3.48308	4.17402	4.33848	ug/L
Cr (205.560 nm)	54.91124	55.24188	55.68041	ug/L
Cu (224.700 nm)	22.79062	24.35736	19.95390	ug/L
Fe (261.382 nm)	205.67502	207.23670	207.05558	ug/L
K (766.491 nm)	428.22344	427.45723	435.14742	ug/L
Li (610.365 nm)	102.25861	104.74826	109.64051	ug/L
Mg (279.078 nm)	55.77906	53.18770	57.25341	ug/L
Mn (260.568 nm)	5.74689	5.85680	5.64847	ug/L
Mo (202.032 nm)	14.53735	15.72358	15.07017	ug/L
Na (588.995 nm)	305.06952	296.88594	298.78624	ug/L
Ni (231.604 nm)	4.10622	3.39799	4.27996	ug/L
P (178.222 nm)	213.83720	182.65211	181.59859	ug/L
Pb (220.353 nm)	23.94490	20.66724	16.08882	ug/L
Pt (203.646 nm)	143.74940	136.68797	140.45006	ug/L
Sb (206.834 nm)	64.17469	55.06699	62.45322	ug/L
Se (196.026 nm)	94.18999	103.21960	102.96507	ug/L
Si (251.611 nm)	459.24625	464.43306	468.14751	ug/L
Sn (189.925 nm)	95.86075	98.19425	97.73972	ug/L
Sr (421.552 nm)	15.02199	15.20793	15.28251	ug/L
Te (214.282 nm)	43.98882	40.73529	48.09585	ug/L
Ti (334.941 nm)	2.94993	3.07363	3.15035	ug/L
Tl (190.807 nm)	49.87365	55.16700	50.12497	ug/L
U (409.013 nm)	89.69094	88.28348	94.56661	ug/L
V (292.401 nm)	3.02138	2.51246	3.04482	ug/L
W (207.912 nm)	0.43627	-3.09504 u	0.38614	ug/L
Y (371.029 nm)	2.91782	2.81769	2.88989	ug/L
Zn (206.200 nm)	21.29648	22.49413	24.52995	ug/L
Zr (343.823 nm)	27.20516	26.27338	25.60131	ug/L
Sc-A (361.383 nm)	1.02	1.03	1.03	Ratio

Label	Replicate 1	Replicate 2	Replicate 3	Units
Sc-R (503.102 nm)	1.01	1.02	1.02	Ratio

Sample Name: 2218994001

Date: 7/14/2022 12:04:21 Rack:Tube: 1:52

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Calculated Concentration
Ag (328.068 nm)	0.11192	ug/L	0.16809	> 100.00	-82.08587	0.11192 (ug/L)
Al (236.705 nm)	82.84970	ug/L	4.98623	6.02	112.71456	82.84970 (ug/L)
As (188.980 nm)	6.39494	ug/L	6.94766	> 100.00	-4.66476	6.39494 (ug/L)
B (249.772 nm)	-0.56550	ug/L	0.45796	80.98	84.42836	-0.56550 (ug/L)
Ba (230.424 nm)	8.69912	ug/L	0.29617	3.40	153.32881	8.69912 (ug/L)
Be (313.107 nm)	0.02128	ug/L	0.01836	86.26	16.41831	0.02128 (ug/L)
Bi (223.061 nm)	-1.48628	ug/L	2.04950	> 100.00	-40.26846	-1.48628 (ug/L)
Ca (317.933 nm)	152.73106	ug/L	3.07333	2.01	2577.20751	152.73106 (ug/L)
Cd (214.439 nm)	-0.11519	ug/L	0.30518	> 100.00	-7.33871	-0.11519 (ug/L)
Co (228.615 nm)	1.46981	ug/L	0.50401	34.29	-0.76469	1.46981 (ug/L)
Cr (205.560 nm)	17.99707	ug/L	0.62794	3.49	98.89033	17.99707 (ug/L)
Cu (224.700 nm)	68.24690	ug/L	3.43003	5.03	58.61978	68.24690 (ug/L)
Fe (261.382 nm)	4342.60780	ug/L	75.87968	1.75	11674.57480	4342.60780 (ug/L)
K (766.491 nm)	69.99459	ug/L	15.81311	22.59	-9.38153	69.99459 (ug/L)
Li (610.365 nm)	14.83933	ug/L	1.97258	13.29	-4501.39902	14.83933 (ug/L)
Mg (279.078 nm)	25.52897	ug/L	5.33842	20.91	67.14500	25.52897 (ug/L)
Mn (260.568 nm)	327.72122	ug/L	6.24233	1.90	5723.83796	327.72122 (ug/L)
Mo (202.032 nm)	0.19209	ug/L	0.25910	> 100.00	-0.96090	0.19209 (ug/L)
Na (588.995 nm)	-20.98063	ug/L	3.54519	16.90	23653.16892	-20.98063 (ug/L)
Ni (231.604 nm)	6.76462	ug/L	1.29721	19.18	12.02314	6.76462 (ug/L)
P (178.222 nm)	395.29760	ug/L	21.42884	5.42	40.53466	395.29760 (ug/L)
Pb (220.353 nm)	2.13838	ug/L	4.60354	> 100.00	4.68648	2.13838 (ug/L)
Pt (203.646 nm)	1.29328	ug/L	5.08239	> 100.00	30.48089	1.29328 (ug/L)
Sb (206.834 nm)	0.90732	ug/L	4.16415	> 100.00	-7.96355	0.90732 (ug/L)
Se (196.026 nm)	2.32768	ug/L	6.65792	> 100.00	3.74974	2.32768 (ug/L)
Si (251.611 nm)	424.63776	ug/L	8.53793	2.01	618.67514	424.63776 (ug/L)
Sn (189.925 nm)	5.40416	ug/L	0.62122	11.50	-1.00250	5.40416 (ug/L)
Sr (421.552 nm)	0.92271	ug/L	0.02658	2.88	1903.81536	0.92271 (ug/L)
Te (214.282 nm)	4.26783	ug/L	7.30632	> 100.00	-2.87469	4.26783 (ug/L)
Ti (334.941 nm)	22.74305	ug/L	0.37580	1.65	4507.81059	22.74305 (ug/L)
Tl (190.807 nm)	11.22938	ug/L	4.13554	36.83	3.91617	11.22938 (ug/L)
U (409.013 nm)	15.35329	ug/L	0.66573	4.34	267.18153	15.35329 (ug/L)
V (292.401 nm)	0.33388	ug/L	0.45256	> 100.00	-21.30385	0.33388 (ug/L)
W (207.912 nm)	3.28549	ug/L	1.52950	46.55	42.18822	3.28549 (ug/L)
Y (371.029 nm)	0.02122	ug/L	0.01432	67.49	3.65362	0.02122 (ug/L)
Zn (206.200 nm)	3265.91321	ug/L	67.37005	2.06	5774.86989	3265.91321 (ug/L)
Zr (343.823 nm)	1.96244	ug/L	0.06722	3.43	223.79001	1.96244 (ug/L)

Label	Internal Standard
Ag (328.068 nm)	Sc-A
Al (236.705 nm)	Sc-A

Label	Internal Standard
As (188.980 nm)	Sc-A
B (249.772 nm)	Sc-A
Ba (230.424 nm)	Sc-A
Be (313.107 nm)	Sc-A
Bi (223.061 nm)	Sc-A
Ca (317.933 nm)	Sc-A
Cd (214.439 nm)	Sc-A
Co (228.615 nm)	Sc-A
Cr (205.560 nm)	Sc-A
Cu (224.700 nm)	Sc-A
Fe (261.382 nm)	Sc-A
K (766.491 nm)	Sc-R
Li (610.365 nm)	Sc-R
Mg (279.078 nm)	Sc-A
Mn (260.568 nm)	Sc-A
Mo (202.032 nm)	Sc-A
Na (588.995 nm)	Sc-R
Ni (231.604 nm)	Sc-A
P (178.222 nm)	Sc-A
Pb (220.353 nm)	Sc-A
Pt (203.646 nm)	Sc-A
Sb (206.834 nm)	Sc-A
Se (196.026 nm)	Sc-A
Si (251.611 nm)	Sc-A
Sn (189.925 nm)	Sc-A
Sr (421.552 nm)	Sc-A
Te (214.282 nm)	Sc-A
Ti (334.941 nm)	Sc-A
Tl (190.807 nm)	Sc-A
U (409.013 nm)	Sc-A
V (292.401 nm)	Sc-A
W (207.912 nm)	Sc-A
Y (371.029 nm)	Sc-A
Zn (206.200 nm)	Sc-A
Zr (343.823 nm)	Sc-A

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Sc-A	1.03	423079.32	0.00	0.16
Sc-R	1.02	47747.83	0.00	0.11

Replicates Concentration

Label	Replicate 1	Replicate 2	Replicate 3	Units
Ag (328.068 nm)	-0.08215 u	0.20647	0.21145	ug/L
Al (236.705 nm)	81.88500	88.24780	78.41631	ug/L
As (188.980 nm)	5.29249	13.82792	0.06442	ug/L
B (249.772 nm)	-0.07354 u	-0.97945 u	-0.64351 u	ug/L

Label	Replicate 1	Replicate 2	Replicate 3	Units
Ba (230.424 nm)	8.39416	8.98565	8.71756	ug/L
Be (313.107 nm)	0.02350	0.00192	0.03843	ug/L
Bi (223.061 nm)	-1.91832 u	-3.28532 u	0.74480	ug/L
Ca (317.933 nm)	149.75837	152.53880	155.89601	ug/L
Cd (214.439 nm)	-0.11197 u	-0.42197 u	0.18837	ug/L
Co (228.615 nm)	0.94566	1.95092	1.51283	ug/L
Cr (205.560 nm)	17.34146	18.59310	18.05665	ug/L
Cu (224.700 nm)	66.96658	65.64119	72.13293	ug/L
Fe (261.382 nm)	4265.35299	4345.43719	4417.03321	ug/L
K (766.491 nm)	82.83793	74.81307	52.33277	ug/L
Li (610.365 nm)	17.11291	13.58339	13.82169	ug/L
Mg (279.078 nm)	20.17466	30.85136	25.56090	ug/L
Mn (260.568 nm)	321.14059	328.46433	333.55874	ug/L
Mo (202.032 nm)	0.47119	0.14586	-0.04078 u	ug/L
Na (588.995 nm)	-17.19895 u	-24.22887 u	-21.51408 u	ug/L
Ni (231.604 nm)	6.96907	5.37732	7.94746	ug/L
P (178.222 nm)	370.82828	404.34875	410.71577	ug/L
Pb (220.353 nm)	7.20326	1.00338	-1.79150 u	ug/L
Pt (203.646 nm)	2.76153	-4.36161 u	5.47991	ug/L
Sb (206.834 nm)	1.17380	-3.38366 u	4.93183	ug/L
Se (196.026 nm)	9.27024	-4.00341 u	1.71622	ug/L
Si (251.611 nm)	415.37708	426.33959	432.19661	ug/L
Sn (189.925 nm)	5.91402	5.58618	4.71226	ug/L
Sr (421.552 nm)	0.89570	0.92360	0.94884	ug/L
Te (214.282 nm)	-1.72751 u	2.12504	12.40596	ug/L
Ti (334.941 nm)	22.35486	23.10510	22.76920	ug/L
Tl (190.807 nm)	15.47085	11.00870	7.20860	ug/L
U (409.013 nm)	14.64474	15.96577	15.44937	ug/L
V (292.401 nm)	0.31310	-0.10794 u	0.79647	ug/L
W (207.912 nm)	4.48810	3.80432	1.56406	ug/L
Y (371.029 nm)	0.00535	0.03319	0.02511	ug/L
Zn (206.200 nm)	3205.69139	3253.37762	3338.67061	ug/L
Zr (343.823 nm)	1.91721	1.93043	2.03969	ug/L
Sc-A (361.383 nm)	1.03	1.03	1.03	Ratio
Sc-R (503.102 nm)	1.02	1.02	1.02	Ratio

Sample Name: 2218994002

Date: 7/14/2022 12:06:01 Rack:Tube: 1:53

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Calculated Concentration
Ag (328.068 nm)	-0.10145	ug/L	0.20772	> 100.00	-93.84976	-0.10145 (ug/L)
Al (236.705 nm)	-5.98269	ug/L	11.08539	> 100.00	59.39542	-5.98269 (ug/L)
As (188.980 nm)	3.85361	ug/L	2.90941	75.50	-5.92437	3.85361 (ug/L)
B (249.772 nm)	-1.05006	ug/L	0.48418	46.11	37.53498	-1.05006 (ug/L)
Ba (230.424 nm)	0.34524	ug/L	0.22918	66.38	1.50267	0.34524 (ug/L)
Be (313.107 nm)	-0.00145	ug/L	0.01126	> 100.00	0.82332	-0.00145 (ug/L)
Bi (223.061 nm)	-0.50583	ug/L	0.63656	> 100.00	-38.52224	-0.50583 (ug/L)

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Calculated Concentration
Ca (317.933 nm)	34.54290	ug/L	0.92926	2.69	556.17652	34.54290 (ug/L)
Cd (214.439 nm)	0.14065	ug/L	0.27306	> 100.00	-4.77551	0.14065 (ug/L)
Co (228.615 nm)	0.45809	ug/L	0.14126	30.84	-6.79395	0.45809 (ug/L)
Cr (205.560 nm)	15.53296	ug/L	0.57735	3.72	85.96699	15.53296 (ug/L)
Cu (224.700 nm)	3.18818	ug/L	4.20391	> 100.00	-7.69588	3.18818 (ug/L)
Fe (261.382 nm)	7.10493	ug/L	1.96104	27.60	66.24514	7.10493 (ug/L)
K (766.491 nm)	12.58190	ug/L	19.52416	> 100.00	-126.71198	12.58190 (ug/L)
Li (610.365 nm)	16.07406	ug/L	2.13701	13.29	-4485.52700	16.07406 (ug/L)
Mg (279.078 nm)	4.24178	ug/L	3.85196	90.81	34.57499	4.24178 (ug/L)
Mn (260.568 nm)	0.63810	ug/L	0.10536	16.51	12.16767	0.63810 (ug/L)
Mo (202.032 nm)	0.08650	ug/L	0.66956	> 100.00	-1.05668	0.08650 (ug/L)
Na (588.995 nm)	-59.72070	ug/L	1.75953	2.95	22736.79875	-59.72070 (ug/L)
Ni (231.604 nm)	-0.49048	ug/L	0.72593	> 100.00	-5.00982	-0.49048 (ug/L)
P (178.222 nm)	56.00427	ug/L	21.84921	39.01	7.90729	56.00427 (ug/L)
Pb (220.353 nm)	-1.67919	ug/L	1.82417	> 100.00	0.14331	-1.67919 (ug/L)
Pt (203.646 nm)	2.08326	ug/L	3.83495	> 100.00	2.70251	2.08326 (ug/L)
Sb (206.834 nm)	1.09703	ug/L	2.15579	> 100.00	-7.72672	1.09703 (ug/L)
Se (196.026 nm)	3.87309	ug/L	4.09159	> 100.00	5.21758	3.87309 (ug/L)
Si (251.611 nm)	13.10543	ug/L	0.50436	3.85	38.32213	13.10543 (ug/L)
Sn (189.925 nm)	-3.01336	ug/L	1.02482	34.01	-7.29530	-3.01336 (ug/L)
Sr (421.552 nm)	0.18978	ug/L	0.00556	2.93	406.48178	0.18978 (ug/L)
Te (214.282 nm)	-3.75357	ug/L	4.57114	> 100.00	-7.28366	-3.75357 (ug/L)
Ti (334.941 nm)	0.22035	ug/L	0.00681	3.09	-18.12026	0.22035 (ug/L)
Tl (190.807 nm)	10.45407	ug/L	6.47283	61.92	3.11356	10.45407 (ug/L)
U (409.013 nm)	-3.51435	ug/L	2.53908	72.25	162.51060	-3.51435 (ug/L)
V (292.401 nm)	0.32401	ug/L	0.08115	25.05	-13.58279	0.32401 (ug/L)
W (207.912 nm)	0.59143	ug/L	2.09629	> 100.00	6.92040	0.59143 (ug/L)
Y (371.029 nm)	0.01416	ug/L	0.04551	> 100.00	2.79462	0.01416 (ug/L)
Zn (206.200 nm)	0.51360	ug/L	0.62988	> 100.00	-0.50712	0.51360 (ug/L)
Zr (343.823 nm)	0.46824	ug/L	0.16680	35.62	122.57808	0.46824 (ug/L)

Label	Internal Standard
Ag (328.068 nm)	Sc-A
Al (236.705 nm)	Sc-A
As (188.980 nm)	Sc-A
B (249.772 nm)	Sc-A
Ba (230.424 nm)	Sc-A
Be (313.107 nm)	Sc-A
Bi (223.061 nm)	Sc-A
Ca (317.933 nm)	Sc-A
Cd (214.439 nm)	Sc-A
Co (228.615 nm)	Sc-A
Cr (205.560 nm)	Sc-A
Cu (224.700 nm)	Sc-A
Fe (261.382 nm)	Sc-A
K (766.491 nm)	Sc-R
Li (610.365 nm)	Sc-R
Mg (279.078 nm)	Sc-A

Label	Internal Standard
Mn (260.568 nm)	Sc-A
Mo (202.032 nm)	Sc-A
Na (588.995 nm)	Sc-R
Ni (231.604 nm)	Sc-A
P (178.222 nm)	Sc-A
Pb (220.353 nm)	Sc-A
Pt (203.646 nm)	Sc-A
Sb (206.834 nm)	Sc-A
Se (196.026 nm)	Sc-A
Si (251.611 nm)	Sc-A
Sn (189.925 nm)	Sc-A
Sr (421.552 nm)	Sc-A
Te (214.282 nm)	Sc-A
Ti (334.941 nm)	Sc-A
Tl (190.807 nm)	Sc-A
U (409.013 nm)	Sc-A
V (292.401 nm)	Sc-A
W (207.912 nm)	Sc-A
Y (371.029 nm)	Sc-A
Zn (206.200 nm)	Sc-A
Zr (343.823 nm)	Sc-A

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Sc-A	1.03	422001.51	0.00	0.31
Sc-R	1.01	47631.57	0.00	0.42

Replicates Concentration

Label	Replicate 1	Replicate 2	Replicate 3	Units
Ag (328.068 nm)	-0.19883 u	-0.24259 u	0.13707	ug/L
Al (236.705 nm)	6.21046	-15.45288 u	-8.70566 u	ug/L
As (188.980 nm)	1.54560	7.12173	2.89349	ug/L
B (249.772 nm)	-0.49596 u	-1.39163 u	-1.26260 u	ug/L
Ba (230.424 nm)	0.16694	0.26504	0.60374	ug/L
Be (313.107 nm)	-0.01225 u	0.01022	-0.00232 u	ug/L
Bi (223.061 nm)	-1.11823 u	-0.55167 u	0.15241	ug/L
Ca (317.933 nm)	33.47166	35.02516	35.13188	ug/L
Cd (214.439 nm)	0.31147	-0.17427 u	0.28476	ug/L
Co (228.615 nm)	0.51429	0.29738	0.56259	ug/L
Cr (205.560 nm)	14.87852	15.97020	15.75017	ug/L
Cu (224.700 nm)	7.55802	-0.82738 u	2.83388	ug/L
Fe (261.382 nm)	5.69988	9.34533	6.26959	ug/L
K (766.491 nm)	2.53791	0.12444	35.08335	ug/L
Li (610.365 nm)	15.30387	14.42890	18.48940	ug/L
Mg (279.078 nm)	6.34578	-0.20395 u	6.58353	ug/L
Mn (260.568 nm)	0.52033	0.72341	0.67056	ug/L
Mo (202.032 nm)	-0.58198 u	0.75712	0.08437	ug/L

Label	Replicate 1	Replicate 2	Replicate 3	Units
Na (588.995 nm)	-57.71828 u	-61.01971 u	-60.42411 u	ug/L
Ni (231.604 nm)	-0.48120 u	0.23078	-1.22100 u	ug/L
P (178.222 nm)	40.33262	80.96282	46.71738	ug/L
Pb (220.353 nm)	-3.31777 u	-2.00616 u	0.28635	ug/L
Pt (203.646 nm)	-2.12857 u	5.37331	3.00505	ug/L
Sb (206.834 nm)	-0.80336 u	3.43964	0.65483	ug/L
Se (196.026 nm)	6.33279	6.13659	-0.85011 u	ug/L
Si (251.611 nm)	12.53124	13.30816	13.47688	ug/L
Sn (189.925 nm)	-4.10228 u	-2.87007 u	-2.06773 u	ug/L
Sr (421.552 nm)	0.18844	0.18501	0.19588	ug/L
Te (214.282 nm)	1.45688	-5.62827 u	-7.08932 u	ug/L
Ti (334.941 nm)	0.21320	0.22111	0.22675	ug/L
Tl (190.807 nm)	13.86889	14.50441	2.98891	ug/L
U (409.013 nm)	-4.44240 u	-5.45885 u	-0.64181 u	ug/L
V (292.401 nm)	0.27676	0.41771	0.27755	ug/L
W (207.912 nm)	1.75388	-1.82853 u	1.84895	ug/L
Y (371.029 nm)	-0.03530 u	0.02351	0.05426	ug/L
Zn (206.200 nm)	1.16538	0.46724	-0.09182 u	ug/L
Zr (343.823 nm)	0.35157	0.65929	0.39387	ug/L
Sc-A (361.383 nm)	1.02	1.02	1.03	Ratio
Sc-R (503.102 nm)	1.01	1.01	1.02	Ratio

Sample Name: 2218994003

Date: 7/14/2022 12:07:42 Rack:Tube: 1:54

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Calculated Concentration
Ag (328.068 nm)	0.10046	ug/L	0.17358	> 100.00	-83.44214	0.10046 (ug/L)
Al (236.705 nm)	2.14045	ug/L	11.54182	> 100.00	64.32820	2.14045 (ug/L)
As (188.980 nm)	1.50570	ug/L	5.34023	> 100.00	-7.09908	1.50570 (ug/L)
B (249.772 nm)	-1.18823	ug/L	0.24506	20.62	35.35057	-1.18823 (ug/L)
Ba (230.424 nm)	0.09755	ug/L	0.23283	> 100.00	-3.00819	0.09755 (ug/L)
Be (313.107 nm)	0.01495	ug/L	0.00474	31.70	12.75886	0.01495 (ug/L)
Bi (223.061 nm)	2.67466	ug/L	2.68573	> 100.00	-33.70857	2.67466 (ug/L)
Ca (317.933 nm)	78.82218	ug/L	1.06144	1.35	1313.31263	78.82218 (ug/L)
Cd (214.439 nm)	0.02644	ug/L	0.13154	> 100.00	-6.00732	0.02644 (ug/L)
Co (228.615 nm)	0.09430	ug/L	0.51815	> 100.00	-8.95233	0.09430 (ug/L)
Cr (205.560 nm)	6.32166	ug/L	0.61895	9.79	33.07613	6.32166 (ug/L)
Cu (224.700 nm)	2.02106	ug/L	2.39066	> 100.00	-8.83082	2.02106 (ug/L)
Fe (261.382 nm)	6.28932	ug/L	1.11209	17.68	63.93944	6.28932 (ug/L)
K (766.491 nm)	4.06174	ug/L	7.49511	> 100.00	-144.13228	4.06174 (ug/L)
Li (610.365 nm)	11.04317	ug/L	1.64880	14.93	-4543.71232	11.04317 (ug/L)
Mg (279.078 nm)	2.33635	ug/L	1.83380	78.49	31.54239	2.33635 (ug/L)
Mn (260.568 nm)	0.31541	ug/L	0.05326	16.88	6.55696	0.31541 (ug/L)
Mo (202.032 nm)	-0.12025	ug/L	0.56641	> 100.00	-2.02463	-0.12025 (ug/L)
Na (588.995 nm)	-61.37713	ug/L	7.34308	11.96	22697.61710	-61.37713 (ug/L)
Ni (231.604 nm)	0.06134	ug/L	1.38844	> 100.00	-3.71699	0.06134 (ug/L)
P (178.222 nm)	40.15903	ug/L	12.45909	31.02	6.38357	40.15903 (ug/L)

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Calculated Concentration
Pb (220.353 nm)	-0.75050	ug/L	0.51512	68.64	1.24396	-0.75050 (ug/L)
Pt (203.646 nm)	0.92245	ug/L	1.78949	> 100.00	1.78551	0.92245 (ug/L)
Sb (206.834 nm)	2.50142	ug/L	6.33311	> 100.00	-6.54268	2.50142 (ug/L)
Se (196.026 nm)	2.26263	ug/L	2.13191	94.22	4.24554	2.26263 (ug/L)
Si (251.611 nm)	1.53578	ug/L	1.39287	90.69	21.98767	1.53578 (ug/L)
Sn (189.925 nm)	-0.45950	ug/L	0.93075	> 100.00	-5.38607	-0.45950 (ug/L)
Sr (421.552 nm)	0.24092	ug/L	0.00945	3.92	510.95499	0.24092 (ug/L)
Te (214.282 nm)	-1.22632	ug/L	2.11749	> 100.00	-5.96819	-1.22632 (ug/L)
Ti (334.941 nm)	0.23054	ug/L	0.07502	32.54	-16.38061	0.23054 (ug/L)
Tl (190.807 nm)	8.06750	ug/L	4.41494	54.73	1.78154	8.06750 (ug/L)
U (409.013 nm)	-1.75450	ug/L	1.52141	86.72	171.86603	-1.75450 (ug/L)
V (292.401 nm)	-0.10002	ug/L	0.18622	> 100.00	-24.26029	-0.10002 (ug/L)
W (207.912 nm)	-1.85136	ug/L	2.29765	> 100.00	3.81583	-1.85136 (ug/L)
Y (371.029 nm)	-0.02600	ug/L	0.03588	> 100.00	-3.84486	-0.02600 (ug/L)
Zn (206.200 nm)	2.26769	ug/L	0.09991	4.41	2.56642	2.26769 (ug/L)
Zr (343.823 nm)	0.10383	ug/L	0.03109	29.94	99.32879	0.10383 (ug/L)

Label	Internal Standard
Ag (328.068 nm)	Sc-A
Al (236.705 nm)	Sc-A
As (188.980 nm)	Sc-A
B (249.772 nm)	Sc-A
Ba (230.424 nm)	Sc-A
Be (313.107 nm)	Sc-A
Bi (223.061 nm)	Sc-A
Ca (317.933 nm)	Sc-A
Cd (214.439 nm)	Sc-A
Co (228.615 nm)	Sc-A
Cr (205.560 nm)	Sc-A
Cu (224.700 nm)	Sc-A
Fe (261.382 nm)	Sc-A
K (766.491 nm)	Sc-R
Li (610.365 nm)	Sc-R
Mg (279.078 nm)	Sc-A
Mn (260.568 nm)	Sc-A
Mo (202.032 nm)	Sc-A
Na (588.995 nm)	Sc-R
Ni (231.604 nm)	Sc-A
P (178.222 nm)	Sc-A
Pb (220.353 nm)	Sc-A
Pt (203.646 nm)	Sc-A
Sb (206.834 nm)	Sc-A
Se (196.026 nm)	Sc-A
Si (251.611 nm)	Sc-A
Sn (189.925 nm)	Sc-A
Sr (421.552 nm)	Sc-A
Te (214.282 nm)	Sc-A
Ti (334.941 nm)	Sc-A

Label	Internal Standard
Tl (190.807 nm)	Sc-A
U (409.013 nm)	Sc-A
V (292.401 nm)	Sc-A
W (207.912 nm)	Sc-A
Y (371.029 nm)	Sc-A
Zn (206.200 nm)	Sc-A
Zr (343.823 nm)	Sc-A

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Sc-A	1.03	422750.93	0.00	0.37
Sc-R	1.02	47751.74	0.00	0.29

Replicates Concentration

Label	Replicate 1	Replicate 2	Replicate 3	Units
Ag (328.068 nm)	-0.08370 u	0.26105	0.12405	ug/L
Al (236.705 nm)	8.37930	9.22011	-11.17805 u	ug/L
As (188.980 nm)	1.64412	6.77537	-3.90240 u	ug/L
B (249.772 nm)	-1.13396 u	-0.97485 u	-1.45588 u	ug/L
Ba (230.424 nm)	0.33778	0.08198	-0.12710 u	ug/L
Be (313.107 nm)	0.01685	0.01843	0.00955	ug/L
Bi (223.061 nm)	-0.39647 u	3.83708	4.58337	ug/L
Ca (317.933 nm)	78.13806	78.28354	80.04495	ug/L
Cd (214.439 nm)	0.17676	-0.06763 u	-0.02981 u	ug/L
Co (228.615 nm)	-0.37884 u	0.64803	0.01372	ug/L
Cr (205.560 nm)	5.75491	6.98212	6.22795	ug/L
Cu (224.700 nm)	-0.73872 u	3.45582	3.34607	ug/L
Fe (261.382 nm)	7.17694	6.64915	5.04187	ug/L
K (766.491 nm)	12.37398	-2.18164 u	1.99289	ug/L
Li (610.365 nm)	11.14000	12.64141	9.34809	ug/L
Mg (279.078 nm)	3.44818	3.34112	0.21976	ug/L
Mn (260.568 nm)	0.27777	0.29212	0.37634	ug/L
Mo (202.032 nm)	-0.75625 u	0.32983	0.06565	ug/L
Na (588.995 nm)	-52.92684 u	-64.99797 u	-66.20658 u	ug/L
Ni (231.604 nm)	0.42256	1.23347	-1.47202 u	ug/L
P (178.222 nm)	52.93319	28.04094	39.50296	ug/L
Pb (220.353 nm)	-1.33595 u	-0.36675 u	-0.54879 u	ug/L
Pt (203.646 nm)	0.40265	2.91429	-0.54961 u	ug/L
Sb (206.834 nm)	1.93324	-3.52846 u	9.09947	ug/L
Se (196.026 nm)	-0.19764 u	3.56588	3.41965	ug/L
Si (251.611 nm)	0.91147	0.56429	3.13158	ug/L
Sn (189.925 nm)	-1.20085 u	0.58504	-0.76268 u	ug/L
Sr (421.552 nm)	0.23170	0.24045	0.25059	ug/L
Te (214.282 nm)	-3.58002 u	-0.62293 u	0.52398	ug/L
Ti (334.941 nm)	0.28946	0.25606	0.14609	ug/L
Tl (190.807 nm)	12.65449	7.70050	3.84753	ug/L
U (409.013 nm)	-0.17670 u	-3.21244 u	-1.87434 u	ug/L

Label	Replicate 1	Replicate 2	Replicate 3	Units
V (292.401 nm)	0.05330	-0.30725 u	-0.04610 u	ug/L
W (207.912 nm)	0.63079	-2.28100 u	-3.90386 u	ug/L
Y (371.029 nm)	0.00987	-0.06188 u	-0.02598 u	ug/L
Zn (206.200 nm)	2.16264	2.27890	2.36152	ug/L
Zr (343.823 nm)	0.11786	0.06821	0.12543	ug/L
Sc-A (361.383 nm)	1.02	1.03	1.03	Ratio
Sc-R (503.102 nm)	1.01	1.02	1.02	Ratio

Sample Name: 2219240001

Date: 7/14/2022 12:09:23 Rack:Tube: 1:55

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity
Ag (328.068 nm)	-0.00951	ug/L	0.19289	> 100.00	-11.87100
Al (236.705 nm)	33043.57761	ug/L	575.86325	1.74	20121.67619
As (188.980 nm)	16.00417	ug/L	3.72415	23.27	-0.28037
B (249.772 nm)	128.34110	ug/L	2.84996	2.22	2905.63998
Ba (230.424 nm)	2217.87280	ug/L	22.90628	1.03	40325.07733
Be (313.107 nm)	0.09103	ug/L	0.00618	6.79	112.08622
Bi (223.061 nm)	5.76701	ug/L	1.61968	28.09	-30.93642
Ca (317.933 nm)	1550.11094	ug/L	22.03534	1.42	26473.20322
Cd (214.439 nm)	0.05723	ug/L	0.59731	> 100.00	-7.59373
Co (228.615 nm)	3.73449	ug/L	0.61420	16.45	11.45402
Cr (205.560 nm)	68.19025	ug/L	1.12344	1.65	361.50097
Cu (224.700 nm)	287.29767	ug/L	5.30106	1.85	311.72265
Fe (261.382 nm)	91648.53502	ug/L	1384.10580	1.51	245410.53636
K (766.491 nm)	2113.24617	ug/L	42.33690	2.00	4150.38203
Li (610.365 nm)	27543.25212 A2	ug/L	486.28416	1.77	309768.51076 A2
Mg (279.078 nm)	50251.37054	ug/L	695.03292	1.38	79471.37342
Mn (260.568 nm)	8248.49455	ug/L	121.41518	1.47	144037.20620
Mo (202.032 nm)	8.27453	ug/L	0.51887	6.27	29.72538
Na (588.995 nm)	2239.47076	ug/L	27.77092	1.24	77122.61965
Ni (231.604 nm)	29.56465 A1	ug/L	2.13714	7.23	64.68404 A1
P (178.222 nm)	93.18405	ug/L	11.06720	11.88	11.48260
Pb (220.353 nm)	28.50184	ug/L	4.03618	14.16	36.25131
Pt (203.646 nm)	39.44861	ug/L	15.02019	38.08	633.24482
Sb (206.834 nm)	-5.67980	ug/L	6.68496	> 100.00	-15.11913
Se (196.026 nm)	10.94076	ug/L	4.22347	38.60	-5.37298
Si (251.611 nm)	3321.40739	ug/L	61.70396	1.86	4697.59985
Sn (189.925 nm)	92.41561	ug/L	3.47817	3.76	64.04588
Sr (421.552 nm)	18.69564	ug/L	0.32093	1.72	38212.64865
Te (214.282 nm)	-8.36162	ug/L	8.02340	95.96	-5.88409
Ti (334.941 nm)	210.43130	ug/L	3.21861	1.53	42211.90502
Tl (190.807 nm)	2.02208	ug/L	1.04716	51.79	-11.61746
U (409.013 nm)	0.95440	ug/L	1.45775	> 100.00	286.58415
V (292.401 nm)	11.57966	ug/L	0.25738	2.22	105.56301
W (207.912 nm)	-2.26735	ug/L	0.88978	39.24	5.98309
Y (371.029 nm)	0.69332	ug/L	0.03205	4.62	111.91025

Label	Solution Concentration	Unit	SD	%RSD	Intensity
Zn (206.200 nm)	278.92176	ug/L	2.57965	0.92	492.03942
Zr (343.823 nm)	396.06953	ug/L	7.22290	1.82	25393.88245

Label	Calculated Concentration	Internal Standard
Ag (328.068 nm)	-0.00951 (ug/L)	Sc-A
Al (236.705 nm)	33043.57761 (ug/L)	Sc-A
As (188.980 nm)	16.00417 (ug/L)	Sc-A
B (249.772 nm)	128.34110 (ug/L)	Sc-A
Ba (230.424 nm)	2217.87280 (ug/L)	Sc-A
Be (313.107 nm)	0.09103 (ug/L)	Sc-A
Bi (223.061 nm)	5.76701 (ug/L)	Sc-A
Ca (317.933 nm)	1550.11094 (ug/L)	Sc-A
Cd (214.439 nm)	0.05723 (ug/L)	Sc-A
Co (228.615 nm)	3.73449 (ug/L)	Sc-A
Cr (205.560 nm)	68.19025 (ug/L)	Sc-A
Cu (224.700 nm)	287.29767 (ug/L)	Sc-A
Fe (261.382 nm)	91648.53502 (ug/L)	Sc-A
K (766.491 nm)	2113.24617 (ug/L)	Sc-R
Li (610.365 nm)	27543.25212 A2 (ug/L)	Sc-R
Mg (279.078 nm)	50251.37054 (ug/L)	Sc-A
Mn (260.568 nm)	8248.49455 (ug/L)	Sc-A
Mo (202.032 nm)	8.27453 (ug/L)	Sc-A
Na (588.995 nm)	2239.47076 (ug/L)	Sc-R
Ni (231.604 nm)	29.56465 A1 (ug/L)	Sc-A
P (178.222 nm)	93.18405 (ug/L)	Sc-A
Pb (220.353 nm)	28.50184 (ug/L)	Sc-A
Pt (203.646 nm)	39.44861 (ug/L)	Sc-A
Sb (206.834 nm)	-5.67980 (ug/L)	Sc-A
Se (196.026 nm)	10.94076 (ug/L)	Sc-A
Si (251.611 nm)	3321.40739 (ug/L)	Sc-A
Sn (189.925 nm)	92.41561 (ug/L)	Sc-A
Sr (421.552 nm)	18.69564 (ug/L)	Sc-A
Te (214.282 nm)	-8.36162 (ug/L)	Sc-A
Ti (334.941 nm)	210.43130 (ug/L)	Sc-A
Tl (190.807 nm)	2.02208 (ug/L)	Sc-A
U (409.013 nm)	0.95440 (ug/L)	Sc-A
V (292.401 nm)	11.57966 (ug/L)	Sc-A
W (207.912 nm)	-2.26735 (ug/L)	Sc-A
Y (371.029 nm)	0.69332 (ug/L)	Sc-A
Zn (206.200 nm)	278.92176 (ug/L)	Sc-A
Zr (343.823 nm)	396.06953 (ug/L)	Sc-A

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Sc-A	1.00	412443.77	0.00	0.46
Sc-R	1.00	46748.38	0.00	0.46

Replicates Concentration

Label	Replicate 1	Replicate 2	Replicate 3	Units
Ag (328.068 nm)	-0.16728 u	-0.06677 u	0.20554	ug/L
Al (236.705 nm)	32453.97243	33072.12321	33604.63719	ug/L
As (188.980 nm)	17.20994	18.97604	11.82653	ug/L
B (249.772 nm)	125.31763	128.72757	130.97811	ug/L
Ba (230.424 nm)	2195.64204	2216.57679	2241.39957	ug/L
Be (313.107 nm)	0.09365	0.08397	0.09548	ug/L
Bi (223.061 nm)	7.31656	4.08530	5.89917	ug/L
Ca (317.933 nm)	1526.51788	1553.65627	1570.15866	ug/L
Cd (214.439 nm)	0.38716	-0.63228 u	0.41680	ug/L
Co (228.615 nm)	4.43702	3.46736	3.29907	ug/L
Cr (205.560 nm)	67.23403	67.90918	69.42754	ug/L
Cu (224.700 nm)	285.57994	283.06847	293.24459	ug/L
Fe (261.382 nm)	90210.42059	91763.75531	92971.42917	ug/L
K (766.491 nm)	2064.69985	2132.53390	2142.50475	ug/L
Li (610.365 nm)	27051.76224 o	27553.83636 o	28024.15776 o	ug/L
Mg (279.078 nm)	49516.50597	50339.42617	50898.17948	ug/L
Mn (260.568 nm)	8118.85883	8267.07842	8359.54640	ug/L
Mo (202.032 nm)	8.32295	8.76749	7.73315	ug/L
Na (588.995 nm)	2212.00541	2238.86939	2267.53748	ug/L
Ni (231.604 nm)	28.77835	31.98356	27.93205	ug/L
P (178.222 nm)	82.16368	104.29750	93.09096	ug/L
Pb (220.353 nm)	30.67238	23.84484	30.98831	ug/L
Pt (203.646 nm)	24.77821	38.77190	54.79571	ug/L
Sb (206.834 nm)	-13.21232 u	-0.45252 u	-3.37456 u	ug/L
Se (196.026 nm)	7.00279	10.41837	15.40113	ug/L
Si (251.611 nm)	3259.08996	3322.65319	3382.47902	ug/L
Sn (189.925 nm)	95.14398	93.60380	88.49904	ug/L
Sr (421.552 nm)	18.35361	18.74312	18.99018	ug/L
Te (214.282 nm)	-9.95964 u	0.34053	-15.46576 u	ug/L
Ti (334.941 nm)	206.96048	211.01585	213.31757	ug/L
Tl (190.807 nm)	0.88600	2.94865	2.23160	ug/L
U (409.013 nm)	-0.46643 u	0.88318	2.44646	ug/L
V (292.401 nm)	11.29970	11.80600	11.63329	ug/L
W (207.912 nm)	-1.29416 u	-3.03922 u	-2.46867 u	ug/L
Y (371.029 nm)	0.65632	0.71199	0.71167	ug/L
Zn (206.200 nm)	275.99541	280.86658	279.90328	ug/L
Zr (343.823 nm)	388.67755	396.42049	403.11056	ug/L
Sc-A (361.383 nm)	1.00	1.00	1.01	Ratio
Sc-R (503.102 nm)	0.99	1.00	1.00	Ratio

Sample Name: 2219240002

Date: 7/14/2022 12:11:04 Rack:Tube: 1:56

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity
Ag (328.068 nm)	0.00014	ug/L	0.23081	> 100.00	-40.62853
Al (236.705 nm)	24242.13735	ug/L	416.64074	1.72	14775.31875

Label	Solution Concentration	Unit	SD	%RSD	Intensity
As (188.980 nm)	22.90203	ug/L	4.95555	21.64	3.16074
B (249.772 nm)	47.73886	ug/L	1.57313	3.30	1635.83559
Ba (230.424 nm)	1550.10874	ug/L	46.25019	2.98	28182.73743
Be (313.107 nm)	0.08448	ug/L	0.01613	19.10	91.54585
Bi (223.061 nm)	5.41616	ug/L	0.57059	10.54	-30.78860
Ca (317.933 nm)	1421.26823	ug/L	24.54958	1.73	24270.00024
Cd (214.439 nm)	0.35924	ug/L	0.26856	74.76	-2.84099
Co (228.615 nm)	3.03943	ug/L	1.20641	39.69	6.30946
Cr (205.560 nm)	57.10482	ug/L	1.75247	3.07	297.82988
Cu (224.700 nm)	341.62252	ug/L	2.20604	0.65	365.94700
Fe (261.382 nm)	91641.63178	ug/L	1648.05700	1.80	245392.14939
K (766.491 nm)	2159.65018	ug/L	36.55756	1.69	4250.82126
Li (610.365 nm)	20279.89547 A2	ug/L	321.46772	1.59	226844.58499 A2
Mg (279.078 nm)	41820.04019	ug/L	761.67302	1.82	66140.20762
Mn (260.568 nm)	6772.15305	ug/L	117.02374	1.73	118264.20820
Mo (202.032 nm)	11.87174	ug/L	0.46079	3.88	46.63492
Na (588.995 nm)	2044.53820	ug/L	35.04232	1.71	72511.62156
Ni (231.604 nm)	27.54910	ug/L	1.11066	4.03	60.15606
P (178.222 nm)	72.31629	ug/L	18.25211	25.24	9.47590
Pb (220.353 nm)	24.72732	ug/L	3.76973	15.25	32.36280
Pt (203.646 nm)	35.72211	ug/L	5.67567	15.89	630.25973
Sb (206.834 nm)	-4.56173	ug/L	2.76949	60.71	-14.19848
Se (196.026 nm)	5.95866	ug/L	6.38492	> 100.00	-8.32951
Si (251.611 nm)	2646.40213	ug/L	63.31928	2.39	3744.99150
Sn (189.925 nm)	80.15318	ug/L	7.10350	8.86	54.87868
Sr (421.552 nm)	17.95837	ug/L	0.29758	1.66	36706.45256
Te (214.282 nm)	-9.92149	ug/L	2.45511	24.75	-6.38239
Ti (334.941 nm)	167.91838	ug/L	2.93167	1.75	33671.51042
Tl (190.807 nm)	0.61067	ug/L	4.56706	> 100.00	-10.48169
U (409.013 nm)	-1.72440	ug/L	2.47653	> 100.00	267.59202
V (292.401 nm)	7.79932	ug/L	0.33389	4.28	7.55312
W (207.912 nm)	-1.97519	ug/L	1.20866	61.19	6.28507
Y (371.029 nm)	0.70365	ug/L	0.03277	4.66	114.27885
Zn (206.200 nm)	271.51632	ug/L	6.04645	2.23	478.90944
Zr (343.823 nm)	244.83882	ug/L	4.01149	1.64	15782.08370

Label	Calculated Concentration	Internal Standard
Ag (328.068 nm)	0.00014 (ug/L)	Sc-A
Al (236.705 nm)	24242.13735 (ug/L)	Sc-A
As (188.980 nm)	22.90203 (ug/L)	Sc-A
B (249.772 nm)	47.73886 (ug/L)	Sc-A
Ba (230.424 nm)	1550.10874 (ug/L)	Sc-A
Be (313.107 nm)	0.08448 (ug/L)	Sc-A
Bi (223.061 nm)	5.41616 (ug/L)	Sc-A
Ca (317.933 nm)	1421.26823 (ug/L)	Sc-A
Cd (214.439 nm)	0.35924 (ug/L)	Sc-A
Co (228.615 nm)	3.03943 (ug/L)	Sc-A
Cr (205.560 nm)	57.10482 (ug/L)	Sc-A

Label	Calculated Concentration	Internal Standard
Cu (224.700 nm)	341.62252 (ug/L)	Sc-A
Fe (261.382 nm)	91641.63178 (ug/L)	Sc-A
K (766.491 nm)	2159.65018 (ug/L)	Sc-R
Li (610.365 nm)	20279.89547 A2 (ug/L)	Sc-R
Mg (279.078 nm)	41820.04019 (ug/L)	Sc-A
Mn (260.568 nm)	6772.15305 (ug/L)	Sc-A
Mo (202.032 nm)	11.87174 (ug/L)	Sc-A
Na (588.995 nm)	2044.53820 (ug/L)	Sc-R
Ni (231.604 nm)	27.54910 (ug/L)	Sc-A
P (178.222 nm)	72.31629 (ug/L)	Sc-A
Pb (220.353 nm)	24.72732 (ug/L)	Sc-A
Pt (203.646 nm)	35.72211 (ug/L)	Sc-A
Sb (206.834 nm)	-4.56173 (ug/L)	Sc-A
Se (196.026 nm)	5.95866 (ug/L)	Sc-A
Si (251.611 nm)	2646.40213 (ug/L)	Sc-A
Sn (189.925 nm)	80.15318 (ug/L)	Sc-A
Sr (421.552 nm)	17.95837 (ug/L)	Sc-A
Te (214.282 nm)	-9.92149 (ug/L)	Sc-A
Ti (334.941 nm)	167.91838 (ug/L)	Sc-A
Tl (190.807 nm)	0.61067 (ug/L)	Sc-A
U (409.013 nm)	-1.72440 (ug/L)	Sc-A
V (292.401 nm)	7.79932 (ug/L)	Sc-A
W (207.912 nm)	-1.97519 (ug/L)	Sc-A
Y (371.029 nm)	0.70365 (ug/L)	Sc-A
Zn (206.200 nm)	271.51632 (ug/L)	Sc-A
Zr (343.823 nm)	244.83882 (ug/L)	Sc-A

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Sc-A	1.01	415841.48	0.00	0.01
Sc-R	1.00	46991.05	0.00	0.06

Replicates Concentration

Label	Replicate 1	Replicate 2	Replicate 3	Units
Ag (328.068 nm)	-0.26282 u	0.09406	0.16918	ug/L
Al (236.705 nm)	23808.57181	24278.35102	24639.48921	ug/L
As (188.980 nm)	24.45954	26.89173	17.35483	ug/L
B (249.772 nm)	46.93768	46.72760	49.55130	ug/L
Ba (230.424 nm)	1505.00719	1547.89123	1597.42780	ug/L
Be (313.107 nm)	0.07513	0.10311	0.07520	ug/L
Bi (223.061 nm)	5.67340	5.81284	4.76223	ug/L
Ca (317.933 nm)	1394.62225	1426.21413	1442.96832	ug/L
Cd (214.439 nm)	0.66267	0.26292	0.15212	ug/L
Co (228.615 nm)	3.11666	4.20537	1.79627	ug/L
Cr (205.560 nm)	55.23746	57.36329	58.71370	ug/L
Cu (224.700 nm)	340.01590	344.13776	340.71390	ug/L
Fe (261.382 nm)	89881.94478	91894.00565	93148.94490	ug/L

Label	Replicate 1	Replicate 2	Replicate 3	Units
K (766.491 nm)	2130.46885	2147.82510	2200.65661	ug/L
Li (610.365 nm)	19934.70538	20334.27738	20570.70366	ug/L
Mg (279.078 nm)	41004.32776	41943.10577	42512.68704	ug/L
Mn (260.568 nm)	6649.07648	6785.38324	6881.99944	ug/L
Mo (202.032 nm)	12.06513	12.20432	11.34577	ug/L
Na (588.995 nm)	2006.94734	2050.36600	2076.30126	ug/L
Ni (231.604 nm)	26.40676	28.62510	27.61544	ug/L
P (178.222 nm)	81.15150	84.46956	51.32781	ug/L
Pb (220.353 nm)	28.85284	23.86704	21.46209	ug/L
Pt (203.646 nm)	32.57008	32.32201	42.27424	ug/L
Sb (206.834 nm)	-2.56876 u	-7.72412 u	-3.39231 u	ug/L
Se (196.026 nm)	5.63901	-0.26043 u	12.49741	ug/L
Si (251.611 nm)	2580.60976	2651.67850	2706.91813	ug/L
Sn (189.925 nm)	75.22729	88.29604	76.93621	ug/L
Sr (421.552 nm)	17.64338	17.99694	18.23478	ug/L
Te (214.282 nm)	-12.55780 u	-7.70059 u	-9.50607 u	ug/L
Ti (334.941 nm)	164.94934	167.99460	170.81119	ug/L
Tl (190.807 nm)	-3.65853 u	0.06413	5.42641	ug/L
U (409.013 nm)	-4.37147 u	-1.33788 u	0.53614	ug/L
V (292.401 nm)	7.93099	8.04730	7.41966	ug/L
W (207.912 nm)	-1.07620 u	-1.50016 u	-3.34920 u	ug/L
Y (371.029 nm)	0.74117	0.68062	0.68917	ug/L
Zn (206.200 nm)	264.69334	273.64533	276.21030	ug/L
Zr (343.823 nm)	240.54318	245.48579	248.48750	ug/L
Sc-A (361.383 nm)	1.01	1.01	1.01	Ratio
Sc-R (503.102 nm)	1.00	1.00	1.00	Ratio

Sample Name: CCV

Date: 7/14/2022 12:12:44 Rack:Tube: S1:10

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Calculated Concentration
Ag (328.068 nm)	1947.00955	ug/L	20.97210	1.08	101672.43516	1947.00955 (ug/L)
Al (236.705 nm)	48545.25466	ug/L	682.43392	1.41	29730.12883	48545.25466 (ug/L)
As (188.980 nm)	4868.62358	ug/L	71.66186	1.47	2423.43077	4868.62358 (ug/L)
B (249.772 nm)	12080.61729	ug/L	174.99405	1.45	190808.21914	12080.61729 (ug/L)
Ba (230.424 nm)	4957.94925	ug/L	58.48357	1.18	91522.57766	4957.94925 (ug/L)
Be (313.107 nm)	990.73957	ug/L	10.92918	1.10	729450.16206	990.73957 (ug/L)
Bi (223.061 nm)	4848.72285	ug/L	62.52326	1.29	7240.49349	4848.72285 (ug/L)
Ca (317.933 nm)	49979.06735	ug/L	580.69059	1.16	856738.02109	49979.06735 (ug/L)
Cd (214.439 nm)	2523.82213	ug/L	29.16781	1.16	26313.09706	2523.82213 (ug/L)
Co (228.615 nm)	4941.19610	ug/L	63.72942	1.29	29117.77758	4941.19610 (ug/L)
Cr (205.560 nm)	4945.49696	ug/L	73.39976	1.48	28411.76517	4945.49696 (ug/L)
Cu (224.700 nm)	4875.97869	ug/L	69.41964	1.42	4929.72894	4875.97869 (ug/L)
Fe (261.382 nm)	49425.87912	ug/L	663.26533	1.34	132186.02657	49425.87912 (ug/L)
K (766.491 nm)	47192.24241	ug/L	618.99479	1.31	96306.38726	47192.24241 (ug/L)
Li (610.365 nm)	4747.49149	ug/L	64.48776	1.36	48735.42155	4747.49149 (ug/L)
Mg (279.078 nm)	49044.57022	ug/L	651.70557	1.33	77501.67265	49044.57022 (ug/L)

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Calculated Concentration
Mn (260.568 nm)	4941.20598	ug/L	66.76956	1.35	86057.86829	4941.20598 (ug/L)
Mo (202.032 nm)	24791.72163	ug/L	333.99474	1.35	116519.10955	24791.72163 (ug/L)
Na (588.995 nm)	46898.41278	ug/L	658.48589	1.40	1133499.72530	46898.41278 (ug/L)
Ni (231.604 nm)	4972.91279	ug/L	62.53258	1.26	11640.08669	4972.91279 (ug/L)
P (178.222 nm)	24574.25077	ug/L	328.11947	1.34	2365.64823	24574.25077 (ug/L)
Pb (220.353 nm)	4957.98320	ug/L	50.53664	1.02	5795.93042	4957.98320 (ug/L)
Pt (203.646 nm)	23.19639	ug/L	14.91098	64.28	282.95622	23.19639 (ug/L)
Sb (206.834 nm)	24100.17414	ug/L	347.54140	1.44	21662.51102	24100.17414 (ug/L)
Se (196.026 nm)	4818.48332	ug/L	58.79220	1.22	2854.60419	4818.48332 (ug/L)
Si (251.611 nm)	11990.71023	ug/L	280.84053	2.34	17554.97886	11990.71023 (ug/L)
Sn (189.925 nm)	4995.01829	ug/L	64.97344	1.30	3729.15352	4995.01829 (ug/L)
Sr (421.552 nm)	4844.61919	ug/L	55.44326	1.14	9897233.46989	4844.61919 (ug/L)
Te (214.282 nm)	9757.34802	ug/L	129.76912	1.33	5099.48696	9757.34802 (ug/L)
Ti (334.941 nm)	4889.24474	ug/L	65.03525	1.33	982480.44133	4889.24474 (ug/L)
Tl (190.807 nm)	2466.63532	ug/L	28.22288	1.14	1425.46265	2466.63532 (ug/L)
U (409.013 nm)	4807.26927	ug/L	79.33853	1.65	26015.52143	4807.26927 (ug/L)
V (292.401 nm)	4916.48767	ug/L	64.66864	1.32	124005.39177	4916.48767 (ug/L)
W (207.912 nm)	3.91285	ug/L	4.53967	> 100.00	60.52685	3.91285 (ug/L)
Y (371.029 nm)	1957.77385	ug/L	26.24202	1.34	323840.84362	1957.77385 (ug/L)
Zn (206.200 nm)	5058.47005	ug/L	71.76187	1.42	8959.76492	5058.47005 (ug/L)
Zr (343.823 nm)	4900.42036	ug/L	63.88538	1.30	311521.36686	4900.42036 (ug/L)

Label	Internal Standard
Ag (328.068 nm)	Sc-A
Al (236.705 nm)	Sc-A
As (188.980 nm)	Sc-A
B (249.772 nm)	Sc-A
Ba (230.424 nm)	Sc-A
Be (313.107 nm)	Sc-A
Bi (223.061 nm)	Sc-A
Ca (317.933 nm)	Sc-A
Cd (214.439 nm)	Sc-A
Co (228.615 nm)	Sc-A
Cr (205.560 nm)	Sc-A
Cu (224.700 nm)	Sc-A
Fe (261.382 nm)	Sc-A
K (766.491 nm)	Sc-R
Li (610.365 nm)	Sc-R
Mg (279.078 nm)	Sc-A
Mn (260.568 nm)	Sc-A
Mo (202.032 nm)	Sc-A
Na (588.995 nm)	Sc-R
Ni (231.604 nm)	Sc-A
P (178.222 nm)	Sc-A
Pb (220.353 nm)	Sc-A
Pt (203.646 nm)	Sc-A
Sb (206.834 nm)	Sc-A
Se (196.026 nm)	Sc-A

Label	Internal Standard
Si (251.611 nm)	Sc-A
Sn (189.925 nm)	Sc-A
Sr (421.552 nm)	Sc-A
Te (214.282 nm)	Sc-A
Ti (334.941 nm)	Sc-A
Tl (190.807 nm)	Sc-A
U (409.013 nm)	Sc-A
V (292.401 nm)	Sc-A
W (207.912 nm)	Sc-A
Y (371.029 nm)	Sc-A
Zn (206.200 nm)	Sc-A
Zr (343.823 nm)	Sc-A

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Sc-A	0.98	405184.89	0.00	0.37
Sc-R	0.99	46291.85	0.00	0.40

Replicates Concentration

Label	Replicate 1	Replicate 2	Replicate 3	Units
Ag (328.068 nm)	1924.00936	1951.94669	1965.07259	ug/L
Al (236.705 nm)	47812.19296	48661.42284	49162.14818	ug/L
As (188.980 nm)	4789.61307	4886.83503	4929.42265	ug/L
B (249.772 nm)	11885.25508	12133.59802	12222.99878	ug/L
Ba (230.424 nm)	4898.51779	4959.89351	5015.43645	ug/L
Be (313.107 nm)	978.76684	993.27088	1000.18098	ug/L
Bi (223.061 nm)	4781.15880	4860.47122	4904.53854	ug/L
Ca (317.933 nm)	49425.37116	49928.39907	50583.43180	ug/L
Cd (214.439 nm)	2492.12517	2529.80967	2549.53156	ug/L
Co (228.615 nm)	4872.72697	4952.07634	4998.78497	ug/L
Cr (205.560 nm)	4869.86198	4950.19289	5016.43601	ug/L
Cu (224.700 nm)	4805.67549	4877.78090	4944.47968	ug/L
Fe (261.382 nm)	48716.47662	49530.61645	50030.54430	ug/L
K (766.491 nm)	46525.23024	47303.31732	47748.17966	ug/L
Li (610.365 nm)	4677.06234	4761.76634	4803.64578	ug/L
Mg (279.078 nm)	48342.62737	49160.64310	49630.44019	ug/L
Mn (260.568 nm)	4871.37154	4947.82941	5004.41698	ug/L
Mo (202.032 nm)	24436.59208	24839.03767	25099.53515	ug/L
Na (588.995 nm)	46176.44812	47052.80630	47465.98392	ug/L
Ni (231.604 nm)	4904.09895	4988.37732	5026.26210	ug/L
P (178.222 nm)	24204.85940	24685.97460	24831.91833	ug/L
Pb (220.353 nm)	4903.87608	4966.10885	5003.96468	ug/L
Pt (203.646 nm)	7.49505	37.16576	24.92836	ug/L
Sb (206.834 nm)	23738.14901	24131.22544	24431.14796	ug/L
Se (196.026 nm)	4751.75526	4841.02851	4862.66618	ug/L
Si (251.611 nm)	11690.87896	12033.63378	12247.61796	ug/L
Sn (189.925 nm)	4942.12170	4975.39044	5067.54274	ug/L

Label	Replicate 1	Replicate 2	Replicate 3	Units
Sr (421.552 nm)	4786.21089	4851.12295	4896.52374	ug/L
Te (214.282 nm)	9612.51183	9796.49627	9863.03597	ug/L
Ti (334.941 nm)	4820.07353	4898.51057	4949.15011	ug/L
Tl (190.807 nm)	2434.10607	2481.19206	2484.60783	ug/L
U (409.013 nm)	4720.07247	4826.53373	4875.20161	ug/L
V (292.401 nm)	4848.84059	4922.92622	4977.69621	ug/L
W (207.912 nm)	-1.25763 u	5.75093	7.24524	ug/L
Y (371.029 nm)	1929.92717	1961.34994	1982.04443	ug/L
Zn (206.200 nm)	4993.60620	5046.24466	5135.55929	ug/L
Zr (343.823 nm)	4832.36960	4909.78477	4959.10670	ug/L
Sc-A (361.383 nm)	0.98	0.99	0.99	Ratio
Sc-R (503.102 nm)	0.98	0.99	0.99	Ratio

Sample Name: CCB

Date: 7/14/2022 12:14:25 Rack:Tube: S1:11

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Calculated Concentration
Ag (328.068 nm)	-0.10540	ug/L	0.10204	96.81	-93.87207	-0.10540 (ug/L)
Al (236.705 nm)	-8.76204	ug/L	7.59470	86.68	57.72668	-8.76204 (ug/L)
As (188.980 nm)	0.49678	ug/L	3.51537	> 100.00	-7.60287	0.49678 (ug/L)
B (249.772 nm)	18.24378	ug/L	2.79046	15.30	341.41440	18.24378 (ug/L)
Ba (230.424 nm)	0.00511	ug/L	0.17769	> 100.00	-4.55092	0.00511 (ug/L)
Be (313.107 nm)	0.02313	ug/L	0.01233	53.31	18.70630	0.02313 (ug/L)
Bi (223.061 nm)	0.73757	ug/L	1.93952	> 100.00	-36.65997	0.73757 (ug/L)
Ca (317.933 nm)	-0.56554	ug/L	1.28982	> 100.00	-44.11763	-0.56554 (ug/L)
Cd (214.439 nm)	0.38501	ug/L	0.19087	49.57	-2.20131	0.38501 (ug/L)
Co (228.615 nm)	0.54532	ug/L	0.75241	> 100.00	-6.30580	0.54532 (ug/L)
Cr (205.560 nm)	0.25988	ug/L	0.70578	> 100.00	-1.71375	0.25988 (ug/L)
Cu (224.700 nm)	3.00498	ug/L	2.09343	69.67	-7.88114	3.00498 (ug/L)
Fe (261.382 nm)	0.57725	ug/L	1.36813	> 100.00	48.83841	0.57725 (ug/L)
K (766.491 nm)	10.52034	ug/L	7.94615	75.53	-130.92480	10.52034 (ug/L)
Li (610.365 nm)	4.94984	ug/L	0.35873	7.25	-4611.93926	4.94984 (ug/L)
Mg (279.078 nm)	-2.48801	ug/L	4.26066	> 100.00	23.88548	-2.48801 (ug/L)
Mn (260.568 nm)	0.29415	ug/L	0.17273	58.72	6.13908	0.29415 (ug/L)
Mo (202.032 nm)	2.52414	ug/L	1.46459	58.02	10.40060	2.52414 (ug/L)
Na (588.995 nm)	-40.94982	ug/L	1.32109	3.23	23180.81122	-40.94982 (ug/L)
Ni (231.604 nm)	-0.92893	ug/L	0.90402	97.32	-6.04942	-0.92893 (ug/L)
P (178.222 nm)	-21.89893	ug/L	12.67119	57.86	0.41591	-21.89893 (ug/L)
Pb (220.353 nm)	-3.06235	ug/L	1.78577	58.31	-1.48349	-3.06235 (ug/L)
Pt (203.646 nm)	2.85806	ug/L	7.21214	> 100.00	3.27153	2.85806 (ug/L)
Sb (206.834 nm)	3.31160	ug/L	3.94881	> 100.00	-5.87123	3.31160 (ug/L)
Se (196.026 nm)	-0.81245	ug/L	5.32961	> 100.00	2.43169	-0.81245 (ug/L)
Si (251.611 nm)	-2.82043	ug/L	2.88408	> 100.00	15.90625	-2.82043 (ug/L)
Sn (189.925 nm)	-3.87285	ug/L	2.49979	64.55	-7.93784	-3.87285 (ug/L)
Sr (421.552 nm)	0.09471	ug/L	0.08308	87.72	212.26267	0.09471 (ug/L)
Te (214.282 nm)	8.31264	ug/L	3.02389	36.38	-1.00287	8.31264 (ug/L)
Ti (334.941 nm)	0.21172	ug/L	0.12817	60.54	-20.09666	0.21172 (ug/L)

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Calculated Concentration
Tl (190.807 nm)	-5.50438	ug/L	5.92359	> 100.00	-5.28457	-5.50438 (ug/L)
U (409.013 nm)	0.30601	ug/L	1.65927	> 100.00	182.85977	0.30601 (ug/L)
V (292.401 nm)	-0.04615	ug/L	0.30191	> 100.00	-22.97273	-0.04615 (ug/L)
W (207.912 nm)	0.69441	ug/L	0.77094	> 100.00	7.03584	0.69441 (ug/L)
Y (371.029 nm)	0.07093	ug/L	0.06584	92.82	12.19699	0.07093 (ug/L)
Zn (206.200 nm)	-1.00724	ug/L	1.25324	> 100.00	-3.24170	-1.00724 (ug/L)
Zr (343.823 nm)	0.98393	ug/L	0.25277	25.69	155.26849	0.98393 (ug/L)

Label	Internal Standard
Ag (328.068 nm)	Sc-A
Al (236.705 nm)	Sc-A
As (188.980 nm)	Sc-A
B (249.772 nm)	Sc-A
Ba (230.424 nm)	Sc-A
Be (313.107 nm)	Sc-A
Bi (223.061 nm)	Sc-A
Ca (317.933 nm)	Sc-A
Cd (214.439 nm)	Sc-A
Co (228.615 nm)	Sc-A
Cr (205.560 nm)	Sc-A
Cu (224.700 nm)	Sc-A
Fe (261.382 nm)	Sc-A
K (766.491 nm)	Sc-R
Li (610.365 nm)	Sc-R
Mg (279.078 nm)	Sc-A
Mn (260.568 nm)	Sc-A
Mo (202.032 nm)	Sc-A
Na (588.995 nm)	Sc-R
Ni (231.604 nm)	Sc-A
P (178.222 nm)	Sc-A
Pb (220.353 nm)	Sc-A
Pt (203.646 nm)	Sc-A
Sb (206.834 nm)	Sc-A
Se (196.026 nm)	Sc-A
Si (251.611 nm)	Sc-A
Sn (189.925 nm)	Sc-A
Sr (421.552 nm)	Sc-A
Te (214.282 nm)	Sc-A
Ti (334.941 nm)	Sc-A
Tl (190.807 nm)	Sc-A
U (409.013 nm)	Sc-A
V (292.401 nm)	Sc-A
W (207.912 nm)	Sc-A
Y (371.029 nm)	Sc-A
Zn (206.200 nm)	Sc-A
Zr (343.823 nm)	Sc-A

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Sc-A	1.01	417400.76	0.00	0.11
Sc-R	1.00	47143.59	0.00	0.14

Replicates Concentration

Label	Replicate 1	Replicate 2	Replicate 3	Units
Ag (328.068 nm)	-0.04402 u	-0.04900 u	-0.22319 u	ug/L
Al (236.705 nm)	-17.26534 u	-6.36778 u	-2.65300 u	ug/L
As (188.980 nm)	0.35075	-2.94329 u	4.08290	ug/L
B (249.772 nm)	21.25560	17.72952	15.74622	ug/L
Ba (230.424 nm)	-0.19570 u	0.14199	0.06905	ug/L
Be (313.107 nm)	0.01069	0.02334	0.03535	ug/L
Bi (223.061 nm)	2.39127	-1.39722 u	1.21865	ug/L
Ca (317.933 nm)	-0.77144 u	-1.74003 u	0.81484	ug/L
Cd (214.439 nm)	0.30632	0.60264	0.24607	ug/L
Co (228.615 nm)	-0.31520 u	0.87186	1.07929	ug/L
Cr (205.560 nm)	1.03686	0.08434	-0.34156 u	ug/L
Cu (224.700 nm)	1.86849	1.72559	5.42087	ug/L
Fe (261.382 nm)	-0.72306 u	0.45044	2.00436	ug/L
K (766.491 nm)	17.29938	12.48571	1.77594	ug/L
Li (610.365 nm)	4.66531	5.35281	4.83139	ug/L
Mg (279.078 nm)	-6.98187 u	-1.97519 u	1.49304	ug/L
Mn (260.568 nm)	0.14768	0.25014	0.48462	ug/L
Mo (202.032 nm)	1.89948	1.47545	4.19748	ug/L
Na (588.995 nm)	-42.27185 u	-40.94793 u	-39.62968 u	ug/L
Ni (231.604 nm)	-1.88497 u	-0.08794 u	-0.81389 u	ug/L
P (178.222 nm)	-13.62916 u	-15.58071 u	-36.48691 u	ug/L
Pb (220.353 nm)	-3.42297 u	-4.64030 u	-1.12379 u	ug/L
Pt (203.646 nm)	10.62324	1.58149	-3.63057 u	ug/L
Sb (206.834 nm)	0.52466	1.57972	7.83042	ug/L
Se (196.026 nm)	4.17544	-6.42817 u	-0.18462 u	ug/L
Si (251.611 nm)	-6.12622 u	-1.51648 u	-0.81860 u	ug/L
Sn (189.925 nm)	-3.62017 u	-1.50900 u	-6.48938 u	ug/L
Sr (421.552 nm)	0.04232	0.05131	0.19050	ug/L
Te (214.282 nm)	11.80396	6.61072	6.52324	ug/L
Ti (334.941 nm)	0.09500	0.19127	0.34888	ug/L
Tl (190.807 nm)	-12.32136 u	-2.58123 u	-1.61056 u	ug/L
U (409.013 nm)	2.05647	0.10539	-1.24383 u	ug/L
V (292.401 nm)	-0.38714 u	0.18717	0.06151	ug/L
W (207.912 nm)	1.21011	-0.19184 u	1.06495	ug/L
Y (371.029 nm)	0.02812	0.03793	0.14675	ug/L
Zn (206.200 nm)	-2.08825 u	-1.29991 u	0.36644	ug/L
Zr (343.823 nm)	0.77574	0.91087	1.26519	ug/L
Sc-A (361.383 nm)	1.01	1.02	1.02	Ratio
Sc-R (503.102 nm)	1.00	1.00	1.01	Ratio

Sample Name: 2219240003

Date: 7/14/2022 12:16:06 Rack:Tube: 1:57

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Calculated Concentration
Ag (328.068 nm)	0.00100	ug/L	0.28588	> 100.00	-88.31006	0.00100 (ug/L)
Al (236.705 nm)	412.84055	ug/L	11.67973	2.83	313.65468	412.84055 (ug/L)
As (188.980 nm)	0.78562	ug/L	2.44967	> 100.00	-7.46155	0.78562 (ug/L)
B (249.772 nm)	7.73057	ug/L	1.07229	13.87	185.61243	7.73057 (ug/L)
Ba (230.424 nm)	5.52291	ug/L	0.07728	1.40	95.70215	5.52291 (ug/L)
Be (313.107 nm)	0.03368	ug/L	0.01364	40.51	28.49927	0.03368 (ug/L)
Bi (223.061 nm)	1.14246	ug/L	2.58864	> 100.00	-36.47728	1.14246 (ug/L)
Ca (317.933 nm)	4230.86393	ug/L	68.13716	1.61	72313.80597	4230.86393 (ug/L)
Cd (214.439 nm)	0.07151	ug/L	0.35552	> 100.00	-5.59009	0.07151 (ug/L)
Co (228.615 nm)	1.49721	ug/L	0.15384	10.28	-0.17774	1.49721 (ug/L)
Cr (205.560 nm)	3.21654	ug/L	1.68862	52.50	14.93812	3.21654 (ug/L)
Cu (224.700 nm)	36.47010	ug/L	3.13778	8.60	25.91015	36.47010 (ug/L)
Fe (261.382 nm)	1084.41940	ug/L	23.49313	2.17	2950.53808	1084.41940 (ug/L)
K (766.491 nm)	194.98721	ug/L	6.07834	3.12	246.23494	194.98721 (ug/L)
Li (610.365 nm)	16.26117	ug/L	3.51151	21.59	-4553.83703	16.26117 (ug/L)
Mg (279.078 nm)	182.64281	ug/L	2.96870	1.63	316.47279	182.64281 (ug/L)
Mn (260.568 nm)	90.21081	ug/L	1.50832	1.67	1576.29957	90.21081 (ug/L)
Mo (202.032 nm)	1.05288	ug/L	0.48955	46.50	3.39060	1.05288 (ug/L)
Na (588.995 nm)	105.34385	ug/L	5.42433	5.15	26641.28918	105.34385 (ug/L)
Ni (231.604 nm)	2.42364	ug/L	1.76709	72.91	1.81989	2.42364 (ug/L)
P (178.222 nm)	25.41518	ug/L	6.00114	23.61	4.96576	25.41518 (ug/L)
Pb (220.353 nm)	0.89179	ug/L	1.84189	> 100.00	3.15789	0.89179 (ug/L)
Pt (203.646 nm)	0.57156	ug/L	0.91476	> 100.00	8.55676	0.57156 (ug/L)
Sb (206.834 nm)	4.34856	ug/L	1.72042	39.56	-4.91415	4.34856 (ug/L)
Se (196.026 nm)	0.26599	ug/L	4.87304	> 100.00	2.92062	0.26599 (ug/L)
Si (251.611 nm)	1235.21975	ug/L	18.86454	1.53	1763.11165	1235.21975 (ug/L)
Sn (189.925 nm)	3.81494	ug/L	2.68869	70.48	-2.19057	3.81494 (ug/L)
Sr (421.552 nm)	5.22923	ug/L	0.12953	2.48	10701.72877	5.22923 (ug/L)
Te (214.282 nm)	3.34828	ug/L	5.21261	> 100.00	-3.49901	3.34828 (ug/L)
Ti (334.941 nm)	43.91465	ug/L	0.93218	2.12	8752.47354	43.91465 (ug/L)
Tl (190.807 nm)	8.25482	ug/L	4.54422	55.05	1.88337	8.25482 (ug/L)
U (409.013 nm)	-3.78684	ug/L	3.58808	94.75	162.15056	-3.78684 (ug/L)
V (292.401 nm)	2.77119	ug/L	0.29896	10.79	48.32243	2.77119 (ug/L)
W (207.912 nm)	-0.19251	ug/L	1.33897	> 100.00	11.76194	-0.19251 (ug/L)
Y (371.029 nm)	0.28269	ug/L	0.05311	18.79	46.53630	0.28269 (ug/L)
Zn (206.200 nm)	599.89525	ug/L	12.17210	2.03	1059.55597	599.89525 (ug/L)
Zr (343.823 nm)	1.68560	ug/L	0.06704	3.98	201.53999	1.68560 (ug/L)

Label	Internal Standard
Ag (328.068 nm)	Sc-A
Al (236.705 nm)	Sc-A
As (188.980 nm)	Sc-A
B (249.772 nm)	Sc-A
Ba (230.424 nm)	Sc-A
Be (313.107 nm)	Sc-A
Bi (223.061 nm)	Sc-A
Ca (317.933 nm)	Sc-A

Label	Internal Standard
Cd (214.439 nm)	Sc-A
Co (228.615 nm)	Sc-A
Cr (205.560 nm)	Sc-A
Cu (224.700 nm)	Sc-A
Fe (261.382 nm)	Sc-A
K (766.491 nm)	Sc-R
Li (610.365 nm)	Sc-R
Mg (279.078 nm)	Sc-A
Mn (260.568 nm)	Sc-A
Mo (202.032 nm)	Sc-A
Na (588.995 nm)	Sc-R
Ni (231.604 nm)	Sc-A
P (178.222 nm)	Sc-A
Pb (220.353 nm)	Sc-A
Pt (203.646 nm)	Sc-A
Sb (206.834 nm)	Sc-A
Se (196.026 nm)	Sc-A
Si (251.611 nm)	Sc-A
Sn (189.925 nm)	Sc-A
Sr (421.552 nm)	Sc-A
Te (214.282 nm)	Sc-A
Ti (334.941 nm)	Sc-A
Tl (190.807 nm)	Sc-A
U (409.013 nm)	Sc-A
V (292.401 nm)	Sc-A
W (207.912 nm)	Sc-A
Y (371.029 nm)	Sc-A
Zn (206.200 nm)	Sc-A
Zr (343.823 nm)	Sc-A

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Sc-A	1.03	423025.70	0.00	0.33
Sc-R	1.02	47762.67	0.00	0.27

Replicates Concentration

Label	Replicate 1	Replicate 2	Replicate 3	Units
Ag (328.068 nm)	0.30495	-0.03947 u	-0.26250 u	ug/L
Al (236.705 nm)	400.05145	415.52764	422.94255	ug/L
As (188.980 nm)	-0.27855 u	-0.95200 u	3.58741	ug/L
B (249.772 nm)	8.58592	8.07821	6.52759	ug/L
Ba (230.424 nm)	5.46455	5.61055	5.49362	ug/L
Be (313.107 nm)	0.02583	0.02577	0.04943	ug/L
Bi (223.061 nm)	-1.64982 u	3.46240	1.61481	ug/L
Ca (317.933 nm)	4159.00325	4239.05073	4294.53782	ug/L
Cd (214.439 nm)	0.00299	0.45631	-0.24476 u	ug/L
Co (228.615 nm)	1.64236	1.51331	1.33595	ug/L

Label	Replicate 1	Replicate 2	Replicate 3	Units
Cr (205.560 nm)	1.38685	3.54778	4.71500	ug/L
Cu (224.700 nm)	33.48104	36.19127	39.73799	ug/L
Fe (261.382 nm)	1059.04397	1088.80094	1105.41330	ug/L
K (766.491 nm)	188.17525	199.85744	196.92896	ug/L
Li (610.365 nm)	14.87155	13.65714	20.25483	ug/L
Mg (279.078 nm)	179.48721	183.06094	185.38027	ug/L
Mn (260.568 nm)	88.52317	90.68190	91.42737	ug/L
Mo (202.032 nm)	0.53128	1.12497	1.50239	ug/L
Na (588.995 nm)	105.73571	110.56162	99.73422	ug/L
Ni (231.604 nm)	3.71957	3.14061	0.41074	ug/L
P (178.222 nm)	18.48638	28.79339	28.96578	ug/L
Pb (220.353 nm)	-1.02388 u	2.64976	1.04948	ug/L
Pt (203.646 nm)	1.41683	0.69749	-0.39964 u	ug/L
Sb (206.834 nm)	6.25792	2.91891	3.86885	ug/L
Se (196.026 nm)	-4.79901 u	0.67580	4.92118	ug/L
Si (251.611 nm)	1213.43688	1246.08771	1246.13468	ug/L
Sn (189.925 nm)	3.44139	1.33255	6.67087	ug/L
Sr (421.552 nm)	5.09818	5.23234	5.35717	ug/L
Te (214.282 nm)	3.08714	8.68656	-1.72885 u	ug/L
Ti (334.941 nm)	42.96354	43.95375	44.82667	ug/L
Tl (190.807 nm)	6.77002	4.63872	13.35571	ug/L
U (409.013 nm)	-1.94579 u	-1.49299 u	-7.92174 u	ug/L
V (292.401 nm)	2.45153	2.81812	3.04390	ug/L
W (207.912 nm)	-1.71836 u	0.35437	0.78646	ug/L
Y (371.029 nm)	0.22189	0.30618	0.32000	ug/L
Zn (206.200 nm)	585.92171	605.57239	608.19166	ug/L
Zr (343.823 nm)	1.68805	1.75137	1.61736	ug/L
Sc-A (361.383 nm)	1.03	1.03	1.03	Ratio
Sc-R (503.102 nm)	1.01	1.02	1.02	Ratio

Sample Name: 2219240004

Date: 7/14/2022 12:17:46 Rack:Tube: 1:58

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Calculated Concentration
Ag (328.068 nm)	-0.00407	ug/L	0.10641	> 100.00	-88.72974	-0.00407 (ug/L)
Al (236.705 nm)	41.77622	ug/L	9.41937	22.55	88.21099	41.77622 (ug/L)
As (188.980 nm)	3.47582	ug/L	4.46708	> 100.00	-6.11127	3.47582 (ug/L)
B (249.772 nm)	2.46484	ug/L	0.34244	13.89	105.15696	2.46484 (ug/L)
Ba (230.424 nm)	4.79904	ug/L	0.41186	8.58	82.45977	4.79904 (ug/L)
Be (313.107 nm)	0.00982	ug/L	0.00683	69.60	10.20937	0.00982 (ug/L)
Bi (223.061 nm)	-0.63888	ug/L	3.64181	> 100.00	-39.05803	-0.63888 (ug/L)
Ca (317.933 nm)	659.31412	ug/L	14.33310	2.17	11239.81781	659.31412 (ug/L)
Cd (214.439 nm)	0.15981	ug/L	0.18325	> 100.00	-4.45066	0.15981 (ug/L)
Co (228.615 nm)	-0.08049	ug/L	0.69270	> 100.00	-9.73996	-0.08049 (ug/L)
Cr (205.560 nm)	21.99856	ug/L	0.35472	1.61	122.73171	21.99856 (ug/L)
Cu (224.700 nm)	22.62464	ug/L	2.99467	13.24	12.03412	22.62464 (ug/L)
Fe (261.382 nm)	1359.93914	ug/L	32.72399	2.41	3688.80078	1359.93914 (ug/L)

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Calculated Concentration
K (766.491 nm)	435.10298	ug/L	10.27180	2.36	737.23972	435.10298 (ug/L)
Li (610.365 nm)	21.91985	ug/L	0.59521	2.72	-4429.04337	21.91985 (ug/L)
Mg (279.078 nm)	58.72418	ug/L	0.48159	0.82	120.32887	58.72418 (ug/L)
Mn (260.568 nm)	281.49256	ug/L	6.18671	2.20	4915.55481	281.49256 (ug/L)
Mo (202.032 nm)	0.73049	ug/L	0.25085	34.34	1.83214	0.73049 (ug/L)
Na (588.995 nm)	59.07116	ug/L	9.57055	16.20	25546.74005	59.07116 (ug/L)
Ni (231.604 nm)	0.47767	ug/L	1.85984	> 100.00	-2.73065	0.47767 (ug/L)
P (178.222 nm)	28.38202	ug/L	3.47561	12.25	5.25106	28.38202 (ug/L)
Pb (220.353 nm)	0.18280	ug/L	0.93635	> 100.00	2.31449	0.18280 (ug/L)
Pt (203.646 nm)	4.54551	ug/L	1.36224	29.97	13.51568	4.54551 (ug/L)
Sb (206.834 nm)	1.05669	ug/L	2.33503	> 100.00	-7.72144	1.05669 (ug/L)
Se (196.026 nm)	1.09117	ug/L	6.55113	> 100.00	3.44639	1.09117 (ug/L)
Si (251.611 nm)	279.87888	ug/L	7.86733	2.81	414.70975	279.87888 (ug/L)
Sn (189.925 nm)	4.16717	ug/L	0.86298	20.71	-1.92725	4.16717 (ug/L)
Sr (421.552 nm)	2.48230	ug/L	0.04348	1.75	5089.94413	2.48230 (ug/L)
Te (214.282 nm)	4.91711	ug/L	7.30245	> 100.00	-2.68074	4.91711 (ug/L)
Ti (334.941 nm)	30.25018	ug/L	0.66264	2.19	6013.87200	30.25018 (ug/L)
Tl (190.807 nm)	7.31674	ug/L	5.37384	73.45	1.58829	7.31674 (ug/L)
U (409.013 nm)	-4.03783	ug/L	3.26193	80.78	161.03792	-4.03783 (ug/L)
V (292.401 nm)	0.71647	ug/L	0.10673	14.90	-5.76126	0.71647 (ug/L)
W (207.912 nm)	3.47944	ug/L	0.44413	12.76	29.00679	3.47944 (ug/L)
Y (371.029 nm)	0.03034	ug/L	0.05100	> 100.00	4.99880	0.03034 (ug/L)
Zn (206.200 nm)	1888.56711	ug/L	54.53229	2.89	3338.83086	1888.56711 (ug/L)
Zr (343.823 nm)	0.90145	ug/L	0.05643	6.26	152.37570	0.90145 (ug/L)

Label	Internal Standard
Ag (328.068 nm)	Sc-A
Al (236.705 nm)	Sc-A
As (188.980 nm)	Sc-A
B (249.772 nm)	Sc-A
Ba (230.424 nm)	Sc-A
Be (313.107 nm)	Sc-A
Bi (223.061 nm)	Sc-A
Ca (317.933 nm)	Sc-A
Cd (214.439 nm)	Sc-A
Co (228.615 nm)	Sc-A
Cr (205.560 nm)	Sc-A
Cu (224.700 nm)	Sc-A
Fe (261.382 nm)	Sc-A
K (766.491 nm)	Sc-R
Li (610.365 nm)	Sc-R
Mg (279.078 nm)	Sc-A
Mn (260.568 nm)	Sc-A
Mo (202.032 nm)	Sc-A
Na (588.995 nm)	Sc-R
Ni (231.604 nm)	Sc-A
P (178.222 nm)	Sc-A
Pb (220.353 nm)	Sc-A

Label	Internal Standard
Pt (203.646 nm)	Sc-A
Sb (206.834 nm)	Sc-A
Se (196.026 nm)	Sc-A
Si (251.611 nm)	Sc-A
Sn (189.925 nm)	Sc-A
Sr (421.552 nm)	Sc-A
Te (214.282 nm)	Sc-A
Ti (334.941 nm)	Sc-A
Tl (190.807 nm)	Sc-A
U (409.013 nm)	Sc-A
V (292.401 nm)	Sc-A
W (207.912 nm)	Sc-A
Y (371.029 nm)	Sc-A
Zn (206.200 nm)	Sc-A
Zr (343.823 nm)	Sc-A

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Sc-A	1.04	426539.32	0.00	0.31
Sc-R	1.03	48150.62	0.00	0.34

Replicates Concentration

Label	Replicate 1	Replicate 2	Replicate 3	Units
Ag (328.068 nm)	-0.10347 u	-0.01690 u	0.10817	ug/L
Al (236.705 nm)	31.07512	45.44170	48.81184	ug/L
As (188.980 nm)	-0.46483 u	2.56374	8.32854	ug/L
B (249.772 nm)	2.83176	2.15374	2.40901	ug/L
Ba (230.424 nm)	4.35468	5.16798	4.87447	ug/L
Be (313.107 nm)	0.00193	0.01371	0.01383	ug/L
Bi (223.061 nm)	-4.84408 u	1.46245	1.46499	ug/L
Ca (317.933 nm)	644.67543	659.94623	673.32071	ug/L
Cd (214.439 nm)	-0.04739 u	0.30058	0.22624	ug/L
Co (228.615 nm)	0.28773	0.35034	-0.87953 u	ug/L
Cr (205.560 nm)	21.98583	21.65037	22.35948	ug/L
Cu (224.700 nm)	20.01963	21.95775	25.89653	ug/L
Fe (261.382 nm)	1326.44751	1361.53262	1391.83728	ug/L
K (766.491 nm)	423.99286	437.06166	444.25441	ug/L
Li (610.365 nm)	22.59211	21.70751	21.45991	ug/L
Mg (279.078 nm)	58.89496	58.18047	59.09712	ug/L
Mn (260.568 nm)	275.18082	281.75071	287.54616	ug/L
Mo (202.032 nm)	1.01214	0.53112	0.64822	ug/L
Na (588.995 nm)	54.82638	52.35716	70.02995	ug/L
Ni (231.604 nm)	-1.64275 u	1.24313	1.83262	ug/L
P (178.222 nm)	31.88375	28.32916	24.93313	ug/L
Pb (220.353 nm)	-0.29126 u	1.26138	-0.42171 u	ug/L
Pt (203.646 nm)	3.37866	6.04247	4.21538	ug/L
Sb (206.834 nm)	-0.61119 u	3.72530	0.05596	ug/L

Label	Replicate 1	Replicate 2	Replicate 3	Units
Se (196.026 nm)	6.24995	-6.27963 u	3.30318	ug/L
Si (251.611 nm)	277.21449	273.68973	288.73243	ug/L
Sn (189.925 nm)	5.10155	3.99987	3.40010	ug/L
Sr (421.552 nm)	2.43682	2.48664	2.52344	ug/L
Te (214.282 nm)	2.04044	-0.50891 u	13.21979	ug/L
Ti (334.941 nm)	29.53972	30.35938	30.85143	ug/L
Tl (190.807 nm)	10.88093	9.93356	1.13572	ug/L
U (409.013 nm)	-1.31180 u	-3.14989 u	-7.65179 u	ug/L
V (292.401 nm)	0.60826	0.82164	0.71952	ug/L
W (207.912 nm)	2.98084	3.62480	3.83267	ug/L
Y (371.029 nm)	-0.02847 u	0.05714	0.06234	ug/L
Zn (206.200 nm)	1841.89509	1875.29626	1948.50999	ug/L
Zr (343.823 nm)	0.93807	0.92981	0.83647	ug/L
Sc-A (361.383 nm)	1.03	1.04	1.04	Ratio
Sc-R (503.102 nm)	1.02	1.03	1.03	Ratio

Sample Name: 2219240005

Date: 7/14/2022 12:19:27 Rack:Tube: 1:59

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Calculated Concentration
Ag (328.068 nm)	0.20200	ug/L	0.07741	38.32	-77.96487	0.20200 (ug/L)
Al (236.705 nm)	64.32323	ug/L	1.58810	2.47	101.59685	64.32323 (ug/L)
As (188.980 nm)	3.04640	ug/L	1.08594	35.65	-6.34488	3.04640 (ug/L)
B (249.772 nm)	0.57394	ug/L	0.20475	35.68	94.40503	0.57394 (ug/L)
Ba (230.424 nm)	36.79782	ug/L	0.62485	1.70	664.39867	36.79782 (ug/L)
Be (313.107 nm)	0.36035	ug/L	0.00807	2.24	269.54276	0.36035 (ug/L)
Bi (223.061 nm)	-1.59662	ug/L	0.98506	61.70	-40.97760	-1.59662 (ug/L)
Ca (317.933 nm)	975.52100	ug/L	19.74789	2.02	16646.97036	975.52100 (ug/L)
Cd (214.439 nm)	0.20524	ug/L	0.21568	> 100.00	-3.95227	0.20524 (ug/L)
Co (228.615 nm)	1.38946	ug/L	0.47196	33.97	-0.63486	1.38946 (ug/L)
Cr (205.560 nm)	6.39216	ug/L	0.34610	5.41	32.47632	6.39216 (ug/L)
Cu (224.700 nm)	21.63867	ug/L	0.71832	3.32	12.06438	21.63867 (ug/L)
Fe (261.382 nm)	3462.47379	ug/L	71.23653	2.06	9317.02198	3462.47379 (ug/L)
K (766.491 nm)	1125.51075	ug/L	30.09883	2.67	2148.74824	1125.51075 (ug/L)
Li (610.365 nm)	18.41601	ug/L	1.76944	9.61	-4474.01541	18.41601 (ug/L)
Mg (279.078 nm)	69.09954	ug/L	1.86250	2.70	136.24561	69.09954 (ug/L)
Mn (260.568 nm)	547.85369	ug/L	11.22255	2.05	9566.56788	547.85369 (ug/L)
Mo (202.032 nm)	0.89820	ug/L	0.33933	37.78	2.46676	0.89820 (ug/L)
Na (588.995 nm)	224.40882	ug/L	0.28875	0.13	29457.69057	224.40882 (ug/L)
Ni (231.604 nm)	3.35676	ug/L	1.11530	33.23	4.04901	3.35676 (ug/L)
P (178.222 nm)	45.43934	ug/L	7.83241	17.24	6.89134	45.43934 (ug/L)
Pb (220.353 nm)	0.74870	ug/L	5.29306	> 100.00	3.09321	0.74870 (ug/L)
Pt (203.646 nm)	3.22683	ug/L	0.89623	27.77	26.25519	3.22683 (ug/L)
Sb (206.834 nm)	1.99317	ug/L	1.94179	97.42	-7.05624	1.99317 (ug/L)
Se (196.026 nm)	6.10853	ug/L	3.41647	55.93	5.99358	6.10853 (ug/L)
Si (251.611 nm)	348.14332	ug/L	11.17849	3.21	510.82677	348.14332 (ug/L)
Sn (189.925 nm)	1.85758	ug/L	1.98024	> 100.00	-3.65386	1.85758 (ug/L)

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Calculated Concentration
Sr (421.552 nm)	6.18840	ug/L	0.13621	2.20	12661.25176	6.18840 (ug/L)
Te (214.282 nm)	9.00294	ug/L	13.10322	> 100.00	-0.39452	9.00294 (ug/L)
Ti (334.941 nm)	68.19393	ug/L	1.35858	1.99	13635.20064	68.19393 (ug/L)
Tl (190.807 nm)	10.31298	ug/L	3.32990	32.29	2.28757	10.31298 (ug/L)
U (409.013 nm)	-1.99033	ug/L	3.83763	> 100.00	173.96758	-1.99033 (ug/L)
V (292.401 nm)	1.01022	ug/L	0.16306	16.14	-1.25427	1.01022 (ug/L)
W (207.912 nm)	1.47515	ug/L	1.15556	78.33	8.15529	1.47515 (ug/L)
Y (371.029 nm)	0.03023	ug/L	0.06263	> 100.00	4.39028	0.03023 (ug/L)
Zn (206.200 nm)	11.35369	ug/L	0.37380	3.29	18.63860	11.35369 (ug/L)
Zr (343.823 nm)	1.15660	ug/L	0.04788	4.14	171.14231	1.15660 (ug/L)

Label	Internal Standard
Ag (328.068 nm)	Sc-A
Al (236.705 nm)	Sc-A
As (188.980 nm)	Sc-A
B (249.772 nm)	Sc-A
Ba (230.424 nm)	Sc-A
Be (313.107 nm)	Sc-A
Bi (223.061 nm)	Sc-A
Ca (317.933 nm)	Sc-A
Cd (214.439 nm)	Sc-A
Co (228.615 nm)	Sc-A
Cr (205.560 nm)	Sc-A
Cu (224.700 nm)	Sc-A
Fe (261.382 nm)	Sc-A
K (766.491 nm)	Sc-R
Li (610.365 nm)	Sc-R
Mg (279.078 nm)	Sc-A
Mn (260.568 nm)	Sc-A
Mo (202.032 nm)	Sc-A
Na (588.995 nm)	Sc-R
Ni (231.604 nm)	Sc-A
P (178.222 nm)	Sc-A
Pb (220.353 nm)	Sc-A
Pt (203.646 nm)	Sc-A
Sb (206.834 nm)	Sc-A
Se (196.026 nm)	Sc-A
Si (251.611 nm)	Sc-A
Sn (189.925 nm)	Sc-A
Sr (421.552 nm)	Sc-A
Te (214.282 nm)	Sc-A
Ti (334.941 nm)	Sc-A
Tl (190.807 nm)	Sc-A
U (409.013 nm)	Sc-A
V (292.401 nm)	Sc-A
W (207.912 nm)	Sc-A
Y (371.029 nm)	Sc-A
Zn (206.200 nm)	Sc-A

Label	Internal Standard
Zr (343.823 nm)	Sc-A

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Sc-A	1.03	425189.64	0.00	0.34
Sc-R	1.02	47923.24	0.00	0.39

Replicates Concentration

Label	Replicate 1	Replicate 2	Replicate 3	Units
Ag (328.068 nm)	0.24618	0.11263	0.24721	ug/L
Al (236.705 nm)	63.04578	66.10131	63.82259	ug/L
As (188.980 nm)	2.54726	4.29216	2.29978	ug/L
B (249.772 nm)	0.77673	0.57781	0.36727	ug/L
Ba (230.424 nm)	36.10194	36.98071	37.31082	ug/L
Be (313.107 nm)	0.35311	0.35890	0.36905	ug/L
Bi (223.061 nm)	-2.31313 u	-0.47331 u	-2.00341 u	ug/L
Ca (317.933 nm)	954.28828	978.93613	993.33859	ug/L
Cd (214.439 nm)	0.40422	0.23546	-0.02396 u	ug/L
Co (228.615 nm)	0.87208	1.49987	1.79642	ug/L
Cr (205.560 nm)	6.14643	6.78796	6.24208	ug/L
Cu (224.700 nm)	21.78324	20.85906	22.27371	ug/L
Fe (261.382 nm)	3386.49896	3473.15714	3527.76528	ug/L
K (766.491 nm)	1092.72568	1131.91358	1151.89298	ug/L
Li (610.365 nm)	19.93185	16.47167	18.84450	ug/L
Mg (279.078 nm)	68.13832	67.91404	71.24627	ug/L
Mn (260.568 nm)	536.02968	549.17326	558.35811	ug/L
Mo (202.032 nm)	0.50703	1.07418	1.11340	ug/L
Na (588.995 nm)	224.70565	224.12888	224.39192	ug/L
Ni (231.604 nm)	4.44747	3.40442	2.21839	ug/L
P (178.222 nm)	36.53077	51.24439	48.54287	ug/L
Pb (220.353 nm)	6.73769	-3.30194 u	-1.18965 u	ug/L
Pt (203.646 nm)	2.64661	4.25905	2.77481	ug/L
Sb (206.834 nm)	4.20934	1.17998	0.59018	ug/L
Se (196.026 nm)	4.55501	10.02570	3.74489	ug/L
Si (251.611 nm)	336.06215	350.24783	358.11999	ug/L
Sn (189.925 nm)	1.70822	-0.04375 u	3.90827	ug/L
Sr (421.552 nm)	6.04224	6.21120	6.31178	ug/L
Te (214.282 nm)	-4.97893 u	10.98640	21.00134	ug/L
Ti (334.941 nm)	66.74669	68.39328	69.44181	ug/L
Tl (190.807 nm)	7.56861	14.01745	9.35289	ug/L
U (409.013 nm)	1.75292	-5.91584 u	-1.80807 u	ug/L
V (292.401 nm)	1.14036	1.06299	0.82731	ug/L
W (207.912 nm)	2.69912	0.40301	1.32333	ug/L
Y (371.029 nm)	0.06437	0.06837	-0.04205 u	ug/L
Zn (206.200 nm)	11.70263	10.95920	11.39925	ug/L
Zr (343.823 nm)	1.20972	1.14329	1.11678	ug/L
Sc-A (361.383 nm)	1.03	1.03	1.04	Ratio

Label	Replicate 1	Replicate 2	Replicate 3	Units
Sc-R (503.102 nm)	1.02	1.02	1.02	Ratio

Sample Name: 2219240006

Date: 7/14/2022 12:21:08 Rack:Tube: 1:60

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Calculated Concentration
Ag (328.068 nm)	0.09410	ug/L	0.17855	> 100.00	-81.74831	0.09410 (ug/L)
Al (236.705 nm)	406.44683	ug/L	3.20049	0.79	306.03810	406.44683 (ug/L)
As (188.980 nm)	17.67357	ug/L	7.01769	39.71	0.85277	17.67357 (ug/L)
B (249.772 nm)	3.30528	ug/L	0.28721	8.69	345.74761	3.30528 (ug/L)
Ba (230.424 nm)	83.46690	ug/L	0.89274	1.07	1513.17346	83.46690 (ug/L)
Be (313.107 nm)	1.08393	ug/L	0.02900	2.68	819.61379	1.08393 (ug/L)
Bi (223.061 nm)	3.51687	ug/L	3.06366	87.11	-39.07473	3.51687 (ug/L)
Ca (317.933 nm)	5842.91524	ug/L	104.01333	1.78	99880.02683	5842.91524 (ug/L)
Cd (214.439 nm)	0.01510	ug/L	0.27357	> 100.00	-5.03344	0.01510 (ug/L)
Co (228.615 nm)	1.85414	ug/L	0.44435	23.97	6.58396	1.85414 (ug/L)
Cr (205.560 nm)	30.07663	ug/L	0.13295	0.44	161.73893	30.07663 (ug/L)
Cu (224.700 nm)	77.46166	ug/L	2.42961	3.14	76.78751	77.46166 (ug/L)
Fe (261.382 nm)	26469.73841	ug/L	477.49309	1.80	70912.46354	26469.73841 (ug/L)
K (766.491 nm)	5631.86393	ug/L	97.68606	1.73	11363.13895	5631.86393 (ug/L)
Li (610.365 nm)	20.14901	ug/L	0.74755	3.71	-4531.67116	20.14901 (ug/L)
Mg (279.078 nm)	431.92842	ug/L	6.71583	1.55	705.14167	431.92842 (ug/L)
Mn (260.568 nm)	2934.15010	ug/L	52.52503	1.79	51234.83218	2934.15010 (ug/L)
Mo (202.032 nm)	3.84645	ug/L	0.28508	7.41	14.39312	3.84645 (ug/L)
Na (588.995 nm)	862.25018	ug/L	11.02896	1.28	44545.39707	862.25018 (ug/L)
Ni (231.604 nm)	9.33515	ug/L	0.42320	4.53	18.28612	9.33515 (ug/L)
P (178.222 nm)	98.95064	ug/L	21.73905	21.97	12.03713	98.95064 (ug/L)
Pb (220.353 nm)	9.52717	ug/L	1.52511	16.01	14.07524	9.52717 (ug/L)
Pt (203.646 nm)	7.33516	ug/L	1.43727	19.59	180.37670	7.33516 (ug/L)
Sb (206.834 nm)	-0.33944	ug/L	3.78458	> 100.00	-9.34311	-0.33944 (ug/L)
Se (196.026 nm)	15.12349	ug/L	1.98680	13.14	7.63718	15.12349 (ug/L)
Si (251.611 nm)	2396.01015	ug/L	50.83645	2.12	3398.67697	2396.01015 (ug/L)
Sn (189.925 nm)	9.48984	ug/L	1.06044	11.17	2.05189	9.48984 (ug/L)
Sr (421.552 nm)	28.59873	ug/L	0.49812	1.74	58443.97425	28.59873 (ug/L)
Te (214.282 nm)	1.70549	ug/L	4.97818	> 100.00	-2.51637	1.70549 (ug/L)
Ti (334.941 nm)	554.55683	ug/L	10.28888	1.86	111332.19495	554.55683 (ug/L)
Tl (190.807 nm)	16.15363	ug/L	9.39937	58.19	1.58316	16.15363 (ug/L)
U (409.013 nm)	-0.02724	ug/L	2.96092	> 100.00	206.76122	-0.02724 (ug/L)
V (292.401 nm)	3.07924	ug/L	0.16738	5.44	14.90291	3.07924 (ug/L)
W (207.912 nm)	0.04326	ug/L	4.38480	> 100.00	7.44632	0.04326 (ug/L)
Y (371.029 nm)	0.37381	ug/L	0.03594	9.61	53.60581	0.37381 (ug/L)
Zn (206.200 nm)	126.19713	ug/L	3.31793	2.63	221.82211	126.19713 (ug/L)
Zr (343.823 nm)	9.25580	ug/L	0.26691	2.88	717.98257	9.25580 (ug/L)

Label	Internal Standard
Ag (328.068 nm)	Sc-A
Al (236.705 nm)	Sc-A
As (188.980 nm)	Sc-A
B (249.772 nm)	Sc-A
Ba (230.424 nm)	Sc-A
Be (313.107 nm)	Sc-A
Bi (223.061 nm)	Sc-A
Ca (317.933 nm)	Sc-A
Cd (214.439 nm)	Sc-A
Co (228.615 nm)	Sc-A
Cr (205.560 nm)	Sc-A
Cu (224.700 nm)	Sc-A
Fe (261.382 nm)	Sc-A
K (766.491 nm)	Sc-R
Li (610.365 nm)	Sc-R
Mg (279.078 nm)	Sc-A
Mn (260.568 nm)	Sc-A
Mo (202.032 nm)	Sc-A
Na (588.995 nm)	Sc-R
Ni (231.604 nm)	Sc-A
P (178.222 nm)	Sc-A
Pb (220.353 nm)	Sc-A
Pt (203.646 nm)	Sc-A
Sb (206.834 nm)	Sc-A
Se (196.026 nm)	Sc-A
Si (251.611 nm)	Sc-A
Sn (189.925 nm)	Sc-A
Sr (421.552 nm)	Sc-A
Te (214.282 nm)	Sc-A
Ti (334.941 nm)	Sc-A
Tl (190.807 nm)	Sc-A
U (409.013 nm)	Sc-A
V (292.401 nm)	Sc-A
W (207.912 nm)	Sc-A
Y (371.029 nm)	Sc-A
Zn (206.200 nm)	Sc-A
Zr (343.823 nm)	Sc-A

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Sc-A	1.03	424502.69	0.00	0.37
Sc-R	1.02	47866.19	0.00	0.31

Replicates Concentration

Label	Replicate 1	Replicate 2	Replicate 3	Units
Ag (328.068 nm)	-0.05186 u	0.29318	0.04099	ug/L
Al (236.705 nm)	407.16713	402.94757	409.22580	ug/L

Label	Replicate 1	Replicate 2	Replicate 3	Units
As (188.980 nm)	24.83753	10.81192	17.37128	ug/L
B (249.772 nm)	3.04971	3.25003	3.61611	ug/L
Ba (230.424 nm)	82.67420	83.29255	84.43395	ug/L
Be (313.107 nm)	1.06224	1.07268	1.11686	ug/L
Bi (223.061 nm)	0.00118	5.61523	4.93420	ug/L
Ca (317.933 nm)	5735.31736	5850.49951	5942.92885	ug/L
Cd (214.439 nm)	0.15679	0.18876	-0.30025 u	ug/L
Co (228.615 nm)	1.89161	1.39224	2.27856	ug/L
Cr (205.560 nm)	29.97000	30.22559	30.03430	ug/L
Cu (224.700 nm)	75.09807	77.33463	79.95230	ug/L
Fe (261.382 nm)	25963.50173	26533.66646	26912.04704	ug/L
K (766.491 nm)	5520.44989	5672.31478	5702.82713	ug/L
Li (610.365 nm)	20.81990	19.34318	20.28394	ug/L
Mg (279.078 nm)	425.17332	432.00767	438.60427	ug/L
Mn (260.568 nm)	2878.37507	2941.40421	2982.67103	ug/L
Mo (202.032 nm)	3.52979	3.92694	4.08264	ug/L
Na (588.995 nm)	849.62969	867.08382	870.03702	ug/L
Ni (231.604 nm)	9.02898	9.15838	9.81808	ug/L
P (178.222 nm)	120.68266	98.96468	77.20457	ug/L
Pb (220.353 nm)	7.78520	10.62204	10.17426	ug/L
Pt (203.646 nm)	5.69098	8.35284	7.96166	ug/L
Sb (206.834 nm)	3.00553	0.42353	-4.44738 u	ug/L
Se (196.026 nm)	17.41482	14.07648	13.87917	ug/L
Si (251.611 nm)	2339.27138	2411.34577	2437.41328	ug/L
Sn (189.925 nm)	8.68809	10.69222	9.08919	ug/L
Sr (421.552 nm)	28.05388	28.71154	29.03078	ug/L
Te (214.282 nm)	6.33091	2.34852	-3.56295 u	ug/L
Ti (334.941 nm)	543.39067	556.62584	563.65399	ug/L
Tl (190.807 nm)	26.13425	7.47027	14.85637	ug/L
U (409.013 nm)	2.53068	-3.27084 u	0.65844	ug/L
V (292.401 nm)	3.18029	3.17139	2.88603	ug/L
W (207.912 nm)	4.78865	-3.85832 u	-0.80055 u	ug/L
Y (371.029 nm)	0.33338	0.40213	0.38591	ug/L
Zn (206.200 nm)	125.77871	123.10827	129.70443	ug/L
Zr (343.823 nm)	8.94761	9.41256	9.40722	ug/L
Sc-A (361.383 nm)	1.03	1.03	1.03	Ratio
Sc-R (503.102 nm)	1.02	1.02	1.02	Ratio

Sample Name: 2219244001

Date: 7/14/2022 12:22:48 Rack:Tube: 2:1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Calculated Concentration
Ag (328.068 nm)	0.09937	ug/L	0.25657	> 100.00	-83.44687	0.09937 (ug/L)
Al (236.705 nm)	95.64693	ug/L	6.02322	6.30	120.91991	95.64693 (ug/L)
As (188.980 nm)	2.94958	ug/L	1.91469	64.91	-6.38310	2.94958 (ug/L)
B (249.772 nm)	1.80553	ug/L	0.09945	5.51	95.49241	1.80553 (ug/L)
Ba (230.424 nm)	3.50453	ug/L	0.14327	4.09	58.96270	3.50453 (ug/L)

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Calculated Concentration
Be (313.107 nm)	0.14005	ug/L	0.01583	11.30	106.15465	0.14005 (ug/L)
Bi (223.061 nm)	3.54449	ug/L	1.18685	33.48	-32.72105	3.54449 (ug/L)
Ca (317.933 nm)	1054.08406	ug/L	13.12140	1.24	17990.43351	1054.08406 (ug/L)
Cd (214.439 nm)	0.17699	ug/L	0.24339	> 100.00	-4.36051	0.17699 (ug/L)
Co (228.615 nm)	0.61123	ug/L	0.60199	98.49	-5.60827	0.61123 (ug/L)
Cr (205.560 nm)	8.92821	ug/L	0.21979	2.46	47.62837	8.92821 (ug/L)
Cu (224.700 nm)	15.28700	ug/L	0.91332	5.97	4.94057	15.28700 (ug/L)
Fe (261.382 nm)	1439.93873	ug/L	16.42362	1.14	3902.11853	1439.93873 (ug/L)
K (766.491 nm)	590.48560	ug/L	12.61186	2.14	1054.98330	590.48560 (ug/L)
Li (610.365 nm)	21.36849	ug/L	0.88025	4.12	-4442.00138	21.36849 (ug/L)
Mg (279.078 nm)	57.67476	ug/L	1.08668	1.88	118.69733	57.67476 (ug/L)
Mn (260.568 nm)	246.46213	ug/L	3.00403	1.22	4304.20067	246.46213 (ug/L)
Mo (202.032 nm)	0.35158	ug/L	0.39270	> 100.00	0.06731	0.35158 (ug/L)
Na (588.995 nm)	269.62564	ug/L	1.56558	0.58	30527.26387	269.62564 (ug/L)
Ni (231.604 nm)	0.70033	ug/L	0.37236	53.17	-2.20457	0.70033 (ug/L)
P (178.222 nm)	19.39029	ug/L	12.90183	66.54	4.38639	19.39029 (ug/L)
Pb (220.353 nm)	4.68599	ug/L	2.50365	53.43	7.65781	4.68599 (ug/L)
Pt (203.646 nm)	2.28261	ug/L	7.78625	> 100.00	12.25332	2.28261 (ug/L)
Sb (206.834 nm)	-0.70570	ug/L	1.88136	> 100.00	-9.42075	-0.70570 (ug/L)
Se (196.026 nm)	1.81342	ug/L	3.77814	> 100.00	3.76929	1.81342 (ug/L)
Si (251.611 nm)	394.53332	ug/L	7.64013	1.94	576.51452	394.53332 (ug/L)
Sn (189.925 nm)	-2.04218	ug/L	1.16519	57.06	-6.56926	-2.04218 (ug/L)
Sr (421.552 nm)	43.96477	ug/L	0.60236	1.37	89835.68862	43.96477 (ug/L)
Te (214.282 nm)	7.75754	ug/L	7.57519	97.65	-1.18900	7.75754 (ug/L)
Ti (334.941 nm)	30.67117	ug/L	0.38065	1.24	6097.22470	30.67117 (ug/L)
Tl (190.807 nm)	5.95184	ug/L	2.18026	36.63	0.42634	5.95184 (ug/L)
U (409.013 nm)	-3.78236	ug/L	0.45071	11.92	162.46295	-3.78236 (ug/L)
V (292.401 nm)	0.66489	ug/L	0.11786	17.73	-6.89479	0.66489 (ug/L)
W (207.912 nm)	1.76246	ug/L	3.39360	> 100.00	8.50610	1.76246 (ug/L)
Y (371.029 nm)	0.05501	ug/L	0.04119	74.88	9.07526	0.05501 (ug/L)
Zn (206.200 nm)	9.75016	ug/L	0.21094	2.16	15.81048	9.75016 (ug/L)
Zr (343.823 nm)	0.53168	ug/L	0.10510	19.77	128.64286	0.53168 (ug/L)

Label	Internal Standard
Ag (328.068 nm)	Sc-A
Al (236.705 nm)	Sc-A
As (188.980 nm)	Sc-A
B (249.772 nm)	Sc-A
Ba (230.424 nm)	Sc-A
Be (313.107 nm)	Sc-A
Bi (223.061 nm)	Sc-A
Ca (317.933 nm)	Sc-A
Cd (214.439 nm)	Sc-A
Co (228.615 nm)	Sc-A
Cr (205.560 nm)	Sc-A
Cu (224.700 nm)	Sc-A
Fe (261.382 nm)	Sc-A
K (766.491 nm)	Sc-R

Label	Internal Standard
Li (610.365 nm)	Sc-R
Mg (279.078 nm)	Sc-A
Mn (260.568 nm)	Sc-A
Mo (202.032 nm)	Sc-A
Na (588.995 nm)	Sc-R
Ni (231.604 nm)	Sc-A
P (178.222 nm)	Sc-A
Pb (220.353 nm)	Sc-A
Pt (203.646 nm)	Sc-A
Sb (206.834 nm)	Sc-A
Se (196.026 nm)	Sc-A
Si (251.611 nm)	Sc-A
Sn (189.925 nm)	Sc-A
Sr (421.552 nm)	Sc-A
Te (214.282 nm)	Sc-A
Ti (334.941 nm)	Sc-A
Tl (190.807 nm)	Sc-A
U (409.013 nm)	Sc-A
V (292.401 nm)	Sc-A
W (207.912 nm)	Sc-A
Y (371.029 nm)	Sc-A
Zn (206.200 nm)	Sc-A
Zr (343.823 nm)	Sc-A

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Sc-A	1.04	426233.04	0.00	0.43
Sc-R	1.02	47988.78	0.00	0.36

Replicates Concentration

Label	Replicate 1	Replicate 2	Replicate 3	Units
Ag (328.068 nm)	0.06185	0.37264	-0.13637 u	ug/L
Al (236.705 nm)	88.86395	100.36981	97.70704	ug/L
As (188.980 nm)	2.62069	5.00741	1.22064	ug/L
B (249.772 nm)	1.73140	1.91855	1.76665	ug/L
Ba (230.424 nm)	3.36161	3.64816	3.50383	ug/L
Be (313.107 nm)	0.12206	0.15184	0.14624	ug/L
Bi (223.061 nm)	3.06815	4.89552	2.66981	ug/L
Ca (317.933 nm)	1040.46595	1055.14145	1066.64477	ug/L
Cd (214.439 nm)	0.11276	0.44605	-0.02784 u	ug/L
Co (228.615 nm)	-0.08155 u	1.00700	0.90824	ug/L
Cr (205.560 nm)	9.11196	8.68472	8.98794	ug/L
Cu (224.700 nm)	15.70233	14.23982	15.91884	ug/L
Fe (261.382 nm)	1422.64207	1441.85249	1455.32164	ug/L
K (766.491 nm)	596.73218	598.75504	575.96959	ug/L
Li (610.365 nm)	20.35331	21.91967	21.83250	ug/L
Mg (279.078 nm)	56.43041	58.43689	58.15697	ug/L

Label	Replicate 1	Replicate 2	Replicate 3	Units
Mn (260.568 nm)	243.47632	246.42601	249.48406	ug/L
Mo (202.032 nm)	0.28586	-0.00411 u	0.77299	ug/L
Na (588.995 nm)	269.18492	268.32765	271.36433	ug/L
Ni (231.604 nm)	1.11436	0.39290	0.59373	ug/L
P (178.222 nm)	7.57454	17.44017	33.15617	ug/L
Pb (220.353 nm)	5.45683	1.88756	6.71358	ug/L
Pt (203.646 nm)	11.14558	-3.45713 u	-0.84062 u	ug/L
Sb (206.834 nm)	1.37562	-2.28546 u	-1.20725 u	ug/L
Se (196.026 nm)	6.11501	-0.96714 u	0.29239	ug/L
Si (251.611 nm)	386.00016	396.86069	400.73911	ug/L
Sn (189.925 nm)	-0.90509 u	-3.23357 u	-1.98788 u	ug/L
Sr (421.552 nm)	43.31823	44.06593	44.51013	ug/L
Te (214.282 nm)	0.58090	15.67661	7.01510	ug/L
Ti (334.941 nm)	30.60042	30.33085	31.08223	ug/L
Tl (190.807 nm)	8.20026	5.80844	3.84681	ug/L
U (409.013 nm)	-3.43178 u	-4.29075 u	-3.62454 u	ug/L
V (292.401 nm)	0.80029	0.60910	0.58528	ug/L
W (207.912 nm)	-2.12803 u	4.11338	3.30202	ug/L
Y (371.029 nm)	0.05529	0.01368	0.09606	ug/L
Zn (206.200 nm)	9.96685	9.73815	9.54548	ug/L
Zr (343.823 nm)	0.64663	0.50791	0.44050	ug/L
Sc-A (361.383 nm)	1.03	1.04	1.04	Ratio
Sc-R (503.102 nm)	1.02	1.02	1.02	Ratio

Sample Name: 2219256001

Date: 7/14/2022 12:24:29 Rack:Tube: 2:2

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Calculated Concentration
Ag (328.068 nm)	0.12317	ug/L	0.04128	33.51	-81.82032	0.12317 (ug/L)
Al (236.705 nm)	210.64649	ug/L	6.52279	3.10	190.18222	210.64649 (ug/L)
As (188.980 nm)	7.32342	ug/L	3.68701	50.35	-4.21711	7.32342 (ug/L)
B (249.772 nm)	7.83260	ug/L	0.43716	5.58	227.09159	7.83260 (ug/L)
Ba (230.424 nm)	47.98558	ug/L	0.41583	0.87	867.84519	47.98558 (ug/L)
Be (313.107 nm)	0.53624	ug/L	0.01280	2.39	399.08519	0.53624 (ug/L)
Bi (223.061 nm)	1.51101	ug/L	3.55263	> 100.00	-36.32794	1.51101 (ug/L)
Ca (317.933 nm)	927.35883	ug/L	9.33467	1.01	15823.51571	927.35883 (ug/L)
Cd (214.439 nm)	0.41024	ug/L	0.21865	53.30	-1.77491	0.41024 (ug/L)
Co (228.615 nm)	0.89889	ug/L	0.30921	34.40	-3.54017	0.89889 (ug/L)
Cr (205.560 nm)	20.52368	ug/L	0.39503	1.92	113.00131	20.52368 (ug/L)
Cu (224.700 nm)	48.14694	ug/L	1.77190	3.68	39.37632	48.14694 (ug/L)
Fe (261.382 nm)	5488.44848	ug/L	62.29393	1.14	14740.33103	5488.44848 (ug/L)
K (766.491 nm)	1095.75605	ug/L	8.22120	0.75	2087.81162	1095.75605 (ug/L)
Li (610.365 nm)	18.12281	ug/L	3.76202	20.76	-4476.45423	18.12281 (ug/L)
Mg (279.078 nm)	66.52263	ug/L	3.36919	5.06	131.95663	66.52263 (ug/L)
Mn (260.568 nm)	451.09677	ug/L	4.48282	0.99	7878.33597	451.09677 (ug/L)
Mo (202.032 nm)	1.14863	ug/L	0.30055	26.17	3.47519	1.14863 (ug/L)
Na (588.995 nm)	387.12664	ug/L	5.78480	1.49	33306.67078	387.12664 (ug/L)

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Calculated Concentration
Ni (231.604 nm)	5.54961	ug/L	1.34864	24.30	9.19355	5.54961 (ug/L)
P (178.222 nm)	54.90012	ug/L	11.54860	21.04	7.80111	54.90012 (ug/L)
Pb (220.353 nm)	21.62493	ug/L	2.10539	9.74	27.69018	21.62493 (ug/L)
Pt (203.646 nm)	2.98532	ug/L	5.75725	> 100.00	39.35515	2.98532 (ug/L)
Sb (206.834 nm)	0.44527	ug/L	3.77907	> 100.00	-8.36994	0.44527 (ug/L)
Se (196.026 nm)	1.66456	ug/L	1.91310	> 100.00	3.01904	1.66456 (ug/L)
Si (251.611 nm)	503.19580	ug/L	6.50975	1.29	729.44722	503.19580 (ug/L)
Sn (189.925 nm)	6.16725	ug/L	1.27299	20.64	-0.43202	6.16725 (ug/L)
Sr (421.552 nm)	77.31845	ug/L	0.74827	0.97	157974.91468	77.31845 (ug/L)
Te (214.282 nm)	1.57888	ug/L	5.74400	> 100.00	-4.14868	1.57888 (ug/L)
Ti (334.941 nm)	77.96334	ug/L	0.63749	0.82	15598.49283	77.96334 (ug/L)
Tl (190.807 nm)	9.49780	ug/L	2.07554	21.85	1.93074	9.49780 (ug/L)
U (409.013 nm)	-0.11709	ug/L	3.41835	> 100.00	185.90803	-0.11709 (ug/L)
V (292.401 nm)	0.61789	ug/L	0.29916	48.42	-15.44639	0.61789 (ug/L)
W (207.912 nm)	-0.29676	ug/L	2.15894	> 100.00	7.03488	-0.29676 (ug/L)
Y (371.029 nm)	0.14325	ug/L	0.07077	49.41	22.94047	0.14325 (ug/L)
Zn (206.200 nm)	128.72631	ug/L	1.84060	1.43	226.27023	128.72631 (ug/L)
Zr (343.823 nm)	1.99810	ug/L	0.09267	4.64	227.39756	1.99810 (ug/L)

Label	Internal Standard
Ag (328.068 nm)	Sc-A
Al (236.705 nm)	Sc-A
As (188.980 nm)	Sc-A
B (249.772 nm)	Sc-A
Ba (230.424 nm)	Sc-A
Be (313.107 nm)	Sc-A
Bi (223.061 nm)	Sc-A
Ca (317.933 nm)	Sc-A
Cd (214.439 nm)	Sc-A
Co (228.615 nm)	Sc-A
Cr (205.560 nm)	Sc-A
Cu (224.700 nm)	Sc-A
Fe (261.382 nm)	Sc-A
K (766.491 nm)	Sc-R
Li (610.365 nm)	Sc-R
Mg (279.078 nm)	Sc-A
Mn (260.568 nm)	Sc-A
Mo (202.032 nm)	Sc-A
Na (588.995 nm)	Sc-R
Ni (231.604 nm)	Sc-A
P (178.222 nm)	Sc-A
Pb (220.353 nm)	Sc-A
Pt (203.646 nm)	Sc-A
Sb (206.834 nm)	Sc-A
Se (196.026 nm)	Sc-A
Si (251.611 nm)	Sc-A
Sn (189.925 nm)	Sc-A
Sr (421.552 nm)	Sc-A

Label	Internal Standard
Te (214.282 nm)	Sc-A
Ti (334.941 nm)	Sc-A
Tl (190.807 nm)	Sc-A
U (409.013 nm)	Sc-A
V (292.401 nm)	Sc-A
W (207.912 nm)	Sc-A
Y (371.029 nm)	Sc-A
Zn (206.200 nm)	Sc-A
Zr (343.823 nm)	Sc-A

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Sc-A	1.03	423816.60	0.00	0.23
Sc-R	1.02	47823.23	0.00	0.32

Replicates Concentration

Label	Replicate 1	Replicate 2	Replicate 3	Units
Ag (328.068 nm)	0.07882	0.13024	0.16046	ug/L
Al (236.705 nm)	203.23796	213.17516	215.52636	ug/L
As (188.980 nm)	9.60292	9.29767	3.06968	ug/L
B (249.772 nm)	7.73161	7.45478	8.31143	ug/L
Ba (230.424 nm)	47.55504	48.38496	48.01674	ug/L
Be (313.107 nm)	0.55064	0.53188	0.52618	ug/L
Bi (223.061 nm)	3.87415	-2.57450 u	3.23339	ug/L
Ca (317.933 nm)	917.96037	927.48774	936.62838	ug/L
Cd (214.439 nm)	0.50907	0.15962	0.56202	ug/L
Co (228.615 nm)	0.74598	0.69592	1.25476	ug/L
Cr (205.560 nm)	20.43247	20.95634	20.18224	ug/L
Cu (224.700 nm)	46.28794	49.81651	48.33638	ug/L
Fe (261.382 nm)	5425.01610	5490.79150	5549.53785	ug/L
K (766.491 nm)	1099.25266	1086.36455	1101.65095	ug/L
Li (610.365 nm)	13.92235	21.18217	19.26390	ug/L
Mg (279.078 nm)	63.01085	66.82867	69.72835	ug/L
Mn (260.568 nm)	446.50100	451.33193	455.45738	ug/L
Mo (202.032 nm)	1.28731	1.35480	0.80378	ug/L
Na (588.995 nm)	383.51231	384.06901	393.79861	ug/L
Ni (231.604 nm)	6.89340	4.19617	5.55927	ug/L
P (178.222 nm)	54.03041	43.81096	66.85899	ug/L
Pb (220.353 nm)	20.73635	20.10950	24.02894	ug/L
Pt (203.646 nm)	9.27731	-2.01919 u	1.69785	ug/L
Sb (206.834 nm)	0.12925	-3.16588 u	4.37243	ug/L
Se (196.026 nm)	3.70221	1.38462	-0.09315 u	ug/L
Si (251.611 nm)	498.18671	500.84663	510.55406	ug/L
Sn (189.925 nm)	6.15520	4.90033	7.44622	ug/L
Sr (421.552 nm)	76.52788	77.41182	78.01565	ug/L
Te (214.282 nm)	6.38931	-4.78087 u	3.12819	ug/L
Ti (334.941 nm)	77.25019	78.16195	78.47787	ug/L

Label	Replicate 1	Replicate 2	Replicate 3	Units
Tl (190.807 nm)	7.83240	11.82305	8.83796	ug/L
U (409.013 nm)	2.39051	1.26901	-4.01079 u	ug/L
V (292.401 nm)	0.58009	0.33942	0.93416	ug/L
W (207.912 nm)	-1.98946 u	2.13456	-1.03537 u	ug/L
Y (371.029 nm)	0.06414	0.20055	0.16506	ug/L
Zn (206.200 nm)	127.17436	128.24474	130.75981	ug/L
Zr (343.823 nm)	2.02703	1.89442	2.07286	ug/L
Sc-A (361.383 nm)	1.03	1.03	1.03	Ratio
Sc-R (503.102 nm)	1.01	1.02	1.02	Ratio

Sample Name: 2219256002

Date: 7/14/2022 12:26:09 Rack:Tube: 2:3

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Calculated Concentration
Ag (328.068 nm)	-0.04989	ug/L	0.44403	> 100.00	-91.11838	-0.04989 (ug/L)
Al (236.705 nm)	42.35786	ug/L	7.18299	16.96	88.52155	42.35786 (ug/L)
As (188.980 nm)	1.95511	ug/L	2.86899	> 100.00	-6.88120	1.95511 (ug/L)
B (249.772 nm)	0.52775	ug/L	0.19610	37.16	77.00679	0.52775 (ug/L)
Ba (230.424 nm)	3.97011	ug/L	0.17930	4.52	67.41624	3.97011 (ug/L)
Be (313.107 nm)	0.02854	ug/L	0.02705	94.78	23.43098	0.02854 (ug/L)
Bi (223.061 nm)	4.31774	ug/L	3.01504	69.83	-31.44477	4.31774 (ug/L)
Ca (317.933 nm)	378.16950	ug/L	6.54345	1.73	6432.20038	378.16950 (ug/L)
Cd (214.439 nm)	0.14815	ug/L	0.05479	36.99	-4.50167	0.14815 (ug/L)
Co (228.615 nm)	0.27080	ug/L	0.44240	> 100.00	-7.71623	0.27080 (ug/L)
Cr (205.560 nm)	6.34704	ug/L	0.60257	9.49	32.74430	6.34704 (ug/L)
Cu (224.700 nm)	33.25982	ug/L	2.28660	6.87	22.96280	33.25982 (ug/L)
Fe (261.382 nm)	1621.49044	ug/L	29.57904	1.82	4388.14124	1621.49044 (ug/L)
K (766.491 nm)	507.69727	ug/L	2.94462	0.58	885.69043	507.69727 (ug/L)
Li (610.365 nm)	19.29579	ug/L	1.64943	8.55	-4454.31482	19.29579 (ug/L)
Mg (279.078 nm)	17.57175	ug/L	2.98208	16.97	55.19298	17.57175 (ug/L)
Mn (260.568 nm)	267.60317	ug/L	4.99120	1.87	4673.35512	267.60317 (ug/L)
Mo (202.032 nm)	0.16561	ug/L	0.48953	> 100.00	-0.82324	0.16561 (ug/L)
Na (588.995 nm)	295.06959	ug/L	2.62174	0.89	31129.12345	295.06959 (ug/L)
Ni (231.604 nm)	0.24967	ug/L	0.40227	> 100.00	-3.25848	0.24967 (ug/L)
P (178.222 nm)	26.91414	ug/L	26.27095	97.61	5.10991	26.91414 (ug/L)
Pb (220.353 nm)	5.74948	ug/L	0.79892	13.90	8.92224	5.74948 (ug/L)
Pt (203.646 nm)	6.38710	ug/L	3.57709	56.01	16.69347	6.38710 (ug/L)
Sb (206.834 nm)	1.59737	ug/L	6.12126	> 100.00	-7.39319	1.59737 (ug/L)
Se (196.026 nm)	11.58764	ug/L	2.82452	24.38	9.54611	11.58764 (ug/L)
Si (251.611 nm)	282.94962	ug/L	4.89220	1.73	419.00071	282.94962 (ug/L)
Sn (189.925 nm)	1.99363	ug/L	1.86861	93.73	-3.55215	1.99363 (ug/L)
Sr (421.552 nm)	34.33044	ug/L	0.55349	1.61	70153.43647	34.33044 (ug/L)
Te (214.282 nm)	6.98132	ug/L	5.00670	71.72	-1.58837	6.98132 (ug/L)
Ti (334.941 nm)	24.05299	ug/L	0.41282	1.72	4768.99287	24.05299 (ug/L)
Tl (190.807 nm)	3.94718	ug/L	9.66673	> 100.00	-0.66143	3.94718 (ug/L)
U (409.013 nm)	-0.00456	ug/L	2.26188	> 100.00	182.74368	-0.00456 (ug/L)
V (292.401 nm)	0.25392	ug/L	0.35128	> 100.00	-17.86552	0.25392 (ug/L)

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Calculated Concentration
W (207.912 nm)	0.45758	ug/L	2.14725	> 100.00	7.83433	0.45758 (ug/L)
Y (371.029 nm)	0.00443	ug/L	0.02414	> 100.00	0.81973	0.00443 (ug/L)
Zn (206.200 nm)	111.78065	ug/L	4.00794	3.59	196.25871	111.78065 (ug/L)
Zr (343.823 nm)	0.34802	ug/L	0.07759	22.30	117.13365	0.34802 (ug/L)

Label	Internal Standard
Ag (328.068 nm)	Sc-A
Al (236.705 nm)	Sc-A
As (188.980 nm)	Sc-A
B (249.772 nm)	Sc-A
Ba (230.424 nm)	Sc-A
Be (313.107 nm)	Sc-A
Bi (223.061 nm)	Sc-A
Ca (317.933 nm)	Sc-A
Cd (214.439 nm)	Sc-A
Co (228.615 nm)	Sc-A
Cr (205.560 nm)	Sc-A
Cu (224.700 nm)	Sc-A
Fe (261.382 nm)	Sc-A
K (766.491 nm)	Sc-R
Li (610.365 nm)	Sc-R
Mg (279.078 nm)	Sc-A
Mn (260.568 nm)	Sc-A
Mo (202.032 nm)	Sc-A
Na (588.995 nm)	Sc-R
Ni (231.604 nm)	Sc-A
P (178.222 nm)	Sc-A
Pb (220.353 nm)	Sc-A
Pt (203.646 nm)	Sc-A
Sb (206.834 nm)	Sc-A
Se (196.026 nm)	Sc-A
Si (251.611 nm)	Sc-A
Sn (189.925 nm)	Sc-A
Sr (421.552 nm)	Sc-A
Te (214.282 nm)	Sc-A
Ti (334.941 nm)	Sc-A
Tl (190.807 nm)	Sc-A
U (409.013 nm)	Sc-A
V (292.401 nm)	Sc-A
W (207.912 nm)	Sc-A
Y (371.029 nm)	Sc-A
Zn (206.200 nm)	Sc-A
Zr (343.823 nm)	Sc-A

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Sc-A	1.04	425876.69	0.00	0.07
Sc-R	1.02	47981.53	0.00	0.09

Replicates Concentration

Label	Replicate 1	Replicate 2	Replicate 3	Units
Ag (328.068 nm)	0.23335	-0.56164 u	0.17862	ug/L
Al (236.705 nm)	47.37120	45.57354	34.12885	ug/L
As (188.980 nm)	-1.34582 u	3.36267	3.84847	ug/L
B (249.772 nm)	0.52741	0.33183	0.72402	ug/L
Ba (230.424 nm)	3.83371	3.90342	4.17320	ug/L
Be (313.107 nm)	-0.00254 u	0.04676	0.04140	ug/L
Bi (223.061 nm)	4.08088	7.44422	1.42811	ug/L
Ca (317.933 nm)	371.44848	378.54043	384.51960	ug/L
Cd (214.439 nm)	0.15124	0.20133	0.09187	ug/L
Co (228.615 nm)	-0.09720 u	0.14797	0.76163	ug/L
Cr (205.560 nm)	6.77437	6.60892	5.65784	ug/L
Cu (224.700 nm)	34.06460	35.03523	30.67963	ug/L
Fe (261.382 nm)	1590.45925	1624.64809	1649.36398	ug/L
K (766.491 nm)	505.92736	511.09646	506.06800	ug/L
Li (610.365 nm)	20.46983	20.00755	17.40998	ug/L
Mg (279.078 nm)	15.68147	21.00946	16.02432	ug/L
Mn (260.568 nm)	262.33145	268.22190	272.25616	ug/L
Mo (202.032 nm)	0.09065	0.68830	-0.28212 u	ug/L
Na (588.995 nm)	292.98911	294.20531	298.01435	ug/L
Ni (231.604 nm)	-0.16337 u	0.64022	0.27218	ug/L
P (178.222 nm)	25.71967	1.26080	53.76195	ug/L
Pb (220.353 nm)	6.49327	4.90499	5.85019	ug/L
Pt (203.646 nm)	2.68887	9.82931	6.64312	ug/L
Sb (206.834 nm)	0.86092	-4.12235 u	8.05354	ug/L
Se (196.026 nm)	8.34789	12.88204	13.53297	ug/L
Si (251.611 nm)	278.23924	282.60429	288.00534	ug/L
Sn (189.925 nm)	3.70505	2.27590	-0.00005 u	ug/L
Sr (421.552 nm)	33.75397	34.37966	34.85768	ug/L
Te (214.282 nm)	11.32239	1.50422	8.11734	ug/L
Ti (334.941 nm)	23.58553	24.20595	24.36751	ug/L
Tl (190.807 nm)	-4.09377 u	14.67236	1.26297	ug/L
U (409.013 nm)	1.13852	1.45764	-2.60986 u	ug/L
V (292.401 nm)	0.44545	-0.15149 u	0.46781	ug/L
W (207.912 nm)	1.38466	1.98554	-1.99746 u	ug/L
Y (371.029 nm)	0.00851	0.02628	-0.02149 u	ug/L
Zn (206.200 nm)	107.28025	114.96539	113.09631	ug/L
Zr (343.823 nm)	0.37544	0.26044	0.40819	ug/L
Sc-A (361.383 nm)	1.03	1.04	1.04	Ratio
Sc-R (503.102 nm)	1.02	1.02	1.02	Ratio

Sample Name: 2219256003

Date: 7/14/2022 12:27:50 Rack:Tube: 2:4

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Calculated Concentration
Ag (328.068 nm)	0.09755	ug/L	0.10759	> 100.00	-83.61952	0.09755 (ug/L)
Al (236.705 nm)	19.74551	ug/L	5.09114	25.78	74.96106	19.74551 (ug/L)
As (188.980 nm)	8.07364	ug/L	1.96503	24.34	-3.82136	8.07364 (ug/L)
B (249.772 nm)	-0.51218	ug/L	0.51462	> 100.00	49.63928	-0.51218 (ug/L)
Ba (230.424 nm)	1.43516	ug/L	0.04147	2.89	21.29731	1.43516 (ug/L)
Be (313.107 nm)	0.01540	ug/L	0.02633	> 100.00	13.52039	0.01540 (ug/L)
Bi (223.061 nm)	-0.83649	ug/L	1.99666	> 100.00	-39.17116	-0.83649 (ug/L)
Ca (317.933 nm)	339.62090	ug/L	3.75711	1.11	5773.02615	339.62090 (ug/L)
Cd (214.439 nm)	-0.01781	ug/L	0.19327	> 100.00	-6.40710	-0.01781 (ug/L)
Co (228.615 nm)	0.41107	ug/L	0.28376	69.03	-6.95367	0.41107 (ug/L)
Cr (205.560 nm)	7.15949	ug/L	0.57553	8.04	37.77410	7.15949 (ug/L)
Cu (224.700 nm)	5.17938	ug/L	0.57395	11.08	-5.54962	5.17938 (ug/L)
Fe (261.382 nm)	408.10618	ug/L	7.90471	1.94	1139.78732	408.10618 (ug/L)
K (766.491 nm)	388.67784	ug/L	12.92535	3.33	642.33559	388.67784 (ug/L)
Li (610.365 nm)	17.53727	ug/L	3.26271	18.60	-4473.86052	17.53727 (ug/L)
Mg (279.078 nm)	15.29630	ug/L	3.22454	21.08	51.87499	15.29630 (ug/L)
Mn (260.568 nm)	144.10129	ug/L	2.34938	1.63	2516.82890	144.10129 (ug/L)
Mo (202.032 nm)	-0.37958	ug/L	0.08530	22.47	-3.28111	-0.37958 (ug/L)
Na (588.995 nm)	160.87111	ug/L	10.04808	6.25	27954.74894	160.87111 (ug/L)
Ni (231.604 nm)	0.33889	ug/L	0.98695	> 100.00	-3.05535	0.33889 (ug/L)
P (178.222 nm)	33.78470	ug/L	18.56316	54.95	5.77060	33.78470 (ug/L)
Pb (220.353 nm)	-0.48702	ug/L	1.52522	> 100.00	1.55727	-0.48702 (ug/L)
Pt (203.646 nm)	2.37797	ug/L	2.72539	> 100.00	5.56596	2.37797 (ug/L)
Sb (206.834 nm)	1.75782	ug/L	2.92673	> 100.00	-7.21007	1.75782 (ug/L)
Se (196.026 nm)	5.11786	ug/L	6.01772	> 100.00	5.89209	5.11786 (ug/L)
Si (251.611 nm)	134.69545	ug/L	2.20995	1.64	209.87777	134.69545 (ug/L)
Sn (189.925 nm)	1.30178	ug/L	0.74712	57.39	-4.06937	1.30178 (ug/L)
Sr (421.552 nm)	28.57064	ug/L	0.33745	1.18	58386.57076	28.57064 (ug/L)
Te (214.282 nm)	1.40944	ug/L	10.20118	> 100.00	-4.56524	1.40944 (ug/L)
Ti (334.941 nm)	11.87166	ug/L	0.09813	0.83	2321.78644	11.87166 (ug/L)
Tl (190.807 nm)	12.24869	ug/L	5.99620	48.95	3.86233	12.24869 (ug/L)
U (409.013 nm)	-2.06572	ug/L	2.83534	> 100.00	170.59198	-2.06572 (ug/L)
V (292.401 nm)	0.07673	ug/L	0.01701	22.17	-20.28317	0.07673 (ug/L)
W (207.912 nm)	0.51959	ug/L	0.47270	90.98	6.86936	0.51959 (ug/L)
Y (371.029 nm)	0.01340	ug/L	0.02901	> 100.00	2.48926	0.01340 (ug/L)
Zn (206.200 nm)	4.66424	ug/L	0.07760	1.66	6.80923	4.66424 (ug/L)
Zr (343.823 nm)	-0.02015	ug/L	0.20568	> 100.00	92.06656	-0.02015 (ug/L)

Label	Internal Standard
Ag (328.068 nm)	Sc-A
Al (236.705 nm)	Sc-A
As (188.980 nm)	Sc-A
B (249.772 nm)	Sc-A
Ba (230.424 nm)	Sc-A
Be (313.107 nm)	Sc-A
Bi (223.061 nm)	Sc-A
Ca (317.933 nm)	Sc-A

Label	Internal Standard
Cd (214.439 nm)	Sc-A
Co (228.615 nm)	Sc-A
Cr (205.560 nm)	Sc-A
Cu (224.700 nm)	Sc-A
Fe (261.382 nm)	Sc-A
K (766.491 nm)	Sc-R
Li (610.365 nm)	Sc-R
Mg (279.078 nm)	Sc-A
Mn (260.568 nm)	Sc-A
Mo (202.032 nm)	Sc-A
Na (588.995 nm)	Sc-R
Ni (231.604 nm)	Sc-A
P (178.222 nm)	Sc-A
Pb (220.353 nm)	Sc-A
Pt (203.646 nm)	Sc-A
Sb (206.834 nm)	Sc-A
Se (196.026 nm)	Sc-A
Si (251.611 nm)	Sc-A
Sn (189.925 nm)	Sc-A
Sr (421.552 nm)	Sc-A
Te (214.282 nm)	Sc-A
Ti (334.941 nm)	Sc-A
Tl (190.807 nm)	Sc-A
U (409.013 nm)	Sc-A
V (292.401 nm)	Sc-A
W (207.912 nm)	Sc-A
Y (371.029 nm)	Sc-A
Zn (206.200 nm)	Sc-A
Zr (343.823 nm)	Sc-A

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Sc-A	1.03	425664.51	0.00	0.15
Sc-R	1.02	47853.13	0.00	0.08

Replicates Concentration

Label	Replicate 1	Replicate 2	Replicate 3	Units
Ag (328.068 nm)	0.06570	0.21746	0.00948	ug/L
Al (236.705 nm)	25.36468	18.43207	15.43978	ug/L
As (188.980 nm)	5.87748	9.66571	8.67772	ug/L
B (249.772 nm)	-0.46519 u	-1.04868 u	-0.02267 u	ug/L
Ba (230.424 nm)	1.40659	1.41616	1.48273	ug/L
Be (313.107 nm)	0.00081	0.04580	-0.00040 u	ug/L
Bi (223.061 nm)	1.31952	-2.62186 u	-1.20714 u	ug/L
Ca (317.933 nm)	335.90454	339.54069	343.41748	ug/L
Cd (214.439 nm)	0.20031	-0.08596 u	-0.16777 u	ug/L
Co (228.615 nm)	0.62887	0.09018	0.51415	ug/L

Label	Replicate 1	Replicate 2	Replicate 3	Units
Cr (205.560 nm)	6.56457	7.71343	7.20048	ug/L
Cu (224.700 nm)	5.75869	4.61095	5.16849	ug/L
Fe (261.382 nm)	402.66035	404.48546	417.17272	ug/L
K (766.491 nm)	390.35439	400.68311	374.99602	ug/L
Li (610.365 nm)	14.32207	20.84551	17.44424	ug/L
Mg (279.078 nm)	12.50803	14.55341	18.82745	ug/L
Mn (260.568 nm)	141.51979	144.66989	146.11418	ug/L
Mo (202.032 nm)	-0.28113 u	-0.43132 u	-0.42629 u	ug/L
Na (588.995 nm)	152.43290	158.19372	171.98669	ug/L
Ni (231.604 nm)	-0.72824 u	1.21886	0.52605	ug/L
P (178.222 nm)	54.81751	19.68965	26.84693	ug/L
Pb (220.353 nm)	-2.12180 u	-0.23702 u	0.89776	ug/L
Pt (203.646 nm)	5.24988	2.05641	-0.17237 u	ug/L
Sb (206.834 nm)	0.49130	-0.32234 u	5.10451	ug/L
Se (196.026 nm)	5.16379	11.11248	-0.92269 u	ug/L
Si (251.611 nm)	134.30686	132.70557	137.07392	ug/L
Sn (189.925 nm)	1.78123	1.68316	0.44094	ug/L
Sr (421.552 nm)	28.20931	28.62497	28.87762	ug/L
Te (214.282 nm)	3.81115	-9.77831 u	10.19547	ug/L
Ti (334.941 nm)	11.79306	11.84027	11.98164	ug/L
Tl (190.807 nm)	11.26378	6.80591	18.67636	ug/L
U (409.013 nm)	-5.33904 u	-0.37295 u	-0.48517 u	ug/L
V (292.401 nm)	0.06263	0.09563	0.07194	ug/L
W (207.912 nm)	0.06125	1.00545	0.49207	ug/L
Y (371.029 nm)	0.04034	0.01716	-0.01731 u	ug/L
Zn (206.200 nm)	4.57465	4.70745	4.71062	ug/L
Zr (343.823 nm)	0.18932	-0.02795 u	-0.22181 u	ug/L
Sc-A (361.383 nm)	1.03	1.04	1.03	Ratio
Sc-R (503.102 nm)	1.02	1.02	1.02	Ratio

Sample Name: 2219262001

Date: 7/14/2022 12:29:30 Rack:Tube: 2:5

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Calculated Concentration
Ag (328.068 nm)	0.49576	ug/L	0.09298	18.76	-62.62765	0.49576 (ug/L)
Al (236.705 nm)	297.68141	ug/L	14.84132	4.99	242.14973	297.68141 (ug/L)
As (188.980 nm)	11.99100	ug/L	4.79183	39.96	-1.92379	11.99100 (ug/L)
B (249.772 nm)	3.66135	ug/L	0.33470	9.14	238.23091	3.66135 (ug/L)
Ba (230.424 nm)	10.71357	ug/L	0.33248	3.10	192.61673	10.71357 (ug/L)
Be (313.107 nm)	0.07660	ug/L	0.01668	21.77	64.65388	0.07660 (ug/L)
Bi (223.061 nm)	1.40569	ug/L	1.17557	83.63	-37.58873	1.40569 (ug/L)
Ca (317.933 nm)	5477.82196	ug/L	99.18099	1.81	93636.70053	5477.82196 (ug/L)
Cd (214.439 nm)	0.17735	ug/L	0.05413	30.52	-3.91477	0.17735 (ug/L)
Co (228.615 nm)	1.68548	ug/L	1.09367	64.89	1.51652	1.68548 (ug/L)
Cr (205.560 nm)	37.18764	ug/L	0.53004	1.43	206.17509	37.18764 (ug/L)
Cu (224.700 nm)	217.75742	ug/L	4.54908	2.09	212.07138	217.75742 (ug/L)
Fe (261.382 nm)	13976.06853	ug/L	264.12847	1.89	37463.88881	13976.06853 (ug/L)

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Calculated Concentration
K (766.491 nm)	8004.44024	ug/L	115.03289	1.44	16215.28544	8004.44024 (ug/L)
Li (610.365 nm)	20.45699	ug/L	1.53223	7.49	-4525.45874	20.45699 (ug/L)
Mg (279.078 nm)	187.77844	ug/L	5.87264	3.13	320.88074	187.77844 (ug/L)
Mn (260.568 nm)	2658.15676	ug/L	46.90036	1.76	46410.82028	2658.15676 (ug/L)
Mo (202.032 nm)	48.42006	ug/L	0.78178	1.61	224.94634	48.42006 (ug/L)
Na (588.995 nm)	238.84808	ug/L	7.27663	3.05	29799.24171	238.84808 (ug/L)
Ni (231.604 nm)	19.65004	ug/L	1.31461	6.69	42.37597	19.65004 (ug/L)
P (178.222 nm)	38.03508	ug/L	36.52740	96.04	6.17933	38.03508 (ug/L)
Pb (220.353 nm)	14.00153	ug/L	1.36762	9.77	18.90598	14.00153 (ug/L)
Pt (203.646 nm)	3.25668	ug/L	8.62887	> 100.00	95.22344	3.25668 (ug/L)
Sb (206.834 nm)	2.59854	ug/L	4.59205	> 100.00	-6.44481	2.59854 (ug/L)
Se (196.026 nm)	7.67862	ug/L	3.83274	49.91	5.22245	7.67862 (ug/L)
Si (251.611 nm)	1838.35716	ug/L	33.19349	1.81	2614.11445	1838.35716 (ug/L)
Sn (189.925 nm)	14.76238	ug/L	2.96912	20.11	5.99356	14.76238 (ug/L)
Sr (421.552 nm)	9.23553	ug/L	0.15707	1.70	18886.32112	9.23553 (ug/L)
Te (214.282 nm)	-2.62750	ug/L	3.54851	> 100.00	-5.75661	-2.62750 (ug/L)
Ti (334.941 nm)	201.32257	ug/L	3.50277	1.74	40373.65730	201.32257 (ug/L)
Tl (190.807 nm)	2.49511	ug/L	10.38241	> 100.00	-4.38684	2.49511 (ug/L)
U (409.013 nm)	0.95103	ug/L	1.69776	> 100.00	199.74491	0.95103 (ug/L)
V (292.401 nm)	5.03261	ug/L	0.14620	2.91	79.03132	5.03261 (ug/L)
W (207.912 nm)	-1.03616	ug/L	1.33828	> 100.00	6.66642	-1.03616 (ug/L)
Y (371.029 nm)	0.14692	ug/L	0.03325	22.63	21.61503	0.14692 (ug/L)
Zn (206.200 nm)	187.68187	ug/L	4.70758	2.51	330.58937	187.68187 (ug/L)
Zr (343.823 nm)	1.13856	ug/L	0.10700	9.40	184.59127	1.13856 (ug/L)

Label	Internal Standard
Ag (328.068 nm)	Sc-A
Al (236.705 nm)	Sc-A
As (188.980 nm)	Sc-A
B (249.772 nm)	Sc-A
Ba (230.424 nm)	Sc-A
Be (313.107 nm)	Sc-A
Bi (223.061 nm)	Sc-A
Ca (317.933 nm)	Sc-A
Cd (214.439 nm)	Sc-A
Co (228.615 nm)	Sc-A
Cr (205.560 nm)	Sc-A
Cu (224.700 nm)	Sc-A
Fe (261.382 nm)	Sc-A
K (766.491 nm)	Sc-R
Li (610.365 nm)	Sc-R
Mg (279.078 nm)	Sc-A
Mn (260.568 nm)	Sc-A
Mo (202.032 nm)	Sc-A
Na (588.995 nm)	Sc-R
Ni (231.604 nm)	Sc-A
P (178.222 nm)	Sc-A
Pb (220.353 nm)	Sc-A

Label	Internal Standard
Pt (203.646 nm)	Sc-A
Sb (206.834 nm)	Sc-A
Se (196.026 nm)	Sc-A
Si (251.611 nm)	Sc-A
Sn (189.925 nm)	Sc-A
Sr (421.552 nm)	Sc-A
Te (214.282 nm)	Sc-A
Ti (334.941 nm)	Sc-A
Tl (190.807 nm)	Sc-A
U (409.013 nm)	Sc-A
V (292.401 nm)	Sc-A
W (207.912 nm)	Sc-A
Y (371.029 nm)	Sc-A
Zn (206.200 nm)	Sc-A
Zr (343.823 nm)	Sc-A

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Sc-A	1.03	425369.75	0.00	0.32
Sc-R	1.02	47870.37	0.00	0.48

Replicates Concentration

Label	Replicate 1	Replicate 2	Replicate 3	Units
Ag (328.068 nm)	0.60200	0.42922	0.45607	ug/L
Al (236.705 nm)	280.63381	304.68889	307.72152	ug/L
As (188.980 nm)	10.63001	8.02688	17.31611	ug/L
B (249.772 nm)	3.34809	3.62195	4.01401	ug/L
Ba (230.424 nm)	10.50367	11.09691	10.54013	ug/L
Be (313.107 nm)	0.06237	0.07249	0.09495	ug/L
Bi (223.061 nm)	0.56623	2.74924	0.90160	ug/L
Ca (317.933 nm)	5371.57481	5493.92490	5567.96617	ug/L
Cd (214.439 nm)	0.11596	0.21823	0.19786	ug/L
Co (228.615 nm)	2.50508	2.10773	0.44363	ug/L
Cr (205.560 nm)	36.58615	37.58635	37.39042	ug/L
Cu (224.700 nm)	214.02070	216.42862	222.82294	ug/L
Fe (261.382 nm)	13698.73833	14004.82539	14224.64186	ug/L
K (766.491 nm)	7882.56195	8019.64286	8111.11589	ug/L
Li (610.365 nm)	21.45007	21.22856	18.69235	ug/L
Mg (279.078 nm)	183.64325	185.19168	194.50039	ug/L
Mn (260.568 nm)	2607.78132	2666.12882	2700.56015	ug/L
Mo (202.032 nm)	47.51903	48.82274	48.91842	ug/L
Na (588.995 nm)	232.25765	246.65706	237.62955	ug/L
Ni (231.604 nm)	18.19482	20.00355	20.75175	ug/L
P (178.222 nm)	43.58242	-0.94869 u	71.47151	ug/L
Pb (220.353 nm)	14.79232	12.42234	14.78993	ug/L
Pt (203.646 nm)	-3.57283 u	0.38846	12.95441	ug/L
Sb (206.834 nm)	-2.56913 u	6.21112	4.15363	ug/L

Label	Replicate 1	Replicate 2	Replicate 3	Units
Se (196.026 nm)	11.10675	8.38855	3.54054	ug/L
Si (251.611 nm)	1803.70064	1841.50791	1869.86294	ug/L
Sn (189.925 nm)	11.48992	17.28400	15.51322	ug/L
Sr (421.552 nm)	9.06516	9.26684	9.37459	ug/L
Te (214.282 nm)	-6.38856 u	0.66113	-2.15507 u	ug/L
Ti (334.941 nm)	197.64965	201.69218	204.62587	ug/L
Tl (190.807 nm)	1.37551	13.39194	-7.28213 u	ug/L
U (409.013 nm)	-0.73785 u	2.65754	0.93340	ug/L
V (292.401 nm)	5.09901	5.13383	4.86499	ug/L
W (207.912 nm)	-0.91264 u	-2.43192 u	0.23607	ug/L
Y (371.029 nm)	0.18347	0.11845	0.13884	ug/L
Zn (206.200 nm)	182.37228	191.34538	189.32796	ug/L
Zr (343.823 nm)	1.13554	1.24704	1.03310	ug/L
Sc-A (361.383 nm)	1.03	1.03	1.04	Ratio
Sc-R (503.102 nm)	1.02	1.02	1.02	Ratio

Sample Name: 2219263001

Date: 7/14/2022 12:31:11 Rack:Tube: 2:6

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Calculated Concentration
Ag (328.068 nm)	0.09766	ug/L	0.18775	> 100.00	-83.38805	0.09766 (ug/L)
Al (236.705 nm)	99.72876	ug/L	3.58374	3.59	122.32258	99.72876 (ug/L)
As (188.980 nm)	4.84412	ug/L	5.15585	> 100.00	-5.46223	4.84412 (ug/L)
B (249.772 nm)	1.71151	ug/L	0.17903	10.46	160.27684	1.71151 (ug/L)
Ba (230.424 nm)	3.05539	ug/L	0.03595	1.18	50.79968	3.05539 (ug/L)
Be (313.107 nm)	0.05919	ug/L	0.00685	11.57	51.50078	0.05919 (ug/L)
Bi (223.061 nm)	1.00260	ug/L	1.17689	> 100.00	-37.23933	1.00260 (ug/L)
Ca (317.933 nm)	4764.88906	ug/L	52.34965	1.10	81445.34080	4764.88906 (ug/L)
Cd (214.439 nm)	0.62469	ug/L	0.16596	26.57	0.63522	0.62469 (ug/L)
Co (228.615 nm)	0.75789	ug/L	0.89755	> 100.00	-3.41131	0.75789 (ug/L)
Cr (205.560 nm)	37.61562	ug/L	1.13445	3.02	209.96792	37.61562 (ug/L)
Cu (224.700 nm)	488.37292	ug/L	6.54220	1.34	480.10174	488.37292 (ug/L)
Fe (261.382 nm)	8759.62999	ug/L	115.26226	1.32	23496.88406	8759.62999 (ug/L)
K (766.491 nm)	6745.61006	ug/L	79.48012	1.18	13641.24188	6745.61006 (ug/L)
Li (610.365 nm)	13.77005	ug/L	6.04320	43.89	-4589.97891	13.77005 (ug/L)
Mg (279.078 nm)	67.38715	ug/L	3.16173	4.69	131.49654	67.38715 (ug/L)
Mn (260.568 nm)	2305.27465	ug/L	26.57839	1.15	40248.59574	2305.27465 (ug/L)
Mo (202.032 nm)	1.14765	ug/L	0.86288	75.19	3.18057	1.14765 (ug/L)
Na (588.995 nm)	197.28480	ug/L	2.85530	1.45	28816.09017	197.28480 (ug/L)
Ni (231.604 nm)	4.32964	ug/L	0.59475	13.74	6.44049	4.32964 (ug/L)
P (178.222 nm)	29.41685	ug/L	14.43202	49.06	5.35057	29.41685 (ug/L)
Pb (220.353 nm)	72.52962	ug/L	2.24279	3.09	87.59988	72.52962 (ug/L)
Pt (203.646 nm)	4.09181	ug/L	1.42568	34.84	61.66892	4.09181 (ug/L)
Sb (206.834 nm)	-0.37346	ug/L	2.22778	> 100.00	-9.00204	-0.37346 (ug/L)
Se (196.026 nm)	10.06177	ug/L	4.43355	44.06	7.55064	10.06177 (ug/L)
Si (251.611 nm)	1298.73451	ug/L	15.49089	1.19	1851.90043	1298.73451 (ug/L)
Sn (189.925 nm)	14.49956	ug/L	1.86587	12.87	5.79708	14.49956 (ug/L)

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Calculated Concentration
Sr (421.552 nm)	7.37711	ug/L	0.10323	1.40	15089.69095	7.37711 (ug/L)
Te (214.282 nm)	4.52657	ug/L	2.75086	60.77	-2.33807	4.52657 (ug/L)
Ti (334.941 nm)	179.17665	ug/L	2.21805	1.24	35926.87638	179.17665 (ug/L)
Tl (190.807 nm)	7.43724	ug/L	3.15311	42.40	-1.23211	7.43724 (ug/L)
U (409.013 nm)	-2.87244	ug/L	3.52510	> 100.00	174.36104	-2.87244 (ug/L)
V (292.401 nm)	3.28136	ug/L	0.12587	3.84	48.08785	3.28136 (ug/L)
W (207.912 nm)	2.23671	ug/L	1.61687	72.29	21.48031	2.23671 (ug/L)
Y (371.029 nm)	-0.00652	ug/L	0.00306	47.02	-3.43300	-0.00652 (ug/L)
Zn (206.200 nm)	1279.14104	ug/L	16.24492	1.27	2261.00953	1279.14104 (ug/L)
Zr (343.823 nm)	0.89230	ug/L	0.16047	17.98	161.97731	0.89230 (ug/L)

Label	Internal Standard
Ag (328.068 nm)	Sc-A
Al (236.705 nm)	Sc-A
As (188.980 nm)	Sc-A
B (249.772 nm)	Sc-A
Ba (230.424 nm)	Sc-A
Be (313.107 nm)	Sc-A
Bi (223.061 nm)	Sc-A
Ca (317.933 nm)	Sc-A
Cd (214.439 nm)	Sc-A
Co (228.615 nm)	Sc-A
Cr (205.560 nm)	Sc-A
Cu (224.700 nm)	Sc-A
Fe (261.382 nm)	Sc-A
K (766.491 nm)	Sc-R
Li (610.365 nm)	Sc-R
Mg (279.078 nm)	Sc-A
Mn (260.568 nm)	Sc-A
Mo (202.032 nm)	Sc-A
Na (588.995 nm)	Sc-R
Ni (231.604 nm)	Sc-A
P (178.222 nm)	Sc-A
Pb (220.353 nm)	Sc-A
Pt (203.646 nm)	Sc-A
Sb (206.834 nm)	Sc-A
Se (196.026 nm)	Sc-A
Si (251.611 nm)	Sc-A
Sn (189.925 nm)	Sc-A
Sr (421.552 nm)	Sc-A
Te (214.282 nm)	Sc-A
Ti (334.941 nm)	Sc-A
Tl (190.807 nm)	Sc-A
U (409.013 nm)	Sc-A
V (292.401 nm)	Sc-A
W (207.912 nm)	Sc-A
Y (371.029 nm)	Sc-A
Zn (206.200 nm)	Sc-A

Label	Internal Standard
Zr (343.823 nm)	Sc-A

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Sc-A	1.03	422819.07	0.00	0.42
Sc-R	1.01	47576.32	0.00	0.39

Replicates Concentration

Label	Replicate 1	Replicate 2	Replicate 3	Units
Ag (328.068 nm)	0.28315	0.10210	-0.09228 u	ug/L
Al (236.705 nm)	103.76786	96.92985	98.48857	ug/L
As (188.980 nm)	9.07695	6.35332	-0.89792 u	ug/L
B (249.772 nm)	1.50536	1.80126	1.82792	ug/L
Ba (230.424 nm)	3.09679	3.03197	3.03741	ug/L
Be (313.107 nm)	0.05647	0.06698	0.05412	ug/L
Bi (223.061 nm)	1.70725	1.65660	-0.35604 u	ug/L
Ca (317.933 nm)	4707.14992	4778.26252	4809.25474	ug/L
Cd (214.439 nm)	0.55294	0.81446	0.50667	ug/L
Co (228.615 nm)	-0.02372 u	1.73811	0.55928	ug/L
Cr (205.560 nm)	36.36970	37.88824	38.58893	ug/L
Cu (224.700 nm)	481.12309	493.83639	490.15928	ug/L
Fe (261.382 nm)	8634.10499	8784.07805	8860.70692	ug/L
K (766.491 nm)	6664.34607	6749.30680	6823.17730	ug/L
Li (610.365 nm)	8.73131	12.10868	20.47016	ug/L
Mg (279.078 nm)	64.03136	70.31026	67.81983	ug/L
Mn (260.568 nm)	2276.29061	2311.02851	2328.50482	ug/L
Mo (202.032 nm)	1.57199	1.71619	0.15477	ug/L
Na (588.995 nm)	198.70698	199.14970	193.99770	ug/L
Ni (231.604 nm)	3.69624	4.41646	4.87620	ug/L
P (178.222 nm)	18.44324	24.04234	45.76497	ug/L
Pb (220.353 nm)	70.34646	72.41477	74.82763	ug/L
Pt (203.646 nm)	2.44565	4.92777	4.90202	ug/L
Sb (206.834 nm)	-2.93606 u	0.71330	1.10237	ug/L
Se (196.026 nm)	11.90575	13.27575	5.00382	ug/L
Si (251.611 nm)	1282.49763	1300.35367	1313.35223	ug/L
Sn (189.925 nm)	15.99031	15.10130	12.40707	ug/L
Sr (421.552 nm)	7.26775	7.39073	7.47285	ug/L
Te (214.282 nm)	4.90053	1.60787	7.07132	ug/L
Ti (334.941 nm)	176.81640	179.49559	181.21797	ug/L
Tl (190.807 nm)	5.80564	11.07181	5.43426	ug/L
U (409.013 nm)	-0.13262 u	-6.84933 u	-1.63538 u	ug/L
V (292.401 nm)	3.13685	3.36711	3.34012	ug/L
W (207.912 nm)	3.05146	0.37455	3.28411	ug/L
Y (371.029 nm)	-0.00315 u	-0.00914 u	-0.00725 u	ug/L
Zn (206.200 nm)	1261.00190	1284.07222	1292.34900	ug/L
Zr (343.823 nm)	1.02663	0.93569	0.71460	ug/L
Sc-A (361.383 nm)	1.02	1.03	1.03	Ratio

Label	Replicate 1	Replicate 2	Replicate 3	Units
Sc-R (503.102 nm)	1.01	1.01	1.02	Ratio

Sample Name: CCV

Date: 7/14/2022 12:32:51 Rack:Tube: S1:10

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Calculated Concentration
Ag (328.068 nm)	1947.62360	ug/L	14.66446	0.75	101712.29966	1947.62360 (ug/L)
Al (236.705 nm)	48948.86660	ug/L	401.24745	0.82	29976.73563	48948.86660 (ug/L)
As (188.980 nm)	4853.89191	ug/L	43.92123	0.90	2416.08730	4853.89191 (ug/L)
B (249.772 nm)	12056.96504	ug/L	184.82372	1.53	190439.05480	12056.96504 (ug/L)
Ba (230.424 nm)	5002.57365	ug/L	60.81094	1.22	92344.92380	5002.57365 (ug/L)
Be (313.107 nm)	991.98731	ug/L	8.42981	0.85	730368.43638	991.98731 (ug/L)
Bi (223.061 nm)	4869.26728	ug/L	43.42462	0.89	7271.17270	4869.26728 (ug/L)
Ca (317.933 nm)	50177.82994	ug/L	428.93555	0.85	860155.69600	50177.82994 (ug/L)
Cd (214.439 nm)	2541.78721	ug/L	22.70759	0.89	26500.66279	2541.78721 (ug/L)
Co (228.615 nm)	4969.61081	ug/L	41.85470	0.84	29284.60889	4969.61081 (ug/L)
Cr (205.560 nm)	4998.26846	ug/L	50.93114	1.02	28714.90217	4998.26846 (ug/L)
Cu (224.700 nm)	4909.93699	ug/L	35.84788	0.73	4964.16938	4909.93699 (ug/L)
Fe (261.382 nm)	49807.75709	ug/L	470.00342	0.94	133207.70505	49807.75709 (ug/L)
K (766.491 nm)	47511.07382	ug/L	289.46697	0.61	96957.97484	47511.07382 (ug/L)
Li (610.365 nm)	4794.73322	ug/L	30.49438	0.64	49271.54513	4794.73322 (ug/L)
Mg (279.078 nm)	49143.34278	ug/L	418.25764	0.85	77657.21430	49143.34278 (ug/L)
Mn (260.568 nm)	4972.62306	ug/L	39.41001	0.79	86604.59160	4972.62306 (ug/L)
Mo (202.032 nm)	24990.87550	ug/L	241.81128	0.97	117455.12791	24990.87550 (ug/L)
Na (588.995 nm)	47662.55250	ug/L	331.35431	0.70	1151574.93408	47662.55250 (ug/L)
Ni (231.604 nm)	5016.98423	ug/L	33.68434	0.67	11743.33058	5016.98423 (ug/L)
P (178.222 nm)	24632.20293	ug/L	176.05838	0.71	2371.22107	24632.20293 (ug/L)
Pb (220.353 nm)	4977.72605	ug/L	44.75727	0.90	5818.85910	4977.72605 (ug/L)
Pt (203.646 nm)	26.59624	ug/L	2.42873	9.13	287.78140	26.59624 (ug/L)
Sb (206.834 nm)	24064.25554	ug/L	149.18838	0.62	21630.61037	24064.25554 (ug/L)
Se (196.026 nm)	4834.38168	ug/L	25.74739	0.53	2863.96248	4834.38168 (ug/L)
Si (251.611 nm)	12022.45231	ug/L	229.93178	1.91	17604.69053	12022.45231 (ug/L)
Sn (189.925 nm)	4967.10238	ug/L	32.23466	0.65	3708.28403	4967.10238 (ug/L)
Sr (421.552 nm)	4890.02613	ug/L	34.65701	0.71	9989996.62935	4890.02613 (ug/L)
Te (214.282 nm)	9789.19212	ug/L	101.68226	1.04	5116.20205	9789.19212 (ug/L)
Ti (334.941 nm)	4914.69027	ug/L	40.12428	0.82	987595.83198	4914.69027 (ug/L)
Tl (190.807 nm)	2473.15281	ug/L	27.42826	1.11	1429.96144	2473.15281 (ug/L)
U (409.013 nm)	4847.21134	ug/L	41.01217	0.85	26229.88737	4847.21134 (ug/L)
V (292.401 nm)	4942.14752	ug/L	42.23142	0.85	124644.71813	4942.14752 (ug/L)
W (207.912 nm)	4.66867	ug/L	2.48733	53.28	61.41937	4.66867 (ug/L)
Y (371.029 nm)	1975.26288	ug/L	17.29198	0.88	326734.01313	1975.26288 (ug/L)
Zn (206.200 nm)	5052.11980	ug/L	52.05569	1.03	8948.69211	5052.11980 (ug/L)
Zr (343.823 nm)	4935.88393	ug/L	44.39652	0.90	313775.05957	4935.88393 (ug/L)

Label	Internal Standard
Ag (328.068 nm)	Sc-A
Al (236.705 nm)	Sc-A
As (188.980 nm)	Sc-A
B (249.772 nm)	Sc-A
Ba (230.424 nm)	Sc-A
Be (313.107 nm)	Sc-A
Bi (223.061 nm)	Sc-A
Ca (317.933 nm)	Sc-A
Cd (214.439 nm)	Sc-A
Co (228.615 nm)	Sc-A
Cr (205.560 nm)	Sc-A
Cu (224.700 nm)	Sc-A
Fe (261.382 nm)	Sc-A
K (766.491 nm)	Sc-R
Li (610.365 nm)	Sc-R
Mg (279.078 nm)	Sc-A
Mn (260.568 nm)	Sc-A
Mo (202.032 nm)	Sc-A
Na (588.995 nm)	Sc-R
Ni (231.604 nm)	Sc-A
P (178.222 nm)	Sc-A
Pb (220.353 nm)	Sc-A
Pt (203.646 nm)	Sc-A
Sb (206.834 nm)	Sc-A
Se (196.026 nm)	Sc-A
Si (251.611 nm)	Sc-A
Sn (189.925 nm)	Sc-A
Sr (421.552 nm)	Sc-A
Te (214.282 nm)	Sc-A
Ti (334.941 nm)	Sc-A
Tl (190.807 nm)	Sc-A
U (409.013 nm)	Sc-A
V (292.401 nm)	Sc-A
W (207.912 nm)	Sc-A
Y (371.029 nm)	Sc-A
Zn (206.200 nm)	Sc-A
Zr (343.823 nm)	Sc-A

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Sc-A	0.99	407088.35	0.00	0.06
Sc-R	0.99	46284.06	0.00	0.08

Replicates Concentration

Label	Replicate 1	Replicate 2	Replicate 3	Units
Ag (328.068 nm)	1931.56376	1951.00513	1960.30191	ug/L
Al (236.705 nm)	48530.61419	48985.37126	49330.61437	ug/L

Label	Replicate 1	Replicate 2	Replicate 3	Units
As (188.980 nm)	4815.38761	4844.55844	4901.72969	ug/L
B (249.772 nm)	11863.80877	12074.94420	12232.14215	ug/L
Ba (230.424 nm)	4935.14300	5019.32430	5053.25365	ug/L
Be (313.107 nm)	983.65974	991.78642	1000.51577	ug/L
Bi (223.061 nm)	4819.68007	4887.61658	4900.50519	ug/L
Ca (317.933 nm)	49689.89509	50348.14006	50495.45466	ug/L
Cd (214.439 nm)	2516.44570	2548.62785	2560.28809	ug/L
Co (228.615 nm)	4926.02712	4973.31502	5009.49028	ug/L
Cr (205.560 nm)	4939.46124	5028.18569	5027.15846	ug/L
Cu (224.700 nm)	4871.00629	4917.22156	4941.58311	ug/L
Fe (261.382 nm)	49319.52274	49846.63385	50257.11467	ug/L
K (766.491 nm)	47192.26530	47583.51848	47757.43768	ug/L
Li (610.365 nm)	4760.62515	4804.21189	4819.36263	ug/L
Mg (279.078 nm)	48705.31205	49186.18705	49538.52925	ug/L
Mn (260.568 nm)	4931.39686	4976.54939	5009.92294	ug/L
Mo (202.032 nm)	24729.99225	25035.13337	25207.50089	ug/L
Na (588.995 nm)	47285.06888	47797.20858	47905.38003	ug/L
Ni (231.604 nm)	4981.68889	5020.47867	5048.78514	ug/L
P (178.222 nm)	24451.90513	24641.01255	24803.69112	ug/L
Pb (220.353 nm)	4932.29387	4979.10787	5021.77641	ug/L
Pt (203.646 nm)	24.47033	26.07519	29.24321	ug/L
Sb (206.834 nm)	23899.60270	24102.71563	24190.44829	ug/L
Se (196.026 nm)	4804.66039	4849.88379	4848.60087	ug/L
Si (251.611 nm)	11777.23189	12056.92154	12233.20350	ug/L
Sn (189.925 nm)	4930.50065	4979.54592	4991.26058	ug/L
Sr (421.552 nm)	4852.30484	4897.31366	4920.45988	ug/L
Te (214.282 nm)	9682.00986	9801.27115	9884.29536	ug/L
Ti (334.941 nm)	4871.01950	4923.12396	4949.92735	ug/L
Tl (190.807 nm)	2444.59101	2475.58141	2499.28601	ug/L
U (409.013 nm)	4801.99308	4857.63526	4882.00569	ug/L
V (292.401 nm)	4897.59461	4947.25509	4981.59288	ug/L
W (207.912 nm)	6.64683	5.48292	1.87627	ug/L
Y (371.029 nm)	1956.67623	1978.23837	1990.87403	ug/L
Zn (206.200 nm)	5003.40848	5045.97629	5106.97464	ug/L
Zr (343.823 nm)	4888.91339	4941.58224	4977.15618	ug/L
Sc-A (361.383 nm)	0.99	0.99	0.99	Ratio
Sc-R (503.102 nm)	0.98	0.99	0.99	Ratio

Sample Name: CCB

Date: 7/14/2022 12:34:32 Rack:Tube: S1:11

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Calculated Concentration
Ag (328.068 nm)	0.02757	ug/L	0.03903	> 100.00	-87.03174	0.02757 (ug/L)
Al (236.705 nm)	-11.78713	ug/L	4.01318	34.05	55.89059	-11.78713 (ug/L)
As (188.980 nm)	0.30045	ug/L	3.85634	> 100.00	-7.70055	0.30045 (ug/L)
B (249.772 nm)	17.47958	ug/L	2.56663	14.68	329.37392	17.47958 (ug/L)
Ba (230.424 nm)	0.00244	ug/L	0.17654	> 100.00	-4.59497	0.00244 (ug/L)

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Calculated Concentration
Be (313.107 nm)	0.02377	ug/L	0.01693	71.23	19.17378	0.02377 (ug/L)
Bi (223.061 nm)	3.12214	ug/L	0.97711	31.30	-33.04024	3.12214 (ug/L)
Ca (317.933 nm)	-0.79741	ug/L	0.57738	72.41	-48.11328	-0.79741 (ug/L)
Cd (214.439 nm)	0.24439	ug/L	0.23435	95.89	-3.77635	0.24439 (ug/L)
Co (228.615 nm)	0.25668	ug/L	0.38675	> 100.00	-8.02776	0.25668 (ug/L)
Cr (205.560 nm)	-0.32723	ug/L	0.32561	99.50	-5.08178	-0.32723 (ug/L)
Cu (224.700 nm)	3.73046	ug/L	5.03310	> 100.00	-7.16012	3.73046 (ug/L)
Fe (261.382 nm)	0.40042	ug/L	2.36377	> 100.00	48.30992	0.40042 (ug/L)
K (766.491 nm)	16.74863	ug/L	3.27064	19.53	-118.18891	16.74863 (ug/L)
Li (610.365 nm)	7.68516	ug/L	0.41628	5.42	-4580.70649	7.68516 (ug/L)
Mg (279.078 nm)	-3.50031	ug/L	3.98493	> 100.00	22.28504	-3.50031 (ug/L)
Mn (260.568 nm)	0.36495	ug/L	0.08071	22.11	7.36334	0.36495 (ug/L)
Mo (202.032 nm)	2.72069	ug/L	1.08472	39.87	11.32480	2.72069 (ug/L)
Na (588.995 nm)	-52.53895	ug/L	3.89436	7.41	22906.67820	-52.53895 (ug/L)
Ni (231.604 nm)	-0.65147	ug/L	0.69726	> 100.00	-5.39853	-0.65147 (ug/L)
P (178.222 nm)	9.72091	ug/L	20.65041	> 100.00	3.45656	9.72091 (ug/L)
Pb (220.353 nm)	-0.05239	ug/L	1.14489	> 100.00	2.05234	-0.05239 (ug/L)
Pt (203.646 nm)	-0.49526	ug/L	5.25872	> 100.00	0.62217	-0.49526 (ug/L)
Sb (206.834 nm)	1.89071	ug/L	3.44180	> 100.00	-7.14228	1.89071 (ug/L)
Se (196.026 nm)	-1.62394	ug/L	5.27723	> 100.00	1.95433	-1.62394 (ug/L)
Si (251.611 nm)	-7.40523	ug/L	1.94640	26.28	9.44031	-7.40523 (ug/L)
Sn (189.925 nm)	2.28190	ug/L	0.96072	42.10	-3.33664	2.28190 (ug/L)
Sr (421.552 nm)	0.06452	ug/L	0.05287	81.95	150.58080	0.06452 (ug/L)
Te (214.282 nm)	7.29742	ug/L	4.99780	68.49	-1.53058	7.29742 (ug/L)
Ti (334.941 nm)	0.15926	ug/L	0.08678	54.49	-30.64538	0.15926 (ug/L)
Tl (190.807 nm)	-4.64801	ug/L	3.24241	69.76	-4.80616	-4.64801 (ug/L)
U (409.013 nm)	0.25795	ug/L	2.37371	> 100.00	182.60111	0.25795 (ug/L)
V (292.401 nm)	0.32058	ug/L	0.13538	42.23	-13.52493	0.32058 (ug/L)
W (207.912 nm)	1.54462	ug/L	1.60367	> 100.00	8.13936	1.54462 (ug/L)
Y (371.029 nm)	0.04106	ug/L	0.02350	57.24	7.25570	0.04106 (ug/L)
Zn (206.200 nm)	0.71532	ug/L	0.03358	4.69	-0.19614	0.71532 (ug/L)
Zr (343.823 nm)	0.80310	ug/L	0.22798	28.39	143.79342	0.80310 (ug/L)

Label	Internal Standard
Ag (328.068 nm)	Sc-A
Al (236.705 nm)	Sc-A
As (188.980 nm)	Sc-A
B (249.772 nm)	Sc-A
Ba (230.424 nm)	Sc-A
Be (313.107 nm)	Sc-A
Bi (223.061 nm)	Sc-A
Ca (317.933 nm)	Sc-A
Cd (214.439 nm)	Sc-A
Co (228.615 nm)	Sc-A
Cr (205.560 nm)	Sc-A
Cu (224.700 nm)	Sc-A
Fe (261.382 nm)	Sc-A
K (766.491 nm)	Sc-R

Label	Internal Standard
Li (610.365 nm)	Sc-R
Mg (279.078 nm)	Sc-A
Mn (260.568 nm)	Sc-A
Mo (202.032 nm)	Sc-A
Na (588.995 nm)	Sc-R
Ni (231.604 nm)	Sc-A
P (178.222 nm)	Sc-A
Pb (220.353 nm)	Sc-A
Pt (203.646 nm)	Sc-A
Sb (206.834 nm)	Sc-A
Se (196.026 nm)	Sc-A
Si (251.611 nm)	Sc-A
Sn (189.925 nm)	Sc-A
Sr (421.552 nm)	Sc-A
Te (214.282 nm)	Sc-A
Ti (334.941 nm)	Sc-A
Tl (190.807 nm)	Sc-A
U (409.013 nm)	Sc-A
V (292.401 nm)	Sc-A
W (207.912 nm)	Sc-A
Y (371.029 nm)	Sc-A
Zn (206.200 nm)	Sc-A
Zr (343.823 nm)	Sc-A

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Sc-A	1.02	418787.59	0.00	0.23
Sc-R	1.00	47090.73	0.00	0.18

Replicates Concentration

Label	Replicate 1	Replicate 2	Replicate 3	Units
Ag (328.068 nm)	0.03996	0.05891	-0.01615 u	ug/L
Al (236.705 nm)	-7.66057 u	-12.02442 u	-15.67640 u	ug/L
As (188.980 nm)	4.62560	-0.94501 u	-2.77925 u	ug/L
B (249.772 nm)	20.13240	17.29750	15.00883	ug/L
Ba (230.424 nm)	-0.17527 u	0.00480	0.17779	ug/L
Be (313.107 nm)	0.00650	0.04034	0.02448	ug/L
Bi (223.061 nm)	3.90382	2.02668	3.43591	ug/L
Ca (317.933 nm)	-1.17209 u	-1.08765 u	-0.13249 u	ug/L
Cd (214.439 nm)	0.27701	0.46073	-0.00456 u	ug/L
Co (228.615 nm)	-0.13754 u	0.63551	0.27205	ug/L
Cr (205.560 nm)	0.03273	-0.60124 u	-0.41318 u	ug/L
Cu (224.700 nm)	6.61038	-2.08119 u	6.66219	ug/L
Fe (261.382 nm)	-1.19792 u	-0.71650 u	3.11568	ug/L
K (766.491 nm)	13.03454	19.19834	18.01301	ug/L
Li (610.365 nm)	7.61902	8.13056	7.30592	ug/L
Mg (279.078 nm)	-5.53822 u	1.09144	-6.05414 u	ug/L

Label	Replicate 1	Replicate 2	Replicate 3	Units
Mn (260.568 nm)	0.43010	0.27467	0.39009	ug/L
Mo (202.032 nm)	1.98361	2.21222	3.96624	ug/L
Na (588.995 nm)	-50.04853 u	-57.02676 u	-50.54157 u	ug/L
Ni (231.604 nm)	-1.29474 u	0.08947	-0.74914 u	ug/L
P (178.222 nm)	29.84586	10.73451	-11.41763 u	ug/L
Pb (220.353 nm)	0.53000	0.68422	-1.37139 u	ug/L
Pt (203.646 nm)	-5.88426 u	-0.22422 u	4.62270	ug/L
Sb (206.834 nm)	5.63411	-1.13694 u	1.17495	ug/L
Se (196.026 nm)	4.32764	-3.46696 u	-5.73249 u	ug/L
Si (251.611 nm)	-6.43185 u	-6.13753 u	-9.64631 u	ug/L
Sn (189.925 nm)	2.95969	2.70357	1.18246	ug/L
Sr (421.552 nm)	0.03173	0.03631	0.12551	ug/L
Te (214.282 nm)	1.54632	10.58717	9.75878	ug/L
Ti (334.941 nm)	0.17203	0.06680	0.23895	ug/L
Tl (190.807 nm)	-8.34080 u	-2.26714 u	-3.33609 u	ug/L
U (409.013 nm)	1.80101	-2.47539 u	1.44825	ug/L
V (292.401 nm)	0.28698	0.46961	0.20516	ug/L
W (207.912 nm)	1.92227	2.92577	-0.21417 u	ug/L
Y (371.029 nm)	0.06818	0.02645	0.02856	ug/L
Zn (206.200 nm)	0.71668	0.74821	0.68108	ug/L
Zr (343.823 nm)	0.73788	0.61484	1.05658	ug/L
Sc-A (361.383 nm)	1.02	1.02	1.02	Ratio
Sc-R (503.102 nm)	1.00	1.00	1.00	Ratio

Sample Name: 2219266001

Date: 7/14/2022 12:36:12 Rack:Tube: 2:7

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Calculated Concentration
Ag (328.068 nm)	0.16600	ug/L	0.26565	> 100.00	-79.82951	0.16600 (ug/L)
Al (236.705 nm)	15.33876	ug/L	4.41005	28.75	71.93991	15.33876 (ug/L)
As (188.980 nm)	3.27601	ug/L	0.22662	6.92	-6.22640	3.27601 (ug/L)
B (249.772 nm)	5.11635	ug/L	1.25659	24.56	160.22357	5.11635 (ug/L)
Ba (230.424 nm)	30.15701	ug/L	0.50825	1.69	543.66693	30.15701 (ug/L)
Be (313.107 nm)	0.00677	ug/L	0.00946	> 100.00	6.84647	0.00677 (ug/L)
Bi (223.061 nm)	2.53046	ug/L	1.21378	47.97	-33.96034	2.53046 (ug/L)
Ca (317.933 nm)	138.56047	ug/L	1.09007	0.79	2334.86105	138.56047 (ug/L)
Cd (214.439 nm)	-0.12635	ug/L	0.40331	> 100.00	-7.31574	-0.12635 (ug/L)
Co (228.615 nm)	0.60119	ug/L	0.81414	> 100.00	-6.05847	0.60119 (ug/L)
Cr (205.560 nm)	13.15241	ug/L	0.11596	0.88	71.47963	13.15241 (ug/L)
Cu (224.700 nm)	6.05492	ug/L	3.10497	51.28	-3.73828	6.05492 (ug/L)
Fe (261.382 nm)	2828.92821	ug/L	19.24819	0.68	7620.98127	2828.92821 (ug/L)
K (766.491 nm)	22.04482	ug/L	4.01687	18.22	-107.60961	22.04482 (ug/L)
Li (610.365 nm)	18.43379	ug/L	2.54796	13.82	-4460.31098	18.43379 (ug/L)
Mg (279.078 nm)	50.95345	ug/L	3.85862	7.57	108.03104	50.95345 (ug/L)
Mn (260.568 nm)	27.91284	ug/L	0.10543	0.38	489.52169	27.91284 (ug/L)
Mo (202.032 nm)	1.46543	ug/L	0.60590	41.35	5.18541	1.46543 (ug/L)
Na (588.995 nm)	59.42596	ug/L	7.14570	12.02	25555.13248	59.42596 (ug/L)

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Calculated Concentration
Ni (231.604 nm)	1.51916	ug/L	1.04361	68.70	-0.29157	1.51916 (ug/L)
P (178.222 nm)	30.72317	ug/L	15.03207	48.93	5.47619	30.72317 (ug/L)
Pb (220.353 nm)	-3.11075	ug/L	1.36281	43.81	-1.45826	-3.11075 (ug/L)
Pt (203.646 nm)	6.46960	ug/L	2.87157	44.39	24.67395	6.46960 (ug/L)
Sb (206.834 nm)	2.30465	ug/L	3.80271	> 100.00	-6.72527	2.30465 (ug/L)
Se (196.026 nm)	2.39151	ug/L	2.01446	84.23	3.88231	2.39151 (ug/L)
Si (251.611 nm)	87.28857	ug/L	1.96453	2.25	142.74280	87.28857 (ug/L)
Sn (189.925 nm)	-0.65632	ug/L	1.17579	> 100.00	-5.53321	-0.65632 (ug/L)
Sr (421.552 nm)	1.39143	ug/L	0.01636	1.18	2861.38208	1.39143 (ug/L)
Te (214.282 nm)	12.70196	ug/L	8.20542	64.60	1.43746	12.70196 (ug/L)
Ti (334.941 nm)	3.49446	ug/L	0.11039	3.16	639.49017	3.49446 (ug/L)
Tl (190.807 nm)	3.81843	ug/L	2.54827	66.74	-0.40904	3.81843 (ug/L)
U (409.013 nm)	-1.77221	ug/L	3.55981	> 100.00	174.51391	-1.77221 (ug/L)
V (292.401 nm)	0.19479	ug/L	0.34867	> 100.00	-22.23531	0.19479 (ug/L)
W (207.912 nm)	0.70495	ug/L	1.09114	> 100.00	7.25340	0.70495 (ug/L)
Y (371.029 nm)	-0.00602	ug/L	0.03449	> 100.00	-0.59064	-0.00602 (ug/L)
Zn (206.200 nm)	19.83783	ug/L	0.06025	0.30	33.66349	19.83783 (ug/L)
Zr (343.823 nm)	1.14783	ug/L	0.18036	15.71	169.68070	1.14783 (ug/L)

Label	Internal Standard
Ag (328.068 nm)	Sc-A
Al (236.705 nm)	Sc-A
As (188.980 nm)	Sc-A
B (249.772 nm)	Sc-A
Ba (230.424 nm)	Sc-A
Be (313.107 nm)	Sc-A
Bi (223.061 nm)	Sc-A
Ca (317.933 nm)	Sc-A
Cd (214.439 nm)	Sc-A
Co (228.615 nm)	Sc-A
Cr (205.560 nm)	Sc-A
Cu (224.700 nm)	Sc-A
Fe (261.382 nm)	Sc-A
K (766.491 nm)	Sc-R
Li (610.365 nm)	Sc-R
Mg (279.078 nm)	Sc-A
Mn (260.568 nm)	Sc-A
Mo (202.032 nm)	Sc-A
Na (588.995 nm)	Sc-R
Ni (231.604 nm)	Sc-A
P (178.222 nm)	Sc-A
Pb (220.353 nm)	Sc-A
Pt (203.646 nm)	Sc-A
Sb (206.834 nm)	Sc-A
Se (196.026 nm)	Sc-A
Si (251.611 nm)	Sc-A
Sn (189.925 nm)	Sc-A
Sr (421.552 nm)	Sc-A

Label	Internal Standard
Te (214.282 nm)	Sc-A
Ti (334.941 nm)	Sc-A
Tl (190.807 nm)	Sc-A
U (409.013 nm)	Sc-A
V (292.401 nm)	Sc-A
W (207.912 nm)	Sc-A
Y (371.029 nm)	Sc-A
Zn (206.200 nm)	Sc-A
Zr (343.823 nm)	Sc-A

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Sc-A	1.04	425793.78	0.01	0.52
Sc-R	1.02	47734.22	0.01	0.52

Replicates Concentration

Label	Replicate 1	Replicate 2	Replicate 3	Units
Ag (328.068 nm)	0.16604	0.43163	-0.09967 u	ug/L
Al (236.705 nm)	14.32083	20.16877	11.52669	ug/L
As (188.980 nm)	3.53686	3.12758	3.16359	ug/L
B (249.772 nm)	6.45385	4.93477	3.96044	ug/L
Ba (230.424 nm)	29.88568	30.74335	29.84200	ug/L
Be (313.107 nm)	0.01072	-0.00402 u	0.01361	ug/L
Bi (223.061 nm)	3.87743	2.19239	1.52156	ug/L
Ca (317.933 nm)	137.36202	138.82643	139.49294	ug/L
Cd (214.439 nm)	-0.58193 u	0.18506	0.01782	ug/L
Co (228.615 nm)	1.51354	0.34134	-0.05130 u	ug/L
Cr (205.560 nm)	13.02322	13.24751	13.18649	ug/L
Cu (224.700 nm)	9.48639	5.23900	3.43938	ug/L
Fe (261.382 nm)	2806.81233	2838.07339	2841.89891	ug/L
K (766.491 nm)	21.64558	18.24248	26.24641	ug/L
Li (610.365 nm)	17.59552	16.41056	21.29527	ug/L
Mg (279.078 nm)	51.76162	46.75475	54.34398	ug/L
Mn (260.568 nm)	27.93874	27.79688	28.00291	ug/L
Mo (202.032 nm)	1.35911	0.91974	2.11746	ug/L
Na (588.995 nm)	67.45221	57.06979	53.75588	ug/L
Ni (231.604 nm)	0.46481	1.54100	2.55169	ug/L
P (178.222 nm)	13.37333	39.84590	38.95027	ug/L
Pb (220.353 nm)	-1.74730 u	-4.47292 u	-3.11203 u	ug/L
Pt (203.646 nm)	9.51182	6.09065	3.80631	ug/L
Sb (206.834 nm)	-0.32175 u	0.57036	6.66533	ug/L
Se (196.026 nm)	0.24021	2.70103	4.23330	ug/L
Si (251.611 nm)	85.12818	88.96786	87.76968	ug/L
Sn (189.925 nm)	-0.14432 u	-2.00130 u	0.17666	ug/L
Sr (421.552 nm)	1.37630	1.38922	1.40878	ug/L
Te (214.282 nm)	3.96175	20.23995	13.90418	ug/L
Ti (334.941 nm)	3.42225	3.62153	3.43960	ug/L

Label	Replicate 1	Replicate 2	Replicate 3	Units
Tl (190.807 nm)	1.04348	4.35831	6.05349	ug/L
U (409.013 nm)	-0.61728 u	1.06673	-5.76609 u	ug/L
V (292.401 nm)	-0.17535 u	0.24266	0.51705	ug/L
W (207.912 nm)	-0.52037 u	1.57167	1.06355	ug/L
Y (371.029 nm)	0.02500	-0.04316 u	0.00009	ug/L
Zn (206.200 nm)	19.78133	19.83093	19.90124	ug/L
Zr (343.823 nm)	1.09797	0.99764	1.34787	ug/L
Sc-A (361.383 nm)	1.03	1.04	1.04	Ratio
Sc-R (503.102 nm)	1.01	1.02	1.02	Ratio

Sample Name: 2219266002

Date: 7/14/2022 12:37:53 Rack:Tube: 2:8

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity
Ag (328.068 nm)	-16.90476 A2	ug/L	0.34800	2.06	-946.65973 A2
Al (236.705 nm)	840.27152	ug/L	6.74072	0.80	351.31185
As (188.980 nm)	98.61154	ug/L	6.45728	6.55	34.96050
B (249.772 nm)	149.03097	ug/L	5.46611	3.67	16183.33499
Ba (230.424 nm)	866.12037	ug/L	7.20271	0.83	15765.45936
Be (313.107 nm)	-0.00711	ug/L	0.00946	> 100.00	-72.16914
Bi (223.061 nm)	25.81469	ug/L	5.58851	21.65	4.00805
Ca (317.933 nm)	2178.14688	ug/L	16.74575	0.77	37208.94034
Cd (214.439 nm)	-14.66301 A2	ug/L	0.87538	5.97	2.65133 A2
Co (228.615 nm)	96.08021	ug/L	2.16393	2.25	474.45379
Cr (205.560 nm)	4101.67790	ug/L	48.41252	1.18	23102.46319
Cu (224.700 nm)	2039.31653	ug/L	23.51299	1.15	2618.71570
Fe (261.382 nm)	1522045.86099 A2	ug/L	11389.40364	0.75	4074913.30359 A2
K (766.491 nm)	190.77509	ug/L	13.40626	7.03	230.45948
Li (610.365 nm)	-38.19804	ug/L	5.15530	13.50	-5140.04702
Mg (279.078 nm)	1690.27046	ug/L	18.40100	1.09	2489.71916
Mn (260.568 nm)	15991.81650	ug/L	135.55851	0.85	279831.44839
Mo (202.032 nm)	405.93651	ug/L	5.23497	1.29	1777.29164
Na (588.995 nm)	166.73963	ug/L	1.22312	0.73	28093.56489
Ni (231.604 nm)	895.93247	ug/L	6.44013	0.72	2103.86920
P (178.222 nm)	622.29061	ug/L	34.36317	5.52	62.36292
Pb (220.353 nm)	109.96481	ug/L	4.79091	4.36	175.96276
Pt (203.646 nm)	3160.08450	ug/L	101.17414	3.20	12480.71516
Sb (206.834 nm)	-162.65279 A2	ug/L	10.19252	6.27	-156.43439 A2
Se (196.026 nm)	-92.44161	ug/L	8.21345	8.89	-297.31948
Si (251.611 nm)	13640.44137	ug/L	33.78707	0.25	19111.78473
Sn (189.925 nm)	105.18895	ug/L	4.63134	4.40	73.59502
Sr (421.552 nm)	31.82329	ug/L	0.28084	0.88	65031.52066
Te (214.282 nm)	-17.11988	ug/L	9.95668	58.16	68.52102
Ti (334.941 nm)	128.35665	ug/L	0.75009	0.58	25881.54529
Tl (190.807 nm)	-26.63559	ug/L	14.76513	55.43	-32.03586
U (409.013 nm)	94.07537	ug/L	4.81806	5.12	2143.97016
V (292.401 nm)	176.11525	ug/L	1.07631	0.61	1517.22698

Label	Solution Concentration	Unit	SD	%RSD	Intensity
W (207.912 nm)	48.16605	ug/L	4.87551	10.12	80.89358
Y (371.029 nm)	-2.81680	ug/L	0.15264	5.42	-466.74950
Zn (206.200 nm)	1344.01283	ug/L	10.18242	0.76	2387.47955
Zr (343.823 nm)	9.76209	ug/L	0.58637	6.01	2837.91794

Label	Calculated Concentration	Internal Standard
Ag (328.068 nm)	-16.90476 A2 (ug/L)	Sc-A
Al (236.705 nm)	840.27152 (ug/L)	Sc-A
As (188.980 nm)	98.61154 (ug/L)	Sc-A
B (249.772 nm)	149.03097 (ug/L)	Sc-A
Ba (230.424 nm)	866.12037 (ug/L)	Sc-A
Be (313.107 nm)	-0.00711 (ug/L)	Sc-A
Bi (223.061 nm)	25.81469 (ug/L)	Sc-A
Ca (317.933 nm)	2178.14688 (ug/L)	Sc-A
Cd (214.439 nm)	-14.66301 A2 (ug/L)	Sc-A
Co (228.615 nm)	96.08021 (ug/L)	Sc-A
Cr (205.560 nm)	4101.67790 (ug/L)	Sc-A
Cu (224.700 nm)	2039.31653 (ug/L)	Sc-A
Fe (261.382 nm)	1522045.86099 A2 (ug/L)	Sc-A
K (766.491 nm)	190.77509 (ug/L)	Sc-R
Li (610.365 nm)	-38.19804 (ug/L)	Sc-R
Mg (279.078 nm)	1690.27046 (ug/L)	Sc-A
Mn (260.568 nm)	15991.81650 (ug/L)	Sc-A
Mo (202.032 nm)	405.93651 (ug/L)	Sc-A
Na (588.995 nm)	166.73963 (ug/L)	Sc-R
Ni (231.604 nm)	895.93247 (ug/L)	Sc-A
P (178.222 nm)	622.29061 (ug/L)	Sc-A
Pb (220.353 nm)	109.96481 (ug/L)	Sc-A
Pt (203.646 nm)	3160.08450 (ug/L)	Sc-A
Sb (206.834 nm)	-162.65279 A2 (ug/L)	Sc-A
Se (196.026 nm)	-92.44161 (ug/L)	Sc-A
Si (251.611 nm)	13640.44137 (ug/L)	Sc-A
Sn (189.925 nm)	105.18895 (ug/L)	Sc-A
Sr (421.552 nm)	31.82329 (ug/L)	Sc-A
Te (214.282 nm)	-17.11988 (ug/L)	Sc-A
Ti (334.941 nm)	128.35665 (ug/L)	Sc-A
Tl (190.807 nm)	-26.63559 (ug/L)	Sc-A
U (409.013 nm)	94.07537 (ug/L)	Sc-A
V (292.401 nm)	176.11525 (ug/L)	Sc-A
W (207.912 nm)	48.16605 (ug/L)	Sc-A
Y (371.029 nm)	-2.81680 (ug/L)	Sc-A
Zn (206.200 nm)	1344.01283 (ug/L)	Sc-A
Zr (343.823 nm)	9.76209 (ug/L)	Sc-A

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Sc-A	0.97	397398.75	0.00	0.29
Sc-R	0.96	44977.85	0.00	0.26

Replicates Concentration

Label	Replicate 1	Replicate 2	Replicate 3	Units
Ag (328.068 nm)	-16.86459 u	-16.57859 u	-17.27111 u	ug/L
Al (236.705 nm)	838.08187	847.83484	834.89787	ug/L
As (188.980 nm)	92.01293	104.91755	98.90414	ug/L
B (249.772 nm)	143.93144	148.35982	154.80167	ug/L
Ba (230.424 nm)	858.42019	867.24845	872.69249	ug/L
Be (313.107 nm)	0.00057	-0.01767 u	-0.00422 u	ug/L
Bi (223.061 nm)	22.33385	22.84935	32.26088	ug/L
Ca (317.933 nm)	2161.00488	2178.96973	2194.46603	ug/L
Cd (214.439 nm)	-15.25126 u	-15.08076 u	-13.65701 u	ug/L
Co (228.615 nm)	94.05118	98.35760	95.83184	ug/L
Cr (205.560 nm)	4056.87143	4095.13192	4153.03036	ug/L
Cu (224.700 nm)	2012.20501	2051.61344	2054.13114	ug/L
Fe (261.382 nm)	1510079.94641 o	1523303.23032 o	1532754.40624 o	ug/L
K (766.491 nm)	205.93460	185.91004	180.48062	ug/L
Li (610.365 nm)	-34.45924 u	-44.07906 u	-36.05581 u	ug/L
Mg (279.078 nm)	1670.32174	1693.90976	1706.57989	ug/L
Mn (260.568 nm)	15852.21450	16000.30215	16122.93284	ug/L
Mo (202.032 nm)	400.34885	406.73323	410.72745	ug/L
Na (588.995 nm)	166.93959	167.85045	165.42885	ug/L
Ni (231.604 nm)	888.80780	897.64968	901.33993	ug/L
P (178.222 nm)	616.48272	659.18762	591.20148	ug/L
Pb (220.353 nm)	114.20388	110.92351	104.76704	ug/L
Pt (203.646 nm)	3043.25940	3218.85393	3218.14017	ug/L
Sb (206.834 nm)	-153.59718 u	-173.69093 u	-160.67025 u	ug/L
Se (196.026 nm)	-83.61828 u	-93.84123 u	-99.86533 u	ug/L
Si (251.611 nm)	13608.14817	13675.54656	13637.62937	ug/L
Sn (189.925 nm)	102.09758	102.95550	110.51377	ug/L
Sr (421.552 nm)	31.51635	31.88616	32.06737	ug/L
Te (214.282 nm)	-28.38759 u	-13.46452 u	-9.50752 u	ug/L
Ti (334.941 nm)	127.88242	129.22144	127.96611	ug/L
Tl (190.807 nm)	-11.53337 u	-27.33458 u	-41.03880 u	ug/L
U (409.013 nm)	89.43105	93.74491	99.05016	ug/L
V (292.401 nm)	174.90105	176.49275	176.95195	ug/L
W (207.912 nm)	53.02751	48.19402	43.27661	ug/L
Y (371.029 nm)	-2.92055 u	-2.64153 u	-2.88832 u	ug/L
Zn (206.200 nm)	1334.97478	1342.01902	1355.04469	ug/L
Zr (343.823 nm)	9.08512	10.11134	10.08980	ug/L
Sc-A (361.383 nm)	0.96	0.97	0.97	Ratio
Sc-R (503.102 nm)	0.96	0.96	0.96	Ratio

Sample Name: 2219304001

Date: 7/14/2022 12:39:33 Rack:Tube: 2:9

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Calculated Concentration
Ag (328.068 nm)	1.34226	ug/L	0.31623	23.56	-18.92168	1.34226 (ug/L)
Al (236.705 nm)	776.15934	ug/L	23.61252	3.04	530.64402	776.15934 (ug/L)
As (188.980 nm)	77.62611	ug/L	5.38808	6.94	30.81534	77.62611 (ug/L)
B (249.772 nm)	7.23509	ug/L	0.48168	6.66	465.99476	7.23509 (ug/L)
Ba (230.424 nm)	14.24664	ug/L	0.07928	0.56	262.05720	14.24664 (ug/L)
Be (313.107 nm)	0.02798	ug/L	0.02291	81.90	19.95414	0.02798 (ug/L)
Bi (223.061 nm)	7.70333	ug/L	3.05288	39.63	-23.73804	7.70333 (ug/L)
Ca (317.933 nm)	1854.79968	ug/L	24.89098	1.34	31683.05351	1854.79968 (ug/L)
Cd (214.439 nm)	0.14508	ug/L	0.28949	> 100.00	-3.46627	0.14508 (ug/L)
Co (228.615 nm)	25.94943	ug/L	1.15993	4.47	141.89174	25.94943 (ug/L)
Cr (205.560 nm)	370.78392	ug/L	5.83606	1.57	2115.42272	370.78392 (ug/L)
Cu (224.700 nm)	1169.71976	ug/L	14.26474	1.22	1169.98624	1169.71976 (ug/L)
Fe (261.382 nm)	32915.65886	ug/L	507.68654	1.54	88167.85153	32915.65886 (ug/L)
K (766.491 nm)	589.49537	ug/L	4.73238	0.80	1052.86564	589.49537 (ug/L)
Li (610.365 nm)	17.13566	ug/L	1.70725	9.96	-4503.70853	17.13566 (ug/L)
Mg (279.078 nm)	550.04195	ug/L	11.11774	2.02	889.45389	550.04195 (ug/L)
Mn (260.568 nm)	4954.18593	ug/L	72.83918	1.47	86500.62231	4954.18593 (ug/L)
Mo (202.032 nm)	141.82710	ug/L	2.24618	1.58	662.37668	141.82710 (ug/L)
Na (588.995 nm)	164.41625	ug/L	3.51705	2.14	28038.60681	164.41625 (ug/L)
Ni (231.604 nm)	285.92801	ug/L	4.82592	1.69	666.64754	285.92801 (ug/L)
P (178.222 nm)	247.86435	ug/L	35.69748	14.40	26.35708	247.86435 (ug/L)
Pb (220.353 nm)	60.29520	ug/L	2.23717	3.71	73.71791	60.29520 (ug/L)
Pt (203.646 nm)	9.26673	ug/L	2.21337	23.89	223.87929	9.26673 (ug/L)
Sb (206.834 nm)	10.65890	ug/L	2.15440	20.21	3.14148	10.65890 (ug/L)
Se (196.026 nm)	6.74920	ug/L	7.47277	> 100.00	1.62983	6.74920 (ug/L)
Si (251.611 nm)	1157.04699	ug/L	11.15156	0.96	1652.72423	1157.04699 (ug/L)
Sn (189.925 nm)	35.22989	ug/L	7.01730	19.92	21.29475	35.22989 (ug/L)
Sr (421.552 nm)	13.27147	ug/L	0.20143	1.52	27131.44696	13.27147 (ug/L)
Te (214.282 nm)	5.14440	ug/L	9.88935	> 100.00	-0.84896	5.14440 (ug/L)
Ti (334.941 nm)	45.66560	ug/L	0.72686	1.59	9124.81171	45.66560 (ug/L)
Tl (190.807 nm)	3.76046	ug/L	5.12422	> 100.00	-5.53302	3.76046 (ug/L)
U (409.013 nm)	-1.51765	ug/L	1.64435	> 100.00	204.74859	-1.51765 (ug/L)
V (292.401 nm)	6.92765	ug/L	0.49391	7.13	71.99167	6.92765 (ug/L)
W (207.912 nm)	3.30199	ug/L	2.07403	62.81	11.92302	3.30199 (ug/L)
Y (371.029 nm)	0.36268	ug/L	0.02393	6.60	59.75909	0.36268 (ug/L)
Zn (206.200 nm)	157.94455	ug/L	1.71332	1.08	278.97395	157.94455 (ug/L)
Zr (343.823 nm)	0.26220	ug/L	0.23697	90.38	155.47405	0.26220 (ug/L)

Label	Internal Standard
Ag (328.068 nm)	Sc-A
Al (236.705 nm)	Sc-A
As (188.980 nm)	Sc-A
B (249.772 nm)	Sc-A
Ba (230.424 nm)	Sc-A
Be (313.107 nm)	Sc-A
Bi (223.061 nm)	Sc-A
Ca (317.933 nm)	Sc-A

Label	Internal Standard
Cd (214.439 nm)	Sc-A
Co (228.615 nm)	Sc-A
Cr (205.560 nm)	Sc-A
Cu (224.700 nm)	Sc-A
Fe (261.382 nm)	Sc-A
K (766.491 nm)	Sc-R
Li (610.365 nm)	Sc-R
Mg (279.078 nm)	Sc-A
Mn (260.568 nm)	Sc-A
Mo (202.032 nm)	Sc-A
Na (588.995 nm)	Sc-R
Ni (231.604 nm)	Sc-A
P (178.222 nm)	Sc-A
Pb (220.353 nm)	Sc-A
Pt (203.646 nm)	Sc-A
Sb (206.834 nm)	Sc-A
Se (196.026 nm)	Sc-A
Si (251.611 nm)	Sc-A
Sn (189.925 nm)	Sc-A
Sr (421.552 nm)	Sc-A
Te (214.282 nm)	Sc-A
Ti (334.941 nm)	Sc-A
Tl (190.807 nm)	Sc-A
U (409.013 nm)	Sc-A
V (292.401 nm)	Sc-A
W (207.912 nm)	Sc-A
Y (371.029 nm)	Sc-A
Zn (206.200 nm)	Sc-A
Zr (343.823 nm)	Sc-A

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Sc-A	1.03	425002.33	0.00	0.47
Sc-R	1.02	47677.55	0.00	0.37

Replicates Concentration

Label	Replicate 1	Replicate 2	Replicate 3	Units
Ag (328.068 nm)	1.12182	1.20038	1.70458	ug/L
Al (236.705 nm)	750.33343	796.64316	781.50143	ug/L
As (188.980 nm)	79.05134	82.15830	71.66869	ug/L
B (249.772 nm)	7.07564	6.85336	7.77628	ug/L
Ba (230.424 nm)	14.19262	14.20963	14.33766	ug/L
Be (313.107 nm)	0.05261	0.02402	0.00730	ug/L
Bi (223.061 nm)	9.79298	9.11718	4.19983	ug/L
Ca (317.933 nm)	1829.49788	1855.64275	1879.25841	ug/L
Cd (214.439 nm)	0.40309	0.20014	-0.16798 u	ug/L
Co (228.615 nm)	24.72349	26.09523	27.02957	ug/L

Label	Replicate 1	Replicate 2	Replicate 3	Units
Cr (205.560 nm)	364.92196	370.83606	376.59373	ug/L
Cu (224.700 nm)	1156.34198	1168.08645	1184.73085	ug/L
Fe (261.382 nm)	32387.97321	32958.35353	33400.64985	ug/L
K (766.491 nm)	587.20790	586.34131	594.93690	ug/L
Li (610.365 nm)	18.58420	17.56939	15.25338	ug/L
Mg (279.078 nm)	537.48971	558.64937	553.98678	ug/L
Mn (260.568 nm)	4878.82960	4959.51268	5024.21550	ug/L
Mo (202.032 nm)	139.65368	141.68805	144.13958	ug/L
Na (588.995 nm)	167.16023	165.63704	160.45147	ug/L
Ni (231.604 nm)	280.38112	288.23931	289.16359	ug/L
P (178.222 nm)	288.47812	233.65676	221.45818	ug/L
Pb (220.353 nm)	57.73262	61.29398	61.85901	ug/L
Pt (203.646 nm)	11.55224	9.11458	7.13336	ug/L
Sb (206.834 nm)	12.77303	8.46636	10.73730	ug/L
Se (196.026 nm)	-1.36177 u	13.35449	8.25487	ug/L
Si (251.611 nm)	1146.60956	1155.73485	1168.79657	ug/L
Sn (189.925 nm)	35.79418	41.94801	27.94749	ug/L
Sr (421.552 nm)	13.05758	13.29926	13.45756	ug/L
Te (214.282 nm)	14.92148	5.36525	-4.85352 u	ug/L
Ti (334.941 nm)	44.91839	45.70819	46.37023	ug/L
Tl (190.807 nm)	9.51805	2.06285	-0.29954 u	ug/L
U (409.013 nm)	-1.91421 u	-2.92746 u	0.28871	ug/L
V (292.401 nm)	6.41705	6.96290	7.40299	ug/L
W (207.912 nm)	3.67738	1.06591	5.16270	ug/L
Y (371.029 nm)	0.37729	0.37569	0.33506	ug/L
Zn (206.200 nm)	156.38724	157.66653	159.77987	ug/L
Zr (343.823 nm)	-0.01142 u	0.39752	0.40050	ug/L
Sc-A (361.383 nm)	1.03	1.03	1.04	Ratio
Sc-R (503.102 nm)	1.01	1.02	1.02	Ratio

Sample Name: 2219313001

Date: 7/14/2022 12:41:14 Rack:Tube: 2:10

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Calculated Concentration
Ag (328.068 nm)	-0.09927	ug/L	0.24871	> 100.00	-93.81970	-0.09927 (ug/L)
Al (236.705 nm)	35.06424	ug/L	2.50852	7.15	84.07324	35.06424 (ug/L)
As (188.980 nm)	7.08760	ug/L	4.41298	62.26	-4.31657	7.08760 (ug/L)
B (249.772 nm)	0.29173	ug/L	0.56183	> 100.00	74.65545	0.29173 (ug/L)
Ba (230.424 nm)	3.06246	ug/L	0.13501	4.41	50.94400	3.06246 (ug/L)
Be (313.107 nm)	-0.00007	ug/L	0.00907	> 100.00	1.98596	-0.00007 (ug/L)
Bi (223.061 nm)	1.54554	ug/L	4.08850	> 100.00	-35.42605	1.54554 (ug/L)
Ca (317.933 nm)	189.67656	ug/L	4.20271	2.22	3208.95198	189.67656 (ug/L)
Cd (214.439 nm)	0.14483	ug/L	0.17501	> 100.00	-4.67421	0.14483 (ug/L)
Co (228.615 nm)	0.49355	ug/L	0.78365	> 100.00	-6.64810	0.49355 (ug/L)
Cr (205.560 nm)	20.84945	ug/L	0.77037	3.69	115.97680	20.84945 (ug/L)
Cu (224.700 nm)	12.63408	ug/L	1.01971	8.07	2.40643	12.63408 (ug/L)
Fe (261.382 nm)	1772.54551	ug/L	38.73885	2.19	4792.71657	1772.54551 (ug/L)

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Calculated Concentration
K (766.491 nm)	27.85422	ug/L	15.15443	54.41	-95.50509	27.85422 (ug/L)
Li (610.365 nm)	19.29159	ug/L	1.45382	7.54	-4451.37681	19.29159 (ug/L)
Mg (279.078 nm)	30.45878	ug/L	0.18664	0.61	75.71466	30.45878 (ug/L)
Mn (260.568 nm)	134.65057	ug/L	2.41348	1.79	2352.40232	134.65057 (ug/L)
Mo (202.032 nm)	0.81954	ug/L	0.90531	> 100.00	2.23794	0.81954 (ug/L)
Na (588.995 nm)	26.55139	ug/L	3.91873	14.76	24777.50679	26.55139 (ug/L)
Ni (231.604 nm)	2.35140	ug/L	1.79780	76.46	1.66086	2.35140 (ug/L)
P (178.222 nm)	17.63183	ug/L	30.20368	> 100.00	4.21729	17.63183 (ug/L)
Pb (220.353 nm)	1.35513	ug/L	0.89220	65.84	3.75211	1.35513 (ug/L)
Pt (203.646 nm)	2.09544	ug/L	2.47032	> 100.00	14.28732	2.09544 (ug/L)
Sb (206.834 nm)	1.64663	ug/L	2.60919	> 100.00	-7.21756	1.64663 (ug/L)
Se (196.026 nm)	3.60865	ug/L	4.29307	> 100.00	4.78777	3.60865 (ug/L)
Si (251.611 nm)	148.51083	ug/L	3.71597	2.50	229.25393	148.51083 (ug/L)
Sn (189.925 nm)	0.94915	ug/L	2.91558	> 100.00	-4.33299	0.94915 (ug/L)
Sr (421.552 nm)	0.91788	ug/L	0.01400	1.53	1893.93673	0.91788 (ug/L)
Te (214.282 nm)	3.86968	ug/L	4.92389	> 100.00	-3.21961	3.86968 (ug/L)
Ti (334.941 nm)	3.89655	ug/L	0.05987	1.54	720.30436	3.89655 (ug/L)
Tl (190.807 nm)	5.54993	ug/L	3.65307	65.82	0.42289	5.54993 (ug/L)
U (409.013 nm)	-4.74583	ug/L	1.05375	22.20	157.63429	-4.74583 (ug/L)
V (292.401 nm)	0.16922	ug/L	0.08395	49.61	-21.02317	0.16922 (ug/L)
W (207.912 nm)	1.72415	ug/L	0.71353	41.38	9.40750	1.72415 (ug/L)
Y (371.029 nm)	-0.00506	ug/L	0.07764	> 100.00	-0.44552	-0.00506 (ug/L)
Zn (206.200 nm)	107.30561	ug/L	1.56666	1.46	188.38741	107.30561 (ug/L)
Zr (343.823 nm)	0.10564	ug/L	0.15601	> 100.00	102.06448	0.10564 (ug/L)

Label	Internal Standard
Ag (328.068 nm)	Sc-A
Al (236.705 nm)	Sc-A
As (188.980 nm)	Sc-A
B (249.772 nm)	Sc-A
Ba (230.424 nm)	Sc-A
Be (313.107 nm)	Sc-A
Bi (223.061 nm)	Sc-A
Ca (317.933 nm)	Sc-A
Cd (214.439 nm)	Sc-A
Co (228.615 nm)	Sc-A
Cr (205.560 nm)	Sc-A
Cu (224.700 nm)	Sc-A
Fe (261.382 nm)	Sc-A
K (766.491 nm)	Sc-R
Li (610.365 nm)	Sc-R
Mg (279.078 nm)	Sc-A
Mn (260.568 nm)	Sc-A
Mo (202.032 nm)	Sc-A
Na (588.995 nm)	Sc-R
Ni (231.604 nm)	Sc-A
P (178.222 nm)	Sc-A
Pb (220.353 nm)	Sc-A

Label	Internal Standard
Pt (203.646 nm)	Sc-A
Sb (206.834 nm)	Sc-A
Se (196.026 nm)	Sc-A
Si (251.611 nm)	Sc-A
Sn (189.925 nm)	Sc-A
Sr (421.552 nm)	Sc-A
Te (214.282 nm)	Sc-A
Ti (334.941 nm)	Sc-A
Tl (190.807 nm)	Sc-A
U (409.013 nm)	Sc-A
V (292.401 nm)	Sc-A
W (207.912 nm)	Sc-A
Y (371.029 nm)	Sc-A
Zn (206.200 nm)	Sc-A
Zr (343.823 nm)	Sc-A

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Sc-A	1.04	427131.04	0.00	0.27
Sc-R	1.02	47899.96	0.00	0.27

Replicates Concentration

Label	Replicate 1	Replicate 2	Replicate 3	Units
Ag (328.068 nm)	0.13890	-0.07939 u	-0.35733 u	ug/L
Al (236.705 nm)	37.51996	35.16671	32.50606	ug/L
As (188.980 nm)	8.15443	10.86936	2.23900	ug/L
B (249.772 nm)	0.48316	-0.34080 u	0.73282	ug/L
Ba (230.424 nm)	3.12487	2.90754	3.15497	ug/L
Be (313.107 nm)	0.00454	0.00577	-0.01052 u	ug/L
Bi (223.061 nm)	-2.92855 u	2.47771	5.08746	ug/L
Ca (317.933 nm)	185.20825	190.27109	193.55035	ug/L
Cd (214.439 nm)	0.23125	0.25982	-0.05658 u	ug/L
Co (228.615 nm)	0.64642	-0.35527 u	1.18950	ug/L
Cr (205.560 nm)	20.04112	21.57521	20.93201	ug/L
Cu (224.700 nm)	13.55528	11.53837	12.80859	ug/L
Fe (261.382 nm)	1730.54922	1780.20452	1806.88278	ug/L
K (766.491 nm)	45.33259	18.38237	19.84771	ug/L
Li (610.365 nm)	18.70311	18.22426	20.94740	ug/L
Mg (279.078 nm)	30.65841	30.42930	30.28863	ug/L
Mn (260.568 nm)	132.07605	135.01382	136.86184	ug/L
Mo (202.032 nm)	1.58614	-0.17925 u	1.05174	ug/L
Na (588.995 nm)	30.24833	26.96254	22.44330	ug/L
Ni (231.604 nm)	0.33674	2.92520	3.79225	ug/L
P (178.222 nm)	7.06977	51.69817	-5.87246 u	ug/L
Pb (220.353 nm)	0.48120	1.31964	2.26454	ug/L
Pt (203.646 nm)	4.44186	-0.48248 u	2.32693	ug/L
Sb (206.834 nm)	-0.95803 u	1.63759	4.26034	ug/L

Label	Replicate 1	Replicate 2	Replicate 3	Units
Se (196.026 nm)	2.27017	8.41151	0.14426	ug/L
Si (251.611 nm)	144.86316	148.37780	152.29154	ug/L
Sn (189.925 nm)	-0.99032 u	-0.46427 u	4.30204	ug/L
Sr (421.552 nm)	0.90214	0.92254	0.92895	ug/L
Te (214.282 nm)	8.83993	3.77562	-1.00650 u	ug/L
Ti (334.941 nm)	3.96492	3.85353	3.87119	ug/L
Tl (190.807 nm)	1.42440	8.37422	6.85118	ug/L
U (409.013 nm)	-4.21150 u	-4.06629 u	-5.95970 u	ug/L
V (292.401 nm)	0.07231	0.21952	0.21585	ug/L
W (207.912 nm)	0.90741	2.22649	2.03853	ug/L
Y (371.029 nm)	0.01612	0.05978	-0.09110 u	ug/L
Zn (206.200 nm)	105.51970	107.94895	108.44820	ug/L
Zr (343.823 nm)	-0.07195 u	0.16834	0.22055	ug/L
Sc-A (361.383 nm)	1.04	1.04	1.04	Ratio
Sc-R (503.102 nm)	1.02	1.02	1.02	Ratio

Sample Name: 790579 LCS RR

Date: 7/14/2022 12:42:55 Rack:Tube: 2:11

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Calculated Concentration
Ag (328.068 nm)	4109.97481	ug/L	63.36205	1.54	213262.67627	4109.97481 (ug/L)
Al (236.705 nm)	4293.27423	ug/L	49.53146	1.15	2673.21131	4293.27423 (ug/L)
As (188.980 nm)	4359.77956	ug/L	76.23536	1.75	2169.57064	4359.77956 (ug/L)
B (249.772 nm)	3.00440	ug/L	0.47231	15.72	144.01698	3.00440 (ug/L)
Ba (230.424 nm)	4657.82743	ug/L	66.89238	1.44	84719.01066	4657.82743 (ug/L)
Be (313.107 nm)	466.97290	ug/L	8.37682	1.79	343628.72465	466.97290 (ug/L)
Bi (223.061 nm)	7.35590	ug/L	2.67591	36.38	-58.56135	7.35590 (ug/L)
Ca (317.933 nm)	4787.81620	ug/L	75.96958	1.59	82332.86434	4787.81620 (ug/L)
Cd (214.439 nm)	465.83910	ug/L	12.61982	2.71	4852.99316	465.83910 (ug/L)
Co (228.615 nm)	475.53084	ug/L	8.83840	1.86	2823.96169	475.53084 (ug/L)
Cr (205.560 nm)	4678.78146	ug/L	103.22136	2.21	26864.00337	4678.78146 (ug/L)
Cu (224.700 nm)	478.97812	ug/L	6.27215	1.31	477.51035	478.97812 (ug/L)
Fe (261.382 nm)	4757.46303	ug/L	90.92758	1.91	12670.92337	4757.46303 (ug/L)
K (766.491 nm)	7.01165	ug/L	17.78500	> 100.00	-176.82303	7.01165 (ug/L)
Li (610.365 nm)	4272.69731	ug/L	69.27986	1.62	44035.28797	4272.69731 (ug/L)
Mg (279.078 nm)	4383.17639	ug/L	78.91323	1.80	6891.49002	4383.17639 (ug/L)
Mn (260.568 nm)	4730.56534	ug/L	76.84395	1.62	82595.71223	4730.56534 (ug/L)
Mo (202.032 nm)	405.93288	ug/L	7.41745	1.83	1906.03570	405.93288 (ug/L)
Na (588.995 nm)	4495.81685	ug/L	65.77715	1.46	130494.96223	4495.81685 (ug/L)
Ni (231.604 nm)	484.87559	ug/L	9.96037	2.05	1135.48947	484.87559 (ug/L)
P (178.222 nm)	3734.89965	ug/L	75.96213	2.03	361.67983	3734.89965 (ug/L)
Pb (220.353 nm)	4684.36389	ug/L	80.87197	1.73	5512.31662	4684.36389 (ug/L)
Pt (203.646 nm)	9.84434	ug/L	2.64838	26.90	33.83532	9.84434 (ug/L)
Sb (206.834 nm)	3647.78898	ug/L	40.10812	1.10	3296.44435	3647.78898 (ug/L)
Se (196.026 nm)	4461.65165 A3	ug/L	67.02731	1.50	2651.80354 A3	4461.65165 A3 (ug/L)
Si (251.611 nm)	21.11341	ug/L	6.78065	32.12	59.19960	21.11341 (ug/L)
Sn (189.925 nm)	1.23255	ug/L	3.04979	> 100.00	-4.12112	1.23255 (ug/L)

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Calculated Concentration
Sr (421.552 nm)	1.42626	ug/L	0.02408	1.69	2932.51881	1.42626 (ug/L)
Te (214.282 nm)	3710.03427	ug/L	58.85021	1.59	1943.85367	3710.03427 (ug/L)
Ti (334.941 nm)	381.34494	ug/L	6.86702	1.80	76938.36644	381.34494 (ug/L)
Tl (190.807 nm)	4683.16015	ug/L	70.37454	1.50	2465.24138	4683.16015 (ug/L)
U (409.013 nm)	4540.52074	ug/L	61.04541	1.34	24514.15813	4540.52074 (ug/L)
V (292.401 nm)	4563.67322	ug/L	79.31293	1.74	117351.28136	4563.67322 (ug/L)
W (207.912 nm)	2.04206	ug/L	1.54801	75.81	54.63084	2.04206 (ug/L)
Y (371.029 nm)	455.84746	ug/L	8.07488	1.77	75423.12482	455.84746 (ug/L)
Zn (206.200 nm)	4699.09964	ug/L	91.05159	1.94	8323.37236	4699.09964 (ug/L)
Zr (343.823 nm)	3735.34359	ug/L	66.03059	1.77	237415.06572	3735.34359 (ug/L)

Label	Internal Standard
Ag (328.068 nm)	Sc-A
Al (236.705 nm)	Sc-A
As (188.980 nm)	Sc-A
B (249.772 nm)	Sc-A
Ba (230.424 nm)	Sc-A
Be (313.107 nm)	Sc-A
Bi (223.061 nm)	Sc-A
Ca (317.933 nm)	Sc-A
Cd (214.439 nm)	Sc-A
Co (228.615 nm)	Sc-A
Cr (205.560 nm)	Sc-A
Cu (224.700 nm)	Sc-A
Fe (261.382 nm)	Sc-A
K (766.491 nm)	Sc-R
Li (610.365 nm)	Sc-R
Mg (279.078 nm)	Sc-A
Mn (260.568 nm)	Sc-A
Mo (202.032 nm)	Sc-A
Na (588.995 nm)	Sc-R
Ni (231.604 nm)	Sc-A
P (178.222 nm)	Sc-A
Pb (220.353 nm)	Sc-A
Pt (203.646 nm)	Sc-A
Sb (206.834 nm)	Sc-A
Se (196.026 nm)	Sc-A
Si (251.611 nm)	Sc-A
Sn (189.925 nm)	Sc-A
Sr (421.552 nm)	Sc-A
Te (214.282 nm)	Sc-A
Ti (334.941 nm)	Sc-A
Tl (190.807 nm)	Sc-A
U (409.013 nm)	Sc-A
V (292.401 nm)	Sc-A
W (207.912 nm)	Sc-A
Y (371.029 nm)	Sc-A
Zn (206.200 nm)	Sc-A

Label	Internal Standard
Zr (343.823 nm)	Sc-A

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Sc-A	1.03	422991.83	0.00	0.34
Sc-R	1.01	47504.03	0.00	0.40

Replicates Concentration

Label	Replicate 1	Replicate 2	Replicate 3	Units
Ag (328.068 nm)	4041.29931 o	4122.46064 o	4166.16447 o	ug/L
Al (236.705 nm)	4238.54882	4306.24205	4335.03182	ug/L
As (188.980 nm)	4274.76232	4382.51744	4422.05891	ug/L
B (249.772 nm)	3.48963	2.54616	2.97741	ug/L
Ba (230.424 nm)	4583.48468	4676.84785	4713.14975	ug/L
Be (313.107 nm)	458.45320	467.26639	475.19913	ug/L
Bi (223.061 nm)	7.13742	4.79592	10.13435	ug/L
Ca (317.933 nm)	4707.81489	4796.65244	4858.98126	ug/L
Cd (214.439 nm)	452.78032	466.76840	477.96859	ug/L
Co (228.615 nm)	466.27818	476.42775	483.88659	ug/L
Cr (205.560 nm)	4578.89931	4672.39921	4785.04587	ug/L
Cu (224.700 nm)	473.96299	476.96063	486.01075	ug/L
Fe (261.382 nm)	4667.17518	4756.19679	4849.01712	ug/L
K (766.491 nm)	17.25956	-13.52469 u	17.30007	ug/L
Li (610.365 nm)	4196.00462	4291.33647	4330.75084	ug/L
Mg (279.078 nm)	4301.69674	4388.58777	4459.24465	ug/L
Mn (260.568 nm)	4649.39893	4740.10016	4802.19693	ug/L
Mo (202.032 nm)	397.83825	407.55612	412.40428	ug/L
Na (588.995 nm)	4424.30884	4509.39910	4553.74261	ug/L
Ni (231.604 nm)	474.20723	486.48840	493.93113	ug/L
P (178.222 nm)	3648.38708	3790.68293	3765.62895	ug/L
Pb (220.353 nm)	4600.56176	4690.58335	4761.94657	ug/L
Pt (203.646 nm)	7.87275	8.80565	12.85463	ug/L
Sb (206.834 nm)	3601.52400	3669.09800	3672.74494	ug/L
Se (196.026 nm)	4393.19375	4464.61087	4527.15034	ug/L
Si (251.611 nm)	14.12597	21.54788	27.66638	ug/L
Sn (189.925 nm)	-0.93455 u	4.72005	-0.08786 u	ug/L
Sr (421.552 nm)	1.40027	1.43068	1.44782	ug/L
Te (214.282 nm)	3647.14862	3719.17475	3763.77943	ug/L
Ti (334.941 nm)	374.07349	382.24196	387.71937	ug/L
Tl (190.807 nm)	4602.90210	4712.26375	4734.31460	ug/L
U (409.013 nm)	4478.93347	4541.61930	4601.00946	ug/L
V (292.401 nm)	4480.30586	4572.52472	4638.18909	ug/L
W (207.912 nm)	2.28083	3.45681	0.38854	ug/L
Y (371.029 nm)	447.32550	456.83189	463.38500	ug/L
Zn (206.200 nm)	4600.47262	4716.87072	4779.95559	ug/L
Zr (343.823 nm)	3665.10127	3744.78302	3796.14649	ug/L
Sc-A (361.383 nm)	1.02	1.03	1.03	Ratio

Label	Replicate 1	Replicate 2	Replicate 3	Units
Sc-R (503.102 nm)	1.01	1.01	1.01	Ratio

Sample Name: ICSA

Date: 7/14/2022 12:44:35 Rack:Tube: S1:7

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity
Ag (328.068 nm)	-2.67372	ug/L	0.25054	9.37	-225.25535
Al (236.705 nm)	249107.96796	ug/L	4867.75935	1.95	151368.09138
As (188.980 nm)	11.97897	ug/L	4.82589	40.29	-2.32533
B (249.772 nm)	-2.45390	ug/L	2.73141	> 100.00	885.77430
Ba (230.424 nm)	0.93967	ug/L	0.42351	45.07	12.31201
Be (313.107 nm)	-0.08529	ug/L	0.01583	18.56	-63.71849
Bi (223.061 nm)	9.59977	ug/L	2.37839	24.78	-23.29708
Ca (317.933 nm)	239970.70584	ug/L	4140.03587	1.73	4103478.83386
Cd (214.439 nm)	0.21901	ug/L	0.66628	> 100.00	-48.30519
Co (228.615 nm)	-0.71323	ug/L	0.61651	86.44	-19.18289
Cr (205.560 nm)	0.85636	ug/L	1.36639	> 100.00	-26.23483
Cu (224.700 nm)	-5.58142	ug/L	5.97539	> 100.00	21.01871
Fe (261.382 nm)	96130.68422	ug/L	1822.18819	1.90	257411.70981
K (766.491 nm)	16.87286	ug/L	5.68456	33.69	-117.94258
Li (610.365 nm)	-0.11325	ug/L	4.86867	> 100.00	-8723.00516
Mg (279.078 nm)	252616.49935	ug/L	5020.72033	1.99	399473.95746
Mn (260.568 nm)	4.97844	ug/L	0.43199	8.68	129.67617
Mo (202.032 nm)	1.94260	ug/L	0.95647	49.24	-0.40751
Na (588.995 nm)	35.64229	ug/L	2.96462	8.32	24992.54593
Ni (231.604 nm)	0.34514	ug/L	0.75910	> 100.00	-10.54542
P (178.222 nm)	-33.62570	ug/L	11.20501	33.32	-0.71177
Pb (220.353 nm)	-5.69596	ug/L	6.13534	> 100.00	-17.50283
Pt (203.646 nm)	40.24974	ug/L	24.33696	60.46	663.32421
Sb (206.834 nm)	-4.64005	ug/L	5.76732	> 100.00	-14.88537
Se (196.026 nm)	1.64590	ug/L	4.46244	> 100.00	-11.64044
Si (251.611 nm)	8.94881	ug/L	1.95623	21.86	21.75468
Sn (189.925 nm)	-7.79166	ug/L	2.37353	30.46	-10.86748
Sr (421.552 nm)	2.09060	ug/L	0.03989	1.91	4289.72621
Te (214.282 nm)	-19.75573	ug/L	6.48252	32.81	-20.80780
Ti (334.941 nm)	0.60183	ug/L	0.06840	11.37	-325.02414
Tl (190.807 nm)	-4.99597	ug/L	11.85474	> 100.00	-5.15645
U (409.013 nm)	11.34606	ug/L	1.71533	15.12	333.94493
V (292.401 nm)	1.26746	ug/L	0.46361	36.58	-169.15484
W (207.912 nm)	-3.37142	ug/L	1.27956	37.95	1.86700
Y (371.029 nm)	-0.13848	ug/L	0.02282	16.48	-22.36081
Zn (206.200 nm)	1.48601	ug/L	2.44474	> 100.00	1.15227
Zr (343.823 nm)	3.14356	ug/L	0.25372	8.07	426.45509

Label	Calculated Concentration	Internal Standard
Ag (328.068 nm)	-2.67372 (ug/L)	Sc-A
Al (236.705 nm)	249107.96796 (ug/L)	Sc-A
As (188.980 nm)	11.97897 (ug/L)	Sc-A
B (249.772 nm)	-2.45390 (ug/L)	Sc-A
Ba (230.424 nm)	0.93967 (ug/L)	Sc-A
Be (313.107 nm)	-0.08529 (ug/L)	Sc-A
Bi (223.061 nm)	9.59977 (ug/L)	Sc-A
Ca (317.933 nm)	239970.70584 (ug/L)	Sc-A
Cd (214.439 nm)	0.21901 (ug/L)	Sc-A
Co (228.615 nm)	-0.71323 (ug/L)	Sc-A
Cr (205.560 nm)	0.85636 (ug/L)	Sc-A
Cu (224.700 nm)	-5.58142 (ug/L)	Sc-A
Fe (261.382 nm)	96130.68422 (ug/L)	Sc-A
K (766.491 nm)	16.87286 (ug/L)	Sc-R
Li (610.365 nm)	-0.11325 (ug/L)	Sc-R
Mg (279.078 nm)	252616.49935 (ug/L)	Sc-A
Mn (260.568 nm)	4.97844 (ug/L)	Sc-A
Mo (202.032 nm)	1.94260 (ug/L)	Sc-A
Na (588.995 nm)	35.64229 (ug/L)	Sc-R
Ni (231.604 nm)	0.34514 (ug/L)	Sc-A
P (178.222 nm)	-33.62570 (ug/L)	Sc-A
Pb (220.353 nm)	-5.69596 (ug/L)	Sc-A
Pt (203.646 nm)	40.24974 (ug/L)	Sc-A
Sb (206.834 nm)	-4.64005 (ug/L)	Sc-A
Se (196.026 nm)	1.64590 (ug/L)	Sc-A
Si (251.611 nm)	8.94881 (ug/L)	Sc-A
Sn (189.925 nm)	-7.79166 (ug/L)	Sc-A
Sr (421.552 nm)	2.09060 (ug/L)	Sc-A
Te (214.282 nm)	-19.75573 (ug/L)	Sc-A
Ti (334.941 nm)	0.60183 (ug/L)	Sc-A
Tl (190.807 nm)	-4.99597 (ug/L)	Sc-A
U (409.013 nm)	11.34606 (ug/L)	Sc-A
V (292.401 nm)	1.26746 (ug/L)	Sc-A
W (207.912 nm)	-3.37142 (ug/L)	Sc-A
Y (371.029 nm)	-0.13848 (ug/L)	Sc-A
Zn (206.200 nm)	1.48601 (ug/L)	Sc-A
Zr (343.823 nm)	3.14356 (ug/L)	Sc-A

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Sc-A	0.94	387611.05	0.00	0.14
Sc-R	0.93	43655.46	0.00	0.12

Replicates Concentration

Label	Replicate 1	Replicate 2	Replicate 3	Units
Ag (328.068 nm)	-2.38477 u	-2.83041 u	-2.80598 u	ug/L
Al (236.705 nm)	244013.32986	249598.93636	253711.63766	ug/L

Label	Replicate 1	Replicate 2	Replicate 3	Units
As (188.980 nm)	17.43574	10.22882	8.27236	ug/L
B (249.772 nm)	-5.60124 u	-1.05710 u	-0.70336 u	ug/L
Ba (230.424 nm)	0.48011	1.02465	1.31425	ug/L
Be (313.107 nm)	-0.09222 u	-0.06717 u	-0.09647 u	ug/L
Bi (223.061 nm)	6.94379	10.32273	11.53280	ug/L
Ca (317.933 nm)	235377.25154	241120.68535	243414.18064	ug/L
Cd (214.439 nm)	-0.38660 u	0.11089	0.93273	ug/L
Co (228.615 nm)	-0.01859 u	-1.19545 u	-0.92564 u	ug/L
Cr (205.560 nm)	-0.71477 u	1.76711	1.51675	ug/L
Cu (224.700 nm)	-12.06695 u	-0.29936 u	-4.37795 u	ug/L
Fe (261.382 nm)	94199.26367	96373.49698	97819.29200	ug/L
K (766.491 nm)	23.23361	15.09600	12.28896	ug/L
Li (610.365 nm)	5.48946	-3.31606 u	-2.51315 u	ug/L
Mg (279.078 nm)	247224.61399	253467.63532	257157.24874	ug/L
Mn (260.568 nm)	4.93369	4.57057	5.43106	ug/L
Mo (202.032 nm)	2.16673	0.89396	2.76711	ug/L
Na (588.995 nm)	33.15020	38.92085	34.85583	ug/L
Ni (231.604 nm)	1.21720	-0.16741 u	-0.01438 u	ug/L
P (178.222 nm)	-46.16671 u	-30.11104 u	-24.59936 u	ug/L
Pb (220.353 nm)	0.09734	-5.06122 u	-12.12399 u	ug/L
Pt (203.646 nm)	13.83479	45.15207	61.76236	ug/L
Sb (206.834 nm)	1.75018	-9.45865 u	-6.21168 u	ug/L
Se (196.026 nm)	2.00319	5.91895	-2.98444 u	ug/L
Si (251.611 nm)	10.87401	6.96296	9.00947	ug/L
Sn (189.925 nm)	-8.07720 u	-5.28827 u	-10.00951 u	ug/L
Sr (421.552 nm)	2.04827	2.09603	2.12750	ug/L
Te (214.282 nm)	-25.49506 u	-12.72455 u	-21.04757 u	ug/L
Ti (334.941 nm)	0.67945	0.55038	0.57567	ug/L
Tl (190.807 nm)	6.76050	-4.80183 u	-16.94659 u	ug/L
U (409.013 nm)	9.48448	12.86273	11.69097	ug/L
V (292.401 nm)	0.73301	1.56136	1.50801	ug/L
W (207.912 nm)	-1.91343 u	-3.89311 u	-4.30771 u	ug/L
Y (371.029 nm)	-0.11819 u	-0.13406 u	-0.16319 u	ug/L
Zn (206.200 nm)	-0.35192 u	0.54937	4.26057	ug/L
Zr (343.823 nm)	2.85061	3.29294	3.28712	ug/L
Sc-A (361.383 nm)	0.94	0.94	0.94	Ratio
Sc-R (503.102 nm)	0.93	0.93	0.93	Ratio

Sample Name: ICSAB

Date: 7/14/2022 12:46:15 Rack:Tube: S1:8

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity
Ag (328.068 nm)	502.03021	ug/L	3.09466	0.62	25986.15153
Al (236.705 nm)	254345.69958	ug/L	2305.06691	0.91	154557.18217
As (188.980 nm)	505.51705	ug/L	6.44707	1.28	244.56364
B (249.772 nm)	517.42072	ug/L	1.29489	0.25	9092.63975
Ba (230.424 nm)	508.31067	ug/L	1.99018	0.39	9295.10059

Label	Solution Concentration	Unit	SD	%RSD	Intensity
Be (313.107 nm)	511.10955	ug/L	4.51803	0.88	376286.86690
Bi (223.061 nm)	510.31402	ug/L	4.95784	0.97	721.08334
Ca (317.933 nm)	244441.09271	ug/L	1751.54155	0.72	4180454.48526
Cd (214.439 nm)	498.70873	ug/L	5.39566	1.08	5185.38560
Co (228.615 nm)	477.97477	ug/L	5.27721	1.10	2824.61053
Cr (205.560 nm)	502.06616	ug/L	5.89923	1.17	2855.44647
Cu (224.700 nm)	488.17718	ug/L	6.77484	1.39	504.38406
Fe (261.382 nm)	98022.00767	ug/L	882.42834	0.90	262504.67762
K (766.491 nm)	8.49968	ug/L	21.73958	> 100.00	-139.30722
Li (610.365 nm)	515.27852	ug/L	2.86909	0.56	-2904.94691
Mg (279.078 nm)	257709.27440	ug/L	2268.88077	0.88	407518.44028
Mn (260.568 nm)	514.43438	ug/L	4.35399	0.85	9008.17144
Mo (202.032 nm)	1043.22846	ug/L	10.80649	1.04	4891.70701
Na (588.995 nm)	51.94112	ug/L	0.90874	1.75	25378.08366
Ni (231.604 nm)	485.61820	ug/L	6.42945	1.32	1126.12489
P (178.222 nm)	511.56237	ug/L	25.55609	5.00	51.71499
Pb (220.353 nm)	501.38925	ug/L	11.65162	2.32	573.84284
Pt (203.646 nm)	975.24136	ug/L	17.26594	1.77	1408.28329
Sb (206.834 nm)	499.05866	ug/L	5.59435	1.12	439.60705
Se (196.026 nm)	499.60894	ug/L	6.31143	1.26	289.95080
Si (251.611 nm)	1546.40003 G	ug/L	14.02682	0.91	2217.39895 G
Sn (189.925 nm)	498.39847	ug/L	10.57814	2.12	367.55220
Sr (421.552 nm)	522.98166	ug/L	5.02713	0.96	1068433.35958
Te (214.282 nm)	479.59432	ug/L	9.56963	2.00	241.45826
Ti (334.941 nm)	1006.06705	ug/L	9.55418	0.95	201706.70051
Tl (190.807 nm)	493.56135	ug/L	4.81700	0.98	294.20691
U (409.013 nm)	508.92615	ug/L	5.98502	1.18	3004.34335
V (292.401 nm)	504.00260	ug/L	4.33268	0.86	12677.06449
W (207.912 nm)	1088.45544	ug/L	6.42559	0.59	1401.68738
Y (371.029 nm)	489.22548	ug/L	4.67816	0.96	80926.35505
Zn (206.200 nm)	500.40989	ug/L	3.41163	0.68	885.86770
Zr (343.823 nm)	492.97057	ug/L	3.92855	0.80	31574.06625

Label	Calculated Concentration	Internal Standard
Ag (328.068 nm)	502.03021 (ug/L)	Sc-A
Al (236.705 nm)	254345.69958 (ug/L)	Sc-A
As (188.980 nm)	505.51705 (ug/L)	Sc-A
B (249.772 nm)	517.42072 (ug/L)	Sc-A
Ba (230.424 nm)	508.31067 (ug/L)	Sc-A
Be (313.107 nm)	511.10955 (ug/L)	Sc-A
Bi (223.061 nm)	510.31402 (ug/L)	Sc-A
Ca (317.933 nm)	244441.09271 (ug/L)	Sc-A
Cd (214.439 nm)	498.70873 (ug/L)	Sc-A
Co (228.615 nm)	477.97477 (ug/L)	Sc-A
Cr (205.560 nm)	502.06616 (ug/L)	Sc-A
Cu (224.700 nm)	488.17718 (ug/L)	Sc-A
Fe (261.382 nm)	98022.00767 (ug/L)	Sc-A
K (766.491 nm)	8.49968 (ug/L)	Sc-R

Label	Calculated Concentration	Internal Standard
Li (610.365 nm)	515.27852 (ug/L)	Sc-R
Mg (279.078 nm)	257709.27440 (ug/L)	Sc-A
Mn (260.568 nm)	514.43438 (ug/L)	Sc-A
Mo (202.032 nm)	1043.22846 (ug/L)	Sc-A
Na (588.995 nm)	51.94112 (ug/L)	Sc-R
Ni (231.604 nm)	485.61820 (ug/L)	Sc-A
P (178.222 nm)	511.56237 (ug/L)	Sc-A
Pb (220.353 nm)	501.38925 (ug/L)	Sc-A
Pt (203.646 nm)	975.24136 (ug/L)	Sc-A
Sb (206.834 nm)	499.05866 (ug/L)	Sc-A
Se (196.026 nm)	499.60894 (ug/L)	Sc-A
Si (251.611 nm)	1546.40003 G (ug/L)	Sc-A
Sn (189.925 nm)	498.39847 (ug/L)	Sc-A
Sr (421.552 nm)	522.98166 (ug/L)	Sc-A
Te (214.282 nm)	479.59432 (ug/L)	Sc-A
Ti (334.941 nm)	1006.06705 (ug/L)	Sc-A
Tl (190.807 nm)	493.56135 (ug/L)	Sc-A
U (409.013 nm)	508.92615 (ug/L)	Sc-A
V (292.401 nm)	504.00260 (ug/L)	Sc-A
W (207.912 nm)	1088.45544 (ug/L)	Sc-A
Y (371.029 nm)	489.22548 (ug/L)	Sc-A
Zn (206.200 nm)	500.40989 (ug/L)	Sc-A
Zr (343.823 nm)	492.97057 (ug/L)	Sc-A

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Sc-A	0.94	385267.55	0.00	0.22
Sc-R	0.93	43492.80	0.00	0.16

Replicates Concentration

Label	Replicate 1	Replicate 2	Replicate 3	Units
Ag (328.068 nm)	498.86167	502.18367	505.04529	ug/L
Al (236.705 nm)	252041.51765	254343.93062	256651.65046	ug/L
As (188.980 nm)	499.18402	512.07241	505.29472	ug/L
B (249.772 nm)	518.05027	515.93143	518.28046	ug/L
Ba (230.424 nm)	510.00383	508.80974	506.11845	ug/L
Be (313.107 nm)	506.89333	510.55680	515.87853	ug/L
Bi (223.061 nm)	504.58925	513.15563	513.19718	ug/L
Ca (317.933 nm)	242855.76266	244146.12532	246321.39015	ug/L
Cd (214.439 nm)	500.45901	492.65522	503.01196	ug/L
Co (228.615 nm)	474.12959	483.99124	475.80348	ug/L
Cr (205.560 nm)	503.99790	495.44324	506.75734	ug/L
Cu (224.700 nm)	495.75771	482.71355	486.06029	ug/L
Fe (261.382 nm)	97106.03463	98093.43913	98866.54926	ug/L
K (766.491 nm)	28.38423	-14.71146 u	11.82628	ug/L
Li (610.365 nm)	513.30202	518.56933	513.96421	ug/L
Mg (279.078 nm)	255306.08266	258007.36488	259814.37567	ug/L

Label	Replicate 1	Replicate 2	Replicate 3	Units
Mn (260.568 nm)	509.76246	515.16189	518.37879	ug/L
Mo (202.032 nm)	1032.17620	1043.73804	1053.77114	ug/L
Na (588.995 nm)	51.80374	51.10889	52.91072	ug/L
Ni (231.604 nm)	478.26676	488.39665	490.19119	ug/L
P (178.222 nm)	522.70326	529.65675	482.32709	ug/L
Pb (220.353 nm)	491.31808	498.69899	514.15070	ug/L
Pt (203.646 nm)	960.78545	970.57887	994.35976	ug/L
Sb (206.834 nm)	493.59590	498.80416	504.77592	ug/L
Se (196.026 nm)	494.23410	498.03404	506.55869	ug/L
Si (251.611 nm)	1530.24830	1555.52133	1553.43047	ug/L
Sn (189.925 nm)	486.23911	505.48291	503.47339	ug/L
Sr (421.552 nm)	518.12284	522.66045	528.16169	ug/L
Te (214.282 nm)	484.33000	485.87273	468.58021	ug/L
Ti (334.941 nm)	996.00456	1007.18140	1015.01519	ug/L
Tl (190.807 nm)	493.27038	488.89643	498.51725	ug/L
U (409.013 nm)	502.27672	510.62015	513.88158	ug/L
V (292.401 nm)	499.55504	504.24232	508.21045	ug/L
W (207.912 nm)	1083.72825	1085.86642	1095.77166	ug/L
Y (371.029 nm)	484.26369	489.85687	493.55588	ug/L
Zn (206.200 nm)	499.62383	497.45990	504.14595	ug/L
Zr (343.823 nm)	488.64399	493.95318	496.31455	ug/L
Sc-A (361.383 nm)	0.93	0.94	0.94	Ratio
Sc-R (503.102 nm)	0.92	0.93	0.93	Ratio

Sample Name: CCV

Date: 7/14/2022 12:47:55 Rack:Tube: S1:10

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Calculated Concentration
Ag (328.068 nm)	1913.63770	ug/L	32.58763	1.70	99933.90397	1913.63770 (ug/L)
Al (236.705 nm)	47943.89540	ug/L	892.20856	1.86	29362.78648	47943.89540 (ug/L)
As (188.980 nm)	4772.45579	ug/L	73.25061	1.53	2375.41248	4772.45579 (ug/L)
B (249.772 nm)	11874.24531	ug/L	172.65216	1.45	187552.70940	11874.24531 (ug/L)
Ba (230.424 nm)	4911.32892	ug/L	87.39029	1.78	90659.14791	4911.32892 (ug/L)
Be (313.107 nm)	972.47918	ug/L	17.78217	1.83	716007.72857	972.47918 (ug/L)
Bi (223.061 nm)	4765.55050	ug/L	90.52386	1.90	7115.56132	4765.55050 (ug/L)
Ca (317.933 nm)	49472.40557	ug/L	900.56258	1.82	848048.79633	49472.40557 (ug/L)
Cd (214.439 nm)	2503.36912	ug/L	44.42107	1.77	26099.85997	2503.36912 (ug/L)
Co (228.615 nm)	4882.68737	ug/L	95.57984	1.96	28772.52469	4882.68737 (ug/L)
Cr (205.560 nm)	4884.10535	ug/L	103.71440	2.12	28059.01352	4884.10535 (ug/L)
Cu (224.700 nm)	4807.07144	ug/L	101.44831	2.11	4860.14837	4807.07144 (ug/L)
Fe (261.382 nm)	48930.24639	ug/L	913.97163	1.87	130861.21358	48930.24639 (ug/L)
K (766.491 nm)	46479.50974	ug/L	846.78470	1.82	94849.36048	46479.50974 (ug/L)
Li (610.365 nm)	4682.57736	ug/L	83.61547	1.79	48001.96936	4682.57736 (ug/L)
Mg (279.078 nm)	48207.32230	ug/L	890.54018	1.85	76178.93445	48207.32230 (ug/L)
Mn (260.568 nm)	4879.56773	ug/L	92.92223	1.90	84984.14192	4879.56773 (ug/L)
Mo (202.032 nm)	24508.69166	ug/L	471.60394	1.92	115188.87460	24508.69166 (ug/L)
Na (588.995 nm)	46112.47751	ug/L	824.68736	1.79	1114908.95735	46112.47751 (ug/L)

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Calculated Concentration
Ni (231.604 nm)	4918.75870	ug/L	94.68004	1.92	11513.34222	4918.75870 (ug/L)
P (178.222 nm)	24205.62840	ug/L	433.40362	1.79	2330.20051	24205.62840 (ug/L)
Pb (220.353 nm)	4893.78119	ug/L	80.47808	1.64	5720.84519	4893.78119 (ug/L)
Pt (203.646 nm)	17.67845	ug/L	4.69891	26.58	276.03748	17.67845 (ug/L)
Sb (206.834 nm)	23547.48699	ug/L	508.24942	2.16	21165.90649	23547.48699 (ug/L)
Se (196.026 nm)	4729.74875	ug/L	91.78210	1.94	2801.98775	4729.74875 (ug/L)
Si (251.611 nm)	11817.38891	ug/L	346.68238	2.93	17303.36100	11817.38891 (ug/L)
Sn (189.925 nm)	4899.97685	ug/L	82.31870	1.68	3658.10205	4899.97685 (ug/L)
Sr (421.552 nm)	4789.63408	ug/L	87.62548	1.83	9784902.77210	4789.63408 (ug/L)
Te (214.282 nm)	9605.89686	ug/L	168.24873	1.75	5020.29014	9605.89686 (ug/L)
Ti (334.941 nm)	4810.68728	ug/L	89.13117	1.85	966693.79584	4810.68728 (ug/L)
Tl (190.807 nm)	2432.29602	ug/L	46.92383	1.93	1405.87867	2432.29602 (ug/L)
U (409.013 nm)	4731.71893	ug/L	94.08536	1.99	25610.46580	4731.71893 (ug/L)
V (292.401 nm)	4843.73644	ug/L	87.33045	1.80	122161.03381	4843.73644 (ug/L)
W (207.912 nm)	1.78249	ug/L	4.57323	> 100.00	57.06891	1.78249 (ug/L)
Y (371.029 nm)	1934.66530	ug/L	36.59485	1.89	320018.66595	1934.66530 (ug/L)
Zn (206.200 nm)	4984.29976	ug/L	86.79217	1.74	8828.40506	4984.29976 (ug/L)
Zr (343.823 nm)	4843.40491	ug/L	90.81788	1.88	307898.42103	4843.40491 (ug/L)

Label	Internal Standard
Ag (328.068 nm)	Sc-A
Al (236.705 nm)	Sc-A
As (188.980 nm)	Sc-A
B (249.772 nm)	Sc-A
Ba (230.424 nm)	Sc-A
Be (313.107 nm)	Sc-A
Bi (223.061 nm)	Sc-A
Ca (317.933 nm)	Sc-A
Cd (214.439 nm)	Sc-A
Co (228.615 nm)	Sc-A
Cr (205.560 nm)	Sc-A
Cu (224.700 nm)	Sc-A
Fe (261.382 nm)	Sc-A
K (766.491 nm)	Sc-R
Li (610.365 nm)	Sc-R
Mg (279.078 nm)	Sc-A
Mn (260.568 nm)	Sc-A
Mo (202.032 nm)	Sc-A
Na (588.995 nm)	Sc-R
Ni (231.604 nm)	Sc-A
P (178.222 nm)	Sc-A
Pb (220.353 nm)	Sc-A
Pt (203.646 nm)	Sc-A
Sb (206.834 nm)	Sc-A
Se (196.026 nm)	Sc-A
Si (251.611 nm)	Sc-A
Sn (189.925 nm)	Sc-A
Sr (421.552 nm)	Sc-A

Label	Internal Standard
Te (214.282 nm)	Sc-A
Ti (334.941 nm)	Sc-A
Tl (190.807 nm)	Sc-A
U (409.013 nm)	Sc-A
V (292.401 nm)	Sc-A
W (207.912 nm)	Sc-A
Y (371.029 nm)	Sc-A
Zn (206.200 nm)	Sc-A
Zr (343.823 nm)	Sc-A

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Sc-A	0.99	408006.08	0.00	0.19
Sc-R	0.99	46313.04	0.00	0.17

Replicates Concentration

Label	Replicate 1	Replicate 2	Replicate 3	Units
Ag (328.068 nm)	1879.84683	1916.19484	1944.87142	ug/L
Al (236.705 nm)	47025.18805	47999.49331	48807.00485	ug/L
As (188.980 nm)	4693.80205	4784.84117	4838.72415	ug/L
B (249.772 nm)	11696.37565	11885.20223	12041.15806	ug/L
Ba (230.424 nm)	4817.29036	4926.65240	4990.04400	ug/L
Be (313.107 nm)	953.03640	976.48309	987.91805	ug/L
Bi (223.061 nm)	4678.84073	4758.35214	4859.45863	ug/L
Ca (317.933 nm)	48517.66606	49592.88977	50306.66089	ug/L
Cd (214.439 nm)	2457.76704	2505.83376	2546.50656	ug/L
Co (228.615 nm)	4786.45842	4883.99910	4977.60460	ug/L
Cr (205.560 nm)	4785.91905	4873.81614	4992.58086	ug/L
Cu (224.700 nm)	4701.57680	4815.71753	4903.92001	ug/L
Fe (261.382 nm)	47987.12555	48991.64044	49811.97318	ug/L
K (766.491 nm)	45555.59102	46664.29593	47218.64228	ug/L
Li (610.365 nm)	4592.53229	4697.42603	4757.77375	ug/L
Mg (279.078 nm)	47277.53056	48291.85347	49052.58287	ug/L
Mn (260.568 nm)	4784.69231	4883.60575	4970.40512	ug/L
Mo (202.032 nm)	24025.07733	24533.70823	24967.28941	ug/L
Na (588.995 nm)	45226.89876	46252.08055	46858.45322	ug/L
Ni (231.604 nm)	4821.16180	4924.89052	5010.22379	ug/L
P (178.222 nm)	23742.57063	24272.77412	24601.54045	ug/L
Pb (220.353 nm)	4808.34988	4904.82919	4968.16450	ug/L
Pt (203.646 nm)	16.54364	13.65087	22.84085	ug/L
Sb (206.834 nm)	23027.77592	23571.24342	24043.44162	ug/L
Se (196.026 nm)	4629.66964	4749.58756	4809.98903	ug/L
Si (251.611 nm)	11462.15609	11835.17445	12154.83619	ug/L
Sn (189.925 nm)	4819.88796	4895.68512	4984.35746	ug/L
Sr (421.552 nm)	4699.66153	4794.53382	4874.70689	ug/L
Te (214.282 nm)	9443.41936	9594.89447	9779.37676	ug/L
Ti (334.941 nm)	4719.85236	4814.19856	4898.01093	ug/L

Label	Replicate 1	Replicate 2	Replicate 3	Units
Tl (190.807 nm)	2379.81446	2446.87017	2470.20342	ug/L
U (409.013 nm)	4632.81409	4742.24284	4820.09987	ug/L
V (292.401 nm)	4754.55043	4847.57410	4929.08480	ug/L
W (207.912 nm)	-0.25022 u	7.01969	-1.42199 u	ug/L
Y (371.029 nm)	1896.25512	1938.61664	1969.12413	ug/L
Zn (206.200 nm)	4899.06786	4981.25912	5072.57230	ug/L
Zr (343.823 nm)	4749.09108	4850.85585	4930.26778	ug/L
Sc-A (361.383 nm)	0.99	0.99	0.99	Ratio
Sc-R (503.102 nm)	0.98	0.99	0.99	Ratio

Sample Name: CCB

Date: 7/14/2022 12:49:36 Rack:Tube: S1:11

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Calculated Concentration
Ag (328.068 nm)	-0.13684	ug/L	0.10399	75.99	-95.52183	-0.13684 (ug/L)
Al (236.705 nm)	4.02980	ug/L	8.02051	> 100.00	65.49290	4.02980 (ug/L)
As (188.980 nm)	-0.75981	ug/L	3.52443	> 100.00	-8.23020	-0.75981 (ug/L)
B (249.772 nm)	18.43234	ug/L	3.01941	16.38	344.41021	18.43234 (ug/L)
Ba (230.424 nm)	0.01889	ug/L	0.32980	> 100.00	-4.32079	0.01889 (ug/L)
Be (313.107 nm)	0.01674	ug/L	0.02992	> 100.00	13.92392	0.01674 (ug/L)
Bi (223.061 nm)	3.99786	ug/L	1.50898	37.74	-31.72468	3.99786 (ug/L)
Ca (317.933 nm)	0.08142	ug/L	0.98032	> 100.00	-33.07862	0.08142 (ug/L)
Cd (214.439 nm)	0.20084	ug/L	0.34607	> 100.00	-4.09648	0.20084 (ug/L)
Co (228.615 nm)	0.88873	ug/L	0.72691	81.79	-4.25823	0.88873 (ug/L)
Cr (205.560 nm)	0.13203	ug/L	0.40070	> 100.00	-2.44791	0.13203 (ug/L)
Cu (224.700 nm)	-0.11599	ug/L	3.96917	> 100.00	-10.99369	-0.11599 (ug/L)
Fe (261.382 nm)	3.39674	ug/L	0.71063	20.92	56.35778	3.39674 (ug/L)
K (766.491 nm)	4.07332	ug/L	4.21755	> 100.00	-144.10801	4.07332 (ug/L)
Li (610.365 nm)	8.90193	ug/L	4.20298	47.21	-4566.82920	8.90193 (ug/L)
Mg (279.078 nm)	0.41496	ug/L	3.19108	> 100.00	28.46768	0.41496 (ug/L)
Mn (260.568 nm)	0.35820	ug/L	0.11547	32.24	7.26792	0.35820 (ug/L)
Mo (202.032 nm)	2.06582	ug/L	0.61942	29.98	8.24594	2.06582 (ug/L)
Na (588.995 nm)	-52.76141	ug/L	1.35879	2.58	22901.41620	-52.76141 (ug/L)
Ni (231.604 nm)	0.22152	ug/L	0.66527	> 100.00	-3.35323	0.22152 (ug/L)
P (178.222 nm)	-16.55046	ug/L	8.90347	53.80	0.93023	-16.55046 (ug/L)
Pb (220.353 nm)	-2.29744	ug/L	3.67037	> 100.00	-0.58336	-2.29744 (ug/L)
Pt (203.646 nm)	3.63966	ug/L	1.37383	37.75	3.90379	3.63966 (ug/L)
Sb (206.834 nm)	3.09236	ug/L	2.40119	77.65	-6.07173	3.09236 (ug/L)
Se (196.026 nm)	3.20604	ug/L	5.13971	> 100.00	4.81939	3.20604 (ug/L)
Si (251.611 nm)	-4.86857	ug/L	0.66644	13.69	13.00385	-4.86857 (ug/L)
Sn (189.925 nm)	-3.21732	ug/L	2.35158	73.09	-7.44777	-3.21732 (ug/L)
Sr (421.552 nm)	0.08606	ug/L	0.08351	97.04	194.58492	0.08606 (ug/L)
Te (214.282 nm)	5.68276	ug/L	3.66708	64.53	-2.37194	5.68276 (ug/L)
Ti (334.941 nm)	0.19896	ug/L	0.07008	35.22	-22.64607	0.19896 (ug/L)
Tl (190.807 nm)	-5.92641	ug/L	1.48601	25.07	-5.51216	-5.92641 (ug/L)
U (409.013 nm)	0.86617	ug/L	4.26345	> 100.00	185.84059	0.86617 (ug/L)
V (292.401 nm)	0.10584	ug/L	0.02387	22.55	-19.01936	0.10584 (ug/L)

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Calculated Concentration
W (207.912 nm)	0.61418	ug/L	1.63518	> 100.00	6.93571	0.61418 (ug/L)
Y (371.029 nm)	0.04837	ug/L	0.09195	> 100.00	8.46569	0.04837 (ug/L)
Zn (206.200 nm)	-0.94597	ug/L	0.16890	17.85	-3.13374	-0.94597 (ug/L)
Zr (343.823 nm)	0.79414	ug/L	0.14852	18.70	143.19595	0.79414 (ug/L)

Label	Internal Standard
Ag (328.068 nm)	Sc-A
Al (236.705 nm)	Sc-A
As (188.980 nm)	Sc-A
B (249.772 nm)	Sc-A
Ba (230.424 nm)	Sc-A
Be (313.107 nm)	Sc-A
Bi (223.061 nm)	Sc-A
Ca (317.933 nm)	Sc-A
Cd (214.439 nm)	Sc-A
Co (228.615 nm)	Sc-A
Cr (205.560 nm)	Sc-A
Cu (224.700 nm)	Sc-A
Fe (261.382 nm)	Sc-A
K (766.491 nm)	Sc-R
Li (610.365 nm)	Sc-R
Mg (279.078 nm)	Sc-A
Mn (260.568 nm)	Sc-A
Mo (202.032 nm)	Sc-A
Na (588.995 nm)	Sc-R
Ni (231.604 nm)	Sc-A
P (178.222 nm)	Sc-A
Pb (220.353 nm)	Sc-A
Pt (203.646 nm)	Sc-A
Sb (206.834 nm)	Sc-A
Se (196.026 nm)	Sc-A
Si (251.611 nm)	Sc-A
Sn (189.925 nm)	Sc-A
Sr (421.552 nm)	Sc-A
Te (214.282 nm)	Sc-A
Ti (334.941 nm)	Sc-A
Tl (190.807 nm)	Sc-A
U (409.013 nm)	Sc-A
V (292.401 nm)	Sc-A
W (207.912 nm)	Sc-A
Y (371.029 nm)	Sc-A
Zn (206.200 nm)	Sc-A
Zr (343.823 nm)	Sc-A

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Sc-A	1.02	420995.96	0.00	0.15
Sc-R	1.01	47198.10	0.00	0.17

Replicates Concentration

Label	Replicate 1	Replicate 2	Replicate 3	Units
Ag (328.068 nm)	-0.21378 u	-0.01853 u	-0.17820 u	ug/L
Al (236.705 nm)	2.04538	12.85624	-2.81222 u	ug/L
As (188.980 nm)	1.70187	-4.79719 u	0.81589	ug/L
B (249.772 nm)	21.63148	18.03318	15.63236	ug/L
Ba (230.424 nm)	-0.02068 u	-0.28934 u	0.36670	ug/L
Be (313.107 nm)	-0.00369 u	0.00282	0.05108	ug/L
Bi (223.061 nm)	4.86788	4.87024	2.25544	ug/L
Ca (317.933 nm)	-0.85736 u	0.00304	1.09858	ug/L
Cd (214.439 nm)	-0.17301 u	0.51000	0.26552	ug/L
Co (228.615 nm)	0.08924	1.50987	1.06707	ug/L
Cr (205.560 nm)	-0.32294 u	0.28662	0.43241	ug/L
Cu (224.700 nm)	0.49588	3.51172	-4.35556 u	ug/L
Fe (261.382 nm)	2.60877	3.98905	3.59240	ug/L
K (766.491 nm)	0.75351	2.64747	8.81898	ug/L
Li (610.365 nm)	8.45322	13.31127	4.94131	ug/L
Mg (279.078 nm)	-1.75001 u	-1.08473 u	4.07963	ug/L
Mn (260.568 nm)	0.38194	0.45995	0.23270	ug/L
Mo (202.032 nm)	1.80741	1.61745	2.77261	ug/L
Na (588.995 nm)	-51.91329 u	-54.32863 u	-52.04229 u	ug/L
Ni (231.604 nm)	0.05847	-0.34707 u	0.95316	ug/L
P (178.222 nm)	-25.68848 u	-7.90172 u	-16.06118 u	ug/L
Pb (220.353 nm)	-6.47661 u	-0.81821 u	0.40249	ug/L
Pt (203.646 nm)	2.07659	4.18663	4.65575	ug/L
Sb (206.834 nm)	0.74075	5.54024	2.99609	ug/L
Se (196.026 nm)	-2.22473 u	7.99427	3.84858	ug/L
Si (251.611 nm)	-5.25558 u	-5.25110 u	-4.09903 u	ug/L
Sn (189.925 nm)	-5.42244 u	-0.74253 u	-3.48700 u	ug/L
Sr (421.552 nm)	0.03290	0.04296	0.18231	ug/L
Te (214.282 nm)	3.40858	3.72653	9.91315	ug/L
Ti (334.941 nm)	0.14653	0.17180	0.27855	ug/L
Tl (190.807 nm)	-7.26487 u	-6.18702 u	-4.32733 u	ug/L
U (409.013 nm)	3.63677	-4.04331 u	3.00505	ug/L
V (292.401 nm)	0.10695	0.08144	0.12914	ug/L
W (207.912 nm)	-1.12753 u	2.11642	0.85367	ug/L
Y (371.029 nm)	-0.02451 u	0.01795	0.15168	ug/L
Zn (206.200 nm)	-0.76277 u	-1.09550 u	-0.97965 u	ug/L
Zr (343.823 nm)	0.79244	0.64647	0.94350	ug/L
Sc-A (361.383 nm)	1.02	1.02	1.02	Ratio
Sc-R (503.102 nm)	1.00	1.00	1.01	Ratio

Sample Name: 2219304001 RR

Date: 7/14/2022 13:21:11 Rack:Tube: 2:12

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Calculated Concentration
Ag (328.068 nm)	1.51466	ug/L	0.16726	11.04	-9.93001	1.51466 (ug/L)
Al (236.705 nm)	775.13627	ug/L	7.02384	0.91	530.06834	775.13627 (ug/L)
As (188.980 nm)	71.97569	ug/L	7.76792	10.79	27.99531	71.97569 (ug/L)
B (249.772 nm)	5.05006	ug/L	0.51188	10.14	428.19774	5.05006 (ug/L)
Ba (230.424 nm)	13.67573	ug/L	0.17467	1.28	251.60835	13.67573 (ug/L)
Be (313.107 nm)	0.02034	ug/L	0.00856	42.06	14.41403	0.02034 (ug/L)
Bi (223.061 nm)	4.07819	ug/L	3.86912	94.87	-29.25626	4.07819 (ug/L)
Ca (317.933 nm)	1840.69873	ug/L	28.39073	1.54	31441.93833	1840.69873 (ug/L)
Cd (214.439 nm)	0.13932	ug/L	0.53388	> 100.00	-3.45307	0.13932 (ug/L)
Co (228.615 nm)	25.65205	ug/L	0.78137	3.05	140.15568	25.65205 (ug/L)
Cr (205.560 nm)	367.58450	ug/L	7.40532	2.01	2097.16345	367.58450 (ug/L)
Cu (224.700 nm)	1159.17023	ug/L	14.08475	1.22	1159.31912	1159.17023 (ug/L)
Fe (261.382 nm)	32541.50791	ug/L	556.86544	1.71	87166.18818	32541.50791 (ug/L)
K (766.491 nm)	595.47543	ug/L	6.38108	1.07	1065.09868	595.47543 (ug/L)
Li (610.365 nm)	15.52347	ug/L	1.20400	7.76	-4521.87918	15.52347 (ug/L)
Mg (279.078 nm)	546.40665	ug/L	10.29076	1.88	883.79357	546.40665 (ug/L)
Mn (260.568 nm)	4908.03209	ug/L	85.03826	1.73	85694.76393	4908.03209 (ug/L)
Mo (202.032 nm)	140.52475	ug/L	1.99086	1.42	656.28753	140.52475 (ug/L)
Na (588.995 nm)	182.61201	ug/L	4.05379	2.22	28469.01525	182.61201 (ug/L)
Ni (231.604 nm)	283.48372	ug/L	5.87000	2.07	660.91517	283.48372 (ug/L)
P (178.222 nm)	224.05461	ug/L	15.23705	6.80	24.06747	224.05461 (ug/L)
Pb (220.353 nm)	57.59845	ug/L	0.95799	1.66	70.54297	57.59845 (ug/L)
Pt (203.646 nm)	11.92227	ug/L	6.98637	58.60	223.53821	11.92227 (ug/L)
Sb (206.834 nm)	10.82424	ug/L	2.86646	26.48	3.26377	10.82424 (ug/L)
Se (196.026 nm)	13.77385	ug/L	1.96902	14.30	5.85779	13.77385 (ug/L)
Si (251.611 nm)	1150.04160	ug/L	17.20880	1.50	1642.84592	1150.04160 (ug/L)
Sn (189.925 nm)	33.27406	ug/L	0.63334	1.90	19.83260	33.27406 (ug/L)
Sr (421.552 nm)	13.10243	ug/L	0.21852	1.67	26786.10973	13.10243 (ug/L)
Te (214.282 nm)	-1.21551	ug/L	8.13293	> 100.00	-4.17992	-1.21551 (ug/L)
Ti (334.941 nm)	45.22503	ug/L	0.70434	1.56	9036.15951	45.22503 (ug/L)
Tl (190.807 nm)	3.31840	ug/L	4.29366	> 100.00	-5.76185	3.31840 (ug/L)
U (409.013 nm)	-1.67268	ug/L	1.80112	> 100.00	203.57851	-1.67268 (ug/L)
V (292.401 nm)	6.88022	ug/L	0.31886	4.63	71.67460	6.88022 (ug/L)
W (207.912 nm)	1.82265	ug/L	3.93356	> 100.00	10.03337	1.82265 (ug/L)
Y (371.029 nm)	0.37210	ug/L	0.02408	6.47	61.32355	0.37210 (ug/L)
Zn (206.200 nm)	157.90794	ug/L	3.82830	2.42	278.89872	157.90794 (ug/L)
Zr (343.823 nm)	0.69385	ug/L	0.07922	11.42	182.35986	0.69385 (ug/L)

Label	Internal Standard
Ag (328.068 nm)	Sc-A
Al (236.705 nm)	Sc-A
As (188.980 nm)	Sc-A
B (249.772 nm)	Sc-A
Ba (230.424 nm)	Sc-A
Be (313.107 nm)	Sc-A
Bi (223.061 nm)	Sc-A
Ca (317.933 nm)	Sc-A

Label	Internal Standard
Cd (214.439 nm)	Sc-A
Co (228.615 nm)	Sc-A
Cr (205.560 nm)	Sc-A
Cu (224.700 nm)	Sc-A
Fe (261.382 nm)	Sc-A
K (766.491 nm)	Sc-R
Li (610.365 nm)	Sc-R
Mg (279.078 nm)	Sc-A
Mn (260.568 nm)	Sc-A
Mo (202.032 nm)	Sc-A
Na (588.995 nm)	Sc-R
Ni (231.604 nm)	Sc-A
P (178.222 nm)	Sc-A
Pb (220.353 nm)	Sc-A
Pt (203.646 nm)	Sc-A
Sb (206.834 nm)	Sc-A
Se (196.026 nm)	Sc-A
Si (251.611 nm)	Sc-A
Sn (189.925 nm)	Sc-A
Sr (421.552 nm)	Sc-A
Te (214.282 nm)	Sc-A
Ti (334.941 nm)	Sc-A
Tl (190.807 nm)	Sc-A
U (409.013 nm)	Sc-A
V (292.401 nm)	Sc-A
W (207.912 nm)	Sc-A
Y (371.029 nm)	Sc-A
Zn (206.200 nm)	Sc-A
Zr (343.823 nm)	Sc-A

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Sc-A	1.04	429560.10	0.00	0.21
Sc-R	1.02	48115.08	0.00	0.31

Replicates Concentration

Label	Replicate 1	Replicate 2	Replicate 3	Units
Ag (328.068 nm)	1.44218	1.39586	1.70593	ug/L
Al (236.705 nm)	777.66183	780.54811	767.19888	ug/L
As (188.980 nm)	69.14785	66.01784	80.76139	ug/L
B (249.772 nm)	4.45989	5.37338	5.31691	ug/L
Ba (230.424 nm)	13.48382	13.71793	13.82542	ug/L
Be (313.107 nm)	0.01598	0.03020	0.01485	ug/L
Bi (223.061 nm)	1.05145	2.74564	8.43748	ug/L
Ca (317.933 nm)	1810.93013	1843.69157	1867.47448	ug/L
Cd (214.439 nm)	0.75145	-0.10351 u	-0.22997 u	ug/L
Co (228.615 nm)	24.77161	26.26304	25.92151	ug/L

Label	Replicate 1	Replicate 2	Replicate 3	Units
Cr (205.560 nm)	360.67293	366.68007	375.40050	ug/L
Cu (224.700 nm)	1144.63453	1160.12022	1172.75592	ug/L
Fe (261.382 nm)	31979.95645	32551.00135	33093.56594	ug/L
K (766.491 nm)	591.73186	602.84334	591.85109	ug/L
Li (610.365 nm)	16.01906	16.40058	14.15078	ug/L
Mg (279.078 nm)	534.85714	549.76145	554.60138	ug/L
Mn (260.568 nm)	4819.49750	4915.51995	4989.07881	ug/L
Mo (202.032 nm)	138.24181	141.43239	141.90004	ug/L
Na (588.995 nm)	187.27486	180.63629	179.92486	ug/L
Ni (231.604 nm)	278.91804	281.42802	290.10509	ug/L
P (178.222 nm)	208.10205	238.45774	225.60404	ug/L
Pb (220.353 nm)	58.44792	56.56009	57.78734	ug/L
Pt (203.646 nm)	5.80565	10.42539	19.53576	ug/L
Sb (206.834 nm)	7.80620	13.51019	11.15634	ug/L
Se (196.026 nm)	12.89058	16.02984	12.40111	ug/L
Si (251.611 nm)	1130.30878	1157.88204	1161.93399	ug/L
Sn (189.925 nm)	32.88222	32.93523	34.00473	ug/L
Sr (421.552 nm)	12.86643	13.14309	13.29776	ug/L
Te (214.282 nm)	6.86818	-1.11791 u	-9.39681 u	ug/L
Ti (334.941 nm)	44.49960	45.26932	45.90618	ug/L
Tl (190.807 nm)	7.18685	-1.30131 u	4.06967	ug/L
U (409.013 nm)	-2.68161 u	-2.74320 u	0.40677	ug/L
V (292.401 nm)	6.94849	6.53275	7.15941	ug/L
W (207.912 nm)	-2.67863 u	3.54725	4.59932	ug/L
Y (371.029 nm)	0.35310	0.39918	0.36401	ug/L
Zn (206.200 nm)	154.80445	156.73349	162.18589	ug/L
Zr (343.823 nm)	0.62358	0.67827	0.77970	ug/L
Sc-A (361.383 nm)	1.04	1.05	1.05	Ratio
Sc-R (503.102 nm)	1.02	1.03	1.03	Ratio

Sample Name: 2219266002-5x

Date: 7/14/2022 13:22:52 Rack:Tube: 2:13

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Calculated Concentration
Ag (328.068 nm)	-3.19250	ug/L	0.01397	0.44	-250.65418	-3.19250 (ug/L)
Al (236.705 nm)	83.62316	ug/L	20.05010	23.98	60.45377	83.62316 (ug/L)
As (188.980 nm)	22.20035	ug/L	6.27572	28.27	1.67540	22.20035 (ug/L)
B (249.772 nm)	-5.96850	ug/L	2.73018	45.74	3263.68200	-5.96850 (ug/L)
Ba (230.424 nm)	169.76061	ug/L	2.16053	1.27	3086.17086	169.76061 (ug/L)
Be (313.107 nm)	-0.00014	ug/L	0.02442	> 100.00	-11.62445	-0.00014 (ug/L)
Bi (223.061 nm)	7.76774	ug/L	3.44336	44.33	-25.41434	7.76774 (ug/L)
Ca (317.933 nm)	442.49732	ug/L	5.91268	1.34	7531.63971	442.49732 (ug/L)
Cd (214.439 nm)	-1.45465	ug/L	0.09605	6.60	-2.60639	-1.45465 (ug/L)
Co (228.615 nm)	19.04720	ug/L	0.83113	4.36	82.88069	19.04720 (ug/L)
Cr (205.560 nm)	826.65538	ug/L	14.86810	1.80	4636.64359	826.65538 (ug/L)
Cu (224.700 nm)	392.79942	ug/L	8.49099	2.16	523.48846	392.79942 (ug/L)
Fe (261.382 nm)	364866.97987	ug/L	5115.66504	1.40	976879.90448	364866.97987 (ug/L)

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Calculated Concentration
K (766.491 nm)	31.93974	ug/L	5.62247	17.60	-88.53820	31.93974 (ug/L)
Li (610.365 nm)	6.03358	ug/L	2.30741	38.24	-4606.78787	6.03358 (ug/L)
Mg (279.078 nm)	353.45026	ug/L	6.86030	1.94	536.95774	353.45026 (ug/L)
Mn (260.568 nm)	3229.19306	ug/L	43.68368	1.35	56531.54675	3229.19306 (ug/L)
Mo (202.032 nm)	80.12612	ug/L	2.08680	2.60	344.44790	80.12612 (ug/L)
Na (588.995 nm)	-36.80319	ug/L	1.68860	4.59	23278.89709	-36.80319 (ug/L)
Ni (231.604 nm)	185.07693	ug/L	2.66977	1.44	431.77817	185.07693 (ug/L)
P (178.222 nm)	140.55844	ug/L	27.48714	19.56	16.03825	140.55844 (ug/L)
Pb (220.353 nm)	16.54810	ug/L	1.50798	9.11	32.28368	16.54810 (ug/L)
Pt (203.646 nm)	169.51158	ug/L	43.11891	25.44	2527.77715	169.51158 (ug/L)
Sb (206.834 nm)	-34.46808	ug/L	14.19747	41.19	-40.14948	-34.46808 (ug/L)
Se (196.026 nm)	6.25618	ug/L	8.02921	> 100.00	-52.17377	6.25618 (ug/L)
Si (251.611 nm)	2671.11116	ug/L	17.56184	0.66	3751.01396	2671.11116 (ug/L)
Sn (189.925 nm)	18.56055	ug/L	6.00768	32.37	8.83302	18.56055 (ug/L)
Sr (421.552 nm)	6.13884	ug/L	0.08976	1.46	12559.99040	6.13884 (ug/L)
Te (214.282 nm)	-20.82160	ug/L	4.37928	21.03	3.65974	-20.82160 (ug/L)
Ti (334.941 nm)	25.80444	ug/L	0.13837	0.54	5152.71065	25.80444 (ug/L)
Tl (190.807 nm)	2.15306	ug/L	7.37178	> 100.00	-4.48511	2.15306 (ug/L)
U (409.013 nm)	2.03746	ug/L	2.95624	> 100.00	542.39457	2.03746 (ug/L)
V (292.401 nm)	39.35968	ug/L	0.54526	1.39	279.74724	39.35968 (ug/L)
W (207.912 nm)	8.27925	ug/L	2.93884	35.50	19.43711	8.27925 (ug/L)
Y (371.029 nm)	-0.53567	ug/L	0.03549	6.63	-88.41246	-0.53567 (ug/L)
Zn (206.200 nm)	274.97665	ug/L	2.10331	0.76	487.25498	274.97665 (ug/L)
Zr (343.823 nm)	0.37584	ug/L	0.28444	75.68	626.29620	0.37584 (ug/L)

Label	Internal Standard
Ag (328.068 nm)	Sc-A
Al (236.705 nm)	Sc-A
As (188.980 nm)	Sc-A
B (249.772 nm)	Sc-A
Ba (230.424 nm)	Sc-A
Be (313.107 nm)	Sc-A
Bi (223.061 nm)	Sc-A
Ca (317.933 nm)	Sc-A
Cd (214.439 nm)	Sc-A
Co (228.615 nm)	Sc-A
Cr (205.560 nm)	Sc-A
Cu (224.700 nm)	Sc-A
Fe (261.382 nm)	Sc-A
K (766.491 nm)	Sc-R
Li (610.365 nm)	Sc-R
Mg (279.078 nm)	Sc-A
Mn (260.568 nm)	Sc-A
Mo (202.032 nm)	Sc-A
Na (588.995 nm)	Sc-R
Ni (231.604 nm)	Sc-A
P (178.222 nm)	Sc-A
Pb (220.353 nm)	Sc-A

Label	Internal Standard
Pt (203.646 nm)	Sc-A
Sb (206.834 nm)	Sc-A
Se (196.026 nm)	Sc-A
Si (251.611 nm)	Sc-A
Sn (189.925 nm)	Sc-A
Sr (421.552 nm)	Sc-A
Te (214.282 nm)	Sc-A
Ti (334.941 nm)	Sc-A
Tl (190.807 nm)	Sc-A
U (409.013 nm)	Sc-A
V (292.401 nm)	Sc-A
W (207.912 nm)	Sc-A
Y (371.029 nm)	Sc-A
Zn (206.200 nm)	Sc-A
Zr (343.823 nm)	Sc-A

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Sc-A	1.03	422778.82	0.00	0.13
Sc-R	1.01	47454.48	0.00	0.31

Replicates Concentration

Label	Replicate 1	Replicate 2	Replicate 3	Units
Ag (328.068 nm)	-3.19180 u	-3.17890 u	-3.20680 u	ug/L
Al (236.705 nm)	105.58130	78.99914	66.28905	ug/L
As (188.980 nm)	29.05432	16.73571	20.81102	ug/L
B (249.772 nm)	-8.93456 u	-5.41056 u	-3.56039 u	ug/L
Ba (230.424 nm)	167.45080	170.09913	171.73189	ug/L
Be (313.107 nm)	-0.00693 u	0.02696	-0.02043 u	ug/L
Bi (223.061 nm)	11.45241	4.63152	7.21928	ug/L
Ca (317.933 nm)	436.10494	443.61678	447.77025	ug/L
Cd (214.439 nm)	-1.50019 u	-1.51946 u	-1.34431 u	ug/L
Co (228.615 nm)	18.20148	19.07719	19.86294	ug/L
Cr (205.560 nm)	809.53936	834.05509	836.37171	ug/L
Cu (224.700 nm)	388.28146	387.52262	402.59418	ug/L
Fe (261.382 nm)	359328.08948	365858.63181	369414.21831	ug/L
K (766.491 nm)	34.40342	35.90980	25.50599	ug/L
Li (610.365 nm)	6.99681	7.70330	3.40062	ug/L
Mg (279.078 nm)	345.55325	357.93886	356.85867	ug/L
Mn (260.568 nm)	3183.50230	3233.53088	3270.54599	ug/L
Mo (202.032 nm)	78.65004	79.21471	82.51359	ug/L
Na (588.995 nm)	-37.95672 u	-37.58782 u	-34.86502 u	ug/L
Ni (231.604 nm)	182.06540	186.01198	187.15340	ug/L
P (178.222 nm)	127.81529	172.10445	121.75558	ug/L
Pb (220.353 nm)	15.51654	15.84902	18.27876	ug/L
Pt (203.646 nm)	121.70949	181.35192	205.47333	ug/L
Sb (206.834 nm)	-20.19195 u	-48.58557 u	-34.62674 u	ug/L

Label	Replicate 1	Replicate 2	Replicate 3	Units
Se (196.026 nm)	-2.29504 u	7.42926	13.63433	ug/L
Si (251.611 nm)	2651.98964	2674.82437	2686.51946	ug/L
Sn (189.925 nm)	22.50703	11.64655	21.52807	ug/L
Sr (421.552 nm)	6.05132	6.13451	6.23068	ug/L
Te (214.282 nm)	-24.32532 u	-15.91204 u	-22.22744 u	ug/L
Ti (334.941 nm)	25.70634	25.96271	25.74427	ug/L
Tl (190.807 nm)	9.81090	1.54301	-4.89474 u	ug/L
U (409.013 nm)	0.11531	0.55551	5.44155	ug/L
V (292.401 nm)	38.82662	39.33606	39.91637	ug/L
W (207.912 nm)	10.57557	4.96731	9.29487	ug/L
Y (371.029 nm)	-0.49888 u	-0.56970 u	-0.53842 u	ug/L
Zn (206.200 nm)	273.85341	273.67342	277.40313	ug/L
Zr (343.823 nm)	0.18327	0.24170	0.70255	ug/L
Sc-A (361.383 nm)	1.03	1.03	1.03	Ratio
Sc-R (503.102 nm)	1.01	1.01	1.01	Ratio

Sample Name: ICSA

Date: 7/14/2022 13:24:32 Rack:Tube: S1:7

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity
Ag (328.068 nm)	-2.70975	ug/L	0.09943	3.67	-227.53584
Al (236.705 nm)	249987.57390	ug/L	3628.46243	1.45	151902.38547
As (188.980 nm)	7.43733	ug/L	9.64706	> 100.00	-4.59382
B (249.772 nm)	-4.47629	ug/L	2.81019	62.78	854.25286
Ba (230.424 nm)	1.40357	ug/L	0.29817	21.24	20.67687
Be (313.107 nm)	-0.07195	ug/L	0.01186	16.49	-53.96501
Bi (223.061 nm)	7.90129	ug/L	2.17989	27.59	-25.86423
Ca (317.933 nm)	239826.45425	ug/L	3014.11585	1.26	4101012.11147
Cd (214.439 nm)	-0.48009	ug/L	0.36407	75.83	-55.37630
Co (228.615 nm)	0.11430	ug/L	0.32982	> 100.00	-14.24601
Cr (205.560 nm)	0.99271	ug/L	0.27923	28.13	-25.47181
Cu (224.700 nm)	-5.91654	ug/L	2.72684	46.09	20.73299
Fe (261.382 nm)	96164.04582	ug/L	1390.20977	1.45	257500.82022
K (766.491 nm)	18.17604	ug/L	7.05608	38.82	-115.28157
Li (610.365 nm)	-1.10029	ug/L	2.40161	> 100.00	-8731.48706
Mg (279.078 nm)	252486.65160	ug/L	3673.00061	1.45	399268.64450
Mn (260.568 nm)	5.13340	ug/L	0.35498	6.92	132.44203
Mo (202.032 nm)	0.27310	ug/L	0.89666	> 100.00	-8.25939
Na (588.995 nm)	26.51399	ug/L	1.46167	5.51	24776.62210
Ni (231.604 nm)	-1.09834	ug/L	2.75126	> 100.00	-13.92576
P (178.222 nm)	10.23090	ug/L	32.49429	> 100.00	3.50560
Pb (220.353 nm)	-3.41883	ug/L	1.28794	37.67	-14.86948
Pt (203.646 nm)	51.11951	ug/L	6.75718	13.22	672.15392
Sb (206.834 nm)	-8.80834	ug/L	13.63628	> 100.00	-18.65067
Se (196.026 nm)	-3.80054	ug/L	4.56397	> 100.00	-14.89894
Si (251.611 nm)	2.85314	ug/L	2.32372	81.44	13.10591
Sn (189.925 nm)	-4.21208	ug/L	5.60617	> 100.00	-8.19144

Label	Solution Concentration	Unit	SD	%RSD	Intensity
Sr (421.552 nm)	2.10081	ug/L	0.03752	1.79	4310.58136
Te (214.282 nm)	-8.04415	ug/L	10.87094	> 100.00	-14.74342
Ti (334.941 nm)	0.57428	ug/L	0.05226	9.10	-330.38175
Tl (190.807 nm)	-8.67649	ug/L	9.31909	> 100.00	-7.18313
U (409.013 nm)	10.10053	ug/L	2.04217	20.22	327.28345
V (292.401 nm)	0.95346	ug/L	0.09595	10.06	-177.15064
W (207.912 nm)	-5.88828	ug/L	4.36680	74.16	-1.37220
Y (371.029 nm)	-0.14886	ug/L	0.06315	42.42	-24.08062
Zn (206.200 nm)	-1.01334	ug/L	3.07571	> 100.00	-3.26979
Zr (343.823 nm)	1.12269	ug/L	0.28250	25.16	298.03806

Label	Calculated Concentration	Internal Standard
Ag (328.068 nm)	-2.70975 (ug/L)	Sc-A
Al (236.705 nm)	249987.57390 (ug/L)	Sc-A
As (188.980 nm)	7.43733 (ug/L)	Sc-A
B (249.772 nm)	-4.47629 (ug/L)	Sc-A
Ba (230.424 nm)	1.40357 (ug/L)	Sc-A
Be (313.107 nm)	-0.07195 (ug/L)	Sc-A
Bi (223.061 nm)	7.90129 (ug/L)	Sc-A
Ca (317.933 nm)	239826.45425 (ug/L)	Sc-A
Cd (214.439 nm)	-0.48009 (ug/L)	Sc-A
Co (228.615 nm)	0.11430 (ug/L)	Sc-A
Cr (205.560 nm)	0.99271 (ug/L)	Sc-A
Cu (224.700 nm)	-5.91654 (ug/L)	Sc-A
Fe (261.382 nm)	96164.04582 (ug/L)	Sc-A
K (766.491 nm)	18.17604 (ug/L)	Sc-R
Li (610.365 nm)	-1.10029 (ug/L)	Sc-R
Mg (279.078 nm)	252486.65160 (ug/L)	Sc-A
Mn (260.568 nm)	5.13340 (ug/L)	Sc-A
Mo (202.032 nm)	0.27310 (ug/L)	Sc-A
Na (588.995 nm)	26.51399 (ug/L)	Sc-R
Ni (231.604 nm)	-1.09834 (ug/L)	Sc-A
P (178.222 nm)	10.23090 (ug/L)	Sc-A
Pb (220.353 nm)	-3.41883 (ug/L)	Sc-A
Pt (203.646 nm)	51.11951 (ug/L)	Sc-A
Sb (206.834 nm)	-8.80834 (ug/L)	Sc-A
Se (196.026 nm)	-3.80054 (ug/L)	Sc-A
Si (251.611 nm)	2.85314 (ug/L)	Sc-A
Sn (189.925 nm)	-4.21208 (ug/L)	Sc-A
Sr (421.552 nm)	2.10081 (ug/L)	Sc-A
Te (214.282 nm)	-8.04415 (ug/L)	Sc-A
Ti (334.941 nm)	0.57428 (ug/L)	Sc-A
Tl (190.807 nm)	-8.67649 (ug/L)	Sc-A
U (409.013 nm)	10.10053 (ug/L)	Sc-A
V (292.401 nm)	0.95346 (ug/L)	Sc-A
W (207.912 nm)	-5.88828 (ug/L)	Sc-A
Y (371.029 nm)	-0.14886 (ug/L)	Sc-A
Zn (206.200 nm)	-1.01334 (ug/L)	Sc-A

Label	Calculated Concentration	Internal Standard
Zr (343.823 nm)	1.12269 (ug/L)	Sc-A

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Sc-A	0.95	388763.98	0.00	0.16
Sc-R	0.93	43757.98	0.00	0.29

Replicates Concentration

Label	Replicate 1	Replicate 2	Replicate 3	Units
Ag (328.068 nm)	-2.78679 u	-2.59751 u	-2.74494 u	ug/L
Al (236.705 nm)	246144.21286	250464.54978	253353.95906	ug/L
As (188.980 nm)	1.84291	1.89232	18.57676	ug/L
B (249.772 nm)	-6.70964 u	-5.39830 u	-1.32092 u	ug/L
Ba (230.424 nm)	1.70157	1.40391	1.10523	ug/L
Be (313.107 nm)	-0.06769 u	-0.06280 u	-0.08535 u	ug/L
Bi (223.061 nm)	6.19500	10.35704	7.15183	ug/L
Ca (317.933 nm)	237072.17110	239360.95164	243046.24002	ug/L
Cd (214.439 nm)	-0.58207 u	-0.78230 u	-0.07590 u	ug/L
Co (228.615 nm)	0.05639	-0.18273 u	0.46925	ug/L
Cr (205.560 nm)	1.05888	0.68634	1.23291	ug/L
Cu (224.700 nm)	-8.82549 u	-3.41844 u	-5.50569 u	ug/L
Fe (261.382 nm)	94711.53471	96298.40459	97482.19817	ug/L
K (766.491 nm)	25.40593	17.81450	11.30768	ug/L
Li (610.365 nm)	1.65797	-2.72787 u	-2.23097 u	ug/L
Mg (279.078 nm)	248725.74291	252669.28147	256064.93040	ug/L
Mn (260.568 nm)	5.25065	4.73463	5.41493	ug/L
Mo (202.032 nm)	-0.70462 u	1.05701	0.46692	ug/L
Na (588.995 nm)	28.08832	26.25370	25.19995	ug/L
Ni (231.604 nm)	-3.21648 u	2.01123	-2.08979 u	ug/L
P (178.222 nm)	-27.25603 u	27.58628	30.36244	ug/L
Pb (220.353 nm)	-4.80152 u	-2.25325 u	-3.20173 u	ug/L
Pt (203.646 nm)	48.18900	46.32229	58.84724	ug/L
Sb (206.834 nm)	-11.18980 u	5.86180	-21.09703 u	ug/L
Se (196.026 nm)	-8.54440 u	0.55926	-3.41647 u	ug/L
Si (251.611 nm)	0.45826	5.09847	3.00270	ug/L
Sn (189.925 nm)	0.48433	-10.41865 u	-2.70193 u	ug/L
Sr (421.552 nm)	2.06425	2.09895	2.13922	ug/L
Te (214.282 nm)	-15.79196 u	4.38287	-12.72335 u	ug/L
Ti (334.941 nm)	0.62080	0.58431	0.51773	ug/L
Tl (190.807 nm)	-1.73053 u	-19.26710 u	-5.03185 u	ug/L
U (409.013 nm)	9.48426	12.37986	8.43746	ug/L
V (292.401 nm)	0.94734	1.05232	0.86072	ug/L
W (207.912 nm)	-10.91601 u	-3.70682 u	-3.04203 u	ug/L
Y (371.029 nm)	-0.15162 u	-0.08437 u	-0.21058 u	ug/L
Zn (206.200 nm)	-0.39786 u	1.70808	-4.35025 u	ug/L
Zr (343.823 nm)	1.28730	1.28427	0.79649	ug/L
Sc-A (361.383 nm)	0.94	0.95	0.95	Ratio

Label	Replicate 1	Replicate 2	Replicate 3	Units
Sc-R (503.102 nm)	0.93	0.93	0.93	Ratio

Sample Name: ICSAB

Date: 7/14/2022 13:26:12 Rack:Tube: S1:8

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity
Ag (328.068 nm)	495.48890	ug/L	6.80134	1.37	25645.32791
Al (236.705 nm)	250222.17918	ug/L	3943.39366	1.58	152052.48506
As (188.980 nm)	494.69201	ug/L	18.73763	3.79	239.15869
B (249.772 nm)	507.48451	ug/L	10.59182	2.09	8921.39570
Ba (230.424 nm)	497.02677	ug/L	11.14517	2.24	9089.02511
Be (313.107 nm)	501.55448	ug/L	7.32062	1.46	369251.50779
Bi (223.061 nm)	505.86102	ug/L	10.74330	2.12	714.57629
Ca (317.933 nm)	241302.38218	ug/L	3823.56538	1.58	4126773.72284
Cd (214.439 nm)	487.01297	ug/L	6.75877	1.39	5063.48885
Co (228.615 nm)	473.31920	ug/L	7.22525	1.53	2797.04261
Cr (205.560 nm)	493.56783	ug/L	6.94240	1.41	2807.04576
Cu (224.700 nm)	482.55344	ug/L	7.43075	1.54	498.30678
Fe (261.382 nm)	96391.91926	ug/L	1528.06634	1.59	258140.05504
K (766.491 nm)	13.41231	ug/L	14.17436	> 100.00	-129.16798
Li (610.365 nm)	506.21248	ug/L	3.46977	0.69	-2955.18781
Mg (279.078 nm)	253037.18474	ug/L	4119.87690	1.63	400130.82911
Mn (260.568 nm)	505.13214	ug/L	7.38412	1.46	8845.37175
Mo (202.032 nm)	1026.26155	ug/L	16.42502	1.60	4812.12961
Na (588.995 nm)	47.90539	ug/L	7.02235	14.66	25282.62116
Ni (231.604 nm)	483.76698	ug/L	6.37754	1.32	1121.93730
P (178.222 nm)	525.80747	ug/L	48.24587	9.18	53.08484
Pb (220.353 nm)	491.87955	ug/L	10.69212	2.17	562.96023
Pt (203.646 nm)	957.40421	ug/L	29.89674	3.12	1383.59191
Sb (206.834 nm)	487.89806	ug/L	10.44143	2.14	429.57542
Se (196.026 nm)	504.50475	ug/L	20.66985	4.10	293.02159
Si (251.611 nm)	1519.16777 G	ug/L	23.77939	1.57	2178.72225 G
Sn (189.925 nm)	493.66012	ug/L	5.82399	1.18	364.00988
Sr (421.552 nm)	515.66138	ug/L	7.90319	1.53	1053478.55303
Te (214.282 nm)	472.35384	ug/L	14.91962	3.16	237.73146
Ti (334.941 nm)	988.50046	ug/L	15.63753	1.58	198182.17251
Tl (190.807 nm)	489.45750	ug/L	3.63289	0.74	291.43442
U (409.013 nm)	504.59500	ug/L	4.37674	0.87	2979.27852
V (292.401 nm)	495.35681	ug/L	7.70838	1.56	12458.98439
W (207.912 nm)	1070.04577	ug/L	11.58757	1.08	1378.05608
Y (371.029 nm)	481.22712	ug/L	7.42005	1.54	79603.32463
Zn (206.200 nm)	488.78300	ug/L	6.50676	1.33	865.26527
Zr (343.823 nm)	480.93728	ug/L	7.62483	1.59	30806.69150

Label	Calculated Concentration	Internal Standard
Ag (328.068 nm)	495.48890 (ug/L)	Sc-A
Al (236.705 nm)	250222.17918 (ug/L)	Sc-A
As (188.980 nm)	494.69201 (ug/L)	Sc-A
B (249.772 nm)	507.48451 (ug/L)	Sc-A
Ba (230.424 nm)	497.02677 (ug/L)	Sc-A
Be (313.107 nm)	501.55448 (ug/L)	Sc-A
Bi (223.061 nm)	505.86102 (ug/L)	Sc-A
Ca (317.933 nm)	241302.38218 (ug/L)	Sc-A
Cd (214.439 nm)	487.01297 (ug/L)	Sc-A
Co (228.615 nm)	473.31920 (ug/L)	Sc-A
Cr (205.560 nm)	493.56783 (ug/L)	Sc-A
Cu (224.700 nm)	482.55344 (ug/L)	Sc-A
Fe (261.382 nm)	96391.91926 (ug/L)	Sc-A
K (766.491 nm)	13.41231 (ug/L)	Sc-R
Li (610.365 nm)	506.21248 (ug/L)	Sc-R
Mg (279.078 nm)	253037.18474 (ug/L)	Sc-A
Mn (260.568 nm)	505.13214 (ug/L)	Sc-A
Mo (202.032 nm)	1026.26155 (ug/L)	Sc-A
Na (588.995 nm)	47.90539 (ug/L)	Sc-R
Ni (231.604 nm)	483.76698 (ug/L)	Sc-A
P (178.222 nm)	525.80747 (ug/L)	Sc-A
Pb (220.353 nm)	491.87955 (ug/L)	Sc-A
Pt (203.646 nm)	957.40421 (ug/L)	Sc-A
Sb (206.834 nm)	487.89806 (ug/L)	Sc-A
Se (196.026 nm)	504.50475 (ug/L)	Sc-A
Si (251.611 nm)	1519.16777 G (ug/L)	Sc-A
Sn (189.925 nm)	493.66012 (ug/L)	Sc-A
Sr (421.552 nm)	515.66138 (ug/L)	Sc-A
Te (214.282 nm)	472.35384 (ug/L)	Sc-A
Ti (334.941 nm)	988.50046 (ug/L)	Sc-A
Tl (190.807 nm)	489.45750 (ug/L)	Sc-A
U (409.013 nm)	504.59500 (ug/L)	Sc-A
V (292.401 nm)	495.35681 (ug/L)	Sc-A
W (207.912 nm)	1070.04577 (ug/L)	Sc-A
Y (371.029 nm)	481.22712 (ug/L)	Sc-A
Zn (206.200 nm)	488.78300 (ug/L)	Sc-A
Zr (343.823 nm)	480.93728 (ug/L)	Sc-A

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Sc-A	0.94	386597.47	0.00	0.19
Sc-R	0.93	43634.11	0.00	0.20

Replicates Concentration

Label	Replicate 1	Replicate 2	Replicate 3	Units
Ag (328.068 nm)	487.98284	497.24128	501.24258	ug/L
Al (236.705 nm)	246004.88038	250843.83607	253817.82109	ug/L

Label	Replicate 1	Replicate 2	Replicate 3	Units
As (188.980 nm)	474.43973	511.41228	498.22400	ug/L
B (249.772 nm)	496.60296	508.08996	517.76062	ug/L
Ba (230.424 nm)	485.89462	497.00079	508.18491	ug/L
Be (313.107 nm)	493.61474	503.01202	508.03669	ug/L
Bi (223.061 nm)	496.23507	503.89725	517.45074	ug/L
Ca (317.933 nm)	237390.76788	241485.02623	245031.35244	ug/L
Cd (214.439 nm)	480.57200	486.41687	494.05005	ug/L
Co (228.615 nm)	465.07520	478.55095	476.33145	ug/L
Cr (205.560 nm)	489.18930	489.94174	501.57244	ug/L
Cu (224.700 nm)	475.09085	482.61753	489.95194	ug/L
Fe (261.382 nm)	94732.91501	96701.07013	97741.77263	ug/L
K (766.491 nm)	29.26606	9.00775	1.96313	ug/L
Li (610.365 nm)	508.77277	502.26345	507.60122	ug/L
Mg (279.078 nm)	248531.16588	253969.12217	256611.26616	ug/L
Mn (260.568 nm)	497.26007	506.23125	511.90509	ug/L
Mo (202.032 nm)	1008.51822	1029.33131	1040.93511	ug/L
Na (588.995 nm)	42.56322	55.85940	45.29354	ug/L
Ni (231.604 nm)	476.95028	484.76237	489.58830	ug/L
P (178.222 nm)	472.18745	539.52802	565.70695	ug/L
Pb (220.353 nm)	480.26705	494.05485	501.31676	ug/L
Pt (203.646 nm)	924.20150	965.82021	982.19092	ug/L
Sb (206.834 nm)	475.99838	495.52773	492.16808	ug/L
Se (196.026 nm)	481.75694	509.62201	522.13529	ug/L
Si (251.611 nm)	1492.15792	1528.39361	1536.95177	ug/L
Sn (189.925 nm)	486.94384	496.72236	497.31416	ug/L
Sr (421.552 nm)	507.37811	516.48626	523.11978	ug/L
Te (214.282 nm)	486.26819	456.59961	474.19372	ug/L
Ti (334.941 nm)	971.69977	991.17061	1002.63099	ug/L
Tl (190.807 nm)	492.62316	485.49101	490.25832	ug/L
U (409.013 nm)	499.86308	505.42390	508.49803	ug/L
V (292.401 nm)	487.00873	496.85664	502.20505	ug/L
W (207.912 nm)	1057.41664	1072.53271	1080.18796	ug/L
Y (371.029 nm)	473.31127	482.34573	488.02436	ug/L
Zn (206.200 nm)	483.32141	487.04544	495.98215	ug/L
Zr (343.823 nm)	473.03959	481.51598	488.25627	ug/L
Sc-A (361.383 nm)	0.94	0.94	0.94	Ratio
Sc-R (503.102 nm)	0.93	0.93	0.93	Ratio

Sample Name: CCV

Date: 7/14/2022 13:27:52 Rack:Tube: S1:10

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Calculated Concentration
Ag (328.068 nm)	1930.24045	ug/L	11.61004	0.60	100805.76992	1930.24045 (ug/L)
Al (236.705 nm)	48560.19895	ug/L	374.67862	0.77	29738.78925	48560.19895 (ug/L)
As (188.980 nm)	4791.54174	ug/L	17.04084	0.36	2384.95563	4791.54174 (ug/L)
B (249.772 nm)	11994.80517	ug/L	72.16784	0.60	189456.94423	11994.80517 (ug/L)
Ba (230.424 nm)	4969.15164	ug/L	27.02409	0.54	91723.25415	4969.15164 (ug/L)

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Calculated Concentration
Be (313.107 nm)	981.04875	ug/L	6.49081	0.66	722314.55603	981.04875 (ug/L)
Bi (223.061 nm)	4827.59186	ug/L	24.99828	0.52	7208.75721	4827.59186 (ug/L)
Ca (317.933 nm)	49822.82737	ug/L	446.67690	0.90	854069.82782	49822.82737 (ug/L)
Cd (214.439 nm)	2519.61845	ug/L	16.10287	0.64	26269.40493	2519.61845 (ug/L)
Co (228.615 nm)	4928.02397	ug/L	32.03346	0.65	29039.83087	4928.02397 (ug/L)
Cr (205.560 nm)	4964.04640	ug/L	31.68083	0.64	28518.14388	4964.04640 (ug/L)
Cu (224.700 nm)	4875.65082	ug/L	36.12401	0.74	4929.32992	4875.65082 (ug/L)
Fe (261.382 nm)	49485.13091	ug/L	342.44564	0.69	132345.06316	49485.13091 (ug/L)
K (766.491 nm)	47241.11610	ug/L	324.15633	0.69	96406.23535	47241.11610 (ug/L)
Li (610.365 nm)	4774.35928	ug/L	26.29918	0.55	49044.46845	4774.35928 (ug/L)
Mg (279.078 nm)	48689.46693	ug/L	359.64310	0.74	76940.09437	48689.46693 (ug/L)
Mn (260.568 nm)	4933.71702	ug/L	33.19940	0.67	85927.65643	4933.71702 (ug/L)
Mo (202.032 nm)	24737.65815	ug/L	194.59544	0.79	116264.99813	24737.65815 (ug/L)
Na (588.995 nm)	46825.43835	ug/L	201.73045	0.43	1131773.56447	46825.43835 (ug/L)
Ni (231.604 nm)	4971.95262	ug/L	30.92333	0.62	11637.86452	4971.95262 (ug/L)
P (178.222 nm)	24413.31503	ug/L	204.15447	0.84	2350.17221	24413.31503 (ug/L)
Pb (220.353 nm)	4949.38854	ug/L	31.68155	0.64	5785.91661	4949.38854 (ug/L)
Pt (203.646 nm)	25.66480	ug/L	7.63372	29.74	285.45591	25.66480 (ug/L)
Sb (206.834 nm)	23940.45054	ug/L	173.17997	0.72	21519.23440	23940.45054 (ug/L)
Se (196.026 nm)	4764.12759	ug/L	28.58584	0.60	2822.27979	4764.12759 (ug/L)
Si (251.611 nm)	11892.84583	ug/L	219.02165	1.84	17415.49738	11892.84583 (ug/L)
Sn (189.925 nm)	4987.06003	ug/L	51.95514	1.04	3723.20405	4987.06003 (ug/L)
Sr (421.552 nm)	4855.25894	ug/L	34.55270	0.71	9918969.72460	4855.25894 (ug/L)
Te (214.282 nm)	9690.42670	ug/L	48.90914	0.50	5064.55433	9690.42670 (ug/L)
Ti (334.941 nm)	4860.38096	ug/L	41.38958	0.85	976683.21240	4860.38096 (ug/L)
Tl (190.807 nm)	2424.25289	ug/L	16.14690	0.67	1402.83918	2424.25289 (ug/L)
U (409.013 nm)	4811.79130	ug/L	43.08068	0.90	26039.56986	4811.79130 (ug/L)
V (292.401 nm)	4898.23941	ug/L	35.47681	0.72	123539.48839	4898.23941 (ug/L)
W (207.912 nm)	3.17087	ug/L	3.78130	> 100.00	59.46105	3.17087 (ug/L)
Y (371.029 nm)	1960.89653	ug/L	15.04028	0.77	324357.93929	1960.89653 (ug/L)
Zn (206.200 nm)	5046.59542	ug/L	55.26502	1.10	8938.81767	5046.59542 (ug/L)
Zr (343.823 nm)	4902.04905	ug/L	36.83011	0.75	311624.85320	4902.04905 (ug/L)

Label	Internal Standard
Ag (328.068 nm)	Sc-A
Al (236.705 nm)	Sc-A
As (188.980 nm)	Sc-A
B (249.772 nm)	Sc-A
Ba (230.424 nm)	Sc-A
Be (313.107 nm)	Sc-A
Bi (223.061 nm)	Sc-A
Ca (317.933 nm)	Sc-A
Cd (214.439 nm)	Sc-A
Co (228.615 nm)	Sc-A
Cr (205.560 nm)	Sc-A
Cu (224.700 nm)	Sc-A
Fe (261.382 nm)	Sc-A
K (766.491 nm)	Sc-R

Label	Internal Standard
Li (610.365 nm)	Sc-R
Mg (279.078 nm)	Sc-A
Mn (260.568 nm)	Sc-A
Mo (202.032 nm)	Sc-A
Na (588.995 nm)	Sc-R
Ni (231.604 nm)	Sc-A
P (178.222 nm)	Sc-A
Pb (220.353 nm)	Sc-A
Pt (203.646 nm)	Sc-A
Sb (206.834 nm)	Sc-A
Se (196.026 nm)	Sc-A
Si (251.611 nm)	Sc-A
Sn (189.925 nm)	Sc-A
Sr (421.552 nm)	Sc-A
Te (214.282 nm)	Sc-A
Ti (334.941 nm)	Sc-A
Tl (190.807 nm)	Sc-A
U (409.013 nm)	Sc-A
V (292.401 nm)	Sc-A
W (207.912 nm)	Sc-A
Y (371.029 nm)	Sc-A
Zn (206.200 nm)	Sc-A
Zr (343.823 nm)	Sc-A

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Sc-A	1.00	409653.35	0.00	0.27
Sc-R	0.99	46344.33	0.00	0.24

Replicates Concentration

Label	Replicate 1	Replicate 2	Replicate 3	Units
Ag (328.068 nm)	1918.00127	1931.62246	1941.09763	ug/L
Al (236.705 nm)	48148.49390	48650.90686	48881.19609	ug/L
As (188.980 nm)	4773.92255	4792.76430	4807.93838	ug/L
B (249.772 nm)	11921.79198	11996.52668	12066.09685	ug/L
Ba (230.424 nm)	4946.16634	4962.36702	4998.92155	ug/L
Be (313.107 nm)	975.26363	979.81459	988.06805	ug/L
Bi (223.061 nm)	4808.21234	4818.75488	4855.80835	ug/L
Ca (317.933 nm)	49393.89975	49789.22651	50285.35584	ug/L
Cd (214.439 nm)	2505.00167	2516.97369	2536.87997	ug/L
Co (228.615 nm)	4894.63469	4930.93421	4958.50300	ug/L
Cr (205.560 nm)	4931.08600	4966.78309	4994.27010	ug/L
Cu (224.700 nm)	4842.58007	4870.17055	4914.20183	ug/L
Fe (261.382 nm)	49154.48529	49462.63966	49838.26779	ug/L
K (766.491 nm)	46885.88550	47316.57590	47520.88689	ug/L
Li (610.365 nm)	4744.54194	4784.28385	4794.25206	ug/L
Mg (279.078 nm)	48349.39129	48653.09599	49065.91351	ug/L

Label	Replicate 1	Replicate 2	Replicate 3	Units
Mn (260.568 nm)	4899.12460	4936.70506	4965.32139	ug/L
Mo (202.032 nm)	24547.99558	24728.14161	24936.83725	ug/L
Na (588.995 nm)	46597.46954	46897.97590	46980.86961	ug/L
Ni (231.604 nm)	4940.03032	4974.05819	5001.76935	ug/L
P (178.222 nm)	24189.34849	24461.59360	24589.00300	ug/L
Pb (220.353 nm)	4921.53976	4942.76897	4983.85690	ug/L
Pt (203.646 nm)	21.38731	21.12889	34.47820	ug/L
Sb (206.834 nm)	23750.52023	23981.22936	24089.60203	ug/L
Se (196.026 nm)	4731.52726	4784.90708	4775.94844	ug/L
Si (251.611 nm)	11657.50376	11930.32296	12090.71078	ug/L
Sn (189.925 nm)	4934.30321	4988.70235	5038.17454	ug/L
Sr (421.552 nm)	4817.21474	4863.87107	4884.69102	ug/L
Te (214.282 nm)	9639.22090	9695.40004	9736.65916	ug/L
Ti (334.941 nm)	4820.50512	4857.50363	4903.13412	ug/L
Tl (190.807 nm)	2407.45298	2439.65602	2425.64966	ug/L
U (409.013 nm)	4766.90096	4815.67338	4852.79955	ug/L
V (292.401 nm)	4864.71557	4894.61218	4935.39049	ug/L
W (207.912 nm)	-0.20389 u	2.45898	7.25752	ug/L
Y (371.029 nm)	1945.21708	1962.26895	1975.20357	ug/L
Zn (206.200 nm)	4986.79733	5057.19773	5095.79119	ug/L
Zr (343.823 nm)	4864.00143	4904.61865	4937.52707	ug/L
Sc-A (361.383 nm)	0.99	1.00	1.00	Ratio
Sc-R (503.102 nm)	0.98	0.99	0.99	Ratio

Sample Name: CCB

Date: 7/14/2022 13:29:33 Rack:Tube: S1:11

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Calculated Concentration
Ag (328.068 nm)	-0.03954	ug/L	0.23998	> 100.00	-90.56568	-0.03954 (ug/L)
Al (236.705 nm)	-0.26612	ug/L	4.90460	> 100.00	62.88820	-0.26612 (ug/L)
As (188.980 nm)	-2.85596	ug/L	1.73828	60.86	-9.27620	-2.85596 (ug/L)
B (249.772 nm)	17.17039	ug/L	2.79439	16.27	324.52109	17.17039 (ug/L)
Ba (230.424 nm)	0.03716	ug/L	0.08406	> 100.00	-3.95900	0.03716 (ug/L)
Be (313.107 nm)	0.02143	ug/L	0.02370	> 100.00	17.68780	0.02143 (ug/L)
Bi (223.061 nm)	1.16574	ug/L	1.42560	> 100.00	-36.00255	1.16574 (ug/L)
Ca (317.933 nm)	-0.23310	ug/L	1.22100	> 100.00	-38.44408	-0.23310 (ug/L)
Cd (214.439 nm)	0.26970	ug/L	0.27918	> 100.00	-3.42620	0.26970 (ug/L)
Co (228.615 nm)	0.93536	ug/L	0.93477	99.94	-3.99272	0.93536 (ug/L)
Cr (205.560 nm)	0.11541	ug/L	0.19348	> 100.00	-2.53998	0.11541 (ug/L)
Cu (224.700 nm)	0.05178	ug/L	1.92226	> 100.00	-10.82886	0.05178 (ug/L)
Fe (261.382 nm)	2.40817	ug/L	1.36256	56.58	53.64245	2.40817 (ug/L)
K (766.491 nm)	12.55169	ug/L	4.11092	32.75	-126.77125	12.55169 (ug/L)
Li (610.365 nm)	10.87075	ug/L	2.50762	23.07	-4544.34655	10.87075 (ug/L)
Mg (279.078 nm)	-1.04137	ug/L	1.25742	> 100.00	26.20524	-1.04137 (ug/L)
Mn (260.568 nm)	0.17885	ug/L	0.21991	> 100.00	4.11866	0.17885 (ug/L)
Mo (202.032 nm)	2.67658	ug/L	1.06411	39.76	11.11633	2.67658 (ug/L)
Na (588.995 nm)	-58.65447	ug/L	5.88280	10.03	22762.01983	-58.65447 (ug/L)

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Calculated Concentration
Ni (231.604 nm)	-0.71592	ug/L	0.28574	39.91	-5.55065	-0.71592 (ug/L)
P (178.222 nm)	-3.10547	ug/L	17.74422	> 100.00	2.22314	-3.10547 (ug/L)
Pb (220.353 nm)	0.30814	ug/L	3.82069	> 100.00	2.47395	0.30814 (ug/L)
Pt (203.646 nm)	2.29902	ug/L	2.04769	89.07	2.83579	2.29902 (ug/L)
Sb (206.834 nm)	1.86007	ug/L	3.84312	> 100.00	-7.16893	1.86007 (ug/L)
Se (196.026 nm)	1.24517	ug/L	4.91254	> 100.00	3.65975	1.24517 (ug/L)
Si (251.611 nm)	-7.03172	ug/L	1.26292	17.96	9.96566	-7.03172 (ug/L)
Sn (189.925 nm)	-2.79228	ug/L	1.56216	55.95	-7.13002	-2.79228 (ug/L)
Sr (421.552 nm)	0.08444	ug/L	0.06636	78.58	191.29109	0.08444 (ug/L)
Te (214.282 nm)	-0.85265	ug/L	0.69535	81.55	-5.77541	-0.85265 (ug/L)
Ti (334.941 nm)	0.15159	ug/L	0.18209	> 100.00	-32.31462	0.15159 (ug/L)
Tl (190.807 nm)	-5.55443	ug/L	5.65439	> 100.00	-5.28919	-5.55443 (ug/L)
U (409.013 nm)	-2.12176	ug/L	2.65536	> 100.00	169.92708	-2.12176 (ug/L)
V (292.401 nm)	0.00142	ug/L	0.20497	> 100.00	-21.73583	0.00142 (ug/L)
W (207.912 nm)	1.37079	ug/L	2.39048	> 100.00	7.90873	1.37079 (ug/L)
Y (371.029 nm)	0.06042	ug/L	0.05449	90.18	10.45322	0.06042 (ug/L)
Zn (206.200 nm)	-0.09929	ug/L	1.45303	> 100.00	-1.63571	-0.09929 (ug/L)
Zr (343.823 nm)	0.73697	ug/L	0.15888	21.56	139.63934	0.73697 (ug/L)

Label	Internal Standard
Ag (328.068 nm)	Sc-A
Al (236.705 nm)	Sc-A
As (188.980 nm)	Sc-A
B (249.772 nm)	Sc-A
Ba (230.424 nm)	Sc-A
Be (313.107 nm)	Sc-A
Bi (223.061 nm)	Sc-A
Ca (317.933 nm)	Sc-A
Cd (214.439 nm)	Sc-A
Co (228.615 nm)	Sc-A
Cr (205.560 nm)	Sc-A
Cu (224.700 nm)	Sc-A
Fe (261.382 nm)	Sc-A
K (766.491 nm)	Sc-R
Li (610.365 nm)	Sc-R
Mg (279.078 nm)	Sc-A
Mn (260.568 nm)	Sc-A
Mo (202.032 nm)	Sc-A
Na (588.995 nm)	Sc-R
Ni (231.604 nm)	Sc-A
P (178.222 nm)	Sc-A
Pb (220.353 nm)	Sc-A
Pt (203.646 nm)	Sc-A
Sb (206.834 nm)	Sc-A
Se (196.026 nm)	Sc-A
Si (251.611 nm)	Sc-A
Sn (189.925 nm)	Sc-A
Sr (421.552 nm)	Sc-A

Label	Internal Standard
Te (214.282 nm)	Sc-A
Ti (334.941 nm)	Sc-A
Tl (190.807 nm)	Sc-A
U (409.013 nm)	Sc-A
V (292.401 nm)	Sc-A
W (207.912 nm)	Sc-A
Y (371.029 nm)	Sc-A
Zn (206.200 nm)	Sc-A
Zr (343.823 nm)	Sc-A

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Sc-A	1.02	421368.50	0.00	0.21
Sc-R	1.01	47207.79	0.00	0.24

Replicates Concentration

Label	Replicate 1	Replicate 2	Replicate 3	Units
Ag (328.068 nm)	0.23706	-0.19234 u	-0.16333 u	ug/L
Al (236.705 nm)	-5.62315 u	4.00357	0.82121	ug/L
As (188.980 nm)	-2.43852 u	-4.76496 u	-1.36442 u	ug/L
B (249.772 nm)	20.25261	16.45604	14.80251	ug/L
Ba (230.424 nm)	0.02280	-0.03880 u	0.12748	ug/L
Be (313.107 nm)	0.00153	0.01511	0.04765	ug/L
Bi (223.061 nm)	-0.40288 u	2.38237	1.51772	ug/L
Ca (317.933 nm)	-0.91199 u	-0.96379 u	1.17648	ug/L
Cd (214.439 nm)	0.33289	0.51187	-0.03566 u	ug/L
Co (228.615 nm)	1.85294	-0.01570 u	0.96883	ug/L
Cr (205.560 nm)	0.29038	-0.09238 u	0.14824	ug/L
Cu (224.700 nm)	-2.16367 u	1.04157	1.27745	ug/L
Fe (261.382 nm)	0.89942	2.77612	3.54897	ug/L
K (766.491 nm)	10.05097	17.29626	10.30783	ug/L
Li (610.365 nm)	10.07510	13.67966	8.85748	ug/L
Mg (279.078 nm)	0.37107	-2.03891 u	-1.45628 u	ug/L
Mn (260.568 nm)	0.23353	-0.06324 u	0.36626	ug/L
Mo (202.032 nm)	1.57871	2.74767	3.70336	ug/L
Na (588.995 nm)	-55.42222 u	-65.44473 u	-55.09645 u	ug/L
Ni (231.604 nm)	-0.50685 u	-1.04151 u	-0.59941 u	ug/L
P (178.222 nm)	5.58868	8.61502	-23.52010 u	ug/L
Pb (220.353 nm)	-3.97926 u	1.55111	3.35257	ug/L
Pt (203.646 nm)	2.12580	0.34344	4.42783	ug/L
Sb (206.834 nm)	5.88034	1.47709	-1.77721 u	ug/L
Se (196.026 nm)	6.91751	-1.55210 u	-1.62990 u	ug/L
Si (251.611 nm)	-8.24719 u	-5.72617 u	-7.12181 u	ug/L
Sn (189.925 nm)	-2.86494 u	-4.31685 u	-1.19507 u	ug/L
Sr (421.552 nm)	0.04902	0.04331	0.16100	ug/L
Te (214.282 nm)	-1.56860 u	-0.80943 u	-0.17992 u	ug/L
Ti (334.941 nm)	0.03947	0.05361	0.36170	ug/L

Label	Replicate 1	Replicate 2	Replicate 3	Units
Tl (190.807 nm)	0.26482	-5.89998 u	-11.02811 u	ug/L
U (409.013 nm)	-4.94849 u	-1.73704 u	0.32025	ug/L
V (292.401 nm)	0.11542	-0.23521 u	0.12405	ug/L
W (207.912 nm)	-0.25733 u	4.11522	0.25449	ug/L
Y (371.029 nm)	0.06133	0.00548	0.11445	ug/L
Zn (206.200 nm)	0.29702	-1.70935 u	1.11447	ug/L
Zr (343.823 nm)	0.60835	0.68799	0.91457	ug/L
Sc-A (361.383 nm)	1.02	1.03	1.02	Ratio
Sc-R (503.102 nm)	1.00	1.01	1.01	Ratio

eurofins | Environment Testing America

ANALYTICAL REPORT

Eurofins Chicago
2417 Bond Street
University Park, IL 60484
Tel: (708)534-5200

Laboratory Job ID: 500-221285-1
Client Project/Site: Morris Lithium Battery Site

For:
Tetra Tech EM Inc.
1 South Wacker Drive 37 Floor
Ste. 3700
Chicago, Illinois 60606

Attn: Erica Schmandt

Authorized for release by:
8/31/2022 5:47:46 PM

Jim Knapp, Project Manager II
(630)758-0262
Jim.Knapp@et.eurofinsus.com

Table of Contents

Job ID: 500-221285-1

Laboratory: Eurofins Chicago

Narrative

Job Narrative
500-221285-1

Comments
No additional comments.

Receipt
The sample was received on 8/24/2022 2:10 PM. Unless otherwise noted below, the sample arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 13.0º C.

GC/MS Semi VOA
Method 8270D: The continuing calibration verification (CCV) analyzed in batch 500-672487 was outside the method criteria for the following analyte(s): Pentachlorophenol. A CCV standard at or below the reporting limit (RL) was analyzed with the affected samples and found to be acceptable. As indicated in the reference method, sample analysis may proceed; however, any detection for the affected analyte(s) is considered estimated.

Method 8270D: The continuing calibration verification (CCV) analyzed in 500-672487 was outside the method criteria for the following analyte(s): 2-Fluorobiphenyl (Surr) and Hexachloroethane. As indicated in the reference method, sample analysis may proceed; however, any detection for the affected analyte(s) is considered estimated.

Method 8270D: The following sample contained one acid surrogate outside acceptance limits: MLBF-C-F6-01-220824 (500-221285-1). The laboratory's SOP allows one acid and one base surrogate to be outside acceptance limits; therefore, re-extraction was not performed. These results have been reported and qualified.

Method 8270D: The following sample was diluted due to the nature of the sample matrix: MLBF-C-F6-01-220824 (500-221285-1). 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.

GC Semi VOA
Method 8082A: Surrogate DCB Decachlorobiphenyl recovery for the following Continuing Calibration Verification (CCVIS) was outside control limits: (CCVIS 500-672139/3). The other surrogate was within limits; therefore, re-analysis was not performed.

Method 8082A: Surrogate Tetrachloro-m-xylene and DCB Decachlorobiphenyl recovery for the following the method blank (MB) were outside upper control limits: (MB 500-671936/1-A). However the other QC samples had acceptable limits; therefore, re-analysis was not performed.

Method 8082A: Surrogate DCB Decachlorobiphenyl recovery for the following samples was outside control limits: MLBF-C-F6-01-220824 (500-221285-1) and (LCS 500-671936/2-A). The other surrogate was within limits; therefore, re-analysis was not performed.

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

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

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

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

Detection Summary

Client: Tetra Tech EM Inc.
Project/Site: Morris Lithium Battery Site

Job ID: 500-221285-1

Client Sample ID: MLBF-C-F6-01-220824 — Lab Sample ID: 500-221285-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
PCB-1254	47		26	8.7	ug/Kg	1	☼	8082A	Total/NA
Aluminum	6500		20	8.1	mg/Kg	1	☼	6010D	Total/NA
Arsenic	2.2		0.99	0.34	mg/Kg	1	☼	6010D	Total/NA
Barium	58		0.99	0.11	mg/Kg	1	☼	6010D	Total/NA
Beryllium	0.41		0.40	0.093	mg/Kg	1	☼	6010D	Total/NA
Cadmium	57	B	0.20	0.036	mg/Kg	1	☼	6010D	Total/NA
Calcium	160000	B	99	17	mg/Kg	5	☼	6010D	Total/NA
Chromium	8.9		0.99	0.49	mg/Kg	1	☼	6010D	Total/NA
Cobalt	4.7		2.5	0.65	mg/Kg	5	☼	6010D	Total/NA
Copper	16		0.99	0.28	mg/Kg	1	☼	6010D	Total/NA
Iron	6700		20	10	mg/Kg	1	☼	6010D	Total/NA
Lead	11		0.50	0.23	mg/Kg	1	☼	6010D	Total/NA
Magnesium	43000	B	9.9	4.9	mg/Kg	1	☼	6010D	Total/NA
Manganese	430	B	0.99	0.14	mg/Kg	1	☼	6010D	Total/NA
Nickel	61		0.99	0.29	mg/Kg	1	☼	6010D	Total/NA
Potassium	1600		50	18	mg/Kg	1	☼	6010D	Total/NA
Silver	0.14	J	0.50	0.13	mg/Kg	1	☼	6010D	Total/NA
Sodium	500		99	15	mg/Kg	1	☼	6010D	Total/NA
Vanadium	11		0.50	0.12	mg/Kg	1	☼	6010D	Total/NA
Zinc	79		2.0	0.87	mg/Kg	1	☼	6010D	Total/NA
Lithium	18		0.99	0.30	mg/Kg	1	☼	6010D	Total/NA
Barium	0.27	J	0.50	0.050	mg/L	1		6010D	TCLP
Chromium	0.027		0.025	0.010	mg/L	1		6010D	TCLP
pH	12.3	HF	0.2	0.2	SU	1		9045D	Total/NA

This Detection Summary does not include radiochemical test results.

Method Summary

Client: Tetra Tech EM Inc.
Project/Site: Morris Lithium Battery Site

Job ID: 500-221285-1

Method	Method Description	Protocol	Laboratory
8270D	Semivolatile Organic Compounds (GC/MS)	SW846	EET CHI
8082A	Polychlorinated Biphenyls (PCBs) by Gas Chromatography	SW846	EET CHI
6010D	Metals (ICP)	SW846	EET CHI
7470A	Mercury (CVAA)	SW846	EET CHI
7471B	Mercury (CVAA)	SW846	EET CHI
9012B	Cyanide, Total andor Amenable	SW846	EET CHI
9034	Sulfide, Acid soluble and Insoluble (Titrimetric)	SW846	EET CHI
9045D	pH	SW846	EET CHI
Moisture	Percent Moisture	EPA	EET CHI
1311	TCLP Extraction	SW846	EET CHI
3010A	Preparation, Total Metals	SW846	EET CHI
3050B	Preparation, Metals	SW846	EET CHI
3510C	Liquid-Liquid Extraction (Separatory Funnel)	SW846	EET CHI
3541	Automated Soxhlet Extraction	SW846	EET CHI
7470A	Preparation, Mercury	SW846	EET CHI
7471B	Preparation, Mercury	SW846	EET CHI
9010C	Cyanide, Distillation	SW846	EET CHI
9030B	Sulfide, Distillation (Acid Soluble and Insoluble)	SW846	EET CHI

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 CHI = Eurofins Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200

Sample Summary

Client: Tetra Tech EM Inc.
Project/Site: Morris Lithium Battery Site

Job ID: 500-221285-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
500-221285-1	MLBF-C-F6-01-220824	Solid	08/24/22 12:08	08/24/22 14:10

Client Sample Results

Client: Tetra Tech EM Inc.
Project/Site: Morris Lithium Battery Site

Job ID: 500-221285-1

Client Sample ID: MLBF-C-F6-01-220824

Date Collected: 08/24/22 12:08
Date Received: 08/24/22 14:10

Lab Sample ID: 500-221285-1

Matrix: Solid
Percent Solids: 95.6

Method: 8270D - Semivolatile Organic Compounds (GC/MS) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Methylphenol	<100		100	100	ug/L		08/30/22 07:51	08/31/22 15:28	5
3 & 4 Methylphenol	<100		100	100	ug/L		08/30/22 07:51	08/31/22 15:28	5
1,4-Dichlorobenzene	<100		100	100	ug/L		08/30/22 07:51	08/31/22 15:28	5
2,4-Dinitrotoluene	<50		50	50	ug/L		08/30/22 07:51	08/31/22 15:28	5
Hexachlorobenzene	<25		25	25	ug/L		08/30/22 07:51	08/31/22 15:28	5
Hexachlorobutadiene	<250		250	250	ug/L		08/30/22 07:51	08/31/22 15:28	5
Hexachloroethane	<250		250	250	ug/L		08/30/22 07:51	08/31/22 15:28	5
Nitrobenzene	<50		50	50	ug/L		08/30/22 07:51	08/31/22 15:28	5
Pentachlorophenol	<1000		1000	1000	ug/L		08/30/22 07:51	08/31/22 15:28	5
Pyridine	<1000		1000	1000	ug/L		08/30/22 07:51	08/31/22 15:28	5
2,4,5-Trichlorophenol	<500		500	500	ug/L		08/30/22 07:51	08/31/22 15:28	5
2,4,6-Trichlorophenol	<250		250	250	ug/L		08/30/22 07:51	08/31/22 15:28	5

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorophenol (Surr)	*21*	*S1-*	*27 - 110*	*08/30/22 07:51*	*08/31/22 15:28*	*5*
Phenol-d5 (Surr)	*25*		*20 - 100*	*08/30/22 07:51*	*08/31/22 15:28*	*5*
Nitrobenzene-d5 (Surr)	*55*		*36 - 120*	*08/30/22 07:51*	*08/31/22 15:28*	*5*
2-Fluorobiphenyl	*76*		*34 - 110*	*08/30/22 07:51*	*08/31/22 15:28*	*5*
2,4,6-Tribromophenol (Surr)	*76*		*40 - 145*	*08/30/22 07:51*	*08/31/22 15:28*	*5*
Terphenyl-d14	*102*		*40 - 145*	*08/30/22 07:51*	*08/31/22 15:28*	*5*

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<26		26	10	ug/Kg	☼	08/26/22 14:08	08/29/22 18:53	1
PCB-1221	<26		26	10	ug/Kg	☼	08/26/22 14:08	08/29/22 18:53	1
PCB-1232	<26		26	7.0	ug/Kg	☼	08/26/22 14:08	08/29/22 18:53	1
PCB-1242	<26		26	10	ug/Kg	☼	08/26/22 14:08	08/29/22 18:53	1
PCB-1248	<26		26	12	ug/Kg	☼	08/26/22 14:08	08/29/22 18:53	1
PCB-1254	**47**		26	8.7	ug/Kg	☼	08/26/22 14:08	08/29/22 18:53	1
PCB-1260	<26		26	9.7	ug/Kg	☼	08/26/22 14:08	08/29/22 18:53	1
PCB-1262	<26		26	8.4	ug/Kg	☼	08/26/22 14:08	08/29/22 18:53	1
PCB-1268	<26		26	15	ug/Kg	☼	08/26/22 14:08	08/29/22 18:53	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*103*		*49 - 129*	*08/26/22 14:08*	*08/29/22 18:53*	*1*
DCB Decachlorobiphenyl	*127*	*S1+*	*37 - 121*	*08/26/22 14:08*	*08/29/22 18:53*	*1*

Method: 6010D - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	**6500**		20	8.1	mg/Kg	☼	08/29/22 09:09	08/30/22 15:43	1
Antimony	<2.0		2.0	0.39	mg/Kg	☼	08/29/22 09:09	08/30/22 15:43	1
Arsenic	**2.2**		0.99	0.34	mg/Kg	☼	08/29/22 09:09	08/30/22 15:43	1
Barium	**58**		0.99	0.11	mg/Kg	☼	08/29/22 09:09	08/30/22 15:43	1
Beryllium	**0.41**		0.40	0.093	mg/Kg	☼	08/29/22 09:09	08/31/22 11:07	1
Cadmium	**57**	**B**	0.20	0.036	mg/Kg	☼	08/29/22 09:09	08/30/22 15:43	1
Calcium	**160000**	**B**	99	17	mg/Kg	☼	08/29/22 09:09	08/31/22 11:10	5
Chromium	**8.9**		0.99	0.49	mg/Kg	☼	08/29/22 09:09	08/31/22 11:07	1
Cobalt	**4.7**		2.5	0.65	mg/Kg	☼	08/29/22 09:09	08/31/22 11:10	5
Copper	**16**		0.99	0.28	mg/Kg	☼	08/29/22 09:09	08/30/22 15:43	1
Iron	**6700**		20	10	mg/Kg	☼	08/29/22 09:09	08/31/22 11:07	1

Client Sample Results

Client: Tetra Tech EM Inc.
Project/Site: Morris Lithium Battery Site

Job ID: 500-221285-1

Client Sample ID: MLBF-C-F6-01-220824

Date Collected: 08/24/22 12:08
Date Received: 08/24/22 14:10

Lab Sample ID: 500-221285-1

Matrix: Solid
Percent Solids: 95.6

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	**11**		0.50	0.23	mg/Kg	☼	08/29/22 09:09	08/30/22 15:43	1
Magnesium	**43000**	**B**	9.9	4.9	mg/Kg	☼	08/29/22 09:09	08/31/22 11:07	1
Manganese	**430**	**B**	0.99	0.14	mg/Kg	☼	08/29/22 09:09	08/31/22 11:07	1
Nickel	**61**		0.99	0.29	mg/Kg	☼	08/29/22 09:09	08/30/22 15:43	1
Potassium	**1600**		50	18	mg/Kg	☼	08/29/22 09:09	08/30/22 15:43	1
Selenium	<0.99		0.99	0.58	mg/Kg	☼	08/29/22 09:09	08/30/22 15:43	1
Silver	**0.14**	**J**	0.50	0.13	mg/Kg	☼	08/29/22 09:09	08/30/22 15:43	1
Sodium	**500**		99	15	mg/Kg	☼	08/29/22 09:09	08/30/22 15:43	1
Thallium	<0.99		0.99	0.50	mg/Kg	☼	08/29/22 09:09	08/30/22 15:43	1
Vanadium	**11**		0.50	0.12	mg/Kg	☼	08/29/22 09:09	08/30/22 15:43	1
Zinc	**79**		2.0	0.87	mg/Kg	☼	08/29/22 09:09	08/30/22 15:43	1
Lithium	**18**		0.99	0.30	mg/Kg	☼	08/29/22 09:09	08/30/22 15:43	1

Method: 6010D - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.050		0.050	0.010	mg/L		08/26/22 16:39	08/29/22 16:05	1
Barium	**0.27**	**J**	0.50	0.050	mg/L		08/26/22 16:39	08/29/22 16:05	1
Cadmium	<0.0050		0.0050	0.0020	mg/L		08/26/22 16:39	08/29/22 16:05	1
Chromium	**0.027**		0.025	0.010	mg/L		08/26/22 16:39	08/29/22 16:05	1
Lead	<0.050		0.050	0.0075	mg/L		08/26/22 16:39	08/30/22 14:34	1
Selenium	<0.050		0.050	0.020	mg/L		08/26/22 16:39	08/29/22 16:05	1
Silver	<0.025		0.025	0.010	mg/L		08/26/22 16:39	08/29/22 16:05	1

Method: 7470A - Mercury (CVAA) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.20		0.20	0.20	ug/L		08/26/22 11:35	08/29/22 10:27	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<16		16	5.5	ug/Kg	☼	08/26/22 15:20	08/29/22 09:12	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	<0.23		0.23	0.12	mg/Kg	☼	08/26/22 09:59	08/30/22 16:01	1
Sulfide	<10		10	4.8	mg/Kg	☼	08/29/22 17:37	08/31/22 14:33	1
pH	**12.3**	**HF**	0.2	0.2	SU			08/25/22 13:24	1

Qualifiers

GC/MS Semi VOA

Qualifier	Qualifier Description
S1-	Surrogate recovery exceeds control limits, low biased.

GC Semi VOA

Qualifier	Qualifier Description
S1+	Surrogate recovery exceeds control limits, high biased.

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.

General Chemistry

Qualifier	Qualifier Description
HF	Field parameter with a holding time of 15 minutes. Test performed by laboratory at client's request.

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

QC Association Summary

Client: Tetra Tech EM Inc.
Project/Site: Morris Lithium Battery Site

Job ID: 500-221285-1

GC/MS Semi VOA

Leach Batch: 671768

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-221285-1	MLBF-C-F6-01-220824	TCLP	Solid	1311	
LB2 500-671768/1-C	Method Blank	TCLP	Solid	1311	

Prep Batch: 672234

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-221285-1	MLBF-C-F6-01-220824	TCLP	Solid	3510C	671768
LB2 500-671768/1-C	Method Blank	TCLP	Solid	3510C	671768
MB 500-672234/1-A	Method Blank	Total/NA	Solid	3510C	
LCS 500-672234/2-A	Lab Control Sample	Total/NA	Solid	3510C	

Analysis Batch: 672487

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-221285-1	MLBF-C-F6-01-220824	TCLP	Solid	8270D	672234
LB2 500-671768/1-C	Method Blank	TCLP	Solid	8270D	672234
MB 500-672234/1-A	Method Blank	Total/NA	Solid	8270D	672234
LCS 500-672234/2-A	Lab Control Sample	Total/NA	Solid	8270D	672234

GC Semi VOA

Prep Batch: 671936

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-221285-1	MLBF-C-F6-01-220824	Total/NA	Solid	3541	
MB 500-671936/1-A	Method Blank	Total/NA	Solid	3541	
LCS 500-671936/2-A	Lab Control Sample	Total/NA	Solid	3541	

Analysis Batch: 672139

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-221285-1	MLBF-C-F6-01-220824	Total/NA	Solid	8082A	671936
MB 500-671936/1-A	Method Blank	Total/NA	Solid	8082A	671936
LCS 500-671936/2-A	Lab Control Sample	Total/NA	Solid	8082A	671936

Metals

Leach Batch: 671768

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-221285-1	MLBF-C-F6-01-220824	TCLP	Solid	1311	
LB2 500-671768/1-B	Method Blank	TCLP	Solid	1311	
LB2 500-671768/2-B	Method Blank	TCLP	Solid	1311	

Prep Batch: 671923

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-221285-1	MLBF-C-F6-01-220824	TCLP	Solid	7470A	671768
LB2 500-671768/1-B	Method Blank	TCLP	Solid	7470A	671768
MB 500-671923/12-A	Method Blank	Total/NA	Solid	7470A	
LCS 500-671923/35-A	Lab Control Sample	Total/NA	Solid	7470A	

Prep Batch: 671927

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-221285-1	MLBF-C-F6-01-220824	Total/NA	Solid	7471B	
MB 500-671927/12-A	Method Blank	Total/NA	Solid	7471B	
LCS 500-671927/13-A	Lab Control Sample	Total/NA	Solid	7471B	

QC Association Summary

Client: Tetra Tech EM Inc.
Project/Site: Morris Lithium Battery Site

Job ID: 500-221285-1

Metals

Prep Batch: 671973

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-221285-1	MLBF-C-F6-01-220824	TCLP	Solid	3010A	671768
LB2 500-671768/2-B	Method Blank	TCLP	Solid	3010A	671768
LCS 500-671973/13-A	Lab Control Sample	Total/NA	Solid	3010A	

Prep Batch: 672095

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-221285-1	MLBF-C-F6-01-220824	Total/NA	Solid	3050B	
MB 500-672095/1-A	Method Blank	Total/NA	Solid	3050B	
LCS 500-672095/2-A	Lab Control Sample	Total/NA	Solid	3050B	
LCS 500-672095/2-A ^2	Lab Control Sample	Total/NA	Solid	3050B	

Analysis Batch: 672125

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-221285-1	MLBF-C-F6-01-220824	Total/NA	Solid	7471B	671927
MB 500-671927/12-A	Method Blank	Total/NA	Solid	7471B	671927
LCS 500-671927/13-A	Lab Control Sample	Total/NA	Solid	7471B	671927

Analysis Batch: 672168

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-221285-1	MLBF-C-F6-01-220824	TCLP	Solid	7470A	671923
LB2 500-671768/1-B	Method Blank	TCLP	Solid	7470A	671923
MB 500-671923/12-A	Method Blank	Total/NA	Solid	7470A	671923
LCS 500-671923/35-A	Lab Control Sample	Total/NA	Solid	7470A	671923

Analysis Batch: 672268

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-221285-1	MLBF-C-F6-01-220824	TCLP	Solid	6010D	671973
LB2 500-671768/2-B	Method Blank	TCLP	Solid	6010D	671973
LCS 500-671973/13-A	Lab Control Sample	Total/NA	Solid	6010D	671973

Analysis Batch: 672391

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-221285-1	MLBF-C-F6-01-220824	TCLP	Solid	6010D	671973

Analysis Batch: 672473

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-221285-1	MLBF-C-F6-01-220824	Total/NA	Solid	6010D	672095
MB 500-672095/1-A	Method Blank	Total/NA	Solid	6010D	672095
LCS 500-672095/2-A ^2	Lab Control Sample	Total/NA	Solid	6010D	672095

Analysis Batch: 672603

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-221285-1	MLBF-C-F6-01-220824	Total/NA	Solid	6010D	672095
500-221285-1	MLBF-C-F6-01-220824	Total/NA	Solid	6010D	672095
LCS 500-672095/2-A	Lab Control Sample	Total/NA	Solid	6010D	672095

General Chemistry

Analysis Batch: 671697

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-221285-1	MLBF-C-F6-01-220824	Total/NA	Solid	9045D	

General Chemistry (Continued)

Analysis Batch: 671697 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 500-671697/5	Lab Control Sample	Total/NA	Solid	9045D	
LCSD 500-671697/6	Lab Control Sample Dup	Total/NA	Solid	9045D	

Analysis Batch: 671708

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-221285-1	MLBF-C-F6-01-220824	Total/NA	Solid	Moisture	

Prep Batch: 671823

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-221285-1	MLBF-C-F6-01-220824	Total/NA	Solid	9010C	
MB 500-671823/1-A	Method Blank	Total/NA	Solid	9010C	
HLCS 500-671823/2-A	Lab Control Sample	Total/NA	Solid	9010C	
LCS 500-671823/3-A	Lab Control Sample	Total/NA	Solid	9010C	
LLCS 500-671823/4-A	Lab Control Sample	Total/NA	Solid	9010C	

Prep Batch: 672214

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-221285-1	MLBF-C-F6-01-220824	Total/NA	Solid	9030B	
MB 500-672214/1-A	Method Blank	Total/NA	Solid	9030B	
LCS 500-672214/2-A	Lab Control Sample	Total/NA	Solid	9030B	

Analysis Batch: 672411

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-221285-1	MLBF-C-F6-01-220824	Total/NA	Solid	9012B	671823
MB 500-671823/1-A	Method Blank	Total/NA	Solid	9012B	671823
HLCS 500-671823/2-A	Lab Control Sample	Total/NA	Solid	9012B	671823
LCS 500-671823/3-A	Lab Control Sample	Total/NA	Solid	9012B	671823
LLCS 500-671823/4-A	Lab Control Sample	Total/NA	Solid	9012B	671823

Analysis Batch: 672612

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-221285-1	MLBF-C-F6-01-220824	Total/NA	Solid	9034	672214
MB 500-672214/1-A	Method Blank	Total/NA	Solid	9034	672214
LCS 500-672214/2-A	Lab Control Sample	Total/NA	Solid	9034	672214

Surrogate Summary

Client: Tetra Tech EM Inc.
Project/Site: Morris Lithium Battery Site

Job ID: 500-221285-1

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Matrix: Solid **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)					
		2FP	PHL	NBZ	FBP	TBP	TPHL
Lab Sample ID	Client Sample ID	(27-110)	(20-100)	(36-120)	(34-110)	(40-145)	(40-145)
LCS 500-672234/2-A	Lab Control Sample	80	40	78	104	81	105
MB 500-672234/1-A	Method Blank	54	30	61	76	62	113

Surrogate Legend

2FP = 2-Fluorophenol (Surr)
PHL = Phenol-d5 (Surr)
NBZ = Nitrobenzene-d5 (Surr)
FBP = 2-Fluorobiphenyl
TBP = 2,4,6-Tribromophenol (Surr)
TPHL = Terphenyl-d14

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Matrix: Solid **Prep Type: TCLP**

		Percent Surrogate Recovery (Acceptance Limits)					
		2FP	PHL	NBZ	FBP	TBP	TPHL
Lab Sample ID	Client Sample ID	(27-110)	(20-100)	(36-120)	(34-110)	(40-145)	(40-145)
500-221285-1	MLBF-C-F6-01-220824	21 S1-	25	55	76	76	102
LB2 500-671768/1-C	Method Blank	58	31	70	91	74	126

Surrogate Legend

2FP = 2-Fluorophenol (Surr)
PHL = Phenol-d5 (Surr)
NBZ = Nitrobenzene-d5 (Surr)
FBP = 2-Fluorobiphenyl
TBP = 2,4,6-Tribromophenol (Surr)
TPHL = Terphenyl-d14

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Matrix: Solid **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)	
		TCX1	DCBP1
Lab Sample ID	Client Sample ID	(49-129)	(37-121)
500-221285-1	MLBF-C-F6-01-220824	103	127 S1+
LCS 500-671936/2-A	Lab Control Sample	108	132 S1+
MB 500-671936/1-A	Method Blank	151 S1+	189 S1+

Surrogate Legend

TCX = Tetrachloro-m-xylene
DCBP = DCB Decachlorobiphenyl

QC Sample Results

Client: Tetra Tech EM Inc.
Project/Site: Morris Lithium Battery Site

Job ID: 500-221285-1

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Lab Sample ID: MB 500-672234/1-A
Matrix: Solid
Analysis Batch: 672487

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 672234

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Methylphenol	<2.0		2.0	2.0	ug/L		08/30/22 07:51	08/31/22 10:17	1
3 & 4 Methylphenol	<2.0		2.0	2.0	ug/L		08/30/22 07:51	08/31/22 10:17	1
1,4-Dichlorobenzene	<2.0		2.0	2.0	ug/L		08/30/22 07:51	08/31/22 10:17	1
2,4-Dinitrotoluene	<1.0		1.0	1.0	ug/L		08/30/22 07:51	08/31/22 10:17	1
Hexachlorobenzene	<0.50		0.50	0.50	ug/L		08/30/22 07:51	08/31/22 10:17	1
Hexachlorobutadiene	<5.0		5.0	5.0	ug/L		08/30/22 07:51	08/31/22 10:17	1
Hexachloroethane	<5.0		5.0	5.0	ug/L		08/30/22 07:51	08/31/22 10:17	1
Nitrobenzene	<1.0		1.0	1.0	ug/L		08/30/22 07:51	08/31/22 10:17	1
Pentachlorophenol	<20		20	20	ug/L		08/30/22 07:51	08/31/22 10:17	1
Pyridine	<20		20	20	ug/L		08/30/22 07:51	08/31/22 10:17	1
2,4,5-Trichlorophenol	<10		10	10	ug/L		08/30/22 07:51	08/31/22 10:17	1
2,4,6-Trichlorophenol	<5.0		5.0	5.0	ug/L		08/30/22 07:51	08/31/22 10:17	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorophenol (Surr)	*54*		*27 - 110*	*08/30/22 07:51*	*08/31/22 10:17*	*1*
Phenol-d5 (Surr)	*30*		*20 - 100*	*08/30/22 07:51*	*08/31/22 10:17*	*1*
Nitrobenzene-d5 (Surr)	*61*		*36 - 120*	*08/30/22 07:51*	*08/31/22 10:17*	*1*
2-Fluorobiphenyl	*76*		*34 - 110*	*08/30/22 07:51*	*08/31/22 10:17*	*1*
2,4,6-Tribromophenol (Surr)	*62*		*40 - 145*	*08/30/22 07:51*	*08/31/22 10:17*	*1*
Terphenyl-d14	*113*		*40 - 145*	*08/30/22 07:51*	*08/31/22 10:17*	*1*

Lab Sample ID: LCS 500-672234/2-A
Matrix: Solid
Analysis Batch: 672487

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 672234

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
2-Methylphenol	40.0	36.1		ug/L		90	53 - 115
3 & 4 Methylphenol	40.0	30.9		ug/L		77	50 - 116
1,4-Dichlorobenzene	40.0	24.0		ug/L		60	23 - 110
2,4-Dinitrotoluene	40.0	36.2		ug/L		90	63 - 129
Hexachlorobenzene	40.0	41.2		ug/L		103	61 - 126
Hexachlorobutadiene	40.0	20.1		ug/L		50	20 - 100
Hexachloroethane	40.0	21.1		ug/L		53	20 - 100
Nitrobenzene	40.0	35.1		ug/L		88	54 - 121
Pentachlorophenol	80.0	55.7		ug/L		70	42 - 148
Pyridine	80.0	23.9		ug/L		30	15 - 110
2,4,5-Trichlorophenol	40.0	39.9		ug/L		100	63 - 124
2,4,6-Trichlorophenol	40.0	38.3		ug/L		96	62 - 121

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2-Fluorophenol (Surr)	*80*		*27 - 110*
Phenol-d5 (Surr)	*40*		*20 - 100*
Nitrobenzene-d5 (Surr)	*78*		*36 - 120*
2-Fluorobiphenyl	*104*		*34 - 110*
2,4,6-Tribromophenol (Surr)	*81*		*40 - 145*
Terphenyl-d14	*105*		*40 - 145*

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LB2 500-671768/1-C
Matrix: Solid
Analysis Batch: 672487

Client Sample ID: Method Blank
Prep Type: TCLP
Prep Batch: 672234

Analyte	LB2 Result	LB2 Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Methylphenol	<20		20	20	ug/L		08/30/22 07:51	08/31/22 12:16	1
3 & 4 Methylphenol	<20		20	20	ug/L		08/30/22 07:51	08/31/22 12:16	1
1,4-Dichlorobenzene	<20		20	20	ug/L		08/30/22 07:51	08/31/22 12:16	1
2,4-Dinitrotoluene	<10		10	10	ug/L		08/30/22 07:51	08/31/22 12:16	1
Hexachlorobenzene	<5.0		5.0	5.0	ug/L		08/30/22 07:51	08/31/22 12:16	1
Hexachlorobutadiene	<50		50	50	ug/L		08/30/22 07:51	08/31/22 12:16	1
Hexachloroethane	<50		50	50	ug/L		08/30/22 07:51	08/31/22 12:16	1
Nitrobenzene	<10		10	10	ug/L		08/30/22 07:51	08/31/22 12:16	1
Pentachlorophenol	<200		200	200	ug/L		08/30/22 07:51	08/31/22 12:16	1
Pyridine	<200		200	200	ug/L		08/30/22 07:51	08/31/22 12:16	1
2,4,5-Trichlorophenol	<100		100	100	ug/L		08/30/22 07:51	08/31/22 12:16	1
2,4,6-Trichlorophenol	<50		50	50	ug/L		08/30/22 07:51	08/31/22 12:16	1

Surrogate	*LB2 %Recovery*	*LB2 Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorophenol (Surr)	*58*		*27 - 110*	*08/30/22 07:51*	*08/31/22 12:16*	*1*
Phenol-d5 (Surr)	*31*		*20 - 100*	*08/30/22 07:51*	*08/31/22 12:16*	*1*
Nitrobenzene-d5 (Surr)	*70*		*36 - 120*	*08/30/22 07:51*	*08/31/22 12:16*	*1*
2-Fluorobiphenyl	*91*		*34 - 110*	*08/30/22 07:51*	*08/31/22 12:16*	*1*
2,4,6-Tribromophenol (Surr)	*74*		*40 - 145*	*08/30/22 07:51*	*08/31/22 12:16*	*1*
Terphenyl-d14	*126*		*40 - 145*	*08/30/22 07:51*	*08/31/22 12:16*	*1*

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Lab Sample ID: MB 500-671936/1-A
Matrix: Solid
Analysis Batch: 672139

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 671936

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<17		17	6.6	ug/Kg		08/26/22 14:08	08/29/22 12:02	1
PCB-1221	<17		17	6.6	ug/Kg		08/26/22 14:08	08/29/22 12:02	1
PCB-1232	<17		17	4.5	ug/Kg		08/26/22 14:08	08/29/22 12:02	1
PCB-1242	<17		17	6.5	ug/Kg		08/26/22 14:08	08/29/22 12:02	1
PCB-1248	<17		17	7.9	ug/Kg		08/26/22 14:08	08/29/22 12:02	1
PCB-1254	<17		17	5.7	ug/Kg		08/26/22 14:08	08/29/22 12:02	1
PCB-1260	<17		17	6.3	ug/Kg		08/26/22 14:08	08/29/22 12:02	1
PCB-1262	<17		17	5.5	ug/Kg		08/26/22 14:08	08/29/22 12:02	1
PCB-1268	<17		17	9.7	ug/Kg		08/26/22 14:08	08/29/22 12:02	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*151*	*S1+*	*49 - 129*	*08/26/22 14:08*	*08/29/22 12:02*	*1*
DCB Decachlorobiphenyl	*189*	*S1+*	*37 - 121*	*08/26/22 14:08*	*08/29/22 12:02*	*1*

Lab Sample ID: LCS 500-671936/2-A
Matrix: Solid
Analysis Batch: 672139

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 671936

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
PCB-1016			167	141		ug/Kg		85	57 - 120		

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography (Continued)

Lab Sample ID: LCS 500-671936/2-A
Matrix: Solid
Analysis Batch: 672139

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 671936

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
PCB-1260	167	169		ug/Kg		102	61 - 125

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Tetrachloro-m-xylene	*108*		*49 - 129*
DCB Decachlorobiphenyl	*132*	*S1+*	*37 - 121*

Method: 6010D - Metals (ICP)

Lab Sample ID: LCS 500-671973/13-A
Matrix: Solid
Analysis Batch: 672268

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 671973

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Arsenic	0.100	0.0988		mg/L		99	80 - 120
Barium	0.500	0.488	J	mg/L		98	80 - 120
Cadmium	0.0500	0.0477		mg/L		95	80 - 120
Chromium	0.200	0.199		mg/L		99	80 - 120
Lead	0.100	0.0923		mg/L		92	80 - 120
Selenium	0.100	0.0936		mg/L		94	80 - 120
Silver	0.0500	0.0473		mg/L		95	80 - 120

Lab Sample ID: MB 500-672095/1-A
Matrix: Solid
Analysis Batch: 672473

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 672095

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	<20		20	8.2	mg/Kg		08/29/22 09:09	08/30/22 13:45	1
Antimony	<2.0		2.0	0.39	mg/Kg		08/29/22 09:09	08/30/22 13:45	1
Arsenic	<1.0		1.0	0.34	mg/Kg		08/29/22 09:09	08/30/22 13:45	1
Barium	<1.0		1.0	0.11	mg/Kg		08/29/22 09:09	08/30/22 13:45	1
Beryllium	<0.40		0.40	0.093	mg/Kg		08/29/22 09:09	08/30/22 13:45	1
Cadmium	0.0721	J	0.20	0.036	mg/Kg		08/29/22 09:09	08/30/22 13:45	1
Calcium	10.8	J	20	3.4	mg/Kg		08/29/22 09:09	08/30/22 13:45	1
Chromium	<1.0		1.0	0.50	mg/Kg		08/29/22 09:09	08/30/22 13:45	1
Cobalt	<0.50		0.50	0.13	mg/Kg		08/29/22 09:09	08/30/22 13:45	1
Copper	<1.0		1.0	0.28	mg/Kg		08/29/22 09:09	08/30/22 13:45	1
Iron	<20		20	10	mg/Kg		08/29/22 09:09	08/30/22 13:45	1
Lead	<0.50		0.50	0.23	mg/Kg		08/29/22 09:09	08/30/22 13:45	1
Magnesium	6.17	J	10	5.0	mg/Kg		08/29/22 09:09	08/30/22 13:45	1
Manganese	0.196	J	1.0	0.15	mg/Kg		08/29/22 09:09	08/30/22 13:45	1
Nickel	<1.0		1.0	0.29	mg/Kg		08/29/22 09:09	08/30/22 13:45	1
Potassium	<50		50	18	mg/Kg		08/29/22 09:09	08/30/22 13:45	1
Selenium	<1.0		1.0	0.59	mg/Kg		08/29/22 09:09	08/30/22 13:45	1
Silver	<0.50		0.50	0.13	mg/Kg		08/29/22 09:09	08/30/22 13:45	1
Sodium	<100		100	15	mg/Kg		08/29/22 09:09	08/30/22 13:45	1
Thallium	<1.0		1.0	0.50	mg/Kg		08/29/22 09:09	08/30/22 13:45	1
Vanadium	<0.50		0.50	0.12	mg/Kg		08/29/22 09:09	08/30/22 13:45	1
Zinc	<2.0		2.0	0.88	mg/Kg		08/29/22 09:09	08/30/22 13:45	1
Lithium	<1.0		1.0	0.30	mg/Kg		08/29/22 09:09	08/30/22 13:45	1

QC Sample Results

Client: Tetra Tech EM Inc.
Project/Site: Morris Lithium Battery Site

Job ID: 500-221285-1

Method: 6010D - Metals (ICP)

Lab Sample ID: LCS 500-672095/2-A
Matrix: Solid
Analysis Batch: 672603

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 672095

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Manganese	50.0	45.2		mg/Kg		90	80 - 120

Lab Sample ID: LCS 500-672095/2-A ^2
Matrix: Solid
Analysis Batch: 672473

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 672095

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Aluminum	200	209		mg/Kg		104	80 - 120
Antimony	50.0	49.8		mg/Kg		100	80 - 120
Arsenic	10.0	9.47		mg/Kg		95	80 - 120
Barium	200	211		mg/Kg		105	80 - 120
Beryllium	5.00	4.45		mg/Kg		89	80 - 120
Cadmium	5.00	5.06		mg/Kg		101	80 - 120
Calcium	1000	958		mg/Kg		96	80 - 120
Chromium	20.0	19.2		mg/Kg		96	80 - 120
Cobalt	50.0	50.2		mg/Kg		100	80 - 120
Copper	25.0	25.9		mg/Kg		104	80 - 120
Iron	100	110		mg/Kg		110	80 - 120
Lead	10.0	9.11		mg/Kg		91	80 - 120
Magnesium	1000	993		mg/Kg		99	80 - 120
Nickel	50.0	48.4		mg/Kg		97	80 - 120
Potassium	1000	1010		mg/Kg		101	80 - 120
Selenium	10.0	9.16		mg/Kg		92	80 - 120
Silver	5.00	4.48		mg/Kg		90	80 - 120
Sodium	1000	1080		mg/Kg		108	80 - 120
Thallium	10.0	9.40		mg/Kg		94	80 - 120
Vanadium	50.0	48.9		mg/Kg		98	80 - 120
Zinc	50.0	46.4		mg/Kg		93	80 - 120
Lithium	50.0	54.9		mg/Kg		110	80 - 120

Lab Sample ID: LB2 500-671768/2-B
Matrix: Solid
Analysis Batch: 672268

Client Sample ID: Method Blank
Prep Type: TCLP
Prep Batch: 671973

Analyte	LB2 Result	LB2 Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.050		0.050	0.010	mg/L		08/26/22 16:39	08/29/22 15:44	1
Barium	<0.50		0.50	0.050	mg/L		08/26/22 16:39	08/29/22 15:44	1
Cadmium	<0.0050		0.0050	0.0020	mg/L		08/26/22 16:39	08/29/22 15:44	1
Chromium	<0.025		0.025	0.010	mg/L		08/26/22 16:39	08/29/22 15:44	1
Lead	<0.050		0.050	0.0075	mg/L		08/26/22 16:39	08/29/22 15:44	1
Selenium	<0.050		0.050	0.020	mg/L		08/26/22 16:39	08/29/22 15:44	1
Silver	<0.025		0.025	0.010	mg/L		08/26/22 16:39	08/29/22 15:44	1

QC Sample Results

Client: Tetra Tech EM Inc.
Project/Site: Morris Lithium Battery Site

Job ID: 500-221285-1

Method: 7470A - Mercury (CVAA)

Lab Sample ID: MB 500-671923/12-A
Matrix: Solid
Analysis Batch: 672168

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 671923

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.20		0.20	0.20	ug/L		08/26/22 11:35	08/29/22 08:54	1

Lab Sample ID: LCS 500-671923/35-A
Matrix: Solid
Analysis Batch: 672168

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 671923

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Mercury	2.00	1.84		ug/L		92	80 - 120

Lab Sample ID: LB2 500-671768/1-B
Matrix: Solid
Analysis Batch: 672168

Client Sample ID: Method Blank
Prep Type: TCLP
Prep Batch: 671923

Analyte	LB2 Result	LB2 Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.20		0.20	0.20	ug/L		08/26/22 11:35	08/29/22 10:20	1

Method: 7471B - Mercury (CVAA)

Lab Sample ID: MB 500-671927/12-A
Matrix: Solid
Analysis Batch: 672125

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 671927

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<17		17	5.6	ug/Kg		08/26/22 15:20	08/29/22 08:19	1

Lab Sample ID: LCS 500-671927/13-A
Matrix: Solid
Analysis Batch: 672125

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 671927

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Mercury	167	136		ug/Kg		81	80 - 120

Method: 9012B - Cyanide, Total andor Amenable

Lab Sample ID: MB 500-671823/1-A
Matrix: Solid
Analysis Batch: 672411

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 671823

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	<0.010		0.010	0.0050	mg/Kg		08/26/22 09:59	08/30/22 15:27	1

Lab Sample ID: HLCS 500-671823/2-A
Matrix: Solid
Analysis Batch: 672411

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 671823

Analyte	Spike Added	HLCS Result	HLCS Qualifier	Unit	D	%Rec	%Rec Limits
Cyanide, Total	0.400	0.408		mg/Kg		102	90 - 110

Method: 9012B - Cyanide, Total andor Amenable (Continued)

Lab Sample ID: LCS 500-671823/3-A — **Client Sample ID: Lab Control Sample**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 672411 — **Prep Batch: 671823**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Cyanide, Total	0.100	0.104		mg/Kg		104	85 - 115

Lab Sample ID: LLCS 500-671823/4-A — **Client Sample ID: Lab Control Sample**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 672411 — **Prep Batch: 671823**

Analyte	Spike Added	LLCS Result	LLCS Qualifier	Unit	D	%Rec	%Rec Limits
Cyanide, Total	0.0500	0.0481		mg/Kg		96	75 - 125

Method: 9034 - Sulfide, Acid soluble and Insoluble (Titrimetric)

Lab Sample ID: MB 500-672214/1-A — **Client Sample ID: Method Blank**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 672612 — **Prep Batch: 672214**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfide	<10		10	4.7	mg/Kg		08/29/22 16:56	08/31/22 14:24	1

Lab Sample ID: LCS 500-672214/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 672612 — **Prep Batch: 672214**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Sulfide	190	174		mg/Kg		92	80 - 120

Lab Chronicle

Client: Tetra Tech EM Inc.
Project/Site: Morris Lithium Battery Site

Job ID: 500-221285-1

Client Sample ID: MLBF-C-F6-01-220824

Lab Sample ID: 500-221285-1
Date Collected: 08/24/22 12:08
Matrix: Solid
Date Received: 08/24/22 14:10

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
TCLP	Leach	1311			671768	OAJ	EET CHI	08/25/22 14:22 - 08/26/22 08:22 [1]
TCLP	Prep	3510C			672234	TS	EET CHI	08/30/22 07:51
TCLP	Analysis	8270D		5	672487	JSB	EET CHI	08/31/22 15:28
TCLP	Leach	1311			671768	OAJ	EET CHI	08/25/22 14:22 - 08/26/22 08:22 [1]
TCLP	Prep	3010A			671973	LMB	EET CHI	08/26/22 16:39 - 08/26/22 17:09 [1]
TCLP	Analysis	6010D		1	672391	JJB	EET CHI	08/30/22 14:34
TCLP	Leach	1311			671768	OAJ	EET CHI	08/25/22 14:22 - 08/26/22 08:22 [1]
TCLP	Prep	3010A			671973	LMB	EET CHI	08/26/22 16:39 - 08/26/22 17:09 [1]
TCLP	Analysis	6010D		1	672268	JJB	EET CHI	08/29/22 16:05
TCLP	Leach	1311			671768	OAJ	EET CHI	08/25/22 14:22 - 08/26/22 08:22 [1]
TCLP	Prep	7470A			671923	MJG	EET CHI	08/26/22 11:35 - 08/26/22 13:35 [1]
TCLP	Analysis	7470A		1	672168	MJG	EET CHI	08/29/22 10:27
Total/NA	Analysis	9045D		1	671697	SMO	EET CHI	08/25/22 13:24 - 08/25/22 13:26 [1]
Total/NA	Analysis	Moisture		1	671708	LWN	EET CHI	08/25/22 10:50

Client Sample ID: MLBF-C-F6-01-220824

Lab Sample ID: 500-221285-1
Date Collected: 08/24/22 12:08
Matrix: Solid
Date Received: 08/24/22 14:10
Percent Solids: 95.6

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3541			671936	EK	EET CHI	08/26/22 14:08 - 08/26/22 19:00 [1]
Total/NA	Analysis	8082A		1	672139	SS	EET CHI	08/29/22 18:53
Total/NA	Prep	3050B			672095	BDE	EET CHI	08/29/22 09:09 - 08/29/22 09:39 [1]
Total/NA	Analysis	6010D		1	672473	JJB	EET CHI	08/30/22 15:43
Total/NA	Prep	3050B			672095	BDE	EET CHI	08/29/22 09:09 - 08/29/22 09:39 [1]
Total/NA	Analysis	6010D		1	672603	JJB	EET CHI	08/31/22 11:07
Total/NA	Prep	3050B			672095	BDE	EET CHI	08/29/22 09:09 - 08/29/22 09:39 [1]
Total/NA	Analysis	6010D		5	672603	JJB	EET CHI	08/31/22 11:10
Total/NA	Prep	7471B			671927	MJG	EET CHI	08/26/22 15:20
Total/NA	Analysis	7471B		1	672125	MJG	EET CHI	08/29/22 09:12
Total/NA	Prep	9010C			671823	LP	EET CHI	08/26/22 09:59 - 08/26/22 10:29 [1]
Total/NA	Analysis	9012B		1	672411	JMP	EET CHI	08/30/22 16:01
Total/NA	Prep	9030B			672214	BC	EET CHI	08/29/22 17:37 - 08/29/22 17:39 [1]
Total/NA	Analysis	9034		1	672612	BC	EET CHI	08/31/22 14:33

[1] Completion dates and times are reported or not reported per method requirements or individual lab discretion.

Laboratory References:

EET CHI = Eurofins Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200

Accreditation/Certification Summary

Client: Tetra Tech EM Inc.
Project/Site: Morris Lithium Battery Site

Job ID: 500-221285-1

Laboratory: Eurofins Chicago

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

Authority	Program	Identification Number	Expiration Date
Illinois	NELAP	IL00035	04-30-23

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
6010D	3010A	Solid	Arsenic
6010D	3010A	Solid	Barium
6010D	3010A	Solid	Cadmium
6010D	3010A	Solid	Chromium
6010D	3010A	Solid	Lead
6010D	3010A	Solid	Selenium
6010D	3010A	Solid	Silver
6010D	3050B	Solid	Aluminum
6010D	3050B	Solid	Antimony
6010D	3050B	Solid	Arsenic
6010D	3050B	Solid	Barium
6010D	3050B	Solid	Beryllium
6010D	3050B	Solid	Cadmium
6010D	3050B	Solid	Calcium
6010D	3050B	Solid	Chromium
6010D	3050B	Solid	Cobalt
6010D	3050B	Solid	Copper
6010D	3050B	Solid	Iron
6010D	3050B	Solid	Lead
6010D	3050B	Solid	Lithium
6010D	3050B	Solid	Magnesium
6010D	3050B	Solid	Manganese
6010D	3050B	Solid	Nickel
6010D	3050B	Solid	Potassium
6010D	3050B	Solid	Selenium
6010D	3050B	Solid	Silver
6010D	3050B	Solid	Sodium
6010D	3050B	Solid	Thallium
6010D	3050B	Solid	Vanadium
6010D	3050B	Solid	Zinc
7470A	7470A	Solid	Mercury
8082A	3541	Solid	PCB-1262
8082A	3541	Solid	PCB-1268
Moisture		Solid	Percent Moisture
Moisture		Solid	Percent Solids

Indiana	State	C-IL-02	04-29-23

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
6010D	3010A	Solid	Arsenic
6010D	3010A	Solid	Barium
6010D	3010A	Solid	Cadmium
6010D	3010A	Solid	Chromium
6010D	3010A	Solid	Lead
6010D	3010A	Solid	Selenium

Laboratory: Eurofins Chicago (Continued)

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

Authority	Program	Identification Number	Expiration Date

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
6010D	3010A	Solid	Silver
6010D	3050B	Solid	Aluminum
6010D	3050B	Solid	Antimony
6010D	3050B	Solid	Arsenic
6010D	3050B	Solid	Barium
6010D	3050B	Solid	Beryllium
6010D	3050B	Solid	Cadmium
6010D	3050B	Solid	Calcium
6010D	3050B	Solid	Chromium
6010D	3050B	Solid	Cobalt
6010D	3050B	Solid	Copper
6010D	3050B	Solid	Iron
6010D	3050B	Solid	Lead
6010D	3050B	Solid	Lithium
6010D	3050B	Solid	Magnesium
6010D	3050B	Solid	Manganese
6010D	3050B	Solid	Nickel
6010D	3050B	Solid	Potassium
6010D	3050B	Solid	Selenium
6010D	3050B	Solid	Silver
6010D	3050B	Solid	Sodium
6010D	3050B	Solid	Thallium
6010D	3050B	Solid	Vanadium
6010D	3050B	Solid	Zinc
7470A	7470A	Solid	Mercury
7471B	7471B	Solid	Mercury
8082A	3541	Solid	PCB-1016
8082A	3541	Solid	PCB-1221
8082A	3541	Solid	PCB-1232
8082A	3541	Solid	PCB-1242
8082A	3541	Solid	PCB-1248
8082A	3541	Solid	PCB-1254
8082A	3541	Solid	PCB-1260
8082A	3541	Solid	PCB-1262
8082A	3541	Solid	PCB-1268
8270D	3510C	Solid	1,4-Dichlorobenzene
8270D	3510C	Solid	2,4,5-Trichlorophenol
8270D	3510C	Solid	2,4,6-Trichlorophenol
8270D	3510C	Solid	2,4-Dinitrotoluene
8270D	3510C	Solid	2-Methylphenol
8270D	3510C	Solid	3 & 4 Methylphenol
8270D	3510C	Solid	Hexachlorobenzene
8270D	3510C	Solid	Hexachlorobutadiene
8270D	3510C	Solid	Hexachloroethane
8270D	3510C	Solid	Nitrobenzene
8270D	3510C	Solid	Pentachlorophenol
8270D	3510C	Solid	Pyridine

Laboratory: Eurofins Chicago (Continued)

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

Authority	Program	Identification Number	Expiration Date

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
9012B	9010C	Solid	Cyanide, Total
9034	9030B	Solid	Sulfide
9045D		Solid	pH
Moisture		Solid	Percent Moisture
Moisture		Solid	Percent Solids

Authority	Program	Identification Number	Expiration Date
Wisconsin	State	999580010	08-31-22

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

Analysis Method	Prep Method	Matrix	Analyte
6010D	3050B	Solid	Lithium
8082A	3541	Solid	PCB-1262
8082A	3541	Solid	PCB-1268
Moisture		Solid	Percent Moisture
Moisture		Solid	Percent Solids

Chain of Custody Record

523956

eurofins

Environment Testing TestAmerica

Address MORRIS, IL

Regulatory Program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other

TAL-8210

Client Contact	Project Manager ERICA SCHMANDT	Site Contact JIM KNAPP	Date 8/24/2022	COC No
Company Name TETRA TECH	Tel/Email ERICA.SCHMANDT@TETRATECH	Lab Contact	Carrier	1 of 1 COCs
Address 1 S WACKER DRIVE SUITE 3700	Analysis Turnaround Time			Sampler JS, ES, BM
City/State Zip CHICAGO, IL 60606	☐ CALENDAR DAYS ☑ WORKING DAYS			For Lab Use Only
Phone 805 896 6982	TAT if different from Below 5 DAY			Walk-in Client
Fax	☐ 2 weeks			Lab Sampling
Project Name MORRIS LITHIUM BATTERY SITE	☐ 1 week			
Site 103X9031003200001C1103	☐ 2 days			Job / SDG No
PO # ETA-72	☐ 1 day			500-221285

500-221285 COC

	Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y/N)	Perform MS / MSD (Y/N)	TCLP METALS	TCLP SVOC	TAL METALS	TCL PCBS	CYANIDE	SULFIDE	pH	PERCENT SOLIDS	Sample Specific Notes
1	MLBF-C-F6-01-220824	8/24/22	1208	C	SOC	3		N	X	X	X	X	X	X	X	X	

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other

Possible Hazard Identification:
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample

Non Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

☐ Return to Client ☐ Disposal by Lab ☐ Archive for ____ Months

Special Instructions/QC Requirements & Comments:

Custody Seals Intact ☐ Yes ☐ No | Custody Seal No | Cooler Temp (°C) Obs'd 13.3 Corr'd 13.0 | Therm ID No

Relinquished by	Company	Date/Time	Received by	Company	Date/Time
ERICA SCHMANDT	TETRA TECH	8/24/22 1300			
Relinquished by	Company	Date/Time	Received by	Company	Date/Time
Relinquished by	Company	Date/Time	Received in Laboratory by	Company	Date/Time
				EBTA	8/24/22 1410

Login Sample Receipt Checklist

Client: Tetra Tech EM Inc.

Job Number: 500-221285-1

Login Number: 221285
List Number: 1
Creator: Buckley, Paula M

List Source: Eurofins Chicago

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	Received same day of collection; chilling process has begun.
Cooler Temperature is recorded.	True	13.0
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.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

eurofins | Environment Testing

ANALYTICAL REPORT

Eurofins Chicago
2417 Bond Street
University Park, IL 60484
Tel: (708)534-5200

Laboratory Job ID: 500-223407-1
Client Project/Site: Morris Lithium Battery Fire

For:
Tetra Tech EM Inc.
1 South Wacker Drive 37 Floor
Ste. 3700
Chicago, Illinois 60606

Attn: Joe Sanders

Authorized for release by:
11/1/2022 5:11:49 PM

Jim Knapp, Project Manager II
(630)758-0262
Jim.Knapp@et.eurofinsus.com

Table of Contents

Job ID: 500-223407-1

Laboratory: Eurofins Chicago

Narrative

Job Narrative
500-223407-1

Comments
No additional comments.

Receipt
The samples were received on 10/6/2022 4:45 PM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 22.3º C.

GC/MS Semi VOA
Method 8270D: The continuing calibration verification (CCV) associated with batch 500-680766 recovered above the upper control limit for 3 & 4 Methylphenol and 1,4-Dichlorobenzene. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported.

Method 8270D: Surrogate recovery for the following sample was outside the upper control limit: MLBF-C-E4-01-221006 (500-223407-1). This sample did not contain any target analytes; therefore, re-extraction and/or re-analysis was not performed.

Method 8270D: The following samples were diluted due to the nature of the sample matrix: MLBF-C-E4-01-221006 (500-223407-1), MLBF-C-E4-01-221006 (500-223407-1[MS]), MLBF-C-E4-01-221006 (500-223407-1[MSD]), MLBF-C-D7-01-221006 (500-223407-2), MLBF-C-B1C1-01-221006 (500-223407-3), MLBF-C-C2D2-01-221006 (500-223407-4) and MLBF-C-C2D2-02-221006-DUP (500-223407-5). Elevated reporting limits (RLs) are provided.

Method 8270D: The tailing factor for Benzidine failed in the DFTPP analysis, respectively. The tailing factor was acceptable in the CCVIS. This indicates the system was in control and no corrective action was required. (DFTPP 500-680766/1)

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

GC Semi VOA
Method 8082A: Surrogate DCB Decachlorobiphenyl is outside acceptable control limits for MLBF-RINSATE-221006 (500-223407-6) however the other surrogate is within range; therefore, re-analysis was not performed.

Method 8082A: Tetrachloro-m-xylene and DCB Decachlorobiphenyl recovery for the following samples were outside upper control limits: MLBF-C-E4-01-221006 (500-223407-1), MLBF-C-E4-01-221006 (500-223407-1[MS]) and MLBF-C-E4-01-221006 (500-223407-1[MSD]). However all surrogate in the associated MS/MSD recoveries were within control limit; therefore, re-extraction and/or re-analysis was not performed.

Method 8082A: DCB Decachlorobiphenyl surrogate recovery for the following samples was outside control limits: MLBF-C-D7-01-221006 (500-223407-2) and MLBF-C-B1C1-01-221006 (500-223407-3). Tetrachloro-m-xylene surrogate was within the control limits; therefore, re-extraction and/or re-analysis was not performed.

Method 8082A: Surrogate Tetrachloro-m-xylene recovery for the following Continuing Calibration Verification (CCVIS) was outside control limits on the primary column: (CCVIS 500-680001/3). The other surrogate was within limits; therefore, re-analysis was not performed. Both surrogates were above the QC limits on the secondary column.

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

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

General Chemistry
Method 9012B: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 500-679237 and analytical batch 500-679714 were outside control limits. Spike was inadvertently omitted during prep. The associated laboratory control sample (LCS) recovery was within acceptance limits.

Job ID: 500-223407-1 (Continued)

Laboratory: Eurofins Chicago (Continued)

Method 9034: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 500-679475, 500-679475 and 500-679475 and analytical batch 500-679513 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

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

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

Detection Summary

Client: Tetra Tech EM Inc.
Project/Site: Morris Lithium Battery Fire

Job ID: 500-223407-1

Client Sample ID: MLBF-C-E4-01-221006 — Lab Sample ID: 500-223407-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
PCB-1254	40		17	5.9	ug/Kg	1	☼	8082A	Total/NA
Aluminum	6200		20	8.1	mg/Kg	1	☼	6010D	Total/NA
Antimony	0.53	J B F1	2.0	0.39	mg/Kg	1	☼	6010D	Total/NA
Arsenic	2.3		1.0	0.34	mg/Kg	1	☼	6010D	Total/NA
Barium	50		1.0	0.11	mg/Kg	1	☼	6010D	Total/NA
Beryllium	0.45		0.40	0.093	mg/Kg	1	☼	6010D	Total/NA
Cadmium	2.2	F1	0.20	0.036	mg/Kg	1	☼	6010D	Total/NA
Calcium	170000		100	17	mg/Kg	5	☼	6010D	Total/NA
Chromium	9.6		1.0	0.49	mg/Kg	1	☼	6010D	Total/NA
Cobalt	17		2.5	0.65	mg/Kg	5	☼	6010D	Total/NA
Copper	58	F1	1.0	0.28	mg/Kg	1	☼	6010D	Total/NA
Iron	6500		20	10	mg/Kg	1	☼	6010D	Total/NA
Lead	25	F1	0.50	0.23	mg/Kg	1	☼	6010D	Total/NA
Magnesium	47000		10	4.9	mg/Kg	1	☼	6010D	Total/NA
Manganese	440		1.0	0.14	mg/Kg	1	☼	6010D	Total/NA
Nickel	23		1.0	0.29	mg/Kg	1	☼	6010D	Total/NA
Potassium	860		50	18	mg/Kg	1	☼	6010D	Total/NA
Silver	0.28	J	0.50	0.13	mg/Kg	1	☼	6010D	Total/NA
Sodium	430		100	15	mg/Kg	1	☼	6010D	Total/NA
Vanadium	11		0.50	0.12	mg/Kg	1	☼	6010D	Total/NA
Zinc	78	F1 F2	2.0	0.88	mg/Kg	1	☼	6010D	Total/NA
Lithium	12		1.0	0.30	mg/Kg	1	☼	6010D	Total/NA
Barium	0.29	J	0.50	0.050	mg/L	1		6010D	TCLP
Chromium	0.020	J	0.025	0.010	mg/L	1		6010D	TCLP
Mercury	1.9	F1	0.20	0.20	ug/L	1		7470A	TCLP
Mercury	49	F1 F2	16	5.4	ug/Kg	1	☼	7471B	Total/NA
pH	12.2	HF	0.2	0.2	SU	1		9045D	Total/NA

Client Sample ID: MLBF-C-D7-01-221006 — Lab Sample ID: 500-223407-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
PCB-1254	21		18	6.0	ug/Kg	1	☼	8082A	Total/NA
Aluminum	7200		20	8.3	mg/Kg	1	☼	6010D	Total/NA
Arsenic	2.6		1.0	0.35	mg/Kg	1	☼	6010D	Total/NA
Barium	56		1.0	0.12	mg/Kg	1	☼	6010D	Total/NA
Beryllium	0.49		0.41	0.095	mg/Kg	1	☼	6010D	Total/NA
Cadmium	4.7		0.20	0.037	mg/Kg	1	☼	6010D	Total/NA
Calcium	190000		100	17	mg/Kg	5	☼	6010D	Total/NA
Chromium	9.5		1.0	0.50	mg/Kg	1	☼	6010D	Total/NA
Cobalt	4.6		2.5	0.67	mg/Kg	5	☼	6010D	Total/NA
Copper	8.9		1.0	0.28	mg/Kg	1	☼	6010D	Total/NA
Iron	6800		20	11	mg/Kg	1	☼	6010D	Total/NA
Lead	4.1		0.51	0.23	mg/Kg	1	☼	6010D	Total/NA
Magnesium	44000		10	5.0	mg/Kg	1	☼	6010D	Total/NA
Manganese	480		1.0	0.15	mg/Kg	1	☼	6010D	Total/NA
Nickel	12		1.0	0.30	mg/Kg	1	☼	6010D	Total/NA
Potassium	960		51	18	mg/Kg	1	☼	6010D	Total/NA
Silver	0.15	J	0.51	0.13	mg/Kg	1	☼	6010D	Total/NA
Sodium	450		100	15	mg/Kg	1	☼	6010D	Total/NA
Vanadium	12		0.51	0.12	mg/Kg	1	☼	6010D	Total/NA
Zinc	40		2.0	0.89	mg/Kg	1	☼	6010D	Total/NA

This Detection Summary does not include radiochemical test results.

Detection Summary

Client: Tetra Tech EM Inc.
Project/Site: Morris Lithium Battery Fire

Job ID: 500-223407-1

Client Sample ID: MLBF-C-D7-01-221006 (Continued) — Lab Sample ID: 500-223407-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lithium	10		1.0	0.30	mg/Kg	1	☼	6010D	Total/NA
Barium	0.35	J	0.50	0.050	mg/L	1		6010D	TCLP
Chromium	0.018	J	0.025	0.010	mg/L	1		6010D	TCLP
Mercury	48		17	5.5	ug/Kg	1	☼	7471B	Total/NA
pH	12.2	HF	0.2	0.2	SU	1		9045D	Total/NA

Client Sample ID: MLBF-C-B1C1-01-221006 — Lab Sample ID: 500-223407-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
PCB-1254	24		17	5.8	ug/Kg	1	☼	8082A	Total/NA
Aluminum	6500		20	8.0	mg/Kg	1	☼	6010D	Total/NA
Arsenic	2.3		0.98	0.33	mg/Kg	1	☼	6010D	Total/NA
Barium	51		0.98	0.11	mg/Kg	1	☼	6010D	Total/NA
Beryllium	0.47		0.39	0.091	mg/Kg	1	☼	6010D	Total/NA
Cadmium	0.20		0.20	0.035	mg/Kg	1	☼	6010D	Total/NA
Calcium	180000		98	17	mg/Kg	5	☼	6010D	Total/NA
Chromium	9.2		0.98	0.48	mg/Kg	1	☼	6010D	Total/NA
Cobalt	2.6		0.98	0.26	mg/Kg	2	☼	6010D	Total/NA
Copper	210		2.0	0.55	mg/Kg	2	☼	6010D	Total/NA
Iron	6700		20	10	mg/Kg	1	☼	6010D	Total/NA
Lead	3.4		0.49	0.23	mg/Kg	1	☼	6010D	Total/NA
Magnesium	48000		9.8	4.9	mg/Kg	1	☼	6010D	Total/NA
Manganese	490		0.98	0.14	mg/Kg	1	☼	6010D	Total/NA
Nickel	9.2		0.98	0.28	mg/Kg	1	☼	6010D	Total/NA
Potassium	770		49	17	mg/Kg	1	☼	6010D	Total/NA
Sodium	460		98	14	mg/Kg	1	☼	6010D	Total/NA
Vanadium	11		0.49	0.12	mg/Kg	1	☼	6010D	Total/NA
Zinc	35		2.0	0.86	mg/Kg	1	☼	6010D	Total/NA
Lithium	6.7		0.98	0.29	mg/Kg	1	☼	6010D	Total/NA
Barium	0.34	J	0.50	0.050	mg/L	1		6010D	TCLP
Chromium	0.011	J	0.025	0.010	mg/L	1		6010D	TCLP
Mercury	50		17	5.6	ug/Kg	1	☼	7471B	Total/NA
pH	12.2	HF	0.2	0.2	SU	1		9045D	Total/NA

Client Sample ID: MLBF-C-C2D2-01-221006 — Lab Sample ID: 500-223407-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
PCB-1254	17	J	18	5.9	ug/Kg	1	☼	8082A	Total/NA
Aluminum	6500		20	8.3	mg/Kg	1	☼	6010D	Total/NA
Arsenic	2.0		1.0	0.35	mg/Kg	1	☼	6010D	Total/NA
Barium	47		1.0	0.12	mg/Kg	1	☼	6010D	Total/NA
Beryllium	0.49		0.41	0.095	mg/Kg	1	☼	6010D	Total/NA
Cadmium	0.47		0.20	0.037	mg/Kg	1	☼	6010D	Total/NA
Calcium	180000		100	17	mg/Kg	5	☼	6010D	Total/NA
Chromium	10		1.0	0.50	mg/Kg	1	☼	6010D	Total/NA
Cobalt	4.6		2.5	0.67	mg/Kg	5	☼	6010D	Total/NA
Copper	290		5.1	1.4	mg/Kg	5	☼	6010D	Total/NA
Iron	6900		20	11	mg/Kg	1	☼	6010D	Total/NA
Lead	13		0.51	0.24	mg/Kg	1	☼	6010D	Total/NA
Magnesium	45000		10	5.0	mg/Kg	1	☼	6010D	Total/NA
Manganese	500		1.0	0.15	mg/Kg	1	☼	6010D	Total/NA
Nickel	16		1.0	0.30	mg/Kg	1	☼	6010D	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: MLBF-C-C2D2-01-221006 (Continued) — Lab Sample ID: 500-223407-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Potassium	800		51	18	mg/Kg	1	☼	6010D	Total/NA
Silver	0.17	J	0.51	0.13	mg/Kg	1	☼	6010D	Total/NA
Sodium	430		100	15	mg/Kg	1	☼	6010D	Total/NA
Vanadium	11		0.51	0.12	mg/Kg	1	☼	6010D	Total/NA
Zinc	64		2.0	0.89	mg/Kg	1	☼	6010D	Total/NA
Lithium	8.9		1.0	0.30	mg/Kg	1	☼	6010D	Total/NA
Barium	0.29	J	0.50	0.050	mg/L	1		6010D	TCLP
Chromium	0.020	J	0.025	0.010	mg/L	1		6010D	TCLP
Mercury	48		17	5.5	ug/Kg	1	☼	7471B	Total/NA
pH	12.3	HF	0.2	0.2	SU	1		9045D	Total/NA

Client Sample ID: MLBF-C-C2D2-02-221006-DUP — Lab Sample ID: 500-223407-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
PCB-1254	18		18	6.0	ug/Kg	1	☼	8082A	Total/NA
Aluminum	6600		21	8.5	mg/Kg	1	☼	6010D	Total/NA
Arsenic	2.0		1.0	0.35	mg/Kg	1	☼	6010D	Total/NA
Barium	48		1.0	0.12	mg/Kg	1	☼	6010D	Total/NA
Beryllium	0.44		0.41	0.097	mg/Kg	1	☼	6010D	Total/NA
Cadmium	0.46		0.21	0.037	mg/Kg	1	☼	6010D	Total/NA
Calcium	180000		100	18	mg/Kg	5	☼	6010D	Total/NA
Chromium	10		1.0	0.51	mg/Kg	1	☼	6010D	Total/NA
Cobalt	4.5		2.6	0.68	mg/Kg	5	☼	6010D	Total/NA
Copper	260		5.2	1.5	mg/Kg	5	☼	6010D	Total/NA
Iron	7000		21	11	mg/Kg	1	☼	6010D	Total/NA
Lead	9.0		0.52	0.24	mg/Kg	1	☼	6010D	Total/NA
Magnesium	44000		10	5.1	mg/Kg	1	☼	6010D	Total/NA
Manganese	520		1.0	0.15	mg/Kg	1	☼	6010D	Total/NA
Nickel	16		1.0	0.30	mg/Kg	1	☼	6010D	Total/NA
Potassium	780		52	18	mg/Kg	1	☼	6010D	Total/NA
Silver	0.21	J	0.52	0.13	mg/Kg	1	☼	6010D	Total/NA
Sodium	430		100	15	mg/Kg	1	☼	6010D	Total/NA
Vanadium	11		0.52	0.12	mg/Kg	1	☼	6010D	Total/NA
Zinc	63		2.1	0.91	mg/Kg	1	☼	6010D	Total/NA
Lithium	8.3		1.0	0.31	mg/Kg	1	☼	6010D	Total/NA
Barium	0.32	J	0.50	0.050	mg/L	1		6010D	TCLP
Chromium	0.020	J	0.025	0.010	mg/L	1		6010D	TCLP
Mercury	7.0	J	16	5.3	ug/Kg	1	☼	7471B	Total/NA
pH	12.3	HF	0.2	0.2	SU	1		9045D	Total/NA

Client Sample ID: MLBF-RINSATE-221006 — Lab Sample ID: 500-223407-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Calcium	0.41		0.20	0.044	mg/L	1		6020A	Total Recoverable
Copper	0.0034		0.0020	0.00050	mg/L	1		6020A	Total Recoverable
Iron	0.053	J	0.10	0.047	mg/L	1		6020A	Total Recoverable
Lead	0.00066		0.00050	0.00019	mg/L	1		6020A	Total Recoverable
Magnesium	0.091	J	0.20	0.049	mg/L	1		6020A	Total Recoverable

This Detection Summary does not include radiochemical test results.

Client Sample ID: MLBF-RINSATE-221006 (Continued)

Lab Sample ID: 500-223407-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Manganese	0.0011	J	0.0025	0.00079	mg/L	1		6020A	Total Recoverable
Sodium	0.82		0.20	0.077	mg/L	1		6020A	Total Recoverable
pH	9.9	HF	0.2	0.2	SU	1		9040C	Total/NA

This Detection Summary does not include radiochemical test results.

Method Summary

Client: Tetra Tech EM Inc.
Project/Site: Morris Lithium Battery Fire

Job ID: 500-223407-1

Method	Method Description	Protocol	Laboratory
8270D	Semivolatile Organic Compounds (GC/MS)	SW846	EET CHI
8082A	Polychlorinated Biphenyls (PCBs) by Gas Chromatography	SW846	EET CHI
6010D	Metals (ICP)	SW846	EET CHI
6020A	Metals (ICP/MS)	SW846	EET CHI
7470A	Mercury (CVAA)	SW846	EET CHI
7471B	Mercury (CVAA)	SW846	EET CHI
9012B	Cyanide, Total andor Amenable	SW846	EET CHI
9034	Sulfide, Acid soluble and Insoluble (Titrimetric)	SW846	EET CHI
9040C	pH	SW846	EET CHI
9045D	pH	SW846	EET CHI
Moisture	Percent Moisture	EPA	EET CHI
1311	TCLP Extraction	SW846	EET CHI
3005A	Preparation, Total Recoverable or Dissolved Metals	SW846	EET CHI
3010A	Preparation, Total Metals	SW846	EET CHI
3050B	Preparation, Metals	SW846	EET CHI
3510C	Liquid-Liquid Extraction (Separatory Funnel)	SW846	EET CHI
3541	Automated Soxhlet Extraction	SW846	EET CHI
7470A	Preparation, Mercury	SW846	EET CHI
7471B	Preparation, Mercury	SW846	EET CHI
9010C	Cyanide, Distillation	SW846	EET CHI
9030B	Sulfide, Distillation (Acid Soluble and Insoluble)	SW846	EET CHI

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 CHI = Eurofins Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200

Sample Summary

Client: Tetra Tech EM Inc.
Project/Site: Morris Lithium Battery Fire

Job ID: 500-223407-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
500-223407-1	MLBF-C-E4-01-221006	Solid	10/06/22 10:40	10/06/22 16:45
500-223407-2	MLBF-C-D7-01-221006	Solid	10/06/22 11:00	10/06/22 16:45
500-223407-3	MLBF-C-B1C1-01-221006	Solid	10/06/22 11:20	10/06/22 16:45
500-223407-4	MLBF-C-C2D2-01-221006	Solid	10/06/22 11:58	10/06/22 16:45
500-223407-5	MLBF-C-C2D2-02-221006-DUP	Solid	10/06/22 12:15	10/06/22 16:45
500-223407-6	MLBF-RINSATE-221006	Water	10/06/22 12:30	10/06/22 16:45

Client Sample Results

Client: Tetra Tech EM Inc.
Project/Site: Morris Lithium Battery Fire

Job ID: 500-223407-1

Client Sample ID: MLBF-C-E4-01-221006

Date Collected: 10/06/22 10:40
Date Received: 10/06/22 16:45

Lab Sample ID: 500-223407-1

Matrix: Solid
Percent Solids: 95.9

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Methylphenol	<100		100	100	ug/L		10/20/22 10:28	10/21/22 12:04	5
3 & 4 Methylphenol	<100		100	100	ug/L		10/20/22 10:28	10/21/22 12:04	5
1,4-Dichlorobenzene	<100		100	100	ug/L		10/20/22 10:28	10/21/22 12:04	5
2,4-Dinitrotoluene	<50		50	50	ug/L		10/20/22 10:28	10/21/22 12:04	5
Hexachlorobenzene	<25		25	25	ug/L		10/20/22 10:28	10/21/22 12:04	5
Hexachlorobutadiene	<250		250	250	ug/L		10/20/22 10:28	10/21/22 12:04	5
Hexachloroethane	<250		250	250	ug/L		10/20/22 10:28	10/21/22 12:04	5
Nitrobenzene	<50		50	50	ug/L		10/20/22 10:28	10/21/22 12:04	5
Pentachlorophenol	<1000		1000	1000	ug/L		10/20/22 10:28	10/21/22 12:04	5
Pyridine	<1000		1000	1000	ug/L		10/20/22 10:28	10/21/22 12:04	5
2,4,5-Trichlorophenol	<500		500	500	ug/L		10/20/22 10:28	10/21/22 12:04	5
2,4,6-Trichlorophenol	<250		250	250	ug/L		10/20/22 10:28	10/21/22 12:04	5

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorophenol (Surr)	*60*		*27 - 110*	*10/20/22 10:28*	*10/21/22 12:04*	*5*
Phenol-d5 (Surr)	*31*		*20 - 100*	*10/20/22 10:28*	*10/21/22 12:04*	*5*
Nitrobenzene-d5 (Surr)	*71*		*36 - 120*	*10/20/22 10:28*	*10/21/22 12:04*	*5*
2-Fluorobiphenyl	*66*		*34 - 110*	*10/20/22 10:28*	*10/21/22 12:04*	*5*
2,4,6-Tribromophenol (Surr)	*146*	*S1+*	*40 - 145*	*10/20/22 10:28*	*10/21/22 12:04*	*5*
Terphenyl-d14	*112*		*40 - 145*	*10/20/22 10:28*	*10/21/22 12:04*	*5*

Method: SW846 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<17		17	6.8	ug/Kg	☼	10/15/22 07:45	10/17/22 22:49	1
PCB-1221	<17		17	6.8	ug/Kg	☼	10/15/22 07:45	10/17/22 22:49	1
PCB-1232	<17		17	4.7	ug/Kg	☼	10/15/22 07:45	10/17/22 22:49	1
PCB-1242	<17		17	6.7	ug/Kg	☼	10/15/22 07:45	10/17/22 22:49	1
PCB-1248	<17		17	8.2	ug/Kg	☼	10/15/22 07:45	10/17/22 22:49	1
PCB-1254	**40**		17	5.9	ug/Kg	☼	10/15/22 07:45	10/17/22 22:49	1
PCB-1260	<17		17	6.5	ug/Kg	☼	10/15/22 07:45	10/17/22 22:49	1
PCB-1262	<17		17	5.7	ug/Kg	☼	10/15/22 07:45	10/17/22 22:49	1
PCB-1268	<17		17	10	ug/Kg	☼	10/15/22 07:45	10/17/22 22:49	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*146*	*S1+*	*49 - 129*	*10/15/22 07:45*	*10/17/22 22:49*	*1*
DCB Decachlorobiphenyl	*138*	*S1+*	*37 - 121*	*10/15/22 07:45*	*10/17/22 22:49*	*1*

Method: SW846 6010D - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	**6200**		20	8.1	mg/Kg	☼	10/12/22 17:06	10/15/22 23:05	1
Antimony	**0.53**	**J B F1**	2.0	0.39	mg/Kg	☼	10/12/22 17:06	10/15/22 23:05	1
Arsenic	**2.3**		1.0	0.34	mg/Kg	☼	10/12/22 17:06	10/15/22 23:05	1
Barium	**50**		1.0	0.11	mg/Kg	☼	10/12/22 17:06	10/15/22 23:05	1
Beryllium	**0.45**		0.40	0.093	mg/Kg	☼	10/12/22 17:06	10/15/22 23:05	1
Cadmium	**2.2**	**F1**	0.20	0.036	mg/Kg	☼	10/12/22 17:06	10/15/22 23:05	1
Calcium	**170000**		100	17	mg/Kg	☼	10/12/22 17:06	10/17/22 20:49	5
Chromium	**9.6**		1.0	0.49	mg/Kg	☼	10/12/22 17:06	10/15/22 23:05	1
Cobalt	**17**		2.5	0.65	mg/Kg	☼	10/12/22 17:06	10/17/22 20:49	5
Copper	**58**	**F1**	1.0	0.28	mg/Kg	☼	10/12/22 17:06	10/15/22 23:05	1
Iron	**6500**		20	10	mg/Kg	☼	10/12/22 17:06	10/15/22 23:05	1

Client Sample Results

Client: Tetra Tech EM Inc.
Project/Site: Morris Lithium Battery Fire

Job ID: 500-223407-1

Client Sample ID: MLBF-C-E4-01-221006

Date Collected: 10/06/22 10:40
Date Received: 10/06/22 16:45

Lab Sample ID: 500-223407-1

Matrix: Solid
Percent Solids: 95.9

Method: SW846 6010D - Metals (ICP) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	**25**	**F1**	0.50	0.23	mg/Kg	☼	10/12/22 17:06	10/15/22 23:05	1
Magnesium	**47000**		10	4.9	mg/Kg	☼	10/12/22 17:06	10/17/22 20:26	1
Manganese	**440**		1.0	0.14	mg/Kg	☼	10/12/22 17:06	10/15/22 23:05	1
Nickel	**23**		1.0	0.29	mg/Kg	☼	10/12/22 17:06	10/15/22 23:05	1
Potassium	**860**		50	18	mg/Kg	☼	10/12/22 17:06	10/15/22 23:05	1
Selenium	<1.0		1.0	0.59	mg/Kg	☼	10/12/22 17:06	10/17/22 20:26	1
Silver	**0.28**	**J**	0.50	0.13	mg/Kg	☼	10/12/22 17:06	10/15/22 23:05	1
Sodium	**430**		100	15	mg/Kg	☼	10/12/22 17:06	10/15/22 23:05	1
Thallium	<1.0		1.0	0.50	mg/Kg	☼	10/12/22 17:06	10/15/22 23:05	1
Vanadium	**11**		0.50	0.12	mg/Kg	☼	10/12/22 17:06	10/15/22 23:05	1
Zinc	**78**	**F1 F2**	2.0	0.88	mg/Kg	☼	10/12/22 17:06	10/15/22 23:05	1
Lithium	**12**		1.0	0.30	mg/Kg	☼	10/12/22 17:06	10/15/22 23:05	1

Method: SW846 6010D - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	<0.20		0.20	0.20	mg/L		10/17/22 07:44	10/17/22 23:24	1
Barium	**0.29**	**J**	0.50	0.050	mg/L		10/17/22 07:44	10/17/22 23:24	1
Cadmium	<0.0050		0.0050	0.0020	mg/L		10/17/22 07:44	10/17/22 23:24	1
Chromium	**0.020**	**J**	0.025	0.010	mg/L		10/17/22 07:44	10/17/22 23:24	1
Lead	<0.050		0.050	0.0075	mg/L		10/17/22 07:44	10/17/22 23:24	1
Selenium	<0.050		0.050	0.020	mg/L		10/17/22 07:44	10/17/22 23:24	1
Silver	<0.025		0.025	0.010	mg/L		10/17/22 07:44	10/17/22 23:24	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	**1.9**	**F1**	0.20	0.20	ug/L		10/17/22 12:00	10/18/22 12:00	1

Method: SW846 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	**49**	**F1 F2**	16	5.4	ug/Kg	☼	10/14/22 15:00	10/17/22 09:05	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total (SW846 9012B)	<0.25	F1	0.25	0.12	mg/Kg	☼	10/12/22 15:00	10/14/22 13:57	1
Sulfide (SW846 9034)	<10	F1	10	4.9	mg/Kg	☼	10/13/22 13:24	10/13/22 16:49	1
pH (SW846 9045D)	**12.2**	**HF**	0.2	0.2	SU			10/10/22 13:40	1

Client Sample Results

Client: Tetra Tech EM Inc.
Project/Site: Morris Lithium Battery Fire

Job ID: 500-223407-1

Client Sample ID: MLBF-C-D7-01-221006

Date Collected: 10/06/22 11:00
Date Received: 10/06/22 16:45

Lab Sample ID: 500-223407-2

Matrix: Solid
Percent Solids: 94.5

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Methylphenol	<100		100	100	ug/L		10/20/22 10:28	10/21/22 13:16	5
3 & 4 Methylphenol	<100		100	100	ug/L		10/20/22 10:28	10/21/22 13:16	5
1,4-Dichlorobenzene	<100		100	100	ug/L		10/20/22 10:28	10/21/22 13:16	5
2,4-Dinitrotoluene	<50		50	50	ug/L		10/20/22 10:28	10/21/22 13:16	5
Hexachlorobenzene	<25		25	25	ug/L		10/20/22 10:28	10/21/22 13:16	5
Hexachlorobutadiene	<250		250	250	ug/L		10/20/22 10:28	10/21/22 13:16	5
Hexachloroethane	<250		250	250	ug/L		10/20/22 10:28	10/21/22 13:16	5
Nitrobenzene	<50		50	50	ug/L		10/20/22 10:28	10/21/22 13:16	5
Pentachlorophenol	<1000		1000	1000	ug/L		10/20/22 10:28	10/21/22 13:16	5
Pyridine	<1000		1000	1000	ug/L		10/20/22 10:28	10/21/22 13:16	5
2,4,5-Trichlorophenol	<500		500	500	ug/L		10/20/22 10:28	10/21/22 13:16	5
2,4,6-Trichlorophenol	<250		250	250	ug/L		10/20/22 10:28	10/21/22 13:16	5

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorophenol (Surr)	*56*		*27 - 110*	*10/20/22 10:28*	*10/21/22 13:16*	*5*
Phenol-d5 (Surr)	*32*		*20 - 100*	*10/20/22 10:28*	*10/21/22 13:16*	*5*
Nitrobenzene-d5 (Surr)	*60*		*36 - 120*	*10/20/22 10:28*	*10/21/22 13:16*	*5*
2-Fluorobiphenyl	*65*		*34 - 110*	*10/20/22 10:28*	*10/21/22 13:16*	*5*
2,4,6-Tribromophenol (Surr)	*82*		*40 - 145*	*10/20/22 10:28*	*10/21/22 13:16*	*5*
Terphenyl-d14	*107*		*40 - 145*	*10/20/22 10:28*	*10/21/22 13:16*	*5*

Method: SW846 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<18		18	6.9	ug/Kg	☼	10/15/22 07:45	10/17/22 23:33	1
PCB-1221	<18		18	6.9	ug/Kg	☼	10/15/22 07:45	10/17/22 23:33	1
PCB-1232	<18		18	4.8	ug/Kg	☼	10/15/22 07:45	10/17/22 23:33	1
PCB-1242	<18		18	6.8	ug/Kg	☼	10/15/22 07:45	10/17/22 23:33	1
PCB-1248	<18		18	8.3	ug/Kg	☼	10/15/22 07:45	10/17/22 23:33	1
PCB-1254	**21**		18	6.0	ug/Kg	☼	10/15/22 07:45	10/17/22 23:33	1
PCB-1260	<18		18	6.6	ug/Kg	☼	10/15/22 07:45	10/17/22 23:33	1
PCB-1262	<18		18	5.8	ug/Kg	☼	10/15/22 07:45	10/17/22 23:33	1
PCB-1268	<18		18	10	ug/Kg	☼	10/15/22 07:45	10/17/22 23:33	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*113*		*49 - 129*	*10/15/22 07:45*	*10/17/22 23:33*	*1*
DCB Decachlorobiphenyl	*116*		*37 - 121*	*10/15/22 07:45*	*10/17/22 23:33*	*1*

Method: SW846 6010D - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	**7200**		20	8.3	mg/Kg	☼	10/12/22 17:06	10/15/22 23:21	1
Antimony	<2.0		2.0	0.40	mg/Kg	☼	10/12/22 17:06	10/15/22 23:21	1
Arsenic	**2.6**		1.0	0.35	mg/Kg	☼	10/12/22 17:06	10/15/22 23:21	1
Barium	**56**		1.0	0.12	mg/Kg	☼	10/12/22 17:06	10/15/22 23:21	1
Beryllium	**0.49**		0.41	0.095	mg/Kg	☼	10/12/22 17:06	10/15/22 23:21	1
Cadmium	**4.7**		0.20	0.037	mg/Kg	☼	10/12/22 17:06	10/15/22 23:21	1
Calcium	**190000**		100	17	mg/Kg	☼	10/12/22 17:06	10/17/22 21:08	5
Chromium	**9.5**		1.0	0.50	mg/Kg	☼	10/12/22 17:06	10/15/22 23:21	1
Cobalt	**4.6**		2.5	0.67	mg/Kg	☼	10/12/22 17:06	10/17/22 21:08	5
Copper	**8.9**		1.0	0.28	mg/Kg	☼	10/12/22 17:06	10/15/22 23:21	1
Iron	**6800**		20	11	mg/Kg	☼	10/12/22 17:06	10/15/22 23:21	1

Client Sample Results

Client: Tetra Tech EM Inc.
Project/Site: Morris Lithium Battery Fire

Job ID: 500-223407-1

Client Sample ID: MLBF-C-D7-01-221006

Date Collected: 10/06/22 11:00
Date Received: 10/06/22 16:45

Lab Sample ID: 500-223407-2

Matrix: Solid
Percent Solids: 94.5

Method: SW846 6010D - Metals (ICP) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	**4.1**		0.51	0.23	mg/Kg	☼	10/12/22 17:06	10/15/22 23:21	1
Magnesium	**44000**		10	5.0	mg/Kg	☼	10/12/22 17:06	10/17/22 21:05	1
Manganese	**480**		1.0	0.15	mg/Kg	☼	10/12/22 17:06	10/15/22 23:21	1
Nickel	**12**		1.0	0.30	mg/Kg	☼	10/12/22 17:06	10/15/22 23:21	1
Potassium	**960**		51	18	mg/Kg	☼	10/12/22 17:06	10/15/22 23:21	1
Selenium	<1.0		1.0	0.60	mg/Kg	☼	10/12/22 17:06	10/17/22 21:05	1
Silver	**0.15**	**J**	0.51	0.13	mg/Kg	☼	10/12/22 17:06	10/15/22 23:21	1
Sodium	**450**		100	15	mg/Kg	☼	10/12/22 17:06	10/15/22 23:21	1
Thallium	<1.0		1.0	0.51	mg/Kg	☼	10/12/22 17:06	10/15/22 23:21	1
Vanadium	**12**		0.51	0.12	mg/Kg	☼	10/12/22 17:06	10/15/22 23:21	1
Zinc	**40**		2.0	0.89	mg/Kg	☼	10/12/22 17:06	10/15/22 23:21	1
Lithium	**10**		1.0	0.30	mg/Kg	☼	10/12/22 17:06	10/15/22 23:21	1

Method: SW846 6010D - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	<0.20		0.20	0.20	mg/L		10/17/22 07:44	10/17/22 23:40	1
Barium	**0.35**	**J**	0.50	0.050	mg/L		10/17/22 07:44	10/17/22 23:40	1
Cadmium	<0.0050		0.0050	0.0020	mg/L		10/17/22 07:44	10/17/22 23:40	1
Chromium	**0.018**	**J**	0.025	0.010	mg/L		10/17/22 07:44	10/17/22 23:40	1
Lead	<0.050		0.050	0.0075	mg/L		10/17/22 07:44	10/17/22 23:40	1
Selenium	<0.050		0.050	0.020	mg/L		10/17/22 07:44	10/17/22 23:40	1
Silver	<0.025		0.025	0.010	mg/L		10/17/22 07:44	10/17/22 23:40	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.20		0.20	0.20	ug/L		10/17/22 12:00	10/18/22 10:10	1

Method: SW846 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	**48**		17	5.5	ug/Kg	☼	10/14/22 15:00	10/17/22 09:13	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total (SW846 9012B)	<0.22		0.22	0.11	mg/Kg	☼	10/12/22 15:00	10/14/22 14:12	1
Sulfide (SW846 9034)	<10		10	4.8	mg/Kg	☼	10/13/22 13:27	10/14/22 12:37	1
pH (SW846 9045D)	**12.2**	**HF**	0.2	0.2	SU			10/10/22 13:45	1

Client Sample Results

Client: Tetra Tech EM Inc.
Project/Site: Morris Lithium Battery Fire

Job ID: 500-223407-1

Client Sample ID: MLBF-C-B1C1-01-221006

Date Collected: 10/06/22 11:20
Date Received: 10/06/22 16:45

Lab Sample ID: 500-223407-3

Matrix: Solid
Percent Solids: 94.8

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Methylphenol	<100		100	100	ug/L		10/20/22 10:28	10/21/22 13:40	5
3 & 4 Methylphenol	<100		100	100	ug/L		10/20/22 10:28	10/21/22 13:40	5
1,4-Dichlorobenzene	<100		100	100	ug/L		10/20/22 10:28	10/21/22 13:40	5
2,4-Dinitrotoluene	<50		50	50	ug/L		10/20/22 10:28	10/21/22 13:40	5
Hexachlorobenzene	<25		25	25	ug/L		10/20/22 10:28	10/21/22 13:40	5
Hexachlorobutadiene	<250		250	250	ug/L		10/20/22 10:28	10/21/22 13:40	5
Hexachloroethane	<250		250	250	ug/L		10/20/22 10:28	10/21/22 13:40	5
Nitrobenzene	<50		50	50	ug/L		10/20/22 10:28	10/21/22 13:40	5
Pentachlorophenol	<1000		1000	1000	ug/L		10/20/22 10:28	10/21/22 13:40	5
Pyridine	<1000		1000	1000	ug/L		10/20/22 10:28	10/21/22 13:40	5
2,4,5-Trichlorophenol	<500		500	500	ug/L		10/20/22 10:28	10/21/22 13:40	5
2,4,6-Trichlorophenol	<250		250	250	ug/L		10/20/22 10:28	10/21/22 13:40	5

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorophenol (Surr)	*61*		*27 - 110*	*10/20/22 10:28*	*10/21/22 13:40*	*5*
Phenol-d5 (Surr)	*34*		*20 - 100*	*10/20/22 10:28*	*10/21/22 13:40*	*5*
Nitrobenzene-d5 (Surr)	*63*		*36 - 120*	*10/20/22 10:28*	*10/21/22 13:40*	*5*
2-Fluorobiphenyl	*59*		*34 - 110*	*10/20/22 10:28*	*10/21/22 13:40*	*5*
2,4,6-Tribromophenol (Surr)	*125*		*40 - 145*	*10/20/22 10:28*	*10/21/22 13:40*	*5*
Terphenyl-d14	*112*		*40 - 145*	*10/20/22 10:28*	*10/21/22 13:40*	*5*

Method: SW846 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<17		17	6.7	ug/Kg	☼	10/15/22 07:45	10/17/22 23:48	1
PCB-1221	<17		17	6.7	ug/Kg	☼	10/15/22 07:45	10/17/22 23:48	1
PCB-1232	<17		17	4.6	ug/Kg	☼	10/15/22 07:45	10/17/22 23:48	1
PCB-1242	<17		17	6.6	ug/Kg	☼	10/15/22 07:45	10/17/22 23:48	1
PCB-1248	<17		17	8.1	ug/Kg	☼	10/15/22 07:45	10/17/22 23:48	1
PCB-1254	**24**		17	5.8	ug/Kg	☼	10/15/22 07:45	10/17/22 23:48	1
PCB-1260	<17		17	6.4	ug/Kg	☼	10/15/22 07:45	10/17/22 23:48	1
PCB-1262	<17		17	5.6	ug/Kg	☼	10/15/22 07:45	10/17/22 23:48	1
PCB-1268	<17		17	9.9	ug/Kg	☼	10/15/22 07:45	10/17/22 23:48	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*113*		*49 - 129*	*10/15/22 07:45*	*10/17/22 23:48*	*1*
DCB Decachlorobiphenyl	*103*		*37 - 121*	*10/15/22 07:45*	*10/17/22 23:48*	*1*

Method: SW846 6010D - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	**6500**		20	8.0	mg/Kg	☼	10/12/22 17:06	10/15/22 23:24	1
Antimony	<2.0		2.0	0.38	mg/Kg	☼	10/12/22 17:06	10/15/22 23:24	1
Arsenic	**2.3**		0.98	0.33	mg/Kg	☼	10/12/22 17:06	10/15/22 23:24	1
Barium	**51**		0.98	0.11	mg/Kg	☼	10/12/22 17:06	10/15/22 23:24	1
Beryllium	**0.47**		0.39	0.091	mg/Kg	☼	10/12/22 17:06	10/15/22 23:24	1
Cadmium	**0.20**		0.20	0.035	mg/Kg	☼	10/12/22 17:06	10/15/22 23:24	1
Calcium	**180000**		98	17	mg/Kg	☼	10/12/22 17:06	10/17/22 21:18	5
Chromium	**9.2**		0.98	0.48	mg/Kg	☼	10/12/22 17:06	10/15/22 23:24	1
Cobalt	**2.6**		0.98	0.26	mg/Kg	☼	10/12/22 17:06	10/17/22 21:15	2
Copper	**210**		2.0	0.55	mg/Kg	☼	10/12/22 17:06	10/17/22 21:15	2
Iron	**6700**		20	10	mg/Kg	☼	10/12/22 17:06	10/15/22 23:24	1

Client Sample Results

Client: Tetra Tech EM Inc.
Project/Site: Morris Lithium Battery Fire

Job ID: 500-223407-1

Client Sample ID: MLBF-C-B1C1-01-221006

Date Collected: 10/06/22 11:20
Date Received: 10/06/22 16:45

Lab Sample ID: 500-223407-3

Matrix: Solid
Percent Solids: 94.8

Method: SW846 6010D - Metals (ICP) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	**3.4**		0.49	0.23	mg/Kg	☼	10/12/22 17:06	10/15/22 23:24	1
Magnesium	**48000**		9.8	4.9	mg/Kg	☼	10/12/22 17:06	10/17/22 21:12	1
Manganese	**490**		0.98	0.14	mg/Kg	☼	10/12/22 17:06	10/15/22 23:24	1
Nickel	**9.2**		0.98	0.28	mg/Kg	☼	10/12/22 17:06	10/15/22 23:24	1
Potassium	**770**		49	17	mg/Kg	☼	10/12/22 17:06	10/15/22 23:24	1
Selenium	<0.98		0.98	0.58	mg/Kg	☼	10/12/22 17:06	10/17/22 21:12	1
Silver	<0.49		0.49	0.13	mg/Kg	☼	10/12/22 17:06	10/15/22 23:24	1
Sodium	**460**		98	14	mg/Kg	☼	10/12/22 17:06	10/15/22 23:24	1
Thallium	<0.98		0.98	0.49	mg/Kg	☼	10/12/22 17:06	10/15/22 23:24	1
Vanadium	**11**		0.49	0.12	mg/Kg	☼	10/12/22 17:06	10/15/22 23:24	1
Zinc	**35**		2.0	0.86	mg/Kg	☼	10/12/22 17:06	10/15/22 23:24	1
Lithium	**6.7**		0.98	0.29	mg/Kg	☼	10/12/22 17:06	10/15/22 23:24	1

Method: SW846 6010D - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	<0.20		0.20	0.20	mg/L		10/17/22 07:44	10/17/22 23:44	1
Barium	**0.34**	**J**	0.50	0.050	mg/L		10/17/22 07:44	10/17/22 23:44	1
Cadmium	<0.0050		0.0050	0.0020	mg/L		10/17/22 07:44	10/17/22 23:44	1
Chromium	**0.011**	**J**	0.025	0.010	mg/L		10/17/22 07:44	10/17/22 23:44	1
Lead	<0.050		0.050	0.0075	mg/L		10/17/22 07:44	10/17/22 23:44	1
Selenium	<0.050		0.050	0.020	mg/L		10/17/22 07:44	10/17/22 23:44	1
Silver	<0.025		0.025	0.010	mg/L		10/17/22 07:44	10/17/22 23:44	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.20		0.20	0.20	ug/L		10/17/22 12:00	10/18/22 10:12	1

Method: SW846 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	**50**		17	5.6	ug/Kg	☼	10/14/22 15:00	10/17/22 09:15	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total (SW846 9012B)	<0.25		0.25	0.12	mg/Kg	☼	10/12/22 15:00	10/14/22 14:14	1
Sulfide (SW846 9034)	<10		10	4.8	mg/Kg	☼	10/13/22 13:28	10/14/22 12:37	1
pH (SW846 9045D)	**12.2**	**HF**	0.2	0.2	SU			10/10/22 13:54	1

Client Sample Results

Client: Tetra Tech EM Inc.
Project/Site: Morris Lithium Battery Fire

Job ID: 500-223407-1

Client Sample ID: MLBF-C-C2D2-01-221006

Date Collected: 10/06/22 11:58
Date Received: 10/06/22 16:45

Lab Sample ID: 500-223407-4

Matrix: Solid
Percent Solids: 94.9

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Methylphenol	<100		100	100	ug/L		10/20/22 10:28	10/21/22 14:03	5
3 & 4 Methylphenol	<100		100	100	ug/L		10/20/22 10:28	10/21/22 14:03	5
1,4-Dichlorobenzene	<100		100	100	ug/L		10/20/22 10:28	10/21/22 14:03	5
2,4-Dinitrotoluene	<50		50	50	ug/L		10/20/22 10:28	10/21/22 14:03	5
Hexachlorobenzene	<25		25	25	ug/L		10/20/22 10:28	10/21/22 14:03	5
Hexachlorobutadiene	<250		250	250	ug/L		10/20/22 10:28	10/21/22 14:03	5
Hexachloroethane	<250		250	250	ug/L		10/20/22 10:28	10/21/22 14:03	5
Nitrobenzene	<50		50	50	ug/L		10/20/22 10:28	10/21/22 14:03	5
Pentachlorophenol	<1000		1000	1000	ug/L		10/20/22 10:28	10/21/22 14:03	5
Pyridine	<1000		1000	1000	ug/L		10/20/22 10:28	10/21/22 14:03	5
2,4,5-Trichlorophenol	<500		500	500	ug/L		10/20/22 10:28	10/21/22 14:03	5
2,4,6-Trichlorophenol	<250		250	250	ug/L		10/20/22 10:28	10/21/22 14:03	5

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorophenol (Surr)	*57*		*27 - 110*	*10/20/22 10:28*	*10/21/22 14:03*	*5*
Phenol-d5 (Surr)	*37*		*20 - 100*	*10/20/22 10:28*	*10/21/22 14:03*	*5*
Nitrobenzene-d5 (Surr)	*67*		*36 - 120*	*10/20/22 10:28*	*10/21/22 14:03*	*5*
2-Fluorobiphenyl	*65*		*34 - 110*	*10/20/22 10:28*	*10/21/22 14:03*	*5*
2,4,6-Tribromophenol (Surr)	*129*		*40 - 145*	*10/20/22 10:28*	*10/21/22 14:03*	*5*
Terphenyl-d14	*111*		*40 - 145*	*10/20/22 10:28*	*10/21/22 14:03*	*5*

Method: SW846 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<18		18	6.9	ug/Kg	☼	10/15/22 07:45	10/18/22 00:02	1
PCB-1221	<18		18	6.9	ug/Kg	☼	10/15/22 07:45	10/18/22 00:02	1
PCB-1232	<18		18	4.7	ug/Kg	☼	10/15/22 07:45	10/18/22 00:02	1
PCB-1242	<18		18	6.8	ug/Kg	☼	10/15/22 07:45	10/18/22 00:02	1
PCB-1248	<18		18	8.3	ug/Kg	☼	10/15/22 07:45	10/18/22 00:02	1
PCB-1254	**17**	**J**	18	5.9	ug/Kg	☼	10/15/22 07:45	10/18/22 00:02	1
PCB-1260	<18		18	6.6	ug/Kg	☼	10/15/22 07:45	10/18/22 00:02	1
PCB-1262	<18		18	5.7	ug/Kg	☼	10/15/22 07:45	10/18/22 00:02	1
PCB-1268	<18		18	10	ug/Kg	☼	10/15/22 07:45	10/18/22 00:02	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*78*		*49 - 129*	*10/15/22 07:45*	*10/18/22 00:02*	*1*
DCB Decachlorobiphenyl	*82*		*37 - 121*	*10/15/22 07:45*	*10/18/22 00:02*	*1*

Method: SW846 6010D - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	**6500**		20	8.3	mg/Kg	☼	10/12/22 17:06	10/15/22 23:28	1
Antimony	<2.0		2.0	0.40	mg/Kg	☼	10/12/22 17:06	10/15/22 23:28	1
Arsenic	**2.0**		1.0	0.35	mg/Kg	☼	10/12/22 17:06	10/15/22 23:28	1
Barium	**47**		1.0	0.12	mg/Kg	☼	10/12/22 17:06	10/15/22 23:28	1
Beryllium	**0.49**		0.41	0.095	mg/Kg	☼	10/12/22 17:06	10/15/22 23:28	1
Cadmium	**0.47**		0.20	0.037	mg/Kg	☼	10/12/22 17:06	10/15/22 23:28	1
Calcium	**180000**		100	17	mg/Kg	☼	10/12/22 17:06	10/17/22 21:31	5
Chromium	**10**		1.0	0.50	mg/Kg	☼	10/12/22 17:06	10/15/22 23:28	1
Cobalt	**4.6**		2.5	0.67	mg/Kg	☼	10/12/22 17:06	10/17/22 21:31	5
Copper	**290**		5.1	1.4	mg/Kg	☼	10/12/22 17:06	10/17/22 21:31	5
Iron	**6900**		20	11	mg/Kg	☼	10/12/22 17:06	10/15/22 23:28	1

Client Sample Results

Client: Tetra Tech EM Inc.
Project/Site: Morris Lithium Battery Fire

Job ID: 500-223407-1

Client Sample ID: MLBF-C-C2D2-01-221006

Date Collected: 10/06/22 11:58
Date Received: 10/06/22 16:45

Lab Sample ID: 500-223407-4

Matrix: Solid
Percent Solids: 94.9

Method: SW846 6010D - Metals (ICP) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	**13**		0.51	0.24	mg/Kg	☼	10/12/22 17:06	10/15/22 23:28	1
Magnesium	**45000**		10	5.0	mg/Kg	☼	10/12/22 17:06	10/17/22 21:28	1
Manganese	**500**		1.0	0.15	mg/Kg	☼	10/12/22 17:06	10/15/22 23:28	1
Nickel	**16**		1.0	0.30	mg/Kg	☼	10/12/22 17:06	10/15/22 23:28	1
Potassium	**800**		51	18	mg/Kg	☼	10/12/22 17:06	10/15/22 23:28	1
Selenium	<1.0		1.0	0.60	mg/Kg	☼	10/12/22 17:06	10/17/22 21:28	1
Silver	**0.17**	**J**	0.51	0.13	mg/Kg	☼	10/12/22 17:06	10/15/22 23:28	1
Sodium	**430**		100	15	mg/Kg	☼	10/12/22 17:06	10/15/22 23:28	1
Thallium	<1.0		1.0	0.51	mg/Kg	☼	10/12/22 17:06	10/15/22 23:28	1
Vanadium	**11**		0.51	0.12	mg/Kg	☼	10/12/22 17:06	10/15/22 23:28	1
Zinc	**64**		2.0	0.89	mg/Kg	☼	10/12/22 17:06	10/15/22 23:28	1
Lithium	**8.9**		1.0	0.30	mg/Kg	☼	10/12/22 17:06	10/15/22 23:28	1

Method: SW846 6010D - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	<0.20		0.20	0.20	mg/L		10/17/22 07:44	10/17/22 23:47	1
Barium	**0.29**	**J**	0.50	0.050	mg/L		10/17/22 07:44	10/17/22 23:47	1
Cadmium	<0.0050		0.0050	0.0020	mg/L		10/17/22 07:44	10/17/22 23:47	1
Chromium	**0.020**	**J**	0.025	0.010	mg/L		10/17/22 07:44	10/17/22 23:47	1
Lead	<0.050		0.050	0.0075	mg/L		10/17/22 07:44	10/17/22 23:47	1
Selenium	<0.050		0.050	0.020	mg/L		10/17/22 07:44	10/17/22 23:47	1
Silver	<0.025		0.025	0.010	mg/L		10/17/22 07:44	10/17/22 23:47	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.20		0.20	0.20	ug/L		10/17/22 12:00	10/18/22 10:15	1

Method: SW846 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	**48**		17	5.5	ug/Kg	☼	10/14/22 15:00	10/17/22 09:21	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total (SW846 9012B)	<0.23		0.23	0.11	mg/Kg	☼	10/12/22 15:00	10/14/22 14:18	1
Sulfide (SW846 9034)	<10		10	4.9	mg/Kg	☼	10/13/22 13:29	10/14/22 12:37	1
pH (SW846 9045D)	**12.3**	**HF**	0.2	0.2	SU			10/10/22 13:59	1

Client Sample Results

Client: Tetra Tech EM Inc.
Project/Site: Morris Lithium Battery Fire

Job ID: 500-223407-1

Client Sample ID: MLBF-C-C2D2-02-221006-DUP

Date Collected: 10/06/22 12:15
Date Received: 10/06/22 16:45

Lab Sample ID: 500-223407-5

Matrix: Solid
Percent Solids: 94.7

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Methylphenol	<100		100	100	ug/L		10/20/22 10:28	10/21/22 14:27	5
3 & 4 Methylphenol	<100		100	100	ug/L		10/20/22 10:28	10/21/22 14:27	5
1,4-Dichlorobenzene	<100		100	100	ug/L		10/20/22 10:28	10/21/22 14:27	5
2,4-Dinitrotoluene	<50		50	50	ug/L		10/20/22 10:28	10/21/22 14:27	5
Hexachlorobenzene	<25		25	25	ug/L		10/20/22 10:28	10/21/22 14:27	5
Hexachlorobutadiene	<250		250	250	ug/L		10/20/22 10:28	10/21/22 14:27	5
Hexachloroethane	<250		250	250	ug/L		10/20/22 10:28	10/21/22 14:27	5
Nitrobenzene	<50		50	50	ug/L		10/20/22 10:28	10/21/22 14:27	5
Pentachlorophenol	<1000		1000	1000	ug/L		10/20/22 10:28	10/21/22 14:27	5
Pyridine	<1000		1000	1000	ug/L		10/20/22 10:28	10/21/22 14:27	5
2,4,5-Trichlorophenol	<500		500	500	ug/L		10/20/22 10:28	10/21/22 14:27	5
2,4,6-Trichlorophenol	<250		250	250	ug/L		10/20/22 10:28	10/21/22 14:27	5

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorophenol (Surr)	*60*		*27 - 110*	*10/20/22 10:28*	*10/21/22 14:27*	*5*
Phenol-d5 (Surr)	*34*		*20 - 100*	*10/20/22 10:28*	*10/21/22 14:27*	*5*
Nitrobenzene-d5 (Surr)	*64*		*36 - 120*	*10/20/22 10:28*	*10/21/22 14:27*	*5*
2-Fluorobiphenyl	*66*		*34 - 110*	*10/20/22 10:28*	*10/21/22 14:27*	*5*
2,4,6-Tribromophenol (Surr)	*80*		*40 - 145*	*10/20/22 10:28*	*10/21/22 14:27*	*5*
Terphenyl-d14	*87*		*40 - 145*	*10/20/22 10:28*	*10/21/22 14:27*	*5*

Method: SW846 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<18		18	6.9	ug/Kg	☼	10/15/22 07:45	10/18/22 00:17	1
PCB-1221	<18		18	6.9	ug/Kg	☼	10/15/22 07:45	10/18/22 00:17	1
PCB-1232	<18		18	4.8	ug/Kg	☼	10/15/22 07:45	10/18/22 00:17	1
PCB-1242	<18		18	6.9	ug/Kg	☼	10/15/22 07:45	10/18/22 00:17	1
PCB-1248	<18		18	8.4	ug/Kg	☼	10/15/22 07:45	10/18/22 00:17	1
PCB-1254	**18**		18	6.0	ug/Kg	☼	10/15/22 07:45	10/18/22 00:17	1
PCB-1260	<18		18	6.6	ug/Kg	☼	10/15/22 07:45	10/18/22 00:17	1
PCB-1262	<18		18	5.8	ug/Kg	☼	10/15/22 07:45	10/18/22 00:17	1
PCB-1268	<18		18	10	ug/Kg	☼	10/15/22 07:45	10/18/22 00:17	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*77*		*49 - 129*	*10/15/22 07:45*	*10/18/22 00:17*	*1*
DCB Decachlorobiphenyl	*82*		*37 - 121*	*10/15/22 07:45*	*10/18/22 00:17*	*1*

Method: SW846 6010D - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	**6600**		21	8.5	mg/Kg	☼	10/12/22 17:06	10/15/22 23:37	1
Antimony	<2.1		2.1	0.40	mg/Kg	☼	10/12/22 17:06	10/15/22 23:37	1
Arsenic	**2.0**		1.0	0.35	mg/Kg	☼	10/12/22 17:06	10/15/22 23:37	1
Barium	**48**		1.0	0.12	mg/Kg	☼	10/12/22 17:06	10/15/22 23:37	1
Beryllium	**0.44**		0.41	0.097	mg/Kg	☼	10/12/22 17:06	10/15/22 23:37	1
Cadmium	**0.46**		0.21	0.037	mg/Kg	☼	10/12/22 17:06	10/15/22 23:37	1
Calcium	**180000**		100	18	mg/Kg	☼	10/12/22 17:06	10/17/22 21:38	5
Chromium	**10**		1.0	0.51	mg/Kg	☼	10/12/22 17:06	10/15/22 23:37	1
Cobalt	**4.5**		2.6	0.68	mg/Kg	☼	10/12/22 17:06	10/17/22 21:38	5
Copper	**260**		5.2	1.5	mg/Kg	☼	10/12/22 17:06	10/17/22 21:38	5
Iron	**7000**		21	11	mg/Kg	☼	10/12/22 17:06	10/15/22 23:37	1

Client Sample Results

Client: Tetra Tech EM Inc.
Project/Site: Morris Lithium Battery Fire

Job ID: 500-223407-1

Client Sample ID: MLBF-C-C2D2-02-221006-DUP

Lab Sample ID: 500-223407-5

Date Collected: 10/06/22 12:15
Date Received: 10/06/22 16:45

Matrix: Solid
Percent Solids: 94.7

Method: SW846 6010D - Metals (ICP) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	**9.0**		0.52	0.24	mg/Kg	☼	10/12/22 17:06	10/15/22 23:37	1
Magnesium	**44000**		10	5.1	mg/Kg	☼	10/12/22 17:06	10/17/22 21:35	1
Manganese	**520**		1.0	0.15	mg/Kg	☼	10/12/22 17:06	10/15/22 23:37	1
Nickel	**16**		1.0	0.30	mg/Kg	☼	10/12/22 17:06	10/15/22 23:37	1
Potassium	**780**		52	18	mg/Kg	☼	10/12/22 17:06	10/15/22 23:37	1
Selenium	<1.0		1.0	0.61	mg/Kg	☼	10/12/22 17:06	10/17/22 21:35	1
Silver	**0.21**	**J**	0.52	0.13	mg/Kg	☼	10/12/22 17:06	10/15/22 23:37	1
Sodium	**430**		100	15	mg/Kg	☼	10/12/22 17:06	10/15/22 23:37	1
Thallium	<1.0		1.0	0.52	mg/Kg	☼	10/12/22 17:06	10/15/22 23:37	1
Vanadium	**11**		0.52	0.12	mg/Kg	☼	10/12/22 17:06	10/15/22 23:37	1
Zinc	**63**		2.1	0.91	mg/Kg	☼	10/12/22 17:06	10/15/22 23:37	1
Lithium	**8.3**		1.0	0.31	mg/Kg	☼	10/12/22 17:06	10/15/22 23:37	1

Method: SW846 6010D - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	<0.20		0.20	0.20	mg/L		10/17/22 07:44	10/17/22 23:51	1
Barium	**0.32**	**J**	0.50	0.050	mg/L		10/17/22 07:44	10/17/22 23:51	1
Cadmium	<0.0050		0.0050	0.0020	mg/L		10/17/22 07:44	10/17/22 23:51	1
Chromium	**0.020**	**J**	0.025	0.010	mg/L		10/17/22 07:44	10/17/22 23:51	1
Lead	<0.050		0.050	0.0075	mg/L		10/17/22 07:44	10/17/22 23:51	1
Selenium	<0.050		0.050	0.020	mg/L		10/17/22 07:44	10/17/22 23:51	1
Silver	<0.025		0.025	0.010	mg/L		10/17/22 07:44	10/17/22 23:51	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.20		0.20	0.20	ug/L		10/17/22 12:00	10/18/22 10:17	1

Method: SW846 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	**7.0**	**J**	16	5.3	ug/Kg	☼	10/14/22 15:00	10/17/22 09:23	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total (SW846 9012B)	<0.24		0.24	0.12	mg/Kg	☼	10/12/22 15:00	10/14/22 14:20	1
Sulfide (SW846 9034)	<10		10	4.9	mg/Kg	☼	10/13/22 13:30	10/14/22 12:37	1
pH (SW846 9045D)	**12.3**	**HF**	0.2	0.2	SU			10/10/22 14:03	1

Client Sample Results

Client: Tetra Tech EM Inc.
Project/Site: Morris Lithium Battery Fire

Job ID: 500-223407-1

Client Sample ID: MLBF-RINSATE-221006

Lab Sample ID: 500-223407-6

Date Collected: 10/06/22 12:30
Matrix: Water
Date Received: 10/06/22 16:45

Method: SW846 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.38		0.38	0.064	ug/L		10/11/22 07:41	10/11/22 18:15	1
PCB-1221	<0.38		0.38	0.19	ug/L		10/11/22 07:41	10/11/22 18:15	1
PCB-1232	<0.38		0.38	0.19	ug/L		10/11/22 07:41	10/11/22 18:15	1
PCB-1242	<0.38		0.38	0.19	ug/L		10/11/22 07:41	10/11/22 18:15	1
PCB-1248	<0.38		0.38	0.19	ug/L		10/11/22 07:41	10/11/22 18:15	1
PCB-1254	<0.38		0.38	0.19	ug/L		10/11/22 07:41	10/11/22 18:15	1
PCB-1260	<0.38		0.38	0.067	ug/L		10/11/22 07:41	10/11/22 18:15	1
PCB-1262	<0.38		0.38	0.19	ug/L		10/11/22 07:41	10/11/22 18:15	1
PCB-1268	<0.38		0.38	0.19	ug/L		10/11/22 07:41	10/11/22 18:15	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*63*		*30 - 120*	*10/11/22 07:41*	*10/11/22 18:15*	*1*
DCB Decachlorobiphenyl	*18*	*S1-*	*30 - 140*	*10/11/22 07:41*	*10/11/22 18:15*	*1*

Method: SW846 6020A - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	<0.10		0.10	0.025	mg/L		10/13/22 09:28	10/14/22 02:39	1
Antimony	<0.0030		0.0030	0.0013	mg/L		10/13/22 09:28	10/14/22 02:39	1
Arsenic	<0.0010		0.0010	0.00023	mg/L		10/13/22 09:28	10/14/22 02:39	1
Barium	<0.0025		0.0025	0.00073	mg/L		10/13/22 09:28	10/14/22 02:39	1
Beryllium	<0.0010		0.0010	0.00053	mg/L		10/13/22 09:28	10/14/22 02:39	1
Cadmium	<0.00050		0.00050	0.00017	mg/L		10/13/22 09:28	10/14/22 02:39	1
Calcium	**0.41**		0.20	0.044	mg/L		10/13/22 09:28	10/14/22 02:39	1
Chromium	<0.0050		0.0050	0.0011	mg/L		10/13/22 09:28	10/14/22 02:39	1
Cobalt	<0.0010		0.0010	0.00040	mg/L		10/13/22 09:28	10/14/22 02:39	1
Copper	**0.0034**		0.0020	0.00050	mg/L		10/13/22 09:28	10/14/22 02:39	1
Iron	**0.053**	**J**	0.10	0.047	mg/L		10/13/22 09:28	10/14/22 02:39	1
Lead	**0.00066**		0.00050	0.00019	mg/L		10/13/22 09:28	10/14/22 02:39	1
Lithium	<0.010		0.010	0.0025	mg/L		10/13/22 09:28	10/14/22 02:39	1
Magnesium	**0.091**	**J**	0.20	0.049	mg/L		10/13/22 09:28	10/14/22 02:39	1
Manganese	**0.0011**	**J**	0.0025	0.00079	mg/L		10/13/22 09:28	10/14/22 02:39	1
Nickel	<0.0020		0.0020	0.00063	mg/L		10/13/22 09:28	10/14/22 02:39	1
Potassium	<0.50		0.50	0.11	mg/L		10/13/22 09:28	10/14/22 02:39	1
Selenium	<0.0025		0.0025	0.00098	mg/L		10/13/22 09:28	10/14/22 02:39	1
Silver	<0.00050		0.00050	0.00012	mg/L		10/13/22 09:28	10/14/22 02:39	1
Sodium	**0.82**		0.20	0.077	mg/L		10/13/22 09:28	10/14/22 02:39	1
Thallium	<0.0020		0.0020	0.00057	mg/L		10/13/22 09:28	10/14/22 02:39	1
Vanadium	<0.0050		0.0050	0.0022	mg/L		10/13/22 09:28	10/14/22 02:39	1
Zinc	<0.020		0.020	0.0069	mg/L		10/13/22 09:28	10/14/22 02:39	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.20		0.20	0.098	ug/L		10/13/22 12:10	10/14/22 09:26	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfide (SW846 9034)	<1.0		1.0	0.23	mg/L			10/11/22 15:16	1
pH (SW846 9040C)	**9.9**	**HF**	0.2	0.2	SU			10/20/22 15:11	1

Qualifiers

GC/MS Semi VOA

Qualifier	Qualifier Description
S1+	Surrogate recovery exceeds control limits, high biased.

GC Semi VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
S1-	Surrogate recovery exceeds control limits, low biased.
S1+	Surrogate recovery exceeds control limits, high biased.

Metals

Qualifier	Qualifier Description
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.
B	Compound was found in the blank and sample.
F1	MS and/or MSD recovery exceeds control limits.
F2	MS/MSD RPD exceeds control limits
F3	Duplicate RPD exceeds the control limit
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

General Chemistry

Qualifier	Qualifier Description
F1	MS and/or MSD recovery exceeds control limits.
HF	Field parameter with a holding time of 15 minutes. Test performed by laboratory at client's request.

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)

Glossary (Continued)

Abbreviation	These commonly used abbreviations may or may not be present in this report.
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

QC Association Summary

Client: Tetra Tech EM Inc.
Project/Site: Morris Lithium Battery Fire

Job ID: 500-223407-1

GC/MS Semi VOA

Leach Batch: 679726

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-223407-1	MLBF-C-E4-01-221006	TCLP	Solid	1311	
500-223407-2	MLBF-C-D7-01-221006	TCLP	Solid	1311	
500-223407-3	MLBF-C-B1C1-01-221006	TCLP	Solid	1311	
500-223407-4	MLBF-C-C2D2-01-221006	TCLP	Solid	1311	
500-223407-5	MLBF-C-C2D2-02-221006-DUP	TCLP	Solid	1311	
LB2 500-679726/1-C	Method Blank	TCLP	Solid	1311	
500-223407-1 MS	MLBF-C-E4-01-221006	TCLP	Solid	1311	
500-223407-1 MSD	MLBF-C-E4-01-221006	TCLP	Solid	1311	

Prep Batch: 680601

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-223407-1	MLBF-C-E4-01-221006	TCLP	Solid	3510C	679726
500-223407-2	MLBF-C-D7-01-221006	TCLP	Solid	3510C	679726
500-223407-3	MLBF-C-B1C1-01-221006	TCLP	Solid	3510C	679726
500-223407-4	MLBF-C-C2D2-01-221006	TCLP	Solid	3510C	679726
500-223407-5	MLBF-C-C2D2-02-221006-DUP	TCLP	Solid	3510C	679726
LB2 500-679726/1-C	Method Blank	TCLP	Solid	3510C	679726
MB 500-680601/1-A	Method Blank	Total/NA	Solid	3510C	
LCS 500-680601/2-A	Lab Control Sample	Total/NA	Solid	3510C	
500-223407-1 MS	MLBF-C-E4-01-221006	TCLP	Solid	3510C	679726
500-223407-1 MSD	MLBF-C-E4-01-221006	TCLP	Solid	3510C	679726

Analysis Batch: 680766

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-223407-1	MLBF-C-E4-01-221006	TCLP	Solid	8270D	680601
500-223407-2	MLBF-C-D7-01-221006	TCLP	Solid	8270D	680601
500-223407-3	MLBF-C-B1C1-01-221006	TCLP	Solid	8270D	680601
500-223407-4	MLBF-C-C2D2-01-221006	TCLP	Solid	8270D	680601
500-223407-5	MLBF-C-C2D2-02-221006-DUP	TCLP	Solid	8270D	680601
LB2 500-679726/1-C	Method Blank	TCLP	Solid	8270D	680601
MB 500-680601/1-A	Method Blank	Total/NA	Solid	8270D	680601
LCS 500-680601/2-A	Lab Control Sample	Total/NA	Solid	8270D	680601
500-223407-1 MS	MLBF-C-E4-01-221006	TCLP	Solid	8270D	680601
500-223407-1 MSD	MLBF-C-E4-01-221006	TCLP	Solid	8270D	680601

GC Semi VOA

Prep Batch: 678933

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-223407-6	MLBF-RINSATE-221006	Total/NA	Water	3510C	
MB 500-678933/1-A	Method Blank	Total/NA	Water	3510C	
LCS 500-678933/4-A	Lab Control Sample	Total/NA	Water	3510C	
LCSD 500-678933/5-A	Lab Control Sample Dup	Total/NA	Water	3510C	

Analysis Batch: 679122

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-223407-6	MLBF-RINSATE-221006	Total/NA	Water	8082A	678933
MB 500-678933/1-A	Method Blank	Total/NA	Water	8082A	678933
LCS 500-678933/4-A	Lab Control Sample	Total/NA	Water	8082A	678933
LCSD 500-678933/5-A	Lab Control Sample Dup	Total/NA	Water	8082A	678933

QC Association Summary

Client: Tetra Tech EM Inc.
Project/Site: Morris Lithium Battery Fire

Job ID: 500-223407-1

GC Semi VOA

Prep Batch: 679758

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-223407-1	MLBF-C-E4-01-221006	Total/NA	Solid	3541	
500-223407-2	MLBF-C-D7-01-221006	Total/NA	Solid	3541	
500-223407-3	MLBF-C-B1C1-01-221006	Total/NA	Solid	3541	
500-223407-4	MLBF-C-C2D2-01-221006	Total/NA	Solid	3541	
500-223407-5	MLBF-C-C2D2-02-221006-DUP	Total/NA	Solid	3541	
MB 500-679758/1-A	Method Blank	Total/NA	Solid	3541	
LCS 500-679758/2-A	Lab Control Sample	Total/NA	Solid	3541	
500-223407-1 MS	MLBF-C-E4-01-221006	Total/NA	Solid	3541	
500-223407-1 MSD	MLBF-C-E4-01-221006	Total/NA	Solid	3541	

Analysis Batch: 680001

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-223407-1	MLBF-C-E4-01-221006	Total/NA	Solid	8082A	679758
500-223407-2	MLBF-C-D7-01-221006	Total/NA	Solid	8082A	679758
500-223407-3	MLBF-C-B1C1-01-221006	Total/NA	Solid	8082A	679758
500-223407-4	MLBF-C-C2D2-01-221006	Total/NA	Solid	8082A	679758
500-223407-5	MLBF-C-C2D2-02-221006-DUP	Total/NA	Solid	8082A	679758
MB 500-679758/1-A	Method Blank	Total/NA	Solid	8082A	679758
LCS 500-679758/2-A	Lab Control Sample	Total/NA	Solid	8082A	679758
500-223407-1 MS	MLBF-C-E4-01-221006	Total/NA	Solid	8082A	679758
500-223407-1 MSD	MLBF-C-E4-01-221006	Total/NA	Solid	8082A	679758

Metals

Prep Batch: 679336

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-223407-1	MLBF-C-E4-01-221006	Total/NA	Solid	3050B	
500-223407-2	MLBF-C-D7-01-221006	Total/NA	Solid	3050B	
500-223407-3	MLBF-C-B1C1-01-221006	Total/NA	Solid	3050B	
500-223407-4	MLBF-C-C2D2-01-221006	Total/NA	Solid	3050B	
500-223407-5	MLBF-C-C2D2-02-221006-DUP	Total/NA	Solid	3050B	
MB 500-679336/1-A	Method Blank	Total/NA	Solid	3050B	
LCS 500-679336/2-A	Lab Control Sample	Total/NA	Solid	3050B	
500-223407-1 MS	MLBF-C-E4-01-221006	Total/NA	Solid	3050B	
500-223407-1 MSD	MLBF-C-E4-01-221006	Total/NA	Solid	3050B	
500-223407-1 DU	MLBF-C-E4-01-221006	Total/NA	Solid	3050B	

Prep Batch: 679429

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-223407-6	MLBF-RINSATE-221006	Total Recoverable	Water	3005A	
MB 500-679429/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 500-679429/2-A	Lab Control Sample	Total Recoverable	Water	3005A	

Prep Batch: 679462

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-223407-6	MLBF-RINSATE-221006	Total/NA	Water	7470A	
MB 500-679462/12-A	Method Blank	Total/NA	Water	7470A	
LCS 500-679462/13-A	Lab Control Sample	Total/NA	Water	7470A	

QC Association Summary

Client: Tetra Tech EM Inc.
Project/Site: Morris Lithium Battery Fire

Job ID: 500-223407-1

Metals

Prep Batch: 679634

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-223407-1	MLBF-C-E4-01-221006	Total/NA	Solid	7471B	
500-223407-2	MLBF-C-D7-01-221006	Total/NA	Solid	7471B	
500-223407-3	MLBF-C-B1C1-01-221006	Total/NA	Solid	7471B	
500-223407-4	MLBF-C-C2D2-01-221006	Total/NA	Solid	7471B	
500-223407-5	MLBF-C-C2D2-02-221006-DUP	Total/NA	Solid	7471B	
MB 500-679634/12-A	Method Blank	Total/NA	Solid	7471B	
LCS 500-679634/13-A	Lab Control Sample	Total/NA	Solid	7471B	
500-223407-1 MS	MLBF-C-E4-01-221006	Total/NA	Solid	7471B	
500-223407-1 MSD	MLBF-C-E4-01-221006	Total/NA	Solid	7471B	
500-223407-1 DU	MLBF-C-E4-01-221006	Total/NA	Solid	7471B	

Analysis Batch: 679657

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-223407-6	MLBF-RINSATE-221006	Total Recoverable	Water	6020A	679429
MB 500-679429/1-A	Method Blank	Total Recoverable	Water	6020A	679429
LCS 500-679429/2-A	Lab Control Sample	Total Recoverable	Water	6020A	679429

Analysis Batch: 679678

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-223407-6	MLBF-RINSATE-221006	Total/NA	Water	7470A	679462
MB 500-679462/12-A	Method Blank	Total/NA	Water	7470A	679462
LCS 500-679462/13-A	Lab Control Sample	Total/NA	Water	7470A	679462

Leach Batch: 679726

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-223407-1	MLBF-C-E4-01-221006	TCLP	Solid	1311	
500-223407-2	MLBF-C-D7-01-221006	TCLP	Solid	1311	
500-223407-3	MLBF-C-B1C1-01-221006	TCLP	Solid	1311	
500-223407-4	MLBF-C-C2D2-01-221006	TCLP	Solid	1311	
500-223407-5	MLBF-C-C2D2-02-221006-DUP	TCLP	Solid	1311	
LB2 500-679726/1-B	Method Blank	TCLP	Solid	1311	
LB2 500-679726/2-B	Method Blank	TCLP	Solid	1311	
500-223407-1 MS	MLBF-C-E4-01-221006	TCLP	Solid	1311	
500-223407-1 MSD	MLBF-C-E4-01-221006	TCLP	Solid	1311	
500-223407-1 DU	MLBF-C-E4-01-221006	TCLP	Solid	1311	

Prep Batch: 679836

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-223407-1	MLBF-C-E4-01-221006	TCLP	Solid	3010A	679726
500-223407-2	MLBF-C-D7-01-221006	TCLP	Solid	3010A	679726
500-223407-3	MLBF-C-B1C1-01-221006	TCLP	Solid	3010A	679726
500-223407-4	MLBF-C-C2D2-01-221006	TCLP	Solid	3010A	679726
500-223407-5	MLBF-C-C2D2-02-221006-DUP	TCLP	Solid	3010A	679726
LB2 500-679726/1-B	Method Blank	TCLP	Solid	3010A	679726
LCS 500-679836/7-A	Lab Control Sample	Total/NA	Solid	3010A	
500-223407-1 MS	MLBF-C-E4-01-221006	TCLP	Solid	3010A	679726
500-223407-1 MSD	MLBF-C-E4-01-221006	TCLP	Solid	3010A	679726
500-223407-1 DU	MLBF-C-E4-01-221006	TCLP	Solid	3010A	679726

QC Association Summary

Client: Tetra Tech EM Inc.
Project/Site: Morris Lithium Battery Fire

Job ID: 500-223407-1

Metals

Analysis Batch: 679838

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-223407-1	MLBF-C-E4-01-221006	Total/NA	Solid	6010D	679336
500-223407-2	MLBF-C-D7-01-221006	Total/NA	Solid	6010D	679336
500-223407-3	MLBF-C-B1C1-01-221006	Total/NA	Solid	6010D	679336
500-223407-4	MLBF-C-C2D2-01-221006	Total/NA	Solid	6010D	679336
500-223407-5	MLBF-C-C2D2-02-221006-DUP	Total/NA	Solid	6010D	679336
MB 500-679336/1-A	Method Blank	Total/NA	Solid	6010D	679336
LCS 500-679336/2-A	Lab Control Sample	Total/NA	Solid	6010D	679336
500-223407-1 MS	MLBF-C-E4-01-221006	Total/NA	Solid	6010D	679336
500-223407-1 MSD	MLBF-C-E4-01-221006	Total/NA	Solid	6010D	679336
500-223407-1 DU	MLBF-C-E4-01-221006	Total/NA	Solid	6010D	679336

Analysis Batch: 679918

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-223407-1	MLBF-C-E4-01-221006	Total/NA	Solid	7471B	679634
500-223407-2	MLBF-C-D7-01-221006	Total/NA	Solid	7471B	679634
500-223407-3	MLBF-C-B1C1-01-221006	Total/NA	Solid	7471B	679634
500-223407-4	MLBF-C-C2D2-01-221006	Total/NA	Solid	7471B	679634
500-223407-5	MLBF-C-C2D2-02-221006-DUP	Total/NA	Solid	7471B	679634
MB 500-679634/12-A	Method Blank	Total/NA	Solid	7471B	679634
LCS 500-679634/13-A	Lab Control Sample	Total/NA	Solid	7471B	679634
500-223407-1 MS	MLBF-C-E4-01-221006	Total/NA	Solid	7471B	679634
500-223407-1 MSD	MLBF-C-E4-01-221006	Total/NA	Solid	7471B	679634
500-223407-1 DU	MLBF-C-E4-01-221006	Total/NA	Solid	7471B	679634

Prep Batch: 679952

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-223407-1	MLBF-C-E4-01-221006	TCLP	Solid	7470A	679726
500-223407-2	MLBF-C-D7-01-221006	TCLP	Solid	7470A	679726
500-223407-3	MLBF-C-B1C1-01-221006	TCLP	Solid	7470A	679726
500-223407-4	MLBF-C-C2D2-01-221006	TCLP	Solid	7470A	679726
500-223407-5	MLBF-C-C2D2-02-221006-DUP	TCLP	Solid	7470A	679726
LB2 500-679726/2-B	Method Blank	TCLP	Solid	7470A	679726
MB 500-679952/12-A	Method Blank	Total/NA	Solid	7470A	
LCS 500-679952/14-A	Lab Control Sample	Total/NA	Solid	7470A	
LCS 500-679952/23-A	Lab Control Sample	Total/NA	Solid	7470A	
500-223407-1 MS	MLBF-C-E4-01-221006	TCLP	Solid	7470A	679726
500-223407-1 MSD	MLBF-C-E4-01-221006	TCLP	Solid	7470A	679726
500-223407-1 DU	MLBF-C-E4-01-221006	TCLP	Solid	7470A	679726

Analysis Batch: 680095

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-223407-1	MLBF-C-E4-01-221006	Total/NA	Solid	6010D	679336
500-223407-1	MLBF-C-E4-01-221006	Total/NA	Solid	6010D	679336
500-223407-2	MLBF-C-D7-01-221006	Total/NA	Solid	6010D	679336
500-223407-2	MLBF-C-D7-01-221006	Total/NA	Solid	6010D	679336
500-223407-3	MLBF-C-B1C1-01-221006	Total/NA	Solid	6010D	679336
500-223407-3	MLBF-C-B1C1-01-221006	Total/NA	Solid	6010D	679336
500-223407-3	MLBF-C-B1C1-01-221006	Total/NA	Solid	6010D	679336
500-223407-4	MLBF-C-C2D2-01-221006	Total/NA	Solid	6010D	679336
500-223407-4	MLBF-C-C2D2-01-221006	Total/NA	Solid	6010D	679336
500-223407-5	MLBF-C-C2D2-02-221006-DUP	Total/NA	Solid	6010D	679336

Metals (Continued)

Analysis Batch: 680095 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-223407-5	MLBF-C-C2D2-02-221006-DUP	Total/NA	Solid	6010D	679336
MB 500-679336/1-A	Method Blank	Total/NA	Solid	6010D	679336
LCS 500-679336/2-A	Lab Control Sample	Total/NA	Solid	6010D	679336
500-223407-1 MS	MLBF-C-E4-01-221006	Total/NA	Solid	6010D	679336
500-223407-1 MS	MLBF-C-E4-01-221006	Total/NA	Solid	6010D	679336
500-223407-1 MSD	MLBF-C-E4-01-221006	Total/NA	Solid	6010D	679336
500-223407-1 MSD	MLBF-C-E4-01-221006	Total/NA	Solid	6010D	679336
500-223407-1 DU	MLBF-C-E4-01-221006	Total/NA	Solid	6010D	679336
500-223407-1 DU	MLBF-C-E4-01-221006	Total/NA	Solid	6010D	679336

Analysis Batch: 680101

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-223407-1	MLBF-C-E4-01-221006	TCLP	Solid	6010D	679836
500-223407-2	MLBF-C-D7-01-221006	TCLP	Solid	6010D	679836
500-223407-3	MLBF-C-B1C1-01-221006	TCLP	Solid	6010D	679836
500-223407-4	MLBF-C-C2D2-01-221006	TCLP	Solid	6010D	679836
500-223407-5	MLBF-C-C2D2-02-221006-DUP	TCLP	Solid	6010D	679836
LB2 500-679726/1-B	Method Blank	TCLP	Solid	6010D	679836
LCS 500-679836/7-A	Lab Control Sample	Total/NA	Solid	6010D	679836
500-223407-1 MS	MLBF-C-E4-01-221006	TCLP	Solid	6010D	679836
500-223407-1 MSD	MLBF-C-E4-01-221006	TCLP	Solid	6010D	679836
500-223407-1 DU	MLBF-C-E4-01-221006	TCLP	Solid	6010D	679836

Analysis Batch: 680143

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-223407-1	MLBF-C-E4-01-221006	TCLP	Solid	7470A	679952
500-223407-2	MLBF-C-D7-01-221006	TCLP	Solid	7470A	679952
500-223407-3	MLBF-C-B1C1-01-221006	TCLP	Solid	7470A	679952
500-223407-4	MLBF-C-C2D2-01-221006	TCLP	Solid	7470A	679952
500-223407-5	MLBF-C-C2D2-02-221006-DUP	TCLP	Solid	7470A	679952
LB2 500-679726/2-B	Method Blank	TCLP	Solid	7470A	679952
MB 500-679952/12-A	Method Blank	Total/NA	Solid	7470A	679952
LCS 500-679952/14-A	Lab Control Sample	Total/NA	Solid	7470A	679952
LCS 500-679952/23-A	Lab Control Sample	Total/NA	Solid	7470A	679952
500-223407-1 MS	MLBF-C-E4-01-221006	TCLP	Solid	7470A	679952
500-223407-1 MSD	MLBF-C-E4-01-221006	TCLP	Solid	7470A	679952
500-223407-1 DU	MLBF-C-E4-01-221006	TCLP	Solid	7470A	679952

General Chemistry

Analysis Batch: 678462

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-223407-1	MLBF-C-E4-01-221006	Total/NA	Solid	Moisture	
500-223407-2	MLBF-C-D7-01-221006	Total/NA	Solid	Moisture	
500-223407-3	MLBF-C-B1C1-01-221006	Total/NA	Solid	Moisture	
500-223407-4	MLBF-C-C2D2-01-221006	Total/NA	Solid	Moisture	
500-223407-5	MLBF-C-C2D2-02-221006-DUP	Total/NA	Solid	Moisture	
500-223407-1 DU	MLBF-C-E4-01-221006	Total/NA	Solid	Moisture	

QC Association Summary

Client: Tetra Tech EM Inc.
Project/Site: Morris Lithium Battery Fire

Job ID: 500-223407-1

General Chemistry

Analysis Batch: 678748

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-223407-1	MLBF-C-E4-01-221006	Total/NA	Solid	9045D	
500-223407-2	MLBF-C-D7-01-221006	Total/NA	Solid	9045D	
500-223407-3	MLBF-C-B1C1-01-221006	Total/NA	Solid	9045D	
500-223407-4	MLBF-C-C2D2-01-221006	Total/NA	Solid	9045D	
500-223407-5	MLBF-C-C2D2-02-221006-DUP	Total/NA	Solid	9045D	
LCS 500-678748/5	Lab Control Sample	Total/NA	Solid	9045D	
LCSD 500-678748/6	Lab Control Sample Dup	Total/NA	Solid	9045D	

Prep Batch: 679237

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-223407-1	MLBF-C-E4-01-221006	Total/NA	Solid	9010C	
500-223407-2	MLBF-C-D7-01-221006	Total/NA	Solid	9010C	
500-223407-3	MLBF-C-B1C1-01-221006	Total/NA	Solid	9010C	
500-223407-4	MLBF-C-C2D2-01-221006	Total/NA	Solid	9010C	
500-223407-5	MLBF-C-C2D2-02-221006-DUP	Total/NA	Solid	9010C	
MB 500-679237/1-A	Method Blank	Total/NA	Solid	9010C	
HLCS 500-679237/2-A	Lab Control Sample	Total/NA	Solid	9010C	
LCS 500-679237/3-A	Lab Control Sample	Total/NA	Solid	9010C	
LLCS 500-679237/4-A	Lab Control Sample	Total/NA	Solid	9010C	
500-223407-1 MS	MLBF-C-E4-01-221006	Total/NA	Solid	9010C	
500-223407-1 MSD	MLBF-C-E4-01-221006	Total/NA	Solid	9010C	

Analysis Batch: 679258

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-223407-6	MLBF-RINSATE-221006	Total/NA	Water	9034	
MB 500-679258/1	Method Blank	Total/NA	Water	9034	
LCS 500-679258/2	Lab Control Sample	Total/NA	Water	9034	
500-223407-6 MS	MLBF-RINSATE-221006	Total/NA	Water	9034	
500-223407-6 MSD	MLBF-RINSATE-221006	Total/NA	Water	9034	

Prep Batch: 679475

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-223407-1	MLBF-C-E4-01-221006	Total/NA	Solid	9030B	
500-223407-2	MLBF-C-D7-01-221006	Total/NA	Solid	9030B	
500-223407-3	MLBF-C-B1C1-01-221006	Total/NA	Solid	9030B	
500-223407-4	MLBF-C-C2D2-01-221006	Total/NA	Solid	9030B	
500-223407-5	MLBF-C-C2D2-02-221006-DUP	Total/NA	Solid	9030B	
MB 500-679475/1-A	Method Blank	Total/NA	Solid	9030B	
LCS 500-679475/2-A	Lab Control Sample	Total/NA	Solid	9030B	
500-223407-1 MS	MLBF-C-E4-01-221006	Total/NA	Solid	9030B	
500-223407-1 MSD	MLBF-C-E4-01-221006	Total/NA	Solid	9030B	

Analysis Batch: 679513

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-223407-1	MLBF-C-E4-01-221006	Total/NA	Solid	9034	679475
MB 500-679475/1-A	Method Blank	Total/NA	Solid	9034	679475
LCS 500-679475/2-A	Lab Control Sample	Total/NA	Solid	9034	679475
500-223407-1 MS	MLBF-C-E4-01-221006	Total/NA	Solid	9034	679475
500-223407-1 MSD	MLBF-C-E4-01-221006	Total/NA	Solid	9034	679475

QC Association Summary

Client: Tetra Tech EM Inc.
Project/Site: Morris Lithium Battery Fire

Job ID: 500-223407-1

General Chemistry

Analysis Batch: 679689

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-223407-2	MLBF-C-D7-01-221006	Total/NA	Solid	9034	679475
500-223407-3	MLBF-C-B1C1-01-221006	Total/NA	Solid	9034	679475
500-223407-4	MLBF-C-C2D2-01-221006	Total/NA	Solid	9034	679475
500-223407-5	MLBF-C-C2D2-02-221006-DUP	Total/NA	Solid	9034	679475

Analysis Batch: 679714

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-223407-1	MLBF-C-E4-01-221006	Total/NA	Solid	9012B	679237
500-223407-2	MLBF-C-D7-01-221006	Total/NA	Solid	9012B	679237
500-223407-3	MLBF-C-B1C1-01-221006	Total/NA	Solid	9012B	679237
500-223407-4	MLBF-C-C2D2-01-221006	Total/NA	Solid	9012B	679237
500-223407-5	MLBF-C-C2D2-02-221006-DUP	Total/NA	Solid	9012B	679237
MB 500-679237/1-A	Method Blank	Total/NA	Solid	9012B	679237
HLCS 500-679237/2-A	Lab Control Sample	Total/NA	Solid	9012B	679237
LCS 500-679237/3-A	Lab Control Sample	Total/NA	Solid	9012B	679237
LLCS 500-679237/4-A	Lab Control Sample	Total/NA	Solid	9012B	679237
500-223407-1 MS	MLBF-C-E4-01-221006	Total/NA	Solid	9012B	679237
500-223407-1 MSD	MLBF-C-E4-01-221006	Total/NA	Solid	9012B	679237

Analysis Batch: 680546

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-223407-6	MLBF-RINSATE-221006	Total/NA	Water	9040C	
LCS 500-680546/5	Lab Control Sample	Total/NA	Water	9040C	
LCSD 500-680546/6	Lab Control Sample Dup	Total/NA	Water	9040C	
500-223407-6 DU	MLBF-RINSATE-221006	Total/NA	Water	9040C	

Surrogate Summary

Client: Tetra Tech EM Inc.
Project/Site: Morris Lithium Battery Fire

Job ID: 500-223407-1

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Matrix: Solid **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)					
		2FP	PHL	NBZ	FBP	TBP	TPHL
Lab Sample ID	Client Sample ID	(27-110)	(20-100)	(36-120)	(34-110)	(40-145)	(40-145)
LCS 500-680601/2-A	Lab Control Sample	57	45	82	82	112	105
MB 500-680601/1-A	Method Blank	60	32	88	81	89	112

Surrogate Legend

2FP = 2-Fluorophenol (Surr)
PHL = Phenol-d5 (Surr)
NBZ = Nitrobenzene-d5 (Surr)
FBP = 2-Fluorobiphenyl
TBP = 2,4,6-Tribromophenol (Surr)
TPHL = Terphenyl-d14

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Matrix: Solid **Prep Type: TCLP**

		Percent Surrogate Recovery (Acceptance Limits)					
		2FP	PHL	NBZ	FBP	TBP	TPHL
Lab Sample ID	Client Sample ID	(27-110)	(20-100)	(36-120)	(34-110)	(40-145)	(40-145)
500-223407-1	MLBF-C-E4-01-221006	60	31	71	66	146 S1+	112
500-223407-1 MS	MLBF-C-E4-01-221006	74	41	71	97	140	111
500-223407-1 MSD	MLBF-C-E4-01-221006	68	42	80	99	143	112
500-223407-2	MLBF-C-D7-01-221006	56	32	60	65	82	107
500-223407-3	MLBF-C-B1C1-01-221006	61	34	63	59	125	112
500-223407-4	MLBF-C-C2D2-01-221006	57	37	67	65	129	111
500-223407-5	MLBF-C-C2D2-02-221006-DUP	60	34	64	66	80	87
LB2 500-679726/1-C	Method Blank	56	23	86	80	109	119

Surrogate Legend

2FP = 2-Fluorophenol (Surr)
PHL = Phenol-d5 (Surr)
NBZ = Nitrobenzene-d5 (Surr)
FBP = 2-Fluorobiphenyl
TBP = 2,4,6-Tribromophenol (Surr)
TPHL = Terphenyl-d14

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Matrix: Solid **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)	
		TCX2	DCBP2
Lab Sample ID	Client Sample ID	(49-129)	(37-121)
500-223407-1	MLBF-C-E4-01-221006	146 S1+	138 S1+
500-223407-1 MS	MLBF-C-E4-01-221006	102	108
500-223407-1 MSD	MLBF-C-E4-01-221006	91	94
500-223407-2	MLBF-C-D7-01-221006	113	116
500-223407-3	MLBF-C-B1C1-01-221006	113	103
500-223407-4	MLBF-C-C2D2-01-221006	78	82
500-223407-5	MLBF-C-C2D2-02-221006-DUP	77	82
LCS 500-679758/2-A	Lab Control Sample	95	98
MB 500-679758/1-A	Method Blank	92	96

Surrogate Legend

TCX = Tetrachloro-m-xylene

Surrogate Summary

Client: Tetra Tech EM Inc.
Job ID: 500-223407-1
Project/Site: Morris Lithium Battery Fire

DCBP = DCB Decachlorobiphenyl

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)	
		TCX2	DCBP2
Lab Sample ID	Client Sample ID	(30-120)	(30-140)
500-223407-6	MLBF-RINSATE-221006	63	18 S1-
LCS 500-678933/4-A	Lab Control Sample	84	94
LCSD 500-678933/5-A	Lab Control Sample Dup	88	98
MB 500-678933/1-A	Method Blank	95	112

Surrogate Legend

TCX = Tetrachloro-m-xylene
DCBP = DCB Decachlorobiphenyl

QC Sample Results

Client: Tetra Tech EM Inc.
Project/Site: Morris Lithium Battery Fire

Job ID: 500-223407-1

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Lab Sample ID: MB 500-680601/1-A
Matrix: Solid
Analysis Batch: 680766

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 680601

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Methylphenol	<2.0		2.0	2.0	ug/L		10/20/22 10:28	10/21/22 08:54	1
3 & 4 Methylphenol	<2.0		2.0	2.0	ug/L		10/20/22 10:28	10/21/22 08:54	1
1,4-Dichlorobenzene	<2.0		2.0	2.0	ug/L		10/20/22 10:28	10/21/22 08:54	1
2,4-Dinitrotoluene	<1.0		1.0	1.0	ug/L		10/20/22 10:28	10/21/22 08:54	1
Hexachlorobenzene	<0.50		0.50	0.50	ug/L		10/20/22 10:28	10/21/22 08:54	1
Hexachlorobutadiene	<5.0		5.0	5.0	ug/L		10/20/22 10:28	10/21/22 08:54	1
Hexachloroethane	<5.0		5.0	5.0	ug/L		10/20/22 10:28	10/21/22 08:54	1
Nitrobenzene	<1.0		1.0	1.0	ug/L		10/20/22 10:28	10/21/22 08:54	1
Pentachlorophenol	<20		20	20	ug/L		10/20/22 10:28	10/21/22 08:54	1
Pyridine	<20		20	20	ug/L		10/20/22 10:28	10/21/22 08:54	1
2,4,5-Trichlorophenol	<10		10	10	ug/L		10/20/22 10:28	10/21/22 08:54	1
2,4,6-Trichlorophenol	<5.0		5.0	5.0	ug/L		10/20/22 10:28	10/21/22 08:54	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorophenol (Surr)	*60*		*27 - 110*	*10/20/22 10:28*	*10/21/22 08:54*	*1*
Phenol-d5 (Surr)	*32*		*20 - 100*	*10/20/22 10:28*	*10/21/22 08:54*	*1*
Nitrobenzene-d5 (Surr)	*88*		*36 - 120*	*10/20/22 10:28*	*10/21/22 08:54*	*1*
2-Fluorobiphenyl	*81*		*34 - 110*	*10/20/22 10:28*	*10/21/22 08:54*	*1*
2,4,6-Tribromophenol (Surr)	*89*		*40 - 145*	*10/20/22 10:28*	*10/21/22 08:54*	*1*
Terphenyl-d14	*112*		*40 - 145*	*10/20/22 10:28*	*10/21/22 08:54*	*1*

Lab Sample ID: LCS 500-680601/2-A
Matrix: Solid
Analysis Batch: 680766

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 680601

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
2-Methylphenol	40.0	29.3		ug/L		73	53 - 115
3 & 4 Methylphenol	40.0	31.1		ug/L		78	50 - 116
1,4-Dichlorobenzene	40.0	26.9		ug/L		67	23 - 110
2,4-Dinitrotoluene	40.0	37.9		ug/L		95	63 - 129
Hexachlorobenzene	40.0	36.6		ug/L		92	61 - 126
Hexachlorobutadiene	40.0	24.7		ug/L		62	20 - 100
Hexachloroethane	40.0	23.8		ug/L		59	20 - 100
Nitrobenzene	40.0	32.9		ug/L		82	54 - 121
Pentachlorophenol	80.0	61.4		ug/L		77	42 - 148
Pyridine	80.0	32.5		ug/L		41	15 - 110
2,4,5-Trichlorophenol	40.0	35.2		ug/L		88	63 - 124
2,4,6-Trichlorophenol	40.0	36.0		ug/L		90	62 - 121

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2-Fluorophenol (Surr)	*57*		*27 - 110*
Phenol-d5 (Surr)	*45*		*20 - 100*
Nitrobenzene-d5 (Surr)	*82*		*36 - 120*
2-Fluorobiphenyl	*82*		*34 - 110*
2,4,6-Tribromophenol (Surr)	*112*		*40 - 145*
Terphenyl-d14	*105*		*40 - 145*

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LB2 500-679726/1-C
Matrix: Solid
Analysis Batch: 680766

Client Sample ID: Method Blank
Prep Type: TCLP
Prep Batch: 680601

Analyte	LB2 Result	LB2 Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Methylphenol	<20		20	20	ug/L		10/20/22 10:28	10/21/22 10:29	1
3 & 4 Methylphenol	<20		20	20	ug/L		10/20/22 10:28	10/21/22 10:29	1
1,4-Dichlorobenzene	<20		20	20	ug/L		10/20/22 10:28	10/21/22 10:29	1
2,4-Dinitrotoluene	<10		10	10	ug/L		10/20/22 10:28	10/21/22 10:29	1
Hexachlorobenzene	<5.0		5.0	5.0	ug/L		10/20/22 10:28	10/21/22 10:29	1
Hexachlorobutadiene	<50		50	50	ug/L		10/20/22 10:28	10/21/22 10:29	1
Hexachloroethane	<50		50	50	ug/L		10/20/22 10:28	10/21/22 10:29	1
Nitrobenzene	<10		10	10	ug/L		10/20/22 10:28	10/21/22 10:29	1
Pentachlorophenol	<200		200	200	ug/L		10/20/22 10:28	10/21/22 10:29	1
Pyridine	<200		200	200	ug/L		10/20/22 10:28	10/21/22 10:29	1
2,4,5-Trichlorophenol	<100		100	100	ug/L		10/20/22 10:28	10/21/22 10:29	1
2,4,6-Trichlorophenol	<50		50	50	ug/L		10/20/22 10:28	10/21/22 10:29	1

Surrogate	*LB2 %Recovery*	*LB2 Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorophenol (Surr)	*56*		*27 - 110*	*10/20/22 10:28*	*10/21/22 10:29*	*1*
Phenol-d5 (Surr)	*23*		*20 - 100*	*10/20/22 10:28*	*10/21/22 10:29*	*1*
Nitrobenzene-d5 (Surr)	*86*		*36 - 120*	*10/20/22 10:28*	*10/21/22 10:29*	*1*
2-Fluorobiphenyl	*80*		*34 - 110*	*10/20/22 10:28*	*10/21/22 10:29*	*1*
2,4,6-Tribromophenol (Surr)	*109*		*40 - 145*	*10/20/22 10:28*	*10/21/22 10:29*	*1*
Terphenyl-d14	*119*		*40 - 145*	*10/20/22 10:28*	*10/21/22 10:29*	*1*

Lab Sample ID: 500-223407-1 MS
Matrix: Solid
Analysis Batch: 680766

Client Sample ID: MLBF-C-E4-01-221006
Prep Type: TCLP
Prep Batch: 680601

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
2-Methylphenol	<100		1600	1220		ug/L		76	53 - 115
3 & 4 Methylphenol	<100		1600	1070		ug/L		67	50 - 116
1,4-Dichlorobenzene	<100		1600	1110		ug/L		69	23 - 110
2,4-Dinitrotoluene	<50		1600	2000		ug/L		125	63 - 129
Hexachlorobenzene	<25		1600	1970		ug/L		123	61 - 126
Hexachlorobutadiene	<250		1600	1310		ug/L		82	20 - 100
Hexachloroethane	<250		1600	1180		ug/L		74	20 - 100
Nitrobenzene	<50		1600	1090		ug/L		68	54 - 121
Pentachlorophenol	<1000		3200	<4000		ug/L		NC	42 - 148
Pyridine	<1000		3200	<4000		ug/L		NC	15 - 110
2,4,5-Trichlorophenol	<500		1600	<2000		ug/L		NC	63 - 124
2,4,6-Trichlorophenol	<250		1600	1740		ug/L		109	62 - 121

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
2-Fluorophenol (Surr)	*74*		*27 - 110*
Phenol-d5 (Surr)	*41*		*20 - 100*
Nitrobenzene-d5 (Surr)	*71*		*36 - 120*
2-Fluorobiphenyl	*97*		*34 - 110*
2,4,6-Tribromophenol (Surr)	*140*		*40 - 145*
Terphenyl-d14	*111*		*40 - 145*

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 500-223407-1 MSD — **Client Sample ID: MLBF-C-E4-01-221006**
Matrix: Solid — **Prep Type: TCLP**
Analysis Batch: 680766 — **Prep Batch: 680601**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
2-Methylphenol	<100		1600	1250		ug/L		78	53 - 115	3	20
3 & 4 Methylphenol	<100		1600	1170		ug/L		73	50 - 116	9	20
1,4-Dichlorobenzene	<100		1600	1170		ug/L		73	23 - 110	5	20
2,4-Dinitrotoluene	<50		1600	2060		ug/L		128	63 - 129	3	20
Hexachlorobenzene	<25		1600	2020		ug/L		126	61 - 126	2	20
Hexachlorobutadiene	<250		1600	1170		ug/L		73	20 - 100	12	20
Hexachloroethane	<250		1600	1240		ug/L		78	20 - 100	5	20
Nitrobenzene	<50		1600	1230		ug/L		77	54 - 121	12	20
Pentachlorophenol	<1000		3200	<4000		ug/L		NC	42 - 148	NC	20
Pyridine	<1000		3200	<4000		ug/L		NC	15 - 110	NC	20
2,4,5-Trichlorophenol	<500		1600	<2000		ug/L		NC	63 - 124	NC	20
2,4,6-Trichlorophenol	<250		1600	1750		ug/L		110	62 - 121	1	20

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
2-Fluorophenol (Surr)	*68*		*27 - 110*
Phenol-d5 (Surr)	*42*		*20 - 100*
Nitrobenzene-d5 (Surr)	*80*		*36 - 120*
2-Fluorobiphenyl	*99*		*34 - 110*
2,4,6-Tribromophenol (Surr)	*143*		*40 - 145*
Terphenyl-d14	*112*		*40 - 145*

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Lab Sample ID: MB 500-678933/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 679122 — **Prep Batch: 678933**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.40		0.40	0.067	ug/L		10/11/22 07:41	10/11/22 16:55	1
PCB-1221	<0.40		0.40	0.20	ug/L		10/11/22 07:41	10/11/22 16:55	1
PCB-1232	<0.40		0.40	0.20	ug/L		10/11/22 07:41	10/11/22 16:55	1
PCB-1242	<0.40		0.40	0.20	ug/L		10/11/22 07:41	10/11/22 16:55	1
PCB-1248	<0.40		0.40	0.20	ug/L		10/11/22 07:41	10/11/22 16:55	1
PCB-1254	<0.40		0.40	0.20	ug/L		10/11/22 07:41	10/11/22 16:55	1
PCB-1260	<0.40		0.40	0.070	ug/L		10/11/22 07:41	10/11/22 16:55	1
PCB-1262	<0.40		0.40	0.20	ug/L		10/11/22 07:41	10/11/22 16:55	1
PCB-1268	<0.40		0.40	0.20	ug/L		10/11/22 07:41	10/11/22 16:55	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*95*		*30 - 120*	*10/11/22 07:41*	*10/11/22 16:55*	*1*
DCB Decachlorobiphenyl	*112*		*30 - 140*	*10/11/22 07:41*	*10/11/22 16:55*	*1*

Lab Sample ID: LCS 500-678933/4-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 679122 — **Prep Batch: 678933**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
PCB-1016	4.00	3.78		ug/L		94	56 - 120

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography (Continued)

Lab Sample ID: LCS 500-678933/4-A
Matrix: Water
Analysis Batch: 679122

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 678933

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
PCB-1260			4.00	4.01		ug/L		100	53 - 137		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Tetrachloro-m-xylene	*84*		*30 - 120*
DCB Decachlorobiphenyl	*94*		*30 - 140*

Lab Sample ID: LCSD 500-678933/5-A
Matrix: Water
Analysis Batch: 679122

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 678933

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
PCB-1016			4.00	3.90		ug/L		97	56 - 120	3	20
PCB-1260			4.00	4.09		ug/L		102	53 - 137	2	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
Tetrachloro-m-xylene	*88*		*30 - 120*
DCB Decachlorobiphenyl	*98*		*30 - 140*

Lab Sample ID: MB 500-679758/1-A
Matrix: Solid
Analysis Batch: 680001

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 679758

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<17		17	6.6	ug/Kg		10/15/22 07:45	10/17/22 22:04	1
PCB-1221	<17		17	6.6	ug/Kg		10/15/22 07:45	10/17/22 22:04	1
PCB-1232	<17		17	4.5	ug/Kg		10/15/22 07:45	10/17/22 22:04	1
PCB-1242	<17		17	6.5	ug/Kg		10/15/22 07:45	10/17/22 22:04	1
PCB-1248	<17		17	7.9	ug/Kg		10/15/22 07:45	10/17/22 22:04	1
PCB-1254	<17		17	5.7	ug/Kg		10/15/22 07:45	10/17/22 22:04	1
PCB-1260	<17		17	6.3	ug/Kg		10/15/22 07:45	10/17/22 22:04	1
PCB-1262	<17		17	5.5	ug/Kg		10/15/22 07:45	10/17/22 22:04	1
PCB-1268	<17		17	9.7	ug/Kg		10/15/22 07:45	10/17/22 22:04	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*92*		*49 - 129*	*10/15/22 07:45*	*10/17/22 22:04*	*1*
DCB Decachlorobiphenyl	*96*		*37 - 121*	*10/15/22 07:45*	*10/17/22 22:04*	*1*

Lab Sample ID: LCS 500-679758/2-A
Matrix: Solid
Analysis Batch: 680001

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 679758

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
PCB-1016			167	129		ug/Kg		77	57 - 120		
PCB-1260			167	137		ug/Kg		82	61 - 125		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Tetrachloro-m-xylene	*95*		*49 - 129*

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography (Continued)

Lab Sample ID: LCS 500-679758/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 680001 — **Prep Batch: 679758**

Surrogate	LCS %Recovery	LCS Qualifier	Limits
DCB Decachlorobiphenyl	98		37 - 121

Lab Sample ID: 500-223407-1 MS — **Client Sample ID: MLBF-C-E4-01-221006**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 680001 — **Prep Batch: 679758**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
PCB-1016	<17		174	126		ug/Kg	☼	72	57 - 120
PCB-1260	<17		174	141		ug/Kg	☼	81	61 - 125

Surrogate	MS %Recovery	MS Qualifier	Limits
Tetrachloro-m-xylene	102		49 - 129
DCB Decachlorobiphenyl	108		37 - 121

Lab Sample ID: 500-223407-1 MSD — **Client Sample ID: MLBF-C-E4-01-221006**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 680001 — **Prep Batch: 679758**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
PCB-1016	<17		174	121		ug/Kg	☼	70	57 - 120	4	30
PCB-1260	<17		174	130		ug/Kg	☼	75	61 - 125	8	30

Surrogate	MSD %Recovery	MSD Qualifier	Limits
Tetrachloro-m-xylene	91		49 - 129
DCB Decachlorobiphenyl	94		37 - 121

Method: 6010D - Metals (ICP)

Lab Sample ID: MB 500-679336/1-A — **Client Sample ID: Method Blank**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 679838 — **Prep Batch: 679336**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	<20		20	8.2	mg/Kg		10/12/22 17:06	10/15/22 22:58	1
Antimony	0.641	J	2.0	0.39	mg/Kg		10/12/22 17:06	10/15/22 22:58	1
Arsenic	<1.0		1.0	0.34	mg/Kg		10/12/22 17:06	10/15/22 22:58	1
Barium	<1.0		1.0	0.11	mg/Kg		10/12/22 17:06	10/15/22 22:58	1
Beryllium	<0.40		0.40	0.093	mg/Kg		10/12/22 17:06	10/15/22 22:58	1
Cadmium	<0.20		0.20	0.036	mg/Kg		10/12/22 17:06	10/15/22 22:58	1
Calcium	<20		20	3.4	mg/Kg		10/12/22 17:06	10/15/22 22:58	1
Chromium	<1.0		1.0	0.50	mg/Kg		10/12/22 17:06	10/15/22 22:58	1
Cobalt	<0.50		0.50	0.13	mg/Kg		10/12/22 17:06	10/15/22 22:58	1
Copper	<1.0		1.0	0.28	mg/Kg		10/12/22 17:06	10/15/22 22:58	1
Iron	<20		20	10	mg/Kg		10/12/22 17:06	10/15/22 22:58	1
Lead	<0.50		0.50	0.23	mg/Kg		10/12/22 17:06	10/15/22 22:58	1
Magnesium	<10		10	5.0	mg/Kg		10/12/22 17:06	10/15/22 22:58	1
Manganese	<1.0		1.0	0.15	mg/Kg		10/12/22 17:06	10/15/22 22:58	1
Nickel	<1.0		1.0	0.29	mg/Kg		10/12/22 17:06	10/15/22 22:58	1

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

Lab Sample ID: MB 500-679336/1-A — **Client Sample ID: Method Blank**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 679838 — **Prep Batch: 679336**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Potassium	<50		50	18	mg/Kg		10/12/22 17:06	10/15/22 22:58	1
Silver	<0.50		0.50	0.13	mg/Kg		10/12/22 17:06	10/15/22 22:58	1
Sodium	<100		100	15	mg/Kg		10/12/22 17:06	10/15/22 22:58	1
Thallium	<1.0		1.0	0.50	mg/Kg		10/12/22 17:06	10/15/22 22:58	1
Vanadium	<0.50		0.50	0.12	mg/Kg		10/12/22 17:06	10/15/22 22:58	1
Zinc	<2.0		2.0	0.88	mg/Kg		10/12/22 17:06	10/15/22 22:58	1
Lithium	<1.0		1.0	0.30	mg/Kg		10/12/22 17:06	10/15/22 22:58	1

Lab Sample ID: MB 500-679336/1-A — **Client Sample ID: Method Blank**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 680095 — **Prep Batch: 679336**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Selenium	<1.0		1.0	0.59	mg/Kg		10/12/22 17:06	10/17/22 20:19	1

Lab Sample ID: LCS 500-679336/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 679838 — **Prep Batch: 679336**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Aluminum	200	185		mg/Kg		93	80 - 120
Antimony	50.0	47.2		mg/Kg		94	80 - 120
Arsenic	10.0	9.11		mg/Kg		91	80 - 120
Barium	200	200		mg/Kg		100	80 - 120
Beryllium	5.00	4.66		mg/Kg		93	80 - 120
Cadmium	5.00	4.55		mg/Kg		91	80 - 120
Calcium	1000	970		mg/Kg		97	80 - 120
Chromium	20.0	18.7		mg/Kg		94	80 - 120
Cobalt	50.0	48.6		mg/Kg		97	80 - 120
Copper	25.0	23.9		mg/Kg		95	80 - 120
Iron	100	93.0		mg/Kg		93	80 - 120
Lead	10.0	9.43		mg/Kg		94	80 - 120
Magnesium	1000	920		mg/Kg		92	80 - 120
Manganese	50.0	46.0		mg/Kg		92	80 - 120
Nickel	50.0	47.4		mg/Kg		95	80 - 120
Potassium	1000	939		mg/Kg		94	80 - 120
Silver	5.00	4.26		mg/Kg		85	80 - 120
Sodium	1000	949		mg/Kg		95	80 - 120
Thallium	10.0	9.03		mg/Kg		90	80 - 120
Vanadium	50.0	47.7		mg/Kg		95	80 - 120
Zinc	50.0	47.1		mg/Kg		94	80 - 120
Lithium	50.0	49.6		mg/Kg		99	80 - 120

Lab Sample ID: LCS 500-679336/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 680095 — **Prep Batch: 679336**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Selenium	10.0	8.87		mg/Kg		89	80 - 120

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

Lab Sample ID: 500-223407-1 MS — **Client Sample ID: MLBF-C-E4-01-221006**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 679838 — **Prep Batch: 679336**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Aluminum	6200		208	6710	4	mg/Kg	☼	253	75 - 125
Antimony	0.53	J B F1	51.9	21.4	F1	mg/Kg	☼	40	75 - 125
Arsenic	2.3		10.4	12.0		mg/Kg	☼	94	75 - 125
Barium	50		208	238		mg/Kg	☼	91	75 - 125
Beryllium	0.45		5.19	5.33		mg/Kg	☼	94	75 - 125
Cadmium	2.2	F1	5.19	5.62	F1	mg/Kg	☼	66	75 - 125
Chromium	9.6		20.8	25.5		mg/Kg	☼	76	75 - 125
Copper	58	F1	26.0	57.1	F1	mg/Kg	☼	-3	75 - 125
Iron	6500		104	6620	4	mg/Kg	☼	136	75 - 125
Lead	25	F1	10.4	14.0	F1	mg/Kg	☼	-107	75 - 125
Manganese	440		51.9	472	4	mg/Kg	☼	53	75 - 125
Nickel	23		51.9	63.7		mg/Kg	☼	78	75 - 125
Potassium	860		1040	2000		mg/Kg	☼	110	75 - 125
Silver	0.28	J	5.19	4.75		mg/Kg	☼	86	75 - 125
Sodium	430		1040	1430		mg/Kg	☼	96	75 - 125
Thallium	<1.0		10.4	9.08		mg/Kg	☼	87	75 - 125
Vanadium	11		51.9	55.3		mg/Kg	☼	85	75 - 125
Zinc	78	F1 F2	51.9	90.5	F1	mg/Kg	☼	23	75 - 125
Lithium	12		51.9	60.2		mg/Kg	☼	94	75 - 125

Lab Sample ID: 500-223407-1 MS — **Client Sample ID: MLBF-C-E4-01-221006**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 680095 — **Prep Batch: 679336**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Magnesium	47000		1040	47100	4	mg/Kg	☼	-13	75 - 125
Selenium	<1.0		10.4	8.30		mg/Kg	☼	80	75 - 125

Lab Sample ID: 500-223407-1 MS — **Client Sample ID: MLBF-C-E4-01-221006**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 680095 — **Prep Batch: 679336**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Calcium	170000		1040	171000	4	mg/Kg	☼	284	75 - 125
Cobalt	17		51.9	71.8		mg/Kg	☼	105	75 - 125

Lab Sample ID: 500-223407-1 MSD — **Client Sample ID: MLBF-C-E4-01-221006**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 679838 — **Prep Batch: 679336**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Aluminum	6200		191	7030	4	mg/Kg	☼	441	75 - 125	5	20
Antimony	0.53	J B F1	47.7	18.3	F1	mg/Kg	☼	37	75 - 125	15	20
Arsenic	2.3		9.54	11.4		mg/Kg	☼	96	75 - 125	5	20
Barium	50		191	223		mg/Kg	☼	91	75 - 125	6	20
Beryllium	0.45		4.77	4.87		mg/Kg	☼	93	75 - 125	9	20
Cadmium	2.2	F1	4.77	6.04		mg/Kg	☼	80	75 - 125	7	20
Chromium	9.6		19.1	24.2		mg/Kg	☼	77	75 - 125	5	20
Copper	58	F1	23.8	70.1	F1	mg/Kg	☼	51	75 - 125	20	20

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

Lab Sample ID: 500-223407-1 MSD — **Client Sample ID: MLBF-C-E4-01-221006**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 679838 — **Prep Batch: 679336**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Iron	6500		95.4	6630	4	mg/Kg	☼	163	75 - 125	0	20
Lead	25	F1	9.54	15.4	F1	mg/Kg	☼	-103	75 - 125	9	20
Manganese	440		47.7	485	4	mg/Kg	☼	85	75 - 125	3	20
Nickel	23		47.7	61.7		mg/Kg	☼	81	75 - 125	3	20
Potassium	860		954	1870		mg/Kg	☼	106	75 - 125	7	20
Silver	0.28	J	4.77	4.36		mg/Kg	☼	85	75 - 125	9	20
Sodium	430		954	1320		mg/Kg	☼	93	75 - 125	8	20
Thallium	<1.0		9.54	8.05		mg/Kg	☼	84	75 - 125	12	20
Vanadium	11		47.7	51.3		mg/Kg	☼	84	75 - 125	7	20
Zinc	78	F1 F2	47.7	115	F2	mg/Kg	☼	76	75 - 125	24	20
Lithium	12		47.7	58.0		mg/Kg	☼	97	75 - 125	4	20

Lab Sample ID: 500-223407-1 MSD — **Client Sample ID: MLBF-C-E4-01-221006**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 680095 — **Prep Batch: 679336**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Magnesium	47000		954	47200	4	mg/Kg	☼	2	75 - 125	0	20
Selenium	<1.0		9.54	7.87		mg/Kg	☼	82	75 - 125	5	20

Lab Sample ID: 500-223407-1 MSD — **Client Sample ID: MLBF-C-E4-01-221006**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 680095 — **Prep Batch: 679336**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Calcium	170000		954	185000	4	mg/Kg	☼	1713	75 - 125	8	20
Cobalt	17		47.7	65.0		mg/Kg	☼	100	75 - 125	10	20

Lab Sample ID: 500-223407-1 DU — **Client Sample ID: MLBF-C-E4-01-221006**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 679838 — **Prep Batch: 679336**

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Aluminum	6200			6320		mg/Kg	☼			2	20
Antimony	0.53	J B F1		<1.9		mg/Kg	☼			NC	20
Arsenic	2.3			2.14		mg/Kg	☼			5	20
Barium	50			50.5		mg/Kg	☼			2	20
Beryllium	0.45			0.481		mg/Kg	☼			7	20
Cadmium	2.2	F1		2.57		mg/Kg	☼			15	20
Chromium	9.6			9.40		mg/Kg	☼			2	20
Copper	58	F1		60.0		mg/Kg	☼			4	20
Iron	6500			6590		mg/Kg	☼			2	20
Lead	25	F1		8.72	F3	mg/Kg	☼			97	20
Manganese	440			447		mg/Kg	☼			0.6	20
Nickel	23			23.0		mg/Kg	☼			0.8	20
Potassium	860			830		mg/Kg	☼			4	20
Silver	0.28	J		0.244	J	mg/Kg	☼			16	20
Sodium	430			417		mg/Kg	☼			4	20
Thallium	<1.0			<0.96		mg/Kg	☼			NC	20

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

Lab Sample ID: 500-223407-1 DU — **Client Sample ID: MLBF-C-E4-01-221006**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 679838 — **Prep Batch: 679336**

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Vanadium	11		10.7		mg/Kg	☼	3	20
Zinc	78	F1 F2	129	F3	mg/Kg	☼	49	20
Lithium	12		12.9		mg/Kg	☼	10	20

Lab Sample ID: 500-223407-1 DU — **Client Sample ID: MLBF-C-E4-01-221006**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 680095 — **Prep Batch: 679336**

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Magnesium	47000		45700		mg/Kg	☼	3	20
Selenium	<1.0		<0.96		mg/Kg	☼	NC	20

Lab Sample ID: 500-223407-1 DU — **Client Sample ID: MLBF-C-E4-01-221006**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 680095 — **Prep Batch: 679336**

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Calcium	170000		171000		mg/Kg	☼	1	20
Cobalt	17		25.9	F3	mg/Kg	☼	39	20

Lab Sample ID: LCS 500-679836/7-A — **Client Sample ID: Lab Control Sample**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 680101 — **Prep Batch: 679836**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Aluminum	2.00	1.93		mg/L		96	80 - 120
Barium	0.500	0.506		mg/L		101	80 - 120
Cadmium	0.0500	0.0481		mg/L		96	80 - 120
Chromium	0.200	0.198		mg/L		99	80 - 120
Lead	0.100	0.0921		mg/L		92	80 - 120
Selenium	0.100	0.105		mg/L		105	80 - 120
Silver	0.0500	0.0467		mg/L		93	80 - 120

Lab Sample ID: LB2 500-679726/1-B — **Client Sample ID: Method Blank**
Matrix: Solid — **Prep Type: TCLP**
Analysis Batch: 680101 — **Prep Batch: 679836**

Analyte	LB2 Result	LB2 Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	<0.20		0.20	0.20	mg/L		10/17/22 07:44	10/17/22 23:07	1
Barium	<0.50		0.50	0.050	mg/L		10/17/22 07:44	10/17/22 23:07	1
Cadmium	<0.0050		0.0050	0.0020	mg/L		10/17/22 07:44	10/17/22 23:07	1
Chromium	<0.025		0.025	0.010	mg/L		10/17/22 07:44	10/17/22 23:07	1
Lead	<0.050		0.050	0.0075	mg/L		10/17/22 07:44	10/17/22 23:07	1
Selenium	<0.050		0.050	0.020	mg/L		10/17/22 07:44	10/17/22 23:07	1
Silver	<0.025		0.025	0.010	mg/L		10/17/22 07:44	10/17/22 23:07	1

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

Lab Sample ID: 500-223407-1 MS — **Client Sample ID: MLBF-C-E4-01-221006**
Matrix: Solid — **Prep Type: TCLP**
Analysis Batch: 680101 — **Prep Batch: 679836**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Aluminum	<0.20		2.00	2.05		mg/L		103	75 - 125
Barium	0.29	J	0.500	0.797		mg/L		101	75 - 125
Cadmium	<0.0050		0.0500	0.0531		mg/L		106	75 - 125
Chromium	0.020	J	0.200	0.205		mg/L		93	75 - 125
Lead	<0.050		0.100	0.100		mg/L		100	75 - 125
Selenium	<0.050		0.100	0.101		mg/L		101	75 - 125
Silver	<0.025		0.0500	0.0505		mg/L		101	75 - 125

Lab Sample ID: 500-223407-1 MSD — **Client Sample ID: MLBF-C-E4-01-221006**
Matrix: Solid — **Prep Type: TCLP**
Analysis Batch: 680101 — **Prep Batch: 679836**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Aluminum	<0.20		2.00	2.02		mg/L		101	75 - 125	1	20
Barium	0.29	J	0.500	0.775		mg/L		97	75 - 125	3	20
Cadmium	<0.0050		0.0500	0.0516		mg/L		103	75 - 125	3	20
Chromium	0.020	J	0.200	0.201		mg/L		91	75 - 125	2	20
Lead	<0.050		0.100	0.0969		mg/L		97	75 - 125	3	20
Selenium	<0.050		0.100	0.101		mg/L		101	75 - 125	0	20
Silver	<0.025		0.0500	0.0500		mg/L		100	75 - 125	1	20

Lab Sample ID: 500-223407-1 DU — **Client Sample ID: MLBF-C-E4-01-221006**
Matrix: Solid — **Prep Type: TCLP**
Analysis Batch: 680101 — **Prep Batch: 679836**

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Aluminum	<0.20		<0.20		mg/L		NC	20
Barium	0.29	J	0.292	J	mg/L		0.09	20
Cadmium	<0.0050		<0.0050		mg/L		NC	20
Chromium	0.020	J	0.0193	J	mg/L		1	20
Lead	<0.050		<0.050		mg/L		NC	20
Selenium	<0.050		<0.050		mg/L		NC	20
Silver	<0.025		<0.025		mg/L		NC	20

Method: 6020A - Metals (ICP/MS)

Lab Sample ID: MB 500-679429/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total Recoverable**
Analysis Batch: 679657 — **Prep Batch: 679429**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	<0.10		0.10	0.025	mg/L		10/13/22 09:28	10/14/22 00:53	1
Antimony	<0.0030		0.0030	0.0013	mg/L		10/13/22 09:28	10/14/22 00:53	1
Arsenic	<0.0010		0.0010	0.00023	mg/L		10/13/22 09:28	10/14/22 00:53	1
Barium	<0.0025		0.0025	0.00073	mg/L		10/13/22 09:28	10/14/22 00:53	1
Beryllium	<0.0010		0.0010	0.00053	mg/L		10/13/22 09:28	10/14/22 00:53	1
Cadmium	<0.00050		0.00050	0.00017	mg/L		10/13/22 09:28	10/14/22 00:53	1
Calcium	<0.20		0.20	0.044	mg/L		10/13/22 09:28	10/14/22 00:53	1
Chromium	<0.0050		0.0050	0.0011	mg/L		10/13/22 09:28	10/14/22 00:53	1

Method: 6020A - Metals (ICP/MS) (Continued)

Lab Sample ID: MB 500-679429/1-A
Matrix: Water
Analysis Batch: 679657

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 679429

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cobalt	<0.0010		0.0010	0.00040	mg/L		10/13/22 09:28	10/14/22 00:53	1
Copper	<0.0020		0.0020	0.00050	mg/L		10/13/22 09:28	10/14/22 00:53	1
Iron	<0.10		0.10	0.047	mg/L		10/13/22 09:28	10/14/22 00:53	1
Lead	<0.00050		0.00050	0.00019	mg/L		10/13/22 09:28	10/14/22 00:53	1
Lithium	<0.010		0.010	0.0025	mg/L		10/13/22 09:28	10/14/22 00:53	1
Magnesium	<0.20		0.20	0.049	mg/L		10/13/22 09:28	10/14/22 00:53	1
Manganese	<0.0025		0.0025	0.00079	mg/L		10/13/22 09:28	10/14/22 00:53	1
Nickel	<0.0020		0.0020	0.00063	mg/L		10/13/22 09:28	10/14/22 00:53	1
Potassium	<0.50		0.50	0.11	mg/L		10/13/22 09:28	10/14/22 00:53	1
Selenium	<0.0025		0.0025	0.00098	mg/L		10/13/22 09:28	10/14/22 00:53	1
Silver	<0.00050		0.00050	0.00012	mg/L		10/13/22 09:28	10/14/22 00:53	1
Sodium	<0.20		0.20	0.077	mg/L		10/13/22 09:28	10/14/22 00:53	1
Thallium	<0.0020		0.0020	0.00057	mg/L		10/13/22 09:28	10/14/22 00:53	1
Vanadium	<0.0050		0.0050	0.0022	mg/L		10/13/22 09:28	10/14/22 00:53	1
Zinc	<0.020		0.020	0.0069	mg/L		10/13/22 09:28	10/14/22 00:53	1

Lab Sample ID: LCS 500-679429/2-A
Matrix: Water
Analysis Batch: 679657

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 679429

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Aluminum	2.00	2.06		mg/L		103	80 - 120
Antimony	0.500	0.531		mg/L		106	80 - 120
Arsenic	0.100	0.101		mg/L		101	80 - 120
Barium	0.500	0.527		mg/L		105	80 - 120
Beryllium	0.0500	0.0485		mg/L		97	80 - 120
Cadmium	0.0500	0.0513		mg/L		103	80 - 120
Calcium	10.0	10.4		mg/L		104	80 - 120
Chromium	0.200	0.204		mg/L		102	80 - 120
Cobalt	0.500	0.510		mg/L		102	80 - 120
Copper	0.250	0.259		mg/L		103	80 - 120
Iron	1.00	1.04		mg/L		104	80 - 120
Lead	0.100	0.105		mg/L		105	80 - 120
Lithium	0.100	0.0997		mg/L		100	80 - 120
Magnesium	10.0	10.2		mg/L		102	80 - 120
Manganese	0.500	0.517		mg/L		103	80 - 120
Nickel	0.500	0.521		mg/L		104	80 - 120
Potassium	10.0	10.5		mg/L		105	80 - 120
Selenium	0.100	0.105		mg/L		105	80 - 120
Silver	0.0500	0.0523		mg/L		105	80 - 120
Sodium	10.0	10.1		mg/L		101	80 - 120
Thallium	0.100	0.103		mg/L		103	80 - 120
Vanadium	0.500	0.505		mg/L		101	80 - 120
Zinc	0.500	0.522		mg/L		104	80 - 120

Method: 7470A - Mercury (CVAA)

Lab Sample ID: MB 500-679462/12-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 679678 — **Prep Batch: 679462**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.20		0.20	0.098	ug/L		10/13/22 12:10	10/14/22 08:48	1

Lab Sample ID: LCS 500-679462/13-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 679678 — **Prep Batch: 679462**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Mercury	2.00	1.89		ug/L		95	80 - 120

Lab Sample ID: MB 500-679952/12-A — **Client Sample ID: Method Blank**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 680143 — **Prep Batch: 679952**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.20		0.20	0.20	ug/L		10/17/22 12:00	10/18/22 09:51	1

Lab Sample ID: LCS 500-679952/14-A — **Client Sample ID: Lab Control Sample**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 680143 — **Prep Batch: 679952**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Mercury	2.00	1.77		ug/L		89	80 - 120

Lab Sample ID: LCS 500-679952/23-A — **Client Sample ID: Lab Control Sample**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 680143 — **Prep Batch: 679952**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Mercury	2.00	1.79		ug/L		90	80 - 120

Lab Sample ID: LB2 500-679726/2-B — **Client Sample ID: Method Blank**
Matrix: Solid — **Prep Type: TCLP**
Analysis Batch: 680143 — **Prep Batch: 679952**

Analyte	LB2 Result	LB2 Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.20		0.20	0.20	ug/L		10/17/22 12:00	10/18/22 09:53	1

Lab Sample ID: 500-223407-1 MS — **Client Sample ID: MLBF-C-E4-01-221006**
Matrix: Solid — **Prep Type: TCLP**
Analysis Batch: 680143 — **Prep Batch: 679952**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Mercury	1.9	F1	1.00	0.795	F1	ug/L		-113	75 - 125

Lab Sample ID: 500-223407-1 MSD — **Client Sample ID: MLBF-C-E4-01-221006**
Matrix: Solid — **Prep Type: TCLP**
Analysis Batch: 680143 — **Prep Batch: 679952**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Mercury	1.9	F1	1.00	0.835	F1	ug/L		-109	75 - 125	5	20

QC Sample Results

Client: Tetra Tech EM Inc.
Project/Site: Morris Lithium Battery Fire

Job ID: 500-223407-1

Method: 7470A - Mercury (CVAA)

Lab Sample ID: 500-223407-1 DU — **Client Sample ID: MLBF-C-E4-01-221006**
Matrix: Solid — **Prep Type: TCLP**
Analysis Batch: 680143 — **Prep Batch: 679952**

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Mercury	1.9	F1		<0.20		ug/L				NC	20

Method: 7471B - Mercury (CVAA)

Lab Sample ID: MB 500-679634/12-A — **Client Sample ID: Method Blank**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 679918 — **Prep Batch: 679634**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<17		17	5.6	ug/Kg		10/14/22 15:00	10/17/22 08:28	1

Lab Sample ID: LCS 500-679634/13-A — **Client Sample ID: Lab Control Sample**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 679918 — **Prep Batch: 679634**

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Mercury			167	159		ug/Kg		95	80 - 120		

Lab Sample ID: 500-223407-1 MS — **Client Sample ID: MLBF-C-E4-01-221006**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 679918 — **Prep Batch: 679634**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Mercury	49	F1 F2	81.1	126		ug/Kg	☼	94	75 - 125		

Lab Sample ID: 500-223407-1 MSD — **Client Sample ID: MLBF-C-E4-01-221006**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 679918 — **Prep Batch: 679634**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Mercury	49	F1 F2	80.8	44.1	F1 F2	ug/Kg	☼	-7	75 - 125	96	20

Lab Sample ID: 500-223407-1 DU — **Client Sample ID: MLBF-C-E4-01-221006**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 679918 — **Prep Batch: 679634**

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Mercury	49	F1 F2		45.6		ug/Kg	☼			8	20

Method: 9012B - Cyanide, Total andor Amenable

Lab Sample ID: MB 500-679237/1-A — **Client Sample ID: Method Blank**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 679714 — **Prep Batch: 679237**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	<0.24		0.24	0.12	mg/Kg		10/12/22 15:00	10/14/22 13:18	1

Method: 9012B - Cyanide, Total andor Amenable (Continued)

Lab Sample ID: HLCS 500-679237/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 679714 — **Prep Batch: 679237**

Analyte	Spike Added	HLCS Result	HLCS Qualifier	Unit	D	%Rec	%Rec Limits
Cyanide, Total	9.60	9.60		mg/Kg		100	90 - 110

Lab Sample ID: LCS 500-679237/3-A — **Client Sample ID: Lab Control Sample**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 679714 — **Prep Batch: 679237**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Cyanide, Total	2.40	2.38		mg/Kg		99	85 - 115

Lab Sample ID: LLCS 500-679237/4-A — **Client Sample ID: Lab Control Sample**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 679714 — **Prep Batch: 679237**

Analyte	Spike Added	LLCS Result	LLCS Qualifier	Unit	D	%Rec	%Rec Limits
Cyanide, Total	1.20	1.07		mg/Kg		89	75 - 125

Lab Sample ID: 500-223407-1 MS — **Client Sample ID: MLBF-C-E4-01-221006**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 679714 — **Prep Batch: 679237**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Cyanide, Total	<0.25	F1	1.09	<0.22	F1	mg/Kg	☼	0	75 - 125

Lab Sample ID: 500-223407-1 MSD — **Client Sample ID: MLBF-C-E4-01-221006**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 679714 — **Prep Batch: 679237**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Cyanide, Total	<0.25	F1	1.13	<0.23	F1	mg/Kg	☼	0	75 - 125	NC	20

Method: 9034 - Sulfide, Acid soluble and Insoluble (Titrimetric)

Lab Sample ID: MB 500-679258/1 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 679258

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfide	<1.0		1.0	0.23	mg/L			10/11/22 15:04	1

Lab Sample ID: LCS 500-679258/2 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 679258

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Sulfide	9.89	9.01		mg/L		91	80 - 120

Method: 9034 - Sulfide, Acid soluble and Insoluble (Titrimetric) (Continued)

Lab Sample ID: 500-223407-6 MS — **Client Sample ID: MLBF-RINSATE-221006**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 679258

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Sulfide	<1.0		9.89	8.93		mg/L		90	75 - 125

Lab Sample ID: 500-223407-6 MSD — **Client Sample ID: MLBF-RINSATE-221006**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 679258

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Sulfide	<1.0		9.89	9.46		mg/L		96	75 - 125	6	20

Lab Sample ID: MB 500-679475/1-A — **Client Sample ID: Method Blank**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 679513 — **Prep Batch: 679475**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfide	<10		10	4.7	mg/Kg		10/13/22 13:18	10/13/22 16:27	1

Lab Sample ID: LCS 500-679475/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 679513 — **Prep Batch: 679475**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Sulfide	198	162		mg/Kg		82	80 - 120

Lab Sample ID: 500-223407-1 MS — **Client Sample ID: MLBF-C-E4-01-221006**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 679513 — **Prep Batch: 679475**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Sulfide	<10	F1	196	129	F1	mg/Kg	☼	66	75 - 125

Lab Sample ID: 500-223407-1 MSD — **Client Sample ID: MLBF-C-E4-01-221006**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 679513 — **Prep Batch: 679475**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Sulfide	<10	F1	206	126	F1	mg/Kg	☼	61	75 - 125	2	20

Method: 9040C - pH

Lab Sample ID: 500-223407-6 DU — **Client Sample ID: MLBF-RINSATE-221006**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 680546

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
pH	9.9	HF	9.9		SU		0.1	

Lab Chronicle

Client: Tetra Tech EM Inc.
Project/Site: Morris Lithium Battery Fire

Job ID: 500-223407-1

Client Sample ID: MLBF-C-E4-01-221006 — Lab Sample ID: 500-223407-1

Date Collected: 10/06/22 10:40 — **Matrix: Solid**
Date Received: 10/06/22 16:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
TCLP	Leach	1311			679726	OAJ	EET CHI	10/14/22 14:05 - 10/15/22 08:05 [1]
TCLP	Prep	3510C			680601	DAK	EET CHI	10/20/22 10:28
TCLP	Analysis	8270D		5	680766	LEG	EET CHI	10/21/22 12:04
TCLP	Leach	1311			679726	OAJ	EET CHI	10/14/22 14:05 - 10/15/22 08:05 [1]
TCLP	Prep	3010A			679836	BDE	EET CHI	10/17/22 07:44 - 10/17/22 08:14 [1]
TCLP	Analysis	6010D		1	680101	JJB	EET CHI	10/17/22 23:24
TCLP	Leach	1311			679726	OAJ	EET CHI	10/14/22 14:05 - 10/15/22 08:05 [1]
TCLP	Prep	7470A			679952	MJG	EET CHI	10/17/22 12:00 - 10/17/22 14:00 [1]
TCLP	Analysis	7470A		1	680143	MJG	EET CHI	10/18/22 12:00
Total/NA	Analysis	9045D		1	678748	SMO	EET CHI	10/10/22 13:40 - 10/10/22 13:45 [1]
Total/NA	Analysis	Moisture		1	678462	LWN	EET CHI	10/07/22 10:03

Client Sample ID: MLBF-C-E4-01-221006 — Lab Sample ID: 500-223407-1

Date Collected: 10/06/22 10:40 — **Matrix: Solid**
Date Received: 10/06/22 16:45 — **Percent Solids: 95.9**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3541			679758	KN	EET CHI	10/15/22 07:45 - 10/15/22 15:30 [1]
Total/NA	Analysis	8082A		1	680001	SS	EET CHI	10/17/22 22:49
Total/NA	Prep	3050B			679336	LMB	EET CHI	10/12/22 17:06 - 10/12/22 17:36 [1]
Total/NA	Analysis	6010D		1	679838	JJB	EET CHI	10/15/22 23:05
Total/NA	Prep	3050B			679336	LMB	EET CHI	10/12/22 17:06 - 10/12/22 17:36 [1]
Total/NA	Analysis	6010D		1	680095	JJB	EET CHI	10/17/22 20:26
Total/NA	Prep	3050B			679336	LMB	EET CHI	10/12/22 17:06 - 10/12/22 17:36 [1]
Total/NA	Analysis	6010D		5	680095	JJB	EET CHI	10/17/22 20:49
Total/NA	Prep	7471B			679634	MJG	EET CHI	10/14/22 15:00
Total/NA	Analysis	7471B		1	679918	MJG	EET CHI	10/17/22 09:05
Total/NA	Prep	9010C			679237	KF	EET CHI	10/12/22 15:00 - 10/12/22 15:30 [1]
Total/NA	Analysis	9012B		1	679714	LP	EET CHI	10/14/22 13:57
Total/NA	Prep	9030B			679475	BC	EET CHI	10/13/22 13:24 - 10/13/22 13:25 [1]
Total/NA	Analysis	9034		1	679513	BC	EET CHI	10/13/22 16:49

Client Sample ID: MLBF-C-D7-01-221006 — Lab Sample ID: 500-223407-2

Date Collected: 10/06/22 11:00 — **Matrix: Solid**
Date Received: 10/06/22 16:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
TCLP	Leach	1311			679726	OAJ	EET CHI	10/14/22 14:05 - 10/15/22 08:05 [1]
TCLP	Prep	3510C			680601	DAK	EET CHI	10/20/22 10:28
TCLP	Analysis	8270D		5	680766	LEG	EET CHI	10/21/22 13:16
TCLP	Leach	1311			679726	OAJ	EET CHI	10/14/22 14:05 - 10/15/22 08:05 [1]
TCLP	Prep	3010A			679836	BDE	EET CHI	10/17/22 07:44 - 10/17/22 08:14 [1]
TCLP	Analysis	6010D		1	680101	JJB	EET CHI	10/17/22 23:40

Lab Chronicle

Client: Tetra Tech EM Inc.
Project/Site: Morris Lithium Battery Fire

Job ID: 500-223407-1

Client Sample ID: MLBF-C-D7-01-221006 — Lab Sample ID: 500-223407-2

Date Collected: 10/06/22 11:00 — **Matrix: Solid**
Date Received: 10/06/22 16:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
TCLP	Leach	1311			679726	OAJ	EET CHI	10/14/22 14:05 - 10/15/22 08:05 ¹
TCLP	Prep	7470A			679952	MJG	EET CHI	10/17/22 12:00 - 10/17/22 14:00 ¹
TCLP	Analysis	7470A		1	680143	MJG	EET CHI	10/18/22 10:10
Total/NA	Analysis	9045D		1	678748	SMO	EET CHI	10/10/22 13:45 - 10/10/22 13:49 ¹
Total/NA	Analysis	Moisture		1	678462	LWN	EET CHI	10/07/22 10:03

Client Sample ID: MLBF-C-D7-01-221006 — Lab Sample ID: 500-223407-2

Date Collected: 10/06/22 11:00 — **Matrix: Solid**
Date Received: 10/06/22 16:45 — **Percent Solids: 94.5**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3541			679758	KN	EET CHI	10/15/22 07:45 - 10/15/22 15:30 ¹
Total/NA	Analysis	8082A		1	680001	SS	EET CHI	10/17/22 23:33
Total/NA	Prep	3050B			679336	LMB	EET CHI	10/12/22 17:06 - 10/12/22 17:36 ¹
Total/NA	Analysis	6010D		1	679838	JJB	EET CHI	10/15/22 23:21
Total/NA	Prep	3050B			679336	LMB	EET CHI	10/12/22 17:06 - 10/12/22 17:36 ¹
Total/NA	Analysis	6010D		1	680095	JJB	EET CHI	10/17/22 21:05
Total/NA	Prep	3050B			679336	LMB	EET CHI	10/12/22 17:06 - 10/12/22 17:36 ¹
Total/NA	Analysis	6010D		5	680095	JJB	EET CHI	10/17/22 21:08
Total/NA	Prep	7471B			679634	MJG	EET CHI	10/14/22 15:00
Total/NA	Analysis	7471B		1	679918	MJG	EET CHI	10/17/22 09:13
Total/NA	Prep	9010C			679237	KF	EET CHI	10/12/22 15:00 - 10/12/22 15:30 ¹
Total/NA	Analysis	9012B		1	679714	LP	EET CHI	10/14/22 14:12
Total/NA	Prep	9030B			679475	BC	EET CHI	10/13/22 13:27 - 10/13/22 13:28 ¹
Total/NA	Analysis	9034		1	679689	BC	EET CHI	10/14/22 12:37

Client Sample ID: MLBF-C-B1C1-01-221006 — Lab Sample ID: 500-223407-3

Date Collected: 10/06/22 11:20 — **Matrix: Solid**
Date Received: 10/06/22 16:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
TCLP	Leach	1311			679726	OAJ	EET CHI	10/14/22 14:05 - 10/15/22 08:05 ¹
TCLP	Prep	3510C			680601	DAK	EET CHI	10/20/22 10:28
TCLP	Analysis	8270D		5	680766	LEG	EET CHI	10/21/22 13:40
TCLP	Leach	1311			679726	OAJ	EET CHI	10/14/22 14:05 - 10/15/22 08:05 ¹
TCLP	Prep	3010A			679836	BDE	EET CHI	10/17/22 07:44 - 10/17/22 08:14 ¹
TCLP	Analysis	6010D		1	680101	JJB	EET CHI	10/17/22 23:44
TCLP	Leach	1311			679726	OAJ	EET CHI	10/14/22 14:05 - 10/15/22 08:05 ¹
TCLP	Prep	7470A			679952	MJG	EET CHI	10/17/22 12:00 - 10/17/22 14:00 ¹
TCLP	Analysis	7470A		1	680143	MJG	EET CHI	10/18/22 10:12
Total/NA	Analysis	9045D		1	678748	SMO	EET CHI	10/10/22 13:54 - 10/10/22 13:59 ¹
Total/NA	Analysis	Moisture		1	678462	LWN	EET CHI	10/07/22 10:03

Lab Chronicle

Client: Tetra Tech EM Inc.
Project/Site: Morris Lithium Battery Fire

Job ID: 500-223407-1

Client Sample ID: MLBF-C-B1C1-01-221006

Lab Sample ID: 500-223407-3
Date Collected: 10/06/22 11:20
Matrix: Solid
Date Received: 10/06/22 16:45
Percent Solids: 94.8

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3541			679758	KN	EET CHI	10/15/22 07:45 - 10/15/22 15:30 ¹
Total/NA	Analysis	8082A		1	680001	SS	EET CHI	10/17/22 23:48
Total/NA	Prep	3050B			679336	LMB	EET CHI	10/12/22 17:06 - 10/12/22 17:36 ¹
Total/NA	Analysis	6010D		1	679838	JJB	EET CHI	10/15/22 23:24
Total/NA	Prep	3050B			679336	LMB	EET CHI	10/12/22 17:06 - 10/12/22 17:36 ¹
Total/NA	Analysis	6010D		1	680095	JJB	EET CHI	10/17/22 21:12
Total/NA	Prep	3050B			679336	LMB	EET CHI	10/12/22 17:06 - 10/12/22 17:36 ¹
Total/NA	Analysis	6010D		2	680095	JJB	EET CHI	10/17/22 21:15
Total/NA	Prep	3050B			679336	LMB	EET CHI	10/12/22 17:06 - 10/12/22 17:36 ¹
Total/NA	Analysis	6010D		5	680095	JJB	EET CHI	10/17/22 21:18
Total/NA	Prep	7471B			679634	MJG	EET CHI	10/14/22 15:00
Total/NA	Analysis	7471B		1	679918	MJG	EET CHI	10/17/22 09:15
Total/NA	Prep	9010C			679237	KF	EET CHI	10/12/22 15:00 - 10/12/22 15:30 ¹
Total/NA	Analysis	9012B		1	679714	LP	EET CHI	10/14/22 14:14
Total/NA	Prep	9030B			679475	BC	EET CHI	10/13/22 13:28 - 10/13/22 13:29 ¹
Total/NA	Analysis	9034		1	679689	BC	EET CHI	10/14/22 12:37

Client Sample ID: MLBF-C-C2D2-01-221006

Lab Sample ID: 500-223407-4
Date Collected: 10/06/22 11:58
Matrix: Solid
Date Received: 10/06/22 16:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
TCLP	Leach	1311			679726	OAJ	EET CHI	10/14/22 14:05 - 10/15/22 08:05 ¹
TCLP	Prep	3510C			680601	DAK	EET CHI	10/20/22 10:28
TCLP	Analysis	8270D		5	680766	LEG	EET CHI	10/21/22 14:03
TCLP	Leach	1311			679726	OAJ	EET CHI	10/14/22 14:05 - 10/15/22 08:05 ¹
TCLP	Prep	3010A			679836	BDE	EET CHI	10/17/22 07:44 - 10/17/22 08:14 ¹
TCLP	Analysis	6010D		1	680101	JJB	EET CHI	10/17/22 23:47
TCLP	Leach	1311			679726	OAJ	EET CHI	10/14/22 14:05 - 10/15/22 08:05 ¹
TCLP	Prep	7470A			679952	MJG	EET CHI	10/17/22 12:00 - 10/17/22 14:00 ¹
TCLP	Analysis	7470A		1	680143	MJG	EET CHI	10/18/22 10:15
Total/NA	Analysis	9045D		1	678748	SMO	EET CHI	10/10/22 13:59 - 10/10/22 14:03 ¹
Total/NA	Analysis	Moisture		1	678462	LWN	EET CHI	10/07/22 10:03

Client Sample ID: MLBF-C-C2D2-01-221006

Lab Sample ID: 500-223407-4
Date Collected: 10/06/22 11:58
Matrix: Solid
Date Received: 10/06/22 16:45
Percent Solids: 94.9

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3541			679758	KN	EET CHI	10/15/22 07:45 - 10/15/22 15:30 ¹
Total/NA	Analysis	8082A		1	680001	SS	EET CHI	10/18/22 00:02
Total/NA	Prep	3050B			679336	LMB	EET CHI	10/12/22 17:06 - 10/12/22 17:36 ¹
Total/NA	Analysis	6010D		1	679838	JJB	EET CHI	10/15/22 23:28
Total/NA	Prep	3050B			679336	LMB	EET CHI	10/12/22 17:06 - 10/12/22 17:36 ¹
Total/NA	Analysis	6010D		1	680095	JJB	EET CHI	10/17/22 21:28

Lab Chronicle

Client: Tetra Tech EM Inc.
Project/Site: Morris Lithium Battery Fire

Job ID: 500-223407-1

Client Sample ID: MLBF-C-C2D2-01-221006

Lab Sample ID: 500-223407-4
Date Collected: 10/06/22 11:58
Matrix: Solid
Date Received: 10/06/22 16:45
Percent Solids: 94.9

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3050B			679336	LMB	EET CHI	10/12/22 17:06 - 10/12/22 17:36 ¹
Total/NA	Analysis	6010D		5	680095	JJB	EET CHI	10/17/22 21:31
Total/NA	Prep	7471B			679634	MJG	EET CHI	10/14/22 15:00
Total/NA	Analysis	7471B		1	679918	MJG	EET CHI	10/17/22 09:21
Total/NA	Prep	9010C			679237	KF	EET CHI	10/12/22 15:00 - 10/12/22 15:30 ¹
Total/NA	Analysis	9012B		1	679714	LP	EET CHI	10/14/22 14:18
Total/NA	Prep	9030B			679475	BC	EET CHI	10/13/22 13:29 - 10/13/22 13:30 ¹
Total/NA	Analysis	9034		1	679689	BC	EET CHI	10/14/22 12:37

Client Sample ID: MLBF-C-C2D2-02-221006-DUP

Lab Sample ID: 500-223407-5
Date Collected: 10/06/22 12:15
Matrix: Solid
Date Received: 10/06/22 16:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
TCLP	Leach	1311			679726	OAJ	EET CHI	10/14/22 14:05 - 10/15/22 08:05 ¹
TCLP	Prep	3510C			680601	DAK	EET CHI	10/20/22 10:28
TCLP	Analysis	8270D		5	680766	LEG	EET CHI	10/21/22 14:27
TCLP	Leach	1311			679726	OAJ	EET CHI	10/14/22 14:05 - 10/15/22 08:05 ¹
TCLP	Prep	3010A			679836	BDE	EET CHI	10/17/22 07:44 - 10/17/22 08:14 ¹
TCLP	Analysis	6010D		1	680101	JJB	EET CHI	10/17/22 23:51
TCLP	Leach	1311			679726	OAJ	EET CHI	10/14/22 14:05 - 10/15/22 08:05 ¹
TCLP	Prep	7470A			679952	MJG	EET CHI	10/17/22 12:00 - 10/17/22 14:00 ¹
TCLP	Analysis	7470A		1	680143	MJG	EET CHI	10/18/22 10:17
Total/NA	Analysis	9045D		1	678748	SMO	EET CHI	10/10/22 14:03 - 10/10/22 14:08 ¹
Total/NA	Analysis	Moisture		1	678462	LWN	EET CHI	10/07/22 10:03

Client Sample ID: MLBF-C-C2D2-02-221006-DUP

Lab Sample ID: 500-223407-5
Date Collected: 10/06/22 12:15
Matrix: Solid
Date Received: 10/06/22 16:45
Percent Solids: 94.7

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3541			679758	KN	EET CHI	10/15/22 07:45 - 10/15/22 15:30 ¹
Total/NA	Analysis	8082A		1	680001	SS	EET CHI	10/18/22 00:17
Total/NA	Prep	3050B			679336	LMB	EET CHI	10/12/22 17:06 - 10/12/22 17:36 ¹
Total/NA	Analysis	6010D		1	679838	JJB	EET CHI	10/15/22 23:37
Total/NA	Prep	3050B			679336	LMB	EET CHI	10/12/22 17:06 - 10/12/22 17:36 ¹
Total/NA	Analysis	6010D		1	680095	JJB	EET CHI	10/17/22 21:35
Total/NA	Prep	3050B			679336	LMB	EET CHI	10/12/22 17:06 - 10/12/22 17:36 ¹
Total/NA	Analysis	6010D		5	680095	JJB	EET CHI	10/17/22 21:38
Total/NA	Prep	7471B			679634	MJG	EET CHI	10/14/22 15:00
Total/NA	Analysis	7471B		1	679918	MJG	EET CHI	10/17/22 09:23
Total/NA	Prep	9010C			679237	KF	EET CHI	10/12/22 15:00 - 10/12/22 15:30 ¹
Total/NA	Analysis	9012B		1	679714	LP	EET CHI	10/14/22 14:20
Total/NA	Prep	9030B			679475	BC	EET CHI	10/13/22 13:30 - 10/13/22 13:31 ¹
Total/NA	Analysis	9034		1	679689	BC	EET CHI	10/14/22 12:37

Lab Chronicle

Client: Tetra Tech EM Inc.
Project/Site: Morris Lithium Battery Fire

Job ID: 500-223407-1

Client Sample ID: MLBF-RINSATE-221006

Date Collected: 10/06/22 12:30
Date Received: 10/06/22 16:45

Lab Sample ID: 500-223407-6

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3510C			678933	FRG	EET CHI	10/11/22 07:41
Total/NA	Analysis	8082A		1	679122	SS	EET CHI	10/11/22 18:15
Total Recoverable	Prep	3005A			679429	BDE	EET CHI	10/13/22 09:28 - 10/13/22 09:58 [1]
Total Recoverable	Analysis	6020A		1	679657	FXG	EET CHI	10/14/22 02:39
Total/NA	Prep	7470A			679462	OAJ	EET CHI	10/13/22 12:10 - 10/13/22 14:10 [1]
Total/NA	Analysis	7470A		1	679678	MJG	EET CHI	10/14/22 09:26
Total/NA	Analysis	9034		1	679258	BC	EET CHI	10/11/22 15:16
Total/NA	Analysis	9040C		1	680546	SMO	EET CHI	10/20/22 15:11 - 10/20/22 15:15 [1]

[1] Completion dates and times are reported or not reported per method requirements or individual lab discretion.

Laboratory References:

EET CHI = Eurofins Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200

Accreditation/Certification Summary

Client: Tetra Tech EM Inc.
Project/Site: Morris Lithium Battery Fire

Job ID: 500-223407-1

Laboratory: Eurofins Chicago

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

Authority	Program	Identification Number	Expiration Date
Illinois	NELAP	IL00035	04-30-23

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
6010D	3010A	Solid	Aluminum
6010D	3010A	Solid	Barium
6010D	3010A	Solid	Cadmium
6010D	3010A	Solid	Chromium
6010D	3010A	Solid	Lead
6010D	3010A	Solid	Selenium
6010D	3010A	Solid	Silver
6010D	3050B	Solid	Aluminum
6010D	3050B	Solid	Antimony
6010D	3050B	Solid	Arsenic
6010D	3050B	Solid	Barium
6010D	3050B	Solid	Beryllium
6010D	3050B	Solid	Cadmium
6010D	3050B	Solid	Calcium
6010D	3050B	Solid	Chromium
6010D	3050B	Solid	Cobalt
6010D	3050B	Solid	Copper
6010D	3050B	Solid	Iron
6010D	3050B	Solid	Lead
6010D	3050B	Solid	Lithium
6010D	3050B	Solid	Magnesium
6010D	3050B	Solid	Manganese
6010D	3050B	Solid	Nickel
6010D	3050B	Solid	Potassium
6010D	3050B	Solid	Selenium
6010D	3050B	Solid	Silver
6010D	3050B	Solid	Sodium
6010D	3050B	Solid	Thallium
6010D	3050B	Solid	Vanadium
6010D	3050B	Solid	Zinc
6020A	3005A	Water	Lithium
7470A	7470A	Solid	Mercury
8082A	3510C	Water	PCB-1262
8082A	3510C	Water	PCB-1268
8082A	3541	Solid	PCB-1262
8082A	3541	Solid	PCB-1268
Moisture		Solid	Percent Moisture
Moisture		Solid	Percent Solids

Indiana	State	C-IL-02	04-29-23

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
6010D	3010A	Solid	Aluminum
6010D	3010A	Solid	Barium
6010D	3010A	Solid	Cadmium

Laboratory: Eurofins Chicago (Continued)

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

Authority	Program	Identification Number	Expiration Date

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
6010D	3010A	Solid	Chromium
6010D	3010A	Solid	Lead
6010D	3010A	Solid	Selenium
6010D	3010A	Solid	Silver
6010D	3050B	Solid	Aluminum
6010D	3050B	Solid	Antimony
6010D	3050B	Solid	Arsenic
6010D	3050B	Solid	Barium
6010D	3050B	Solid	Beryllium
6010D	3050B	Solid	Cadmium
6010D	3050B	Solid	Calcium
6010D	3050B	Solid	Chromium
6010D	3050B	Solid	Cobalt
6010D	3050B	Solid	Copper
6010D	3050B	Solid	Iron
6010D	3050B	Solid	Lead
6010D	3050B	Solid	Lithium
6010D	3050B	Solid	Magnesium
6010D	3050B	Solid	Manganese
6010D	3050B	Solid	Nickel
6010D	3050B	Solid	Potassium
6010D	3050B	Solid	Selenium
6010D	3050B	Solid	Silver
6010D	3050B	Solid	Sodium
6010D	3050B	Solid	Thallium
6010D	3050B	Solid	Vanadium
6010D	3050B	Solid	Zinc
6020A	3005A	Water	Aluminum
6020A	3005A	Water	Antimony
6020A	3005A	Water	Arsenic
6020A	3005A	Water	Barium
6020A	3005A	Water	Beryllium
6020A	3005A	Water	Cadmium
6020A	3005A	Water	Calcium
6020A	3005A	Water	Chromium
6020A	3005A	Water	Cobalt
6020A	3005A	Water	Copper
6020A	3005A	Water	Iron
6020A	3005A	Water	Lead
6020A	3005A	Water	Lithium
6020A	3005A	Water	Magnesium
6020A	3005A	Water	Manganese
6020A	3005A	Water	Nickel
6020A	3005A	Water	Potassium
6020A	3005A	Water	Selenium
6020A	3005A	Water	Silver
6020A	3005A	Water	Sodium

Laboratory: Eurofins Chicago (Continued)

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

Authority	Program	Identification Number	Expiration Date

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
6020A	3005A	Water	Thallium
6020A	3005A	Water	Vanadium
6020A	3005A	Water	Zinc
7470A	7470A	Solid	Mercury
7470A	7470A	Water	Mercury
7471B	7471B	Solid	Mercury
8082A	3510C	Water	PCB-1016
8082A	3510C	Water	PCB-1221
8082A	3510C	Water	PCB-1232
8082A	3510C	Water	PCB-1242
8082A	3510C	Water	PCB-1248
8082A	3510C	Water	PCB-1254
8082A	3510C	Water	PCB-1260
8082A	3510C	Water	PCB-1262
8082A	3510C	Water	PCB-1268
8082A	3541	Solid	PCB-1016
8082A	3541	Solid	PCB-1221
8082A	3541	Solid	PCB-1232
8082A	3541	Solid	PCB-1242
8082A	3541	Solid	PCB-1248
8082A	3541	Solid	PCB-1254
8082A	3541	Solid	PCB-1260
8082A	3541	Solid	PCB-1262
8082A	3541	Solid	PCB-1268
8270D	3510C	Solid	1,4-Dichlorobenzene
8270D	3510C	Solid	2,4,5-Trichlorophenol
8270D	3510C	Solid	2,4,6-Trichlorophenol
8270D	3510C	Solid	2,4-Dinitrotoluene
8270D	3510C	Solid	2-Methylphenol
8270D	3510C	Solid	3 & 4 Methylphenol
8270D	3510C	Solid	Hexachlorobenzene
8270D	3510C	Solid	Hexachlorobutadiene
8270D	3510C	Solid	Hexachloroethane
8270D	3510C	Solid	Nitrobenzene
8270D	3510C	Solid	Pentachlorophenol
8270D	3510C	Solid	Pyridine
9012B	9010C	Solid	Cyanide, Total
9034		Water	Sulfide
9034	9030B	Solid	Sulfide
9040C		Water	pH
9045D		Solid	pH
Moisture		Solid	Percent Moisture
Moisture		Solid	Percent Solids

Wisconsin	State	999580010	08-31-23

Accreditation/Certification Summary

Client: Tetra Tech EM Inc.
Job ID: 500-223407-1
Project/Site: Morris Lithium Battery Fire

Laboratory: Eurofins Chicago (Continued)

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

Authority	Program	Identification Number	Expiration Date

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
6010D	3050B	Solid	Lithium
6020A	3005A	Water	Lithium
8082A	3510C	Water	PCB-1262
8082A	3510C	Water	PCB-1268
8082A	3541	Solid	PCB-1262
8082A	3541	Solid	PCB-1268
Moisture		Solid	Percent Moisture
Moisture		Solid	Percent Solids

Chain of Custody Record

524382

eurofins

Environment Testing TestAmerica

Address MORRIS, IL

Regulatory Program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other

TAL-8210

Client Contact	Project Manager JOE SANDERS	Site Contact JOE SANDERS	Date 10/06/2022	COC No
Company Name TETRA TECH	Tel/Email JOE SANDERS@TETRATECH.com	Lab Contact Jim Knapp	Carrier	1 of 1 COCs
Address 1 S WACKER DRIVE, SUITE 3700	Analysis Turnaround Time			Sampler JS, HF
City/State/Zip CHICAGO, IL 606606	☐ CALENDAR DAYS ☑ WORKING DAYS			For Lab Use Only
Phone 309-830-0754	TAT if different from Below 10 DAY			Walk-in Client
Fax	☐ 2 weeks			Lab Sampling
Project Name MORRIS LITHIUM BATTERY SITE	☐ 1 week			
Site 103X90310032000 1C1103	☐ 2 days			Job / SDG No
P O # 8TA-72	☐ 1 day			500-223407

500-223407 COC

	Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp G=Grab)	Matrix	# of Cont.	Filtered Sample (Y/N)	Perform MS / MSD (Y/N)	TCLP METALS	TCLP SVOC	TAL METALS + Li	TCL PCBS	CYANIDE	SULFIDE	pH	PERCENT SOLIDS	Sample Specific Notes
1	MLBF-C-E4-01-221006	10/6/22	1040	C	conc	6		Y									MS/MSD
2	MLBF-C-D7-01-221006	10/6/22	1100	C	conc	2		N									
3	MLBF-C-B1C1-01-221006	10/6/22	1120	C	conc	2		N									
4	MLBF-C-C2D2-01-221006	10/6/22	1158	C	conc	2		N									
5	MLBF-C-C2D2-02-221006-DUP	10/6/22	1215	C	conc	2		N									
6	MLBF-RINSATE-221006	10/6/22	1230	G	L	6		N									

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other

Possible Hazard Identification:
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample

Non Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

☐ Return to Client ☐ Disposal by Lab ☐ Archive for _____ Months

Special Instructions/QC Requirements & Comments:

22.5 → 22.3

Custody Seals Intact. ☐ Yes ☐ No | Custody Seal No | Cooler Temp (°C) Obs'd _____ Corr'd _____ Therm ID No _____

Relinquished by	Company	Date/Time	Received by	Company	Date/Time
Joseph Sanders	Tetra Tech	10/6/22 1645			
Relinquished by	Company	Date/Time	Received by	Company	Date/Time
Relinquished by	Company	Date/Time	Received in Laboratory by	Company	Date/Time
			Stephanie Hernandez	EETA	10/6/22 1645

Login Sample Receipt Checklist

Client: Tetra Tech EM Inc.

Job Number: 500-223407-1

Login Number: 223407
List Number: 1
Creator: Hernandez, Stephanie

List Source: Eurofins Chicago

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	Received same day of collection; chilling process has begun.
Cooler Temperature is recorded.	True	22.3
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.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

ATTACHMENT 2. FLOOR DEBRIS ANALYTICAL REPORTS

Microbac Laboratories, Inc. - Chicagoland

CERTIFICATE OF ANALYSIS

22F1199

Project Description

Morris Lithium / Morris, IL

For:

John Goerger

Environmental Restoration, LLC.

1666 Fabick DR

Fenton, MO 63026

Ron Misiunas

Lab Director

Thursday, July 7, 2022

Please find enclosed the analytical results for the samples you submitted to Microbac Laboratories. Review and compilation of your report was completed by Microbac Laboratories, Inc. - Chicagoland. If you have any questions, comments, or require further assistance regarding this report, please contact your service representative listed above.

I certify that all test results meet all of the requirements of the accrediting authority listed within this report. Analytical results are reported on a 'as received' basis unless specified otherwise. Analytical results for solids with units ending in (dry) are reported on a dry weight basis. A statement of uncertainty for each analysis is available upon request. This laboratory report shall not be reproduced, except in full, without the written approval of Microbac Laboratories. The reported results are related only to the samples analyzed as received.

Microbac Laboratories, Inc.

250 West 84th Drive | Merrillville, IN 46410 | 219.769.8378 p | www.microbac.com

MICROBAC®

Microbac Laboratories, Inc. - Chicagoland

CERTIFICATE OF ANALYSIS

22F1199

Environmental Restoration, LLC.

John Goerger
1666 Fabick DR
Fenton, MO 63026

Project Name: Morris Lithium / Morris, IL

Project / PO Number: N/A
Received: 06/15/2022
Reported: 07/07/2022

Case Narrative

Water Reactivity Results;

22F1199-01	Negative
22F1199-03	Insuffucient sample remains for analysis
22F1199-05	Negative

Sample jars for the following samples were exposed to methylene chloride in the extractions lab prior to preparation for analysis by 8260, which could account for methylene chloride concentrations above the reporting level.

Laboratory ID	Sample Name
22F1199-01	MF5-25-34CD
22F1199-03	MF5-25-78BC
22F1199-05	MF5-25-78EF

The fluorinated HDPE bottles required by the TCLP method for the leaching procedure are not available . The non-fluorinated HDPE bottles were used for the following samples.

Laboratory ID	Sample Name
22F1199-02	MF5-25-34CD
22F1199-04	MF5-25-78BC
22F1199-06	MF5-25-MF5-25-78EF

Sample Summary Report

Sample Name	Laboratory ID	Client Matrix	Sample Type	Sample Begin	Sample Taken	Lab Received
MF5-25-34CD	22F1199-01	Solid			06/14/22 14:00	06/15/22 17:10
MF5-25-34CD	22F1199-02	Solid			06/14/22 14:00	06/15/22 17:10
MF5-25-78BC	22F1199-03	Solid			06/14/22 14:30	06/15/22 17:10
MF5-25-78BC	22F1199-04	Solid			06/14/22 14:30	06/15/22 17:10
MF5-25-78EF	22F1199-05	Solid			06/14/22 15:00	06/15/22 17:10
MF5-25-MF5-25-78EF	22F1199-06	Solid			06/14/22 15:00	06/15/22 17:10
MF5-25-78BC	22F1199-07	Solid			06/23/22 16:00	06/15/22 17:10

MICROBAC®

Microbac Laboratories, Inc. - Chicagoland

CERTIFICATE OF ANALYSIS

22F1199

Analytical Testing Parameters

Client Sample ID: MF5-25-34CD
Sample Matrix: Solid
Lab Sample ID: 22F1199-01
Collection Date: 06/14/2022 14:00

Inorganics Total	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
-/EPA 9038								
Sulfate	**1600**	600	mg/Kg dry	1		06/22/22 1740	06/22/22 2045	EF
EPA 9045D								
pH	**10.3**	2.00	S.U.	1		06/16/22 1547	06/16/22 1628	MRC
Temperature	**22**		°C	1			06/16/22 1628	MRC
SM 2540 G-2011								
Percent Solids	**63**	0.10	% (by wt.)	1		06/16/22 1035	06/17/22 0956	MRC
Solid CN Distillation/EPA 9012B								
Cyanide, Total	**0.27**	0.25	mg/Kg dry	1		06/22/22 1730	06/23/22 1638	ABG
SW-846 1010A/ASTM D92-90 Modified								
Ignitability	**> 170**	30.0	°F	1			06/23/22 1400	ABG
SW-846 9030B MOD/EPA 9030B Modified								
Sulfide	**2.3**	0.42	mg/Kg	1	**B**	06/19/22 1626	06/21/22 1704	EF
SW-846 9066/EPA 9066								
Phenolics, Total Recoverable	**150**	0.80	mg/Kg dry	1		06/16/22 1333	06/22/22 1754	ABG
SW-846 9095B/EPA 9095B								
Paint Filter	**No Free Liquids**		NA	1		06/17/22 1812	06/17/22 1817	EF

Metals Total by CVAA	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
SW-846 7471/EPA 7471B								
Mercury	**0.29**	0.066	mg/Kg dry	1	**M1, M5, R1**	06/20/22 0928	06/20/22 1352	RPL

Metals Total by ICP	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
SW846 3050B/EPA 6010C								
Arsenic	**9.5**	0.78	mg/Kg dry	1		06/19/22 0458	06/20/22 1639	RPL
Cadmium	**33**	0.31	mg/Kg dry	1		06/22/22 0600	06/22/22 1505	RPL
Chromium	**56**	0.31	mg/Kg dry	1		06/19/22 0458	06/20/22 1639	RPL
Lead	**810**	0.59	mg/Kg dry	1		06/22/22 0600	06/22/22 1505	RPL
Lithium	**2000**	78	mg/Kg dry	10		06/19/22 0458	06/21/22 1150	RPL
Nickel	**1400**	0.78	mg/Kg dry	1		06/19/22 0458	06/20/22 1639	RPL
Selenium	<2.3	2.3	mg/Kg dry	1		06/19/22 0458	06/20/22 1639	RPL
Silver	**48**	0.78	mg/Kg dry	1		06/19/22 0458	06/20/22 1639	RPL

Volatile Organic Compounds by GCMS	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
SW846 5035/EPA 8260B								
1,1,1,2-Tetrachloroethane	<15	15	ug/kg dry	1			06/23/22 1518	JBS
1,1,1-Trichloroethane	<7.6	7.6	ug/kg dry	1			06/23/22 1518	JBS
1,1,2,2-Tetrachloroethane	<7.6	7.6	ug/kg dry	1			06/23/22 1518	JBS
1,1,2-Trichloroethane	<7.6	7.6	ug/kg dry	1			06/23/22 1518	JBS
1,1-Dichloroethane	<7.6	7.6	ug/kg dry	1			06/23/22 1518	JBS

MICROBAC®

Microbac Laboratories, Inc. - Chicagoland

CERTIFICATE OF ANALYSIS

22F1199

Client Sample ID: MF5-25-34CD
Sample Matrix: Solid
Lab Sample ID: 22F1199-01
Collection Date: 06/14/2022 14:00

Volatile Organic Compounds by GCMS	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
1,1-Dichloroethene	<7.6	7.6	ug/kg dry	1			06/23/22 1518	JBS
1,2-Dichloroethane	<7.6	7.6	ug/kg dry	1			06/23/22 1518	JBS
1,2-Dichloropropane	<7.6	7.6	ug/kg dry	1			06/23/22 1518	JBS
2-Butanone	<15	15	ug/kg dry	1			06/23/22 1518	JBS
2-Hexanone	<15	15	ug/kg dry	1			06/23/22 1518	JBS
4-Methyl-2-pentanone	<15	15	ug/kg dry	1			06/23/22 1518	JBS
Acetone	**110**	76	ug/kg dry	1			06/23/22 1518	JBS
Acrolein	<150	150	ug/kg dry	1			06/23/22 1518	JBS
Acrylonitrile	<150	150	ug/kg dry	1			06/23/22 1518	JBS
Benzene	<7.6	7.6	ug/kg dry	1			06/23/22 1518	JBS
Bromodichloromethane	<7.6	7.6	ug/kg dry	1			06/23/22 1518	JBS
Bromoform	<7.6	7.6	ug/kg dry	1			06/23/22 1518	JBS
Bromomethane	<15	15	ug/kg dry	1			06/23/22 1518	JBS
Carbon Disulfide	<15	15	ug/kg dry	1			06/23/22 1518	JBS
Carbon tetrachloride	<7.6	7.6	ug/kg dry	1			06/23/22 1518	JBS
Chlorobenzene	<7.6	7.6	ug/kg dry	1			06/23/22 1518	JBS
Chloroethane	<15	15	ug/kg dry	1			06/23/22 1518	JBS
Chloroform	<7.6	7.6	ug/kg dry	1			06/23/22 1518	JBS
Chloromethane	<15	15	ug/kg dry	1			06/23/22 1518	JBS
cis-1,2-Dichloroethene	<7.6	7.6	ug/kg dry	1			06/23/22 1518	JBS
cis-1,3-Dichloropropene	<7.6	7.6	ug/kg dry	1			06/23/22 1518	JBS
Dibromochloromethane	<7.6	7.6	ug/kg dry	1			06/23/22 1518	JBS
Ethylbenzene	<7.6	7.6	ug/kg dry	1			06/23/22 1518	JBS
m,p-Xylene	<7.6	7.6	ug/kg dry	1			06/23/22 1518	JBS
Methylene chloride	**72**	31	ug/kg dry	1			06/23/22 1518	JBS
Methyl-t-Butyl Ether	<7.6	7.6	ug/kg dry	1			06/23/22 1518	JBS
o-Xylene	<7.6	7.6	ug/kg dry	1			06/23/22 1518	JBS
Styrene	<7.6	7.6	ug/kg dry	1			06/23/22 1518	JBS
Tetrachloroethene	<7.6	7.6	ug/kg dry	1			06/23/22 1518	JBS
Toluene	<7.6	7.6	ug/kg dry	1			06/23/22 1518	JBS
trans-1,2-Dichloroethene	<7.6	7.6	ug/kg dry	1			06/23/22 1518	JBS
trans-1,3-Dichloropropene	<7.6	7.6	ug/kg dry	1			06/23/22 1518	JBS
Trichloroethene	<7.6	7.6	ug/kg dry	1			06/23/22 1518	JBS
Trichlorofluoromethane	<15	15	ug/kg dry	1			06/23/22 1518	JBS
Vinyl Acetate	<15	15	ug/kg dry	1			06/23/22 1518	JBS
Vinyl chloride	<15	15	ug/kg dry	1			06/23/22 1518	JBS
Total 1,2-Dichloroethene	<7.6	7.6	ug/kg dry	1			06/23/22 1518	JBS
Total Xylenes	<7.6	7.6	ug/kg dry	1			06/23/22 1518	JBS
Surrogate: 1,2-Dichloroethane-d4	101	Limit: 51.7-162	% Rec	1			06/23/22 1518	JBS
Surrogate: 4-Bromofluorobenzene	84.0	Limit: 57.4-135	% Rec	1			06/23/22 1518	JBS
Surrogate: Dibromofluoromethane	80.1	Limit: 63.5-139	% Rec	1			06/23/22 1518	JBS
Surrogate: Toluene-d8	111	Limit: 66.6-143	% Rec	1			06/23/22 1518	JBS

MICROBAC®

Microbac Laboratories, Inc. - Chicagoland

CERTIFICATE OF ANALYSIS

22F1199

Client Sample ID: MF5-25-34CD
Sample Matrix: Solid
Lab Sample ID: 22F1199-01
Collection Date: 06/14/2022 14:00

Semivolatile Organic Compounds by GC/ECD	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
SW846 3550B/EPA 8082A								
Aroclor 1016	<52	52	ug/kg dry	1		06/16/22 1420	06/17/22 0012	CLR
Aroclor 1221	<52	52	ug/kg dry	1		06/16/22 1420	06/17/22 0012	CLR
Aroclor 1232	<52	52	ug/kg dry	1		06/16/22 1420	06/17/22 0012	CLR
Aroclor 1242	<52	52	ug/kg dry	1		06/16/22 1420	06/17/22 0012	CLR
Aroclor 1248	<52	52	ug/kg dry	1		06/16/22 1420	06/17/22 0012	CLR
Aroclor 1254	<52	52	ug/kg dry	1		06/16/22 1420	06/17/22 0012	CLR
Aroclor 1260	<52	52	ug/kg dry	1		06/16/22 1420	06/17/22 0012	CLR
Aroclor 1262	<52	52	ug/kg dry	1		06/16/22 1420	06/17/22 0012	CLR
Aroclor 1268	<52	52	ug/kg dry	1		06/16/22 1420	06/17/22 0012	CLR
Total PCB's	<52	52	ug/kg dry	1		06/16/22 1420	06/17/22 0012	CLR
Surrogate: Tetrachloro-m-xylene	280	Limit: 27.6-126	% Rec	1	**S1**	06/16/22 1420	06/17/22 0012	CLR
Surrogate: Decachlorobiphenyl	120	Limit: 25.2-136	% Rec	1		06/16/22 1420	06/17/22 0012	CLR

Semivolatile Organic Compounds by GCMS	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
SW846 3550B/EPA 8270C								
1,2,4-Trichlorobenzene	<2600	2600	ug/kg dry	5		06/17/22 1443	06/22/22 0209	CLR
1,2-Dichlorobenzene	<2600	2600	ug/kg dry	5		06/17/22 1443	06/22/22 0209	CLR
1,2-Diphenyl-hydrazine	<2600	2600	ug/kg dry	5		06/17/22 1443	06/22/22 0209	CLR
1,3-Dichlorobenzene	<2600	2600	ug/kg dry	5		06/17/22 1443	06/22/22 0209	CLR
1,4-Dichlorobenzene	<2600	2600	ug/kg dry	5		06/17/22 1443	06/22/22 0209	CLR
2,2´-oxybis(1-chloropropane)	<2600	2600	ug/kg dry	5		06/17/22 1443	06/22/22 0209	CLR
2,4,5-Trichlorophenol	<2600	2600	ug/kg dry	5		06/17/22 1443	06/22/22 0209	CLR
2,4,6-Trichlorophenol	<2600	2600	ug/kg dry	5		06/17/22 1443	06/22/22 0209	CLR
2,4-Dichlorophenol	<2600	2600	ug/kg dry	5		06/17/22 1443	06/22/22 0209	CLR
2,4-Dimethylphenol	<2600	2600	ug/kg dry	5		06/17/22 1443	06/22/22 0209	CLR
2,4-Dinitrophenol	<13000	13000	ug/kg dry	5		06/17/22 1443	06/22/22 0209	CLR
2,4-Dinitrotoluene	<2600	2600	ug/kg dry	5		06/17/22 1443	06/22/22 0209	CLR
2,6-Dichlorophenol	<2600	2600	ug/kg dry	5		06/17/22 1443	06/22/22 0209	CLR
2,6-Dinitrotoluene	<2600	2600	ug/kg dry	5		06/17/22 1443	06/22/22 0209	CLR
2-Chloronaphthalene	<2600	2600	ug/kg dry	5		06/17/22 1443	06/22/22 0209	CLR
2-Chlorophenol	<2600	2600	ug/kg dry	5		06/17/22 1443	06/22/22 0209	CLR
2-Methylnaphthalene	<2600	2600	ug/kg dry	5		06/17/22 1443	06/22/22 0209	CLR
2-Methylphenol	<2600	2600	ug/kg dry	5		06/17/22 1443	06/22/22 0209	CLR
2-Nitroaniline	<13000	13000	ug/kg dry	5		06/17/22 1443	06/22/22 0209	CLR
2-Nitrophenol	<2600	2600	ug/kg dry	5		06/17/22 1443	06/22/22 0209	CLR
3,3´-Dichlorobenzidine	<13000	13000	ug/kg dry	5		06/17/22 1443	06/22/22 0209	CLR
3/4-Methylphenol	<2600	2600	ug/kg dry	5		06/17/22 1443	06/22/22 0209	CLR
3-Nitroaniline	<2600	2600	ug/kg dry	5		06/17/22 1443	06/22/22 0209	CLR
4,6-Dinitro-2-methylphenol	<13000	13000	ug/kg dry	5		06/17/22 1443	06/22/22 0209	CLR
4-Bromophenyl phenyl ether	<2600	2600	ug/kg dry	5		06/17/22 1443	06/22/22 0209	CLR
4-Chloro-3-methylphenol	<5200	5200	ug/kg dry	5		06/17/22 1443	06/22/22 0209	CLR

Client Sample ID: MF5-25-34CD
Sample Matrix: Solid
Lab Sample ID: 22F1199-01
Collection Date: 06/14/2022 14:00

Semivolatile Organic Compounds by GCMS	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
4-Chloroaniline	<2600	2600	ug/kg dry	5		06/17/22 1443	06/22/22 0209	CLR
4-Chlorophenyl phenyl ether	<2600	2600	ug/kg dry	5		06/17/22 1443	06/22/22 0209	CLR
4-Nitroaniline	<13000	13000	ug/kg dry	5		06/17/22 1443	06/22/22 0209	CLR
4-Nitrophenol	<13000	13000	ug/kg dry	5		06/17/22 1443	06/22/22 0209	CLR
Acenaphthene	<2600	2600	ug/kg dry	5		06/17/22 1443	06/22/22 0209	CLR
Acenaphthylene	<2600	2600	ug/kg dry	5		06/17/22 1443	06/22/22 0209	CLR
Acetophenone	<2600	2600	ug/kg dry	5		06/17/22 1443	06/22/22 0209	CLR
Aniline	<2600	2600	ug/kg dry	5		06/17/22 1443	06/22/22 0209	CLR
Anthracene	<2600	2600	ug/kg dry	5		06/17/22 1443	06/22/22 0209	CLR
Benzidine	<13000	13000	ug/kg dry	5		06/17/22 1443	06/22/22 0209	CLR
Benzo[a]anthracene	<2600	2600	ug/kg dry	5		06/17/22 1443	06/22/22 0209	CLR
Benzo[a]pyrene	<2600	2600	ug/kg dry	5		06/17/22 1443	06/22/22 0209	CLR
Benzo[b]fluoranthene	<2600	2600	ug/kg dry	5		06/17/22 1443	06/22/22 0209	CLR
Benzo[g,h,i]perylene	<2600	2600	ug/kg dry	5		06/17/22 1443	06/22/22 0209	CLR
Benzo[k]fluoranthene	<2600	2600	ug/kg dry	5		06/17/22 1443	06/22/22 0209	CLR
Benzoic acid	<13000	13000	ug/kg dry	5		06/17/22 1443	06/22/22 0209	CLR
Benzyl alcohol	<5200	5200	ug/kg dry	5		06/17/22 1443	06/22/22 0209	CLR
Bis(2-chloroethoxy)methane	<2600	2600	ug/kg dry	5		06/17/22 1443	06/22/22 0209	CLR
Bis(2-chloroethyl)ether	<2600	2600	ug/kg dry	5		06/17/22 1443	06/22/22 0209	CLR
Bis(2-ethylhexyl)phthalate	<2600	2600	ug/kg dry	5		06/17/22 1443	06/22/22 0209	CLR
Butyl benzyl phthalate	<2600	2600	ug/kg dry	5		06/17/22 1443	06/22/22 0209	CLR
Carbazole	<2600	2600	ug/kg dry	5		06/17/22 1443	06/22/22 0209	CLR
Chrysene	<2600	2600	ug/kg dry	5		06/17/22 1443	06/22/22 0209	CLR
Dibenz[a,h]anthracene	<2600	2600	ug/kg dry	5		06/17/22 1443	06/22/22 0209	CLR
Dibenzofuran	<2600	2600	ug/kg dry	5		06/17/22 1443	06/22/22 0209	CLR
Diethyl phthalate	<2600	2600	ug/kg dry	5		06/17/22 1443	06/22/22 0209	CLR
Dimethyl phthalate	<2600	2600	ug/kg dry	5		06/17/22 1443	06/22/22 0209	CLR
Di-n-butyl phthalate	<2600	2600	ug/kg dry	5		06/17/22 1443	06/22/22 0209	CLR
Di-n-octyl phthalate	<2600	2600	ug/kg dry	5		06/17/22 1443	06/22/22 0209	CLR
Fluoranthene	<2600	2600	ug/kg dry	5		06/17/22 1443	06/22/22 0209	CLR
Fluorene	<2600	2600	ug/kg dry	5		06/17/22 1443	06/22/22 0209	CLR
Hexachlorobenzene	<2600	2600	ug/kg dry	5		06/17/22 1443	06/22/22 0209	CLR
Hexachlorobutadiene	<2600	2600	ug/kg dry	5		06/17/22 1443	06/22/22 0209	CLR
Hexachlorocyclopentadiene	<2600	2600	ug/kg dry	5		06/17/22 1443	06/22/22 0209	CLR
Hexachloroethane	<2600	2600	ug/kg dry	5		06/17/22 1443	06/22/22 0209	CLR
Indeno[1,2,3cd]pyrene	<2600	2600	ug/kg dry	5		06/17/22 1443	06/22/22 0209	CLR
Isophorone	<2600	2600	ug/kg dry	5		06/17/22 1443	06/22/22 0209	CLR
Naphthalene	<2600	2600	ug/kg dry	5		06/17/22 1443	06/22/22 0209	CLR
Nitrobenzene	<2600	2600	ug/kg dry	5		06/17/22 1443	06/22/22 0209	CLR
N-Nitrosodimethylamine	<2600	2600	ug/kg dry	5		06/17/22 1443	06/22/22 0209	CLR
N-Nitrosodi-n-propylamine	<2600	2600	ug/kg dry	5		06/17/22 1443	06/22/22 0209	CLR
N-Nitrosodiphenylamine	<2600	2600	ug/kg dry	5		06/17/22 1443	06/22/22 0209	CLR
Pentachlorophenol	<13000	13000	ug/kg dry	5		06/17/22 1443	06/22/22 0209	CLR

MICROBAC®

Microbac Laboratories, Inc. - Chicagoland

CERTIFICATE OF ANALYSIS

22F1199

Client Sample ID: MF5-25-34CD
Sample Matrix: Solid
Lab Sample ID: 22F1199-01
Collection Date: 06/14/2022 14:00

Semivolatile Organic Compounds by GCMS	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
Phenanthrene	<2600	2600	ug/kg dry	5		06/17/22 1443	06/22/22 0209	CLR
Phenol	**24000**	10000	ug/kg dry	20		06/17/22 1443	06/27/22 0343	CLR
Pyrene	<2600	2600	ug/kg dry	5		06/17/22 1443	06/22/22 0209	CLR
Pyridine	<2600	2600	ug/kg dry	5		06/17/22 1443	06/22/22 0209	CLR
Total Cresol	<2600	2600	ug/kg dry	5		06/17/22 1443	06/22/22 0209	CLR
Surrogate: 2,4,6-Tribromophenol	38.8	Limit: 13.9-145	% Rec	5		06/17/22 1443	06/22/22 0209	CLR
Surrogate: 2-Fluorobiphenyl	54.1	Limit: 28.1-110	% Rec	5		06/17/22 1443	06/22/22 0209	CLR
Surrogate: 2-Fluorophenol	33.0	Limit: 24.5-110	% Rec	5		06/17/22 1443	06/22/22 0209	CLR
Surrogate: Nitrobenzene-d5	50.9	Limit: 33.6-110	% Rec	5		06/17/22 1443	06/22/22 0209	CLR
Surrogate: Phenol-d5	46.9	Limit: 29.6-110	% Rec	5		06/17/22 1443	06/22/22 0209	CLR
Surrogate: Terphenyl-d14	24.6	Limit: 35.8-121	% Rec	5	**S2**	06/17/22 1443	06/22/22 0209	CLR

MICROBAC®

Microbac Laboratories, Inc. - Chicagoland

CERTIFICATE OF ANALYSIS

22F1199

Client Sample ID: MF5-25-34CD
Sample Matrix: Solid
Lab Sample ID: 22F1199-02 **Collection Date:** 06/14/2022 14:00

Metals TCLP by CVAA	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
SW-846 7470/EPA 7470A								
Mercury	<0.0025	0.0025	mg/L	1		06/21/22 1040	06/23/22 1254	RPL

Metals TCLP by ICP	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
SW846 3005A/EPA 6010C								
Arsenic	<0.050	0.050	mg/L	1		06/21/22 1032	06/24/22 1933	RPL
Barium	<2.5	2.5	mg/L	1		06/21/22 1032	06/24/22 1933	RPL
Cadmium	**0.23**	0.010	mg/L	1		06/21/22 1032	06/24/22 1933	RPL
Chromium	<0.025	0.025	mg/L	1		06/21/22 1032	06/24/22 1933	RPL
Lead	**0.44**	0.038	mg/L	1		06/21/22 1032	06/24/22 1933	RPL
Selenium	<0.15	0.15	mg/L	1		06/21/22 1032	06/24/22 1933	RPL
Silver	<0.050	0.050	mg/L	1		06/21/22 1032	06/24/22 1933	RPL

Volatile Organic Compounds TCLP by GCMS	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
SW-846 8260B/EPA 8260B								
1,1-Dichloroethene	<0.050	0.050	mg/L	10			06/23/22 2009	JBS
1,2-Dichloroethane	<0.050	0.050	mg/L	10			06/23/22 2009	JBS
2-Butanone	<0.20	0.20	mg/L	10			06/23/22 2009	JBS
Benzene	<0.050	0.050	mg/L	10			06/23/22 2009	JBS
Carbon tetrachloride	<0.050	0.050	mg/L	10			06/23/22 2009	JBS
Chlorobenzene	<0.050	0.050	mg/L	10			06/23/22 2009	JBS
Chloroform	<0.050	0.050	mg/L	10			06/23/22 2009	JBS
Tetrachloroethene	<0.050	0.050	mg/L	10			06/23/22 2009	JBS
Trichloroethene	<0.050	0.050	mg/L	10			06/23/22 2009	JBS
Vinyl chloride	<0.020	0.020	mg/L	10			06/23/22 2009	JBS
Surrogate: 1,2-Dichloroethane-d4	95.1	Limit: 74.5-132	% Rec	10			06/23/22 2009	JBS
Surrogate: 4-Bromofluorobenzene	92.3	Limit: 80-120	% Rec	10			06/23/22 2009	JBS
Surrogate: Dibromofluoromethane	98.1	Limit: 80-120	% Rec	10			06/23/22 2009	JBS
Surrogate: Toluene-d8	102	Limit: 80-120	% Rec	10			06/23/22 2009	JBS

Semivolatile Organic Compounds TCLP by GCMS	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
SW846 3510/EPA 8270C								
1,4-Dichlorobenzene	<0.050	0.050	mg/L	1		06/25/22 0804	06/26/22 1923	CLR
1,4-Dichlorobenzene	<0.050	0.050	mg/L	1	**H2**	06/29/22 0618	07/01/22 0418	CLR
2,4,5-Trichlorophenol	<0.050	0.050	mg/L	1		06/25/22 0804	06/26/22 1923	CLR
2,4,5-Trichlorophenol	<0.050	0.050	mg/L	1	**H2**	06/29/22 0618	07/01/22 0418	CLR
2,4,6-Trichlorophenol	<0.050	0.050	mg/L	1		06/25/22 0804	06/26/22 1923	CLR
2,4,6-Trichlorophenol	<0.050	0.050	mg/L	1	**H2**	06/29/22 0618	07/01/22 0418	CLR
2,4-Dinitrotoluene	<0.050	0.050	mg/L	1		06/25/22 0804	06/26/22 1923	CLR
2,4-Dinitrotoluene	<0.050	0.050	mg/L	1	**H2**	06/29/22 0618	07/01/22 0418	CLR
2-Methylphenol	<0.050	0.050	mg/L	1		06/25/22 0804	06/26/22 1923	CLR
2-Methylphenol	<0.050	0.050	mg/L	1	**H2**	06/29/22 0618	07/01/22 0418	CLR

MICROBAC®

Microbac Laboratories, Inc. - Chicagoland

CERTIFICATE OF ANALYSIS

22F1199

Client Sample ID: MF5-25-34CD
Sample Matrix: Solid
Lab Sample ID: 22F1199-02
Collection Date: 06/14/2022 14:00

Semivolatile Organic Compounds TCLP by GCMS	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
3/4-Methylphenol	<0.050	0.050	mg/L	1		06/25/22 0804	06/26/22 1923	CLR
3/4-Methylphenol	<0.050	0.050	mg/L	1	**H2**	06/29/22 0618	07/01/22 0418	CLR
Hexachlorobenzene	<0.050	0.050	mg/L	1		06/25/22 0804	06/26/22 1923	CLR
Hexachlorobenzene	<0.050	0.050	mg/L	1	**H2**	06/29/22 0618	07/01/22 0418	CLR
Hexachlorobutadiene	<0.050	0.050	mg/L	1	**H2**	06/29/22 0618	07/01/22 0418	CLR
Hexachlorobutadiene	<0.050	0.050	mg/L	1	**Q3**	06/25/22 0804	06/26/22 1923	CLR
Hexachloroethane	<0.050	0.050	mg/L	1	**H2**	06/29/22 0618	07/01/22 0418	CLR
Hexachloroethane	<0.050	0.050	mg/L	1		06/25/22 0804	06/26/22 1923	CLR
Nitrobenzene	<0.050	0.050	mg/L	1		06/25/22 0804	06/26/22 1923	CLR
Nitrobenzene	<0.050	0.050	mg/L	1	**H2**	06/29/22 0618	07/01/22 0418	CLR
Pentachlorophenol	<0.25	0.25	mg/L	1	**H2**	06/29/22 0618	07/01/22 0418	CLR
Pentachlorophenol	<0.25	0.25	mg/L	1		06/25/22 0804	06/26/22 1923	CLR
Pyridine	<0.050	0.050	mg/L	1	**H2**	06/29/22 0618	07/01/22 0418	CLR
Pyridine	<0.050	0.050	mg/L	1		06/25/22 0804	06/26/22 1923	CLR
Total Cresol	<0.050	0.050	mg/L	1	**H2**	06/29/22 0618	07/01/22 0418	CLR
Total Cresol	<0.050	0.050	mg/L	1		06/25/22 0804	06/26/22 1923	CLR
Surrogate: 2,4,6-Tribromophenol	46.5	Limit: 47.8-138	% Rec	1	**S2**	06/25/22 0804	06/26/22 1923	CLR
Surrogate: 2,4,6-Tribromophenol	53.0	Limit: 47.8-138	% Rec	1	**H2**	06/29/22 0618	07/01/22 0418	CLR
Surrogate: 2-Fluorobiphenyl	30.5	Limit: 10-110	% Rec	1		06/25/22 0804	06/26/22 1923	CLR
Surrogate: 2-Fluorobiphenyl	33.8	Limit: 10-110	% Rec	1	**H2**	06/29/22 0618	07/01/22 0418	CLR
Surrogate: 2-Fluorophenol	25.7	Limit: 10-110	% Rec	1		06/25/22 0804	06/26/22 1923	CLR
Surrogate: 2-Fluorophenol	29.9	Limit: 10-110	% Rec	1	**H2**	06/29/22 0618	07/01/22 0418	CLR
Surrogate: Nitrobenzene-d5	35.8	Limit: 10-110	% Rec	1	**H2**	06/29/22 0618	07/01/22 0418	CLR
Surrogate: Nitrobenzene-d5	32.2	Limit: 10-110	% Rec	1		06/25/22 0804	06/26/22 1923	CLR
Surrogate: Phenol-d5	38.3	Limit: 43.7-126	% Rec	1	**H2, S2**	06/29/22 0618	07/01/22 0418	CLR
Surrogate: Phenol-d5	32.7	Limit: 43.7-126	% Rec	1	**S2**	06/25/22 0804	06/26/22 1923	CLR
Surrogate: Terphenyl-d14	64.0	Limit: 33.7-136	% Rec	1	**H2**	06/29/22 0618	07/01/22 0418	CLR
Surrogate: Terphenyl-d14	53.0	Limit: 33.7-136	% Rec	1		06/25/22 0804	06/26/22 1923	CLR

MICROBAC®

Microbac Laboratories, Inc. - Chicagoland

CERTIFICATE OF ANALYSIS

22F1199

Client Sample ID: MF5-25-78BC
Sample Matrix: Solid
Lab Sample ID: 22F1199-03
Collection Date: 06/14/2022 14:30

Inorganics Total	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
EPA 9045D								
pH	**> 12.00**	2.00	S.U.	1		06/16/22 1547	06/16/22 1633	MRC
Temperature	**22**		°C	1			06/16/22 1633	MRC
SM 2540 G-2011								
Percent Solids	**92**	0.10	% (by wt.)	1		06/16/22 1035	06/17/22 0956	MRC
SW-846 9030B MOD/EPA 9030B Modified								
Sulfide	<0.50	0.50	mg/Kg	1	**B, M2, M3, R1**	06/19/22 1626	06/21/22 1704	EF
SW-846 9066/EPA 9066								
Phenolics, Total Recoverable	**3.1**	0.54	mg/Kg dry	1	**M2, M3**	06/16/22 1333	06/22/22 1756	ABG
SW-846 9095B/EPA 9095B								
Paint Filter	**No Free Liquids**		NA	1		06/17/22 1812	06/17/22 1817	EF

Metals Total by CVAA	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
SW-846 7471/EPA 7471B								
Mercury	<0.044	0.044	mg/Kg dry	1		06/20/22 0928	06/20/22 1359	RPL

Metals Total by ICP	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
SW846 3050B/EPA 6010C								
Arsenic	**3.0**	0.53	mg/Kg dry	1		06/19/22 0458	06/20/22 1644	RPL
Cadmium	**18**	0.22	mg/Kg dry	1		06/22/22 0600	06/22/22 1510	RPL
Chromium	**18**	0.21	mg/Kg dry	1		06/19/22 0458	06/20/22 1644	RPL
Lead	**390**	0.40	mg/Kg dry	1		06/22/22 0600	06/22/22 1510	RPL
Lithium	**100**	5.3	mg/Kg dry	1		06/19/22 0458	06/20/22 1644	RPL
Nickel	**39**	0.53	mg/Kg dry	1		06/19/22 0458	06/20/22 1644	RPL
Selenium	<1.6	1.6	mg/Kg dry	1		06/19/22 0458	06/20/22 1644	RPL
Silver	<0.53	0.53	mg/Kg dry	1		06/19/22 0458	06/20/22 1644	RPL

Volatile Organic Compounds by GCMS	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
SW846 5035/EPA 8260B								
1,1,1,2-Tetrachloroethane	<10	10	ug/kg dry	1			06/23/22 1542	JBS
1,1,1-Trichloroethane	<5.2	5.2	ug/kg dry	1			06/23/22 1542	JBS
1,1,2,2-Tetrachloroethane	<5.2	5.2	ug/kg dry	1			06/23/22 1542	JBS
1,1,2-Trichloroethane	<5.2	5.2	ug/kg dry	1			06/23/22 1542	JBS
1,1-Dichloroethane	<5.2	5.2	ug/kg dry	1			06/23/22 1542	JBS
1,1-Dichloroethene	<5.2	5.2	ug/kg dry	1			06/23/22 1542	JBS
1,2-Dichloroethane	<5.2	5.2	ug/kg dry	1			06/23/22 1542	JBS
1,2-Dichloropropane	<5.2	5.2	ug/kg dry	1			06/23/22 1542	JBS
2-Butanone	<10	10	ug/kg dry	1			06/23/22 1542	JBS
2-Hexanone	<10	10	ug/kg dry	1			06/23/22 1542	JBS
4-Methyl-2-pentanone	<10	10	ug/kg dry	1			06/23/22 1542	JBS
Acetone	**59**	52	ug/kg dry	1			06/23/22 1542	JBS
Acrolein	<100	100	ug/kg dry	1			06/23/22 1542	JBS

MICROBAC®

Microbac Laboratories, Inc. - Chicagoland

CERTIFICATE OF ANALYSIS

22F1199

Client Sample ID: MF5-25-78BC
Sample Matrix: Solid
Lab Sample ID: 22F1199-03 **Collection Date:** 06/14/2022 14:30

Volatile Organic Compounds by GCMS	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
Acrylonitrile	<100	100	ug/kg dry	1			06/23/22 1542	JBS
Benzene	<5.2	5.2	ug/kg dry	1			06/23/22 1542	JBS
Bromodichloromethane	<5.2	5.2	ug/kg dry	1			06/23/22 1542	JBS
Bromoform	<5.2	5.2	ug/kg dry	1			06/23/22 1542	JBS
Bromomethane	<10	10	ug/kg dry	1			06/23/22 1542	JBS
Carbon Disulfide	<10	10	ug/kg dry	1			06/23/22 1542	JBS
Carbon tetrachloride	<5.2	5.2	ug/kg dry	1			06/23/22 1542	JBS
Chlorobenzene	<5.2	5.2	ug/kg dry	1			06/23/22 1542	JBS
Chloroethane	<10	10	ug/kg dry	1			06/23/22 1542	JBS
Chloroform	<5.2	5.2	ug/kg dry	1			06/23/22 1542	JBS
Chloromethane	<10	10	ug/kg dry	1			06/23/22 1542	JBS
cis-1,2-Dichloroethene	<5.2	5.2	ug/kg dry	1			06/23/22 1542	JBS
cis-1,3-Dichloropropene	<5.2	5.2	ug/kg dry	1			06/23/22 1542	JBS
Dibromochloromethane	<5.2	5.2	ug/kg dry	1			06/23/22 1542	JBS
Ethylbenzene	<5.2	5.2	ug/kg dry	1			06/23/22 1542	JBS
m,p-Xylene	<5.2	5.2	ug/kg dry	1			06/23/22 1542	JBS
Methylene chloride	**45**	21	ug/kg dry	1			06/23/22 1542	JBS
Methyl-t-Butyl Ether	<5.2	5.2	ug/kg dry	1			06/23/22 1542	JBS
o-Xylene	<5.2	5.2	ug/kg dry	1			06/23/22 1542	JBS
Styrene	<5.2	5.2	ug/kg dry	1			06/23/22 1542	JBS
Tetrachloroethene	<5.2	5.2	ug/kg dry	1			06/23/22 1542	JBS
Toluene	<5.2	5.2	ug/kg dry	1			06/23/22 1542	JBS
trans-1,2-Dichloroethene	**11**	5.2	ug/kg dry	1			06/23/22 1542	JBS
trans-1,3-Dichloropropene	<5.2	5.2	ug/kg dry	1			06/23/22 1542	JBS
Trichloroethene	<5.2	5.2	ug/kg dry	1			06/23/22 1542	JBS
Trichlorofluoromethane	<10	10	ug/kg dry	1			06/23/22 1542	JBS
Vinyl Acetate	<10	10	ug/kg dry	1			06/23/22 1542	JBS
Vinyl chloride	<10	10	ug/kg dry	1			06/23/22 1542	JBS
Total 1,2-Dichloroethene	**11**	5.2	ug/kg dry	1			06/23/22 1542	JBS
Total Xylenes	<5.2	5.2	ug/kg dry	1			06/23/22 1542	JBS
Surrogate: 1,2-Dichloroethane-d4	64.9	Limit: 51.7-162	% Rec	1			06/23/22 1542	JBS
Surrogate: 4-Bromofluorobenzene	81.4	Limit: 57.4-135	% Rec	1			06/23/22 1542	JBS
Surrogate: Dibromofluoromethane	38.0	Limit: 63.5-139	% Rec	1	**M, S2**		06/23/22 1542	JBS
Surrogate: Toluene-d8	122	Limit: 66.6-143	% Rec	1			06/23/22 1542	JBS

Semivolatile Organic Compounds by GC/ECD	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
SW846 3550B/EPA 8082A								
Aroclor 1016	<35	35	ug/kg dry	1		06/16/22 1420	06/17/22 0031	CLR
Aroclor 1221	<35	35	ug/kg dry	1		06/16/22 1420	06/17/22 0031	CLR
Aroclor 1232	<35	35	ug/kg dry	1		06/16/22 1420	06/17/22 0031	CLR
Aroclor 1242	<35	35	ug/kg dry	1		06/16/22 1420	06/17/22 0031	CLR
Aroclor 1248	<35	35	ug/kg dry	1		06/16/22 1420	06/17/22 0031	CLR

Client Sample ID: MF5-25-78BC
Sample Matrix: Solid
Lab Sample ID: 22F1199-03 **Collection Date:** 06/14/2022 14:30

Semivolatile Organic Compounds by GC/ECD	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
Aroclor 1254	<35	35	ug/kg dry	1		06/16/22 1420	06/17/22 0031	CLR
Aroclor 1260	<35	35	ug/kg dry	1		06/16/22 1420	06/17/22 0031	CLR
Aroclor 1262	<35	35	ug/kg dry	1		06/16/22 1420	06/17/22 0031	CLR
Aroclor 1268	<35	35	ug/kg dry	1		06/16/22 1420	06/17/22 0031	CLR
Total PCB's	<35	35	ug/kg dry	1		06/16/22 1420	06/17/22 0031	CLR
Surrogate: Tetrachloro-m-xylene	75.0	Limit: 27.6-126	% Rec	1		06/16/22 1420	06/17/22 0031	CLR
Surrogate: Decachlorobiphenyl	75.0	Limit: 25.2-136	% Rec	1		06/16/22 1420	06/17/22 0031	CLR

Semivolatile Organic Compounds by GCMS	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
SW846 3550B/EPA 8270C								
1,2,4-Trichlorobenzene	<360	360	ug/kg dry	1		06/17/22 1443	06/22/22 0231	CLR
1,2-Dichlorobenzene	<360	360	ug/kg dry	1		06/17/22 1443	06/22/22 0231	CLR
1,2-Diphenyl-hydrazine	<360	360	ug/kg dry	1		06/17/22 1443	06/22/22 0231	CLR
1,3-Dichlorobenzene	<360	360	ug/kg dry	1		06/17/22 1443	06/22/22 0231	CLR
1,4-Dichlorobenzene	<360	360	ug/kg dry	1		06/17/22 1443	06/22/22 0231	CLR
2,2´-oxybis(1-chloropropane)	<360	360	ug/kg dry	1		06/17/22 1443	06/22/22 0231	CLR
2,4,5-Trichlorophenol	<360	360	ug/kg dry	1		06/17/22 1443	06/22/22 0231	CLR
2,4,6-Trichlorophenol	<360	360	ug/kg dry	1	**M2, R1**	06/17/22 1443	06/22/22 0231	CLR
2,4-Dichlorophenol	<360	360	ug/kg dry	1	**M2**	06/17/22 1443	06/22/22 0231	CLR
2,4-Dimethylphenol	<360	360	ug/kg dry	1		06/17/22 1443	06/22/22 0231	CLR
2,4-Dinitrophenol	<1700	1700	ug/kg dry	1		06/17/22 1443	06/22/22 0231	CLR
2,4-Dinitrotoluene	<360	360	ug/kg dry	1		06/17/22 1443	06/22/22 0231	CLR
2,6-Dichlorophenol	<360	360	ug/kg dry	1		06/17/22 1443	06/22/22 0231	CLR
2,6-Dinitrotoluene	<360	360	ug/kg dry	1		06/17/22 1443	06/22/22 0231	CLR
2-Chloronaphthalene	<360	360	ug/kg dry	1		06/17/22 1443	06/22/22 0231	CLR
2-Chlorophenol	<360	360	ug/kg dry	1	**M2**	06/17/22 1443	06/22/22 0231	CLR
2-Methylnaphthalene	<360	360	ug/kg dry	1		06/17/22 1443	06/22/22 0231	CLR
2-Methylphenol	<360	360	ug/kg dry	1		06/17/22 1443	06/22/22 0231	CLR
2-Nitroaniline	<1700	1700	ug/kg dry	1		06/17/22 1443	06/22/22 0231	CLR
2-Nitrophenol	<360	360	ug/kg dry	1	**M2, R1**	06/17/22 1443	06/22/22 0231	CLR
3,3´-Dichlorobenzidine	<1700	1700	ug/kg dry	1		06/17/22 1443	06/22/22 0231	CLR
3/4-Methylphenol	<360	360	ug/kg dry	1		06/17/22 1443	06/22/22 0231	CLR
3-Nitroaniline	<360	360	ug/kg dry	1		06/17/22 1443	06/22/22 0231	CLR
4,6-Dinitro-2-methylphenol	<1700	1700	ug/kg dry	1		06/17/22 1443	06/22/22 0231	CLR
4-Bromophenyl phenyl ether	<360	360	ug/kg dry	1		06/17/22 1443	06/22/22 0231	CLR
4-Chloro-3-methylphenol	<720	720	ug/kg dry	1	**M2**	06/17/22 1443	06/22/22 0231	CLR
4-Chloroaniline	<360	360	ug/kg dry	1		06/17/22 1443	06/22/22 0231	CLR
4-Chlorophenyl phenyl ether	<360	360	ug/kg dry	1		06/17/22 1443	06/22/22 0231	CLR
4-Nitroaniline	<1700	1700	ug/kg dry	1		06/17/22 1443	06/22/22 0231	CLR
4-Nitrophenol	<1700	1700	ug/kg dry	1	**M2**	06/17/22 1443	06/22/22 0231	CLR
Acenaphthene	<360	360	ug/kg dry	1		06/17/22 1443	06/22/22 0231	CLR
Acenaphthylene	<360	360	ug/kg dry	1		06/17/22 1443	06/22/22 0231	CLR

Client Sample ID: MF5-25-78BC
Sample Matrix: Solid
Lab Sample ID: 22F1199-03
Collection Date: 06/14/2022 14:30

Semivolatile Organic Compounds by GCMS	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
Acetophenone	<360	360	ug/kg dry	1		06/17/22 1443	06/22/22 0231	CLR
Aniline	<360	360	ug/kg dry	1		06/17/22 1443	06/22/22 0231	CLR
Anthracene	<360	360	ug/kg dry	1		06/17/22 1443	06/22/22 0231	CLR
Benzidine	<1700	1700	ug/kg dry	1		06/17/22 1443	06/22/22 0231	CLR
Benzo[a]anthracene	<360	360	ug/kg dry	1		06/17/22 1443	06/22/22 0231	CLR
Benzo[a]pyrene	<360	360	ug/kg dry	1		06/17/22 1443	06/22/22 0231	CLR
Benzo[b]fluoranthene	<360	360	ug/kg dry	1		06/17/22 1443	06/22/22 0231	CLR
Benzo[g,h,i]perylene	<360	360	ug/kg dry	1		06/17/22 1443	06/22/22 0231	CLR
Benzo[k]fluoranthene	<360	360	ug/kg dry	1		06/17/22 1443	06/22/22 0231	CLR
Benzoic acid	<1700	1700	ug/kg dry	1		06/17/22 1443	06/22/22 0231	CLR
Benzyl alcohol	<720	720	ug/kg dry	1		06/17/22 1443	06/22/22 0231	CLR
Bis(2-chloroethoxy)methane	<360	360	ug/kg dry	1		06/17/22 1443	06/22/22 0231	CLR
Bis(2-chloroethyl)ether	<360	360	ug/kg dry	1		06/17/22 1443	06/22/22 0231	CLR
Bis(2-ethylhexyl)phthalate	<360	360	ug/kg dry	1		06/17/22 1443	06/22/22 0231	CLR
Butyl benzyl phthalate	<360	360	ug/kg dry	1		06/17/22 1443	06/22/22 0231	CLR
Carbazole	<360	360	ug/kg dry	1		06/17/22 1443	06/22/22 0231	CLR
Chrysene	<360	360	ug/kg dry	1		06/17/22 1443	06/22/22 0231	CLR
Dibenz[a,h]anthracene	<360	360	ug/kg dry	1		06/17/22 1443	06/22/22 0231	CLR
Dibenzofuran	<360	360	ug/kg dry	1		06/17/22 1443	06/22/22 0231	CLR
Diethyl phthalate	<360	360	ug/kg dry	1		06/17/22 1443	06/22/22 0231	CLR
Dimethyl phthalate	<360	360	ug/kg dry	1		06/17/22 1443	06/22/22 0231	CLR
Di-n-butyl phthalate	<360	360	ug/kg dry	1		06/17/22 1443	06/22/22 0231	CLR
Di-n-octyl phthalate	<360	360	ug/kg dry	1		06/17/22 1443	06/22/22 0231	CLR
Fluoranthene	<360	360	ug/kg dry	1		06/17/22 1443	06/22/22 0231	CLR
Fluorene	<360	360	ug/kg dry	1		06/17/22 1443	06/22/22 0231	CLR
Hexachlorobenzene	<360	360	ug/kg dry	1		06/17/22 1443	06/22/22 0231	CLR
Hexachlorobutadiene	<360	360	ug/kg dry	1		06/17/22 1443	06/22/22 0231	CLR
Hexachlorocyclopentadiene	<360	360	ug/kg dry	1		06/17/22 1443	06/22/22 0231	CLR
Hexachloroethane	<360	360	ug/kg dry	1		06/17/22 1443	06/22/22 0231	CLR
Indeno[1,2,3cd]pyrene	<360	360	ug/kg dry	1		06/17/22 1443	06/22/22 0231	CLR
Isophorone	<360	360	ug/kg dry	1		06/17/22 1443	06/22/22 0231	CLR
Naphthalene	<360	360	ug/kg dry	1		06/17/22 1443	06/22/22 0231	CLR
Nitrobenzene	<360	360	ug/kg dry	1		06/17/22 1443	06/22/22 0231	CLR
N-Nitrosodimethylamine	<360	360	ug/kg dry	1		06/17/22 1443	06/22/22 0231	CLR
N-Nitrosodi-n-propylamine	<360	360	ug/kg dry	1		06/17/22 1443	06/22/22 0231	CLR
N-Nitrosodiphenylamine	<360	360	ug/kg dry	1		06/17/22 1443	06/22/22 0231	CLR
Pentachlorophenol	<1700	1700	ug/kg dry	1	**M2**	06/17/22 1443	06/22/22 0231	CLR
Phenanthrene	<360	360	ug/kg dry	1		06/17/22 1443	06/22/22 0231	CLR
Phenol	<360	360	ug/kg dry	1	**R1**	06/17/22 1443	06/22/22 0231	CLR
Pyrene	<360	360	ug/kg dry	1		06/17/22 1443	06/22/22 0231	CLR
Pyridine	<360	360	ug/kg dry	1		06/17/22 1443	06/22/22 0231	CLR
Total Cresol	<360	360	ug/kg dry	1		06/17/22 1443	06/22/22 0231	CLR
Surrogate: 2,4,6-Tribromophenol	0.460	Limit: 13.9-145	% Rec	1	**M, S2**	06/17/22 1443	06/22/22 0231	CLR

CERTIFICATE OF ANALYSIS

22F1199

Client Sample ID: MF5-25-78BC
Sample Matrix: Solid
Lab Sample ID: 22F1199-03
Collection Date: 06/14/2022 14:30

Semivolatile Organic Compounds by GCMS	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
Surrogate: 2-Fluorobiphenyl	63.7	Limit: 28.1-110	% Rec	1		06/17/22 1443	06/22/22 0231	CLR
Surrogate: 2-Fluorophenol	3.01	Limit: 24.5-110	% Rec	1	**M, S2**	06/17/22 1443	06/22/22 0231	CLR
Surrogate: Nitrobenzene-d5	58.5	Limit: 33.6-110	% Rec	1		06/17/22 1443	06/22/22 0231	CLR
Surrogate: Phenol-d5	27.4	Limit: 29.6-110	% Rec	1	**M, S2**	06/17/22 1443	06/22/22 0231	CLR
Surrogate: Terphenyl-d14	68.0	Limit: 35.8-121	% Rec	1		06/17/22 1443	06/22/22 0231	CLR

MICROBAC®

Microbac Laboratories, Inc. - Chicagoland

CERTIFICATE OF ANALYSIS

22F1199

Client Sample ID: MF5-25-78BC
Sample Matrix: Solid
Lab Sample ID: 22F1199-04 **Collection Date:** 06/14/2022 14:30

Metals TCLP by CVAA	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
SW-846 7470/EPA 7470A								
Mercury	<0.0025	0.0025	mg/L	1		06/21/22 1040	06/23/22 1258	RPL

Metals TCLP by ICP	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
SW846 3005A/EPA 6010C								
Arsenic	<0.050	0.050	mg/L	1		06/21/22 1032	06/24/22 2012	RPL
Barium	<2.5	2.5	mg/L	1		06/21/22 1032	06/24/22 2012	RPL
Cadmium	<0.010	0.010	mg/L	1		06/21/22 1032	06/24/22 2012	RPL
Chromium	**0.25**	0.025	mg/L	1		06/21/22 1032	06/24/22 2012	RPL
Lead	<0.038	0.038	mg/L	1		06/21/22 1032	06/24/22 2012	RPL
Selenium	<0.15	0.15	mg/L	1		06/21/22 1032	06/24/22 2012	RPL
Silver	<0.050	0.050	mg/L	1		06/21/22 1032	06/24/22 2012	RPL

Volatile Organic Compounds TCLP by GCMS	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
SW-846 8260B/EPA 8260B								
1,1-Dichloroethene	<0.050	0.050	mg/L	10			06/23/22 2031	JBS
1,2-Dichloroethane	<0.050	0.050	mg/L	10			06/23/22 2031	JBS
2-Butanone	<0.20	0.20	mg/L	10			06/23/22 2031	JBS
Benzene	<0.050	0.050	mg/L	10			06/23/22 2031	JBS
Carbon tetrachloride	<0.050	0.050	mg/L	10			06/23/22 2031	JBS
Chlorobenzene	<0.050	0.050	mg/L	10			06/23/22 2031	JBS
Chloroform	<0.050	0.050	mg/L	10			06/23/22 2031	JBS
Tetrachloroethene	<0.050	0.050	mg/L	10			06/23/22 2031	JBS
Trichloroethene	<0.050	0.050	mg/L	10			06/23/22 2031	JBS
Vinyl chloride	<0.020	0.020	mg/L	10			06/23/22 2031	JBS
Surrogate: 1,2-Dichloroethane-d4	96.4	Limit: 74.5-132	% Rec	10			06/23/22 2031	JBS
Surrogate: 4-Bromofluorobenzene	92.2	Limit: 80-120	% Rec	10			06/23/22 2031	JBS
Surrogate: Dibromofluoromethane	75.8	Limit: 80-120	% Rec	10	**M, S2**		06/23/22 2031	JBS
Surrogate: Toluene-d8	103	Limit: 80-120	% Rec	10			06/23/22 2031	JBS

Semivolatile Organic Compounds TCLP by GCMS	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
SW846 3510/EPA 8270C								
1,4-Dichlorobenzene	<0.050	0.050	mg/L	1		06/25/22 0804	06/26/22 1945	CLR
2,4,5-Trichlorophenol	<0.050	0.050	mg/L	1		06/25/22 0804	06/26/22 1945	CLR
2,4,6-Trichlorophenol	<0.050	0.050	mg/L	1		06/25/22 0804	06/26/22 1945	CLR
2,4-Dinitrotoluene	<0.050	0.050	mg/L	1		06/25/22 0804	06/26/22 1945	CLR
2-Methylphenol	<0.050	0.050	mg/L	1		06/25/22 0804	06/26/22 1945	CLR
3/4-Methylphenol	<0.050	0.050	mg/L	1		06/25/22 0804	06/26/22 1945	CLR
Hexachlorobenzene	<0.050	0.050	mg/L	1		06/25/22 0804	06/26/22 1945	CLR
Hexachlorobutadiene	<0.050	0.050	mg/L	1	**Q3**	06/25/22 0804	06/26/22 1945	CLR
Hexachloroethane	<0.050	0.050	mg/L	1		06/25/22 0804	06/26/22 1945	CLR
Nitrobenzene	<0.050	0.050	mg/L	1		06/25/22 0804	06/26/22 1945	CLR

MICROBAC®

Microbac Laboratories, Inc. - Chicagoland

CERTIFICATE OF ANALYSIS

22F1199

Client Sample ID: MF5-25-78BC
Sample Matrix: Solid
Lab Sample ID: 22F1199-04
Collection Date: 06/14/2022 14:30

Semivolatile Organic Compounds TCLP by GCMS	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
Pentachlorophenol	<0.25	0.25	mg/L	1		06/25/22 0804	06/26/22 1945	CLR
Pyridine	<0.050	0.050	mg/L	1		06/25/22 0804	06/26/22 1945	CLR
Total Cresol	<0.050	0.050	mg/L	1		06/25/22 0804	06/26/22 1945	CLR
Surrogate: 2,4,6-Tribromophenol	60.8	Limit: 47.8-138	% Rec	1		06/25/22 0804	06/26/22 1945	CLR
Surrogate: 2-Fluorobiphenyl	33.3	Limit: 10-110	% Rec	1		06/25/22 0804	06/26/22 1945	CLR
Surrogate: 2-Fluorophenol	34.7	Limit: 10-110	% Rec	1		06/25/22 0804	06/26/22 1945	CLR
Surrogate: Nitrobenzene-d5	36.6	Limit: 10-110	% Rec	1		06/25/22 0804	06/26/22 1945	CLR
Surrogate: Phenol-d5	42.4	Limit: 43.7-126	% Rec	1	**S2**	06/25/22 0804	06/26/22 1945	CLR
Surrogate: Terphenyl-d14	67.8	Limit: 33.7-136	% Rec	1		06/25/22 0804	06/26/22 1945	CLR

MICROBAC®

Microbac Laboratories, Inc. - Chicagoland

CERTIFICATE OF ANALYSIS

22F1199

Client Sample ID: MF5-25-78EF
Sample Matrix: Solid
Lab Sample ID: 22F1199-05
Collection Date: 06/14/2022 15:00

Inorganics Total	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
-/EPA 9038								
Sulfate	**960**	460	mg/Kg dry	1		06/22/22 1740	06/22/22 2047	EF
EPA 9045D								
pH	**8.25**	2.00	S.U.	1		06/16/22 1547	06/16/22 1635	MRC
Temperature	**22**		°C	1			06/16/22 1635	MRC
SM 2540 G-2011								
Percent Solids	**83**	0.10	% (by wt.)	1		06/16/22 1035	06/17/22 0956	MRC
Solid CN Distillation/EPA 9012B								
Cyanide, Total	**1.2**	0.29	mg/Kg dry	1		06/22/22 1730	06/23/22 1640	ABG
SW-846 1010A/ASTM D92-90 Modified								
Ignitability	**> 170**	30.0	°F	1			06/23/22 1430	ABG
SW-846 9030B MOD/EPA 9030B Modified								
Sulfide	**4.8**	0.49	mg/Kg	1	**B**	06/19/22 1626	06/21/22 1704	EF
SW-846 9066/EPA 9066								
Phenolics, Total Recoverable	**2.8**	0.60	mg/Kg dry	1		06/16/22 1333	06/22/22 1804	ABG
SW-846 9095B/EPA 9095B								
Paint Filter	**No Free Liquids**		NA	1		06/17/22 1812	06/17/22 1817	EF

Metals Total by CVAA	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
SW-846 7471/EPA 7471B								
Mercury	<0.047	0.047	mg/Kg dry	1		06/20/22 0928	06/20/22 1400	RPL

Metals Total by ICP	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
SW846 3050B/EPA 6010C								
Arsenic	**4.3**	0.58	mg/Kg dry	1		06/21/22 0600	06/21/22 1720	RPL
Barium	**320**	0.23	mg/Kg dry	1		06/21/22 0600	06/21/22 1720	RPL
Cadmium	**8.8**	0.23	mg/Kg dry	1		06/21/22 0600	06/21/22 1720	RPL
Chromium	**21**	0.23	mg/Kg dry	1		06/21/22 0600	06/21/22 1720	RPL
Lead	**62**	0.43	mg/Kg dry	1		06/21/22 0600	06/21/22 1720	RPL
Lithium	**17000**	580	mg/Kg dry	100		06/21/22 0600	06/22/22 1406	RPL
Nickel	**43000**	58	mg/Kg dry	100		06/21/22 0600	06/22/22 1406	RPL
Selenium	<1.7	1.7	mg/Kg dry	1		06/21/22 0600	06/21/22 1720	RPL
Silver	<0.58	0.58	mg/Kg dry	1		06/21/22 0600	06/21/22 1720	RPL

Volatile Organic Compounds by GCMS	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
SW846 5035/EPA 8260B								
1,1,1,2-Tetrachloroethane	<12	12	ug/kg dry	1			06/23/22 1606	JBS
1,1,1-Trichloroethane	<5.8	5.8	ug/kg dry	1			06/23/22 1606	JBS
1,1,2,2-Tetrachloroethane	<5.8	5.8	ug/kg dry	1			06/23/22 1606	JBS
1,1,2-Trichloroethane	<5.8	5.8	ug/kg dry	1			06/23/22 1606	JBS
1,1-Dichloroethane	<5.8	5.8	ug/kg dry	1			06/23/22 1606	JBS
1,1-Dichloroethene	<5.8	5.8	ug/kg dry	1			06/23/22 1606	JBS

MICROBAC®

Microbac Laboratories, Inc. - Chicagoland

CERTIFICATE OF ANALYSIS

22F1199

Client Sample ID: MF5-25-78EF
Sample Matrix: Solid
Lab Sample ID: 22F1199-05
Collection Date: 06/14/2022 15:00

Volatile Organic Compounds by GCMS	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
1,2-Dichloroethane	<5.8	5.8	ug/kg dry	1			06/23/22 1606	JBS
1,2-Dichloropropane	<5.8	5.8	ug/kg dry	1			06/23/22 1606	JBS
2-Butanone	<12	12	ug/kg dry	1			06/23/22 1606	JBS
2-Hexanone	<12	12	ug/kg dry	1			06/23/22 1606	JBS
4-Methyl-2-pentanone	<12	12	ug/kg dry	1			06/23/22 1606	JBS
Acetone	<58	58	ug/kg dry	1			06/23/22 1606	JBS
Acrolein	<120	120	ug/kg dry	1			06/23/22 1606	JBS
Acrylonitrile	<120	120	ug/kg dry	1			06/23/22 1606	JBS
Benzene	<5.8	5.8	ug/kg dry	1			06/23/22 1606	JBS
Bromodichloromethane	<5.8	5.8	ug/kg dry	1			06/23/22 1606	JBS
Bromoform	<5.8	5.8	ug/kg dry	1			06/23/22 1606	JBS
Bromomethane	**22**	12	ug/kg dry	1			06/23/22 1606	JBS
Carbon Disulfide	<12	12	ug/kg dry	1			06/23/22 1606	JBS
Carbon tetrachloride	<5.8	5.8	ug/kg dry	1			06/23/22 1606	JBS
Chlorobenzene	<5.8	5.8	ug/kg dry	1			06/23/22 1606	JBS
Chloroethane	<12	12	ug/kg dry	1			06/23/22 1606	JBS
Chloroform	<5.8	5.8	ug/kg dry	1			06/23/22 1606	JBS
Chloromethane	**65**	12	ug/kg dry	1			06/23/22 1606	JBS
cis-1,2-Dichloroethene	<5.8	5.8	ug/kg dry	1			06/23/22 1606	JBS
cis-1,3-Dichloropropene	<5.8	5.8	ug/kg dry	1			06/23/22 1606	JBS
Dibromochloromethane	<5.8	5.8	ug/kg dry	1			06/23/22 1606	JBS
Ethylbenzene	<5.8	5.8	ug/kg dry	1			06/23/22 1606	JBS
m,p-Xylene	<5.8	5.8	ug/kg dry	1			06/23/22 1606	JBS
Methylene chloride	**24**	23	ug/kg dry	1			06/23/22 1606	JBS
Methyl-t-Butyl Ether	<5.8	5.8	ug/kg dry	1			06/23/22 1606	JBS
o-Xylene	<5.8	5.8	ug/kg dry	1			06/23/22 1606	JBS
Styrene	<5.8	5.8	ug/kg dry	1			06/23/22 1606	JBS
Tetrachloroethene	<5.8	5.8	ug/kg dry	1			06/23/22 1606	JBS
Toluene	<5.8	5.8	ug/kg dry	1			06/23/22 1606	JBS
trans-1,2-Dichloroethene	<5.8	5.8	ug/kg dry	1			06/23/22 1606	JBS
trans-1,3-Dichloropropene	<5.8	5.8	ug/kg dry	1			06/23/22 1606	JBS
Trichloroethene	<5.8	5.8	ug/kg dry	1			06/23/22 1606	JBS
Trichlorofluoromethane	<12	12	ug/kg dry	1			06/23/22 1606	JBS
Vinyl Acetate	<12	12	ug/kg dry	1			06/23/22 1606	JBS
Vinyl chloride	<12	12	ug/kg dry	1			06/23/22 1606	JBS
Total 1,2-Dichloroethene	<5.8	5.8	ug/kg dry	1			06/23/22 1606	JBS
Total Xylenes	<5.8	5.8	ug/kg dry	1			06/23/22 1606	JBS
Surrogate: 1,2-Dichloroethane-d4	78.9	Limit: 51.7-162	% Rec	1			06/23/22 1606	JBS
Surrogate: 4-Bromofluorobenzene	74.5	Limit: 57.4-135	% Rec	1			06/23/22 1606	JBS
Surrogate: Dibromofluoromethane	82.1	Limit: 63.5-139	% Rec	1			06/23/22 1606	JBS
Surrogate: Toluene-d8	133	Limit: 66.6-143	% Rec	1			06/23/22 1606	JBS

Client Sample ID: MF5-25-78EF
Sample Matrix: Solid
Lab Sample ID: 22F1199-05 **Collection Date:** 06/14/2022 15:00

Semivolatile Organic Compounds by GC/ECD	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
SW846 3550B/EPA 8082A								
Aroclor 1016	<40	40	ug/kg dry	1		06/16/22 1420	06/17/22 0049	CLR
Aroclor 1221	<40	40	ug/kg dry	1		06/16/22 1420	06/17/22 0049	CLR
Aroclor 1232	<40	40	ug/kg dry	1		06/16/22 1420	06/17/22 0049	CLR
Aroclor 1242	<40	40	ug/kg dry	1		06/16/22 1420	06/17/22 0049	CLR
Aroclor 1248	<40	40	ug/kg dry	1		06/16/22 1420	06/17/22 0049	CLR
Aroclor 1254	<40	40	ug/kg dry	1		06/16/22 1420	06/17/22 0049	CLR
Aroclor 1260	<40	40	ug/kg dry	1		06/16/22 1420	06/17/22 0049	CLR
Aroclor 1262	<40	40	ug/kg dry	1		06/16/22 1420	06/17/22 0049	CLR
Aroclor 1268	<40	40	ug/kg dry	1		06/16/22 1420	06/17/22 0049	CLR
Total PCB's	<40	40	ug/kg dry	1		06/16/22 1420	06/17/22 0049	CLR
Surrogate: Tetrachloro-m-xylene	70.0	Limit: 27.6-126	% Rec	1		06/16/22 1420	06/17/22 0049	CLR
Surrogate: Decachlorobiphenyl	75.0	Limit: 25.2-136	% Rec	1		06/16/22 1420	06/17/22 0049	CLR

Semivolatile Organic Compounds by GCMS	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
SW846 3550B/EPA 8270C								
1,2,4-Trichlorobenzene	<390	390	ug/kg dry	1		06/17/22 1443	06/23/22 2155	CLR
1,2-Dichlorobenzene	<390	390	ug/kg dry	1		06/17/22 1443	06/23/22 2155	CLR
1,2-Diphenyl-hydrazine	<390	390	ug/kg dry	1		06/17/22 1443	06/23/22 2155	CLR
1,3-Dichlorobenzene	<390	390	ug/kg dry	1		06/17/22 1443	06/23/22 2155	CLR
1,4-Dichlorobenzene	<390	390	ug/kg dry	1		06/17/22 1443	06/23/22 2155	CLR
2,2´-oxybis(1-chloropropane)	<390	390	ug/kg dry	1		06/17/22 1443	06/23/22 2155	CLR
2,4,5-Trichlorophenol	<390	390	ug/kg dry	1		06/17/22 1443	06/23/22 2155	CLR
2,4,6-Trichlorophenol	<390	390	ug/kg dry	1		06/17/22 1443	06/23/22 2155	CLR
2,4-Dichlorophenol	<390	390	ug/kg dry	1		06/17/22 1443	06/23/22 2155	CLR
2,4-Dimethylphenol	<390	390	ug/kg dry	1		06/17/22 1443	06/23/22 2155	CLR
2,4-Dinitrophenol	<1900	1900	ug/kg dry	1		06/17/22 1443	06/23/22 2155	CLR
2,4-Dinitrotoluene	<390	390	ug/kg dry	1		06/17/22 1443	06/23/22 2155	CLR
2,6-Dichlorophenol	<390	390	ug/kg dry	1		06/17/22 1443	06/23/22 2155	CLR
2,6-Dinitrotoluene	<390	390	ug/kg dry	1		06/17/22 1443	06/23/22 2155	CLR
2-Chloronaphthalene	<390	390	ug/kg dry	1		06/17/22 1443	06/23/22 2155	CLR
2-Chlorophenol	<390	390	ug/kg dry	1		06/17/22 1443	06/23/22 2155	CLR
2-Methylnaphthalene	<390	390	ug/kg dry	1		06/17/22 1443	06/23/22 2155	CLR
2-Methylphenol	<390	390	ug/kg dry	1		06/17/22 1443	06/23/22 2155	CLR
2-Nitroaniline	<1900	1900	ug/kg dry	1		06/17/22 1443	06/23/22 2155	CLR
2-Nitrophenol	<390	390	ug/kg dry	1		06/17/22 1443	06/23/22 2155	CLR
3,3´-Dichlorobenzidine	<1900	1900	ug/kg dry	1		06/17/22 1443	06/23/22 2155	CLR
3/4-Methylphenol	<390	390	ug/kg dry	1		06/17/22 1443	06/23/22 2155	CLR
3-Nitroaniline	<390	390	ug/kg dry	1		06/17/22 1443	06/23/22 2155	CLR
4,6-Dinitro-2-methylphenol	<1900	1900	ug/kg dry	1		06/17/22 1443	06/23/22 2155	CLR
4-Bromophenyl phenyl ether	<390	390	ug/kg dry	1		06/17/22 1443	06/23/22 2155	CLR
4-Chloro-3-methylphenol	<770	770	ug/kg dry	1		06/17/22 1443	06/23/22 2155	CLR

CERTIFICATE OF ANALYSIS

22F1199

Client Sample ID: MF5-25-78EF
Sample Matrix: Solid
Lab Sample ID: 22F1199-05
Collection Date: 06/14/2022 15:00

Semivolatile Organic Compounds by GCMS	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
4-Chloroaniline	<390	390	ug/kg dry	1		06/17/22 1443	06/23/22 2155	CLR
4-Chlorophenyl phenyl ether	<390	390	ug/kg dry	1		06/17/22 1443	06/23/22 2155	CLR
4-Nitroaniline	<1900	1900	ug/kg dry	1		06/17/22 1443	06/23/22 2155	CLR
4-Nitrophenol	<1900	1900	ug/kg dry	1		06/17/22 1443	06/23/22 2155	CLR
Acenaphthene	<390	390	ug/kg dry	1		06/17/22 1443	06/23/22 2155	CLR
Acenaphthylene	<390	390	ug/kg dry	1		06/17/22 1443	06/23/22 2155	CLR
Acetophenone	<390	390	ug/kg dry	1		06/17/22 1443	06/23/22 2155	CLR
Aniline	<390	390	ug/kg dry	1		06/17/22 1443	06/23/22 2155	CLR
Anthracene	<390	390	ug/kg dry	1		06/17/22 1443	06/23/22 2155	CLR
Benzidine	<1900	1900	ug/kg dry	1		06/17/22 1443	06/23/22 2155	CLR
Benzo[a]anthracene	<390	390	ug/kg dry	1		06/17/22 1443	06/23/22 2155	CLR
Benzo[a]pyrene	<390	390	ug/kg dry	1		06/17/22 1443	06/23/22 2155	CLR
Benzo[b]fluoranthene	<390	390	ug/kg dry	1		06/17/22 1443	06/23/22 2155	CLR
Benzo[g,h,i]perylene	<390	390	ug/kg dry	1		06/17/22 1443	06/23/22 2155	CLR
Benzo[k]fluoranthene	<390	390	ug/kg dry	1		06/17/22 1443	06/23/22 2155	CLR
Benzoic acid	<1900	1900	ug/kg dry	1		06/17/22 1443	06/23/22 2155	CLR
Benzyl alcohol	<770	770	ug/kg dry	1		06/17/22 1443	06/23/22 2155	CLR
Bis(2-chloroethoxy)methane	<390	390	ug/kg dry	1		06/17/22 1443	06/23/22 2155	CLR
Bis(2-chloroethyl)ether	<390	390	ug/kg dry	1		06/17/22 1443	06/23/22 2155	CLR
Bis(2-ethylhexyl)phthalate	**780**	390	ug/kg dry	1		06/17/22 1443	06/23/22 2155	CLR
Butyl benzyl phthalate	<390	390	ug/kg dry	1		06/17/22 1443	06/23/22 2155	CLR
Carbazole	<390	390	ug/kg dry	1		06/17/22 1443	06/23/22 2155	CLR
Chrysene	<390	390	ug/kg dry	1		06/17/22 1443	06/23/22 2155	CLR
Dibenz[a,h]anthracene	<390	390	ug/kg dry	1		06/17/22 1443	06/23/22 2155	CLR
Dibenzofuran	<390	390	ug/kg dry	1		06/17/22 1443	06/23/22 2155	CLR
Diethyl phthalate	<390	390	ug/kg dry	1		06/17/22 1443	06/23/22 2155	CLR
Dimethyl phthalate	<390	390	ug/kg dry	1		06/17/22 1443	06/23/22 2155	CLR
Di-n-butyl phthalate	<390	390	ug/kg dry	1		06/17/22 1443	06/23/22 2155	CLR
Di-n-octyl phthalate	<390	390	ug/kg dry	1		06/17/22 1443	06/23/22 2155	CLR
Fluoranthene	<390	390	ug/kg dry	1		06/17/22 1443	06/23/22 2155	CLR
Fluorene	<390	390	ug/kg dry	1		06/17/22 1443	06/23/22 2155	CLR
Hexachlorobenzene	<390	390	ug/kg dry	1		06/17/22 1443	06/23/22 2155	CLR
Hexachlorobutadiene	<390	390	ug/kg dry	1		06/17/22 1443	06/23/22 2155	CLR
Hexachlorocyclopentadiene	<390	390	ug/kg dry	1		06/17/22 1443	06/23/22 2155	CLR
Hexachloroethane	<390	390	ug/kg dry	1		06/17/22 1443	06/23/22 2155	CLR
Indeno[1,2,3cd]pyrene	<390	390	ug/kg dry	1		06/17/22 1443	06/23/22 2155	CLR
Isophorone	<390	390	ug/kg dry	1		06/17/22 1443	06/23/22 2155	CLR
Naphthalene	<390	390	ug/kg dry	1		06/17/22 1443	06/23/22 2155	CLR
Nitrobenzene	<390	390	ug/kg dry	1		06/17/22 1443	06/23/22 2155	CLR
N-Nitrosodimethylamine	<390	390	ug/kg dry	1		06/17/22 1443	06/23/22 2155	CLR
N-Nitrosodi-n-propylamine	<390	390	ug/kg dry	1		06/17/22 1443	06/23/22 2155	CLR
N-Nitrosodiphenylamine	<390	390	ug/kg dry	1		06/17/22 1443	06/23/22 2155	CLR
Pentachlorophenol	<1900	1900	ug/kg dry	1		06/17/22 1443	06/23/22 2155	CLR

CERTIFICATE OF ANALYSIS

22F1199

Client Sample ID: MF5-25-78EF
Sample Matrix: Solid
Lab Sample ID: 22F1199-05
Collection Date: 06/14/2022 15:00

Semivolatile Organic Compounds by GCMS	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
Phenanthrene	<390	390	ug/kg dry	1		06/17/22 1443	06/23/22 2155	CLR
Phenol	<390	390	ug/kg dry	1		06/17/22 1443	06/23/22 2155	CLR
Pyrene	<390	390	ug/kg dry	1		06/17/22 1443	06/23/22 2155	CLR
Pyridine	<390	390	ug/kg dry	1		06/17/22 1443	06/23/22 2155	CLR
Total Cresol	<390	390	ug/kg dry	1		06/17/22 1443	06/23/22 2155	CLR
Surrogate: 2,4,6-Tribromophenol	58.0	Limit: 13.9-145	% Rec	1		06/17/22 1443	06/23/22 2155	CLR
Surrogate: 2-Fluorobiphenyl	57.8	Limit: 28.1-110	% Rec	1		06/17/22 1443	06/23/22 2155	CLR
Surrogate: 2-Fluorophenol	45.4	Limit: 24.5-110	% Rec	1		06/17/22 1443	06/23/22 2155	CLR
Surrogate: Nitrobenzene-d5	53.8	Limit: 33.6-110	% Rec	1		06/17/22 1443	06/23/22 2155	CLR
Surrogate: Phenol-d5	60.1	Limit: 29.6-110	% Rec	1		06/17/22 1443	06/23/22 2155	CLR
Surrogate: Terphenyl-d14	60.8	Limit: 35.8-121	% Rec	1		06/17/22 1443	06/23/22 2155	CLR

MICROBAC®

Microbac Laboratories, Inc. - Chicagoland

CERTIFICATE OF ANALYSIS

22F1199

Client Sample ID: MF5-25-MF5-25-78EF
Sample Matrix: Solid
Lab Sample ID: 22F1199-06 **Collection Date:** 06/14/2022 15:00

Metals TCLP by CVAA	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
SW-846 7470/EPA 7470A								
Mercury	<0.0025	0.0025	mg/L	1		06/21/22 1040	06/23/22 1236	RPL

Metals TCLP by ICP	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
SW846 3005A/EPA 6010C								
Arsenic	<0.050	0.050	mg/L	1		06/21/22 1032	06/24/22 1456	RPL
Barium	<2.5	2.5	mg/L	1		06/21/22 1032	06/24/22 1456	RPL
Cadmium	**0.10**	0.010	mg/L	1		06/21/22 1032	06/24/22 1456	RPL
Chromium	<0.025	0.025	mg/L	1		06/21/22 1032	06/24/22 1456	RPL
Lead	**0.043**	0.038	mg/L	1		06/21/22 1032	06/24/22 1456	RPL
Selenium	<0.15	0.15	mg/L	1		06/21/22 1032	06/24/22 1456	RPL
Silver	<0.050	0.050	mg/L	1		06/21/22 1032	06/24/22 1456	RPL

Volatile Organic Compounds TCLP by GCMS	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
SW-846 8260B/EPA 8260B								
1,1-Dichloroethene	<0.050	0.050	mg/L	10			06/23/22 2053	JBS
1,2-Dichloroethane	<0.050	0.050	mg/L	10			06/23/22 2053	JBS
2-Butanone	<0.20	0.20	mg/L	10			06/23/22 2053	JBS
Benzene	<0.050	0.050	mg/L	10			06/23/22 2053	JBS
Carbon tetrachloride	<0.050	0.050	mg/L	10			06/23/22 2053	JBS
Chlorobenzene	<0.050	0.050	mg/L	10			06/23/22 2053	JBS
Chloroform	<0.050	0.050	mg/L	10			06/23/22 2053	JBS
Tetrachloroethene	<0.050	0.050	mg/L	10			06/23/22 2053	JBS
Trichloroethene	<0.050	0.050	mg/L	10			06/23/22 2053	JBS
Vinyl chloride	<0.020	0.020	mg/L	10			06/23/22 2053	JBS
Surrogate: 1,2-Dichloroethane-d4	95.7	Limit: 74.5-132	% Rec	10			06/23/22 2053	JBS
Surrogate: 4-Bromofluorobenzene	91.0	Limit: 80-120	% Rec	10			06/23/22 2053	JBS
Surrogate: Dibromofluoromethane	97.8	Limit: 80-120	% Rec	10			06/23/22 2053	JBS
Surrogate: Toluene-d8	101	Limit: 80-120	% Rec	10			06/23/22 2053	JBS

Semivolatile Organic Compounds TCLP by GCMS	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
SW846 3510/EPA 8270C								
1,4-Dichlorobenzene	<0.050	0.050	mg/L	1		06/25/22 0804	06/26/22 2006	CLR
2,4,5-Trichlorophenol	<0.050	0.050	mg/L	1		06/25/22 0804	06/26/22 2006	CLR
2,4,6-Trichlorophenol	<0.050	0.050	mg/L	1		06/25/22 0804	06/26/22 2006	CLR
2,4-Dinitrotoluene	<0.050	0.050	mg/L	1		06/25/22 0804	06/26/22 2006	CLR
2-Methylphenol	<0.050	0.050	mg/L	1		06/25/22 0804	06/26/22 2006	CLR
3/4-Methylphenol	<0.050	0.050	mg/L	1		06/25/22 0804	06/26/22 2006	CLR
Hexachlorobenzene	<0.050	0.050	mg/L	1		06/25/22 0804	06/26/22 2006	CLR
Hexachlorobutadiene	<0.050	0.050	mg/L	1	**Q3**	06/25/22 0804	06/26/22 2006	CLR
Hexachloroethane	<0.050	0.050	mg/L	1		06/25/22 0804	06/26/22 2006	CLR
Nitrobenzene	<0.050	0.050	mg/L	1		06/25/22 0804	06/26/22 2006	CLR

CERTIFICATE OF ANALYSIS

22F1199

Client Sample ID: MF5-25-MF5-25-78EF
Sample Matrix: Solid
Lab Sample ID: 22F1199-06 **Collection Date:** 06/14/2022 15:00

Semivolatile Organic Compounds TCLP by GCMS	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
Pentachlorophenol	<0.25	0.25	mg/L	1		06/25/22 0804	06/26/22 2006	CLR
Pyridine	<0.050	0.050	mg/L	1		06/25/22 0804	06/26/22 2006	CLR
Total Cresol	<0.050	0.050	mg/L	1		06/25/22 0804	06/26/22 2006	CLR
Surrogate: 2,4,6-Tribromophenol	50.3	Limit: 47.8-138	% Rec	1		06/25/22 0804	06/26/22 2006	CLR
Surrogate: 2-Fluorobiphenyl	23.3	Limit: 10-110	% Rec	1		06/25/22 0804	06/26/22 2006	CLR
Surrogate: 2-Fluorophenol	28.0	Limit: 10-110	% Rec	1		06/25/22 0804	06/26/22 2006	CLR
Surrogate: Nitrobenzene-d5	31.0	Limit: 10-110	% Rec	1		06/25/22 0804	06/26/22 2006	CLR
Surrogate: Phenol-d5	33.9	Limit: 43.7-126	% Rec	1	**S2**	06/25/22 0804	06/26/22 2006	CLR
Surrogate: Terphenyl-d14	52.1	Limit: 33.7-136	% Rec	1		06/25/22 0804	06/26/22 2006	CLR

Client Sample ID: MF5-25-78BC
Sample Matrix: Solid
Lab Sample ID: 22F1199-07 **Collection Date:** 06/23/2022 16:00

Inorganics Total	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
-/EPA 9038								
Sulfate	**14000**	2000	mg/Kg wet	5		06/26/22 1549	06/26/22 2026	EF
Solid CN Distillation/EPA 9012B								
Cyanide, Total	**0.81**	0.28	mg/Kg wet	1		06/27/22 1634	06/28/22 1520	MRS
SW-846 1010A/ASTM D92-90 Modified								
Ignitability	**> 170**	30.0	°F	1			06/27/22 1017	ABG

Batch Log Summary

Method	Batch	Laboratory ID	Client / Source ID
SM 2540 G-2011	B198319	22F1199-03	MF5-25-78BC
		22F1199-01	MF5-25-34CD
		B198319-DUP2	22F1175-01
		B198319-DUP1	22F1174-02
		22F1199-05	MF5-25-78EF

Method	Batch	Laboratory ID	Client / Source ID
EPA 8082A	B198340	B198340-BLK1	
		B198340-BS1	
		B198340-MS1	22F1199-03
		B198340-MSD1	22F1199-03
		22F1199-01	MF5-25-34CD
		22F1199-03	MF5-25-78BC
		22F1199-05	MF5-25-78EF

Method	Batch	Laboratory ID	Client / Source ID
EPA 9066	B198348	B198348-BLK1	
		B198348-BS1	
		22F1199-01	MF5-25-34CD
		22F1199-03	MF5-25-78BC
		B198348-MS1	22F1199-03
		B198348-MSD1	22F1199-03
		22F1199-05	MF5-25-78EF
		B198348-PS1	22F1199-03

Method	Batch	Laboratory ID	Client / Source ID
EPA 9045D	B198368	22F1199-01	MF5-25-34CD
		22F1199-01	MF5-25-34CD
		22F1199-03	MF5-25-78BC
		22F1199-03	MF5-25-78BC
		22F1199-05	MF5-25-78EF
		22F1199-05	MF5-25-78EF
		B198368-DUP1	22F1200-01

Method	Batch	Laboratory ID	Client / Source ID
EPA 8270C	B198441	B198441-BLK1	
		B198441-BS1	
		22F1199-01	MF5-25-34CD
		22F1199-03	MF5-25-78BC
		B198441-MS1	22F1199-03
		B198441-MSD1	22F1199-03

EPA 8270C	B198441	22F1199-05	MF5-25-78EF
		22F1199-01RE1	MF5-25-34CD

Method	Batch	Laboratory ID	Client / Source ID
EPA 9095B	B198466	22F1199-05	MF5-25-78EF
		22F1199-01	MF5-25-34CD
		B198466-DUP1	22F0748-01
		22F1199-03	MF5-25-78BC

Method	Batch	Laboratory ID	Client / Source ID
EPA 7471B	B198473	B198473-BLK1	
		B198473-BS1	
		22F1199-01	MF5-25-34CD
		B198473-MS1	22F1199-01
		B198473-MSD1	22F1199-01
		22F1199-03	MF5-25-78BC
		22F1199-05	MF5-25-78EF
		B198473-PS1	22F1199-01

Method	Batch	Laboratory ID	Client / Source ID
EPA 6010C	B198483	B198483-BLK1	
		B198483-BS1	
		B198483-BS2	
		B198483-MS1	22F1177-01
		B198483-MSD1	22F1177-01
		22F1199-01	MF5-25-34CD
		22F1199-03	MF5-25-78BC
		B198483-BS3	
		22F1199-01RE1	MF5-25-34CD

Method	Batch	Laboratory ID	Client / Source ID
EPA 9030B Modified	B198490	22F1199-05	MF5-25-78EF
		B198490-PS1	22F1199-03
		B198490-BLK1	
		B198490-BS1	
		B198490-MS1	22F1199-03
		B198490-MSD1	22F1199-03
		22F1199-01	MF5-25-34CD
		22F1199-03	MF5-25-78BC

Method	Batch	Laboratory ID	Client / Source ID
EPA 6010C	B198590	B198590-BLK1	
		B198590-BS1	
		B198590-BS2	

EPA 6010C	B198590	22F1199-05	MF5-25-78EF
		B198590-MS1	22F1368-01
		B198590-MSD1	22F1368-01
		B198590-PS1	22F1368-01
		22F1199-05RE1	MF5-25-78EF
		B198590-BLK2	

Method	Batch	Laboratory ID	Client / Source ID
EPA 6010C	B198602	B198602-BLK1	
		B198602-BS1	
		B198602-MS1	22F1113-01
		B198602-MSD1	22F1113-01
		22F1199-06	MF5-25-MF5-25-78EF

Method	Batch	Laboratory ID	Client / Source ID
EPA 6010C	B198603	B198603-BLK1	
		B198603-BS1	
		22F1199-02	MF5-25-34CD
		B198603-MS1	22F1199-02
		B198603-MSD1	22F1199-02
		22F1199-04	MF5-25-78BC

Method	Batch	Laboratory ID	Client / Source ID
EPA 7470A	B198604	B198604-BLK1	
		B198604-BS1	
		22F1199-02	MF5-25-34CD
		B198604-MS1	22F1199-02
		B198604-MSD1	22F1199-02
		22F1199-04	MF5-25-78BC

Method	Batch	Laboratory ID	Client / Source ID
EPA 7470A	B198605	B198605-BLK1	
		B198605-BS1	
		B198605-MS1	22F1113-01
		B198605-MSD1	22F1113-01
		22F1199-06	MF5-25-MF5-25-78EF

Method	Batch	Laboratory ID	Client / Source ID
EPA 6010C	B198680	B198680-BLK1	
		B198680-BS1	
		B198680-BS2	
		22F1199-01RE3	MF5-25-34CD
		22F1199-03RE1	MF5-25-78BC
		B198680-MS1	22F1568-01

EPA 6010C	B198680	B198680-MSD1	22F1568-01
		B198680-PS1	22F1568-01RE1

Method	Batch	Laboratory ID	Client / Source ID
EPA 9038	B198767	B198767-MS1	22E1596-01
		B198767-MSD1	22E1596-01
		22F1199-01	MF5-25-34CD
		22F1199-05	MF5-25-78EF

Method	Batch	Laboratory ID	Client / Source ID
EPA 9012B	B198768	B198768-BLK1	
		B198768-BS1	
		B198768-MS1	22F0827-01
		B198768-MSD1	22F0827-01
		22F1199-01	MF5-25-34CD
		22F1199-05	MF5-25-78EF

Method	Batch	Laboratory ID	Client / Source ID
EPA 8260B	B198796	B198796-BS1	
		B198796-BLK1	
		B198796-MS1	22F1641-01
		B198796-MSD1	22F1641-01
		22F1199-01	MF5-25-34CD
		22F1199-03	MF5-25-78BC
		22F1199-05	MF5-25-78EF

Method	Batch	Laboratory ID	Client / Source ID
ASTM D92-90 Modified	B198800	22F1199-01	MF5-25-34CD
		22F1199-05	MF5-25-78EF

Method	Batch	Laboratory ID	Client / Source ID
EPA 8260B	B198870	B198870-BS1	
		B198870-BSD1	
		B198870-BLK1	
		22F1199-02	MF5-25-34CD
		22F1199-04	MF5-25-78BC
		22F1199-06	MF5-25-MF5-25-78EF

Method	Batch	Laboratory ID	Client / Source ID
EPA 8270C	B198952	B198952-BLK1	
		B198952-BLK2	
		B198952-BLK3	
		B198952-BLK4	
		B198952-BS1	
		22F1199-02	MF5-25-34CD

EPA 8270C	B198952	22F1199-04	MF5-25-78BC
		22F1199-06	MF5-25-MF5-25-78EF
		B198952-MS1	22F1242-01
		B198952-MSD1	22F1242-01

Method	Batch	Laboratory ID	Client / Source ID
EPA 9038	B198977	22F1199-07RE1	MF5-25-78BC
		B198977-MS2	22F1199-07RE1
		B198977-MSD2	22F1199-07RE1

Method	Batch	Laboratory ID	Client / Source ID
ASTM D92-90 Modified	B199070	22F1199-07	MF5-25-78BC

Method	Batch	Laboratory ID	Client / Source ID
EPA 9012B	B199071	B199071-BLK1	
		B199071-BS1	
		22F1199-07	MF5-25-78BC
		B199071-MS1	22F1199-07
		B199071-MSD1	22F1199-07

Method	Batch	Laboratory ID	Client / Source ID
EPA 8270C	B199190	B199190-BLK1	
		B199190-BLK2	
		B199190-BLK3	
		B199190-BS1	
		B199190-BSD1	
		22F1199-02RE1	MF5-25-34CD

Batch Quality Control Summary: Microbac Laboratories, Inc. - Chicagoland

Inorganics Total	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B198319 - PSOLID_PMOIST_2540B_PR - SM 2540 G-2011										
Duplicate (B198319-DUP1)		**Source: 22F1174-02**	Prepared: 06/16/2022 Analyzed: 06/17/2022							
Percent Solids	52.4	0.10	% (by wt.)		52.5			0.0881	20	
Duplicate (B198319-DUP2)		**Source: 22F1175-01**	Prepared: 06/16/2022 Analyzed: 06/17/2022							
Percent Solids	2.39	0.10	% (by wt.)		3.46			36.9	20	R1
Batch B198348 - PHENOLPR_S - EPA 9066										
Blank (B198348-BLK1)			Prepared: 06/16/2022 Analyzed: 06/17/2022							
Phenolics, Total Recoverable	<0.010	0.010	mg/Kg wet							
LCS (B198348-BS1)			Prepared: 06/16/2022 Analyzed: 06/17/2022							

Inorganics Total	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B198348 - PHENOLPR_S - EPA 9066										
LCS (B198348-BS1)			Prepared: 06/16/2022 Analyzed: 06/17/2022							
Phenolics, Total Recoverable	0.406	0.010	mg/Kg wet	0.40		101	78.3-121			
Matrix Spike (B198348-MS1)		**Source: 22F1199-03**	Prepared: 06/16/2022 Analyzed: 06/22/2022							
Phenolics, Total Recoverable	14.0	0.54	mg/Kg dry	22	3.09	50.8	69.7-110			M2
Matrix Spike Dup (B198348-MSD1)		**Source: 22F1199-03**	Prepared: 06/16/2022 Analyzed: 06/22/2022							
Phenolics, Total Recoverable	12.9	0.54	mg/Kg dry	22	3.09	45.4	69.7-110	8.53	20	M2
Post Spike (B198348-PS1)		**Source: 22F1199-03**	Prepared: 06/16/2022 Analyzed: 06/22/2022							
Phenolics, Total Recoverable	0.590		mg/Kg	0.50	0.0574	107	53.9-123			M3
Batch B198368 - PH_9045_PR - EPA 9045D										
Duplicate (B198368-DUP1)		**Source: 22F1200-01**	Prepared & Analyzed: 06/16/2022							
pH	10.41	2.00	S.U.		10.44			0.288	20	
Temperature	22.3		°C		22.3			0.00	200	
Batch B198466 - PAINTFILTER_9095_PR - EPA 9095B										
Duplicate (B198466-DUP1)		**Source: 22F0748-01**	Prepared & Analyzed: 06/17/2022							
Paint Filter	No Free Liquids	0.0	NA		ND				200	
Batch B198490 - SULFPR_S - EPA 9030B Modified										
Blank (B198490-BLK1)			Prepared: 06/19/2022 Analyzed: 06/21/2022							
Sulfide	0.014	0.010	mg/Kg							B
LCS (B198490-BS1)			Prepared: 06/19/2022 Analyzed: 06/21/2022							
Sulfide	4.57	0.10	mg/Kg	5.0		91.4	10-161			B
Matrix Spike (B198490-MS1)		**Source: 22F1199-03**	Prepared: 06/19/2022 Analyzed: 06/21/2022							
Sulfide	70.4	4.9	mg/Kg	240	ND	29.0	61-149			B, M2
Matrix Spike Dup (B198490-MSD1)		**Source: 22F1199-03**	Prepared: 06/19/2022 Analyzed: 06/21/2022							
Sulfide	9.00	5.0	mg/Kg	250	ND	3.60	61-149	155	20	B, M2, R1
Post Spike (B198490-PS1)		**Source: 22F1199-03**	Prepared: 06/19/2022 Analyzed: 06/21/2022							
Sulfide	0.458		mg/Kg	0.50	0.00600	90.4	80-120			B, M3
Batch B198767 - WCPREP - EPA 9038										
Matrix Spike (B198767-MS1)		**Source: 22E1596-01**	Prepared & Analyzed: 06/22/2022							
Sulfate	4530	510	mg/Kg dry	3000	1670	94.6	68-153			
Matrix Spike Dup (B198767-MSD1)		**Source: 22E1596-01**	Prepared & Analyzed: 06/22/2022							
Sulfate	4450	510	mg/Kg dry	3000	1670	91.8	68-153	1.87	20	

Inorganics Total	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B198768 - CNPR_MICRO_S - EPA 9012B										
Blank (B198768-BLK1)			Prepared: 06/22/2022 Analyzed: 06/23/2022							
Cyanide, Total	<0.0050	0.0050	mg/Kg wet							
LCS (B198768-BS1)			Prepared: 06/22/2022 Analyzed: 06/23/2022							
Cyanide, Total	0.0944	0.0050	mg/Kg wet	0.10		94.4	90-110			
Matrix Spike (B198768-MS1)		**Source: 22F0827-01**	Prepared: 06/22/2022 Analyzed: 06/23/2022							
Cyanide, Total	4.75	0.27	mg/Kg wet	5.5	ND	86.4	69.4-116			
Matrix Spike Dup (B198768-MSD1)		**Source: 22F0827-01**	Prepared: 06/22/2022 Analyzed: 06/23/2022							
Cyanide, Total	5.27	0.30	mg/Kg wet	5.9	ND	89.3	69.4-116	10.4	20	
Batch B198977 - WCPREP - EPA 9038										
Matrix Spike (B198977-MS2)		**Source: 22F1199-07RE1**	Prepared & Analyzed: 06/26/2022							
Sulfate	25700	2000	mg/Kg wet	12000	13900	100	68-153			
Matrix Spike Dup (B198977-MSD2)		**Source: 22F1199-07RE1**	Prepared & Analyzed: 06/26/2022							
Sulfate	25200	2000	mg/Kg wet	12000	13900	95.8	68-153	2.14	20	
Batch B199071 - CNPR_MICRO_S - EPA 9012B										
Blank (B199071-BLK1)			Prepared: 06/27/2022 Analyzed: 06/28/2022							
Cyanide, Total	<0.0050	0.0050	mg/Kg wet							
LCS (B199071-BS1)			Prepared: 06/27/2022 Analyzed: 06/28/2022							
Cyanide, Total	0.110	0.0050	mg/Kg wet	0.10		110	90-110			
Matrix Spike (B199071-MS1)		**Source: 22F1199-07**	Prepared: 06/27/2022 Analyzed: 06/28/2022							
Cyanide, Total	5.54	0.28	mg/Kg wet	5.6	0.810	84.8	69.4-116			
Matrix Spike Dup (B199071-MSD1)		**Source: 22F1199-07**	Prepared: 06/27/2022 Analyzed: 06/28/2022							
Cyanide, Total	5.82	0.29	mg/Kg wet	5.8	0.810	86.0	69.4-116	5.04	20	

Metals Total by CVAA	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B198473 - HGPREP_S - EPA 7471B										
Blank (B198473-BLK1)			Prepared: 06/18/2022 Analyzed: 06/20/2022							
Mercury	<0.042	0.042	mg/Kg wet							
LCS (B198473-BS1)			Prepared: 06/18/2022 Analyzed: 06/20/2022							
Mercury	10.1	2.5	mg/Kg wet	10		101	71-130			
Matrix Spike (B198473-MS1)		**Source: 22F1199-01**	Prepared: 06/18/2022 Analyzed: 06/20/2022							

Metals Total by CVAA	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B198473 - HGPREP_S - EPA 7471B										
Matrix Spike (B198473-MS1)		**Source: 22F1199-01**	Prepared: 06/18/2022 Analyzed: 06/20/2022							
Mercury	0.399	0.064	mg/Kg dry	0.13	0.287	88.6	80-120			
Matrix Spike Dup (B198473-MSD1)		**Source: 22F1199-01**	Prepared: 06/18/2022 Analyzed: 06/20/2022							
Mercury	1.01	0.065	mg/Kg dry	0.13	0.287	563	80-120	86.8	20	E, M1, R1
Post Spike (B198473-PS1)		**Source: 22F1199-01**	Prepared: 06/18/2022 Analyzed: 06/20/2022							
Mercury	0.00555		mg/Kg	0.0020	0.00439	57.8	80-120			S

Metals Total by ICP	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B198483 - 3050I - EPA 6010C										
Blank (B198483-BLK1)			Prepared: 06/19/2022 Analyzed: 06/20/2022							
Arsenic	<0.50	0.50	mg/Kg wet							
Barium	<0.20	0.20	mg/Kg wet							
Cadmium	<0.20	0.20	mg/Kg wet							
Chromium	<0.20	0.20	mg/Kg wet							
Lead	<0.38	0.38	mg/Kg wet							
Lithium	<5.0	5.0	mg/Kg wet							
Nickel	<0.50	0.50	mg/Kg wet							
Selenium	<1.5	1.5	mg/Kg wet							
Silver	<0.50	0.50	mg/Kg wet							
LCS (B198483-BS1)			Prepared: 06/19/2022 Analyzed: 06/20/2022							
Arsenic	83	1.0	mg/Kg wet	99		83.6	83-117			
Barium	300	0.40	mg/Kg wet	340		88.1	82-118			
Cadmium	36	0.40	mg/Kg wet	44		81.7	83-117			
Chromium	140	0.40	mg/Kg wet	160		87.0	82-118			
Lead	81	0.75	mg/Kg wet	99		81.5	83-117			
Lithium	<10	10	mg/Kg wet				0-200			
Nickel	40	1.0	mg/Kg wet	47		85.4	82-118			
Selenium	79	3.0	mg/Kg wet	94		83.9	79-121			

Metals Total by ICP	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B198483 - 3050I - EPA 6010C										
LCS (B198483-BS1)			Prepared: 06/19/2022 Analyzed: 06/20/2022							
Silver	23	1.0	mg/Kg wet	28		82.2	80-120			
LCS (B198483-BS2)			Prepared: 06/19/2022 Analyzed: 06/20/2022							
Arsenic	93	0.50	mg/Kg wet	100		92.6	83-117			
Barium	110	0.20	mg/Kg wet	110		97.5	82-118			
Cadmium	9.2	0.20	mg/Kg wet	10		92.4	83-117			
Chromium	96	0.20	mg/Kg wet	100		95.8	82-118			
Lead	94	0.38	mg/Kg wet	100		93.8	83-117			
Lithium	100	5.0	mg/Kg wet	100		104	0-200			
Nickel	94	0.50	mg/Kg wet	100		94.2	82-118			
Selenium	90	1.5	mg/Kg wet	100		89.9	79-121			
Silver	9.3	0.50	mg/Kg wet	10		93.0	80-120			
LCS (B198483-BS3)			Prepared: 06/19/2022 Analyzed: 06/21/2022							
Arsenic	80	1.0	mg/Kg wet	99		80.8	83-117			
Barium	290	0.40	mg/Kg wet	340		84.3	82-118			
Cadmium	36	0.40	mg/Kg wet	44		80.7	83-117			
Chromium	130	0.40	mg/Kg wet	160		81.5	82-118			
Lead	79	0.75	mg/Kg wet	99		79.9	83-117			
Lithium	<10	10	mg/Kg wet				0-200			
Nickel	39	1.0	mg/Kg wet	47		83.2	82-118			
Selenium	77	3.0	mg/Kg wet	94		81.9	79-121			
Silver	22	1.0	mg/Kg wet	28		79.0	80-120			
Matrix Spike (B198483-MS1)	**Source: 22F1177-01**		Prepared: 06/19/2022 Analyzed: 06/20/2022							
Arsenic	200	1.0	mg/Kg dry	210	0.90	96.7	75-125			
Barium	250	0.42	mg/Kg dry	230	26	98.6	75-125			
Cadmium	18	0.42	mg/Kg dry	21	ND	86.2	75-125			
Chromium	200	0.42	mg/Kg dry	210	14	90.8	75-125			

Metals Total by ICP	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B198483 - 3050I - EPA 6010C										
Matrix Spike (B198483-MS1)		**Source: 22F1177-01**	Prepared: 06/19/2022 Analyzed: 06/20/2022							
Lead	180	0.78	mg/Kg dry	210	3.9	86.7	75-125			
Lithium	240	10	mg/Kg dry	210	2.2	113	75-125			
Nickel	190	1.0	mg/Kg dry	210	8.1	86.6	75-125			
Selenium	200	3.1	mg/Kg dry	210	ND	97.3	75-125			
Silver	20	1.0	mg/Kg dry	21	ND	96.4	75-125			
Matrix Spike Dup (B198483-MSD1)		**Source: 22F1177-01**	Prepared: 06/19/2022 Analyzed: 06/20/2022							
Arsenic	180	1.1	mg/Kg dry	210	0.90	84.2	75-125	11.8	20	
Barium	230	0.42	mg/Kg dry	230	26	85.7	75-125	10.8	20	
Cadmium	16	0.42	mg/Kg dry	21	ND	75.6	75-125	11.2	20	
Chromium	180	0.42	mg/Kg dry	210	14	78.1	75-125	12.2	20	
Lead	170	0.80	mg/Kg dry	210	3.9	77.3	75-125	9.35	20	
Lithium	210	11	mg/Kg dry	210	2.2	97.1	75-125	12.7	20	
Nickel	170	1.1	mg/Kg dry	210	8.1	76.2	75-125	10.3	20	
Selenium	180	3.2	mg/Kg dry	210	ND	86.2	75-125	10.2	20	
Silver	18	1.1	mg/Kg dry	21	ND	83.8	75-125	12.1	20	
Batch B198590 - 3050I - EPA 6010C										
Blank (B198590-BLK1)			Prepared & Analyzed: 06/21/2022							
Arsenic	<0.50	0.50	mg/Kg wet							
Barium	<0.20	0.20	mg/Kg wet							
Cadmium	<0.20	0.20	mg/Kg wet							
Chromium	<0.20	0.20	mg/Kg wet							
Lead	<0.38	0.38	mg/Kg wet							
Lithium	<5.0	5.0	mg/Kg wet							
Nickel	<0.50	0.50	mg/Kg wet							
Selenium	<1.5	1.5	mg/Kg wet							
Silver	<0.50	0.50	mg/Kg wet							

Metals Total by ICP	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B198590 - 3050I - EPA 6010C										
Blank (B198590-BLK2)			Prepared: 06/21/2022 Analyzed: 06/24/2022							
Arsenic	<0.50	0.50	mg/Kg wet							
Barium	<0.20	0.20	mg/Kg wet							
Cadmium	<0.20	0.20	mg/Kg wet							
Chromium	<0.20	0.20	mg/Kg wet							
Lead	<0.38	0.38	mg/Kg wet							
Lithium	<5.0	5.0	mg/Kg wet							
Nickel	<0.50	0.50	mg/Kg wet							
Selenium	<1.5	1.5	mg/Kg wet							
Silver	<0.50	0.50	mg/Kg wet							
LCS (B198590-BS1)			Prepared & Analyzed: 06/21/2022							
Arsenic	96	1.0	mg/Kg wet	99		97.3	83-117			
Barium	350	0.40	mg/Kg wet	340		103	82-118			
Cadmium	44	0.40	mg/Kg wet	44		99.2	83-117			
Chromium	170	0.40	mg/Kg wet	160		104	82-118			
Lead	93	0.75	mg/Kg wet	99		93.6	83-117			
Lithium	<10	10	mg/Kg wet				0-200			
Nickel	49	1.0	mg/Kg wet	47		103	82-118			
Selenium	95	3.0	mg/Kg wet	94		101	79-121			
Silver	25	1.0	mg/Kg wet	28		90.4	80-120			
LCS (B198590-BS2)			Prepared & Analyzed: 06/21/2022							
Arsenic	94	0.50	mg/Kg wet	100		94.1	83-117			
Barium	110	0.20	mg/Kg wet	110		97.9	82-118			
Cadmium	9.3	0.20	mg/Kg wet	10		93.0	83-117			
Chromium	95	0.20	mg/Kg wet	100		94.8	82-118			
Lead	95	0.38	mg/Kg wet	100		95.1	83-117			
Lithium	100	5.0	mg/Kg wet	100		101	0-200			

Metals Total by ICP	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B198590 - 3050I - EPA 6010C										
LCS (B198590-BS2)			Prepared & Analyzed: 06/21/2022							
Nickel	96	0.50	mg/Kg wet	100		96.3	82-118			
Selenium	93	1.5	mg/Kg wet	100		92.7	79-121			
Silver	9.1	0.50	mg/Kg wet	10		91.0	80-120			
Matrix Spike (B198590-MS1)		**Source: 22F1368-01**	Prepared & Analyzed: 06/21/2022							
Arsenic	86	0.51	mg/Kg dry	100	5.1	80.0	75-125			
Barium	130	0.20	mg/Kg dry	110	28	90.8	75-125			
Cadmium	8.6	0.20	mg/Kg dry	10	0.92	76.0	75-125			
Chromium	83	0.20	mg/Kg dry	100	5.9	76.4	75-125			
Lead	470	0.38	mg/Kg dry	100	220	248	75-125			M1
Lithium	99	5.1	mg/Kg dry	100	7.4	90.5	75-125			
Nickel	83	0.51	mg/Kg dry	100	8.9	73.2	75-125			M2
Selenium	80	1.5	mg/Kg dry	100	ND	78.8	75-125			
Silver	8.0	0.51	mg/Kg dry	10	ND	79.2	75-125			
Matrix Spike Dup (B198590-MSD1)		**Source: 22F1368-01**	Prepared & Analyzed: 06/21/2022							
Arsenic	96	0.51	mg/Kg dry	100	5.1	88.8	75-125	10.7	20	
Barium	130	0.20	mg/Kg dry	110	28	93.4	75-125	2.95	20	
Cadmium	9.2	0.20	mg/Kg dry	10	0.92	81.3	75-125	6.89	20	
Chromium	91	0.20	mg/Kg dry	100	5.9	83.0	75-125	8.62	20	
Lead	330	0.38	mg/Kg dry	100	220	101	75-125	36.9	20	R1
Lithium	110	5.1	mg/Kg dry	100	7.4	97.4	75-125	7.68	20	
Nickel	91	0.51	mg/Kg dry	100	8.9	80.3	75-125	9.15	20	
Selenium	89	1.5	mg/Kg dry	100	ND	87.6	75-125	11.7	20	
Silver	9.0	0.51	mg/Kg dry	10	ND	88.0	75-125	11.6	20	
Post Spike (B198590-PS1)		**Source: 22F1368-01**	Prepared: 06/21/2022 Analyzed: 06/22/2022							
Arsenic	2.0		mg/L	2.0	0.10	94.1	80-120			
Barium	2.9		mg/L	2.2	0.55	108	80-120			
Cadmium	0.20		mg/L	0.20	0.018	90.4	80-120			
Chromium	1.9		mg/L	2.0	0.12	87.7	80-120			

Metals Total by ICP	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B198590 - 3050I - EPA 6010C										
Post Spike (B198590-PS1)		**Source: 22F1368-01**	Prepared: 06/21/2022 Analyzed: 06/22/2022							
Lead	6.4		mg/L	2.0	4.5	99.1	80-120			
Lithium	2.2		mg/L	2.0	0.15	101	80-120			
Nickel	2.0		mg/L	2.0	0.18	89.7	80-120			
Selenium	1.8		mg/L	2.0	-0.0015	91.6	80-120			
Silver	0.20		mg/L	0.20	-0.00060	101	80-120			
Batch B198680 - 3050I - EPA 6010C										
Blank (B198680-BLK1)			Prepared & Analyzed: 06/22/2022							
Arsenic	<0.50	0.50	mg/Kg wet							
Barium	<0.20	0.20	mg/Kg wet							
Cadmium	<0.20	0.20	mg/Kg wet							
Chromium	<0.20	0.20	mg/Kg wet							
Lead	<0.38	0.38	mg/Kg wet							
Lithium	<5.0	5.0	mg/Kg wet							
Nickel	<0.50	0.50	mg/Kg wet							
Selenium	<1.5	1.5	mg/Kg wet							
Silver	<0.50	0.50	mg/Kg wet							
LCS (B198680-BS1)			Prepared & Analyzed: 06/22/2022							
Arsenic	90	1.0	mg/Kg wet	99		91.0	83-117			
Barium	340	0.40	mg/Kg wet	340		101	82-118			
Cadmium	42	0.40	mg/Kg wet	44		94.8	83-117			
Chromium	140	0.40	mg/Kg wet	160		88.5	82-118			
Lead	89	0.75	mg/Kg wet	99		90.2	83-117			
Lithium	<10	10	mg/Kg wet				0-200			
Nickel	46	1.0	mg/Kg wet	47		98.3	82-118			
Selenium	88	3.0	mg/Kg wet	94		93.7	79-121			
Silver	27	1.0	mg/Kg wet	28		96.8	80-120			
LCS (B198680-BS2)			Prepared & Analyzed: 06/22/2022							
Arsenic	93	0.50	mg/Kg wet	100		93.2	83-117			

Metals Total by ICP	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B198680 - 3050I - EPA 6010C										
LCS (B198680-BS2)			Prepared & Analyzed: 06/22/2022							
Barium	110	0.20	mg/Kg wet	110		103	82-118			
Cadmium	9.9	0.20	mg/Kg wet	10		99.0	83-117			
Chromium	92	0.20	mg/Kg wet	100		91.6	82-118			
Lead	98	0.38	mg/Kg wet	100		97.8	83-117			
Lithium	94	5.0	mg/Kg wet	100		94.4	0-200			
Nickel	100	0.50	mg/Kg wet	100		101	82-118			
Selenium	93	1.5	mg/Kg wet	100		93.3	79-121			
Silver	9.1	0.50	mg/Kg wet	10		90.7	80-120			
Matrix Spike (B198680-MS1)	**Source: 22F1568-01**		Prepared: 06/22/2022 Analyzed: 06/24/2022							
Arsenic	100	0.49	mg/Kg wet	98	5.5	97.9	75-125			
Barium	110	0.20	mg/Kg wet	110	14	92.8	75-125			
Cadmium	8.5	0.20	mg/Kg wet	9.8	0.050	85.8	75-125			
Chromium	93	0.20	mg/Kg wet	98	12	82.7	75-125			
Lead	98	0.37	mg/Kg wet	98	21	79.5	75-125			
Lithium	110	4.9	mg/Kg wet	98	4.0	107	75-125			
Nickel	86	0.49	mg/Kg wet	98	5.6	82.0	75-125			
Selenium	92	1.5	mg/Kg wet	98	0.75	92.6	75-125			
Silver	8.5	0.49	mg/Kg wet	9.8	ND	86.8	75-125			
Matrix Spike Dup (B198680-MSD1)	**Source: 22F1568-01**		Prepared: 06/22/2022 Analyzed: 06/24/2022							
Arsenic	99	0.48	mg/Kg wet	95	5.5	98.3	75-125	2.42	20	
Barium	120	0.19	mg/Kg wet	100	14	99.7	75-125	3.76	20	
Cadmium	8.1	0.19	mg/Kg wet	9.5	0.050	84.7	75-125	4.18	20	
Chromium	100	0.19	mg/Kg wet	95	12	93.9	75-125	8.61	20	
Lead	100	0.36	mg/Kg wet	95	21	85.9	75-125	3.84	20	
Lithium	110	4.8	mg/Kg wet	95	4.0	109	75-125	0.900	20	
Nickel	86	0.48	mg/Kg wet	95	5.6	84.2	75-125	0.253	20	

Metals Total by ICP	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B198680 - 3050I - EPA 6010C										
Matrix Spike Dup (B198680-MSD1)		**Source: 22F1568-01**	Prepared: 06/22/2022 Analyzed: 06/24/2022							
Selenium	91	1.4	mg/Kg wet	95	0.75	94.3	75-125	1.15	20	
Silver	8.4	0.48	mg/Kg wet	9.5	ND	88.6	75-125	0.904	20	
Post Spike (B198680-PS1)		**Source: 22F1568-01RE1**	Prepared: 06/22/2022 Analyzed: 06/27/2022							
Arsenic	2.2		mg/L	2.0	0.11	102	80-120			
Barium	2.5		mg/L	2.2	0.28	101	80-120			
Cadmium	0.18		mg/L	0.20	0.0010	88.8	80-120			
Chromium	2.0		mg/L	2.0	0.24	88.5	80-120			
Lead	2.1		mg/L	2.0	0.41	84.5	80-120			
Lithium	2.4		mg/L	2.0	0.081	115	80-120			
Nickel	1.8		mg/L	2.0	0.11	86.8	80-120			
Selenium	2.0		mg/L	2.0	0.015	98.4	80-120			
Silver	0.19		mg/L	0.20	-0.0020	94.4	80-120			

Metals TCLP by CVAA	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B198604 - HGPrep_TCLP - EPA 7470A										
Blank (B198604-BLK1)			Prepared: 06/21/2022 Analyzed: 06/23/2022							
Mercury	<0.0025	0.0025	mg/L							
LCS (B198604-BS1)			Prepared: 06/21/2022 Analyzed: 06/23/2022							
Mercury	0.00520	0.0025	mg/L	0.0050		104	80-120			
Matrix Spike (B198604-MS1)		**Source: 22F1199-02**	Prepared: 06/21/2022 Analyzed: 06/23/2022							
Mercury	0.00587	0.0025	mg/L	0.0050	ND	117	50-150			
Matrix Spike Dup (B198604-MSD1)		**Source: 22F1199-02**	Prepared: 06/21/2022 Analyzed: 06/23/2022							
Mercury	0.00514	0.0025	mg/L	0.0050	ND	103	50-150	13.3	20	
Batch B198605 - HGPrep_TCLP - EPA 7470A										
Blank (B198605-BLK1)			Prepared: 06/21/2022 Analyzed: 06/23/2022							
Mercury	<0.0025	0.0025	mg/L							
LCS (B198605-BS1)			Prepared: 06/21/2022 Analyzed: 06/23/2022							
Mercury	0.00517	0.0025	mg/L	0.0050		103	80-120			
Matrix Spike (B198605-MS1)		**Source: 22F1113-01**	Prepared: 06/21/2022 Analyzed: 06/23/2022							
Mercury	0.00512	0.0025	mg/L	0.0050	ND	102	50-150			
Matrix Spike Dup (B198605-MSD1)		**Source: 22F1113-01**	Prepared: 06/21/2022 Analyzed: 06/23/2022							
Mercury	0.00518	0.0025	mg/L	0.0050	ND	104	50-150	1.07	20	

Metals TCLP by ICP	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B198602 - 3005TC - EPA 6010C										
Blank (B198602-BLK1)			Prepared: 06/21/2022 Analyzed: 06/24/2022							

Metals TCLP by ICP	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B198602 - 3005TC - EPA 6010C										
Blank (B198602-BLK1)			Prepared: 06/21/2022 Analyzed: 06/24/2022							
Arsenic	<0.050	0.050	mg/L							
Barium	<2.5	2.5	mg/L							
Cadmium	<0.010	0.010	mg/L							
Chromium	<0.025	0.025	mg/L							
Lead	<0.038	0.038	mg/L							
Selenium	<0.15	0.15	mg/L							
Silver	<0.050	0.050	mg/L							
LCS (B198602-BS1)			Prepared: 06/21/2022 Analyzed: 06/24/2022							
Arsenic	9.9	0.050	mg/L	10		99.2	80-120			
Barium	11	2.5	mg/L	11		97.9	80-120			
Cadmium	0.97	0.010	mg/L	1.0		97.4	80-120			
Chromium	8.9	0.025	mg/L	10		89.4	80-120			
Lead	9.4	0.038	mg/L	10		94.2	80-120			
Selenium	10	0.15	mg/L	10		102	80-120			
Silver	0.84	0.050	mg/L	1.0		84.4	80-120			
Matrix Spike (B198602-MS1)		**Source: 22F1113-01**	Prepared: 06/21/2022 Analyzed: 06/24/2022							
Arsenic	10	0.050	mg/L	10	ND	100	50-200			
Barium	12	2.5	mg/L	11	0.75	98.6	50-200			
Cadmium	0.97	0.010	mg/L	1.0	ND	96.8	50-200			
Chromium	9.0	0.025	mg/L	10	0.0075	90.1	50-200			
Lead	9.6	0.038	mg/L	10	0.18	94.3	50-200			
Selenium	10	0.15	mg/L	10	ND	104	50-200			
Silver	0.85	0.050	mg/L	1.0	ND	84.6	50-200			
Matrix Spike Dup (B198602-MSD1)		**Source: 22F1113-01**	Prepared: 06/21/2022 Analyzed: 06/24/2022							
Arsenic	10	0.050	mg/L	10	ND	99.7	50-200	0.250	20	
Barium	12	2.5	mg/L	11	0.75	98.0	50-200	0.562	20	
Cadmium	0.97	0.010	mg/L	1.0	ND	96.8	50-200	0.00	20	
Chromium	9.0	0.025	mg/L	10	0.0075	89.5	50-200	0.667	20	
Lead	9.6	0.038	mg/L	10	0.18	94.0	50-200	0.365	20	
Selenium	10	0.15	mg/L	10	ND	103	50-200	0.532	20	
Silver	0.84	0.050	mg/L	1.0	ND	84.0	50-200	0.652	20	
Batch B198603 - 3005TC - EPA 6010C										
Blank (B198603-BLK1)			Prepared: 06/21/2022 Analyzed: 06/24/2022							
Arsenic	<0.050	0.050	mg/L							
Barium	<2.5	2.5	mg/L							
Cadmium	<0.010	0.010	mg/L							
Chromium	<0.025	0.025	mg/L							
Lead	<0.038	0.038	mg/L							
Selenium	<0.15	0.15	mg/L							
Silver	<0.050	0.050	mg/L							
LCS (B198603-BS1)			Prepared: 06/21/2022 Analyzed: 06/24/2022							

Metals TCLP by ICP	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B198603 - 3005TC - EPA 6010C										
LCS (B198603-BS1)			Prepared: 06/21/2022 Analyzed: 06/24/2022							
Arsenic	9.7	0.050	mg/L	10		96.8	80-120			
Barium	11	2.5	mg/L	11		101	80-120			
Cadmium	0.99	0.010	mg/L	1.0		99.1	80-120			
Chromium	9.2	0.025	mg/L	10		91.6	80-120			
Lead	9.9	0.038	mg/L	10		98.8	80-120			
Selenium	10	0.15	mg/L	10		102	80-120			
Silver	0.85	0.050	mg/L	1.0		85.4	80-120			
Matrix Spike (B198603-MS1)		**Source: 22F1199-02**	Prepared: 06/21/2022 Analyzed: 06/24/2022							
Arsenic	10	0.050	mg/L	10	ND	103	50-200			
Barium	12	2.5	mg/L	11	0.57	104	50-200			
Cadmium	1.2	0.010	mg/L	1.0	0.23	98.8	50-200			
Chromium	9.3	0.025	mg/L	10	ND	92.6	50-200			
Lead	10	0.038	mg/L	10	0.44	97.7	50-200			
Selenium	11	0.15	mg/L	10	ND	106	50-200			
Silver	0.89	0.050	mg/L	1.0	ND	89.2	50-200			
Matrix Spike Dup (B198603-MSD1)		**Source: 22F1199-02**	Prepared: 06/21/2022 Analyzed: 06/24/2022							
Arsenic	10	0.050	mg/L	10	ND	102	50-200	0.585	20	
Barium	12	2.5	mg/L	11	0.57	104	50-200	0.417	20	
Cadmium	1.2	0.010	mg/L	1.0	0.23	96.5	50-200	1.91	20	
Chromium	9.2	0.025	mg/L	10	ND	92.2	50-200	0.379	20	
Lead	10	0.038	mg/L	10	0.44	97.8	50-200	0.147	20	
Selenium	11	0.15	mg/L	10	ND	106	50-200	0.425	20	
Silver	0.89	0.050	mg/L	1.0	ND	89.3	50-200	0.0560	20	

Volatile Organic Compounds by GCMS	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B198796 - 8260_5035_SB_PR - EPA 8260B										
Blank (B198796-BLK1)			Prepared & Analyzed: 06/23/2022							
1,1,1,2-Tetrachloroethane	<10	10	ug/kg wet							
1,1,1-Trichloroethane	<5.0	5.0	ug/kg wet							
1,1,2,2-Tetrachloroethane	<5.0	5.0	ug/kg wet							
1,1,2-Trichloroethane	<5.0	5.0	ug/kg wet							
1,1-Dichloroethane	<5.0	5.0	ug/kg wet							
1,1-Dichloroethene	<5.0	5.0	ug/kg wet							
1,2-Dichloroethane	<5.0	5.0	ug/kg wet							
1,2-Dichloropropane	<5.0	5.0	ug/kg wet							

Volatile Organic Compounds by GCMS	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B198796 - 8260_5035_SB_PR - EPA 8260B										
Blank (B198796-BLK1)			Prepared & Analyzed: 06/23/2022							
2-Butanone	<10	10	ug/kg wet							
2-Hexanone	<10	10	ug/kg wet							
4-Methyl-2-pentanone	<10	10	ug/kg wet							
Acetone	<50	50	ug/kg wet							
Acrolein	<100	100	ug/kg wet							
Acrylonitrile	<100	100	ug/kg wet							
Benzene	<5.0	5.0	ug/kg wet							
Bromodichloromethane	<5.0	5.0	ug/kg wet							
Bromoform	<5.0	5.0	ug/kg wet							
Bromomethane	<10	10	ug/kg wet							
Carbon Disulfide	<10	10	ug/kg wet							
Carbon tetrachloride	<5.0	5.0	ug/kg wet							
Chlorobenzene	<5.0	5.0	ug/kg wet							
Chloroethane	<10	10	ug/kg wet							
Chloroform	<5.0	5.0	ug/kg wet							
Chloromethane	<10	10	ug/kg wet							
cis-1,2-Dichloroethene	<5.0	5.0	ug/kg wet							
cis-1,3-Dichloropropene	<5.0	5.0	ug/kg wet							
Dibromochloromethane	<5.0	5.0	ug/kg wet							
Ethylbenzene	<5.0	5.0	ug/kg wet							
m,p-Xylene	<5.0	5.0	ug/kg wet							
Methylene chloride	<20	20	ug/kg wet							
Methyl-t-Butyl Ether	<5.0	5.0	ug/kg wet							
o-Xylene	<5.0	5.0	ug/kg wet							
Styrene	<5.0	5.0	ug/kg wet							

Volatile Organic Compounds by GCMS	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B198796 - 8260_5035_SB_PR - EPA 8260B										
Blank (B198796-BLK1)			Prepared & Analyzed: 06/23/2022							
Tetrachloroethene	<5.0	5.0	ug/kg wet							
Toluene	<5.0	5.0	ug/kg wet							
trans-1,2-Dichloroethene	<5.0	5.0	ug/kg wet							
trans-1,3-Dichloropropene	<5.0	5.0	ug/kg wet							
Trichloroethene	<5.0	5.0	ug/kg wet							
Trichlorofluoromethane	<10	10	ug/kg wet							
Vinyl Acetate	<10	10	ug/kg wet							
Vinyl chloride	<10	10	ug/kg wet							
Total 1,2-Dichloroethene	<5.0	5.0	ug/kg wet							
Total Xylenes	<5.0	5.0	ug/kg wet							
Surrogate: 1,2-Dichloroethane-d4	*51*		ug/L	*50*		*103*	*51.7-162*			
Surrogate: 4-Bromofluorobenzene	*47*		ug/L	*50*		*93.7*	*57.4-135*			
Surrogate: Dibromofluoromethane	*47*		ug/L	*50*		*93.2*	*63.5-139*			
Surrogate: Toluene-d8	*49*		ug/L	*50*		*98.0*	*66.6-143*			
LCS (B198796-BS1)			Prepared & Analyzed: 06/23/2022							
1,1,1,2-Tetrachloroethane	49.5		ug/L	50		99.0	78.8-118			
1,1,1-Trichloroethane	51.3		ug/L	50		103	79.4-127			
1,1,2,2-Tetrachloroethane	47.4		ug/L	50		94.9	62.5-121			
1,1,2-Trichloroethane	50.6		ug/L	50		101	75.9-116			
1,1-Dichloroethane	50.1		ug/L	50		100	76.8-116			
1,1-Dichloroethene	52.7		ug/L	50		105	71.1-125			
1,2-Dichloroethane	50.3		ug/L	50		101	73.8-120			
1,2-Dichloropropane	50.6		ug/L	50		101	77.9-121			
2-Butanone	48.9		ug/L	50		97.9	70.9-129			
2-Hexanone	43.1		ug/L	50		86.2	58.4-128			
4-Methyl-2-pentanone	46.1		ug/L	50		92.2	67.3-136			
Acetone	48.9		ug/L	50		97.8	69.3-121			
Acrolein	44.7		ug/L	50		89.5	47.8-153			
Acrylonitrile	53.5		ug/L	50		107	74-125			
Benzene	51.7		ug/L	50		103	76.3-126			
Bromodichloromethane	50.4		ug/L	50		101	76.9-111			
Bromoform	49.2		ug/L	50		98.4	70.3-126			
Bromomethane	42.6		ug/L	50		85.2	30.2-136			
Carbon Disulfide	40.5		ug/L	50		80.9	63-132			
Carbon tetrachloride	51.4		ug/L	50		103	76.7-128			
Chlorobenzene	50.4		ug/L	50		101	82.7-116			

Volatile Organic Compounds by GCMS	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B198796 - 8260_5035_SB_PR - EPA 8260B										
LCS (B198796-BS1)			Prepared & Analyzed: 06/23/2022							
Chloroethane	45.4		ug/L	50		90.8	48.2-144			
Chloroform	52.2		ug/L	50		104	79.4-120			
Chloromethane	34.0		ug/L	50		67.9	55.1-110			
cis-1,2-Dichloroethene	52.8		ug/L	50		106	75.5-125			
cis-1,3-Dichloropropene	47.4		ug/L	50		94.9	83-120			
Dibromochloromethane	48.5		ug/L	50		97.0	80-120			
Ethylbenzene	50.0		ug/L	50		100	84-121			
m,p-Xylene	98.8		ug/L	100		98.8	86-126			
Methylene chloride	58.8		ug/L	50		118	69.2-122			
Methyl-t-Butyl Ether	46.6		ug/L	50		93.1	71.4-115			
o-Xylene	49.2		ug/L	50		98.5	80.6-125			
Styrene	45.4		ug/L	50		90.7	73-126			
Tetrachloroethene	51.2		ug/L	50		102	79.3-131			
Toluene	48.7		ug/L	50		97.4	83.3-122			
trans-1,2-Dichloroethene	52.8		ug/L	50		106	75.6-126			
trans-1,3-Dichloropropene	47.4		ug/L	50		94.8	77.2-121			
Trichloroethene	53.6		ug/L	50		107	76.7-126			
Trichlorofluoromethane	46.4		ug/L	50		92.9	73.7-116			
Vinyl Acetate	49.5		ug/L	50		99.0	71.8-118			
Vinyl chloride	45.2		ug/L	50		90.5	67.3-118			
Total Xylenes	148		ug/L	150		98.7	49.9-158			
Surrogate: 1,2-Dichloroethane-d4	*48*		ug/L	*50*		*95.5*	*51.7-162*			
Surrogate: 4-Bromofluorobenzene	*50*		ug/L	*50*		*100*	*57.4-135*			
Surrogate: Dibromofluoromethane	*49*		ug/L	*50*		*97.3*	*63.5-139*			
Surrogate: Toluene-d8	*49*		ug/L	*50*		*98.1*	*66.6-143*			
Matrix Spike (B198796-MS1)		**Source: 22F1641-01**	Prepared & Analyzed: 06/23/2022							
1,1,1,2-Tetrachloroethane	40.2		ug/L	50	0.00	80.4	52.5-130			
1,1,1-Trichloroethane	41.5		ug/L	50	0.00	83.0	46.3-135			
1,1,2,2-Tetrachloroethane	42.0		ug/L	50	0.00	84.1	56-146			
1,1,2-Trichloroethane	44.2		ug/L	50	0.00	88.3	60.2-129			
1,1-Dichloroethane	41.6		ug/L	50	0.00	83.3	59-131			
1,1-Dichloroethene	42.5		ug/L	50	0.00	84.9	39.1-116			
1,2-Dichloroethane	43.5		ug/L	50	0.00	87.0	54.7-126			
1,2-Dichloropropane	42.8		ug/L	50	0.00	85.7	62.9-118			
2-Butanone	47.9		ug/L	50	0.00	95.8	38.1-138			
2-Hexanone	40.4		ug/L	50	0.00	80.9	34-149			
4-Methyl-2-pentanone	44.4		ug/L	50	0.00	88.7	31.1-175			
Acetone	47.6		ug/L	50	6.63	82.0	27.9-161			
Acrolein	19.2		ug/L	50	0.00	38.4	10-200			
Acrylonitrile	48.1		ug/L	50	0.00	96.2	39.4-186			
Benzene	42.5		ug/L	50	0.00	84.9	54.8-120			
Bromodichloromethane	41.8		ug/L	50	0.00	83.5	54.6-122			
Bromoform	41.0		ug/L	50	0.00	81.9	31-122			

Volatile Organic Compounds by GCMS	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B198796 - 8260_5035_SB_PR - EPA 8260B										
Matrix Spike (B198796-MS1)		**Source: 22F1641-01**	Prepared & Analyzed: 06/23/2022							
Bromomethane	34.6		ug/L	50	0.00	69.3	10.8-142			
Carbon Disulfide	33.5		ug/L	50	0.00	67.0	16-177			
Carbon tetrachloride	40.5		ug/L	50	0.00	80.9	41.6-132			
Chlorobenzene	39.8		ug/L	50	0.00	79.7	36.8-129			
Chloroethane	36.7		ug/L	50	0.00	73.5	42.4-126			
Chloroform	43.6		ug/L	50	0.00	87.3	64-123			
Chloromethane	28.3		ug/L	50	0.00	56.6	45.3-143			
cis-1,2-Dichloroethene	43.5		ug/L	50	0.00	87.0	67-126			
cis-1,3-Dichloropropene	38.4		ug/L	50	0.00	76.9	49.9-139			
Dibromochloromethane	41.8		ug/L	50	0.00	83.6	52.1-132			
Ethylbenzene	39.2		ug/L	50	0.00	78.5	33.4-133			
m,p-Xylene	77.1		ug/L	100	0.00	77.1	30.5-132			
Methylene chloride	51.7		ug/L	50	6.24	90.9	53.8-125			
Methyl-t-Butyl Ether	43.2		ug/L	50	0.00	86.4	41.1-144			
o-Xylene	38.7		ug/L	50	0.00	77.4	38-123			
Styrene	35.0		ug/L	50	0.00	69.9	16.9-131			
Tetrachloroethene	40.4		ug/L	50	0.00	80.9	43-135			
Toluene	40.6		ug/L	50	0.00	81.2	35.2-143			
trans-1,2-Dichloroethene	43.6		ug/L	50	0.672	85.9	53.7-120			
trans-1,3-Dichloropropene	38.5		ug/L	50	0.00	77.0	42-148			
Trichloroethene	43.6		ug/L	50	0.00	87.2	37.1-145			
Trichlorofluoromethane	37.3		ug/L	50	0.00	74.5	40.5-141			
Vinyl Acetate	20.5		ug/L	50	0.00	41.1	22.5-184			
Vinyl chloride	36.9		ug/L	50	0.00	73.8	54.5-143			
Total Xylenes	116		ug/L	150	0.00	77.2	17.1-165			
Surrogate: 1,2-Dichloroethane-d4		*49*	ug/L	*50*		*97.0*	*51.7-162*			
Surrogate: 4-Bromofluorobenzene		*49*	ug/L	*50*		*97.7*	*57.4-135*			
Surrogate: Dibromofluoromethane		*48*	ug/L	*50*		*96.2*	*63.5-139*			
Surrogate: Toluene-d8		*49*	ug/L	*50*		*98.2*	*66.6-143*			
Matrix Spike Dup (B198796-MSD1)		**Source: 22F1641-01**	Prepared & Analyzed: 06/23/2022							
1,1,1,2-Tetrachloroethane	42.1		ug/L	50	0.00	84.1	52.5-130	4.52	30	
1,1,1-Trichloroethane	41.8		ug/L	50	0.00	83.7	46.3-135	0.792	30	
1,1,2,2-Tetrachloroethane	43.4		ug/L	50	0.00	86.8	56-146	3.21	30	
1,1,2-Trichloroethane	45.5		ug/L	50	0.00	91.1	60.2-129	3.03	30	
1,1-Dichloroethane	42.9		ug/L	50	0.00	85.9	59-131	3.07	30	
1,1-Dichloroethene	42.2		ug/L	50	0.00	84.3	39.1-116	0.685	30	
1,2-Dichloroethane	46.6		ug/L	50	0.00	93.1	54.7-126	6.84	30	
1,2-Dichloropropane	45.4		ug/L	50	0.00	90.7	62.9-118	5.74	30	
2-Butanone	47.6		ug/L	50	0.00	95.3	38.1-138	0.502	30	
2-Hexanone	40.2		ug/L	50	0.00	80.5	34-149	0.521	30	
4-Methyl-2-pentanone	43.0		ug/L	50	0.00	85.9	31.1-175	3.23	30	
Acetone	49.1		ug/L	50	6.53	85.2	27.9-161	3.10	30	
Acrolein	14.1		ug/L	50	0.00	28.2	10-200		30	R1

Volatile Organic Compounds by GCMS	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B198796 - 8260_5035_SB_PR - EPA 8260B										
Matrix Spike Dup (B198796-MSD1)		**Source: 22F1641-01**	Prepared & Analyzed: 06/23/2022							
Acrylonitrile	48.8		ug/L	50	0.00	97.5	39.4-186	1.38	30	
Benzene	43.6		ug/L	50	0.00	87.2	54.8-120	2.67	30	
Bromodichloromethane	43.6		ug/L	50	0.00	87.1	54.6-122	4.24	30	
Bromoform	43.2		ug/L	50	0.00	86.3	31-122	5.21	30	
Bromomethane	35.6		ug/L	50	0.00	71.3	10.8-142	2.87	30	
Carbon Disulfide	34.4		ug/L	50	0.00	68.8	16-177	2.74	30	
Carbon tetrachloride	40.4		ug/L	50	0.00	80.8	41.6-132	0.198	30	
Chlorobenzene	40.8		ug/L	50	0.00	81.7	36.8-129	2.53	30	
Chloroethane	35.8		ug/L	50	0.00	71.6	42.4-126	2.51	30	
Chloroform	44.8		ug/L	50	0.00	89.6	64-123	2.65	30	
Chloromethane	29.0		ug/L	50	0.00	58.0	45.3-143	2.41	30	
cis-1,2-Dichloroethene	44.8		ug/L	50	0.00	89.7	67-126	3.01	30	
cis-1,3-Dichloropropene	38.7		ug/L	50	0.00	77.5	49.9-139	0.777	30	
Dibromochloromethane	42.5		ug/L	50	0.00	85.1	52.1-132	1.75	30	
Ethylbenzene	39.4		ug/L	50	0.00	78.7	33.4-133	0.356	30	
m,p-Xylene	78.1		ug/L	100	0.00	78.1	30.5-132	1.24	30	
Methylene chloride	56.6		ug/L	50	6.14	101	53.8-125	9.14	30	
Methyl-t-Butyl Ether	45.7		ug/L	50	0.00	91.3	41.1-144	5.58	30	
o-Xylene	40.0		ug/L	50	0.00	80.0	38-123	3.28	30	
Styrene	36.3		ug/L	50	0.00	72.6	16.9-131	3.73	30	
Tetrachloroethene	39.4		ug/L	50	0.00	78.8	43-135	2.56	30	
Toluene	40.4		ug/L	50	0.00	80.9	35.2-143	0.370	30	
trans-1,2-Dichloroethene	44.2		ug/L	50	0.662	87.0	53.7-120	1.30	30	
trans-1,3-Dichloropropene	39.2		ug/L	50	0.00	78.3	42-148	1.70	30	
Trichloroethene	43.6		ug/L	50	0.00	87.2	37.1-145	0.00	30	
Trichlorofluoromethane	36.8		ug/L	50	0.00	73.7	40.5-141	1.11	30	
Vinyl Acetate	14.7		ug/L	50	0.00	29.4	22.5-184	33.0	30	R1
Vinyl chloride	37.3		ug/L	50	0.00	74.7	54.5-143	1.19	30	
Total Xylenes	118		ug/L	150	0.00	78.7	17.1-165	1.92	200	
Surrogate: 1,2-Dichloroethane-d4	*49*		ug/L	*50*		*98.7*	*51.7-162*			
Surrogate: 4-Bromofluorobenzene	*49*		ug/L	*50*		*98.9*	*57.4-135*			
Surrogate: Dibromofluoromethane	*49*		ug/L	*50*		*98.3*	*63.5-139*			
Surrogate: Toluene-d8	*49*		ug/L	*50*		*97.6*	*66.6-143*			

Volatile Organic Compounds TCLP by GCMS	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B198870 - 8260_TC_PR - EPA 8260B										
B198679-BLK (B198870-BLK1)			Prepared & Analyzed: 06/23/2022							
1,1-Dichloroethene	<0.050	0.050	mg/L							
1,2-Dichloroethane	<0.050	0.050	mg/L							
2-Butanone	<0.20	0.20	mg/L							
Benzene	<0.050	0.050	mg/L							

Volatile Organic Compounds TCLP by GCMS	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B198870 - 8260_TC_PR - EPA 8260B										
B198679-BLK (B198870-BLK1)			Prepared & Analyzed: 06/23/2022							
Carbon tetrachloride	<0.050	0.050	mg/L							
Chlorobenzene	<0.050	0.050	mg/L							
Chloroform	<0.050	0.050	mg/L							
Tetrachloroethene	<0.050	0.050	mg/L							
Trichloroethene	<0.050	0.050	mg/L							
Vinyl chloride	<0.020	0.020	mg/L							
Surrogate: 1,2-Dichloroethane-d4	*24*		ug/L	*25*		*94.7*	*74.5-132*			
Surrogate: 4-Bromofluorobenzene	*23*		ug/L	*25*		*91.3*	*80-120*			
Surrogate: Dibromofluoromethane	*25*		ug/L	*25*		*99.3*	*80-120*			
Surrogate: Toluene-d8	*25*		ug/L	*25*		*102*	*80-120*			
LCS (B198870-BS1)			Prepared & Analyzed: 06/23/2022							
1,1-Dichloroethene	22.3		ug/L	20		112	59.5-132			
1,2-Dichloroethane	19.0		ug/L	20		95.0	73.4-117			
2-Butanone	17.7		ug/L	20		88.5	57.9-124			
Benzene	21.1		ug/L	20		106	82.5-123			
Carbon tetrachloride	20.7		ug/L	20		104	74.8-122			
Chlorobenzene	20.8		ug/L	20		104	82-115			
Chloroform	21.0		ug/L	20		105	80.5-121			
Tetrachloroethene	21.6		ug/L	20		108	77-120			
Trichloroethene	21.4		ug/L	20		107	80-120			
Vinyl chloride	18.7		ug/L	20		93.4	41.7-133			
Surrogate: 1,2-Dichloroethane-d4	*24*		ug/L	*25*		*94.2*	*74.5-132*			
Surrogate: 4-Bromofluorobenzene	*24*		ug/L	*25*		*95.2*	*80-120*			
Surrogate: Dibromofluoromethane	*24*		ug/L	*25*		*97.4*	*80-120*			
Surrogate: Toluene-d8	*25*		ug/L	*25*		*101*	*80-120*			
LCS Dup (B198870-BSD1)			Prepared & Analyzed: 06/23/2022							
1,1-Dichloroethene	20.8		ug/L	20		104	59.5-132	6.82	30	
1,2-Dichloroethane	18.4		ug/L	20		91.8	73.4-117	3.37	30	
2-Butanone	18.0		ug/L	20		90.1	57.9-124	1.79	30	
Benzene	19.9		ug/L	20		99.4	82.5-123	6.10	30	
Carbon tetrachloride	19.5		ug/L	20		97.3	74.8-122	6.22	30	
Chlorobenzene	19.9		ug/L	20		99.3	82-115	4.86	30	
Chloroform	20.0		ug/L	20		99.9	80.5-121	4.93	30	
Tetrachloroethene	20.3		ug/L	20		102	77-120	6.24	30	
Trichloroethene	20.2		ug/L	20		101	80-120	6.16	30	
Vinyl chloride	17.5		ug/L	20		87.5	41.7-133	6.52	30	
Surrogate: 1,2-Dichloroethane-d4	*24*		ug/L	*25*		*95.9*	*74.5-132*			
Surrogate: 4-Bromofluorobenzene	*24*		ug/L	*25*		*94.9*	*80-120*			
Surrogate: Dibromofluoromethane	*25*		ug/L	*25*		*98.4*	*80-120*			
Surrogate: Toluene-d8	*25*		ug/L	*25*		*102*	*80-120*			

Semivolatile Organic Compounds by GC/ECD	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes

Semivolatile Organic Compounds by GC/ECD	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B198340 - 3550_PEST - EPA 8082A										
Blank (B198340-BLK1)			Prepared & Analyzed: 06/16/2022							
Aroclor 1016	<33	33	ug/kg wet							
Aroclor 1221	<33	33	ug/kg wet							
Aroclor 1232	<33	33	ug/kg wet							
Aroclor 1242	<33	33	ug/kg wet							
Aroclor 1248	<33	33	ug/kg wet							
Aroclor 1254	<33	33	ug/kg wet							
Aroclor 1260	<33	33	ug/kg wet							
Aroclor 1262	<33	33	ug/kg wet							
Aroclor 1268	<33	33	ug/kg wet							
Total PCB's	<33	33	ug/kg wet							
Surrogate: Tetrachloro-m-xylene	*3.7*		ug/kg wet	*6.7*		*55.0*	*27.6-126*			
Surrogate: Decachlorobiphenyl	*5.3*		ug/kg wet	*6.7*		*80.0*	*25.2-136*			
LCS (B198340-BS1)			Prepared & Analyzed: 06/16/2022							
Aroclor 1016	128	33	ug/kg wet	170		77.0	58.4-128			
Aroclor 1260	136	33	ug/kg wet	170		81.7	55.3-125			
Surrogate: Tetrachloro-m-xylene	*4.3*		ug/kg wet	*6.7*		*65.0*	*27.6-126*			
Surrogate: Decachlorobiphenyl	*6.0*		ug/kg wet	*6.7*		*90.0*	*25.2-136*			
Matrix Spike (B198340-MS1)	**Source: 22F1199-03**		Prepared & Analyzed: 06/16/2022							
Aroclor 1016	146	36	ug/kg dry	180	ND	80.4	27.2-130			
Aroclor 1260	140	36	ug/kg dry	180	ND	77.5	23.8-131			
Surrogate: Tetrachloro-m-xylene	*4.7*		ug/kg dry	*7.2*		*65.0*	*27.6-126*			
Surrogate: Decachlorobiphenyl	*5.8*		ug/kg dry	*7.2*		*80.0*	*25.2-136*			
Matrix Spike Dup (B198340-MSD1)	**Source: 22F1199-03**		Prepared & Analyzed: 06/16/2022							
Aroclor 1016	139	36	ug/kg dry	180	ND	76.8	27.2-130	4.85	40	
Aroclor 1260	136	36	ug/kg dry	180	ND	75.1	23.8-131	3.26	40	
Surrogate: Tetrachloro-m-xylene	*4.7*		ug/kg dry	*7.2*		*65.0*	*27.6-126*			
Surrogate: Decachlorobiphenyl	*5.8*		ug/kg dry	*7.2*		*80.0*	*25.2-136*			

Semivolatile Organic Compounds by GCMS	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes

Semivolatile Organic Compounds by GCMS	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B198441 - 3550_B - EPA 8270C										
Blank (B198441-BLK1)			Prepared: 06/17/2022 Analyzed: 06/21/2022							
1,2,4-Trichlorobenzene	<330	330	ug/kg wet							
1,2-Dichlorobenzene	<330	330	ug/kg wet							
1,2-Diphenyl-hydrazine	<330	330	ug/kg wet							
1,3-Dichlorobenzene	<330	330	ug/kg wet							
1,4-Dichlorobenzene	<330	330	ug/kg wet							
2,2´-oxybis(1-chloropropane)	<330	330	ug/kg wet							
2,4,5-Trichlorophenol	<330	330	ug/kg wet							
2,4,6-Trichlorophenol	<330	330	ug/kg wet							
2,4-Dichlorophenol	<330	330	ug/kg wet							
2,4-Dimethylphenol	<330	330	ug/kg wet							
2,4-Dinitrophenol	<1600	1600	ug/kg wet							
2,4-Dinitrotoluene	<330	330	ug/kg wet							
2,6-Dichlorophenol	<330	330	ug/kg wet							
2,6-Dinitrotoluene	<330	330	ug/kg wet							
2-Chloronaphthalene	<330	330	ug/kg wet							
2-Chlorophenol	<330	330	ug/kg wet							
2-Methylnaphthalene	<330	330	ug/kg wet							
2-Methylphenol	<330	330	ug/kg wet							
2-Nitroaniline	<1600	1600	ug/kg wet							
2-Nitrophenol	<330	330	ug/kg wet							
3,3´-Dichlorobenzidine	<1600	1600	ug/kg wet							
3/4-Methylphenol	<330	330	ug/kg wet							
3-Nitroaniline	<330	330	ug/kg wet							
4,6-Dinitro-2-methylphenol	<1600	1600	ug/kg wet							
4-Bromophenyl phenyl ether	<330	330	ug/kg wet							

Semivolatile Organic Compounds by GCMS	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B198441 - 3550_B - EPA 8270C										
Blank (B198441-BLK1)			Prepared: 06/17/2022 Analyzed: 06/21/2022							
4-Chloro-3-methylphenol	<660	660	ug/kg wet							
4-Chloroaniline	<330	330	ug/kg wet							
4-Chlorophenyl phenyl ether	<330	330	ug/kg wet							
4-Nitroaniline	<1600	1600	ug/kg wet							
4-Nitrophenol	<1600	1600	ug/kg wet							
Acenaphthene	<330	330	ug/kg wet							
Acenaphthylene	<330	330	ug/kg wet							
Acetophenone	<330	330	ug/kg wet							
Aniline	<330	330	ug/kg wet							
Anthracene	<330	330	ug/kg wet							
Benzidine	<1600	1600	ug/kg wet							
Benzo[a]anthracene	<330	330	ug/kg wet							
Benzo[a]pyrene	<330	330	ug/kg wet							
Benzo[b]fluoranthene	<330	330	ug/kg wet							
Benzo[g,h,i]perylene	<330	330	ug/kg wet							
Benzo[k]fluoranthene	<330	330	ug/kg wet							
Benzoic acid	<1600	1600	ug/kg wet							
Benzyl alcohol	<660	660	ug/kg wet							
Bis(2-chloroethoxy)methane	<330	330	ug/kg wet							
Bis(2-chloroethyl)ether	<330	330	ug/kg wet							
Bis(2-ethylhexyl)phthalate	<330	330	ug/kg wet							
Butyl benzyl phthalate	<330	330	ug/kg wet							
Carbazole	<330	330	ug/kg wet							
Chrysene	<330	330	ug/kg wet							
Dibenz[a,h]anthracene	<330	330	ug/kg wet							

Semivolatile Organic Compounds by GCMS	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B198441 - 3550_B - EPA 8270C										
Blank (B198441-BLK1)			Prepared: 06/17/2022 Analyzed: 06/21/2022							
Dibenzofuran	<330	330	ug/kg wet							
Diethyl phthalate	<330	330	ug/kg wet							
Dimethyl phthalate	<330	330	ug/kg wet							
Di-n-butyl phthalate	<330	330	ug/kg wet							
Di-n-octyl phthalate	<330	330	ug/kg wet							
Fluoranthene	<330	330	ug/kg wet							
Fluorene	<330	330	ug/kg wet							
Hexachlorobenzene	<330	330	ug/kg wet							
Hexachlorobutadiene	<330	330	ug/kg wet							
Hexachlorocyclopentadiene	<330	330	ug/kg wet							
Hexachloroethane	<330	330	ug/kg wet							
Indeno[1,2,3cd]pyrene	<330	330	ug/kg wet							
Isophorone	<330	330	ug/kg wet							
Naphthalene	<330	330	ug/kg wet							
Nitrobenzene	<330	330	ug/kg wet							
N-Nitrosodimethylamine	<330	330	ug/kg wet							
N-Nitrosodi-n-propylamine	<330	330	ug/kg wet							
N-Nitrosodiphenylamine	<330	330	ug/kg wet							
Pentachlorophenol	<1600	1600	ug/kg wet							
Phenanthrene	<330	330	ug/kg wet							
Phenol	<330	330	ug/kg wet							
Pyrene	<330	330	ug/kg wet							
Pyridine	<330	330	ug/kg wet							
Total Cresol	<330	330	ug/kg wet							
Surrogate: 2,4,6-Tribromophenol	*4700*		ug/kg wet	*6700*		*70.4*	*13.9-145*			
Surrogate: 2-Fluorobiphenyl	*2200*		ug/kg wet	*3300*		*67.4*	*28.1-110*			

Semivolatile Organic Compounds by GCMS	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B198441 - 3550_B - EPA 8270C										
Blank (B198441-BLK1)			Prepared: 06/17/2022 Analyzed: 06/21/2022							
Surrogate: 2-Fluorophenol	*4100*		ug/kg wet	*6700*		*61.7*	*24.5-110*			
Surrogate: Nitrobenzene-d5	*2100*		ug/kg wet	*3300*		*61.9*	*33.6-110*			
Surrogate: Phenol-d5	*4900*		ug/kg wet	*6700*		*73.8*	*29.6-110*			
Surrogate: Terphenyl-d14	*2200*		ug/kg wet	*3300*		*67.1*	*35.8-121*			
LCS (B198441-BS1)			Prepared: 06/17/2022 Analyzed: 06/21/2022							
1,2,4-Trichlorobenzene	2090	330	ug/kg wet	3300		62.6	35.9-110			
1,4-Dichlorobenzene	2000	330	ug/kg wet	3300		59.9	20-124			
2,4,6-Trichlorophenol	2340	330	ug/kg wet	3300		70.2	40-140			
2,4-Dichlorophenol	2220	330	ug/kg wet	3300		66.7	40-140			
2,4-Dinitrotoluene	2310	330	ug/kg wet	3300		69.3	42.6-110			
2-Chlorophenol	2010	330	ug/kg wet	3300		60.4	36.1-110			
2-Nitrophenol	2180	330	ug/kg wet	3300		65.4	40-140			
4-Chloro-3-methylphenol	2270	660	ug/kg wet	3300		68.0	40.6-119			
4-Nitrophenol	2600	1600	ug/kg wet	3300		78.1	39.1-110			
Acenaphthene	2310	330	ug/kg wet	3300		69.4	42.1-110			
Acenaphthylene	2490	330	ug/kg wet	3300		74.6	38-120			
Anthracene	2480	330	ug/kg wet	3300		74.4	36-117			
Bis(2-chloroethoxy)methane	2220	330	ug/kg wet	3300		66.5	40-140			
Chrysene	2450	330	ug/kg wet	3300		73.6	38-122			
Di-n-butyl phthalate	2490	330	ug/kg wet	3300		74.6	40-140			
Hexachlorobenzene	2360	330	ug/kg wet	3300		70.9	40-140			
Naphthalene	2150	330	ug/kg wet	3300		64.6	39-114			
N-Nitrosodi-n-propylamine	2110	330	ug/kg wet	3300		63.4	38.1-110			
Pentachlorophenol	2260	1600	ug/kg wet	3300		68.0	22.1-110			
Phenol	2050	330	ug/kg wet	3300		61.5	38.9-110			
Pyrene	2150	330	ug/kg wet	3300		64.5	44.3-116			
Surrogate: 2,4,6-Tribromophenol	*4600*		ug/kg wet	*6700*		*69.6*	*13.9-145*			
Surrogate: 2-Fluorobiphenyl	*2200*		ug/kg wet	*3300*		*65.4*	*28.1-110*			

Semivolatile Organic Compounds by GCMS	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B198441 - 3550_B - EPA 8270C										
LCS (B198441-BS1)			Prepared: 06/17/2022 Analyzed: 06/21/2022							
Surrogate: 2-Fluorophenol	*3800*		ug/kg wet	*6700*		*57.0*	*24.5-110*			
Surrogate: Nitrobenzene-d5	*2000*		ug/kg wet	*3300*		*61.4*	*33.6-110*			
Surrogate: Phenol-d5	*4500*		ug/kg wet	*6700*		*67.0*	*29.6-110*			
Surrogate: Terphenyl-d14	*2100*		ug/kg wet	*3300*		*64.2*	*35.8-121*			
Matrix Spike (B198441-MS1)	**Source: 22F1199-03**		Prepared: 06/17/2022 Analyzed: 06/22/2022							
1,2,4-Trichlorobenzene	1980	360	ug/kg dry	3600	ND	54.5	33.9-110			
1,4-Dichlorobenzene	1830	360	ug/kg dry	3600	ND	50.5	10-134			
2,4,6-Trichlorophenol	<360	360	ug/kg dry	3600	ND	3.71	50-150			M2
2,4-Dichlorophenol	<360	360	ug/kg dry	3600	ND	5.43	50-150			M2
2,4-Dinitrotoluene	2180	360	ug/kg dry	3600	ND	60.0	49.9-110			
2-Chlorophenol	<360	360	ug/kg dry	3600	ND	8.36	35.7-110			M2
2-Nitrophenol	<360	360	ug/kg dry	3600	ND	5.40	50-150			M2
4-Chloro-3-methylphenol	1280	720	ug/kg dry	3600	ND	35.3	41.5-121			M2
4-Nitrophenol	<1700	1700	ug/kg dry	3600	ND		32.1-121			M2
Acenaphthene	2230	360	ug/kg dry	3600	ND	61.6	39.8-110			
Acenaphthylene	2400	360	ug/kg dry	3600	ND	66.3	29-121			
Anthracene	2470	360	ug/kg dry	3600	ND	68.2	29-110			
Bis(2-chloroethoxy)methane	2170	360	ug/kg dry	3600	ND	59.7	50-150			
Chrysene	2510	360	ug/kg dry	3600	ND	69.2	21-125			
Di-n-butyl phthalate	2600	360	ug/kg dry	3600	ND	71.8	50-150			
Hexachlorobenzene	2450	360	ug/kg dry	3600	ND	67.5	50-150			
Naphthalene	2130	360	ug/kg dry	3600	ND	58.8	24-125			
N-Nitrosodi-n-propylamine	2040	360	ug/kg dry	3600	ND	56.2	37.4-110			
Pentachlorophenol	<1700	1700	ug/kg dry	3600	ND		10.6-110			M2
Phenol	1930	360	ug/kg dry	3600	340	43.8	43.3-110			
Pyrene	2350	360	ug/kg dry	3600	ND	64.9	23-113			
Surrogate: 2,4,6-Tribromophenol	*300*		ug/kg dry	*7200*		*4.08*	*13.9-145*			*M, S2*
Surrogate: 2-Fluorobiphenyl	*2000*		ug/kg dry	*3600*		*56.1*	*28.1-110*			

Semivolatile Organic Compounds by GCMS	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B198441 - 3550_B - EPA 8270C										
Matrix Spike (B198441-MS1)	**Source: 22F1199-03**		Prepared: 06/17/2022 Analyzed: 06/22/2022							
Surrogate: 2-Fluorophenol	*380*		ug/kg dry	*7200*		*5.29*	*24.5-110*			*M, S2*
Surrogate: Nitrobenzene-d5	*2000*		ug/kg dry	*3600*		*56.5*	*33.6-110*			
Surrogate: Phenol-d5	*2500*		ug/kg dry	*7200*		*34.8*	*29.6-110*			
Surrogate: Terphenyl-d14	*2400*		ug/kg dry	*3600*		*66.8*	*35.8-121*			
Matrix Spike Dup (B198441-MSD1)	**Source: 22F1199-03**		Prepared: 06/17/2022 Analyzed: 06/23/2022							
1,2,4-Trichlorobenzene	2010	360	ug/kg dry	3600	ND	55.5	33.9-110	1.77	30	
1,4-Dichlorobenzene	1870	360	ug/kg dry	3600	ND	51.6	10-134	1.99	30	
2,4,6-Trichlorophenol	<360	360	ug/kg dry	3600	ND	2.34	50-150	45.4	30	M2, R1
2,4-Dichlorophenol	<360	360	ug/kg dry	3600	ND	4.03	50-150	29.7	30	M2
2,4-Dinitrotoluene	2330	360	ug/kg dry	3600	ND	64.3	49.9-110	6.79	30	
2-Chlorophenol	<360	360	ug/kg dry	3600	ND	6.68	35.7-110	22.4	30	M2
2-Nitrophenol	<360	360	ug/kg dry	3600	ND	3.84	50-150	33.8	30	M2, R1
4-Chloro-3-methylphenol	976	720	ug/kg dry	3600	ND	27.0	41.5-121	26.8	30	M2
4-Nitrophenol	<1700	1700	ug/kg dry	3600	ND		32.1-121		30	M2
Acenaphthene	2310	360	ug/kg dry	3600	ND	63.9	39.8-110	3.61	30	
Acenaphthylene	2480	360	ug/kg dry	3600	ND	68.4	29-121	3.11	30	
Anthracene	2440	360	ug/kg dry	3600	ND	67.2	29-110	1.51	30	
Bis(2-chloroethoxy)methane	2150	360	ug/kg dry	3600	ND	59.2	50-150	0.924	30	
Chrysene	2450	360	ug/kg dry	3600	ND	67.5	21-125	2.57	30	
Di-n-butyl phthalate	2540	360	ug/kg dry	3600	ND	70.1	50-150	2.42	30	
Hexachlorobenzene	2400	360	ug/kg dry	3600	ND	66.2	50-150	1.92	30	
Naphthalene	2130	360	ug/kg dry	3600	ND	58.8	24-125	0.101	30	
N-Nitrosodi-n-propylamine	2020	360	ug/kg dry	3600	ND	55.6	37.4-110	1.07	30	
Pentachlorophenol	<1700	1700	ug/kg dry	3600	ND	2.13	10.6-110		30	M2
Phenol	1350	360	ug/kg dry	3600	340	27.8	43.3-110	35.3	30	R1
Pyrene	2430	360	ug/kg dry	3600	ND	67.1	23-113	3.37	30	
Surrogate: 2,4,6-Tribromophenol	*230*		ug/kg dry	*7200*		*3.22*	*13.9-145*			*M, S2*
Surrogate: 2-Fluorobiphenyl	*2200*		ug/kg dry	*3600*		*60.5*	*28.1-110*			

Semivolatile Organic Compounds by GCMS	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B198441 - 3550_B - EPA 8270C										
Matrix Spike Dup (B198441-MSD1)	**Source: 22F1199-03**		Prepared: 06/17/2022 Analyzed: 06/23/2022							
Surrogate: 2-Fluorophenol	*320*		ug/kg dry	*7200*		*4.49*	*24.5-110*			*M, S2*
Surrogate: Nitrobenzene-d5	*2100*		ug/kg dry	*3600*		*56.7*	*33.6-110*			
Surrogate: Phenol-d5	*2300*		ug/kg dry	*7200*		*32.2*	*29.6-110*			
Surrogate: Terphenyl-d14	*2500*		ug/kg dry	*3600*		*69.9*	*35.8-121*			

Semivolatile Organic Compounds TCLP by GCMS	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B198952 - 3510_TB - EPA 8270C										
Blank (B198952-BLK1)			Prepared: 06/25/2022 Analyzed: 06/26/2022							
1,4-Dichlorobenzene	<0.050	0.050	mg/L							
2,4,5-Trichlorophenol	<0.050	0.050	mg/L							
2,4,6-Trichlorophenol	<0.050	0.050	mg/L							
2,4-Dinitrotoluene	<0.050	0.050	mg/L							
2-Methylphenol	<0.050	0.050	mg/L							
3/4-Methylphenol	<0.050	0.050	mg/L							
Hexachlorobenzene	<0.050	0.050	mg/L							
Hexachlorobutadiene	<0.050	0.050	mg/L							
Hexachloroethane	<0.050	0.050	mg/L							
Nitrobenzene	<0.050	0.050	mg/L							
Pentachlorophenol	<0.25	0.25	mg/L							
Pyridine	<0.050	0.050	mg/L							
Total Cresol	<0.050	0.050	mg/L							
Surrogate: 2,4,6-Tribromophenol	*0.67*		mg/L	*1.0*		*67.0*	*47.8-138*			
Surrogate: 2-Fluorobiphenyl	*0.25*		mg/L	*0.50*		*50.5*	*10-110*			
Surrogate: 2-Fluorophenol	*0.54*		mg/L	*1.0*		*53.5*	*10-110*			
Surrogate: Nitrobenzene-d5	*0.28*		mg/L	*0.50*		*56.5*	*10-110*			
Surrogate: Phenol-d5	*0.61*		mg/L	*1.0*		*60.7*	*43.7-126*			
Surrogate: Terphenyl-d14	*0.34*		mg/L	*0.50*		*68.6*	*33.7-136*			
Blank (B198952-BLK2)			Prepared: 06/25/2022 Analyzed: 06/26/2022							
1,4-Dichlorobenzene	<0.050	0.050	mg/L							
2,4,5-Trichlorophenol	<0.050	0.050	mg/L							
2,4,6-Trichlorophenol	<0.050	0.050	mg/L							
2,4-Dinitrotoluene	<0.050	0.050	mg/L							
2-Methylphenol	<0.050	0.050	mg/L							
3/4-Methylphenol	<0.050	0.050	mg/L							
Hexachlorobenzene	<0.050	0.050	mg/L							
Hexachlorobutadiene	<0.050	0.050	mg/L							
Hexachloroethane	<0.050	0.050	mg/L							
Nitrobenzene	<0.050	0.050	mg/L							
Pentachlorophenol	<0.25	0.25	mg/L							
Pyridine	<0.050	0.050	mg/L							
Total Cresol	<0.050	0.050	mg/L							

Semivolatile Organic Compounds TCLP by GCMS	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B198952 - 3510_TB - EPA 8270C										
Blank (B198952-BLK2)			Prepared: 06/25/2022 Analyzed: 06/26/2022							
Surrogate: 2,4,6-Tribromophenol	*0.65*		mg/L	*1.0*		*64.7*	*47.8-138*			
Surrogate: 2-Fluorobiphenyl	*0.23*		mg/L	*0.50*		*45.6*	*10-110*			
Surrogate: 2-Fluorophenol	*0.46*		mg/L	*1.0*		*46.2*	*10-110*			
Surrogate: Nitrobenzene-d5	*0.26*		mg/L	*0.50*		*52.4*	*10-110*			
Surrogate: Phenol-d5	*0.53*		mg/L	*1.0*		*53.0*	*43.7-126*			
Surrogate: Terphenyl-d14	*0.36*		mg/L	*0.50*		*71.9*	*33.7-136*			
Blank (B198952-BLK3)			Prepared: 06/25/2022 Analyzed: 06/26/2022							
1,4-Dichlorobenzene	<0.050	0.050	mg/L							
2,4,5-Trichlorophenol	<0.050	0.050	mg/L							
2,4,6-Trichlorophenol	<0.050	0.050	mg/L							
2,4-Dinitrotoluene	<0.050	0.050	mg/L							
2-Methylphenol	<0.050	0.050	mg/L							
3/4-Methylphenol	<0.050	0.050	mg/L							
Hexachlorobenzene	<0.050	0.050	mg/L							
Hexachlorobutadiene	<0.050	0.050	mg/L							
Hexachloroethane	<0.050	0.050	mg/L							
Nitrobenzene	<0.050	0.050	mg/L							
Pentachlorophenol	<0.25	0.25	mg/L							
Pyridine	<0.050	0.050	mg/L							
Total Cresol	<0.050	0.050	mg/L							
Surrogate: 2,4,6-Tribromophenol	*0.56*		mg/L	*1.0*		*56.5*	*47.8-138*			
Surrogate: 2-Fluorobiphenyl	*0.19*		mg/L	*0.50*		*39.0*	*10-110*			
Surrogate: 2-Fluorophenol	*0.41*		mg/L	*1.0*		*40.8*	*10-110*			
Surrogate: Nitrobenzene-d5	*0.23*		mg/L	*0.50*		*46.1*	*10-110*			
Surrogate: Phenol-d5	*0.48*		mg/L	*1.0*		*47.9*	*43.7-126*			
Surrogate: Terphenyl-d14	*0.32*		mg/L	*0.50*		*64.5*	*33.7-136*			
Blank (B198952-BLK4)			Prepared: 06/25/2022 Analyzed: 06/26/2022							
1,4-Dichlorobenzene	<0.050	0.050	mg/L							
2,4,5-Trichlorophenol	<0.050	0.050	mg/L							
2,4,6-Trichlorophenol	<0.050	0.050	mg/L							
2,4-Dinitrotoluene	<0.050	0.050	mg/L							
2-Methylphenol	<0.050	0.050	mg/L							
3/4-Methylphenol	<0.050	0.050	mg/L							
Hexachlorobenzene	<0.050	0.050	mg/L							
Hexachlorobutadiene	<0.050	0.050	mg/L							
Hexachloroethane	<0.050	0.050	mg/L							
Nitrobenzene	<0.050	0.050	mg/L							
Pentachlorophenol	<0.25	0.25	mg/L							
Pyridine	<0.050	0.050	mg/L							
Total Cresol	<0.050	0.050	mg/L							
Surrogate: 2,4,6-Tribromophenol	*0.62*		mg/L	*1.0*		*62.1*	*47.8-138*			
Surrogate: 2-Fluorobiphenyl	*0.23*		mg/L	*0.50*		*45.5*	*10-110*			
Surrogate: 2-Fluorophenol	*0.47*		mg/L	*1.0*		*47.4*	*10-110*			
Surrogate: Nitrobenzene-d5	*0.26*		mg/L	*0.50*		*52.7*	*10-110*			

Semivolatile Organic Compounds TCLP by GCMS	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B198952 - 3510_TB - EPA 8270C										
Blank (B198952-BLK4)			Prepared: 06/25/2022 Analyzed: 06/26/2022							
Surrogate: Phenol-d5	*0.55*		mg/L	*1.0*		*54.6*	*43.7-126*			
Surrogate: Terphenyl-d14	*0.31*		mg/L	*0.50*		*61.2*	*33.7-136*			
LCS (B198952-BS1)			Prepared: 06/25/2022 Analyzed: 06/26/2022							
1,4-Dichlorobenzene	0.0932	0.050	mg/L	0.50		18.6	10-100			
2,4,5-Trichlorophenol	0.333	0.050	mg/L	0.50		66.6	31.6-113			
2,4,6-Trichlorophenol	0.314	0.050	mg/L	0.50		62.8	28.2-108			
2,4-Dinitrotoluene	0.310	0.050	mg/L	0.50		62.1	32.4-114			
2-Methylphenol	0.270	0.050	mg/L	0.50		54.1	25.4-89.6			
3/4-Methylphenol	0.589	0.050	mg/L	1.0		58.9	24.8-94.2			
Hexachlorobenzene	0.309	0.050	mg/L	0.50		61.8	33.9-115			
Hexachlorobutadiene	0.0702	0.050	mg/L	0.50		14.0	18.4-79.1			S
Hexachloroethane	0.0790	0.050	mg/L	0.50		15.8	10-97.2			
Nitrobenzene	0.249	0.050	mg/L	0.50		49.8	10.9-112			
Pentachlorophenol	0.341	0.25	mg/L	0.50		68.3	21.3-103			
Pyridine	0.117	0.050	mg/L	0.50		23.5	10-84.8			
Surrogate: 2,4,6-Tribromophenol	*0.61*		mg/L	*1.0*		*61.1*	*47.8-138*			
Surrogate: 2-Fluorobiphenyl	*0.19*		mg/L	*0.50*		*37.1*	*10-110*			
Surrogate: 2-Fluorophenol	*0.44*		mg/L	*1.0*		*43.5*	*10-110*			
Surrogate: Nitrobenzene-d5	*0.23*		mg/L	*0.50*		*46.0*	*10-110*			
Surrogate: Phenol-d5	*0.52*		mg/L	*1.0*		*52.0*	*43.7-126*			
Surrogate: Terphenyl-d14	*0.32*		mg/L	*0.50*		*64.6*	*33.7-136*			
Matrix Spike (B198952-MS1)		**Source: 22F1242-01**	Prepared: 06/25/2022 Analyzed: 06/26/2022							
1,4-Dichlorobenzene	0.115	0.050	mg/L	0.50	ND	22.9	10-110			
2,4,5-Trichlorophenol	0.293	0.050	mg/L	0.50	ND	58.6	50-150			
2,4,6-Trichlorophenol	0.276	0.050	mg/L	0.50	ND	55.1	50-150			
2,4-Dinitrotoluene	0.283	0.050	mg/L	0.50	ND	56.5	22.6-110			
2-Methylphenol	0.222	0.050	mg/L	0.50	ND	44.4	50-150			M2
3/4-Methylphenol	0.483	0.050	mg/L	1.0	ND	48.3	50-150			M2
Hexachlorobenzene	0.257	0.050	mg/L	0.50	ND	51.4	50-150			
Hexachlorobutadiene	0.106	0.050	mg/L	0.50	ND	21.2	10-110			
Hexachloroethane	0.108	0.050	mg/L	0.50	ND	21.5	30-123			M2
Nitrobenzene	0.193	0.050	mg/L	0.50	ND	38.5	25-190			
Pentachlorophenol	0.334	0.25	mg/L	0.50	ND	66.7	10-110			
Pyridine	0.193	0.050	mg/L	0.50	ND	38.6	10-120			
Surrogate: 2,4,6-Tribromophenol	*0.57*		mg/L	*1.0*		*57.5*	*47.8-138*			
Surrogate: 2-Fluorobiphenyl	*0.17*		mg/L	*0.50*		*33.7*	*10-110*			
Surrogate: 2-Fluorophenol	*0.33*		mg/L	*1.0*		*33.2*	*10-110*			
Surrogate: Nitrobenzene-d5	*0.19*		mg/L	*0.50*		*37.3*	*10-110*			
Surrogate: Phenol-d5	*0.42*		mg/L	*1.0*		*42.4*	*43.7-126*			*S2*
Surrogate: Terphenyl-d14	*0.30*		mg/L	*0.50*		*60.4*	*33.7-136*			
Matrix Spike Dup (B198952-MSD1)		**Source: 22F1242-01**	Prepared: 06/25/2022 Analyzed: 06/26/2022							
1,4-Dichlorobenzene	0.130	0.050	mg/L	0.50	ND	26.1	10-110	12.8	30	
2,4,5-Trichlorophenol	0.331	0.050	mg/L	0.50	ND	66.2	50-150	12.2	30	

Semivolatile Organic Compounds TCLP by GCMS	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B198952 - 3510_TB - EPA 8270C										
Matrix Spike Dup (B198952-MSD1)	**Source: 22F1242-01**		Prepared: 06/25/2022 Analyzed: 06/26/2022							
2,4,6-Trichlorophenol	0.314	0.050	mg/L	0.50	ND	62.8	50-150	13.1	30	
2,4-Dinitrotoluene	0.322	0.050	mg/L	0.50	ND	64.4	22.6-110	13.0	30	
2-Methylphenol	0.270	0.050	mg/L	0.50	ND	53.9	50-150	19.4	30	
3/4-Methylphenol	0.553	0.050	mg/L	1.0	ND	55.3	50-150	13.6	30	
Hexachlorobenzene	0.293	0.050	mg/L	0.50	ND	58.7	50-150	13.2	30	
Hexachlorobutadiene	0.105	0.050	mg/L	0.50	ND	21.0	10-110	1.28	30	
Hexachloroethane	0.106	0.050	mg/L	0.50	ND	21.2	30-123	1.54	30	M2
Nitrobenzene	0.219	0.050	mg/L	0.50	ND	43.9	25-190	12.9	30	
Pentachlorophenol	0.373	0.25	mg/L	0.50	ND	74.6	10-110	11.2	30	
Pyridine	0.282	0.050	mg/L	0.50	ND	56.4	10-120	37.4	30	R1
Surrogate: 2,4,6-Tribromophenol	*0.67*		mg/L	*1.0*		*67.2*	*47.8-138*			
Surrogate: 2-Fluorobiphenyl	*0.22*		mg/L	*0.50*		*43.6*	*10-110*			
Surrogate: 2-Fluorophenol	*0.40*		mg/L	*1.0*		*39.6*	*10-110*			
Surrogate: Nitrobenzene-d5	*0.21*		mg/L	*0.50*		*43.0*	*10-110*			
Surrogate: Phenol-d5	*0.51*		mg/L	*1.0*		*51.2*	*43.7-126*			
Surrogate: Terphenyl-d14	*0.33*		mg/L	*0.50*		*66.8*	*33.7-136*			
Batch B199190 - 3510_TB - EPA 8270C										
Blank (B199190-BLK1)			Prepared: 06/29/2022 Analyzed: 07/01/2022							
1,4-Dichlorobenzene	<0.050	0.050	mg/L							
2,4,5-Trichlorophenol	<0.050	0.050	mg/L							
2,4,6-Trichlorophenol	<0.050	0.050	mg/L							
2,4-Dinitrotoluene	<0.050	0.050	mg/L							
2-Methylphenol	<0.050	0.050	mg/L							
3/4-Methylphenol	<0.050	0.050	mg/L							
Hexachlorobenzene	<0.050	0.050	mg/L							
Hexachlorobutadiene	<0.050	0.050	mg/L							
Hexachloroethane	<0.050	0.050	mg/L							
Nitrobenzene	<0.050	0.050	mg/L							
Pentachlorophenol	<0.25	0.25	mg/L							
Pyridine	<0.050	0.050	mg/L							
Total Cresol	<0.050	0.050	mg/L							
Surrogate: 2,4,6-Tribromophenol	*0.57*		mg/L	*1.0*		*56.6*	*47.8-138*			
Surrogate: 2-Fluorobiphenyl	*0.20*		mg/L	*0.50*		*39.6*	*10-110*			
Surrogate: 2-Fluorophenol	*0.37*		mg/L	*1.0*		*37.0*	*10-110*			
Surrogate: Nitrobenzene-d5	*0.21*		mg/L	*0.50*		*42.5*	*10-110*			
Surrogate: Phenol-d5	*0.43*		mg/L	*1.0*		*42.9*	*43.7-126*			*S2*
Surrogate: Terphenyl-d14	*0.31*		mg/L	*0.50*		*61.3*	*33.7-136*			
Blank (B199190-BLK2)			Prepared: 06/29/2022 Analyzed: 07/01/2022							
1,4-Dichlorobenzene	<0.050	0.050	mg/L							
2,4,5-Trichlorophenol	<0.050	0.050	mg/L							
2,4,6-Trichlorophenol	<0.050	0.050	mg/L							
2,4-Dinitrotoluene	<0.050	0.050	mg/L							

Semivolatile Organic Compounds TCLP by GCMS	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B199190 - 3510_TB - EPA 8270C										
Blank (B199190-BLK2)			Prepared: 06/29/2022 Analyzed: 07/01/2022							
2-Methylphenol	<0.050	0.050	mg/L							
3/4-Methylphenol	<0.050	0.050	mg/L							
Hexachlorobenzene	<0.050	0.050	mg/L							
Hexachlorobutadiene	<0.050	0.050	mg/L							
Hexachloroethane	<0.050	0.050	mg/L							
Nitrobenzene	<0.050	0.050	mg/L							
Pentachlorophenol	<0.25	0.25	mg/L							
Pyridine	<0.050	0.050	mg/L							
Total Cresol	<0.050	0.050	mg/L							
Surrogate: 2,4,6-Tribromophenol	*0.55*		mg/L	*1.0*		*54.7*	*47.8-138*			
Surrogate: 2-Fluorobiphenyl	*0.18*		mg/L	*0.50*		*36.5*	*10-110*			
Surrogate: 2-Fluorophenol	*0.32*		mg/L	*1.0*		*31.7*	*10-110*			
Surrogate: Nitrobenzene-d5	*0.17*		mg/L	*0.50*		*34.5*	*10-110*			
Surrogate: Phenol-d5	*0.37*		mg/L	*1.0*		*37.0*	*43.7-126*			*S2*
Surrogate: Terphenyl-d14	*0.30*		mg/L	*0.50*		*59.4*	*33.7-136*			
Blank (B199190-BLK3)			Prepared: 06/29/2022 Analyzed: 07/01/2022							
1,4-Dichlorobenzene	<0.050	0.050	mg/L							
2,4,5-Trichlorophenol	<0.050	0.050	mg/L							
2,4,6-Trichlorophenol	<0.050	0.050	mg/L							
2,4-Dinitrotoluene	<0.050	0.050	mg/L							
2-Methylphenol	<0.050	0.050	mg/L							
3/4-Methylphenol	<0.050	0.050	mg/L							
Hexachlorobenzene	<0.050	0.050	mg/L							
Hexachlorobutadiene	<0.050	0.050	mg/L							
Hexachloroethane	<0.050	0.050	mg/L							
Nitrobenzene	<0.050	0.050	mg/L							
Pentachlorophenol	<0.25	0.25	mg/L							
Pyridine	<0.050	0.050	mg/L							
Total Cresol	<0.050	0.050	mg/L							
Surrogate: 2,4,6-Tribromophenol	*0.58*		mg/L	*1.0*		*57.6*	*47.8-138*			
Surrogate: 2-Fluorobiphenyl	*0.19*		mg/L	*0.50*		*37.8*	*10-110*			
Surrogate: 2-Fluorophenol	*0.41*		mg/L	*1.0*		*40.7*	*10-110*			
Surrogate: Nitrobenzene-d5	*0.22*		mg/L	*0.50*		*44.9*	*10-110*			
Surrogate: Phenol-d5	*0.47*		mg/L	*1.0*		*47.5*	*43.7-126*			
Surrogate: Terphenyl-d14	*0.32*		mg/L	*0.50*		*63.6*	*33.7-136*			
LCS (B199190-BS1)			Prepared: 06/29/2022 Analyzed: 07/01/2022							
1,4-Dichlorobenzene	0.114	0.050	mg/L	0.50		22.8	10-100			
2,4,5-Trichlorophenol	0.284	0.050	mg/L	0.50		56.8	31.6-113			
2,4,6-Trichlorophenol	0.275	0.050	mg/L	0.50		55.0	28.2-108			
2,4-Dinitrotoluene	0.287	0.050	mg/L	0.50		57.3	32.4-114			
2-Methylphenol	0.243	0.050	mg/L	0.50		48.7	25.4-89.6			
3/4-Methylphenol	0.510	0.050	mg/L	1.0		51.0	24.8-94.2			
Hexachlorobenzene	0.281	0.050	mg/L	0.50		56.1	33.9-115			
Hexachlorobutadiene	0.0942	0.050	mg/L	0.50		18.8	18.4-79.1			

Semivolatile Organic Compounds TCLP by GCMS	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B199190 - 3510_TB - EPA 8270C										
LCS (B199190-BS1)				Prepared: 06/29/2022 Analyzed: 07/01/2022						
Hexachloroethane	0.0991	0.050	mg/L	0.50		19.8	10-97.2			
Nitrobenzene	0.237	0.050	mg/L	0.50		47.4	10.9-112			
Pentachlorophenol	0.296	0.25	mg/L	0.50		59.2	21.3-103			
Pyridine	0.249	0.050	mg/L	0.50		49.7	10-84.8			
Surrogate: 2,4,6-Tribromophenol	*0.54*		mg/L	*1.0*		*53.8*	*47.8-138*			
Surrogate: 2-Fluorobiphenyl	*0.18*		mg/L	*0.50*		*35.4*	*10-110*			
Surrogate: 2-Fluorophenol	*0.38*		mg/L	*1.0*		*38.0*	*10-110*			
Surrogate: Nitrobenzene-d5	*0.22*		mg/L	*0.50*		*44.0*	*10-110*			
Surrogate: Phenol-d5	*0.44*		mg/L	*1.0*		*44.2*	*43.7-126*			
Surrogate: Terphenyl-d14	*0.29*		mg/L	*0.50*		*58.7*	*33.7-136*			
LCS Dup (B199190-BSD1)				Prepared: 06/29/2022 Analyzed: 07/01/2022						
1,4-Dichlorobenzene	0.113	0.050	mg/L	0.50		22.6	10-100	0.836	30	
2,4,5-Trichlorophenol	0.292	0.050	mg/L	0.50		58.4	31.6-113	2.67	30	
2,4,6-Trichlorophenol	0.285	0.050	mg/L	0.50		57.1	28.2-108	3.62	30	
2,4-Dinitrotoluene	0.295	0.050	mg/L	0.50		59.0	32.4-114	2.82	30	
2-Methylphenol	0.244	0.050	mg/L	0.50		48.7	25.4-89.6	0.0616	30	
3/4-Methylphenol	0.520	0.050	mg/L	1.0		52.0	24.8-94.2	1.90	30	
Hexachlorobenzene	0.295	0.050	mg/L	0.50		58.9	33.9-115	4.82	30	
Hexachlorobutadiene	0.0948	0.050	mg/L	0.50		19.0	18.4-79.1	0.635	30	
Hexachloroethane	0.0974	0.050	mg/L	0.50		19.5	10-97.2	1.78	30	
Nitrobenzene	0.235	0.050	mg/L	0.50		47.0	10.9-112	0.699	30	
Pentachlorophenol	0.308	0.25	mg/L	0.50		61.6	21.3-103	3.96	30	
Pyridine	0.202	0.050	mg/L	0.50		40.5	10-84.8	20.4	30	
Surrogate: 2,4,6-Tribromophenol	*0.58*		mg/L	*1.0*		*58.0*	*47.8-138*			
Surrogate: 2-Fluorobiphenyl	*0.18*		mg/L	*0.50*		*35.9*	*10-110*			
Surrogate: 2-Fluorophenol	*0.39*		mg/L	*1.0*		*38.9*	*10-110*			
Surrogate: Nitrobenzene-d5	*0.22*		mg/L	*0.50*		*44.5*	*10-110*			
Surrogate: Phenol-d5	*0.46*		mg/L	*1.0*		*46.0*	*43.7-126*			
Surrogate: Terphenyl-d14	*0.30*		mg/L	*0.50*		*59.8*	*33.7-136*			

Definitions

% (by wt.):	Percent by Weight
°C:	Degrees Celsius
°F:	Degrees Fahrenheit
B:	Analyte found in the blank at or above the method acceptance criteria.
DF:	Dilution Factor representing the amount the sample was diluted during analysis and may not represent preparation factors.
E:	Estimated Result.
H2:	Initial analysis was within holding time. Reanalysis was past holding time.
I1:	Internal standard was outside of acceptance limits.
M:	Matrix interference is present.
M1:	Matrix spike recovery is outside of acceptance limits, biased high.
M2:	Matrix spike recovery is outside of acceptance limits, biased low.
M3:	Matrix spike recovery is outside of acceptance limits. The post digestion spike recovery is acceptable.
M5:	Post digestion spike is outside of acceptance limits.
MDL:	Minimum Detection Limit
mg/Kg:	Milligrams per Kilogram
mg/L:	Milligrams per Liter
NA:	Not Applicable
Q3:	LCS recovery is below acceptance limits. The reported value is estimated.
R1:	Duplicate RPD is outside of acceptance limits.
RL:	Reporting Limit
RPD:	Relative Percent Difference
S:	Spike recovery outside of acceptance limits.
S.U.:	Standard Units
S1:	Surrogate recovery is above acceptance limits.
S2:	Surrogate recovery is below acceptance limits.
ug/L:	Micrograms per Liter
ug/mL:	Micrograms per Milliliter

Cooler Receipt Log

Cooler ID: Default Cooler Temp: 4.6°C

Cooler Inspection Checklist

Ice Present or not required?	Yes	Shipping containers sealed or not required?	Yes
Custody seals intact or not required?	Yes	Chain of Custody (COC) Present?	Yes
COC includes customer information?	Yes	Relinquished and received signature on COC?	Yes
Sample collector identified on COC?	Yes	Sample type identified on COC?	Yes
Correct type of Containers Received	Yes	Correct number of containers listed on COC?	Yes
Containers Intact?	Yes	COC includes requested analyses?	Yes
Enough sample volume for indicated tests received?	Yes	Sample labels match COC (Name, Date & Time?)	Yes
Samples arrived within hold time?	Yes	Correct preservatives on COC or not required?	Yes
Chemical preservations checked or not required?	Yes	Preservation checks meet method requirements?	Yes
VOA vials have zero headspace, or not recd.?	Yes		

Microbac Laboratories, Inc. - Chicagoland

CERTIFICATE OF ANALYSIS

22F1199

Report Comments

The data and information on this, and other accompanying documents, represents only the sample(s) analyzed. This report is incomplete unless all pages indicated in the footnote are present and an authorized signature is included. ***The services were provided under and subject to Microbac's standard terms and conditions which can be located and reviewed at <https://www.microbac.com/standard-terms-conditions>.***

Reviewed and Approved By:

Ron Misiunas
Lab Director
ron.misiunas@microbac.com
07/07/2022 08:18

MICROBAC®

CHAIN OF CUSTODY RECORD

Number **165504**

Instructions on back

Lab Report Address

Client Name: Environmental Restoration LLC
Address: 745 East Street
City, State, Zip: Morris IL 60450
Contact: Ron Brown
Telephone No.: 573-645-2234

Invoice Address

Client Name: ER LLC
Address: 1666 Fabick Dr
City, State, Zip: Fenton MO 63026
Contact: Ken Braig
Telephone No.: 636-485-0537

Turnaround Time

☑ Routine (5 to 7 business days)
☐ RUSH* (notify lab)

(needed by)

Report Type

☐ Results Only ☐ Level 1 ☐ Level 2 ☐ Level 3 ☐ Level 4 ☐ EDD

TO BE COMPLETED BY MICROBAC

Temperature Upon Receipt (°C) 4.5 +0.1 4.6
Therm ID #4
Holding Time
Samples Received on Ice? ☑ Yes ☐ No ☐ N/A
Custody Seals Intact? ☐ Yes ☐ No ☑ N/A

Send Report via: ☐ Mail ☐ Fax ☑ e-mail (address) k.braig@erllc.com r.brown@erllc.com

Send Invoice via: ☐ Mail ☐ Fax ☑ e-mail (address)

Project: Morris Battery MF5-25
Location: Morris IL
PO No.: MF5-25
Compliance Monitoring? ☐ Yes ☐ No ☐ Agency/Program

Sampled by (PRINT): K. Braig
Sampler Signature:
Sampler Phone No.: 636-485-0537

* Matrix Types: Soil/Solid (S), Sludge, Oil, Wipe, Drinking Water (DW), Groundwater (GW), Surface Water (SW), Waste Water (WW), Other (specify)

** Preservative Types: (1) HNO3, (2) H2SO4, (3) HCl, (4) NaOH, (5) Zinc Acetate, (6) Methanol, (7) Sodium Bisulfate, (8) Sodium Thiosulfate, (9) Hexane, (U) Unpreserved

REQUESTED ANALYSIS

Client Sample ID	Date Collected	Time Collected	No. of Containers	Matrix	Grab / Comp	Preservative Types **	Ignitability water Reactive Tot	pH Total Phenol	Total CN- Total Sulfide	PCB's % solid	% water Part filter	TCLP (VOA, SVOA, Metals)	Total Metals VOA, SVOA	Total Lithium	Total Nickel		Additional Notes
MF5-25-34CD	6-14-22	1400	2	S	C	U	X	X	X	X	X	X	X	X	X		22F1199 01-02
MF5-25-78BC	6-14-22	1430	2	S	C	U	↓	↓	↓	↓	↓	↓	↓	↓	↓		03-04
MF5-25-78EF	6-14-22	1500	2	S	C	U	↓	↓	↓	↓	↓	↓	↓	↓	↓		05-06

Environmental Restoration - Fenton, MO
PM: Ron Misiunas
22F1199

Possible Hazard Identification ☑ Hazardous ☐ Non-Hazardous ☐ Radioactive

Sample Disposition ☑ Dispose as appropriate ☐ Return ☐ Archive

Comments
email invoice to APDropbox@erllc.com

Relinquished By (signature)	Date/Time	Received By (signature)	Date/Time
	6-15-22 1535		6-15-22 1535
Relinquished By (signature)	Date/Time	Received By (signature)	Date/Time
Relinquished By (signature)	Date/Time	Received By (signature)	Date/Time
	6-15-22 1710		6-15-22/1710

rev.12/26/2017

MICROBAC®

CHAIN OF CUSTODY RECORD

Number **165502**

Instructions on back

Lab Report Address
Client Name: Environmental Restoration LLC
Address: 745 East Street
City, State, Zip: Mattis IL 60480
Contact: Ron Brown
Telephone No.: 573-545-2234

Invoice Address
Client Name: E.R. LLC
Address: 1666 Fabick Dr
City, State, Zip: Fenton Mo 63026
Contact: Ken Brosg
Telephone No.: 636-485-0537

Turnaround Time
☑ Routine (5 to 7 business days)
☐ RUSH* (notify lab)
(needed by)

Report Type
☐ Results Only ☐ Level 1 ☐ Level 2 ☐ Level 3 ☐ Level 4 ☐ EDD

TO BE COMPLETED BY MICROBAC
Temperature Upon Receipt (°C) 5.4
Therm ID #4
Holding Time 0.0 / 5.4
Samples Received on Ice? ☑ Yes ☐ No ☐ N/A
Custody Seals Intact? ☐ Yes ☐ No ☑ N/A

Send Report via: ☐ Mail ☐ Fax ☑ e-mail (address) k.brosg@erllc.com r.brown@erllc.com
Send Invoice via: ☐ Mail ☐ Fax ☑ e-mail (address)

Project: Morris Battery MF5-25
Location: Mattis II
PO No.: MF5-25
Compliance Monitoring? ☐ Yes ☐ No ☐ Agency/Program

Sampled by (PRINT): K. Brosg
Sampler Signature: [signature]
Sampler Phone No.: 636-485-0537

* Matrix Types: Soil/Solid (S), Sludge, Oil, Wipe, Drinking Water (DW), Groundwater (GW), Surface Water (SW), Waste Water (WW), Other (specify)
** Preservative Types: (1) HNO3, (2) H2SO4, (3) HCl, (4) NaOH, (5) Zinc Acetate, (6) Methanol, (7) Sodium Bisulfate, (8) Sodium Thiosulfate, (9) Hexane, (U) Unpreserved

REQUESTED ANALYSIS

22F1199
~~22F1877~~

Client Sample ID	Date Collected	Time Collected	No. of Containers	Matrix	Grab / Comp	Preservative Types **		Additional Notes
MF5-25-78BC	6-23-22	1600	1	S	C	U	Additional Sample report from MICROBAC, reference COC ~~165504~~ 165504 turned in on 6-15-22, Microbac Ref. # 22F1199-3	~~01~~ -07

22F1199
Environmental Restoration - Fenton, MO
PM: Ron Misiunas

Possible Hazard Identification ☑ Hazardous ☐ Non-Hazardous ☐ Radioactive
Sample Disposition ☐ Dispose as appropriate ☐ Return ☐ Archive

Comments: email invoice to APDropbox@erllc.com

Relinquished By (signature)	Date/Time	Received By (signature)	Date/Time
[signature]	6-24-22 ~~08:00~~ 08:40	Ed Burke	6-24-22
[signature]	6-24-22 11:34 AM		
Relinquished By (signature)	Date/Time	Received By (signature)	Date/Time
		[signature]	6/24/22 1134

rev.12/26/2017

Microbac Laboratories, Inc. - Chicagoland

CERTIFICATE OF ANALYSIS

22G0657

Project Description

Morris Battery MF5-25 / Morris, IL

For:

John Goerger

Environmental Restoration, LLC.

1666 Fabick DR

Fenton, MO 63026

Ron Misiunas

Lab Director

Thursday, July 21, 2022

Please find enclosed the analytical results for the samples you submitted to Microbac Laboratories. Review and compilation of your report was completed by Microbac Laboratories, Inc. - Chicagoland. If you have any questions, comments, or require further assistance regarding this report, please contact your service representative listed above.

I certify that all test results meet all of the requirements of the accrediting authority listed within this report. Analytical results are reported on a 'as received' basis unless specified otherwise. Analytical results for solids with units ending in (dry) are reported on a dry weight basis. A statement of uncertainty for each analysis is available upon request. This laboratory report shall not be reproduced, except in full, without the written approval of Microbac Laboratories. The reported results are related only to the samples analyzed as received.

Microbac Laboratories, Inc.

250 West 84th Drive | Merrillville, IN 46410 | 219.769.8378 p | www.microbac.com

Microbac Laboratories, Inc. - Chicagoland

CERTIFICATE OF ANALYSIS

22G0657

Environmental Restoration, LLC.

John Goerger
1666 Fabick DR
Fenton, MO 63026

Project Name: Morris Battery MF5-25 / Morris, IL

Project / PO Number: N/A
Received: 07/12/2022
Reported: 07/21/2022

Case Narrative

Water Reactivity:

22G0657-01 - Negative (No Reaction)

Sample Summary Report

Sample Name	Laboratory ID	Client Matrix	Sample Type	Sample Begin	Sample Taken	Lab Received
MF5-25-BLDG Comp	22G0657-01	Solid			07/12/22 08:00	07/12/22 11:32
MF5-25-BLDG Comp	22G0657-02	Solid			07/12/22 08:00	07/12/22 11:32

MICROBAC®

Microbac Laboratories, Inc. - Chicagoland

CERTIFICATE OF ANALYSIS

22G0657

Analytical Testing Parameters

Client Sample ID: MF5-25-BLDG Comp
Sample Matrix: Solid
Lab Sample ID: 22G0657-01 **Collection Date:** 07/12/2022 8:00

Inorganics Total	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
EPA 9045D								
pH	**12.0**	2.00	S.U.	1		07/12/22 1141	07/12/22 1157	MRC
Temperature	**22**		°C	1			07/12/22 1157	MRC
SM 2540 G-2011								
Percent Solids	**73**	0.10	% (by wt.)	1		07/13/22 1620	07/14/22 1009	MRS
Solid CN Distillation/EPA 9012B								
Cyanide, Total	**1.2**	0.37	mg/Kg dry	1	**B2, M2, M5**	07/13/22 1033	07/13/22 1453	ABG
SW-846 1010A/ASTM D92-90 Modified								
Ignitability	**> 170**	30.0	°F	1			07/15/22 1146	MTF
SW-846 9030B MOD/EPA 9030B Modified								
Sulfide	**2.5**	0.67	mg/Kg dry	1	**M2, M3, R1**	07/13/22 1840	07/15/22 1641	EF
SW-846 9066/EPA 9066								
Phenolics, Total Recoverable	**15**	0.68	mg/Kg dry	1		07/13/22 1421	07/14/22 1307	ABG
SW-846 9095B/EPA 9095B								
Paint Filter	**No Free Liquids**		NA	1		07/17/22 2226	07/17/22 2231	EF

Metals Total by CVAA	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
SW-846 7471/EPA 7471B								
Mercury	**0.083**	0.056	mg/Kg dry	1		07/15/22 1139	07/15/22 1432	RPL

Metals Total by ICP	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
SW846 3050B/EPA 6010C								
Arsenic	**5.7**	0.68	mg/Kg dry	1		07/15/22 0955	07/15/22 1734	MCD
Barium	**380**	0.27	mg/Kg dry	1		07/15/22 0955	07/15/22 1734	MCD
Cadmium	**25**	0.27	mg/Kg dry	1		07/15/22 0955	07/15/22 1734	MCD
Chromium	**1600**	0.27	mg/Kg dry	1		07/15/22 0955	07/15/22 1734	MCD
Lead	**170**	0.51	mg/Kg dry	1		07/15/22 0955	07/15/22 1734	MCD
Lithium	**11000**	6.8	mg/Kg dry	1	**E**	07/15/22 0955	07/15/22 1734	MCD
Nickel	**15000**	0.68	mg/Kg dry	1	**E**	07/15/22 0955	07/15/22 1734	MCD
Selenium	<2.0	2.0	mg/Kg dry	1		07/15/22 0955	07/15/22 1734	MCD
Silver	**14**	0.68	mg/Kg dry	1		07/15/22 0955	07/15/22 1734	MCD

Volatile Organic Compounds by GCMS	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
SW-846 8260B/EPA 8260B								
1,1,1,2-Tetrachloroethane	<14	14	ug/kg dry	1			07/19/22 1240	JBS
1,1,1-Trichloroethane	<6.8	6.8	ug/kg dry	1			07/19/22 1240	JBS
1,1,2,2-Tetrachloroethane	<6.8	6.8	ug/kg dry	1			07/19/22 1240	JBS
1,1,2-Trichloroethane	<6.8	6.8	ug/kg dry	1			07/19/22 1240	JBS
1,1-Dichloroethane	<6.8	6.8	ug/kg dry	1			07/19/22 1240	JBS

MICROBAC®

Microbac Laboratories, Inc. - Chicagoland

CERTIFICATE OF ANALYSIS

22G0657

Client Sample ID: MF5-25-BLDG Comp
Sample Matrix: Solid
Lab Sample ID: 22G0657-01 **Collection Date:** 07/12/2022 8:00

Volatile Organic Compounds by GCMS	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
1,1-Dichloroethene	<6.8	6.8	ug/kg dry	1			07/19/22 1240	JBS
1,2-Dichloroethane	<6.8	6.8	ug/kg dry	1			07/19/22 1240	JBS
1,2-Dichloropropane	<6.8	6.8	ug/kg dry	1			07/19/22 1240	JBS
2-Butanone	<14	14	ug/kg dry	1			07/19/22 1240	JBS
2-Hexanone	<14	14	ug/kg dry	1			07/19/22 1240	JBS
4-Methyl-2-pentanone	<14	14	ug/kg dry	1			07/19/22 1240	JBS
Acetone	**120**	68	ug/kg dry	1			07/19/22 1240	JBS
Acrolein	<140	140	ug/kg dry	1			07/19/22 1240	JBS
Acrylonitrile	<140	140	ug/kg dry	1	**Q**		07/19/22 1240	JBS
Benzene	<6.8	6.8	ug/kg dry	1			07/19/22 1240	JBS
Bromodichloromethane	<6.8	6.8	ug/kg dry	1	**Q**		07/19/22 1240	JBS
Bromoform	<6.8	6.8	ug/kg dry	1			07/19/22 1240	JBS
Bromomethane	<14	14	ug/kg dry	1			07/19/22 1240	JBS
Carbon Disulfide	<14	14	ug/kg dry	1			07/19/22 1240	JBS
Carbon tetrachloride	<6.8	6.8	ug/kg dry	1			07/19/22 1240	JBS
Chlorobenzene	<6.8	6.8	ug/kg dry	1			07/19/22 1240	JBS
Chloroethane	<14	14	ug/kg dry	1			07/19/22 1240	JBS
Chloroform	<6.8	6.8	ug/kg dry	1			07/19/22 1240	JBS
Chloromethane	<14	14	ug/kg dry	1			07/19/22 1240	JBS
cis-1,2-Dichloroethene	<6.8	6.8	ug/kg dry	1			07/19/22 1240	JBS
cis-1,3-Dichloropropene	<6.8	6.8	ug/kg dry	1			07/19/22 1240	JBS
Dibromochloromethane	<6.8	6.8	ug/kg dry	1			07/19/22 1240	JBS
Ethylbenzene	<6.8	6.8	ug/kg dry	1			07/19/22 1240	JBS
m,p-Xylene	<6.8	6.8	ug/kg dry	1			07/19/22 1240	JBS
Methylene chloride	<27	27	ug/kg dry	1			07/19/22 1240	JBS
Methyl-t-Butyl Ether	<6.8	6.8	ug/kg dry	1			07/19/22 1240	JBS
o-Xylene	<6.8	6.8	ug/kg dry	1			07/19/22 1240	JBS
Styrene	<6.8	6.8	ug/kg dry	1			07/19/22 1240	JBS
Tetrachloroethene	<6.8	6.8	ug/kg dry	1			07/19/22 1240	JBS
Toluene	<6.8	6.8	ug/kg dry	1			07/19/22 1240	JBS
trans-1,2-Dichloroethene	<6.8	6.8	ug/kg dry	1			07/19/22 1240	JBS
trans-1,3-Dichloropropene	<6.8	6.8	ug/kg dry	1			07/19/22 1240	JBS
Trichloroethene	<6.8	6.8	ug/kg dry	1			07/19/22 1240	JBS
Trichlorofluoromethane	<14	14	ug/kg dry	1			07/19/22 1240	JBS
Vinyl Acetate	<14	14	ug/kg dry	1			07/19/22 1240	JBS
Vinyl chloride	<14	14	ug/kg dry	1			07/19/22 1240	JBS
Total 1,2-Dichloroethene	<6.8	6.8	ug/kg dry	1			07/19/22 1240	JBS
Total Xylenes	<6.8	6.8	ug/kg dry	1			07/19/22 1240	JBS
Surrogate: 1,2-Dichloroethane-d4	101	Limit: 51.7-162	% Rec	1			07/19/22 1240	JBS
Surrogate: 4-Bromofluorobenzene	83.4	Limit: 57.4-135	% Rec	1			07/19/22 1240	JBS
Surrogate: Dibromofluoromethane	37.7	Limit: 63.5-139	% Rec	1	**M, S2**		07/19/22 1240	JBS
Surrogate: Toluene-d8	109	Limit: 66.6-143	% Rec	1			07/19/22 1240	JBS

MICROBAC®

Microbac Laboratories, Inc. - Chicagoland

CERTIFICATE OF ANALYSIS

22G0657

Client Sample ID: MF5-25-BLDG Comp
Sample Matrix: Solid
Lab Sample ID: 22G0657-01 **Collection Date:** 07/12/2022 8:00

Semivolatile Organic Compounds by GC/ECD	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
SW846 3550B/EPA 8082A								
Aroclor 1016	<44	44	ug/kg dry	1		07/15/22 1212	07/20/22 1119	CLR
Aroclor 1221	<44	44	ug/kg dry	1		07/15/22 1212	07/20/22 1119	CLR
Aroclor 1232	<44	44	ug/kg dry	1		07/15/22 1212	07/20/22 1119	CLR
Aroclor 1242	<44	44	ug/kg dry	1		07/15/22 1212	07/20/22 1119	CLR
Aroclor 1248	<44	44	ug/kg dry	1		07/15/22 1212	07/20/22 1119	CLR
Aroclor 1254	<44	44	ug/kg dry	1		07/15/22 1212	07/20/22 1119	CLR
Aroclor 1260	<44	44	ug/kg dry	1		07/15/22 1212	07/20/22 1119	CLR
Aroclor 1262	<44	44	ug/kg dry	1		07/15/22 1212	07/20/22 1119	CLR
Aroclor 1268	<44	44	ug/kg dry	1		07/15/22 1212	07/20/22 1119	CLR
Total PCB's	<44	44	ug/kg dry	1		07/15/22 1212	07/20/22 1119	CLR
Surrogate: Tetrachloro-m-xylene	30.0	Limit: 27.6-126	% Rec	1		07/15/22 1212	07/20/22 1119	CLR
Surrogate: Decachlorobiphenyl	40.0	Limit: 25.2-136	% Rec	1		07/15/22 1212	07/20/22 1119	CLR

Semivolatile Organic Compounds by GCMS	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
SW846 3550B/EPA 8270C								
1,2,4-Trichlorobenzene	<5400	5400	ug/kg dry	10		07/15/22 0626	07/16/22 0503	CLR
1,2-Dichlorobenzene	<5400	5400	ug/kg dry	10		07/15/22 0626	07/16/22 0503	CLR
1,2-Diphenyl-hydrazine	<5400	5400	ug/kg dry	10		07/15/22 0626	07/16/22 0503	CLR
1,3-Dichlorobenzene	<5400	5400	ug/kg dry	10		07/15/22 0626	07/16/22 0503	CLR
1,4-Dichlorobenzene	<5400	5400	ug/kg dry	10		07/15/22 0626	07/16/22 0503	CLR
2,2´-oxybis(1-chloropropane)	<5400	5400	ug/kg dry	10		07/15/22 0626	07/16/22 0503	CLR
2,4,5-Trichlorophenol	<5400	5400	ug/kg dry	10		07/15/22 0626	07/16/22 0503	CLR
2,4,6-Trichlorophenol	<5400	5400	ug/kg dry	10		07/15/22 0626	07/16/22 0503	CLR
2,4-Dichlorophenol	<5400	5400	ug/kg dry	10		07/15/22 0626	07/16/22 0503	CLR
2,4-Dimethylphenol	<5400	5400	ug/kg dry	10		07/15/22 0626	07/16/22 0503	CLR
2,4-Dinitrophenol	<26000	26000	ug/kg dry	10		07/15/22 0626	07/16/22 0503	CLR
2,4-Dinitrotoluene	<5400	5400	ug/kg dry	10		07/15/22 0626	07/16/22 0503	CLR
2,6-Dichlorophenol	<5400	5400	ug/kg dry	10		07/15/22 0626	07/16/22 0503	CLR
2,6-Dinitrotoluene	<5400	5400	ug/kg dry	10		07/15/22 0626	07/16/22 0503	CLR
2-Chloronaphthalene	<5400	5400	ug/kg dry	10		07/15/22 0626	07/16/22 0503	CLR
2-Chlorophenol	<5400	5400	ug/kg dry	10		07/15/22 0626	07/16/22 0503	CLR
2-Methylnaphthalene	<5400	5400	ug/kg dry	10		07/15/22 0626	07/16/22 0503	CLR
2-Methylphenol	<5400	5400	ug/kg dry	10		07/15/22 0626	07/16/22 0503	CLR
2-Nitroaniline	<26000	26000	ug/kg dry	10		07/15/22 0626	07/16/22 0503	CLR
2-Nitrophenol	<5400	5400	ug/kg dry	10		07/15/22 0626	07/16/22 0503	CLR
3,3´-Dichlorobenzidine	<26000	26000	ug/kg dry	10		07/15/22 0626	07/16/22 0503	CLR
3/4-Methylphenol	<5400	5400	ug/kg dry	10		07/15/22 0626	07/16/22 0503	CLR
3-Nitroaniline	<5400	5400	ug/kg dry	10		07/15/22 0626	07/16/22 0503	CLR
4,6-Dinitro-2-methylphenol	<26000	26000	ug/kg dry	10		07/15/22 0626	07/16/22 0503	CLR
4-Bromophenyl phenyl ether	<5400	5400	ug/kg dry	10		07/15/22 0626	07/16/22 0503	CLR
4-Chloro-3-methylphenol	<11000	11000	ug/kg dry	10		07/15/22 0626	07/16/22 0503	CLR

Client Sample ID: MF5-25-BLDG Comp
Sample Matrix: Solid
Lab Sample ID: 22G0657-01 **Collection Date:** 07/12/2022 8:00

Semivolatile Organic Compounds by GCMS	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
4-Chloroaniline	<5400	5400	ug/kg dry	10		07/15/22 0626	07/16/22 0503	CLR
4-Chlorophenyl phenyl ether	<5400	5400	ug/kg dry	10		07/15/22 0626	07/16/22 0503	CLR
4-Nitroaniline	<26000	26000	ug/kg dry	10		07/15/22 0626	07/16/22 0503	CLR
4-Nitrophenol	<26000	26000	ug/kg dry	10		07/15/22 0626	07/16/22 0503	CLR
Acenaphthene	<5400	5400	ug/kg dry	10		07/15/22 0626	07/16/22 0503	CLR
Acenaphthylene	<5400	5400	ug/kg dry	10		07/15/22 0626	07/16/22 0503	CLR
Acetophenone	<5400	5400	ug/kg dry	10		07/15/22 0626	07/16/22 0503	CLR
Aniline	<5400	5400	ug/kg dry	10		07/15/22 0626	07/16/22 0503	CLR
Anthracene	<5400	5400	ug/kg dry	10		07/15/22 0626	07/16/22 0503	CLR
Benzidine	<26000	26000	ug/kg dry	10		07/15/22 0626	07/16/22 0503	CLR
Benzo[a]anthracene	<5400	5400	ug/kg dry	10		07/15/22 0626	07/16/22 0503	CLR
Benzo[a]pyrene	<5400	5400	ug/kg dry	10		07/15/22 0626	07/16/22 0503	CLR
Benzo[b]fluoranthene	<5400	5400	ug/kg dry	10		07/15/22 0626	07/16/22 0503	CLR
Benzo[g,h,i]perylene	<5400	5400	ug/kg dry	10		07/15/22 0626	07/16/22 0503	CLR
Benzo[k]fluoranthene	<5400	5400	ug/kg dry	10		07/15/22 0626	07/16/22 0503	CLR
Benzoic acid	<26000	26000	ug/kg dry	10		07/15/22 0626	07/16/22 0503	CLR
Benzyl alcohol	<11000	11000	ug/kg dry	10		07/15/22 0626	07/16/22 0503	CLR
Bis(2-chloroethoxy)methane	<5400	5400	ug/kg dry	10		07/15/22 0626	07/16/22 0503	CLR
Bis(2-chloroethyl)ether	<5400	5400	ug/kg dry	10		07/15/22 0626	07/16/22 0503	CLR
Bis(2-ethylhexyl)phthalate	<5400	5400	ug/kg dry	10		07/15/22 0626	07/16/22 0503	CLR
Butyl benzyl phthalate	<5400	5400	ug/kg dry	10		07/15/22 0626	07/16/22 0503	CLR
Carbazole	<5400	5400	ug/kg dry	10		07/15/22 0626	07/16/22 0503	CLR
Chrysene	<5400	5400	ug/kg dry	10		07/15/22 0626	07/16/22 0503	CLR
Dibenz[a,h]anthracene	<5400	5400	ug/kg dry	10		07/15/22 0626	07/16/22 0503	CLR
Dibenzofuran	<5400	5400	ug/kg dry	10		07/15/22 0626	07/16/22 0503	CLR
Diethyl phthalate	<5400	5400	ug/kg dry	10		07/15/22 0626	07/16/22 0503	CLR
Dimethyl phthalate	<5400	5400	ug/kg dry	10		07/15/22 0626	07/16/22 0503	CLR
Di-n-butyl phthalate	<5400	5400	ug/kg dry	10		07/15/22 0626	07/16/22 0503	CLR
Di-n-octyl phthalate	<5400	5400	ug/kg dry	10		07/15/22 0626	07/16/22 0503	CLR
Fluoranthene	<5400	5400	ug/kg dry	10		07/15/22 0626	07/16/22 0503	CLR
Fluorene	<5400	5400	ug/kg dry	10		07/15/22 0626	07/16/22 0503	CLR
Hexachlorobenzene	<5400	5400	ug/kg dry	10		07/15/22 0626	07/16/22 0503	CLR
Hexachlorobutadiene	<5400	5400	ug/kg dry	10		07/15/22 0626	07/16/22 0503	CLR
Hexachlorocyclopentadiene	<5400	5400	ug/kg dry	10		07/15/22 0626	07/16/22 0503	CLR
Hexachloroethane	<5400	5400	ug/kg dry	10		07/15/22 0626	07/16/22 0503	CLR
Indeno[1,2,3cd]pyrene	<5400	5400	ug/kg dry	10		07/15/22 0626	07/16/22 0503	CLR
Isophorone	<5400	5400	ug/kg dry	10		07/15/22 0626	07/16/22 0503	CLR
Naphthalene	<5400	5400	ug/kg dry	10		07/15/22 0626	07/16/22 0503	CLR
Nitrobenzene	<5400	5400	ug/kg dry	10		07/15/22 0626	07/16/22 0503	CLR
N-Nitrosodimethylamine	<5400	5400	ug/kg dry	10		07/15/22 0626	07/16/22 0503	CLR
N-Nitrosodi-n-propylamine	<5400	5400	ug/kg dry	10		07/15/22 0626	07/16/22 0503	CLR
N-Nitrosodiphenylamine	<5400	5400	ug/kg dry	10		07/15/22 0626	07/16/22 0503	CLR
Pentachlorophenol	<26000	26000	ug/kg dry	10		07/15/22 0626	07/16/22 0503	CLR

MICROBAC®

Microbac Laboratories, Inc. - Chicagoland

CERTIFICATE OF ANALYSIS

22G0657

Client Sample ID: MF5-25-BLDG Comp
Sample Matrix: Solid
Lab Sample ID: 22G0657-01 **Collection Date:** 07/12/2022 8:00

Semivolatile Organic Compounds by GCMS	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
Phenanthrene	<5400	5400	ug/kg dry	10		07/15/22 0626	07/16/22 0503	CLR
Phenol	**69000**	5400	ug/kg dry	10		07/15/22 0626	07/16/22 0503	CLR
Pyrene	<5400	5400	ug/kg dry	10		07/15/22 0626	07/16/22 0503	CLR
Pyridine	<5400	5400	ug/kg dry	10		07/15/22 0626	07/16/22 0503	CLR
Total Cresol	<5400	5400	ug/kg dry	10		07/15/22 0626	07/16/22 0503	CLR
Surrogate: 2,4,6-Tribromophenol	0	Limit: 13.9-145	% Rec	10	**S3**	07/15/22 0626	07/16/22 0503	CLR
Surrogate: 2-Fluorobiphenyl	47.2	Limit: 28.1-110	% Rec	10	**S3**	07/15/22 0626	07/16/22 0503	CLR
Surrogate: 2-Fluorophenol	13.5	Limit: 24.5-110	% Rec	10	**S3**	07/15/22 0626	07/16/22 0503	CLR
Surrogate: Nitrobenzene-d5	43.9	Limit: 33.6-110	% Rec	10	**S3**	07/15/22 0626	07/16/22 0503	CLR
Surrogate: Phenol-d5	37.8	Limit: 29.6-110	% Rec	10	**S3**	07/15/22 0626	07/16/22 0503	CLR
Surrogate: Terphenyl-d14	47.4	Limit: 35.8-121	% Rec	10	**S3**	07/15/22 0626	07/16/22 0503	CLR

MICROBAC®

Microbac Laboratories, Inc. - Chicagoland

CERTIFICATE OF ANALYSIS

22G0657

Client Sample ID: MF5-25-BLDG Comp
Sample Matrix: Solid
Lab Sample ID: 22G0657-02 **Collection Date:** 07/12/2022 8:00

Metals TCLP by CVAA	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
SW-846 7470/EPA 7470A								
Mercury	<0.0025	0.0025	mg/L	1		07/14/22 1025	07/15/22 1409	RPL

Metals TCLP by ICP	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
SW846 3005A/EPA 6010C								
Arsenic	<0.050	0.050	mg/L	1		07/14/22 0945	07/14/22 2026	MCD
Barium	<2.5	2.5	mg/L	1		07/14/22 0945	07/14/22 2026	MCD
Cadmium	**0.16**	0.010	mg/L	1		07/14/22 0945	07/14/22 2026	MCD
Chromium	<0.025	0.025	mg/L	1		07/14/22 0945	07/14/22 2026	MCD
Lead	<0.038	0.038	mg/L	1		07/14/22 0945	07/14/22 2026	MCD
Selenium	<0.15	0.15	mg/L	1		07/14/22 0945	07/14/22 2026	MCD
Silver	<0.050	0.050	mg/L	1		07/14/22 0945	07/14/22 2026	MCD

Volatile Organic Compounds TCLP by GCMS	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
SW-846 8260B/EPA 8260B								
1,1-Dichloroethene	<0.050	0.050	mg/L	10			07/15/22 1312	JBS
1,2-Dichloroethane	<0.050	0.050	mg/L	10			07/15/22 1312	JBS
2-Butanone	<0.20	0.20	mg/L	10			07/15/22 1312	JBS
Benzene	<0.050	0.050	mg/L	10			07/15/22 1312	JBS
Carbon tetrachloride	<0.050	0.050	mg/L	10			07/15/22 1312	JBS
Chlorobenzene	<0.050	0.050	mg/L	10			07/15/22 1312	JBS
Chloroform	<0.050	0.050	mg/L	10			07/15/22 1312	JBS
Tetrachloroethene	<0.050	0.050	mg/L	10			07/15/22 1312	JBS
Trichloroethene	<0.050	0.050	mg/L	10			07/15/22 1312	JBS
Vinyl chloride	<0.020	0.020	mg/L	10			07/15/22 1312	JBS
Surrogate: 1,2-Dichloroethane-d4	96.9	Limit: 74.5-132	% Rec	10			07/15/22 1312	JBS
Surrogate: 4-Bromofluorobenzene	88.3	Limit: 80-120	% Rec	10			07/15/22 1312	JBS
Surrogate: Dibromofluoromethane	99.3	Limit: 80-120	% Rec	10			07/15/22 1312	JBS
Surrogate: Toluene-d8	106	Limit: 80-120	% Rec	10			07/15/22 1312	JBS

Semivolatile Organic Compounds TCLP by GCMS	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
SW846 3510/EPA 8270C								
1,4-Dichlorobenzene	<0.050	0.050	mg/L	1		07/14/22 0634	07/15/22 2318	CLR
2,4,5-Trichlorophenol	<0.050	0.050	mg/L	1		07/14/22 0634	07/15/22 2318	CLR
2,4,6-Trichlorophenol	<0.050	0.050	mg/L	1		07/14/22 0634	07/15/22 2318	CLR
2,4-Dinitrotoluene	<0.050	0.050	mg/L	1		07/14/22 0634	07/15/22 2318	CLR
2-Methylphenol	<0.050	0.050	mg/L	1		07/14/22 0634	07/15/22 2318	CLR
3/4-Methylphenol	<0.050	0.050	mg/L	1		07/14/22 0634	07/15/22 2318	CLR
Hexachlorobenzene	<0.050	0.050	mg/L	1		07/14/22 0634	07/15/22 2318	CLR
Hexachlorobutadiene	<0.050	0.050	mg/L	1		07/14/22 0634	07/15/22 2318	CLR
Hexachloroethane	<0.050	0.050	mg/L	1		07/14/22 0634	07/15/22 2318	CLR
Nitrobenzene	<0.050	0.050	mg/L	1		07/14/22 0634	07/15/22 2318	CLR

MICROBAC®

Microbac Laboratories, Inc. - Chicagoland

CERTIFICATE OF ANALYSIS

22G0657

Client Sample ID: MF5-25-BLDG Comp
Sample Matrix: Solid
Lab Sample ID: 22G0657-02
Collection Date: 07/12/2022 8:00

Semivolatile Organic Compounds TCLP by GCMS	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
Pentachlorophenol	<0.25	0.25	mg/L	1		07/14/22 0634	07/15/22 2318	CLR
Pyridine	<0.050	0.050	mg/L	1		07/14/22 0634	07/15/22 2318	CLR
Total Cresol	<0.050	0.050	mg/L	1		07/14/22 0634	07/15/22 2318	CLR
Surrogate: 2,4,6-Tribromophenol	46.2	Limit: 47.8-138	% Rec	1	**S2**	07/14/22 0634	07/15/22 2318	CLR
Surrogate: 2-Fluorobiphenyl	23.8	Limit: 10-110	% Rec	1		07/14/22 0634	07/15/22 2318	CLR
Surrogate: 2-Fluorophenol	25.1	Limit: 10-110	% Rec	1		07/14/22 0634	07/15/22 2318	CLR
Surrogate: Nitrobenzene-d5	27.6	Limit: 10-110	% Rec	1		07/14/22 0634	07/15/22 2318	CLR
Surrogate: Phenol-d5	30.2	Limit: 43.7-126	% Rec	1	**S2**	07/14/22 0634	07/15/22 2318	CLR
Surrogate: Terphenyl-d14	50.3	Limit: 33.7-136	% Rec	1		07/14/22 0634	07/15/22 2318	CLR

Batch Log Summary

Method	Batch	Laboratory ID	Client / Source ID
EPA 9045D	B200064	22G0657-01	MF5-25-BLDG Comp
		22G0657-01	MF5-25-BLDG Comp
		B200064-DUP1	22G0530-01

Method	Batch	Laboratory ID	Client / Source ID
EPA 9012B	B200157	B200157-BS1	
		B200157-BLK2	
		22G0657-01	MF5-25-BLDG Comp
		B200157-MS1	22G0657-01
		B200157-MSD1	22G0657-01
		B200157-PS1	22G0657-01

Method	Batch	Laboratory ID	Client / Source ID
EPA 9066	B200163	B200163-BLK1	
		B200163-BS1	
		22G0657-01	MF5-25-BLDG Comp
		B200163-MS1	22G0657-01
		B200163-MSD1	22G0657-01

Method	Batch	Laboratory ID	Client / Source ID
SM 2540 G-2011	B200183	22G0657-01	MF5-25-BLDG Comp
		B200183-DUP1	22G0603-08
		B200183-DUP2	22G0657-01

Method	Batch	Laboratory ID	Client / Source ID
EPA 9030B Modified	B200198	B200198-BS1	
		B200198-MS1	22G0657-01
		B200198-MSD1	22G0657-01
		22G0657-01	MF5-25-BLDG Comp
		B200198-PS1	22G0657-01
		B200198-BLK1	

Method	Batch	Laboratory ID	Client / Source ID
EPA 8270C	B200204	B200204-BLK1	
		B200204-BLK2	
		B200204-BLK3	
		B200204-BLK4	
		B200204-BLK5	
		B200204-BS1	
		B200204-MS1	22G0305-01
		22G0657-02	MF5-25-BLDG Comp

Method	Batch	Laboratory ID	Client / Source ID
EPA 6010C	B200210	B200210-BLK1	
		B200210-BS1	
		22G0657-02	MF5-25-BLDG Comp
		B200210-MS1	22G0657-02
		B200210-MSD1	22G0657-02

Method	Batch	Laboratory ID	Client / Source ID
EPA 7470A	B200212	B200212-BLK1	
		B200212-BS1	
		22G0657-02	MF5-25-BLDG Comp
		B200212-MS1	22G0657-02
		B200212-MSD1	22G0657-02

Method	Batch	Laboratory ID	Client / Source ID
EPA 8270C	B200288	B200288-BLK1	
		B200288-BS1	
		B200288-MS1	22G0933-03
		B200288-MSD1	22G0933-03
		22G0657-01	MF5-25-BLDG Comp

Method	Batch	Laboratory ID	Client / Source ID
EPA 6010C	B200293	B200293-BLK1	
		B200293-BS1	
		B200293-BS2	
		22G0657-01	MF5-25-BLDG Comp
		B200293-MS1	22G0752-08
		B200293-MSD1	22G0752-08

Method	Batch	Laboratory ID	Client / Source ID
EPA 7471B	B200295	B200295-BLK1	
		B200295-BS1	
		22G0657-01	MF5-25-BLDG Comp
		B200295-MS1	22G0933-01
		B200295-MSD1	22G0933-01

Method	Batch	Laboratory ID	Client / Source ID
EPA 8082A	B200307	B200307-BLK1	
		B200307-BS1	
		22G0657-01	MF5-25-BLDG Comp

Method	Batch	Laboratory ID	Client / Source ID
ASTM D92-90 Modified	B200350	22G0657-01	MF5-25-BLDG Comp

Method	Batch	Laboratory ID	Client / Source ID
EPA 9095B	B200388	B200388-DUP1	22G0657-01
		22G0657-01	MF5-25-BLDG Comp

Method	Batch	Laboratory ID	Client / Source ID
EPA 8260B	B200399	B200399-BS1	
		B200399-BSD1	
		B200399-BLK1	
		22G0657-02	MF5-25-BLDG Comp

Method	Batch	Laboratory ID	Client / Source ID
EPA 8260B	B200507	B200507-BS1	
		B200507-BSD1	
		B200507-BLK1	
		22G0657-01	MF5-25-BLDG Comp

Batch Quality Control Summary: Microbac Laboratories, Inc. - Chicagoland

Inorganics Total	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B200064 - PH_9045_PR - EPA 9045D										
Duplicate (B200064-DUP1)		**Source: 22G0530-01**	Prepared & Analyzed: 07/12/2022							
pH	10.18	2.00	S.U.		10.19			0.0982	20	
Temperature	21.9		°C		21.4			2.31	200	
Batch B200157 - CNPR_MICRO_S - EPA 9012B										
Blank (B200157-BLK2)			Prepared & Analyzed: 07/13/2022							
Cyanide, Total	0.0057	0.0050	mg/Kg wet							B
LCS (B200157-BS1)			Prepared & Analyzed: 07/13/2022							
Cyanide, Total	0.0940	0.0050	mg/Kg wet	0.10		94.0	90-110			B
Matrix Spike (B200157-MS1)		**Source: 22G0657-01**	Prepared & Analyzed: 07/13/2022							
Cyanide, Total	5.90	0.38	mg/Kg dry	7.6	1.21	61.4	69.4-116			M2
Matrix Spike Dup (B200157-MSD1)		**Source: 22G0657-01**	Prepared & Analyzed: 07/13/2022							
Cyanide, Total	6.32	0.41	mg/Kg dry	8.2	1.21	62.2	69.4-116	6.82	20	M2
Post Spike (B200157-PS1)		**Source: 22G0657-01**	Prepared: 07/13/2022 Analyzed: 07/14/2022							
Cyanide, Total	122		ug/L	100	16.3	106	70-130			
Batch B200163 - PHENOLPR_S - EPA 9066										
Blank (B200163-BLK1)			Prepared: 07/13/2022 Analyzed: 07/14/2022							
Phenolics, Total Recoverable	<0.010	0.010	mg/Kg wet							
LCS (B200163-BS1)			Prepared: 07/13/2022 Analyzed: 07/14/2022							

Inorganics Total	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B200163 - PHENOLPR_S - EPA 9066										
LCS (B200163-BS1)			Prepared: 07/13/2022 Analyzed: 07/14/2022							
Phenolics, Total Recoverable	0.102	0.010	mg/Kg wet	0.10		102	78.3-121			
Matrix Spike (B200163-MS1)		**Source: 22G0657-01**	Prepared: 07/13/2022 Analyzed: 07/14/2022							
Phenolics, Total Recoverable	21.3	0.68	mg/Kg dry	6.8	14.6	98.7	69.7-110			
Matrix Spike Dup (B200163-MSD1)		**Source: 22G0657-01**	Prepared: 07/13/2022 Analyzed: 07/14/2022							
Phenolics, Total Recoverable	20.9	0.68	mg/Kg dry	6.8	14.6	93.5	69.7-110	1.71	20	
Batch B200183 - PSOLID_PMOIST_2540B_PR - SM 2540 G-2011										
Duplicate (B200183-DUP1)		**Source: 22G0603-08**	Prepared: 07/13/2022 Analyzed: 07/14/2022							
Percent Solids	18.3	0.10	% (by wt.)		18.8			2.62	20	
Duplicate (B200183-DUP2)		**Source: 22G0657-01**	Prepared: 07/13/2022 Analyzed: 07/14/2022							
Percent Solids	75.4	0.10	% (by wt.)		73.1			3.13	20	
Batch B200198 - SULFPR_S - EPA 9030B Modified										
Blank (B200198-BLK1)			Prepared: 07/13/2022 Analyzed: 07/15/2022							
Sulfide	<0.010	0.010	mg/Kg wet							
LCS (B200198-BS1)			Prepared: 07/13/2022 Analyzed: 07/15/2022							
Sulfide	4.31	0.10	mg/Kg wet	5.0		86.2	10-161			
Matrix Spike (B200198-MS1)		**Source: 22G0657-01**	Prepared: 07/13/2022 Analyzed: 07/15/2022							
Sulfide	25.5	6.7	mg/Kg dry	340	ND	7.60	61-149			M2
Matrix Spike Dup (B200198-MSD1)		**Source: 22G0657-01**	Prepared: 07/13/2022 Analyzed: 07/15/2022							
Sulfide	7.30	6.6	mg/Kg dry	330	ND	2.20	61-149	111	20	M2, R1
Post Spike (B200198-PS1)		**Source: 22G0657-01**	Prepared: 07/13/2022 Analyzed: 07/15/2022							
Sulfide	0.534		mg/Kg	0.50	0.0380	99.2	80-120			M3
Batch B200388 - PAINTFILTER_9095_PR - EPA 9095B										
Duplicate (B200388-DUP1)		**Source: 22G0657-01**	Prepared & Analyzed: 07/17/2022							
Paint Filter	No Free Liquids	0.0	NA		Free Liqu				200	

Metals Total by CVAA	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B200295 - HGPREP_S - EPA 7471B										
Blank (B200295-BLK1)			Prepared & Analyzed: 07/15/2022							
Mercury	<0.042	0.042	mg/Kg wet							

Metals Total by CVAA	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B200295 - HGPREP_S - EPA 7471B										
LCS (B200295-BS1)			Prepared & Analyzed: 07/15/2022							
Mercury	10.7	2.5	mg/Kg wet	9.8		109	71-130			
Matrix Spike (B200295-MS1)		**Source: 22G0933-01**	Prepared & Analyzed: 07/15/2022							
Mercury	0.149	0.041	mg/Kg dry	0.081	0.0711	97.1	80-120			
Matrix Spike Dup (B200295-MSD1)		**Source: 22G0933-01**	Prepared & Analyzed: 07/15/2022							
Mercury	0.144	0.041	mg/Kg dry	0.081	0.0711	90.9	80-120	3.40	20	

Metals Total by ICP	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B200293 - 3050I - EPA 6010C										
Blank (B200293-BLK1)			Prepared & Analyzed: 07/15/2022							
Arsenic	<0.50	0.50	mg/Kg wet							
Barium	<0.20	0.20	mg/Kg wet							
Cadmium	<0.20	0.20	mg/Kg wet							
Chromium	<0.20	0.20	mg/Kg wet							
Lead	<0.38	0.38	mg/Kg wet							
Lithium	<5.0	5.0	mg/Kg wet							
Nickel	<0.50	0.50	mg/Kg wet							
Selenium	<1.5	1.5	mg/Kg wet							
Silver	<0.50	0.50	mg/Kg wet							
LCS (B200293-BS1)			Prepared & Analyzed: 07/15/2022							
Arsenic	90	1.0	mg/Kg wet	99		91.1	83-117			
Barium	330	0.40	mg/Kg wet	340		98.2	82-118			
Cadmium	39	0.40	mg/Kg wet	44		89.2	83-117			
Chromium	150	0.40	mg/Kg wet	160		93.4	82-118			
Lead	87	0.75	mg/Kg wet	99		87.5	83-117			
Lithium	<10	10	mg/Kg wet				0-200			
Nickel	44	1.0	mg/Kg wet	47		94.0	82-118			
Selenium	85	3.0	mg/Kg wet	94		90.4	79-121			

Metals Total by ICP	Result		RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B200293 - 3050I - EPA 6010C											
LCS (B200293-BS1)				Prepared & Analyzed: 07/15/2022							
Silver	26		1.0	mg/Kg wet	28		94.5	80-120			
LCS (B200293-BS2)				Prepared & Analyzed: 07/15/2022							
Arsenic	92		0.50	mg/Kg wet	100		92.4	83-117			
Barium	110		0.20	mg/Kg wet	110		97.7	82-118			
Cadmium	9.2		0.20	mg/Kg wet	10		91.6	83-117			
Chromium	92		0.20	mg/Kg wet	100		92.2	82-118			
Lead	94		0.38	mg/Kg wet	100		94.0	83-117			
Lithium	97		5.0	mg/Kg wet	100		97.0	0-200			
Nickel	94		0.50	mg/Kg wet	100		93.6	82-118			
Selenium	90		1.5	mg/Kg wet	100		90.3	79-121			
Silver	9.5		0.50	mg/Kg wet	10		94.7	80-120			
Matrix Spike (B200293-MS1)		**Source: 22G0752-08**		Prepared & Analyzed: 07/15/2022							
Arsenic	100		0.48	mg/Kg wet	96	0.66	104	75-125			
Barium	170		0.19	mg/Kg wet	110	64	101	75-125			
Cadmium	10		0.19	mg/Kg wet	9.6	1.4	89.8	75-125			
Chromium	88		0.19	mg/Kg wet	96	0.65	91.1	75-125			
Lead	86		0.36	mg/Kg wet	96	0.34	89.5	75-125			
Lithium	140		4.8	mg/Kg wet	96	38	103	75-125			
Nickel	87		0.48	mg/Kg wet	96	0.95	89.6	75-125			
Selenium	110		1.4	mg/Kg wet	96	1.4	111	75-125			
Silver	9.8		0.48	mg/Kg wet	9.6	ND	101	75-125			
Matrix Spike Dup (B200293-MSD1)		**Source: 22G0752-08**		Prepared & Analyzed: 07/15/2022							
Arsenic	100		0.50	mg/Kg wet	99	0.66	101	75-125	0.254	20	
Barium	170		0.20	mg/Kg wet	110	64	98.5	75-125	0.142	20	
Cadmium	10		0.20	mg/Kg wet	9.9	1.4	87.6	75-125	0.462	20	
Chromium	89		0.20	mg/Kg wet	99	0.65	89.5	75-125	1.22	20	

Metals Total by ICP	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B200293 - 3050I - EPA 6010C										
Matrix Spike Dup (B200293-MSD1)		**Source: 22G0752-08**	Prepared & Analyzed: 07/15/2022							
Lead	87	0.37	mg/Kg wet	99	0.34	87.8	75-125	0.960	20	
Lithium	140	5.0	mg/Kg wet	99	38	102	75-125	0.730	20	
Nickel	88	0.50	mg/Kg wet	99	0.95	87.5	75-125	0.637	20	
Selenium	110	1.5	mg/Kg wet	99	1.4	108	75-125	0.228	20	
Silver	9.5	0.50	mg/Kg wet	9.9	ND	96.3	75-125	2.29	20	

Metals TCLP by CVAA	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B200212 - HGPrep_TCLP - EPA 7470A										
Blank (B200212-BLK1)			Prepared: 07/14/2022 Analyzed: 07/15/2022							
Mercury	<0.0025	0.0025	mg/L							
LCS (B200212-BS1)			Prepared: 07/14/2022 Analyzed: 07/15/2022							
Mercury	0.00529	0.0025	mg/L	0.0050		106	80-120			
Matrix Spike (B200212-MS1)		**Source: 22G0657-02**	Prepared: 07/14/2022 Analyzed: 07/15/2022							
Mercury	0.00528	0.0025	mg/L	0.0050	ND	106	50-150			
Matrix Spike Dup (B200212-MSD1)		**Source: 22G0657-02**	Prepared: 07/14/2022 Analyzed: 07/15/2022							
Mercury	0.00518	0.0025	mg/L	0.0050	ND	104	50-150	1.86	20	

Metals TCLP by ICP	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B200210 - 3005TC - EPA 6010C										
Blank (B200210-BLK1)			Prepared & Analyzed: 07/14/2022							
Arsenic	<0.050	0.050	mg/L							
Barium	<2.5	2.5	mg/L							
Cadmium	<0.010	0.010	mg/L							
Chromium	<0.025	0.025	mg/L							
Lead	<0.038	0.038	mg/L							
Selenium	<0.15	0.15	mg/L							
Silver	<0.050	0.050	mg/L							
LCS (B200210-BS1)			Prepared & Analyzed: 07/14/2022							
Arsenic	9.8	0.050	mg/L	10		98.5	80-120			
Barium	11	2.5	mg/L	11		98.0	80-120			
Cadmium	0.96	0.010	mg/L	1.0		96.0	80-120			
Chromium	9.7	0.025	mg/L	10		96.8	80-120			
Lead	9.7	0.038	mg/L	10		97.3	80-120			
Selenium	10	0.15	mg/L	10		104	80-120			
Silver	0.96	0.050	mg/L	1.0		96.3	80-120			
Matrix Spike (B200210-MS1)		**Source: 22G0657-02**	Prepared & Analyzed: 07/14/2022							

Metals TCLP by ICP	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B200210 - 3005TC - EPA 6010C										
Matrix Spike (B200210-MS1)		**Source: 22G0657-02**	Prepared & Analyzed: 07/14/2022							
Arsenic	10	0.050	mg/L	10	ND	102	50-200			
Barium	11	2.5	mg/L	11	0.35	99.0	50-200			
Cadmium	1.1	0.010	mg/L	1.0	0.16	93.7	50-200			
Chromium	9.5	0.025	mg/L	10	ND	95.0	50-200			
Lead	9.4	0.038	mg/L	10	ND	94.0	50-200			
Selenium	11	0.15	mg/L	10	ND	106	50-200			
Silver	1.0	0.050	mg/L	1.0	ND	100	50-200			
Matrix Spike Dup (B200210-MSD1)		**Source: 22G0657-02**	Prepared & Analyzed: 07/14/2022							
Arsenic	10	0.050	mg/L	10	ND	104	50-200	1.65	20	
Barium	11	2.5	mg/L	11	0.35	100	50-200	1.24	20	
Cadmium	1.1	0.010	mg/L	1.0	0.16	95.2	50-200	1.36	20	
Chromium	9.7	0.025	mg/L	10	ND	96.7	50-200	1.77	20	
Lead	9.6	0.038	mg/L	10	ND	95.5	50-200	1.64	20	
Selenium	11	0.15	mg/L	10	ND	107	50-200	0.943	20	
Silver	1.0	0.050	mg/L	1.0	ND	102	50-200	1.54	20	

Volatile Organic Compounds by GCMS	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B200507 - 8260_BTEX+M_PR - EPA 8260B										
Blank (B200507-BLK1)			Prepared & Analyzed: 07/19/2022							
1,1,1,2-Tetrachloroethane	<10	10	ug/kg wet							
1,1,1-Trichloroethane	<5.0	5.0	ug/kg wet							
1,1,2,2-Tetrachloroethane	<5.0	5.0	ug/kg wet							
1,1,2-Trichloroethane	<5.0	5.0	ug/kg wet							
1,1-Dichloroethane	<5.0	5.0	ug/kg wet							
1,1-Dichloroethene	<5.0	5.0	ug/kg wet							
1,2-Dichloroethane	<5.0	5.0	ug/kg wet							
1,2-Dichloropropane	<5.0	5.0	ug/kg wet							
2-Butanone	<10	10	ug/kg wet							
2-Hexanone	<10	10	ug/kg wet							
4-Methyl-2-pentanone	<10	10	ug/kg wet							
Acetone	<50	50	ug/kg wet							
Acrolein	<100	100	ug/kg wet							

Volatile Organic Compounds by GCMS	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B200507 - 8260_BTEX+M_PR - EPA 8260B										
Blank (B200507-BLK1)			Prepared & Analyzed: 07/19/2022							
Acrylonitrile	<100	100	ug/kg wet							
Benzene	<5.0	5.0	ug/kg wet							
Bromodichloromethane	<5.0	5.0	ug/kg wet							
Bromoform	<5.0	5.0	ug/kg wet							
Bromomethane	<10	10	ug/kg wet							
Carbon Disulfide	<10	10	ug/kg wet							
Carbon tetrachloride	<5.0	5.0	ug/kg wet							
Chlorobenzene	<5.0	5.0	ug/kg wet							
Chloroethane	<10	10	ug/kg wet							
Chloroform	<5.0	5.0	ug/kg wet							
Chloromethane	<10	10	ug/kg wet							
cis-1,2-Dichloroethene	<5.0	5.0	ug/kg wet							
cis-1,3-Dichloropropene	<5.0	5.0	ug/kg wet							
Dibromochloromethane	<5.0	5.0	ug/kg wet							
Ethylbenzene	<5.0	5.0	ug/kg wet							
m,p-Xylene	<5.0	5.0	ug/kg wet							
Methylene chloride	<20	20	ug/kg wet							
Methyl-t-Butyl Ether	<5.0	5.0	ug/kg wet							
o-Xylene	<5.0	5.0	ug/kg wet							
Styrene	<5.0	5.0	ug/kg wet							
Tetrachloroethene	<5.0	5.0	ug/kg wet							
Toluene	<5.0	5.0	ug/kg wet							
trans-1,2-Dichloroethene	<5.0	5.0	ug/kg wet							
trans-1,3-Dichloropropene	<5.0	5.0	ug/kg wet							
Trichloroethene	<5.0	5.0	ug/kg wet							

Volatile Organic Compounds by GCMS	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B200507 - 8260_BTEX+M_PR - EPA 8260B										
Blank (B200507-BLK1)			Prepared & Analyzed: 07/19/2022							
Trichlorofluoromethane	<10	10	ug/kg wet							
Vinyl Acetate	<10	10	ug/kg wet							
Vinyl chloride	<10	10	ug/kg wet							
Total 1,2-Dichloroethene	<5.0	5.0	ug/kg wet							
Total Xylenes	<5.0	5.0	ug/kg wet							
Surrogate: 1,2-Dichloroethane-d4	*53*		ug/L	*50*		*107*	*51.7-162*			
Surrogate: 4-Bromofluorobenzene	*46*		ug/L	*50*		*92.8*	*57.4-135*			
Surrogate: Dibromofluoromethane	*48*		ug/L	*50*		*96.2*	*63.5-139*			
Surrogate: Toluene-d8	*48*		ug/L	*50*		*96.6*	*66.6-143*			
LCS (B200507-BS1)			Prepared & Analyzed: 07/19/2022							
1,1,1,2-Tetrachloroethane	51.4		ug/L	50		103	78.8-118			
1,1,1-Trichloroethane	54.8		ug/L	50		110	79.4-127			
1,1,2,2-Tetrachloroethane	51.2		ug/L	50		102	62.5-121			
1,1,2-Trichloroethane	54.2		ug/L	50		108	75.9-116			
1,1-Dichloroethane	56.7		ug/L	50		113	76.8-116			
1,1-Dichloroethene	55.2		ug/L	50		110	71.1-125			
1,2-Dichloroethane	58.7		ug/L	50		117	73.8-120			
1,2-Dichloropropane	58.2		ug/L	50		116	77.9-121			
2-Butanone	56.6		ug/L	50		113	70.9-129			
2-Hexanone	43.0		ug/L	50		86.1	58.4-128			
4-Methyl-2-pentanone	46.3		ug/L	50		92.5	67.3-136			
Acetone	54.4		ug/L	50		109	69.3-121			
Acrolein	41.2		ug/L	50		82.4	47.8-153			
Acrylonitrile	62.0		ug/L	50		124	74-125			
Benzene	57.1		ug/L	50		114	76.3-126			
Bromodichloromethane	56.1		ug/L	50		112	76.9-111			S
Bromoform	51.6		ug/L	50		103	70.3-126			
Bromomethane	49.5		ug/L	50		99.1	30.2-136			
Carbon Disulfide	41.8		ug/L	50		83.5	63-132			
Carbon tetrachloride	54.0		ug/L	50		108	76.7-128			
Chlorobenzene	52.3		ug/L	50		105	82.7-116			
Chloroethane	48.3		ug/L	50		96.5	48.2-144			
Chloroform	58.6		ug/L	50		117	79.4-120			
Chloromethane	36.6		ug/L	50		73.2	55.1-110			
cis-1,2-Dichloroethene	57.8		ug/L	50		116	75.5-125			
cis-1,3-Dichloropropene	49.9		ug/L	50		99.7	83-120			
Dibromochloromethane	50.8		ug/L	50		102	80-120			
Ethylbenzene	51.7		ug/L	50		103	84-121			
m,p-Xylene	102		ug/L	100		102	86-126			

Volatile Organic Compounds by GCMS	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B200507 - 8260_BTEX+M_PR - EPA 8260B										
LCS (B200507-BS1)				Prepared & Analyzed: 07/19/2022						
Methylene chloride	61.1		ug/L	50		122	69.2-122			
Methyl-t-Butyl Ether	49.4		ug/L	50		98.8	71.4-115			
o-Xylene	50.8		ug/L	50		102	80.6-125			
Styrene	47.8		ug/L	50		95.6	73-126			
Tetrachloroethene	51.2		ug/L	50		102	79.3-131			
Toluene	50.7		ug/L	50		101	83.3-122			
trans-1,2-Dichloroethene	57.1		ug/L	50		114	75.6-126			
trans-1,3-Dichloropropene	50.4		ug/L	50		101	77.2-121			
Trichloroethene	57.4		ug/L	50		115	76.7-126			
Trichlorofluoromethane	47.4		ug/L	50		94.8	73.7-116			
Vinyl Acetate	53.6		ug/L	50		107	71.8-118			
Vinyl chloride	47.9		ug/L	50		95.8	67.3-118			
Total Xylenes	153		ug/L	150		102	49.9-158			
Surrogate: 1,2-Dichloroethane-d4	*51*		ug/L	*50*		*102*	*51.7-162*			
Surrogate: 4-Bromofluorobenzene	*50*		ug/L	*50*		*99.1*	*57.4-135*			
Surrogate: Dibromofluoromethane	*51*		ug/L	*50*		*102*	*63.5-139*			
Surrogate: Toluene-d8	*48*		ug/L	*50*		*95.1*	*66.6-143*			
LCS Dup (B200507-BSD1)				Prepared & Analyzed: 07/19/2022						
1,1,1,2-Tetrachloroethane	49.0		ug/L	50		98.0	78.8-118	4.74	30	
1,1,1-Trichloroethane	54.0		ug/L	50		108	79.4-127	1.36	30	
1,1,2,2-Tetrachloroethane	48.8		ug/L	50		97.6	62.5-121	4.68	30	
1,1,2-Trichloroethane	51.5		ug/L	50		103	75.9-116	5.07	30	
1,1-Dichloroethane	54.4		ug/L	50		109	76.8-116	4.08	30	
1,1-Dichloroethene	54.3		ug/L	50		109	71.1-125	1.72	30	
1,2-Dichloroethane	56.9		ug/L	50		114	73.8-120	3.11	30	
1,2-Dichloropropane	56.0		ug/L	50		112	77.9-121	3.89	30	
2-Butanone	60.9		ug/L	50		122	70.9-129	7.37	30	
2-Hexanone	47.1		ug/L	50		94.2	58.4-128	8.99	30	
4-Methyl-2-pentanone	50.1		ug/L	50		100	67.3-136	7.87	30	
Acetone	57.9		ug/L	50		116	69.3-121	6.24	30	
Acrolein	41.0		ug/L	50		82.1	47.8-153	0.341	30	
Acrylonitrile	65.3		ug/L	50		131	74-125	5.15	30	S
Benzene	55.1		ug/L	50		110	76.3-126	3.49	30	
Bromodichloromethane	53.6		ug/L	50		107	76.9-111	4.59	30	
Bromoform	48.8		ug/L	50		97.6	70.3-126	5.52	30	
Bromomethane	49.4		ug/L	50		98.9	30.2-136	0.222	30	
Carbon Disulfide	40.4		ug/L	50		80.8	63-132	3.31	30	
Carbon tetrachloride	52.5		ug/L	50		105	76.7-128	2.67	30	
Chlorobenzene	50.6		ug/L	50		101	82.7-116	3.24	30	
Chloroethane	47.0		ug/L	50		93.9	48.2-144	2.77	30	
Chloroform	56.5		ug/L	50		113	79.4-120	3.54	30	
Chloromethane	34.1		ug/L	50		68.3	55.1-110	6.98	30	
cis-1,2-Dichloroethene	56.2		ug/L	50		112	75.5-125	2.75	30	

Volatile Organic Compounds by GCMS	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B200507 - 8260_BTEX+M_PR - EPA 8260B										
LCS Dup (B200507-BSD1)				Prepared & Analyzed: 07/19/2022						
cis-1,3-Dichloropropene	48.3		ug/L	50		96.5	83-120	3.26	30	
Dibromochloromethane	49.4		ug/L	50		98.8	80-120	2.83	30	
Ethylbenzene	50.3		ug/L	50		101	84-121	2.77	30	
m,p-Xylene	99.1		ug/L	100		99.1	86-126	2.81	30	
Methylene chloride	59.1		ug/L	50		118	69.2-122	3.35	30	
Methyl-t-Butyl Ether	49.0		ug/L	50		98.1	71.4-115	0.731	30	
o-Xylene	49.0		ug/L	50		98.0	80.6-125	3.59	30	
Styrene	45.8		ug/L	50		91.6	73-126	4.32	30	
Tetrachloroethene	50.4		ug/L	50		101	79.3-131	1.48	30	
Toluene	48.8		ug/L	50		97.6	83.3-122	3.88	30	
trans-1,2-Dichloroethene	55.7		ug/L	50		111	75.6-126	2.48	30	
trans-1,3-Dichloropropene	48.0		ug/L	50		96.1	77.2-121	4.83	30	
Trichloroethene	56.3		ug/L	50		113	76.7-126	1.92	30	
Trichlorofluoromethane	46.1		ug/L	50		92.2	73.7-116	2.80	30	
Vinyl Acetate	53.0		ug/L	50		106	71.8-118	1.01	30	
Vinyl chloride	46.1		ug/L	50		92.1	67.3-118	3.87	30	
Total Xylenes	148		ug/L	150		98.7	49.9-158	3.07	200	
Surrogate: 1,2-Dichloroethane-d4	*52*		ug/L	*50*		*103*	*51.7-162*			
Surrogate: 4-Bromofluorobenzene	*50*		ug/L	*50*		*99.9*	*57.4-135*			
Surrogate: Dibromofluoromethane	*51*		ug/L	*50*		*103*	*63.5-139*			
Surrogate: Toluene-d8	*47*		ug/L	*50*		*94.9*	*66.6-143*			

Volatile Organic Compounds TCLP by GCMS	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B200399 - 8260_TC_PR - EPA 8260B										
B200289-BLK (B200399-BLK1)				Prepared & Analyzed: 07/15/2022						
1,1-Dichloroethene	<0.050	0.050	mg/L							
1,2-Dichloroethane	<0.050	0.050	mg/L							
2-Butanone	<0.20	0.20	mg/L							
Benzene	<0.050	0.050	mg/L							
Carbon tetrachloride	<0.050	0.050	mg/L							
Chlorobenzene	<0.050	0.050	mg/L							
Chloroform	<0.050	0.050	mg/L							
Tetrachloroethene	<0.050	0.050	mg/L							
Trichloroethene	<0.050	0.050	mg/L							
Vinyl chloride	<0.020	0.020	mg/L							
Surrogate: 1,2-Dichloroethane-d4	*22*		ug/L	*25*		*89.2*	*74.5-132*			
Surrogate: 4-Bromofluorobenzene	*22*		ug/L	*25*		*87.7*	*80-120*			
Surrogate: Dibromofluoromethane	*24*		ug/L	*25*		*97.3*	*80-120*			
Surrogate: Toluene-d8	*26*		ug/L	*25*		*104*	*80-120*			
LCS (B200399-BS1)				Prepared & Analyzed: 07/15/2022						
1,1-Dichloroethene	21.6		ug/L	20		108	59.5-132			

Volatile Organic Compounds TCLP by GCMS	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B200399 - 8260_TC_PR - EPA 8260B										
LCS (B200399-BS1)				Prepared & Analyzed: 07/15/2022						
1,2-Dichloroethane	19.0		ug/L	20		95.0	73.4-117			
2-Butanone	16.0		ug/L	20		80.0	57.9-124			
Benzene	21.3		ug/L	20		107	82.5-123			
Carbon tetrachloride	20.6		ug/L	20		103	74.8-122			
Chlorobenzene	21.3		ug/L	20		106	82-115			
Chloroform	21.2		ug/L	20		106	80.5-121			
Tetrachloroethene	22.0		ug/L	20		110	77-120			
Trichloroethene	21.2		ug/L	20		106	80-120			
Vinyl chloride	17.3		ug/L	20		86.4	41.7-133			
Surrogate: 1,2-Dichloroethane-d4	*23*		ug/L	*25*		*93.5*	*74.5-132*			
Surrogate: 4-Bromofluorobenzene	*23*		ug/L	*25*		*94.0*	*80-120*			
Surrogate: Dibromofluoromethane	*24*		ug/L	*25*		*96.9*	*80-120*			
Surrogate: Toluene-d8	*27*		ug/L	*25*		*107*	*80-120*			
LCS Dup (B200399-BSD1)				Prepared & Analyzed: 07/15/2022						
1,1-Dichloroethene	20.8		ug/L	20		104	59.5-132	3.49	30	
1,2-Dichloroethane	18.8		ug/L	20		94.0	73.4-117	1.11	30	
2-Butanone	14.9		ug/L	20		74.5	57.9-124	7.06	30	
Benzene	20.3		ug/L	20		102	82.5-123	4.85	30	
Carbon tetrachloride	20.0		ug/L	20		99.8	74.8-122	2.96	30	
Chlorobenzene	20.4		ug/L	20		102	82-115	4.13	30	
Chloroform	20.7		ug/L	20		103	80.5-121	2.48	30	
Tetrachloroethene	21.5		ug/L	20		108	77-120	2.11	30	
Trichloroethene	20.5		ug/L	20		103	80-120	3.17	30	
Vinyl chloride	19.2		ug/L	20		96.0	41.7-133	10.6	30	
Surrogate: 1,2-Dichloroethane-d4	*23*		ug/L	*25*		*92.2*	*74.5-132*			
Surrogate: 4-Bromofluorobenzene	*23*		ug/L	*25*		*91.3*	*80-120*			
Surrogate: Dibromofluoromethane	*25*		ug/L	*25*		*98.2*	*80-120*			
Surrogate: Toluene-d8	*26*		ug/L	*25*		*103*	*80-120*			

Semivolatile Organic Compounds by GC/ECD	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B200307 - 3550_PEST - EPA 8082A										
Blank (B200307-BLK1)				Prepared & Analyzed: 07/15/2022						
Aroclor 1016	<33	33	ug/kg wet							
Aroclor 1221	<33	33	ug/kg wet							
Aroclor 1232	<33	33	ug/kg wet							
Aroclor 1242	<33	33	ug/kg wet							
Aroclor 1248	<33	33	ug/kg wet							

Semivolatile Organic Compounds by GC/ECD	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B200307 - 3550_PEST - EPA 8082A										
Blank (B200307-BLK1)			Prepared & Analyzed: 07/15/2022							
Aroclor 1254	<33	33	ug/kg wet							
Aroclor 1260	<33	33	ug/kg wet							
Aroclor 1262	<33	33	ug/kg wet							
Aroclor 1268	<33	33	ug/kg wet							
Total PCB's	<33	33	ug/kg wet							
Surrogate: Tetrachloro-m-xylene	*4.3*		ug/kg wet	*6.7*		*65.0*	*27.6-126*			
Surrogate: Decachlorobiphenyl	*5.7*		ug/kg wet	*6.7*		*85.0*	*25.2-136*			
LCS (B200307-BS1)			Prepared & Analyzed: 07/15/2022							
Aroclor 1016	158	33	ug/kg wet	170		95.0	58.4-128			
Aroclor 1260	151	33	ug/kg wet	170		90.8	55.3-125			
Surrogate: Tetrachloro-m-xylene	*5.3*		ug/kg wet	*6.7*		*80.0*	*27.6-126*			
Surrogate: Decachlorobiphenyl	*6.0*		ug/kg wet	*6.7*		*90.0*	*25.2-136*			

Semivolatile Organic Compounds by GCMS	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B200288 - 3550_B - EPA 8270C										
Blank (B200288-BLK1)			Prepared & Analyzed: 07/15/2022							
1,2,4-Trichlorobenzene	<330	330	ug/kg wet							
1,2-Dichlorobenzene	<330	330	ug/kg wet							
1,2-Diphenyl-hydrazine	<330	330	ug/kg wet							
1,3-Dichlorobenzene	<330	330	ug/kg wet							
1,4-Dichlorobenzene	<330	330	ug/kg wet							
2,2´-oxybis(1-chloropropane)	<330	330	ug/kg wet							
2,4,5-Trichlorophenol	<330	330	ug/kg wet							
2,4,6-Trichlorophenol	<330	330	ug/kg wet							
2,4-Dichlorophenol	<330	330	ug/kg wet							
2,4-Dimethylphenol	<330	330	ug/kg wet							
2,4-Dinitrophenol	<1600	1600	ug/kg wet							

Semivolatile Organic Compounds by GCMS	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B200288 - 3550_B - EPA 8270C										
Blank (B200288-BLK1)			Prepared & Analyzed: 07/15/2022							
2,4-Dinitrotoluene	<330	330	ug/kg wet							
2,6-Dichlorophenol	<330	330	ug/kg wet							
2,6-Dinitrotoluene	<330	330	ug/kg wet							
2-Chloronaphthalene	<330	330	ug/kg wet							
2-Chlorophenol	<330	330	ug/kg wet							
2-Methylnaphthalene	<330	330	ug/kg wet							
2-Methylphenol	<330	330	ug/kg wet							
2-Nitroaniline	<1600	1600	ug/kg wet							
2-Nitrophenol	<330	330	ug/kg wet							
3,3´-Dichlorobenzidine	<1600	1600	ug/kg wet							
3/4-Methylphenol	<330	330	ug/kg wet							
3-Nitroaniline	<330	330	ug/kg wet							
4,6-Dinitro-2-methylphenol	<1600	1600	ug/kg wet							
4-Bromophenyl phenyl ether	<330	330	ug/kg wet							
4-Chloro-3-methylphenol	<660	660	ug/kg wet							
4-Chloroaniline	<330	330	ug/kg wet							
4-Chlorophenyl phenyl ether	<330	330	ug/kg wet							
4-Nitroaniline	<1600	1600	ug/kg wet							
4-Nitrophenol	<1600	1600	ug/kg wet							
Acenaphthene	<330	330	ug/kg wet							
Acenaphthylene	<330	330	ug/kg wet							
Acetophenone	<330	330	ug/kg wet							
Aniline	<330	330	ug/kg wet							
Anthracene	<330	330	ug/kg wet							
Benzidine	<1600	1600	ug/kg wet							

Semivolatile Organic Compounds by GCMS	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B200288 - 3550_B - EPA 8270C										
Blank (B200288-BLK1)			Prepared & Analyzed: 07/15/2022							
Benzo[a]anthracene	<330	330	ug/kg wet							
Benzo[a]pyrene	<330	330	ug/kg wet							
Benzo[b]fluoranthene	<330	330	ug/kg wet							
Benzo[g,h,i]perylene	<330	330	ug/kg wet							
Benzo[k]fluoranthene	<330	330	ug/kg wet							
Benzoic acid	<1600	1600	ug/kg wet							
Benzyl alcohol	<660	660	ug/kg wet							
Bis(2-chloroethoxy)methane	<330	330	ug/kg wet							
Bis(2-chloroethyl)ether	<330	330	ug/kg wet							
Bis(2-ethylhexyl)phthalate	<330	330	ug/kg wet							
Butyl benzyl phthalate	<330	330	ug/kg wet							
Carbazole	<330	330	ug/kg wet							
Chrysene	<330	330	ug/kg wet							
Dibenz[a,h]anthracene	<330	330	ug/kg wet							
Dibenzofuran	<330	330	ug/kg wet							
Diethyl phthalate	<330	330	ug/kg wet							
Dimethyl phthalate	<330	330	ug/kg wet							
Di-n-butyl phthalate	<330	330	ug/kg wet							
Di-n-octyl phthalate	<330	330	ug/kg wet							
Fluoranthene	<330	330	ug/kg wet							
Fluorene	<330	330	ug/kg wet							
Hexachlorobenzene	<330	330	ug/kg wet							
Hexachlorobutadiene	<330	330	ug/kg wet							
Hexachlorocyclopentadiene	<330	330	ug/kg wet							
Hexachloroethane	<330	330	ug/kg wet							

Semivolatile Organic Compounds by GCMS	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B200288 - 3550_B - EPA 8270C										
Blank (B200288-BLK1)			Prepared & Analyzed: 07/15/2022							
Indeno[1,2,3cd]pyrene	<330	330	ug/kg wet							
Isophorone	<330	330	ug/kg wet							
Naphthalene	<330	330	ug/kg wet							
Nitrobenzene	<330	330	ug/kg wet							
N-Nitrosodimethylamine	<330	330	ug/kg wet							
N-Nitrosodi-n-propylamine	<330	330	ug/kg wet							
N-Nitrosodiphenylamine	<330	330	ug/kg wet							
Pentachlorophenol	<1600	1600	ug/kg wet							
Phenanthrene	<330	330	ug/kg wet							
Phenol	<330	330	ug/kg wet							
Pyrene	<330	330	ug/kg wet							
Pyridine	<330	330	ug/kg wet							
Total Cresol	<330	330	ug/kg wet							
Surrogate: 2,4,6-Tribromophenol	*4600*		ug/kg wet	*6700*		*69.2*	*13.9-145*			
Surrogate: 2-Fluorobiphenyl	*2100*		ug/kg wet	*3300*		*63.6*	*28.1-110*			
Surrogate: 2-Fluorophenol	*3600*		ug/kg wet	*6700*		*53.7*	*24.5-110*			
Surrogate: Nitrobenzene-d5	*1900*		ug/kg wet	*3300*		*55.8*	*33.6-110*			
Surrogate: Phenol-d5	*4100*		ug/kg wet	*6700*		*61.7*	*29.6-110*			
Surrogate: Terphenyl-d14	*2300*		ug/kg wet	*3300*		*70.0*	*35.8-121*			
LCS (B200288-BS1)			Prepared & Analyzed: 07/15/2022							
1,2,4-Trichlorobenzene	1820	330	ug/kg wet	3300		54.7	35.9-110			
1,4-Dichlorobenzene	1730	330	ug/kg wet	3300		52.0	20-124			
2,4,6-Trichlorophenol	2080	330	ug/kg wet	3300		62.5	40-140			
2,4-Dichlorophenol	1890	330	ug/kg wet	3300		56.8	40-140			
2,4-Dinitrotoluene	2070	330	ug/kg wet	3300		62.1	42.6-110			
2-Chlorophenol	1830	330	ug/kg wet	3300		54.9	36.1-110			
2-Nitrophenol	1860	330	ug/kg wet	3300		55.7	40-140			
4-Chloro-3-methylphenol	2100	660	ug/kg wet	3300		63.0	40.6-119			

Semivolatile Organic Compounds by GCMS	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B200288 - 3550_B - EPA 8270C										
LCS (B200288-BS1)			Prepared & Analyzed: 07/15/2022							
4-Nitrophenol	2520	1600	ug/kg wet	3300		75.7	39.1-110			
Acenaphthene	2100	330	ug/kg wet	3300		63.1	42.1-110			
Acenaphthylene	2120	330	ug/kg wet	3300		63.7	38-120			
Anthracene	2120	330	ug/kg wet	3300		63.6	36-117			
Bis(2-chloroethoxy)methane	1820	330	ug/kg wet	3300		54.5	40-140			
Chrysene	2270	330	ug/kg wet	3300		68.1	38-122			
Di-n-butyl phthalate	2320	330	ug/kg wet	3300		69.7	40-140			
Hexachlorobenzene	2160	330	ug/kg wet	3300		64.9	40-140			
Naphthalene	1800	330	ug/kg wet	3300		54.1	39-114			
N-Nitrosodi-n-propylamine	1880	330	ug/kg wet	3300		56.3	38.1-110			
Pentachlorophenol	2120	1600	ug/kg wet	3300		63.6	22.1-110			
Phenol	1800	330	ug/kg wet	3300		53.9	38.9-110			
Pyrene	2080	330	ug/kg wet	3300		62.4	44.3-116			
Surrogate: 2,4,6-Tribromophenol	*4500*		ug/kg wet	*6700*		*67.6*	*13.9-145*			
Surrogate: 2-Fluorobiphenyl	*2000*		ug/kg wet	*3300*		*60.7*	*28.1-110*			
Surrogate: 2-Fluorophenol	*3400*		ug/kg wet	*6700*		*51.0*	*24.5-110*			
Surrogate: Nitrobenzene-d5	*1800*		ug/kg wet	*3300*		*54.7*	*33.6-110*			
Surrogate: Phenol-d5	*4100*		ug/kg wet	*6700*		*62.1*	*29.6-110*			
Surrogate: Terphenyl-d14	*2100*		ug/kg wet	*3300*		*63.7*	*35.8-121*			
Matrix Spike (B200288-MS1)	**Source: 22G0933-03**		Prepared: 07/15/2022 Analyzed: 07/16/2022							
1,2,4-Trichlorobenzene	2530	360	ug/kg dry	3700	ND	68.9	33.9-110			
1,4-Dichlorobenzene	2210	360	ug/kg dry	3700	ND	60.2	10-134			
2,4,6-Trichlorophenol	2910	360	ug/kg dry	3700	ND	79.4	50-150			
2,4-Dichlorophenol	2770	360	ug/kg dry	3700	ND	75.4	50-150			
2,4-Dinitrotoluene	2650	360	ug/kg dry	3700	ND	72.2	49.9-110			
2-Chlorophenol	2400	360	ug/kg dry	3700	ND	65.5	35.7-110			
2-Nitrophenol	2450	360	ug/kg dry	3700	ND	66.8	50-150			
4-Chloro-3-methylphenol	2860	730	ug/kg dry	3700	ND	78.1	41.5-121			

Semivolatile Organic Compounds by GCMS	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B200288 - 3550_B - EPA 8270C										
Matrix Spike (B200288-MS1)	**Source: 22G0933-03**		Prepared: 07/15/2022 Analyzed: 07/16/2022							
4-Nitrophenol	3050	1800	ug/kg dry	3700	ND	83.2	32.1-121			
Acenaphthene	2860	360	ug/kg dry	3700	ND	77.9	39.8-110			
Acenaphthylene	2960	360	ug/kg dry	3700	ND	80.8	29-121			
Anthracene	2740	360	ug/kg dry	3700	ND	74.7	29-110			
Bis(2-chloroethoxy)methane	2500	360	ug/kg dry	3700	ND	68.3	50-150			
Chrysene	2890	360	ug/kg dry	3700	32.8	78.0	21-125			
Di-n-butyl phthalate	2930	360	ug/kg dry	3700	ND	80.0	50-150			
Hexachlorobenzene	2860	360	ug/kg dry	3700	ND	78.0	50-150			
Naphthalene	2610	360	ug/kg dry	3700	ND	71.2	24-125			
N-Nitrosodi-n-propylamine	2440	360	ug/kg dry	3700	ND	66.6	37.4-110			
Pentachlorophenol	2590	1800	ug/kg dry	3700	ND	70.6	10.6-110			
Phenol	2470	360	ug/kg dry	3700	ND	67.4	43.3-110			
Pyrene	2920	360	ug/kg dry	3700	53.1	78.2	23-113			
Surrogate: 2,4,6-Tribromophenol	*6000*		ug/kg dry	*7300*		*81.3*	*13.9-145*			
Surrogate: 2-Fluorobiphenyl	*2600*		ug/kg dry	*3700*		*71.6*	*28.1-110*			
Surrogate: 2-Fluorophenol	*4100*		ug/kg dry	*7300*		*56.6*	*24.5-110*			
Surrogate: Nitrobenzene-d5	*2400*		ug/kg dry	*3700*		*65.9*	*33.6-110*			
Surrogate: Phenol-d5	*5400*		ug/kg dry	*7300*		*74.3*	*29.6-110*			
Surrogate: Terphenyl-d14	*2900*		ug/kg dry	*3700*		*79.8*	*35.8-121*			
Matrix Spike Dup (B200288-MSD1)	**Source: 22G0933-03**		Prepared: 07/15/2022 Analyzed: 07/16/2022							
1,2,4-Trichlorobenzene	2570	370	ug/kg dry	3700	ND	69.2	33.9-110	1.80	30	
1,4-Dichlorobenzene	2300	370	ug/kg dry	3700	ND	61.9	10-134	4.18	30	
2,4,6-Trichlorophenol	2930	370	ug/kg dry	3700	ND	78.8	50-150	0.612	30	
2,4-Dichlorophenol	2750	370	ug/kg dry	3700	ND	74.1	50-150	0.463	30	
2,4-Dinitrotoluene	2690	370	ug/kg dry	3700	ND	72.3	49.9-110	1.51	30	
2-Chlorophenol	2470	370	ug/kg dry	3700	ND	66.4	35.7-110	2.79	30	
2-Nitrophenol	2490	370	ug/kg dry	3700	ND	67.1	50-150	1.76	30	
4-Chloro-3-methylphenol	2940	740	ug/kg dry	3700	ND	79.0	41.5-121	2.53	30	

Semivolatile Organic Compounds by GCMS	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B200288 - 3550_B - EPA 8270C										
Matrix Spike Dup (B200288-MSD1)	**Source: 22G0933-03**		Prepared: 07/15/2022 Analyzed: 07/16/2022							
4-Nitrophenol	3170	1800	ug/kg dry	3700	ND	85.2	32.1-121	3.69	30	
Acenaphthene	2910	370	ug/kg dry	3700	ND	78.3	39.8-110	1.93	30	
Acenaphthylene	2970	370	ug/kg dry	3700	ND	79.9	29-121	0.313	30	
Anthracene	2740	370	ug/kg dry	3700	ND	73.7	29-110	0.0457	30	
Bis(2-chloroethoxy)methane	2560	370	ug/kg dry	3700	ND	68.9	50-150	2.36	30	
Chrysene	2870	370	ug/kg dry	3700	32.8	76.2	21-125	0.950	30	
Di-n-butyl phthalate	2880	370	ug/kg dry	3700	ND	77.5	50-150	1.69	30	
Hexachlorobenzene	2840	370	ug/kg dry	3700	ND	76.4	50-150	0.701	30	
Naphthalene	2570	370	ug/kg dry	3700	ND	69.2	24-125	1.47	30	
N-Nitrosodi-n-propylamine	2430	370	ug/kg dry	3700	ND	65.4	37.4-110	0.451	30	
Pentachlorophenol	2660	1800	ug/kg dry	3700	ND	71.5	10.6-110	2.58	30	
Phenol	2470	370	ug/kg dry	3700	ND	66.3	43.3-110	0.292	30	
Pyrene	2920	370	ug/kg dry	3700	53.1	77.2	23-113	0.0683	30	
Surrogate: 2,4,6-Tribromophenol	*5900*		ug/kg dry	*7400*		*80.0*	*13.9-145*			
Surrogate: 2-Fluorobiphenyl	*2700*		ug/kg dry	*3700*		*73.1*	*28.1-110*			
Surrogate: 2-Fluorophenol	*4400*		ug/kg dry	*7400*		*58.8*	*24.5-110*			
Surrogate: Nitrobenzene-d5	*2500*		ug/kg dry	*3700*		*66.5*	*33.6-110*			
Surrogate: Phenol-d5	*5400*		ug/kg dry	*7400*		*73.0*	*29.6-110*			
Surrogate: Terphenyl-d14	*2900*		ug/kg dry	*3700*		*76.7*	*35.8-121*			

Semivolatile Organic Compounds TCLP by GCMS	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B200204 - 3510_TB - EPA 8270C										
Blank (B200204-BLK1)			Prepared: 07/14/2022 Analyzed: 07/15/2022							
1,4-Dichlorobenzene	<0.050	0.050	mg/L							
2,4,5-Trichlorophenol	<0.050	0.050	mg/L							
2,4,6-Trichlorophenol	<0.050	0.050	mg/L							
2,4-Dinitrotoluene	<0.050	0.050	mg/L							
2-Methylphenol	<0.050	0.050	mg/L							
3/4-Methylphenol	<0.050	0.050	mg/L							
Hexachlorobenzene	<0.050	0.050	mg/L							
Hexachlorobutadiene	<0.050	0.050	mg/L							
Hexachloroethane	<0.050	0.050	mg/L							

Semivolatile Organic Compounds TCLP by GCMS	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B200204 - 3510_TB - EPA 8270C										
Blank (B200204-BLK1)			Prepared: 07/14/2022 Analyzed: 07/15/2022							
Nitrobenzene	<0.050	0.050	mg/L							
Pentachlorophenol	<0.25	0.25	mg/L							
Pyridine	<0.050	0.050	mg/L							
Total Cresol	<0.050	0.050	mg/L							
Surrogate: 2,4,6-Tribromophenol	*0.52*		mg/L	*1.0*		*52.2*	*47.8-138*			
Surrogate: 2-Fluorobiphenyl	*0.14*		mg/L	*0.50*		*28.6*	*10-110*			
Surrogate: 2-Fluorophenol	*0.30*		mg/L	*1.0*		*30.1*	*10-110*			
Surrogate: Nitrobenzene-d5	*0.18*		mg/L	*0.50*		*35.8*	*10-110*			
Surrogate: Phenol-d5	*0.36*		mg/L	*1.0*		*36.2*	*43.7-126*			*S2*
Surrogate: Terphenyl-d14	*0.34*		mg/L	*0.50*		*67.3*	*33.7-136*			
Blank (B200204-BLK2)			Prepared: 07/14/2022 Analyzed: 07/15/2022							
1,4-Dichlorobenzene	<0.050	0.050	mg/L							
2,4,5-Trichlorophenol	<0.050	0.050	mg/L							
2,4,6-Trichlorophenol	<0.050	0.050	mg/L							
2,4-Dinitrotoluene	<0.050	0.050	mg/L							
2-Methylphenol	<0.050	0.050	mg/L							
3/4-Methylphenol	<0.050	0.050	mg/L							
Hexachlorobenzene	<0.050	0.050	mg/L							
Hexachlorobutadiene	<0.050	0.050	mg/L							
Hexachloroethane	<0.050	0.050	mg/L							
Nitrobenzene	<0.050	0.050	mg/L							
Pentachlorophenol	<0.25	0.25	mg/L							
Pyridine	<0.050	0.050	mg/L							
Total Cresol	<0.050	0.050	mg/L							
Surrogate: 2,4,6-Tribromophenol	*0.58*		mg/L	*1.0*		*58.1*	*47.8-138*			
Surrogate: 2-Fluorobiphenyl	*0.22*		mg/L	*0.50*		*43.2*	*10-110*			
Surrogate: 2-Fluorophenol	*0.44*		mg/L	*1.0*		*44.4*	*10-110*			
Surrogate: Nitrobenzene-d5	*0.24*		mg/L	*0.50*		*47.6*	*10-110*			
Surrogate: Phenol-d5	*0.49*		mg/L	*1.0*		*49.2*	*43.7-126*			
Surrogate: Terphenyl-d14	*0.31*		mg/L	*0.50*		*61.3*	*33.7-136*			
Blank (B200204-BLK3)			Prepared: 07/14/2022 Analyzed: 07/15/2022							
1,4-Dichlorobenzene	<0.050	0.050	mg/L							
2,4,5-Trichlorophenol	<0.050	0.050	mg/L							
2,4,6-Trichlorophenol	<0.050	0.050	mg/L							
2,4-Dinitrotoluene	<0.050	0.050	mg/L							
2-Methylphenol	<0.050	0.050	mg/L							
3/4-Methylphenol	<0.050	0.050	mg/L							
Hexachlorobenzene	<0.050	0.050	mg/L							
Hexachlorobutadiene	<0.050	0.050	mg/L							
Hexachloroethane	<0.050	0.050	mg/L							
Nitrobenzene	<0.050	0.050	mg/L							
Pentachlorophenol	<0.25	0.25	mg/L							
Pyridine	<0.050	0.050	mg/L							
Total Cresol	<0.050	0.050	mg/L							

Semivolatile Organic Compounds TCLP by GCMS	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B200204 - 3510_TB - EPA 8270C										
Blank (B200204-BLK3)			Prepared: 07/14/2022 Analyzed: 07/15/2022							
Surrogate: 2,4,6-Tribromophenol	*0.30*		mg/L	*1.0*		*30.4*	*47.8-138*			*S2*
Surrogate: 2-Fluorobiphenyl	*0.075*		mg/L	*0.50*		*15.0*	*10-110*			
Surrogate: 2-Fluorophenol	*0.17*		mg/L	*1.0*		*16.8*	*10-110*			
Surrogate: Nitrobenzene-d5	*0.093*		mg/L	*0.50*		*18.7*	*10-110*			
Surrogate: Phenol-d5	*0.20*		mg/L	*1.0*		*20.3*	*43.7-126*			*S2*
Surrogate: Terphenyl-d14	*0.23*		mg/L	*0.50*		*46.3*	*33.7-136*			
Blank (B200204-BLK4)			Prepared: 07/14/2022 Analyzed: 07/15/2022							
1,4-Dichlorobenzene	<0.050	0.050	mg/L							
2,4,5-Trichlorophenol	<0.050	0.050	mg/L							
2,4,6-Trichlorophenol	<0.050	0.050	mg/L							
2,4-Dinitrotoluene	<0.050	0.050	mg/L							
2-Methylphenol	<0.050	0.050	mg/L							
3/4-Methylphenol	<0.050	0.050	mg/L							
Hexachlorobenzene	<0.050	0.050	mg/L							
Hexachlorobutadiene	<0.050	0.050	mg/L							
Hexachloroethane	<0.050	0.050	mg/L							
Nitrobenzene	<0.050	0.050	mg/L							
Pentachlorophenol	<0.25	0.25	mg/L							
Pyridine	<0.050	0.050	mg/L							
Total Cresol	<0.050	0.050	mg/L							
Surrogate: 2,4,6-Tribromophenol	*0.56*		mg/L	*1.0*		*56.2*	*47.8-138*			
Surrogate: 2-Fluorobiphenyl	*0.13*		mg/L	*0.50*		*26.9*	*10-110*			
Surrogate: 2-Fluorophenol	*0.25*		mg/L	*1.0*		*24.6*	*10-110*			
Surrogate: Nitrobenzene-d5	*0.13*		mg/L	*0.50*		*26.8*	*10-110*			
Surrogate: Phenol-d5	*0.28*		mg/L	*1.0*		*28.4*	*43.7-126*			*S2*
Surrogate: Terphenyl-d14	*0.30*		mg/L	*0.50*		*59.4*	*33.7-136*			
Blank (B200204-BLK5)			Prepared: 07/14/2022 Analyzed: 07/15/2022							
1,4-Dichlorobenzene	<0.050	0.050	mg/L							
2,4,5-Trichlorophenol	<0.050	0.050	mg/L							
2,4,6-Trichlorophenol	<0.050	0.050	mg/L							
2,4-Dinitrotoluene	<0.050	0.050	mg/L							
2-Methylphenol	<0.050	0.050	mg/L							
3/4-Methylphenol	<0.050	0.050	mg/L							
Hexachlorobenzene	<0.050	0.050	mg/L							
Hexachlorobutadiene	<0.050	0.050	mg/L							
Hexachloroethane	<0.050	0.050	mg/L							
Nitrobenzene	<0.050	0.050	mg/L							
Pentachlorophenol	<0.25	0.25	mg/L							
Pyridine	<0.050	0.050	mg/L							
Total Cresol	<0.050	0.050	mg/L							
Surrogate: 2,4,6-Tribromophenol	*0.78*		mg/L	*1.0*		*78.2*	*47.8-138*			
Surrogate: 2-Fluorobiphenyl	*0.27*		mg/L	*0.50*		*53.2*	*10-110*			
Surrogate: 2-Fluorophenol	*0.52*		mg/L	*1.0*		*51.8*	*10-110*			
Surrogate: Nitrobenzene-d5	*0.30*		mg/L	*0.50*		*59.0*	*10-110*			

Semivolatile Organic Compounds TCLP by GCMS	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B200204 - 3510_TB - EPA 8270C										
Blank (B200204-BLK5)			Prepared: 07/14/2022 Analyzed: 07/15/2022							
Surrogate: Phenol-d5	*0.61*		mg/L	*1.0*		*60.8*	*43.7-126*			
Surrogate: Terphenyl-d14	*0.38*		mg/L	*0.50*		*75.5*	*33.7-136*			
LCS (B200204-BS1)			Prepared: 07/14/2022 Analyzed: 07/15/2022							
1,4-Dichlorobenzene	0.228	0.10	mg/L	1.0		22.8	10-100			
2,4,5-Trichlorophenol	0.561	0.10	mg/L	1.0		56.1	31.6-113			
2,4,6-Trichlorophenol	0.549	0.10	mg/L	1.0		54.9	28.2-108			
2,4-Dinitrotoluene	0.532	0.10	mg/L	1.0		53.2	32.4-114			
2-Methylphenol	0.470	0.10	mg/L	1.0		47.0	25.4-89.6			
3/4-Methylphenol	1.05	0.10	mg/L	2.0		52.3	24.8-94.2			
Hexachlorobenzene	0.552	0.10	mg/L	1.0		55.2	33.9-115			
Hexachlorobutadiene	0.193	0.10	mg/L	1.0		19.3	18.4-79.1			
Hexachloroethane	0.196	0.10	mg/L	1.0		19.6	10-97.2			
Nitrobenzene	0.437	0.10	mg/L	1.0		43.7	10.9-112			
Pentachlorophenol	0.642	0.50	mg/L	1.0		64.2	21.3-103			
Pyridine	0.280	0.10	mg/L	1.0		28.0	10-84.8			
Surrogate: 2,4,6-Tribromophenol	*1.2*		mg/L	*2.0*		*58.3*	*47.8-138*			
Surrogate: 2-Fluorobiphenyl	*0.34*		mg/L	*1.0*		*33.9*	*10-110*			
Surrogate: 2-Fluorophenol	*0.72*		mg/L	*2.0*		*36.0*	*10-110*			
Surrogate: Nitrobenzene-d5	*0.41*		mg/L	*1.0*		*41.4*	*10-110*			
Surrogate: Phenol-d5	*0.85*		mg/L	*2.0*		*42.5*	*43.7-126*			
Surrogate: Terphenyl-d14	*0.56*		mg/L	*1.0*		*56.1*	*33.7-136*			
Matrix Spike (B200204-MS1)	**Source: 22G0305-01**		Prepared: 07/14/2022 Analyzed: 07/15/2022							
1,4-Dichlorobenzene	0.159	0.050	mg/L	0.50	ND	31.8	10-110			
2,4,5-Trichlorophenol	0.314	0.050	mg/L	0.50	ND	62.9	50-150			
2,4,6-Trichlorophenol	0.314	0.050	mg/L	0.50	ND	62.9	50-150			
2,4-Dinitrotoluene	0.283	0.050	mg/L	0.50	ND	56.5	22.6-110			
2-Methylphenol	0.258	0.050	mg/L	0.50	ND	51.6	50-150			
3/4-Methylphenol	0.618	0.050	mg/L	1.0	0.0473	57.1	50-150			
Hexachlorobenzene	0.301	0.050	mg/L	0.50	ND	60.2	50-150			
Hexachlorobutadiene	0.146	0.050	mg/L	0.50	ND	29.3	10-110			
Hexachloroethane	0.148	0.050	mg/L	0.50	ND	29.6	30-123			M2
Nitrobenzene	0.233	0.050	mg/L	0.50	ND	46.7	25-190			
Pentachlorophenol	0.345	0.25	mg/L	0.50	ND	69.0	10-110			
Pyridine	0.150	0.050	mg/L	0.50	ND	29.9	10-120			
Surrogate: 2,4,6-Tribromophenol	*0.67*		mg/L	*1.0*		*67.0*	*47.8-138*			
Surrogate: 2-Fluorobiphenyl	*0.21*		mg/L	*0.50*		*41.6*	*10-110*			
Surrogate: 2-Fluorophenol	*0.39*		mg/L	*1.0*		*39.2*	*10-110*			
Surrogate: Nitrobenzene-d5	*0.22*		mg/L	*0.50*		*43.5*	*10-110*			
Surrogate: Phenol-d5	*0.48*		mg/L	*1.0*		*47.7*	*43.7-126*			
Surrogate: Terphenyl-d14	*0.29*		mg/L	*0.50*		*58.8*	*33.7-136*			

Definitions

% (by wt.):	Percent by Weight
°C:	Degrees Celsius
°F:	Degrees Fahrenheit
B:	Analyte found in the blank at or above the method acceptance criteria.
B2:	Target analyte is detected in the method blank at or above the reporting limit. The sample concentration is 10 times that found in the blank.
DF:	Dilution Factor representing the amount the sample was diluted during analysis and may not represent preparation factors.
E:	Estimated Result.
I1:	Internal standard was outside of acceptance limits.
M:	Matrix interference is present.
M2:	Matrix spike recovery is outside of acceptance limits, biased low.
M3:	Matrix spike recovery is outside of acceptance limits. The post digestion spike recovery is acceptable.
M5:	Post digestion spike is outside of acceptance limits.
MDL:	Minimum Detection Limit
mg/L:	Milligrams per Liter
NA:	Not Applicable
Q:	One or more quality control criteria failed.
R1:	Duplicate RPD is outside of acceptance limits.
RL:	Reporting Limit
RPD:	Relative Percent Difference
S:	Spike recovery outside of acceptance limits.
S.U.:	Standard Units
S2:	Surrogate recovery is below acceptance limits.
S3:	Surrogate was diluted out.
ug/L:	Micrograms per Liter
ug/mL:	Micrograms per Milliliter

Cooler Receipt Log

Cooler ID: Default Cooler Temp: 10.3°C

Cooler Inspection Checklist

Ice Present or not required?	Yes	Shipping containers sealed or not required?	Yes
Custody seals intact or not required?	Yes	Chain of Custody (COC) Present?	Yes
COC includes customer information?	Yes	Relinquished and received signature on COC?	Yes
Sample collector identified on COC?	Yes	Sample type identified on COC?	Yes
Correct type of Containers Received	Yes	Correct number of containers listed on COC?	Yes
Containers Intact?	Yes	COC includes requested analyses?	Yes
Enough sample volume for indicated tests received?	Yes	Sample labels match COC (Name, Date & Time?)	Yes
Samples arrived within hold time?	Yes	Correct preservatives on COC or not required?	Yes
Chemical preservations checked or not required?	Yes	Preservation checks meet method requirements?	Yes
VOA vials have zero headspace, or not recd.?	Yes		

Report Comments

The data and information on this, and other accompanying documents, represents only the sample(s) analyzed. This report is incomplete unless all pages indicated in the footnote are present and an authorized signature is included. ***The services were provided under and subject to Microbac's standard terms and conditions which can be located and reviewed at <https://www.microbac.com/standard-terms-conditions>.***

Reviewed and Approved By:

Ron Misiunas
Lab Director
ron.misiunas@microbac.com
07/21/2022 07:55

MICROBAC®

CHAIN OF CUSTODY RECORD

Number **166249**

Instructions on back

Lab Report Address

Client Name: Environmental Restoration LLC
Address: 745 East Street
City, State, Zip: Morris IL 60450
Contact: Ron Brown
Telephone No.: 573-645-2234

Invoice Address

Client Name: E.R.L.L.C.
Address: 1666 Fabick Dr
City, State, Zip: Fenton MO, 63026
Contact: Ken Braig
Telephone No.: 636-485-0537

Turnaround Time

☐ Routine (5 to 7 business days)
☐ RUSH* (notify lab)
*Expedite 4 Day T.A.T.
(needed by)

Report Type

☐ Results Only ☐ Level 1 ☐ Level 2 ☐ Level 3 ☐ Level 4 ☐ EDD

TO BE COMPLETED BY MICROBAC

Temperature Upon Receipt (°C) 10.3 0.0 10.3
Therm ID #4
Holding Time
Samples Received on Ice? ☑ Yes ☐ No ☐ N/A
Custody Seals Intact? ☐ Yes ☐ No ☑ N/A

Send Report via: ☐ Mail ☐ Fax ☑ e-mail (address) k.braig@erllc.com r.brown@erllc.com

Send Invoice via: ☐ Mail ☐ Fax ☑ e-mail (address)

Project: Morris Battery MF5-25
Location: Morris IL.
PO No.: MF5-25
Compliance Monitoring? ☐ Yes ☐ No ☐ Agency/Program

Sampled by (PRINT): K. Braig
Sampler Signature:
Sampler Phone No.: 636-485-0537

* Matrix Types: Soil/Solid (S), Sludge, Oil, Wipe, Drinking Water (DW), Groundwater (GW), Surface Water (SW), Waste Water (WW), Other (specify)

** Preservative Types: (1) HNO3, (2) H2SO4, (3) HCl, (4) NaOH, (5) Zinc Acetate, (6) Methanol, (7) Sodium Bisulfate, (8) Sodium Thiosulfate, (9) Hexane, (U) Unpreserved

REQUESTED ANALYSIS

Client Sample ID	Date Collected	Time Collected	No. of Containers	Matrix	Grab / Comp	Preservative Types **	Ignitability Water Reactive Test	pH Total Phenol	Total CN- Total Sulfide	PCB's by % solids % water	Part Filter	TCLP (Vol, SVOA, Metals)	Total Metals Vol. SVOA	Total Lithium	Total Nickel		Additional Notes
MF5-25-BLDG COMP	7-12-22	0800	2	S	C	U	X	X	X	X	X	X	X	X	X		22G0657 *Expedite - 4 Day T.A.T. -01/02

Possible Hazard Identification ☑ Hazardous ☐ Non-Hazardous ☐ Radioactive

Sample Disposition ☑ Dispose as appropriate ☐ Return ☐ Archive

Comments
email invoice to ADropbox@erllc.com

Relinquished By (signature)	Date/Time	Received By (signature)	Date/Time
	7-12 / 9:42		7/12/22 09:42
	7/12/22 11:34		
			7/12/22 1132

Environmental Restoration - Fenton, MO
PM: Ron Misiunas
22G0657

rev.12/26/2017

Microbac Laboratories, Inc. - Chicagoland

CERTIFICATE OF ANALYSIS

22E1596

Project Description

Morris Lithium / Morris, IL

For:

Steve Letany

Environmental Restoration, LLC.

1666 Fabick DR

Fenton, MO 63026

Ron Misiunas

Lab Director

Monday, June 27, 2022

Please find enclosed the analytical results for the samples you submitted to Microbac Laboratories. Review and compilation of your report was completed by Microbac Laboratories, Inc. - Chicagoland. If you have any questions, comments, or require further assistance regarding this report, please contact your service representative listed above.

I certify that all test results meet all of the requirements of the accrediting authority listed within this report. Analytical results are reported on a 'as received' basis unless specified otherwise. Analytical results for solids with units ending in (dry) are reported on a dry weight basis. A statement of uncertainty for each analysis is available upon request. This laboratory report shall not be reproduced, except in full, without the written approval of Microbac Laboratories. The reported results are related only to the samples analyzed as received.

Microbac Laboratories, Inc.

250 West 84th Drive | Merrillville, IN 46410 | 219.769.8378 p | www.microbac.com

Microbac Laboratories, Inc. - Chicagoland

CERTIFICATE OF ANALYSIS

22E1596

Environmental Restoration, LLC.

Steve Letany
1666 Fabick DR
Fenton, MO 63026

Project Name: Morris Lithium / Morris, IL

Project / PO Number: MF5-25
Received: 05/25/2022
Reported: 06/27/2022

Case Narrative

This report was revised on 6/27/22 to report the PCBs on a dry-weight basis per client request.

Water Reactivity Results:

MF5-25-F6 = Negative
MF5-25-4E = Negative
MF5-25-D4 = Negative
MF5-25-Row2 = Negative
MF5-25-A1 = Negative

Sample Summary Report

Sample Name	Laboratory ID	Client Matrix	Sample Type	Sample Begin	Sample Taken	Lab Received
MF5-25-F6	22E1596-01	Solid			05/24/22 14:20	05/25/22 08:25
MF5-25-F6	22E1596-02	Solid			05/24/22 14:20	05/25/22 08:25
MF5-25-4E	22E1596-03	Solid			05/24/22 14:45	05/25/22 08:25
MF5-25-4E	22E1596-04	Solid			05/24/22 14:45	05/25/22 08:25
MF5-25-D4	22E1596-05	Solid			05/24/22 15:05	05/25/22 08:25
MF5-25-D4	22E1596-06	Solid			05/24/22 15:05	05/25/22 08:25
MF5-25-Row2	22E1596-07	Solid			05/24/22 15:30	05/25/22 08:25
MF5-25-Row2	22E1596-08	Solid			05/24/22 15:30	05/25/22 08:25
MF5-25-A1	22E1596-09	Solid			05/24/22 15:45	05/25/22 08:25
MF5-25-A1	22E1596-10	Solid			05/24/22 15:45	05/25/22 08:25

MICROBAC®

Microbac Laboratories, Inc. - Chicagoland

CERTIFICATE OF ANALYSIS

22E1596

Analytical Testing Parameters

Client Sample ID: MF5-25-F6
Sample Matrix: Solid
Lab Sample ID: 22E1596-01
Collection Date: 05/24/2022 14:20

Inorganics Total	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
-/EPA 9038								
Sulfate	**1300**	400	mg/Kg	1	**H**	06/22/22 1740	06/22/22 2030	EF
EPA 9045D								
pH	**10.7**	2.00	S.U.	1		05/26/22 1026	05/26/22 1153	MRS
Temperature	**20**		°C	1			05/26/22 1153	MRS
SM 2540 G-2011								
Percent Solids	**79**	0.10	% (by wt.)	1		05/26/22 0827	05/26/22 1443	MRS
Solid CN Distillation/EPA 9012B								
Cyanide, Total	**1.6**	0.36	mg/Kg dry	1	**M2, M3, R1**	05/26/22 0950	05/26/22 1414	ABG
SW-846 1010A/ASTM D92-90 Modified								
Ignitability	**> 170**	30.0	°F	1			06/01/22 1936	EF
SW-846 9030B MOD/EPA 9030B Modified								
Sulfide	**300**	9.5	mg/Kg	20		05/31/22 1704	05/31/22 2255	EF
SW-846 9066/EPA 9066								
Phenolics, Total Recoverable	**12**	0.49	mg/Kg	1		05/26/22 1316	05/26/22 1602	ABG
SW-846 9095B/EPA 9095B								
Paint Filter	**No Free Liquids**		NA	1		05/25/22 2103	05/25/22 2108	EF

Metals Total by CVAA	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
SW-846 7471/EPA 7471B								
Mercury	<0.051	0.051	mg/Kg dry	1		05/31/22 1010	06/01/22 1439	KMD

Metals Total by ICP	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
SW846 3050B/EPA 6010C								
Arsenic	<0.59	0.59	mg/Kg dry	1		05/27/22 0610	06/02/22 2029	KMD
Barium	**22**	0.24	mg/Kg dry	1		05/27/22 0610	06/02/22 2029	KMD
Cadmium	**10000**	2.4	mg/Kg dry	10		05/27/22 0610	06/03/22 1303	KMD
Chromium	**37**	0.24	mg/Kg dry	1		05/27/22 0610	06/02/22 2029	KMD
Lead	**27**	0.44	mg/Kg dry	1		05/27/22 0610	06/02/22 2029	KMD
Lithium	**960**	59	mg/Kg dry	10		05/27/22 0610	06/03/22 1303	KMD
Nickel	**1100**	0.59	mg/Kg dry	1		05/27/22 0610	06/02/22 2029	KMD
Selenium	<1.8	1.8	mg/Kg dry	1		05/27/22 0610	06/02/22 2029	KMD
Silver	<0.59	0.59	mg/Kg dry	1		05/27/22 0610	06/02/22 2029	KMD

Volatile Organic Compounds by GCMS	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
SW846 5035/EPA 8260B								
1,1,1,2-Tetrachloroethane	<13	13	ug/kg dry	1			05/27/22 1832	JBS
1,1,1-Trichloroethane	<6.3	6.3	ug/kg dry	1			05/27/22 1832	JBS
1,1,2,2-Tetrachloroethane	<6.3	6.3	ug/kg dry	1			05/27/22 1832	JBS
1,1,2-Trichloroethane	<6.3	6.3	ug/kg dry	1			05/27/22 1832	JBS

MICROBAC®

Microbac Laboratories, Inc. - Chicagoland

CERTIFICATE OF ANALYSIS

22E1596

Client Sample ID: MF5-25-F6
Sample Matrix: Solid
Lab Sample ID: 22E1596-01 **Collection Date:** 05/24/2022 14:20

Volatile Organic Compounds by GCMS	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
1,1-Dichloroethane	<6.3	6.3	ug/kg dry	1			05/27/22 1832	JBS
1,1-Dichloroethene	<6.3	6.3	ug/kg dry	1			05/27/22 1832	JBS
1,2-Dichloroethane	<6.3	6.3	ug/kg dry	1			05/27/22 1832	JBS
1,2-Dichloropropane	<6.3	6.3	ug/kg dry	1			05/27/22 1832	JBS
2-Butanone	<13	13	ug/kg dry	1			05/27/22 1832	JBS
2-Hexanone	<13	13	ug/kg dry	1			05/27/22 1832	JBS
4-Methyl-2-pentanone	<13	13	ug/kg dry	1			05/27/22 1832	JBS
Acetone	<63	63	ug/kg dry	1			05/27/22 1832	JBS
Acrolein	<130	130	ug/kg dry	1			05/27/22 1832	JBS
Acrylonitrile	<130	130	ug/kg dry	1			05/27/22 1832	JBS
Benzene	<6.3	6.3	ug/kg dry	1			05/27/22 1832	JBS
Bromodichloromethane	<6.3	6.3	ug/kg dry	1			05/27/22 1832	JBS
Bromoform	<6.3	6.3	ug/kg dry	1			05/27/22 1832	JBS
Bromomethane	<13	13	ug/kg dry	1			05/27/22 1832	JBS
Carbon Disulfide	<13	13	ug/kg dry	1			05/27/22 1832	JBS
Carbon tetrachloride	<6.3	6.3	ug/kg dry	1			05/27/22 1832	JBS
Chlorobenzene	<6.3	6.3	ug/kg dry	1			05/27/22 1832	JBS
Chloroethane	<13	13	ug/kg dry	1			05/27/22 1832	JBS
Chloroform	<6.3	6.3	ug/kg dry	1			05/27/22 1832	JBS
Chloromethane	<13	13	ug/kg dry	1			05/27/22 1832	JBS
cis-1,2-Dichloroethene	<6.3	6.3	ug/kg dry	1			05/27/22 1832	JBS
cis-1,3-Dichloropropene	<6.3	6.3	ug/kg dry	1			05/27/22 1832	JBS
Dibromochloromethane	<6.3	6.3	ug/kg dry	1			05/27/22 1832	JBS
Ethylbenzene	<6.3	6.3	ug/kg dry	1			05/27/22 1832	JBS
m,p-Xylene	<6.3	6.3	ug/kg dry	1			05/27/22 1832	JBS
Methylene chloride	<25	25	ug/kg dry	1			05/27/22 1832	JBS
Methyl-t-Butyl Ether	<6.3	6.3	ug/kg dry	1			05/27/22 1832	JBS
o-Xylene	<6.3	6.3	ug/kg dry	1			05/27/22 1832	JBS
Styrene	<6.3	6.3	ug/kg dry	1			05/27/22 1832	JBS
Tetrachloroethene	<6.3	6.3	ug/kg dry	1			05/27/22 1832	JBS
Toluene	<6.3	6.3	ug/kg dry	1			05/27/22 1832	JBS
trans-1,2-Dichloroethene	<6.3	6.3	ug/kg dry	1			05/27/22 1832	JBS
trans-1,3-Dichloropropene	<6.3	6.3	ug/kg dry	1			05/27/22 1832	JBS
Trichloroethene	<6.3	6.3	ug/kg dry	1			05/27/22 1832	JBS
Trichlorofluoromethane	<13	13	ug/kg dry	1			05/27/22 1832	JBS
Vinyl Acetate	<13	13	ug/kg dry	1			05/27/22 1832	JBS
Vinyl chloride	<13	13	ug/kg dry	1			05/27/22 1832	JBS
Total 1,2-Dichloroethene	<6.3	6.3	ug/kg dry	1			05/27/22 1832	JBS
Total Xylenes	<6.3	6.3	ug/kg dry	1			05/27/22 1832	JBS
Surrogate: 1,2-Dichloroethane-d4	76.0	Limit: 51.7-162	% Rec	1			05/27/22 1832	JBS
Surrogate: 4-Bromofluorobenzene	78.4	Limit: 57.4-135	% Rec	1			05/27/22 1832	JBS
Surrogate: Dibromofluoromethane	67.8	Limit: 63.5-139	% Rec	1			05/27/22 1832	JBS
Surrogate: Toluene-d8	138	Limit: 66.6-143	% Rec	1			05/27/22 1832	JBS

MICROBAC®

Microbac Laboratories, Inc. - Chicagoland

CERTIFICATE OF ANALYSIS

22E1596

Client Sample ID: MF5-25-F6
Sample Matrix: Solid
Lab Sample ID: 22E1596-01 **Collection Date:** 05/24/2022 14:20

Semivolatile Organic Compounds by GC/ECD	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
SW846 3550B/EPA 8082A								
Aroclor 1016	<1200	1200	ug/kg dry	1		05/31/22 0942	05/31/22 2009	CLR
Aroclor 1221	<1200	1200	ug/kg dry	1		05/31/22 0942	05/31/22 2009	CLR
Aroclor 1232	<1200	1200	ug/kg dry	1		05/31/22 0942	05/31/22 2009	CLR
Aroclor 1242	<1200	1200	ug/kg dry	1		05/31/22 0942	05/31/22 2009	CLR
Aroclor 1248	<1200	1200	ug/kg dry	1		05/31/22 0942	05/31/22 2009	CLR
Aroclor 1254	<1200	1200	ug/kg dry	1		05/31/22 0942	05/31/22 2009	CLR
Aroclor 1260	<1200	1200	ug/kg dry	1		05/31/22 0942	05/31/22 2009	CLR
Aroclor 1262	<1200	1200	ug/kg dry	1		05/31/22 0942	05/31/22 2009	CLR
Aroclor 1268	<1200	1200	ug/kg dry	1		05/31/22 0942	05/31/22 2009	CLR
Total PCB's	<1200	1200	ug/kg dry	1		05/31/22 0942	05/31/22 2009	CLR
Surrogate: Tetrachloro-m-xylene	180	Limit: 27.6-126	% Rec	1	**S1**	05/31/22 0942	05/31/22 2009	CLR
Surrogate: Decachlorobiphenyl	100	Limit: 25.2-136	% Rec	1		05/31/22 0942	05/31/22 2009	CLR

Semivolatile Organic Compounds by GCMS	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
SW846 3550B/EPA 8270C								
1,2,4-Trichlorobenzene	<12000	12000	ug/kg dry	1		06/01/22 1253	06/08/22 1408	CLR
1,2-Dichlorobenzene	<12000	12000	ug/kg dry	1		06/01/22 1253	06/08/22 1408	CLR
1,2-Diphenyl-hydrazine	<12000	12000	ug/kg dry	1		06/01/22 1253	06/08/22 1408	CLR
1,3-Dichlorobenzene	<12000	12000	ug/kg dry	1		06/01/22 1253	06/08/22 1408	CLR
1,4-Dichlorobenzene	<12000	12000	ug/kg dry	1		06/01/22 1253	06/08/22 1408	CLR
2,2´-oxybis(1-chloropropane)	<12000	12000	ug/kg dry	1		06/01/22 1253	06/08/22 1408	CLR
2,4,5-Trichlorophenol	<12000	12000	ug/kg dry	1		06/01/22 1253	06/08/22 1408	CLR
2,4,6-Trichlorophenol	<12000	12000	ug/kg dry	1		06/01/22 1253	06/08/22 1408	CLR
2,4-Dichlorophenol	<12000	12000	ug/kg dry	1		06/01/22 1253	06/08/22 1408	CLR
2,4-Dimethylphenol	<12000	12000	ug/kg dry	1		06/01/22 1253	06/08/22 1408	CLR
2,4-Dinitrophenol	<60000	60000	ug/kg dry	1		06/01/22 1253	06/08/22 1408	CLR
2,4-Dinitrotoluene	<12000	12000	ug/kg dry	1		06/01/22 1253	06/08/22 1408	CLR
2,6-Dichlorophenol	<12000	12000	ug/kg dry	1		06/01/22 1253	06/08/22 1408	CLR
2,6-Dinitrotoluene	<12000	12000	ug/kg dry	1		06/01/22 1253	06/08/22 1408	CLR
2-Chloronaphthalene	<12000	12000	ug/kg dry	1		06/01/22 1253	06/08/22 1408	CLR
2-Chlorophenol	<12000	12000	ug/kg dry	1		06/01/22 1253	06/08/22 1408	CLR
2-Methylnaphthalene	<12000	12000	ug/kg dry	1		06/01/22 1253	06/08/22 1408	CLR
2-Methylphenol	<12000	12000	ug/kg dry	1		06/01/22 1253	06/08/22 1408	CLR
2-Nitroaniline	<60000	60000	ug/kg dry	1		06/01/22 1253	06/08/22 1408	CLR
2-Nitrophenol	<12000	12000	ug/kg dry	1		06/01/22 1253	06/08/22 1408	CLR
3,3´-Dichlorobenzidine	<60000	60000	ug/kg dry	1		06/01/22 1253	06/08/22 1408	CLR
3/4-Methylphenol	<12000	12000	ug/kg dry	1		06/01/22 1253	06/08/22 1408	CLR
3-Nitroaniline	<12000	12000	ug/kg dry	1		06/01/22 1253	06/08/22 1408	CLR
4,6-Dinitro-2-methylphenol	<60000	60000	ug/kg dry	1		06/01/22 1253	06/08/22 1408	CLR
4-Bromophenyl phenyl ether	<12000	12000	ug/kg dry	1		06/01/22 1253	06/08/22 1408	CLR
4-Chloro-3-methylphenol	<25000	25000	ug/kg dry	1		06/01/22 1253	06/08/22 1408	CLR

Client Sample ID: MF5-25-F6
Sample Matrix: Solid
Lab Sample ID: 22E1596-01 **Collection Date:** 05/24/2022 14:20

Semivolatile Organic Compounds by GCMS	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
4-Chloroaniline	<12000	12000	ug/kg dry	1		06/01/22 1253	06/08/22 1408	CLR
4-Chlorophenyl phenyl ether	<12000	12000	ug/kg dry	1		06/01/22 1253	06/08/22 1408	CLR
4-Nitroaniline	<60000	60000	ug/kg dry	1		06/01/22 1253	06/08/22 1408	CLR
4-Nitrophenol	<60000	60000	ug/kg dry	1		06/01/22 1253	06/08/22 1408	CLR
Acenaphthene	<12000	12000	ug/kg dry	1		06/01/22 1253	06/08/22 1408	CLR
Acenaphthylene	<12000	12000	ug/kg dry	1		06/01/22 1253	06/08/22 1408	CLR
Acetophenone	<12000	12000	ug/kg dry	1		06/01/22 1253	06/08/22 1408	CLR
Aniline	<12000	12000	ug/kg dry	1		06/01/22 1253	06/08/22 1408	CLR
Anthracene	<12000	12000	ug/kg dry	1		06/01/22 1253	06/08/22 1408	CLR
Benzidine	<60000	60000	ug/kg dry	1		06/01/22 1253	06/08/22 1408	CLR
Benzo[a]anthracene	<12000	12000	ug/kg dry	1		06/01/22 1253	06/08/22 1408	CLR
Benzo[a]pyrene	<12000	12000	ug/kg dry	1		06/01/22 1253	06/08/22 1408	CLR
Benzo[b]fluoranthene	<12000	12000	ug/kg dry	1		06/01/22 1253	06/08/22 1408	CLR
Benzo[g,h,i]perylene	<12000	12000	ug/kg dry	1		06/01/22 1253	06/08/22 1408	CLR
Benzo[k]fluoranthene	<12000	12000	ug/kg dry	1		06/01/22 1253	06/08/22 1408	CLR
Benzoic acid	<60000	60000	ug/kg dry	1		06/01/22 1253	06/08/22 1408	CLR
Benzyl alcohol	<25000	25000	ug/kg dry	1		06/01/22 1253	06/08/22 1408	CLR
Bis(2-chloroethoxy)methane	<12000	12000	ug/kg dry	1		06/01/22 1253	06/08/22 1408	CLR
Bis(2-chloroethyl)ether	<12000	12000	ug/kg dry	1		06/01/22 1253	06/08/22 1408	CLR
Bis(2-ethylhexyl)phthalate	<12000	12000	ug/kg dry	1		06/01/22 1253	06/08/22 1408	CLR
Butyl benzyl phthalate	<12000	12000	ug/kg dry	1		06/01/22 1253	06/08/22 1408	CLR
Carbazole	<12000	12000	ug/kg dry	1		06/01/22 1253	06/08/22 1408	CLR
Chrysene	<12000	12000	ug/kg dry	1		06/01/22 1253	06/08/22 1408	CLR
Dibenz[a,h]anthracene	<12000	12000	ug/kg dry	1		06/01/22 1253	06/08/22 1408	CLR
Dibenzofuran	<12000	12000	ug/kg dry	1		06/01/22 1253	06/08/22 1408	CLR
Diethyl phthalate	<12000	12000	ug/kg dry	1		06/01/22 1253	06/08/22 1408	CLR
Dimethyl phthalate	<12000	12000	ug/kg dry	1		06/01/22 1253	06/08/22 1408	CLR
Di-n-butyl phthalate	<12000	12000	ug/kg dry	1		06/01/22 1253	06/08/22 1408	CLR
Di-n-octyl phthalate	<12000	12000	ug/kg dry	1		06/01/22 1253	06/08/22 1408	CLR
Fluoranthene	<12000	12000	ug/kg dry	1		06/01/22 1253	06/08/22 1408	CLR
Fluorene	<12000	12000	ug/kg dry	1		06/01/22 1253	06/08/22 1408	CLR
Hexachlorobenzene	<12000	12000	ug/kg dry	1		06/01/22 1253	06/08/22 1408	CLR
Hexachlorobutadiene	<12000	12000	ug/kg dry	1		06/01/22 1253	06/08/22 1408	CLR
Hexachlorocyclopentadiene	<12000	12000	ug/kg dry	1		06/01/22 1253	06/08/22 1408	CLR
Hexachloroethane	<12000	12000	ug/kg dry	1		06/01/22 1253	06/08/22 1408	CLR
Indeno[1,2,3cd]pyrene	<12000	12000	ug/kg dry	1		06/01/22 1253	06/08/22 1408	CLR
Isophorone	<12000	12000	ug/kg dry	1		06/01/22 1253	06/08/22 1408	CLR
Naphthalene	<12000	12000	ug/kg dry	1		06/01/22 1253	06/08/22 1408	CLR
Nitrobenzene	<12000	12000	ug/kg dry	1		06/01/22 1253	06/08/22 1408	CLR
N-Nitrosodimethylamine	<12000	12000	ug/kg dry	1		06/01/22 1253	06/08/22 1408	CLR
N-Nitrosodi-n-propylamine	<12000	12000	ug/kg dry	1		06/01/22 1253	06/08/22 1408	CLR
N-Nitrosodiphenylamine	<12000	12000	ug/kg dry	1		06/01/22 1253	06/08/22 1408	CLR
Pentachlorophenol	<60000	60000	ug/kg dry	1		06/01/22 1253	06/08/22 1408	CLR

CERTIFICATE OF ANALYSIS

22E1596

Client Sample ID: MF5-25-F6
Sample Matrix: Solid
Lab Sample ID: 22E1596-01
Collection Date: 05/24/2022 14:20

Semivolatile Organic Compounds by GCMS	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
Phenanthrene	<12000	12000	ug/kg dry	1		06/01/22 1253	06/08/22 1408	CLR
Phenol	<12000	12000	ug/kg dry	1		06/01/22 1253	06/08/22 1408	CLR
Pyrene	<12000	12000	ug/kg dry	1		06/01/22 1253	06/08/22 1408	CLR
Pyridine	<12000	12000	ug/kg dry	1		06/01/22 1253	06/08/22 1408	CLR
Total Cresol	<12000	12000	ug/kg dry	1		06/01/22 1253	06/08/22 1408	CLR
Surrogate: 2,4,6-Tribromophenol	50.5	Limit: 13.9-145	% Rec	1		06/01/22 1253	06/08/22 1408	CLR
Surrogate: 2-Fluorobiphenyl	58.1	Limit: 28.1-110	% Rec	1		06/01/22 1253	06/08/22 1408	CLR
Surrogate: 2-Fluorophenol	47.6	Limit: 24.5-110	% Rec	1		06/01/22 1253	06/08/22 1408	CLR
Surrogate: Nitrobenzene-d5	51.8	Limit: 33.6-110	% Rec	1		06/01/22 1253	06/08/22 1408	CLR
Surrogate: Phenol-d5	57.7	Limit: 29.6-110	% Rec	1		06/01/22 1253	06/08/22 1408	CLR
Surrogate: Terphenyl-d14	59.0	Limit: 35.8-121	% Rec	1		06/01/22 1253	06/08/22 1408	CLR

MICROBAC®

Microbac Laboratories, Inc. - Chicagoland

CERTIFICATE OF ANALYSIS

22E1596

Client Sample ID: MF5-25-F6
Sample Matrix: Solid
Lab Sample ID: 22E1596-02 **Collection Date:** 05/24/2022 14:20

Metals TCLP by CVAA	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
SW-846 7470/EPA 7470A								
Mercury	<0.0025	0.0025	mg/L	1		06/01/22 1012	06/01/22 1343	KMD

Metals TCLP by ICP	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
SW846 3005A/EPA 6010C								
Arsenic	<0.050	0.050	mg/L	1	**T6**	06/01/22 1007	06/02/22 1840	KMD
Barium	<2.5	2.5	mg/L	1	**T6**	06/01/22 1007	06/02/22 1840	KMD
Cadmium	**3.3**	0.010	mg/L	1	**T6**	06/01/22 1007	06/02/22 1840	KMD
Chromium	<0.025	0.025	mg/L	1	**T6**	06/01/22 1007	06/02/22 1840	KMD
Lead	**0.061**	0.038	mg/L	1	**T6**	06/01/22 1007	06/02/22 1840	KMD
Selenium	<0.15	0.15	mg/L	1	**T6**	06/01/22 1007	06/02/22 1840	KMD
Silver	<0.050	0.050	mg/L	1	**T6**	06/01/22 1007	06/02/22 1840	KMD

Volatile Organic Compounds TCLP by GCMS	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
SW-846 8260B/EPA 8260B								
1,1-Dichloroethene	<0.050	0.050	mg/L	10			06/01/22 1219	JBS
1,2-Dichloroethane	<0.050	0.050	mg/L	10			06/01/22 1219	JBS
2-Butanone	<0.20	0.20	mg/L	10			06/01/22 1219	JBS
Benzene	<0.050	0.050	mg/L	10			06/01/22 1219	JBS
Carbon tetrachloride	<0.050	0.050	mg/L	10			06/01/22 1219	JBS
Chlorobenzene	<0.050	0.050	mg/L	10			06/01/22 1219	JBS
Chloroform	<0.050	0.050	mg/L	10			06/01/22 1219	JBS
Tetrachloroethene	<0.050	0.050	mg/L	10			06/01/22 1219	JBS
Trichloroethene	<0.050	0.050	mg/L	10			06/01/22 1219	JBS
Vinyl chloride	<0.020	0.020	mg/L	10			06/01/22 1219	JBS
Surrogate: 1,2-Dichloroethane-d4	99.6	Limit: 74.5-132	% Rec	10			06/01/22 1219	JBS
Surrogate: 4-Bromofluorobenzene	90.1	Limit: 80-120	% Rec	10			06/01/22 1219	JBS
Surrogate: Dibromofluoromethane	101	Limit: 80-120	% Rec	10			06/01/22 1219	JBS
Surrogate: Toluene-d8	103	Limit: 80-120	% Rec	10			06/01/22 1219	JBS

Semivolatile Organic Compounds TCLP by GCMS	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
SW846 3510/EPA 8270C								
1,4-Dichlorobenzene	<0.050	0.050	mg/L	1	**T6**	06/03/22 0708	06/08/22 1430	CLR
2,4,5-Trichlorophenol	<0.050	0.050	mg/L	1	**T6**	06/03/22 0708	06/08/22 1430	CLR
2,4,6-Trichlorophenol	<0.050	0.050	mg/L	1	**T6**	06/03/22 0708	06/08/22 1430	CLR
2,4-Dinitrotoluene	<0.050	0.050	mg/L	1	**T6**	06/03/22 0708	06/08/22 1430	CLR
2-Methylphenol	<0.050	0.050	mg/L	1	**T6**	06/03/22 0708	06/08/22 1430	CLR
3/4-Methylphenol	<0.050	0.050	mg/L	1	**T6**	06/03/22 0708	06/08/22 1430	CLR
Hexachlorobenzene	<0.050	0.050	mg/L	1	**T6**	06/03/22 0708	06/08/22 1430	CLR
Hexachlorobutadiene	<0.050	0.050	mg/L	1	**T6**	06/03/22 0708	06/08/22 1430	CLR
Hexachloroethane	<0.050	0.050	mg/L	1	**T6**	06/03/22 0708	06/08/22 1430	CLR
Nitrobenzene	<0.050	0.050	mg/L	1	**T6**	06/03/22 0708	06/08/22 1430	CLR

MICROBAC®

Microbac Laboratories, Inc. - Chicagoland

CERTIFICATE OF ANALYSIS

22E1596

Client Sample ID: MF5-25-F6
Sample Matrix: Solid
Lab Sample ID: 22E1596-02
Collection Date: 05/24/2022 14:20

Semivolatile Organic Compounds TCLP by GCMS	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
Pentachlorophenol	<0.25	0.25	mg/L	1	**T6**	06/03/22 0708	06/08/22 1430	CLR
Pyridine	<0.050	0.050	mg/L	1	**T6**	06/03/22 0708	06/08/22 1430	CLR
Total Cresol	<0.050	0.050	mg/L	1	**T6**	06/03/22 0708	06/08/22 1430	CLR
Surrogate: 2,4,6-Tribromophenol	75.1	Limit: 47.8-138	% Rec	1	**T6**	06/03/22 0708	06/08/22 1430	CLR
Surrogate: 2-Fluorobiphenyl	55.1	Limit: 10-110	% Rec	1	**T6**	06/03/22 0708	06/08/22 1430	CLR
Surrogate: 2-Fluorophenol	51.6	Limit: 10-110	% Rec	1	**T6**	06/03/22 0708	06/08/22 1430	CLR
Surrogate: Nitrobenzene-d5	56.6	Limit: 10-110	% Rec	1	**T6**	06/03/22 0708	06/08/22 1430	CLR
Surrogate: Phenol-d5	60.6	Limit: 43.7-126	% Rec	1	**T6**	06/03/22 0708	06/08/22 1430	CLR
Surrogate: Terphenyl-d14	71.9	Limit: 33.7-136	% Rec	1	**T6**	06/03/22 0708	06/08/22 1430	CLR

MICROBAC®

Microbac Laboratories, Inc. - Chicagoland

CERTIFICATE OF ANALYSIS

22E1596

Client Sample ID: MF5-25-4E
Sample Matrix: Solid
Lab Sample ID: 22E1596-03
Collection Date: 05/24/2022 14:45

Inorganics Total	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
-/EPA 9038								
Sulfate	**1500**	400	mg/Kg	1	**H**	06/22/22 1740	06/22/22 2036	EF
EPA 9045D								
pH	**7.94**	2.00	S.U.	1		05/26/22 1026	05/26/22 1154	MRS
Temperature	**21**		°C	1			05/26/22 1154	MRS
SM 2540 G-2011								
Percent Solids	**41**	0.10	% (by wt.)	1		05/26/22 0827	05/26/22 1443	MRS
Solid CN Distillation/EPA 9012B								
Cyanide, Total	**4.7**	0.55	mg/Kg dry	1		05/26/22 0950	05/26/22 1421	ABG
SW-846 1010A/ASTM D92-90 Modified								
Ignitability	**> 170**	30.0	°F	1			06/01/22 1936	EF
SW-846 9030B MOD/EPA 9030B Modified								
Sulfide	**8.1**	0.45	mg/Kg	1		05/31/22 1704	05/31/22 2255	EF
SW-846 9066/EPA 9066								
Phenolics, Total Recoverable	**24**	0.48	mg/Kg	1		05/26/22 1316	05/26/22 1603	ABG
SW-846 9095B/EPA 9095B								
Paint Filter	**No Free Liquids**		NA	1		05/25/22 2103	05/25/22 2108	EF

Metals Total by CVAA	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
SW-846 7471/EPA 7471B								
Mercury	**0.46**	0.095	mg/Kg dry	1		05/31/22 1010	06/01/22 1440	KMD

Metals Total by ICP	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
SW846 3050B/EPA 6010C								
Arsenic	**9.9**	1.2	mg/Kg dry	1		05/27/22 0610	06/02/22 2034	KMD
Barium	**390**	0.48	mg/Kg dry	1		05/27/22 0610	06/02/22 2034	KMD
Cadmium	**88**	0.48	mg/Kg dry	1		05/27/22 0610	06/02/22 2034	KMD
Chromium	**180**	0.48	mg/Kg dry	1		05/27/22 0610	06/02/22 2034	KMD
Lead	**1300**	0.90	mg/Kg dry	1		05/27/22 0610	06/02/22 2034	KMD
Lithium	**820**	12	mg/Kg dry	1		05/27/22 0610	06/03/22 1308	KMD
Nickel	**960**	1.2	mg/Kg dry	1		05/27/22 0610	06/02/22 2034	KMD
Selenium	<3.6	3.6	mg/Kg dry	1		05/27/22 0610	06/02/22 2034	KMD
Silver	**7.1**	1.2	mg/Kg dry	1		05/27/22 0610	06/02/22 2034	KMD

Volatile Organic Compounds by GCMS	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
SW-846 8260B/EPA 8260B								
1,1,1,2-Tetrachloroethane	<26	26	ug/kg dry	1			05/31/22 1057	JBS
1,1,1-Trichloroethane	<13	13	ug/kg dry	1			05/31/22 1057	JBS
1,1,2,2-Tetrachloroethane	<13	13	ug/kg dry	1			05/31/22 1057	JBS
1,1,2-Trichloroethane	<13	13	ug/kg dry	1			05/31/22 1057	JBS
1,1-Dichloroethane	<13	13	ug/kg dry	1			05/31/22 1057	JBS
1,1-Dichloroethene	<13	13	ug/kg dry	1			05/31/22 1057	JBS

MICROBAC®

Microbac Laboratories, Inc. - Chicagoland

CERTIFICATE OF ANALYSIS

22E1596

Client Sample ID: MF5-25-4E
Sample Matrix: Solid
Lab Sample ID: 22E1596-03 **Collection Date:** 05/24/2022 14:45

Volatile Organic Compounds by GCMS	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
1,2-Dichloroethane	<13	13	ug/kg dry	1			05/31/22 1057	JBS
1,2-Dichloropropane	<13	13	ug/kg dry	1			05/31/22 1057	JBS
2-Butanone	<26	26	ug/kg dry	1			05/31/22 1057	JBS
2-Hexanone	<26	26	ug/kg dry	1			05/31/22 1057	JBS
4-Methyl-2-pentanone	<26	26	ug/kg dry	1			05/31/22 1057	JBS
Acetone	<130	130	ug/kg dry	1	**Q2**		05/31/22 1057	JBS
Acrolein	<260	260	ug/kg dry	1			05/31/22 1057	JBS
Acrylonitrile	<260	260	ug/kg dry	1			05/31/22 1057	JBS
Benzene	<13	13	ug/kg dry	1			05/31/22 1057	JBS
Bromodichloromethane	<13	13	ug/kg dry	1			05/31/22 1057	JBS
Bromoform	<13	13	ug/kg dry	1			05/31/22 1057	JBS
Bromomethane	<26	26	ug/kg dry	1			05/31/22 1057	JBS
Carbon Disulfide	<26	26	ug/kg dry	1			05/31/22 1057	JBS
Carbon tetrachloride	<13	13	ug/kg dry	1			05/31/22 1057	JBS
Chlorobenzene	<13	13	ug/kg dry	1			05/31/22 1057	JBS
Chloroethane	<26	26	ug/kg dry	1			05/31/22 1057	JBS
Chloroform	<13	13	ug/kg dry	1			05/31/22 1057	JBS
Chloromethane	<26	26	ug/kg dry	1			05/31/22 1057	JBS
cis-1,2-Dichloroethene	<13	13	ug/kg dry	1			05/31/22 1057	JBS
cis-1,3-Dichloropropene	<13	13	ug/kg dry	1			05/31/22 1057	JBS
Dibromochloromethane	<13	13	ug/kg dry	1			05/31/22 1057	JBS
Ethylbenzene	<13	13	ug/kg dry	1			05/31/22 1057	JBS
m,p-Xylene	<13	13	ug/kg dry	1			05/31/22 1057	JBS
Methylene chloride	<53	53	ug/kg dry	1			05/31/22 1057	JBS
Methyl-t-Butyl Ether	<13	13	ug/kg dry	1			05/31/22 1057	JBS
o-Xylene	<13	13	ug/kg dry	1			05/31/22 1057	JBS
Styrene	<13	13	ug/kg dry	1			05/31/22 1057	JBS
Tetrachloroethene	<13	13	ug/kg dry	1			05/31/22 1057	JBS
Toluene	<13	13	ug/kg dry	1			05/31/22 1057	JBS
trans-1,2-Dichloroethene	<13	13	ug/kg dry	1			05/31/22 1057	JBS
trans-1,3-Dichloropropene	<13	13	ug/kg dry	1			05/31/22 1057	JBS
Trichloroethene	<13	13	ug/kg dry	1			05/31/22 1057	JBS
Trichlorofluoromethane	<26	26	ug/kg dry	1			05/31/22 1057	JBS
Vinyl Acetate	<26	26	ug/kg dry	1			05/31/22 1057	JBS
Vinyl chloride	<26	26	ug/kg dry	1			05/31/22 1057	JBS
Total 1,2-Dichloroethene	<13	13	ug/kg dry	1			05/31/22 1057	JBS
Total Xylenes	<13	13	ug/kg dry	1			05/31/22 1057	JBS
Surrogate: 1,2-Dichloroethane-d4	82.7	Limit: 51.7-162	% Rec	1			05/31/22 1057	JBS
Surrogate: 4-Bromofluorobenzene	63.6	Limit: 57.4-135	% Rec	1			05/31/22 1057	JBS
Surrogate: Dibromofluoromethane	94.8	Limit: 63.5-139	% Rec	1			05/31/22 1057	JBS
Surrogate: Toluene-d8	158	Limit: 66.6-143	% Rec	1	**S1**		05/31/22 1057	JBS

Client Sample ID: MF5-25-4E
Sample Matrix: Solid
Lab Sample ID: 22E1596-03 **Collection Date:** 05/24/2022 14:45

Semivolatile Organic Compounds by GC/ECD	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
SW846 3550B/EPA 8082A								
Aroclor 1016	<2500	2500	ug/kg dry	1		05/31/22 0942	05/31/22 2028	CLR
Aroclor 1221	<2500	2500	ug/kg dry	1		05/31/22 0942	05/31/22 2028	CLR
Aroclor 1232	<2500	2500	ug/kg dry	1		05/31/22 0942	05/31/22 2028	CLR
Aroclor 1242	<2500	2500	ug/kg dry	1		05/31/22 0942	05/31/22 2028	CLR
Aroclor 1248	<2500	2500	ug/kg dry	1		05/31/22 0942	05/31/22 2028	CLR
Aroclor 1254	<2500	2500	ug/kg dry	1		05/31/22 0942	05/31/22 2028	CLR
Aroclor 1260	<2500	2500	ug/kg dry	1		05/31/22 0942	05/31/22 2028	CLR
Aroclor 1262	<2500	2500	ug/kg dry	1		05/31/22 0942	05/31/22 2028	CLR
Aroclor 1268	<2500	2500	ug/kg dry	1		05/31/22 0942	05/31/22 2028	CLR
Total PCB's	<2500	2500	ug/kg dry	1		05/31/22 0942	05/31/22 2028	CLR
Surrogate: Tetrachloro-m-xylene	90.0	Limit: 27.6-126	% Rec	1		05/31/22 0942	05/31/22 2028	CLR
Surrogate: Decachlorobiphenyl	115	Limit: 25.2-136	% Rec	1		05/31/22 0942	05/31/22 2028	CLR

Semivolatile Organic Compounds by GCMS	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
SW846 3550B/EPA 8270C								
1,2,4-Trichlorobenzene	<29000	29000	ug/kg dry	1		06/06/22 0902	06/07/22 2014	CLR
1,2-Dichlorobenzene	<29000	29000	ug/kg dry	1		06/06/22 0902	06/07/22 2014	CLR
1,2-Diphenyl-hydrazine	<29000	29000	ug/kg dry	1		06/06/22 0902	06/07/22 2014	CLR
1,3-Dichlorobenzene	<29000	29000	ug/kg dry	1		06/06/22 0902	06/07/22 2014	CLR
1,4-Dichlorobenzene	<29000	29000	ug/kg dry	1		06/06/22 0902	06/07/22 2014	CLR
2,2´-oxybis(1-chloropropane)	<29000	29000	ug/kg dry	1		06/06/22 0902	06/07/22 2014	CLR
2,4,5-Trichlorophenol	<29000	29000	ug/kg dry	1		06/06/22 0902	06/07/22 2014	CLR
2,4,6-Trichlorophenol	<29000	29000	ug/kg dry	1		06/06/22 0902	06/07/22 2014	CLR
2,4-Dichlorophenol	<29000	29000	ug/kg dry	1		06/06/22 0902	06/07/22 2014	CLR
2,4-Dimethylphenol	<29000	29000	ug/kg dry	1		06/06/22 0902	06/07/22 2014	CLR
2,4-Dinitrophenol	<140000	140000	ug/kg dry	1		06/06/22 0902	06/07/22 2014	CLR
2,4-Dinitrotoluene	<29000	29000	ug/kg dry	1		06/06/22 0902	06/07/22 2014	CLR
2,6-Dichlorophenol	<29000	29000	ug/kg dry	1		06/06/22 0902	06/07/22 2014	CLR
2,6-Dinitrotoluene	<29000	29000	ug/kg dry	1		06/06/22 0902	06/07/22 2014	CLR
2-Chloronaphthalene	<29000	29000	ug/kg dry	1		06/06/22 0902	06/07/22 2014	CLR
2-Chlorophenol	<29000	29000	ug/kg dry	1		06/06/22 0902	06/07/22 2014	CLR
2-Methylnaphthalene	<29000	29000	ug/kg dry	1		06/06/22 0902	06/07/22 2014	CLR
2-Methylphenol	<29000	29000	ug/kg dry	1		06/06/22 0902	06/07/22 2014	CLR
2-Nitroaniline	<140000	140000	ug/kg dry	1		06/06/22 0902	06/07/22 2014	CLR
2-Nitrophenol	<29000	29000	ug/kg dry	1		06/06/22 0902	06/07/22 2014	CLR
3,3´-Dichlorobenzidine	<140000	140000	ug/kg dry	1		06/06/22 0902	06/07/22 2014	CLR
3/4-Methylphenol	<29000	29000	ug/kg dry	1		06/06/22 0902	06/07/22 2014	CLR
3-Nitroaniline	<29000	29000	ug/kg dry	1		06/06/22 0902	06/07/22 2014	CLR
4,6-Dinitro-2-methylphenol	<140000	140000	ug/kg dry	1		06/06/22 0902	06/07/22 2014	CLR
4-Bromophenyl phenyl ether	<29000	29000	ug/kg dry	1		06/06/22 0902	06/07/22 2014	CLR
4-Chloro-3-methylphenol	<59000	59000	ug/kg dry	1		06/06/22 0902	06/07/22 2014	CLR

Client Sample ID: MF5-25-4E
Sample Matrix: Solid
Lab Sample ID: 22E1596-03 **Collection Date:** 05/24/2022 14:45

Semivolatile Organic Compounds by GCMS	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
4-Chloroaniline	<29000	29000	ug/kg dry	1		06/06/22 0902	06/07/22 2014	CLR
4-Chlorophenyl phenyl ether	<29000	29000	ug/kg dry	1		06/06/22 0902	06/07/22 2014	CLR
4-Nitroaniline	<140000	140000	ug/kg dry	1		06/06/22 0902	06/07/22 2014	CLR
4-Nitrophenol	<140000	140000	ug/kg dry	1		06/06/22 0902	06/07/22 2014	CLR
Acenaphthene	<29000	29000	ug/kg dry	1		06/06/22 0902	06/07/22 2014	CLR
Acenaphthylene	<29000	29000	ug/kg dry	1		06/06/22 0902	06/07/22 2014	CLR
Acetophenone	<29000	29000	ug/kg dry	1		06/06/22 0902	06/07/22 2014	CLR
Aniline	<29000	29000	ug/kg dry	1		06/06/22 0902	06/07/22 2014	CLR
Anthracene	<29000	29000	ug/kg dry	1		06/06/22 0902	06/07/22 2014	CLR
Benzidine	<140000	140000	ug/kg dry	1		06/06/22 0902	06/07/22 2014	CLR
Benzo[a]anthracene	<29000	29000	ug/kg dry	1		06/06/22 0902	06/07/22 2014	CLR
Benzo[a]pyrene	<29000	29000	ug/kg dry	1		06/06/22 0902	06/07/22 2014	CLR
Benzo[b]fluoranthene	<29000	29000	ug/kg dry	1		06/06/22 0902	06/07/22 2014	CLR
Benzo[g,h,i]perylene	<29000	29000	ug/kg dry	1		06/06/22 0902	06/07/22 2014	CLR
Benzo[k]fluoranthene	<29000	29000	ug/kg dry	1		06/06/22 0902	06/07/22 2014	CLR
Benzoic acid	<140000	140000	ug/kg dry	1		06/06/22 0902	06/07/22 2014	CLR
Benzyl alcohol	<59000	59000	ug/kg dry	1		06/06/22 0902	06/07/22 2014	CLR
Bis(2-chloroethoxy)methane	<29000	29000	ug/kg dry	1		06/06/22 0902	06/07/22 2014	CLR
Bis(2-chloroethyl)ether	<29000	29000	ug/kg dry	1		06/06/22 0902	06/07/22 2014	CLR
Bis(2-ethylhexyl)phthalate	<29000	29000	ug/kg dry	1		06/06/22 0902	06/07/22 2014	CLR
Butyl benzyl phthalate	<29000	29000	ug/kg dry	1		06/06/22 0902	06/07/22 2014	CLR
Carbazole	<29000	29000	ug/kg dry	1		06/06/22 0902	06/07/22 2014	CLR
Chrysene	<29000	29000	ug/kg dry	1		06/06/22 0902	06/07/22 2014	CLR
Dibenz[a,h]anthracene	<29000	29000	ug/kg dry	1		06/06/22 0902	06/07/22 2014	CLR
Dibenzofuran	<29000	29000	ug/kg dry	1		06/06/22 0902	06/07/22 2014	CLR
Diethyl phthalate	<29000	29000	ug/kg dry	1		06/06/22 0902	06/07/22 2014	CLR
Dimethyl phthalate	<29000	29000	ug/kg dry	1		06/06/22 0902	06/07/22 2014	CLR
Di-n-butyl phthalate	<29000	29000	ug/kg dry	1		06/06/22 0902	06/07/22 2014	CLR
Di-n-octyl phthalate	<29000	29000	ug/kg dry	1		06/06/22 0902	06/07/22 2014	CLR
Fluoranthene	<29000	29000	ug/kg dry	1		06/06/22 0902	06/07/22 2014	CLR
Fluorene	<29000	29000	ug/kg dry	1		06/06/22 0902	06/07/22 2014	CLR
Hexachlorobenzene	<29000	29000	ug/kg dry	1		06/06/22 0902	06/07/22 2014	CLR
Hexachlorobutadiene	<29000	29000	ug/kg dry	1		06/06/22 0902	06/07/22 2014	CLR
Hexachlorocyclopentadiene	<29000	29000	ug/kg dry	1		06/06/22 0902	06/07/22 2014	CLR
Hexachloroethane	<29000	29000	ug/kg dry	1		06/06/22 0902	06/07/22 2014	CLR
Indeno[1,2,3cd]pyrene	<29000	29000	ug/kg dry	1		06/06/22 0902	06/07/22 2014	CLR
Isophorone	<29000	29000	ug/kg dry	1		06/06/22 0902	06/07/22 2014	CLR
Naphthalene	<29000	29000	ug/kg dry	1		06/06/22 0902	06/07/22 2014	CLR
Nitrobenzene	<29000	29000	ug/kg dry	1		06/06/22 0902	06/07/22 2014	CLR
N-Nitrosodimethylamine	<29000	29000	ug/kg dry	1		06/06/22 0902	06/07/22 2014	CLR
N-Nitrosodi-n-propylamine	<29000	29000	ug/kg dry	1		06/06/22 0902	06/07/22 2014	CLR
N-Nitrosodiphenylamine	<29000	29000	ug/kg dry	1		06/06/22 0902	06/07/22 2014	CLR
Pentachlorophenol	<140000	140000	ug/kg dry	1		06/06/22 0902	06/07/22 2014	CLR

Client Sample ID: MF5-25-4E
Sample Matrix: Solid
Lab Sample ID: 22E1596-03 **Collection Date:** 05/24/2022 14:45

Semivolatile Organic Compounds by GCMS	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
Phenanthrene	<29000	29000	ug/kg dry	1		06/06/22 0902	06/07/22 2014	CLR
Phenol	<29000	29000	ug/kg dry	1		06/06/22 0902	06/07/22 2014	CLR
Pyrene	<29000	29000	ug/kg dry	1		06/06/22 0902	06/07/22 2014	CLR
Pyridine	<29000	29000	ug/kg dry	1		06/06/22 0902	06/07/22 2014	CLR
Total Cresol	<29000	29000	ug/kg dry	1		06/06/22 0902	06/07/22 2014	CLR
Surrogate: 2,4,6-Tribromophenol	70.8	Limit: 13.9-145	% Rec	1		06/06/22 0902	06/07/22 2014	CLR
Surrogate: 2-Fluorobiphenyl	55.4	Limit: 28.1-110	% Rec	1		06/06/22 0902	06/07/22 2014	CLR
Surrogate: 2-Fluorophenol	44.9	Limit: 24.5-110	% Rec	1		06/06/22 0902	06/07/22 2014	CLR
Surrogate: Nitrobenzene-d5	49.7	Limit: 33.6-110	% Rec	1		06/06/22 0902	06/07/22 2014	CLR
Surrogate: Phenol-d5	54.8	Limit: 29.6-110	% Rec	1		06/06/22 0902	06/07/22 2014	CLR
Surrogate: Terphenyl-d14	76.5	Limit: 35.8-121	% Rec	1		06/06/22 0902	06/07/22 2014	CLR

MICROBAC®

Microbac Laboratories, Inc. - Chicagoland

CERTIFICATE OF ANALYSIS

22E1596

Client Sample ID: MF5-25-4E
Sample Matrix: Solid
Lab Sample ID: 22E1596-04 **Collection Date:** 05/24/2022 14:45

Metals TCLP by CVAA	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
SW-846 7470/EPA 7470A								
Mercury	<0.0025	0.0025	mg/L	1		05/27/22 1100	05/31/22 1253	RPL

Metals TCLP by ICP	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
SW846 3005A/EPA 6010C								
Arsenic	<0.050	0.050	mg/L	1		05/27/22 1053	05/27/22 1554	KMD
Barium	<2.5	2.5	mg/L	1		05/27/22 1053	05/27/22 1554	KMD
Cadmium	**2.2**	0.010	mg/L	1		05/27/22 1053	05/27/22 1554	KMD
Chromium	<0.025	0.025	mg/L	1		05/27/22 1053	05/27/22 1554	KMD
Lead	**1.6**	0.038	mg/L	1		05/27/22 1053	05/27/22 1554	KMD
Selenium	<0.15	0.15	mg/L	1		05/27/22 1053	05/27/22 1554	KMD
Silver	<0.050	0.050	mg/L	1		05/27/22 1053	05/27/22 1554	KMD

Volatile Organic Compounds TCLP by GCMS	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
SW-846 8260B/EPA 8260B								
1,1-Dichloroethene	<0.050	0.050	mg/L	10			06/01/22 1241	JBS
1,2-Dichloroethane	<0.050	0.050	mg/L	10			06/01/22 1241	JBS
2-Butanone	<0.20	0.20	mg/L	10			06/01/22 1241	JBS
Benzene	<0.050	0.050	mg/L	10			06/01/22 1241	JBS
Carbon tetrachloride	<0.050	0.050	mg/L	10			06/01/22 1241	JBS
Chlorobenzene	<0.050	0.050	mg/L	10			06/01/22 1241	JBS
Chloroform	<0.050	0.050	mg/L	10			06/01/22 1241	JBS
Tetrachloroethene	<0.050	0.050	mg/L	10			06/01/22 1241	JBS
Trichloroethene	<0.050	0.050	mg/L	10			06/01/22 1241	JBS
Vinyl chloride	<0.020	0.020	mg/L	10			06/01/22 1241	JBS
Surrogate: 1,2-Dichloroethane-d4	102	Limit: 74.5-132	% Rec	10			06/01/22 1241	JBS
Surrogate: 4-Bromofluorobenzene	90.0	Limit: 80-120	% Rec	10			06/01/22 1241	JBS
Surrogate: Dibromofluoromethane	102	Limit: 80-120	% Rec	10			06/01/22 1241	JBS
Surrogate: Toluene-d8	102	Limit: 80-120	% Rec	10			06/01/22 1241	JBS

Semivolatile Organic Compounds TCLP by GCMS	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
SW846 3510/EPA 8270C								
1,4-Dichlorobenzene	<0.050	0.050	mg/L	1		06/01/22 0636	06/07/22 2329	CLR
2,4,5-Trichlorophenol	<0.050	0.050	mg/L	1	**M2, R1**	06/01/22 0636	06/07/22 2329	CLR
2,4,6-Trichlorophenol	<0.050	0.050	mg/L	1	**M2, R1**	06/01/22 0636	06/07/22 2329	CLR
2,4-Dinitrotoluene	<0.050	0.050	mg/L	1		06/01/22 0636	06/07/22 2329	CLR
2-Methylphenol	<0.050	0.050	mg/L	1	**M2, R1**	06/01/22 0636	06/07/22 2329	CLR
3/4-Methylphenol	<0.050	0.050	mg/L	1	**M2, R1**	06/01/22 0636	06/07/22 2329	CLR
Hexachlorobenzene	<0.050	0.050	mg/L	1	**M2**	06/01/22 0636	06/07/22 2329	CLR
Hexachlorobutadiene	<0.050	0.050	mg/L	1		06/01/22 0636	06/07/22 2329	CLR
Hexachloroethane	<0.050	0.050	mg/L	1	**M2**	06/01/22 0636	06/07/22 2329	CLR
Nitrobenzene	<0.050	0.050	mg/L	1		06/01/22 0636	06/07/22 2329	CLR

CERTIFICATE OF ANALYSIS

22E1596

Client Sample ID: MF5-25-4E
Sample Matrix: Solid
Lab Sample ID: 22E1596-04
Collection Date: 05/24/2022 14:45

Semivolatile Organic Compounds TCLP by GCMS	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
Pentachlorophenol	<0.25	0.25	mg/L	1		06/01/22 0636	06/07/22 2329	CLR
Pyridine	<0.050	0.050	mg/L	1		06/01/22 0636	06/07/22 2329	CLR
Total Cresol	<0.050	0.050	mg/L	1		06/01/22 0636	06/07/22 2329	CLR
Surrogate: 2,4,6-Tribromophenol	59.6	Limit: 47.8-138	% Rec	1		06/01/22 0636	06/07/22 2329	CLR
Surrogate: 2-Fluorobiphenyl	37.3	Limit: 10-110	% Rec	1		06/01/22 0636	06/07/22 2329	CLR
Surrogate: 2-Fluorophenol	33.2	Limit: 10-110	% Rec	1		06/01/22 0636	06/07/22 2329	CLR
Surrogate: Nitrobenzene-d5	38.7	Limit: 10-110	% Rec	1		06/01/22 0636	06/07/22 2329	CLR
Surrogate: Phenol-d5	40.8	Limit: 43.7-126	% Rec	1	**S2**	06/01/22 0636	06/07/22 2329	CLR
Surrogate: Terphenyl-d14	65.7	Limit: 33.7-136	% Rec	1		06/01/22 0636	06/07/22 2329	CLR

MICROBAC®

Microbac Laboratories, Inc. - Chicagoland

CERTIFICATE OF ANALYSIS

22E1596

Client Sample ID: MF5-25-D4
Sample Matrix: Solid
Lab Sample ID: 22E1596-05
Collection Date: 05/24/2022 15:05

Inorganics Total	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
-/EPA 9038								
Sulfate	**1600**	390	mg/Kg	1	**H**	06/22/22 1740	06/22/22 2038	EF
EPA 9045D								
pH	**8.88**	2.00	S.U.	1		05/26/22 1026	05/26/22 1155	MRS
Temperature	**21**		°C	1			05/26/22 1155	MRS
SM 2540 G-2011								
Percent Solids	**60**	0.10	% (by wt.)	1		05/26/22 0827	05/26/22 1443	MRS
Solid CN Distillation/EPA 9012B								
Cyanide, Total	**2.1**	0.47	mg/Kg dry	1		05/26/22 0950	05/26/22 1423	ABG
SW-846 1010A/ASTM D92-90 Modified								
Ignitability	**> 170**	30.0	°F	1			06/01/22 2121	EF
SW-846 9030B MOD/EPA 9030B Modified								
Sulfide	**0.94**	0.50	mg/Kg	1		05/31/22 1704	05/31/22 2255	EF
SW-846 9066/EPA 9066								
Phenolics, Total Recoverable	**7.6**	0.49	mg/Kg	1		05/26/22 1316	05/26/22 1605	ABG
SW-846 9095B/EPA 9095B								
Paint Filter	**No Free Liquids**		NA	1		05/25/22 2103	05/25/22 2108	EF

Metals Total by CVAA	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
SW-846 7471/EPA 7471B								
Mercury	**0.25**	0.066	mg/Kg dry	1		05/31/22 1010	06/01/22 1442	KMD

Metals Total by ICP	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
SW846 3050B/EPA 6010C								
Arsenic	**5.1**	0.81	mg/Kg dry	1		05/27/22 0610	06/02/22 2039	KMD
Barium	**1200**	0.32	mg/Kg dry	1		05/27/22 0610	06/02/22 2039	KMD
Cadmium	**39**	0.32	mg/Kg dry	1		05/27/22 0610	06/02/22 2039	KMD
Chromium	**31**	0.32	mg/Kg dry	1		05/27/22 0610	06/02/22 2039	KMD
Lead	**310**	0.60	mg/Kg dry	1		05/27/22 0610	06/02/22 2039	KMD
Lithium	**14000**	400	mg/Kg dry	50		05/27/22 0610	06/03/22 1313	KMD
Nickel	**1900**	0.81	mg/Kg dry	1		05/27/22 0610	06/02/22 2039	KMD
Selenium	<2.4	2.4	mg/Kg dry	1		05/27/22 0610	06/02/22 2039	KMD
Silver	**18**	0.81	mg/Kg dry	1		05/27/22 0610	06/02/22 2039	KMD

Volatile Organic Compounds by GCMS	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
SW-846 8260B/EPA 8260B								
1,1,1,2-Tetrachloroethane	<18	18	ug/kg dry	1			05/31/22 1121	JBS
1,1,1-Trichloroethane	<9.1	9.1	ug/kg dry	1			05/31/22 1121	JBS
1,1,2,2-Tetrachloroethane	<9.1	9.1	ug/kg dry	1			05/31/22 1121	JBS
1,1,2-Trichloroethane	<9.1	9.1	ug/kg dry	1			05/31/22 1121	JBS
1,1-Dichloroethane	<9.1	9.1	ug/kg dry	1			05/31/22 1121	JBS
1,1-Dichloroethene	<9.1	9.1	ug/kg dry	1			05/31/22 1121	JBS

MICROBAC®

Microbac Laboratories, Inc. - Chicagoland

CERTIFICATE OF ANALYSIS

22E1596

Client Sample ID: MF5-25-D4
Sample Matrix: Solid
Lab Sample ID: 22E1596-05
Collection Date: 05/24/2022 15:05

Volatile Organic Compounds by GCMS	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
1,2-Dichloroethane	<9.1	9.1	ug/kg dry	1			05/31/22 1121	JBS
1,2-Dichloropropane	<9.1	9.1	ug/kg dry	1			05/31/22 1121	JBS
2-Butanone	<18	18	ug/kg dry	1			05/31/22 1121	JBS
2-Hexanone	<18	18	ug/kg dry	1			05/31/22 1121	JBS
4-Methyl-2-pentanone	<18	18	ug/kg dry	1			05/31/22 1121	JBS
Acetone	<91	91	ug/kg dry	1	**Q2**		05/31/22 1121	JBS
Acrolein	<180	180	ug/kg dry	1			05/31/22 1121	JBS
Acrylonitrile	<180	180	ug/kg dry	1			05/31/22 1121	JBS
Benzene	<9.1	9.1	ug/kg dry	1			05/31/22 1121	JBS
Bromodichloromethane	<9.1	9.1	ug/kg dry	1			05/31/22 1121	JBS
Bromoform	<9.1	9.1	ug/kg dry	1			05/31/22 1121	JBS
Bromomethane	<18	18	ug/kg dry	1			05/31/22 1121	JBS
Carbon Disulfide	<18	18	ug/kg dry	1			05/31/22 1121	JBS
Carbon tetrachloride	<9.1	9.1	ug/kg dry	1			05/31/22 1121	JBS
Chlorobenzene	<9.1	9.1	ug/kg dry	1			05/31/22 1121	JBS
Chloroethane	<18	18	ug/kg dry	1			05/31/22 1121	JBS
Chloroform	<9.1	9.1	ug/kg dry	1			05/31/22 1121	JBS
Chloromethane	<18	18	ug/kg dry	1			05/31/22 1121	JBS
cis-1,2-Dichloroethene	<9.1	9.1	ug/kg dry	1			05/31/22 1121	JBS
cis-1,3-Dichloropropene	<9.1	9.1	ug/kg dry	1			05/31/22 1121	JBS
Dibromochloromethane	<9.1	9.1	ug/kg dry	1			05/31/22 1121	JBS
Ethylbenzene	<9.1	9.1	ug/kg dry	1			05/31/22 1121	JBS
m,p-Xylene	<9.1	9.1	ug/kg dry	1			05/31/22 1121	JBS
Methylene chloride	<36	36	ug/kg dry	1			05/31/22 1121	JBS
Methyl-t-Butyl Ether	<9.1	9.1	ug/kg dry	1			05/31/22 1121	JBS
o-Xylene	<9.1	9.1	ug/kg dry	1			05/31/22 1121	JBS
Styrene	<9.1	9.1	ug/kg dry	1			05/31/22 1121	JBS
Tetrachloroethene	<9.1	9.1	ug/kg dry	1			05/31/22 1121	JBS
Toluene	<9.1	9.1	ug/kg dry	1			05/31/22 1121	JBS
trans-1,2-Dichloroethene	<9.1	9.1	ug/kg dry	1			05/31/22 1121	JBS
trans-1,3-Dichloropropene	<9.1	9.1	ug/kg dry	1			05/31/22 1121	JBS
Trichloroethene	<9.1	9.1	ug/kg dry	1			05/31/22 1121	JBS
Trichlorofluoromethane	<18	18	ug/kg dry	1			05/31/22 1121	JBS
Vinyl Acetate	<18	18	ug/kg dry	1			05/31/22 1121	JBS
Vinyl chloride	<18	18	ug/kg dry	1			05/31/22 1121	JBS
Total 1,2-Dichloroethene	<9.1	9.1	ug/kg dry	1			05/31/22 1121	JBS
Total Xylenes	<9.1	9.1	ug/kg dry	1			05/31/22 1121	JBS
Surrogate: 1,2-Dichloroethane-d4	91.3	Limit: 51.7-162	% Rec	1			05/31/22 1121	JBS
Surrogate: 4-Bromofluorobenzene	72.3	Limit: 57.4-135	% Rec	1			05/31/22 1121	JBS
Surrogate: Dibromofluoromethane	93.5	Limit: 63.5-139	% Rec	1			05/31/22 1121	JBS
Surrogate: Toluene-d8	137	Limit: 66.6-143	% Rec	1			05/31/22 1121	JBS

Client Sample ID: MF5-25-D4
Sample Matrix: Solid
Lab Sample ID: 22E1596-05 **Collection Date:** 05/24/2022 15:05

Semivolatile Organic Compounds by GC/ECD	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
SW846 3550B/EPA 8082A								
Aroclor 1016	<800	800	ug/kg dry	1		05/31/22 0942	05/31/22 2047	CLR
Aroclor 1221	<800	800	ug/kg dry	1		05/31/22 0942	05/31/22 2047	CLR
Aroclor 1232	<800	800	ug/kg dry	1		05/31/22 0942	05/31/22 2047	CLR
Aroclor 1242	<800	800	ug/kg dry	1		05/31/22 0942	05/31/22 2047	CLR
Aroclor 1248	<800	800	ug/kg dry	1		05/31/22 0942	05/31/22 2047	CLR
Aroclor 1254	<800	800	ug/kg dry	1		05/31/22 0942	05/31/22 2047	CLR
Aroclor 1260	<800	800	ug/kg dry	1		05/31/22 0942	05/31/22 2047	CLR
Aroclor 1262	<800	800	ug/kg dry	1		05/31/22 0942	05/31/22 2047	CLR
Aroclor 1268	<800	800	ug/kg dry	1		05/31/22 0942	05/31/22 2047	CLR
Total PCB's	<800	800	ug/kg dry	1		05/31/22 0942	05/31/22 2047	CLR
Surrogate: Tetrachloro-m-xylene	90.0	Limit: 27.6-126	% Rec	1		05/31/22 0942	05/31/22 2047	CLR
Surrogate: Decachlorobiphenyl	95.0	Limit: 25.2-136	% Rec	1		05/31/22 0942	05/31/22 2047	CLR

Semivolatile Organic Compounds by GCMS	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
SW846 3550B/EPA 8270C								
1,2,4-Trichlorobenzene	<10000	10000	ug/kg dry	1		06/06/22 0902	06/07/22 2036	CLR
1,2-Dichlorobenzene	<10000	10000	ug/kg dry	1		06/06/22 0902	06/07/22 2036	CLR
1,2-Diphenyl-hydrazine	<10000	10000	ug/kg dry	1		06/06/22 0902	06/07/22 2036	CLR
1,3-Dichlorobenzene	<10000	10000	ug/kg dry	1		06/06/22 0902	06/07/22 2036	CLR
1,4-Dichlorobenzene	<10000	10000	ug/kg dry	1		06/06/22 0902	06/07/22 2036	CLR
2,2´-oxybis(1-chloropropane)	<10000	10000	ug/kg dry	1		06/06/22 0902	06/07/22 2036	CLR
2,4,5-Trichlorophenol	<10000	10000	ug/kg dry	1		06/06/22 0902	06/07/22 2036	CLR
2,4,6-Trichlorophenol	<10000	10000	ug/kg dry	1		06/06/22 0902	06/07/22 2036	CLR
2,4-Dichlorophenol	<10000	10000	ug/kg dry	1		06/06/22 0902	06/07/22 2036	CLR
2,4-Dimethylphenol	<10000	10000	ug/kg dry	1		06/06/22 0902	06/07/22 2036	CLR
2,4-Dinitrophenol	<49000	49000	ug/kg dry	1		06/06/22 0902	06/07/22 2036	CLR
2,4-Dinitrotoluene	<10000	10000	ug/kg dry	1		06/06/22 0902	06/07/22 2036	CLR
2,6-Dichlorophenol	<10000	10000	ug/kg dry	1		06/06/22 0902	06/07/22 2036	CLR
2,6-Dinitrotoluene	<10000	10000	ug/kg dry	1		06/06/22 0902	06/07/22 2036	CLR
2-Chloronaphthalene	<10000	10000	ug/kg dry	1		06/06/22 0902	06/07/22 2036	CLR
2-Chlorophenol	<10000	10000	ug/kg dry	1		06/06/22 0902	06/07/22 2036	CLR
2-Methylnaphthalene	<10000	10000	ug/kg dry	1		06/06/22 0902	06/07/22 2036	CLR
2-Methylphenol	<10000	10000	ug/kg dry	1		06/06/22 0902	06/07/22 2036	CLR
2-Nitroaniline	<49000	49000	ug/kg dry	1		06/06/22 0902	06/07/22 2036	CLR
2-Nitrophenol	<10000	10000	ug/kg dry	1		06/06/22 0902	06/07/22 2036	CLR
3,3´-Dichlorobenzidine	<49000	49000	ug/kg dry	1		06/06/22 0902	06/07/22 2036	CLR
3/4-Methylphenol	<10000	10000	ug/kg dry	1		06/06/22 0902	06/07/22 2036	CLR
3-Nitroaniline	<10000	10000	ug/kg dry	1		06/06/22 0902	06/07/22 2036	CLR
4,6-Dinitro-2-methylphenol	<49000	49000	ug/kg dry	1		06/06/22 0902	06/07/22 2036	CLR
4-Bromophenyl phenyl ether	<10000	10000	ug/kg dry	1		06/06/22 0902	06/07/22 2036	CLR
4-Chloro-3-methylphenol	<20000	20000	ug/kg dry	1		06/06/22 0902	06/07/22 2036	CLR

Client Sample ID: MF5-25-D4
Sample Matrix: Solid
Lab Sample ID: 22E1596-05 **Collection Date:** 05/24/2022 15:05

Semivolatile Organic Compounds by GCMS	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
4-Chloroaniline	<10000	10000	ug/kg dry	1		06/06/22 0902	06/07/22 2036	CLR
4-Chlorophenyl phenyl ether	<10000	10000	ug/kg dry	1		06/06/22 0902	06/07/22 2036	CLR
4-Nitroaniline	<49000	49000	ug/kg dry	1		06/06/22 0902	06/07/22 2036	CLR
4-Nitrophenol	<49000	49000	ug/kg dry	1		06/06/22 0902	06/07/22 2036	CLR
Acenaphthene	<10000	10000	ug/kg dry	1		06/06/22 0902	06/07/22 2036	CLR
Acenaphthylene	<10000	10000	ug/kg dry	1		06/06/22 0902	06/07/22 2036	CLR
Acetophenone	<10000	10000	ug/kg dry	1		06/06/22 0902	06/07/22 2036	CLR
Aniline	<10000	10000	ug/kg dry	1		06/06/22 0902	06/07/22 2036	CLR
Anthracene	<10000	10000	ug/kg dry	1		06/06/22 0902	06/07/22 2036	CLR
Benzidine	<49000	49000	ug/kg dry	1		06/06/22 0902	06/07/22 2036	CLR
Benzo[a]anthracene	<10000	10000	ug/kg dry	1		06/06/22 0902	06/07/22 2036	CLR
Benzo[a]pyrene	<10000	10000	ug/kg dry	1		06/06/22 0902	06/07/22 2036	CLR
Benzo[b]fluoranthene	<10000	10000	ug/kg dry	1		06/06/22 0902	06/07/22 2036	CLR
Benzo[g,h,i]perylene	<10000	10000	ug/kg dry	1		06/06/22 0902	06/07/22 2036	CLR
Benzo[k]fluoranthene	<10000	10000	ug/kg dry	1		06/06/22 0902	06/07/22 2036	CLR
Benzoic acid	<49000	49000	ug/kg dry	1		06/06/22 0902	06/07/22 2036	CLR
Benzyl alcohol	<20000	20000	ug/kg dry	1		06/06/22 0902	06/07/22 2036	CLR
Bis(2-chloroethoxy)methane	<10000	10000	ug/kg dry	1		06/06/22 0902	06/07/22 2036	CLR
Bis(2-chloroethyl)ether	<10000	10000	ug/kg dry	1		06/06/22 0902	06/07/22 2036	CLR
Bis(2-ethylhexyl)phthalate	<10000	10000	ug/kg dry	1		06/06/22 0902	06/07/22 2036	CLR
Butyl benzyl phthalate	<10000	10000	ug/kg dry	1		06/06/22 0902	06/07/22 2036	CLR
Carbazole	<10000	10000	ug/kg dry	1		06/06/22 0902	06/07/22 2036	CLR
Chrysene	<10000	10000	ug/kg dry	1		06/06/22 0902	06/07/22 2036	CLR
Dibenz[a,h]anthracene	<10000	10000	ug/kg dry	1		06/06/22 0902	06/07/22 2036	CLR
Dibenzofuran	<10000	10000	ug/kg dry	1		06/06/22 0902	06/07/22 2036	CLR
Diethyl phthalate	<10000	10000	ug/kg dry	1		06/06/22 0902	06/07/22 2036	CLR
Dimethyl phthalate	<10000	10000	ug/kg dry	1		06/06/22 0902	06/07/22 2036	CLR
Di-n-butyl phthalate	<10000	10000	ug/kg dry	1		06/06/22 0902	06/07/22 2036	CLR
Di-n-octyl phthalate	<10000	10000	ug/kg dry	1		06/06/22 0902	06/07/22 2036	CLR
Fluoranthene	<10000	10000	ug/kg dry	1		06/06/22 0902	06/07/22 2036	CLR
Fluorene	<10000	10000	ug/kg dry	1		06/06/22 0902	06/07/22 2036	CLR
Hexachlorobenzene	<10000	10000	ug/kg dry	1		06/06/22 0902	06/07/22 2036	CLR
Hexachlorobutadiene	<10000	10000	ug/kg dry	1		06/06/22 0902	06/07/22 2036	CLR
Hexachlorocyclopentadiene	<10000	10000	ug/kg dry	1		06/06/22 0902	06/07/22 2036	CLR
Hexachloroethane	<10000	10000	ug/kg dry	1		06/06/22 0902	06/07/22 2036	CLR
Indeno[1,2,3cd]pyrene	<10000	10000	ug/kg dry	1		06/06/22 0902	06/07/22 2036	CLR
Isophorone	<10000	10000	ug/kg dry	1		06/06/22 0902	06/07/22 2036	CLR
Naphthalene	<10000	10000	ug/kg dry	1		06/06/22 0902	06/07/22 2036	CLR
Nitrobenzene	<10000	10000	ug/kg dry	1		06/06/22 0902	06/07/22 2036	CLR
N-Nitrosodimethylamine	<10000	10000	ug/kg dry	1		06/06/22 0902	06/07/22 2036	CLR
N-Nitrosodi-n-propylamine	<10000	10000	ug/kg dry	1		06/06/22 0902	06/07/22 2036	CLR
N-Nitrosodiphenylamine	<10000	10000	ug/kg dry	1		06/06/22 0902	06/07/22 2036	CLR
Pentachlorophenol	<49000	49000	ug/kg dry	1		06/06/22 0902	06/07/22 2036	CLR

Client Sample ID: MF5-25-D4
Sample Matrix: Solid
Lab Sample ID: 22E1596-05
Collection Date: 05/24/2022 15:05

Semivolatile Organic Compounds by GCMS	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
Phenanthrene	<10000	10000	ug/kg dry	1		06/06/22 0902	06/07/22 2036	CLR
Phenol	<10000	10000	ug/kg dry	1		06/06/22 0902	06/07/22 2036	CLR
Pyrene	<10000	10000	ug/kg dry	1		06/06/22 0902	06/07/22 2036	CLR
Pyridine	<10000	10000	ug/kg dry	1		06/06/22 0902	06/07/22 2036	CLR
Total Cresol	<10000	10000	ug/kg dry	1		06/06/22 0902	06/07/22 2036	CLR
Surrogate: 2,4,6-Tribromophenol	72.8	Limit: 13.9-145	% Rec	1		06/06/22 0902	06/07/22 2036	CLR
Surrogate: 2-Fluorobiphenyl	65.9	Limit: 28.1-110	% Rec	1		06/06/22 0902	06/07/22 2036	CLR
Surrogate: 2-Fluorophenol	58.5	Limit: 24.5-110	% Rec	1		06/06/22 0902	06/07/22 2036	CLR
Surrogate: Nitrobenzene-d5	63.0	Limit: 33.6-110	% Rec	1		06/06/22 0902	06/07/22 2036	CLR
Surrogate: Phenol-d5	71.4	Limit: 29.6-110	% Rec	1		06/06/22 0902	06/07/22 2036	CLR
Surrogate: Terphenyl-d14	77.2	Limit: 35.8-121	% Rec	1		06/06/22 0902	06/07/22 2036	CLR

MICROBAC®

Microbac Laboratories, Inc. - Chicagoland

CERTIFICATE OF ANALYSIS

22E1596

Client Sample ID: MF5-25-D4
Sample Matrix: Solid
Lab Sample ID: 22E1596-06 **Collection Date:** 05/24/2022 15:05

Metals TCLP by CVAA	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
SW-846 7470/EPA 7470A								
Mercury	<0.0025	0.0025	mg/L	1		05/27/22 1059	05/31/22 1306	RPL

Metals TCLP by ICP	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
SW846 3005A/EPA 6010C								
Arsenic	<0.050	0.050	mg/L	1		05/27/22 1053	05/27/22 1649	KMD
Barium	<2.5	2.5	mg/L	1		05/27/22 1053	05/27/22 1649	KMD
Cadmium	**0.73**	0.010	mg/L	1		05/27/22 1053	05/27/22 1649	KMD
Chromium	<0.025	0.025	mg/L	1		05/27/22 1053	05/27/22 1649	KMD
Lead	**2.0**	0.038	mg/L	1		05/27/22 1053	05/27/22 1649	KMD
Selenium	<0.15	0.15	mg/L	1		05/27/22 1053	05/27/22 1649	KMD
Silver	<0.050	0.050	mg/L	1		05/27/22 1053	05/27/22 1649	KMD

Volatile Organic Compounds TCLP by GCMS	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
SW-846 8260B/EPA 8260B								
1,1-Dichloroethene	<0.050	0.050	mg/L	10			06/01/22 1303	JBS
1,2-Dichloroethane	<0.050	0.050	mg/L	10			06/01/22 1303	JBS
2-Butanone	<0.20	0.20	mg/L	10			06/01/22 1303	JBS
Benzene	<0.050	0.050	mg/L	10			06/01/22 1303	JBS
Carbon tetrachloride	<0.050	0.050	mg/L	10			06/01/22 1303	JBS
Chlorobenzene	<0.050	0.050	mg/L	10			06/01/22 1303	JBS
Chloroform	<0.050	0.050	mg/L	10			06/01/22 1303	JBS
Tetrachloroethene	<0.050	0.050	mg/L	10			06/01/22 1303	JBS
Trichloroethene	<0.050	0.050	mg/L	10			06/01/22 1303	JBS
Vinyl chloride	<0.020	0.020	mg/L	10			06/01/22 1303	JBS
Surrogate: 1,2-Dichloroethane-d4	102	Limit: 74.5-132	% Rec	10			06/01/22 1303	JBS
Surrogate: 4-Bromofluorobenzene	90.8	Limit: 80-120	% Rec	10			06/01/22 1303	JBS
Surrogate: Dibromofluoromethane	101	Limit: 80-120	% Rec	10			06/01/22 1303	JBS
Surrogate: Toluene-d8	102	Limit: 80-120	% Rec	10			06/01/22 1303	JBS

Semivolatile Organic Compounds TCLP by GCMS	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
SW846 3510/EPA 8270C								
1,4-Dichlorobenzene	<0.050	0.050	mg/L	1		06/01/22 0636	06/07/22 2351	CLR
2,4,5-Trichlorophenol	<0.050	0.050	mg/L	1		06/01/22 0636	06/07/22 2351	CLR
2,4,6-Trichlorophenol	<0.050	0.050	mg/L	1		06/01/22 0636	06/07/22 2351	CLR
2,4-Dinitrotoluene	<0.050	0.050	mg/L	1		06/01/22 0636	06/07/22 2351	CLR
2-Methylphenol	<0.050	0.050	mg/L	1		06/01/22 0636	06/07/22 2351	CLR
3/4-Methylphenol	<0.050	0.050	mg/L	1		06/01/22 0636	06/07/22 2351	CLR
Hexachlorobenzene	<0.050	0.050	mg/L	1		06/01/22 0636	06/07/22 2351	CLR
Hexachlorobutadiene	<0.050	0.050	mg/L	1		06/01/22 0636	06/07/22 2351	CLR
Hexachloroethane	<0.050	0.050	mg/L	1		06/01/22 0636	06/07/22 2351	CLR
Nitrobenzene	<0.050	0.050	mg/L	1		06/01/22 0636	06/07/22 2351	CLR

MICROBAC®

Microbac Laboratories, Inc. - Chicagoland

CERTIFICATE OF ANALYSIS

22E1596

Client Sample ID: MF5-25-D4
Sample Matrix: Solid
Lab Sample ID: 22E1596-06
Collection Date: 05/24/2022 15:05

Semivolatile Organic Compounds TCLP by GCMS	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
Pentachlorophenol	<0.25	0.25	mg/L	1		06/01/22 0636	06/07/22 2351	CLR
Pyridine	<0.050	0.050	mg/L	1		06/01/22 0636	06/07/22 2351	CLR
Total Cresol	<0.050	0.050	mg/L	1		06/01/22 0636	06/07/22 2351	CLR
Surrogate: 2,4,6-Tribromophenol	64.9	Limit: 47.8-138	% Rec	1		06/01/22 0636	06/07/22 2351	CLR
Surrogate: 2-Fluorobiphenyl	43.4	Limit: 10-110	% Rec	1		06/01/22 0636	06/07/22 2351	CLR
Surrogate: 2-Fluorophenol	39.7	Limit: 10-110	% Rec	1		06/01/22 0636	06/07/22 2351	CLR
Surrogate: Nitrobenzene-d5	46.1	Limit: 10-110	% Rec	1		06/01/22 0636	06/07/22 2351	CLR
Surrogate: Phenol-d5	48.2	Limit: 43.7-126	% Rec	1		06/01/22 0636	06/07/22 2351	CLR
Surrogate: Terphenyl-d14	72.5	Limit: 33.7-136	% Rec	1		06/01/22 0636	06/07/22 2351	CLR

MICROBAC®

Microbac Laboratories, Inc. - Chicagoland

CERTIFICATE OF ANALYSIS

22E1596

Client Sample ID: MF5-25-Row2
Sample Matrix: Solid
Lab Sample ID: 22E1596-07
Collection Date: 05/24/2022 15:30

Inorganics Total	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
-/EPA 9038								
Sulfate	**1500**	390	mg/Kg	1	**H**	06/22/22 1740	06/22/22 2041	EF
EPA 9045D								
pH	**7.92**	2.00	S.U.	1		05/26/22 1026	05/26/22 1156	MRS
Temperature	**21**		°C	1			05/26/22 1156	MRS
SM 2540 G-2011								
Percent Solids	**74**	0.10	% (by wt.)	1		05/26/22 0827	05/26/22 1443	MRS
Solid CN Distillation/EPA 9012B								
Cyanide, Total	**4.8**	0.37	mg/Kg dry	1		05/26/22 0950	05/26/22 1425	ABG
SW-846 1010A/ASTM D92-90 Modified								
Ignitability	**> 170**	30.0	°F	1			06/01/22 2121	EF
SW-846 9030B MOD/EPA 9030B Modified								
Sulfide	**5.0**	0.50	mg/Kg	1		05/31/22 1704	05/31/22 2255	EF
SW-846 9066/EPA 9066								
Phenolics, Total Recoverable	**15**	0.49	mg/Kg	1		05/26/22 1316	05/26/22 1610	ABG
SW-846 9095B/EPA 9095B								
Paint Filter	**No Free Liquids**		NA	1		05/25/22 2103	05/25/22 2108	EF

Metals Total by CVAA	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
SW-846 7471/EPA 7471B								
Mercury	**0.15**	0.051	mg/Kg dry	1		05/31/22 1010	06/01/22 1443	KMD

Metals Total by ICP	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
SW846 3050B/EPA 6010C								
Arsenic	**14**	0.67	mg/Kg dry	1	**M1, M3, R1**	05/27/22 0610	06/02/22 2044	KMD
Barium	**370**	0.27	mg/Kg dry	1	**M2, M5, R1**	05/27/22 0610	06/02/22 2044	KMD
Cadmium	**82**	0.27	mg/Kg dry	1	**S**	05/27/22 0610	06/02/22 2044	KMD
Chromium	**180**	0.27	mg/Kg dry	1	**M2, M5**	05/27/22 0610	06/02/22 2044	KMD
Lead	**24000**	0.50	mg/Kg dry	1	**S**	05/27/22 0610	06/02/22 2044	KMD
Lithium	**1600**	67	mg/Kg dry	10	**S**	05/27/22 0610	06/03/22 1318	KMD
Nickel	**1600**	0.67	mg/Kg dry	1	**S**	05/27/22 0610	06/02/22 2044	KMD
Selenium	<2.0	2.0	mg/Kg dry	1	**M1, M3, R1**	05/27/22 0610	06/02/22 2044	KMD
Silver	**54**	0.67	mg/Kg dry	1	**M2, M5, R1**	05/27/22 0610	06/02/22 2044	KMD

Volatile Organic Compounds by GCMS	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
SW846 5035/EPA 8260B								
1,1,1,2-Tetrachloroethane	<13	13	ug/kg dry	1			05/27/22 1944	JBS
1,1,1-Trichloroethane	<6.7	6.7	ug/kg dry	1			05/27/22 1944	JBS
1,1,2,2-Tetrachloroethane	<6.7	6.7	ug/kg dry	1			05/27/22 1944	JBS

MICROBAC®

Microbac Laboratories, Inc. - Chicagoland

CERTIFICATE OF ANALYSIS

22E1596

Client Sample ID: MF5-25-Row2
Sample Matrix: Solid
Lab Sample ID: 22E1596-07 **Collection Date:** 05/24/2022 15:30

Volatile Organic Compounds by GCMS	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
1,1,2-Trichloroethane	<6.7	6.7	ug/kg dry	1			05/27/22 1944	JBS
1,1-Dichloroethane	<6.7	6.7	ug/kg dry	1			05/27/22 1944	JBS
1,1-Dichloroethene	<6.7	6.7	ug/kg dry	1			05/27/22 1944	JBS
1,2-Dichloroethane	<6.7	6.7	ug/kg dry	1			05/27/22 1944	JBS
1,2-Dichloropropane	<6.7	6.7	ug/kg dry	1			05/27/22 1944	JBS
2-Butanone	<13	13	ug/kg dry	1			05/27/22 1944	JBS
2-Hexanone	<13	13	ug/kg dry	1			05/27/22 1944	JBS
4-Methyl-2-pentanone	<13	13	ug/kg dry	1			05/27/22 1944	JBS
Acetone	<67	67	ug/kg dry	1			05/27/22 1944	JBS
Acrolein	<130	130	ug/kg dry	1			05/27/22 1944	JBS
Acrylonitrile	<130	130	ug/kg dry	1			05/27/22 1944	JBS
Benzene	<6.7	6.7	ug/kg dry	1			05/27/22 1944	JBS
Bromodichloromethane	<6.7	6.7	ug/kg dry	1			05/27/22 1944	JBS
Bromoform	<6.7	6.7	ug/kg dry	1			05/27/22 1944	JBS
Bromomethane	<13	13	ug/kg dry	1			05/27/22 1944	JBS
Carbon Disulfide	<13	13	ug/kg dry	1			05/27/22 1944	JBS
Carbon tetrachloride	<6.7	6.7	ug/kg dry	1			05/27/22 1944	JBS
Chlorobenzene	<6.7	6.7	ug/kg dry	1			05/27/22 1944	JBS
Chloroethane	<13	13	ug/kg dry	1			05/27/22 1944	JBS
Chloroform	<6.7	6.7	ug/kg dry	1			05/27/22 1944	JBS
Chloromethane	<13	13	ug/kg dry	1			05/27/22 1944	JBS
cis-1,2-Dichloroethene	<6.7	6.7	ug/kg dry	1			05/27/22 1944	JBS
cis-1,3-Dichloropropene	<6.7	6.7	ug/kg dry	1			05/27/22 1944	JBS
Dibromochloromethane	<6.7	6.7	ug/kg dry	1			05/27/22 1944	JBS
Ethylbenzene	<6.7	6.7	ug/kg dry	1			05/27/22 1944	JBS
m,p-Xylene	<6.7	6.7	ug/kg dry	1			05/27/22 1944	JBS
Methylene chloride	**27**	27	ug/kg dry	1			05/27/22 1944	JBS
Methyl-t-Butyl Ether	<6.7	6.7	ug/kg dry	1			05/27/22 1944	JBS
o-Xylene	<6.7	6.7	ug/kg dry	1			05/27/22 1944	JBS
Styrene	<6.7	6.7	ug/kg dry	1			05/27/22 1944	JBS
Tetrachloroethene	<6.7	6.7	ug/kg dry	1			05/27/22 1944	JBS
Toluene	<6.7	6.7	ug/kg dry	1			05/27/22 1944	JBS
trans-1,2-Dichloroethene	<6.7	6.7	ug/kg dry	1			05/27/22 1944	JBS
trans-1,3-Dichloropropene	<6.7	6.7	ug/kg dry	1			05/27/22 1944	JBS
Trichloroethene	<6.7	6.7	ug/kg dry	1			05/27/22 1944	JBS
Trichlorofluoromethane	<13	13	ug/kg dry	1			05/27/22 1944	JBS
Vinyl Acetate	<13	13	ug/kg dry	1			05/27/22 1944	JBS
Vinyl chloride	<13	13	ug/kg dry	1			05/27/22 1944	JBS
Total 1,2-Dichloroethene	<6.7	6.7	ug/kg dry	1			05/27/22 1944	JBS
Total Xylenes	<6.7	6.7	ug/kg dry	1			05/27/22 1944	JBS
Surrogate: 1,2-Dichloroethane-d4	85.3	Limit: 51.7-162	% Rec	1			05/27/22 1944	JBS
Surrogate: 4-Bromofluorobenzene	81.9	Limit: 57.4-135	% Rec	1			05/27/22 1944	JBS
Surrogate: Dibromofluoromethane	80.2	Limit: 63.5-139	% Rec	1			05/27/22 1944	JBS

Client Sample ID: MF5-25-Row2
Sample Matrix: Solid
Lab Sample ID: 22E1596-07 **Collection Date:** 05/24/2022 15:30

Volatile Organic Compounds by GCMS	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
Surrogate: Toluene-d8	130	Limit: 66.6-143	% Rec	1			05/27/22 1944	JBS

Semivolatile Organic Compounds by GC/ECD	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
SW846 3550B/EPA 8082A								
Aroclor 1016	<660	660	ug/kg dry	1		05/31/22 0942	05/31/22 2105	CLR
Aroclor 1221	<660	660	ug/kg dry	1		05/31/22 0942	05/31/22 2105	CLR
Aroclor 1232	<660	660	ug/kg dry	1		05/31/22 0942	05/31/22 2105	CLR
Aroclor 1242	<660	660	ug/kg dry	1		05/31/22 0942	05/31/22 2105	CLR
Aroclor 1248	<660	660	ug/kg dry	1		05/31/22 0942	05/31/22 2105	CLR
Aroclor 1254	<660	660	ug/kg dry	1		05/31/22 0942	05/31/22 2105	CLR
Aroclor 1260	<660	660	ug/kg dry	1		05/31/22 0942	05/31/22 2105	CLR
Aroclor 1262	<660	660	ug/kg dry	1		05/31/22 0942	05/31/22 2105	CLR
Aroclor 1268	<660	660	ug/kg dry	1		05/31/22 0942	05/31/22 2105	CLR
Total PCB's	<660	660	ug/kg dry	1		05/31/22 0942	05/31/22 2105	CLR
Surrogate: Tetrachloro-m-xylene	155	Limit: 27.6-126	% Rec	1	**M, S1**	05/31/22 0942	05/31/22 2105	CLR
Surrogate: Decachlorobiphenyl	140	Limit: 25.2-136	% Rec	1	**M, S1**	05/31/22 0942	05/31/22 2105	CLR

Semivolatile Organic Compounds by GCMS	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
SW846 3550B/EPA 8270C								
1,2,4-Trichlorobenzene	<25000	25000	ug/kg dry	1		06/06/22 0902	06/07/22 2058	CLR
1,2-Dichlorobenzene	<25000	25000	ug/kg dry	1		06/06/22 0902	06/07/22 2058	CLR
1,2-Diphenyl-hydrazine	<25000	25000	ug/kg dry	1		06/06/22 0902	06/07/22 2058	CLR
1,3-Dichlorobenzene	<25000	25000	ug/kg dry	1		06/06/22 0902	06/07/22 2058	CLR
1,4-Dichlorobenzene	<25000	25000	ug/kg dry	1		06/06/22 0902	06/07/22 2058	CLR
2,2´-oxybis(1-chloropropane)	<25000	25000	ug/kg dry	1		06/06/22 0902	06/07/22 2058	CLR
2,4,5-Trichlorophenol	<25000	25000	ug/kg dry	1		06/06/22 0902	06/07/22 2058	CLR
2,4,6-Trichlorophenol	<25000	25000	ug/kg dry	1		06/06/22 0902	06/07/22 2058	CLR
2,4-Dichlorophenol	<25000	25000	ug/kg dry	1		06/06/22 0902	06/07/22 2058	CLR
2,4-Dimethylphenol	<25000	25000	ug/kg dry	1		06/06/22 0902	06/07/22 2058	CLR
2,4-Dinitrophenol	<120000	120000	ug/kg dry	1		06/06/22 0902	06/07/22 2058	CLR
2,4-Dinitrotoluene	<25000	25000	ug/kg dry	1		06/06/22 0902	06/07/22 2058	CLR
2,6-Dichlorophenol	<25000	25000	ug/kg dry	1		06/06/22 0902	06/07/22 2058	CLR
2,6-Dinitrotoluene	<25000	25000	ug/kg dry	1		06/06/22 0902	06/07/22 2058	CLR
2-Chloronaphthalene	<25000	25000	ug/kg dry	1		06/06/22 0902	06/07/22 2058	CLR
2-Chlorophenol	<25000	25000	ug/kg dry	1		06/06/22 0902	06/07/22 2058	CLR
2-Methylnaphthalene	<25000	25000	ug/kg dry	1		06/06/22 0902	06/07/22 2058	CLR
2-Methylphenol	<25000	25000	ug/kg dry	1		06/06/22 0902	06/07/22 2058	CLR
2-Nitroaniline	<120000	120000	ug/kg dry	1		06/06/22 0902	06/07/22 2058	CLR
2-Nitrophenol	<25000	25000	ug/kg dry	1		06/06/22 0902	06/07/22 2058	CLR
3,3´-Dichlorobenzidine	<120000	120000	ug/kg dry	1		06/06/22 0902	06/07/22 2058	CLR
3/4-Methylphenol	<25000	25000	ug/kg dry	1		06/06/22 0902	06/07/22 2058	CLR

CERTIFICATE OF ANALYSIS

22E1596

Client Sample ID: MF5-25-Row2
Sample Matrix: Solid
Lab Sample ID: 22E1596-07
Collection Date: 05/24/2022 15:30

Semivolatile Organic Compounds by GCMS	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
3-Nitroaniline	<25000	25000	ug/kg dry	1		06/06/22 0902	06/07/22 2058	CLR
4,6-Dinitro-2-methylphenol	<120000	120000	ug/kg dry	1		06/06/22 0902	06/07/22 2058	CLR
4-Bromophenyl phenyl ether	<25000	25000	ug/kg dry	1		06/06/22 0902	06/07/22 2058	CLR
4-Chloro-3-methylphenol	<49000	49000	ug/kg dry	1		06/06/22 0902	06/07/22 2058	CLR
4-Chloroaniline	<25000	25000	ug/kg dry	1		06/06/22 0902	06/07/22 2058	CLR
4-Chlorophenyl phenyl ether	<25000	25000	ug/kg dry	1		06/06/22 0902	06/07/22 2058	CLR
4-Nitroaniline	<120000	120000	ug/kg dry	1		06/06/22 0902	06/07/22 2058	CLR
4-Nitrophenol	<120000	120000	ug/kg dry	1		06/06/22 0902	06/07/22 2058	CLR
Acenaphthene	<25000	25000	ug/kg dry	1		06/06/22 0902	06/07/22 2058	CLR
Acenaphthylene	<25000	25000	ug/kg dry	1		06/06/22 0902	06/07/22 2058	CLR
Acetophenone	<25000	25000	ug/kg dry	1		06/06/22 0902	06/07/22 2058	CLR
Aniline	<25000	25000	ug/kg dry	1		06/06/22 0902	06/07/22 2058	CLR
Anthracene	<25000	25000	ug/kg dry	1		06/06/22 0902	06/07/22 2058	CLR
Benzidine	<120000	120000	ug/kg dry	1		06/06/22 0902	06/07/22 2058	CLR
Benzo[a]anthracene	<25000	25000	ug/kg dry	1		06/06/22 0902	06/07/22 2058	CLR
Benzo[a]pyrene	<25000	25000	ug/kg dry	1		06/06/22 0902	06/07/22 2058	CLR
Benzo[b]fluoranthene	<25000	25000	ug/kg dry	1		06/06/22 0902	06/07/22 2058	CLR
Benzo[g,h,i]perylene	<25000	25000	ug/kg dry	1		06/06/22 0902	06/07/22 2058	CLR
Benzo[k]fluoranthene	<25000	25000	ug/kg dry	1		06/06/22 0902	06/07/22 2058	CLR
Benzoic acid	<120000	120000	ug/kg dry	1		06/06/22 0902	06/07/22 2058	CLR
Benzyl alcohol	<49000	49000	ug/kg dry	1		06/06/22 0902	06/07/22 2058	CLR
Bis(2-chloroethoxy)methane	<25000	25000	ug/kg dry	1		06/06/22 0902	06/07/22 2058	CLR
Bis(2-chloroethyl)ether	<25000	25000	ug/kg dry	1		06/06/22 0902	06/07/22 2058	CLR
Bis(2-ethylhexyl)phthalate	<25000	25000	ug/kg dry	1		06/06/22 0902	06/07/22 2058	CLR
Butyl benzyl phthalate	<25000	25000	ug/kg dry	1		06/06/22 0902	06/07/22 2058	CLR
Carbazole	<25000	25000	ug/kg dry	1		06/06/22 0902	06/07/22 2058	CLR
Chrysene	<25000	25000	ug/kg dry	1		06/06/22 0902	06/07/22 2058	CLR
Dibenz[a,h]anthracene	<25000	25000	ug/kg dry	1		06/06/22 0902	06/07/22 2058	CLR
Dibenzofuran	<25000	25000	ug/kg dry	1		06/06/22 0902	06/07/22 2058	CLR
Diethyl phthalate	<25000	25000	ug/kg dry	1		06/06/22 0902	06/07/22 2058	CLR
Dimethyl phthalate	<25000	25000	ug/kg dry	1		06/06/22 0902	06/07/22 2058	CLR
Di-n-butyl phthalate	**55000**	25000	ug/kg dry	1		06/06/22 0902	06/07/22 2058	CLR
Di-n-octyl phthalate	**86000**	25000	ug/kg dry	1		06/06/22 0902	06/07/22 2058	CLR
Fluoranthene	<25000	25000	ug/kg dry	1		06/06/22 0902	06/07/22 2058	CLR
Fluorene	<25000	25000	ug/kg dry	1		06/06/22 0902	06/07/22 2058	CLR
Hexachlorobenzene	<25000	25000	ug/kg dry	1		06/06/22 0902	06/07/22 2058	CLR
Hexachlorobutadiene	<25000	25000	ug/kg dry	1		06/06/22 0902	06/07/22 2058	CLR
Hexachlorocyclopentadiene	<25000	25000	ug/kg dry	1		06/06/22 0902	06/07/22 2058	CLR
Hexachloroethane	<25000	25000	ug/kg dry	1		06/06/22 0902	06/07/22 2058	CLR
Indeno[1,2,3cd]pyrene	<25000	25000	ug/kg dry	1		06/06/22 0902	06/07/22 2058	CLR
Isophorone	<25000	25000	ug/kg dry	1		06/06/22 0902	06/07/22 2058	CLR
Naphthalene	<25000	25000	ug/kg dry	1		06/06/22 0902	06/07/22 2058	CLR
Nitrobenzene	<25000	25000	ug/kg dry	1		06/06/22 0902	06/07/22 2058	CLR

MICROBAC®

Microbac Laboratories, Inc. - Chicagoland

CERTIFICATE OF ANALYSIS

22E1596

Client Sample ID: MF5-25-Row2
Sample Matrix: Solid
Lab Sample ID: 22E1596-07 **Collection Date:** 05/24/2022 15:30

Semivolatile Organic Compounds by GCMS	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
N-Nitrosodimethylamine	<25000	25000	ug/kg dry	1		06/06/22 0902	06/07/22 2058	CLR
N-Nitrosodi-n-propylamine	<25000	25000	ug/kg dry	1		06/06/22 0902	06/07/22 2058	CLR
N-Nitrosodiphenylamine	<25000	25000	ug/kg dry	1		06/06/22 0902	06/07/22 2058	CLR
Pentachlorophenol	<120000	120000	ug/kg dry	1		06/06/22 0902	06/07/22 2058	CLR
Phenanthrene	<25000	25000	ug/kg dry	1		06/06/22 0902	06/07/22 2058	CLR
Phenol	<25000	25000	ug/kg dry	1		06/06/22 0902	06/07/22 2058	CLR
Pyrene	<25000	25000	ug/kg dry	1		06/06/22 0902	06/07/22 2058	CLR
Pyridine	<25000	25000	ug/kg dry	1		06/06/22 0902	06/07/22 2058	CLR
Total Cresol	<25000	25000	ug/kg dry	1		06/06/22 0902	06/07/22 2058	CLR
Surrogate: 2,4,6-Tribromophenol	70.9	Limit: 13.9-145	% Rec	1		06/06/22 0902	06/07/22 2058	CLR
Surrogate: 2-Fluorobiphenyl	61.6	Limit: 28.1-110	% Rec	1		06/06/22 0902	06/07/22 2058	CLR
Surrogate: 2-Fluorophenol	50.3	Limit: 24.5-110	% Rec	1		06/06/22 0902	06/07/22 2058	CLR
Surrogate: Nitrobenzene-d5	56.2	Limit: 33.6-110	% Rec	1		06/06/22 0902	06/07/22 2058	CLR
Surrogate: Phenol-d5	64.3	Limit: 29.6-110	% Rec	1		06/06/22 0902	06/07/22 2058	CLR
Surrogate: Terphenyl-d14	78.8	Limit: 35.8-121	% Rec	1		06/06/22 0902	06/07/22 2058	CLR

MICROBAC®

Microbac Laboratories, Inc. - Chicagoland

CERTIFICATE OF ANALYSIS

22E1596

Client Sample ID: MF5-25-Row2
Sample Matrix: Solid
Lab Sample ID: 22E1596-08 **Collection Date:** 05/24/2022 15:30

Metals TCLP by CVAA	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
SW-846 7470/EPA 7470A								
Mercury	<0.0025	0.0025	mg/L	1		05/27/22 1100	05/31/22 1255	RPL

Metals TCLP by ICP	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
SW846 3005A/EPA 6010C								
Arsenic	<0.050	0.050	mg/L	1		05/27/22 1053	05/27/22 1559	KMD
Barium	<2.5	2.5	mg/L	1		05/27/22 1053	05/27/22 1559	KMD
Cadmium	**0.74**	0.010	mg/L	1		05/27/22 1053	05/27/22 1559	KMD
Chromium	<0.025	0.025	mg/L	1		05/27/22 1053	05/27/22 1559	KMD
Lead	**13**	0.038	mg/L	1		05/27/22 1053	05/27/22 1559	KMD
Selenium	<0.15	0.15	mg/L	1		05/27/22 1053	05/27/22 1559	KMD
Silver	<0.050	0.050	mg/L	1		05/27/22 1053	05/27/22 1559	KMD

Volatile Organic Compounds TCLP by GCMS	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
SW-846 8260B/EPA 8260B								
1,1-Dichloroethene	<0.050	0.050	mg/L	10			06/02/22 1407	JBS
1,2-Dichloroethane	<0.050	0.050	mg/L	10			06/02/22 1407	JBS
2-Butanone	<0.20	0.20	mg/L	10			06/02/22 1407	JBS
Benzene	<0.050	0.050	mg/L	10			06/02/22 1407	JBS
Carbon tetrachloride	<0.050	0.050	mg/L	10			06/02/22 1407	JBS
Chlorobenzene	<0.050	0.050	mg/L	10			06/02/22 1407	JBS
Chloroform	<0.050	0.050	mg/L	10			06/02/22 1407	JBS
Tetrachloroethene	<0.050	0.050	mg/L	10			06/02/22 1407	JBS
Trichloroethene	<0.050	0.050	mg/L	10			06/02/22 1407	JBS
Vinyl chloride	<0.020	0.020	mg/L	10			06/02/22 1407	JBS
Surrogate: 1,2-Dichloroethane-d4	99.8	Limit: 74.5-132	% Rec	10			06/02/22 1407	JBS
Surrogate: 4-Bromofluorobenzene	90.4	Limit: 80-120	% Rec	10			06/02/22 1407	JBS
Surrogate: Dibromofluoromethane	101	Limit: 80-120	% Rec	10			06/02/22 1407	JBS
Surrogate: Toluene-d8	102	Limit: 80-120	% Rec	10			06/02/22 1407	JBS

Semivolatile Organic Compounds TCLP by GCMS	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
SW846 3510/EPA 8270C								
1,4-Dichlorobenzene	<0.050	0.050	mg/L	1		06/01/22 0636	06/08/22 0013	CLR
2,4,5-Trichlorophenol	<0.050	0.050	mg/L	1		06/01/22 0636	06/08/22 0013	CLR
2,4,6-Trichlorophenol	<0.050	0.050	mg/L	1		06/01/22 0636	06/08/22 0013	CLR
2,4-Dinitrotoluene	<0.050	0.050	mg/L	1		06/01/22 0636	06/08/22 0013	CLR
2-Methylphenol	<0.050	0.050	mg/L	1		06/01/22 0636	06/08/22 0013	CLR
3/4-Methylphenol	<0.050	0.050	mg/L	1		06/01/22 0636	06/08/22 0013	CLR
Hexachlorobenzene	<0.050	0.050	mg/L	1		06/01/22 0636	06/08/22 0013	CLR
Hexachlorobutadiene	<0.050	0.050	mg/L	1		06/01/22 0636	06/08/22 0013	CLR
Hexachloroethane	<0.050	0.050	mg/L	1		06/01/22 0636	06/08/22 0013	CLR
Nitrobenzene	<0.050	0.050	mg/L	1		06/01/22 0636	06/08/22 0013	CLR

CERTIFICATE OF ANALYSIS

22E1596

Client Sample ID: MF5-25-Row2
Sample Matrix: Solid
Lab Sample ID: 22E1596-08
Collection Date: 05/24/2022 15:30

Semivolatile Organic Compounds TCLP by GCMS	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
Pentachlorophenol	<0.25	0.25	mg/L	1		06/01/22 0636	06/08/22 0013	CLR
Pyridine	<0.050	0.050	mg/L	1		06/01/22 0636	06/08/22 0013	CLR
Total Cresol	<0.050	0.050	mg/L	1		06/01/22 0636	06/08/22 0013	CLR
Surrogate: 2,4,6-Tribromophenol	48.7	Limit: 47.8-138	% Rec	1		06/01/22 0636	06/08/22 0013	CLR
Surrogate: 2-Fluorobiphenyl	28.2	Limit: 10-110	% Rec	1		06/01/22 0636	06/08/22 0013	CLR
Surrogate: 2-Fluorophenol	20.4	Limit: 10-110	% Rec	1		06/01/22 0636	06/08/22 0013	CLR
Surrogate: Nitrobenzene-d5	28.2	Limit: 10-110	% Rec	1		06/01/22 0636	06/08/22 0013	CLR
Surrogate: Phenol-d5	27.4	Limit: 43.7-126	% Rec	1	**S2**	06/01/22 0636	06/08/22 0013	CLR
Surrogate: Terphenyl-d14	61.6	Limit: 33.7-136	% Rec	1		06/01/22 0636	06/08/22 0013	CLR

MICROBAC®

Microbac Laboratories, Inc. - Chicagoland

CERTIFICATE OF ANALYSIS

22E1596

Client Sample ID: MF5-25-A1
Sample Matrix: Solid
Lab Sample ID: 22E1596-09
Collection Date: 05/24/2022 15:45

Inorganics Total	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
-/EPA 9038								
Sulfate	**63000**	5900	mg/Kg	10	**H**	06/22/22 1740	06/22/22 2100	EF
EPA 9045D								
pH	**5.52**	2.00	S.U.	1		05/26/22 1026	05/26/22 1158	MRS
Temperature	**20**		°C	1			05/26/22 1158	MRS
SM 2540 G-2011								
Percent Solids	**98**	0.10	% (by wt.)	1		05/26/22 0827	05/26/22 1443	MRS
Solid CN Distillation/EPA 9012B								
Cyanide, Total	**0.93**	0.28	mg/Kg dry	1		05/26/22 0950	05/26/22 1426	ABG
SW-846 1010A/ASTM D92-90 Modified								
Ignitability	**> 170**	30.0	°F	1			06/01/22 2240	EF
SW-846 9030B MOD/EPA 9030B Modified								
Sulfide	**1.0**	0.50	mg/Kg	1		05/31/22 1704	05/31/22 2255	EF
SW-846 9066/EPA 9066								
Phenolics, Total Recoverable	**6.3**	0.49	mg/Kg	1		05/26/22 1316	05/26/22 1615	ABG
SW-846 9095B/EPA 9095B								
Paint Filter	**No Free Liquids**		NA	1		05/25/22 2103	05/25/22 2108	EF

Metals Total by CVAA	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
SW-846 7471/EPA 7471B								
Mercury	**0.12**	0.042	mg/Kg dry	1		05/31/22 1010	06/01/22 1444	KMD

Metals Total by ICP	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
SW846 3050B/EPA 6010C								
Arsenic	**0.99**	0.49	mg/Kg dry	1		05/27/22 0610	06/02/22 2059	KMD
Barium	**14**	0.19	mg/Kg dry	1		05/27/22 0610	06/02/22 2059	KMD
Cadmium	**0.77**	0.19	mg/Kg dry	1		05/27/22 0610	06/02/22 2059	KMD
Chromium	**14**	0.19	mg/Kg dry	1		05/27/22 0610	06/02/22 2059	KMD
Lead	**68**	0.36	mg/Kg dry	1		05/27/22 0610	06/02/22 2059	KMD
Lithium	**260**	4.9	mg/Kg dry	1		05/27/22 0610	06/03/22 1328	KMD
Nickel	**31**	0.49	mg/Kg dry	1		05/27/22 0610	06/02/22 2059	KMD
Selenium	<1.5	1.5	mg/Kg dry	1		05/27/22 0610	06/02/22 2059	KMD
Silver	<0.49	0.49	mg/Kg dry	1		05/27/22 0610	06/02/22 2059	KMD

Volatile Organic Compounds by GCMS	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
SW-846 8260B/EPA 8260B								
1,1,1,2-Tetrachloroethane	<20	20	ug/kg dry	1			05/31/22 1145	JBS
1,1,1-Trichloroethane	<10	10	ug/kg dry	1			05/31/22 1145	JBS
1,1,2,2-Tetrachloroethane	<10	10	ug/kg dry	1			05/31/22 1145	JBS
1,1,2-Trichloroethane	<10	10	ug/kg dry	1			05/31/22 1145	JBS
1,1-Dichloroethane	<10	10	ug/kg dry	1			05/31/22 1145	JBS
1,1-Dichloroethene	<10	10	ug/kg dry	1			05/31/22 1145	JBS

MICROBAC®

Microbac Laboratories, Inc. - Chicagoland

CERTIFICATE OF ANALYSIS

22E1596

Client Sample ID: MF5-25-A1
Sample Matrix: Solid
Lab Sample ID: 22E1596-09 **Collection Date:** 05/24/2022 15:45

Volatile Organic Compounds by GCMS	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
1,2-Dichloroethane	<10	10	ug/kg dry	1			05/31/22 1145	JBS
1,2-Dichloropropane	<10	10	ug/kg dry	1			05/31/22 1145	JBS
2-Butanone	<20	20	ug/kg dry	1			05/31/22 1145	JBS
2-Hexanone	<20	20	ug/kg dry	1			05/31/22 1145	JBS
4-Methyl-2-pentanone	<20	20	ug/kg dry	1			05/31/22 1145	JBS
Acetone	<100	100	ug/kg dry	1	**Q2**		05/31/22 1145	JBS
Acrolein	<200	200	ug/kg dry	1			05/31/22 1145	JBS
Acrylonitrile	<200	200	ug/kg dry	1			05/31/22 1145	JBS
Benzene	<10	10	ug/kg dry	1			05/31/22 1145	JBS
Bromodichloromethane	<10	10	ug/kg dry	1			05/31/22 1145	JBS
Bromoform	<10	10	ug/kg dry	1			05/31/22 1145	JBS
Bromomethane	<20	20	ug/kg dry	1			05/31/22 1145	JBS
Carbon Disulfide	<20	20	ug/kg dry	1			05/31/22 1145	JBS
Carbon tetrachloride	<10	10	ug/kg dry	1			05/31/22 1145	JBS
Chlorobenzene	<10	10	ug/kg dry	1			05/31/22 1145	JBS
Chloroethane	<20	20	ug/kg dry	1			05/31/22 1145	JBS
Chloroform	<10	10	ug/kg dry	1			05/31/22 1145	JBS
Chloromethane	<20	20	ug/kg dry	1			05/31/22 1145	JBS
cis-1,2-Dichloroethene	<10	10	ug/kg dry	1			05/31/22 1145	JBS
cis-1,3-Dichloropropene	<10	10	ug/kg dry	1			05/31/22 1145	JBS
Dibromochloromethane	<10	10	ug/kg dry	1			05/31/22 1145	JBS
Ethylbenzene	<10	10	ug/kg dry	1			05/31/22 1145	JBS
m,p-Xylene	<10	10	ug/kg dry	1			05/31/22 1145	JBS
Methylene chloride	**70**	41	ug/kg dry	1			05/31/22 1145	JBS
Methyl-t-Butyl Ether	<10	10	ug/kg dry	1			05/31/22 1145	JBS
o-Xylene	<10	10	ug/kg dry	1			05/31/22 1145	JBS
Styrene	<10	10	ug/kg dry	1			05/31/22 1145	JBS
Tetrachloroethene	<10	10	ug/kg dry	1			05/31/22 1145	JBS
Toluene	<10	10	ug/kg dry	1			05/31/22 1145	JBS
trans-1,2-Dichloroethene	<10	10	ug/kg dry	1			05/31/22 1145	JBS
trans-1,3-Dichloropropene	<10	10	ug/kg dry	1			05/31/22 1145	JBS
Trichloroethene	<10	10	ug/kg dry	1			05/31/22 1145	JBS
Trichlorofluoromethane	<20	20	ug/kg dry	1			05/31/22 1145	JBS
Vinyl Acetate	<20	20	ug/kg dry	1			05/31/22 1145	JBS
Vinyl chloride	<20	20	ug/kg dry	1			05/31/22 1145	JBS
Total 1,2-Dichloroethene	<10	10	ug/kg dry	1			05/31/22 1145	JBS
Total Xylenes	<10	10	ug/kg dry	1			05/31/22 1145	JBS
Surrogate: 1,2-Dichloroethane-d4	102	Limit: 51.7-162	% Rec	1			05/31/22 1145	JBS
Surrogate: 4-Bromofluorobenzene	76.1	Limit: 57.4-135	% Rec	1			05/31/22 1145	JBS
Surrogate: Dibromofluoromethane	92.8	Limit: 63.5-139	% Rec	1			05/31/22 1145	JBS
Surrogate: Toluene-d8	124	Limit: 66.6-143	% Rec	1			05/31/22 1145	JBS

CERTIFICATE OF ANALYSIS

22E1596

Client Sample ID: MF5-25-A1
Sample Matrix: Solid
Lab Sample ID: 22E1596-09
Collection Date: 05/24/2022 15:45

Semivolatile Organic Compounds by GC/ECD	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
SW846 3550B/EPA 8082A								
Aroclor 1016	<1900	1900	ug/kg dry	1		05/31/22 0942	05/31/22 2124	CLR
Aroclor 1221	<1900	1900	ug/kg dry	1		05/31/22 0942	05/31/22 2124	CLR
Aroclor 1232	<1900	1900	ug/kg dry	1		05/31/22 0942	05/31/22 2124	CLR
Aroclor 1242	<1900	1900	ug/kg dry	1		05/31/22 0942	05/31/22 2124	CLR
Aroclor 1248	<1900	1900	ug/kg dry	1		05/31/22 0942	05/31/22 2124	CLR
Aroclor 1254	<1900	1900	ug/kg dry	1		05/31/22 0942	05/31/22 2124	CLR
Aroclor 1260	<1900	1900	ug/kg dry	1		05/31/22 0942	05/31/22 2124	CLR
Aroclor 1262	<1900	1900	ug/kg dry	1		05/31/22 0942	05/31/22 2124	CLR
Aroclor 1268	<1900	1900	ug/kg dry	1		05/31/22 0942	05/31/22 2124	CLR
Total PCB's	<1900	1900	ug/kg dry	1		05/31/22 0942	05/31/22 2124	CLR
Surrogate: Tetrachloro-m-xylene	105	Limit: 27.6-126	% Rec	1		05/31/22 0942	05/31/22 2124	CLR
Surrogate: Decachlorobiphenyl	125	Limit: 25.2-136	% Rec	1		05/31/22 0942	05/31/22 2124	CLR

Semivolatile Organic Compounds by GCMS	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
SW846 3550B/EPA 8270C								
1,2,4-Trichlorobenzene	<89000	89000	ug/kg dry	5	D	06/06/22 0902	06/07/22 2119	CLR
1,2-Dichlorobenzene	<89000	89000	ug/kg dry	5	D	06/06/22 0902	06/07/22 2119	CLR
1,2-Diphenyl-hydrazine	<89000	89000	ug/kg dry	5	D	06/06/22 0902	06/07/22 2119	CLR
1,3-Dichlorobenzene	<89000	89000	ug/kg dry	5	D	06/06/22 0902	06/07/22 2119	CLR
1,4-Dichlorobenzene	<89000	89000	ug/kg dry	5	D	06/06/22 0902	06/07/22 2119	CLR
2,2´-oxybis(1-chloropropane)	<89000	89000	ug/kg dry	5	D	06/06/22 0902	06/07/22 2119	CLR
2,4,5-Trichlorophenol	<89000	89000	ug/kg dry	5	D	06/06/22 0902	06/07/22 2119	CLR
2,4,6-Trichlorophenol	<89000	89000	ug/kg dry	5	D	06/06/22 0902	06/07/22 2119	CLR
2,4-Dichlorophenol	<89000	89000	ug/kg dry	5	D	06/06/22 0902	06/07/22 2119	CLR
2,4-Dimethylphenol	<89000	89000	ug/kg dry	5	D	06/06/22 0902	06/07/22 2119	CLR
2,4-Dinitrophenol	<430000	430000	ug/kg dry	5	D	06/06/22 0902	06/07/22 2119	CLR
2,4-Dinitrotoluene	<89000	89000	ug/kg dry	5	D	06/06/22 0902	06/07/22 2119	CLR
2,6-Dichlorophenol	<89000	89000	ug/kg dry	5	D	06/06/22 0902	06/07/22 2119	CLR
2,6-Dinitrotoluene	<89000	89000	ug/kg dry	5	D	06/06/22 0902	06/07/22 2119	CLR
2-Chloronaphthalene	<89000	89000	ug/kg dry	5	D	06/06/22 0902	06/07/22 2119	CLR
2-Chlorophenol	<89000	89000	ug/kg dry	5	D	06/06/22 0902	06/07/22 2119	CLR
2-Methylnaphthalene	<89000	89000	ug/kg dry	5	D	06/06/22 0902	06/07/22 2119	CLR
2-Methylphenol	<89000	89000	ug/kg dry	5	D	06/06/22 0902	06/07/22 2119	CLR
2-Nitroaniline	<430000	430000	ug/kg dry	5	D	06/06/22 0902	06/07/22 2119	CLR
2-Nitrophenol	<89000	89000	ug/kg dry	5	D	06/06/22 0902	06/07/22 2119	CLR
3,3´-Dichlorobenzidine	<430000	430000	ug/kg dry	5	D	06/06/22 0902	06/07/22 2119	CLR
3/4-Methylphenol	<89000	89000	ug/kg dry	5	D	06/06/22 0902	06/07/22 2119	CLR
3-Nitroaniline	<89000	89000	ug/kg dry	5	D	06/06/22 0902	06/07/22 2119	CLR
4,6-Dinitro-2-methylphenol	<430000	430000	ug/kg dry	5	D	06/06/22 0902	06/07/22 2119	CLR
4-Bromophenyl phenyl ether	<89000	89000	ug/kg dry	5	D	06/06/22 0902	06/07/22 2119	CLR
4-Chloro-3-methylphenol	<180000	180000	ug/kg dry	5	D	06/06/22 0902	06/07/22 2119	CLR

Client Sample ID: MF5-25-A1
Sample Matrix: Solid
Lab Sample ID: 22E1596-09 **Collection Date:** 05/24/2022 15:45

Semivolatile Organic Compounds by GCMS	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
4-Chloroaniline	<89000	89000	ug/kg dry	5	D	06/06/22 0902	06/07/22 2119	CLR
4-Chlorophenyl phenyl ether	<89000	89000	ug/kg dry	5	D	06/06/22 0902	06/07/22 2119	CLR
4-Nitroaniline	<430000	430000	ug/kg dry	5	D	06/06/22 0902	06/07/22 2119	CLR
4-Nitrophenol	<430000	430000	ug/kg dry	5	D	06/06/22 0902	06/07/22 2119	CLR
Acenaphthene	<89000	89000	ug/kg dry	5	D	06/06/22 0902	06/07/22 2119	CLR
Acenaphthylene	<89000	89000	ug/kg dry	5	D	06/06/22 0902	06/07/22 2119	CLR
Acetophenone	<89000	89000	ug/kg dry	5	D	06/06/22 0902	06/07/22 2119	CLR
Aniline	<89000	89000	ug/kg dry	5	D	06/06/22 0902	06/07/22 2119	CLR
Anthracene	<89000	89000	ug/kg dry	5	D	06/06/22 0902	06/07/22 2119	CLR
Benzidine	<430000	430000	ug/kg dry	5	D	06/06/22 0902	06/07/22 2119	CLR
Benzo[a]anthracene	<89000	89000	ug/kg dry	5	D	06/06/22 0902	06/07/22 2119	CLR
Benzo[a]pyrene	<89000	89000	ug/kg dry	5	D	06/06/22 0902	06/07/22 2119	CLR
Benzo[b]fluoranthene	<89000	89000	ug/kg dry	5	D	06/06/22 0902	06/07/22 2119	CLR
Benzo[g,h,i]perylene	<89000	89000	ug/kg dry	5	D	06/06/22 0902	06/07/22 2119	CLR
Benzo[k]fluoranthene	<89000	89000	ug/kg dry	5	D	06/06/22 0902	06/07/22 2119	CLR
Benzoic acid	<430000	430000	ug/kg dry	5	D	06/06/22 0902	06/07/22 2119	CLR
Benzyl alcohol	<180000	180000	ug/kg dry	5	D	06/06/22 0902	06/07/22 2119	CLR
Bis(2-chloroethoxy)methane	<89000	89000	ug/kg dry	5	D	06/06/22 0902	06/07/22 2119	CLR
Bis(2-chloroethyl)ether	<89000	89000	ug/kg dry	5	D	06/06/22 0902	06/07/22 2119	CLR
Bis(2-ethylhexyl)phthalate	<89000	89000	ug/kg dry	5	D	06/06/22 0902	06/07/22 2119	CLR
Butyl benzyl phthalate	<89000	89000	ug/kg dry	5	D	06/06/22 0902	06/07/22 2119	CLR
Carbazole	<89000	89000	ug/kg dry	5	D	06/06/22 0902	06/07/22 2119	CLR
Chrysene	<89000	89000	ug/kg dry	5	D	06/06/22 0902	06/07/22 2119	CLR
Dibenz[a,h]anthracene	<89000	89000	ug/kg dry	5	D	06/06/22 0902	06/07/22 2119	CLR
Dibenzofuran	<89000	89000	ug/kg dry	5	D	06/06/22 0902	06/07/22 2119	CLR
Diethyl phthalate	<89000	89000	ug/kg dry	5	D	06/06/22 0902	06/07/22 2119	CLR
Dimethyl phthalate	<89000	89000	ug/kg dry	5	D	06/06/22 0902	06/07/22 2119	CLR
Di-n-butyl phthalate	<89000	89000	ug/kg dry	5	D	06/06/22 0902	06/07/22 2119	CLR
Di-n-octyl phthalate	<89000	89000	ug/kg dry	5	D	06/06/22 0902	06/07/22 2119	CLR
Fluoranthene	<89000	89000	ug/kg dry	5	D	06/06/22 0902	06/07/22 2119	CLR
Fluorene	<89000	89000	ug/kg dry	5	D	06/06/22 0902	06/07/22 2119	CLR
Hexachlorobenzene	<89000	89000	ug/kg dry	5	D	06/06/22 0902	06/07/22 2119	CLR
Hexachlorobutadiene	<89000	89000	ug/kg dry	5	D	06/06/22 0902	06/07/22 2119	CLR
Hexachlorocyclopentadiene	<89000	89000	ug/kg dry	5	D	06/06/22 0902	06/07/22 2119	CLR
Hexachloroethane	<89000	89000	ug/kg dry	5	D	06/06/22 0902	06/07/22 2119	CLR
Indeno[1,2,3cd]pyrene	<89000	89000	ug/kg dry	5	D	06/06/22 0902	06/07/22 2119	CLR
Isophorone	<89000	89000	ug/kg dry	5	D	06/06/22 0902	06/07/22 2119	CLR
Naphthalene	<89000	89000	ug/kg dry	5	D	06/06/22 0902	06/07/22 2119	CLR
Nitrobenzene	<89000	89000	ug/kg dry	5	D	06/06/22 0902	06/07/22 2119	CLR
N-Nitrosodimethylamine	<89000	89000	ug/kg dry	5	D	06/06/22 0902	06/07/22 2119	CLR
N-Nitrosodi-n-propylamine	<89000	89000	ug/kg dry	5	D	06/06/22 0902	06/07/22 2119	CLR
N-Nitrosodiphenylamine	<89000	89000	ug/kg dry	5	D	06/06/22 0902	06/07/22 2119	CLR
Pentachlorophenol	<430000	430000	ug/kg dry	5	D	06/06/22 0902	06/07/22 2119	CLR

Client Sample ID: MF5-25-A1
Sample Matrix: Solid
Lab Sample ID: 22E1596-09
Collection Date: 05/24/2022 15:45

Semivolatile Organic Compounds by GCMS	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
Phenanthrene	<89000	89000	ug/kg dry	5	D	06/06/22 0902	06/07/22 2119	CLR
Phenol	<89000	89000	ug/kg dry	5	D	06/06/22 0902	06/07/22 2119	CLR
Pyrene	<89000	89000	ug/kg dry	5	D	06/06/22 0902	06/07/22 2119	CLR
Pyridine	<89000	89000	ug/kg dry	5	D	06/06/22 0902	06/07/22 2119	CLR
Total Cresol	<89000	89000	ug/kg dry	5	D	06/06/22 0902	06/07/22 2119	CLR
Surrogate: 2,4,6-Tribromophenol	87.2	Limit: 13.9-145	% Rec	5	D	06/06/22 0902	06/07/22 2119	CLR
Surrogate: 2-Fluorobiphenyl	85.4	Limit: 28.1-110	% Rec	5	D	06/06/22 0902	06/07/22 2119	CLR
Surrogate: 2-Fluorophenol	64.4	Limit: 24.5-110	% Rec	5	D	06/06/22 0902	06/07/22 2119	CLR
Surrogate: Nitrobenzene-d5	74.5	Limit: 33.6-110	% Rec	5	D	06/06/22 0902	06/07/22 2119	CLR
Surrogate: Phenol-d5	82.2	Limit: 29.6-110	% Rec	5	D	06/06/22 0902	06/07/22 2119	CLR
Surrogate: Terphenyl-d14	91.7	Limit: 35.8-121	% Rec	5	D	06/06/22 0902	06/07/22 2119	CLR

MICROBAC®

Microbac Laboratories, Inc. - Chicagoland

CERTIFICATE OF ANALYSIS

22E1596

Client Sample ID: MF5-25-A1
Sample Matrix: Solid
Lab Sample ID: 22E1596-10 **Collection Date:** 05/24/2022 15:45

Metals TCLP by CVAA	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
SW-846 7470/EPA 7470A								
Mercury	<0.0025	0.0025	mg/L	1		06/01/22 1012	06/01/22 1344	KMD

Metals TCLP by ICP	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
SW846 3005A/EPA 6010C								
Arsenic	<0.050	0.050	mg/L	1	**T6**	06/01/22 1007	06/02/22 1845	KMD
Barium	<2.5	2.5	mg/L	1	**T6**	06/01/22 1007	06/02/22 1845	KMD
Cadmium	**0.046**	0.010	mg/L	1	**T6**	06/01/22 1007	06/02/22 1845	KMD
Chromium	<0.025	0.025	mg/L	1	**T6**	06/01/22 1007	06/02/22 1845	KMD
Lead	<0.038	0.038	mg/L	1	**T6**	06/01/22 1007	06/02/22 1845	KMD
Selenium	<0.15	0.15	mg/L	1	**T6**	06/01/22 1007	06/02/22 1845	KMD
Silver	<0.050	0.050	mg/L	1	**T6**	06/01/22 1007	06/02/22 1845	KMD

Volatile Organic Compounds TCLP by GCMS	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
SW-846 8260B/EPA 8260B								
1,1-Dichloroethene	<0.050	0.050	mg/L	10			06/02/22 1429	JBS
1,2-Dichloroethane	<0.050	0.050	mg/L	10			06/02/22 1429	JBS
2-Butanone	<0.20	0.20	mg/L	10			06/02/22 1429	JBS
Benzene	<0.050	0.050	mg/L	10			06/02/22 1429	JBS
Carbon tetrachloride	<0.050	0.050	mg/L	10			06/02/22 1429	JBS
Chlorobenzene	<0.050	0.050	mg/L	10			06/02/22 1429	JBS
Chloroform	<0.050	0.050	mg/L	10			06/02/22 1429	JBS
Tetrachloroethene	<0.050	0.050	mg/L	10			06/02/22 1429	JBS
Trichloroethene	<0.050	0.050	mg/L	10			06/02/22 1429	JBS
Vinyl chloride	<0.020	0.020	mg/L	10			06/02/22 1429	JBS
Surrogate: 1,2-Dichloroethane-d4	100	Limit: 74.5-132	% Rec	10			06/02/22 1429	JBS
Surrogate: 4-Bromofluorobenzene	90.9	Limit: 80-120	% Rec	10			06/02/22 1429	JBS
Surrogate: Dibromofluoromethane	102	Limit: 80-120	% Rec	10			06/02/22 1429	JBS
Surrogate: Toluene-d8	102	Limit: 80-120	% Rec	10			06/02/22 1429	JBS

Semivolatile Organic Compounds TCLP by GCMS	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
SW846 3510/EPA 8270C								
1,4-Dichlorobenzene	<0.20	0.20	mg/L	1	**T6**	06/03/22 0708	06/08/22 1451	CLR
2,4,5-Trichlorophenol	<0.20	0.20	mg/L	1	**T6**	06/03/22 0708	06/08/22 1451	CLR
2,4,6-Trichlorophenol	<0.20	0.20	mg/L	1	**T6**	06/03/22 0708	06/08/22 1451	CLR
2,4-Dinitrotoluene	<0.20	0.20	mg/L	1	**T6**	06/03/22 0708	06/08/22 1451	CLR
2-Methylphenol	<0.20	0.20	mg/L	1	**T6**	06/03/22 0708	06/08/22 1451	CLR
3/4-Methylphenol	<0.20	0.20	mg/L	1	**T6**	06/03/22 0708	06/08/22 1451	CLR
Hexachlorobenzene	<0.20	0.20	mg/L	1	**T6**	06/03/22 0708	06/08/22 1451	CLR
Hexachlorobutadiene	<0.20	0.20	mg/L	1	**T6**	06/03/22 0708	06/08/22 1451	CLR
Hexachloroethane	<0.20	0.20	mg/L	1	**T6**	06/03/22 0708	06/08/22 1451	CLR
Nitrobenzene	<0.20	0.20	mg/L	1	**T6**	06/03/22 0708	06/08/22 1451	CLR

CERTIFICATE OF ANALYSIS

22E1596

Client Sample ID: MF5-25-A1
Sample Matrix: Solid
Lab Sample ID: 22E1596-10
Collection Date: 05/24/2022 15:45

Semivolatile Organic Compounds TCLP by GCMS	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
Pentachlorophenol	<1.0	1.0	mg/L	1	**T6**	06/03/22 0708	06/08/22 1451	CLR
Pyridine	<0.20	0.20	mg/L	1	**T6**	06/03/22 0708	06/08/22 1451	CLR
Total Cresol	<0.20	0.20	mg/L	1	**T6**	06/03/22 0708	06/08/22 1451	CLR
Surrogate: 2,4,6-Tribromophenol	56.8	Limit: 47.8-138	% Rec	1	**T6**	06/03/22 0708	06/08/22 1451	CLR
Surrogate: 2-Fluorobiphenyl	29.7	Limit: 10-110	% Rec	1	**T6**	06/03/22 0708	06/08/22 1451	CLR
Surrogate: 2-Fluorophenol	28.2	Limit: 10-110	% Rec	1	**T6**	06/03/22 0708	06/08/22 1451	CLR
Surrogate: Nitrobenzene-d5	32.6	Limit: 10-110	% Rec	1	**T6**	06/03/22 0708	06/08/22 1451	CLR
Surrogate: Phenol-d5	35.2	Limit: 43.7-126	% Rec	1	**S2, T6**	06/03/22 0708	06/08/22 1451	CLR
Surrogate: Terphenyl-d14	61.2	Limit: 33.7-136	% Rec	1	**T6**	06/03/22 0708	06/08/22 1451	CLR

Batch Log Summary

Method	Batch	Laboratory ID	Client / Source ID
EPA 9095B	B196932	22E1596-01	MF5-25-F6
		B196932-DUP1	22E1402-01
		22E1596-03	MF5-25-4E
		22E1596-05	MF5-25-D4
		22E1596-07	MF5-25-Row2
		22E1596-09	MF5-25-A1

Method	Batch	Laboratory ID	Client / Source ID
SM 2540 G-2011	B196955	B196955-DUP2	22E1596-03
		B196955-DUP1	22E1596-01
		22E1596-03	MF5-25-4E
		22E1596-09	MF5-25-A1
		22E1596-05	MF5-25-D4
		22E1596-01	MF5-25-F6
		22E1596-07	MF5-25-Row2

Method	Batch	Laboratory ID	Client / Source ID
EPA 9012B	B196970	B196970-BLK1	
		22E1596-01	MF5-25-F6
		B196970-MS1	22E1596-01
		B196970-MSD1	22E1596-01
		22E1596-03	MF5-25-4E
		22E1596-05	MF5-25-D4
		22E1596-07	MF5-25-Row2
		22E1596-09	MF5-25-A1
		B196970-BS2	
		B196970-PS1	22E1596-01

Method	Batch	Laboratory ID	Client / Source ID
EPA 9045D	B197007	22E1596-01	MF5-25-F6
		22E1596-01	MF5-25-F6
		22E1596-03	MF5-25-4E
		22E1596-03	MF5-25-4E
		22E1596-05	MF5-25-D4
		22E1596-05	MF5-25-D4
		22E1596-07	MF5-25-Row2
		22E1596-07	MF5-25-Row2
		22E1596-09	MF5-25-A1
		22E1596-09	MF5-25-A1
		B197007-DUP1	22E1596-01

Method	Batch	Laboratory ID	Client / Source ID
EPA 9066	B197012	B197012-BLK1	
		B197012-BS1	
		22E1596-01	MF5-25-F6
		22E1596-03	MF5-25-4E
		22E1596-05	MF5-25-D4
		22E1596-07	MF5-25-Row2
		B197012-MS1	22E1596-07
		B197012-MSD1	22E1596-07
		22E1596-09	MF5-25-A1

Method	Batch	Laboratory ID	Client / Source ID
EPA 6010C	B197042	B197042-MRL1	
		B197042-MRL2	
		B197042-MRL3	
		B197042-BLK1	
		B197042-BS1	
		B197042-BS2	
		22E1596-01	MF5-25-F6
		22E1596-03	MF5-25-4E
		22E1596-05	MF5-25-D4
		22E1596-07	MF5-25-Row2
		B197042-MS1	22E1596-07
		B197042-MSD1	22E1596-07
		22E1596-09	MF5-25-A1
		22E1596-01RE1	MF5-25-F6
		22E1596-03RE1	MF5-25-4E
		22E1596-05RE1	MF5-25-D4
		22E1596-07RE1	MF5-25-Row2
		B197042-PS1	22E1596-07
		22E1596-09RE1	MF5-25-A1

Method	Batch	Laboratory ID	Client / Source ID
EPA 6010C	B197060	B197060-BLK1	
		B197060-BS1	
		B197060-MS1	22E1489-01
		B197060-MSD1	22E1489-01
		22E1596-04	MF5-25-4E
		22E1596-08	MF5-25-Row2

Method	Batch	Laboratory ID	Client / Source ID
EPA 6010C	B197061	B197061-BLK1	
		B197061-BS1	

EPA 6010C	B197061	22E1596-06	MF5-25-D4
		B197061-MS1	22E1596-06
		B197061-MSD1	22E1596-06

Method	Batch	Laboratory ID	Client / Source ID
EPA 7470A	B197062	B197062-BLK1	
		B197062-BS1	
		B197062-MS1	22E1489-01
		B197062-MSD1	22E1489-01
		22E1596-04	MF5-25-4E
		22E1596-08	MF5-25-Row2

Method	Batch	Laboratory ID	Client / Source ID
EPA 7470A	B197063	B197063-BLK1	
		B197063-BS1	
		22E1596-06	MF5-25-D4
		B197063-MS1	22E1596-06
		B197063-MSD1	22E1596-06

Method	Batch	Laboratory ID	Client / Source ID
EPA 7471B	B197128	B197128-BLK1	
		B197128-BS1	
		B197128-MS1	22E1587-01
		B197128-MSD1	22E1587-01
		22E1596-01	MF5-25-F6
		22E1596-03	MF5-25-4E
		22E1596-05	MF5-25-D4
		22E1596-07	MF5-25-Row2
		22E1596-09	MF5-25-A1

Method	Batch	Laboratory ID	Client / Source ID
EPA 8260B	B197159	B197159-BS1	
		B197159-BLK1	
		B197159-MS1	22E1587-14
		B197159-MSD1	22E1587-14
		22E1596-01	MF5-25-F6
		22E1596-07	MF5-25-Row2

Method	Batch	Laboratory ID	Client / Source ID
EPA 8082A	B197183	B197183-BLK1	
		B197183-BS1	
		B197183-MS1	22E1770-01
		B197183-MSD1	22E1770-01
		22E1596-01	MF5-25-F6

EPA 8082A	B197183	22E1596-03	MF5-25-4E
		22E1596-05	MF5-25-D4
		22E1596-07	MF5-25-Row2
		22E1596-09	MF5-25-A1

Method	Batch	Laboratory ID	Client / Source ID
EPA 9030B Modified	B197253	B197253-BS1	
		B197253-MS1	22E1776-01
		22E1596-03	MF5-25-4E
		22E1596-05	MF5-25-D4
		22E1596-07	MF5-25-Row2
		22E1596-01	MF5-25-F6
		B197253-BLK1	
		B197253-MSD1	22E1776-01
		22E1596-09	MF5-25-A1

Method	Batch	Laboratory ID	Client / Source ID
EPA 8270C	B197264	B197264-BLK1	
		B197264-BLK2	
		B197264-BS1	
		22E1596-04	MF5-25-4E
		22E1596-06	MF5-25-D4
		22E1596-08	MF5-25-Row2
		B197264-MS1	22E1596-04
		B197264-MSD1	22E1596-04

Method	Batch	Laboratory ID	Client / Source ID
EPA 8260B	B197270	B197270-BS1	
		B197270-BLK1	
		22E1596-03	MF5-25-4E
		22E1596-05	MF5-25-D4
		22E1596-09	MF5-25-A1
		B197270-MS1	22E1823-01
		B197270-MSD1	22E1823-01

Method	Batch	Laboratory ID	Client / Source ID
EPA 6010C	B197277	B197277-BLK1	
		B197277-BS1	
		B197277-MS1	22E1772-01
		B197277-MSD1	22E1772-01
		22E1596-02RE1	MF5-25-F6
		22E1596-10RE1	MF5-25-A1

Method	Batch	Laboratory ID	Client / Source ID

EPA 7470A	B197278	B197278-BLK1	
		B197278-BS1	
		22E1596-02	MF5-25-F6
		22E1596-10	MF5-25-A1
		B197278-MS1	22E1772-01
		B197278-MSD1	22E1772-01

Method	Batch	Laboratory ID	Client / Source ID
EPA 8270C	B197309	B197309-BLK1	
		B197309-MS1	22E1587-04
		B197309-MSD1	22E1587-04
		B197309-BS1	
		22E1596-01	MF5-25-F6

Method	Batch	Laboratory ID	Client / Source ID
ASTM D92-90 Modified	B197348	22E1596-01	MF5-25-F6
		22E1596-03	MF5-25-4E
		22E1596-05	MF5-25-D4
		22E1596-07	MF5-25-Row2
		22E1596-09	MF5-25-A1

Method	Batch	Laboratory ID	Client / Source ID
EPA 8260B	B197362	B197362-BS1	
		B197362-BSD1	
		B197362-BLK1	
		22E1596-02	MF5-25-F6
		22E1596-04	MF5-25-4E
		22E1596-06	MF5-25-D4

Method	Batch	Laboratory ID	Client / Source ID
EPA 8270C	B197450	B197450-BLK1	
		B197450-BS1	
		22E1596-02	MF5-25-F6
		22E1596-10	MF5-25-A1
		B197450-MS1	22E1776-01
		B197450-MSD1	22E1776-01

Method	Batch	Laboratory ID	Client / Source ID
EPA 8260B	B197455	B197455-BS1	
		B197455-BSD1	
		B197455-BLK1	
		22E1596-08	MF5-25-Row2
		22E1596-10	MF5-25-A1

Method	Batch	Laboratory ID	Client / Source ID

EPA 8270C	B197562	B197562-BLK1	
		B197562-BS1	
		22E1596-03	MF5-25-4E
		22E1596-05	MF5-25-D4
		22E1596-07	MF5-25-Row2
		22E1596-09	MF5-25-A1
		B197562-MS1	22E1843-01
		B197562-MSD1	22E1843-01

Method	Batch	Laboratory ID	Client / Source ID
EPA 9038	B198767	22E1596-01	MF5-25-F6
		B198767-MS1	22E1596-01
		B198767-MSD1	22E1596-01
		22E1596-03	MF5-25-4E
		22E1596-05	MF5-25-D4
		22E1596-07	MF5-25-Row2
		22E1596-09RE1	MF5-25-A1

Batch Quality Control Summary: Microbac Laboratories, Inc. - Chicagoland

Inorganics Total	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B196932 - PAINTFILTER_9095_PR - EPA 9095B										
Duplicate (B196932-DUP1)		**Source: 22E1402-01**	Prepared & Analyzed: 05/25/2022							
Paint Filter	No Free Liquids	0.0	NA		ND				200	
Batch B196955 - PSOLID_PMOIST_2540B_PR - SM 2540 G-2011										
Duplicate (B196955-DUP1)		**Source: 22E1596-01**	Prepared & Analyzed: 05/26/2022							
Percent Solids	80.6	0.10	% (by wt.)		78.9			2.20	20	
Duplicate (B196955-DUP2)		**Source: 22E1596-03**	Prepared & Analyzed: 05/26/2022							
Percent Solids	49.4	0.10	% (by wt.)		41.5			17.3	20	
Batch B196970 - CNPR_MICRO_S - EPA 9012B										
Blank (B196970-BLK1)			Prepared & Analyzed: 05/26/2022							
Cyanide, Total	<0.0050	0.0050	mg/Kg wet							
LCS (B196970-BS2)			Prepared & Analyzed: 05/26/2022							
Cyanide, Total	0.0960	0.0050	mg/Kg wet	0.10		96.0	90-110			
Matrix Spike (B196970-MS1)		**Source: 22E1596-01**	Prepared & Analyzed: 05/26/2022							
Cyanide, Total	6.96	0.33	mg/Kg dry	6.7	1.56	80.8	69.4-116			
Matrix Spike Dup (B196970-MSD1)		**Source: 22E1596-01**	Prepared & Analyzed: 05/26/2022							

Inorganics Total	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B196970 - CNPR_MICRO_S - EPA 9012B										
Matrix Spike Dup (B196970-MSD1)		**Source: 22E1596-01**	Prepared & Analyzed: 05/26/2022							
Cyanide, Total	5.56	0.31	mg/Kg dry	6.1	1.56	65.0	69.4-116	22.4	20	M2, R1
Post Spike (B196970-PS1)		**Source: 22E1596-01**	Prepared & Analyzed: 05/26/2022							
Cyanide, Total	151		ug/L	100	21.7	129	70-130			M3
Batch B197007 - PH_9045_PR - EPA 9045D										
Duplicate (B197007-DUP1)		**Source: 22E1596-01**	Prepared & Analyzed: 05/26/2022							
pH	10.46	2.00	S.U.		10.67			1.99	20	
Temperature	20.0		°C		19.8			1.01	200	
Batch B197012 - PHENOLPR_S - EPA 9066										
Blank (B197012-BLK1)			Prepared & Analyzed: 05/26/2022							
Phenolics, Total Recoverable	<0.010	0.010	mg/Kg							
LCS (B197012-BS1)			Prepared & Analyzed: 05/26/2022							
Phenolics, Total Recoverable	0.417	0.010	mg/Kg	0.40		104	78.3-121			
Matrix Spike (B197012-MS1)		**Source: 22E1596-07**	Prepared & Analyzed: 05/26/2022							
Phenolics, Total Recoverable	29.4	0.49	mg/Kg	19	15.0	74.1	69.7-110			
Matrix Spike Dup (B197012-MSD1)		**Source: 22E1596-07**	Prepared & Analyzed: 05/26/2022							
Phenolics, Total Recoverable	28.9	0.48	mg/Kg	19	15.0	72.8	69.7-110	1.81	20	
Batch B197253 - SULFPR_S - EPA 9030B Modified										
Blank (B197253-BLK1)			Prepared & Analyzed: 05/31/2022							
Sulfide	<0.010	0.010	mg/Kg							
LCS (B197253-BS1)			Prepared & Analyzed: 05/31/2022							
Sulfide	4.55	0.10	mg/Kg	5.0		91.0	10-161			
Matrix Spike (B197253-MS1)		**Source: 22E1776-01**	Prepared & Analyzed: 05/31/2022							
Sulfide	170	4.3	mg/Kg	220	5.00	76.1	61-149			
Matrix Spike Dup (B197253-MSD1)		**Source: 22E1776-01**	Prepared & Analyzed: 05/31/2022							
Sulfide	179	4.3	mg/Kg	220	5.00	79.9	61-149	4.73	20	
Batch B198767 - WCPREP - EPA 9038										
Matrix Spike (B198767-MS1)		**Source: 22E1596-01**	Prepared & Analyzed: 06/22/2022							
Sulfate	3580	400	mg/Kg	2400	1320	94.6	68-153			
Matrix Spike Dup (B198767-MSD1)		**Source: 22E1596-01**	Prepared & Analyzed: 06/22/2022							
Sulfate	3510	400	mg/Kg	2400	1320	91.8	68-153	1.87	20	

Metals Total by CVAA	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B197128 - HGPREP_S - EPA 7471B										
Blank (B197128-BLK1)			Prepared: 05/31/2022 Analyzed: 06/01/2022							

Metals Total by CVAA	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B197128 - HGPREP_S - EPA 7471B										
Blank (B197128-BLK1)			Prepared: 05/31/2022 Analyzed: 06/01/2022							
Mercury	<0.042	0.042	mg/Kg wet							
LCS (B197128-BS1)			Prepared: 05/31/2022 Analyzed: 06/01/2022							
Mercury	10.3	2.5	mg/Kg wet	10		103	71-130			
Matrix Spike (B197128-MS1)		**Source: 22E1587-01**	Prepared: 05/31/2022 Analyzed: 06/01/2022							
Mercury	0.0851	0.044	mg/Kg dry	0.087	ND	97.9	80-120			
Matrix Spike Dup (B197128-MSD1)		**Source: 22E1587-01**	Prepared: 05/31/2022 Analyzed: 06/01/2022							
Mercury	0.0796	0.043	mg/Kg dry	0.086	ND	93.1	80-120	6.65	20	

Metals Total by ICP	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B197042 - 3050I - EPA 6010C										
Blank (B197042-BLK1)			Prepared: 05/27/2022 Analyzed: 06/01/2022							
Arsenic	<0.50	0.50	mg/Kg wet							
Barium	<0.20	0.20	mg/Kg wet							
Cadmium	<0.20	0.20	mg/Kg wet							
Chromium	<0.20	0.20	mg/Kg wet							
Lead	<0.38	0.38	mg/Kg wet							
Lithium	<5.0	5.0	mg/Kg wet							
Nickel	<0.50	0.50	mg/Kg wet							
Selenium	<1.5	1.5	mg/Kg wet							
Silver	<0.50	0.50	mg/Kg wet							
LCS (B197042-BS1)			Prepared: 05/27/2022 Analyzed: 06/01/2022							
Arsenic	97	1.0	mg/Kg wet	99		97.9	83-117			
Barium	360	0.40	mg/Kg wet	340		106	82-118			
Cadmium	41	0.40	mg/Kg wet	44		92.8	83-117			
Chromium	170	0.40	mg/Kg wet	160		106	82-118			
Lead	91	0.75	mg/Kg wet	99		91.5	83-117			
Lithium	<10	10	mg/Kg wet				0-200			

Metals Total by ICP	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B197042 - 3050I - EPA 6010C										
LCS (B197042-BS1)			Prepared: 05/27/2022 Analyzed: 06/01/2022							
Nickel	50	1.0	mg/Kg wet	47		105	82-118			
Selenium	93	3.0	mg/Kg wet	94		98.5	79-121			
Silver	28	1.0	mg/Kg wet	28		98.9	80-120			
LCS (B197042-BS2)			Prepared: 05/27/2022 Analyzed: 06/01/2022							
Arsenic	96	0.50	mg/Kg wet	100		95.6	83-117			
Barium	110	0.20	mg/Kg wet	110		103	82-118			
Cadmium	9.4	0.20	mg/Kg wet	10		93.6	83-117			
Chromium	110	0.20	mg/Kg wet	100		106	82-118			
Lead	94	0.38	mg/Kg wet	100		94.0	83-117			
Lithium	99	5.0	mg/Kg wet	100		99.0	0-200			
Nickel	100	0.50	mg/Kg wet	100		100	82-118			
Selenium	94	1.5	mg/Kg wet	100		93.8	79-121			
Silver	11	0.50	mg/Kg wet	10		105	80-120			
Matrix Spike (B197042-MS1)	**Source: 22E1596-07**		Prepared: 05/27/2022 Analyzed: 06/02/2022							
Arsenic	150	0.67	mg/Kg dry	130	14	98.5	75-125			
Barium	440	0.27	mg/Kg dry	150	370	50.4	75-125			M2
Cadmium	85	0.27	mg/Kg dry	13	82	26.5	75-125			S
Chromium	230	0.27	mg/Kg dry	130	180	37.2	75-125			M2
Lead	23000	0.50	mg/Kg dry	130	24000	NR	75-125			S
Lithium	1700	6.7	mg/Kg dry	130	1700	5.00	75-125			E, S
Nickel	2000	0.67	mg/Kg dry	130	1600	245	75-125			S
Selenium	130	2.0	mg/Kg dry	130	ND	97.7	75-125			
Silver	36	0.67	mg/Kg dry	13	54	NR	75-125			M2
Matrix Spike Dup (B197042-MSD1)	**Source: 22E1596-07**		Prepared: 05/27/2022 Analyzed: 06/02/2022							
Arsenic	3200	0.66	mg/Kg dry	130	14	NR	75-125	183	20	M1, R1
Barium	340	0.26	mg/Kg dry	150	370	NR	75-125	26.1	20	M2, R1

Metals Total by ICP	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B197042 - 3050I - EPA 6010C										
Matrix Spike Dup (B197042-MSD1)	**Source: 22E1596-07**		Prepared: 05/27/2022 Analyzed: 06/02/2022							
Cadmium	1200	0.26	mg/Kg dry	13	82	NR	75-125	173	20	S
Chromium	230	0.26	mg/Kg dry	130	180	38.5	75-125	0.549	20	M2
Lead	350000	0.50	mg/Kg dry	130	24000	NR	75-125	176	20	E, S
Lithium	1200	6.6	mg/Kg dry	130	1700	NR	75-125	33.1	20	E, S
Nickel	25000	0.66	mg/Kg dry	130	1600	NR	75-125	171	20	E, S
Selenium	2900	2.0	mg/Kg dry	130	ND	NR	75-125	183	20	M1, R1
Silver	38	0.66	mg/Kg dry	13	54	NR	75-125	6.11	20	M2, R1
Post Spike (B197042-PS1)	**Source: 22E1596-07**		Prepared: 05/27/2022 Analyzed: 06/03/2022							
Arsenic	2.3		mg/L	2.0	0.21	104	80-120			M3
Barium	7.0		mg/L	2.2	5.5	65.6	80-120			M5
Cadmium	1.2		mg/L	0.20	1.2	NR	80-120			
Chromium	4.2		mg/L	2.0	2.7	70.8	80-120			M5
Lead	300		mg/L	2.0	360	NR	80-120			
Lithium	25		mg/L	2.0	25	NR	80-120			
Nickel	22		mg/L	2.0	25	NR	80-120			
Selenium	2.1		mg/L	2.0	-0.032	105	80-120			M3
Silver	0.96		mg/L	0.20	0.81	79.0	80-120			M5

Metals TCLP by CVAA	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B197062 - HGPrep_TCLP - EPA 7470A										
Blank (B197062-BLK1)			Prepared: 05/27/2022 Analyzed: 05/31/2022							
Mercury	<0.0025	0.0025	mg/L							
LCS (B197062-BS1)			Prepared: 05/27/2022 Analyzed: 05/31/2022							
Mercury	0.00468	0.0025	mg/L	0.0050		93.6	80-120			
Matrix Spike (B197062-MS1)	**Source: 22E1489-01**		Prepared: 05/27/2022 Analyzed: 05/31/2022							
Mercury	0.00431	0.0025	mg/L	0.0050	ND	86.2	50-150			
Matrix Spike Dup (B197062-MSD1)	**Source: 22E1489-01**		Prepared: 05/27/2022 Analyzed: 05/31/2022							
Mercury	0.00444	0.0025	mg/L	0.0050	ND	88.8	50-150	2.97	20	
Batch B197063 - HGPrep_TCLP - EPA 7470A										
Blank (B197063-BLK1)			Prepared: 05/27/2022 Analyzed: 05/31/2022							
Mercury	<0.0025	0.0025	mg/L							
LCS (B197063-BS1)			Prepared: 05/27/2022 Analyzed: 05/31/2022							
Mercury	0.00464	0.0025	mg/L	0.0050		92.8	80-120			
Matrix Spike (B197063-MS1)	**Source: 22E1596-06**		Prepared: 05/27/2022 Analyzed: 05/31/2022							
Mercury	0.00463	0.0025	mg/L	0.0050	ND	92.6	50-150			

Metals TCLP by CVAA	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B197063 - HGPrep_TCLP - EPA 7470A										
Matrix Spike Dup (B197063-MSD1)		**Source: 22E1596-06**	Prepared: 05/27/2022 Analyzed: 05/31/2022							
Mercury	0.00454	0.0025	mg/L	0.0050	ND	90.9	50-150	1.91	20	
Batch B197278 - HGPrep_TCLP - EPA 7470A										
Blank (B197278-BLK1)			Prepared & Analyzed: 06/01/2022							
Mercury	<0.0025	0.0025	mg/L							
LCS (B197278-BS1)			Prepared & Analyzed: 06/01/2022							
Mercury	0.00554	0.0025	mg/L	0.0050		111	80-120			
Matrix Spike (B197278-MS1)		**Source: 22E1772-01**	Prepared & Analyzed: 06/01/2022							
Mercury	0.00555	0.0025	mg/L	0.0050	ND	111	50-150			
Matrix Spike Dup (B197278-MSD1)		**Source: 22E1772-01**	Prepared & Analyzed: 06/01/2022							
Mercury	0.00600	0.0025	mg/L	0.0050	ND	120	50-150	7.66	20	

Metals TCLP by ICP	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B197060 - 3005TC - EPA 6010C										
Blank (B197060-BLK1)			Prepared & Analyzed: 05/27/2022							
Arsenic	<0.050	0.050	mg/L							
Barium	<2.5	2.5	mg/L							
Cadmium	<0.010	0.010	mg/L							
Chromium	<0.025	0.025	mg/L							
Lead	<0.038	0.038	mg/L							
Selenium	<0.15	0.15	mg/L							
Silver	<0.050	0.050	mg/L							
LCS (B197060-BS1)			Prepared & Analyzed: 05/27/2022							
Arsenic	10	0.050	mg/L	10		104	80-120			
Barium	11	2.5	mg/L	11		96.1	80-120			
Cadmium	1.1	0.010	mg/L	1.0		106	80-120			
Chromium	9.6	0.025	mg/L	10		96.0	80-120			
Lead	10	0.038	mg/L	10		100	80-120			
Selenium	11	0.15	mg/L	10		112	80-120			
Silver	1.1	0.050	mg/L	1.0		107	80-120			
Matrix Spike (B197060-MS1)		**Source: 22E1489-01**	Prepared & Analyzed: 05/27/2022							
Arsenic	9.7	0.050	mg/L	10	ND	97.0	50-200			
Barium	10	2.5	mg/L	11	0.43	88.8	50-200			
Cadmium	0.98	0.010	mg/L	1.0	ND	97.8	50-200			
Chromium	8.8	0.025	mg/L	10	0.056	87.9	50-200			
Lead	9.4	0.038	mg/L	10	0.052	93.2	50-200			
Selenium	11	0.15	mg/L	10	ND	105	50-200			
Silver	1.0	0.050	mg/L	1.0	ND	100	50-200			
Matrix Spike Dup (B197060-MSD1)		**Source: 22E1489-01**	Prepared & Analyzed: 05/27/2022							
Arsenic	11	0.050	mg/L	10	ND	108	50-200	10.5	20	
Barium	11	2.5	mg/L	11	0.43	99.2	50-200	10.7	20	

Metals TCLP by ICP	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B197060 - 3005TC - EPA 6010C										
Matrix Spike Dup (B197060-MSD1)		**Source: 22E1489-01**	Prepared & Analyzed: 05/27/2022							
Cadmium	1.1	0.010	mg/L	1.0	ND	108	50-200	9.73	20	
Chromium	9.8	0.025	mg/L	10	0.056	97.3	50-200	10.1	20	
Lead	10	0.038	mg/L	10	0.052	103	50-200	9.50	20	
Selenium	12	0.15	mg/L	10	ND	116	50-200	9.96	20	
Silver	1.1	0.050	mg/L	1.0	ND	111	50-200	10.8	20	
Batch B197061 - 3005TC - EPA 6010C										
Blank (B197061-BLK1)			Prepared & Analyzed: 05/27/2022							
Arsenic	<0.050	0.050	mg/L							
Barium	<2.5	2.5	mg/L							
Cadmium	<0.010	0.010	mg/L							
Chromium	<0.025	0.025	mg/L							
Lead	<0.038	0.038	mg/L							
Selenium	<0.15	0.15	mg/L							
Silver	<0.050	0.050	mg/L							
LCS (B197061-BS1)			Prepared & Analyzed: 05/27/2022							
Arsenic	10	0.050	mg/L	10		103	80-120			
Barium	11	2.5	mg/L	11		98.0	80-120			
Cadmium	1.1	0.010	mg/L	1.0		109	80-120			
Chromium	9.7	0.025	mg/L	10		96.6	80-120			
Lead	11	0.038	mg/L	10		107	80-120			
Selenium	11	0.15	mg/L	10		114	80-120			
Silver	1.1	0.050	mg/L	1.0		108	80-120			
Matrix Spike (B197061-MS1)		**Source: 22E1596-06**	Prepared & Analyzed: 05/27/2022							
Arsenic	11	0.050	mg/L	10	ND	107	50-200			
Barium	11	2.5	mg/L	11	0.71	96.9	50-200			
Cadmium	1.7	0.010	mg/L	1.0	0.73	94.6	50-200			
Chromium	9.5	0.025	mg/L	10	ND	94.9	50-200			
Lead	12	0.038	mg/L	10	2.0	98.7	50-200			
Selenium	11	0.15	mg/L	10	ND	115	50-200			
Silver	1.1	0.050	mg/L	1.0	ND	109	50-200			
Matrix Spike Dup (B197061-MSD1)		**Source: 22E1596-06**	Prepared & Analyzed: 05/27/2022							
Arsenic	11	0.050	mg/L	10	ND	108	50-200	1.26	20	
Barium	12	2.5	mg/L	11	0.71	98.3	50-200	1.27	20	
Cadmium	1.7	0.010	mg/L	1.0	0.73	101	50-200	3.61	20	
Chromium	9.6	0.025	mg/L	10	ND	95.5	50-200	0.630	20	
Lead	12	0.038	mg/L	10	2.0	100	50-200	1.38	20	
Selenium	12	0.15	mg/L	10	ND	117	50-200	1.73	20	
Silver	1.1	0.050	mg/L	1.0	ND	110	50-200	0.959	20	
Batch B197277 - 3005TC - EPA 6010C										
Blank (B197277-BLK1)			Prepared & Analyzed: 06/01/2022							

Metals TCLP by ICP	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B197277 - 3005TC - EPA 6010C										
Blank (B197277-BLK1)			Prepared & Analyzed: 06/01/2022							
Arsenic	<0.050	0.050	mg/L							
Barium	<2.5	2.5	mg/L							
Cadmium	<0.010	0.010	mg/L							
Chromium	<0.025	0.025	mg/L							
Lead	<0.038	0.038	mg/L							
Selenium	<0.15	0.15	mg/L							
Silver	<0.050	0.050	mg/L							
LCS (B197277-BS1)			Prepared & Analyzed: 06/01/2022							
Arsenic	10	0.050	mg/L	10		99.8	80-120			
Barium	11	2.5	mg/L	11		96.1	80-120			
Cadmium	0.98	0.010	mg/L	1.0		98.4	80-120			
Chromium	9.9	0.025	mg/L	10		99.4	80-120			
Lead	9.5	0.038	mg/L	10		95.3	80-120			
Selenium	10	0.15	mg/L	10		105	80-120			
Silver	0.99	0.050	mg/L	1.0		99.4	80-120			
Matrix Spike (B197277-MS1)	**Source: 22E1772-01**		Prepared & Analyzed: 06/01/2022							
Arsenic	10	0.050	mg/L	10	ND	102	50-200			
Barium	11	2.5	mg/L	11	0.34	97.2	50-200			
Cadmium	1.0	0.010	mg/L	1.0	0.0050	99.6	50-200			
Chromium	9.9	0.025	mg/L	10	ND	99.4	50-200			
Lead	9.7	0.038	mg/L	10	ND	96.6	50-200			
Selenium	11	0.15	mg/L	10	ND	106	50-200			
Silver	1.0	0.050	mg/L	1.0	ND	101	50-200			
Matrix Spike Dup (B197277-MSD1)	**Source: 22E1772-01**		Prepared & Analyzed: 06/01/2022							
Arsenic	10	0.050	mg/L	10	ND	100	50-200	1.78	20	
Barium	11	2.5	mg/L	11	0.34	95.8	50-200	1.37	20	
Cadmium	0.98	0.010	mg/L	1.0	0.0050	97.8	50-200	1.82	20	
Chromium	9.7	0.025	mg/L	10	ND	97.3	50-200	2.08	20	
Lead	9.4	0.038	mg/L	10	ND	94.3	50-200	2.41	20	
Selenium	10	0.15	mg/L	10	ND	105	50-200	1.80	20	
Silver	0.99	0.050	mg/L	1.0	ND	99.2	50-200	1.65	20	

Volatile Organic Compounds by GCMS	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B197159 - 8260_5035_SB_PR - EPA 8260B										
Blank (B197159-BLK1)			Prepared & Analyzed: 05/27/2022							
1,1,1,2-Tetrachloroethane	<10	10	ug/kg wet							
1,1,1-Trichloroethane	<5.0	5.0	ug/kg wet							
1,1,2,2-Tetrachloroethane	<5.0	5.0	ug/kg wet							

Volatile Organic Compounds by GCMS	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B197159 - 8260_5035_SB_PR - EPA 8260B										
Blank (B197159-BLK1)			Prepared & Analyzed: 05/27/2022							
1,1,2-Trichloroethane	<5.0	5.0	ug/kg wet							
1,1-Dichloroethane	<5.0	5.0	ug/kg wet							
1,1-Dichloroethene	<5.0	5.0	ug/kg wet							
1,2-Dichloroethane	<5.0	5.0	ug/kg wet							
1,2-Dichloropropane	<5.0	5.0	ug/kg wet							
2-Butanone	<10	10	ug/kg wet							
2-Hexanone	<10	10	ug/kg wet							
4-Methyl-2-pentanone	<10	10	ug/kg wet							
Acetone	<50	50	ug/kg wet							
Acrolein	<100	100	ug/kg wet							
Acrylonitrile	<100	100	ug/kg wet							
Benzene	<5.0	5.0	ug/kg wet							
Bromodichloromethane	<5.0	5.0	ug/kg wet							
Bromoform	<5.0	5.0	ug/kg wet							
Bromomethane	<10	10	ug/kg wet							
Carbon Disulfide	<10	10	ug/kg wet							
Carbon tetrachloride	<5.0	5.0	ug/kg wet							
Chlorobenzene	<5.0	5.0	ug/kg wet							
Chloroethane	<10	10	ug/kg wet							
Chloroform	<5.0	5.0	ug/kg wet							
Chloromethane	<10	10	ug/kg wet							
cis-1,2-Dichloroethene	<5.0	5.0	ug/kg wet							
cis-1,3-Dichloropropene	<5.0	5.0	ug/kg wet							
Dibromochloromethane	<5.0	5.0	ug/kg wet							
Ethylbenzene	<5.0	5.0	ug/kg wet							

Volatile Organic Compounds by GCMS	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B197159 - 8260_5035_SB_PR - EPA 8260B										
Blank (B197159-BLK1)			Prepared & Analyzed: 05/27/2022							
m,p-Xylene	<5.0	5.0	ug/kg wet							
Methylene chloride	<20	20	ug/kg wet							
Methyl-t-Butyl Ether	<5.0	5.0	ug/kg wet							
o-Xylene	<5.0	5.0	ug/kg wet							
Styrene	<5.0	5.0	ug/kg wet							
Tetrachloroethene	<5.0	5.0	ug/kg wet							
Toluene	<5.0	5.0	ug/kg wet							
trans-1,2-Dichloroethene	<5.0	5.0	ug/kg wet							
trans-1,3-Dichloropropene	<5.0	5.0	ug/kg wet							
Trichloroethene	<5.0	5.0	ug/kg wet							
Trichlorofluoromethane	<10	10	ug/kg wet							
Vinyl Acetate	<10	10	ug/kg wet							
Vinyl chloride	<10	10	ug/kg wet							
Total 1,2-Dichloroethene	<5.0	5.0	ug/kg wet							
Total Xylenes	<5.0	5.0	ug/kg wet							
Surrogate: 1,2-Dichloroethane-d4	*48*		ug/L	*50*		*95.4*	*51.7-162*			
Surrogate: 4-Bromofluorobenzene	*48*		ug/L	*50*		*95.3*	*57.4-135*			
Surrogate: Dibromofluoromethane	*47*		ug/L	*50*		*93.9*	*63.5-139*			
Surrogate: Toluene-d8	*51*		ug/L	*50*		*102*	*66.6-143*			
LCS (B197159-BS1)			Prepared & Analyzed: 05/27/2022							
1,1,1,2-Tetrachloroethane	48.6		ug/L	50		97.1	78.8-118			
1,1,1-Trichloroethane	47.1		ug/L	50		94.2	79.4-127			
1,1,2,2-Tetrachloroethane	48.5		ug/L	50		97.1	62.5-121			
1,1,2-Trichloroethane	49.7		ug/L	50		99.4	75.9-116			
1,1-Dichloroethane	47.1		ug/L	50		94.2	76.8-116			
1,1-Dichloroethene	47.2		ug/L	50		94.4	71.1-125			
1,2-Dichloroethane	48.4		ug/L	50		96.8	73.8-120			
1,2-Dichloropropane	48.3		ug/L	50		96.6	77.9-121			
2-Butanone	47.2		ug/L	50		94.4	70.9-129			
2-Hexanone	41.9		ug/L	50		83.8	58.4-128			
4-Methyl-2-pentanone	44.8		ug/L	50		89.5	67.3-136			
Acetone	48.5		ug/L	50		96.9	69.3-121			

Volatile Organic Compounds by GCMS	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B197159 - 8260_5035_SB_PR - EPA 8260B										
LCS (B197159-BS1)			Prepared & Analyzed: 05/27/2022							
Acrolein	38.7		ug/L	50		77.5	47.8-153			
Acrylonitrile	51.2		ug/L	50		102	74-125			
Benzene	47.1		ug/L	50		94.3	76.3-126			
Bromodichloromethane	47.9		ug/L	50		95.8	76.9-111			
Bromoform	50.8		ug/L	50		102	70.3-126			
Bromomethane	47.2		ug/L	50		94.4	30.2-136			
Carbon Disulfide	33.6		ug/L	50		67.2	63-132			
Carbon tetrachloride	46.5		ug/L	50		92.9	76.7-128			
Chlorobenzene	48.0		ug/L	50		96.0	82.7-116			
Chloroethane	44.3		ug/L	50		88.6	48.2-144			
Chloroform	48.2		ug/L	50		96.4	79.4-120			
Chloromethane	42.4		ug/L	50		84.8	55.1-110			
cis-1,2-Dichloroethene	48.3		ug/L	50		96.6	75.5-125			
cis-1,3-Dichloropropene	47.4		ug/L	50		94.7	83-120			
Dibromochloromethane	50.8		ug/L	50		102	80-120			
Ethylbenzene	47.6		ug/L	50		95.3	84-121			
m,p-Xylene	94.5		ug/L	100		94.5	86-126			
Methylene chloride	56.2		ug/L	50		112	69.2-122			
Methyl-t-Butyl Ether	46.3		ug/L	50		92.6	71.4-115			
o-Xylene	47.1		ug/L	50		94.2	80.6-125			
Styrene	44.8		ug/L	50		89.6	73-126			
Tetrachloroethene	47.4		ug/L	50		94.7	79.3-131			
Toluene	46.5		ug/L	50		92.9	83.3-122			
trans-1,2-Dichloroethene	47.8		ug/L	50		95.6	75.6-126			
trans-1,3-Dichloropropene	48.3		ug/L	50		96.6	77.2-121			
Trichloroethene	47.5		ug/L	50		95.1	76.7-126			
Trichlorofluoromethane	45.3		ug/L	50		90.5	73.7-116			
Vinyl Acetate	48.5		ug/L	50		97.0	71.8-118			
Vinyl chloride	47.6		ug/L	50		95.2	67.3-118			
Total Xylenes	142		ug/L	150		94.4	49.9-158			
Surrogate: 1,2-Dichloroethane-d4	*47*		ug/L	*50*		*93.1*	*51.7-162*			
Surrogate: 4-Bromofluorobenzene	*50*		ug/L	*50*		*99.3*	*57.4-135*			
Surrogate: Dibromofluoromethane	*48*		ug/L	*50*		*95.8*	*63.5-139*			
Surrogate: Toluene-d8	*50*		ug/L	*50*		*101*	*66.6-143*			
Matrix Spike (B197159-MS1)		**Source: 22E1587-14**	Prepared & Analyzed: 05/27/2022							
1,1,1,2-Tetrachloroethane	39.4		ug/L	50	0.00	78.7	52.5-130			
1,1,1-Trichloroethane	38.9		ug/L	50	0.00	77.9	46.3-135			
1,1,2,2-Tetrachloroethane	37.6		ug/L	50	0.00	75.1	56-146			
1,1,2-Trichloroethane	42.5		ug/L	50	0.00	85.1	60.2-129			
1,1-Dichloroethane	40.1		ug/L	50	0.00	80.2	59-131			
1,1-Dichloroethene	39.2		ug/L	50	0.00	78.5	39.1-116			
1,2-Dichloroethane	43.8		ug/L	50	0.00	87.7	54.7-126			
1,2-Dichloropropane	42.0		ug/L	50	0.00	84.0	62.9-118			

Volatile Organic Compounds by GCMS	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B197159 - 8260_5035_SB_PR - EPA 8260B										
Matrix Spike (B197159-MS1)		**Source: 22E1587-14**	Prepared & Analyzed: 05/27/2022							
2-Butanone	47.0		ug/L	50	0.00	93.9	38.1-138			
2-Hexanone	40.8		ug/L	50	0.00	81.5	34-149			
4-Methyl-2-pentanone	42.4		ug/L	50	0.00	84.8	31.1-175			
Acetone	52.8		ug/L	50	12.7	80.2	27.9-161			
Acrolein	29.8		ug/L	50	0.00	59.6	10-200			
Acrylonitrile	49.0		ug/L	50	0.00	98.1	39.4-186			
Benzene	40.4		ug/L	50	0.00	80.9	54.8-120			
Bromodichloromethane	41.7		ug/L	50	0.00	83.4	54.6-122			
Bromoform	43.8		ug/L	50	0.00	87.5	31-122			
Bromomethane	39.2		ug/L	50	0.00	78.5	10.8-142			
Carbon Disulfide	26.4		ug/L	50	0.00	52.9	16-177			
Carbon tetrachloride	37.9		ug/L	50	0.00	75.8	41.6-132			
Chlorobenzene	37.0		ug/L	50	0.00	74.0	36.8-129			
Chloroethane	36.4		ug/L	50	0.00	72.7	42.4-126			
Chloroform	41.7		ug/L	50	0.00	83.4	64-123			
Chloromethane	35.1		ug/L	50	0.00	70.2	45.3-143			
cis-1,2-Dichloroethene	41.9		ug/L	50	0.00	83.8	67-126			
cis-1,3-Dichloropropene	38.7		ug/L	50	0.00	77.4	49.9-139			
Dibromochloromethane	42.3		ug/L	50	0.00	84.6	52.1-132			
Ethylbenzene	35.6		ug/L	50	0.00	71.1	33.4-133			
m,p-Xylene	70.5		ug/L	100	0.00	70.5	30.5-132			
Methylene chloride	53.2		ug/L	50	14.0	78.5	53.8-125			
Methyl-t-Butyl Ether	41.4		ug/L	50	0.00	82.8	41.1-144			
o-Xylene	36.2		ug/L	50	0.00	72.4	38-123			
Styrene	33.3		ug/L	50	0.00	66.7	16.9-131			
Tetrachloroethene	36.8		ug/L	50	6.49	60.6	43-135			
Toluene	36.5		ug/L	50	0.561	71.9	35.2-143			
trans-1,2-Dichloroethene	40.7		ug/L	50	0.00	81.4	53.7-120			
trans-1,3-Dichloropropene	39.6		ug/L	50	0.00	79.3	42-148			
Trichloroethene	43.1		ug/L	50	1.01	84.2	37.1-145			
Trichlorofluoromethane	37.0		ug/L	50	0.00	73.9	40.5-141			
Vinyl Acetate	20.1		ug/L	50	0.00	40.2	22.5-184			
Vinyl chloride	40.0		ug/L	50	0.00	79.9	54.5-143			
Total Xylenes	107		ug/L	150	0.00	71.2	17.1-165			
Surrogate: 1,2-Dichloroethane-d4	*51*		ug/L	*50*		*101*	*51.7-162*			
Surrogate: 4-Bromofluorobenzene	*50*		ug/L	*50*		*100*	*57.4-135*			
Surrogate: Dibromofluoromethane	*49*		ug/L	*50*		*98.7*	*63.5-139*			
Surrogate: Toluene-d8	*48*		ug/L	*50*		*96.8*	*66.6-143*			
Matrix Spike Dup (B197159-MSD1)		**Source: 22E1587-14**	Prepared & Analyzed: 05/27/2022							
1,1,1,2-Tetrachloroethane	39.1		ug/L	50	0.00	78.2	52.5-130	0.688	30	
1,1,1-Trichloroethane	38.9		ug/L	50	0.00	77.8	46.3-135	0.129	30	
1,1,2,2-Tetrachloroethane	37.7		ug/L	50	0.00	75.4	56-146	0.292	30	
1,1,2-Trichloroethane	43.0		ug/L	50	0.00	86.1	60.2-129	1.22	30	

Volatile Organic Compounds by GCMS	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B197159 - 8260_5035_SB_PR - EPA 8260B										
Matrix Spike Dup (B197159-MSD1)		**Source: 22E1587-14**	Prepared & Analyzed: 05/27/2022							
1,1-Dichloroethane	40.0		ug/L	50	0.00	80.1	59-131	0.0999	30	
1,1-Dichloroethene	39.4		ug/L	50	0.00	78.8	39.1-116	0.382	30	
1,2-Dichloroethane	44.4		ug/L	50	0.00	88.8	54.7-126	1.27	30	
1,2-Dichloropropane	41.9		ug/L	50	0.00	83.8	62.9-118	0.286	30	
2-Butanone	51.7		ug/L	50	0.00	103	38.1-138	9.69	30	
2-Hexanone	43.5		ug/L	50	0.00	87.0	34-149	6.55	30	
4-Methyl-2-pentanone	45.9		ug/L	50	0.00	91.8	31.1-175	7.97	30	
Acetone	57.8		ug/L	50	12.5	90.6	27.9-161	9.02	30	
Acrolein	30.6		ug/L	50	0.00	61.2	10-200	2.65	30	
Acrylonitrile	53.0		ug/L	50	0.00	106	39.4-186	7.76	30	
Benzene	40.4		ug/L	50	0.00	80.8	54.8-120	0.148	30	
Bromodichloromethane	42.1		ug/L	50	0.00	84.2	54.6-122	0.883	30	
Bromoform	43.6		ug/L	50	0.00	87.3	31-122	0.229	30	
Bromomethane	41.6		ug/L	50	0.00	83.1	10.8-142	5.74	30	
Carbon Disulfide	27.2		ug/L	50	0.00	54.4	16-177	2.83	30	
Carbon tetrachloride	37.6		ug/L	50	0.00	75.1	41.6-132	0.901	30	
Chlorobenzene	36.6		ug/L	50	0.00	73.1	36.8-129	1.20	30	
Chloroethane	36.3		ug/L	50	0.00	72.5	42.4-126	0.275	30	
Chloroform	41.7		ug/L	50	0.00	83.3	64-123	0.0960	30	
Chloromethane	36.5		ug/L	50	0.00	73.1	45.3-143	3.96	30	
cis-1,2-Dichloroethene	41.8		ug/L	50	0.00	83.5	67-126	0.311	30	
cis-1,3-Dichloropropene	38.6		ug/L	50	0.00	77.2	49.9-139	0.336	30	
Dibromochloromethane	42.0		ug/L	50	0.00	83.9	52.1-132	0.831	30	
Ethylbenzene	35.2		ug/L	50	0.00	70.3	33.4-133	1.10	30	
m,p-Xylene	69.8		ug/L	100	0.00	69.8	30.5-132	1.10	30	
Methylene chloride	53.1		ug/L	50	13.8	78.7	53.8-125	0.226	30	
Methyl-t-Butyl Ether	42.4		ug/L	50	0.00	84.8	41.1-144	2.43	30	
o-Xylene	35.8		ug/L	50	0.00	71.5	38-123	1.22	30	
Styrene	33.0		ug/L	50	0.00	66.1	16.9-131	0.904	30	
Tetrachloroethene	36.6		ug/L	50	6.40	60.5	43-135	0.436	30	
Toluene	36.5		ug/L	50	0.553	71.9	35.2-143	0.0822	30	
trans-1,2-Dichloroethene	40.4		ug/L	50	0.00	80.8	53.7-120	0.715	30	
trans-1,3-Dichloropropene	39.1		ug/L	50	0.00	78.2	42-148	1.37	30	
Trichloroethene	43.1		ug/L	50	0.996	84.2	37.1-145	0.0232	30	
Trichlorofluoromethane	37.0		ug/L	50	0.00	74.0	40.5-141	0.0812	30	
Vinyl Acetate	18.8		ug/L	50	0.00	37.7	22.5-184	6.43	30	
Vinyl chloride	39.0		ug/L	50	0.00	78.1	54.5-143	2.38	30	
Total Xylenes	106		ug/L	150	0.00	70.3	17.1-165	1.14	200	
Surrogate: 1,2-Dichloroethane-d4	*50*		ug/L	*50*		*100*	*51.7-162*			
Surrogate: 4-Bromofluorobenzene	*50*		ug/L	*50*		*101*	*57.4-135*			
Surrogate: Dibromofluoromethane	*49*		ug/L	*50*		*97.9*	*63.5-139*			
Surrogate: Toluene-d8	*48*		ug/L	*50*		*96.6*	*66.6-143*			

Volatile Organic Compounds by GCMS	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B197270 - 8260_BTEX+M_PR - EPA 8260B										
Blank (B197270-BLK1)			Prepared & Analyzed: 05/31/2022							
1,1,1,2-Tetrachloroethane	<10	10	ug/kg wet							
1,1,1-Trichloroethane	<5.0	5.0	ug/kg wet							
1,1,2,2-Tetrachloroethane	<5.0	5.0	ug/kg wet							
1,1,2-Trichloroethane	<5.0	5.0	ug/kg wet							
1,1-Dichloroethane	<5.0	5.0	ug/kg wet							
1,1-Dichloroethene	<5.0	5.0	ug/kg wet							
1,2-Dichloroethane	<5.0	5.0	ug/kg wet							
1,2-Dichloropropane	<5.0	5.0	ug/kg wet							
2-Butanone	<10	10	ug/kg wet							
2-Hexanone	<10	10	ug/kg wet							
4-Methyl-2-pentanone	<10	10	ug/kg wet							
Acetone	<50	50	ug/kg wet							
Acrolein	<100	100	ug/kg wet							
Acrylonitrile	<100	100	ug/kg wet							
Benzene	<5.0	5.0	ug/kg wet							
Bromodichloromethane	<5.0	5.0	ug/kg wet							
Bromoform	<5.0	5.0	ug/kg wet							
Bromomethane	<10	10	ug/kg wet							
Carbon Disulfide	<10	10	ug/kg wet							
Carbon tetrachloride	<5.0	5.0	ug/kg wet							
Chlorobenzene	<5.0	5.0	ug/kg wet							
Chloroethane	<10	10	ug/kg wet							
Chloroform	<5.0	5.0	ug/kg wet							
Chloromethane	<10	10	ug/kg wet							
cis-1,2-Dichloroethene	<5.0	5.0	ug/kg wet							

Volatile Organic Compounds by GCMS	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B197270 - 8260_BTEX+M_PR - EPA 8260B										
Blank (B197270-BLK1)			Prepared & Analyzed: 05/31/2022							
cis-1,3-Dichloropropene	<5.0	5.0	ug/kg wet							
Dibromochloromethane	<5.0	5.0	ug/kg wet							
Ethylbenzene	<5.0	5.0	ug/kg wet							
m,p-Xylene	<5.0	5.0	ug/kg wet							
Methylene chloride	<20	20	ug/kg wet							
Methyl-t-Butyl Ether	<5.0	5.0	ug/kg wet							
o-Xylene	<5.0	5.0	ug/kg wet							
Styrene	<5.0	5.0	ug/kg wet							
Tetrachloroethene	<5.0	5.0	ug/kg wet							
Toluene	<5.0	5.0	ug/kg wet							
trans-1,2-Dichloroethene	<5.0	5.0	ug/kg wet							
trans-1,3-Dichloropropene	<5.0	5.0	ug/kg wet							
Trichloroethene	<5.0	5.0	ug/kg wet							
Trichlorofluoromethane	<10	10	ug/kg wet							
Vinyl Acetate	<10	10	ug/kg wet							
Vinyl chloride	<10	10	ug/kg wet							
Total 1,2-Dichloroethene	<5.0	5.0	ug/kg wet							
Total Xylenes	<5.0	5.0	ug/kg wet							
Surrogate: 1,2-Dichloroethane-d4	*50*		ug/L	*50*		*99.9*	*51.7-162*			
Surrogate: 4-Bromofluorobenzene	*48*		ug/L	*50*		*95.8*	*57.4-135*			
Surrogate: Dibromofluoromethane	*48*		ug/L	*50*		*96.8*	*63.5-139*			
Surrogate: Toluene-d8	*50*		ug/L	*50*		*99.5*	*66.6-143*			
LCS (B197270-BS1)			Prepared & Analyzed: 05/31/2022							
1,1,1,2-Tetrachloroethane	52.0		ug/L	50		104	78.8-118			
1,1,1-Trichloroethane	52.8		ug/L	50		106	79.4-127			
1,1,2,2-Tetrachloroethane	50.8		ug/L	50		102	62.5-121			
1,1,2-Trichloroethane	51.2		ug/L	50		102	75.9-116			
1,1-Dichloroethane	52.0		ug/L	50		104	76.8-116			
1,1-Dichloroethene	53.0		ug/L	50		106	71.1-125			
1,2-Dichloroethane	52.2		ug/L	50		104	73.8-120			

Volatile Organic Compounds by GCMS	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B197270 - 8260_BTEX+M_PR - EPA 8260B										
LCS (B197270-BS1)			Prepared & Analyzed: 05/31/2022							
1,2-Dichloropropane	53.0		ug/L	50		106	77.9-121			
2-Butanone	53.2		ug/L	50		106	70.9-129			
2-Hexanone	50.2		ug/L	50		100	58.4-128			
4-Methyl-2-pentanone	51.7		ug/L	50		103	67.3-136			
Acetone	63.2		ug/L	50		126	69.3-121			S
Acrolein	38.8		ug/L	50		77.6	47.8-153			
Acrylonitrile	56.3		ug/L	50		113	74-125			
Benzene	52.4		ug/L	50		105	76.3-126			
Bromodichloromethane	53.3		ug/L	50		107	76.9-111			
Bromoform	54.6		ug/L	50		109	70.3-126			
Bromomethane	51.0		ug/L	50		102	30.2-136			
Carbon Disulfide	32.4		ug/L	50		64.8	63-132			
Carbon tetrachloride	52.9		ug/L	50		106	76.7-128			
Chlorobenzene	51.3		ug/L	50		103	82.7-116			
Chloroethane	50.0		ug/L	50		100	48.2-144			
Chloroform	53.9		ug/L	50		108	79.4-120			
Chloromethane	46.3		ug/L	50		92.5	55.1-110			
cis-1,2-Dichloroethene	54.0		ug/L	50		108	75.5-125			
cis-1,3-Dichloropropene	50.4		ug/L	50		101	83-120			
Dibromochloromethane	52.9		ug/L	50		106	80-120			
Ethylbenzene	50.9		ug/L	50		102	84-121			
m,p-Xylene	101		ug/L	100		101	86-126			
Methylene chloride	53.8		ug/L	50		108	69.2-122			
Methyl-t-Butyl Ether	46.8		ug/L	50		93.6	71.4-115			
o-Xylene	50.2		ug/L	50		100	80.6-125			
Styrene	47.5		ug/L	50		95.1	73-126			
Tetrachloroethene	51.2		ug/L	50		102	79.3-131			
Toluene	49.4		ug/L	50		98.9	83.3-122			
trans-1,2-Dichloroethene	53.4		ug/L	50		107	75.6-126			
trans-1,3-Dichloropropene	51.0		ug/L	50		102	77.2-121			
Trichloroethene	53.5		ug/L	50		107	76.7-126			
Trichlorofluoromethane	52.2		ug/L	50		104	73.7-116			
Vinyl Acetate	48.2		ug/L	50		96.4	71.8-118			
Vinyl chloride	55.0		ug/L	50		110	67.3-118			
Total Xylenes	151		ug/L	150		101	49.9-158			
Surrogate: 1,2-Dichloroethane-d4	*50*		ug/L	*50*		*99.5*	*51.7-162*			
Surrogate: 4-Bromofluorobenzene	*50*		ug/L	*50*		*100*	*57.4-135*			
Surrogate: Dibromofluoromethane	*50*		ug/L	*50*		*100*	*63.5-139*			
Surrogate: Toluene-d8	*49*		ug/L	*50*		*97.4*	*66.6-143*			
Matrix Spike (B197270-MS1)		**Source: 22E1823-01**	Prepared & Analyzed: 05/31/2022							
1,1,1,2-Tetrachloroethane	46.4		ug/L	50	0.00	92.9	52.5-130			
1,1,1-Trichloroethane	47.8		ug/L	50	0.00	95.6	46.3-135			
1,1,2,2-Tetrachloroethane	44.3		ug/L	50	0.00	88.7	56-146			

Volatile Organic Compounds by GCMS	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B197270 - 8260_BTEX+M_PR - EPA 8260B										
Matrix Spike (B197270-MS1)		**Source: 22E1823-01**	Prepared & Analyzed: 05/31/2022							
1,1,2-Trichloroethane	46.2		ug/L	50	0.00	92.5	60.2-129			
1,1-Dichloroethane	47.1		ug/L	50	0.00	94.2	59-131			
1,1-Dichloroethene	48.2		ug/L	50	0.00	96.4	39.1-116			
1,2-Dichloroethane	48.0		ug/L	50	0.00	95.9	54.7-126			
1,2-Dichloropropane	47.9		ug/L	50	0.00	95.8	62.9-118			
2-Butanone	43.9		ug/L	50	0.00	87.8	38.1-138			
2-Hexanone	39.2		ug/L	50	0.00	78.4	34-149			
4-Methyl-2-pentanone	42.0		ug/L	50	0.00	84.1	31.1-175			
Acetone	53.7		ug/L	50	21.3	64.8	27.9-161			
Acrolein	21.0		ug/L	50	0.00	42.0	10-200			
Acrylonitrile	42.3		ug/L	50	0.00	84.6	39.4-186			
Benzene	47.9		ug/L	50	0.00	95.7	54.8-120			
Bromodichloromethane	48.3		ug/L	50	0.00	96.6	54.6-122			
Bromoform	47.4		ug/L	50	0.00	94.7	31-122			
Bromomethane	44.8		ug/L	50	0.00	89.6	10.8-142			
Carbon Disulfide	27.6		ug/L	50	0.00	55.3	16-177			
Carbon tetrachloride	47.4		ug/L	50	0.00	94.7	41.6-132			
Chlorobenzene	45.8		ug/L	50	0.00	91.6	36.8-129			
Chloroethane	43.2		ug/L	50	0.00	86.5	42.4-126			
Chloroform	49.3		ug/L	50	0.00	98.5	64-123			
Chloromethane	39.7		ug/L	50	0.00	79.3	45.3-143			
cis-1,2-Dichloroethene	49.1		ug/L	50	0.00	98.2	67-126			
cis-1,3-Dichloropropene	44.4		ug/L	50	0.00	88.7	49.9-139			
Dibromochloromethane	47.4		ug/L	50	0.00	94.8	52.1-132			
Ethylbenzene	45.4		ug/L	50	0.00	90.8	33.4-133			
m,p-Xylene	89.7		ug/L	100	0.00	89.7	30.5-132			
Methylene chloride	52.0		ug/L	50	2.35	99.2	53.8-125			
Methyl-t-Butyl Ether	40.6		ug/L	50	0.00	81.3	41.1-144			
o-Xylene	44.8		ug/L	50	0.00	89.6	38-123			
Styrene	42.0		ug/L	50	0.00	84.1	16.9-131			
Tetrachloroethene	46.4		ug/L	50	0.00	92.7	43-135			
Toluene	44.4		ug/L	50	0.00	88.8	35.2-143			
trans-1,2-Dichloroethene	48.7		ug/L	50	0.00	97.3	53.7-120			
trans-1,3-Dichloropropene	44.4		ug/L	50	0.00	88.8	42-148			
Trichloroethene	48.7		ug/L	50	0.00	97.3	37.1-145			
Trichlorofluoromethane	44.9		ug/L	50	0.00	89.8	40.5-141			
Vinyl Acetate	25.0		ug/L	50	0.00	50.1	22.5-184			
Vinyl chloride	46.0		ug/L	50	0.00	92.0	54.5-143			
Total Xylenes	134		ug/L	150	0.00	89.7	17.1-165			
Surrogate: 1,2-Dichloroethane-d4	*49*		ug/L	*50*		*98.0*	*51.7-162*			
Surrogate: 4-Bromofluorobenzene	*49*		ug/L	*50*		*98.6*	*57.4-135*			
Surrogate: Dibromofluoromethane	*51*		ug/L	*50*		*101*	*63.5-139*			
Surrogate: Toluene-d8	*48*		ug/L	*50*		*96.6*	*66.6-143*			

Volatile Organic Compounds by GCMS	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B197270 - 8260_BTEX+M_PR - EPA 8260B										
Matrix Spike Dup (B197270-MSD1)		**Source: 22E1823-01**	Prepared & Analyzed: 05/31/2022							
1,1,1,2-Tetrachloroethane	43.7		ug/L	50	0.00	87.4	52.5-130	6.03	30	
1,1,1-Trichloroethane	44.6		ug/L	50	0.00	89.1	46.3-135	7.00	30	
1,1,2,2-Tetrachloroethane	42.6		ug/L	50	0.00	85.2	56-146	4.03	30	
1,1,2-Trichloroethane	44.7		ug/L	50	0.00	89.4	60.2-129	3.37	30	
1,1-Dichloroethane	43.9		ug/L	50	0.00	87.7	59-131	7.06	30	
1,1-Dichloroethene	44.7		ug/L	50	0.00	89.4	39.1-116	7.47	30	
1,2-Dichloroethane	46.0		ug/L	50	0.00	91.9	54.7-126	4.30	30	
1,2-Dichloropropane	46.1		ug/L	50	0.00	92.2	62.9-118	3.85	30	
2-Butanone	48.2		ug/L	50	0.00	96.4	38.1-138	9.36	30	
2-Hexanone	40.7		ug/L	50	0.00	81.4	34-149	3.78	30	
4-Methyl-2-pentanone	45.5		ug/L	50	0.00	91.0	31.1-175	7.86	30	
Acetone	59.7		ug/L	50	21.4	76.6	27.9-161	10.6	30	
Acrolein	18.9		ug/L	50	0.00	37.9	10-200		30	
Acrylonitrile	47.7		ug/L	50	0.00	95.5	39.4-186	12.1	30	
Benzene	44.6		ug/L	50	0.00	89.1	54.8-120	7.14	30	
Bromodichloromethane	45.7		ug/L	50	0.00	91.4	54.6-122	5.51	30	
Bromoform	45.8		ug/L	50	0.00	91.5	31-122	3.48	30	
Bromomethane	46.4		ug/L	50	0.00	92.8	10.8-142	3.53	30	
Carbon Disulfide	27.3		ug/L	50	0.00	54.5	16-177	1.35	30	
Carbon tetrachloride	44.0		ug/L	50	0.00	88.1	41.6-132	7.24	30	
Chlorobenzene	43.0		ug/L	50	0.00	86.0	36.8-129	6.31	30	
Chloroethane	42.4		ug/L	50	0.00	84.8	42.4-126	1.91	30	
Chloroform	46.4		ug/L	50	0.00	92.8	64-123	5.98	30	
Chloromethane	39.4		ug/L	50	0.00	78.8	45.3-143	0.658	30	
cis-1,2-Dichloroethene	45.8		ug/L	50	0.00	91.6	67-126	6.98	30	
cis-1,3-Dichloropropene	41.5		ug/L	50	0.00	83.0	49.9-139	6.64	30	
Dibromochloromethane	45.7		ug/L	50	0.00	91.4	52.1-132	3.63	30	
Ethylbenzene	42.0		ug/L	50	0.00	84.0	33.4-133	7.71	30	
m,p-Xylene	83.1		ug/L	100	0.00	83.1	30.5-132	7.70	30	
Methylene chloride	51.9		ug/L	50	2.36	99.2	53.8-125	0.0193	30	
Methyl-t-Butyl Ether	42.6		ug/L	50	0.00	85.2	41.1-144	4.73	30	
o-Xylene	41.8		ug/L	50	0.00	83.6	38-123	6.91	30	
Styrene	39.2		ug/L	50	0.00	78.3	16.9-131	7.10	30	
Tetrachloroethene	42.4		ug/L	50	0.00	84.8	43-135	8.88	30	
Toluene	41.4		ug/L	50	0.00	82.8	35.2-143	7.04	30	
trans-1,2-Dichloroethene	45.6		ug/L	50	0.00	91.2	53.7-120	6.51	30	
trans-1,3-Dichloropropene	42.0		ug/L	50	0.00	84.0	42-148	5.51	30	
Trichloroethene	45.4		ug/L	50	0.00	90.8	37.1-145	6.98	30	
Trichlorofluoromethane	43.9		ug/L	50	0.00	87.8	40.5-141	2.32	30	
Vinyl Acetate	17.1		ug/L	50	0.00	34.2	22.5-184	37.6	30	R1
Vinyl chloride	45.6		ug/L	50	0.00	91.3	54.5-143	0.786	30	
Total Xylenes	125		ug/L	150	0.00	83.2	17.1-165	7.43	200	
Surrogate: 1,2-Dichloroethane-d4	*49*		ug/L	*50*		*98.5*	*51.7-162*			

Volatile Organic Compounds by GCMS	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B197270 - 8260_BTEX+M_PR - EPA 8260B										
Matrix Spike Dup (B197270-MSD1)	**Source: 22E1823-01**		Prepared & Analyzed: 05/31/2022							
Surrogate: 4-Bromofluorobenzene	*50*		ug/L	*50*		*99.4*	*57.4-135*			
Surrogate: Dibromofluoromethane	*50*		ug/L	*50*		*101*	*63.5-139*			
Surrogate: Toluene-d8	*48*		ug/L	*50*		*96.4*	*66.6-143*			

Volatile Organic Compounds TCLP by GCMS	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B197362 - 8260_TC_PR - EPA 8260B										
B197267-BLK (B197362-BLK1)			Prepared & Analyzed: 06/01/2022							
1,1-Dichloroethene	<0.050	0.050	mg/L							
1,2-Dichloroethane	<0.050	0.050	mg/L							
2-Butanone	<0.20	0.20	mg/L							
Benzene	<0.050	0.050	mg/L							
Carbon tetrachloride	<0.050	0.050	mg/L							
Chlorobenzene	<0.050	0.050	mg/L							
Chloroform	<0.050	0.050	mg/L							
Tetrachloroethene	<0.050	0.050	mg/L							
Trichloroethene	<0.050	0.050	mg/L							
Vinyl chloride	<0.020	0.020	mg/L							
Surrogate: 1,2-Dichloroethane-d4	*25*		ug/L	*25*		*99.2*	*74.5-132*			
Surrogate: 4-Bromofluorobenzene	*23*		ug/L	*25*		*91.2*	*80-120*			
Surrogate: Dibromofluoromethane	*25*		ug/L	*25*		*99.9*	*80-120*			
Surrogate: Toluene-d8	*26*		ug/L	*25*		*103*	*80-120*			
LCS (B197362-BS1)			Prepared & Analyzed: 06/01/2022							
1,1-Dichloroethene	19.9		ug/L	20		99.6	59.5-132			
1,2-Dichloroethane	18.8		ug/L	20		93.9	73.4-117			
2-Butanone	15.1		ug/L	20		75.5	57.9-124			
Benzene	18.8		ug/L	20		93.8	82.5-123			
Carbon tetrachloride	20.4		ug/L	20		102	74.8-122			
Chlorobenzene	19.6		ug/L	20		98.2	82-115			
Chloroform	19.8		ug/L	20		99.2	80.5-121			
Tetrachloroethene	20.9		ug/L	20		105	77-120			
Trichloroethene	19.8		ug/L	20		99.1	80-120			
Vinyl chloride	20.6		ug/L	20		103	41.7-133			
Surrogate: 1,2-Dichloroethane-d4	*25*		ug/L	*25*		*99.1*	*74.5-132*			
Surrogate: 4-Bromofluorobenzene	*24*		ug/L	*25*		*94.7*	*80-120*			
Surrogate: Dibromofluoromethane	*25*		ug/L	*25*		*100*	*80-120*			
Surrogate: Toluene-d8	*25*		ug/L	*25*		*101*	*80-120*			
LCS Dup (B197362-BSD1)			Prepared & Analyzed: 06/01/2022							
1,1-Dichloroethene	19.4		ug/L	20		96.8	59.5-132	2.80	30	
1,2-Dichloroethane	19.5		ug/L	20		97.4	73.4-117	3.66	30	
2-Butanone	16.0		ug/L	20		80.0	57.9-124	5.85	30	
Benzene	18.5		ug/L	20		92.6	82.5-123	1.34	30	

Volatile Organic Compounds TCLP by GCMS	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B197362 - 8260_TC_PR - EPA 8260B										
LCS Dup (B197362-BSD1)				Prepared & Analyzed: 06/01/2022						
Carbon tetrachloride	19.6		ug/L	20		98.2	74.8-122	3.70	30	
Chlorobenzene	19.7		ug/L	20		98.4	82-115	0.153	30	
Chloroform	19.7		ug/L	20		98.6	80.5-121	0.607	30	
Tetrachloroethene	20.3		ug/L	20		102	77-120	3.05	30	
Trichloroethene	19.5		ug/L	20		97.4	80-120	1.78	30	
Vinyl chloride	19.9		ug/L	20		99.6	41.7-133	3.31	30	
Surrogate: 1,2-Dichloroethane-d4	*25*		ug/L	*25*		*101*	*74.5-132*			
Surrogate: 4-Bromofluorobenzene	*24*		ug/L	*25*		*94.8*	*80-120*			
Surrogate: Dibromofluoromethane	*25*		ug/L	*25*		*100*	*80-120*			
Surrogate: Toluene-d8	*25*		ug/L	*25*		*102*	*80-120*			
Batch B197455 - 8260_TC_PR - EPA 8260B										
B197367-BLK (B197455-BLK1)				Prepared & Analyzed: 06/02/2022						
1,1-Dichloroethene	<0.050	0.050	mg/L							
1,2-Dichloroethane	<0.050	0.050	mg/L							
2-Butanone	<0.20	0.20	mg/L							
Benzene	<0.050	0.050	mg/L							
Carbon tetrachloride	<0.050	0.050	mg/L							
Chlorobenzene	<0.050	0.050	mg/L							
Chloroform	<0.050	0.050	mg/L							
Tetrachloroethene	<0.050	0.050	mg/L							
Trichloroethene	<0.050	0.050	mg/L							
Vinyl chloride	<0.020	0.020	mg/L							
Surrogate: 1,2-Dichloroethane-d4	*24*		ug/L	*25*		*97.1*	*74.5-132*			
Surrogate: 4-Bromofluorobenzene	*23*		ug/L	*25*		*91.0*	*80-120*			
Surrogate: Dibromofluoromethane	*25*		ug/L	*25*		*101*	*80-120*			
Surrogate: Toluene-d8	*25*		ug/L	*25*		*101*	*80-120*			
LCS (B197455-BS1)				Prepared & Analyzed: 06/02/2022						
1,1-Dichloroethene	21.2		ug/L	20		106	59.5-132			
1,2-Dichloroethane	19.6		ug/L	20		97.8	73.4-117			
2-Butanone	16.8		ug/L	20		83.9	57.9-124			
Benzene	19.7		ug/L	20		98.4	82.5-123			
Carbon tetrachloride	20.9		ug/L	20		105	74.8-122			
Chlorobenzene	20.9		ug/L	20		104	82-115			
Chloroform	20.7		ug/L	20		104	80.5-121			
Tetrachloroethene	22.1		ug/L	20		111	77-120			
Trichloroethene	20.5		ug/L	20		103	80-120			
Vinyl chloride	21.5		ug/L	20		107	41.7-133			
Surrogate: 1,2-Dichloroethane-d4	*25*		ug/L	*25*		*101*	*74.5-132*			
Surrogate: 4-Bromofluorobenzene	*23*		ug/L	*25*		*93.0*	*80-120*			
Surrogate: Dibromofluoromethane	*25*		ug/L	*25*		*100*	*80-120*			
Surrogate: Toluene-d8	*26*		ug/L	*25*		*102*	*80-120*			
LCS Dup (B197455-BSD1)				Prepared & Analyzed: 06/02/2022						

Volatile Organic Compounds TCLP by GCMS	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B197455 - 8260_TC_PR - EPA 8260B										
LCS Dup (B197455-BSD1)			Prepared & Analyzed: 06/02/2022							
1,1-Dichloroethene	19.9		ug/L	20		99.4	59.5-132	6.61	30	
1,2-Dichloroethane	19.4		ug/L	20		97.0	73.4-117	0.872	30	
2-Butanone	17.5		ug/L	20		87.6	57.9-124	4.37	30	
Benzene	18.7		ug/L	20		93.5	82.5-123	5.11	30	
Carbon tetrachloride	19.8		ug/L	20		99.0	74.8-122	5.40	30	
Chlorobenzene	20.0		ug/L	20		100	82-115	4.21	30	
Chloroform	19.8		ug/L	20		99.2	80.5-121	4.29	30	
Tetrachloroethene	21.0		ug/L	20		105	77-120	5.48	30	
Trichloroethene	19.9		ug/L	20		99.3	80-120	3.22	30	
Vinyl chloride	20.2		ug/L	20		101	41.7-133	6.19	30	
Surrogate: 1,2-Dichloroethane-d4	*25*		ug/L	*25*		*101*	*74.5-132*			
Surrogate: 4-Bromofluorobenzene	*24*		ug/L	*25*		*94.5*	*80-120*			
Surrogate: Dibromofluoromethane	*25*		ug/L	*25*		*99.8*	*80-120*			
Surrogate: Toluene-d8	*26*		ug/L	*25*		*102*	*80-120*			

Semivolatile Organic Compounds by GC/ECD	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B197183 - 3550_PEST - EPA 8082A										
Blank (B197183-BLK1)			Prepared & Analyzed: 05/31/2022							
Aroclor 1016	<33	33	ug/kg wet							
Aroclor 1221	<33	33	ug/kg wet							
Aroclor 1232	<33	33	ug/kg wet							
Aroclor 1242	<33	33	ug/kg wet							
Aroclor 1248	<33	33	ug/kg wet							
Aroclor 1254	<33	33	ug/kg wet							
Aroclor 1260	<33	33	ug/kg wet							
Aroclor 1262	<33	33	ug/kg wet							
Aroclor 1268	<33	33	ug/kg wet							
Total PCB's	<33	33	ug/kg wet							
Surrogate: Tetrachloro-m-xylene	*5.7*		ug/kg wet	*6.7*		*85.0*	*27.6-126*			
Surrogate: Decachlorobiphenyl	*6.0*		ug/kg wet	*6.7*		*90.0*	*25.2-136*			
LCS (B197183-BS1)			Prepared & Analyzed: 05/31/2022							
Aroclor 1016	155	33	ug/kg wet	170		93.0	58.4-128			

Semivolatile Organic Compounds by GC/ECD	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B197183 - 3550_PEST - EPA 8082A										
LCS (B197183-BS1)				Prepared & Analyzed: 05/31/2022						
Aroclor 1260	150	33	ug/kg wet	170		89.8	55.3-125			
Surrogate: Tetrachloro-m-xylene	*5.7*		ug/kg wet	*6.7*		*85.0*	*27.6-126*			
Surrogate: Decachlorobiphenyl	*6.0*		ug/kg wet	*6.7*		*90.0*	*25.2-136*			
Matrix Spike (B197183-MS1)	**Source: 22E1770-01**			Prepared & Analyzed: 05/31/2022						
Aroclor 1016	1300	250	ug/kg dry	1300	ND	102	27.2-130			
Aroclor 1260	1160	250	ug/kg dry	1300	ND	90.8	23.8-131			
Surrogate: Tetrachloro-m-xylene	*46*		ug/kg dry	*51*		*90.0*	*27.6-126*			
Surrogate: Decachlorobiphenyl	*46*		ug/kg dry	*51*		*90.0*	*25.2-136*			
Matrix Spike Dup (B197183-MSD1)	**Source: 22E1770-01**			Prepared & Analyzed: 05/31/2022						
Aroclor 1016	1320	250	ug/kg dry	1300	ND	103	27.2-130	1.41	40	
Aroclor 1260	1220	250	ug/kg dry	1300	ND	95.4	23.8-131	4.94	40	
Surrogate: Tetrachloro-m-xylene	*49*		ug/kg dry	*51*		*95.0*	*27.6-126*			
Surrogate: Decachlorobiphenyl	*49*		ug/kg dry	*51*		*95.0*	*25.2-136*			

Semivolatile Organic Compounds by GCMS	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B197309 - 3550_B - EPA 8270C										
Blank (B197309-BLK1)				Prepared: 06/01/2022 Analyzed: 06/02/2022						
1,2,4-Trichlorobenzene	<330	330	ug/kg wet							
1,2-Dichlorobenzene	<330	330	ug/kg wet							
1,2-Diphenyl-hydrazine	<330	330	ug/kg wet							
1,3-Dichlorobenzene	<330	330	ug/kg wet							
1,4-Dichlorobenzene	<330	330	ug/kg wet							
2,2´-oxybis(1-chloropropane)	<330	330	ug/kg wet							
2,4,5-Trichlorophenol	<330	330	ug/kg wet							
2,4,6-Trichlorophenol	<330	330	ug/kg wet							
2,4-Dichlorophenol	<330	330	ug/kg wet							
2,4-Dimethylphenol	<330	330	ug/kg wet							
2,4-Dinitrophenol	<1600	1600	ug/kg wet							

Semivolatile Organic Compounds by GCMS	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B197309 - 3550_B - EPA 8270C										
Blank (B197309-BLK1)			Prepared: 06/01/2022 Analyzed: 06/02/2022							
2,4-Dinitrotoluene	<330	330	ug/kg wet							
2,6-Dichlorophenol	<330	330	ug/kg wet							
2,6-Dinitrotoluene	<330	330	ug/kg wet							
2-Chloronaphthalene	<330	330	ug/kg wet							
2-Chlorophenol	<330	330	ug/kg wet							
2-Methylnaphthalene	<330	330	ug/kg wet							
2-Methylphenol	<330	330	ug/kg wet							
2-Nitroaniline	<1600	1600	ug/kg wet							
2-Nitrophenol	<330	330	ug/kg wet							
3,3´-Dichlorobenzidine	<1600	1600	ug/kg wet							
3/4-Methylphenol	<330	330	ug/kg wet							
3-Nitroaniline	<330	330	ug/kg wet							
4,6-Dinitro-2-methylphenol	<1600	1600	ug/kg wet							
4-Bromophenyl phenyl ether	<330	330	ug/kg wet							
4-Chloro-3-methylphenol	<660	660	ug/kg wet							
4-Chloroaniline	<330	330	ug/kg wet							
4-Chlorophenyl phenyl ether	<330	330	ug/kg wet							
4-Nitroaniline	<1600	1600	ug/kg wet							
4-Nitrophenol	<1600	1600	ug/kg wet							
Acenaphthene	<330	330	ug/kg wet							
Acenaphthylene	<330	330	ug/kg wet							
Acetophenone	<330	330	ug/kg wet							
Aniline	<330	330	ug/kg wet							
Anthracene	<330	330	ug/kg wet							
Benzidine	<1600	1600	ug/kg wet							

Semivolatile Organic Compounds by GCMS	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B197309 - 3550_B - EPA 8270C										
Blank (B197309-BLK1)			Prepared: 06/01/2022 Analyzed: 06/02/2022							
Benzo[a]anthracene	<330	330	ug/kg wet							
Benzo[a]pyrene	<330	330	ug/kg wet							
Benzo[b]fluoranthene	<330	330	ug/kg wet							
Benzo[g,h,i]perylene	<330	330	ug/kg wet							
Benzo[k]fluoranthene	<330	330	ug/kg wet							
Benzoic acid	<1600	1600	ug/kg wet							
Benzyl alcohol	<660	660	ug/kg wet							
Bis(2-chloroethoxy)methane	<330	330	ug/kg wet							
Bis(2-chloroethyl)ether	<330	330	ug/kg wet							
Bis(2-ethylhexyl)phthalate	<330	330	ug/kg wet							
Butyl benzyl phthalate	<330	330	ug/kg wet							
Carbazole	<330	330	ug/kg wet							
Chrysene	<330	330	ug/kg wet							
Dibenz[a,h]anthracene	<330	330	ug/kg wet							
Dibenzofuran	<330	330	ug/kg wet							
Diethyl phthalate	<330	330	ug/kg wet							
Dimethyl phthalate	<330	330	ug/kg wet							
Di-n-butyl phthalate	<330	330	ug/kg wet							
Di-n-octyl phthalate	<330	330	ug/kg wet							
Fluoranthene	<330	330	ug/kg wet							
Fluorene	<330	330	ug/kg wet							
Hexachlorobenzene	<330	330	ug/kg wet							
Hexachlorobutadiene	<330	330	ug/kg wet							
Hexachlorocyclopentadiene	<330	330	ug/kg wet							
Hexachloroethane	<330	330	ug/kg wet							

Semivolatile Organic Compounds by GCMS	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B197309 - 3550_B - EPA 8270C										
Blank (B197309-BLK1)			Prepared: 06/01/2022 Analyzed: 06/02/2022							
Indeno[1,2,3cd]pyrene	<330	330	ug/kg wet							
Isophorone	<330	330	ug/kg wet							
Naphthalene	<330	330	ug/kg wet							
Nitrobenzene	<330	330	ug/kg wet							
N-Nitrosodimethylamine	<330	330	ug/kg wet							
N-Nitrosodi-n-propylamine	<330	330	ug/kg wet							
N-Nitrosodiphenylamine	<330	330	ug/kg wet							
Pentachlorophenol	<1600	1600	ug/kg wet							
Phenanthrene	<330	330	ug/kg wet							
Phenol	<330	330	ug/kg wet							
Pyrene	<330	330	ug/kg wet							
Pyridine	<330	330	ug/kg wet							
Total Cresol	<330	330	ug/kg wet							
Surrogate: 2,4,6-Tribromophenol	*2300*		ug/kg wet	*6700*		*34.8*	*13.9-145*			
Surrogate: 2-Fluorobiphenyl	*1000*		ug/kg wet	*3300*		*31.4*	*28.1-110*			
Surrogate: 2-Fluorophenol	*1600*		ug/kg wet	*6700*		*24.5*	*24.5-110*			
Surrogate: Nitrobenzene-d5	*940*		ug/kg wet	*3300*		*28.1*	*33.6-110*			*S2*
Surrogate: Phenol-d5	*2000*		ug/kg wet	*6700*		*29.9*	*29.6-110*			
Surrogate: Terphenyl-d14	*1200*		ug/kg wet	*3300*		*36.9*	*35.8-121*			
LCS (B197309-BS1)			Prepared: 06/01/2022 Analyzed: 06/07/2022							
1,2,4-Trichlorobenzene	1870	330	ug/kg wet	3300		56.2	35.9-110			
1,4-Dichlorobenzene	1640	330	ug/kg wet	3300		49.3	20-124			
2,4,6-Trichlorophenol	2100	330	ug/kg wet	3300		63.1	40-140			
2,4-Dichlorophenol	1930	330	ug/kg wet	3300		58.0	40-140			
2,4-Dinitrotoluene	2210	330	ug/kg wet	3300		66.4	42.6-110			
2-Chlorophenol	1740	330	ug/kg wet	3300		52.1	36.1-110			
2-Nitrophenol	1980	330	ug/kg wet	3300		59.4	40-140			
4-Chloro-3-methylphenol	2280	660	ug/kg wet	3300		68.3	40.6-119			

Semivolatile Organic Compounds by GCMS	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B197309 - 3550_B - EPA 8270C										
LCS (B197309-BS1)			Prepared: 06/01/2022 Analyzed: 06/07/2022							
4-Nitrophenol	2620	1600	ug/kg wet	3300		78.6	39.1-110			
Acenaphthene	2140	330	ug/kg wet	3300		64.4	42.1-110			
Acenaphthylene	2150	330	ug/kg wet	3300		64.6	38-120			
Anthracene	1990	330	ug/kg wet	3300		59.6	36-117			
Bis(2-chloroethoxy)methane	1970	330	ug/kg wet	3300		59.2	40-140			
Chrysene	2290	330	ug/kg wet	3300		68.6	38-122			
Di-n-butyl phthalate	2480	330	ug/kg wet	3300		74.3	40-140			
Hexachlorobenzene	2240	330	ug/kg wet	3300		67.3	40-140			
Naphthalene	1880	330	ug/kg wet	3300		56.3	39-114			
N-Nitrosodi-n-propylamine	1980	330	ug/kg wet	3300		59.4	38.1-110			
Pentachlorophenol	2300	1600	ug/kg wet	3300		69.0	22.1-110			
Phenol	1770	330	ug/kg wet	3300		53.2	38.9-110			
Pyrene	2120	330	ug/kg wet	3300		63.8	44.3-116			
Surrogate: 2,4,6-Tribromophenol	*4300*		ug/kg wet	*6700*		*64.8*	*13.9-145*			
Surrogate: 2-Fluorobiphenyl	*2000*		ug/kg wet	*3300*		*59.0*	*28.1-110*			
Surrogate: 2-Fluorophenol	*3100*		ug/kg wet	*6700*		*46.3*	*24.5-110*			
Surrogate: Nitrobenzene-d5	*1800*		ug/kg wet	*3300*		*54.5*	*33.6-110*			
Surrogate: Phenol-d5	*3700*		ug/kg wet	*6700*		*55.8*	*29.6-110*			
Surrogate: Terphenyl-d14	*2100*		ug/kg wet	*3300*		*62.6*	*35.8-121*			
Matrix Spike (B197309-MS1)	**Source: 22E1587-04**		Prepared: 06/01/2022 Analyzed: 06/02/2022							
1,2,4-Trichlorobenzene	6850	2000	ug/kg dry	21000	ND	33.2	33.9-110			M2
1,4-Dichlorobenzene	6410	2000	ug/kg dry	21000	ND	31.0	10-134			
2,4,6-Trichlorophenol	8030	2000	ug/kg dry	21000	ND	38.9	50-150			M2
2,4-Dichlorophenol	7440	2000	ug/kg dry	21000	ND	36.0	50-150			M2
2,4-Dinitrotoluene	7650	2000	ug/kg dry	21000	ND	37.1	49.9-110			M2
2-Chlorophenol	6600	2000	ug/kg dry	21000	ND	32.0	35.7-110			M2
2-Nitrophenol	7140	2000	ug/kg dry	21000	ND	34.6	50-150			M2
4-Chloro-3-methylphenol	8050	4100	ug/kg dry	21000	ND	39.0	41.5-121			M2

Semivolatile Organic Compounds by GCMS	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B197309 - 3550_B - EPA 8270C										
Matrix Spike (B197309-MS1)	**Source: 22E1587-04**		Prepared: 06/01/2022 Analyzed: 06/02/2022							
4-Nitrophenol	<9900	9900	ug/kg dry	21000	ND	39.9	32.1-121			
Acenaphthene	7910	2000	ug/kg dry	21000	ND	38.3	39.8-110			M2
Acenaphthylene	8100	2000	ug/kg dry	21000	ND	39.2	29-121			
Anthracene	7020	2000	ug/kg dry	21000	ND	34.0	29-110			
Bis(2-chloroethoxy)methane	7130	2000	ug/kg dry	21000	ND	34.5	50-150			M2
Chrysene	8460	2000	ug/kg dry	21000	ND	41.0	21-125			
Di-n-butyl phthalate	8510	2000	ug/kg dry	21000	ND	41.2	50-150			M2
Hexachlorobenzene	7960	2000	ug/kg dry	21000	ND	38.6	50-150			M2
Naphthalene	7020	2000	ug/kg dry	21000	ND	34.0	24-125			
N-Nitrosodi-n-propylamine	7070	2000	ug/kg dry	21000	ND	34.2	37.4-110			M2
Pentachlorophenol	<9900	9900	ug/kg dry	21000	ND	38.3	10.6-110			
Phenol	6910	2000	ug/kg dry	21000	ND	33.4	43.3-110			M2
Pyrene	7850	2000	ug/kg dry	21000	ND	38.0	23-113			
Surrogate: 2,4,6-Tribromophenol	*17000*		ug/kg dry	*41000*		*40.4*	*13.9-145*			
Surrogate: 2-Fluorobiphenyl	*7700*		ug/kg dry	*21000*		*37.4*	*28.1-110*			
Surrogate: 2-Fluorophenol	*13000*		ug/kg dry	*41000*		*30.9*	*24.5-110*			
Surrogate: Nitrobenzene-d5	*7000*		ug/kg dry	*21000*		*34.1*	*33.6-110*			
Surrogate: Phenol-d5	*15000*		ug/kg dry	*41000*		*36.7*	*29.6-110*			
Surrogate: Terphenyl-d14	*8300*		ug/kg dry	*21000*		*40.0*	*35.8-121*			
Matrix Spike Dup (B197309-MSD1)	**Source: 22E1587-04**		Prepared: 06/01/2022 Analyzed: 06/02/2022							
1,2,4-Trichlorobenzene	7320	2100	ug/kg dry	21000	ND	34.2	33.9-110	6.62	30	
1,4-Dichlorobenzene	7050	2100	ug/kg dry	21000	ND	32.9	10-134	9.47	30	
2,4,6-Trichlorophenol	8220	2100	ug/kg dry	21000	ND	38.4	50-150	2.24	30	M2
2,4-Dichlorophenol	7700	2100	ug/kg dry	21000	ND	36.0	50-150	3.43	30	M2
2,4-Dinitrotoluene	8120	2100	ug/kg dry	21000	ND	37.9	49.9-110	5.88	30	M2
2-Chlorophenol	7300	2100	ug/kg dry	21000	ND	34.1	35.7-110	9.98	30	M2
2-Nitrophenol	7500	2100	ug/kg dry	21000	ND	35.1	50-150	4.89	30	M2
4-Chloro-3-methylphenol	8500	4200	ug/kg dry	21000	ND	39.7	41.5-121	5.37	30	M2

Semivolatile Organic Compounds by GCMS	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B197309 - 3550_B - EPA 8270C										
Matrix Spike Dup (B197309-MSD1)	**Source: 22E1587-04**		Prepared: 06/01/2022 Analyzed: 06/02/2022							
4-Nitrophenol	<10000	10000	ug/kg dry	21000	ND	40.5	32.1-121	5.10	30	
Acenaphthene	8270	2100	ug/kg dry	21000	ND	38.6	39.8-110	4.45	30	M2
Acenaphthylene	8360	2100	ug/kg dry	21000	ND	39.1	29-121	3.18	30	
Anthracene	7410	2100	ug/kg dry	21000	ND	34.6	29-110	5.40	30	
Bis(2-chloroethoxy)methane	7530	2100	ug/kg dry	21000	ND	35.2	50-150	5.46	30	M2
Chrysene	8810	2100	ug/kg dry	21000	ND	41.2	21-125	4.00	30	
Di-n-butyl phthalate	8860	2100	ug/kg dry	21000	ND	41.4	50-150	4.09	30	M2
Hexachlorobenzene	8320	2100	ug/kg dry	21000	ND	38.9	50-150	4.39	30	M2
Naphthalene	7420	2100	ug/kg dry	21000	ND	34.7	24-125	5.46	30	
N-Nitrosodi-n-propylamine	7650	2100	ug/kg dry	21000	ND	35.7	37.4-110	7.76	30	M2
Pentachlorophenol	<10000	10000	ug/kg dry	21000	ND	40.0	10.6-110	7.98	30	
Phenol	7550	2100	ug/kg dry	21000	ND	35.3	43.3-110	8.89	30	M2
Pyrene	8130	2100	ug/kg dry	21000	ND	38.0	23-113	3.51	30	
Surrogate: 2,4,6-Tribromophenol	*17000*		ug/kg dry	*43000*		*40.1*	*13.9-145*			
Surrogate: 2-Fluorobiphenyl	*7900*		ug/kg dry	*21000*		*36.8*	*28.1-110*			
Surrogate: 2-Fluorophenol	*13000*		ug/kg dry	*43000*		*31.5*	*24.5-110*			
Surrogate: Nitrobenzene-d5	*7400*		ug/kg dry	*21000*		*34.6*	*33.6-110*			
Surrogate: Phenol-d5	*16000*		ug/kg dry	*43000*		*38.1*	*29.6-110*			
Surrogate: Terphenyl-d14	*8700*		ug/kg dry	*21000*		*40.5*	*35.8-121*			

Batch B197562 - 3550_B - EPA 8270C

Blank (B197562-BLK1)			Prepared: 06/06/2022 Analyzed: 06/07/2022							
1,2,4-Trichlorobenzene	<330	330	ug/kg wet							
1,2-Dichlorobenzene	<330	330	ug/kg wet							
1,2-Diphenyl-hydrazine	<330	330	ug/kg wet							
1,3-Dichlorobenzene	<330	330	ug/kg wet							
1,4-Dichlorobenzene	<330	330	ug/kg wet							
2,2´-oxybis(1-chloropropane)	<330	330	ug/kg wet							
2,4,5-Trichlorophenol	<330	330	ug/kg wet							

Semivolatile Organic Compounds by GCMS	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B197562 - 3550_B - EPA 8270C										
Blank (B197562-BLK1)			Prepared: 06/06/2022 Analyzed: 06/07/2022							
2,4,6-Trichlorophenol	<330	330	ug/kg wet							
2,4-Dichlorophenol	<330	330	ug/kg wet							
2,4-Dimethylphenol	<330	330	ug/kg wet							
2,4-Dinitrophenol	<1600	1600	ug/kg wet							
2,4-Dinitrotoluene	<330	330	ug/kg wet							
2,6-Dichlorophenol	<330	330	ug/kg wet							
2,6-Dinitrotoluene	<330	330	ug/kg wet							
2-Chloronaphthalene	<330	330	ug/kg wet							
2-Chlorophenol	<330	330	ug/kg wet							
2-Methylnaphthalene	<330	330	ug/kg wet							
2-Methylphenol	<330	330	ug/kg wet							
2-Nitroaniline	<1600	1600	ug/kg wet							
2-Nitrophenol	<330	330	ug/kg wet							
3,3´-Dichlorobenzidine	<1600	1600	ug/kg wet							
3/4-Methylphenol	<330	330	ug/kg wet							
3-Nitroaniline	<330	330	ug/kg wet							
4,6-Dinitro-2-methylphenol	<1600	1600	ug/kg wet							
4-Bromophenyl phenyl ether	<330	330	ug/kg wet							
4-Chloro-3-methylphenol	<660	660	ug/kg wet							
4-Chloroaniline	<330	330	ug/kg wet							
4-Chlorophenyl phenyl ether	<330	330	ug/kg wet							
4-Nitroaniline	<1600	1600	ug/kg wet							
4-Nitrophenol	<1600	1600	ug/kg wet							
Acenaphthene	<330	330	ug/kg wet							
Acenaphthylene	<330	330	ug/kg wet							

Semivolatile Organic Compounds by GCMS	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B197562 - 3550_B - EPA 8270C										
Blank (B197562-BLK1)			Prepared: 06/06/2022 Analyzed: 06/07/2022							
Acetophenone	<330	330	ug/kg wet							
Aniline	<330	330	ug/kg wet							
Anthracene	<330	330	ug/kg wet							
Benzidine	<1600	1600	ug/kg wet							
Benzo[a]anthracene	<330	330	ug/kg wet							
Benzo[a]pyrene	<330	330	ug/kg wet							
Benzo[b]fluoranthene	<330	330	ug/kg wet							
Benzo[g,h,i]perylene	<330	330	ug/kg wet							
Benzo[k]fluoranthene	<330	330	ug/kg wet							
Benzoic acid	<1600	1600	ug/kg wet							
Benzyl alcohol	<660	660	ug/kg wet							
Bis(2-chloroethoxy)methane	<330	330	ug/kg wet							
Bis(2-chloroethyl)ether	<330	330	ug/kg wet							
Bis(2-ethylhexyl)phthalate	<330	330	ug/kg wet							
Butyl benzyl phthalate	<330	330	ug/kg wet							
Carbazole	<330	330	ug/kg wet							
Chrysene	<330	330	ug/kg wet							
Dibenz[a,h]anthracene	<330	330	ug/kg wet							
Dibenzofuran	<330	330	ug/kg wet							
Diethyl phthalate	<330	330	ug/kg wet							
Dimethyl phthalate	<330	330	ug/kg wet							
Di-n-butyl phthalate	<330	330	ug/kg wet							
Di-n-octyl phthalate	<330	330	ug/kg wet							
Fluoranthene	<330	330	ug/kg wet							
Fluorene	<330	330	ug/kg wet							

Semivolatile Organic Compounds by GCMS	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B197562 - 3550_B - EPA 8270C										
Blank (B197562-BLK1)			Prepared: 06/06/2022 Analyzed: 06/07/2022							
Hexachlorobenzene	<330	330	ug/kg wet							
Hexachlorobutadiene	<330	330	ug/kg wet							
Hexachlorocyclopentadiene	<330	330	ug/kg wet							
Hexachloroethane	<330	330	ug/kg wet							
Indeno[1,2,3cd]pyrene	<330	330	ug/kg wet							
Isophorone	<330	330	ug/kg wet							
Naphthalene	<330	330	ug/kg wet							
Nitrobenzene	<330	330	ug/kg wet							
N-Nitrosodimethylamine	<330	330	ug/kg wet							
N-Nitrosodi-n-propylamine	<330	330	ug/kg wet							
N-Nitrosodiphenylamine	<330	330	ug/kg wet							
Pentachlorophenol	<1600	1600	ug/kg wet							
Phenanthrene	<330	330	ug/kg wet							
Phenol	<330	330	ug/kg wet							
Pyrene	<330	330	ug/kg wet							
Pyridine	<330	330	ug/kg wet							
Total Cresol	<330	330	ug/kg wet							
Surrogate: 2,4,6-Tribromophenol	*4800*		ug/kg wet	*6700*		*72.0*	*13.9-145*			
Surrogate: 2-Fluorobiphenyl	*2200*		ug/kg wet	*3300*		*64.9*	*28.1-110*			
Surrogate: 2-Fluorophenol	*3700*		ug/kg wet	*6700*		*54.8*	*24.5-110*			
Surrogate: Nitrobenzene-d5	*1900*		ug/kg wet	*3300*		*57.8*	*33.6-110*			
Surrogate: Phenol-d5	*4300*		ug/kg wet	*6700*		*63.9*	*29.6-110*			
Surrogate: Terphenyl-d14	*2300*		ug/kg wet	*3300*		*69.5*	*35.8-121*			
LCS (B197562-BS1)			Prepared: 06/06/2022 Analyzed: 06/07/2022							
1,2,4-Trichlorobenzene	1770	330	ug/kg wet	3300		53.2	35.9-110			
1,4-Dichlorobenzene	1610	330	ug/kg wet	3300		48.4	20-124			
2,4,6-Trichlorophenol	2140	330	ug/kg wet	3300		64.1	40-140			
2,4-Dichlorophenol	1890	330	ug/kg wet	3300		56.6	40-140			

Semivolatile Organic Compounds by GCMS	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B197562 - 3550_B - EPA 8270C										
LCS (B197562-BS1)			Prepared: 06/06/2022 Analyzed: 06/07/2022							
2,4-Dinitrotoluene	2200	330	ug/kg wet	3300		66.0	42.6-110			
2-Chlorophenol	1710	330	ug/kg wet	3300		51.4	36.1-110			
2-Nitrophenol	1930	330	ug/kg wet	3300		58.0	40-140			
4-Chloro-3-methylphenol	2110	660	ug/kg wet	3300		63.2	40.6-119			
4-Nitrophenol	2670	1600	ug/kg wet	3300		80.2	39.1-110			
Acenaphthene	2090	330	ug/kg wet	3300		62.8	42.1-110			
Acenaphthylene	2210	330	ug/kg wet	3300		66.3	38-120			
Anthracene	2210	330	ug/kg wet	3300		66.3	36-117			
Bis(2-chloroethoxy)methane	2000	330	ug/kg wet	3300		60.0	40-140			
Chrysene	2640	330	ug/kg wet	3300		79.2	38-122			
Di-n-butyl phthalate	2780	330	ug/kg wet	3300		83.5	40-140			
Hexachlorobenzene	2500	330	ug/kg wet	3300		75.0	40-140			
Naphthalene	1860	330	ug/kg wet	3300		55.9	39-114			
N-Nitrosodi-n-propylamine	2000	330	ug/kg wet	3300		60.1	38.1-110			
Pentachlorophenol	2440	1600	ug/kg wet	3300		73.2	22.1-110			
Phenol	1770	330	ug/kg wet	3300		53.0	38.9-110			
Pyrene	2330	330	ug/kg wet	3300		70.0	44.3-116			
Surrogate: 2,4,6-Tribromophenol	*4700*		ug/kg wet	*6700*		*70.3*	*13.9-145*			
Surrogate: 2-Fluorobiphenyl	*2000*		ug/kg wet	*3300*		*60.1*	*28.1-110*			
Surrogate: 2-Fluorophenol	*3200*		ug/kg wet	*6700*		*47.8*	*24.5-110*			
Surrogate: Nitrobenzene-d5	*1800*		ug/kg wet	*3300*		*54.3*	*33.6-110*			
Surrogate: Phenol-d5	*3900*		ug/kg wet	*6700*		*57.8*	*29.6-110*			
Surrogate: Terphenyl-d14	*2500*		ug/kg wet	*3300*		*74.8*	*35.8-121*			
Matrix Spike (B197562-MS1)	**Source: 22E1843-01**		Prepared: 06/06/2022 Analyzed: 06/08/2022							
1,2,4-Trichlorobenzene	2140	360	ug/kg dry	3600	ND	59.2	33.9-110			
1,4-Dichlorobenzene	2000	360	ug/kg dry	3600	ND	55.1	10-134			
2,4,6-Trichlorophenol	2450	360	ug/kg dry	3600	ND	67.8	50-150			
2,4-Dichlorophenol	2310	360	ug/kg dry	3600	ND	63.8	50-150			

Semivolatile Organic Compounds by GCMS	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B197562 - 3550_B - EPA 8270C										
Matrix Spike (B197562-MS1)	**Source: 22E1843-01**		Prepared: 06/06/2022 Analyzed: 06/08/2022							
2,4-Dinitrotoluene	2420	360	ug/kg dry	3600	ND	66.8	49.9-110			
2-Chlorophenol	2130	360	ug/kg dry	3600	ND	58.8	35.7-110			
2-Nitrophenol	2230	360	ug/kg dry	3600	ND	61.7	50-150			
4-Chloro-3-methylphenol	2610	720	ug/kg dry	3600	ND	72.1	41.5-121			
4-Nitrophenol	2850	1700	ug/kg dry	3600	ND	78.7	32.1-121			
Acenaphthene	2470	360	ug/kg dry	3600	ND	68.2	39.8-110			
Acenaphthylene	2500	360	ug/kg dry	3600	ND	69.0	29-121			
Anthracene	2170	360	ug/kg dry	3600	ND	59.8	29-110			
Bis(2-chloroethoxy)methane	2200	360	ug/kg dry	3600	ND	60.9	50-150			
Chrysene	2530	360	ug/kg dry	3600	ND	70.0	21-125			
Di-n-butyl phthalate	2630	360	ug/kg dry	3600	ND	72.7	50-150			
Hexachlorobenzene	2450	360	ug/kg dry	3600	ND	67.7	50-150			
Naphthalene	2200	360	ug/kg dry	3600	ND	60.6	24-125			
N-Nitrosodi-n-propylamine	2300	360	ug/kg dry	3600	ND	63.4	37.4-110			
Pentachlorophenol	2470	1700	ug/kg dry	3600	ND	68.3	10.6-110			
Phenol	2220	360	ug/kg dry	3600	ND	61.3	43.3-110			
Pyrene	2490	360	ug/kg dry	3600	ND	68.8	23-113			
Surrogate: 2,4,6-Tribromophenol	*5200*		ug/kg dry	*7200*		*71.3*	*13.9-145*			
Surrogate: 2-Fluorobiphenyl	*2400*		ug/kg dry	*3600*		*66.5*	*28.1-110*			
Surrogate: 2-Fluorophenol	*3900*		ug/kg dry	*7200*		*54.4*	*24.5-110*			
Surrogate: Nitrobenzene-d5	*2200*		ug/kg dry	*3600*		*60.3*	*33.6-110*			
Surrogate: Phenol-d5	*4800*		ug/kg dry	*7200*		*66.7*	*29.6-110*			
Surrogate: Terphenyl-d14	*2600*		ug/kg dry	*3600*		*71.4*	*35.8-121*			
Matrix Spike Dup (B197562-MSD1)	**Source: 22E1843-01**		Prepared: 06/06/2022 Analyzed: 06/08/2022							
1,2,4-Trichlorobenzene	2170	350	ug/kg dry	3600	ND	60.7	33.9-110	1.46	30	
1,4-Dichlorobenzene	2070	350	ug/kg dry	3600	ND	57.8	10-134	3.72	30	
2,4,6-Trichlorophenol	2600	350	ug/kg dry	3600	ND	72.6	50-150	5.83	30	
2,4-Dichlorophenol	2310	350	ug/kg dry	3600	ND	64.5	50-150	0.125	30	

Semivolatile Organic Compounds by GCMS	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B197562 - 3550_B - EPA 8270C										
Matrix Spike Dup (B197562-MSD1)	**Source: 22E1843-01**		Prepared: 06/06/2022 Analyzed: 06/08/2022							
2,4-Dinitrotoluene	2540	350	ug/kg dry	3600	ND	70.9	49.9-110	4.94	30	
2-Chlorophenol	2190	350	ug/kg dry	3600	ND	61.2	35.7-110	2.99	30	
2-Nitrophenol	2280	350	ug/kg dry	3600	ND	63.6	50-150	1.96	30	
4-Chloro-3-methylphenol	2640	710	ug/kg dry	3600	ND	73.7	41.5-121	1.11	30	
4-Nitrophenol	2930	1700	ug/kg dry	3600	ND	81.7	32.1-121	2.61	30	
Acenaphthene	2570	350	ug/kg dry	3600	ND	71.8	39.8-110	4.04	30	
Acenaphthylene	2590	350	ug/kg dry	3600	ND	72.3	29-121	3.63	30	
Anthracene	2180	350	ug/kg dry	3600	ND	60.8	29-110	0.533	30	
Bis(2-chloroethoxy)methane	2270	350	ug/kg dry	3600	ND	63.4	50-150	2.98	30	
Chrysene	2620	350	ug/kg dry	3600	ND	73.0	21-125	3.16	30	
Di-n-butyl phthalate	2680	350	ug/kg dry	3600	ND	74.8	50-150	1.73	30	
Hexachlorobenzene	2450	350	ug/kg dry	3600	ND	68.5	50-150	0.115	30	
Naphthalene	2220	350	ug/kg dry	3600	ND	61.9	24-125	1.09	30	
N-Nitrosodi-n-propylamine	2420	350	ug/kg dry	3600	ND	67.4	37.4-110	5.07	30	
Pentachlorophenol	2500	1700	ug/kg dry	3600	ND	69.8	10.6-110	1.23	30	
Phenol	2270	350	ug/kg dry	3600	ND	63.3	43.3-110	2.09	30	
Pyrene	2540	350	ug/kg dry	3600	ND	70.8	23-113	1.72	30	
Surrogate: 2,4,6-Tribromophenol	*5200*		ug/kg dry	*7200*		*72.2*	*13.9-145*			
Surrogate: 2-Fluorobiphenyl	*2400*		ug/kg dry	*3600*		*68.0*	*28.1-110*			
Surrogate: 2-Fluorophenol	*4000*		ug/kg dry	*7200*		*55.7*	*24.5-110*			
Surrogate: Nitrobenzene-d5	*2200*		ug/kg dry	*3600*		*60.9*	*33.6-110*			
Surrogate: Phenol-d5	*4900*		ug/kg dry	*7200*		*68.5*	*29.6-110*			
Surrogate: Terphenyl-d14	*2600*		ug/kg dry	*3600*		*73.3*	*35.8-121*			

Semivolatile Organic Compounds TCLP by GCMS	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B197264 - 3510_TB - EPA 8270C										
Blank (B197264-BLK1)			Prepared: 06/01/2022 Analyzed: 06/07/2022							
1,4-Dichlorobenzene	<0.050	0.050	mg/L							
2,4,5-Trichlorophenol	<0.050	0.050	mg/L							

Semivolatile Organic Compounds TCLP by GCMS	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B197264 - 3510_TB - EPA 8270C										
Blank (B197264-BLK1)			Prepared: 06/01/2022 Analyzed: 06/07/2022							
2,4,6-Trichlorophenol	<0.050	0.050	mg/L							
2,4-Dinitrotoluene	<0.050	0.050	mg/L							
2-Methylphenol	<0.050	0.050	mg/L							
3/4-Methylphenol	<0.050	0.050	mg/L							
Hexachlorobenzene	<0.050	0.050	mg/L							
Hexachlorobutadiene	<0.050	0.050	mg/L							
Hexachloroethane	<0.050	0.050	mg/L							
Nitrobenzene	<0.050	0.050	mg/L							
Pentachlorophenol	<0.25	0.25	mg/L							
Pyridine	<0.050	0.050	mg/L							
Total Cresol	<0.050	0.050	mg/L							
Surrogate: 2,4,6-Tribromophenol	*0.63*		mg/L	*1.0*		*62.6*	*47.8-138*			
Surrogate: 2-Fluorobiphenyl	*0.26*		mg/L	*0.50*		*51.4*	*10-110*			
Surrogate: 2-Fluorophenol	*0.47*		mg/L	*1.0*		*47.1*	*10-110*			
Surrogate: Nitrobenzene-d5	*0.27*		mg/L	*0.50*		*53.1*	*10-110*			
Surrogate: Phenol-d5	*0.53*		mg/L	*1.0*		*52.7*	*43.7-126*			
Surrogate: Terphenyl-d14	*0.30*		mg/L	*0.50*		*59.8*	*33.7-136*			
Blank (B197264-BLK2)			Prepared: 06/01/2022 Analyzed: 06/07/2022							
1,4-Dichlorobenzene	<0.050	0.050	mg/L							
2,4,5-Trichlorophenol	<0.050	0.050	mg/L							
2,4,6-Trichlorophenol	<0.050	0.050	mg/L							
2,4-Dinitrotoluene	<0.050	0.050	mg/L							
2-Methylphenol	<0.050	0.050	mg/L							
3/4-Methylphenol	<0.050	0.050	mg/L							
Hexachlorobenzene	<0.050	0.050	mg/L							
Hexachlorobutadiene	<0.050	0.050	mg/L							
Hexachloroethane	<0.050	0.050	mg/L							
Nitrobenzene	<0.050	0.050	mg/L							
Pentachlorophenol	<0.25	0.25	mg/L							
Pyridine	<0.050	0.050	mg/L							
Total Cresol	<0.050	0.050	mg/L							
Surrogate: 2,4,6-Tribromophenol	*0.65*		mg/L	*1.0*		*64.5*	*47.8-138*			
Surrogate: 2-Fluorobiphenyl	*0.26*		mg/L	*0.50*		*52.9*	*10-110*			
Surrogate: 2-Fluorophenol	*0.50*		mg/L	*1.0*		*50.0*	*10-110*			
Surrogate: Nitrobenzene-d5	*0.28*		mg/L	*0.50*		*55.1*	*10-110*			
Surrogate: Phenol-d5	*0.56*		mg/L	*1.0*		*55.7*	*43.7-126*			
Surrogate: Terphenyl-d14	*0.30*		mg/L	*0.50*		*59.8*	*33.7-136*			
LCS (B197264-BS1)			Prepared: 06/01/2022 Analyzed: 06/07/2022							
1,4-Dichlorobenzene	0.156	0.050	mg/L	0.50		31.2	10-100			
2,4,5-Trichlorophenol	0.279	0.050	mg/L	0.50		55.8	31.6-113			
2,4,6-Trichlorophenol	0.267	0.050	mg/L	0.50		53.4	28.2-108			
2,4-Dinitrotoluene	0.275	0.050	mg/L	0.50		55.0	32.4-114			
2-Methylphenol	0.237	0.050	mg/L	0.50		47.4	25.4-89.6			
3/4-Methylphenol	0.501	0.050	mg/L	1.0		50.1	24.8-94.2			

Semivolatile Organic Compounds TCLP by GCMS	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B197264 - 3510_TB - EPA 8270C										
LCS (B197264-BS1)			Prepared: 06/01/2022 Analyzed: 06/07/2022							
Hexachlorobenzene	0.304	0.050	mg/L	0.50		60.8	33.9-115			
Hexachlorobutadiene	0.148	0.050	mg/L	0.50		29.5	18.4-79.1			
Hexachloroethane	0.142	0.050	mg/L	0.50		28.4	10-97.2			
Nitrobenzene	0.230	0.050	mg/L	0.50		46.0	10.9-112			
Pentachlorophenol	0.322	0.25	mg/L	0.50		64.5	21.3-103			
Pyridine	0.176	0.050	mg/L	0.50		35.2	10-84.8			
Surrogate: 2,4,6-Tribromophenol	*0.54*		mg/L	*1.0*		*54.3*	*47.8-138*			
Surrogate: 2-Fluorobiphenyl	*0.21*		mg/L	*0.50*		*41.4*	*10-110*			
Surrogate: 2-Fluorophenol	*0.36*		mg/L	*1.0*		*35.8*	*10-110*			
Surrogate: Nitrobenzene-d5	*0.21*		mg/L	*0.50*		*41.5*	*10-110*			
Surrogate: Phenol-d5	*0.43*		mg/L	*1.0*		*42.8*	*43.7-126*			*S2*
Surrogate: Terphenyl-d14	*0.29*		mg/L	*0.50*		*57.2*	*33.7-136*			
Matrix Spike (B197264-MS1)		**Source: 22E1596-04**	Prepared: 06/01/2022 Analyzed: 06/08/2022							
1,4-Dichlorobenzene	0.131	0.050	mg/L	0.50	ND	26.2	10-110			
2,4,5-Trichlorophenol	0.308	0.050	mg/L	0.50	ND	61.5	50-150			
2,4,6-Trichlorophenol	0.284	0.050	mg/L	0.50	ND	56.8	50-150			
2,4-Dinitrotoluene	0.304	0.050	mg/L	0.50	ND	60.8	22.6-110			
2-Methylphenol	0.213	0.050	mg/L	0.50	ND	42.6	50-150			M2
3/4-Methylphenol	0.470	0.050	mg/L	1.0	ND	47.0	50-150			M2
Hexachlorobenzene	0.271	0.050	mg/L	0.50	ND	54.1	50-150			
Hexachlorobutadiene	0.126	0.050	mg/L	0.50	ND	25.2	10-110			
Hexachloroethane	0.117	0.050	mg/L	0.50	ND	23.5	30-123			M2
Nitrobenzene	0.205	0.050	mg/L	0.50	ND	41.1	25-190			
Pentachlorophenol	0.341	0.25	mg/L	0.50	ND	68.2	10-110			
Pyridine	0.144	0.050	mg/L	0.50	ND	28.8	10-120			
Surrogate: 2,4,6-Tribromophenol	*0.61*		mg/L	*1.0*		*60.9*	*47.8-138*			
Surrogate: 2-Fluorobiphenyl	*0.20*		mg/L	*0.50*		*39.7*	*10-110*			
Surrogate: 2-Fluorophenol	*0.32*		mg/L	*1.0*		*32.1*	*10-110*			
Surrogate: Nitrobenzene-d5	*0.20*		mg/L	*0.50*		*39.2*	*10-110*			
Surrogate: Phenol-d5	*0.41*		mg/L	*1.0*		*41.1*	*43.7-126*			*S2*
Surrogate: Terphenyl-d14	*0.33*		mg/L	*0.50*		*66.3*	*33.7-136*			
Matrix Spike Dup (B197264-MSD1)		**Source: 22E1596-04**	Prepared: 06/01/2022 Analyzed: 06/08/2022							
1,4-Dichlorobenzene	0.116	0.050	mg/L	0.50	ND	23.1	10-110	12.3	30	
2,4,5-Trichlorophenol	0.207	0.050	mg/L	0.50	ND	41.4	50-150	39.1	30	M2, R1
2,4,6-Trichlorophenol	0.183	0.050	mg/L	0.50	ND	36.6	50-150	43.3	30	M2, R1
2,4-Dinitrotoluene	0.254	0.050	mg/L	0.50	ND	50.7	22.6-110	18.1	30	
2-Methylphenol	0.156	0.050	mg/L	0.50	ND	31.3	50-150	30.8	30	M2, R1
3/4-Methylphenol	0.326	0.050	mg/L	1.0	ND	32.6	50-150	36.1	30	M2, R1
Hexachlorobenzene	0.243	0.050	mg/L	0.50	ND	48.5	50-150	10.9	30	M2
Hexachlorobutadiene	0.109	0.050	mg/L	0.50	ND	21.8	10-110	14.8	30	
Hexachloroethane	0.105	0.050	mg/L	0.50	ND	20.9	30-123	11.4	30	M2
Nitrobenzene	0.163	0.050	mg/L	0.50	ND	32.6	25-190	23.1	30	
Pentachlorophenol	0.255	0.25	mg/L	0.50	ND	50.9	10-110	29.0	30	
Pyridine	0.134	0.050	mg/L	0.50	ND	26.7	10-120	7.56	30	

Semivolatile Organic Compounds TCLP by GCMS	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B197264 - 3510_TB - EPA 8270C										
Matrix Spike Dup (B197264-MSD1)	**Source: 22E1596-04**		Prepared: 06/01/2022 Analyzed: 06/08/2022							
Surrogate: 2,4,6-Tribromophenol	*0.45*		mg/L	*1.0*		*44.7*	*47.8-138*			*S2*
Surrogate: 2-Fluorobiphenyl	*0.16*		mg/L	*0.50*		*31.7*	*10-110*			
Surrogate: 2-Fluorophenol	*0.20*		mg/L	*1.0*		*20.0*	*10-110*			
Surrogate: Nitrobenzene-d5	*0.15*		mg/L	*0.50*		*30.6*	*10-110*			
Surrogate: Phenol-d5	*0.26*		mg/L	*1.0*		*26.5*	*43.7-126*			*S2*
Surrogate: Terphenyl-d14	*0.32*		mg/L	*0.50*		*63.1*	*33.7-136*			
Batch B197450 - 3510_TB - EPA 8270C										
Blank (B197450-BLK1)			Prepared: 06/03/2022 Analyzed: 06/08/2022							
1,4-Dichlorobenzene	<0.050	0.050	mg/L							
2,4,5-Trichlorophenol	<0.050	0.050	mg/L							
2,4,6-Trichlorophenol	<0.050	0.050	mg/L							
2,4-Dinitrotoluene	<0.050	0.050	mg/L							
2-Methylphenol	<0.050	0.050	mg/L							
3/4-Methylphenol	<0.050	0.050	mg/L							
Hexachlorobenzene	<0.050	0.050	mg/L							
Hexachlorobutadiene	<0.050	0.050	mg/L							
Hexachloroethane	<0.050	0.050	mg/L							
Nitrobenzene	<0.050	0.050	mg/L							
Pentachlorophenol	<0.25	0.25	mg/L							
Pyridine	<0.050	0.050	mg/L							
Total Cresol	<0.050	0.050	mg/L							
Surrogate: 2,4,6-Tribromophenol	*0.61*		mg/L	*1.0*		*60.5*	*47.8-138*			
Surrogate: 2-Fluorobiphenyl	*0.23*		mg/L	*0.50*		*45.6*	*10-110*			
Surrogate: 2-Fluorophenol	*0.39*		mg/L	*1.0*		*39.2*	*10-110*			
Surrogate: Nitrobenzene-d5	*0.23*		mg/L	*0.50*		*45.6*	*10-110*			
Surrogate: Phenol-d5	*0.45*		mg/L	*1.0*		*45.3*	*43.7-126*			
Surrogate: Terphenyl-d14	*0.32*		mg/L	*0.50*		*63.8*	*33.7-136*			
LCS (B197450-BS1)			Prepared: 06/03/2022 Analyzed: 06/08/2022							
1,4-Dichlorobenzene	0.159	0.050	mg/L	0.50		31.7	10-100			
2,4,5-Trichlorophenol	0.326	0.050	mg/L	0.50		65.3	31.6-113			
2,4,6-Trichlorophenol	0.320	0.050	mg/L	0.50		63.9	28.2-108			
2,4-Dinitrotoluene	0.312	0.050	mg/L	0.50		62.5	32.4-114			
2-Methylphenol	0.261	0.050	mg/L	0.50		52.1	25.4-89.6			
3/4-Methylphenol	0.552	0.050	mg/L	1.0		55.2	24.8-94.2			
Hexachlorobenzene	0.330	0.050	mg/L	0.50		66.0	33.9-115			
Hexachlorobutadiene	0.147	0.050	mg/L	0.50		29.4	18.4-79.1			
Hexachloroethane	0.140	0.050	mg/L	0.50		28.0	10-97.2			
Nitrobenzene	0.264	0.050	mg/L	0.50		52.8	10.9-112			
Pentachlorophenol	0.334	0.25	mg/L	0.50		66.8	21.3-103			
Pyridine	0.273	0.050	mg/L	0.50		54.6	10-84.8			
Surrogate: 2,4,6-Tribromophenol	*0.61*		mg/L	*1.0*		*61.2*	*47.8-138*			
Surrogate: 2-Fluorobiphenyl	*0.22*		mg/L	*0.50*		*44.6*	*10-110*			
Surrogate: 2-Fluorophenol	*0.41*		mg/L	*1.0*		*40.8*	*10-110*			

Semivolatile Organic Compounds TCLP by GCMS	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B197450 - 3510_TB - EPA 8270C										
LCS (B197450-BS1)			Prepared: 06/03/2022 Analyzed: 06/08/2022							
Surrogate: Nitrobenzene-d5	*0.24*		mg/L	*0.50*		*47.9*	*10-110*			
Surrogate: Phenol-d5	*0.48*		mg/L	*1.0*		*47.8*	*43.7-126*			
Surrogate: Terphenyl-d14	*0.32*		mg/L	*0.50*		*64.5*	*33.7-136*			
Matrix Spike (B197450-MS1)		**Source: 22E1776-01**	Prepared: 06/03/2022 Analyzed: 06/08/2022							
1,4-Dichlorobenzene	0.146	0.050	mg/L	0.50	ND	29.2	10-110			
2,4,5-Trichlorophenol	0.290	0.050	mg/L	0.50	ND	58.0	50-150			
2,4,6-Trichlorophenol	0.272	0.050	mg/L	0.50	ND	54.3	50-150			
2,4-Dinitrotoluene	0.300	0.050	mg/L	0.50	ND	60.0	22.6-110			
2-Methylphenol	0.229	0.050	mg/L	0.50	ND	45.8	50-150			M2
3/4-Methylphenol	0.482	0.050	mg/L	1.0	ND	48.2	50-150			M2
Hexachlorobenzene	0.312	0.050	mg/L	0.50	ND	62.4	50-150			
Hexachlorobutadiene	0.129	0.050	mg/L	0.50	ND	25.7	10-110			
Hexachloroethane	0.130	0.050	mg/L	0.50	ND	26.0	30-123			M2
Nitrobenzene	0.224	0.050	mg/L	0.50	ND	44.8	25-190			
Pentachlorophenol	0.360	0.25	mg/L	0.50	ND	72.0	10-110			
Pyridine	0.226	0.050	mg/L	0.50	ND	45.1	10-120			
Surrogate: 2,4,6-Tribromophenol	*0.57*		mg/L	*1.0*		*57.2*	*47.8-138*			
Surrogate: 2-Fluorobiphenyl	*0.19*		mg/L	*0.50*		*38.9*	*10-110*			
Surrogate: 2-Fluorophenol	*0.35*		mg/L	*1.0*		*34.5*	*10-110*			
Surrogate: Nitrobenzene-d5	*0.21*		mg/L	*0.50*		*41.2*	*10-110*			
Surrogate: Phenol-d5	*0.42*		mg/L	*1.0*		*41.7*	*43.7-126*			*S2*
Surrogate: Terphenyl-d14	*0.33*		mg/L	*0.50*		*66.6*	*33.7-136*			
Matrix Spike Dup (B197450-MSD1)		**Source: 22E1776-01**	Prepared: 06/03/2022 Analyzed: 06/08/2022							
1,4-Dichlorobenzene	0.111	0.050	mg/L	0.50	ND	22.2	10-110	27.2	30	
2,4,5-Trichlorophenol	0.268	0.050	mg/L	0.50	ND	53.6	50-150	7.99	30	
2,4,6-Trichlorophenol	0.249	0.050	mg/L	0.50	ND	49.7	50-150	8.83	30	M2
2,4-Dinitrotoluene	0.284	0.050	mg/L	0.50	ND	56.8	22.6-110	5.48	30	
2-Methylphenol	0.209	0.050	mg/L	0.50	ND	41.8	50-150	8.97	30	M2
3/4-Methylphenol	0.434	0.050	mg/L	1.0	ND	43.4	50-150	10.4	30	M2
Hexachlorobenzene	0.293	0.050	mg/L	0.50	ND	58.7	50-150	6.11	30	
Hexachlorobutadiene	0.0871	0.050	mg/L	0.50	ND	17.4	10-110	38.5	30	R1
Hexachloroethane	0.0900	0.050	mg/L	0.50	ND	18.0	30-123	36.3	30	M2, R1
Nitrobenzene	0.204	0.050	mg/L	0.50	ND	40.8	25-190	9.35	30	
Pentachlorophenol	0.345	0.25	mg/L	0.50	ND	69.0	10-110	4.30	30	
Pyridine	0.124	0.050	mg/L	0.50	ND	24.8	10-120	58.1	30	R1
Surrogate: 2,4,6-Tribromophenol	*0.55*		mg/L	*1.0*		*55.1*	*47.8-138*			
Surrogate: 2-Fluorobiphenyl	*0.17*		mg/L	*0.50*		*33.3*	*10-110*			
Surrogate: 2-Fluorophenol	*0.31*		mg/L	*1.0*		*30.8*	*10-110*			
Surrogate: Nitrobenzene-d5	*0.18*		mg/L	*0.50*		*36.4*	*10-110*			
Surrogate: Phenol-d5	*0.38*		mg/L	*1.0*		*37.8*	*43.7-126*			*S2*
Surrogate: Terphenyl-d14	*0.33*		mg/L	*0.50*		*65.4*	*33.7-136*			

Definitions

% (by wt.):	Percent by Weight
°C:	Degrees Celsius
°F:	Degrees Fahrenheit
B:	Analyte found in the blank at or above the method acceptance criteria.
D:	Dilution performed on sample.
DF:	Dilution Factor representing the amount the sample was diluted during analysis and may not represent preparation factors.
E:	Estimated Result.
H:	Sample was analyzed past holding time.
I1:	Internal standard was outside of acceptance limits.
M:	Matrix interference is present.
M1:	Matrix spike recovery is outside of acceptance limits, biased high.
M2:	Matrix spike recovery is outside of acceptance limits, biased low.
M3:	Matrix spike recovery is outside of acceptance limits. The post digestion spike recovery is acceptable.
M5:	Post digestion spike is outside of acceptance limits.
MDL:	Minimum Detection Limit
mg/Kg:	Milligrams per Kilogram
mg/L:	Milligrams per Liter
NA:	Not Applicable
Q2:	LCS recovery is above acceptance limits. However there is no impact on the reported value.
R1:	Duplicate RPD is outside of acceptance limits.
RL:	Reporting Limit
RPD:	Relative Percent Difference
S:	Spike recovery outside of acceptance limits.
S.U.:	Standard Units
S1:	Surrogate recovery is above acceptance limits.
S2:	Surrogate recovery is below acceptance limits.
T6:	Insufficient sample for full volume TCLP extraction.
ug/L:	Micrograms per Liter
ug/mL:	Micrograms per Milliliter

Cooler Receipt Log

Cooler ID: Default Cooler Temp: 5.0°C

Cooler Inspection Checklist

Ice Present or not required?	Yes	Shipping containers sealed or not required?	Yes
Custody seals intact or not required?	Yes	Chain of Custody (COC) Present?	Yes
COC includes customer information?	Yes	Relinquished and received signature on COC?	Yes
Sample collector identified on COC?	Yes	Sample type identified on COC?	Yes
Correct type of Containers Received	Yes	Correct number of containers listed on COC?	Yes
Containers Intact?	Yes	COC includes requested analyses?	Yes
Enough sample volume for indicated tests received?	Yes	Sample labels match COC (Name, Date & Time?)	Yes
Samples arrived within hold time?	Yes	Correct preservatives on COC or not required?	Yes
Chemical preservations checked or not required?	Yes	Preservation checks meet method requirements?	Yes
VOA vials have zero headspace, or not recd.?	Yes		

Microbac Laboratories, Inc. - Chicagoland

CERTIFICATE OF ANALYSIS

22E1596

Report Comments

The data and information on this, and other accompanying documents, represents only the sample(s) analyzed. This report is incomplete unless all pages indicated in the footnote are present and an authorized signature is included. ***The services were provided under and subject to Microbac's standard terms and conditions which can be located and reviewed at <https://www.microbac.com/standard-terms-conditions>.***

Reviewed and Approved By:

Ron Misiunas
Lab Director
ron.misiunas@microbac.com
06/27/2022 13:39

MICROBAC®

CHAIN OF CUSTODY RECORD

Number **165503**

Instructions on back

Lab Report Address
Client Name: USEPA/Morris Battery Site
Address: 745 East St
City, State, Zip: Morris, IL 60450
Contact: Ron Brown
Telephone No.: 573-645-2234

Invoice Address
Client Name: ER, LLC
Address: 1666 Fabick Dr
City, State, Zip: Fenton, MO 63026
Contact: Steve Letany
Telephone No.: 573-903-6510

Turnaround Time
☐ Routine (5 to 7 business days)
☐ RUSH* (notify lab)
(needed by)

Report Type
☐ Results Only ☐ Level 1 ☐ Level 2 ☐ Level 3 ☐ Level 4 ☐ EDD

TO BE COMPLETED BY MICROBAC
Temperature Upon Receipt (°C) 4.9
Therm ID #4 ±0.1
Holding Time 5.0
Samples Received on Ice? ☑ Yes ☐ No ☐ N/A
Custody Seals Intact? ☐ Yes ☐ No ☑ N/A

Send Report via: ☐ Mail ☐ Fax ☑ e-mail (address) s.letany@erllc.com
Send Invoice via: ☐ Mail ☐ Fax ☑ e-mail (address) ~~s.letany@erllc.com~~

Project: USEPA/Morris Lithium Site
Location: Morris, IL
PO No.: MFS-25
Compliance Monitoring? ☐ Yes ☐ No ☐ Agency/Program

Sampled by (PRINT): Steve Letany
Sampler Signature:
Sampler Phone No.: 573-903-6510

* Matrix Types: Soil/Solid (S), Sludge, Oil, Wipe, Drinking Water (DW), Groundwater (GW), Surface Water (SW), Waste Water (WW), Other (specify)
** Preservative Types: (1) HNO3, (2) H2SO4, (3) HCl, (4) NaOH, (5) Zinc Acetate, (6) Methanol, (7) Sodium Bisulfate, (8) Sodium Thiosulfate, (9) Hexane, (U) Unpreserved

REQUESTED ANALYSIS

Client Sample ID	Date Collected	Time Collected	No. of Containers	Matrix	Grab / Comp	Preservative Types **	Ignitability	Water Reactive Test	pH	Total Phenol	Total Cn	Total Sulfide	PCB	& Solid	& Water	Paint Filter	TCLP	SVOA	Metals	VOA	Total Metals	VOA, SVOA				Additional Notes
																										22E1596
MFS-25-F6	5-24	1420	2	S	C	4°C	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓						01/02
MFS-25-4E	5-24	1445	2	S	C	4°C	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓						03/04
MFS-25-D4	5-24	1505	2	S	C	4°C	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓						05/06
MFS-25-Row2	5-24	1530	2	S	C	4°C	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓						07/08
MFS-25-A1	5-24	1545	2	S	C	4°C	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓						09/10

Environmental Restoration - Fenton, MO
PM: Ron Misiunas
22E1596

Possible Hazard Identification ☑ Hazardous ☐ Non-Hazardous ☐ Radioactive
Sample Disposition ☑ Dispose as appropriate ☐ Return ☐ Archive

Comments
email invoice to APDropbox@erllc.com
Add Total Lithium and total Nickel to Analysis

Relinquished By (signature)	Date/Time	Received By (signature)	Date/Time
	5/25/22 0825		
Relinquished By (signature)	Date/Time	Received By (signature)	Date/Time
Relinquished By (signature)	Date/Time	Received By (signature)	Date/Time
			5/25/22/0825

rev.12/26/2017

ATTACHMENT 3. ENGINEERING REPORTS

Chamlin & Associates
ENGINEERS • SURVEYORS • PLANNERS

4152 Progress Boulevard • Peru, IL 61354
Phone 815.223.3344 • Fax 815.223.3348
peru@chamlin.com • www.chamlin.com

August 3, 2021

Environmental Restoration, LLC
3495 E. 84th PL
Merrillville, IN 46410

ATTTENTION: John Behrens, Project Manager Region 5
Sent via email j.behrens@erllc.com

SUBJECT: 747 East Street
Morris, Illinois

Dear Mr. Behrens,

As you are aware, I visited the building at 747 East Street in Morris, Illinois on August 2, 2021. Also present were yourself, two persons representing the EPA, and several officials representing the City of Morris. There had recently been a fire in the building which contained lithium batteries at the time. The purpose of the visit was to ascertain the condition of the remaining building to determine if the building could be safely entered to perform cleanup operations inside the building. Due to the contents of the building, I was only allowed to observe existing conditions from outside the building through several openings in the walls. As such, I am only able to make general comments, until such time that I am granted full access to the building. Attached are annotated photographs taken during my visit. They are intended to be representative of the conditions I observed while there.

The building is a steel framed building approximately 320' long x 200' wide. The east and west exterior walls have "X" bracing and the east-west lines appear to be rigid frames (I only observed braced east-west bay at the south exterior wall). The south building wall and an interior wall just south of the north exterior included masonry block between the building columns up to points near the bottom of the roof line.

Immediately east of the building is a brick masonry wall running north-south parallel to the east exterior column line of the building. This wall appears to have been part of a building the remainder of which has been demolished. This wall appears to be being used as the exterior wall of the steel building. However, it does not appear to be connected. The south 40' ± of the brick wall was removed during fire fighting operations.

I also made the following general observations:

- Areas of the block between the columns along the south exterior wall appear to have moved inward. The worse areas are the ones between the building corners and the first column in.

Chamlin & Associates
ENGINEERS • SURVEYORS • PLANNERS

4152 Progress Boulevard • Peru, IL 61354
Phone 815.223.3344 • Fax 815.223.3348
peru@chamlin.com • www.chamlin.com

- During the course of the life of the brick wall parallel to the east exterior wall the bottom half of the lintel over an opening in the wall has been cut away. The brick above this lintel appears to be unstable (See photo 1).
- The brick masonry wall has several "openings" with lintels above them but the "openings" are brick closed (See photos 2 & 3).
- An opening at the north end of the brick wall has been boarded closed.
- A partial collapse of the building roof has occurred along the west exterior wall. The area includes roof framing between three columns. The first column is the first column north of the southwest building corner. The "X" bracing in the exterior wall in this area has been severely damaged (See photo 4).
- The exterior coverings along the west wall no longer exist or are no longer attached (See photos 4 & 5).
- "X" bracing at the north end of the west exterior wall has been damaged and is no longer attached to the building columns (See photo 5).
- Photo 6 generally represents the condition of roof framing I was able to observe through openings in the exterior walls. It also illustrates that wood crating materials and cardboard boxes were not damaged by the heat of the fire in many areas I was able to observe.

I have the following opinions regarding the condition of the building:

- With isolated exceptions I believe that building may be safely entered to conduct cleanup operations
  - The areas of the masonry block bowing inward along the south exterior column line must be removed before general operations may begin.
  - The loose brick above the opening in the brick wall where half of the lintel has been removed must be removed before the opening may be used to access to the building interior.
- The boarded up opening at the north end of the brick wall may be opened for use as an access point.
- The bricked in "openings" in the brick wall may opened to provide access points except in areas where there is "X" bracing behind the "opening"
- The area below the partial roof collapse must be fenced off to prohibit entry.
- The damaged "X" bracing near the north end of the west wall must be removed and replaced with temporary "X" bracing prior to beginning general clean up operations.
- Work should stop and the building evacuated if movement of the building framing is observed.

Chamlin & Associates
ENGINEERS • SURVEYORS • PLANNERS

4152 Progress Boulevard • Peru, IL 61354
Phone 815.223.3344 • Fax 815.223.3348
peru@chamlin.com • www.chamlin.com

The opinions stated above are based upon conditions I was able to observe the day of my visit. Those conditions may change due wind/storm events that might apply large lateral/vertical loads to the building or my opinion may change due to exposure of conditions I was unable to observe during my visit.

I recommend that follow up inspections occur as access to the interior of the building is allowed and after wind /storm events.

Please call or email me at 815-223-3344 and/or jimc@chamlin.com if you should have any questions.

Sincerely,

CHAMLIN & ASSOCIATES, INC.

LICENSED STRUCTURAL ENGINEER
JAMES K. CLINARD
81-004655
PERU
ILLINOIS
STATE OF ILLINOIS

Exp 11/30/22

James K. Clinard, S.E., P.E.

JKC:eb

Cc: File No. 111442.00

Enclosures


08/02/2021
747 East Street Morris
1

08/02/2021 747 East Street Morris 2


08/02/2021 747 East Street Morris
4

Chamlin & Associates
ENGINEERS • SURVEYORS • PLANNERS

4152 Progress Boulevard • Peru, IL 61354
Phone 815.223.3344 • Fax 815.223.3348
peru@chamlin.com • www.chamlin.com

November 8, 2021

Environmental Restoration, LLC
3495 E. 84th PL
Merrillville, IN 46410

ATTTENTION: John Behrens, Project Manager Region 5
Sent via email j.behrens@erllc.com

SUBJECT: November 8, 2021, Inspection
747 East Street Morris, Illinois

Dear Mr. Behrens,

As you are aware, I visited the building at 747 East Street in Morris, Illinois on November 8, 2021. The purpose of the visit with to perform an inspection as a follow up to my August 2, 2021, visit and to determine if there has been any change in condition of the building at that that address.

I was allowed access to the interior of the building during this visit, so I was able to identify a new area of concern. I observed two roof joists located in the second bay south of the north interior wall in the third bay east of the west exterior wall. These joists appear to have been damaged during the fire. The joists were noticeably sagging, and a third joist located north of this pair appeared to be distorted. The area below these joists should be considered a no-go area until the damaged joisted may be removed. It is my understanding that this condition may remain throughout the upcoming winter months. Be advised that this section of roof could collapse under snow loads during that period. Other than the above, the building condition appeared to be unchanged and my prior recommendations remain unchanged.

The opinions stated above are based upon conditions I was able to observe the day of my visit. Those conditions may change due wind/storm events that might apply large lateral/vertical loads to the building, or my opinion may change due to exposure of conditions I was unable to observe during my visit.

I recommend that follow up inspections occur next spring and after wind /storm events.

Please call or email me at 815-223-3344 and/or jimc@chamlin.com if you should have any questions.

Sincerely,

CHAMLIN & ASSOCIATES, INC.

James K. Clinard, S.E., P.E.
Cc: File No. 111442.00

LICENSED STRUCTURAL ENGINEER
JAMES K. CLINARD
81-004655
PERU
ILLINOIS
STATE OF ILLINOIS
Exp 2/28/2022

Chamlin & Associates
ENGINEERS • SURVEYORS • PLANNERS

4152 Progress Boulevard • Peru, IL 61354
Phone 815.223.3344 • Fax 815.223.3348
peru@chamlin.com • www.chamlin.com

April 12, 2022

Environmental Restoration, LLC
1666 Fabick Drive
St. Louis, MO. 63026

ATTENTION: Ron Brown - Sr. Response Manager

SUBJECT: April 12, 2022, Inspection
747 East Street Morris, IL

Dear Mr. Brown,

As you are aware, I visited the building at 747 East Street in Morris, Illinois on April 12, 2022. The purpose of the visit was to discuss prior recommendations and to determine if there has been any change in condition of the building.

During my visit, I observed that the column at the southwest corner of the building was noticeably leaning to the north. As we discussed, I recommend that the column be anchored/tied back to prevent further movement. Other than this column, I did not detect any other change in condition.

Please call or email me at 815-223-3344 and/or jimc@chamlin.com if you should have any questions.

Sincerely,

CHAMLIN & ASSOCIATES, INC.

James K. Clinard, S.E., P.E.

LICENSED STRUCTURAL ENGINEER
JAMES K. CLINARD
81-004655
PERU
ILLINOIS
STATE OF ILLINOIS
Exp 11/30/22

JKC:amd

File No. 111442.00

ATTACHMENT 4. SPECIAL PERMITS

September 04, 2019

U.S. Department
of Transportation

**Pipeline and Hazardous
Materials Safety Administration**

East Building, PHH-30
1200 New Jersey Avenue S.E.
Washington, D.C. 20590

DOT-SP 16532
(SECOND REVISION)

(FOR RENEWAL, SEE 49 CFR § 107.109)

1. GRANTEE: (see individual authorization letter)

2. PURPOSE AND LIMITATION:

a. This special permit authorizes the transportation in commerce of certain damaged, defective, or recalled lithium ion cells and batteries and lithium metal cells and batteries in alternative packaging. This special permit provides no relief from the Hazardous Materials Regulations (HMR) other than as specifically stated herein. The most recent revision supersedes all previous revisions.

b. The safety analyses performed in the development of this special permit only considered the hazards and risks associated with the transportation in commerce.

c. Unless otherwise stated herein, this special permit consists of the special permit authorization letter issued to the grantee together with this document.

3. REGULATORY SYSTEM AFFECTED: 49 CFR Parts 106, 107 and 171-180.

4. REGULATIONS FROM WHICH EXEMPTED: 49 CFR 173.185(f)(3) in that more than one lithium cell or battery per package is not authorized, except as specified herein.

5. BASIS: This special permit is based on the modification application of EQ Industrial Services, Inc. dated December 27, 2018 submitted in accordance with § 107.105 and the public proceeding thereon and additional information dated April 9, 2019.

6. HAZARDOUS MATERIALS (49 CFR § 172.101):

Hazardous Materials Description			
Proper Shipping Name	**Hazard Class/ Division**	**Identi-fication Number**	**Packing Group**
Lithium ion batteries*	9	UN3480	N/A
Lithium ion batteries contained in equipment*	9	UN3481	N/A
Lithium ion batteries packed with equipment*	9	UN3481	N/A
Lithium metal batteries*	9	UN3090	N/A
Lithium metal batteries contained in equipment*	9	UN3091	N/A
Lithium metal batteries packed with equipment*	9	UN3091	N/A

*Only damaged, defective, or recalled lithium cells and batteries are authorized under the terms of this special permit.

7. SAFETY CONTROL MEASURES:

a. PACKAGING:

(1) Each damaged, defective, or recalled lithium cell or battery, including those packed with equipment, or each piece of equipment containing such cells or batteries must be individually packed in individual, non-metallic inner packaging that completely encloses the cell, battery, or equipment, as applicable.

(2) Each cell, battery, or equipment inside the inner packaging must be surrounded:

(i) With non-combustible, non-conductive, and inert absorbent material sufficient to absorb any release of electrolyte; or

(ii) Completely with at least 2 inches of a thermally insulating fire suppressant surrounding each cell, battery, or equipment as described in the April 9, 2019 supplemental information which is on file with the Office of Hazardous Materials Safety Approvals and Permits Division. The thermally insulating fire suppressant must be in a sufficient quantity to absorb all of the potential release of electrolyte; suppress lithium cell/battery fires, heat and smoke; absorb the smoke, gases and flammable vapors and electrolytes during a thermal runaway incident; and will protect from the effects of shock and vibration and prevent movement of the cells, batteries and/or the equipment, and that is sufficient to absorb any release of electrolyte.

(3) The inner packaging containing the damaged, defective, or recalled lithium cell or battery or those contained in or packed with equipment must be placed in a 55-gallon, 30-gallon or 5-gallon metal or plastic drum meeting the Packing Group I performance level.

(4) The inner packaging or outer packaging must be leak-proof to prevent the potential release of electrolyte.

(5) Non-combustible, non-conductive, and absorbent cushioning material must fill the void spaces within the outer packaging to protect from the effects of shock and vibration and to prevent movement of the inner packagings containing cells, batteries and equipment, as applicable.

(6) If cells or batteries must comply with paragraph 7.b.(4), a venting device must be used for leaking cells or batteries.

(7) The gross weight of a 55-gallon, 30-gallon or 5-gallon drum may not exceed 181 kg (400 pounds), 91 kg (200 pounds) or 16 kg (35 pounds), respectively.

b. <u>OPERATIONAL CONTROLS</u>:

(1) Each cell and battery must be protected against short-circuiting.

(2) A lithium metal cell or battery individually or contained in equipment in an inner packaging may not exceed 5 g or 25 g in lithium metal content, respectively. Each inner packaging may contain no more than 5 g or 25 g of lithium content for cells or batteries, respectively.

(3) A lithium ion cell or battery individually or contained in equipment in an inner packaging may not exceed 60 Wh or 300 Wh in energy content, respectively. Each inner packaging may contain no more than 60 Wh or 300 Wh of energy content for cells or batteries, respectively.

(4) Cells or batteries liable to rapidly disassemble, dangerously react, produce a flame or a dangerous evolution of heat or a dangerous emission of toxic, corrosive or flammable gases or vapors under normal conditions of transport may not be transported except under paragraph 7.b.(4) of this special permit. The damaged or defective cell or battery may be transported if for a period of at least seven (7) days prior to transport there is no evidence of venting, leakage, heat, smoke, fire or other adverse reaction.

(5) MARKING: Each package shipped under the terms of this special permit must be durably and legibly marked and displayed on a contrasting background in proximity to the markings and labels required by the HMR with the following:

(i) "DOT-SP 16532";

(ii) "Damaged/Defective Lithium Ion Batteries" or "Damaged/Defective Lithium Metal Batteries," as appropriate.

8. SPECIAL PROVISIONS:

a. A person who is not a holder of this special permit who receives a package covered by this special permit may reoffer it for transportation provided no modification or change is made to the package and it is reoffered for transportation in conformance with this special permit and the HMR.

b. A current copy of this special permit must be maintained at each facility where the package is offered or reoffered for transportation.

9. MODES OF TRANSPORTATION AUTHORIZED: Motor vehicle and rail freight.

10. MODAL REQUIREMENTS: A current copy of this special permit must be carried aboard each motor vehicle used to transport packages covered by this special permit.

11. COMPLIANCE: Failure by a person to comply with any of the following may result in suspension or revocation of this special permit and penalties prescribed by the Federal hazardous materials transportation law, 49 U.S.C. 5101 et seq:

- All terms and conditions prescribed in this special permit and the Hazardous Materials Regulations, 49 CFR Parts 171-180.
- Persons operating under the terms of this special permit must comply with the security plan requirement in Subpart I of Part 172 of the HMR, when applicable.
- Registration required by § 107.601 et seq., when applicable.

Each "Hazmat employee", as defined in § 171.8, who performs a function subject to this special permit must receive training on the requirements and conditions of this special permit in addition to the training required by §§ 172.700 through 172.704.

No person may use or apply this special permit, including display of its number, when this special permit has expired or is otherwise no longer in effect.

Under Title VII of the Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU)—"The Hazardous Materials Safety and Security Reauthorization Act of 2005" (Pub. L. 109-59), 119 Stat. 1144 (August 10, 2005), amended the Federal hazardous materials transportation law by changing the term "exemption" to "special permit" and authorizes a special

permit to be granted up to two years for new special permits and up to four years for renewals.

12. REPORTING REQUIREMENTS: Shipments or operations conducted under this special permit are subject to the Hazardous Materials Incident Reporting requirements specified in 49 CFR §§ 171.15 - Immediate notice of certain hazardous materials incidents, and 171.16 - Detailed hazardous materials incident reports. In addition, the grantee(s) of this special permit must notify the Associate Administrator for Hazardous Materials Safety, in writing, of any incident involving a package, shipment or operation conducted under terms of this special permit.

Issued in Washington, D.C.:

for William Schoonover
Associate Administrator for Hazardous Materials Safety

Address all inquiries to: Associate Administrator for Hazardous Materials Safety, Pipeline and Hazardous Material Safety Administration, U.S. Department of Transportation, East Building PHH-30, 1200 New Jersey Avenue, Southeast, Washington, D.C. 20590.

Copies of this special permit may be obtained by accessing the Hazardous Materials Safety Homepage at http://hazmat.dot.gov/sp_app/special_permits/spec_perm_index.htm. Photo reproductions and legible reductions of this special permit are permitted. Any alteration of this special permit is prohibited.

PO: Steve H

U.S. Department
of Transportation

**Pipeline and Hazardous
Materials Safety
Administration**

1200 New Jersey Avenue, SE
Washington, DC 20590

SPECIAL PERMIT AUTHORIZATION

DOT-SP 16532

EXPIRATION DATE: 2026-05-31

GRANTEE: Environmental Restoration, L.l.c.
Fenton, MO

In response to your June14, 2022, application for renewal of party status to DOT-SP 16532 as a shipper, the grantee status to DOT-SP16532 for Environmental Restoration, L.l.c. is hereby renewed in accordance with 49 CFR 107.113.

Copies of this special permit may be obtained by accessing the Office of Hazardous Materials Safety Homepage at https://www.phmsa.dot.gov/approvals-and-permits/hazmat/special-permits-search. The most recent revision of the special permit supersedes all previous revisions of the special permit. Photo reproductions and legible reductions of this special permit are permitted. Any alteration of this special permit is prohibited.

If you have questions regarding this action please call the Office of Hazardous Materials Safety, General Approvals and Permits Branch at (202) 366-4535.

Issued in Washington D.C. on **June 14, 2022**.

William Schoonover
Associate Administrator for Hazardous Materials Safety

May 31, 2022

U.S. Department
of Transportation

**Pipeline and Hazardous
Materials Safety
Administration**

1200 New Jersey Avenue, SE
Washington, DC 20590

DOT-SP 21363

EXPIRATION DATE: 2022-12-31

(FOR RENEWAL, SEE 49 CFR 107.109)

1. GRANTEE: Environmental Protection Agency and contractors acting on their behalf Chicago, IL

2. PURPOSE AND LIMITATIONS:

   a. This emergency special permit authorizes the transportation in commerce of certain damaged or defective waste lithium batteries and batteries of other chemistries in the same outer packaging from a clean-up site for disposal or recycling. This special permit provides no relief from the Hazardous Materials Regulations (HMR) other than as specifically stated herein. The most recent revision supersedes all previous revisions.

   b. The safety analyses performed in development of this special permit only considered the hazards and risks associated with transportation in commerce.

   c. No party status will be granted to this special permit.

3. REGULATORY SYSTEM AFFECTED: 49 CFR Parts 106, 107 and 171- 180.

4. REGULATIONS FROM WHICH EXEMPTED: 49 CFR § 172.102(c)(1) Special Provision 130(d) in that batteries of different chemistries may be packaged in the same package and 49 CFR § 173.185(f)(1) and (3) in that more than one damaged or defective lithium cell or battery per metal package are authorized, as specified herein.

5. BASIS: This emergency special permit is based on the application of the Environmental Protection Agency (EPA) dated May 2, 2022, submitted in accordance with § 107.117 and the determination it is necessary to protect life and property.

6. HAZARDOUS MATERIALS (49 CFR 172.101):

Hazardous Material Description			
Proper Shipping Name	**Hazard Class/ Division**	**Identi-fication Number**	**Packing Group**
Lithium ion batteries *including lithium ion polymer batteries*	9	UN3480	N/A
Lithium ion batteries contained in equipment *including lithium ion polymer batteries*	9	UN3481	N/A
Lithium metal batteries *including lithium alloy batteries*	9	UN3090	N/A
Lithium metal batteries contained in equipment *including lithium alloy batteries*	9	UN3091	N/A
Batteries, wet, non-spillable, *electric storage*	8	UN2800	N/A
Batteries, wet, filled with alkali, *electric storage*	8	UN2795	N/A
Batteries, wet, filled with acid, electric storage	8	UN2794	N/A
Mercury contained in manufactured articles	8	UN3506	N/A
Batteries, dry, sealed, n.o.s.	See Special Provision 130		

7. SAFETY CONTROL MEASURES:

a. OPERATIONAL CONTROLS:

(1) The dedicated vehicles transporting the waste materials including damaged and defective lithium batteries enumerated in Paragraph 6 must be driven by HazMat trained drivers from the point of collection (a clean-up site in Morris, IL) to disposal or recycling facilities.

(2) The confined spaces in vehicles transporting damaged or defective waste button cells must have adequate ventilation to prevent accumulation of gases vented from the outer packaging by having an air exchange rate of at least five times per hour.

(3) Damaged or defective cells or batteries liable to rapidly disassemble, dangerously react, produce a flame or a dangerous evolution of heat or a dangerous emission of toxic, corrosive or flammable gases or vapors under normal conditions of transport must be transported only if for a period of at least seven (7) days prior to transport there is no evidence of venting, leakage, heat, smoke, fire, or other adverse reaction.

(4) The dedicated vehicles transporting the waste cells or batteries must be directly driven from the clean-up site in Morris, IL to disposal or recycling facilities.

(5) The drivers must be briefed on the safety issues associated with the waste cells or batteries.

b. PACKAGING: A vented 55-gallon UN 1A2 metal drum meeting the Packing Group 1 requirements, as the outer packaging lined with thermally insulating fire suppressant as described in EPA's application dated May 4, 2022, and supplemental information dated May 11, 2022 and on file with the Office of Hazardous Materials Safety must be packaged as follows:

(1) Each drum must have in the bottom of the drum approximately three (3) inches of fire suppressant (term used hereafter in lieu of the registered trademark as provided in the packing instructions) which is noncombustible, electrically non-conductive, and absorbent with heat and fire suppression properties.

(2) Each drum must be filled with the fire suppressant where the fire suppressant completely surrounds each cell or battery by at least one (1) inch of the fire suppressant.

(3) Layers of lithium cells ion batteries must be placed in the drum (with a minimum of two (2) inch space between each cell or battery) and surrounded by the fire suppressant to ensure that all voids between cells or batteries are filled.

(4) Prior to closing the drum, approximately three (3) inches of the fire suppressant must be loose-filled over the last cell or battery at the top of each drum.

(5) Each drum is limited to not more than 82 kg (180 pounds) net weight of waste lithium cells or batteries and batteries of other chemistries.

(6) Each vehicle may contain not more than 96 drums.

(7) The outer packagings must be leak-proof to prevent the potential release of electrolyte.

c. MARKING: Each package covered under the terms of this special permit must be durably and legibly marked and displayed on a background of contrasting color with the following:

(1) "DOT-SP 21363".

(2) The words: "Batteries for Disposal or Recycling: Contains Damaged or Defective Lithium Batteries" in letters at least 12 mm (0.5 inch) in height.

(3) Hazard communication statement in approximate proportions: "Contains x % lithium batteries, y % batteries of other chemistries, and z % mercuric materials" where x, y, and z denote the numerical percentages of each battery (lithium and other type battery) type and mercuric material on the outside of packaging, as applicable.

(4) The lithium battery mark in 49 CFR § 173.185(c)(3)(1).

(5) An emergency response telephone number in case of damage to the packaging or contents.

8. SPECIAL PROVISIONS:

a. A person who is not a holder of this special permit, but receives a package covered by this special permit, may reoffer it for transportation provided no modification or change is made to the package and it is offered for transportation in conformance with this special permit and the HMR.

b. A current copy of this special permit must be maintained at each facility where the package is offered or reoffered for transportation.

9. MODES OF TRANSPORTATION AUTHORIZED: Motor vehicle.

10. MODAL REQUIREMENTS: A current copy of this special permit must be carried aboard each motor vehicle used to transport packages covered by this special permit.

11. COMPLIANCE: Failure by a person to comply with any of the following may result in suspension or revocation of this special permit and penalties prescribed by the Federal hazardous materials transportation law, 49 U.S.C. 5101 et seq:

o All terms and conditions prescribed in this special permit and the Hazardous Materials Regulations, 49 CFR Parts 171-180.

- o Persons operating under the terms of this special permit must comply with the security plan requirement in Subpart I of Part 172 of the HMR, when applicable.

- o Registration required by § 107.601 et seq., when applicable.

Each "Hazmat employee", as defined in § 171.8, who performs a function subject to this special permit must receive training on the requirements and conditions of this special permit in addition to the training required by §§ 172.700 through 172.704.

No person may use or apply this special permit, including display of its number, when this special permit has expired or is otherwise no longer in effect.

Under Title VII of the Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU)—"The Hazardous Materials Safety and Security Reauthorization Act of 2005" (Pub. L. 109-59), 119 Stat. 1144 (August 10, 2005), amended the Federal hazardous materials transportation law by changing the term "exemption" to "special permit" and authorizes a special permit to be granted up to two years for new special permits and up to four years for renewals.

12. REPORTING REQUIREMENTS: Shipments or operations conducted under this special permit are subject to the Hazardous Materials Incident Reporting requirements specified in 49 CFR §§ 171.15 - Immediate notice of certain hazardous materials incidents, and 171.16 - Detailed hazardous materials incident reports. In addition, the grantee(s) of this special permit must notify the Associate Administrator for Hazardous Materials Safety, in writing, of any incident involving a package, shipment or operation conducted under terms of this special permit.

Issued in Washington, D.C.:

for William Schoonover
Associate Administrator for Hazardous Materials Safety

Address all inquiries to: Associate Administrator for Hazardous Materials Safety, Pipeline and Hazardous Materials Safety Administration, U.S. Department of Transportation, East Building PHH-13, 1200 New Jersey Avenue, Southeast, Washington, D.C. 20590.

Copies of this special permit may be obtained by accessing the Hazardous Materials Safety Homepage at https://www.phmsa.dot.gov/approvals-and-permits/hazmat/special-permits-search. Photo reproductions and legible reductions of this special permit are permitted. Any alteration of this special permit is prohibited.

PO: Steve H/ae